



Default Power for WWAN Main PA

GSM850 Ant0 Default								
GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	824.2	836.4	848.8	34.00	824.2	836.4	848.8	25.00
Frequency (MHz)	824.2	836.4	848.8	34.00	824.2	836.4	848.8	25.00
GSM 1 Tx slot	32.93	33.09	33.05	34.00	23.93	24.09	24.05	25.00
GPRS 1 Tx slot	32.97	33.13	33.07	34.00	23.97	24.13	24.07	25.00
GPRS 2 Tx slots	30.09	30.12	30.04	31.00	24.09	24.12	24.04	25.00
GPRS 3 Tx slots	28.23	28.34	28.18	29.20	23.97	24.08	23.93	24.94
GPRS 4 Tx slots	28.91	28.95	28.88	29.00	23.91	23.95	23.88	25.00
EDGE 1 Tx slot	27.01	27.13	27.08	28.00	18.01	18.13	18.08	19.00
EDGE 2 Tx slots	24.17	24.25	24.10	25.00	18.17	18.25	18.10	19.00
EDGE 3 Tx slots	22.31	22.41	22.28	23.20	18.05	18.15	18.02	18.94
EDGE 4 Tx slots	21.12	21.17	21.04	22.00	18.12	18.17	18.04	19.00

WCDMA V Ant0 Default					
Band	WCDMA V			Tune-up Limit (dBm)	
TX Channel	4132	4182	4233		
Rx Channel	4357	4407	4458		
Frequency (MHz)	826.4	836.4	846.6		
3GPP Rel 99	AMR 12.2Kbps	23.98	24.11	24.08	25.00
3GPP Rel 99	RMC 12.2Kbps	24.04	24.16	24.13	25.00
3GPP Rel 6	HSDPA Subtest-1	23.15	23.15	23.11	24.00
3GPP Rel 6	HSDPA Subtest-2	23.09	23.15	23.07	24.00
3GPP Rel 6	HSDPA Subtest-3	22.54	22.69	22.61	23.50
3GPP Rel 6	HSDPA Subtest-4	22.56	22.63	22.57	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.03	23.14	23.10	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.04	23.14	23.06	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.45	22.60	22.53	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.43	22.56	22.50	23.50
3GPP Rel 6	HSUPA Subtest-1	22.98	23.03	23.05	24.00
3GPP Rel 6	HSUPA Subtest-2	21.08	21.21	21.06	22.00
3GPP Rel 6	HSUPA Subtest-3	22.09	22.26	22.21	23.00
3GPP Rel 6	HSUPA Subtest-4	21.06	21.11	21.03	22.00
3GPP Rel 6	HSUPA Subtest-5	23.02	23.11	23.05	24.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.57	20.76	20.64	21.50



Band 5 Main PA Ant0

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Med. Ch./Freq.	Power High Ch./Freq.	Tune-up (dB)	MPE (dB)
Channel								
824 836.5 844								
10	QPSK	1	0	24.45	24.56	24.60		
10	QPSK	5	25	24.40	24.48	24.54	25.5	0
10	QPSK	1	40	24.38	24.52	24.54		
10	QPSK	25	0	23.48	23.59	23.64		
10	QPSK	25	12	23.43	23.47	23.50	24.5	1
10	QPSK	25	25	23.34	23.50	23.40		
10	QPSK	50	0	23.43	23.54	23.47		
10	HQAM	1	0	23.79	23.84	23.79		
10	HQAM	1	25	23.72	23.71	23.68	24.5	1
10	HQAM	1	40	23.68	23.73	23.69		
10	HQAM	25	0	22.59	22.52	22.41		
10	HQAM	25	12	22.57	22.48	22.33	23.5	2
10	HQAM	25	25	22.36	22.44	22.34		
10	HQAM	50	0	22.30	22.46	22.36		
10	HQAM	1	0	22.59	22.66	22.58		
10	HQAM	1	25	22.40	22.59	22.44	23.5	2
10	HQAM	1	40	22.51	22.67	22.44		
10	HQAM	25	0	21.39	21.46	21.39		
10	HQAM	25	12	21.39	21.48	21.28	22.5	3
10	HQAM	25	25	21.28	21.37	21.26		
10	HQAM	50	0	21.23	21.51	21.29		
10	ZSSBAM	1	0	19.41	19.56	19.47		
10	ZSSBAM	1	25	19.38	19.66	19.41	20.5	5
10	ZSSBAM	1	40	19.38	19.56	19.44		
10	ZSSBAM	25	0	19.35	19.45	19.37		
10	ZSSBAM	25	12	19.24	19.49	19.24	20.5	5
10	ZSSBAM	25	25	19.34	19.40	19.34		
10	ZSSBAM	50	0	19.43	19.49	19.41		
Channel								
2045 2052.5 2062.5								
Frequency (MHz)								
826.5 839.5 846.5								
5	QPSK	1	0	24.32	24.52	24.41		
5	QPSK	1	12	24.31	24.43	24.40	25.5	0
5	QPSK	1	24	24.29	24.40	24.22		
5	QPSK	12	0	23.36	23.53	23.45		
5	QPSK	12	7	23.39	23.36	23.38	24.5	1
5	QPSK	12	13	23.20	23.37	23.26		
5	QPSK	25	0	23.34	23.46	23.39		
5	HQAM	1	0	23.76	23.79	23.76		
5	HQAM	1	12	23.69	23.60	23.54	24.5	1
5	HQAM	1	24	23.58	23.67	23.56		
5	HQAM	12	0	22.29	22.44	22.35		
5	HQAM	12	7	22.27	22.39	22.27	23.5	2
5	HQAM	12	13	22.32	22.31	22.24		
5	HQAM	25	0	22.27	22.38	22.25		
5	HQAM	1	0	22.48	22.61	22.53		
5	HQAM	1	12	22.48	22.61	22.42	23.5	2
5	HQAM	1	24	22.44	22.52	22.35		
5	HQAM	12	0	21.33	21.34	21.33		
5	HQAM	12	7	21.28	21.41	21.26	22.5	3
5	HQAM	12	13	21.19	21.28	21.23		
5	HQAM	25	0	21.14	21.48	21.14		
5	ZSSBAM	1	0	19.35	19.51	19.36		
5	ZSSBAM	1	12	19.34	19.57	19.31	20.5	5
5	ZSSBAM	1	24	19.33	19.51	19.36		
5	ZSSBAM	12	0	19.29	19.36	19.27		
5	ZSSBAM	12	7	19.20	19.34	19.19	20.5	5
5	ZSSBAM	12	13	19.31	19.29	19.27		
5	ZSSBAM	25	0	19.33	19.43	19.30		
Channel								
2046 2052.5 2062.5								
Frequency (MHz)								
826.5 839.5 847.5								
3	QPSK	1	0	24.31	24.50	24.47		
3	QPSK	1	8	24.35	24.43	24.25	25.5	0
3	QPSK	1	14	24.22	24.45	24.29		
3	QPSK	1	0	23.37	23.51	23.41		
3	QPSK	8	4	23.35	23.38	23.41	24.5	1
3	QPSK	8	7	23.28	23.47	23.28		
3	QPSK	8	0	23.39	23.44	23.45		
3	HQAM	1	0	23.70	23.71	23.68		
3	HQAM	1	8	23.68	23.68	23.54	24.5	1
3	HQAM	1	14	23.62	23.56	23.66		
3	HQAM	8	0	22.28	22.42	22.37		
3	HQAM	8	4	22.32	22.42	22.20	23.5	2
3	HQAM	8	7	22.22	22.38	22.24		
3	HQAM	16	0	22.17	22.34	22.17		
3	HQAM	1	0	22.66	22.63	22.63		
3	HQAM	1	8	22.44	22.54	22.40	23.5	2
3	HQAM	1	14	22.44	22.56	22.40		
3	HQAM	8	0	21.25	21.41	21.36		
3	HQAM	8	4	21.24	21.35	21.15	22.5	3
3	HQAM	8	7	21.17	21.27	21.27		
3	HQAM	16	0	21.08	21.38	21.17		
3	ZSSBAM	1	0	19.35	19.47	19.38		
3	ZSSBAM	1	8	19.27	19.54	19.33	20.5	5
3	ZSSBAM	1	14	19.24	19.43	19.33		
3	ZSSBAM	8	0	19.27	19.32	19.22		
3	ZSSBAM	8	4	19.12	19.39	19.18	20.5	5
3	ZSSBAM	8	7	19.30	19.36	19.30		
3	ZSSBAM	16	0	19.35	19.46	19.30		
Channel								
2047 2052.5 2064.5								
Frequency (MHz)								
824.7 836.5 843.5								
1.4	QPSK	1	0	24.34	24.47	24.43		
1.4	QPSK	1	3	24.30	24.41	24.37		
1.4	QPSK	1	5	24.31	24.48	24.29	25.5	0
1.4	QPSK	3	0	24.38	24.42	24.37		
1.4	QPSK	3	1	24.38	24.41	24.36		
1.4	QPSK	3	3	24.20	24.45	24.23		
1.4	QPSK	3	0	23.42	23.50	23.41	24.5	1
1.4	HQAM	1	0	23.39	23.39	23.35		
1.4	HQAM	1	3	23.21	23.40	23.35		
1.4	HQAM	1	5	23.30	23.39	23.32	24.5	1
1.4	HQAM	3	0	23.72	23.76	23.70		
1.4	HQAM	3	1	23.66	23.57	23.64		
1.4	HQAM	3	3	23.62	23.67	23.63		
1.4	HQAM	6	0	22.24	22.46	22.36	23.5	2
1.4	HQAM	1	0	22.28	22.36	22.26		
1.4	HQAM	1	3	22.29	22.36	22.28		
1.4	HQAM	1	5	22.28	22.38	22.23	23.5	2
1.4	HQAM	3	0	22.46	22.60	22.44		
1.4	HQAM	3	1	22.41	22.61	22.45		
1.4	HQAM	3	3	22.39	22.60	22.34		
1.4	HQAM	6	0	21.26	21.34	21.29	22.5	3
1.4	ZSSBAM	1	0	19.32	19.48	19.47		
1.4	ZSSBAM	1	3	19.28	19.40	19.37		
1.4	ZSSBAM	1	5	19.35	19.46	19.29	20.5	5
1.4	ZSSBAM	3	0	19.30	19.34	19.27		
1.4	ZSSBAM	3	1	19.17	19.35	19.11		
1.4	ZSSBAM	3	3	19.29	19.33	19.21		
1.4	ZSSBAM	6	0	19.31	19.42	19.30	20.5	5



Band 13 Main PA Ant0									
BM [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power Mid Ch / Freq	Turn-up limit (dB)	MPE (dB)	
Channel									
782									
10	QPSK	1	0	24.64			25.5	0	
15	QPSK	1	49	24.52					
10	QPSK	25	0	23.98			24.5	1	
15	QPSK	25	12	23.86					
10	QPSK	25	25	23.77					
10	QPSK	50	0	23.90					
15	HQAM	1	25	23.81			24.5	1	
10	HQAM	1	49	23.78					
15	HQAM	25	0	23.77					
10	HQAM	25	12	23.92			23.5	2	
10	HQAM	25	25	22.71					
15	HQAM	50	0	22.88					
10	HQAM	1	0	23.68			23.5	2	
10	HQAM	1	25	22.99					
10	HQAM	1	49	23.94					
10	HQAM	25	0	21.80					
10	HQAM	25	12	21.89			22.5	3	
10	HQAM	25	25	21.81					
10	HQAM	50	0	21.80					
10	HQAM	1	0	19.89					
10	HQAM	1	25	19.92			20.5	5	
10	HQAM	1	49	19.83					
10	HQAM	25	0	19.89					
10	HQAM	25	12	19.91			20.5	5	
10	HQAM	25	25	19.72					
10	HQAM	50	0	19.82					
Channel									
2325									
5	QPSK	1	0	24.31	24.39	24.24	25.5	0	
5	QPSK	1	12	24.31	24.45	24.40			
5	QPSK	1	24	24.26	24.38	24.33			
5	QPSK	12	0	23.74	23.87	23.78			
5	QPSK	12	7	23.69	23.77	23.70	24.5	1	
5	QPSK	12	13	23.58	23.68	23.64			
5	QPSK	25	0	23.69	23.78	23.73			
5	HQAM	1	0	23.70	23.82	23.69			
5	HQAM	1	12	23.64	23.72	23.60	24.5	1	
5	HQAM	1	24	23.58	23.74	23.63			
5	HQAM	12	0	22.88	22.71	22.62			
5	HQAM	12	7	22.73	22.82	22.76	23.5	2	
5	HQAM	12	13	22.54	22.61	22.58			
5	HQAM	25	0	22.70	22.82	22.76			
5	HQAM	1	0	23.00	23.04	22.93	23.5	2	
5	HQAM	1	12	22.85	22.98	22.83			
5	HQAM	1	24	22.72	22.85	22.77			
5	HQAM	12	0	21.42	21.47	21.54			
5	HQAM	12	7	21.58	21.74	21.63	22.5	3	
5	HQAM	12	13	21.45	21.52	21.43			
5	HQAM	25	0	21.78	21.74	21.63			
5	HQAM	1	0	19.78	19.83	19.69			
5	HQAM	1	12	19.90	19.98	19.85	20.5	5	
5	HQAM	1	24	19.79	19.81	19.74			
5	HQAM	12	0	19.54	19.61	19.59			
5	HQAM	12	7	19.59	19.80	19.68	20.5	5	
5	HQAM	12	13	19.55	19.64	19.67			
5	HQAM	25	0	19.60	19.74	19.63			

Band 26 Main PA Ant0									
BM [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power Mid Ch / Freq	Turn-up limit (dB)	MPE (dB)	
Channel									
811.5									
15	QPSK	1	0	24.52	24.58	24.48	25.5	0	
15	QPSK	1	37	24.45	24.51	24.45			
15	QPSK	1	74	24.41	24.53	24.47			
15	QPSK	36	0	23.48	23.63	23.52	24.5	1	
15	QPSK	36	20	23.42	23.55	23.50			
15	QPSK	36	39	23.52	23.60	23.51			
15	QPSK	75	0	23.54	23.57	23.47			
15	HQAM	1	0	23.68	23.66	23.45			
15	HQAM	1	37	23.38	23.51	23.37	24.5	1	
15	HQAM	1	74	23.42	23.54	23.47			
15	HQAM	36	0	22.62	22.47	22.62			
15	HQAM	36	20	22.48	22.60	22.52			
15	HQAM	36	39	22.63	22.67	22.43	23.5	2	
15	HQAM	75	0	22.59	22.54	22.40			
15	HQAM	1	0	22.59	22.70	22.59			
15	HQAM	1	37	22.63	22.68	22.54	23.5	2	
15	HQAM	1	74	22.63	22.65	22.46			
15	HQAM	36	0	21.25	21.37	21.34			
15	HQAM	36	20	21.41	21.50	21.40	22.5	3	
15	HQAM	36	39	21.45	21.52	21.43			
15	HQAM	75	0	21.41	21.54	21.43			
15	HQAM	1	0	19.48	19.45	19.26			
15	HQAM	1	37	19.42	19.57	19.49	20.5	5	
15	HQAM	1	74	19.60	19.74	19.69			
15	HQAM	36	0	19.42	19.42	19.28			
15	HQAM	36	20	19.48	19.52	19.43	20.5	5	
15	HQAM	36	39	19.46	19.55	19.50			
15	HQAM	75	0	19.38	19.51	19.43			
Channel									
26740									
813									
10	QPSK	1	0	24.42	24.44	24.36	25.5	0	
10	QPSK	1	25	24.59	24.46	24.31			
10	QPSK	1	49	24.28	24.42	24.42			
10	QPSK	25	0	23.43	23.52	23.46	24.5	1	
10	QPSK	25	12	23.49	23.45	23.46			
10	QPSK	25	25	23.48	23.48	23.47			
10	QPSK	50	0	23.42	23.49	23.42			
10	HQAM	1	0	23.41	23.49	23.38			
10	HQAM	1	25	23.33	23.47	23.31	24.5	1	
10	HQAM	1	49	23.37	23.51	23.34			
10	HQAM	25	0	22.36	22.35	22.38			
10	HQAM	25	12	22.35	22.36	22.42	23.5	2	
10	HQAM	25	25	22.34	22.35	22.38			
10	HQAM	50	0	22.36	22.46	22.38			
10	HQAM	1	0	22.51	22.58	22.52	23.5	2	
10	HQAM	1	25	22.59	22.63	22.46			
10	HQAM	1	49	22.53	22.51	22.51			
10	HQAM	25	0	21.18	21.31	21.25			
10	HQAM	25	12	21.32	21.53	21.39	22.5	3	
10	HQAM	25	25	21.52	21.38	21.34			
10	HQAM	50	0	21.34	21.50	21.33			
10	HQAM	1	0	19.45	19.43	19.26			
10	HQAM	1	25	19.52	19.42	19.42	20.5	5	
10	HQAM	1	49	19.54	19.65	19.56			
10	HQAM	25	0	19.28	19.39	19.32			
10	HQAM	25	12	19.43	19.41	19.29	20.5	5	
10	HQAM	25	25	19.39	19.48	19.38			
10	HQAM	50	0	19.35	19.40	19.35			
Channel									
26716									
815.5									
5	QPSK	1	0	24.44	24.49	24.38	25.5	0	
5	QPSK	1	12	24.32	24.38	24.25			
5	QPSK	1	24	24.34	24.45	24.39			
5	QPSK	12	0	23.46	23.57	23.45	24.5	1	
5	QPSK	12	7	23.29	23.48	23.43			
5	QPSK	12	13	23.48	23.53	23.38			
5	QPSK	25	0	23.42	23.47	23.35			
5	HQAM	1	0	23.41	23.44	23.33	24.5	1	
5	HQAM	1	12	23.21	23.44	23.22			
5	HQAM	1	24	23.37	23.40	23.34			
5	HQAM	12	0	22.34	22.44	22.34			
5	HQAM	12	7	22.36	22.35	22.42	23.5	2	
5	HQAM	12	13	22.47	22.40	22.38			
5	HQAM	25	0	22.38	22.39	22.45			
5	HQAM	1	0	22.54	22.59	22.53	23.5	2	
5	HQAM	1	12	22.58	22.54	22.48			
5	HQAM	1	24	22.62	22.68	22.78			
5	HQAM	12	0	21.20	21.30	21.21			
5	HQAM	12	7	21.21	21.43	21.32	22.5	3	
5	HQAM	12	13	21.38	21.42	21.37			
5	HQAM	25	0	21.27	21.49	21.39			
5	HQAM	1	0	19.45	19.41	19.45			
5	HQAM	1	12	19.29	19.53	19.35	20.5	5	
5	HQAM	1	24	19.54	19.66	19.55			
5	HQAM	12	0	19.24	19.21	19.20			
5	HQAM	12	7	19.38	19.41	19.37	20.5	5	
5	HQAM	12	13	19.35	19.42	19.43			
5	HQAM								



GSM850 Ant1 Default								
GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8	33.50	23.02	23.11	23.02	24.50
GSM 1 Tx slot	32.02	32.11	32.02	33.50	23.02	23.11	23.02	24.50
GPRS 1 Tx slot	32.05	32.16	32.08	33.50	23.05	23.16	23.08	24.50
GPRS 2 Tx slots	29.21	29.24	29.17	30.50	23.21	23.24	23.17	24.50
GPRS 3 Tx slots	27.40	27.44	27.34	28.50	23.14	23.18	23.08	24.24
GPRS 4 Tx slots	25.97	26.07	26.00	27.50	22.97	23.07	23.00	24.50
EDGE 1 Tx slot	26.21	26.25	26.11	27.50	17.21	17.25	17.11	18.50
EDGE 2 Tx slots	23.24	23.29	23.16	24.50	17.24	17.29	17.16	18.50
EDGE 3 Tx slots	21.40	21.53	21.48	22.70	17.14	17.27	17.22	18.44
EDGE 4 Tx slots	20.15	20.28	20.24	21.50	17.15	17.28	17.24	18.50

GSM1900 Ant1 Default								
GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	30.00	1850.2	1880	1909.8	21.00
GSM 1 Tx slot	28.13	28.19	28.15	30.00	19.13	19.19	19.15	21.00
GPRS 1 Tx slot	28.16	28.24	28.22	30.00	19.16	19.24	19.22	21.00
GPRS 2 Tx slots	26.27	26.31	26.25	27.00	19.27	19.31	19.25	21.00
GPRS 3 Tx slots	23.88	23.96	23.87	25.20	19.62	19.70	19.61	20.94
GPRS 4 Tx slots	22.35	22.47	22.37	24.00	19.35	19.47	19.37	21.00
EDGE 1 Tx slot	24.79	24.88	24.82	26.00	15.79	15.88	15.82	17.00
EDGE 2 Tx slots	21.97	22.07	21.93	23.00	15.97	16.07	15.93	17.00
EDGE 3 Tx slots	19.90	20.03	19.89	21.20	15.64	15.77	15.63	16.94
EDGE 4 Tx slots	19.20	19.26	19.21	20.00	16.20	16.26	16.21	17.00

Band	WCDMA II Ant1 Default			Tune-up Limit (dBm)	WCDMA IV Ant1 Default			WCDMA V Ant1 Default			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513	4132	4182	4233	
TX Channel	9262	9400	9538	24.00	1637	1638	1738	4357	4407	4458	25.00
Rx Channel	9662	9800	9938	24.00	1637	1638	1738	4357	4407	4458	25.00
Frequency (MHz)	1852.4	1880	1907.6	23.00	1712.4	1732.6	1752.6	826.4	836.4	846.6	24.00
3GPP Rel 99 AMR 12.2kbps	22.02	22.09	22.01	24.00	22.02	22.12	22.07	23.22	23.32	23.29	25.00
3GPP Rel 99 RMC 12.2kbps	22.05	22.12	22.03	24.00	22.10	22.19	22.13	23.27	23.36	23.35	25.00
3GPP Rel 6 HSDPA Subtest-1	21.06	21.14	21.06	23.00	21.15	21.23	21.20	23.00	22.36	22.34	24.00
3GPP Rel 6 HSDPA Subtest-2	21.01	21.11	21.03	23.00	21.06	21.09	21.06	23.00	22.23	22.35	24.00
3GPP Rel 6 HSDPA Subtest-3	20.56	20.60	20.60	22.50	20.60	20.69	20.65	22.50	21.76	21.84	23.50
3GPP Rel 6 HSDPA Subtest-4	20.53	20.59	20.57	22.50	20.50	20.61	20.55	22.50	21.72	21.85	23.50
3GPP Rel 8 DC-HSDPA Subtest-1	21.03	21.05	21.03	23.00	21.04	21.16	21.09	23.00	22.28	22.31	24.00
3GPP Rel 8 DC-HSDPA Subtest-2	21.03	21.02	21.03	23.00	21.16	21.13	21.02	23.00	22.17	22.29	24.00
3GPP Rel 8 DC-HSDPA Subtest-3	20.52	20.55	20.58	22.50	20.56	20.59	20.52	22.50	21.73	21.81	23.50
3GPP Rel 8 DC-HSDPA Subtest-4	20.56	20.69	20.59	22.50	20.56	20.60	20.54	22.50	21.65	21.82	23.50
3GPP Rel 6 HSUPA Subtest-1	21.12	21.03	21.01	23.00	21.01	21.10	21.01	23.00	22.15	22.22	24.00
3GPP Rel 6 HSUPA Subtest-2	19.07	19.06	19.08	21.00	19.11	19.16	19.05	21.00	20.24	20.38	22.00
3GPP Rel 6 HSUPA Subtest-3	20.11	20.14	20.18	22.00	20.13	20.24	20.24	22.00	21.39	21.45	23.00
3GPP Rel 6 HSUPA Subtest-4	19.02	19.00	19.03	21.00	19.06	19.03	19.07	21.00	20.20	20.24	22.00
3GPP Rel 6 HSUPA Subtest-5	21.01	21.01	21.07	23.00	21.05	21.11	21.04	23.00	22.14	22.33	24.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	18.63	18.75	18.58	20.50	18.62	18.70	18.63	20.50	19.78	20.00	21.50



Band 4 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.96	22.97	22.98				
10	QPSK	1	49	22.96	22.97	22.98	24.5	0		
10	QPSK	1	99	22.96	22.97	22.98				
20	QPSK	50	0	21.75	21.80	21.75				
20	QPSK	50	24	21.65	21.70	21.75	23.5	1		
20	QPSK	50	50	21.84	21.74	21.59				
20	QPSK	100	0	21.72	21.83	21.68				
20	16QAM	50	0	21.80	21.87	21.82				
20	16QAM	1	49	21.71	21.81	21.77	23.5	1		
20	16QAM	1	99	21.72	21.77	21.68				
20	16QAM	50	0	20.80	20.84	20.73				
20	16QAM	50	24	20.71	20.76	20.67	22.5	2		
20	16QAM	50	50	20.69	20.80	20.69				
20	16QAM	100	0	20.65	20.74	20.61				
20	64QAM	1	0	20.82	20.86	20.71				
20	64QAM	1	49	20.76	20.80	20.76	22.5	2		
20	64QAM	50	0	19.84	19.79	19.67				
20	64QAM	50	24	19.58	19.70	19.58				
20	64QAM	50	50	19.72	19.76	19.68	21.5	3		
20	64QAM	100	0	19.52	19.67	19.58				
20	256QAM	1	49	17.80	17.68	17.56	19.5	5		
20	256QAM	1	99	17.67	17.63	17.54				
20	256QAM	50	0	17.66	17.71	17.67				
20	256QAM	50	24	17.54	17.63	17.52	19.5	5		
20	256QAM	50	50	17.66	17.69	17.66				
20	256QAM	100	0	17.52	17.61	17.57				
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.86	22.82	22.78				
15	QPSK	1	37	22.79	22.86	22.82	24.5	0		
15	QPSK	1	74	22.65	22.76	22.62				
15	QPSK	36	0	21.72	21.71	21.67				
15	QPSK	36	25	21.56	21.65	21.60	23.5	1		
15	QPSK	36	39	21.57	21.64	21.64				
15	QPSK	75	0	21.59	21.78	21.58				
15	16QAM	1	0	21.66	21.86	21.73				
15	16QAM	1	37	21.60	21.72	21.72	23.5	1		
15	16QAM	1	74	21.66	21.77	21.67				
15	16QAM	36	0	20.68	20.67	20.69				
15	16QAM	36	25	20.65	20.70	20.63	22.5	2		
15	16QAM	36	39	20.65	20.71	20.68				
15	16QAM	75	0	20.61	20.70	20.58				
15	64QAM	1	0	20.70	20.81	20.50				
15	64QAM	1	37	20.65	20.76	20.61	22.5	2		
15	64QAM	1	74	20.60	20.65	20.51				
15	64QAM	36	0	19.55	19.68	19.62				
15	64QAM	36	25	19.46	19.73	19.59				
15	64QAM	36	39	19.53	19.71	19.61	21.5	3		
15	64QAM	75	0	19.56	19.65	19.54				
15	256QAM	1	37	17.70	17.72	17.66				
15	256QAM	1	74	17.64	17.67	17.63	19.5	5		
15	256QAM	1	74	17.63	17.66	17.61				
15	256QAM	36	0	17.61	17.68	17.60				
15	256QAM	36	25	17.58	17.58	17.52	19.5	5		
15	256QAM	36	39	17.71	17.70	17.63				
15	256QAM	75	0	17.56	17.52	17.56				
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.60	22.66	22.65				
10	QPSK	1	25	22.77	22.88	22.75	24.5	0		
10	QPSK	1	49	22.64	22.81	22.66				
10	QPSK	25	0	22.67	22.83	22.72				
10	QPSK	25	12	21.54	21.73	21.67	23.5	1		
10	QPSK	25	25	21.54	21.66	21.53				
10	16QAM	1	0	21.67	21.72	21.72				
10	16QAM	1	24	21.72	21.72	21.72	23.5	1		
10	16QAM	1	49	21.60	21.68	21.67				
10	16QAM	25	0	20.66	20.80	20.69				
10	16QAM	25	12	20.66	20.68	20.63	22.5	2		
10	16QAM	25	25	20.65	20.70	20.63				
10	16QAM	50	0	20.61	20.68	20.59				
10	64QAM	1	0	20.71	20.73	20.68				
10	64QAM	1	24	20.72	20.82	20.67	22.5	2		
10	64QAM	1	49	20.61	20.70	20.56				
10	64QAM	25	0	19.59	19.70	19.64				
10	64QAM	25	12	19.60	19.65	19.55				
10	64QAM	25	25	19.60	19.61	19.63	21.5	3		
10	64QAM	50	0	19.53	19.63	19.59				
10	256QAM	1	24	17.71	17.68	17.60				
10	256QAM	1	49	17.64	17.68	17.61	19.5	5		
10	256QAM	1	49	17.58	17.62	17.60				
10	256QAM	12	0	17.65	17.66	17.60				
10	256QAM	25	12	17.56	17.61	17.63	19.5	5		
10	256QAM	25	25	17.67	17.64	17.63				
10	256QAM	50	0	17.51	17.71	17.58				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.85	22.81	22.85				
5	QPSK	1	12	22.79	22.87	22.85	24.5	0		
5	QPSK	1	24	22.67	22.83	22.72				
5	QPSK	12	0	21.66	21.66	21.66				
5	QPSK	12	7	21.58	21.64	21.67	23.5	1		
5	QPSK	12	13	21.63	21.60	21.62				
5	QPSK	25	0	21.67	21.67	21.67				
5	16QAM	1	0	21.74	21.79	21.74				
5	16QAM	1	12	21.60	21.72	21.74	23.5	1		
5	16QAM	1	24	21.67	21.65	21.65				
5	16QAM	12	0	20.65	20.81	20.66				
5	16QAM	12	7	20.63	20.71	20.56	22.5	2		
5	16QAM	12	13	20.64	20.70	20.63				
5	16QAM	25	0	20.57	20.61	20.67				
5	64QAM	1	0	20.72	20.72	20.59				
5	64QAM	1	12	20.69	20.71	20.65	22.5	2		
5	64QAM	1	24	20.57	20.64	20.66				
5	64QAM	12	0	19.50	19.65	19.58				
5	64QAM	12	7	19.53	19.62	19.60				
5	64QAM	12	13	19.64	19.64	19.56	21.5	3		
5	64QAM	25	0	19.57	19.65	19.62				
5	256QAM	1	0	17.65	17.73	17.60				
5	256QAM	1	12	17.64	17.73	17.61	19.5	5		
5	256QAM	1	24	17.56	17.60	17.67				
5	256QAM	12	0	17.65	17.66	17.66				
5	256QAM	12	7	17.60	17.63	17.63	19.5	5		
5	256QAM	12	13	17.69	17.75	17.65				
5	256QAM	25	0	17.55	17.66	17.67				
Channel										
Frequency (MHz)										
3	QPSK	1	0	22.92	22.92	22.92				
3	QPSK	1	8	22.73	22.81	22.76	24.5	0		
3	QPSK	1	14	22.63	22.77	22.69				
3	QPSK	8	0	21.65	21.65	21.63				
3	QPSK	8	4	21.60	21.71	21.69	23.5	1		
3	QPSK	8	7	21.60	21.71	21.58				
3	QPSK	15	0	21.66	21.66	21.63				
3	16QAM	1	0	21.75	21.82	21.70				
3	16QAM	1	8	21.62	21.74	21.68	23.5	1		
3	16QAM	1	14	21.68	21.72	21.67				
3	16QAM	8	0	20.73	20.77	20.64				
3	16QAM	8	4	20.60	20.63	20.63	22.5	2		
3	16QAM	8	7	20.64	20.71	20.63				
3	16QAM	15	0	20.52	20.56	20.56				
3	64QAM	1	0	20.73	20.79	20.65				
3	64QAM	1	8	20.66	20.66	20.71	22.5	2		
3	64QAM	1	14	20.51	20.62	20.64				
3	64QAM	8	0	19.68	19.79					



Band 13 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MFR (dB)		
Channel										
752										
10	QPSK	1	0	23.60	23.60		25.5	0		
10	QPSK	1	49	23.85	23.85					
10	QPSK	25	0	23.60	23.60		24.5	1		
10	QPSK	25	49	23.85	23.85					
10	QPSK	25	25	22.79	22.79					
10	QPSK	50	0	22.67	22.67					
10	QPSK	50	49	22.86	22.86					
10	16QAM	1	25	22.79	22.79		24.5	1		
10	16QAM	1	49	22.75	22.75					
10	16QAM	1	25	21.81	21.81		23.5	2		
10	16QAM	25	12	21.85	21.85					
10	16QAM	50	0	21.79	21.79					
10	16QAM	1	0	22.07	22.07					
10	64QAM	1	25	22.01	22.01		23.5	2		
10	64QAM	1	49	21.97	21.97					
10	64QAM	25	0	20.87	20.87					
10	64QAM	25	12	20.76	20.76		22.5	3		
10	64QAM	25	25	20.83	20.83					
10	64QAM	50	0	20.75	20.75					
10	256QAM	1	0	18.94	18.94		20.5	5		
10	256QAM	1	49	18.88	18.88					
10	256QAM	25	0	18.88	18.88					
10	256QAM	25	12	18.78	18.78		20.5	5		
10	256QAM	25	25	18.84	18.84					
10	256QAM	50	0	18.81	18.81					
Channel										
2305										
778.5										
5	QPSK	1	0	23.84	23.80	23.88	25.5	0		
5	QPSK	1	16	23.87	23.87	23.80				
5	QPSK	1	24	23.78	23.80	23.77				
5	QPSK	12	0	22.87	22.78	22.80				
5	QPSK	12	7	22.72	22.70	22.73	24.5	1		
5	QPSK	12	13	22.73	22.72	22.68				
5	QPSK	25	0	22.84	22.71	22.78				
5	16QAM	1	0	22.74	22.71	22.78				
5	16QAM	1	12	22.65	22.71	22.72	24.5	1		
5	16QAM	12	7	21.73	21.70	21.73				
5	16QAM	12	13	21.78	21.84	21.78				
5	16QAM	12	0	21.69	21.68	21.74	23.5	2		
5	64QAM	1	0	21.69	21.68	21.84				
5	64QAM	1	0	21.72	21.75	21.64				
5	64QAM	1	24	21.94	21.82	21.83	23.5	2		
5	64QAM	12	0	20.74	20.74	20.78				
5	64QAM	12	7	20.67	20.63	20.65				
5	64QAM	12	13	20.76	20.73	20.70	22.5	3		
5	64QAM	25	0	20.68	20.64	20.60				
5	256QAM	1	0	18.84	18.81	18.84				
5	256QAM	1	12	18.77	18.87	18.82	20.5	5		
5	256QAM	1	24	18.79	18.72	18.78				
5	256QAM	12	0	18.74	18.76	18.84				
5	256QAM	12	7	18.72	18.73	18.84				
5	256QAM	12	13	18.69	18.76	18.79	20.5	5		
5	256QAM	25	0	18.71	18.70	18.68				

Band 26 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MFR (dB)		
Channel										
821.5										
15	QPSK	1	0	23.70	23.77	23.65	25.5	0		
15	QPSK	1	31	23.81	23.84	23.82				
15	QPSK	1	74	23.81	23.84	23.82				
15	QPSK	36	0	22.62	22.74	22.66	24.5	1		
15	QPSK	36	29	22.63	22.63	22.64				
15	QPSK	36	38	22.54	22.63	22.58				
15	QPSK	75	0	22.60	22.67	22.60				
15	16QAM	1	0	22.66	22.61	22.72				
15	16QAM	1	37	22.81	22.75	22.83	24.5	1		
15	16QAM	1	74	22.67	22.71	22.60				
15	16QAM	36	0	22.63	22.76	22.62				
15	16QAM	36	20	21.83	21.68	21.58	23.5	2		
15	16QAM	36	39	21.88	21.72	21.89				
15	16QAM	75	0	21.84	21.69	21.88				
15	64QAM	1	0	21.82	21.92	21.84	23.5	2		
15	64QAM	1	37	21.78	21.86	21.80				
15	64QAM	1	74	21.73	21.82	21.76				
15	64QAM	36	0	20.84	20.89	20.79	22.5	3		
15	64QAM	36	20	20.74	20.89	20.72				
15	64QAM	36	39	20.72	20.66	20.70				
15	64QAM	75	0	20.69	20.77	20.67				
15	256QAM	1	0	18.61	18.76	18.63				
15	256QAM	1	37	18.58	18.72	18.64	20.5	5		
15	256QAM	1	74	18.64	18.67	18.60				
15	256QAM	12	0	18.51	18.62	18.52				
15	256QAM	12	29	18.54	18.58	18.51	20.5	5		
15	256QAM	12	39	18.60	18.62	18.55				
15	256QAM	75	0	18.60	18.63	18.56				
Channel										
810										
811.5										
10	QPSK	1	0	23.60	23.74	23.62	25.5	0		
10	QPSK	1	29	23.68	23.64	23.62				
10	QPSK	1	49	23.55	23.70	23.56				
10	QPSK	25	0	22.63	22.67	22.70	24.5	1		
10	QPSK	25	25	22.69	22.68	22.63				
10	QPSK	50	0	22.66	22.69	22.66				
10	16QAM	1	0	22.74	22.81	22.70				
10	16QAM	1	29	22.59	22.81	22.62	24.5	1		
10	16QAM	1	49	22.65	22.76	22.65				
10	16QAM	25	0	21.61	21.62	21.58				
10	16QAM	25	12	21.67	21.65	21.53	23.5	2		
10	16QAM	25	25	21.66	21.64	21.62				
10	16QAM	50	0	21.72	21.77	21.80				
10	64QAM	1	0	21.65	21.72	21.67	23.5	2		
10	64QAM	1	49	21.63	21.75	21.59				
10	64QAM	25	0	20.71	20.76	20.68				
10	64QAM	25	12	20.66	20.67	20.65	22.5	3		
10	64QAM	25	25	20.58	20.50	20.51				
10	64QAM	50	0	20.56	20.68	20.63				
10	256QAM	1	0	18.57	18.70	18.61				
10	256QAM	1	29	18.61	18.70	18.57	20.5	5		
10	256QAM	12	0	18.54	18.58	18.52				
10	256QAM	12	12	18.54	18.50	18.57	20.5	5		
10	256QAM	25	0	18.58	18.61	18.54				
10	256QAM	50	0	18.71	18.65	18.62				
Channel										
816.5										
817.5										
5	QPSK	1	0	23.59	23.63	23.55	25.5	0		
5	QPSK	1	24	23.55	23.65	23.52				
5	QPSK	1	49	23.50	23.61	23.50				
5	QPSK	12	0	22.53	22.74	22.54	24.5	1		
5	QPSK	12	13	22.56	22.62	22.58				
5	QPSK	25	0	22.65	22.65	22.62				
5	16QAM	1	0	22.64	22.78	22.79	24.5	1		
5	16QAM	1	12	22.59	22.76	22.67				
5	16QAM	1	24	22.61	22.74	22.65				
5	16QAM	12	0	21.69	21.77	21.64	23.5	2		
5	16QAM	12	7	21.66	21.69	21.51				
5	16QAM	12	13	21.67	21.71	21.62				
5	16QAM	25	0	21.54	21.68	21.62				
5	64QAM	1	0	21.72	21.80	21.75	23.5	2		
5	64QAM	1	12	21.70	21.78	21.73				
5	64QAM	1	24	21.66	21.77	21.61				
5	64QAM	12	0	20.81	20.78	20.75	22.5	3		
5	64QAM	12	7	20.80	20.81	20.85				
5	64QAM	12	13	20.68	20.71	20.64				
5	64QAM	25	0	20.56	20.69	20.67				
5	256QAM	1	0	18.50	18.63	18.55				
5	256QAM	1	12							



Band 38 Main PA Ant1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid-Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	23.66	23.73	23.81	25	0
20	QPSK	1	49	23.62	23.69	23.76	25	0
20	QPSK	50	0	23.66	23.73	23.81	25	0
20	QPSK	50	24	22.77	22.81	22.71	24	1
20	QPSK	100	0	22.86	22.94	22.74	24	1
20	16QAM	1	0	22.83	22.96	22.87	24	1
20	16QAM	1	49	21.77	21.84	21.89	24	1
20	16QAM	1	99	22.87	22.90	22.82	24	1
20	16QAM	50	0	21.96	21.90	21.76	23	2
20	16QAM	50	24	21.77	21.84	21.77	23	2
20	16QAM	100	0	21.99	21.94	21.76	23	2
20	16QAM	1	49	21.43	21.55	21.42	23	2
20	16QAM	1	99	23.32	23.42	23.34	22	3
20	16QAM	50	0	20.78	20.78	20.69	22	3
20	16QAM	50	24	20.74	20.79	20.71	22	3
20	16QAM	100	0	20.61	20.68	20.67	22	3
20	25QAM	1	0	18.51	18.55	18.56	20	5
20	25QAM	1	49	18.49	18.56	18.54	20	5
20	25QAM	1	99	18.48	18.52	18.57	20	5
20	25QAM	50	0	18.54	18.57	18.73	20	5
20	25QAM	50	24	18.51	18.56	18.89	20	5
20	25QAM	100	0	18.53	18.75	18.74	20	5
Channel								
Frequency (MHz)								
15	QPSK	1	0	23.72	23.95	24.15	25	0
15	QPSK	1	37	23.50	23.81	23.85	25	0
15	QPSK	1	74	23.46	23.58	23.46	25	0
15	QPSK	36	0	22.86	22.86	22.72	24	1
15	QPSK	36	20	22.74	22.77	22.60	24	1
15	QPSK	75	0	22.72	22.76	22.68	24	1
15	QPSK	75	0	22.46	22.49	22.50	24	1
15	16QAM	1	0	22.79	22.90	22.78	24	1
15	16QAM	1	37	22.66	22.77	22.66	24	1
15	16QAM	1	74	22.84	22.82	22.74	24	1
15	16QAM	36	0	21.74	21.86	21.71	23	2
15	16QAM	36	20	21.62	21.80	21.62	23	2
15	16QAM	36	59	21.70	21.76	21.84	23	2
15	16QAM	75	0	21.88	21.80	21.84	23	2
15	16QAM	75	0	21.36	21.50	21.34	23	2
15	16QAM	1	37	21.34	21.41	21.38	23	2
15	16QAM	74	0	21.27	21.33	21.24	23	2
15	16QAM	36	0	20.63	20.66	20.78	22	3
15	16QAM	36	20	20.69	20.71	20.59	22	3
15	16QAM	36	59	20.67	20.72	20.67	22	3
15	16QAM	75	0	20.55	20.55	20.45	22	3
15	25QAM	1	0	18.39	18.51	18.42	20	5
15	25QAM	1	37	18.39	18.52	18.45	20	5
15	25QAM	1	74	18.45	18.57	18.51	20	5
15	25QAM	36	0	18.54	18.55	18.58	20	5
15	25QAM	36	20	18.54	18.53	18.58	20	5
15	25QAM	36	59	18.86	18.86	18.86	20	5
15	25QAM	75	0	18.86	18.86	18.86	20	5
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.36	23.44	23.54	25	0
10	QPSK	1	25	23.54	23.62	23.56	25	0
10	QPSK	1	49	23.47	23.50	23.48	25	0
10	QPSK	25	0	22.83	22.83	22.73	24	1
10	QPSK	25	12	22.85	22.89	22.57	24	1
10	QPSK	25	25	22.81	22.79	22.67	24	1
10	16QAM	1	0	22.71	22.80	22.80	24	1
10	16QAM	1	25	22.87	22.73	22.86	24	1
10	16QAM	1	49	22.71	22.87	22.74	24	1
10	16QAM	25	0	21.79	21.82	21.70	23	2
10	16QAM	25	12	21.68	21.76	21.64	23	2
10	16QAM	25	25	21.73	21.80	21.89	23	2
10	16QAM	50	0	21.74	21.79	21.69	23	2
10	16QAM	1	0	21.44	21.50	21.38	23	2
10	16QAM	1	25	21.30	21.43	21.30	23	2
10	16QAM	1	49	21.27	21.31	21.27	23	2
10	16QAM	25	0	20.70	20.78	20.78	22	3
10	16QAM	25	12	20.62	20.63	20.57	22	3
10	16QAM	25	25	20.60	20.67	20.61	22	3
10	16QAM	50	0	20.57	20.60	20.45	22	3
10	25QAM	1	0	18.42	18.59	18.47	20	5
10	25QAM	1	25	18.45	18.61	18.47	20	5
10	25QAM	1	49	18.43	18.48	18.51	20	5
10	25QAM	25	0	18.58	18.56	18.77	20	5
10	25QAM	25	12	18.77	18.83	18.66	20	5
10	25QAM	25	25	18.87	18.96	18.70	20	5
10	25QAM	50	0	18.88	18.71	18.67	20	5
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.57	23.69	23.54	25	0
5	QPSK	1	19	23.51	23.58	23.50	25	0
5	QPSK	1	24	23.38	23.52	23.43	25	0
5	QPSK	12	0	22.71	22.86	22.72	24	1
5	QPSK	12	7	22.84	22.86	22.86	24	1
5	QPSK	12	19	22.85	22.72	22.69	24	1
5	QPSK	25	0	22.59	22.79	22.65	24	1
5	QPSK	25	0	22.73	22.91	22.79	24	1
5	16QAM	1	12	22.67	22.77	22.68	24	1
5	16QAM	1	24	22.86	22.81	22.74	24	1
5	16QAM	12	0	21.74	21.88	21.65	23	2
5	16QAM	12	7	21.84	21.79	21.66	23	2
5	16QAM	12	19	21.74	21.78	21.72	23	2
5	16QAM	25	0	21.74	21.74	21.72	23	2
5	16QAM	1	0	21.30	21.43	21.30	23	2
5	16QAM	1	12	21.30	21.42	21.38	23	2
5	16QAM	1	24	21.27	21.32	21.22	23	2
5	16QAM	12	0	20.73	20.84	20.66	22	3
5	16QAM	12	7	20.67	20.74	20.55	22	3
5	16QAM	12	19	20.69	20.74	20.67	22	3
5	16QAM	25	0	20.54	20.64	20.46	22	3
5	16QAM	1	0	18.40	18.57	18.45	20	5
5	25QAM	1	12	18.54	18.58	18.41	20	5
5	25QAM	1	24	18.37	18.58	18.43	20	5
5	25QAM	12	0	18.87	18.83	18.72	20	5
5	25QAM	12	7	18.80	18.84	18.60	20	5
5	25QAM	12	19	18.85	18.89	18.77	20	5
5	25QAM	25	0	18.83	18.88	18.61	20	5

Band 41 Main PA Ant1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Mid Ch / Freq	Power High Ch / Freq	Power High-Mid Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.64	23.76	23.71	23.63	24	0	
20	QPSK	1	49	23.63	23.73	23.75	23.69	23.62	24	0
20	QPSK	50	0	23.63	23.69	23.76	23.67	23.61	24	0
20	QPSK	50	0	22.90	22.84	22.92	22.84	22.84	23.5	1
20	QPSK	50	24	22.82	22.84	22.86	22.86	22.85	23.5	1
20	QPSK	100	0	22.81	22.82	22.88	22.81	22.81	23.5	1
20	QPSK	100	0	22.75	22.77	22.81	22.85	22.80	23.5	1
20	16QAM	1	0	22.91	22.90	22.95	22.99	22.88	23.5	1
20	16QAM	1	49	22.84	22.82	22.95	22.86	22.78	23.5	1
20	16QAM	1	99	22.94	22.95	22.95	22.99	22.92	23.5	1
20	16QAM	50	0	21.86	21.84	22.01	21.89	21.83	22.5	2
20	16QAM	50	24	21.81	21.82	21.95	21.84	21.84	22.5	2
20	16QAM	50	50	21.89	21.84	22.05	21.85	21.84	22.5	2
20	16QAM	100	0	21.88	21.87	21.88	21.81	21.81	22.5	2
20	16QAM	1	0	21.50	21.54	21.61	21.59	21.52	22.5	2
20	16QAM	1	49	21.48	21.57	21.62	21.50	21.46	22.5	2
20	16QAM	1	99	21.47	21.42	21.52	21.40	21.38	22.5	2
20	16QAM	50	0	20.91	20.88	21.02	20.87	20.83	21.5	3
20	16QAM	50	24	20.78	20.81	20.89	20.81	20.80	21.5	3
20	16QAM	50	50	20.78	20.85	20.87	20.85	20.73	21.5	3
20	16QAM	100	0	20.71	20.68	20.81	20.67	20.72	21.5	3
20	25QAM	1	0	18.64	18.64	18.81	18.64	18.70	19.5	5
20	25QAM	1	49	18.62	18.70	18.82	18.67	18.68	19.5	5
20	25QAM	1	99	18.57	18.63	18.68	18.64	18.57	19.5	5
20	25QAM	50	0	18.69	18.69	18.86	18.68	18.68	19.5	5
20	25QAM	50	24	18.86	18.91	18.97	18.87	18.88	19.5	5
20	25QAM	50	50	18.86	18.94	19.01	18.92	18.87	19.5	5
20	25QAM	100	0	18.70	18.89	18.90	18.74	18.74	19.5	5
Channel										
Frequency (MHz)										
16	QPSK	1	0	23.68	23.63	23.72	23.64	23.64	25	0
16	QPSK	1	37	23.81	23.63	23.61	23.83	23.84	25	0
16	QPSK	1	74	23.40	23.60	23.62	23.50	23.48	25	0
16	QPSK	36	0	22.81	22.71	22.84	22.86	22.78	23.5	1
16	QPSK	36	20	22.76	22.74	22.85	22.81	22.74	23.5	1
16	QPSK	75	0	22.71	22.69	22.82	22.73	22.67	23.5	1
16	16QAM	1	0	22.81	22.75	22.85	22.85	22.80	23.5	1
16	16QAM	1	37	22.71	22.80	22.81	22.74	22.73	23.5	1
16	16QAM	1	74	22.89	22.83	22.98	22.91	22.82	23.5	1
16	16QAM	36	0	21.75	21.80	21.96	21.82	21		



Band 42 FCC Par27Q Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel				42190	42690	42990				
Frequency (MHz)				3473	3500	3543				
20	QPSK	1	0	23.40	23.35	23.30				
20	QPSK	1	49	23.36	23.41	23.30		25	0	
20	QPSK	1	99	23.35	23.38	23.28				
20	QPSK	50	0	22.30	22.41	22.31				
20	QPSK	50	24	22.26	22.38	22.36		24	1	
20	QPSK	100	0	22.24	22.28	22.18				
20	QPSK	100	0	22.30	22.36	22.31				
20	16QAM	1	0	22.27	22.31	22.17				
20	16QAM	1	49	22.18	22.28	22.18		24	1	
20	16QAM	1	99	22.13	22.24	22.20				
20	16QAM	50	0	21.28	21.37	21.26				
20	16QAM	50	24	21.22	21.28	21.21		23	2	
20	16QAM	50	50	21.22	21.28	21.20				
20	16QAM	100	0	21.22	21.28	21.18				
20	16QAM	100	0	21.14	21.22	21.15				
20	16QAM	1	49	21.88	21.16	21.11		23	2	
20	16QAM	1	99	21.10	21.15	21.10				
20	16QAM	50	0	20.26	20.37	20.22				
20	16QAM	50	24	20.16	20.27	20.24		22	3	
20	16QAM	50	50	20.27	20.31	20.16				
20	16QAM	100	0	20.17	20.23	20.19				
20	256QAM	1	0	18.18	18.27	18.22				
20	256QAM	1	49	18.20	18.23	18.21		20	5	
20	256QAM	1	99	18.21	18.26	18.17				
20	256QAM	50	0	18.20	18.26	18.14				
20	256QAM	50	24	18.11	18.21	18.20		20	5	
20	256QAM	50	50	18.19	18.24	18.12				
20	256QAM	100	0	18.23	18.27	18.13				
Channel				43165	43665	43915				
Frequency (MHz)				36123	37000	37423				
15	QPSK	1	0	23.23	23.33	23.20				
15	QPSK	1	37	23.31	23.26	23.18		25	0	
15	QPSK	1	74	23.28	23.29	23.18				
15	QPSK	36	0	22.17	22.29	22.26				
15	QPSK	36	20	22.11	22.22	22.23		24	1	
15	QPSK	75	0	22.22	22.32	22.23				
15	16QAM	1	0	22.23	22.20	22.07				
15	16QAM	1	37	22.14	22.24	22.13		24	1	
15	16QAM	1	74	22.00	22.10	22.13				
15	16QAM	36	0	21.17	21.33	21.23				
15	16QAM	36	20	21.05	21.11	21.10		23	2	
15	16QAM	36	39	21.08	21.19	21.15				
15	16QAM	75	0	21.21	21.18	21.10				
15	16QAM	75	0	21.05	21.11	21.10				
15	16QAM	1	37	21.10	21.13	21.07		23	2	
15	16QAM	1	74	21.04	21.16	21.10				
15	16QAM	36	0	20.15	20.20	20.15				
15	16QAM	36	20	20.05	20.15	20.19		22	3	
15	16QAM	36	39	20.17	20.28	20.24				
15	16QAM	75	0	20.13	20.15	20.04				
15	256QAM	1	0	18.13	18.24	18.08				
15	256QAM	1	37	18.16	18.24	18.15		20	5	
15	256QAM	1	74	18.18	18.20	18.02				
15	256QAM	36	0	18.09	18.26	18.21				
15	256QAM	36	20	18.01	18.09	18.08		20	5	
15	256QAM	36	39	18.07	18.16	18.10				
15	256QAM	75	0	18.16	18.16	18.00				
Channel				44165	44665	45000				
Frequency (MHz)				38123	39000	39450				
10	QPSK	1	0	23.40	23.40	23.30				
10	QPSK	1	25	23.26	23.33	23.21		25	0	
10	QPSK	1	49	23.25	23.28	23.22				
10	QPSK	12	0	22.15	22.26	22.22				
10	QPSK	25	12	22.11	22.27	22.26		24	1	
10	QPSK	25	25	22.17	22.24	22.10				
10	QPSK	1	0	22.22	22.22	22.20				
10	16QAM	1	0	22.15	22.22	22.08				
10	16QAM	1	25	22.06	22.16	22.06		24	1	
10	16QAM	1	49	22.08	22.18	22.12				
10	16QAM	25	0	21.16	21.30	21.12				
10	16QAM	25	12	21.12	21.27	21.14		23	2	
10	16QAM	25	25	21.17	21.23	21.13				
10	16QAM	50	0	21.18	21.25	21.07				
10	16QAM	1	0	21.04	21.11	21.00				
10	16QAM	1	25	21.09	21.14	21.03		23	2	
10	16QAM	1	49	21.02	21.11	21.02				
10	16QAM	25	0	20.15	20.28	20.13				
10	16QAM	25	12	20.02	20.19	20.11		22	3	
10	16QAM	25	25	20.12	20.23	20.07				
10	16QAM	50	0	20.03	20.17	20.05				
10	256QAM	1	0	18.03	18.12	18.08				
10	256QAM	1	25	18.09	18.26	18.06		20	5	
10	256QAM	1	49	18.14	18.19	18.06				
10	256QAM	25	0	18.14	18.25	18.05				
10	256QAM	25	12	18.00	18.11	18.05				
10	256QAM	25	25	18.16	18.14	18.01		20	5	
10	256QAM	50	0	18.14	18.12	18.07				
Channel				45115	45615	45915				
Frequency (MHz)				38123	39000	39450				
5	QPSK	1	0	23.37	23.38	23.32				
5	QPSK	1	12	23.02	23.33	23.24		25	0	
5	QPSK	1	24	23.27	23.30	23.15				
5	QPSK	12	0	22.25	22.24	22.20				
5	QPSK	12	7	22.18	22.24	22.24		24	1	
5	QPSK	12	13	22.18	22.28	22.12				
5	QPSK	1	0	22.21	22.24	22.24				
5	16QAM	1	0	22.23	22.18	22.07				
5	16QAM	1	12	22.09	22.16	22.04		24	1	
5	16QAM	1	24	22.05	22.16	22.11				
5	16QAM	12	0	21.24	21.28	21.19				
5	16QAM	12	7	21.15	21.17	21.14		23	2	
5	16QAM	12	13	21.18	21.24	21.11				
5	16QAM	25	0	21.16	21.25	21.15				
5	16QAM	1	0	21.11	21.14	21.08				
5	16QAM	1	12	21.08	21.12	21.00		23	2	
5	16QAM	1	24	21.07	21.03	21.06				
5	16QAM	12	0	20.12	20.23	20.11				
5	16QAM	12	7	20.02	20.18	20.10		22	3	
5	16QAM	12	13	20.12	20.19	20.09				
5	16QAM	25	0	20.06	20.15	20.07				
5	256QAM	1	0	18.06	18.23	18.18				
5	256QAM	1	12	18.12	18.29	18.08		20	5	
5	256QAM	1	24	18.06	18.16	18.03				
5	256QAM	12	0	18.11	18.21	18.10				
5	256QAM	12	7	18.00	18.13	18.00				
5	256QAM	12	13	18.15	18.17	18.02		20	5	
5	256QAM	25	0	18.08	18.14	18.01				

Band 48 FCC Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel				56590	56890	56150				
Frequency (MHz)				5660	5660	5660				
20	QPSK	1	0	23.54	23.43	23.43				
20	QPSK	1	49	23.40	23.49	23.42		25	0	
20	QPSK	1	99	23.48	23.69	23.44				
20	QPSK	50	0	22.30	22.51	22.47				
20	QPSK	50	24	22.38	22.42	22.34		24	1	
20	QPSK	100	0	22.24	22.40	22.36				
20	QPSK	100	0	22.40	22.40	22.38				
20	16QAM	1	0	22.36	22.47	22.38				
20	16QAM	1	49	22.27	22.40	22.32		24	1	
20	16QAM	1	99	22.21	22.32	22.19				
20	16QAM	50	0	21.26	21.37	21.42				
20	16QAM	50	24	21.30	21.37	21.28		23	2	
20	16QAM	50	50	21.36	21.40	21.26				
20	16QAM	100	0	21.20	21.29	21.26				
20	16QAM	100	0	21.20	21.25	21.15				
20	16QAM	1	49	21.20	21.31	21.25		23	2	
20	16QAM	1	99	21.15	21.23	21.00				
20	16QAM	50	0	20.38	20.50	20.37				
20	16QAM	50	24	20.23	20.36	20.27		22	3	
20	16QAM	50	50	20.38	20.45	20.33				
20	16QAM	100	0	20.28	20.38	20.24				
20	256QAM	1	0	18.20	18.32	18.22				
20	256QAM	1	49	18.26	18.47	18.44		20	5	
20	256QAM	1	99	18.57	18.42	18.36				
20	256QAM	50	0	18.21	18.29	18.26				
20	256QAM	50	24	18.21	18.30	18.23		20	5	
20	256QAM	50	50	18.25	18.32	18.17				
20	256QAM	100	0	18.34	18.44	18.31</				

GSM1900 Ant2 Default								
GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	31.00	1850.2	1880	1909.8	22.00
GSM 1 Tx slot	29.89	29.95	29.93	31.00	20.89	20.95	20.93	22.00
GPRS 1 Tx slot	29.92	30.01	29.95	31.00	20.92	21.01	20.95	22.00
GPRS 2 Tx slots	27.08	27.11	27.03	28.00	21.08	21.11	21.03	22.00
GPRS 3 Tx slots	25.21	25.34	25.26	26.20	20.95	21.08	21.00	21.94
GPRS 4 Tx slots	23.92	24.02	23.90	25.00	20.82	21.02	20.90	22.00
EDGE 1 Tx slot	26.15	26.26	26.18	27.00	17.15	17.26	17.18	18.00
EDGE 2 Tx slots	23.36	23.44	23.35	24.00	17.36	17.44	17.35	18.00
EDGE 3 Tx slots	21.53	21.56	21.50	22.20	17.27	17.30	17.24	17.94
EDGE 4 Tx slots	20.54	20.68	20.60	21.00	17.54	17.68	17.60	18.00

Band	WCDMA II Ant2 Default				Tune-up Limit (dBm)	WCDMA IV Ant2 Default			Tune-up Limit (dBm)
	9262	9400	9538	9662		9800	9938	1312	
TX Channel	9262	9400	9538	9662	9800	9938	1312	1413	1513
Rx Channel	9662	9800	9938	1312	1413	1513	1537	1638	1738
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.6	1752.6	23.47	23.56	23.53
3GPP Rel 99 AMR 12.2kbps	23.47	23.56	23.53	25.00	23.43	23.55	23.49	25.00	25.00
3GPP Rel 99 RMC 12.2kbps	23.50	23.61	23.56	25.00	23.50	23.57	23.52	25.00	25.00
3GPP Rel 6 HSDPA Subtest-1	22.48	22.69	22.63	24.00	22.82	22.58	22.59	24.00	24.00
3GPP Rel 6 HSDPA Subtest-2	22.54	22.53	22.56	24.00	22.57	22.60	22.55	24.00	24.00
3GPP Rel 6 HSDPA Subtest-3	22.09	22.11	22.02	23.50	22.07	22.16	22.02	23.50	23.50
3GPP Rel 6 HSDPA Subtest-4	22.00	22.02	22.00	23.50	21.94	22.01	22.03	23.50	23.50
3GPP Rel 8 DC-HSDPA Subtest-1	22.56	22.53	22.57	24.00	22.54	22.59	22.50	24.00	24.00
3GPP Rel 8 DC-HSDPA Subtest-2	22.48	22.55	22.46	24.00	22.47	22.55	22.43	24.00	24.00
3GPP Rel 8 DC-HSDPA Subtest-3	21.86	22.05	21.93	23.50	21.94	22.08	21.93	23.50	23.50
3GPP Rel 8 DC-HSDPA Subtest-4	21.90	22.02	21.96	23.50	21.82	21.96	21.93	23.50	23.50
3GPP Rel 6 HSUPA Subtest-1	22.34	22.47	22.30	24.00	22.41	22.49	22.50	24.00	24.00
3GPP Rel 6 HSUPA Subtest-2	20.56	20.65	20.56	22.00	20.56	20.64	20.57	22.00	22.00
3GPP Rel 6 HSUPA Subtest-3	21.62	21.71	21.68	23.00	21.82	21.63	21.60	23.00	23.00
3GPP Rel 6 HSUPA Subtest-4	20.46	20.50	20.51	22.00	20.46	20.59	20.42	22.00	22.00
3GPP Rel 6 HSUPA Subtest-5	22.39	22.60	22.42	24.00	22.40	22.59	22.45	24.00	24.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	20.07	20.14	20.08	21.50	20.11	20.21	20.06	21.50	21.50



Band 2 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Time-up limit (sec)	MFR (dB)		
Channel										
1860 1860 1900										
20	QPSK	1	0	23.54	23.60	23.47				
20	QPSK	1	49	23.40	23.47	23.45			25	0
20	QPSK	1	99	23.40	23.47	23.45				
20	QPSK	50	0	23.64	23.70	23.72				
20	QPSK	50	24	23.57	23.63	23.65			24	1
20	QPSK	50	50	23.52	23.66	23.59				
20	QPSK	100	0	23.62	23.75	23.71				
20	16QAM	100	0	23.31	23.31	23.31				
20	16QAM	1	49	22.87	22.73	22.81			24	1
20	16QAM	1	99	22.80	22.88	22.82				
20	16QAM	50	0	21.80	21.79	21.82				
20	16QAM	50	24	21.87	21.72	21.87			23	2
20	16QAM	50	50	21.87	21.74	21.81				
20	16QAM	100	0	21.85	21.79	21.81				
20	84QAM	1	0	21.81	21.84	21.84				
20	84QAM	1	49	21.78	21.88	21.78			23	2
20	84QAM	1	99	21.81	21.88	21.83				
20	84QAM	50	0	20.75	20.79	20.75				
20	84QAM	50	24	20.96	20.70	20.61			22	3
20	84QAM	50	50	20.99	20.69	20.65				
20	256QAM	100	0	20.99	20.69	20.65				
20	256QAM	1	49	18.58	18.72	18.58			20	5
20	256QAM	1	99	18.58	18.80	18.70				
20	256QAM	50	0	18.58	18.68	18.54				
20	256QAM	50	24	18.58	18.68	18.54			20	5
20	256QAM	50	50	18.50	18.60	18.45				
20	256QAM	100	0	18.50	18.60	18.45				
Channel										
1897.5 1890 1925.5										
15	QPSK	1	0	23.43	23.43	23.40				
15	QPSK	1	37	23.36	23.42	23.30			25	0
15	QPSK	1	74	23.30	23.42	23.30				
15	QPSK	36	0	23.28	23.28	23.28				
15	QPSK	36	29	22.48	22.48	22.48			24	1
15	QPSK	36	39	22.46	22.57	22.49				
15	16QAM	75	0	22.87	22.96	22.81				
15	16QAM	1	37	22.58	22.67	22.49			24	1
15	16QAM	1	74	22.80	22.89	22.72				
15	16QAM	36	0	21.97	21.98	21.48				
15	16QAM	36	29	21.46	21.59	21.59			23	2
15	84QAM	1	37	21.81	21.89	21.81				
15	84QAM	1	74	21.72	21.84	21.77			23	2
15	84QAM	36	0	20.71	20.64	20.61				
15	84QAM	36	29	20.48	20.68	20.47			22	3
15	84QAM	36	39	20.48	20.53	20.45				
15	84QAM	75	0	20.49	20.60	20.46				
15	256QAM	100	0	18.58	18.68	18.45				
15	256QAM	1	37	18.48	18.58	18.47			20	5
15	256QAM	1	74	18.58	18.70	18.58				
15	256QAM	36	0	18.58	18.68	18.45				
15	256QAM	36	29	18.52	18.64	18.40			20	5
15	256QAM	36	39	18.41	18.54	18.38				
15	256QAM	75	0	18.52	18.62	18.47				
Channel										
1890 1890 1920										
10	QPSK	1	0	23.43	23.43	23.40				
10	QPSK	1	25	23.34	23.41	23.35			25	0
10	QPSK	1	49	23.29	23.42	23.31				
10	QPSK	12	0	22.56	22.56	22.56				
10	QPSK	25	12	22.44	22.65	22.44			24	1
10	QPSK	25	25	22.48	22.53	22.47				
10	16QAM	75	0	22.87	22.96	22.81				
10	16QAM	1	25	22.84	22.77	22.77			24	1
10	16QAM	1	28	22.63	22.68	22.52				
10	16QAM	12	0	21.80	21.89	21.79				
10	16QAM	25	0	21.92	21.64	21.51				
10	16QAM	25	12	21.49	21.68	21.43			23	2
10	16QAM	25	25	21.60	21.68	21.60				
10	16QAM	50	0	21.55	21.63	21.51				
10	84QAM	1	0	21.69	21.87	21.81				
10	84QAM	1	25	21.76	21.85	21.73			23	2
10	84QAM	1	49	21.66	21.80	21.77				
10	84QAM	25	0	20.99	20.73	20.64				
10	84QAM	25	12	20.99	20.93	20.64			22	3
10	84QAM	25	25	20.53	20.63	20.46				
10	84QAM	50	0	20.46	20.55	20.45				
10	256QAM	100	0	18.58	18.68	18.57				
10	256QAM	1	28	18.50	18.64	18.63			20	5
10	256QAM	1	49	18.58	18.75	18.59				
10	256QAM	12	0	18.50	18.60	18.45				
10	256QAM	25	12	18.50	18.56	18.41			20	5
10	256QAM	25	25	18.46	18.50	18.41				
10	256QAM	50	0	18.55	18.56	18.49				
Channel										
1892.5 1890 1927.5										
5	QPSK	1	0	23.41	23.43	23.43				
5	QPSK	1	12	23.36	23.39	23.32			25	0
5	QPSK	1	24	23.32	23.35	23.32				
5	QPSK	12	0	22.56	22.56	22.56				
5	QPSK	12	7	22.54	22.54	22.44			24	1
5	QPSK	12	13	22.42	22.54	22.54				
5	QPSK	25	0	22.48	22.48	22.47				
5	16QAM	1	0	22.83	22.89	22.84				
5	16QAM	1	12	22.99	22.64	22.56			24	1
5	16QAM	1	24	22.69	22.77	22.64				
5	16QAM	12	0	21.54	21.63	21.68				
5	16QAM	12	7	21.46	21.60	21.45			23	2
5	16QAM	12	13	21.57	21.68	21.60				
5	16QAM	25	0	21.53	21.64	21.62				
5	84QAM	1	0	21.66	21.74	21.75				
5	84QAM	1	12	21.71	21.79	21.79			23	2
5	84QAM	1	24	21.74	21.82	21.80				
5	84QAM	12	0	20.61	20.74	20.69				
5	84QAM	12	7	20.51	20.62	20.43			22	3
5	84QAM	12	13	20.63	20.54	20.43				
5	84QAM	25	0	20.96	20.97	20.41				
5	256QAM	100	0	18.51	18.59	18.38				
5	256QAM	1	12	18.50	18.59	18.48			20	5
5	256QAM	1	24	18.59	18.73	18.55				
5	256QAM	12	0	18.54	18.70	18.64				
5	256QAM	12	7	18.54	18.53	18.48			20	5
5	256QAM	12	13	18.38	18.54	18.52				
5	256QAM	25	0	18.47	18.56	18.51				
Channel										
1861.6 1860 1918.6										
3	QPSK	1	0	23.47	23.55	23.35				
3	QPSK	1	8	23.40	23.39	23.28			25	0
3	QPSK	1	14	23.34	23.37	23.33				
3	QPSK	8	0	22.57	22.62	22.68				
3	QPSK	8	4	22.44	22.60	22.49			24	1
3	QPSK	8	7	22.37	22.59	22.53				
3	QPSK	15	0	22.59	22.69	22.64				
3	16QAM	1	0	22.83	22.88	22.78				
3	16QAM	1	8	22.63	22.61	22.46			24	1
3	16QAM	1	14	22.73	22.78	22.72				
3	16QAM	8	0	21.46	21.68	21.49				
3	16QAM	8	4	21.42	21.58	21.47			23	2
3	16QAM	8	7	21.61	21.64	21.68				
3	16QAM	15	0	21.52	21.66	21.56				
3	16QAM	1	0	21.75	21.82	21.78				
3	84QAM	1	8	21.69	21.74	21.73			23	2
3	84QAM	1	14	21.72	21.84	21.71				
3	84QAM	8	0	20.64	20.67	20.71				
3	84QAM	8	4	20.47	20.66	20.48			22	3
3	84QAM	8	7	20.63	20.6					



Band 25 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Turn-up (min)	MPR (dB)		
Channel										
	Frequency (MHz)			1860	1880	1900				
20	QPSK	1	0	23.53	23.60	23.60	25	0		
20	QPSK	1	49	23.52	23.61	23.68				
20	QPSK	1	99	23.45	23.51	23.46				
20	QPSK	50	0	22.59	22.73	22.88				
20	QPSK	50	24	22.57	22.64	22.84				
20	QPSK	50	50	22.84	22.70	22.84	24	1		
20	QPSK	100	0	22.56	22.67	22.56				
20	16QAM	1	0	22.59	22.59	22.59				
20	16QAM	1	49	22.47	22.59	22.50	24	1		
20	16QAM	1	99	22.59	22.63	22.57				
20	16QAM	50	0	21.70	21.80	21.77				
20	16QAM	50	24	21.56	21.80	21.54				
20	16QAM	50	50	21.86	21.73	21.87				
20	16QAM	100	0	21.82	21.89	21.89				
20	64QAM	1	0	21.79	21.84	21.78				
20	64QAM	1	49	21.84	21.76	21.70				
20	64QAM	1	99	21.84	21.86	21.80				
20	64QAM	50	0	20.55	20.60	20.57				
20	64QAM	50	24	20.57	20.56	20.58				
20	64QAM	50	50	20.51	20.51	20.57				
20	64QAM	100	0	20.56	20.58	20.58				
20	256QAM	1	0	18.73	18.86	18.71				
20	256QAM	1	49	18.96	18.73	18.59				
20	256QAM	1	99	18.71	18.75	18.66				
20	256QAM	50	0	18.54	18.65	18.65				
20	256QAM	50	24	18.96	18.60	18.57				
20	256QAM	50	50	18.60	18.68	18.61				
20	256QAM	100	0	18.63	18.60	18.62				
Channel										
	Frequency (MHz)			1875	1880	1907.5	Turn-up (min)	MPR (dB)		
15	QPSK	1	0	23.48	23.61	23.58	25	0		
15	QPSK	1	37	23.41	23.50	23.61				
15	QPSK	1	74	23.35	23.46	23.39				
15	QPSK	36	0	22.48	22.70	22.82				
15	QPSK	36	20	22.45	22.50	22.59				
15	QPSK	36	39	22.59	22.62	22.67	24	1		
15	16QAM	1	0	22.36	22.52	22.48				
15	16QAM	1	37	22.41	22.49	22.42	24	1		
15	16QAM	1	74	22.59	22.62	22.51				
15	16QAM	36	0	21.82	21.78	21.87				
15	16QAM	36	20	21.44	21.53	21.46				
15	16QAM	36	39	21.57	21.59	21.57				
15	64QAM	1	0	21.54	21.56	21.48				
15	64QAM	1	37	21.71	21.73	21.73				
15	64QAM	36	0	20.44	20.55	20.46				
15	64QAM	36	20	20.49	20.49	20.43				
15	64QAM	36	39	20.47	20.51	20.59				
15	64QAM	75	0	20.43	20.61	20.43				
15	256QAM	1	0	18.64	18.73	18.67				
15	256QAM	1	37	18.54	18.65	18.45				
15	256QAM	1	74	18.83	18.70	18.52				
15	256QAM	36	0	18.53	18.53	18.58				
15	256QAM	36	20	18.51	18.50	18.47				
15	256QAM	36	39	18.48	18.53	18.53				
15	256QAM	75	0	18.56	18.53	18.42				
Channel										
	Frequency (MHz)			1895	1890	1910	Turn-up (min)	MPR (dB)		
10	QPSK	1	0	23.43	23.35	23.47	25	0		
10	QPSK	1	25	23.45	23.57	23.47				
10	QPSK	1	49	23.37	23.45	23.38				
10	QPSK	25	0	22.47	22.47	22.48				
10	QPSK	25	12	22.54	22.61	22.58				
10	QPSK	25	25	22.50	22.66	22.63	24	1		
10	16QAM	1	0	22.38	22.52	22.48				
10	16QAM	1	25	22.33	22.56	22.49	24	1		
10	16QAM	1	49	22.53	22.56	22.51				
10	16QAM	25	0	21.58	21.78	21.83				
10	16QAM	25	12	21.45	21.67	21.51				
10	16QAM	25	25	21.60	21.48	21.54				
10	64QAM	1	0	21.54	21.50	21.54				
10	64QAM	1	25	21.87	21.73	21.70				
10	64QAM	1	49	21.50	21.48	21.63				
10	64QAM	1	49	21.81	21.83	21.72				
10	64QAM	25	0	20.47	20.59	20.46				
10	64QAM	25	12	20.45	20.45	20.48				
10	64QAM	25	25	20.55	20.60	20.61				
10	64QAM	50	0	20.41	20.63	20.46				
10	256QAM	1	0	18.65	18.73	18.58				
10	256QAM	1	25	18.63	18.64	18.51				
10	256QAM	1	49	18.67	18.62	18.51				
10	256QAM	25	0	18.51	18.50	18.57				
10	256QAM	25	12	18.45	18.60	18.50				
10	256QAM	25	25	18.50	18.50	18.57				
10	256QAM	50	0	18.49	18.60	18.48				
Channel										
	Frequency (MHz)			1895	1890	1912.5	Turn-up (min)	MPR (dB)		
5	QPSK	1	0	23.43	23.35	23.41	25	0		
5	QPSK	1	12	23.45	23.53	23.50				
5	QPSK	1	24	23.33	23.39	23.41				
5	QPSK	12	0	22.50	22.54	22.62				
5	QPSK	12	7	22.43	22.52	22.58				
5	QPSK	12	13	22.57	22.64	22.61	24	1		
5	QPSK	25	0	22.48	22.54	22.50				
5	16QAM	1	0	22.48	22.53	22.51				
5	16QAM	1	12	22.35	22.47	22.38	24	1		
5	16QAM	1	24	22.50	22.56	22.51				
5	16QAM	12	0	21.60	21.73	21.82				
5	16QAM	12	7	21.41	21.67	21.50				
5	16QAM	12	13	21.54	21.62	21.62				
5	64QAM	1	0	21.47	21.54	21.49				
5	64QAM	1	12	21.77	21.80	21.74				
5	64QAM	12	0	20.52	20.62	20.48				
5	64QAM	12	7	20.50	20.50	20.54				
5	64QAM	12	13	20.56	20.67	20.55				
5	64QAM	25	0	20.51	20.56	20.49				
5	256QAM	1	0	18.60	18.73	18.60				
5	256QAM	1	12	18.58	18.63	18.48				
5	256QAM	1	24	18.60	18.66	18.57				
5	256QAM	12	0	18.54	18.58	18.58				
5	256QAM	12	7	18.41	18.62	18.50				
5	256QAM	12	13	18.50	18.60	18.50				
5	256QAM	25	0	18.55	18.50	18.50				
Channel										
	Frequency (MHz)			1895	1890	1907.5	Turn-up (min)	MPR (dB)		
3	QPSK	1	0	23.43	23.37	23.41	25	0		
3	QPSK	1	8	23.38	23.51	23.40				
3	QPSK	1	14	23.32	23.41	23.33				
3	QPSK	8	0	22.46	22.49	22.64				
3	QPSK	8	4	22.52	22.59	22.86				
3	QPSK	8	7	22.59	22.60	22.56				
3	QPSK	15	0	22.53	22.59	22.51				
3	16QAM	1	0	22.38	22.50	22.43				
3	16QAM	1	8	22.33	22.45	22.46	24	1		
3	16QAM	1	15	22.48	22.59	22.49				
3	16QAM	8	0	21.62	21.74	21.71				
3	16QAM	8	4	21.41	21.56	21.51				
3	16QAM	8	7	21.62	21.58	21.61				
3	64QAM	1	0	21.50	21.60	21.63				
3	64QAM	1	14	21.78	21.88	21.76				
3	64QAM	8	0	20.47	20.50	20.46				
3	64QAM	8	4	20.50	20.60	20.45				
3	64QAM	8	7	20.49	20.56	20.57				
3	256QAM	1	0	18.63	18.78	18.66				



Band 38 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	25.18	25.22	25.23	25.5	0		
20	QPSK	1	49	25.08	25.18	25.09				
20	QPSK	50	0	25.18	25.22	25.23				
20	QPSK	50	24	24.17	24.27	24.21	24.5	1		
20	QPSK	100	0	24.13	24.23	24.17				
20	16QAM	1	0	23.16	23.23	23.08	24.5	1		
20	16QAM	1	49	23.09	23.14	23.00				
20	16QAM	1	99	23.02	23.17	23.09				
20	16QAM	50	0	23.19	23.27	23.22				
20	16QAM	50	24	23.17	23.22	23.11	23.5	2		
20	16QAM	100	0	23.26	23.31	23.27				
20	16QAM	100	0	22.24	22.30	22.24				
20	16QAM	1	49	22.81	22.81	22.84	23.5	2		
20	16QAM	1	99	22.71	22.85	22.78				
20	16QAM	50	0	22.22	22.27	22.21				
20	16QAM	50	24	22.28	22.22	22.28				
20	16QAM	50	50	22.29	22.27	22.19	22.5	3		
20	16QAM	100	0	22.16	22.22	22.19				
20	25QAM	1	0	20.26	20.30	20.24	20.5	5		
20	25QAM	1	49	20.16	20.21	20.13				
20	25QAM	1	99	20.18	20.24	20.12				
20	25QAM	50	0	20.14	20.20	20.16				
20	25QAM	50	24	20.03	20.16	20.11	20.5	5		
20	25QAM	50	50	20.08	20.20	20.11				
20	25QAM	100	0	20.09	20.13	20.08				
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.23	23.22	23.17	23.5	0		
15	QPSK	1	37	23.05	23.11	24.85				
15	QPSK	1	74	24.98	24.84	24.95				
15	QPSK	36	0	24.15	24.15	24.15	24.5	1		
15	QPSK	36	20	24.04	24.20	24.11				
15	QPSK	36	39	24.04	24.04	24.04				
15	QPSK	75	0	24.08	24.09	24.13				
15	16QAM	1	0	23.11	23.15	22.93	24.5	1		
15	16QAM	1	37	23.09	23.06	22.99				
15	16QAM	1	74	22.92	23.06	22.99				
15	16QAM	36	0	23.15	23.17	23.14	23.5	2		
15	16QAM	36	20	23.03	23.12	23.07				
15	16QAM	36	39	23.18	23.18	23.22				
15	16QAM	75	0	23.14	23.15	23.06				
15	16QAM	1	0	22.71	22.79	22.78	23.5	2		
15	16QAM	1	37	22.72	22.82	22.78				
15	16QAM	1	74	22.89	22.76	22.96				
15	16QAM	36	0	23.11	23.17	23.13	22.5	3		
15	16QAM	36	20	21.94	22.14	22.09				
15	16QAM	36	39	22.13	22.13	22.13				
15	16QAM	75	0	23.05	23.11	22.90				
15	25QAM	1	0	20.21	20.22	20.12	20.5	5		
15	25QAM	1	37	20.09	20.12	20.03				
15	25QAM	1	74	20.07	20.15	20.09				
15	25QAM	36	0	20.04	20.19	20.11				
15	25QAM	36	20	19.92	20.08	20.05	20.5	5		
15	25QAM	36	39	19.88	20.12	20.03				
15	25QAM	75	0	20.03	20.07	19.98				
Channel										
Frequency (MHz)										
10	QPSK	1	0	25.06	25.12	25.13	25.5	0		
10	QPSK	1	25	25.01	25.14	25.05				
10	QPSK	1	49	24.95	25.12	25.01				
10	QPSK	25	0	24.15	24.22	24.18	24.5	1		
10	QPSK	25	12	24.08	24.21	24.16				
10	QPSK	25	25	24.01	24.05	24.02				
10	16QAM	1	0	23.09	23.14	23.04	24.5	1		
10	16QAM	1	25	22.89	23.07	22.89				
10	16QAM	1	49	22.92	23.08	23.04				
10	16QAM	25	0	23.09	23.13	23.13	23.5	2		
10	16QAM	25	12	23.08	23.11	23.07				
10	16QAM	25	25	23.15	23.25	23.16				
10	16QAM	50	0	23.14	23.22	23.28				
10	16QAM	50	0	22.78	22.83	22.71	23.5	2		
10	16QAM	1	25	22.77	22.78	22.76				
10	16QAM	1	49	22.81	22.76	22.89				
10	16QAM	25	0	22.12	22.18	22.12	22.5	3		
10	16QAM	25	12	22.02	22.13	21.96				
10	16QAM	25	25	22.11	22.17	22.05				
10	16QAM	50	0	22.24	22.14	22.07				
10	25QAM	1	0	20.20	20.18	20.11	20.5	5		
10	25QAM	1	25	20.11	20.13	20.01				
10	25QAM	1	49	20.14	20.15	20.03				
10	25QAM	25	0	20.04	20.17	20.10	20.5	5		
10	25QAM	25	12	19.91	20.04	19.97				
10	25QAM	25	25	19.93	20.06	20.00				
10	25QAM	50	0	19.98	20.09	19.91				
Channel										
Frequency (MHz)										
5	QPSK	1	0	25.05	25.19	25.13	25.5	0		
5	QPSK	1	19	24.99	25.14	24.97				
5	QPSK	1	24	24.99	25.00	25.04				
5	QPSK	12	0	24.19	24.26	24.14	24.5	1		
5	QPSK	12	7	24.04	24.19	24.11				
5	QPSK	12	19	24.07	24.08	24.09				
5	QPSK	25	0	23.09	23.15	23.03	24.5	1		
5	QPSK	25	0	23.10	23.12	23.00				
5	16QAM	1	12	22.80	23.09	22.88	24.5	1		
5	16QAM	1	24	23.04	23.10	22.97				
5	16QAM	12	0	23.12	23.17	23.12	23.5	2		
5	16QAM	12	7	23.03	23.18	23.06				
5	16QAM	12	13	23.15	23.20	23.00				
5	16QAM	25	0	23.15	23.12	23.04	23.5	2		
5	16QAM	1	0	22.70	22.78	22.73	23.5	2		
5	16QAM	1	12	22.73	22.80	22.76				
5	16QAM	1	24	22.86	22.82	22.70				
5	16QAM	12	0	22.10	22.21	22.14	22.5	3		
5	16QAM	12	7	22.00	22.15	22.00				
5	16QAM	12	13	22.18	22.18	22.06				
5	16QAM	25	0	22.06	22.16	22.06				
5	25QAM	1	0	20.17	20.15	20.15	20.5	5		
5	25QAM	1	12	20.16	20.16	20.03				
5	25QAM	1	24	20.10	20.11	20.01				
5	25QAM	12	0	20.00	20.11	20.09				
5	25QAM	12	7	19.92	20.03	19.97	20.5	5		
5	25QAM	12	13	20.01	20.16	20.07				
5	25QAM	25	0	19.98	20.05	19.95				

Band 41 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Power High Mod Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel										
Frequency (MHz)										
20	QPSK	1	0	25.18	25.23	25.23	25.5	0		
20	QPSK	1	49	25.04	25.20	25.24	25.12			
20	QPSK	50	0	25.18	25.23	25.23				
20	QPSK	50	24	24.33	24.41	24.40	24.30	24.5	1	
20	QPSK	50	24	24.33	24.27	24.43	24.38	24.30		
20	QPSK	100	0	24.19	24.25	24.31	24.24	24.19		
20	16QAM	1	0	23.18	23.27	23.34	23.22	23.15	24.5	1
20	16QAM	1	49	23.09	23.08	23.20	23.09	23.11		
20	16QAM	1	99	23.14	23.13	23.33	23.25	23.15		
20	16QAM	50	0	23.07	23.36	23.40	23.32	23.33	23.5	2
20	16QAM	50	24	23.02	23.31	23.38	23.17	23.19		
20	16QAM	50	50	23.29	23.36	23.38	23.34	23.28		
20	16QAM	100	0	22.24	22.26	22.27	22.25	22.23		
20	16QAM	100	0	22.35	22.30	22.03	22.01	22.03		
20	16QAM	1	49	22.84	22.87	23.08	22.92			



Band 4 Main PA Ant3										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Time-up (min)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.52	22.61	22.67				
20	QPSK	1	49	22.52	22.61	22.67			24.5	0
20	QPSK	1	99	22.52	22.61	22.67				
20	QPSK	50	0	21.50	21.55	21.51				
20	QPSK	50	24	21.51	21.51	21.51			23.5	1
20	QPSK	50	50	21.53	21.51	21.50				
20	QPSK	100	0	21.50	21.57	21.52				
20	16QAM	1	0	21.51	21.61	21.58				
20	16QAM	1	49	21.53	21.55	21.59			23.5	1
20	16QAM	1	99	21.54	21.51	21.53				
20	16QAM	50	0	20.74	20.75	20.75				
20	16QAM	50	24	20.69	20.73	20.67			22.5	2
20	16QAM	50	50	20.73	20.77	20.73				
20	16QAM	100	0	20.68	20.74	20.63				
20	64QAM	1	0	20.54	20.55	20.62				
20	64QAM	1	49	20.57	20.59	20.50			22.5	2
20	64QAM	50	0	20.59	20.51	20.51				
20	64QAM	50	24	19.55	19.57	19.57			21.5	3
20	64QAM	50	50	19.52	19.52	19.59				
20	256QAM	1	0	17.55	17.59	17.64				
20	256QAM	1	49	17.55	17.51	17.52			19.5	5
20	256QAM	50	0	17.56	17.56	17.56				
20	256QAM	50	24	17.54	17.68	17.58				
20	256QAM	50	50	17.50	17.72	17.67			19.5	5
20	256QAM	100	0	17.41	17.68	17.68				
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.57	22.56	22.54				
15	QPSK	1	37	22.54	22.54	22.54			24.5	0
15	QPSK	1	74	22.54	22.56	22.54				
15	QPSK	36	0	21.53	21.58	21.62				
15	QPSK	36	25	21.58	21.51	21.64			23.5	1
15	QPSK	36	39	21.50	21.59	21.54				
15	QPSK	75	0	21.52	21.59	21.56				
15	16QAM	1	0	21.60	21.65	21.65				
15	16QAM	1	37	21.58	21.57	21.73			23.5	1
15	16QAM	1	74	21.56	21.61	21.61				
15	16QAM	36	0	20.79	20.84	20.72				
15	16QAM	36	25	20.75	20.80	20.70			22.5	2
15	16QAM	36	39	20.82	20.85	20.81				
15	16QAM	75	0	20.84	20.84	20.79				
15	64QAM	1	0	20.58	20.58	20.50				
15	64QAM	1	37	20.59	20.59	20.51			22.5	2
15	64QAM	1	74	20.54	20.55	20.50				
15	64QAM	36	0	19.59	19.63	19.68				
15	64QAM	36	25	19.63	19.58	19.64			21.5	3
15	64QAM	36	39	19.57	19.63	19.57				
15	64QAM	75	0	19.55	19.70	19.62				
15	256QAM	1	0	17.55	17.55	17.55				
15	256QAM	1	37	17.50	17.51	17.51			19.5	5
15	256QAM	1	74	17.64	17.53	17.52				
15	256QAM	36	0	17.76	17.61	17.61				
15	256QAM	36	25	17.52	17.72	17.65			19.5	5
15	256QAM	36	39	17.74	17.76	17.69				
15	256QAM	75	0	17.61	17.60	17.60				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.43	22.43	22.43				
10	QPSK	1	25	22.42	22.47	22.45			24	0
10	QPSK	1	49	22.30	22.39	22.28				
10	QPSK	12	0	21.76	21.87	21.81				
10	QPSK	12	12	21.82	21.82	21.84			23	1
10	QPSK	25	0	21.66	21.73	21.63				
10	QPSK	25	12	21.62	21.82	21.84				
10	QPSK	25	25	21.71	21.74	21.74			23	1
10	16QAM	1	0	21.74	21.71	21.72				
10	16QAM	1	25	21.52	21.68	21.58			23	1
10	16QAM	1	49	21.61	21.62	21.62				
10	16QAM	12	0	20.58	20.71	20.55				
10	16QAM	12	12	20.47	20.63	20.48			22	2
10	16QAM	12	25	20.56	20.69	20.57				
10	16QAM	25	0	20.49	20.63	20.50				
10	64QAM	1	0	20.39	20.47	20.37				
10	64QAM	1	25	20.31	20.43	20.27			22	2
10	64QAM	1	49	20.25	20.42	20.32				
10	64QAM	12	0	19.65	19.65	19.59				
10	64QAM	12	12	19.61	19.62	19.57			21	3
10	64QAM	12	25	19.48	19.62	19.50				
10	64QAM	25	0	19.40	19.55	19.43				
10	64QAM	25	12	19.71	19.84	19.72				
10	256QAM	1	0	17.72	17.82	17.68			19	5
10	256QAM	1	49	17.63	17.86	17.65				
10	256QAM	12	0	17.70	17.75	17.64				
10	256QAM	12	12	17.43	17.59	17.58			19	5
10	256QAM	25	0	17.68	17.70	17.64				
10	256QAM	25	0	17.57	17.61	17.58				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.43	22.43	22.43				
5	QPSK	1	12	22.40	22.44	22.43			24	0
5	QPSK	1	24	22.34	22.45	22.28				
5	QPSK	12	0	21.76	21.87	21.81				
5	QPSK	12	7	21.72	21.83	21.63			23	1
5	QPSK	12	13	21.68	21.73	21.61				
5	QPSK	25	0	21.74	21.83	21.79				
5	16QAM	1	0	21.84	21.77	21.64				
5	16QAM	1	12	21.48	21.66	21.62			23	1
5	16QAM	1	24	21.43	21.60	21.58				
5	16QAM	12	0	20.45	20.76	20.48				
5	16QAM	12	7	20.45	20.61	20.51			22	2
5	16QAM	12	13	20.63	20.71	20.65				
5	16QAM	25	0	20.48	20.58	20.51				
5	64QAM	1	0	20.32	20.41	20.41				
5	64QAM	1	12	20.33	20.44	20.27			22	2
5	64QAM	1	24	20.31	20.39	20.28				
5	64QAM	12	0	19.68	19.74	19.57				
5	64QAM	12	7	19.48	19.60	19.54			21	3
5	64QAM	12	13	19.56	19.63	19.63				
5	64QAM	25	0	19.44	19.61	19.46				
5	64QAM	25	0	17.74	17.78	17.75				
5	256QAM	1	0	17.75	17.75	17.63			19	5
5	256QAM	1	24	17.56	17.72	17.70				
5	256QAM	12	0	17.69	17.66	17.62				
5	256QAM	12	7	17.49	17.57	17.54			19	5
5	256QAM	12	13	17.55	17.73	17.69				
5	256QAM	25	0	17.53	17.70	17.63				
Channel										
Frequency (MHz)										
3	QPSK	1	0	22.54	22.57	22.51				
3	QPSK	1	8	22.57	22.57	22.56			24.5	0
3	QPSK	1	14	22.54	22.54	22.55				
3	QPSK	8	0	21.56	21.61	21.67				
3	QPSK	8	4	21.56	21.56	21.63			23.5	1
3	QPSK	8	7	21.58	21.63	21.53				
3	QPSK	15	0	21.59	21.65	21.65				
3	16QAM	1	0	21.58	21.74	21.58				
3	16QAM	1	8	21.58	21.54	21.66			23.5	1
3	16QAM	1	14	21.57	21.68	21.63				
3	16QAM	8	0	20.81	20.94	20.70				
3	16QAM	8	4	20.77	20.78	20.78			22.5	2
3	16QAM	8	7	20.67	20.68	20.72				
3	16QAM	15	0	20.73	20.73	20.64				
3	64QAM	1	0	20.64	20.66	20.74				
3	64QAM	1	8	20.59	20.55	20.58			22.5	2
3	64QAM	1	14	20.69	20.64	20.53				



Band 38 Main PA Ant3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	22.94	23.12	23.30			
20	QPSK	1	49	22.80	23.04	23.24		24.5	0
20	QPSK	50	24	22.80	23.04	23.24			
20	QPSK	50	24	22.28	22.19	22.18		23.5	1
20	QPSK	100	0	22.07	22.17	22.07			
20	16QAM	1	0	22.94	23.10	23.02		23.5	1
20	16QAM	1	49	21.95	21.94	21.99			
20	16QAM	1	99	21.95	22.00	21.95			
20	16QAM	50	24	21.08	21.15	21.08		22.5	2
20	16QAM	50	24	20.94	21.07	20.98			
20	16QAM	50	50	21.00	21.11	21.07			
20	16QAM	100	0	20.99	21.05	20.94			
20	16QAM	1	49	20.70	20.77	20.88		22.5	2
20	16QAM	1	99	20.61	20.73	20.86			
20	16QAM	50	0	20.24	20.17	20.25			
20	16QAM	50	24	19.95	20.08	20.02		21.5	3
20	16QAM	50	50	20.10	20.13	20.04			
20	16QAM	100	0	19.94	20.05	20.02			
20	25QAM	1	0	17.84	17.87	17.83			
20	25QAM	1	49	17.84	17.84	17.79		19.5	5
20	25QAM	1	99	17.79	17.89	17.76			
20	25QAM	50	0	17.88	18.16	18.03			
20	25QAM	50	24	17.08	18.08	17.96		19.5	5
20	25QAM	50	50	18.09	18.14	18.09			
20	25QAM	100	0	17.76	17.84	17.84			
Channel									
Frequency (MHz)									
15	QPSK	1	0	22.72	22.95	23.23			
15	QPSK	1	37	22.82	22.80	22.86		24.5	0
15	QPSK	1	74	22.86	22.85	22.77			
15	QPSK	36	20	21.94	22.26	22.12		23.5	1
15	QPSK	36	20	21.92	22.19	22.08			
15	QPSK	75	0	22.00	22.08	21.94			
15	16QAM	1	0	22.21	22.26	21.88		23.5	1
15	16QAM	1	37	21.88	21.92	21.82			
15	16QAM	1	74	21.88	21.90	21.82			
15	16QAM	36	0	20.95	21.08	20.94		22.5	2
15	16QAM	36	20	20.83	20.92	20.88			
15	16QAM	36	20	20.71	20.75	20.81			
15	16QAM	36	59	20.91	21.06	20.96		22.5	2
15	16QAM	75	0	20.83	20.92	20.88			
15	16QAM	75	0	20.73	20.75	20.81			
15	16QAM	1	37	20.58	20.68	20.80		22.5	2
15	16QAM	1	74	20.61	20.60	20.58			
15	16QAM	36	0	19.96	20.02	19.92		21.5	3
15	16QAM	36	20	19.87	20.04	19.93			
15	16QAM	36	20	19.88	20.06	19.98			
15	16QAM	75	0	19.94	19.94	19.90			
15	25QAM	1	0	17.73	17.82	17.84		19.5	5
15	25QAM	1	37	17.89	17.81	17.85			
15	25QAM	36	0	18.02	18.06	17.93		19.5	5
15	25QAM	36	20	17.90	17.99	17.92			
15	25QAM	36	39	18.04	18.01	18.02			
15	25QAM	75	0	17.82	17.96	17.82			
Channel									
Frequency (MHz)									
10	QPSK	1	0	22.28	22.19	22.18			
10	QPSK	1	25	22.27	22.96	22.82		24.5	0
10	QPSK	1	49	22.82	22.81	22.74			
10	QPSK	25	12	22.04	22.12	22.08		23.5	1
10	QPSK	25	12	22.01	22.07	22.00			
10	QPSK	25	25	22.96	22.90	22.90			
10	16QAM	1	0	21.96	22.05	21.96		23.5	1
10	16QAM	1	25	21.98	21.98	21.88			
10	16QAM	1	49	21.87	21.93	21.89			
10	16QAM	25	0	20.95	21.08	20.96		22.5	2
10	16QAM	25	12	20.87	20.93	20.89			
10	16QAM	25	12	20.88	20.95	20.90			
10	16QAM	25	25	20.98	20.73	20.88		22.5	2
10	16QAM	1	0	20.68	20.70	20.68			
10	16QAM	1	25	20.65	20.70	20.59		22.5	2
10	16QAM	1	49	20.57	20.62	20.62			
10	16QAM	25	0	19.97	20.14	19.97		21.5	3
10	16QAM	25	12	19.91	20.00	19.98			
10	16QAM	25	25	20.26	20.07	19.95			
10	16QAM	50	0	19.81	19.91	19.92			
10	25QAM	1	0	17.78	17.85	17.81		19.5	5
10	25QAM	1	25	17.72	17.82	17.73			
10	25QAM	1	49	17.76	17.82	17.83			
10	25QAM	25	0	17.99	18.05	17.93		19.5	5
10	25QAM	25	12	17.98	18.00	17.96			
10	25QAM	25	25	17.97	18.02	17.99			
10	25QAM	50	0	17.88	17.87	17.82			
Channel									
Frequency (MHz)									
5	QPSK	1	0	22.90	23.01	22.99			
5	QPSK	1	19	22.78	22.92	22.87		24.5	0
5	QPSK	1	24	22.78	22.84	22.82			
5	QPSK	12	0	22.02	22.14	22.09		23.5	1
5	QPSK	12	7	22.03	22.12	22.09			
5	QPSK	12	19	22.00	22.02	21.96			
5	QPSK	25	0	21.97	22.05	21.96			
5	QPSK	25	0	21.93	22.04	21.89			
5	16QAM	1	12	21.84	21.95	21.90		23.5	1
5	16QAM	1	24	21.84	21.86	21.80			
5	16QAM	12	0	21.03	21.11	20.97		22.5	2
5	16QAM	12	7	20.87	20.99	20.94			
5	16QAM	12	13	20.65	20.97	20.93			
5	16QAM	25	0	20.84	20.91	20.80		22.5	2
5	16QAM	1	0	20.69	20.74	20.68			
5	16QAM	1	12	20.57	20.64	20.58			
5	16QAM	1	24	20.54	20.70	20.55			
5	16QAM	12	0	19.96	20.09	19.88		21.5	3
5	16QAM	12	7	19.81	19.95	19.88			
5	16QAM	12	13	20.07	20.10	19.91			
5	16QAM	25	0	19.93	19.94	19.92			
5	25QAM	1	0	17.80	17.88	17.79		19.5	5
5	25QAM	1	12	17.79	17.81	17.75			
5	25QAM	1	24	17.74	17.82	17.83			
5	25QAM	12	0	18.00	18.14	17.92		19.5	5
5	25QAM	12	7	17.94	18.02	17.86			
5	25QAM	12	13	17.97	18.11	18.03			
5	25QAM	25	0	17.82	17.94	17.86			

Band 41 Main PA Ant3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	23.12	23.30	23.50			
20	QPSK	1	49	23.03	23.28	23.12		24.5	0
20	QPSK	1	99	23.01	23.02	23.07			
20	QPSK	50	0	22.30	22.20	22.41		23.5	1
20	QPSK	50	24	22.63	22.15	22.30			
20	QPSK	100	0	22.17	22.12	22.08			
20	QPSK	100	0	22.18	22.15	22.30			
20	16QAM	1	0	22.11	22.17	22.17		23.5	1
20	16QAM	1	49	22.14	22.05	22.19			
20	16QAM	1	99	22.92	22.08	22.14			
20	16QAM	50	0	21.17	21.26	21.26		22.5	2
20	16QAM	50	24	21.07	21.09	21.18			
20	16QAM	50	50	21.17	21.11	21.27			
20	16QAM	100	0	21.08	21.09	21.05			
20	16QAM	1	49	20.85	20.85	20.87		22.5	2
20	16QAM	1	99	20.71	20.78	20.83			
20	16QAM	50	0	20.19	20.63	20.76		21.5	3
20	16QAM	50	24	20.08	20.08	20.21			
20	16QAM	50	50	20.16	20.27	20.26			
20	16QAM	100	0	20.07	20.03	20.11			
20	25QAM	1	0	18.06	17.94	18.09		19.5	5
20	25QAM	1	49	17.80	18.00	17.87			
20	25QAM	1	99	17.89	17.82	18.02			
20	25QAM	50	0	18.08	18.14	18.00		19.5	5
20	25QAM	50	24	18.11	18.06	18.20			
20	25QAM	50	50	18.12	18.17	18.21			
20	25QAM	100	0	18.05	18.10	18.04			
Channel									
Frequency (MHz)									
16	QPSK	1	0	22.93	23.10	23.33			
16	QPSK	1	37	22.99	22.88	23.04		25	0
16	QPSK	1	74	22.94	22.89	23.01			
16	QPSK	36	0	22.21	22.29	22.17		23.5	1
16	QPSK	36	20	22.13	22.08	22.16			
16	QPSK	75	0	22.10	22.11	22.10			
16	16QAM	1	0	22.20	22.11	22.07		23.5	1
16	16QAM	1	37	22.14	22.06	22.12			
16	16QAM	1	74	21.87	21.94	22.00			
16	16QAM	36	0	21.09	21.16	21.15		22.5	2
16	16QAM	36	20	21.02	20.98	21.04			
16	16QAM	36	59	21.03	21.02	21.24			
16	16QAM	75	0	20.93	21.00	20.98		22.5	2
16	16QAM	75	0	20.73	20.75	20.89			
16	16QAM	1	37	20.51	20.74	20.73		22.5	2
16	16QAM	1	74	20.73	20.66	20.79			
16	16QAM	36	0	20.08	20.05	20.17		21.5	3
16									



Band 2 Main PA Ant4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Time-up limit (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.26	23.30	23.31			24.5	0
20	QPSK	1	49	23.18	23.22	23.16				
20	QPSK	1	99	23.18	23.22	23.16				
20	QPSK	50	0	22.36	22.42	22.36			23.5	1
20	QPSK	50	24	22.36	22.38	22.34				
20	QPSK	50	50	22.16	22.31	22.23			24.5	1
20	QPSK	100	0	22.33	22.37	22.28				
20	16QAM	100	0	22.72	22.74	22.72			23.5	1
20	16QAM	1	49	22.68	22.78	22.68				
20	16QAM	1	99	22.68	22.74	22.63				
20	16QAM	50	0	21.33	21.36	21.28			22.5	2
20	16QAM	50	24	21.17	21.32	21.27				
20	16QAM	50	50	21.29	21.38	21.25				
20	16QAM	100	0	21.26	21.30	21.22			22.5	2
20	16QAM	1	0	21.39	21.52	21.41				
20	16QAM	1	49	21.43	21.46	21.39			22.5	2
20	16QAM	1	99	21.36	21.45	21.31				
20	16QAM	50	0	20.43	20.47	20.41			21.5	3
20	16QAM	50	24	20.59	20.58	20.51				
20	16QAM	50	50	20.35	20.34	20.30				
20	256QAM	100	0	20.22	20.25	20.20			19.5	5
20	256QAM	1	49	18.40	18.47	18.33				
20	256QAM	1	99	18.34	18.42	18.33				
20	256QAM	50	0	18.31	18.35	18.24			19.5	5
20	256QAM	50	24	18.31	18.35	18.24				
20	256QAM	50	50	18.30	18.40	18.34				
20	256QAM	100	0	18.27	18.27	18.27			19.5	5
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.21	23.28	23.18			24.5	0
15	QPSK	1	37	23.19	23.22	23.14				
15	QPSK	1	74	23.15	23.12	23.06				
15	QPSK	36	0	22.30	22.32	22.31			23.5	1
15	QPSK	36	25	22.18	22.26	22.20				
15	QPSK	36	39	22.11	22.22	22.19			24.5	1
15	QPSK	75	0	22.19	22.25	22.17				
15	16QAM	1	0	22.60	22.66	22.57			23.5	1
15	16QAM	1	37	22.62	22.70	22.62				
15	16QAM	1	74	22.61	22.65	22.59				
15	16QAM	36	0	21.20	21.30	21.16			22.5	2
15	16QAM	36	20	21.13	21.20	21.12				
15	16QAM	36	25	21.18	21.25	21.14				
15	16QAM	75	0	21.19	21.25	21.07			22.5	2
15	16QAM	1	0	21.35	21.46	21.28				
15	16QAM	1	37	21.37	21.43	21.33			22.5	2
15	16QAM	1	74	21.29	21.35	21.23				
15	16QAM	36	0	20.36	20.35	20.33			21.5	3
15	16QAM	36	20	20.36	20.36	20.30				
15	16QAM	36	25	20.32	20.35	20.25				
15	16QAM	75	0	20.12	20.21	20.15				
15	256QAM	1	0	18.30	18.32	18.28			19.5	5
15	256QAM	1	37	18.27	18.41	18.30				
15	256QAM	1	74	18.30	18.39	18.19				
15	256QAM	36	0	18.30	18.30	18.28			19.5	5
15	256QAM	36	20	18.18	18.25	18.11				
15	256QAM	36	25	18.17	18.34	18.27				
15	256QAM	75	0	18.23	18.24	18.27			20.5	5
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.18	24.17	24.17			25.5	0
10	QPSK	1	25	24.14	24.13	24.11				
10	QPSK	1	49	24.11	24.10	24.08				
10	QPSK	1	74	24.11	24.10	24.08				
10	QPSK	36	0	23.43	23.50	23.44			24.5	1
10	QPSK	36	25	23.20	23.41	23.31				
10	QPSK	36	39	23.21	23.38	23.27				
10	QPSK	75	0	23.51	23.56	23.51			24.5	1
10	16QAM	1	0	23.51	23.62	23.51				
10	16QAM	1	37	23.31	23.51	23.37			24.5	1
10	16QAM	1	74	23.29	23.49	23.29				
10	16QAM	36	0	22.29	22.49	22.41			23.5	2
10	16QAM	36	20	22.30	22.38	22.27				
10	16QAM	36	25	22.33	22.32	22.29				
10	16QAM	75	0	22.16	22.33	22.31			23.5	2
10	16QAM	1	0	22.33	22.34	22.24				
10	16QAM	1	37	22.33	22.36	22.26			23.5	2
10	16QAM	1	74	22.28	22.31	22.13				
10	16QAM	36	0	21.40	21.53	21.38			22.5	3
10	16QAM	36	20	21.41	21.52	21.33				
10	16QAM	36	25	21.33	21.42	21.38				
10	16QAM	75	0	21.33	21.38	21.33			20.5	5
10	16QAM	1	0	19.18	19.22	19.18				
10	16QAM	1	37	19.08	19.28	19.21				
10	16QAM	1	74	19.15	19.22	19.08				
10	16QAM	36	0	19.08	19.08	19.08			20.5	5
10	16QAM	36	20	19.01	19.08	19.19				
10	16QAM	36	25	19.08	19.20	19.15				
10	16QAM	75	0	19.10	19.20	19.14			20.5	5
10	16QAM	1	0	19.08	19.27	19.21				
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.17	24.17	24.17			25.5	0
10	QPSK	1	25	24.11	24.16	24.22				
10	QPSK	1	49	24.02	24.17	24.12				
10	QPSK	1	74	24.02	24.10	24.01				
10	QPSK	36	0	23.20	23.33	23.28			24.5	1
10	QPSK	36	25	23.18	23.33	23.28				
10	QPSK	36	39	23.19	23.32	23.21				
10	QPSK	75	0	23.49	23.59	23.43			24.5	1
10	16QAM	1	0	23.39	23.48	23.42				
10	16QAM	1	37	23.39	23.50	23.39			24.5	1
10	16QAM	1	74	23.39	23.49	23.39				
10	16QAM	36	0	22.39	22.45	22.35			23.5	2
10	16QAM	36	20	22.32	22.39	22.28				
10	16QAM	36	25	22.33	22.42	22.31				
10	16QAM	75	0	22.14	22.34	22.28			23.5	2
10	16QAM	1	0	22.38	22.39	22.22				
10	16QAM	1	37	22.14	22.34	22.28			23.5	2
10	16QAM	1	74	22.22	22.25	22.08				
10	16QAM	36	0	21.30	21.44	21.38			22.5	3
10	16QAM	36	20	21.34	21.32	21.29				
10	16QAM	36	25	21.37	21.37	21.29				
10	16QAM	75	0	21.24	21.40	21.33			22.5	3
10	16QAM	1	0	21.42	21.52	21.39				
10	16QAM	1	37	21.42	21.52	21.39				
10	16QAM	1	74	21.32	21.43	21.32				
10	16QAM	36	0	20.32	20.39	20.35			21.5	3
10	16QAM	36	20	20.32	20.34	20.29				
10	16QAM	36	25	20.32	20.34	20.29				
10	16QAM	75	0	19.28	19.32	19.15			20.5	5
10	256QAM	1	0	19.10	19.19	19.08				
10	256QAM	1	37	19.15	19.22	19.15				
10	256QAM	1	74	19.08	19.11	19.18				
10	256QAM	36	0	19.08	19.20	19.15			20.5	5
10	256QAM	36	20	19.10	19.20	19.14				
10	256QAM	75	0	19.10	19.20	19.21			20.5	5
Channel										
Frequency (MHz)										
5	QPSK	1	0	24.13	24.13	24.13			25.5	0
5	QPSK	1	12	24.11	24.15	24.13				
5	QPSK	1	24	24.00	24.09	24.12				
5	QPSK	12	0	23.44	23.46	23.45			24.5	1
5	QPSK	12	7	23.27	23.38	23.23				
5	QPSK	1								



Band 25 Main PA Ant4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Turn-up (min)	MPR (dB)	
Channel									
	Frequency (MHz)			1860	1868	1905			
20	QPSK	1	0	20.31	20.42	20.27	24.5	0	
20	QPSK	1	49	21.29	21.34	21.24			
20	QPSK	1	99	22.16	22.29	22.21			
20	QPSK	50	0	22.24	22.32	22.26			
20	QPSK	50	24	22.22	22.32	22.21			
20	QPSK	50	50	22.16	22.24	22.12	23.5	1	
20	QPSK	100	0	22.16	22.24	22.20			
20	QPSK	100	24	22.55	22.56	22.58			
20	16QAM	1	49	22.48	22.59	22.47	23.5	1	
20	16QAM	1	99	22.52	22.55	22.43			
20	16QAM	50	0	21.31	21.38	21.28			
20	16QAM	50	24	21.19	21.28	21.15	22.5	2	
20	16QAM	50	50	21.18	21.32	21.22			
20	16QAM	100	0	21.18	21.30	21.19			
20	64QAM	1	0	21.44	21.51	21.47			
20	64QAM	1	49	21.31	21.45	21.39	22.5	2	
20	64QAM	1	99	21.27	21.41	21.28			
20	64QAM	50	0	20.31	20.42	20.32			
20	64QAM	50	24	20.19	20.33	20.22	21.5	3	
20	64QAM	50	50	20.38	20.38	20.25			
20	64QAM	100	0	20.27	20.30	20.26			
20	256QAM	1	49	18.45	18.45	18.38	19.5	5	
20	256QAM	1	99	18.38	18.42	18.32			
20	256QAM	50	0	18.28	18.41	18.28			
20	256QAM	50	24	18.27	18.31	18.18	18.5	5	
20	256QAM	50	50	18.25	18.37	18.33			
20	256QAM	100	0	18.23	18.38	18.33			
Channel									
	Frequency (MHz)			1875	1880	1907.5	Turn-up (min)	MPR (dB)	
15	QPSK	1	0	23.20	23.36	23.13	24.5	0	
15	QPSK	1	37	23.20	23.29	23.20			
15	QPSK	1	74	23.07	23.16	23.17			
15	QPSK	36	0	22.13	22.26	22.07	23.5	1	
15	QPSK	36	20	22.15	22.11	22.07			
15	QPSK	36	36	22.12	22.09	22.06			
15	QPSK	75	0	22.09	22.16	22.11			
15	16QAM	1	49	22.45	22.54	22.49	23.5	1	
15	16QAM	1	37	22.38	22.55	22.33			
15	16QAM	36	0	21.43	21.44	21.43			
15	16QAM	36	20	21.18	21.22	21.23	22.5	2	
15	16QAM	36	50	21.13	21.18	21.08			
15	64QAM	1	0	21.35	21.46	21.37	22.5	2	
15	64QAM	1	74	21.17	21.32	21.19			
15	64QAM	36	0	20.20	20.36	20.17	21.5	3	
15	64QAM	36	20	20.33	20.28	20.17			
15	64QAM	36	36	20.22	20.25	20.19			
15	64QAM	75	0	20.22	20.23	20.16			
15	256QAM	1	49	18.34	18.46	18.28	19.5	5	
15	256QAM	1	37	18.34	18.32	18.29			
15	256QAM	1	74	18.29	18.36	18.22			
15	256QAM	36	0	18.16	18.38	18.22			
15	256QAM	36	20	18.13	18.25	18.11	18.5	5	
15	256QAM	36	36	18.15	18.32	18.28			
15	256QAM	75	0	18.13	18.28	18.28			
Channel									
	Frequency (MHz)			1895	1898	1910	Turn-up (min)	MPR (dB)	
10	QPSK	1	0	23.27	23.38	23.27	24.5	0	
10	QPSK	1	25	23.17	23.24	23.20			
10	QPSK	1	49	23.10	23.18	23.09			
10	QPSK	25	0	22.20	22.21	22.11	23.5	1	
10	QPSK	25	12	22.16	22.19	22.07			
10	QPSK	25	25	22.04	22.11	22.01			
10	QPSK	50	0	22.06	22.16	22.11			
10	16QAM	1	0	22.42	22.58	22.47	23.5	1	
10	16QAM	1	25	22.34	22.50	22.42			
10	16QAM	25	0	21.22	21.30	21.15	22.5	2	
10	16QAM	25	12	21.14	21.17	21.08			
10	16QAM	25	25	21.05	21.16	21.15			
10	64QAM	1	0	21.32	21.38	21.44	22.5	2	
10	64QAM	1	25	21.26	21.35	21.28			
10	64QAM	1	49	21.17	21.34	21.18			
10	64QAM	25	0	20.24	20.30	20.29	21.5	3	
10	64QAM	25	12	20.25	20.28	20.18			
10	64QAM	25	25	20.23	20.33	20.20			
10	64QAM	50	0	20.20	20.22	20.20			
10	256QAM	1	49	18.40	18.43	18.33	19.5	5	
10	256QAM	1	25	18.38	18.39	18.33			
10	256QAM	1	49	18.30	18.38	18.27			
10	256QAM	25	0	18.20	18.38	18.22			
10	256QAM	25	12	18.20	18.20	18.12	19.5	5	
10	256QAM	25	25	18.11	18.25	18.20			
10	256QAM	50	0	18.20	18.20	18.24			
Channel									
	Frequency (MHz)			1892.5	1898	1912.5	Turn-up (min)	MPR (dB)	
5	QPSK	1	0	23.24	23.33	23.15	24.5	0	
5	QPSK	1	12	23.18	23.30	23.15			
5	QPSK	1	24	23.02	23.15	23.14			
5	QPSK	12	0	22.13	22.26	22.18	23.5	1	
5	QPSK	12	7	22.09	22.21	22.16			
5	QPSK	12	13	22.08	22.14	22.09			
5	QPSK	25	0	22.09	22.21	22.18			
5	16QAM	1	0	22.47	22.51	22.45	23.5	1	
5	16QAM	1	12	22.43	22.44	22.43			
5	16QAM	1	24	22.37	22.45	22.37			
5	16QAM	12	0	21.17	21.33	21.24	22.5	2	
5	16QAM	12	7	21.07	21.24	21.07			
5	16QAM	12	13	21.08	21.22	21.08			
5	64QAM	1	0	21.39	21.43	21.32	22.5	2	
5	64QAM	1	12	21.20	21.33	21.37			
5	64QAM	1	24	21.18	21.28	21.17			
5	64QAM	12	0	20.17	20.31	20.20	21.5	3	
5	64QAM	12	7	20.08	20.20	20.13			
5	64QAM	12	13	20.20	20.30	20.20			
5	64QAM	25	0	20.19	20.16	20.21			
5	256QAM	1	18	18.31	18.38	18.33	19.5	5	
5	256QAM	1	12	18.35	18.37	18.27			
5	256QAM	1	24	18.28	18.20	18.16			
5	256QAM	12	0	18.18	18.38	18.25			
5	256QAM	12	7	18.23	18.20	18.07	19.5	5	
5	256QAM	12	13	18.12	18.32	18.21			
5	256QAM	25	0	18.14	18.38	18.25			
Channel									
	Frequency (MHz)			1895.5	1898	1908.5	Turn-up (min)	MPR (dB)	
3	QPSK	1	0	23.24	23.38	23.15	24.5	0	
3	QPSK	1	8	23.18	23.24	23.16			
3	QPSK	1	14	23.03	23.22	23.08			
3	QPSK	3	0	22.16	22.21	22.11	23.5	1	
3	QPSK	3	4	22.12	22.18	22.13			
3	QPSK	3	7	22.05	22.14	22.08			
3	QPSK	15	0	22.02	22.14	22.14			
3	16QAM	1	0	22.50	22.60	22.42	23.5	1	
3	16QAM	1	8	22.38	22.45	22.38			
3	16QAM	1	15	22.44	22.46	22.30			
3	16QAM	3	0	21.20	21.23	21.22	22.5	2	
3	16QAM	3	4	21.11	21.26	21.11			
3	16QAM	3	8	21.06	21.20	21.09			
3	64QAM	1	0	21.39	21.44	21.39	22.5	2	
3	64QAM	1	8	21.27	21.38	21.30			
3	64QAM	1	14	21.13	21.38	21.16			
3	64QAM	3	0	20.20	20.30	20.19	21.5	3	
3	64QAM	3	4	20.16	20.23	20.18			
3	64QAM	3	7	20.18	20.29	20.20			
3	256QAM	1	0	18.38	18.48	18.34	19.5	5	
3	256QAM	1	8	18.34	18.43	18.27			
3	256QAM	1	14	18.35	18.38	18.19			
3	256QAM	3	0	18.20	18.33	18.19			
3	256QAM	3	4	18.20	18.25	18.14	19.5	5	
3	256QAM	3	7	18.15	18.38	18.25			</



Band 38 Main PA Ant4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid-Mid Ch / Freq	Power High-Mid Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)				38750	38600	38150				
20	QPSK	1	0	25.21	25.27	25.12				
20	QPSK	1	49	25.11	25.23	25.10		25.7	0	
20	QPSK	50	0	25.09	25.16	25.00				
20	QPSK	50	24	24.19	24.22	24.15		24.7	1	
20	QPSK	100	0	24.16	24.24	24.13				
20	16QAM	1	0	24.26	24.31	24.22		24.7	1	
20	16QAM	1	49	24.09	24.22	24.08				
20	16QAM	1	99	24.04	24.10	24.02				
20	16QAM	50	0	23.21	23.28	23.20				
20	16QAM	50	24	23.07	23.10	23.04		23.7	2	
20	16QAM	100	0	23.20	23.24	23.20				
20	64QAM	1	0	23.15	23.31	23.15				
20	64QAM	1	49	23.08	23.19	23.13		23.7	2	
20	64QAM	1	99	23.05	23.17	23.05				
20	64QAM	50	0	22.23	22.28	22.15				
20	64QAM	50	24	22.18	22.25	22.12		22.7	3	
20	64QAM	100	0	22.21	22.29	22.19				
20	256QAM	1	0	20.23	20.28	20.19				
20	256QAM	1	49	20.09	20.16	20.09		20.7	5	
20	256QAM	1	99	20.00	20.07	19.95				
20	256QAM	50	0	20.09	20.12	20.00				
20	256QAM	50	24	20.00	20.10	20.04		20.7	5	
20	256QAM	100	0	20.14	20.18	20.08				
20	256QAM	100	0	20.05	20.17	20.05				
Channel										
Frequency (MHz)				37975	38000	38175	Tune-up limit (dBm)	MPR (dB)		
15	QPSK	1	0	25.17	25.21	25.10				
15	QPSK	1	37	25.02	25.20	24.99		25.7	0	
15	QPSK	1	74	24.94	25.05	24.94				
15	QPSK	36	0	24.16	24.22	24.12				
15	QPSK	36	20	24.08	24.12	24.11		24.7	1	
15	QPSK	36	39	24.10	24.14	24.08				
15	QPSK	75	0	24.10	24.14	24.08				
15	16QAM	1	0	24.20	24.24	24.17		24.7	1	
15	16QAM	1	37	23.97	24.09	24.01				
15	16QAM	1	74	23.91	24.00	23.90				
15	16QAM	36	0	23.07	23.22	23.05				
15	16QAM	36	20	23.10	23.15	23.13		23.7	2	
15	16QAM	36	39	23.10	23.21	23.16				
15	16QAM	75	0	23.07	23.15	23.11				
15	64QAM	1	0	23.04	23.18	23.10				
15	64QAM	1	37	23.03	23.11	23.07		23.7	2	
15	64QAM	1	74	22.92	23.04	22.93				
15	64QAM	36	0	22.10	22.23	22.11				
15	64QAM	36	20	22.08	22.10	22.03		22.7	3	
15	64QAM	36	39	22.15	22.14	22.14				
15	64QAM	75	0	22.05	22.10	22.04				
15	256QAM	1	0	20.14	20.14	20.08		20.7	5	
15	256QAM	1	37	19.98	19.13	19.06				
15	256QAM	1	74	19.96	19.98	19.92				
15	256QAM	36	0	19.99	20.02	19.97				
15	256QAM	36	20	19.99	20.02	19.97				
15	256QAM	36	39	20.01	20.05	19.99		20.7	5	
15	256QAM	75	0	19.99	20.13	19.98				
Channel										
Frequency (MHz)				37975	38000	38175	Tune-up limit (dBm)	MPR (dB)		
10	QPSK <th>1 <th>0</th> <th>25.16</th> <th>25.18</th> <th>24.98</th> <td></td> <td></td> <td></td> <td></td> </th>	1 <th>0</th> <th>25.16</th> <th>25.18</th> <th>24.98</th> <td></td> <td></td> <td></td> <td></td>	0	25.16	25.18	24.98				
10	QPSK <th>1 <th>25</th> <th>25.00</th> <th>25.08</th> <th>25.03</th> <td></td> <td>25.7</td> <td>0</td> <td></td> </th>	1 <th>25</th> <th>25.00</th> <th>25.08</th> <th>25.03</th> <td></td> <td>25.7</td> <td>0</td> <td></td>	25	25.00	25.08	25.03		25.7	0	
10	QPSK <th>1 <th>49</th> <th>24.93</th> <th>25.04</th> <th>24.93</th> <td></td> <td></td> <td></td> <td></td> </th>	1 <th>49</th> <th>24.93</th> <th>25.04</th> <th>24.93</th> <td></td> <td></td> <td></td> <td></td>	49	24.93	25.04	24.93				
10	QPSK <th>12 <th>0</th> <th>24.07</th> <th>24.11</th> <th>24.00</th> <td></td> <td></td> <td></td> <td></td> </th>	12 <th>0</th> <th>24.07</th> <th>24.11</th> <th>24.00</th> <td></td> <td></td> <td></td> <td></td>	0	24.07	24.11	24.00				
10	QPSK	25	12	24.12	24.09	24.02		24.7	1	
10	QPSK	25	25	24.08	24.17	24.06				
10	16QAM	1 <th>0</th> <th>24.23</th> <th>24.24</th> <th>24.14</th> <td></td> <td>24.7</td> <td>1</td> <td></td>	0	24.23	24.24	24.14		24.7	1	
10	16QAM	1 <th>25</th> <th>23.93</th> <th>24.17</th> <th>24.06</th> <td></td> <td></td> <td></td> <td></td>	25	23.93	24.17	24.06				
10	16QAM	1 <th>49</th> <th>24.00</th> <th>23.98</th> <th>23.98</th> <td></td> <td></td> <td></td> <td></td>	49	24.00	23.98	23.98				
10	16QAM	25	0	23.16	23.21	23.10				
10	16QAM	25	12	23.21	23.15	23.15		23.7	2	
10	16QAM	25	19	23.21	23.15	23.15				
10	16QAM	25	26	23.15	23.22	23.17				
10	16QAM	50	0	23.10	23.12	23.06				
10	64QAM	1 <th>0</th> <th>23.12</th> <th>23.20</th> <th>23.05</th> <td></td> <td></td> <td></td> <td></td>	0	23.12	23.20	23.05				
10	64QAM	1	25	23.01	23.12	22.99		23.7	2	
10	64QAM	1	49	22.92	23.06	22.95				
10	64QAM	25	0	22.16	22.24	22.05				
10	64QAM	25	12	22.06	22.15	22.04		22.7	3	
10	64QAM	25	25	22.10	22.20	22.14				
10	64QAM	50	0	22.02	22.03	22.06				
10	256QAM	1 <th>0</th> <th>20.11</th> <th>20.11</th> <th>20.06</th> <td></td> <td>20.7</td> <td>5</td> <td></td>	0	20.11	20.11	20.06		20.7	5	
10	256QAM	1	25	19.98	20.02	19.95				
10	256QAM	1	49	19.90	19.92	19.91				
10	256QAM	25	0	19.95	19.99	19.98				
10	256QAM	25	12	19.90	20.00	20.00		20.7	5	
10	256QAM	25	25	20.00	20.14	20.03				
10	256QAM	50	0	19.93	20.13	19.97				
Channel										
Frequency (MHz)				2577.5	2585	2577.5	Tune-up limit (dBm)	MPR (dB)		
5	QPSK	1 <th>0</th> <th>25.17</th> <th>25.19</th> <th>25.02 <td></td> <td></td> <td></td> <td></td> </th>	0	25.17	25.19	25.02 <td></td> <td></td> <td></td> <td></td>				
5	QPSK	1 <th>19</th> <th>25.00</th> <th>25.15</th> <th>25.00</th> <td></td> <td>25.7</td> <td>0</td> <td></td>	19	25.00	25.15	25.00		25.7	0	
5	QPSK	1 <th>24</th> <th>24.99</th> <th>25.05</th> <th>24.91</th> <td></td> <td></td> <td></td> <td></td>	24	24.99	25.05	24.91				
5	QPSK	12	0	24.98	24.17	24.11				
5	QPSK	12	7	24.13	24.11	24.00		24.7	1	
5	QPSK	12	19	24.02	24.15	24.04				
5	QPSK	25	0	24.09	24.13	24.03				
5	16QAM	1 <th>0</th> <th>24.14</th> <th>24.17</th> <th>24.11</th> <td></td> <td></td> <td></td> <td></td>	0	24.14	24.17	24.11				
5	16QAM	1	12	23.99	24.13	23.93		24.7	1	
5	16QAM	1	24	23.99	23.95	23.88				
5	16QAM	12	0	23.18	23.18	23.11				
5	16QAM	12	7	23.12	23.22	23.15		23.7	2	
5	16QAM	12	13	23.09	23.28	23.09				
5	16QAM	25	0	23.07	23.17	23.09				
5	64QAM	1 <th>0</th> <th>23.07</th> <th>23.20</th> <th>23.12</th> <td></td> <td>23.7</td> <td>2</td> <td></td>	0	23.07	23.20	23.12		23.7	2	
5	64QAM	1	12	22.96	23.13	23.03				
5	64QAM	1	24	22.99	23.02	22.91				
5	64QAM	12	0	22.17	22.15	22.07				
5	64QAM	12	7	22.06	22.13	22.02		22.7	3	
5	64QAM	12	13	22.13	22.15	22.12				
5	64QAM	25	0	20.10	20.14	20.06				
5	256QAM	1 <th>0</th> <th>20.09</th> <th>20.23</th> <th>20.11</th> <td></td> <td>20.7</td> <td>5</td> <td></td>	0	20.09	20.23	20.11		20.7	5	
5	256QAM	1	12	19.97	20.12	20.01				
5	256QAM	1	24	19.88	19.84	19.88				
5	256QAM	12	0	19.98	19.99	19.98				
5	256QAM	12	7	19.85	19.88	19.84		20.7	5	
5	256QAM	12	13	20.09	20.09	19.96				
5	256QAM	25	0	19.92	20.06	19.91				

Band 41 Main PA Ant4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Mid Ch / Freq	Power High-Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel										
Frequency (MHz)				39750	40185	40620	41055	41490		
20	QPSK	1	0	25.16	25.23	25.31	24.15	24.10		
20	QPSK	1	49	25.11	25.10	25.23	25.19	25.09		25.7
20	QPSK	1	99	25.08	25.10	25.18	25.06	25.05		
20	QPSK	50	0	24.30	24.30	24.43	24.31	24.30		
20	QPSK	50	24	24.32	24.34	24.37	24.22	24.31		24.7
20	QPSK	100	0	24.23	24.28	24.35	24.18	24.18		
20	QPSK	100	0	24.29	24.29	24.31	24.27	24.21		
20	16QAM	1	0	24.44	24.44	24.54	24.43	24.49		24.7
20	16QAM	1	49	24.37	24.41	24.48	24.38	24.42		
20	16QAM	1	99	24.35	24.39	24.44	24.34	24.32		
20	16QAM	50	0	23.57	23.56	23.39	23.25	23.31		
20	16QAM	50	24	23.49	23.50	23.27	23.16	23.18		23.7
20	16QAM	100	0	23.22	23.26	23.31	23.25	23.18		
20	16QAM	100	0	23.21	23.19	23.25	23.17	23.14		
20	64QAM	1	0	22.85	22.92	23.01	22.85	22.90		23.7
20	64QAM	1	49	22.86	22.81	22.85	22.87	22		



Band 42 FCC Part27Q Main PA Ant5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	25.00	25.00	24.97	25.5	0	
20	QPSK	1	49	24.88	24.94	24.84			
20	QPSK	1	99	24.76	24.80	24.62			
20	QPSK	50	0	23.85	23.88	23.91	24.5	1	
20	QPSK	50	24	23.76	23.88	23.83			
20	QPSK	100	0	23.80	23.82	23.81			
20	HQAM	1	0	23.69	23.77	23.71	24.5	1	
20	HQAM	1	49	23.62	23.71	23.62			
20	HQAM	1	99	23.53	23.72	23.57			
20	HQAM	50	0	22.84	22.85	22.82	23.5	2	
20	HQAM	50	24	22.81	22.85	22.82			
20	HQAM	100	0	22.84	22.86	22.86			
20	HQAM	100	0	22.81	22.75	22.84			
20	HQAM	1	49	22.67	22.67	22.63	23.5	2	
20	HQAM	1	99	22.63	22.67	22.73			
20	HQAM	50	0	21.85	21.85	21.81			
20	HQAM	50	24	21.82	21.74	21.84	22.5	3	
20	HQAM	100	0	21.81	21.75	21.69			
20	HQAM	100	0	21.85	21.72	21.81			
20	ZSSQAM	1	0	19.75	19.84	19.70	20.5	5	
20	ZSSQAM	1	49	19.67	19.80	19.62			
20	ZSSQAM	1	99	19.64	19.79	19.73			
20	ZSSQAM	50	0	19.68	19.66	19.66			
20	ZSSQAM	50	24	19.57	19.63	19.51	20.5	5	
20	ZSSQAM	100	0	19.64	19.75	19.68			
20	ZSSQAM	100	0	19.65	19.67	19.67			
Channel									
Frequency (MHz)									
15	QPSK	1	0	24.02	24.00	24.04	25.5	0	
15	QPSK	1	37	24.78	24.87	24.70			
15	QPSK	1	74	24.71	24.78	24.70			
15	QPSK	36	0	23.75	23.82	23.82	24.5	1	
15	QPSK	36	20	23.81	23.74	23.73			
15	QPSK	75	0	23.68	23.82	23.70			
15	HQAM	1	0	23.54	23.70	23.59	24.5	1	
15	HQAM	1	37	23.63	23.65	23.65			
15	HQAM	1	74	23.49	23.57	23.48			
15	HQAM	36	0	22.81	22.89	22.80	23.5	2	
15	HQAM	36	20	22.71	22.87	22.73			
15	HQAM	75	0	22.65	22.82	22.50			
15	HQAM	75	0	22.70	22.81	22.84			
15	HQAM	1	0	22.55	22.69	22.59	23.5	2	
15	HQAM	1	37	22.50	22.64	22.50			
15	HQAM	1	74	22.45	22.45	22.44			
15	HQAM	36	0	21.73	21.82	21.71	22.5	3	
15	HQAM	36	20	21.67	21.69	21.58			
15	HQAM	75	0	21.62	21.62	21.61			
15	ZSSQAM	1	0	19.68	19.79	19.58	20.5	5	
15	ZSSQAM	1	37	19.63	19.75	19.53			
15	ZSSQAM	1	74	19.53	19.60	19.62			
15	ZSSQAM	36	0	19.65	19.72	19.59	20.5	5	
15	ZSSQAM	36	20	19.49	19.62	19.67			
15	ZSSQAM	75	0	19.59	19.61	19.58			
15	ZSSQAM	75	0	19.43	19.52	19.51			
Channel									
Frequency (MHz)									
10	QPSK	1	0	24.42	24.40	24.42	25.5	0	
10	QPSK	1	25	24.79	24.88	24.77			
10	QPSK	1	49	24.61	24.81	24.70			
10	QPSK	12	0	23.80	23.82	23.80	24.5	1	
10	QPSK	25	12	23.72	23.83	23.68			
10	QPSK	25	25	23.66	23.78	23.66			
10	QPSK	50	0	23.73	23.82	23.74	24.5	1	
10	HQAM	1	0	23.56	23.67	23.67			
10	HQAM	1	25	23.58	23.60	23.58			
10	HQAM	1	49	23.58	23.67	23.42			
10	HQAM	25	0	22.83	22.84	22.89	23.5	2	
10	HQAM	25	12	22.88	22.87	22.70			
10	HQAM	50	0	22.85	22.85	22.75			
10	HQAM	50	25	22.79	22.80	22.69			
10	HQAM	1	0	22.62	22.59	22.58	23.5	2	
10	HQAM	1	49	22.43	22.48	22.46			
10	HQAM	25	0	21.78	21.82	21.75	22.5	3	
10	HQAM	25	12	21.58	21.59	21.59			
10	HQAM	25	25	21.60	21.65	21.61			
10	HQAM	50	0	21.60	21.63	21.63			
10	ZSSQAM	1	0	19.72	19.80	19.56	20.5	5	
10	ZSSQAM	1	25	19.68	19.74	19.64			
10	ZSSQAM	1	49	19.61	19.70	19.67			
10	ZSSQAM	25	0	19.59	19.70	19.59	20.5	5	
10	ZSSQAM	25	12	19.47	19.60	19.67			
10	ZSSQAM	25	25	19.55	19.62	19.57			
10	ZSSQAM	50	0	19.49	19.52	19.47			
Channel									
Frequency (MHz)									
5	QPSK	1	0	24.49	24.43	24.42	25.5	0	
5	QPSK	1	12	24.61	24.67	24.77			
5	QPSK	1	24	24.58	24.70	24.72			
5	QPSK	12	0	23.74	23.84	23.84	24.5	1	
5	QPSK	12	7	23.82	23.72	23.72			
5	QPSK	12	13	23.75	23.81	23.75			
5	QPSK	25	0	23.75	23.79	23.74			
5	HQAM	1	0	23.58	23.74	23.67	24.5	1	
5	HQAM	1	12	23.56	23.56	23.53			
5	HQAM	1	24	23.58	23.67	23.42			
5	HQAM	12	0	22.85	22.84	22.77	23.5	2	
5	HQAM	12	7	22.68	22.67	22.71			
5	HQAM	12	13	22.88	22.81	22.71			
5	HQAM	25	0	22.72	22.84	22.68	23.5	2	
5	HQAM	25	0	22.48	22.65	22.50			
5	HQAM	1	0	22.49	22.62	22.57			
5	HQAM	1	24	22.49	22.47	22.44			
5	HQAM	12	0	21.77	21.78	21.72	22.5	3	
5	HQAM	12	7	21.56	21.61	21.58			
5	HQAM	12	13	21.67	21.64	21.60			
5	HQAM	25	0	21.73	21.68	21.58			
5	ZSSQAM	1	0	19.64	19.70	19.55	20.5	5	
5	ZSSQAM	1	12	19.66	19.71	19.62			
5	ZSSQAM	1	24	19.63	19.71	19.69			
5	ZSSQAM	12	0	19.58	19.70	19.59	20.5	5	
5	ZSSQAM	12	7	19.49	19.45	19.47			
5	ZSSQAM	12	13	19.59	19.69	19.58			
5	ZSSQAM	25	0	19.49	19.50	19.45			

Band 48 Main PA Ant5									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)
Channel									
Frequency (MHz)									
20	QPSK	1	0	25.08	25.11	25.05	25.00	25.5	0
20	QPSK	1	49	25.00	25.03	24.91	24.99		
20	QPSK	1	99	24.94	24.96	24.82	24.89		
20	QPSK	50	0	23.98	24.11	24.08	23.99	24.5	1
20	QPSK	50	24	23.93	23.97	23.87	23.92		
20	QPSK	100	0	23.91	24.00	23.92	23.93		
20	QPSK	100	0	23.92	24.02	23.91	23.88		
20	HQAM	1	0	23.84	23.82	23.74	23.73	24.5	1
20	HQAM	1	49	23.82	23.88	23.82	23.87		
20	HQAM	1	99	23.70	23.83	23.71	23.70		
20	HQAM	50	0	23.10	23.14	23.10	23.09	23.5	2
20	HQAM	50	24	23.07	23.03	22.97	22.95		
20	HQAM	100	0	23.02	23.05	23.01	22.99		
20	HQAM	100	0	22.95	22.96	22.85	22.85		
20	HQAM	1	49	22.78	22.85	22.77	22.75	23.5	2
20	HQAM	1	99	22.67	22.84	22.80	22.79		
20	HQAM	50	0	21.91	21.96	21.87	21.90	22.5	3
20	HQAM	50	24	21.70	21.81	21.68	21.68		
20	HQAM	100	0	21.78	21.88	21.83	21.82		
20	HQAM	100	0	21.79	21.88	21.74	21.73		
20	ZSSQAM	1	0	19.92	19.93	19.84	19.80	20.5	5
20	ZSSQAM	1	49	19.73	19.88	19.73	19.77		
20	ZSSQAM	1	99	19.72	19.85	19.88	19.85		
20	ZSSQAM	50	0	19.85	19.87	19.87	19.85		
20	ZSSQAM	50	24	19.70	19.75</				



Band 42 FCC Part27Q Main PA Ant6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	24.73	24.73	24.88			
20	QPSK	1	49	24.65	24.69	24.81		25.5	0
20	QPSK	1	99	24.68	24.69	24.69			
20	QPSK	50	0	23.65	23.72	23.64			
20	QPSK	50	24	23.67	23.68	23.35		24.5	1
20	QPSK	100	0	23.51	23.63	23.54			
20	HQAM	1	0	23.63	23.68	23.52		24.5	1
20	HQAM	1	49	23.63	23.52	23.48			
20	HQAM	1	99	23.34	23.48	23.40			
20	HQAM	50	0	22.58	22.67	22.57			
20	HQAM	50	24	22.58	22.59	22.30		23.5	2
20	HQAM	100	0	22.43	22.57	22.48			
20	HQAM	100	24	22.40	22.41	22.40		23.5	2
20	HQAM	1	49	22.29	22.38	22.35			
20	HQAM	1	99	22.39	22.38	22.38			
20	HQAM	50	24	21.45	21.58	21.53		22.5	3
20	HQAM	50	50	21.48	21.63	21.68			
20	HQAM	100	0	21.45	21.56	21.49			
20	HQAM	100	24	21.45	21.56	21.49			
20	ZSSQAM	1	0	19.34	19.47	19.38			
20	ZSSQAM	1	49	19.26	19.40	19.36		20.5	5
20	ZSSQAM	1	99	19.26	19.39	19.31			
20	ZSSQAM	50	0	19.26	19.32	19.32			
20	ZSSQAM	50	24	19.17	19.31	19.22		20.5	5
20	ZSSQAM	50	50	19.31	19.37	19.23			
20	ZSSQAM	100	0	19.26	19.32	19.32			
Channel									
Frequency (MHz)									
15	QPSK	1	0	24.73	24.73	24.88			
15	QPSK	1	49	24.68	24.69	24.69		25.5	0
15	QPSK	38	0	23.64	23.69	23.66			
15	QPSK	38	20	23.47	23.59	23.46		24.5	1
15	QPSK	75	0	23.44	23.50	23.49			
15	HQAM	1	0	23.45	23.49	23.48		24.5	1
15	HQAM	1	49	23.33	23.45	23.40			
15	HQAM	1	74	23.30	23.42	23.32			
15	HQAM	38	0	22.48	22.58	22.53			
15	HQAM	38	20	22.47	22.48	22.38		23.5	2
15	HQAM	75	0	22.29	22.40	22.37			
15	HQAM	1	49	22.19	22.27	22.23		23.5	2
15	HQAM	1	74	22.11	22.27	22.19			
15	HQAM	38	0	21.69	21.82	21.68			
15	HQAM	38	20	21.38	21.49	21.39		22.5	3
15	HQAM	75	0	21.48	21.56	21.52			
15	HQAM	75	24	21.32	21.51	21.38			
15	ZSSQAM	1	0	19.25	19.34	19.23		20.5	5
15	ZSSQAM	1	49	19.23	19.32	19.22			
15	ZSSQAM	1	74	19.16	19.24	19.18			
15	ZSSQAM	38	0	19.21	19.28	19.20		20.5	5
15	ZSSQAM	38	20	19.08	19.27	19.14			
15	ZSSQAM	38	38	19.27	19.23	19.13			
15	ZSSQAM	75	0	19.13	19.24	19.22			
Channel									
Frequency (MHz)									
10	QPSK	1	0	24.68	24.68	24.64			
10	QPSK	1	49	24.54	24.58	24.51		25.5	0
10	QPSK	1	99	24.52	24.53	24.56			
10	QPSK	12	7	23.69	23.71	23.68			
10	QPSK	25	12	23.54	23.58	23.47		24.5	1
10	QPSK	25	25	23.51	23.51	23.46			
10	QPSK	50	0	23.38	23.45	23.39			
10	HQAM	1	0	23.49	23.51	23.39		24.5	1
10	HQAM	1	25	23.36	23.45	23.34			
10	HQAM	1	49	23.28	23.31	23.30			
10	HQAM	25	0	22.54	22.54	22.51			
10	HQAM	25	12	22.48	22.48	22.39		23.5	2
10	HQAM	25	25	22.40	22.57	22.41			
10	HQAM	50	0	22.34	22.53	22.42			
10	HQAM	50	12	22.30	22.50	22.34			
10	HQAM	1	49	22.22	22.38	22.32		23.5	2
10	HQAM	1	49	22.05	22.20	22.19			
10	HQAM	25	0	21.65	21.65	21.60			
10	HQAM	25	12	21.35	21.53	21.45		22.5	3
10	HQAM	25	25	21.43	21.54	21.52			
10	HQAM	50	0	21.60	21.60	21.40			
10	ZSSQAM	1	0	19.28	19.37	19.32			
10	ZSSQAM	1	25	19.40	19.41	19.30		20.5	5
10	ZSSQAM	1	49	19.23	19.28	19.23			
10	ZSSQAM	25	0	19.23	19.28	19.24			
10	ZSSQAM	25	12	19.08	19.26	19.10		20.5	5
10	ZSSQAM	25	25	19.27	19.27	19.12			
10	ZSSQAM	50	0	19.11	19.33	19.18			
Channel									
Frequency (MHz)									
5	QPSK	1	0	24.68	24.70	24.64			
5	QPSK	1	49	24.52	24.60	24.58		25.5	0
5	QPSK	1	24	24.45	24.57	24.52			
5	QPSK	12	7	23.61	23.62	23.58			
5	QPSK	12	7	23.69	23.71	23.68		24.5	1
5	QPSK	12	13	23.51	23.57	23.53			
5	QPSK	25	0	23.40	23.45	23.39			
5	HQAM	1	0	23.40	23.45	23.39			
5	HQAM	1	12	23.31	23.47	23.41		24.5	1
5	HQAM	1	24	23.23	23.45	23.39			
5	HQAM	12	0	22.49	22.52	22.44			
5	HQAM	12	7	22.51	22.51	22.36		23.5	2
5	HQAM	12	13	22.47	22.51	22.45			
5	HQAM	25	0	22.29	22.43	22.40			
5	HQAM	25	0	22.28	22.41	22.29		23.5	2
5	HQAM	1	12	22.02	22.20	22.20			
5	HQAM	1	24	22.10	22.20	22.13			
5	HQAM	12	0	21.60	21.60	21.46			
5	HQAM	12	7	21.32	21.48	21.38		22.5	3
5	HQAM	12	13	21.44	21.50	21.44			
5	HQAM	25	0	21.32	21.47	21.40			
5	ZSSQAM	1	0	19.29	19.30	19.25		20.5	5
5	ZSSQAM	1	12	19.27	19.37	19.33			
5	ZSSQAM	1	24	19.19	19.31	19.19			
5	ZSSQAM	12	0	19.28	19.29	19.26			
5	ZSSQAM	12	7	19.04	19.17	19.18		20.5	5
5	ZSSQAM	12	13	19.27	19.26	19.16			
5	ZSSQAM	25	0	19.18	19.31	19.14			

Band 48 Main PA Ant6									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)
Channel									
Frequency (MHz)									
20	QPSK	1	0	24.80	24.80	24.78			
20	QPSK	1	49	24.79	24.75	24.69		25.5	0
20	QPSK	1	99	24.67	24.74	24.68			
20	QPSK	50	0	23.71	23.83	23.75			
20	QPSK	50	24	23.72	23.74	23.68		24.5	1
20	QPSK	100	0	23.67	23.88	23.81			
20	QPSK	100	0	23.64	23.72	23.59		24.5	1
20	HQAM	1	0	23.84	23.88	23.59		24.5	1
20	HQAM	1	49	23.98	23.88	23.57			
20	HQAM	1	99	23.44	23.83	23.46			
20	HQAM	50	0	22.72	22.83	22.70			
20	HQAM	50	24	22.93	22.85	22.63		23.5	2
20	HQAM	50	50	22.83	22.79	22.65			
20	HQAM	100	0	22.57	22.86	22.59			
20	HQAM	100	0	22.55	22.55	22.45		23.5	2
20	HQAM	1	49	22.39	22.43	22.43			
20	HQAM	1	99	22.28	22.44	22.37			
20	HQAM	50	0	21.77	21.76	21.67		22.5	3
20	HQAM	50	24	21.54	21.68	21.70			
20	HQAM	50	50	21.61	21.78	21.72			
20	HQAM	100	0	21.58	21.63	21.66			
20	ZSSQAM	1	0	19.48	19.58	19.44		20.5	5
20	ZSSQAM	1	49	19.48	19.58	19.48			
20	ZSSQAM	1	99	19.38	19.44	19.34			
20	ZSSQAM	50	0	19.43	19.54	19.48			
20	ZSSQAM	50	24	19.26	19.37	19.38		20.5	5
20	ZSSQAM	50	50	19.48	19.48	19.31			
20	ZSSQAM	100	0	19.35	19.48	19.43			
Channel									
Frequency (MHz)									
15	QPSK	1	0	24.73	24.73	24.88			
15	QPSK	1	49	24.68	24.68	24.61		25.5	0
15	QPSK	1	74	24.57	24.66	24.54			
15	QPSK	38	0	23.63	23.77	23.71			
15	QPSK	38	20	23.64	23.69	23.56		24.5	1
15	QPSK	75	0	23.58	23.67	23.61			
15	QPSK	75	0	23.56	23.57	23.51			
15	HQAM	1	0	23.51	23.59	23.55		24.5	1
15	HQAM	1	37	23.52	23.58	23.52			
15	HQAM	1	74	23.34	23.50	23.35			
15	HQAM	38	0	22.64	22.72	22.61			
15	HQAM	38	20	22.62	22.61	22.51		23.5	2
15	HQAM	38	38	22.52	22.51	22.42			
15	HQAM	75	0	22.44	22.55	22.48			
15	HQAM	75	0	22.44	22.51	22.38		23.5	2
15	HQAM	1	37	22.31	22.35	22.38			
15	HQAM	1	74	22.16	22.39	22.30			
15	HQAM	38	0	21.63	21.71	21.64			
15	HQAM	38	20	21.45	21.57	21.58		22.5	3
15	HQAM	75							



Band 42 FCC Part27Q Mian PA Ant7									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)	
Channel									
Frequency (MHz)				42160	42590	42990			
20	QPSK	1	0	23.52	23.52	23.48	24.5	0	
20	QPSK	1	49	23.52	23.44	23.38			
20	QPSK	1	99	23.38	23.40	23.36			
20	QPSK	50	0	22.45	22.50	22.40			
20	QPSK	50	24	22.37	22.48	22.43	23.5	1	
20	QPSK	50	49	22.20	22.31	22.25			
20	QPSK	100	0	22.28	22.31	22.25			
20	HQAM	1	0	22.28	22.37	22.33	23.5	1	
20	HQAM	1	49	22.20	22.31	22.19			
20	HQAM	1	99	22.13	22.25	22.12			
20	HQAM	50	0	21.40	21.36	21.46			
20	HQAM	50	24	21.32	21.40	21.36	22.5	2	
20	HQAM	50	50	21.24	21.40	21.39			
20	HQAM	100	0	21.27	21.29	21.25			
20	HQAM	100	0	21.25	21.42	21.33			
20	HQAM	1	49	21.27	21.35	21.28	22.5	2	
20	HQAM	1	99	21.18	21.25	21.12			
20	HQAM	50	0	20.41	20.50	20.43			
20	HQAM	50	24	20.35	20.38	20.28	21.5	3	
20	HQAM	50	50	20.32	20.45	20.33			
20	HQAM	100	0	20.48	20.35	20.28			
20	ZSSBAM	1	0	18.24	18.26	18.35			
20	ZSSBAM	1	49	18.27	18.30	18.27	19.5	5	
20	ZSSBAM	1	99	18.24	18.20	18.25			
20	ZSSBAM	50	0	18.28	18.26	18.28			
20	ZSSBAM	50	24	18.09	18.22	18.16	19.5	5	
20	ZSSBAM	50	50	18.06	18.19	18.10			
20	ZSSBAM	100	0	18.08	18.20	18.14			
Channel									
Frequency (MHz)				42160	42590	42990	Tune-up Int. (dBm)	MFR (dB)	
15	QPSK	1	0	23.44	23.50	23.43	24.5	0	
15	QPSK	1	47	23.28	23.32	23.32			
15	QPSK	1	74	23.22	23.30	23.24			
15	QPSK	36	0	22.41	22.30	22.30			
15	QPSK	36	20	22.28	22.30	22.35	23.5	1	
15	QPSK	75	0	22.24	22.32	22.28			
15	HQAM	1	0	22.25	22.29	22.25	23.5	1	
15	HQAM	1	47	22.07	22.15	22.03			
15	HQAM	36	0	21.31	21.37	21.37	22.5	2	
15	HQAM	36	20	21.29	21.30	21.29			
15	HQAM	36	59	21.21	21.34	21.31			
15	HQAM	75	0	21.14	21.21	21.15			
15	HQAM	1	0	21.24	21.29	21.22	22.5	2	
15	HQAM	1	47	21.18	21.32	21.15			
15	HQAM	1	74	21.11	21.22	21.09			
15	HQAM	36	0	20.33	20.42	20.38	21.5	3	
15	HQAM	36	20	20.25	20.29	20.22			
15	HQAM	36	59	20.28	20.30	20.28			
15	HQAM	75	0	20.15	20.22	20.22			
15	ZSSBAM	1	0	18.17	18.28	18.23	19.5	5	
15	ZSSBAM	1	47	18.17	18.18	18.16			
15	ZSSBAM	1	74	18.13	18.10	18.17			
15	ZSSBAM	36	0	18.20	18.27	18.18	19.5	5	
15	ZSSBAM	36	20	17.98	18.10	18.02			
15	ZSSBAM	36	59	17.98	18.10	18.07			
15	ZSSBAM	75	0	18.14	18.10	18.08			
Channel									
Frequency (MHz)				42160	42590	42990	Tune-up Int. (dBm)	MFR (dB)	
10	QPSK	1	0	23.44	23.44	23.34	24.5	0	
10	QPSK	1	25	23.18	23.29	23.20			
10	QPSK	1	49	23.31	23.32	23.33			
10	QPSK	12	0	22.33	22.40	22.36			
10	QPSK	25	12	22.28	22.42	22.35	23.5	1	
10	QPSK	25	25	22.18	22.29	22.13			
10	QPSK	50	0	22.23	22.20	22.18			
10	HQAM	1	0	22.17	22.33	22.28	23.5	1	
10	HQAM	1	25	22.11	22.16	22.12			
10	HQAM	1	49	22.00	22.11	21.98			
10	HQAM	25	0	21.31	21.40	21.38	22.5	2	
10	HQAM	25	12	21.27	21.40	21.21			
10	HQAM	25	25	21.21	21.44	21.20			
10	HQAM	50	0	21.24	21.31	21.28	22.5	2	
10	HQAM	1	49	21.09	21.17	21.08	22.5	2	
10	HQAM	25	0	20.33	20.37	20.40			
10	HQAM	25	12	20.32	20.33	20.12	21.5	3	
10	HQAM	25	25	20.22	20.33	20.28			
10	HQAM	50	0	20.15	20.25	20.18			
10	ZSSBAM	1	0	18.16	18.20	18.20	19.5	5	
10	ZSSBAM	1	25	18.21	18.16	18.09			
10	ZSSBAM	1	49	18.20	18.20	18.13			
10	ZSSBAM	25	0	18.16	18.19	18.18	19.5	5	
10	ZSSBAM	25	12	18.04	18.15	18.07			
10	ZSSBAM	25	25	18.01	18.15	18.00			
10	ZSSBAM	50	0	17.97	18.16	18.09			
Channel									
Frequency (MHz)				3453.5	3500	3547.5	Tune-up Int. (dBm)	MFR (dB)	
5	QPSK	1	0	23.45	23.45	23.35	24.5	0	
5	QPSK	1	24	23.29	23.31	23.31			
5	QPSK	1	49	23.31	23.32	23.33			
5	QPSK	12	7	22.29	22.45	22.38	23.5	1	
5	QPSK	12	13	22.28	22.28	22.19			
5	QPSK	25	0	22.25	22.25	22.17			
5	HQAM	1	0	22.23	22.30	22.23	23.5	1	
5	HQAM	1	12	22.16	22.26	22.14			
5	HQAM	1	24	22.01	22.10	22.06			
5	HQAM	12	0	21.36	21.40	21.41	22.5	2	
5	HQAM	12	7	21.24	21.33	21.22			
5	HQAM	12	31	21.28	21.30	21.26			
5	HQAM	25	0	21.09	21.30	21.17	22.5	2	
5	HQAM	1	0	21.28	21.28	21.28	22.5	2	
5	HQAM	1	12	21.16	21.24	21.11			
5	HQAM	1	24	21.02	21.21	21.00			
5	HQAM	12	0	20.34	20.37	20.29	21.5	3	
5	HQAM	12	7	20.20	20.24	20.21			
5	HQAM	12	13	20.28	20.40	20.20			
5	HQAM	25	0	20.13	20.26	20.17			
5	ZSSBAM	1	0	18.10	18.32	18.23	19.5	5	
5	ZSSBAM	1	12	18.16	18.18	18.09			
5	ZSSBAM	1	24	18.18	18.21	18.11			
5	ZSSBAM	12	0	18.17	18.27	18.16	19.5	5	
5	ZSSBAM	12	7	18.01	18.16	18.10			
5	ZSSBAM	12	13	17.93	18.11	17.99			
5	ZSSBAM	25	0	18.15	18.29	18.18			

Band 48 Main PA Ant7									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)	
Channel									
Frequency (MHz)				56340	56830	56950			
20	QPSK	1	0	23.60	23.57	23.51	24.5	0	
20	QPSK	1	49	23.45	23.54	23.42	23.52		
20	QPSK	1	99	23.43	23.55	23.38			
20	QPSK	50	0	22.55	22.62	22.54	23.5	1	
20	QPSK	50	24	22.51	22.54	22.45	23.5	1	
20	QPSK	50	50	22.43	22.45	22.34			
20	QPSK	100	0	22.33	22.53	22.48	22.36		
20	HQAM	1	0	22.45	22.45	22.36	23.5	1	
20	HQAM	1	49	22.31	22.48	22.41			
20	HQAM	1	99	22.28	22.38	22.31			
20	HQAM	50	0	21.34	21.58	21.45	22.5	2	
20	HQAM	50	24	21.44	21.61	21.50			
20	HQAM	50	50	21.49	21.64	21.50	22.5	2	
20	HQAM	100	0	21.52	21.56	21.41			
20	HQAM	100	0	21.50	21.57	21.45			
20	HQAM	1	49	21.35	21.43	21.39	22.5	2	
20	HQAM	1	99	21.33	21.45	21.30			
20	HQAM	50	0	20.48	20.64	20.51	21.5	3	
20	HQAM	50	24	20.51	20.49	20.38			
20	HQAM	50	50	20.49	20.57	20.48			
20	HQAM	100	0	20.41	20.42	20.31	21.5	3	
20	ZSSBAM	1	0	18.32	18.47	18.38	19.5	5	
20	ZSSBAM	1	49	18.36	18.38	18.29			
20	ZSSBAM	1	99	18.33	18.36	18.24			
20	ZSSBAM	50	0	18.40	18.45	18.37	19.5	5	
20	ZSSBAM	50	24	18.15	18.29	18.26			
20	ZSSBAM	50	50	18.19	18.31	18.27			
20	ZSSBAM	100	0	18.25	18.39	18.32			
Channel									
Frequency (MHz)				56340	56830	56950	Tune-up Int. (dBm)	MFR (dB)	
15	QPSK	1	0	23.13	23.17	23.43	24.5	0	
15	QPSK	1	37	23.39	23.49	23.38	23.42		
15	QPSK	1	74	23.32	23.42	23.29	23.37		
15	QPSK	36	0	22.45	22.48	22.42	23.46		
15	QPSK	36	20	22.37	22.42	22.42	23.5	1	
15	QPSK	75	0	22.27	22.42	22.42	23.46		
15	HQAM	1	0	22.38	22.30	22.27	23.36		
15	HQAM	1	37	22.24	22.43	22.37	23.5	1	
15	HQAM	1	74	22.19	22.32	22.27	23.14		
15	HQAM	36	0	21.50	21.51	21.36	21.40		
15	HQAM	36	20	21.52	21.53	21.37	21.36		
15	HQAM	36	59	21.41	21.56	21.47	21.34	22.5	2</



DSI 0 Power for WWAN Main PA

GSM850 Ant0 Default								
GSM850 TX Channel Frequency (MHz)	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
	824.2	836.4	848.8	34.00	824.2	836.4	848.8	25.00
GSM 1 Tx slot	32.93	33.09	33.05	34.00	23.93	24.09	24.05	25.00
GPRS 1 Tx slot	32.97	33.13	33.07	34.00	23.97	24.13	24.07	25.00
GPRS 2 Tx slots	30.09	30.12	30.04	31.00	24.09	24.12	24.04	25.00
GPRS 3 Tx slots	28.23	28.34	28.19	29.20	23.97	24.08	23.93	24.94
GPRS 4 Tx slots	26.91	26.95	26.88	28.00	23.91	23.95	23.88	25.00
EDGE 1 Tx slot	27.01	27.13	27.08	28.00	18.01	18.13	18.08	19.00
EDGE 2 Tx slots	24.17	24.25	24.10	25.00	18.17	18.25	18.10	19.00
EDGE 3 Tx slots	22.31	22.41	22.28	23.20	18.05	18.15	18.02	18.94
EDGE 4 Tx slots	21.12	21.17	21.04	22.00	18.12	18.17	18.04	19.00

WCDMA V Ant0 Default				
Band TX Channel Rx Channel Frequency (MHz)	WCDMA V			Tune-up Limit (dBm)
	4132	4182	4233	
	4367	4407	4458	
	826.4	836.4	846.6	
3GPP Rel 99 AMR 12.2kbps	23.98	24.11	24.08	25.00
3GPP Rel 99 RMC 12.2kbps	24.04	24.16	24.13	25.00
3GPP Rel 6 HSDPA Subtest-1	23.15	23.15	23.11	24.00
3GPP Rel 6 HSDPA Subtest-2	23.09	23.15	23.07	24.00
3GPP Rel 6 HSDPA Subtest-3	22.54	22.69	22.61	23.50
3GPP Rel 6 HSDPA Subtest-4	22.96	22.63	22.57	23.50
3GPP Rel 8 DC-HSDPA Subtest-1	23.03	23.14	23.10	24.00
3GPP Rel 8 DC-HSDPA Subtest-2	23.04	23.14	23.06	24.00
3GPP Rel 8 DC-HSDPA Subtest-3	22.45	22.60	22.53	23.50
3GPP Rel 8 DC-HSDPA Subtest-4	22.43	22.56	22.50	23.50
3GPP Rel 6 HSUPA Subtest-1	22.98	23.03	23.05	24.00
3GPP Rel 6 HSUPA Subtest-2	21.08	21.21	21.06	22.00
3GPP Rel 6 HSUPA Subtest-3	22.09	22.26	22.21	23.00
3GPP Rel 6 HSUPA Subtest-4	21.06	21.11	21.03	22.00
3GPP Rel 6 HSUPA Subtest-5	23.02	23.11	23.05	24.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	20.57	20.76	20.64	21.50



Band 5 Main PA Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power High Ch / Freq.	Power Mid Ch / Freq.	Turn-up limit (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.45	24.56	24.50	25.5	0		
10	QPSK	1	25	24.52	24.48	24.51				
10	QPSK	1	49	24.35	24.52	24.34				
10	QPSK	25	0	23.48	23.59	23.54	24.5	1		
10	QPSK	25	12	23.51	23.47	23.50				
10	QPSK	25	25	23.34	23.50	23.40				
10	QPSK	50	0	23.43	23.54	23.47				
10	16QAM	1	0	23.79	23.84	23.79				
10	16QAM	1	25	23.72	23.71	23.68	24.5	1		
10	16QAM	1	49	23.68	23.73	23.69				
10	16QAM	25	0	22.39	22.52	22.41				
10	16QAM	25	12	22.37	22.48	22.33	23.5	2		
10	16QAM	25	25	22.36	22.44	22.34				
10	16QAM	50	0	22.30	22.46	22.31				
10	64QAM	1	0	22.69	22.68	22.58				
10	64QAM	1	25	22.49	22.69	22.61	23.5	2		
10	64QAM	1	49	22.51	22.67	22.44				
10	64QAM	25	0	21.38	21.46	21.39				
10	64QAM	25	12	21.52	21.48	21.38	22.5	3		
10	64QAM	25	25	21.28	21.37	21.36				
10	64QAM	50	0	21.23	21.51	21.28				
10	256QAM	1	0	19.44	19.56	19.41				
10	256QAM	1	25	19.38	19.56	19.43	20.5	5		
10	256QAM	1	49	19.38	19.56	19.44				
10	256QAM	25	0	19.28	19.36	19.27				
10	256QAM	25	12	19.24	19.49	19.24	20.5	5		
10	256QAM	25	25	19.34	19.40	19.34				
10	256QAM	50	0	19.43	19.49	19.43				
Channel										
Frequency (MHz)										
5	QPSK	1	0	24.32	24.52	24.41	25.5	0		
5	QPSK	1	12	24.31	24.43	24.40				
5	QPSK	1	24	24.29	24.40	24.22				
5	QPSK	12	0	23.30	23.53	23.45	24.5	1		
5	QPSK	12	7	23.39	23.36	23.38				
5	QPSK	12	13	23.20	23.37	23.26				
5	QPSK	25	0	23.36	23.48	23.38				
5	16QAM	1	0	23.76	23.79	23.72	24.5	1		
5	16QAM	1	12	23.69	23.60	23.54				
5	16QAM	1	24	23.58	23.61	23.61	23.5	2		
5	16QAM	12	0	22.29	22.44	22.52				
5	16QAM	12	7	22.27	22.39	22.27				
5	16QAM	12	13	22.35	22.27	22.27				
5	16QAM	25	0	22.27	22.38	22.50				
5	64QAM	1	0	22.48	22.81	22.53	22.5	2		
5	64QAM	1	12	22.46	22.61	22.42				
5	64QAM	1	24	22.44	22.82	22.35				
5	64QAM	12	0	21.33	21.34	21.53	22.5	3		
5	64QAM	12	7	21.38	21.41	21.28				
5	64QAM	12	13	21.19	21.25	21.25				
5	64QAM	25	0	21.14	21.48	21.14				
5	256QAM	1	0	19.38	19.51	19.28				
5	256QAM	1	12	19.34	19.57	19.31	20.5	5		
5	256QAM	1	24	19.33	19.51	19.36				
5	256QAM	12	0	19.28	19.36	19.27				
5	256QAM	12	7	19.20	19.34	19.19	20.5	5		
5	256QAM	12	13	19.31	19.29	19.27				
5	256QAM	25	0	19.33	19.43	19.29				
Channel										
Frequency (MHz)										
3	QPSK	1	0	24.17	24.59	24.47	25.5	0		
3	QPSK	1	8	24.35	24.43	24.29				
3	QPSK	1	14	24.22	24.45	24.29				
3	QPSK	8	0	23.37	23.51	23.41	24.5	1		
3	QPSK	8	4	23.35	23.38	23.41				
3	QPSK	8	7	23.26	23.47	23.26				
3	QPSK	16	0	23.38	23.44	23.38				
3	16QAM	1	0	23.70	23.71	23.68	24.5	1		
3	16QAM	1	8	23.68	23.68	23.64				
3	16QAM	1	14	23.60	23.66	23.62	23.5	2		
3	16QAM	8	0	22.28	22.42	22.37				
3	16QAM	8	4	22.32	22.42	22.20				
3	16QAM	8	7	22.02	22.38	22.24				
3	16QAM	15	0	22.17	22.34	22.17				
3	64QAM	1	0	22.66	22.83	22.63	23.5	2		
3	64QAM	1	8	22.44	22.54	22.40				
3	64QAM	1	14	22.44	22.35	22.40				
3	64QAM	8	0	21.25	21.41	21.36	22.5	3		
3	64QAM	8	4	21.24	21.35	21.15				
3	64QAM	8	7	21.17	21.27	21.27				
3	256QAM	1	0	19.35	19.47	19.28				
3	256QAM	1	8	19.27	19.54	19.33	20.5	5		
3	256QAM	1	14	19.34	19.43	19.33				
3	256QAM	8	0	19.27	19.32	19.22				
3	256QAM	8	4	19.12	19.39	19.18	20.5	5		
3	256QAM	8	7	19.30	19.36	19.30				
3	256QAM	15	0	19.35	19.46	19.35				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	24.34	24.42	24.43	25.5	0		
1.4	QPSK	1	3	24.30	24.41	24.37				
1.4	QPSK	1	5	24.31	24.48	24.26				
1.4	QPSK	3	0	24.38	24.42	24.37	24.5	1		
1.4	QPSK	3	1	24.36	24.41	24.36				
1.4	QPSK	3	3	24.20	24.45	24.23				
1.4	QPSK	6	0	23.42	23.50	23.41	24.5	1		
1.4	16QAM	1	0	23.39	23.39	23.35				
1.4	16QAM	1	3	23.21	23.40	23.35	24.5	1		
1.4	16QAM	1	5	23.38	23.39	23.32				
1.4	16QAM	3	0	23.72	23.76	23.70				
1.4	16QAM	3	1	23.66	23.67	23.64				
1.4	16QAM	3	3	23.62	23.67	23.63	23.5	2		
1.4	16QAM	6	0	22.24	22.46	22.38				
1.4	16QAM	1	0	22.28	22.36	22.26				
1.4	16QAM	1	3	22.29	22.36	22.28				
1.4	64QAM	1	5	22.26	22.38	22.23	23.5	2		
1.4	64QAM	3	0	22.46	22.60	22.44				
1.4	64QAM	3	1	22.41	22.61	22.45				
1.4	64QAM	3	3	22.39	22.60	22.34	22.5	3		
1.4	256QAM	1	0	21.26	21.34	21.29				
1.4	256QAM	1	3	19.32	19.49	19.27	20.5	5		
1.4	256QAM	1	3	19.28	19.40	19.37				
1.4	256QAM	1	5	19.34	19.46	19.29				
1.4	256QAM	3	0	19.23	19.34	19.27				
1.4	256QAM	3	1	19.17	19.35	19.11				
1.4	256QAM	3	3	19.29	19.39	19.21	20.5	5		
1.4	256QAM	6	0	19.31	19.42	19.30				

Band 13 Main PA Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power High Ch / Freq.	Power Mid Ch / Freq.	Turn-up limit (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.64			25.5	0		
10	QPSK	1	25	24.59						
10	QPSK	1	49	24.52						
10	QPSK	25	0	23.96			24.5	1		
10	QPSK	25	12	23.97						
10	QPSK	25	25	23.77						
10	QPSK	50	0	23.90						
10	16QAM	1	0	23.86			24.5	1		
10	16QAM	1	25	23.81						
10	16QAM	1	49	23.78						
10	16QAM	25	0	22.77						
10	16QAM	25	12	22.92			23.5	2		
10	16QAM	25	25	22.71						
10	16QAM	50	0	22.88						
10	64QAM	1	0	22.58						
10	64QAM	1	25	22.59			23.5	2		
10	64QAM	1	49	22.54						
10	64QAM	25	0	21.59			22.5	3		
10	64QAM	25	12	21.69						



Band 26 Main PA Ant0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Turn-up limit (dB)	APR (dB)	
Channel									
Frequency (MHz)				821.5	831.8	841.5			
15	QPSK	1	0	24.52	24.58	24.49			
15	QPSK	1	31	24.42	24.51	24.43	25.5	0	
15	QPSK	1	74	24.41	24.53	24.47			
15	QPSK	36	0	23.48	23.63	23.52			
15	QPSK	36	20	23.43	23.55	23.51	24.5	1	
15	QPSK	36	39	23.52	23.60	23.51			
15	QPSK	75	0	23.54	23.57	23.47			
15	16QAM	1	0	23.48	23.56	23.45			
15	16QAM	1	37	23.35	23.51	23.37	24.5	1	
15	16QAM	1	74	23.42	23.54	23.47			
15	16QAM	36	0	22.42	22.47	22.42			
15	16QAM	36	20	22.45	22.50	22.52	23.5	2	
15	16QAM	36	39	22.53	22.57	22.43			
15	16QAM	75	0	22.50	22.54	22.49			
15	64QAM	1	0	22.59	22.70	22.58			
15	64QAM	1	37	22.63	22.68	22.54	23.5	2	
15	64QAM	1	74	22.63	22.66	22.50			
15	64QAM	36	0	21.25	21.37	21.34			
15	64QAM	36	20	21.41	21.55	21.43	22.5	3	
15	64QAM	36	39	21.45	21.52	21.44			
15	64QAM	75	0	21.41	21.54	21.43			
15	256QAM	1	0	19.58	19.69	19.61			
15	256QAM	1	37	19.42	19.57	19.49	20.5	5	
15	256QAM	1	74	19.60	19.74	19.69			
15	256QAM	36	0	19.35	19.42	19.38			
15	256QAM	36	20	19.48	19.52	19.43	20.5	5	
15	256QAM	36	39	19.46	19.55	19.50			
15	256QAM	75	0	19.38	19.51	19.47			
Channel									
Frequency (MHz)				819	831.8	844			APR (dB)
10	QPSK	1	0	24.42	24.44	24.36			
10	QPSK	1	25	24.39	24.46	24.31	25.5	0	
10	QPSK	1	49	24.28	24.42	24.42			
10	QPSK	25	0	23.43	23.52	23.46			
10	QPSK	25	12	23.29	23.45	23.40	24.5	1	
10	QPSK	25	25	23.48	23.48	23.47			
10	QPSK	50	0	23.42	23.49	23.43			
10	16QAM	1	0	23.41	23.49	23.39			
10	16QAM	1	25	23.33	23.47	23.31	24.5	1	
10	16QAM	1	49	23.35	23.51	23.44			
10	16QAM	25	0	22.36	22.51	22.38			
10	16QAM	25	12	22.35	22.56	22.42	23.5	2	
10	16QAM	25	25	22.48	22.44	22.38			
10	16QAM	50	0	22.36	22.45	22.35			
10	64QAM	1	0	22.51	22.58	22.52			
10	64QAM	1	25	22.50	22.56	22.45	23.5	2	
10	64QAM	1	49	22.63	22.61	22.54			
10	64QAM	25	0	21.18	21.31	21.25			
10	64QAM	25	12	21.32	21.53	21.37	22.5	3	
10	64QAM	25	25	21.32	21.33	21.34			
10	64QAM	50	0	21.34	21.50	21.33			
10	256QAM	1	0	19.45	19.53	19.20			
10	256QAM	1	25	19.32	19.42	19.42	20.5	5	
10	256QAM	1	49	19.54	19.65	19.58			
10	256QAM	25	0	19.36	19.26	19.33			
10	256QAM	25	12	19.43	19.41	19.20	20.5	5	
10	256QAM	25	25	19.39	19.48	19.36			
10	256QAM	50	0	19.28	19.40	19.38			
Channel									
Frequency (MHz)				816.5	831.8	846.5			APR (dB)
5	QPSK	1	0	24.44	24.46	24.38			
5	QPSK	1	12	24.32	24.38	24.25	25.5	0	
5	QPSK	1	24	24.34	24.45	24.39			
5	QPSK	12	0	23.46	23.57	23.48			
5	QPSK	12	7	23.28	23.45	23.45	24.5	1	
5	QPSK	12	13	23.48	23.53	23.38			
5	QPSK	25	0	23.42	23.47	23.38			
5	16QAM	1	0	23.41	23.44	23.33			
5	16QAM	1	12	23.21	23.44	23.22	24.5	1	
5	16QAM	1	24	23.37	23.46	23.34			
5	16QAM	12	0	22.34	22.44	22.34			
5	16QAM	12	7	22.35	22.55	22.42	23.5	2	
5	16QAM	12	13	22.47	22.46	22.38			
5	16QAM	25	0	22.38	22.39	22.45			
5	64QAM	1	0	22.54	22.59	22.53			
5	64QAM	1	12	22.56	22.54	22.46	23.5	2	
5	64QAM	1	24	22.62	22.69	22.76			
5	64QAM	12	0	21.20	21.30	21.21			
5	64QAM	12	7	21.31	21.43	21.37	22.5	3	
5	64QAM	12	13	21.38	21.42	21.37			
5	64QAM	25	0	21.27	21.49	21.39			
5	256QAM	1	0	19.45	19.51	19.45			
5	256QAM	1	12	19.29	19.53	19.36	20.5	5	
5	256QAM	1	24	19.54	19.66	19.55			
5	256QAM	12	0	19.24	19.31	19.20			
5	256QAM	12	7	19.36	19.41	19.37	20.5	5	
5	256QAM	12	13	19.35	19.42	19.43			
5	256QAM	25	0	19.32	19.38	19.38			
Channel									
Frequency (MHz)				817.5	831.8	847.5			APR (dB)
3	QPSK	1	0	24.42	24.42	24.37			
3	QPSK	1	8	24.37	24.42	24.32	25.5	0	
3	QPSK	1	14	24.34	24.45	24.43			
3	QPSK	8	0	23.34	23.51	23.43			
3	QPSK	8	4	23.29	23.45	23.36	24.5	1	
3	QPSK	8	7	23.37	23.46	23.43			
3	QPSK	15	0	23.46	23.52	23.42			
3	16QAM	1	0	23.44	23.52	23.37			
3	16QAM	1	8	23.27	23.45	23.31	24.5	1	
3	16QAM	1	14	23.30	23.45	23.36			
3	16QAM	8	0	22.34	22.42	22.32			
3	16QAM	8	4	22.42	22.64	22.42	23.5	2	
3	16QAM	8	7	22.43	22.53	22.38			
3	16QAM	15	0	22.37	22.47	22.46			
3	64QAM	1	0	22.46	22.57	22.44			
3	64QAM	1	8	22.48	22.61	22.50	23.5	2	
3	64QAM	1	14	22.79	22.86	22.76			
3	64QAM	8	0	21.13	21.28	21.21			
3	64QAM	8	4	21.37	21.45	21.38	22.5	3	
3	64QAM	8	7	21.36	21.38	21.34			
3	64QAM	15	0	21.28	21.45	21.36			
3	256QAM	1	0	19.43	19.56	19.55			
3	256QAM	1	8	19.30	19.45	19.39	20.5	5	
3	256QAM	1	14	19.46	19.71	19.61			
3	256QAM	8	0	19.26	19.36	19.35			
3	256QAM	8	4	19.38	19.39	19.29	20.5	5	
3	256QAM	8	7	19.34	19.32	19.40			
3	256QAM	15	0	19.34	19.45	19.43			
Channel									
Frequency (MHz)				868.7	888.8	910.3			APR (dB)
1.4	QPSK	1	0	24.44	24.54	24.43			
1.4	QPSK	1	3	24.34	24.38	24.26	25.5	0	
1.4	QPSK	1	5	24.35	24.50	24.41			
1.4	QPSK	3	0	24.41	24.45	24.44			
1.4	QPSK	3	1	24.37	24.45	24.48			
1.4	QPSK	3	3	24.34	24.39	24.34	24.5	1	
1.4	QPSK	6	0	23.34	23.59	23.48			
1.4	16QAM	1	0	23.33	23.43	23.35			
1.4	16QAM	1	3	23.42	23.45	23.36	24.5	1	
1.4	16QAM	1	5	23.47	23.54	23.34			
1.4	16QAM	3	0	23.38	23.42	23.40			
1.4	16QAM	3	1	23.24	23.43	23.32	23.5	2	
1.4	16QAM	3	3	23.30	23.48	23.40			
1.4	64QAM	1	0	22.38	22.40	22.32			
1.4	64QAM	1	3	22.35	22.49	22.41	23.5	2	
1.4	64QAM	1	5	22.43	22.47	22.30			
1.4	64QAM	3	0	22.43	22.48	22.38			
1.4	64QAM	3	1	22.50	22.59	22.49	23.5	2	
1.4	64QAM	3	3	22.58	22.79	22.75			
1.4	256QAM</								



GSM850 Ant1 DS10								
GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8	32.50	22.11	22.21	22.17	23.50
GSM 1 Tx slot	31.11	31.21	31.17	32.50	22.11	22.21	22.17	23.50
GPRS 1 Tx slot	31.15	31.23	31.20	32.50	22.15	22.23	22.20	23.50
GPRS 2 Tx slots	27.89	28.11	28.03	29.50	21.89	22.11	22.03	23.50
GPRS 3 Tx slots	26.22	26.33	26.35	27.50	21.96	22.07	22.09	23.24
GPRS 4 Tx slots	24.80	24.88	24.95	26.50	21.80	21.98	21.95	23.50
EDGE 1 Tx slot	25.05	25.12	25.00	26.50	16.05	16.12	16.00	17.50
EDGE 2 Tx slots	22.22	22.23	22.18	23.50	16.22	16.23	16.18	17.50
EDGE 3 Tx slots	20.44	20.49	20.45	21.70	16.18	16.23	16.19	17.44
EDGE 4 Tx slots	19.28	19.27	19.26	20.50	16.28	16.27	16.26	17.50

GSM1900 Ant1 DS10								
GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	24.00	13.38	13.45	13.38	15.00
GSM 1 Tx slot	22.38	22.45	22.38	24.00	13.38	13.45	13.38	15.00
GPRS 1 Tx slot	22.39	22.49	22.41	24.00	13.39	13.49	13.41	15.00
GPRS 2 Tx slots	19.53	19.61	19.54	21.00	13.53	13.61	13.54	15.00
GPRS 3 Tx slots	17.87	17.93	17.92	19.20	13.61	13.67	13.66	14.94
GPRS 4 Tx slots	16.46	16.53	16.34	18.00	13.46	13.53	13.34	15.00
EDGE 1 Tx slot	18.39	18.56	18.41	20.00	9.39	9.56	9.41	11.00
EDGE 2 Tx slots	15.82	15.90	15.80	17.00	9.82	9.90	9.80	11.00
EDGE 3 Tx slots	13.67	13.70	13.58	15.20	9.41	9.44	9.32	10.94
EDGE 4 Tx slots	12.67	12.88	12.80	14.00	9.67	9.88	9.80	11.00

Band	WCDMA II Ant1 DS10				WCDMA IV Ant1 DS10				WCDMA V Ant1 DS10				Tune-up Limit (dBm)
	9262	9400	9538	16.50	1312	1413	1513	16.50	4132	4182	4233	16.50	
3GPP Rel 99	15.57	15.68	15.66	17.50	17.12	17.26	17.24	19.00	21.73	21.93	21.90	23.50	
3GPP Rel 99	15.57	15.68	15.66	17.50	17.12	17.26	17.24	19.00	21.73	21.93	21.90	23.50	
3GPP Rel 6	14.59	14.81	14.65	16.50	16.15	16.28	16.29	18.00	20.94	20.77	20.73	22.50	
3GPP Rel 6	14.52	14.78	14.73	16.50	16.13	16.20	16.06	18.00	20.65	20.84	20.72	22.50	
3GPP Rel 6	14.24	14.17	14.14	16.00	15.60	15.67	15.74	17.50	20.21	20.39	20.35	22.00	
3GPP Rel 6	14.20	14.23	14.21	16.00	15.52	15.65	15.62	17.50	20.19	20.38	20.37	22.00	
3GPP Rel 8	14.65	14.66	14.71	16.50	16.10	16.25	16.01	18.00	20.89	20.88	20.80	22.50	
3GPP Rel 8	14.72	14.76	14.67	16.50	16.05	16.02	16.03	18.00	20.77	20.75	20.77	22.50	
3GPP Rel 8	14.03	14.09	14.21	16.00	15.63	15.67	16.01	17.50	20.19	20.26	20.19	22.00	
3GPP Rel 8	14.19	14.32	14.14	16.00	15.56	15.53	15.53	17.50	20.07	20.30	20.30	22.00	
3GPP Rel 6	14.73	14.54	14.61	16.50	16.08	16.10	16.03	18.00	20.59	20.66	20.66	22.50	
3GPP Rel 6	12.68	12.59	12.69	14.50	14.07	14.10	14.14	16.00	18.75	18.96	18.97	20.50	
3GPP Rel 6	13.69	13.85	13.83	15.50	15.03	15.23	15.18	17.00	19.83	20.02	19.82	21.50	
3GPP Rel 6	12.57	12.66	12.71	14.50	13.95	14.00	14.04	16.00	18.59	18.82	18.86	20.50	
3GPP Rel 6	14.53	14.73	14.69	16.50	16.07	16.02	16.15	18.00	20.56	20.74	20.68	22.50	
3GPP Rel 7	12.33	12.38	12.18	14.00	13.57	13.61	13.63	15.50	18.37	18.61	18.46	20.00	



Band 4 Main PA Ant1 DSI0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Turn-up (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	14.46	14.62	14.67				
20	QPSK	1	49	14.42	14.58	14.63	16	0		
20	QPSK	1	99	14.14	14.28	14.36				
20	QPSK	50	0	14.28	14.38	14.42				
20	QPSK	50	24	14.20	14.30	14.34				
20	QPSK	50	50	14.23	14.31	14.38				
20	QPSK	100	0	14.28	14.38	14.42				
20	QPSK	100	9	14.42	14.52	14.57				
20	16QAM	1	49	14.12	14.28	14.36	16	0		
20	16QAM	1	99	14.29	14.45	14.59				
20	16QAM	50	0	14.47	14.59	14.63				
20	16QAM	50	24	14.30	14.17	14.13				
20	16QAM	50	50	14.10	14.11	14.21				
20	16QAM	100	0	14.30	14.13	14.13				
20	16QAM	100	9	14.30	14.43	14.11				
20	16QAM	1	49	14.29	14.23	14.52				
20	16QAM	1	99	14.28	14.22	14.14				
20	16QAM	50	24	14.18	14.23	14.39				
20	16QAM	50	50	14.28	14.29	14.21				
20	16QAM	100	0	14.09	14.23	14.38				
20	256QAM	1	49	14.23	14.21	14.13				
20	256QAM	1	99	14.26	14.14	14.25				
20	256QAM	50	24	14.28	14.18	14.25				
20	256QAM	50	50	14.23	14.24	14.18				
20	256QAM	100	0	14.39	14.40	14.14				
20	256QAM	100	9	14.28	14.23	14.23				
Channel										
Frequency (MHz)										
15	QPSK	1	0	14.63	14.47	14.44				
15	QPSK	1	37	14.43	14.46	14.28				
15	QPSK	1	74	14.23	14.37	14.27				
15	QPSK	36	0	14.00	14.46	14.12				
15	QPSK	36	25	14.10	14.29	14.24				
15	QPSK	36	39	14.12	14.11	14.16				
15	QPSK	75	0	14.11	14.28	14.21				
15	16QAM	1	49	14.28	14.23	14.23				
15	16QAM	1	37	14.22	14.40	14.21	16	0		
15	16QAM	1	74	14.17	14.21	14.28				
15	16QAM	36	25	14.40	14.18	14.19				
15	16QAM	36	29	14.21	14.22	14.10				
15	16QAM	36	39	14.23	14.18	14.28				
15	16QAM	75	0	14.24	14.24	14.23				
15	16QAM	1	9	14.33	14.50	14.20				
15	16QAM	1	37	14.42	14.39	14.28				
15	16QAM	1	74	14.18	14.25	14.23				
15	16QAM	36	0	14.24	14.22	14.14				
15	16QAM	36	29	14.11	14.37	14.21				
15	16QAM	36	39	14.14	14.25	14.14				
15	16QAM	75	0	14.03	14.05	14.23				
15	256QAM	1	37	14.08	14.28	14.00				
15	256QAM	1	74	14.19	14.10	14.14				
15	256QAM	36	29	14.07	14.14	14.06				
15	256QAM	36	29	14.08	14.09	14.14				
15	256QAM	36	39	14.33	14.16	14.24				
15	256QAM	75	0	14.03	14.09	14.03				
Channel										
Frequency (MHz)										
10	QPSK	1	0	14.60	14.54	14.47				
10	QPSK	1	25	14.30	14.39	14.53				
10	QPSK	1	49	14.34	14.38	14.34				
10	QPSK	12	0	14.27	14.36	14.33				
10	QPSK	25	12	14.11	14.28	14.18				
10	QPSK	25	28	14.28	14.28	14.16				
10	16QAM	1	0	14.20	14.20	14.20				
10	16QAM	1	0	14.22	14.32	14.37				
10	16QAM	1	24	14.29	14.28	14.14	16	0		
10	16QAM	1	49	14.30	14.28	14.38				
10	16QAM	25	0	14.31	14.27	14.39				
10	16QAM	25	12	14.28	14.08	14.19				
10	16QAM	50	0	14.20	14.30	14.20				
10	16QAM	50	0	14.19	14.00	14.00				
10	16QAM	1	0	14.47	14.60	14.63				
10	16QAM	1	24	14.28	14.29	14.23				
10	16QAM	1	49	14.21	14.11	14.23				
10	16QAM	25	0	14.22	14.21	14.21				
10	16QAM	25	12	14.28	14.18	14.20				
10	16QAM	50	28	14.23	14.17	14.28				
10	16QAM	50	0	14.23	14.05	14.20				
10	256QAM	1	24	14.19	14.21	14.06				
10	256QAM	1	49	14.08	14.17	14.08				
10	256QAM	25	0	14.14	14.13	14.13				
10	256QAM	25	12	14.22	14.14	14.28				
10	256QAM	25	25	14.15	14.25	14.23				
10	256QAM	50	0	14.12	14.08	14.20				
Channel										
Frequency (MHz)										
5	QPSK	1	0	14.60	14.54	14.47				
5	QPSK	1	12	14.33	14.47	14.38				
5	QPSK	1	24	14.36	14.33	14.15				
5	QPSK	12	0	14.27	14.36	14.33				
5	QPSK	12	7	14.10	14.26	14.09				
5	QPSK	12	13	14.23	14.22	14.13				
5	QPSK	25	0	14.23	14.29	14.12				
5	16QAM	1	0	14.37	14.32	14.20				
5	16QAM	1	12	14.33	14.39	14.33				
5	16QAM	1	24	14.15	14.29	14.21				
5	16QAM	12	0	14.41	14.31	14.19				
5	16QAM	12	7	14.26	14.02	14.23				
5	16QAM	12	13	14.10	14.09	14.18				
5	16QAM	25	0	14.11	14.22	14.07				
5	16QAM	1	0	14.39	14.46	14.20				
5	16QAM	1	12	14.46	14.29	14.20				
5	16QAM	1	24	14.21	14.32	14.28				
5	16QAM	12	0	14.18	14.11	14.15				
5	16QAM	12	7	14.21	14.16	14.21				
5	16QAM	12	13	14.21	14.18	14.15				
5	16QAM	25	0	14.16	14.05	14.06				
5	16QAM	25	0	14.05	14.18	14.22				
5	256QAM	1	12	14.16	14.22	14.20				
5	256QAM	1	24	14.26	14.29	14.25				
5	256QAM	12	0	14.25	14.11	14.22				
5	256QAM	12	7	14.08	14.09	14.14				
5	256QAM	25	13	14.19	14.16	14.24				
5	256QAM	25	0	14.11	14.24	14.11				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	14.58	14.40	14.49				
3	QPSK	1	8	14.29	14.40	14.37				
3	QPSK	1	14	14.34	14.37	14.16				
3	QPSK	8	0	14.30	14.28	14.20				
3	QPSK	8	4	14.14	14.26	14.24				
3	QPSK	8	7	14.15	14.25	14.19				
3	QPSK	15	0	14.05	14.26	14.15				
3	16QAM	1	0	14.33	14.21	14.28				
3	16QAM	1	8	14.18	14.25	14.21				
3	16QAM	1	15	14.17	14.19	14.24				
3	16QAM	8	0	14.31	14.42	14.27				
3	16QAM	8	4	14.09	14.04	14.15				
3	16QAM	8	7	14.07	14.29	14.24				
3	16QAM	15	0	14.07	14.03	14.09				
3	16QAM	1	0	14.47	14.43	14.09				
3	16QAM	1	8	14.34	14.29	14.14				
3	16QAM	1	14	14.11	14.21	14.06				
3	16QAM	8	4	14.09	14.31	14.30				
3	16QAM	8	7	14.30	14.32	14.20				
3	256QAM	1	0	14.10	14.01	14.20				
3	256QAM	1	8	14.25	14.19	14.03				
3	2									



Band 13 Main PA Ant1 DSI0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MFR (dB)		
Channel										
752										
10	QPSK	1	0	23.47	23.44	23.47	25	0		
10	QPSK	1	49	23.46	23.44	23.46				
10	QPSK	25	0	22.60	22.64	22.60	24.5	0.5		
10	QPSK	25	49	22.64	22.60	22.64				
10	QPSK	25	26	22.79	22.79	22.79	24.5	0.5		
10	QPSK	50	0	22.65	22.65	22.65				
10	16QAM	1	26	22.79	22.79	22.79	24.5	0.5		
10	16QAM	1	49	22.75	22.75	22.75				
10	16QAM	1	26	21.81	21.81	21.81	23.5	1.5		
10	16QAM	25	26	21.85	21.85	21.85				
10	16QAM	50	0	21.79	21.79	21.79				
10	64QAM	1	0	22.07	22.07	22.07	23.5	1.5		
10	64QAM	1	26	22.01	22.01	22.01				
10	64QAM	1	49	21.97	21.97	21.97				
10	64QAM	25	0	20.87	20.87	20.87	22.5	2.5		
10	64QAM	25	12	20.76	20.76	20.76				
10	64QAM	25	26	20.83	20.83	20.83				
10	64QAM	50	0	20.75	20.75	20.75	20.5	4.5		
10	256QAM	1	26	18.94	18.94	18.94				
10	256QAM	1	49	18.88	18.88	18.88	20.5	4.5		
10	256QAM	25	0	18.88	18.88	18.88				
10	256QAM	25	12	18.78	18.78	18.78	20.5	4.5		
10	256QAM	25	26	18.84	18.84	18.84				
10	256QAM	50	0	18.81	18.81	18.81				
Channel										
2305										
5	QPSK	1	0	23.46	23.41	23.38	25	0		
5	QPSK	1	16	23.23	23.27	23.37				
5	QPSK	1	24	23.17	23.20	23.15				
5	QPSK	12	0	22.87	22.78	22.83	24.5	0.5		
5	QPSK	12	7	22.72	22.73	22.73				
5	QPSK	12	13	22.73	22.72	22.68				
5	16QAM	1	0	22.74	22.71	22.78	24.5	0.5		
5	16QAM	1	12	22.65	22.71	22.72				
5	16QAM	12	7	21.73	21.70	21.73	23.5	1.5		
5	16QAM	12	13	21.78	21.84	21.78				
5	16QAM	12	7	21.69	21.68	21.74				
5	64QAM	1	0	21.69	21.68	21.64	23.5	1.5		
5	64QAM	1	24	21.94	21.82	21.83				
5	64QAM	12	0	20.74	20.74	20.78	22.5	2.5		
5	64QAM	12	7	20.67	20.63	20.65				
5	64QAM	12	13	20.76	20.73	20.70				
5	64QAM	25	0	20.68	20.64	20.60	20.5	4.5		
5	256QAM	1	0	18.84	18.81	18.84				
5	256QAM	1	12	18.77	18.87	18.82	20.5	4.5		
5	256QAM	1	24	18.79	18.72	18.78				
5	256QAM	12	0	18.74	18.76	18.84				
5	256QAM	12	7	18.72	18.73	18.84	20.5	4.5		
5	256QAM	12	13	18.69	18.76	18.79				
5	256QAM	25	0	18.71	18.70	18.68				

Band 26 Main PA Ant1 DSI0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MFR (dB)		
Channel										
821.5										
15	QPSK	1	0	22.29	22.38	22.23	24	0		
15	QPSK	1	31	22.11	22.13	22.11				
15	QPSK	1	74	22.11	22.03	22.06				
15	QPSK	36	0	22.16	22.21	22.13	24	0		
15	QPSK	36	29	22.08	22.12	22.02				
15	QPSK	36	38	22.03	22.03	22.07				
15	QPSK	75	0	22.14	22.15	22.01	24	0		
15	16QAM	1	0	22.27	22.23	22.29	24	0		
15	16QAM	1	37	22.03	22.24	22.06				
15	16QAM	1	74	22.23	22.10	22.11				
15	16QAM	36	0	21.83	21.76	21.82	23.5	0.5		
15	16QAM	36	20	21.83	21.68	21.58				
15	16QAM	36	39	21.88	21.72	21.89				
15	16QAM	75	0	21.54	21.66	21.58	23.5	0.5		
15	64QAM	1	0	21.82	21.92	21.84	23.5	0.5		
15	64QAM	1	37	21.78	21.86	21.80				
15	64QAM	1	74	21.73	21.85	21.77	23.5	0.5		
15	64QAM	36	0	20.84	20.89	20.79	22.5	1.5		
15	64QAM	36	20	20.74	20.89	20.72				
15	64QAM	36	39	20.72	20.85	20.70				
15	64QAM	75	0	20.69	20.77	20.67	22.5	1.5		
15	256QAM	1	0	18.81	18.78	18.83	20.5	3.5		
15	256QAM	1	37	18.58	18.72	18.64				
15	256QAM	1	74	18.64	18.67	18.60				
15	256QAM	36	0	18.54	18.58	18.52	20.5	3.5		
15	256QAM	36	20	18.54	18.58	18.51				
15	256QAM	36	39	18.60	18.62	18.55				
15	256QAM	75	0	18.60	18.63	18.56	20.5	3.5		
Channel										
2610										
10	QPSK	1	0	22.15	22.22	22.05	24	0		
10	QPSK	1	29	22.12	22.06	22.03				
10	QPSK	1	49	22.03	22.06	22.04				
10	QPSK	26	0	22.12	22.03	22.02	24	0		
10	QPSK	26	12	22.09	22.05	22.00				
10	QPSK	26	28	22.06	22.04	22.05				
10	16QAM	1	0	22.07	22.09	22.06	24	0		
10	16QAM	1	29	22.12	22.06	22.03				
10	16QAM	1	29	22.06	22.10	22.04				
10	16QAM	26	0	21.81	21.82	21.68	23.5	0.5		
10	16QAM	26	12	21.67	21.65	21.53				
10	16QAM	26	28	21.65	21.62	21.55				
10	64QAM	1	0	21.72	21.77	21.80	23.5	0.5		
10	64QAM	1	29	21.65	21.71	21.67				
10	64QAM	1	49	21.63	21.75	21.59				
10	64QAM	26	0	20.71	20.76	20.68	22.5	1.5		
10	64QAM	26	12	20.65	20.69	20.65				
10	64QAM	26	28	20.58	20.60	20.61				
10	64QAM	50	0	20.56	20.68	20.63	20.5	3.5		
10	256QAM	1	0	18.54	18.54	18.54	20.5	3.5		
10	256QAM	1	26	18.57	18.79	18.71				
10	256QAM	1	49	18.61	18.70	18.57				
10	256QAM	26	0	18.54	18.50	18.57	20.5	3.5		
10	256QAM	26	12	18.54	18.50	18.57				
10	256QAM	26	28	18.58	18.61	18.54				
10	256QAM	50	0	18.56	18.56	18.56	20.5	3.5		
Channel										
2615										
5	QPSK	1	0	22.15	22.17	22.13	24	0		
5	QPSK	1	12	22.14	22.14	22.16				
5	QPSK	1	24	22.25	22.23	22.04				
5	QPSK	12	0	22.03	22.06	22.07	24	0		
5	QPSK	12	7	22.03	22.07	22.01				
5	QPSK	12	13	22.23	22.31	22.09				
5	16QAM	1	0	22.17	22.16	22.02	24	0		
5	16QAM	1	12	22.19	22.28	22.05				
5	16QAM	1	24	21.69	21.77	21.64	23.5	0.5		
5	16QAM	12	0	21.66	21.69	21.51				
5	16QAM	12	7	21.66	21.69	21.51				
5	16QAM	12	13	21.67	21.71	21.63				
5	64QAM	1	0	21.54	21.68	21.62	23.5	0.5		
5	64QAM	1	12	21.54	21.70	21.73				
5	64QAM	1	24	21.66	21.77	21.61				
5	64QAM	12	0	20.61	20.79	20.75	22.5	1.5		
5	64QAM	12	7	20.58	20.71	20.64				
5	64QAM	12	13	20.68	20.71	20.64				
5	64QAM	26	0	20.56	20.69	20.67	20.5	3.5		
5	256QAM	1	0	18.57	18.79	18.65	20.5	3.5		
5	256QAM	1	24	18.70	18.70	18.55		</		



Band 38 Main PA Ant1 DS10										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	19.59	19.57	19.56	21	0		
20	QPSK	1	49	19.56	19.59	19.40				
20	QPSK	50	24	19.40	19.56	19.57				
20	QPSK	50	24	19.47	19.56	19.41				
20	QPSK	50	24	19.37	19.54	19.19	21	0		
20	QPSK	100	0	19.48	19.57	19.47				
20	16QAM	1	0	19.59	19.54	19.30	21	0		
20	16QAM	1	49	19.48	19.44	19.46				
20	16QAM	1	99	19.50	19.57	19.82				
20	16QAM	50	0	19.32	19.62	19.46				
20	16QAM	50	24	19.45	19.44	19.46				
20	16QAM	50	50	19.29	19.37	19.23	21	0		
20	16QAM	100	0	19.33	19.48	19.35				
20	16QAM	1	49	19.33	19.31	19.51	21	0		
20	16QAM	1	99	19.24	19.26	19.16				
20	16QAM	50	0	19.44	19.49	19.40				
20	16QAM	50	24	19.42	19.41	19.80	21	0		
20	16QAM	50	50	19.48	19.44	19.31				
20	16QAM	100	0	19.43	19.35	19.41				
20	25QAM	1	0	18.51	18.65	18.56				
20	25QAM	1	49	18.48	18.66	18.52	20	1		
20	25QAM	1	99	18.48	18.62	18.67				
20	25QAM	50	0	18.54	18.87	18.73				
20	25QAM	50	24	18.54	18.87	18.89	20	1		
20	25QAM	100	0	18.37	18.75	18.74				
Channel										
Frequency (MHz)										
15	QPSK	1	0	18.53	19.03	19.17	21	0		
15	QPSK	1	37	18.43	19.51	19.29				
15	QPSK	1	74	19.40	19.37	19.38				
15	QPSK	1	0	19.45	19.45	19.38				
15	QPSK	36	20	19.19	19.49	19.19	21	0		
15	QPSK	36	39	19.37	19.37	19.37				
15	QPSK	75	0	19.24	19.32	19.45				
15	16QAM	1	0	19.54	19.48	19.13	21	0		
15	16QAM	1	37	19.58	19.52	19.48				
15	16QAM	1	74	19.42	19.39	19.48				
15	16QAM	36	0	19.32	19.54	19.45				
15	16QAM	36	20	19.24	19.30	19.45	21	0		
15	16QAM	36	39	19.23	19.28	19.05				
15	16QAM	75	0	19.27	19.34	19.46				
15	16QAM	1	0	19.35	19.37	19.37				
15	16QAM	1	37	19.33	19.15	19.30	21	0		
15	16QAM	1	74	19.06	19.17	19.04				
15	16QAM	36	0	19.33	19.42	19.37				
15	16QAM	36	20	19.34	19.42	19.41	21	0		
15	16QAM	36	39	19.46	19.45	19.33				
15	16QAM	75	0	19.32	19.35	19.22				
15	25QAM	1	0	18.39	18.51	18.42	20	1		
15	25QAM	1	37	18.52	18.52	18.48				
15	25QAM	1	74	18.45	18.57	18.51				
15	25QAM	36	0	18.84	18.85	18.82	20	1		
15	25QAM	36	20	18.83	18.83	18.81				
15	25QAM	36	39	18.86	18.86	18.86				
15	25QAM	75	0	18.80	18.88	18.84	20	1		
Channel										
Frequency (MHz)										
10	QPSK	1	0	19.38	19.47	19.40	21	0		
10	QPSK	1	25	19.38	19.49	19.27				
10	QPSK	1	49	19.45	19.62	19.48				
10	QPSK	1	0	19.25	19.49	19.45				
10	QPSK	25	12	19.23	19.52	19.08	21	0		
10	QPSK	25	25	19.21	19.49	19.36				
10	16QAM	1	0	19.55	19.55	19.19				
10	16QAM	1	25	19.52	19.50	19.31	21	0		
10	16QAM	1	49	19.43	19.40	19.45				
10	16QAM	25	0	19.27	19.52	19.40				
10	16QAM	25	12	19.20	19.28	19.39	21	0		
10	16QAM	25	25	19.20	19.36	19.11				
10	16QAM	50	0	19.28	19.33	19.47				
10	16QAM	1	0	19.32	19.48	19.46				
10	16QAM	1	25	19.21	19.17	19.49	21	0		
10	16QAM	1	49	19.07	19.21	19.18				
10	16QAM	25	0	19.37	19.49	19.42				
10	16QAM	25	12	19.41	19.39	19.52	21	0		
10	16QAM	25	25	19.31	19.22	19.12				
10	16QAM	50	0	19.24	19.36	19.31				
10	25QAM	1	0	18.42	18.59	18.47				
10	25QAM	1	25	18.45	18.61	18.47	20	1		
10	25QAM	1	49	18.43	18.48	18.51				
10	25QAM	25	0	18.88	18.86	18.77				
10	25QAM	25	12	18.77	18.83	18.64	20	1		
10	25QAM	25	25	18.87	18.86	18.76				
10	25QAM	50	0	18.88	18.71	18.67				
Channel										
Frequency (MHz)										
5	QPSK	1	0	19.48	19.50	19.44	21	0		
5	QPSK	1	19	19.37	19.60	19.38				
5	QPSK	1	24	19.27	19.53	19.42				
5	QPSK	12	0	19.34	19.41	19.26				
5	QPSK	12	7	19.36	19.52	19.09	21	0		
5	QPSK	12	19	19.19	19.50	19.42				
5	QPSK	25	0	19.41	19.31	19.23				
5	QPSK	0	19.37	19.48	19.25					
5	16QAM	1	12	19.58	19.42	19.17	21	0		
5	16QAM	1	24	19.47	19.46	19.02				
5	16QAM	12	0	19.32	19.42	19.46				
5	16QAM	12	7	19.43	19.43	19.30	21	0		
5	16QAM	12	13	19.20	19.20	19.21				
5	16QAM	25	0	19.25	19.42	19.41				
5	16QAM	1	0	19.21	19.30	19.30	21	0		
5	16QAM	1	12	19.33	19.13	19.45				
5	16QAM	1	24	19.24	19.26	19.11				
5	16QAM	12	0	19.20	19.42	19.22				
5	16QAM	25	0	19.20	19.30	19.40	21	0		
5	16QAM	12	13	19.45	19.42	19.15				
5	16QAM	1	0	19.37	19.35	19.26				
5	25QAM	1	0	18.40	18.57	18.45				
5	25QAM	1	12	18.54	18.58	18.41	20	1		
5	25QAM	1	24	18.37	18.58	18.43				
5	25QAM	12	0	18.87	18.83	18.72				
5	25QAM	12	7	18.80	18.84	18.60	20	1		
5	25QAM	12	13	18.65	18.89	18.77				
5	25QAM	25	0	18.83	18.88	18.61				

Band 41 Main PA Ant1 DS10										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	19.69	19.72	19.65	20.5	0		
20	QPSK	1	49	19.65	19.77	19.81				
20	QPSK	50	24	19.63	19.77	19.66				
20	QPSK	50	0	19.30	19.44	19.37				
20	QPSK	50	24	19.38	19.36	19.51	20.5	0		
20	QPSK	100	0	19.34	19.32	19.35				
20	QPSK	100	0	19.37	19.37	19.43				
20	16QAM	1	0	19.65	19.49	19.51	20.5	0		
20	16QAM	1	49	19.30	19.25	19.33				
20	16QAM	1	99	19.46	19.28	19.70				
20	16QAM	50	0	19.43	19.46	19.46	20.5	0		
20	16QAM	50	24	19.27	19.45	19.42				
20	16QAM	50	50	19.49	19.37	19.63	20.5	0		
20	16QAM	100	0	19.44	19.40	19.26				
20	16QAM	1	0	19.35	19.13	19.11				
20	16QAM	1	49	19.67	19.10	19.25	20.5	0		
20	16QAM	1	99	19.20	19.23	19.04				



Band 42 FCC Part27Q Main PA Ant1 DS10										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	19.96	20.02	20.04	21.5	0		
20	QPSK	1	49	19.82	19.83	19.89				
20	QPSK	1	99	19.73	19.80	19.79				
20	QPSK	50	0	19.87	19.87	19.82				
20	QPSK	50	24	19.72	19.76	19.71				
20	QPSK	50	50	19.76	19.76	19.82				
20	QPSK	100	0	19.74	19.84	19.82				
20	16QAM	1	0	19.87	19.79	19.51	21.5	0		
20	16QAM	1	49	19.84	19.71	19.52				
20	16QAM	1	99	19.80	19.69	19.51				
20	16QAM	50	0	19.81	19.69	19.66				
20	16QAM	50	24	19.84	19.59	19.51				
20	16QAM	50	50	19.55	19.63	19.59				
20	16QAM	100	0	19.51	19.66	19.54				
20	16QAM	1	0	19.82	19.59	19.52				
20	16QAM	1	49	19.84	19.59	19.59				
20	16QAM	1	99	19.84	19.62	19.57				
20	16QAM	50	0	19.50	19.58	19.54				
20	16QAM	50	24	19.55	19.62	19.56				
20	16QAM	50	50	19.55	19.67	19.60				
20	16QAM	100	0	19.84	19.55	19.64				
20	256QAM	1	0	18.16	18.27	18.22				
20	256QAM	1	49	18.20	18.33	18.21	20	1.5		
20	256QAM	1	99	18.21	18.26	18.17				
20	256QAM	50	0	18.20	18.26	18.14				
20	256QAM	50	24	18.11	18.21	18.20				
20	256QAM	50	50	18.19	18.24	18.12				
20	256QAM	100	0	18.23	18.23	18.13				
Channel										
Frequency (MHz)										
15	QPSK	1	0	19.15	19.16	19.20	21.5	0		
15	QPSK	1	37	19.17	19.87	19.88				
15	QPSK	1	74	19.12	19.82	19.86				
15	QPSK	36	0	19.71	19.82	19.81				
15	QPSK	36	20	19.70	19.85	19.76				
15	QPSK	75	0	19.82	19.89	19.93				
15	QPSK	75	0	19.82	19.89	19.93				
15	16QAM	1	0	19.84	19.77	19.65	21.5	0		
15	16QAM	1	37	19.73	19.73	19.62				
15	16QAM	1	74	19.82	19.81	19.54				
15	16QAM	36	0	19.87	19.76	19.80				
15	16QAM	36	20	19.82	19.86	19.84				
15	16QAM	36	39	19.51	19.69	19.53				
15	16QAM	75	0	19.87	19.58	19.58				
15	16QAM	75	0	19.80	19.68	19.71				
15	16QAM	1	37	19.54	19.54	19.52				
15	16QAM	1	74	19.53	19.56	19.56				
15	16QAM	36	0	19.50	19.80	19.59				
15	16QAM	36	20	19.81	19.52	19.66				
15	16QAM	36	39	19.66	19.66	19.54				
15	16QAM	75	0	19.76	19.54	19.51				
15	256QAM	1	0	18.13	18.24	18.08				
15	256QAM	1	37	18.16	18.24	18.15	20	1.5		
15	256QAM	1	74	18.16	18.20	18.06				
15	256QAM	36	0	18.09	18.26	18.21				
15	256QAM	36	20	18.01	18.09	18.09				
15	256QAM	36	39	18.07	18.16	18.10				
15	256QAM	75	0	18.16	18.16	18.06				
Channel										
Frequency (MHz)										
10	QPSK	1	0	19.79	19.79	19.79	21.5	0		
10	QPSK	1	25	19.79	19.82	19.78				
10	QPSK	1	49	19.73	19.58	19.65				
10	QPSK	25	0	19.70	19.76	19.76				
10	QPSK	25	12	19.76	19.87	19.73				
10	QPSK	25	25	19.81	19.81	19.68				
10	QPSK	50	0	19.84	19.84	19.84				
10	16QAM	1	0	19.70	19.74	19.68	21.5	0		
10	16QAM	1	25	19.86	19.77	19.60				
10	16QAM	1	49	19.84	19.80	19.60				
10	16QAM	25	0	19.51	19.63	19.79				
10	16QAM	25	12	19.62	19.66	19.71				
10	16QAM	25	25	19.50	19.54	19.68				
10	16QAM	50	0	19.56	19.58	19.57				
10	16QAM	50	12	19.62	19.66	19.74				
10	16QAM	50	25	19.62	19.56	19.54				
10	16QAM	100	0	19.50	19.64	19.66				
10	16QAM	1	25	19.84	19.71	19.52				
10	16QAM	1	49	19.55	19.65	19.50				
10	16QAM	25	0	19.50	19.67	19.71				
10	16QAM	25	12	19.66	19.56	19.57				
10	16QAM	25	25	19.54	19.55	19.65				
10	16QAM	50	0	19.68	19.56	19.56				
10	16QAM	50	12	19.69	19.56	19.56				
10	256QAM	1	0	18.03	18.12	18.06				
10	256QAM	1	25	18.09	18.26	18.06				
10	256QAM	1	49	18.14	18.19	18.06				
10	256QAM	25	0	18.14	18.25	18.06				
10	256QAM	25	12	18.06	18.11	18.06				
10	256QAM	25	25	18.16	18.14	18.01				
10	256QAM	50	0	18.14	18.12	18.07				
Channel										
Frequency (MHz)										
5	QPSK	1	0	19.80	19.88	19.72	21.5	0		
5	QPSK	1	12	19.73	19.81	19.86				
5	QPSK	1	24	19.86	19.83	19.87				
5	QPSK	12	0	19.56	19.80	19.82				
5	QPSK	12	7	19.76	19.72	19.72				
5	QPSK	12	13	19.77	19.78	19.88				
5	QPSK	24	0	19.82	19.86	19.83				
5	16QAM	1	0	19.72	19.81	19.52	21.5	0		
5	16QAM	1	12	19.83	19.80	19.81				
5	16QAM	1	24	19.72	19.76	19.81				
5	16QAM	12	0	19.71	19.80	19.71				
5	16QAM	12	7	19.76	19.67	19.63				
5	16QAM	12	13	19.80	19.82	19.69				
5	16QAM	24	0	19.54	19.66	19.68				
5	16QAM	1	0	19.81	19.58	19.71				
5	16QAM	1	12	19.87	19.63	19.64				
5	16QAM	1	24	19.82	19.62	19.63				
5	16QAM	12	0	19.61	19.70	19.68				
5	16QAM	12	7	19.80	19.71	19.63				
5	16QAM	12	13	19.84	19.73	19.51				
5	16QAM	24	0	19.60	19.64	19.88				
5	256QAM	1	0	18.06	18.23	18.10				
5	256QAM	1	12	18.12	18.29	18.08				
5	256QAM	1	24	18.06	18.16	18.03				
5	256QAM	12	0	18.11	18.21	18.10				
5	256QAM	12	7	18.00	18.13	18.00				
5	256QAM	12	13	18.15	18.17	18.02				
5	256QAM	24	0	18.08	18.14	18.01				

Band 48_FCC Main PA Ant1 DS10										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	20.07	20.02	20.10	21.5	0		
20	QPSK	1	49	19.86	20.02	20.02				
20	QPSK	1	99	20.00	20.10	19.97				
20	QPSK	50	0	19.78	20.02	19.91				
20	QPSK	50	24	19.77	19.91	19.82				
20	QPSK	50	50	19.76	19.91	19.82				
20	QPSK	100	0	19.76	19.92	19.84				
20	16QAM	1	0	19.76	19.79	19.82	21.5	0		
20	16QAM	1	49	19.73	19.77	19.76				
20	16QAM	1	99	19.85	19.83	19.74				
20	16QAM	50	0	19.71	19.89	19.71				
20	16QAM	50	24	19.82	19.69	19.76				
20	16QAM	50	50	19.66	19.70	19.81				
20	16QAM	100	0	19.69	19.73	19.67				



GSM1900 AHD Default						
Band	Burst Average Power (dBm)			Flattop Average Power (dBm)		
Tx Channel	812	814	816	1812	1814	1816
Frequency (MHz)	1852.2	1854	1855.8	1852.2	1854	1855.8
OPRS 1 Tx site	23.39	23.82	23.53	21.59	22.09	21.93
OPRS 2 Tx site	23.92	23.01	23.30	21.92	21.01	21.65
OPRS 3 Tx site	23.08	23.11	23.03	21.08	21.11	21.03
OPRS 4 Tx site	23.21	23.24	23.26	21.21	21.24	21.24
EDGE 1 Tx site	23.92	24.02	23.90	21.92	21.92	21.92
EDGE 2 Tx site	23.15	23.21	23.19	21.15	21.21	21.18
EDGE 3 Tx site	23.36	23.44	23.35	21.36	21.44	21.35
EDGE 4 Tx site	23.53	23.58	23.53	21.53	21.58	21.54
EDGE 5 Tx site	23.54	23.58	23.60	21.54	21.58	21.60

Band	WCDMA 8 AHD Default			WCDMA 19 AHD Default		
	8462	8460	8458	1912	1913	1919
Tx Channel	1892	1890	1888	1712	1706	1706
Frequency (MHz)	1892.4	1890	1887.6	1712.4	1705.8	1705.8
ISPP Rel 99	23.47	23.58	23.53	21.43	21.55	21.49
ISPP Rel 99	23.50	23.61	23.56	21.50	21.61	21.55
ISPP Rel 99	22.48	22.69	22.83	20.48	20.58	20.59
ISPP Rel 99	22.54	22.65	22.60	20.54	20.65	20.60
ISPP Rel 99	22.09	22.11	22.02	20.09	20.07	20.02
ISPP Rel 99	22.00	22.02	22.00	20.00	20.01	20.03
ISPP Rel 99	22.56	22.53	22.57	20.56	20.59	20.59
ISPP Rel 99	22.48	22.55	22.46	20.48	20.47	20.43
ISPP Rel 99	21.90	21.91	21.93	20.90	20.94	20.93
ISPP Rel 99	21.90	22.02	21.98	20.90	21.02	21.03
ISPP Rel 99	22.24	22.47	22.52	20.24	20.47	20.52
ISPP Rel 99	20.08	20.05	20.02	20.08	20.04	20.07
ISPP Rel 99	21.62	21.71	21.68	20.62	20.63	20.60
ISPP Rel 99	20.46	20.50	20.51	20.46	20.50	20.49
ISPP Rel 99	22.39	22.40	22.42	20.39	20.39	20.48
ISPP Rel 99	20.87	20.74	20.68	20.87	20.71	20.69



Band 2 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./F.Freq.	Power Mid Ch./F.Freq.	Power High Ch./F.Freq.	Time-up limit (sec)	MPE (dB)		
Channel										
1860 1860 1900										
20	QPSK	1	0	23.54	23.60	23.67				
20	QPSK	1	49	23.40	23.47	23.45		25	0	
20	QPSK	1	99	23.40	23.47	23.45				
20	QPSK	50	0	22.64	22.70	22.75				
20	QPSK	50	24	22.67	22.68	22.69		24	1	
20	QPSK	50	50	22.62	22.66	22.59				
20	QPSK	100	0	22.62	22.75	22.71				
20	QPSK	100	24	22.31	22.31	22.31				
20	QPSK	100	49	22.67	22.73	22.81		24	1	
20	16QAM	1	0	21.81	21.84	21.84				
20	16QAM	1	49	21.78	21.88	21.78		23	2	
20	16QAM	50	0	21.81	21.98	21.81				
20	16QAM	50	24	21.87	21.74	21.81				
20	16QAM	100	0	21.85	21.74	21.81				
20	16QAM	100	24	21.87	21.72	21.87		23	2	
20	16QAM	50	50	21.87	21.74	21.81				
20	16QAM	100	50	21.87	21.74	21.81				
20	64QAM	1	0	21.81	21.84	21.84				
20	64QAM	1	49	21.78	21.88	21.78		23	2	
20	64QAM	50	0	20.75	20.79	20.75				
20	64QAM	50	24	20.96	20.70	20.61				
20	64QAM	100	0	20.99	20.69	20.55		22	3	
20	64QAM	100	24	20.59	20.59	20.55				
20	256QAM	1	0	18.58	18.72	18.58				
20	256QAM	1	49	18.58	18.72	18.58		20	5	
20	256QAM	1	99	18.58	18.80	18.70				
20	256QAM	50	0	18.58	18.68	18.54				
20	256QAM	50	24	18.58	18.68	18.54		20	5	
20	256QAM	100	0	18.58	18.60	18.45				
20	256QAM	100	24	18.58	18.60	18.45				
Channel										
1897.5 1890 1925.5										
15	QPSK	1	0	23.43	23.43	23.40				
15	QPSK	1	37	23.36	23.42	23.30		25	0	
15	QPSK	1	74	23.30	23.42	23.30				
15	QPSK	36	0	22.58	22.68	22.68				
15	QPSK	36	25	22.48	22.68	22.48		24	1	
15	QPSK	36	39	22.46	22.57	22.49				
15	QPSK	75	0	22.67	22.66	22.61				
15	16QAM	1	0	22.94	22.94	22.77				
15	16QAM	1	37	22.58	22.67	22.49		24	1	
15	16QAM	1	74	22.80	22.80	22.62				
15	16QAM	36	0	21.97	21.98	21.48				
15	16QAM	36	25	21.46	21.59	21.59		23	2	
15	16QAM	75	0	21.83	21.81	21.55				
15	64QAM	1	0	21.72	21.84	21.77				
15	64QAM	1	37	21.81	21.83	21.64		23	2	
15	64QAM	1	74	21.72	21.75	21.75				
15	64QAM	36	0	20.71	20.64	20.61				
15	64QAM	36	25	20.40	20.68	20.47				
15	64QAM	75	0	20.48	20.53	20.45		22	3	
15	64QAM	75	25	20.49	20.60	20.46				
15	256QAM	1	0	18.58	18.68	18.58				
15	256QAM	1	37	18.48	18.58	18.47		20	5	
15	256QAM	1	74	18.58	18.70	18.58				
15	256QAM	36	0	18.58	18.68	18.58				
15	256QAM	36	25	18.52	18.64	18.40		20	5	
15	256QAM	75	0	18.41	18.54	18.38				
15	256QAM	75	25	18.52	18.65	18.47				
Channel										
1890 1890 1925										
10	QPSK	1	0	23.34	23.34	23.30				
10	QPSK	1	25	23.34	23.41	23.35		25	0	
10	QPSK	1	49	23.20	23.42	23.31				
10	QPSK	12	0	22.56	22.66	22.66				
10	QPSK	12	13	22.44	22.65	22.44		24	1	
10	QPSK	25	12	22.44	22.65	22.44				
10	QPSK	25	25	22.48	22.53	22.47				
10	QPSK	75	0	22.67	22.66	22.61				
10	16QAM	1	0	22.84	22.84	22.79				
10	16QAM	1	24	22.63	22.68	22.52		24	1	
10	16QAM	1	49	22.86	22.86	22.68				
10	16QAM	25	0	21.92	21.64	21.51				
10	16QAM	25	12	21.49	21.68	21.43		23	2	
10	16QAM	50	0	21.93	21.68	21.60				
10	16QAM	50	12	21.55	21.63	21.51				
10	64QAM	1	0	21.89	21.87	21.81				
10	64QAM	1	24	21.76	21.82	21.73		23	2	
10	64QAM	1	49	21.66	21.80	21.77				
10	64QAM	25	0	20.99	20.73	20.64				
10	64QAM	25	12	20.99	20.73	20.64				
10	64QAM	50	0	20.53	20.63	20.46		22	3	
10	64QAM	50	12	20.46	20.55	20.45				
10	256QAM	1	0	18.58	18.68	18.57				
10	256QAM	1	24	18.50	18.64	18.63		20	5	
10	256QAM	1	49	18.58	18.75	18.59				
10	256QAM	12	0	18.50	18.60	18.50				
10	256QAM	12	13	18.50	18.56	18.41		20	5	
10	256QAM	25	12	18.58	18.50	18.41				
10	256QAM	25	25	18.46	18.50	18.41				
10	256QAM	50	0	18.55	18.56	18.39				
Channel										
1892.5 1890 1927.5										
5	QPSK	1	0	23.41	23.41	23.30				
5	QPSK	1	12	23.36	23.39	23.32		25	0	
5	QPSK	1	24	23.32	23.35	23.32				
5	QPSK	12	0	22.56	22.66	22.66				
5	QPSK	12	7	22.54	22.54	22.44		24	1	
5	QPSK	12	13	22.42	22.54	22.54				
5	QPSK	25	0	22.48	22.68	22.47				
5	QPSK	25	12	22.48	22.68	22.48				
5	16QAM	1	0	22.83	22.82	22.84				
5	16QAM	1	12	22.59	22.64	22.56		24	1	
5	16QAM	1	24	22.68	22.77	22.68				
5	16QAM	12	0	21.54	21.63	21.68				
5	16QAM	12	7	21.46	21.60	21.45		23	2	
5	16QAM	25	0	21.81	21.64	21.60				
5	64QAM	1	0	21.83	21.64	21.62				
5	64QAM	1	12	21.71	21.79	21.70		23	2	
5	64QAM	1	24	21.74	21.82	21.80				
5	64QAM	12	0	20.61	20.74	20.69				
5	64QAM	12	7	20.51	20.62	20.50		22	3	
5	64QAM	25	0	20.93	20.54	20.43				
5	64QAM	25	12	20.96	20.97	20.41				
5	256QAM	1	0	18.50	18.50	18.39				
5	256QAM	1	12	18.50	18.59	18.48		20	5	
5	256QAM	1	24	18.59	18.73	18.55				
5	256QAM	12	0	18.54	18.70	18.64				
5	256QAM	12	7	18.54	18.53	18.48		20	5	
5	256QAM	12	13	18.38	18.54	18.52				
5	256QAM	25	0	18.47	18.58	18.51				
5	256QAM	25	12	18.46	18.56	18.51				
Channel										
1861.6 1860 1918.6										
3	QPSK	1	0	23.47	23.55	23.35				
3	QPSK	1	8	23.40	23.39	23.28		25	0	
3	QPSK	1	14	23.34	23.37	23.33				
3	QPSK	8	0	22.57	22.62	22.68				
3	QPSK	8	4	22.44	22.60	22.49		24	1	
3	QPSK	8	7	22.37	22.59	22.53				
3	QPSK	15	0	22.59	22.69	22.64				
3	16QAM	1	0	22.83	22.88	22.78				
3	16QAM	1	8	22.63	22.61	22.46		24	1	
3	16QAM	1	14	22.73	22.78	22.72				
3	16QAM	8	0	21.46						



Band 25 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Turn-up (min)	MPR (dB)		
Channel										
	Frequency (MHz)			1860	1880	1900				
20	QPSK	1	0	23.53	23.60	23.60	25	0		
20	QPSK	1	49	23.52	23.63	23.68				
20	QPSK	1	99	23.45	23.51	23.46				
20	QPSK	50	0	22.59	22.73	22.88				
20	QPSK	50	24	22.57	22.64	22.84				
20	QPSK	50	50	22.84	22.70	22.84	24	1		
20	QPSK	100	0	22.56	22.67	22.56				
20	16QAM	1	0	22.59	22.59	22.59				
20	16QAM	1	49	22.47	22.59	22.50	24	1		
20	16QAM	1	99	22.59	22.63	22.57				
20	16QAM	50	0	21.70	21.80	21.77				
20	16QAM	50	24	21.56	21.80	21.54				
20	16QAM	50	50	21.86	21.73	21.87				
20	16QAM	100	0	21.82	21.89	21.59				
20	64QAM	1	0	21.79	21.84	21.78				
20	64QAM	1	49	21.84	21.76	21.70				
20	64QAM	1	99	21.84	21.86	21.80				
20	64QAM	50	0	20.55	20.60	20.57				
20	64QAM	50	24	20.57	20.56	20.58				
20	64QAM	50	50	20.51	20.51	20.57				
20	64QAM	100	0	20.56	20.58	20.58				
20	256QAM	1	0	18.73	18.86	18.71				
20	256QAM	1	49	18.96	18.73	18.59				
20	256QAM	1	99	18.71	18.75	18.66				
20	256QAM	50	0	18.54	18.65	18.65				
20	256QAM	50	24	18.96	18.60	18.57				
20	256QAM	50	50	18.60	18.68	18.61				
20	256QAM	100	0	18.63	18.60	18.64				
Channel										
	Frequency (MHz)			1875	1880	1907.5	Turn-up (min)	MPR (dB)		
15	QPSK	1	0	23.48	23.61	23.58	25	0		
15	QPSK	1	37	23.41	23.50	23.61				
15	QPSK	1	74	23.35	23.46	23.39				
15	QPSK	36	0	22.48	22.70	22.82				
15	QPSK	36	20	22.45	22.50	22.59				
15	QPSK	36	39	22.59	22.62	22.67	24	1		
15	16QAM	1	0	22.36	22.52	22.48				
15	16QAM	1	37	22.41	22.49	22.42	24	1		
15	16QAM	1	74	22.59	22.62	22.51				
15	16QAM	36	0	21.82	21.78	21.87				
15	16QAM	36	20	21.44	21.53	21.46				
15	16QAM	36	39	21.57	21.59	21.57				
15	64QAM	1	0	21.54	21.56	21.60				
15	64QAM	1	37	21.71	21.73	21.73				
15	64QAM	36	0	20.44	20.55	20.46				
15	64QAM	36	20	20.49	20.49	20.43				
15	64QAM	36	39	20.47	20.51	20.59				
15	64QAM	75	0	20.43	20.61	20.43				
15	256QAM	1	0	18.64	18.73	18.67				
15	256QAM	1	37	18.54	18.65	18.45				
15	256QAM	1	74	18.83	18.70	18.52				
15	256QAM	36	0	18.53	18.53	18.58				
15	256QAM	36	20	18.51	18.50	18.47				
15	256QAM	36	39	18.48	18.53	18.53				
15	256QAM	75	0	18.54	18.53	18.42				
Channel										
	Frequency (MHz)			1895	1890	1910	Turn-up (min)	MPR (dB)		
10	QPSK	1	0	23.43	23.50	23.43	25	0		
10	QPSK	1	25	23.45	23.57	23.47				
10	QPSK	1	49	23.37	23.45	23.38				
10	QPSK	25	0	22.47	22.47	22.48				
10	QPSK	25	12	22.54	22.61	22.58				
10	QPSK	25	25	22.50	22.66	22.63	24	1		
10	16QAM	1	0	22.38	22.52	22.48				
10	16QAM	1	25	22.33	22.56	22.49	24	1		
10	16QAM	1	49	22.53	22.56	22.51				
10	16QAM	25	0	21.58	21.78	21.83				
10	16QAM	25	12	21.45	21.67	21.51				
10	16QAM	25	25	21.60	21.48	21.54				
10	64QAM	1	0	21.54	21.50	21.54				
10	64QAM	1	25	21.81	21.83	21.72				
10	64QAM	25	0	20.47	20.59	20.46				
10	64QAM	25	12	20.43	20.43	20.48				
10	64QAM	25	25	20.55	20.60	20.61				
10	64QAM	50	0	20.41	20.63	20.46				
10	256QAM	1	0	18.65	18.73	18.58				
10	256QAM	1	25	18.63	18.64	18.51				
10	256QAM	1	49	18.67	18.62	18.61				
10	256QAM	25	0	18.51	18.50	18.57				
10	256QAM	25	12	18.45	18.60	18.50				
10	256QAM	25	25	18.50	18.50	18.57				
10	256QAM	50	0	18.49	18.60	18.42				
Channel										
	Frequency (MHz)			1895	1890	1912.5	Turn-up (min)	MPR (dB)		
5	QPSK	1	0	23.43	23.50	23.43	25	0		
5	QPSK	1	12	23.45	23.53	23.50				
5	QPSK	1	24	23.33	23.39	23.41				
5	QPSK	12	0	22.50	22.54	22.62				
5	QPSK	12	7	22.43	22.52	22.58				
5	QPSK	12	13	22.57	22.64	22.51	24	1		
5	QPSK	25	0	22.48	22.54	22.50				
5	16QAM	1	0	22.48	22.53	22.51				
5	16QAM	1	12	22.35	22.47	22.38	24	1		
5	16QAM	1	24	22.50	22.56	22.51				
5	16QAM	12	0	21.60	21.73	21.82				
5	16QAM	12	7	21.41	21.67	21.50				
5	16QAM	12	13	21.54	21.62	21.52				
5	64QAM	1	0	21.47	21.54	21.49				
5	64QAM	1	12	21.50	21.48	21.63				
5	64QAM	1	24	21.81	21.83	21.72				
5	64QAM	12	0	20.52	20.62	20.48				
5	64QAM	12	7	20.50	20.50	20.54				
5	64QAM	12	13	20.56	20.67	20.55				
5	64QAM	25	0	20.51	20.56	20.49				
5	256QAM	1	0	18.60	18.73	18.60				
5	256QAM	1	12	18.58	18.60	18.48				
5	256QAM	1	24	18.60	18.66	18.57				
5	256QAM	12	0	18.54	18.50	18.58				
5	256QAM	12	7	18.41	18.62	18.50				
5	256QAM	12	13	18.50	18.60	18.50				
5	256QAM	25	0	18.49	18.60	18.50				
Channel										
	Frequency (MHz)			1895	1890	1917.5	Turn-up (min)	MPR (dB)		
3	QPSK	1	0	23.43	23.57	23.43	25	0		
3	QPSK	1	8	23.38	23.51	23.40				
3	QPSK	1	14	23.32	23.41	23.33				
3	QPSK	8	0	22.46	22.45	22.64				
3	QPSK	8	4	22.52	22.59	22.86				
3	QPSK	8	7	22.59	22.60	22.56				
3	QPSK	15	0	22.53	22.50	22.51				
3	16QAM	1	0	22.38	22.50	22.43				
3	16QAM	1	8	22.33	22.45	22.46	24	1		
3	16QAM	1	15	22.48	22.50	22.49				
3	16QAM	8	0	21.62	21.74	21.71				
3	16QAM	8	4	21.41	21.56	21.51				
3	16QAM	8	7	21.62	21.58	21.61				
3	64QAM	1	0	21.50	21.77	21.64				
3	64QAM	1	8	21.53	21.80	21.63				
3	64QAM	1	14	21.78	21.88	21.76				
3	64QAM	8	0	20.47	20.50	20.46				
3	64QAM	8	4	20.50	20.60	20.45				
3	64QAM	8	7	20.49	20.56	20.57				
3	256QAM	1	0	18.63	18.78	18.66				



Band 38 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	25.18	25.22	25.23				
20	QPSK	1	49	25.08	25.18	25.09	25.5	0		
20	QPSK	50	0	25.18	25.18	25.18				
20	QPSK	50	24	24.17	24.27	24.21	24.5	1		
20	QPSK	100	0	24.13	24.23	24.17				
20	16QAM	1	0	23.16	23.23	23.08	24.5	1		
20	16QAM	1	49	23.09	23.14	23.00				
20	16QAM	1	99	23.02	23.17	23.09				
20	16QAM	50	0	23.19	23.27	23.22				
20	16QAM	50	24	23.17	23.22	23.11				
20	16QAM	50	50	23.26	23.31	23.27	23.5	2		
20	16QAM	100	0	22.24	22.32	22.11				
20	16QAM	1	49	22.81	22.81	22.84	23.5	2		
20	16QAM	1	99	22.71	22.82	22.78				
20	16QAM	50	0	22.22	22.27	22.21				
20	16QAM	50	24	22.28	22.22	22.28				
20	16QAM	50	50	22.29	22.27	22.19				
20	16QAM	100	0	22.16	22.22	22.19				
20	25QAM	1	0	20.26	20.30	20.24				
20	25QAM	1	49	20.16	20.21	20.13	20.5	5		
20	25QAM	1	99	20.18	20.24	20.12				
20	25QAM	50	0	20.14	20.20	20.16				
20	25QAM	50	24	20.03	20.16	20.11	20.5	5		
20	25QAM	50	50	20.08	20.20	20.11				
20	25QAM	100	0	20.09	20.13	20.08				
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.23	23.22	23.17				
15	QPSK	1	37	23.05	23.11	24.85	25.5	0		
15	QPSK	1	74	24.98	24.94	24.95				
15	QPSK	36	0	24.15	24.15	24.15				
15	QPSK	36	20	24.04	24.20	24.11	24.5	1		
15	16QAM	1	0	23.11	23.15	22.93	24.5	1		
15	16QAM	1	37	23.09	23.06	22.99				
15	16QAM	1	74	22.92	22.96	22.99				
15	16QAM	36	0	23.15	23.17	23.14				
15	16QAM	36	20	23.03	23.12	23.07	23.5	2		
15	16QAM	36	36	23.18	23.18	23.22				
15	16QAM	75	0	23.14	23.15	23.06				
15	16QAM	1	0	22.71	22.79	22.78				
15	16QAM	1	37	22.72	22.82	22.78	23.5	2		
15	16QAM	1	74	22.89	22.78	22.96				
15	16QAM	36	0	23.11	23.17	23.13				
15	16QAM	36	20	23.04	22.14	22.09	22.5	3		
15	16QAM	36	36	23.13	23.13	23.18				
15	16QAM	75	0	23.05	23.11	22.95				
15	25QAM	1	0	20.21	20.22	20.12	20.5	5		
15	25QAM	1	37	20.09	20.12	20.05				
15	25QAM	1	74	20.07	20.15	20.09				
15	25QAM	36	0	20.04	20.19	20.11				
15	25QAM	36	20	19.92	20.08	20.05	20.5	5		
15	25QAM	36	36	19.98	20.12	20.03				
15	25QAM	75	0	20.03	20.07	19.98				
Channel										
Frequency (MHz)										
10	QPSK	1	0	25.06	25.12	25.03				
10	QPSK	1	25	25.01	25.14	25.05	25.5	0		
10	QPSK	1	49	24.95	25.12	25.01				
10	QPSK	1	74	24.15	24.22	24.18				
10	QPSK	25	12	24.08	24.21	24.16	24.5	1		
10	QPSK	25	25	24.01	24.05	24.02				
10	16QAM	1	0	23.09	23.14	23.04	24.5	1		
10	16QAM	1	25	22.89	23.07	22.89				
10	16QAM	1	49	22.92	23.08	23.04				
10	16QAM	25	0	23.09	23.13	23.13				
10	16QAM	25	12	23.08	23.11	23.07	23.5	2		
10	16QAM	25	25	23.15	23.25	23.16				
10	16QAM	50	0	23.14	23.22	23.08				
10	16QAM	1	0	22.78	22.83	22.71				
10	16QAM	1	25	22.77	22.78	22.76	23.5	2		
10	16QAM	1	49	22.81	22.76	22.89				
10	16QAM	25	0	22.12	22.18	22.12				
10	16QAM	25	12	22.02	22.13	21.96	22.5	3		
10	16QAM	25	25	22.11	22.17	22.05				
10	16QAM	50	0	22.04	22.14	22.07				
10	25QAM	1	0	20.20	20.18	20.11				
10	25QAM	1	25	20.11	20.13	20.01	20.5	5		
10	25QAM	1	49	20.14	20.15	20.03				
10	25QAM	25	0	20.04	20.17	20.10				
10	25QAM	25	12	19.91	20.04	19.97	20.5	5		
10	25QAM	25	25	20.03	20.06	20.00				
10	25QAM	50	0	19.98	20.09	19.91				
Channel										
Frequency (MHz)										
5	QPSK	1	0	25.05	25.19	25.13				
5	QPSK	1	19	24.99	25.14	24.97	25.5	0		
5	QPSK	1	24	24.99	25.00	25.04				
5	QPSK	12	0	24.19	24.26	24.14				
5	QPSK	12	7	24.04	24.19	24.11	24.5	1		
5	QPSK	12	19	24.07	24.08	24.09				
5	QPSK	25	0	23.07	23.15	23.03				
5	QPSK	0	25.10	25.12	23.00					
5	16QAM	1	12	22.80	23.09	22.88	24.5	1		
5	16QAM	1	24	22.94	23.10	22.97				
5	16QAM	12	0	23.12	23.17	23.12				
5	16QAM	12	7	23.03	23.18	23.06	23.5	2		
5	16QAM	12	13	23.15	23.20	23.00				
5	16QAM	25	0	23.15	23.12	23.04				
5	16QAM	1	0	22.70	22.78	22.73	23.5	2		
5	16QAM	1	12	22.73	22.80	22.78				
5	16QAM	1	24	22.86	22.82	22.70				
5	16QAM	12	0	22.10	22.21	22.14				
5	16QAM	12	7	22.05	22.15	22.09	22.5	3		
5	16QAM	12	13	22.18	22.18	22.06				
5	16QAM	25	0	22.06	22.16	22.06				
5	25QAM	1	0	20.17	20.15	20.15				
5	25QAM	1	12	20.16	20.16	20.03	20.5	5		
5	25QAM	1	24	20.10	20.11	20.01				
5	25QAM	12	0	20.00	20.11	20.09				
5	25QAM	12	7	19.92	20.03	19.97	20.5	5		
5	25QAM	12	13	20.01	20.16	20.07				
5	25QAM	25	0	19.98	20.05	19.95				

Band 41 Main PA Ant2											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Power High Mod Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel											
Frequency (MHz)											
20	QPSK	1	0	25.18	25.23	25.23	25.21	25.23	25.5	0	
20	QPSK	1	49	25.04	25.20	25.24	25.25	25.12			
20	QPSK	1	99	25.15	25.20	25.31	25.30	25.37			
20	QPSK	50	0	24.33	24.41	24.40	24.32	24.36			
20	QPSK	50	24	24.29	24.27	24.43	24.38	24.29	24.5	1	
20	QPSK	100	0	24.18	24.24	24.34	24.20	24.24			
20	QPSK	100	0	24.19	24.25	24.31	24.24	24.19			
20	16QAM	1	0	23.18	23.27	23.34	23.22	23.15	24.5	1	
20	16QAM	1	49	23.09	23.06	23.20	23.09	23.11			
20	16QAM	1	99	23.14	23.13	23.33	23.25	23.15			
20	16QAM	50	0	23.07	23.26	23.40	23.32	23.33			
20	16QAM	50	24	23.02	23.10	23.38	23.17	23.19			
20	16QAM	50	50	23.29	23.36	23.38	23.34	23.28	23.5	2	
20	16QAM	100	0	22.24	22.26	23.27	23.25	23.23			
20	16QAM	1	0	22.83	22.90	23.03	23.01	22.93			
20	16QAM	1	49	22.94	22.87	23.08	22.99	22.92	23.5	2	
20	16QAM	1	99	22.88	22.82	23.02	22.87	22.92			
20	16QAM	50	0	22.20	22.24	22.30	22.26	22.28			
20	16QAM	50	24	22.09	22.25	22.28	22.20	22.15	22.5	3	
20	16QAM	50	50	22.02	22.28	22.27	22.25	22.28			
20	16QAM	100	0	22.21	22.23	22.27	22.20	22.22			
20	25QAM	1	0	20.27	20.23	20.36	20.21	20.22			
20	25QAM	1	49	20.24	20.23	20.35	20.20	20.23	20.5	5	
20	25QAM	1	99	20.21	20.26	20.35	20.22	20.24			
20	25QAM	50	0	20.07	20.22	20.30	20.16	20.14			
20	25QAM	50	24	20.14	20.14	20.30	20.20	20.21	20.5	5	
20	25QAM	50	50	20.13	20.21	20.29	20.16	20.14			
20	25QAM	100	0	20.20	20.13	20.24	20.04	20.15			
Channel											
Frequency (MHz)											
16	QPSK	1	0	25.05	25.23	25.23	25.21	25.23			
16	QPSK	1	37	24.90	25.09	25.15	25.20	25.03	26	0	
16	QPSK	1	74	24.98	25.16	25.19	25.12	25.06			
16	QPSK	36	0	24.24	24.24	24.24	24.21	24.20	</		



Band 4 Main PA Ant3 DSI0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	17.81	17.83	17.78				
20	QPSK	1	49	17.87	17.83	17.82	19.5	0		
20	QPSK	1	99	17.89	17.73	17.78				
20	QPSK	50	0	17.97	17.74	17.62				
20	QPSK	50	24	17.71	17.62	17.62	19.5	0		
20	QPSK	50	50	17.59	17.54	17.59				
20	QPSK	100	0	17.66	17.63	17.61				
20	16QAM	100	0	17.62	17.61	17.61	19.5	0		
20	16QAM	1	49	17.59	17.61	17.63				
20	16QAM	1	99	17.63	17.63	17.64				
20	16QAM	50	24	17.74	17.76	17.73	19.5	0		
20	16QAM	50	50	17.57	17.61	17.61				
20	16QAM	100	0	17.79	17.66	17.57				
20	64QAM	1	0	17.63	17.64	17.70				
20	64QAM	1	49	17.60	17.74	17.68	19.5	0		
20	64QAM	50	24	17.65	17.63	17.63				
20	64QAM	50	50	17.56	17.67	17.67				
20	64QAM	100	0	17.53	17.58	17.52	19.5	0		
20	64QAM	100	24	17.58	17.56	17.56				
20	256QAM	1	49	17.55	17.54	17.54	19.5	0		
20	256QAM	1	99	17.55	17.51	17.52				
20	256QAM	50	24	17.58	17.56	17.56				
20	256QAM	50	50	17.54	17.68	17.58				
20	256QAM	100	0	17.60	17.72	17.67	19.5	0		
20	256QAM	100	24	17.61	17.66	17.61				
Channel										
Frequency (MHz)										
15	QPSK	1	0	17.72	17.60	17.57				
15	QPSK	1	37	17.66	17.63	17.63	19.5	0		
15	QPSK	1	74	17.76	17.63	17.66				
15	QPSK	36	0	17.64	17.72	17.67				
15	QPSK	36	29	17.78	17.66	17.71	19.5	0		
15	QPSK	36	39	17.68	17.60	17.69				
15	QPSK	75	0	17.66	17.67	17.67				
15	16QAM	1	0	17.66	17.66	17.72	19.5	0		
15	16QAM	1	37	17.68	17.58	17.69				
15	16QAM	1	74	17.78	17.63	17.66				
15	16QAM	36	0	17.68	17.61	17.69	19.5	0		
15	16QAM	36	29	17.67	17.68	17.74				
15	16QAM	36	39	17.66	17.66	17.66				
15	16QAM	75	0	17.74	17.62	17.62				
15	64QAM	1	0	17.67	17.52	17.57	19.5	0		
15	64QAM	1	37	17.79	17.63	17.66				
15	64QAM	1	74	17.77	17.67	17.60				
15	64QAM	36	0	17.59	17.63	17.68	19.5	0		
15	64QAM	36	29	17.64	17.64	17.64				
15	64QAM	36	39	17.67	17.63	17.57				
15	64QAM	75	0	17.65	17.70	17.62				
15	256QAM	1	37	17.60	17.51	17.51	19.5	0		
15	256QAM	1	74	17.68	17.63	17.59				
15	256QAM	36	0	17.76	17.66	17.62				
15	256QAM	36	29	17.62	17.72	17.65	19.5	0		
15	256QAM	36	39	17.74	17.76	17.69				
15	256QAM	75	0	17.61	17.60	17.67				
Channel										
Frequency (MHz)										
10	QPSK	1	0	17.15	17.15	17.00				
10	QPSK	1	25	17.66	17.69	17.63	19.5	0		
10	QPSK	1	49	17.69	17.59	17.71				
10	QPSK	12	0	17.60	17.60	17.60				
10	QPSK	25	12	17.71	17.62	17.66	19.5	0		
10	QPSK	25	25	17.58	17.58	17.69				
10	QPSK	50	0	17.66	17.66	17.66				
10	16QAM	1	0	17.58	17.51	17.54	19.5	0		
10	16QAM	1	24	17.63	17.62	17.66				
10	16QAM	25	12	17.63	17.62	17.62	19.5	0		
10	16QAM	25	12	17.63	17.62	17.62				
10	16QAM	50	0	17.63	17.62	17.62				
10	64QAM	1	0	17.63	17.60	17.63	19.5	0		
10	64QAM	1	24	17.63	17.62	17.62				
10	64QAM	25	12	17.63	17.62	17.62	19.5	0		
10	64QAM	25	12	17.63	17.62	17.62				
10	256QAM	1	49	17.66	17.55	17.64	19.5	0		
10	256QAM	1	99	17.66	17.62	17.62				
10	256QAM	25	12	17.63	17.62	17.62	19.5	0		
10	256QAM	25	25	17.66	17.74	17.74				
10	256QAM	50	0	17.56	17.44	17.68				
Channel										
Frequency (MHz)										
5	QPSK	1	0	17.63	17.66	17.63				
5	QPSK	1	12	17.64	17.77	17.61	19.5	0		
5	QPSK	1	24	17.63	17.60	17.65				
5	QPSK	12	0	17.60	17.60	17.60				
5	QPSK	12	7	17.71	17.54	17.59	19.5	0		
5	QPSK	12	13	17.71	17.62	17.67				
5	QPSK	25	0	17.62	17.62	17.67				
5	16QAM	1	0	17.67	17.59	17.68	19.5	0		
5	16QAM	1	12	17.63	17.69	17.64				
5	16QAM	12	0	17.63	17.66	17.66				
5	16QAM	12	7	17.79	17.71	17.66	19.5	0		
5	16QAM	12	13	17.68	17.66	17.68				
5	16QAM	25	0	17.71	17.66	17.66				
5	64QAM	1	0	17.77	17.50	17.76	19.5	0		
5	64QAM	1	12	17.74	17.66	17.66				
5	64QAM	12	0	17.60	17.66	17.62				
5	64QAM	12	7	17.60	17.63	17.58	19.5	0		
5	64QAM	25	0	17.71	17.66	17.66				
5	64QAM	25	7	17.68	17.63	17.58				
5	64QAM	25	13	17.68	17.60	17.52	19.5	0		
5	64QAM	25	13	17.68	17.63	17.52				
5	256QAM	1	24	17.60	17.61	17.60	19.5	0		
5	256QAM	1	12	17.50	17.71	17.69				
5	256QAM	12	0	17.59	17.66	17.67	19.5	0		
5	256QAM	12	7	17.52	17.73	17.69				
5	256QAM	12	13	17.69	17.74	17.74	19.5	0		
5	256QAM	25	0	17.52	17.46	17.68				
Channel										
Frequency (MHz)										
3	QPSK	1	0	17.68	17.62	17.63				
3	QPSK	1	8	17.78	17.72	17.61	19.5	0		
3	QPSK	1	14	17.67	17.66	17.74				
3	QPSK	8	0	17.68	17.63	17.63				
3	QPSK	8	4	17.60	17.63	17.67	19.5	0		
3	QPSK	8	7	17.67	17.62	17.66				
3	QPSK	16	0	17.76	17.62	17.68				
3	16QAM	1	0	17.71	17.59	17.68	19.5	0		
3	16QAM	1	8	17.50	17.69	17.61				
3	16QAM	1	16	17.77	17.66	17.65				
3	16QAM	8	0	17.75	17.65	17.60	19.5	0		
3	16QAM	8	4	17.71	17.68	17.64				
3	16QAM	8	7	17.66	17.66	17.65				
3	64QAM	1	0	17.78	17.67	17.61	19.5	0		
3	64QAM	1	8	17.66	17.66	17.66				
3	64QAM	1	14	17.61	17.51	17.59				
3	64QAM	8	0	17.66	17.74	17.64	19.5	0		
3	64QAM	8	4	17.63	17.63	17.50				
3	64QAM	8	7	17.68	17.66	17.65				
3	64QAM	16	0	17.60	17.69	17.60	19.5	0		
3	256QAM	1	0	17.54	17.65	17.61				
3	256QAM	1	8	17.52	17.67	17.68	19.5	0		
3	256QAM	8	0	17.56	17.66	17.66				
3	256QAM	8	4	17.75	17.63	17.76				
3	256QAM	8	7	17.61	17.61	17.53	19.5	0		
3	256QAM	16	0	17.77	17.66	17.66				
3	2									



Band 38 Main PA Ant3 DSI0

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
38750 38900 39150								
Frequency (MHz)								
20	QPSK	1	0	20.90	21.22	21.10	22.5	0
20	QPSK	1	49	20.94	21.05	20.94		
20	QPSK	50	24	20.96	21.12	20.89		
20	QPSK	50	24	20.96	20.83	20.97		
20	QPSK	100	0	20.96	21.08	20.83		
20	16QAM	1	0	20.82	21.06	20.91		
20	16QAM	1	49	20.92	20.93	20.84		
20	16QAM	1	99	20.72	20.85	20.70		
20	16QAM	50	24	21.08	21.15	21.08		
20	16QAM	50	24	20.94	21.07	20.98		
20	16QAM	50	50	21.02	21.11	21.07		
20	16QAM	100	0	20.99	21.05	20.94		
20	16QAM	1	49	20.70	20.77	20.88		
20	16QAM	1	99	20.63	20.73	20.68		
20	16QAM	50	24	19.95	20.08	20.02		
20	16QAM	50	50	20.10	20.13	20.02		
20	16QAM	100	0	19.94	20.05	20.02		
20	25QAM	1	0	17.84	17.87	17.83		
20	25QAM	1	49	17.88	17.84	17.78		
20	25QAM	1	99	17.79	17.89	17.76		
20	25QAM	50	24	17.88	18.00	17.88		
20	25QAM	50	24	17.08	18.08	17.96		
20	25QAM	50	50	18.09	18.14	18.09		
20	25QAM	100	0	17.76	17.84	17.82		
Channel								
37625 38000 38175								
Frequency (MHz)								
15	QPSK	1	0	20.72	21.04	21.00	22.5	0
15	QPSK	1	37	20.78	20.90	20.81		
15	QPSK	1	74	20.81	20.97	20.78		
15	QPSK	36	20	20.75	20.85	20.87		
15	QPSK	36	20	20.75	20.85	20.87		
15	QPSK	75	0	20.75	21.00	20.83		
15	16QAM	1	0	20.73	21.07	20.94		
15	16QAM	1	37	20.81	20.91	20.74		
15	16QAM	1	74	20.89	20.77	20.87		
15	16QAM	36	0	21.07	21.06	20.90		
15	16QAM	36	20	20.72	20.87	20.88		
15	16QAM	36	39	20.94	21.07	20.86		
15	16QAM	75	0	20.95	20.89	20.87		
15	16QAM	75	0	20.75	20.84	20.76		
15	16QAM	1	37	20.88	20.58	20.84		
15	16QAM	1	74	20.81	20.81	20.81		
15	16QAM	36	0	20.96	20.92	20.92		
15	16QAM	36	20	19.87	20.04	19.93		
15	16QAM	36	39	20.96	20.96	20.96		
15	16QAM	75	0	19.84	19.94	19.90		
15	25QAM	1	0	17.73	17.82	17.84		
15	25QAM	1	37	17.82	17.87	17.85		
15	25QAM	1	74	17.69	17.81	17.65		
15	25QAM	36	0	18.02	18.06	17.93		
15	25QAM	36	20	17.90	17.99	17.92		
15	25QAM	36	39	18.04	18.01	18.02		
15	25QAM	75	0	17.82	17.96	17.87		
Channel								
36375 36500 36500								
Frequency (MHz)								
10	QPSK	1	0	20.86	21.07	21.00	22.5	0
10	QPSK	1	25	20.78	21.02	20.93		
10	QPSK	1	49	20.99	20.90	20.70		
10	QPSK	1	74	20.84	20.95	20.76		
10	QPSK	25	12	20.81	20.78	20.80		
10	QPSK	25	25	20.72	20.85	20.71		
10	QPSK	25	25	20.92	21.03	20.74		
10	16QAM	1	0	20.75	20.90	20.78		
10	16QAM	1	25	20.93	20.84	20.67		
10	16QAM	1	49	20.72	20.80	20.66		
10	16QAM	25	0	20.78	21.05	20.88		
10	16QAM	25	12	20.84	20.95	20.86		
10	16QAM	25	25	20.95	21.04	20.92		
10	16QAM	1	0	20.74	20.74	20.53		
10	16QAM	1	25	20.82	20.51	20.69		
10	16QAM	25	0	19.97	20.14	19.97		
10	16QAM	25	12	19.91	20.00	19.98		
10	16QAM	25	25	20.08	20.07	19.95		
10	16QAM	50	0	19.81	19.91	19.92		
10	25QAM	1	0	17.78	17.85	17.81		
10	25QAM	1	25	17.72	17.83	17.73		
10	25QAM	1	49	17.76	17.82	17.83		
10	25QAM	25	0	17.99	18.05	17.93		
10	25QAM	25	12	17.88	18.00	17.96		
10	25QAM	25	25	17.97	18.02	17.98		
10	25QAM	50	0	17.88	17.87	17.82		
Channel								
35125 35500 35715								
Frequency (MHz)								
5	QPSK	1	0	20.74	21.06	20.90	22.5	0
5	QPSK	1	19	20.80	20.92	20.83		
5	QPSK	1	24	20.83	21.02	20.87		
5	QPSK	10	0	20.71	20.94	20.71		
5	QPSK	10	7	20.87	20.82	20.84		
5	QPSK	12	19	20.83	20.90	20.72		
5	QPSK	25	0	20.99	20.89	20.84		
5	16QAM	1	0	20.79	21.03	20.91		
5	16QAM	1	12	20.82	20.74	20.79		
5	16QAM	1	24	20.68	20.60	20.76		
5	16QAM	12	0	21.08	21.16	21.04		
5	16QAM	12	7	20.85	21.07	20.91		
5	16QAM	12	13	21.02	21.02	21.00		
5	16QAM	25	0	20.94	21.06	20.85		
5	16QAM	1	0	20.81	20.72	20.81		
5	16QAM	1	12	20.66	20.69	20.50		
5	16QAM	1	24	20.56	20.74	20.66		
5	16QAM	10	0	19.96	20.09	19.88		
5	16QAM	10	7	19.81	19.95	19.88		
5	16QAM	25	0	19.83	19.94	19.92		
5	25QAM	1	0	17.80	17.88	17.79		
5	25QAM	1	12	17.79	17.81	17.75		
5	25QAM	1	24	17.74	17.82	17.83		
5	25QAM	12	0	18.00	18.14	17.92		
5	25QAM	12	7	17.94	18.02	17.86		
5	25QAM	12	13	17.97	18.11	18.03		
5	25QAM	25	0	17.82	17.94	17.86		

Band 41 Main PA Ant3 DSI0

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Mid Ch / Freq	Power High-Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel									
39750 40185 40560 41055 41460									
Frequency (MHz)									
20	QPSK	1	0	21.15	21.62	21.93	21.62	22.5	0
20	QPSK	1	49	21.00	21.10	21.26	21.00		
20	QPSK	1	99	21.14	20.92	21.09	21.13		
20	QPSK	50	0	21.05	21.00	21.27	21.11		
20	QPSK	50	24	20.97	21.07	21.20	21.18		
20	QPSK	50	24	21.00	20.90	21.07	20.90		
20	QPSK	100	0	21.06	21.06	21.16	20.89		
20	16QAM	1	0	20.97	20.96	20.97	20.99		
20	16QAM	1	49	20.95	20.85	21.07	20.88		
20	16QAM	1	99	20.95	20.87	20.89	21.02		
20	16QAM	50	24	21.17	21.26	21.26	21.22		
20	16QAM	50	24	21.07	21.09	21.18	21.14		
20	16QAM	50	50	21.17	21.11	21.27	21.19		
20	16QAM	100	0	21.08	21.08	21.18	21.05		
20	16QAM	1	49	20.71	20.78	20.83	20.84		
20	16QAM	1	99	20.78	20.80	20.88	20.78		
20	16QAM	50	24	20.58	20.58	20.21	20.11		
20	16QAM	50	50	20.19	20.27	20.26	20.16		
20	16QAM	100	0	20.07	20.03	20.11	20.16		
20	25QAM	1	0	18.96	17.94	18.09	18.03		
20	25QAM	1	49	17.80	18.92	18.99	17.87		
20	25QAM	1	99	17.89	17.82	18.02	17.88		
20	25QAM	50	24	18.08	18.14	18.24	18.10		
20	25QAM	50	24	18.11	18.06	18.20	18.06		
20	25QAM	50	50	18.12	18.17	18.21	18.14		
20	25QAM	100	0	18.05	18.10	18.10	18.06		
Channel									
39750 40173 40560 41058 41455									
Frequency (MHz)									
16	QPSK	1	0	20.97	21.62	21.93	21.73	23	0
16	QPSK	1	37	20.90	20.93	21.14	20.93		
16	QPSK	1	74	21.10	20.81	21.06	21.15		
16	QPSK	36	0	20.95	21.00	21.09	21.02		
16	QPSK	36	20	20.76	20.99	21.07	21.20		
16	QPSK	36	20	20.76	20.99	21.07	21.20		
16	QPSK	75	0	21.02	21.01	21.05	20.99		
16	16QAM	1	0	20.79	20.80	20.76	20.88		
16	16QAM	1	37	20.78	20.81	20.74	20.88		
16	16QAM	1	74	20.90	20.70	20.87	20.83		
16	16QAM	36	0	21.09	21.06	21.15	21.22		
16	16QAM	36	20	21.03	20.98	21.02	20.96		
16	16QAM	36	39	21.08	20.91	21.16	21.09		
16	16QAM	75	0	21.02	20.92	20.98	20.95		
16	16QAM	75	0	20.71	20.87	20.90	20.87		
16	16QAM	1	37	20.83	20.58	20.73	20.57		
16	16QAM	1	74	20.70	20.86	20.89	20.74		
16	16QAM	36	0	20.98	20.92	20.92	20.92		
16	16QAM	36	20	20.82	20.61	20.17	19.97		
16	16								



Band 2 Main PA Ant4 DS10										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Max Ch./Freq.	Turn-up time (sec)	MFR (dB)		
Channel										
1860 1860 1900										
20	QPSK	1	0	18.41	18.43	19.38	20.5	0		
20	QPSK	1	49	18.27	18.26	19.18	20.5	0		
20	QPSK	1	99	18.27	18.26	19.18	20.5	0		
20	QPSK	50	0	18.36	18.42	19.36	20.5	0		
20	QPSK	50	24	18.30	18.31	19.24	20.5	0		
20	QPSK	50	50	18.16	18.31	19.23	20.5	0		
20	QPSK	100	0	18.33	18.37	19.28	20.5	0		
20	16QAM	50	0	19.32	19.30	19.22	20.5	0		
20	16QAM	1	49	19.17	19.16	19.14	20.5	0		
20	16QAM	1	99	19.28	19.15	19.10	20.5	0		
20	16QAM	50	0	19.33	19.40	19.28	20.5	0		
20	16QAM	50	24	19.17	19.32	19.27	20.5	0		
20	16QAM	50	50	19.29	19.36	19.25	20.5	0		
20	16QAM	100	0	19.24	19.29	19.22	20.5	0		
20	16QAM	1	0	19.39	19.32	19.41	20.5	0		
20	16QAM	1	49	19.43	19.46	19.59	20.5	0		
20	16QAM	50	99	19.36	19.43	19.51	20.5	0		
20	16QAM	50	0	19.43	19.47	19.41	20.5	0		
20	16QAM	50	24	19.29	19.38	19.31	20.5	0		
20	16QAM	50	50	19.36	19.36	19.36	20.5	0		
20	16QAM	100	0	19.22	19.35	19.30	20.5	0		
20	256QAM	1	49	18.40	18.47	18.33	19.5	1		
20	256QAM	1	99	18.34	18.42	18.33	19.5	1		
20	256QAM	50	0	18.44	18.56	18.37	19.5	1		
20	256QAM	50	24	18.31	18.35	18.24	19.5	1		
20	256QAM	50	50	18.30	18.40	18.34	19.5	1		
20	256QAM	100	0	18.27	18.27	18.27	19.5	1		
Channel										
1875 1890 1915										
15	QPSK	1	0	18.31	18.25	19.23	20.5	0		
15	QPSK	1	37	19.14	19.14	19.23	20.5	0		
15	QPSK	1	74	19.19	19.12	19.23	20.5	0		
15	QPSK	36	0	18.30	18.32	19.31	20.5	0		
15	QPSK	36	25	19.18	19.26	19.20	20.5	0		
15	QPSK	36	39	19.11	19.22	19.19	20.5	0		
15	16QAM	75	0	19.19	19.24	19.16	20.5	0		
15	16QAM	1	0	19.14	19.16	19.16	20.5	0		
15	16QAM	1	37	19.10	19.10	19.22	20.5	0		
15	16QAM	1	74	19.20	19.20	19.20	20.5	0		
15	16QAM	36	20	19.20	19.30	19.16	20.5	0		
15	16QAM	36	29	19.13	19.20	19.12	20.5	0		
15	16QAM	36	29	19.14	19.20	19.20	20.5	0		
15	16QAM	75	0	19.19	19.25	19.07	20.5	0		
15	16QAM	1	0	19.35	19.46	19.28	20.5	0		
15	16QAM	1	37	19.36	19.43	19.28	20.5	0		
15	16QAM	1	74	19.29	19.35	19.23	20.5	0		
15	16QAM	36	0	19.36	19.35	19.33	20.5	0		
15	16QAM	36	29	19.36	19.36	19.36	20.5	0		
15	16QAM	36	39	19.32	19.35	19.25	20.5	0		
15	16QAM	75	0	19.12	19.21	19.15	20.5	0		
15	256QAM	1	37	18.27	18.41	18.30	19.5	1		
15	256QAM	1	74	18.30	18.39	18.19	19.5	1		
15	256QAM	36	20	18.18	18.25	18.11	19.5	1		
15	256QAM	36	29	18.17	18.34	18.27	19.5	1		
15	256QAM	75	0	18.60	18.60	18.60	19.5	1		
Channel										
1885 1890 1905										
10	QPSK	1	0	18.28	18.28	19.28	20.5	0		
10	QPSK	1	25	18.12	19.21	19.16	20.5	0		
10	QPSK	1	49	19.24	19.28	19.26	20.5	0		
10	QPSK	12	0	18.33	19.36	19.36	20.5	0		
10	QPSK	25	12	18.17	19.28	19.19	20.5	0		
10	QPSK	25	28	19.07	19.26	19.13	20.5	0		
10	16QAM	1	0	19.08	19.19	19.10	20.5	0		
10	16QAM	1	24	19.22	19.16	19.16	20.5	0		
10	16QAM	1	49	19.26	19.26	19.27	20.5	0		
10	16QAM	25	0	19.27	19.25	19.19	20.5	0		
10	16QAM	25	12	19.09	19.23	19.15	20.5	0		
10	16QAM	36	20	19.18	19.27	19.13	20.5	0		
10	16QAM	50	0	19.17	19.15	19.15	20.5	0		
10	16QAM	1	0	19.26	19.43	19.33	20.5	0		
10	16QAM	1	24	19.36	19.46	19.27	20.5	0		
10	16QAM	1	49	19.24	19.28	19.27	20.5	0		
10	16QAM	25	0	19.35	19.43	19.36	20.5	0		
10	16QAM	25	12	19.26	19.36	19.29	20.5	0		
10	16QAM	50	0	19.09	19.22	19.23	20.5	0		
10	16QAM	50	24	19.34	19.44	19.36	20.5	0		
10	256QAM	1	28	18.32	18.42	18.22	19.5	1		
10	256QAM	1	49	18.24	18.33	18.23	19.5	1		
10	256QAM	25	0	18.30	18.32	19.31	19.5	1		
10	256QAM	25	12	18.26	18.28	18.16	19.5	1		
10	256QAM	25	25	18.22	18.29	18.19	19.5	1		
10	256QAM	50	0	18.23	18.34	18.21	19.5	1		
Channel										
1892.5 1890 1915										
5	QPSK	1	0	18.28	18.28	19.28	20.5	0		
5	QPSK	1	12	19.31	19.15	19.22	20.5	0		
5	QPSK	1	24	19.23	19.15	19.13	20.5	0		
5	QPSK	12	0	18.33	19.36	19.36	20.5	0		
5	QPSK	12	7	19.21	19.26	19.19	20.5	0		
5	QPSK	12	13	19.08	19.19	19.15	20.5	0		
5	16QAM	1	0	19.19	19.32	19.05	20.5	0		
5	16QAM	1	12	19.05	19.17	19.07	20.5	0		
5	16QAM	1	24	19.20	19.26	19.26	20.5	0		
5	16QAM	12	0	19.20	19.28	19.18	20.5	0		
5	16QAM	12	7	19.03	19.24	19.13	20.5	0		
5	16QAM	12	13	19.24	19.31	19.14	20.5	0		
5	16QAM	25	0	19.14	19.21	19.12	20.5	0		
5	16QAM	1	0	19.26	19.40	19.30	20.5	0		
5	16QAM	1	12	19.37	19.46	19.28	20.5	0		
5	16QAM	1	24	19.24	19.30	19.21	20.5	0		
5	16QAM	12	0	19.29	19.39	19.31	20.5	0		
5	16QAM	12	7	19.17	19.35	19.18	20.5	0		
5	16QAM	12	13	19.25	19.31	19.33	20.5	0		
5	16QAM	25	0	19.14	19.21	19.13	20.5	0		
5	16QAM	15	0	19.11	19.31	19.23	20.5	0		
5	256QAM	1	12	18.32	18.39	18.19	19.5	1		
5	256QAM	12	0	18.26	18.31	18.26	19.5	1		
5	256QAM	12	7	18.19	18.28	18.11	19.5	1		
5	256QAM	12	13	18.26	18.31	18.22	19.5	1		
5	256QAM	25	0	18.18	18.28	18.21	19.5	1		
Channel										
1861.5 1860 1915										
3	QPSK	1	0	19.25	19.27	19.25	20.5	0		
3	QPSK	1	8	19.23	19.22	19.13	20.5	0		
3	QPSK	1	14	19.30	19.16	19.25	20.5	0		
3	QPSK	8	0	19.21	19.33	19.28	20.5	0		
3	QPSK	8	4	19.23	19.31	19.14	20.5	0		
3	QPSK	8	7	19.10	19.19	19.20	20.5	0		
3	QPSK	15	0	19.22	19.27	19.28	20.5	0		
3	16QAM	1	0	19.30	19.36	19.23	20.5	0		
3	16QAM	1	8	19.10	19.30	19.13	20.5	0		
3	16QAM	1	14	19.26	19.13	19.07	20.5	0		
3	16QAM	8	0	19.21	19.34	19.17	20.5	0		
3	16QAM	8	4	19.08	19.13	19.21	20.5	0		
3	16QAM	8	7	19.15	19.24	19.12	20.5	0		
3	16QAM	15	0	19.20	19.21	19.13	20.5	0		
3	16QAM	1	0	19.29	19.45					



Band 25 Main PA Ant4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Turn-up (dB)	MPR (dB)		
Channel										
20	QPSK	1	0	20.31	20.42	20.27				
20	QPSK	1	49	21.29	21.34	21.24	24.5	0		
20	QPSK	1	99	22.16	22.29	22.21				
20	QPSK	50	0	22.24	22.32	22.26				
20	QPSK	50	24	22.22	22.32	22.21				
20	QPSK	50	50	22.16	22.24	22.12	23.5	1		
20	QPSK	100	0	22.16	22.24	22.20				
20	QPSK	100	24	22.55	22.56	22.56				
20	16QAM	1	49	22.45	22.59	22.47	23.5	1		
20	16QAM	1	99	22.52	22.55	22.43				
20	16QAM	50	0	21.31	21.38	21.28				
20	16QAM	50	24	21.15	21.28	21.15	22.5	2		
20	16QAM	50	50	21.18	21.32	21.22				
20	16QAM	100	0	21.18	21.30	21.19				
20	64QAM	1	0	21.44	21.51	21.47				
20	64QAM	1	49	21.31	21.45	21.39	22.5	2		
20	64QAM	1	99	21.27	21.41	21.28				
20	64QAM	50	0	20.31	20.42	20.32				
20	64QAM	50	24	20.19	20.33	20.22	21.5	3		
20	64QAM	50	50	20.38	20.38	20.25				
20	64QAM	100	0	20.27	20.30	20.26				
20	256QAM	1	49	18.45	18.45	18.38	19.5	5		
20	256QAM	1	99	18.38	18.42	18.32				
20	256QAM	50	0	18.28	18.41	18.28				
20	256QAM	50	24	18.27	18.31	18.18	18.5	5		
20	256QAM	50	50	18.25	18.37	18.33				
20	256QAM	100	0	18.23	18.38	18.33				
Channel										
15	QPSK	1	0	18.15	18.20	18.15	Turn-up (dB)	MPR (dB)		
15	QPSK	1	37	20.20	20.30	20.20	24.5	0		
15	QPSK	1	74	21.07	21.16	21.07				
15	QPSK	36	0	22.13	22.26	22.07				
15	QPSK	36	20	22.15	22.11	22.07				
15	QPSK	36	36	22.12	22.09	22.06	23.5	1		
15	QPSK	75	0	22.09	22.16	22.09				
15	16QAM	1	49	22.45	22.54	22.49				
15	16QAM	1	37	22.38	22.55	22.33	23.5	1		
15	16QAM	36	0	21.43	21.44	21.43				
15	16QAM	36	20	21.18	21.22	21.23				
15	16QAM	36	36	21.13	21.18	21.09	22.5	2		
15	64QAM	1	0	21.32	21.42	21.41				
15	64QAM	1	37	21.32	21.46	21.37	22.5	2		
15	64QAM	1	74	21.17	21.32	21.19				
15	64QAM	36	0	20.20	20.36	20.17				
15	64QAM	36	20	20.33	20.28	20.17	21.5	3		
15	64QAM	36	36	20.22	20.25	20.19				
15	64QAM	75	0	20.22	20.23	20.16				
15	256QAM	1	49	18.34	18.46	18.38	19.5	5		
15	256QAM	1	37	18.34	18.32	18.29				
15	256QAM	1	74	18.29	18.36	18.22				
15	256QAM	36	0	18.18	18.38	18.22				
15	256QAM	36	20	18.13	18.25	18.11	18.5	5		
15	256QAM	36	36	18.15	18.32	18.28				
15	256QAM	75	0	18.13	18.38	18.28				
Channel										
10	QPSK	1	0	18.05	18.05	18.05	Turn-up (dB)	MPR (dB)		
10	QPSK	1	49	20.27	20.38	20.27	24.5	0		
10	QPSK	1	25	23.17	23.24	23.20				
10	QPSK	1	49	23.10	23.18	23.09				
10	QPSK	25	0	22.20	22.21	22.17				
10	QPSK	25	12	22.16	22.19	22.07				
10	QPSK	25	25	22.04	22.11	22.01	23.5	1		
10	QPSK	50	0	22.12	22.16	22.11				
10	16QAM	1	0	22.42	22.50	22.47				
10	16QAM	1	25	22.34	22.50	22.42	23.5	1		
10	16QAM	25	0	21.46	21.50	21.46				
10	16QAM	25	0	21.22	21.30	21.15				
10	16QAM	25	12	21.14	21.17	21.08	22.5	2		
10	16QAM	25	25	21.05	21.16	21.05				
10	16QAM	50	0	21.08	21.10	21.07				
10	64QAM	1	0	21.32	21.36	21.34	22.5	2		
10	64QAM	1	25	21.32	21.35	21.38				
10	64QAM	1	49	21.17	21.34	21.18				
10	64QAM	25	0	20.24	20.30	20.29				
10	64QAM	25	12	20.25	20.28	20.18	21.5	3		
10	64QAM	25	25	20.22	20.22	20.20				
10	256QAM	1	49	18.40	18.43	18.33	19.5	5		
10	256QAM	1	25	18.38	18.39	18.33				
10	256QAM	1	49	18.30	18.38	18.27				
10	256QAM	25	0	18.20	18.30	18.22	19.5	5		
10	256QAM	25	12	18.20	18.20	18.12				
10	256QAM	25	25	18.11	18.25	18.20				
10	256QAM	50	0	18.20	18.20	18.24	19.5	5		
Channel										
5	QPSK	1	0	18.02	18.00	18.02	Turn-up (dB)	MPR (dB)		
5	QPSK	1	4	20.24	20.33	20.24	24.5	0		
5	QPSK	1	12	23.18	23.30	23.15				
5	QPSK	1	24	23.02	23.15	23.14				
5	QPSK	12	0	22.13	22.26	22.18				
5	QPSK	12	7	22.09	22.21	22.16	23.5	1		
5	QPSK	12	13	22.08	22.14	22.09				
5	QPSK	25	0	22.09	22.21	22.18				
5	16QAM	1	0	22.47	22.51	22.45				
5	16QAM	1	12	22.43	22.44	22.43	23.5	1		
5	16QAM	1	24	22.37	22.45	22.37				
5	16QAM	12	0	21.17	21.33	21.24				
5	16QAM	12	7	21.07	21.24	21.07	22.5	2		
5	16QAM	12	13	21.09	21.22	21.08				
5	64QAM	1	0	21.39	21.43	21.32	22.5	2		
5	64QAM	1	12	21.20	21.33	21.27				
5	64QAM	1	24	21.18	21.28	21.17				
5	64QAM	12	0	20.17	20.31	20.20				
5	64QAM	12	7	20.08	20.20	20.13	21.5	3		
5	64QAM	12	13	20.20	20.20	20.20				
5	64QAM	25	0	20.19	20.16	20.21				
5	256QAM	1	18	18.31	18.38	18.33	19.5	5		
5	256QAM	1	12	18.35	18.37	18.27				
5	256QAM	1	24	18.28	18.20	18.16				
5	256QAM	12	0	18.18	18.30	18.25				
5	256QAM	12	7	18.23	18.20	18.07	19.5	5		
5	256QAM	12	13	18.12	18.32	18.21				
5	256QAM	25	0	18.14	18.30	18.25				
Channel										
3	QPSK	1	0	23.24	23.38	23.13	Turn-up (dB)	MPR (dB)		
3	QPSK	1	8	23.18	23.24	23.16	24.5	0		
3	QPSK	1	14	23.03	23.22	23.08				
3	QPSK	8	0	22.16	22.21	22.11				
3	QPSK	8	4	22.12	22.18	22.13	23.5	1		
3	QPSK	8	7	22.05	22.14	22.08				
3	QPSK	15	0	22.02	22.14	22.14				
3	16QAM	1	0	22.50	22.60	22.42	23.5	1		
3	16QAM	1	8	22.38	22.45	22.38				
3	16QAM	1	15	22.44	22.49	22.30				
3	16QAM	8	0	21.20	21.23	21.22	22.5	2		
3	16QAM	8	4	21.16	21.17	21.01				
3	16QAM	8	7	21.11	21.26	21.11				
3	16QAM	15	0	21.06	21.20	21.09				
3	64QAM	1	0	21.39	21.44	21.39	22.5	2		
3	64QAM	1	8	21.27	21.30	21.30				
3	64QAM	1	14	21.13	21.38	21.16				
3	64QAM	8	0	20.20	20.30	20.19				
3	64QAM									



Band 38 Main PA Ant4 DSI0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	21.26	21.27	21.28				
20	QPSK	1	49	21.10	21.31	21.15	21.7	0		
20	QPSK	50	0	21.09	21.32	21.01				
20	QPSK	50	0	21.09	21.10	21.19				
20	QPSK	50	24	21.18	21.06	21.06	21.7	0		
20	16QAM	1	0	21.21	21.19	21.04	21.7	0		
20	16QAM	1	49	21.03	21.01	20.97				
20	16QAM	1	99	21.05	21.01	20.87				
20	16QAM	50	0	21.08	21.17	21.04	21.7	0		
20	16QAM	50	24	21.14	21.26	21.04				
20	16QAM	50	50	21.13	21.28	21.23				
20	16QAM	100	0	21.09	21.23	21.04				
20	16QAM	100	0	21.13	21.17	21.11				
20	16QAM	100	49	21.04	21.04	21.16	21.7	0		
20	16QAM	100	49	20.96	21.03	20.93				
20	16QAM	100	0	21.13	21.09	21.12				
20	16QAM	100	24	21.09	21.13	21.12	21.7	0		
20	16QAM	100	50	21.18	21.10	21.11				
20	16QAM	100	0	21.18	21.10	20.92				
20	16QAM	100	0	20.23	20.28	20.19				
20	16QAM	100	49	20.99	20.16	20.09	20.7	1		
20	16QAM	100	1	20.00	20.07	19.95				
20	16QAM	100	0	20.00	20.12	20.00				
20	16QAM	100	24	20.20	20.10	20.04	20.7	1		
20	16QAM	100	50	20.14	20.18	20.08				
20	16QAM	100	0	20.00	20.17	20.00				
Channel										
Frequency (MHz)										
15	QPSK	1	0	21.27	21.29	21.23				
15	QPSK	1	49	21.14	21.14	21.13	21.7	0		
15	QPSK	1	37	20.99	21.17	20.99				
15	QPSK	1	74	21.02	21.20	20.91				
15	QPSK	1	0	21.09	21.09	21.13				
15	QPSK	36	20	20.97	20.96	20.96	21.7	0		
15	QPSK	36	39	21.17	20.99	20.99				
15	QPSK	75	0	21.00	20.99	20.97				
15	16QAM	1	0	21.07	20.98	20.92	21.7	0		
15	16QAM	1	39	20.91	21.01	20.78				
15	16QAM	1	74	20.99	20.83	20.73				
15	16QAM	36	0	21.08	21.13	21.08	21.7	0		
15	16QAM	36	20	20.99	21.04	21.05				
15	16QAM	36	39	20.91	21.08	21.24				
15	16QAM	75	0	20.87	21.03	20.91	21.7	0		
15	16QAM	75	0	21.01	21.04	21.05				
15	16QAM	1	37	20.97	21.05	20.88				
15	16QAM	1	74	20.97	20.83	20.82				
15	16QAM	36	0	21.01	21.05	21.05				
15	16QAM	36	20	20.91	21.02	21.02	21.7	0		
15	16QAM	36	39	21.08	21.08	20.98				
15	16QAM	75	0	21.04	20.90	20.82				
15	16QAM	1	0	20.14	20.14	20.08	20.7	1		
15	16QAM	1	39	19.98	19.93	19.98				
15	16QAM	1	74	19.96	19.96	19.92				
15	16QAM	36	0	19.99	20.02	19.97				
15	16QAM	36	20	19.99	19.99	19.97				
15	16QAM	36	39	20.61	20.65	19.99	20.7	1		
15	16QAM	75	0	19.99	20.13	19.98				
Channel										
Frequency (MHz)										
10	QPSK	1	0	21.16	21.31	21.00				
10	QPSK	1	25	21.11	21.28	21.00	21.7	0		
10	QPSK	1	49	21.02	21.15	20.90				
10	QPSK	1	0	21.02	21.15	21.00				
10	QPSK	25	12	21.17	20.88	20.90	21.7	0		
10	QPSK	25	25	21.03	20.89	21.09				
10	QPSK	25	0	20.96	21.15	20.98				
10	16QAM	1	0	21.00	21.13	20.87	21.7	0		
10	16QAM	1	25	20.84	20.98	20.96				
10	16QAM	1	49	21.00	20.95	20.99				
10	16QAM	25	0	20.90	21.07	21.02	21.7	0		
10	16QAM	25	12	20.99	21.10	20.99				
10	16QAM	25	25	20.96	21.12	21.02				
10	16QAM	1	0	20.99	21.05	20.96	21.7	0		
10	16QAM	1	0	21.02	21.13	20.91				
10	16QAM	1	25	21.05	21.01	21.08	21.7	0		
10	16QAM	1	49	20.83	21.01	20.85				
10	16QAM	25	0	20.97	21.03	20.96				
10	16QAM	25	12	21.05	20.97	21.13	21.7	0		
10	16QAM	25	25	21.10	20.81	20.98				
10	16QAM	50	0	20.95	21.08	20.77				
10	16QAM	50	0	20.11	20.11	20.08				
10	16QAM	1	25	19.98	20.02	19.95	20.7	1		
10	16QAM	1	49	19.90	19.92	19.91				
10	16QAM	25	0	19.95	19.99	19.98				
10	16QAM	25	12	19.90	20.00	20.00				
10	16QAM	25	25	20.00	20.14	20.03	20.7	1		
10	16QAM	50	0	19.93	20.13	19.97				
Channel										
Frequency (MHz)										
5	QPSK	1	0	21.17	21.25	21.27				
5	QPSK	1	19	20.95	21.21	20.94	21.7	0		
5	QPSK	1	24	21.05	21.13	21.01				
5	QPSK	12	0	21.07	21.06	21.00	21.7	0		
5	QPSK	12	7	21.01	20.87	20.91				
5	QPSK	12	19	21.05	21.08	20.94				
5	QPSK	25	0	21.01	20.99	20.77				
5	QPSK	25	0	21.01	20.99	21.04				
5	16QAM	1	12	20.91	20.81	20.96	21.7	0		
5	16QAM	1	24	21.04	20.93	20.87				
5	16QAM	12	0	20.94	21.15	20.88				
5	16QAM	12	7	21.01	21.25	20.99	21.7	0		
5	16QAM	12	13	20.94	21.18	21.04				
5	16QAM	25	0	20.86	21.05	20.99				
5	16QAM	1	0	21.00	21.02	21.07	21.7	0		
5	16QAM	1	12	21.00	20.92	21.08				
5	16QAM	1	24	21.00	20.96	20.70				
5	16QAM	12	0	20.93	21.07	21.04				
5	16QAM	12	7	21.10	21.07	20.90	21.7	0		
5	16QAM	12	13	20.99	20.92	21.01				
5	16QAM	25	0	20.97	20.97	20.80				
5	16QAM	1	0	20.09	20.23	20.11				
5	16QAM	1	12	19.97	20.12	20.01	20.7	1		
5	16QAM	1	24	19.88	19.84	19.88				
5	16QAM	12	0	19.98	19.99	19.98				
5	16QAM	12	7	19.85	19.88	19.94	20.7	1		
5	16QAM	12	13	20.09	20.09	19.96				
5	16QAM	25	0	19.92	20.06	19.91				

Band 41 Main PA Ant4 DSI0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Mid Ch / Freq	Power High-Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel										
Frequency (MHz)										
20	QPSK	1	0	21.16	21.43	21.09	21.15	21.10		
20	QPSK	1	49	21.32	21.13	21.45	21.38	21.11	21.7	0
20	QPSK	1	99	21.08	21.27	21.29	21.06	21.29		
20	QPSK	50	0	21.30	21.18	21.42	21.09	21.36		
20	QPSK	50	24	21.25	21.17	21.23	21.02	21.16	21.7	0
20	QPSK	50	0	21.17	21.12	21.10	20.98	20.97		
20	QPSK	100	0	21.15	21.22	21.31	21.12	21.20		
20	16QAM	1	0	21.34	21.31	21.33	21.26	21.39	21.7	0
20	16QAM	1	49	21.02	21.27	21.36	21.37	21.07		
20	16QAM	1	99	21.35	21.37	21.30	21.23	21.12		
20	16QAM	50	0	21.12	21.16	21.27	21.10	21.24	21.7	0
20	16QAM	50	24	21.00	21.48	21.15	21.05	21.30		
20	16QAM	50	50	21.12	21.21	21.31	21.21	21.40		
20	16QAM	100	0	21.08	21.09	21.22	21.30	21.04		
20	16QAM	100	1	20.84	20.75	20.82	20.79	20.71	21.7	0
20	16QAM	100	49	20.77	20.76	20.88	20.87	20.85		
20	16QAM	100	0	20.85	20.83	20.82	20.85	20.85		
20	16QAM	100	0	21.19	21.23	21.42	21.12	21.17		
20	16QAM	100	24	21.12	21.03	21.15	21.12	21.11	21.7	0
20	16QAM	100	50	21.19	21.13	21.32	21.32	21.32		
20	16QAM	100	0	21.18	21.18	21.22	21.30	20.99		
20	16QAM	100	0	20.27	20.20	20.32	20.29	20.19		
20	16QAM	100	49	20.23	20.18	20.29	20.16	20.19	20.7	1
20	16QAM	100	1	20.16	20.17	20.24	20.15	20.17		
20	16QAM	100	0	20.19	20.20	20.30	20.11	20.16		
20	16QAM	100	24	19.98	20.08	20.13	20.05	20.07	20.7	1
20	16QAM	100	50	20.14	20.13	20.19	20.09	20.14		
20	16QAM	100	0	20.13	20.17	20.18	20.16	20.16		
Channel										
Frequency (MHz)										
16										



Band 42 FCC Part27Q Main PA Ant5 DSI0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MFR (dB)	
Channel									
Frequency (MHz)				42160	42560	42960			
20	QPSK	1	0	20.60	20.60	20.64			
20	QPSK	1	49	20.52	20.58	20.65			21
20	QPSK	1	99	20.31	20.60	20.65			
20	QPSK	50	0	20.19	20.47	20.34			
20	QPSK	50	24	20.06	20.32	20.14			21
20	QPSK	50	49	20.04	20.30	20.14			
20	QPSK	100	0	20.15	20.21	20.20			
20	HQAM	1	0	20.61	20.17	20.21			21
20	HQAM	1	49	20.15	20.15	19.96			
20	HQAM	1	99	20.09	20.24	20.08			
20	HQAM	50	0	20.40	20.34	20.37			21
20	HQAM	50	24	20.27	20.30	20.30			
20	HQAM	50	49	20.23	20.44	20.32			
20	HQAM	100	0	20.28	20.28	20.22			
20	HQAM	100	0	19.95	20.14	20.04			
20	HQAM	1	49	19.88	20.00	20.13			21
20	HQAM	1	99	19.98	19.92	19.96			
20	HQAM	50	0	20.33	20.32	20.28			
20	HQAM	50	24	19.90	20.11	20.10			21
20	HQAM	50	49	20.13	20.07	19.99			
20	HQAM	100	0	19.98	20.02	20.00			
20	ZSSBAM	1	0	19.76	19.84	19.70			
20	ZSSBAM	1	49	19.67	19.80	19.67			20.5
20	ZSSBAM	1	99	19.64	19.79	19.73			
20	ZSSBAM	50	0	19.69	19.66	19.66			
20	ZSSBAM	50	24	19.57	19.63	19.51			20.5
20	ZSSBAM	50	49	19.64	19.75	19.68			
20	ZSSBAM	100	0	19.65	19.65	19.57			
Channel									
Frequency (MHz)				3475	3500	3525			
15	QPSK	1	0	20.34	20.32	20.43			
15	QPSK	1	47	20.38	20.54	20.48			21
15	QPSK	1	74	20.30	20.65	20.23			
15	QPSK	36	0	19.96	20.30	20.26			
15	QPSK	36	20	19.98	20.21	20.09			21
15	QPSK	36	36	20.01	20.20	20.07			
15	HQAM	1	0	19.91	20.11	20.21			21
15	HQAM	1	47	20.09	19.96	19.99			
15	HQAM	1	74	19.91	20.17	19.98			
15	HQAM	36	0	20.09	20.24	20.24			
15	HQAM	36	20	20.20	20.30	20.08			21
15	HQAM	36	36	20.07	20.41	20.16			
15	HQAM	75	0	20.08	20.23	20.13			
15	HQAM	1	0	19.84	20.12	19.89			
15	HQAM	1	47	19.72	19.92	20.13			21
15	HQAM	1	74	19.76	19.76	19.72			
15	HQAM	36	0	20.12	20.14	20.11			
15	HQAM	36	20	19.84	20.09	19.80			21
15	HQAM	36	36	19.83	19.84	19.83			
15	HQAM	75	0	19.97	19.83	20.04			
15	ZSSBAM	1	0	19.68	19.79	19.68			20.5
15	ZSSBAM	1	47	19.60	19.73	19.63			
15	ZSSBAM	1	74	19.53	19.69	19.62			
15	ZSSBAM	36	0	19.65	19.72	19.59			20.5
15	ZSSBAM	36	20	19.69	19.82	19.67			
15	ZSSBAM	36	36	19.59	19.61	19.58			20.5
15	ZSSBAM	75	0	19.43	19.63	19.61			
Channel									
Frequency (MHz)				42160	42560	42960			
10	QPSK	1	0	20.38	20.38	20.40			
10	QPSK	1	25	20.49	20.43	20.40			21
10	QPSK	1	49	20.14	20.47	20.39			
10	QPSK	50	0	20.06	20.34	20.21			
10	QPSK	25	12	19.88	20.24	20.11			21
10	QPSK	25	25	19.92	20.02	20.12			
10	QPSK	50	0	20.00	20.14	20.06			
10	HQAM	1	0	19.83	20.09	20.02			21
10	HQAM	1	25	20.13	20.00	19.96			
10	HQAM	1	49	19.97	20.21	19.94			
10	HQAM	25	0	20.28	20.28	20.26			
10	HQAM	25	12	20.24	20.30	20.00			21
10	HQAM	25	25	20.12	20.42	20.24			
10	HQAM	50	0	20.26	20.19	20.02			
10	HQAM	1	0	19.83	20.10	20.04			
10	HQAM	1	25	19.68	19.93	19.91			21
10	HQAM	1	49	19.94	19.78	19.75			
10	HQAM	25	0	20.27	20.18	20.05			
10	HQAM	25	12	19.85	20.03	19.80			21
10	HQAM	25	25	19.87	20.04	19.92			
10	HQAM	50	0	19.96	19.95	19.90			
10	ZSSBAM	1	0	19.72	19.80	19.56			20.5
10	ZSSBAM	1	25	19.58	19.73	19.64			
10	ZSSBAM	1	49	19.51	19.50	19.67			
10	ZSSBAM	25	0	19.59	19.78	19.69			20.5
10	ZSSBAM	25	12	19.47	19.60	19.47			
10	ZSSBAM	25	25	19.55	19.63	19.57			
10	ZSSBAM	50	0	19.49	19.52	19.47			
Channel									
Frequency (MHz)				3475.5	3500	3525.5			
5	QPSK	1	0	20.41	20.32	20.46			
5	QPSK	1	12	20.49	20.37	20.50			21
5	QPSK	1	24	20.11	20.51	20.45			
5	QPSK	12	0	20.16	20.38	20.24			
5	QPSK	12	7	19.95	20.20	19.94			21
5	QPSK	12	13	19.94	20.00	20.11			
5	QPSK	25	0	19.87	20.20	20.16			
5	HQAM	1	0	19.88	20.04	20.05			
5	HQAM	1	12	20.13	19.83	19.85			21
5	HQAM	1	24	20.00	20.18	19.90			
5	HQAM	12	0	20.09	20.28	20.27			
5	HQAM	12	7	20.23	20.36	20.13			21
5	HQAM	12	13	20.01	20.40	20.25			
5	HQAM	25	0	20.16	20.10	20.23			
5	HQAM	1	0	19.87	20.06	19.89			21
5	HQAM	1	12	19.88	19.88	20.04			
5	HQAM	1	24	19.87	19.80	19.90			
5	HQAM	12	0	20.28	20.16	20.00			
5	HQAM	12	7	19.87	20.17	20.03			21
5	HQAM	12	13	19.95	20.07	19.77			
5	HQAM	25	0	19.87	19.91	20.06			
5	ZSSBAM	1	0	19.64	19.78	19.56			
5	ZSSBAM	1	12	19.66	19.71	19.62			20.5
5	ZSSBAM	1	24	19.60	19.71	19.69			
5	ZSSBAM	12	0	19.49	19.46	19.47			20.5
5	ZSSBAM	12	7	19.59	19.69	19.58			
5	ZSSBAM	12	13	19.49	19.50	19.45			

Band 48 Main PA Ant5 DSI0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MFR (dB)
Channel									
Frequency (MHz)				56340	56840	56340	56840		
20	QPSK	1	0	20.14	20.02	20.03	20.16		
20	QPSK	1	49	20.10	20.21	19.90	20.04		20.5
20	QPSK	1	99	20.60	19.96	19.91	19.99		
20	QPSK	50	0	19.96	20.11	20.01	19.95		
20	QPSK	50	24	19.84	19.78	19.84	19.90		20.5
20	QPSK	50	49	19.73	19.82	19.84	19.74		
20	QPSK	100	0	19.82	20.02	19.77	19.87		
20	HQAM	1	0	19.82	19.87	19.87	19.73		20.5
20	HQAM	1	49	19.83	19.80	19.67	19.64		
20	HQAM	1	99	19.82	19.89	19.84	19.69		
20	HQAM	50	0	20.04	19.96	20.11	20.04		20.5
20	HQAM	50	24	19.76	20.05	19.88	19.78		
20	HQAM	50	49	19.86	20.05	19.94	19.84		
20	HQAM	100	0	19.87	19.76	19.81	19.76		
20	HQAM	100	0	19.85	19.76	19.58	19.74		
20	HQAM	1	49	19.84	19.74	19.61	19.77		20.5
20	HQAM	1	99	19.82	19.83	19.85	19.86		
20	HQAM	50	0	19.75	19.77	19.70	19.68		
20	HQAM	50	24	19.55	19.75	19.56	19.57		20.5
20	HQAM	50	49	19.62	19.84	19.61	19.63		
20	HQAM	100	0	19.79	19.71	19.68	19.61		
20	ZSSBAM	1	0	19.92	19.83	19.84	19.80		
20	ZSSBAM	1	49	19.73	19.68	19.73	19.77		20.5
20	ZSSBAM	1	99	19.72	19.65	19.68	19.65		
20	ZSSBAM	50	0	19.65	19.67	19.62	19.63		
20	ZSSBAM	50	24	19.70	19.75	19.72	19.67		20.5
20	ZSSBAM	50	49	19.70	19.80	19.75	19.68		
20	ZSSBAM	100	0	19.64	19.64	19.59	19.59		
Channel									
Frequency (MHz)				56315	56815	56315	56815		
15	QPSK	1	0	20.14	20.08	20.01	20.02		
15	QPSK	1	37	19.96	20.00	19.77	19.84		20.5
15	QPSK	1	74	19.76	19.88	19.86	19.81		
15	QPSK	36	0	19.83	20.03	19.83	19.85		
15	QPSK	36	20	19.80	19.65	19.68	19.76		20.5
15	QPSK	36	36	19.58	19.69	19.63	19.69		
15	HQAM	1	0	19.60	19.66	19.65	19.62		20.5
15	HQAM	1	37	19.82	19.65	19.67	19.65		
15	HQAM	1	74	19.56	19.61	19.42	19.53		
15	HQAM	36	0	19.83					



Band 42 FCC Part27Q Main PA Ant6 DSI0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)	
Channel									
Frequency (MHz)				3416	3500	3584			
20	QPSK	1	0	17.84	17.84	17.84			
20	QPSK	1	49	17.87	17.79	17.82		18.5	0
20	QPSK	1	99	17.74	17.82	17.76			
20	QPSK	50	0	17.83	17.85	17.82			
20	QPSK	50	24	17.85	17.86	17.86		18.5	0
20	QPSK	100	0	17.82	17.82	17.82			
20	IQAM	1	0	17.88	17.82	17.85		18.5	0
20	IQAM	1	49	17.88	17.85	17.81			
20	IQAM	1	99	17.25	17.41	17.28			
20	IQAM	50	0	17.82	17.84	17.84		18.5	0
20	IQAM	50	24	17.82	17.81	17.82			
20	IQAM	50	50	17.89	17.82	17.88		18.5	0
20	IQAM	100	0	17.83	17.82	17.82			
20	IQAM	100	0	17.87	17.83	17.87			
20	IQAM	1	49	17.88	17.83	17.83		18.5	0
20	IQAM	1	99	17.81	17.82	17.82			
20	IQAM	50	24	17.28	17.45	17.44		18.5	0
20	IQAM	50	50	17.83	17.83	17.87			
20	IQAM	100	0	17.82	17.84	17.86			
20	ZSSBAM	1	0	17.82	17.82	17.82		18.5	0
20	ZSSBAM	1	49	17.82	17.81	17.81			
20	ZSSBAM	1	99	17.12	17.52	17.32			
20	ZSSBAM	50	0	17.82	17.82	17.82		18.5	0
20	ZSSBAM	50	24	16.96	17.27	17.09			
20	ZSSBAM	50	50	17.29	17.19	17.65		18.5	0
20	ZSSBAM	100	0	17.83	17.82	17.82			
Channel									
Frequency (MHz)				4216	4299	4383			
15	QPSK	1	0	17.83	17.83	17.84			
15	QPSK	1	37	17.77	17.86	17.81		18.5	0
15	QPSK	1	74	17.85	17.86	17.86			
15	QPSK	36	0	17.81	17.82	17.82		18.5	0
15	QPSK	36	20	17.82	17.81	17.81			
15	QPSK	36	37	17.82	17.84	17.84		18.5	0
15	QPSK	75	0	17.88	17.84	17.88			
15	IQAM	1	0	17.28	17.47	17.33		18.5	0
15	IQAM	1	37	17.87	17.82	17.82			
15	IQAM	1	74	17.07	17.38	17.28			
15	IQAM	36	0	17.21	17.49	17.39		18.5	0
15	IQAM	36	20	17.28	17.28	17.28			
15	IQAM	36	37	17.39	17.62	17.13		18.5	0
15	IQAM	75	0	17.83	17.82	17.83			
15	IQAM	1	0	17.29	17.52	17.39		18.5	0
15	IQAM	1	37	17.38	17.59	17.23			
15	IQAM	1	74	16.92	17.23	17.06			
15	IQAM	36	0	17.47	17.82	17.48		18.5	0
15	IQAM	36	20	17.15	17.33	17.43			
15	IQAM	36	37	17.82	17.48	17.48		18.5	0
15	IQAM	75	0	17.14	17.44	17.40			
15	ZSSBAM	1	0	17.09	17.31	17.17		18.5	0
15	ZSSBAM	1	37	17.85	17.84	17.84			
15	ZSSBAM	1	74	16.95	17.22	17.12			
15	ZSSBAM	36	0	17.21	17.33	17.24		18.5	0
15	ZSSBAM	36	20	16.88	17.15	17.07			
15	ZSSBAM	36	37	17.30	17.14	16.84		18.5	0
15	ZSSBAM	75	0	17.13	17.82	17.84			
Channel									
Frequency (MHz)				3415	3500	3585			
10	QPSK	1	0	17.82	17.82	17.84			
10	QPSK	1	25	17.87	17.77	17.84		18.5	0
10	QPSK	1	49	17.73	17.84	17.88			
10	QPSK	12	0	17.82	17.82	17.82		18.5	0
10	QPSK	25	12	17.85	17.48	17.28			
10	QPSK	25	25	17.48	17.38	17.29		18.5	0
10	QPSK	50	0	17.82	17.84	17.82			
10	IQAM	1	0	17.88	17.84	17.88		18.5	0
10	IQAM	1	25	17.28	17.41	17.28			
10	IQAM	1	49	17.29	17.27	17.28		18.5	0
10	IQAM	25	0	17.27	17.59	17.47			
10	IQAM	25	12	17.88	17.28	17.28		18.5	0
10	IQAM	25	25	17.29	17.81	17.21			
10	IQAM	50	0	17.27	17.41	17.34		18.5	0
10	IQAM	1	0	17.84	17.84	17.88			
10	IQAM	1	25	17.11	17.20	17.23		18.5	0
10	IQAM	1	49	16.85	17.28	17.03			
10	IQAM	25	0	17.48	17.48	17.48		18.5	0
10	IQAM	25	12	17.15	17.40	17.46			
10	IQAM	25	25	17.33	17.55	17.46		18.5	0
10	IQAM	50	0	17.88	17.82	17.88			
10	ZSSBAM	1	0	17.21	17.26	17.18		18.5	0
10	ZSSBAM	1	25	17.26	17.36	17.27			
10	ZSSBAM	1	49	17.81	17.82	17.82		18.5	0
10	ZSSBAM	25	0	17.31	17.22	17.21			
10	ZSSBAM	25	12	16.98	17.46	17.06		18.5	0
10	ZSSBAM	25	25	17.09	17.04	17.01			
10	ZSSBAM	50	0	17.83	17.17	17.16		18.5	0
Channel									
Frequency (MHz)				3415	3500	3585			
5	QPSK	1	0	17.87	17.85	17.89			
5	QPSK	1	12	17.82	17.82	17.84		18.5	0
5	QPSK	1	24	17.88	17.82	17.87			
5	QPSK	12	0	17.83	17.86	17.84		18.5	0
5	QPSK	12	7	17.81	17.85	17.82			
5	QPSK	12	13	17.48	17.86	17.38		18.5	0
5	QPSK	25	0	17.88	17.86	17.84			
5	IQAM	1	0	17.83	17.83	17.86		18.5	0
5	IQAM	1	12	17.82	17.86	17.82			
5	IQAM	1	24	17.84	17.86	17.81		18.5	0
5	IQAM	12	0	17.81	17.81	17.82			
5	IQAM	12	7	17.81	17.81	17.82		18.5	0
5	IQAM	12	13	17.83	17.41	17.50			
5	IQAM	25	0	17.89	17.86	17.86		18.5	0
5	IQAM	25	0	17.18	17.20	17.31			
5	ZSSBAM	1	12	17.88	17.19	17.21		18.5	0
5	ZSSBAM	1	24	16.81	17.18	17.18			
5	ZSSBAM	12	0	17.37	17.20	17.26		18.5	0
5	ZSSBAM	12	7	16.87	17.26	16.93			
5	ZSSBAM	12	13	17.24	17.50	16.98		18.5	0
5	ZSSBAM	25	0	17.14	17.26	16.99			

Band 48 Main PA Ant6 DSI0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)
Channel									
Frequency (MHz)				5630	5690	5690	5690		
20	QPSK	1	0	16.73	16.73	16.81			
20	QPSK	1	49	16.95	16.85	16.74		17.5	0
20	QPSK	1	99	16.87	16.84	16.87			
20	QPSK	50	0	16.90	16.81	16.81		17.5	0
20	QPSK	50	24	16.86	16.87	16.85			
20	QPSK	100	0	16.82	16.82	16.82		17.5	0
20	IQAM	1	0	16.99	16.82	16.84		17.5	0
20	IQAM	1	49	16.44	16.83	16.81			
20	IQAM	1	99	16.35	16.87	16.38			
20	IQAM	50	0	16.71	16.73	16.84		17.5	0
20	IQAM	50	24	16.95	16.86	16.81			
20	IQAM	50	50	16.42	16.82	16.83		17.5	0
20	IQAM	100	0	16.82	16.82	16.82			
20	IQAM	100	0	16.37	16.82	16.43		17.5	0
20	IQAM	1	49	16.27	16.86	16.82		17.5	0
20	IQAM	1	99	16.22	16.84	16.29			
20	IQAM	50	0	16.68	16.73	16.80		17.5	0
20	IQAM	50	24	16.39	16.81	16.87			
20	IQAM	50	50	16.63	16.76	16.69		17.5	0
20	IQAM	100	0	16.82	16.80	16.84			
20	ZSSBAM	1	0	16.38	16.81	16.26		17.5	0
20	ZSSBAM	1	49	16.35	16.84	16.82			
20	ZSSBAM	1	99	16.22	16.82	16.36		17.5	0
20	ZSSBAM	50	0	16.46	16.86	16.87			
20	ZSSBAM	50	24	16.24	16.87	16.30		17.5	0
20	ZSSBAM	50	50	16.27	16.87	16.26			
20	ZSSBAM	100	0	16.82	16.82	16.82		17.5	0
Channel									
Frequency (MHz)				5615	5690	5690	5690		
15	QPSK	1	0	16.72	16.73	16.72			
15	QPSK	1	37	16.75	16.76	16.71		17.5	0
15	QPSK	1	74	16.87	16.74	16.80			
15	QPSK	36	0	16.38	16.69	16.80		17.5	0
15	QPSK	36	20	16.83	16.49	16.83			
15	QPSK	36	37	16.47	16.82	16.82		17.5	0
15	QPSK	75	0	16.97	16.89	16.79			
15	IQAM	1	0	16.87	16.82	16.29		17.5	0
15	IQAM	1	37	16.23	16.46	16.29			
15	IQAM	1	74	16.35	16.39	16.30		17.5	0
15	IQAM	36	0	16.60	16.63	16.82			
15	IQAM	36	20	16.46	16.83	16.47		17.5	0
15	IQAM	36	37	16.29	16.44	16.47			
15	IQAM	75	0	16.45	16.37	16.45		17.5	0
15	IQAM	1	0	16.32	16.41	16.41			
15	IQAM	1	37	16.87	16.15	16.18		17.5	0
15	IQAM	1	74	16.17	1				



Band 42 FCC Part27Q Mian PA Ant7									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MFR (dB)	
Channel									
Frequency (MHz)				42160	42590	42990			
20	QPSK	1	0	23.52	23.52	23.48			
20	QPSK	1	49	23.52	23.44	23.38		24.5	0
20	QPSK	1	99	23.38	23.40	23.36			
20	QPSK	50	0	22.45	22.50	22.40			
20	QPSK	50	24	22.37	22.48	22.43		23.5	1
20	QPSK	100	0	22.28	22.31	22.25			
20	QPSK	100	49	22.20	22.31	22.23		23.5	1
20	HQAM	1	0	22.28	22.37	22.33			
20	HQAM	1	49	22.20	22.31	22.19		22.5	1
20	HQAM	1	99	22.13	22.20	22.12			
20	HQAM	50	0	21.40	21.36	21.46			
20	HQAM	50	24	21.32	21.40	21.36		22.5	2
20	HQAM	50	50	21.24	21.40	21.39			
20	HQAM	100	0	21.27	21.26	21.25			
20	HQAM	100	49	21.25	21.42	21.33		22.5	2
20	HQAM	1	49	21.27	21.36	21.28			
20	HQAM	1	99	21.16	21.20	21.12			
20	HQAM	50	0	20.41	20.50	20.43			
20	HQAM	50	24	20.35	20.38	20.28		21.5	3
20	HQAM	50	50	20.32	20.40	20.33			
20	HQAM	100	0	20.48	20.38	20.28			
20	ZSSBAM	1	0	18.24	18.26	18.35			
20	ZSSBAM	1	49	18.27	18.30	18.27		19.5	5
20	ZSSBAM	1	99	18.24	18.30	18.25			
20	ZSSBAM	50	0	18.28	18.26	18.28			
20	ZSSBAM	50	24	18.09	18.22	18.16		19.5	5
20	ZSSBAM	50	50	18.06	18.19	18.10			
20	ZSSBAM	100	0	18.09	18.20	18.14			
Channel									
Frequency (MHz)				42160	42590	42990	Tune-up Int (dBm)	MFR (dB)	
15	QPSK	1	0	24.74	24.74	24.63			
15	QPSK	1	47	23.28	23.32	23.32		24.5	0
15	QPSK	1	74	23.22	23.30	23.24			
15	QPSK	36	0	22.41	22.30	22.30			
15	QPSK	36	20	22.28	22.30	22.35		23.5	1
15	QPSK	75	0	22.24	22.32	22.18			
15	HQAM	1	0	22.25	22.29	22.25			
15	HQAM	1	47	22.13	22.20	22.18		23.5	1
15	HQAM	1	74	22.07	22.15	22.03			
15	HQAM	36	0	21.31	21.37	21.37			
15	HQAM	36	20	21.29	21.30	21.29		22.5	2
15	HQAM	36	59	21.31	21.34	21.31			
15	HQAM	75	0	21.14	21.21	21.15			
15	HQAM	1	0	21.24	21.29	21.22		22.5	2
15	HQAM	1	47	21.18	21.32	21.15			
15	HQAM	1	74	21.11	21.22	21.09			
15	HQAM	36	0	20.33	20.40	20.38			
15	HQAM	36	20	20.25	20.29	20.22		21.5	3
15	HQAM	36	59	20.28	20.30	20.28			
15	HQAM	75	0	20.15	20.22	20.22			
15	ZSSBAM	1	0	18.17	18.28	18.23		19.5	5
15	ZSSBAM	1	47	18.17	18.18	18.16			
15	ZSSBAM	1	74	18.13	18.10	18.17			
15	ZSSBAM	36	0	18.20	18.27	18.18		19.5	5
15	ZSSBAM	36	20	17.98	18.00	18.02			
15	ZSSBAM	36	59	17.98	18.10	18.07			
15	ZSSBAM	75	0	18.11	18.10	18.00			
Channel									
Frequency (MHz)				42160	42590	42990	Tune-up Int (dBm)	MFR (dB)	
10	QPSK	1	0	24.74	24.74	24.64			
10	QPSK	1	25	23.18	23.29	23.20		24.5	0
10	QPSK	1	49	23.31	23.32	23.33			
10	QPSK	12	0	22.33	22.40	22.36			
10	QPSK	25	12	22.28	22.42	22.35		23.5	1
10	QPSK	25	25	22.18	22.29	22.13			
10	QPSK	50	0	22.23	22.20	22.18			
10	QPSK	50	0	22.17	22.33	22.28		23.5	1
10	HQAM	1	25	22.11	22.16	22.12			
10	HQAM	1	49	22.00	22.11	21.98		22.5	2
10	HQAM	25	0	21.31	21.40	21.38			
10	HQAM	25	12	21.27	21.40	21.21		22.5	2
10	HQAM	25	25	21.21	21.44	21.20			
10	HQAM	50	0	21.24	21.31	21.28			
10	HQAM	50	0	21.09	21.24	21.18		22.5	2
10	HQAM	1	49	21.09	21.17	21.08			
10	HQAM	25	0	20.33	20.37	20.40			
10	HQAM	25	12	20.32	20.33	20.12		21.5	3
10	HQAM	25	25	20.22	20.33	20.28			
10	HQAM	50	0	20.15	20.25	20.18			
10	ZSSBAM	1	0	18.16	18.20	18.20		19.5	5
10	ZSSBAM	1	25	18.21	18.16	18.09			
10	ZSSBAM	1	49	18.20	18.20	18.13			
10	ZSSBAM	25	0	18.16	18.19	18.18		19.5	5
10	ZSSBAM	25	12	18.04	18.10	18.07			
10	ZSSBAM	25	25	18.01	18.15	18.00			
10	ZSSBAM	50	0	17.97	18.16	18.09			
Channel									
Frequency (MHz)				3453.5	3500	3547.5	Tune-up Int (dBm)	MFR (dB)	
5	QPSK	1	0	23.45	23.45	23.35			
5	QPSK	1	24	23.19	23.31	23.31		24.5	0
5	QPSK	1	24	23.29	23.30	23.28			
5	QPSK	12	0	22.33	22.40	22.36			
5	QPSK	12	7	22.29	22.45	22.38		23.5	1
5	QPSK	12	13	22.28	22.29	22.19			
5	QPSK	25	0	22.25	22.20	22.17			
5	HQAM	1	0	22.23	22.30	22.23			
5	HQAM	1	12	22.16	22.26	22.14		23.5	1
5	HQAM	1	24	22.01	22.10	22.06			
5	HQAM	12	0	21.36	21.40	21.41			
5	HQAM	12	7	21.24	21.33	21.22		22.5	2
5	HQAM	12	31	21.28	21.30	21.26			
5	HQAM	25	0	21.09	21.30	21.17			
5	HQAM	1	0	21.28	21.28	21.28		22.5	2
5	HQAM	1	12	21.16	21.24	21.11			
5	HQAM	1	24	21.02	21.21	21.00			
5	HQAM	12	0	20.34	20.37	20.29			
5	HQAM	12	7	20.20	20.34	20.21		21.5	3
5	HQAM	12	13	20.28	20.40	20.20			
5	HQAM	25	0	20.13	20.20	20.17			
5	ZSSBAM	1	0	18.10	18.32	18.23		19.5	5
5	ZSSBAM	1	12	18.16	18.18	18.09			
5	ZSSBAM	1	24	18.18	18.21	18.11			
5	ZSSBAM	12	0	18.17	18.27	18.16		19.5	5
5	ZSSBAM	12	7	18.01	18.16	18.10			
5	ZSSBAM	12	31	17.89	18.11	17.99			
5	ZSSBAM	25	0	18.15	18.20	18.06			

Band 48 Main PA Ant7									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MFR (dB)	
Channel									
Frequency (MHz)				56340	5680	56950			
20	QPSK	1	0	23.60	23.57	23.51			
20	QPSK	1	49	23.45	23.54	23.42		24.5	0
20	QPSK	1	99	23.43	23.50	23.38			
20	QPSK	50	0	22.55	22.62	22.54			
20	QPSK	50	24	22.51	22.54	22.45		23.5	1
20	QPSK	100	0	22.43	22.48	22.34			
20	QPSK	100	49	22.33	22.53	22.48		23.5	1
20	HQAM	1	0	22.45	22.45	22.36			
20	HQAM	1	49	22.31	22.48	22.41		22.5	1
20	HQAM	1	99	22.28	22.38	22.31			
20	HQAM	50	0	21.34	21.58	21.45		22.5	2
20	HQAM	50	24	21.44	21.61	21.50			
20	HQAM	50	50	21.49	21.64	21.50		22.5	2
20	HQAM	100	0	21.52	21.56	21.41			
20	HQAM	100	49	21.50	21.57	21.45		22.5	2
20	HQAM	1	49	21.35	21.43	21.39			
20	HQAM	1	99	21.33	21.45	21.30			
20	HQAM	50	0	20.48	20.64	20.51			
20	HQAM	50	24	20.51	20.49	20.38		21.5	3
20	HQAM	50	50	20.49	20.57	20.48			
20	HQAM	100	0	20.41	20.42	20.31			
20	ZSSBAM	1	0	18.32	18.47	18.38		19.5	5
20	ZSSBAM	1	49	18.38	18.38	18.29			
20	ZSSBAM	1	99	18.33	18.36	18.24			
20	ZSSBAM	50	0	18.40	18.40	18.27		19.5	5
20	ZSSBAM	50	24	18.15	18.29	18.26			
20	ZSSBAM	50	50	18.19	18.31	18.27			
20	ZSSBAM	100	0	18.25	18.30	18.25			
Channel									
Frequency (MHz)				56340	56800	56950	Tune-up Int (dBm)	MFR (dB)	
15	QPSK	1	0	23.13	23.17	23.43			
15	QPSK	1	37	23.39	23.49	23.38		24.5	0
15	QPSK	1	74	23.32	23.42	23.29			
15	QPSK	36	0	22.45	22.48	22.42			
15	QPSK	36	20	22.37	22.42	22.42		23.5	1
15	QPSK	75	0	22.27	22.42	22.42			
15	HQAM	1	0	22.38	22.30	22.27			
15	HQAM	1	37	22.24	22.43	22.37		23.5	1
15	HQAM	1	74	22.19	22.32	22.27			
15	HQAM	36	0	21.50	21.51	21.36		22.5	2



DSI 0 Power for WWAN EN-DC Main PA

Table for Band 5 Main PA Ant1 DSI0 ENDC. Columns include BW (MHz), Modulation, RB Size, RB Offset, Power (dBm), and MPR (dB). Rows list various configurations for DQPSK, QPSK, and 16QAM across different RB sizes and offsets.

Table for Band 12 Other PA Ant1 DSI0 ENDC. Columns include BW (MHz), Modulation, RB Size, RB Offset, Power (dBm), and MPR (dB). Rows list configurations for QPSK, 16QAM, and 256QAM.

Table for Band 26 Main PA Ant1 DSI0 ENDC. Columns include BW (MHz), Modulation, RB Size, RB Offset, Power (dBm), and MPR (dB). Rows list configurations for QPSK, 16QAM, and 256QAM.

Table for Band 66 Main PA Ant1 DSI0 ENDC. Columns include BW (MHz), Modulation, RB Size, RB Offset, Power (dBm), and MPR (dB). Rows list configurations for QPSK, 16QAM, and 256QAM.

Table for Band 5 Main PA Ant1 DSI0 ENDC (continued). Columns include Channel, Frequency (MHz), BW (MHz), Modulation, RB Size, RB Offset, Power (dBm), and MPR (dB). Rows list channel-specific configurations.

Table for Band 12 Other PA Ant1 DSI0 ENDC (continued). Columns include Channel, Frequency (MHz), BW (MHz), Modulation, RB Size, RB Offset, Power (dBm), and MPR (dB). Rows list channel-specific configurations.

Table for Band 26 Main PA Ant1 DSI0 ENDC (continued). Columns include Channel, Frequency (MHz), BW (MHz), Modulation, RB Size, RB Offset, Power (dBm), and MPR (dB). Rows list channel-specific configurations.

Table for Band 66 Main PA Ant1 DSI0 ENDC (continued). Columns include Channel, Frequency (MHz), BW (MHz), Modulation, RB Size, RB Offset, Power (dBm), and MPR (dB). Rows list channel-specific configurations.



Band 38 Main PA Ant1 DSI0 ENDC										
BW (MHz)	Modulation	RI Size	RI Offset	Power Low Ch. (Freq)	Power Mid Ch. (Freq)	Power High Ch. (Freq)	Tune-up limit (dBm)	MPR (dB)		
			Channel	37850	38000	38150				
			Frequency (MHz)	2590	2595	2610				
20	QPSK	1	0	16.41	16.35	16.29				
20	QPSK	1	49	16.45	16.48	16.29	18	0		
20	QPSK	1	99	16.38	16.49	16.42				
20	QPSK	1	0	16.36	16.54	16.51				
20	QPSK	50	24	16.26	16.43	16.38	18	0		
20	QPSK	50	50	16.25	16.43	16.41				
20	QPSK	100	0	16.37	16.03	16.38				
20	16QAM	1	0	16.48	16.43	16.19				
20	16QAM	1	49	16.39	16.43	16.21	18	0		
20	16QAM	1	99	16.49	16.46	16.51				
20	16QAM	50	0	16.21	16.51	16.37				
20	16QAM	50	24	16.31	16.33	16.35	18	0		
20	16QAM	50	50	16.19	16.26	16.12				
20	16QAM	100	0	16.35	16.39	16.36				
20	64QAM	1	0	16.22	16.37	16.45				
20	64QAM	1	49	16.22	16.20	16.40	18	0		
20	64QAM	1	99	16.36	16.35	16.17				
20	64QAM	50	0	16.33	16.38	16.38				
20	64QAM	50	24	16.31	16.30	16.30	18	0		
20	64QAM	50	50	16.39	16.33	16.20				
20	64QAM	100	0	16.32	16.44	16.30				
20	256QAM	1	0	16.40	16.54	16.46				
20	256QAM	1	49	16.41	16.52	16.41	18	0		
20	256QAM	1	99	16.37	16.51	16.46				
20	256QAM	50	0	16.40	16.45	16.31				
20	256QAM	50	24	16.33	16.36	16.22	18	0		
20	256QAM	50	50	16.40	16.45	16.38				
20	256QAM	100	0	16.21	16.28	16.23				
			Channel	2617.5	2665	2612.5	Tune-up limit (dBm)	MPR (dB)		
			Frequency (MHz)	2617.5	2665	2612.5				
15	QPSK	1	0	16.33	16.46	16.35				
15	QPSK	1	39	16.35	16.35	16.17	18	0		
15	QPSK	1	74	16.38	16.30	16.27				
15	QPSK	36	0	16.32	16.35	16.28				
15	QPSK	36	29	16.33	16.35	16.28	18	0		
15	QPSK	36	59	16.19	16.22	16.27				
15	QPSK	75	0	16.22	16.27	16.32				
15	16QAM	1	0	16.37	16.33	16.17				
15	16QAM	1	37	16.22	16.23	16.12	18	0		
15	16QAM	1	74	16.35	16.28	16.43				
15	16QAM	36	0	16.13	16.52	16.28				
15	16QAM	36	20	16.17	16.16	16.22	18	0		
15	16QAM	36	39	16.09	16.15	16.07				
15	16QAM	75	0	16.34	16.21	16.16				
15	64QAM	1	0	16.12	16.25	16.36				
15	64QAM	1	37	16.23	16.19	16.39	18	0		
15	64QAM	1	74	16.08	16.01	16.07				
15	64QAM	36	0	16.30	16.29	16.18				
15	64QAM	36	20	16.15	16.23	16.41	18	0		
15	64QAM	36	39	16.10	16.23	16.05				
15	64QAM	75	0	16.21	16.32	16.25				
15	256QAM	1	0	16.33	16.40	16.29				
15	256QAM	1	37	16.38	16.46	16.25	18	0		
15	256QAM	1	74	16.21	16.49	16.38				
15	256QAM	36	0	16.18	16.43	16.23				
15	256QAM	36	20	16.23	16.21	16.08	18	0		
15	256QAM	36	39	16.43	16.43	16.31				
15	256QAM	75	0	16.00	16.22	16.22				
			Channel	37800	38000	38200	Tune-up limit (dBm)	MPR (dB)		
			Frequency (MHz)	37800	38000	38200				
10	QPSK	1	0	16.40	16.49	16.36				
10	QPSK	1	25	16.29	16.27	16.27	18	0		
10	QPSK	1	49	16.24	16.37	16.24				
10	QPSK	25	0	16.14	16.41	16.20				
10	QPSK	25	12	16.27	16.23	16.07	18	0		
10	QPSK	25	12	16.27	16.23	16.07				
10	QPSK	60	0	16.33	16.33	16.36				
10	QPSK	60	0	16.33	16.33	16.35				
10	16QAM	1	0	16.31	16.35	16.17				
10	16QAM	1	25	16.19	16.26	16.26	18	0		
10	16QAM	1	49	16.35	16.42	16.32				
10	16QAM	25	0	16.21	16.37	16.17				
10	16QAM	25	12	16.21	16.24	16.03	18	0		
10	16QAM	25	12	16.21	16.24	16.03				
10	64QAM	1	0	16.04	16.24	16.30				
10	64QAM	1	25	16.20	16.08	16.25	18	0		
10	64QAM	1	49	16.05	16.01	16.05				
10	64QAM	25	0	16.20	16.24	16.36				
10	64QAM	25	12	16.13	16.20	16.28	18	0		
10	64QAM	25	12	16.13	16.20	16.28				
10	64QAM	50	0	16.10	16.35	16.29				
10	256QAM	1	0	16.34	16.38	16.31				
10	256QAM	1	25	16.27	16.42	16.36	18	0		
10	256QAM	1	49	16.34	16.36	16.32				
10	256QAM	25	0	16.23	16.36	16.14				
10	256QAM	25	12	16.24	16.17	16.08	18	0		
10	256QAM	25	12	16.20	16.35	16.39				
10	256QAM	50	0	16.08	16.22	16.04				
			Channel	37775	38000	38225	Tune-up limit (dBm)	MPR (dB)		
			Frequency (MHz)	37775	38000	38225				
5	QPSK	1	0	16.45	16.41	16.20				
5	QPSK	1	12	16.35	16.36	16.29	18	0		
5	QPSK	1	24	16.39	16.34	16.21				
5	QPSK	12	0	16.17	16.35	16.31				
5	QPSK	12	7	16.05	16.39	16.06	18	0		
5	QPSK	12	13	16.04	16.35	16.31				
5	QPSK	25	0	16.23	16.19	16.23				
5	16QAM	1	0	16.35	16.35	16.15				
5	16QAM	1	12	16.19	16.28	16.04	18	0		
5	16QAM	1	24	16.51	16.37	16.48				
5	16QAM	12	0	16.11	16.47	16.26				
5	16QAM	12	7	16.28	16.12	16.18	18	0		
5	16QAM	12	13	16.05	16.20	16.08				
5	16QAM	25	0	16.28	16.40	16.21				
5	64QAM	1	0	16.00	16.27	16.26				
5	64QAM	1	12	16.22	16.11	16.20	18	0		
5	64QAM	1	24	16.04	16.07	16.02				
5	64QAM	12	0	16.21	16.26	16.27				
5	64QAM	12	7	16.18	16.19	16.40	18	0		
5	64QAM	12	13	16.24	16.26	16.07				
5	64QAM	25	0	16.30	16.25	16.16				
5	256QAM	1	0	16.21	16.41	16.32				
5	256QAM	1	12	16.30	16.55	16.20	18	0		
5	256QAM	1	24	16.33	16.32	16.37				
5	256QAM	12	0	16.40	16.33	16.22				
5	256QAM	12	7	16.20	16.20	16.20	18	0		
5	256QAM	12	13	16.33	16.34	16.21				
5	256QAM	25	0	16.21	16.21	16.03				

Band 41 Main PA Ant1 DSI0 ENDC										
BW (MHz)	Modulation	RI Size	RI Offset	Power Low Ch. (Freq)	Power Low Middle Ch. (Freq)	Power Middle Ch. (Freq)	Power High Middle Ch. (Freq)	Power High Ch. (Freq)	Tune-up limit (dBm)	MPR (dB)
			Channel	39750	40165	40600	41055	41400		
			Frequency (MHz)	2590	2595	2610	2615	2630		
20	QPSK	1	0	16.53	16.57	16.50	16.50	16.42		
20	QPSK	1	49	16.49	16.61	16.65	16.64	16.34	17.5	0
20	QPSK	1	99	16.47	16.65	16.64	16.62	16.45		
20	QPSK	1	0	16.33	16.58	16.63	16.63	16.58		
20	QPSK	50	24	16.22	16.20	16.35	16.31	16.17	17.5	0
20	QPSK	50	50	16.18	16.35	16.39	16.19	16.18		
20	QPSK	100	0	16.21	16.21	16.27	16.17	16.19		
20	16QAM	1	0	16.39	16.33	16.35	16.37	16.29		
20	16QAM	1	49	16.14	16.09	16.37	16.24	16.20	17.5	0
20	16QAM	1	99	16.30	16.40	16.54	16.42	16.37		
20	16QAM	50	0	16.27	16.42	16.30	16.36	16.33		
20	16QAM	50	24	16.11	16.29	16.26	16.14	16.27	17.5	0
20	16QAM	50	50	16.32	16.21	16.47	16.24	16.28		
20	16QAM	100	0	16.28	16.33	16.36	16.10	16.34		
20	64QAM	1	0	16.29	16.37	16.35	16.22	16.39		
20	64QAM	1	49	16.51	16.44	16.09	16.57	16.45	17.5	0
20	64QAM	1	99	16.34	16.32	16.27	16.56	16.58		
20	64QAM	50	0	16.30	16.04	16.23	16.18	16.32		
20	64QAM	50	24	16.03	16.16	16.13	16.00	16.04	17.5	0
20	64QAM	50	50	16.18	16.05	16.27	16.24	16.30		
20	64QAM	100	0	16.30	16.67	16.04	16.31	16.35		
20	256QAM	1	0	16.48	16.48	16.65	16.48	16.54		
20	256QAM	1	49	16.46						



Band 66 Main PA Ant3 DS10 ENDC										
RF [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power High Ch. / Freq.	Turn-up (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	17.36	17.40	17.34	19	0		
20	QPSK	1	49	17.27	17.36	17.32				
20	QPSK	1	99	17.32	17.34	17.34				
20	QPSK	50	0	17.10	17.20	17.17	19	0		
20	QPSK	50	24	17.14	17.21	17.61				
20	QPSK	50	50	17.15	17.00	17.62				
20	QPSK	100	0	17.07	17.27	17.19	19	0		
20	16QAM	1	0	17.14	17.24	17.20				
20	16QAM	1	49	17.17	17.21	17.68				
20	16QAM	1	99	17.08	17.08	17.17				
20	16QAM	50	0	17.10	17.22	17.12	19	0		
20	16QAM	50	24	17.06	17.15	17.61				
20	16QAM	50	50	17.12	17.19	17.14				
20	16QAM	100	0	17.08	17.13	17.63				
20	84QAM	1	0	17.04	17.09	17.63	19	0		
20	84QAM	1	49	17.08	17.13	17.67				
20	84QAM	1	99	17.05	17.09	17.64				
20	84QAM	50	0	17.21	17.32	17.28	19	0		
20	84QAM	50	24	17.16	17.25	17.63				
20	84QAM	50	50	17.23	17.28	17.23				
20	84QAM	100	0	17.12	17.20	17.17				
20	256QAM	1	0	16.80	16.83	16.31	18.5	0.5		
20	256QAM	1	49	16.88	16.80	16.68				
20	256QAM	1	99	16.70	16.75	16.61				
20	256QAM	50	0	16.86	16.76	16.84				
20	256QAM	50	24	16.56	16.66	16.60	18.5	0.5		
20	256QAM	50	50	16.62	16.72	16.60				
20	256QAM	100	0	16.55	16.69	16.58				
Channel										
Frequency (MHz)										
15	QPSK	1	0	17.32	17.26	17.32	19	0		
15	QPSK	1	37	17.07	17.39	17.34				
15	QPSK	1	74	17.19	17.34	17.33				
15	QPSK	36	0	17.08	17.31	17.19	19	0		
15	QPSK	36	20	17.14	17.32	17.25				
15	QPSK	36	39	17.01	17.25	17.38				
15	QPSK	75	0	17.23	17.32	17.31				
15	16QAM	1	0	17.35	17.28	17.29	19	0		
15	16QAM	1	37	17.03	17.28	17.37				
15	16QAM	1	74	17.08	17.25	17.19				
15	16QAM	36	0	17.10	17.30	17.15	19	0		
15	16QAM	36	20	17.01	17.22	17.67				
15	16QAM	36	39	17.17	17.16	17.11				
15	16QAM	75	0	17.11	17.10	17.12				
15	84QAM	1	0	17.12	17.13	17.60	19	0		
15	84QAM	1	37	17.07	17.09	17.67				
15	84QAM	1	74	17.05	17.04	17.16				
15	84QAM	36	0	17.18	17.26	17.35	19	0		
15	84QAM	36	20	17.18	17.26	17.20				
15	84QAM	36	39	17.25	17.35	17.25				
15	84QAM	75	0	17.18	17.16	17.28				
15	256QAM	1	0	16.74	16.80	16.31	18.5	0.5		
15	256QAM	1	37	16.68	16.88	16.60				
15	256QAM	1	74	16.77	16.85	16.61				
15	256QAM	36	0	16.78	16.87	16.33				
15	256QAM	36	20	16.55	16.73	16.70	18.5	0.5		
15	256QAM	36	39	16.59	16.83	16.68				
15	256QAM	75	0	16.81	16.81	16.63				
Channel										
Frequency (MHz)										
10	QPSK	1	0	17.25	17.33	17.34	19	0		
10	QPSK	1	25	17.08	17.24	17.20				
10	QPSK	1	49	17.12	17.24	17.36				
10	QPSK	25	0	17.08	17.38	17.16	19	0		
10	QPSK	25	12	17.06	17.18	17.32				
10	QPSK	25	25	17.12	17.15	17.25				
10	QPSK	50	0	17.06	17.26	17.24	19	0		
10	16QAM	1	0	17.36	17.16	17.36				
10	16QAM	1	25	17.08	17.23	17.27				
10	16QAM	1	49	17.25	17.20	17.22				
10	16QAM	25	0	17.09	17.23	17.18	19	0		
10	16QAM	25	12	17.00	17.12	17.60				
10	16QAM	25	25	17.13	17.29	17.20				
10	16QAM	50	0	17.04	17.16	17.69				
10	84QAM	1	0	17.15	17.00	17.67	19	0		
10	84QAM	1	25	17.02	17.07	17.14				
10	84QAM	1	49	17.07	17.07	17.62				
10	84QAM	25	0	17.16	17.38	17.29	19	0		
10	84QAM	25	12	17.33	17.14	17.53				
10	84QAM	25	25	17.30	17.33	17.14				
10	84QAM	50	0	17.24	17.28	17.24				
10	256QAM	1	0	16.58	16.74	16.63	18.5	0.5		
10	256QAM	1	25	16.57	16.75	16.59				
10	256QAM	1	49	16.75	16.79	16.67				
10	256QAM	25	0	16.65	16.65	16.67				
10	256QAM	25	12	16.65	16.70	16.57	18.5	0.5		
10	256QAM	25	25	16.81	16.69	16.56				
10	256QAM	50	0	16.66	16.64	16.57				
Channel										
Frequency (MHz)										
5	QPSK	1	0	17.34	17.32	17.35	19	0		
5	QPSK	1	12	17.08	17.26	17.35				
5	QPSK	1	24	17.30	17.27	17.24				
5	QPSK	12	0	17.08	17.29	17.18	19	0		
5	QPSK	12	7	17.19	17.16	17.36				
5	QPSK	12	13	17.01	17.12	17.27				
5	QPSK	25	0	17.20	17.31	17.29				
5	16QAM	1	0	17.17	17.14	17.31	19	0		
5	16QAM	1	12	17.03	17.32	17.27				
5	16QAM	1	24	17.24	17.31	17.25				
5	16QAM	12	0	17.11	17.32	17.69	19	0		
5	16QAM	12	7	17.16	17.07	17.16				
5	16QAM	12	13	17.07	17.16	17.26				
5	16QAM	25	0	17.07	17.20	17.67				
5	84QAM	1	0	17.14	17.15	17.69	19	0		
5	84QAM	1	12	17.13	17.04	17.13				
5	84QAM	1	24	17.04	17.13	17.68				
5	84QAM	12	0	17.13	17.26	17.34	19	0		
5	84QAM	12	7	17.10	17.31	17.10				
5	84QAM	12	13	17.21	17.28	17.20				
5	84QAM	25	0	17.28	17.39	17.18				
5	256QAM	1	0	16.80	16.92	16.73	18.5	0.5		
5	256QAM	1	12	16.57	16.90	16.79				
5	256QAM	1	24	16.78	16.85	16.51				
5	256QAM	12	0	16.86	16.74	16.63				
5	256QAM	12	7	16.55	16.66	16.68	18.5	0.5		
5	256QAM	12	13	16.74	16.71	16.55				
5	256QAM	25	0	16.57	16.68	16.59				
Channel										
Frequency (MHz)										
3	QPSK	1	0	17.22	17.32	17.50	19	0		
3	QPSK	1	8	17.21	17.35	17.28				
3	QPSK	1	14	17.15	17.38	17.26				
3	QPSK	8	0	17.17	17.26	17.18	19	0		
3	QPSK	8	4	17.12	17.09	17.31				
3	QPSK	8	7	17.06	17.15	17.17				
3	QPSK	15	0	17.05	17.24	17.26				
3	16QAM	1	0	17.25	17.33	17.17	19	0		
3	16QAM	1	8	17.06	17.25	17.29				
3	16QAM	1	14	17.22	17.23	17.22				
3	16QAM	8	0	17.21	17.23	17.16	19	0		
3	16QAM	8	4	17.11	17.12	17.63				
3	16QAM	8	7	17.17	17.16	17.13				
3	84QAM	15	0	17.13	17.06	17.69	19	0		
3	84QAM	1	0	17.10	17.07	17.60				



Band 38 Main PA Ant3 DSI0 ENDC										
BW (MHz)	Modulation	RI Size	RI Offset	Power Low Ch. (Freq)	Power Mid Ch. (Freq)	Power High Ch. (Freq)	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	18.13	18.13	18.20	19.5	0		
20	QPSK	1	49	17.92	18.18	18.05				
20	QPSK	1	99	17.98	17.96	18.01				
20	QPSK	100	0	18.05	18.03	18.09	19.5	0		
20	QPSK	50	24	17.93	18.18	18.12				
20	QPSK	50	50	17.88	18.02	17.94				
20	QPSK	100	0	18.05	18.03	17.78	19.5	0		
20	HQAM	1	0	17.85	17.94	17.82				
20	HQAM	1	49	17.74	18.01	17.79				
20	HQAM	100	0	17.98	17.76	17.94	19.5	0		
20	HQAM	50	0	18.23	18.25	18.25				
20	HQAM	50	24	18.02	18.10	18.02				
20	HQAM	100	0	17.93	18.08	17.87	19.5	0		
20	HQAM	50	0	17.91	17.98	17.73				
20	HQAM	50	49	17.85	17.74	17.76				
20	HQAM	100	0	18.08	18.23	18.09	19.5	0		
20	HQAM	50	24	18.05	18.25	17.97				
20	HQAM	50	50	18.01	18.20	18.16				
20	HQAM	100	0	18.02	18.14	18.14	19.5	0		
20	256QAM	1	0	17.93	18.09	17.82				
20	256QAM	1	49	17.87	17.86	17.78				
20	256QAM	100	0	18.16	18.21	18.05	19.5	0		
20	256QAM	50	24	17.83	18.04	17.77				
20	256QAM	50	50	18.11	18.00	18.08				
20	256QAM	100	0	17.85	18.10	18.03	19.5	0		
20	256QAM	50	24	17.85	18.04	17.77				
20	256QAM	50	50	18.11	18.00	18.08				
Channel										
Frequency (MHz)										
15	QPSK	1	0	18.17	18.19	18.13	19.5	0		
15	QPSK	3	3	17.95	18.16	17.83				
15	QPSK	1	74	17.83	18.08	18.09				
15	QPSK	36	0	18.05	18.26	18.15	19.5	0		
15	QPSK	36	20	18.08	18.11	18.03				
15	QPSK	36	39	17.77	17.99	17.87				
15	QPSK	75	0	17.98	17.93	17.89	19.5	0		
15	HQAM	1	37	17.70	17.89	17.89				
15	HQAM	1	74	17.86	17.89	18.05				
15	HQAM	100	0	18.20	18.19	18.20	19.5	0		
15	HQAM	36	20	18.03	18.17	18.00				
15	HQAM	36	39	18.00	18.16	18.00				
15	HQAM	100	0	17.97	17.95	18.00	19.5	0		
15	HQAM	36	20	17.96	17.96	17.73				
15	HQAM	36	39	17.96	17.96	17.73				
15	HQAM	100	0	17.77	17.84	17.74	19.5	0		
15	HQAM	1	74	17.83	17.92	17.82				
15	HQAM	1	0	18.17	18.20	18.04				
15	HQAM	36	20	17.85	18.24	18.03	19.5	0		
15	HQAM	36	39	18.20	18.24	18.05				
15	HQAM	36	75	17.90	17.86	18.21				
15	256QAM	1	0	17.91	17.84	17.94	19.5	0		
15	256QAM	1	37	17.99	17.83	17.86				
15	256QAM	1	74	17.82	17.81	17.77				
15	256QAM	100	0	18.09	18.27	17.94	19.5	0		
15	256QAM	36	20	17.89	18.05	17.86				
15	256QAM	36	39	18.08	18.06	18.08				
15	256QAM	100	0	18.03	17.96	17.98	19.5	0		
15	256QAM	36	20	17.89	18.05	17.86				
15	256QAM	36	39	18.08	18.06	18.08				
Channel										
Frequency (MHz)										
10	QPSK	1	0	18.11	18.25	18.23	19.5	0		
10	QPSK	1	25	18.04	18.25	18.01				
10	QPSK	1	49	17.83	18.11	18.06				
10	QPSK	25	0	17.97	18.30	18.08	19.5	0		
10	QPSK	25	12	18.06	18.24	18.02				
10	QPSK	25	0	17.91	18.30	18.08				
10	QPSK	60	0	17.90	18.12	17.91	19.5	0		
10	HQAM	1	0	17.87	17.86	17.88				
10	HQAM	1	49	17.77	17.84	17.84				
10	HQAM	100	0	18.06	18.16	18.27	19.5	0		
10	HQAM	25	12	17.94	18.05	18.12				
10	HQAM	25	25	18.04	18.31	18.12				
10	HQAM	100	0	18.03	18.03	18.10	19.5	0		
10	HQAM	1	0	17.76	17.96	17.75				
10	HQAM	1	25	17.87	17.74	17.87				
10	HQAM	100	0	17.53	17.82	17.63	19.5	0		
10	HQAM	25	0	17.96	18.24	18.03				
10	HQAM	25	12	18.08	18.09	17.92				
10	HQAM	100	0	18.08	18.23	17.88	19.5	0		
10	HQAM	50	0	18.07	17.99	18.00				
10	HQAM	50	0	17.75	17.86	18.05				
10	256QAM	1	0	17.75	17.86	17.78	19.5	0		
10	256QAM	1	49	17.82	17.83	17.88				
10	256QAM	1	25	17.96	18.25	18.08				
10	256QAM	100	0	17.98	18.17	18.07	19.5	0		
10	256QAM	25	12	17.88	18.17	18.07				
10	256QAM	25	25	17.86	18.13	18.05				
10	256QAM	100	0	17.95	18.10	17.87	19.5	0		
10	256QAM	50	0	17.95	18.10	17.87				
10	256QAM	50	0	18.03	18.03	18.10				
Channel										
Frequency (MHz)										
5	QPSK	1	0	18.10	18.23	18.22	19.5	0		
5	QPSK	1	24	17.86	18.10	18.18				
5	QPSK	1	49	18.05	18.11	18.14				
5	QPSK	12	7	17.97	18.21	18.23	19.5	0		
5	QPSK	12 <td>13</td> <td>17.80</td> <td>17.88</td> <td>17.83</td>	13	17.80	17.88	17.83				
5	QPSK	12 <td>0</td> <td>17.93</td> <td>18.07</td> <td>17.81</td>	0	17.93	18.07	17.81				
5	QPSK	25	0	18.02	17.86	17.87	19.5	0		
5	HQAM	1	0	18.02	17.86	17.87				
5	HQAM	1	12	17.71	17.97	17.85				
5	HQAM	100	0	18.11	18.14	18.06	19.5	0		
5	HQAM	12	0	18.11	18.14	18.24				
5	HQAM	12	7	17.88	18.14	18.03				
5	HQAM	100	0	18.01	18.17	18.23	19.5	0		
5	HQAM	25	0	18.10	18.07	17.87				
5	HQAM	25	0	17.91	17.90	17.80				
5	HQAM	100	0	17.75	17.86	17.79	19.5	0		
5	HQAM	12	0	18.08	18.17	18.09				
5	HQAM	12	7	17.93	18.23	17.99				
5	HQAM	100	0	18.23	18.30	17.97	19.5	0		
5	HQAM	25	0	18.08	18.02	18.08				
5	HQAM	25	0	17.94	17.93	17.91				
5	256QAM	1	0	17.78	17.83	17.85	19.5	0		
5	256QAM	1	24	17.88	17.88	17.78				
5	256QAM	1	12	18.14	18.28	18.02				
5	256QAM	100	0	17.95	18.16	17.93	19.5	0		
5	256QAM	12	7	17.86	18.12	17.93				
5	256QAM	12	13	17.98	18.03	17.92				
5	256QAM	100	0	17.88	17.88	17.92	19.5	0		
5	256QAM	25	0	17.88	17.88	17.92				
5	256QAM	25	0	18.03	18.03	18.10				

Band 41 Main PA Ant3 DSI0 ENDC										
BW (MHz)	Modulation	RI Size	RI Offset	Power Low Ch. (Freq)	Power Low Middle Ch. (Freq)	Power High Ch. (Freq)	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	18.18	18.23	18.23	19.5	0		
20	QPSK	1	49	18.03	18.13	18.20				
20	QPSK	1	99	18.17	17.95	18.12				
20	QPSK	100	0	18.08	18.12	18.03	19.5	0		
20	QPSK	50	24	18.00	18.10	18.23				
20	QPSK	50	50	18.03	17.93	18.04				
20	QPSK	100	0	18.00	18.00	18.00	19.5	0		
20	HQAM	1	0	18.00	18.01	18.00				
20	HQAM	1	49	17.98	17.88	18.10				
20	HQAM	100	0	17.98	17.90	17.92	19.5	0		
20	HQAM	50	0	18.20	18.27	18.29				
20	HQAM	50	24	18.10	18.12	18.21				
20	HQAM	100	0	18.09	18.11	18.16	19.5	0		
20	HQAM	50	0	17.88	17.89	18.00				
20	HQAM	50	49	17.74	17.81	17.86				
20	HQAM	100	0	18.21	18.15	18.28	19.5	0		
20	HQAM	50	24	18.11	18.11	18.24				
20	HQAM	50	50	18.11	18.30	18.26				
20	256QAM	1	0	18.10	18.06	18.14	19.5	0		
20	256QAM	1	0	18.08	17.84	18.09				
20	256QAM	1	49	17.90	18.00	18.03				
20	256QAM	100	0							



Band 38 Main PA Ant4 DSI0 ENDC											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. (Freq)	Power Middle Ch. (Freq)	Power High Ch. (Freq)	Tune-up limit (dBm)	MPR (dB)			
Channel											
Frequency (MHz)							37850	38000	38150		
20	QPSK	1	0	19.23	19.31	19.39					
20	QPSK	1	49	19.02	19.27	19.31	19.7	0			
20	QPSK	1	99	19.18	18.95	19.09					
20	QPSK	50	24	19.04	19.15	19.09					
20	QPSK	50	24	19.01	19.14	18.94	19.7	0			
20	QPSK	50	50	19.02	18.85	19.01					
20	QPSK	100	0	18.98	19.12	18.97					
20	HQAM	1	0	19.11	19.17	19.00					
20	HQAM	1	49	19.06	19.27	19.29	19.7	0			
20	HQAM	1	99	19.15	19.02	18.97					
20	HQAM	50	0	18.96	19.09	18.95					
20	HQAM	50	24	18.98	18.97	18.79	19.7	0			
20	HQAM	100	0	18.90	19.04	19.02					
20	HQAM	1	0	18.71	18.71	18.64					
20	HQAM	1	49	18.92	18.73	18.50	19.7	0			
20	HQAM	1	99	18.77	18.73	18.65					
20	HQAM	50	0	19.02	19.21	19.13					
20	HQAM	50	24	18.86	18.96	18.88	19.7	0			
20	HQAM	100	0	19.00	19.07	19.21					
20	HQAM	100	0	19.11	19.02	19.14					
20	25GQAM	1	0	18.92	19.07	19.18					
20	25GQAM	1	49	19.02	19.07	18.97	19.7	0			
20	25GQAM	1	99	19.08	18.98	18.89					
20	25GQAM	50	0	19.03	19.00	18.93					
20	25GQAM	50	24	18.95	18.88	18.81	19.7	0			
20	25GQAM	50	50	19.02	18.97	18.81					
20	25GQAM	100	0	19.04	19.09	18.93					
Channel											
Frequency (MHz)							2617.5	2695	2612.5		
15	QPSK	1	0	19.35	19.29	19.10					
15	QPSK	36	0	18.86	18.95	18.15	19.7	0			
15	QPSK	1	74	18.99	18.93	18.98					
15	QPSK	36	0	18.97	19.19	18.95	19.7	0			
15	QPSK	36	39	19.08	19.00	18.94					
15	QPSK	75	0	19.01	19.21	19.02					
15	HQAM	1	0	19.23	19.27	19.06					
15	HQAM	1	37	19.08	19.07	19.23	19.7	0			
15	HQAM	1	74	19.23	19.14	19.00					
15	HQAM	36	0	18.98	19.12	18.99					
15	HQAM	36	20	18.95	18.94	18.92	19.7	0			
15	HQAM	36	39	19.00	19.17	19.12					
15	HQAM	75	0	18.75	18.13	18.07					
15	HQAM	1	0	18.71	18.71	18.68					
15	HQAM	1	37	18.58	18.71	18.55	19.7	0			
15	HQAM	1	74	18.73	18.68	18.76					
15	HQAM	36	0	19.08	19.15	19.15					
15	HQAM	36	20	18.85	18.91	18.96	19.7	0			
15	HQAM	36	39	18.99	19.21	19.19					
15	HQAM	75	0	18.91	18.13	18.01					
15	25GQAM	1	0	19.09	19.14	19.11					
15	25GQAM	1	37	18.92	19.15	18.93	19.7	0			
15	25GQAM	1	74	19.01	19.19	19.06					
15	25GQAM	36	0	19.13	19.05	18.93					
15	25GQAM	36	20	18.83	18.92	18.89	19.7	0			
15	25GQAM	36	39	18.97	19.07	18.91					
15	25GQAM	75	0	18.97	19.03	18.93					
Channel											
Frequency (MHz)							37800	38000	38200		
10	QPSK	1	0	19.15	19.32	19.25					
10	QPSK	1	25	18.95	19.20	19.20	19.7	0			
10	QPSK	25	0	19.22	19.04	19.09					
10	QPSK	25	0	19.01	19.14	19.02					
10	QPSK	25	12	19.06	19.09	18.74	19.7	0			
10	QPSK	50	0	19.02	19.07	19.06					
10	QPSK	50	0	19.08	19.09	19.04					
10	HQAM	1	0	19.15	19.11	19.02					
10	HQAM	1	25	18.98	19.12	18.97	19.7	0			
10	HQAM	1	49	19.25	19.05	19.00					
10	HQAM	25	0	18.87	19.10	18.95					
10	HQAM	25	12	18.94	19.09	18.95	19.7	0			
10	HQAM	25	25	19.07	19.19	19.14					
10	HQAM	50	0	18.73	18.97	18.94					
10	HQAM	1	0	18.61	18.66	18.69					
10	HQAM	1	25	18.97	18.65	18.57	19.7	0			
10	HQAM	1	49	18.71	18.56	18.73					
10	HQAM	25	0	19.09	19.19	18.97					
10	HQAM	25	12	18.92	19.02	18.99	19.7	0			
10	HQAM	25	25	19.05	19.07	19.25					
10	HQAM	50	0	19.12	19.04	18.95					
10	25GQAM	1	0	18.97	19.04	19.11					
10	25GQAM	1	25	18.94	19.23	18.89	19.7	0			
10	25GQAM	1	49	18.90	18.98	18.99					
10	25GQAM	25	0	18.96	18.96	18.98					
10	25GQAM	25	12	19.03	18.98	18.98	19.7	0			
10	25GQAM	25	25	18.85	18.14	18.88					
10	25GQAM	50	0	19.04	19.01	19.10					
Channel											
Frequency (MHz)							37775	38000	38225		
5	QPSK	1	0	19.21	19.31	19.15					
5	QPSK	1	24	19.04	19.03	18.85	19.7	0			
5	QPSK	12	0	19.06	19.27	18.96					
5	QPSK	12	7	18.90	18.95	18.94	19.7	0			
5	QPSK	12	13	19.07	19.02	18.89					
5	QPSK	25	0	19.14	19.14	18.91					
5	HQAM	1	0	19.06	19.06	19.19					
5	HQAM	1	12	18.95	19.31	19.22	19.7	0			
5	HQAM	1	24	19.29	19.07	19.00					
5	HQAM	12	0	18.86	19.08	19.02					
5	HQAM	12	7	18.82	18.88	18.94	19.7	0			
5	HQAM	12	13	19.06	19.05	19.03					
5	HQAM	25	0	18.74	18.97	19.04					
5	HQAM	1	0	18.49	18.67	18.60					
5	HQAM	1	12	18.49	18.64	18.54	19.7	0			
5	HQAM	1	24	18.65	18.59	18.75					
5	HQAM	12	0	19.15	19.17	19.15					
5	HQAM	12	7	18.92	18.90	19.06	19.7	0			
5	HQAM	12	13	18.94	19.25	19.25					
5	HQAM	25	0	18.96	19.02	18.99					
5	25GQAM	1	0	18.91	19.04	19.18					
5	25GQAM	1	12	19.09	19.16	18.98	19.7	0			
5	25GQAM	1	24	18.95	19.14	19.08					
5	25GQAM	12	0	19.03	19.02	18.91					
5	25GQAM	12	7	18.90	18.89	18.81	19.7	0			
5	25GQAM	12	13	18.92	19.00	18.89					
5	25GQAM	25	0	18.86	18.89	18.98					

Band 41 Main PA Ant4 DSI0 ENDC											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. (Freq)	Power Middle Ch. (Freq)	Power High Ch. (Freq)	Tune-up limit (dBm)	MPR (dB)			
Channel											
Frequency (MHz)							39750	40165	40600	41055	41490
20	QPSK	1	0	19.28	19.24	19.24					
20	QPSK	1	49	19.25	19.08	19.38	19.29	19.04			
20	QPSK	1	99	18.99	19.20	19.15	19.02	19.18			
20	QPSK	50	0	19.33	19.11	19.32	19.02	19.39			
20	QPSK	50	24	19.18	19.10	19.10	18.95	19.09	19.7	0	
20	QPSK	50	50	19.10	19.09	19.05	19.01	18.90			
20	QPSK	100	0	19.08	19.05	19.06	18.95	19.13			
20	HQAM	1	0	19.27	19.24	19.20	19.19	19.32			
20	HQAM	1	49	19.15	19.15	19.29	19.20	19.20	19.7	0	
20	HQAM	1	99	19.28	19.20	19.23	19.16	19.25			
20	HQAM	50	0	19.05	19.08	19.20	19.03	19.17			
20	HQAM	50	24	18.93	18.99	19.08	18.98	19.13	19.7	0	
20	HQAM	50	50	19.05	19.14	19.24	19.14	18.93			
20	HQAM	100	0	18.99	18.84	19.15	19.13	18.97			
20	HQAM	1	0	18.77	18.69	18.75	18.72	18.64			
20	HQAM	1	49	18.70	18.69	18.79	18.60	18.78	19.7	0	
20	HQAM	1	99	18.88	18.75	18.75	18.75	18.83			
20	HQAM	50	0	19.11	19.16	19.35	19.15	19.10			
20	HQAM	50	24	19.05	18.96	19.08	19.05	19.04	19.7	0	
20	HQAM	50	50	19.09	19.09	19.25	19.25	19.25			
20	HQAM	100	0	19.09	19.11	19.15	19.13	19.92			
20	25GQAM	1	0	19.20	19.13	19.29	19.22	19.12			
20	25GQAM	1	49	19.18	19.11	19.22	19.09	19.12	19.7	0	
20	25GQAM	1	99	19.09	19.10	19.17	19.08	19.10			
20	25GQAM	50	0	19.12	19.13	19.16	19.04	19.08			
20	25GQAM	50	24	18.91	18.92	19.06	18.98	19.01	19.7	0	
20	25GQAM	50	50	19.07	19.08	19.12	19.02	19.07			
20	25GQAM	100	0	19.05	19.04	19.14	19.11	19.08			
Channel											
Frequency (MHz)							2563.5	2648.3	2693	2637.8	2682.5

DSI 1 Power for WWAN Main PA

GSM850 Ant0 Default								
GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	824.2	836.4	848.8	34.00	824.2	836.4	848.8	25.00
Frequency (MHz)	824.2	836.4	848.8	34.00	824.2	836.4	848.8	25.00
GSM 1 Tx slot	32.93	33.09	33.05	34.00	23.93	24.09	24.05	25.00
GPRS 1 Tx slot	32.97	33.13	33.07	34.00	23.97	24.13	24.07	25.00
GPRS 2 Tx slots	30.09	30.12	30.04	31.00	24.09	24.12	24.04	25.00
GPRS 3 Tx slots	28.23	28.34	28.18	29.20	23.97	24.08	23.93	24.94
GPRS 4 Tx slots	28.91	28.95	28.88	29.00	23.91	23.95	23.88	25.00
EDGE 1 Tx slot	27.01	27.13	27.08	28.00	18.01	18.13	18.08	19.00
EDGE 2 Tx slots	24.17	24.25	24.10	25.00	18.17	18.25	18.10	19.00
EDGE 3 Tx slots	22.31	22.41	22.28	23.20	18.05	18.15	18.02	18.94
EDGE 4 Tx slots	21.12	21.17	21.04	22.00	18.12	18.17	18.04	19.00

WCDMA V Ant0 Default					
Band	WCDMA V			Tune-up Limit (dBm)	
	4192	4192	4238		
TX Channel	4357	4407	4453		
Rx Channel	4357	4407	4453		
Frequency (MHz)	826.4	836.4	846.6		
3GPP Rel 99	AMR 12.2kbps	23.98	24.11	24.08	25.00
3GPP Rel 99	RMC 12.2kbps	24.04	24.16	24.13	25.00
3GPP Rel 6	HSDPA Subtest-1	23.15	23.15	23.11	24.00
3GPP Rel 6	HSDPA Subtest-2	23.09	23.15	23.07	24.00
3GPP Rel 6	HSDPA Subtest-3	22.54	22.69	22.61	23.50
3GPP Rel 6	HSDPA Subtest-4	22.56	22.63	22.57	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.03	23.14	23.10	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.04	23.14	23.06	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.45	22.60	22.53	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.43	22.58	22.50	23.50
3GPP Rel 6	HSUPA Subtest-1	22.98	23.03	23.05	24.00
3GPP Rel 6	HSUPA Subtest-2	21.08	21.21	21.06	22.00
3GPP Rel 6	HSUPA Subtest-3	22.09	22.26	22.21	23.00
3GPP Rel 6	HSUPA Subtest-4	21.06	21.11	21.03	22.00
3GPP Rel 6	HSUPA Subtest-5	23.02	23.11	23.05	24.00
3GPP Rel 7	HSPA+ (10QAM) Subtest-1	20.57	20.76	20.64	21.50



Band 5 Main PA Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power High Ch / Freq.	Power Mid Ch / Freq.	Turn-up limit (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.45	24.56	24.55	25.5	0		
10	QPSK	1	25	24.45	24.48	24.43	25.5	0		
10	QPSK	1	49	24.35	24.52	24.34	24.5	0		
10	QPSK	25	0	23.48	23.59	23.54	24.5	1		
10	QPSK	25	12	23.43	23.47	23.50	24.5	1		
10	QPSK	25	25	23.34	23.50	23.40	24.5	1		
10	QPSK	50	0	23.43	23.54	23.47	24.5	1		
10	16QAM	1	0	23.79	23.84	23.79	24.5	1		
10	16QAM	1	25	23.72	23.71	23.68	24.5	1		
10	16QAM	1	49	23.68	23.73	23.69	24.5	1		
10	16QAM	25	0	22.39	22.52	22.41	23.5	2		
10	16QAM	25	12	22.37	22.48	22.33	23.5	2		
10	16QAM	25	25	22.36	22.44	22.34	23.5	2		
10	16QAM	50	0	22.30	22.46	22.31	23.5	2		
10	64QAM	1	0	22.69	22.68	22.58	23.5	2		
10	64QAM	1	25	22.49	22.69	22.61	23.5	2		
10	64QAM	1	49	22.51	22.67	22.44	23.5	2		
10	64QAM	25	0	21.38	21.46	21.39	22.5	3		
10	64QAM	25	12	21.52	21.48	21.38	22.5	3		
10	64QAM	25	25	21.28	21.57	21.38	22.5	3		
10	256QAM	1	0	19.44	19.56	19.41	20.5	5		
10	256QAM	1	25	19.38	19.56	19.43	20.5	5		
10	256QAM	1	49	19.38	19.56	19.44	20.5	5		
10	256QAM	25	0	19.28	19.36	19.27	20.5	5		
10	256QAM	25	12	19.24	19.49	19.24	20.5	5		
10	256QAM	25	25	19.34	19.40	19.34	20.5	5		
10	256QAM	50	0	19.43	19.49	19.43	20.5	5		
Channel										
Frequency (MHz)										
5	QPSK	1	0	24.32	24.52	24.41	25.5	0		
5	QPSK	1	12	24.31	24.43	24.40	25.5	0		
5	QPSK	1	24	24.29	24.40	24.22	25.5	0		
5	QPSK	12	0	23.36	23.53	23.45	24.5	1		
5	QPSK	12	7	23.39	23.36	23.38	24.5	1		
5	QPSK	12	13	23.20	23.37	23.26	24.5	1		
5	QPSK	25	0	23.36	23.48	23.38	24.5	1		
5	16QAM	1	0	23.76	23.79	23.72	24.5	1		
5	16QAM	1	12	23.69	23.60	23.54	24.5	1		
5	16QAM	1	24	23.58	23.61	23.61	24.5	1		
5	16QAM	12	0	22.29	22.44	22.52	23.5	2		
5	16QAM	12	7	22.27	22.39	22.27	23.5	2		
5	16QAM	12	13	22.35	22.27	22.27	23.5	2		
5	16QAM	25	0	22.27	22.38	22.20	23.5	2		
5	64QAM	1	0	22.48	22.81	22.53	23.5	2		
5	64QAM	1	12	22.46	22.82	22.62	23.5	2		
5	64QAM	1	24	22.44	22.82	22.55	23.5	2		
5	64QAM	12	0	21.33	21.34	21.53	22.5	3		
5	64QAM	12	7	21.38	21.41	21.28	22.5	3		
5	64QAM	12	13	21.19	21.25	21.25	22.5	3		
5	64QAM	25	0	21.14	21.48	21.14	22.5	3		
5	256QAM	1	0	19.38	19.51	19.28	20.5	5		
5	256QAM	1	12	19.34	19.57	19.31	20.5	5		
5	256QAM	1	24	19.33	19.51	19.36	20.5	5		
5	256QAM	12	0	19.28	19.36	19.27	20.5	5		
5	256QAM	12	7	19.20	19.34	19.19	20.5	5		
5	256QAM	12	13	19.31	19.29	19.27	20.5	5		
5	256QAM	25	0	19.33	19.43	19.29	20.5	5		
Channel										
Frequency (MHz)										
3	QPSK	1	0	24.17	24.59	24.47	25.5	0		
3	QPSK	1	8	24.35	24.43	24.29	25.5	0		
3	QPSK	1	14	24.22	24.45	24.29	25.5	0		
3	QPSK	8	0	23.37	23.51	23.41	24.5	1		
3	QPSK	8	4	23.35	23.38	23.41	24.5	1		
3	QPSK	8	7	23.26	23.47	23.26	24.5	1		
3	QPSK	15	0	23.38	23.44	23.38	24.5	1		
3	16QAM	1	0	23.70	23.71	23.68	24.5	1		
3	16QAM	1	8	23.68	23.68	23.64	24.5	1		
3	16QAM	1	14	23.40	23.56	23.42	24.5	1		
3	16QAM	8	0	22.28	22.42	22.37	23.5	2		
3	16QAM	8	4	22.32	22.42	22.20	23.5	2		
3	16QAM	8	7	22.30	22.38	22.24	23.5	2		
3	16QAM	15	0	22.17	22.34	22.17	23.5	2		
3	64QAM	1	0	22.66	22.83	22.63	23.5	2		
3	64QAM	1	8	22.44	22.54	22.40	23.5	2		
3	64QAM	1	14	22.44	22.35	22.40	23.5	2		
3	64QAM	8	0	21.25	21.41	21.36	22.5	3		
3	64QAM	8	4	21.24	21.35	21.15	22.5	3		
3	64QAM	8	7	21.17	21.27	21.27	22.5	3		
3	256QAM	1	0	19.35	19.47	19.28	20.5	5		
3	256QAM	1	8	19.27	19.54	19.33	20.5	5		
3	256QAM	1	14	19.34	19.43	19.33	20.5	5		
3	256QAM	8	0	19.27	19.32	19.22	20.5	5		
3	256QAM	8	4	19.12	19.39	19.18	20.5	5		
3	256QAM	8	7	19.30	19.36	19.30	20.5	5		
3	256QAM	15	0	19.35	19.46	19.35	20.5	5		
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	24.34	24.42	24.43	25.5	0		
1.4	QPSK	1	3	24.30	24.41	24.37	25.5	0		
1.4	QPSK	1	5	24.31	24.48	24.26	25.5	0		
1.4	QPSK	3	0	24.38	24.42	24.27	24.5	1		
1.4	QPSK	3	1	24.36	24.41	24.36	24.5	1		
1.4	QPSK	3	3	24.20	24.45	24.23	24.5	1		
1.4	QPSK	6	0	23.42	23.50	23.41	24.5	1		
1.4	16QAM	1	0	23.39	23.39	23.35	24.5	1		
1.4	16QAM	1	3	23.21	23.40	23.35	24.5	1		
1.4	16QAM	1	5	23.38	23.39	23.32	24.5	1		
1.4	16QAM	3	0	23.72	23.76	23.70	24.5	1		
1.4	16QAM	3	1	23.66	23.67	23.64	24.5	1		
1.4	16QAM	3	3	23.62	23.67	23.63	24.5	1		
1.4	16QAM	6	0	22.24	22.46	22.38	23.5	2		
1.4	16QAM	1	0	22.28	22.36	22.26	23.5	2		
1.4	16QAM	1	3	22.29	22.36	22.28	23.5	2		
1.4	64QAM	1	5	22.26	22.38	22.23	23.5	2		
1.4	64QAM	3	0	22.46	22.60	22.44	23.5	2		
1.4	64QAM	3	1	22.41	22.61	22.45	23.5	2		
1.4	64QAM	3	3	22.39	22.60	22.34	23.5	2		
1.4	256QAM	1	0	21.26	21.34	21.29	22.5	3		
1.4	256QAM	1	0	19.32	19.49	19.27	20.5	5		
1.4	256QAM	1	3	19.28	19.40	19.37	20.5	5		
1.4	256QAM	1	5	19.34	19.46	19.29	20.5	5		
1.4	256QAM	3	0	19.23	19.34	19.27	20.5	5		
1.4	256QAM	3	1	19.17	19.35	19.11	20.5	5		
1.4	256QAM	3	3	19.29	19.39	19.21	20.5	5		
1.4	256QAM	6	0	19.31	19.42	19.30	20.5	5		

Band 13 Main PA Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power High Ch / Freq.	Power Mid Ch / Freq.	Turn-up limit (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.54	24.54	24.54	25.5	0		
10	QPSK	1	25	24.53	24.53	24.53	25.5	0		
10	QPSK	1	49	24.52	24.52	24.52	25.5	0		
10	QPSK	25	0	23.56	23.56	23.56	24.5	1		
10	QPSK	25	12	23.56	23.56	23.56	24.5	1		
10	QPSK	25	25	23.77	23.77	23.77	24.5	1		
10	QPSK	50	0	23.56	23.56	23.56	24.5	1		
10	16QAM	1	0	23.86	23.86	23.86	24.5	1		
10	16QAM	1	25	23.81	23.81	23.81	24.5	1		
10	16QAM	1	49	23.79	23.79	23.79	24.5	1		
10	16QAM	25	0	22.77	22.77	22.77	23.5	2		
10	16QAM									



Band 26 Main PA Ant0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Turn-up limit (dB)	APR (dB)	
Channel									
Frequency (MHz)				821.5	831.8	841.5			
15	QPSK	1	0	24.52	24.58	24.49	25.5	0	
15	QPSK	1	31	24.42	24.51	24.43			
15	QPSK	1	74	24.41	24.53	24.47			
15	QPSK	36	0	23.48	23.63	23.52	24.5	1	
15	QPSK	36	20	23.43	23.55	23.51			
15	QPSK	36	39	23.52	23.60	23.51			
15	QPSK	75	0	23.54	23.57	23.47			
15	16QAM	1	0	23.48	23.56	23.45	24.5	1	
15	16QAM	1	37	23.35	23.51	23.37			
15	16QAM	1	74	23.42	23.54	23.47			
15	16QAM	36	0	22.42	22.47	22.42	23.5	2	
15	16QAM	36	20	22.45	22.50	22.52			
15	16QAM	36	39	22.53	22.57	22.43			
15	16QAM	75	0	22.50	22.54	22.49			
15	64QAM	1	0	22.59	22.70	22.58	23.5	2	
15	64QAM	1	37	22.63	22.68	22.54			
15	64QAM	1	74	22.63	22.66	22.50			
15	64QAM	36	0	21.25	21.37	21.34	22.5	3	
15	64QAM	36	20	21.41	21.55	21.43			
15	64QAM	36	39	21.45	21.52	21.44			
15	64QAM	75	0	21.41	21.54	21.43			
15	256QAM	1	0	19.58	19.69	19.61	20.5	5	
15	256QAM	1	37	19.42	19.57	19.49			
15	256QAM	1	74	19.60	19.74	19.69			
15	256QAM	36	0	19.35	19.42	19.38	20.5	5	
15	256QAM	36	20	19.48	19.52	19.43			
15	256QAM	36	39	19.46	19.55	19.50			
15	256QAM	75	0	19.38	19.51	19.47			
Channel									
Frequency (MHz)				819	831.8	844			APR (dB)
10	QPSK	1	0	24.42	24.44	24.36	25.5	0	
10	QPSK	1	25	24.39	24.46	24.31			
10	QPSK	1	49	24.28	24.42	24.42			
10	QPSK	25	0	23.43	23.52	23.46	24.5	1	
10	QPSK	25	12	23.29	23.45	23.40			
10	QPSK	25	25	23.48	23.48	23.47			
10	QPSK	50	0	23.42	23.49	23.43			
10	16QAM	1	0	23.41	23.49	23.39	24.5	1	
10	16QAM	1	25	23.33	23.47	23.31			
10	16QAM	1	49	23.35	23.51	23.44			
10	16QAM	25	0	22.36	22.51	22.38	23.5	2	
10	16QAM	25	12	22.35	22.56	22.42			
10	16QAM	25	25	22.48	22.44	22.38			
10	16QAM	50	0	22.36	22.45	22.35			
10	64QAM	1	0	22.51	22.58	22.52	23.5	2	
10	64QAM	1	25	22.50	22.56	22.45			
10	64QAM	1	49	22.63	22.61	22.54			
10	64QAM	25	0	21.18	21.31	21.25	22.5	3	
10	64QAM	25	12	21.32	21.53	21.37			
10	64QAM	25	25	21.32	21.33	21.34			
10	64QAM	50	0	21.34	21.50	21.53			
10	256QAM	1	0	19.45	19.53	19.50	20.5	5	
10	256QAM	1	25	19.32	19.42	19.42			
10	256QAM	1	49	19.54	19.65	19.58			
10	256QAM	25	0	19.36	19.26	19.33	20.5	5	
10	256QAM	25	12	19.43	19.41	19.29			
10	256QAM	25	25	19.39	19.48	19.36			
10	256QAM	50	0	19.28	19.40	19.38			
Channel									
Frequency (MHz)				816.5	831.8	846.5			APR (dB)
5	QPSK	1	0	24.44	24.46	24.38	25.5	0	
5	QPSK	1	12	24.32	24.38	24.25			
5	QPSK	1	24	24.34	24.45	24.39			
5	QPSK	12	0	23.46	23.57	23.48	24.5	1	
5	QPSK	12	7	23.28	23.45	23.45			
5	QPSK	12	13	23.48	23.53	23.38			
5	QPSK	25	0	23.42	23.47	23.38			
5	16QAM	1	0	23.41	23.44	23.33	24.5	1	
5	16QAM	1	12	23.21	23.44	23.22			
5	16QAM	1	24	23.37	23.46	23.34			
5	16QAM	12	0	22.34	22.44	22.34	23.5	2	
5	16QAM	12	7	22.35	22.55	22.42			
5	16QAM	12	13	22.47	22.46	22.38			
5	16QAM	25	0	22.38	22.39	22.45			
5	64QAM	1	0	22.54	22.59	22.53	23.5	2	
5	64QAM	1	12	22.56	22.54	22.46			
5	64QAM	1	24	22.62	22.69	22.76			
5	64QAM	12	0	21.20	21.30	21.21	22.5	3	
5	64QAM	12	7	21.31	21.43	21.37			
5	64QAM	12	13	21.38	21.42	21.37			
5	64QAM	25	0	21.27	21.49	21.59			
5	256QAM	1	0	19.45	19.51	19.45	20.5	5	
5	256QAM	1	12	19.29	19.53	19.36			
5	256QAM	1	24	19.54	19.66	19.55			
5	256QAM	12	0	19.24	19.31	19.29	20.5	5	
5	256QAM	12	7	19.36	19.41	19.37			
5	256QAM	12	13	19.35	19.42	19.43			
5	256QAM	25	0	19.32	19.38	19.38			
Channel									
Frequency (MHz)				817.5	831.8	847.5			APR (dB)
3	QPSK	1	0	24.42	24.42	24.37	25.5	0	
3	QPSK	1	8	24.37	24.42	24.32			
3	QPSK	1	14	24.34	24.45	24.43			
3	QPSK	8	0	23.34	23.51	23.43	24.5	1	
3	QPSK	8	4	23.29	23.45	23.36			
3	QPSK	8	7	23.37	23.46	23.43			
3	QPSK	15	0	23.46	23.52	23.42			
3	16QAM	1	0	23.44	23.52	23.37	24.5	1	
3	16QAM	1	8	23.27	23.45	23.31			
3	16QAM	1	14	23.30	23.45	23.36			
3	16QAM	8	0	22.34	22.42	22.32	23.5	2	
3	16QAM	8	4	22.42	22.64	22.42			
3	16QAM	8	7	22.43	22.53	22.38			
3	64QAM	1	0	22.46	22.57	22.44	23.5	2	
3	64QAM	1	8	22.48	22.61	22.50			
3	64QAM	1	14	22.79	22.86	22.76			
3	64QAM	8	0	21.13	21.28	21.21	22.5	3	
3	64QAM	8	4	21.37	21.45	21.38			
3	64QAM	8	7	21.36	21.38	21.34			
3	64QAM	15	0	21.28	21.45	21.36			
3	256QAM	1	0	19.43	19.56	19.55	20.5	5	
3	256QAM	1	8	19.30	19.45	19.39			
3	256QAM	1	14	19.46	19.71	19.61			
3	256QAM	8	0	19.26	19.36	19.35	20.5	5	
3	256QAM	8	4	19.38	19.39	19.29			
3	256QAM	8	7	19.34	19.32	19.40			
3	256QAM	15	0	19.34	19.45	19.43			
Channel									
Frequency (MHz)				816.7	831.8	847.3			APR (dB)
1.4	QPSK	1	0	24.44	24.54	24.45	25.5	0	
1.4	QPSK	1	3	24.34	24.38	24.26			
1.4	QPSK	1	5	24.35	24.50	24.41			
1.4	QPSK	3	0	24.41	24.45	24.44	24.5	1	
1.4	QPSK	3	1	24.37	24.45	24.48			
1.4	QPSK	3	3	24.34	24.39	24.34			
1.4	QPSK	6	0	23.34	23.59	23.48	24.5	1	
1.4	16QAM	1	0	23.33	23.43	23.35			
1.4	16QAM	1	3	23.42	23.45	23.36	24.5	1	
1.4	16QAM	1	5	23.47	23.54	23.34			
1.4	16QAM	3	0	23.38	23.42	23.40			
1.4	16QAM	3	1	23.24	23.43	23.32	23.5	2	
1.4	16QAM	3	3	23.30	23.45	23.40			
1.4	64QAM	1	0	22.38	22.40	22.32	23.5	2	
1.4	64QAM	1	3	22.35	22.49	22.41			
1.4	64QAM	1	5	22.43	22.47	22.30			
1.4	64QAM	3	0	22.43	22.48	22.38	23.5	2	
1.4	64QAM	3	1	22.50	22.59	22.49			
1.4	64QAM	3	3	22.50	22.56	22.47			
1.4	64QAM	6	0	21.35	21.47	21.40	22.5	3	
1									



GSM850 Ant1 Default								
GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8	33.50	23.02	23.11	23.02	24.50
GSM 1 Tx slot	32.02	32.11	32.02	33.50	23.02	23.11	23.02	24.50
GPRS 1 Tx slot	32.05	32.16	32.08	33.50	23.05	23.16	23.08	24.50
GPRS 2 Tx slots	29.21	29.24	29.17	30.50	23.21	23.24	23.17	24.50
GPRS 3 Tx slots	27.40	27.44	27.34	28.50	23.14	23.18	23.08	24.24
GPRS 4 Tx slots	25.97	26.07	26.00	27.50	22.97	23.07	23.00	24.50
EDGE 1 Tx slot	26.21	26.25	26.11	27.50	17.21	17.25	17.11	18.50
EDGE 2 Tx slots	23.24	23.29	23.16	24.50	17.24	17.29	17.16	18.50
EDGE 3 Tx slots	21.40	21.53	21.48	22.70	17.14	17.27	17.22	18.44
EDGE 4 Tx slots	20.15	20.28	20.24	21.50	17.15	17.28	17.24	18.50

GSM1900 Ant1 Default								
GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	30.00	1850.2	1880	1909.8	21.00
GSM 1 Tx slot	28.13	28.19	28.15	30.00	19.13	19.19	19.15	21.00
GPRS 1 Tx slot	28.16	28.24	28.22	30.00	19.16	19.24	19.22	21.00
GPRS 2 Tx slots	25.27	25.31	25.25	27.00	19.27	19.31	19.25	21.00
GPRS 3 Tx slots	23.88	23.96	23.87	25.20	19.82	19.70	19.61	20.94
GPRS 4 Tx slots	22.35	22.47	22.37	24.00	19.35	19.47	19.37	21.00
EDGE 1 Tx slot	24.79	24.88	24.82	26.00	15.79	15.88	15.82	17.00
EDGE 2 Tx slots	21.97	22.07	21.93	23.00	15.97	16.07	15.93	17.00
EDGE 3 Tx slots	19.90	20.03	19.89	21.20	15.64	15.77	15.63	16.94
EDGE 4 Tx slots	19.20	19.26	19.21	20.00	16.20	16.26	16.21	17.00

Band	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V			Tune-up Limit (dBm)	
	9262	9400	9538		1312	1413	1513		4132	4182	4233		
TX Channel	9262	9400	9538	21.50	1312	1413	1513	24.00	23.22	23.32	23.29	25.00	
Rx Channel	9662	9800	9938	21.50	1637	1638	1738	24.00	23.27	23.36	23.35	25.00	
Frequency (MHz)	1852.4	1880	1907.6	20.50	1712.4	1732.6	1752.6	23.00	22.36	22.34	22.35	24.00	
3GPP Rel 99	AMR 12.2kbps	19.53	19.55	19.53	21.50	22.02	22.12	22.07	24.00	23.22	23.32	23.29	25.00
3GPP Rel 99	RMC 12.2kbps	19.52	19.67	19.58	21.50	22.10	22.19	22.13	24.00	23.27	23.36	23.35	25.00
3GPP Rel 6	HSDPA Subtest-1	18.55	18.62	18.50	20.50	21.15	21.23	21.20	23.00	22.36	22.34	22.35	24.00
3GPP Rel 6	HSDPA Subtest-2	18.51	18.59	18.56	20.50	21.06	21.09	21.06	23.00	22.23	22.35	22.31	24.00
3GPP Rel 6	HSDPA Subtest-3	18.04	18.07	18.15	20.00	20.60	20.69	20.65	22.50	21.76	21.84	21.88	23.50
3GPP Rel 6	HSDPA Subtest-4	18.01	18.07	18.01	20.00	20.50	20.61	20.55	22.50	21.72	21.85	21.83	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	18.59	18.58	18.52	20.50	21.04	21.16	21.09	23.00	22.28	22.31	22.34	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	18.53	18.53	18.59	20.50	21.16	21.13	21.02	23.00	22.17	22.29	22.19	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	18.07	18.10	18.02	20.00	20.56	20.59	20.52	22.50	21.73	21.81	21.86	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	18.06	18.24	18.06	20.00	20.56	20.60	20.54	22.50	21.65	21.82	21.72	23.50
3GPP Rel 6	HSUPA Subtest-1	18.60	18.55	18.57	20.50	21.01	21.10	21.01	23.00	22.15	22.22	22.19	24.00
3GPP Rel 6	HSUPA Subtest-2	16.58	16.53	16.57	18.50	19.11	19.16	19.05	21.00	20.24	20.38	20.35	22.00
3GPP Rel 6	HSUPA Subtest-3	17.61	17.66	17.68	19.50	20.13	20.24	20.24	22.00	21.39	21.45	21.43	23.00
3GPP Rel 6	HSUPA Subtest-4	16.53	16.50	16.52	18.50	19.06	19.03	19.07	21.00	20.20	20.24	20.26	22.00
3GPP Rel 6	HSUPA Subtest-5	18.55	18.53	18.63	20.50	21.05	21.11	21.04	23.00	22.14	22.33	22.18	24.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	16.07	16.30	16.08	18.00	18.62	18.70	18.63	20.50	19.78	20.00	19.84	21.50



Band 4 Main PA Ant1 DS1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Turn-up limit (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.50	22.57	22.43				
20	QPSK	1	49	22.37	22.44	22.46			24	0
20	QPSK	1	99	22.29	22.34	22.28				
20	QPSK	50	0	21.75	21.80	21.73				
20	QPSK	50	24	21.65	21.70	21.73				
20	QPSK	50	50	21.84	21.74	21.59			23.5	0.5
20	QPSK	100	0	21.72	21.83	21.68				
20	16QAM	1	0	21.80	21.87	21.82				
20	16QAM	1	49	21.71	21.81	21.77			23.5	0.5
20	16QAM	1	99	21.72	21.77	21.68				
20	16QAM	50	0	20.90	20.94	20.73				
20	16QAM	50	24	20.71	20.78	20.87			22.5	1.5
20	16QAM	50	50	20.69	20.80	20.69				
20	16QAM	100	0	20.65	20.84	20.61				
20	64QAM	1	0	20.82	20.86	20.71				
20	64QAM	1	49	20.76	20.80	20.76			22.5	1.5
20	64QAM	50	0	19.84	19.79	19.67				
20	64QAM	50	24	19.58	19.70	19.58			21.5	2.5
20	64QAM	50	50	19.72	19.78	19.68				
20	64QAM	100	0	19.52	19.67	19.58				
20	256QAM	1	49	17.80	17.68	17.56			19.5	4.5
20	256QAM	1	99	17.57	17.63	17.54				
20	256QAM	50	0	17.61	17.67	17.61				
20	256QAM	50	24	17.54	17.63	17.52			19.5	4.5
20	256QAM	50	50	17.66	17.69	17.66				
20	256QAM	100	0	17.52	17.61	17.51				
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.41	22.48	22.46				
15	QPSK	1	37	22.44	22.48	22.41			24	0
15	QPSK	1	74	22.27	22.38	22.25				
15	QPSK	36	0	21.72	21.71	21.67				
15	QPSK	36	25	21.56	21.65	21.69				
15	QPSK	36	39	21.57	21.64	21.64			23.5	0.5
15	QPSK	75	0	21.59	21.78	21.58				
15	16QAM	1	0	21.68	21.86	21.75				
15	16QAM	1	37	21.60	21.72	21.72			23.5	0.5
15	16QAM	1	74	21.66	21.77	21.67				
15	16QAM	36	0	20.68	20.67	20.69				
15	16QAM	36	25	20.65	20.70	20.63			22.5	1.5
15	16QAM	36	39	20.68	20.71	20.68				
15	16QAM	75	0	20.61	20.70	20.58				
15	64QAM	1	0	20.70	20.81	20.60			22.5	1.5
15	64QAM	1	37	20.65	20.76	20.68				
15	64QAM	1	74	20.60	20.65	20.51				
15	64QAM	36	0	19.55	19.68	19.62			21.5	2.5
15	64QAM	36	25	19.66	19.75	19.68				
15	64QAM	36	39	19.53	19.71	19.61				
15	64QAM	75	0	19.66	19.65	19.54				
15	256QAM	1	37	17.70	17.72	17.56			19.5	4.5
15	256QAM	1	74	17.64	17.67	17.63				
15	256QAM	1	74	17.63	17.66	17.61				
15	256QAM	36	0	17.61	17.62	17.59				
15	256QAM	36	25	17.58	17.58	17.52			19.5	4.5
15	256QAM	36	39	17.71	17.70	17.63				
15	256QAM	75	0	17.56	17.72	17.56				
Channel										
Frequency (MHz)										
20	QPSK	1	0	17.15	17.25	17.00				
20	QPSK	1	24	17.10	17.16	17.10			24	0
20	QPSK	1	25	17.22	17.24	17.22				
20	QPSK	1	49	17.22	17.23	17.22				
20	QPSK	25	0	17.14	17.14	17.14				
20	QPSK	25	12	21.54	21.73	21.87			23.5	0.5
20	QPSK	25	25	21.54	21.66	21.53				
20	16QAM	1	0	17.17	17.27	17.12				
20	16QAM	1	24	21.72	21.72	21.72			23.5	0.5
20	16QAM	1	24	21.60	21.68	21.71				
20	16QAM	25	0	20.66	20.60	20.59				
20	16QAM	25	12	20.66	20.68	20.63			22.5	1.5
20	16QAM	25	25	20.65	20.70	20.63				
20	16QAM	50	0	20.61	20.68	20.59				
20	64QAM	1	0	20.71	20.73	20.68			22.5	1.5
20	64QAM	1	24	20.72	20.72	20.67				
20	64QAM	1	49	20.61	20.70	20.55				
20	64QAM	25	0	19.59	19.70	19.64			21.5	2.5
20	64QAM	25	12	19.54	19.62	19.61				
20	64QAM	25	25	19.60	19.61	19.63				
20	64QAM	50	0	19.53	19.63	19.59				
20	256QAM	1	24	17.71	17.66	17.59			19.5	4.5
20	256QAM	1	24	17.64	17.68	17.61				
20	256QAM	1	49	17.58	17.62	17.60				
20	256QAM	12	0	17.65	17.66	17.62				
20	256QAM	25	12	17.56	17.61	17.63			19.5	4.5
20	256QAM	25	25	17.67	17.64	17.63				
20	256QAM	50	0	17.51	17.71	17.58				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.47	22.46	22.46				
5	QPSK	1	12	22.42	22.37	22.35			24	0
5	QPSK	1	24	22.20	22.33	22.31				
5	QPSK	12	0	21.65	21.64	21.64				
5	QPSK	12	7	21.58	21.64	21.67			23.5	0.5
5	QPSK	12	13	21.63	21.60	21.52				
5	QPSK	25	0	21.67	21.67	21.67				
5	16QAM	1	0	21.74	21.79	21.74				
5	16QAM	1	12	21.60	21.72	21.74			23.5	0.5
5	16QAM	12	0	21.67	21.65	21.65				
5	16QAM	12	7	20.65	20.61	20.66			22.5	1.5
5	16QAM	12	13	20.63	20.71	20.56				
5	64QAM	1	0	20.57	20.61	20.67			22.5	1.5
5	64QAM	1	24	20.57	20.64	20.66				
5	64QAM	12	0	19.50	19.65	19.58			21.5	2.5
5	64QAM	12	7	19.53	19.62	19.60				
5	64QAM	12	13	19.64	19.64	19.56				
5	64QAM	25	0	19.57	19.65	19.62				
5	64QAM	25	0	17.65	17.77	17.60			19.5	4.5
5	256QAM	1	12	17.64	17.73	17.61				
5	256QAM	1	24	17.56	17.60	17.57				
5	256QAM	12	0	17.65	17.66	17.62				
5	256QAM	12	7	17.60	17.63	17.63			19.5	4.5
5	256QAM	12	13	17.69	17.65	17.65				
5	256QAM	25	0	17.55	17.66	17.67				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	22.50	22.54	22.43				
1.4	QPSK	1	8	22.33	22.43	22.44			24	0
1.4	QPSK	1	14	22.20	22.36	22.25				
1.4	QPSK	8	0	21.65	21.65	21.63				
1.4	QPSK	8	4	21.60	21.71	21.69			23.5	0.5
1.4	QPSK	8	7	21.60	21.71	21.58				
1.4	QPSK	15	0	21.66	21.67	21.63				
1.4	16QAM	1	0	21.75	21.82	21.70				
1.4	16QAM	1	8	21.62	21.74	21.68			23.5	0.5
1.4	16QAM	1	24	21.68	21.72	21.67				
1.4	16QAM	8	0	20.73	20.77	20.64				
1.4	16QAM	8	4	20.60	20.63	20.63			22.5	1.5
1.4	16QAM	8	7	20.64	20.71	20.68				
1.4	16QAM	15	0	20.52	20.66	20.56				
1.4	64QAM	1	0	20.73	20.79	20.69			22.5	1.5
1.4	64QAM	1	8	20.66	20.66	20.71				
1.4	64QAM	1	14	20.51	20.62	20.64				
1.4	64QAM	8	0	19.68	19.79	19.74			21.5	2.5
1.4	64QAM	8	4	19.62						



Band 13 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MPE (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.60	23.60	23.60	25.5	0		
10	QPSK	1	25	23.65	23.65	23.65				
10	QPSK	1	49	23.85	23.85	23.85				
10	QPSK	25	0	23.60	23.60	23.60	24.5	1		
10	QPSK	25	25	23.85	23.85	23.85				
10	QPSK	25	25	23.79	23.79	23.79				
10	QPSK	50	0	23.60	23.60	23.60	24.5	1		
10	QPSK	50	25	23.85	23.85	23.85				
10	QPSK	50	25	23.79	23.79	23.79				
10	16QAM	1	0	22.07	22.07	22.07	23.5	2		
10	16QAM	1	25	22.07	22.07	22.07				
10	16QAM	1	49	21.81	21.81	21.81				
10	16QAM	25	0	21.81	21.81	21.81	23.5	2		
10	16QAM	25	25	21.86	21.86	21.86				
10	16QAM	50	0	21.79	21.79	21.79	23.5	3		
10	16QAM	50	25	21.79	21.79	21.79				
10	16QAM	1	0	22.07	22.07	22.07	20.5	5		
10	16QAM	1	25	22.07	22.07	22.07				
10	16QAM	1	49	21.97	21.97	21.97				
10	16QAM	25	0	21.97	21.97	21.97	20.5	5		
10	16QAM	25	25	21.86	21.86	21.86				
10	16QAM	50	0	21.79	21.79	21.79	20.5	5		
10	16QAM	50	25	21.79	21.79	21.79				
10	16QAM	1	0	22.07	22.07	22.07	20.5	5		
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.84	23.84	23.84	25.5	0		
5	QPSK	1	24	23.78	23.80	23.77				
5	QPSK	12	0	22.87	22.78	22.89	24.5	1		
5	QPSK	12	7	22.72	22.70	22.73				
5	QPSK	12	13	22.73	22.72	22.68				
5	QPSK	25	0	22.84	22.71	22.78	24.5	1		
5	16QAM	1	0	22.74	22.71	22.78	24.5	1		
5	16QAM	1	12	22.65	22.71	22.72				
5	16QAM	12	0	21.78	21.84	21.78	23.5	2		
5	16QAM	12	7	21.69	21.68	21.74				
5	16QAM	25	0	21.69	21.75	21.64	23.5	2		
5	16QAM	25	0	21.65	21.65	21.68				
5	16QAM	1	0	20.67	20.63	20.65	22.5	3		
5	16QAM	12	0	20.74	20.74	20.78				
5	16QAM	12	7	20.67	20.63	20.65				
5	16QAM	25	0	20.76	20.73	20.70	20.5	5		
5	16QAM	25	0	20.69	20.64	20.60				
5	16QAM	1	0	18.84	18.81	18.84	20.5	5		
5	16QAM	1	12	18.77	18.87	18.82				
5	16QAM	12	7	18.79	18.72	18.78	20.5	5		
5	16QAM	12	0	18.74	18.76	18.84				
5	16QAM	12	7	18.72	18.73	18.84	20.5	5		
5	16QAM	12	13	18.69	18.76	18.79				
5	16QAM	25	0	18.71	18.70	18.68				

Band 26 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MPE (dB)		
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.70	23.77	23.66	25.5	0		
15	QPSK	1	31	23.81	23.84	23.82				
15	QPSK	1	74	23.81	23.84	23.82				
15	QPSK	36	0	22.62	22.74	22.66	24.5	1		
15	QPSK	36	25	22.63	22.63	22.64				
15	QPSK	36	39	22.54	22.63	22.58				
15	QPSK	75	0	22.60	22.67	22.60	24.5	1		
15	16QAM	1	0	22.66	22.61	22.72	24.5	1		
15	16QAM	1	37	22.81	22.78	22.83				
15	16QAM	1	74	22.67	22.71	22.60	23.5	2		
15	16QAM	36	0	22.63	22.76	22.62				
15	16QAM	36	20	21.83	21.68	21.58	23.5	2		
15	16QAM	36	39	21.88	21.72	21.59				
15	16QAM	75	0	21.84	21.69	21.58	23.5	2		
15	16QAM	1	0	21.82	21.92	21.84				
15	16QAM	1	37	21.78	21.86	21.80	23.5	2		
15	16QAM	1	74	21.73	21.82	21.81				
15	16QAM	36	0	20.84	20.89	20.79	22.5	3		
15	16QAM	36	20	20.74	20.89	20.72				
15	16QAM	36	39	20.72	20.66	20.70	22.5	3		
15	16QAM	75	0	20.69	20.77	20.67	20.5	5		
15	16QAM	1	0	18.61	18.76	18.63	20.5	5		
15	16QAM	1	37	18.58	18.72	18.64				
15	16QAM	1	74	18.64	18.67	18.60	20.5	5		
15	16QAM	36	0	18.51	18.62	18.52				
15	16QAM	36	20	18.54	18.58	18.51	20.5	5		
15	16QAM	36	39	18.60	18.62	18.55				
15	16QAM	75	0	18.60	18.63	18.56	20.5	5		
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.60	23.74	23.62	25.5	0		
10	QPSK	1	25	23.66	23.64	23.62				
10	QPSK	1	49	23.55	23.70	23.56				
10	QPSK	25	0	22.63	22.67	22.70	24.5	1		
10	QPSK	25	25	22.59	22.58	22.63				
10	QPSK	25	25	22.58	22.58	22.58				
10	QPSK	50	0	22.66	22.66	22.66	24.5	1		
10	QPSK	50	25	22.70	22.81	22.70				
10	16QAM	1	0	22.59	22.81	22.62	24.5	1		
10	16QAM	1	25	22.59	22.81	22.62				
10	16QAM	12	0	21.61	21.62	21.58	23.5	2		
10	16QAM	12	7	21.67	21.65	21.53				
10	16QAM	25	0	21.52	21.63	21.55	23.5	2		
10	16QAM	25	0	21.72	21.77	21.80				
10	16QAM	50	0	21.65	21.72	21.67	23.5	2		
10	16QAM	50	0	21.61	21.75	21.59				
10	16QAM	25	0	20.71	20.76	20.68	22.5	3		
10	16QAM	25	0	20.66	20.66	20.66				
10	16QAM	25	25	20.58	20.50	20.51	20.5	5		
10	16QAM	50	0	20.56	20.68	20.63				
10	16QAM	50	25	20.56	20.56	20.56	20.5	5		
10	16QAM	1	0	18.57	18.79	18.71	20.5	5		
10	16QAM	1	25	18.61	18.70	18.57				
10	16QAM	12	0	18.56	18.66	18.56	20.5	5		
10	16QAM	12	7	18.54	18.54	18.53				
10	16QAM	25	0	18.58	18.61	18.54	20.5	5		
10	16QAM	25	0	18.56	18.63	18.52				
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.72	23.72	23.72	25.5	0		
5	QPSK	1	12	23.59	23.63	23.55				
5	QPSK	1	24	23.55	23.65	23.52				
5	QPSK	1	49	23.50	23.61	23.50				
5	QPSK	12	0	22.53	22.74	22.54	24.5	1		
5	QPSK	12	13	22.56	22.62	22.58				
5	QPSK	25	0	22.65	22.65	22.65	24.5	1		
5	16QAM	1	0	22.64	22.78	22.79	24.5	1		
5	16QAM	1	12	22.59	22.76	22.67				
5	16QAM	12	0	21.69	21.74	21.64	23.5	2		
5	16QAM	12	7	21.66	21.69	21.51				
5	16QAM	12	13	21.62	21.71	21.62	23.5	2		
5	16QAM	25	0	21.54	21.68	21.62				
5	16QAM	1	0	21.72	21.80	21.75	23.5	2		
5	16QAM	1	12	21.73	21.73	21.73				
5	16QAM	1	24	21.66	21.77	21.61	22.5	3		
5	16QAM	12	0	20.81	20.78	20.75				
5	16QAM	12	7	20.80	20.80	20.80	20.5	5		
5	16QAM	25	0	20.56	20.69	20.67				
5	16QAM	25	0	20.56	20.56	20.56	20.5	5		
5	16QAM									



Band 38 Main PA Ant1 DS1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.22	22.22	22.22	23.5	0		
20	QPSK	1	49	22.10	22.20	22.20				
20	QPSK	50	0	22.22	22.22	22.22				
20	QPSK	50	24	22.17	22.22	22.20	23.5	0		
20	QPSK	100	0	22.17	22.19	22.15				
20	16QAM	1	0	22.09	22.18	22.12	23.5	0		
20	16QAM	1	49	21.99	22.09	22.03				
20	16QAM	1	99	22.02	22.15	22.11				
20	16QAM	50	0	21.99	21.90	21.76				
20	16QAM	50	24	21.77	21.84	21.89	23	0.5		
20	16QAM	100	0	21.77	21.89	21.77				
20	16QAM	100	0	21.49	21.54	21.25				
20	16QAM	1	49	21.43	21.55	21.42	23	0.5		
20	16QAM	1	99	21.33	21.42	21.34				
20	16QAM	50	0	20.78	20.91	20.84				
20	16QAM	50	24	20.74	20.78	20.89				
20	16QAM	50	50	20.74	20.79	20.71	22	1.5		
20	16QAM	100	0	20.61	20.68	20.67				
20	256QAM	1	0	18.81	18.85	18.86				
20	256QAM	1	49	18.82	18.86	18.82				
20	256QAM	1	99	18.48	18.62	18.67	20	3.5		
20	256QAM	50	0	18.82	18.86	18.81				
20	256QAM	50	24	18.84	18.87	18.73				
20	256QAM	50	50	18.81	18.86	18.89	20	3.5		
20	256QAM	100	0	18.82	18.75	18.74				
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.17	22.09	21.73	23.5	0		
15	QPSK	1	37	22.12	22.25	22.07				
15	QPSK	1	74	21.97	22.12	22.00				
15	QPSK	36	20	22.28	22.20	22.06	23.5	0		
15	QPSK	36	20	22.12	22.24	22.11				
15	16QAM	1	0	22.03	22.14	22.06	23.5	0		
15	16QAM	1	74	22.03	22.09	22.06				
15	16QAM	36	0	21.74	21.86	21.71				
15	16QAM	36	20	21.82	21.82	21.82	23	0.5		
15	16QAM	36	39	21.76	21.76	21.84				
15	16QAM	75	0	21.88	21.80	21.84				
15	16QAM	75	0	21.36	21.50	21.34				
15	16QAM	1	37	21.34	21.41	21.38	23	0.5		
15	16QAM	74	0	21.27	21.33	21.24				
15	16QAM	36	0	20.63	20.66	20.78				
15	16QAM	36	20	20.69	20.71	20.59	22	1.5		
15	16QAM	36	39	20.67	20.72	20.64				
15	16QAM	75	0	20.25	20.35	20.45				
15	256QAM	1	0	18.39	18.51	18.42				
15	256QAM	1	37	18.32	18.52	18.40	20	3.5		
15	256QAM	1	74	18.45	18.57	18.51				
15	256QAM	36	0	18.84	18.85	18.88				
15	256QAM	36	20	18.83	18.83	18.83	20	3.5		
15	256QAM	36	39	18.86	18.86	18.86				
15	256QAM	75	0	18.80	18.88	18.80				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.18	22.18	22.18	23.5	0		
10	QPSK	1	25	22.11	22.19	22.02				
10	QPSK	1	49	22.01	22.13	22.07				
10	QPSK	25	12	22.28	22.25	22.06	23.5	0		
10	QPSK	25	12	22.18	22.18	22.07				
10	QPSK	25	25	22.00	22.24	22.12				
10	16QAM	1	0	22.11	22.16	22.14	23.5	0		
10	16QAM	1	25	21.98	22.19	22.04				
10	16QAM	1	49	21.96	22.19	22.06				
10	16QAM	25	0	21.79	21.82	21.70				
10	16QAM	25	12	21.68	21.76	21.64				
10	16QAM	25	25	21.73	21.80	21.89	23	0.5		
10	16QAM	50	0	21.74	21.79	21.69				
10	16QAM	50	0	21.44	21.50	21.38				
10	16QAM	1	25	21.30	21.43	21.30	23	0.5		
10	16QAM	1	49	21.27	21.31	21.27				
10	16QAM	25	0	20.70	20.78	20.78				
10	16QAM	25	12	20.62	20.63	20.57	22	1.5		
10	16QAM	25	25	20.60	20.67	20.61				
10	16QAM	50	0	20.57	20.60	20.45				
10	256QAM	1	0	18.42	18.59	18.47				
10	256QAM	1	25	18.45	18.61	18.47	20	3.5		
10	256QAM	1	49	18.43	18.48	18.51				
10	256QAM	25	0	18.88	18.86	18.77				
10	256QAM	25	12	18.77	18.83	18.66				
10	256QAM	25	25	18.87	18.86	18.76	20	3.5		
10	256QAM	50	0	18.88	18.71	18.67				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.26	22.22	22.11	23.5	0		
5	QPSK	1	19	22.10	22.24	22.11				
5	QPSK	1	24	21.94	22.08	22.04				
5	QPSK	12	0	22.29	22.16	22.04	23.5	0		
5	QPSK	12	7	22.21	22.20	22.00				
5	QPSK	12	19	21.97	22.13	22.15				
5	QPSK	25	0	22.21	22.25	22.16				
5	16QAM	1	0	22.09	22.14	22.07	23.5	0		
5	16QAM	1	12	22.03	22.17	22.03				
5	16QAM	1	24	22.04	22.10	22.14				
5	16QAM	12	0	21.74	21.88	21.85				
5	16QAM	12	7	21.64	21.79	21.66	23	0.5		
5	16QAM	12	19	21.74	21.78	21.72				
5	16QAM	25	0	21.74	21.74	21.72				
5	16QAM	1	0	21.30	21.43	21.38	23	0.5		
5	16QAM	1	12	21.30	21.42	21.38				
5	16QAM	1	24	21.27	21.32	21.22				
5	16QAM	12	0	20.73	20.84	20.66				
5	16QAM	12	7	20.67	20.74	20.55	22	1.5		
5	16QAM	12	19	20.69	20.74	20.67				
5	16QAM	25	0	20.54	20.64	20.46				
5	256QAM	1	0	18.40	18.57	18.45				
5	256QAM	1	12	18.54	18.58	18.41	20	3.5		
5	256QAM	1	24	18.37	18.58	18.43				
5	256QAM	12	0	18.87	18.83	18.72				
5	256QAM	12	7	18.80	18.84	18.60				
5	256QAM	12	19	18.85	18.89	18.77	20	3.5		
5	256QAM	25	0	18.83	18.88	18.61				

Band 41 Main PA Ant1 DS1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Power High Node Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.20	22.20	22.20	23.5	0		
20	QPSK	1	49	22.19	22.20	22.20				
20	QPSK	50	0	22.20	22.20	22.20				
20	QPSK	50	24	22.15	22.22	22.20	23	0		
20	QPSK	100	0	22.14	22.25	22.34	23.5	0		
20	16QAM	1	0	22.19	22.19	22.26	23.5	0		
20	16QAM	1	49	22.08	22.25	22.22				
20	16QAM	1	99	22.10	22.27	22.21				
20	16QAM	50	0	21.88	21.94	22.01	22.5	0.5		
20	16QAM	50	24	21.81	21.82	21.85				
20	16QAM	50	50	21.88	21.84	22.05	21.85	21.84		
20	16QAM	100	0	21.88	21.87	21.88				
20	16QAM	1	49	21.50	21.54	21.61	21.59	21.52		
20	16QAM	1	99	21.48	21.67	21.62	21.50	21.46		
20	16QAM	50	0	20.91	20.98	21.02	20.88	20.83		
20	16QAM	50	24	20.78	20.81	20.89	20.81	20.80		
20	16QAM	50	50	20.78	20.85	20.87	20.85	20.73		
20	16QAM	100	0	20.71	20.68	20.61	20.67	20.72		
20	256QAM	1	0	18.64	18.64	18.81	18.64	18.70		
20	256QAM	1	49	18.62	18.70	18.82	18.67	18.68		
20	256QAM	1	99	18.57	18.63	18.68	18.64	18.57		
20	256QAM	50	0	18.67	18.66	18.66	18.66	18.66		
20	256QAM	50	24	18.86	18.91	18.97	18.87	18.88		
20	256QAM	50	50	18.88	18.94	19.01	18.92	18.87		
20	256QAM	100	0	18.70	18.70	18.80	18.74	18.74		
Channel										
Frequency (MHz)										
16	QPSK	1	0	22.15	22.13	22.03	23.5	0		
16	QPSK	1	37	22.22	22.25	22.18	22.22	22.03		
16	QPSK	1	74	22.04	22.09	22.26	22.12	22.06		
16	QPSK	36	20	22.11	22.24	22.26	22.28	22.28		
16	QPSK	36	20	22.20	22.20	22.25	22.28	22.18		
16	QPSK	36	20	22.18	22.17	22.20	22.20	22.20		
16	QPSK	75	0	22.14	22.20	22.31	22.11	22.21		
16	16QAM	1	0	22.21	22.22	22.30	22.09	22.07		
16	16QAM	1	74	22.05	22.31	22.26	22.10	22.06		
16	16QAM	1	74	22.07	22.27	22.23	22.25	22.07		
16	16QAM	36								



Band 42 FCC Part27Q Main PA Ant1 DS1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)	
Channel				42190	42690	42990			
Frequency (MHz)				3642	3700	3642			
20	QPSK	1	0	20.44	20.45	20.42			
20	QPSK	1	49	20.34	20.45	20.32	22	0	
20	QPSK	1	99	20.35	20.35	20.33			
20	QPSK	50	0	20.39	20.40	20.42			
20	QPSK	50	24	20.33	20.37	20.34	22	0	
20	QPSK	100	0	20.31	20.34	20.34			
20	QPSK	100	0	20.42	20.51	20.33			
20	16QAM	1	0	20.34	20.37	20.29			
20	16QAM	1	49	20.41	20.42	20.23	22	0	
20	16QAM	1	99	20.35	20.40	20.38			
20	16QAM	50	0	20.39	20.46	20.30			
20	16QAM	50	24	20.40	20.38	20.34	22	0	
20	16QAM	50	50	20.45	20.48	20.34			
20	16QAM	100	0	20.32	20.44	20.29			
20	16QAM	100	0	20.31	20.45	20.29			
20	16QAM	1	49	20.40	20.38	20.38	22	0	
20	16QAM	1	99	20.30	20.38	20.29			
20	16QAM	50	0	20.37	20.36	20.25			
20	16QAM	50	24	20.40	20.47	20.42	22	0	
20	16QAM	50	50	20.34	20.37	20.33			
20	16QAM	100	0	20.37	20.43	20.29			
20	256QAM	1	0	18.18	18.27	18.22			
20	256QAM	1	49	18.20	18.23	18.21	20	2	
20	256QAM	1	99	18.21	18.26	18.17			
20	256QAM	50	0	18.20	18.26	18.14			
20	256QAM	50	24	18.11	18.21	18.20	20	2	
20	256QAM	50	50	18.19	18.24	18.12			
20	256QAM	100	0	18.23	18.27	18.23			
Channel				42165	42690	43015			
Frequency (MHz)				3623	3700	3623			
15	QPSK	1	0	20.33	20.40	20.42			
15	QPSK	1	37	20.38	20.42	20.32	22	0	
15	QPSK	1	74	20.37	20.37	20.30			
15	QPSK	36	0	20.35	20.48	20.33			
15	QPSK	36	20	20.33	20.45	20.26	22	0	
15	QPSK	36	38	20.39	20.38	20.29			
15	QPSK	75	0	20.38	20.41	20.37			
15	16QAM	1	0	20.41	20.38	20.33			
15	16QAM	1	37	20.39	20.34	20.24	22	0	
15	16QAM	1	74	20.40	20.41	20.38			
15	16QAM	36	0	20.39	20.42	20.27			
15	16QAM	36	20	20.30	20.44	20.29	22	0	
15	16QAM	36	38	20.38	20.50	20.34			
15	16QAM	75	0	20.37	20.46	20.27			
15	16QAM	75	0	20.39	20.44	20.29			
15	16QAM	1	37	20.41	20.47	20.38	22	0	
15	16QAM	1	74	20.34	20.45	20.26			
15	16QAM	36	0	20.36	20.40	20.25			
15	16QAM	36	20	20.40	20.42	20.43	22	0	
15	16QAM	36	38	20.38	20.42	20.25			
15	16QAM	75	0	20.30	20.42	20.25			
15	256QAM	1	0	18.13	18.24	18.08			
15	256QAM	1	37	18.16	18.24	18.15	20	2	
15	256QAM	1	74	18.18	18.20	18.08			
15	256QAM	36	0	18.09	18.26	18.21			
15	256QAM	36	20	18.01	18.09	18.08	20	2	
15	256QAM	36	38	18.07	18.16	18.10			
15	256QAM	75	0	18.16	18.19	18.03			
Channel				42615	42690	43015			
Frequency (MHz)				3655	3700	3645			
10	QPSK	1	0	20.34	20.45	20.37			
10	QPSK	1	25	20.33	20.37	20.31	22	0	
10	QPSK	1	49	20.38	20.41	20.27			
10	QPSK	25	0	20.35	20.46	20.38			
10	QPSK	25	12	20.37	20.30	20.31	22	0	
10	QPSK	25	25	20.39	20.35	20.21			
10	QPSK	1	0	20.37	20.42	20.42			
10	16QAM	1	0	20.33	20.40	20.28			
10	16QAM	1	25	20.30	20.38	20.29	22	0	
10	16QAM	1	49	20.45	20.47	20.42			
10	16QAM	25	0	20.39	20.36	20.24			
10	16QAM	25	12	20.38	20.43	20.31	22	0	
10	16QAM	25	25	20.31	20.41	20.41			
10	16QAM	1	0	20.39	20.36	20.24			
10	16QAM	1	25	20.38	20.41	20.41	22	0	
10	16QAM	1	49	20.31	20.47	20.21			
10	16QAM	25	0	20.31	20.35	20.29			
10	16QAM	25	12	20.39	20.50	20.35	22	0	
10	16QAM	25	25	20.39	20.46	20.28			
10	16QAM	50	0	20.33	20.45	20.33			
10	256QAM	1	0	18.03	18.12	18.08			
10	256QAM	1	25	18.09	18.20	18.06	20	2	
10	256QAM	1	49	18.14	18.19	18.08			
10	256QAM	25	0	18.14	18.25	18.05			
10	256QAM	25	12	18.00	18.11	18.05	20	2	
10	256QAM	25	25	18.16	18.14	18.01			
10	256QAM	50	0	18.14	18.12	18.07			
Channel				43115	42690	43015			
Frequency (MHz)				3655	3700	3645			
5	QPSK	1	0	20.44	20.50	20.41			
5	QPSK	1	12	20.33	20.41	20.25	22	0	
5	QPSK	1	24	20.37	20.44	20.35			
5	QPSK	12	0	20.36	20.52	20.40			
5	QPSK	12	7	20.37	20.36	20.34	22	0	
5	QPSK	12	13	20.32	20.37	20.23			
5	QPSK	1	0	20.35	20.44	20.27			
5	16QAM	1	0	20.34	20.45	20.32			
5	16QAM	1	12	20.40	20.53	20.23	22	0	
5	16QAM	1	24	20.35	20.52	20.42			
5	16QAM	12	0	20.33	20.42	20.31			
5	16QAM	12	7	20.38	20.43	20.29	22	0	
5	16QAM	12	13	20.38	20.52	20.41			
5	16QAM	24	0	20.38	20.41	20.38			
5	16QAM	1	0	20.33	20.38	20.21			
5	16QAM	1	12	20.45	20.47	20.41	22	0	
5	16QAM	1	24	20.39	20.37	20.29			
5	16QAM	12	0	20.35	20.38	20.27			
5	16QAM	12	7	20.39	20.42	20.41	22	0	
5	16QAM	12	13	20.35	20.36	20.31			
5	16QAM	24	0	20.35	20.34	20.25			
5	256QAM	1	0	18.06	18.23	18.10			
5	256QAM	1	12	18.12	18.29	18.08	20	2	
5	256QAM	1	24	18.06	18.16	18.03			
5	256QAM	12	0	18.11	18.21	18.10			
5	256QAM	12	7	18.00	18.13	18.00	20	2	
5	256QAM	12	13	18.15	18.17	18.02			
5	256QAM	24	0	18.08	18.14	18.01			

Band 48_FCC Main PA Ant1 DS1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)	
Channel				56590	56890	56190			
Frequency (MHz)				3666	3669	3666			
20	QPSK	1	0	21.48	21.50	21.49	23	0	
20	QPSK	1	49	21.38	21.52	21.44	21.47		
20	QPSK	1	99	21.48	21.59	21.40	21.41		
20	QPSK	50	0	21.52	21.50	21.48	21.52		
20	QPSK	50	24	21.45	21.56	21.44	21.45	23	0
20	QPSK	100	0	21.43	21.52	21.41	21.43		
20	QPSK	100	0	21.48	21.50	21.41	21.48		
20	16QAM	1	0	21.38	21.45	21.48	21.52	23	0
20	16QAM	1	49	21.48	21.56	21.41	21.34		
20	16QAM	1	99	21.48	21.55	21.50	21.49		
20	16QAM	50	0	21.41	21.49	21.44	21.50		
20	16QAM	50	24	21.48	21.57	21.39	21.39	23	0
20	16QAM	50	50	21.57	21.54	21.50	21.59		
20	16QAM	100	0	21.46	21.48	21.37	21.49		
20	16QAM	100	0	21.41	21.52	21.39	21.51		
20	16QAM	1	49	21.40	21.53	21.37	21.45	23	0
20	16QAM	1	99	21.49	21.57	21.45	21.41		
20	16QAM	50	0	20.38	20.50	20.37	20.27		
20	16QAM	50	24	20.23	20.36	20.27	20.30	22	1
20	16QAM	50	50	20.35	20.45	20.33	20.30		
20	16QAM	100	0	20.38	20.38	20.24	20.22		
20	256QAM	1	0	18.20	18.32	18.22	18.30		
20	256QAM	1	49	18.26	18.47	18.44	18.33	20	3
20	256QAM	1	99	18.27	18.42	18.36	18.26		
20	256QAM	50	0	18.21	18.37	18.26	18.20		
20	256QAM	50	24	18.21	18.30	18.23	18.27	20	3
20	256QAM	50	50	18.25	18.32	18.17	18.20		
20	256QAM	100	0	18.34	18.44	18.31	18.28		
Channel				56215	56690	56190			
Frequency (MHz)				3692	3693	3692			
15	QPSK	1	0	21.42	21.54	21.37	21.40		
15	QPSK	1	37	21.50	21.57	21.47	21.37	23	0
15	QPSK	1	74	21.39	21.44	21.46	21.49		
15	QPSK	36	0	21.48					

GSM1900 Ant2 Default

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	910		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	31.00	1850.2	1880	1909.8	22.00
GSM 1 Tx slot	29.89	29.95	29.93	31.00	20.89	20.95	20.93	22.00
GPRS 1 Tx slot	29.92	30.01	29.95	31.00	20.92	21.01	20.95	22.00
GPRS 2 Tx slots	27.08	27.11	27.03	28.00	21.08	21.11	21.03	22.00
GPRS 3 Tx slots	25.21	25.34	25.26	26.20	20.95	21.08	21.00	21.94
GPRS 4 Tx slots	23.92	24.02	23.90	25.00	20.82	21.02	20.90	22.00
EDGE 1 Tx slot	26.15	26.26	26.18	27.00	17.15	17.26	17.18	18.00
EDGE 2 Tx slots	23.36	23.44	23.35	24.00	17.36	17.44	17.35	18.00
EDGE 3 Tx slots	21.53	21.56	21.50	22.20	17.27	17.30	17.24	17.94
EDGE 4 Tx slots	20.54	20.68	20.60	21.00	17.54	17.68	17.60	18.00

WCDMA II Ant2 DSI1

WCDMA IV Ant2 DSI1

Band TX Channel	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513	
Rx Channel	9662	9800	9938		1537	1638	1738	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99 AMR 12.2kbps	20.51	20.59	20.52	22.00	21.45	21.52	21.50	23.00
3GPP Rel 99 RMC 12.2kbps	20.54	20.60	20.51	22.00	21.50	21.56	21.50	23.00
3GPP Rel 6 HSDPA Subtest-1	19.47	19.73	19.58	21.00	20.47	20.53	20.57	22.00
3GPP Rel 6 HSDPA Subtest-2	19.60	19.49	19.52	21.00	20.60	20.65	20.55	22.00
3GPP Rel 6 HSDPA Subtest-3	19.10	19.05	19.01	20.50	20.02	20.11	20.05	21.50
3GPP Rel 6 HSDPA Subtest-4	18.94	18.96	19.02	20.50	20.00	20.03	20.04	21.50
3GPP Rel 8 DC-HSDPA Subtest-1	19.61	19.49	19.55	21.00	20.59	20.56	20.48	22.00
3GPP Rel 8 DC-HSDPA Subtest-2	19.49	19.59	19.45	21.00	20.51	20.53	20.41	22.00
3GPP Rel 8 DC-HSDPA Subtest-3	18.86	19.08	18.96	20.50	19.88	20.09	19.99	21.50
3GPP Rel 8 DC-HSDPA Subtest-4	18.88	19.07	18.99	20.50	19.82	19.94	19.92	21.50
3GPP Rel 6 HSUPA Subtest-1	19.31	19.47	19.48	21.00	20.40	20.45	20.53	22.00
3GPP Rel 6 HSUPA Subtest-2	17.61	17.67	17.58	19.00	18.59	18.62	18.59	20.00
3GPP Rel 6 HSUPA Subtest-3	18.58	18.66	18.62	20.00	19.59	19.57	19.58	21.00
3GPP Rel 6 HSUPA Subtest-4	17.44	17.46	17.47	19.00	18.46	18.55	18.44	20.00
3GPP Rel 6 HSUPA Subtest-5	19.43	19.62	19.43	21.00	20.42	20.64	20.50	22.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	17.02	17.08	17.02	18.50	18.07	18.25	18.08	19.50



Band 2 Main PA Ant2 DSI1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Time-up limit (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	21.10	21.22	21.62				
20	QPSK	1	49	20.94	20.97	20.93	22.5	0		
20	QPSK	1	99	20.84	20.97	20.93				
20	QPSK	50	0	21.06	21.13	20.93				
20	QPSK	50	24	21.03	21.09	20.93				
20	QPSK	50	50	20.87	20.99	20.94	22.5	0		
20	QPSK	100	0	21.02	21.11	20.97				
20	16QAM	50	0	21.00	20.99	20.96				
20	16QAM	1	49	20.88	20.92	20.93	22.5	0		
20	16QAM	1	99	21.08	21.11	20.99				
20	16QAM	50	0	21.01	21.01	20.95				
20	16QAM	50	24	20.85	20.93	20.99	22.5	0		
20	16QAM	50	50	21.03	21.05	21.04				
20	16QAM	100	0	20.98	21.10	21.00				
20	64QAM	1	0	20.98	21.10	21.00	22.5	0		
20	64QAM	1	49	20.96	20.98	20.94				
20	64QAM	50	0	20.95	20.98	20.98				
20	64QAM	50	0	20.75	20.79	20.75				
20	64QAM	50	24	20.96	20.79	20.61	22	0.5		
20	64QAM	50	50	21.00	20.93	20.95				
20	64QAM	100	0	20.59	20.69	20.55				
20	256QAM	1	49	18.58	18.72	18.58	20	2.5		
20	256QAM	1	99	18.70	18.80	18.70				
20	256QAM	50	0	18.60	18.69	18.67				
20	256QAM	50	24	18.58	18.68	18.54	20	2.5		
20	256QAM	50	50	18.50	18.60	18.45				
20	256QAM	100	0	18.50	18.60	18.57				
Channel										
Frequency (MHz)										
15	QPSK	1	0	21.04	21.08	20.91				
15	QPSK	1	37	20.93	20.96	20.97	22.5	0		
15	QPSK	1	74	20.90	21.00	20.92				
15	QPSK	36	0	20.99	21.13	20.93				
15	QPSK	36	25	21.03	20.99	20.99				
15	QPSK	36	39	20.88	20.97	20.97	22.5	0		
15	QPSK	75	0	21.02	20.99	20.97				
15	16QAM	1	0	20.99	21.05	20.95				
15	16QAM	1	37	20.87	20.96	20.92	22.5	0		
15	16QAM	1	74	21.00	21.00	20.95				
15	16QAM	36	0	20.99	21.04	20.94				
15	16QAM	36	20	20.89	21.03	20.91	22.5	0		
15	16QAM	36	49	20.96	20.98	20.98				
15	16QAM	75	0	20.99	20.98	20.90				
15	64QAM	1	0	21.04	21.14	20.97	22.5	0		
15	64QAM	1	37	20.95	20.98	20.98				
15	64QAM	1	74	20.97	21.04	21.01				
15	64QAM	36	0	20.71	20.84	20.61	22	0.5		
15	64QAM	36	25	20.48	20.58	20.47				
15	64QAM	36	39	20.48	20.53	20.45				
15	64QAM	75	0	20.49	20.60	20.46				
15	256QAM	1	37	18.48	18.58	18.47	20	2.5		
15	256QAM	1	74	18.58	18.70	18.58				
15	256QAM	36	0	18.50	18.60	18.52				
15	256QAM	36	20	18.52	18.64	18.40	20	2.5		
15	256QAM	36	39	18.41	18.54	18.38				
15	256QAM	75	0	18.52	18.60	18.57				
Channel										
Frequency (MHz)										
10	QPSK	1	0	21.03	21.08	20.96				
10	QPSK	1	25	20.95	20.98	20.96	22.5	0		
10	QPSK	1	49	20.87	20.98	20.92				
10	QPSK	25	0	21.00	21.07	20.96				
10	QPSK	25	12	21.04	21.07	20.88				
10	QPSK	25	25	20.92	20.98	20.96	22.5	0		
10	16QAM	1	0	20.97	21.08	20.99				
10	16QAM	1	24	20.96	21.03	20.97	22.5	0		
10	16QAM	1	49	20.90	21.00	20.95				
10	16QAM	25	0	21.03	21.02	20.99				
10	16QAM	25	12	20.87	21.02	21.01	22.5	0		
10	16QAM	25	25	21.08	21.10	21.00				
10	16QAM	50	0	20.95	21.04	20.85				
10	64QAM	1	0	21.08	21.08	21.02	22.5	0		
10	64QAM	1	24	20.87	20.94	20.94				
10	64QAM	1	49	20.96	20.93	20.94				
10	64QAM	25	0	20.99	20.73	20.64	22	0.5		
10	64QAM	25	12	20.44	20.58	20.50				
10	64QAM	25	25	20.53	20.63	20.46				
10	64QAM	50	0	20.46	20.55	20.45				
10	256QAM	1	0	18.58	18.68	18.59	20	2.5		
10	256QAM	1	24	18.50	18.64	18.63				
10	256QAM	1	49	18.58	18.75	18.59				
10	256QAM	25	0	18.50	18.60	18.59				
10	256QAM	25	12	18.50	18.56	18.41	20	2.5		
10	256QAM	25	25	18.46	18.50	18.41				
10	256QAM	50	0	18.55	18.56	18.59				
Channel										
Frequency (MHz)										
5	QPSK	1	0	21.05	21.12	21.00				
5	QPSK	1	12	21.01	21.05	20.93	22.5	0		
5	QPSK	1	24	20.87	21.01	20.98				
5	QPSK	12	0	21.07	21.06	20.99				
5	QPSK	12	7	20.97	20.96	20.89				
5	QPSK	12	13	20.87	21.02	20.91	22.5	0		
5	QPSK	12	24	21.04	21.08	21.02				
5	16QAM	1	0	20.95	21.03	20.86				
5	16QAM	1	12	20.94	20.92	20.96	22.5	0		
5	16QAM	1	24	21.03	21.13	21.00				
5	16QAM	12	0	21.03	21.07	20.87				
5	16QAM	12	7	20.93	20.84	21.00	22.5	0		
5	16QAM	12	13	21.04	21.09	20.95				
5	16QAM	25	0	21.03	21.06	20.93				
5	64QAM	1	0	21.02	21.10	20.96	22.5	0		
5	64QAM	1	12	20.93	20.96	20.99				
5	64QAM	1	24	20.88	20.97	20.93				
5	64QAM	12	0	20.61	20.74	20.69	22	0.5		
5	64QAM	12	7	20.51	20.62	20.64				
5	64QAM	12	13	20.63	20.54	20.43				
5	64QAM	25	0	20.96	20.97	20.41				
5	256QAM	1	0	18.71	18.75	18.63	20	2.5		
5	256QAM	1	12	18.50	18.68	18.48				
5	256QAM	1	24	18.59	18.73	18.55				
5	256QAM	12	0	18.54	18.70	18.64				
5	256QAM	12	7	18.54	18.53	18.49	20	2.5		
5	256QAM	12	13	18.38	18.54	18.52				
5	256QAM	25	0	18.48	18.56	18.51				
Channel										
Frequency (MHz)										
3	QPSK	1	0	21.04	21.15	21.01				
3	QPSK	1	8	20.94	20.97	20.84	22.5	0		
3	QPSK	1	14	20.96	20.92	20.95				
3	QPSK	8	0	21.06	21.14	21.01				
3	QPSK	8	4	20.88	21.00	20.88	22.5	0		
3	QPSK	8	7	20.94	21.00	20.90				
3	QPSK	15	0	21.07	21.12	20.99				
3	16QAM	1	0	21.00	20.98	20.90				
3	16QAM	1	8	20.86	20.92	20.92	22.5	0		
3	16QAM	1	14	21.08	21.08	20.99				
3	16QAM	8	0	20.98	21.02	20.89				
3	16QAM	8	4	20.93	21.02	20.98	22.5	0		
3	16QAM	8	7	21.03	21.09	20.95				
3	16QAM	15	0	20.98	20.95	20.88				
3	64QAM	1	0	21.09	21.11	20.96	22.5	0		
3	64QAM	1	8	20.94	20.99	20.99				
3	64QAM	1	14	20.95	21.02	20.89				
3	64QAM	8	0	20.64	20					



Band 25 Main PA Ant2 DSI1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Middle Ch / Freq	Power High Ch / Freq	Turn-up (min)	MPR (dB)		
Channel										
	Frequency (MHz)			1850	1880	1905				
20	QPSK	1	0	20.98	21.23	21.08	22.5	0		
20	QPSK	1	49	20.98	21.23	21.08	22.5	0		
20	QPSK	1	99	20.98	21.08	20.98	22.5	0		
20	QPSK	50	0	21.05	21.10	21.11	22.5	0		
20	QPSK	50	24	21.02	21.10	21.08	22.5	0		
20	QPSK	50	50	20.85	21.03	20.94	22.5	0		
20	QPSK	100	0	21.07	21.14	21.10	22.5	0		
20	16QAM	1	0	20.95	21.10	21.05	22.5	0		
20	16QAM	1	49	20.95	21.07	21.02	22.5	0		
20	16QAM	1	99	21.04	21.12	21.09	22.5	0		
20	16QAM	50	0	21.01	21.09	21.13	22.5	0		
20	16QAM	50	24	20.95	21.07	20.92	22.5	0		
20	16QAM	50	50	21.07	21.14	21.08	22.5	0		
20	16QAM	100	0	21.01	21.10	21.07	22.5	0		
20	16QAM	1	0	21.00	21.10	21.13	22.5	0		
20	64QAM	1	49	21.04	21.10	21.08	22.5	0		
20	64QAM	1	99	20.93	20.98	20.97	22.5	0		
20	64QAM	50	0	20.95	20.99	20.97	22.5	0		
20	64QAM	50	24	20.97	20.96	20.98	22.5	0.5		
20	64QAM	50	50	20.91	20.97	20.97	22.5	0.5		
20	64QAM	100	0	20.96	20.98	20.98	22.5	0.5		
20	256QAM	1	49	18.96	18.72	18.59	20	2.5		
20	256QAM	1	99	18.71	18.75	18.66	20	2.5		
20	256QAM	50	0	18.74	18.68	18.62	20	2.5		
20	256QAM	50	24	18.96	18.69	18.57	20	2.5		
20	256QAM	50	50	18.60	18.68	18.61	20	2.5		
20	256QAM	100	0	18.63	18.69	18.65	20	2.5		
Channel										
	Frequency (MHz)			1875	1880	1907.5	Turn-up (min)	MPR (dB)		
15	QPSK	1	0	21.08	21.21	21.11	22.5	0		
15	QPSK	1	37	20.96	21.18	21.08	22.5	0		
15	QPSK	1	74	20.84	21.06	20.97	22.5	0		
15	QPSK	36	0	21.00	21.21	21.11	22.5	0		
15	QPSK	36	20	21.06	21.16	21.08	22.5	0		
15	QPSK	36	36	20.93	21.03	20.98	22.5	0		
15	QPSK	75	0	21.02	21.20	21.11	22.5	0		
15	16QAM	1	0	21.03	21.14	21.02	22.5	0		
15	16QAM	1	37	20.98	21.03	21.02	22.5	0		
15	16QAM	1	74	21.07	21.20	21.11	22.5	0		
15	16QAM	36	0	21.05	21.18	21.13	22.5	0		
15	16QAM	36	20	20.85	21.01	20.92	22.5	0		
15	16QAM	36	36	21.07	21.16	21.07	22.5	0		
15	16QAM	75	0	21.05	21.08	21.13	22.5	0		
15	64QAM	1	0	21.02	21.20	21.13	22.5	0		
15	64QAM	1	37	20.96	21.08	21.08	22.5	0		
15	64QAM	1	74	20.88	21.04	20.93	22.5	0		
15	64QAM	36	0	20.44	20.55	20.46	22	0.5		
15	64QAM	36	20	20.49	20.46	20.43	22	0.5		
15	64QAM	36	36	20.47	20.57	20.55	22	0.5		
15	64QAM	75	0	20.43	20.61	20.43	22	0.5		
15	256QAM	1	37	18.84	18.72	18.67	20	2.5		
15	256QAM	1	74	18.54	18.65	18.45	20	2.5		
15	256QAM	1	74	18.83	18.70	18.52	20	2.5		
15	256QAM	36	0	18.53	18.58	18.58	20	2.5		
15	256QAM	36	20	18.57	18.60	18.47	20	2.5		
15	256QAM	36	36	18.48	18.53	18.53	20	2.5		
15	256QAM	75	0	18.56	18.55	18.42	20	2.5		
Channel										
	Frequency (MHz)			1890	1894	1904	Turn-up (min)	MPR (dB)		
10	QPSK	1	0	21.04	21.18	21.11	22.5	0		
10	QPSK	1	25	20.94	21.17	21.11	22.5	0		
10	QPSK	1	49	20.92	21.08	20.91	22.5	0		
10	QPSK	25	0	21.01	21.18	21.11	22.5	0		
10	QPSK	25	12	21.02	21.13	21.03	22.5	0		
10	QPSK	25	25	20.93	21.00	21.00	22.5	0		
10	QPSK	50	0	20.95	21.10	21.11	22.5	0		
10	16QAM	1	0	20.96	21.12	21.11	22.5	0		
10	16QAM	1	25	20.85	21.00	21.02	22.5	0		
10	16QAM	1	49	21.05	21.18	21.11	22.5	0		
10	16QAM	25	0	20.99	21.12	21.10	22.5	0		
10	16QAM	25	12	20.90	21.00	20.91	22.5	0		
10	16QAM	25	25	20.98	21.10	21.07	22.5	0		
10	16QAM	50	0	21.04	21.10	21.09	22.5	0		
10	64QAM	1	0	21.00	21.11	21.07	22.5	0		
10	64QAM	1	25	20.96	21.13	21.11	22.5	0		
10	64QAM	1	49	20.92	21.01	20.90	22.5	0		
10	64QAM	25	0	20.47	20.59	20.46	22	0.5		
10	64QAM	25	12	20.45	20.45	20.48	22	0.5		
10	64QAM	25	25	20.55	20.60	20.61	22	0.5		
10	64QAM	50	0	20.41	20.63	20.46	22	0.5		
10	256QAM	1	49	18.65	18.72	18.58	20	2.5		
10	256QAM	1	25	18.63	18.64	18.51	20	2.5		
10	256QAM	1	49	18.67	18.62	18.51	20	2.5		
10	256QAM	25	0	18.51	18.52	18.57	20	2.5		
10	256QAM	25	12	18.45	18.60	18.50	20	2.5		
10	256QAM	25	25	18.50	18.50	18.57	20	2.5		
10	256QAM	50	0	18.49	18.60	18.48	20	2.5		
Channel										
	Frequency (MHz)			1895	1890	1910	Turn-up (min)	MPR (dB)		
5	QPSK	1	0	21.06	21.18	21.11	22.5	0		
5	QPSK	1	12	21.08	21.10	21.10	22.5	0		
5	QPSK	1	24	20.91	20.99	20.99	22.5	0		
5	QPSK	12	0	21.01	21.18	21.13	22.5	0		
5	QPSK	12	7	21.04	21.13	21.04	22.5	0		
5	QPSK	12	13	20.91	20.99	20.98	22.5	0		
5	QPSK	25	0	21.05	21.12	21.12	22.5	0		
5	16QAM	1	0	20.99	21.14	21.14	22.5	0		
5	16QAM	1	12	20.93	20.99	20.97	22.5	0		
5	16QAM	1	24	20.99	21.25	21.05	22.5	0		
5	16QAM	12	0	20.98	21.18	21.03	22.5	0		
5	16QAM	12	7	20.87	20.95	20.96	22.5	0		
5	16QAM	12	13	21.08	21.18	21.13	22.5	0		
5	64QAM	1	0	21.07	21.14	21.08	22.5	0		
5	64QAM	1	12	20.98	21.19	21.04	22.5	0		
5	64QAM	1	24	20.95	20.90	21.02	22.5	0		
5	64QAM	12	0	20.52	20.62	20.48	22	0.5		
5	64QAM	12	7	20.50	20.54	20.54	22	0.5		
5	64QAM	12	13	20.56	20.57	20.55	22	0.5		
5	64QAM	25	0	20.51	20.50	20.49	22	0.5		
5	256QAM	1	12	18.60	18.57	18.60	20	2.5		
5	256QAM	1	24	18.58	18.63	18.48	20	2.5		
5	256QAM	1	12	18.58	18.60	18.48	20	2.5		
5	256QAM	12	0	18.60	18.68	18.57	20	2.5		
5	256QAM	12	7	18.54	18.58	18.58	20	2.5		
5	256QAM	12	13	18.41	18.62	18.50	20	2.5		
5	256QAM	25	0	18.55	18.50	18.50	20	2.5		
Channel										
	Frequency (MHz)			1905	1904	1906.5	Turn-up (min)	MPR (dB)		
3	QPSK	1	0	21.00	21.15	21.03	22.5	0		
3	QPSK	1	8	21.00	21.18	21.03	22.5	0		
3	QPSK	1	14	20.91	21.02	20.94	22.5	0		
3	QPSK	8	0	20.98	21.11	21.08	22.5	0		
3	QPSK	8	4	21.06	21.18	21.11	22.5	0		
3	QPSK	8	7	20.87	20.92	21.00	22.5	0		
3	QPSK	15	0	21.08	21.1					



Band 38 Main PA Ant2 DS1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.22	23.27	23.13				
20	QPSK	1	49	23.22	23.15	23.09		23.5	0	
20	QPSK	50	24	23.10	23.15	23.08				
20	QPSK	50	0	23.17	23.26	23.22				
20	QPSK	50	24	23.10	23.15	23.15		23.5	0	
20	QPSK	100	0	23.15	23.22	23.21				
20	16QAM	1	0	23.08	23.20	23.16		23.5	0	
20	16QAM	1	49	23.10	23.13	23.08				
20	16QAM	1	99	23.17	23.26	23.26				
20	16QAM	50	0	23.11	23.22	23.15				
20	16QAM	50	24	23.06	23.14	23.06				
20	16QAM	50	50	23.21	23.22	23.19		23.5	0	
20	16QAM	100	0	23.13	23.15	23.05				
20	16QAM	100	0	23.05	23.16	23.09				
20	16QAM	1	49	23.05	23.22	23.16		23.5	0	
20	16QAM	1	99	23.06	23.20	23.13				
20	16QAM	50	0	22.22	22.27	22.21				
20	16QAM	50	24	22.08	22.22	22.08		22.5	1	
20	16QAM	50	50	22.20	22.27	22.19				
20	16QAM	100	0	22.16	22.22	22.19				
20	25QAM	1	0	20.26	20.30	20.24				
20	25QAM	1	49	20.26	20.23	20.13		20.5	3	
20	25QAM	1	99	20.18	20.24	20.12				
20	25QAM	50	0	20.24	20.25	20.16				
20	25QAM	50	24	20.23	20.16	20.11		20.5	3	
20	25QAM	50	50	20.08	20.20	20.11				
20	25QAM	100	0	20.09	20.13	20.08				
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.23	23.24	23.23				
15	QPSK	1	37	23.04	23.14	23.14		23.5	0	
15	QPSK	1	74	23.12	23.11	23.07				
15	QPSK	36	0	23.22	23.25	23.19				
15	QPSK	36	20	23.08	23.15	23.18		23.5	0	
15	16QAM	1	0	23.09	23.17	23.06				
15	16QAM	1	74	23.14	23.23	23.20		23.5	0	
15	16QAM	36	0	23.18	23.24	23.11				
15	16QAM	36	20	23.04	23.16	23.08		23.5	0	
15	16QAM	36	59	23.27	23.28	23.20				
15	16QAM	75	0	23.15	23.13	23.02				
15	16QAM	1	0	23.12	23.14	23.14				
15	16QAM	1	37	23.10	23.23	23.08		23.5	0	
15	16QAM	1	74	23.07	23.18	23.06				
15	16QAM	36	0	23.11	23.17	23.13				
15	16QAM	36	20	21.94	22.14	22.10		22.5	1	
15	16QAM	36	59	23.05	23.11	23.05				
15	16QAM	75	0	21.95	22.11	22.00				
15	25QAM	1	0	20.21	20.22	20.10		20.5	3	
15	25QAM	1	37	20.20	20.12	20.00				
15	25QAM	1	74	20.07	20.15	20.00				
15	25QAM	36	0	20.04	20.19	20.11				
15	25QAM	36	20	19.92	20.08	20.05		20.5	3	
15	25QAM	36	59	19.88	20.12	20.03				
15	25QAM	75	0	20.03	20.07	19.90				
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.16	23.27	23.18				
10	QPSK	1	25	23.08	23.19	23.13		23.5	0	
10	QPSK	1	49	23.15	23.21	23.08				
10	QPSK	25	0	23.22	23.30	23.17				
10	QPSK	25	12	23.05	23.13	23.14		23.5	0	
10	QPSK	25	25	23.04	23.16	23.00				
10	16QAM	1	0	23.16	23.25	23.15				
10	16QAM	1	0	23.10	23.25	23.15				
10	16QAM	1	25	23.06	23.16	23.08		23.5	0	
10	16QAM	1	49	23.18	23.26	23.11				
10	16QAM	25	0	23.08	23.27	23.19				
10	16QAM	25	12	23.05	23.16	23.05		23.5	0	
10	16QAM	25	19	23.05	23.16	23.05				
10	16QAM	25	26	23.22	23.20	23.23				
10	16QAM	50	0	23.11	23.13	23.02				
10	16QAM	1	0	23.07	23.12	23.05				
10	16QAM	1	25	23.00	23.20	23.12		23.5	0	
10	16QAM	1	49	22.99	23.18	23.07				
10	16QAM	25	0	22.12	22.18	22.12		22.5	1	
10	16QAM	25	12	22.02	22.13	21.96				
10	16QAM	25	19	22.11	22.17	22.05				
10	16QAM	50	0	22.04	22.14	22.07				
10	25QAM	1	0	20.20	20.18	20.11				
10	25QAM	1	25	20.11	20.13	20.01		20.5	3	
10	25QAM	1	49	20.14	20.15	20.03				
10	25QAM	25	0	20.04	20.17	20.10				
10	25QAM	25	12	19.91	20.04	19.97		20.5	3	
10	25QAM	25	19	19.93	20.06	20.00				
10	25QAM	50	0	19.98	20.09	19.91				
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.18	23.26	23.12		23.5	0	
5	QPSK	1	19	23.04	23.12	23.12				
5	QPSK	1	24	23.09	23.10	23.05				
5	QPSK	12	0	23.22	23.24	23.16				
5	QPSK	12	7	23.13	23.21	23.15		23.5	0	
5	QPSK	12	19	23.00	23.12	23.01				
5	QPSK	25	0	23.16	23.21	23.26				
5	QPSK	25	0	23.07	23.14	23.12				
5	16QAM	1	12	23.05	23.16	23.13		23.5	0	
5	16QAM	1	24	23.19	23.26	23.26				
5	16QAM	12	0	23.06	23.22	23.16				
5	16QAM	12	7	23.08	23.14	23.07		23.5	0	
5	16QAM	12	13	23.16	23.16	23.14				
5	16QAM	25	0	23.13	23.12	23.06				
5	16QAM	1	0	23.12	23.18	23.07		23.5	0	
5	16QAM	1	12	22.96	23.22	23.11				
5	16QAM	1	24	23.09	23.22	23.09				
5	16QAM	12	0	22.10	22.21	22.14		22.5	1	
5	16QAM	12	7	22.05	22.15	22.00				
5	16QAM	12	13	22.16	22.18	22.06				
5	16QAM	25	0	20.17	20.15	20.15				
5	25QAM	1	12	20.16	20.16	20.03		20.5	3	
5	25QAM	1	24	20.10	20.11	20.09				
5	25QAM	12	7	19.92	20.03	19.97		20.5	3	
5	25QAM	12	13	20.01	20.16	20.07				
5	25QAM	25	0	19.98	20.05	19.95				

Band 41 Main PA Ant2 DS1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.23	23.25	23.19				
20	QPSK	1	49	23.03	23.17	23.20		23.5	0	
20	QPSK	1	99	23.18	23.19	23.20				
20	QPSK	50	0	23.10	23.20	23.22				
20	QPSK	50	24	23.00	23.21	23.21		23.5	0	
20	QPSK	100	0	23.19	23.26	23.42				
20	QPSK	100	0	22.08	23.20	23.26		23.5	0	
20	16QAM	1	0	23.14	23.21	23.26				
20	16QAM	1	99	23.17	23.22	23.29				
20	16QAM	50	0	23.09	23.26	23.27		23.5	0	
20	16QAM	50	24	23.12	23.19	23.26				
20	16QAM	50	50	23.18	23.26	23.26		23.5	0	
20	16QAM	100	0	23.04	23.21	23.22				
20	16QAM	100	0	23.14	23.21	23.23				
20	16QAM	1	49	23.07	23.23	23.28		23.5	0	
20	16QAM	1	99	23.17	23.19	23.28				
20	16QAM	50	0	22.20	22.24	22.20				
20	16QAM	50	24	22.09	22.25	22.28		22.5	1	
20	16QAM	50	50	22.02	22.28	22.27				
20	16QAM	100	0	22.21	22.23	22.27				
20	25QAM	1	0	20.27	20.23	20.26		20.5	3	
20	25QAM	1	49	20.24	20.23	20.13				
20	25QAM	1	99	20.21	20.26	20.26				
20	25QAM	50	0	20.27	20.22	20.20		20.5	3	
20	25QAM	50	24	20.14	20.14	20.20				
20	25QAM	50	50	20.13	20.21	20.29		20.5	3	
20	25QAM	100	0	20.20	20.13	20.04				
Channel										
Frequency (MHz)										
16	QPSK	1	0	23.24	23.25	23.23				
16	QPSK	1	37	22.99	23.14	23.20		24	0	
16	QPSK	1	74	23.16	23.13	23.04				
16	QPSK	36	0	23.18	23.26	23.24				
16	QPSK	36	20	22.95	23.21	23.20		23.5	0	
16	QPSK	36	59	23.21	23.31	23.44				
16	16QAM	1	0	23.01	23.21	23.22		23.5	0	
16	16QAM	1	74	23.15	23.26	23.28				
16	16QAM	1	74	23.22	23.28	23.25				
16	16QAM	36	0	23						



Band 4 Main PA Ant3										
BW (MHz)	Modulation	RIS Size	RIS Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.52	22.61	22.67				
20	QPSK	1	49	22.52	22.61	22.67			24.5	0
20	QPSK	1	99	22.52	22.61	22.67				
20	QPSK	50	0	21.50	21.55	21.51				
20	QPSK	50	24	21.51	21.51	21.50			23.5	1
20	QPSK	50	50	21.53	21.51	21.50				
20	QPSK	100	0	21.50	21.57	21.52				
20	16QAM	100	0	21.51	21.61	21.55				
20	16QAM	1	49	21.53	21.55	21.59			23.5	1
20	16QAM	1	99	21.54	21.51	21.53				
20	16QAM	50	0	20.74	20.75	20.75				
20	16QAM	50	24	20.69	20.73	20.67			22.5	2
20	16QAM	50	50	20.73	20.77	20.73				
20	16QAM	100	0	20.68	20.74	20.63				
20	84QAM	1	0	20.54	20.55	20.62				
20	84QAM	1	49	20.57	20.59	20.50			22.5	2
20	84QAM	50	0	19.59	19.57	19.51				
20	84QAM	50	24	19.53	19.58	19.52			21.5	3
20	84QAM	50	50	19.58	19.55	19.56				
20	84QAM	100	0	19.52	19.52	19.59				
20	256QAM	1	49	17.55	17.59	17.64				
20	256QAM	1	99	17.55	17.54	17.54			19.5	5
20	256QAM	50	0	17.54	17.58	17.58				
20	256QAM	50	24	17.54	17.68	17.58				
20	256QAM	50	50	17.60	17.72	17.67			19.5	5
20	256QAM	100	0	17.61	17.68	17.65				
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.57	22.56	22.54				
15	QPSK	1	37	22.54	22.54	22.54			24.5	0
15	QPSK	1	74	22.54	22.56	22.54				
15	QPSK	36	0	21.53	21.58	21.62				
15	QPSK	36	25	21.58	21.51	21.64			23.5	1
15	QPSK	36	39	21.50	21.59	21.54				
15	QPSK	75	0	21.52	21.59	21.56				
15	16QAM	75	0	21.60	21.55	21.65				
15	16QAM	1	37	21.58	21.57	21.73			23.5	1
15	16QAM	1	74	21.57	21.59	21.72				
15	16QAM	36	0	20.79	20.84	20.72				
15	16QAM	36	25	20.75	20.80	20.70			22.5	2
15	16QAM	36	39	20.79	20.84	20.72				
15	16QAM	75	0	20.84	20.84	20.79				
15	84QAM	1	0	20.38	20.38	20.50				
15	84QAM	1	37	20.39	20.41	20.42			22.5	2
15	84QAM	36	0	19.53	19.58	19.54				
15	84QAM	36	25	19.57	19.53	19.57			21.5	3
15	84QAM	36	39	19.57	19.70	19.62				
15	84QAM	75	0	19.55	19.57	19.57				
15	256QAM	1	37	17.50	17.51	17.51				
15	256QAM	1	74	17.64	17.53	17.52			19.5	5
15	256QAM	36	0	17.56	17.52	17.52				
15	256QAM	36	25	17.52	17.72	17.65				
15	256QAM	36	39	17.74	17.76	17.69			19.5	5
15	256QAM	75	0	17.61	17.68	17.67				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.00	22.01	22.03				
10	QPSK	1	25	22.05	22.05	22.04			24.5	0
10	QPSK	1	49	22.08	22.09	22.00				
10	QPSK	12	0	21.76	21.82	21.81				
10	QPSK	25	12	21.82	21.82	21.84			23.5	0.5
10	QPSK	25	25	21.86	21.73	21.83				
10	QPSK	36	0	20.54	20.52	20.58				
10	QPSK	36	39	21.71	21.81	21.76			23	0.5
10	16QAM	36	0	21.76	21.71	21.72				
10	16QAM	1	25	21.54	21.65	21.48			23.5	0.5
10	16QAM	1	49	21.61	21.59	21.75				
10	16QAM	36	0	20.83	20.73	20.58				
10	16QAM	36	20	20.43	20.58	20.43			22	1.5
10	16QAM	36	39	20.52	20.69	20.52				
10	16QAM	75	0	20.53	20.61	20.47				
10	84QAM	1	0	20.30	20.41	20.42			22	1.5
10	84QAM	1	25	20.35	20.41	20.32				
10	84QAM	1	49	20.35	20.40	20.32				
10	84QAM	36	0	19.59	19.65	19.60			21	2.5
10	84QAM	36	20	19.63	19.59	19.63				
10	84QAM	36	39	19.54	19.70	19.55				
10	84QAM	75	0	19.43	19.59	19.50				
10	QPSK	12	0	17.70	17.72	17.72				
10	QPSK	12	37	17.84	17.78	17.65			19	4.5
10	256QAM	1	74	17.58	17.66	17.70				
10	256QAM	36	0	17.72	17.72	17.72				
10	256QAM	36	20	17.49	17.63	17.58			19	4.5
10	256QAM	36	39	17.59	17.69	17.63				
10	256QAM	75	0	17.67	17.61	17.68				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.00	22.01	22.03				
5	QPSK	1	12	22.01	22.12	22.07			23.5	0
5	QPSK	1	24	21.84	22.02	21.90				
5	QPSK	12	0	21.76	21.87	21.81				
5	QPSK	12	7	21.72	21.83	21.83			23	0.5
5	QPSK	12	13	21.68	21.73	21.81				
5	QPSK	25	0	21.74	21.83	21.79				
5	16QAM	1	0	21.74	21.71	21.68			23	0.5
5	16QAM	1	25	21.52	21.66	21.58				
5	16QAM	1	49	21.61	21.62	21.68				
5	16QAM	36	0	20.59	20.71	20.55				
5	16QAM	36	12	20.47	20.63	20.48			22	1.5
5	16QAM	36	25	20.56	20.69	20.57				
5	16QAM	50	0	20.49	20.63	20.50				
5	16QAM	1	0	20.39	20.47	20.37			22	1.5
5	84QAM	1	25	20.31	20.43	20.23				
5	84QAM	1	49	20.35	20.42	20.32				
5	84QAM	25	0	19.58	19.65	19.59			21	2.5
5	84QAM	25	12	19.50	19.62	19.50				
5	84QAM	50	0	19.40	19.55	19.43				
5	256QAM	1	25	17.72	17.82	17.68			19	4.5
5	256QAM	1	49	17.63	17.86	17.65				
5	256QAM	36	0	17.70	17.75	17.64				
5	256QAM	36	12	17.43	17.59	17.58			19	4.5
5	256QAM	25	0	17.68	17.70	17.64				
5	256QAM	50	0	17.67	17.61	17.68				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.00	22.01	22.03				
5	QPSK	1	12	22.01	22.13	22.03			23.5	0
5	QPSK	1	24	21.84	22.02	21.90				
5	QPSK	12	0	21.76	21.87	21.81				
5	QPSK	12	7	21.72	21.83	21.83			23	0.5
5	QPSK	12	13	21.68	21.73	21.81				
5	QPSK	25	0	21.74	21.83	21.79				
5	16QAM	1	0	21.74	21.71	21.68			23	0.5
5	16QAM	1	12	21.48	21.66	21.62			23	0.5
5	16QAM	1	24	21.43	21.60	21.53				
5	16QAM	12	0	20.85	20.76	20.68				
5	16QAM	12	7	20.45	20.61	20.51			22	1.5
5	16QAM	12	13	20.83	20.71	20.65				
5	16QAM	25	0	20.48	20.58	20.51				
5	84QAM	1	0	20.32	20.41	20.41			22	1.5
5	84QAM	1	12	20.33	20.44	20.27				
5	84QAM	1	24	20.31	20.39	20.28				
5	84QAM	12	0	19.68	19.74	19.57			21	2.5
5	84QAM	12	7	19.48	19.60	19.54				
5	84QAM									



Band 38 Main PA Ant3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	22.94	23.12	23.30	24.5	0	
20	QPSK	1	49	22.80	23.04	23.24			
20	QPSK	36	0	22.80	23.04	23.24			
20	QPSK	50	0	22.80	23.04	23.24			
20	QPSK	50	24	22.80	23.04	23.24			
20	QPSK	100	0	22.80	23.04	23.24	23.5	1	
20	16QAM	1	0	22.94	23.10	23.26			
20	16QAM	1	49	21.95	22.04	22.13			
20	16QAM	1	99	21.95	22.05	22.15			
20	16QAM	50	0	21.95	22.10	22.25			
20	16QAM	50	24	21.95	22.10	22.25	22.5	2	
20	16QAM	100	0	21.95	22.10	22.25			
20	16QAM	100	0	20.73	20.83	20.93			
20	16QAM	100	49	20.70	20.77	20.88			
20	16QAM	100	99	20.70	20.77	20.88			
20	16QAM	50	0	20.24	20.37	20.50	21.5	3	
20	16QAM	50	24	19.95	20.08	20.20			
20	16QAM	100	0	19.95	20.13	20.24			
20	16QAM	100	0	19.94	20.05	20.16			
20	16QAM	100	0	17.84	17.97	18.10			
20	256QAM	1	49	17.84	17.94	18.04	19.5	5	
20	256QAM	1	99	17.79	17.89	17.99			
20	256QAM	50	0	17.79	17.89	17.99			
20	256QAM	50	24	17.08	17.18	17.28			
20	256QAM	50	50	17.08	17.18	17.28			
20	256QAM	100	0	17.08	17.18	17.28	19.5	5	
20	256QAM	100	0	17.08	17.18	17.28			
20	256QAM	100	0	17.08	17.18	17.28			
20	256QAM	100	0	17.08	17.18	17.28			
20	256QAM	100	0	17.08	17.18	17.28			
Channel									
Frequency (MHz)									
15	QPSK	1	0	22.72	22.92	23.12	24.5	0	
15	QPSK	1	37	22.82	23.02	23.22			
15	QPSK	1	74	22.86	23.06	23.26			
15	QPSK	36	0	21.94	22.14	22.34			
15	QPSK	36	20	21.94	22.14	22.34			
15	QPSK	75	0	22.00	22.20	22.40	23.5	1	
15	16QAM	1	0	22.21	22.36	22.51			
15	16QAM	1	37	21.88	21.97	22.06			
15	16QAM	1	74	21.88	21.97	22.06			
15	16QAM	36	0	20.95	21.08	21.24			
15	16QAM	36	20	20.95	21.08	21.24	22.5	2	
15	16QAM	75	0	20.93	21.02	21.11			
15	16QAM	75	0	20.71	20.75	20.81			
15	16QAM	1	37	20.58	20.68	20.80			
15	16QAM	1	74	20.51	20.60	20.68			
15	16QAM	36	0	19.96	20.02	20.09	21.5	3	
15	16QAM	36	20	19.87	19.94	19.93			
15	16QAM	75	0	19.94	19.94	19.94			
15	16QAM	75	0	17.73	17.82	17.91			
15	16QAM	75	0	17.73	17.82	17.91			
15	256QAM	1	37	17.69	17.81	17.93	19.5	5	
15	256QAM	1	74	17.69	17.81	17.93			
15	256QAM	36	0	18.02	18.06	18.10			
15	256QAM	36	20	17.90	17.92	18.00			
15	256QAM	36	39	18.04	18.01	18.02			
15	256QAM	75	0	17.82	17.96	18.10	19.5	5	
15	256QAM	75	0	17.82	17.96	18.10			
15	256QAM	75	0	17.82	17.96	18.10			
15	256QAM	75	0	17.82	17.96	18.10			
15	256QAM	75	0	17.82	17.96	18.10			
Channel									
Frequency (MHz)									
10	QPSK	1	0	22.28	22.49	22.70	24.5	0	
10	QPSK	1	25	22.27	22.46	22.65			
10	QPSK	1	49	22.82	23.01	23.24			
10	QPSK	36	0	22.04	22.22	22.40			
10	QPSK	36	12	22.01	22.07	22.06			
10	QPSK	25	25	22.96	23.00	23.00	23.5	1	
10	16QAM	1	0	21.96	22.05	22.14			
10	16QAM	1	25	21.96	22.05	22.14			
10	16QAM	1	49	21.87	21.93	21.99			
10	16QAM	25	0	20.95	21.08	21.24			
10	16QAM	25	12	20.87	20.99	21.10	22.5	2	
10	16QAM	25	19	20.87	20.99	21.10			
10	16QAM	25	25	20.88	20.95	21.00			
10	16QAM	1	0	20.68	20.72	20.88			
10	16QAM	1	25	20.65	20.70	20.78			
10	16QAM	1	49	20.57	20.62	20.62	22.5	2	
10	16QAM	25	0	20.09	20.14	20.07			
10	16QAM	25	12	19.91	20.00	19.98			
10	16QAM	25	25	20.08	20.07	19.95			
10	16QAM	50	0	19.91	19.91	19.92			
10	256QAM	1	0	17.70	17.85	17.81	19.5	5	
10	256QAM	1	25	17.72	17.82	17.73			
10	256QAM	1	49	17.70	17.82	17.83			
10	256QAM	25	0	17.59	18.05	17.93			
10	256QAM	25	12	17.68	18.00	17.96			
10	256QAM	25	25	17.07	18.02	17.99	19.5	5	
10	256QAM	25	25	17.07	18.02	17.99			
10	256QAM	50	0	17.88	17.87	17.82			
10	256QAM	50	0	17.88	17.87	17.82			
10	256QAM	50	0	17.88	17.87	17.82			
Channel									
Frequency (MHz)									
5	QPSK	1	0	22.90	23.01	23.09	24.5	0	
5	QPSK	1	19	22.78	22.92	22.87			
5	QPSK	1	24	22.78	22.84	22.82			
5	QPSK	12	0	22.02	22.14	22.09			
5	QPSK	12	7	22.03	22.12	22.09			
5	QPSK	12	19	22.00	22.02	21.96	23.5	1	
5	QPSK	25	0	21.97	22.05	21.96			
5	16QAM	1	0	21.93	22.04	21.89			
5	16QAM	1	12	21.84	21.95	21.90			
5	16QAM	1	24	21.84	21.96	21.86			
5	16QAM	12	7	20.87	20.99	20.94	22.5	2	
5	16QAM	12	13	20.86	20.97	20.93			
5	16QAM	25	0	20.84	20.91	20.90			
5	16QAM	1	0	20.89	20.74	20.88			
5	16QAM	1	12	20.97	20.84	20.98			
5	16QAM	1	24	20.94	20.70	20.95	22.5	2	
5	16QAM	12	13	20.97	20.10	19.91			
5	16QAM	25	0	19.96	20.09	19.98			
5	16QAM	25	0	19.93	19.94	19.92			
5	16QAM	1	0	17.80	17.88	17.79			
5	256QAM	1	12	17.79	17.81	17.75	19.5	5	
5	256QAM	1	24	17.74	17.82	17.83			
5	256QAM	12	0	18.00	18.14	17.92			
5	256QAM	12	7	17.94	18.02	17.86			
5	256QAM	12	13	17.97	18.11	18.03			
5	256QAM	25	0	17.82	17.94	17.86	19.5	5	
5	256QAM	25	0	17.82	17.94	17.86			
5	256QAM	25	0	17.82	17.94	17.86			
5	256QAM	25	0	17.82	17.94	17.86			
5	256QAM	25	0	17.82	17.94	17.86			

Band 41 Main PA Ant3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	23.12	23.30	23.48	24.5	0	
20	QPSK	1	49	23.03	23.28	23.12			
20	QPSK	36	0	22.91	23.12	23.07			
20	QPSK	50	0	22.30	22.20	22.21			
20	QPSK	50	24	22.23	22.15	22.30			
20	QPSK	100	0	22.18	22.15	22.30	23.5	1	
20	16QAM	1	0	22.21	22.17	22.17			
20	16QAM	1	49	22.14	22.05	22.13			
20	16QAM	1	99	22.02	22.08	22.14			
20	16QAM	50	0	21.17	21.26	21.28			
20	16QAM	50	24	21.07	21.08	21.14	22.5	2	
20	16QAM	50	50	21.17	21.11	21.27			
20	16QAM	100	0	21.08	21.08	21.08			
20	16QAM	100	0	20.85	20.85	20.87			
20	16QAM	100	49	20.71	20.78	20.83			
20	16QAM	100	99	20.78	20.83	20.78	22.5	2	
20	16QAM	50	0	20.18	20.12	20.25			
20	16QAM	50	24	20.08	20.08	20.21			
20	16QAM	50	50	20.18	20.27	20.25			
20	16QAM	100	0	20.07	20.03	20.11			
20	256QAM	1	0	18.06	17.94	18.09	19.5	5	
20	256QAM	1	49	17.80	18.00	17.87			
20	256QAM	1	99	17.89	17.82	18.02			
20	256QAM	50	0	18.08	18.14	18.00			
20	256QAM	50	24	18.11	18.06	18.20			
20	256QAM	50	50	18.12	18.17	18.21	19.5	5	
20	256QAM	50	50	18.12	18.17	18.21			
20	256QAM	100	0	18.05	18.10	18.04			
20	256QAM	100	0	18					



Band 2 Main PA Ant4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Turn-up time (sec)	MFR (dB)		
Channel										
1860 1860 1900										
20	QPSK	1	0	23.26	23.33	23.31			24.5	0
20	QPSK	1	49	23.18	23.22	23.16				
20	QPSK	1	99	23.18	23.22	23.16				
20	QPSK	50	0	22.36	22.42	22.36			23.5	1
20	QPSK	50	24	22.36	22.38	22.34				
20	QPSK	50	50	22.16	22.31	22.23				
20	QPSK	100	0	22.33	22.37	22.28				
20	16QAM	100	0	22.72	22.74	22.72				
20	16QAM	1	49	22.68	22.78	22.68			23.5	1
20	16QAM	1	99	22.68	22.74	22.63				
20	16QAM	50	0	21.33	21.36	21.28			22.5	2
20	16QAM	50	24	21.17	21.32	21.27				
20	16QAM	50	50	21.29	21.38	21.25				
20	16QAM	100	0	21.26	21.30	21.22				
20	84QAM	1	0	21.39	21.52	21.41			22.5	2
20	84QAM	1	49	21.43	21.46	21.39				
20	84QAM	1	99	21.36	21.45	21.31				
20	84QAM	50	0	20.43	20.47	20.41			21.5	3
20	84QAM	50	24	20.59	20.38	20.31				
20	84QAM	50	50	20.35	20.34	20.30				
20	256QAM	100	0	20.22	20.35	20.30				
20	256QAM	1	49	18.40	18.47	18.33			19.5	5
20	256QAM	1	99	18.34	18.42	18.33				
20	256QAM	50	0	18.26	18.28	18.22				
20	256QAM	50	24	18.31	18.35	18.24			19.5	5
20	256QAM	50	50	18.30	18.40	18.34				
20	256QAM	100	0	18.27	18.27	18.27				
Channel										
1867.5 1860 1900.5										
15	QPSK	1	0	23.21	23.28	23.18			24.5	0
15	QPSK	1	37	23.19	23.19	23.14				
15	QPSK	1	74	23.15	23.12	23.06				
15	QPSK	36	0	22.30	22.32	22.31			23.5	1
15	QPSK	36	25	22.18	22.26	22.20				
15	QPSK	36	39	22.11	22.22	22.19				
15	QPSK	75	0	22.19	22.25	22.19				
15	16QAM	1	0	22.60	22.66	22.57			23.5	1
15	16QAM	1	37	22.62	22.70	22.62				
15	16QAM	1	74	22.54	22.58	22.51				
15	16QAM	36	0	21.20	21.30	21.16			22.5	2
15	16QAM	36	20	21.13	21.20	21.12				
15	84QAM	1	0	21.37	21.47	21.37			22.5	2
15	84QAM	1	37	21.36	21.43	21.33				
15	84QAM	1	74	21.29	21.35	21.23				
15	84QAM	36	0	20.36	20.35	20.33			21.5	3
15	84QAM	36	20	20.36	20.36	20.30				
15	84QAM	36	39	20.32	20.35	20.25				
15	84QAM	75	0	20.12	20.21	20.15				
15	256QAM	1	0	18.30	18.32	18.28			19.5	5
15	256QAM	1	37	18.27	18.41	18.30				
15	256QAM	1	74	18.30	18.39	18.19				
15	256QAM	36	0	18.26	18.26	18.22				
15	256QAM	36	20	18.18	18.25	18.11			19.5	5
15	256QAM	36	39	18.17	18.34	18.27				
15	256QAM	75	0	18.23	18.27	18.21				
Channel										
1865 1860 1905										
10	QPSK	1	0	23.18	23.24	23.16			24.5	0
10	QPSK	1	25	23.14	23.14	23.15				
10	QPSK	1	49	23.11	23.13	23.06				
10	QPSK	12	0	22.33	22.33	22.33			23.5	1
10	QPSK	12	13	22.17	22.28	22.19				
10	QPSK	25	12	22.17	22.28	22.19				
10	QPSK	25	25	22.07	22.26	22.13				
10	16QAM	1	0	22.61	22.72	22.62			23.5	1
10	16QAM	1	26	22.61	22.73	22.56				
10	16QAM	1	49	22.60	22.66	22.56				
10	16QAM	25	0	21.27	21.29	21.19			22.5	2
10	16QAM	25	12	21.09	21.23	21.15				
10	16QAM	25	49	21.18	21.27	21.14				
10	16QAM	50	0	21.17	21.16	21.15				
10	84QAM	1	0	21.26	21.43	21.33			22.5	2
10	84QAM	1	26	21.37	21.47	21.34				
10	84QAM	1	49	21.24	21.28	21.27				
10	84QAM	25	0	20.35	20.43	20.36			21.5	3
10	84QAM	25	12	20.36	20.38	20.29				
10	84QAM	25	26	20.28	20.39	20.29				
10	84QAM	50	0	20.09	20.22	20.23				
10	256QAM	1	0	18.34	18.44	18.27			19.5	5
10	256QAM	1	26	18.32	18.42	18.22				
10	256QAM	1	49	18.34	18.33	18.23				
10	256QAM	12	0	18.30	18.30	18.25				
10	256QAM	12	12	18.26	18.28	18.16			19.5	5
10	256QAM	25	25	18.22	18.29	18.19				
10	256QAM	50	0	18.23	18.34	18.21				
Channel										
1862.5 1860 1917.5										
5	QPSK	1	0	23.18	23.24	23.16			24.5	0
5	QPSK	1	12	23.13	23.13	23.06				
5	QPSK	1	24	23.04	23.13	23.02				
5	QPSK	12	0	22.33	22.33	22.33			23.5	1
5	QPSK	12	7	22.21	22.26	22.19				
5	QPSK	12	13	22.08	22.19	22.15				
5	QPSK	25	12	22.26	22.28	22.15				
5	16QAM	1	0	22.59	22.72	22.60			23.5	1
5	16QAM	1	12	22.64	22.69	22.54				
5	16QAM	1	24	22.61	22.71	22.61				
5	16QAM	12	0	21.20	21.28	21.18			22.5	2
5	16QAM	12	7	21.09	21.24	21.13				
5	16QAM	12	13	21.24	21.31	21.14				
5	16QAM	25	0	21.14	21.21	21.12				
5	84QAM	1	0	21.26	21.40	21.30			22.5	2
5	84QAM	1	12	21.37	21.42	21.24				
5	84QAM	1	24	21.24	21.30	21.21				
5	84QAM	12	0	20.29	20.39	20.35			21.5	3
5	84QAM	12	7	20.17	20.24	20.18				
5	84QAM	12	13	20.25	20.31	20.33				
5	84QAM	25	0	20.14	20.21	20.17				
5	256QAM	1	0	18.37	18.41	18.31			19.5	5
5	256QAM	1	12	18.32	18.39	18.19				
5	256QAM	1	24	18.27	18.28	18.23				
5	256QAM	12	0	18.26	18.31	18.26				
5	256QAM	12	7	18.19	18.28	18.11			19.5	5
5	256QAM	12	13	18.26	18.31	18.22				
5	256QAM	25	0	18.18	18.28	18.21				
Channel										
1861.5 1860 1918.5										
3	QPSK	1	0	23.13	23.13	23.15			24.5	0
3	QPSK	1	4	23.13	23.23	23.07				
3	QPSK	1	14	23.13	23.14	23.12				
3	QPSK	8	0	23.21	23.23	23.28			23.5	1
3	QPSK	8	4	23.23	23.31	23.14				
3	QPSK	8	7	22.10	22.19	22.20				
3	QPSK	15	0	22.22	22.27	22.18				
3	16QAM	1	0	22.64	22.77	22.60			23.5	1
3	16QAM	1	8	22.65	22.67	22.59				
3	16QAM	1	14	22.60	22.67	22.61				
3	16QAM	8	0	21.21	21.34	21.17			22.5	2
3	16QAM	8	4	21.08	21.19	21.21				
3	16QAM	8	14	21.16	21.24	21.12				
3	16QAM	15	0	21.20	21.21	21.13				
3	84QAM	1	0	21.29	21.49	21.38			22.5	2
3	84QAM	1	8	21.28	21.39	21.30				
3	84QAM	1	14	21.33	21.29	21.26				



Band 25 Main PA Ant4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Turn-up (dB)	MPR (dB)		
Channel										
	Frequency (MHz)			1860	1868	1905				
20	QPSK	1	0	20.31	20.42	20.27	24.5	0		
20	QPSK	1	49	21.29	21.34	21.24				
20	QPSK	1	99	22.16	22.29	22.21				
20	QPSK	50	0	22.24	22.32	22.26				
20	QPSK	50	24	22.22	22.22	22.21				
20	QPSK	50	50	22.16	22.24	22.12	23.5	1		
20	QPSK	100	0	22.16	22.20	22.20				
20	QPSK	100	24	22.55	22.56	22.56				
20	16QAM	1	49	22.48	22.59	22.47	23.5	1		
20	16QAM	1	99	22.52	22.55	22.43				
20	16QAM	50	0	21.31	21.38	21.28				
20	16QAM	50	24	21.19	21.28	21.15	22.5	2		
20	16QAM	50	50	21.18	21.32	21.22				
20	16QAM	100	0	21.18	21.30	21.19				
20	64QAM	1	0	21.44	21.51	21.47				
20	64QAM	1	49	21.31	21.45	21.39	22.5	2		
20	64QAM	1	99	21.27	21.41	21.28				
20	64QAM	50	0	20.31	20.42	20.32				
20	64QAM	50	24	20.19	20.33	20.22	21.5	3		
20	64QAM	50	50	20.38	20.38	20.25				
20	64QAM	100	0	20.27	20.30	20.26				
20	256QAM	1	49	18.45	18.46	18.38	19.5	5		
20	256QAM	1	99	18.38	18.42	18.32				
20	256QAM	50	0	18.28	18.41	18.28				
20	256QAM	50	24	18.27	18.31	18.18	18.5	5		
20	256QAM	50	50	18.25	18.37	18.33				
20	256QAM	100	0	18.23	18.38	18.33				
Channel										
	Frequency (MHz)			1875	1880	1907.5	Turn-up (dB)	MPR (dB)		
15	QPSK	1	0	23.20	23.36	23.13	24.5	0		
15	QPSK	1	37	23.20	23.29	23.20				
15	QPSK	1	74	23.07	23.16	23.17				
15	QPSK	36	0	22.13	22.26	22.07	23.5	1		
15	QPSK	36	20	22.15	22.11	22.07				
15	QPSK	36	36	22.12	22.09	22.06				
15	QPSK	75	0	22.09	22.16	22.11				
15	16QAM	1	49	22.45	22.54	22.49	23.5	1		
15	16QAM	1	37	22.38	22.55	22.33				
15	16QAM	36	0	21.43	21.44	21.43				
15	16QAM	36	20	21.18	21.22	21.23	22.5	2		
15	16QAM	36	36	21.13	21.18	21.08				
15	64QAM	1	0	21.35	21.46	21.37	22.5	2		
15	64QAM	1	74	21.17	21.30	21.19				
15	64QAM	36	0	20.20	20.36	20.17	21.5	3		
15	64QAM	36	20	20.33	20.28	20.17				
15	64QAM	36	36	20.22	20.25	20.19				
15	64QAM	75	0	20.22	20.23	20.16				
15	256QAM	1	49	18.34	18.46	18.28	19.5	5		
15	256QAM	1	37	18.34	18.32	18.29				
15	256QAM	1	74	18.29	18.36	18.22				
15	256QAM	36	0	18.16	18.38	18.22				
15	256QAM	36	20	18.13	18.25	18.11	18.5	5		
15	256QAM	36	36	18.15	18.32	18.28				
15	256QAM	75	0	18.13	18.28	18.28				
Channel										
	Frequency (MHz)			1895	1898	1910	Turn-up (dB)	MPR (dB)		
10	QPSK	1	0	23.27	23.38	23.27	24.5	0		
10	QPSK	1	25	23.17	23.24	23.20				
10	QPSK	1	49	23.10	23.18	23.09				
10	QPSK	25	0	22.20	22.21	22.11	23.5	1		
10	QPSK	25	12	22.16	22.19	22.07				
10	QPSK	25	25	22.04	22.11	22.01				
10	QPSK	50	0	22.06	22.16	22.11				
10	16QAM	1	0	22.42	22.50	22.47	23.5	1		
10	16QAM	1	25	22.34	22.50	22.42				
10	16QAM	25	0	21.22	21.30	21.15	22.5	2		
10	16QAM	25	12	21.14	21.17	21.08				
10	16QAM	25	25	21.05	21.16	21.15				
10	64QAM	1	0	21.32	21.38	21.44	22.5	2		
10	64QAM	1	25	21.26	21.35	21.28				
10	64QAM	1	49	21.17	21.34	21.18				
10	64QAM	25	0	20.24	20.30	20.29	21.5	3		
10	64QAM	25	12	20.25	20.28	20.18				
10	64QAM	25	25	20.23	20.33	20.20				
10	64QAM	50	0	20.20	20.22	20.20				
10	256QAM	1	49	18.40	18.43	18.33	19.5	5		
10	256QAM	1	25	18.38	18.39	18.33				
10	256QAM	1	49	18.30	18.38	18.27				
10	256QAM	25	0	18.20	18.38	18.22				
10	256QAM	25	12	18.20	18.20	18.12	19.5	5		
10	256QAM	25	25	18.11	18.25	18.20				
10	256QAM	50	0	18.20	18.20	18.24				
Channel										
	Frequency (MHz)			1895	1898	1910	Turn-up (dB)	MPR (dB)		
5	QPSK	1	0	23.24	23.33	23.15	24.5	0		
5	QPSK	1	12	23.18	23.30	23.15				
5	QPSK	1	24	23.02	23.15	23.14				
5	QPSK	12	0	22.13	22.26	22.18	23.5	1		
5	QPSK	12	7	22.09	22.21	22.16				
5	QPSK	12	12	22.08	22.14	22.09				
5	QPSK	25	0	22.09	22.21	22.18				
5	16QAM	1	0	22.47	22.51	22.45	23.5	1		
5	16QAM	1	12	22.43	22.44	22.43				
5	16QAM	1	24	22.37	22.45	22.37				
5	16QAM	12	0	21.17	21.33	21.24	22.5	2		
5	16QAM	12	7	21.07	21.24	21.07				
5	16QAM	12	12	21.08	21.22	21.08				
5	64QAM	1	0	21.39	21.43	21.32	22.5	2		
5	64QAM	1	12	21.20	21.33	21.37				
5	64QAM	1	24	21.18	21.28	21.17				
5	64QAM	12	0	20.17	20.31	20.20	21.5	3		
5	64QAM	12	7	20.08	20.20	20.13				
5	64QAM	12	12	20.20	20.30	20.20				
5	64QAM	25	0	20.19	20.16	20.21				
5	256QAM	1	18	18.31	18.38	18.33	19.5	5		
5	256QAM	1	12	18.35	18.37	18.27				
5	256QAM	1	24	18.28	18.20	18.16				
5	256QAM	12	0	18.18	18.38	18.25				
5	256QAM	12	7	18.23	18.20	18.07	19.5	5		
5	256QAM	12	12	18.12	18.32	18.21				
5	256QAM	25	0	18.14	18.28	18.25				
Channel										
	Frequency (MHz)			1905	1908	1921.5	Turn-up (dB)	MPR (dB)		
3	QPSK	1	0	23.24	23.38	23.15	24.5	0		
3	QPSK	1	8	23.18	23.24	23.16				
3	QPSK	1	14	23.03	23.22	23.08				
3	QPSK	8	0	22.16	22.21	22.11	23.5	1		
3	QPSK	8	4	22.12	22.18	22.13				
3	QPSK	8	7	22.05	22.14	22.08				
3	QPSK	15	0	22.02	22.14	22.14				
3	16QAM	1	0	22.50	22.60	22.42	23.5	1		
3	16QAM	1	8	22.38	22.48	22.38				
3	16QAM	1	15	22.44	22.46	22.30				
3	16QAM	8	0	21.20	21.23	21.22	22.5	2		
3	16QAM	8	4	21.16	21.17	21.01				
3	16QAM	8	7	21.11	21.26	21.11				
3	64QAM	1	0	21.06	21.20	21.09	22.5	2		
3	64QAM	1	8	21.39	21.44	21.39				
3	64QAM	1	15	21.27	21.38	21.30				
3	64QAM	8	0	21.13	21.38	21.16	21.5	3		
3	64QAM	8	7	20.29	20.38	20.19				



Band 38 Main PA Ant4 DSI1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid-Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				38750	38900	38150		
20	QPSK	1	0	23.66	23.72	23.82		
20	QPSK	1	49	23.59	23.69	23.56	24.2	0
20	QPSK	50	24	23.70	23.70	23.80		
20	QPSK	50	24	23.63	23.70	23.60	24.2	0
20	QPSK	100	0	23.70	23.71	23.80		
20	16QAM	1	0	23.73	23.79	23.56	24.2	0
20	16QAM	1	49	23.61	23.76	23.60		
20	16QAM	1	99	23.58	23.68	23.56		
20	16QAM	50	24	23.21	23.28	23.20	23.7	0.5
20	16QAM	50	24	23.27	23.30	23.24		
20	16QAM	100	0	23.26	23.24	23.29		
20	16QAM	100	0	23.18	23.21	23.18		
20	16QAM	1	49	23.88	23.19	23.13	23.7	0.5
20	16QAM	1	99	23.06	23.17	23.06		
20	16QAM	50	24	22.28	22.25	22.12	22.7	1.5
20	16QAM	50	24	22.21	22.22	22.19		
20	16QAM	100	0	22.13	22.17	22.13		
20	25QAM	1	0	20.23	20.28	20.19	20.7	3.5
20	25QAM	1	49	20.19	20.16	20.09		
20	25QAM	1	99	20.00	20.07	19.95		
20	25QAM	50	24	20.09	20.12	20.06		
20	25QAM	50	24	20.00	20.10	20.04	20.7	3.5
20	25QAM	50	24	20.14	20.18	20.08		
20	25QAM	100	0	20.05	20.17	20.08		
Channel								
Frequency (MHz)				38725	38900	38175	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	0	23.72	23.78	23.72		
15	QPSK	1	37	23.66	23.77	23.82	24.2	0
15	QPSK	1	74	23.66	23.88	23.47		
15	QPSK	36	20	23.59	23.76	23.65	24.2	0
15	QPSK	36	20	23.59	23.76	23.65		
15	QPSK	75	0	23.75	23.73	23.58		
15	16QAM	1	0	23.73	23.73	23.56	24.2	0
15	16QAM	1	37	23.61	23.71	23.54		
15	16QAM	36	0	23.07	23.22	23.06	23.7	0.5
15	16QAM	36	20	23.10	23.16	23.13		
15	16QAM	36	39	23.10	23.21	23.16		
15	16QAM	75	0	23.07	23.15	23.11		
15	16QAM	75	0	23.04	23.18	23.10		
15	16QAM	1	37	23.03	23.11	23.07	23.7	0.5
15	16QAM	74	0	22.92	23.04	22.93		
15	16QAM	36	0	22.10	22.23	22.11	22.7	1.5
15	16QAM	36	20	22.08	22.10	22.03		
15	16QAM	75	0	22.05	22.10	22.04		
15	25QAM	1	0	20.14	20.14	20.08	20.7	3.5
15	25QAM	1	37	19.98	19.93	19.86		
15	25QAM	1	74	19.96	19.96	19.82		
15	25QAM	36	0	19.99	20.02	19.97	20.7	3.5
15	25QAM	36	20	19.99	20.02	19.97		
15	25QAM	36	39	20.01	20.05	19.99		
15	25QAM	75	0	19.99	20.13	19.86		
Channel								
Frequency (MHz)				38700	38900	38150	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	0	23.76	23.80	23.67		
10	QPSK	1	25	23.67	23.69	23.62	24.2	0
10	QPSK	1	49	23.51	23.66	23.54		
10	QPSK	25	12	23.74	23.76	23.66		
10	QPSK	25	12	23.67	23.77	23.63	24.2	0
10	QPSK	25	25	23.64	23.61	23.49		
10	16QAM	1	0	23.71	23.80	23.68	24.2	0
10	16QAM	1	0	23.66	23.72	23.56		
10	16QAM	1	25	23.66	23.72	23.56		
10	16QAM	1	49	23.50	23.69	23.54		
10	16QAM	25	0	23.19	23.21	23.10	23.7	0.5
10	16QAM	25	12	23.21	23.15	23.18		
10	16QAM	25	12	23.15	23.22	23.17		
10	16QAM	50	0	23.10	23.12	23.06		
10	16QAM	1	0	23.12	23.20	23.05		
10	16QAM	1	25	23.01	23.12	22.99	23.7	0.5
10	16QAM	1	49	22.92	23.06	22.92		
10	16QAM	25	0	22.18	22.24	22.05	22.7	1.5
10	16QAM	25	12	22.06	22.15	22.04		
10	16QAM	25	25	22.10	22.20	22.14		
10	16QAM	50	0	22.02	22.03	22.06		
10	25QAM	1	0	20.11	20.11	20.06	20.7	3.5
10	25QAM	1	25	19.98	20.02	19.95		
10	25QAM	1	49	19.90	19.92	19.91		
10	25QAM	25	0	19.95	19.99	19.88		
10	25QAM	25	12	20.00	20.00	20.00	20.7	3.5
10	25QAM	25	25	20.00	20.14	20.03		
10	25QAM	50	0	19.93	20.13	19.97		
Channel								
Frequency (MHz)				38725	38900	38175	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	0	23.66	23.74	23.65	24.2	0
5	QPSK	1	19	23.62	23.69	23.57		
5	QPSK	1	24	23.53	23.68	23.50		
5	QPSK	12	0	23.74	23.74	23.66	24.2	0
5	QPSK	12	7	23.68	23.70	23.60		
5	QPSK	12	19	23.51	23.64	23.56		
5	QPSK	25	0	23.70	23.76	23.66		
5	QPSK	25	0	23.74	23.78	23.69		
5	16QAM	1	12	23.64	23.68	23.56	24.2	0
5	16QAM	1	24	23.61	23.66	23.47		
5	16QAM	12	0	23.18	23.18	23.11	23.7	0.5
5	16QAM	12	7	23.12	23.22	23.15		
5	16QAM	12	13	23.09	23.28	23.09		
5	16QAM	25	0	23.07	23.17	23.09		
5	16QAM	1	0	23.07	23.20	23.12	23.7	0.5
5	16QAM	1	12	22.96	23.13	23.03		
5	16QAM	1	24	22.99	23.02	22.91		
5	16QAM	12	0	22.17	22.15	22.02	22.7	1.5
5	16QAM	12	7	22.06	22.13	22.02		
5	16QAM	12	13	22.13	22.15	22.12		
5	16QAM	25	0	22.10	22.04	22.06		
5	16QAM	1	0	20.09	20.23	20.11	20.7	3.5
5	25QAM	1	12	19.97	20.12	20.01		
5	25QAM	1	24	19.88	19.84	19.88		
5	25QAM	12	7	19.85	19.88	19.84	20.7	3.5
5	25QAM	12	13	20.09	20.09	19.96		
5	25QAM	25	0	19.92	20.06	19.91		

Band 41 Main PA Ant4 DSI1

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Mid Ch / Freq	Power High-Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel										
Frequency (MHz)				38750	40185	40600	41055	41460		
20	QPSK	1	0	23.69	23.74	23.80	24.15	24.15		
20	QPSK	1	49	23.63	23.60	23.71	23.65	23.70	24.2	
20	QPSK	1	99	23.63	23.69	23.76	23.62	23.63		
20	QPSK	50	0	23.60	23.74	23.85	23.72	23.75		
20	QPSK	50	24	23.60	23.66	23.69	23.66	23.62	24.2	
20	QPSK	50	24	23.65	23.66	23.69	23.66	23.61		
20	QPSK	100	0	23.72	23.78	23.82	23.81	23.84		
20	16QAM	1	0	23.61	23.75	23.81	23.76	23.66	24.2	
20	16QAM	1	49	23.66	23.65	23.73	23.70	23.60		
20	16QAM	1	99	23.60	23.60	23.67	23.57	23.58		
20	16QAM	50	24	23.27	23.26	23.39	23.25	23.31	23.7	
20	16QAM	50	24	23.19	23.20	23.27	23.16	23.18		
20	16QAM	50	24	23.22	23.26	23.31	23.25	23.18	23.7	
20	16QAM	100	0	23.21	23.20	23.26	23.21	23.14		
20	16QAM	100	0	22.85	22.25	23.01	22.95	22.50	23.7	
20	16QAM	1	49	22.86	22.81	22.85	22.87	22.87	23.7	
20	16QAM	1	99	22.83	22.84	22.81	22.84	22.78		
20	16QAM	50	24	22.20	22.20	22.42	22.32	22.37		
20	16QAM	50	24	22.25	22.19	22.33	22.23	22.27	22.7	
20	16QAM	50	24	22.07	22.21	22.38	22.32	22.34		
20	16QAM	100	0	22.15	22.24	22.30	22.23	22.16		
20	25QAM	1	0	20.27	20.20	20.32	20.29	20.19	20.7	
20	25QAM	1	49	20.23	20.18	20.29	20.15	20.19		
20	25QAM	1	99	20.16	20.17	20.24	20.15	20.17		
20	25QAM	50	24	20.19	20.20	20.27	20.16	20.16	20.7	
20	25QAM	50	24	19.98	20.08	20.13	20.05	20.07		
20	25QAM	50	24	20.14	20.13	20.19	20.09	20.14	20.7	
20	25QAM	100	0	20.12	20.17	20.18	20.15	20.15		
Channel										
Frequency (MHz)				38725	40173	40600	41055	41460	Tune-up limit (dBm)	MPR (dB)
16	QPSK	1	0	23.61	23.71	23.81	23.73	23.74		
16	QPSK	1	37	23.66	23.62	23.74	23.71	23.63	24	0
16	QPSK	1	74	23.61	23.66	23.68	23.63	23.54		
16	QPSK	36	20	23.68	23.65	23.78	23.76	23.68		
16	QPSK	36	20	23.63	23.67	23.74	23.70	23.54	24.2	0
16	QPSK	75	0	23.60	23.75	23.84	23.82	23.73		
16	16QAM	1	0	23.64	23.67	23.83	23.78	23.74	24.2	0
16	16QAM	1	37	23.68	23.78	23.78	23.71	23.61		
16	16QAM	1	74	23.59	23.67	23.67	23.54	23.52		
16	16QAM	36	0	23.19	23.17	23.27	23.12	23.18	23.7	0.5
16	16QAM	36	20	23.14	23.16	23.13	23.12	23.12		
16	16QAM	36	39	23.17	23.19	23.17	23.15	23.11		



Band 42 FCC Part27Q Main PA Ant5 DSI1

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power High Ch / Freq, Power Mid Ch / Freq, Tune-up Int (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz) and lists various modulation schemes like QPSK, 16QAM, 64QAM, 256QAM.

Band 48 Main PA Ant5 DSI1

Table with columns: BW (MHz), Modulation, RB Size, RB Offset, Power Low Ch / Freq, Power High Ch / Freq, Power Mid Ch / Freq, Tune-up Int (dBm), MPR (dB). Includes sub-headers for Channel and Frequency (MHz) and lists various modulation schemes like QPSK, 16QAM, 64QAM, 256QAM.



Band 42 FCC Part27Q Main PA Ant6 DSI1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	21.18	21.20	21.22	22	0	
20	QPSK	1	49	21.13	21.15	21.16			
20	QPSK	1	99	21.07	21.10	21.08			
20	QPSK	50	0	21.18	21.20	21.22			
20	QPSK	50	24	21.15	21.18	21.20	22	0	
20	QPSK	100	0	21.20	21.21	21.23			
20	HQAM	1	0	21.14	21.21	21.14	22	0	
20	HQAM	1	49	21.03	21.15	21.15			
20	HQAM	1	99	21.22	21.20	21.14			
20	HQAM	50	0	21.19	21.20	21.18			
20	HQAM	50	24	21.20	21.22	21.07	22	0	
20	HQAM	100	0	21.20	21.22	21.07			
20	HQAM	100	0	21.02	21.15	21.04			
20	HQAM	1	49	21.18	21.20	21.19	22	0	
20	HQAM	1	99	21.18	21.18	21.06			
20	HQAM	50	0	21.01	21.10	21.10			
20	HQAM	50	24	21.28	21.27	21.17	22	0	
20	HQAM	50	50	21.15	21.18	21.07			
20	HQAM	100	0	21.02	21.10	21.10			
20	ZSSQAM	1	0	19.34	19.47	19.38	20.5	1.5	
20	ZSSQAM	1	49	19.26	19.46	19.46			
20	ZSSQAM	1	99	19.26	19.39	19.31			
20	ZSSQAM	50	0	19.27	19.47	19.32			
20	ZSSQAM	50	24	19.17	19.31	19.22	20.5	1.5	
20	ZSSQAM	50	50	19.31	19.37	19.23			
20	ZSSQAM	100	0	19.25	19.28	19.43			
Channel									
Frequency (MHz)									
15	QPSK	1	0	21.02	21.20	21.22	22	0	
15	QPSK	1	47	21.18	21.19	21.07			
15	QPSK	1	74	21.03	21.10	21.10			
15	QPSK	36	0	21.07	21.20	21.08			
15	QPSK	36	20	21.17	21.21	21.06	22	0	
15	HQAM	1	0	21.09	21.20	21.08			
15	HQAM	1	47	21.18	21.18	21.21	22	0	
15	HQAM	36	0	21.13	21.22	21.11			
15	HQAM	36	20	21.09	21.13	21.13	22	0	
15	HQAM	36	59	21.18	21.22	21.14			
15	HQAM	75	0	21.14	21.14	21.07			
15	HQAM	1	0	21.09	21.20	21.04			
15	HQAM	1	47	21.24	21.24	21.18	22	0	
15	HQAM	1	74	21.13	21.24	21.19			
15	HQAM	36	0	21.01	21.20	21.04			
15	HQAM	36	20	21.25	21.29	21.17	22	0	
15	HQAM	36	59	21.08	21.20	21.06			
15	HQAM	75	0	21.04	21.08	21.11			
15	ZSSQAM	1	0	19.25	19.34	19.23	20.5	1.5	
15	ZSSQAM	1	47	19.23	19.32	19.22			
15	ZSSQAM	1	74	19.16	19.24	19.18			
15	ZSSQAM	36	0	19.21	19.28	19.20	20.5	1.5	
15	ZSSQAM	36	20	19.28	19.27	19.14			
15	ZSSQAM	36	59	19.27	19.23	19.13			
15	ZSSQAM	75	0	19.15	19.24	19.22			
Channel									
Frequency (MHz)									
10	QPSK	1	0	21.02	21.20	21.14	22	0	
10	QPSK	1	25	21.10	21.19	21.12			
10	QPSK	1	49	21.06	21.10	21.04			
10	QPSK	12	0	21.07	21.20	21.08			
10	QPSK	25	12	21.13	21.21	21.13	22	0	
10	QPSK	25	25	21.06	21.19	21.09			
10	HQAM	1	0	21.08	21.21	21.11			
10	HQAM	1	25	21.08	21.11	21.10	22	0	
10	HQAM	1	49	21.07	21.20	21.09			
10	HQAM	25	0	21.12	21.19	21.16			
10	HQAM	25	25	21.17	21.21	21.20	22	0	
10	HQAM	50	0	21.20	21.21	21.07			
10	HQAM	1	25	21.28	21.30	21.23	22	0	
10	HQAM	1	49	21.12	21.20	21.12			
10	HQAM	25	0	21.09	21.17	21.08			
10	HQAM	25	12	21.24	21.32	21.17	22	0	
10	HQAM	25	25	21.17	21.18	21.14			
10	HQAM	50	0	21.09	21.15	21.04			
10	ZSSQAM	1	0	19.26	19.37	19.32	20.5	1.5	
10	ZSSQAM	1	25	19.26	19.41	19.38			
10	ZSSQAM	1	49	19.23	19.28	19.23			
10	ZSSQAM	25	0	19.23	19.28	19.24	20.5	1.5	
10	ZSSQAM	25	12	19.25	19.26	19.15			
10	ZSSQAM	25	25	19.27	19.27	19.12			
10	ZSSQAM	50	0	19.11	19.33	19.18			
Channel									
Frequency (MHz)									
5	QPSK	1	0	21.19	21.21	21.18	22	0	
5	QPSK	1	12	21.18	21.19	21.13			
5	QPSK	1	24	21.08	21.10	21.13			
5	QPSK	12	0	21.22	21.24	21.19			
5	QPSK	12	7	21.14	21.25	21.17	22	0	
5	QPSK	12	13	21.03	21.10	21.07			
5	HQAM	1	0	21.29	21.29	21.18			
5	HQAM	1	12	21.03	21.15	21.14	22	0	
5	HQAM	1	24	21.24	21.21	21.21			
5	HQAM	12	0	21.19	21.13	21.11			
5	HQAM	12	7	21.01	21.13	21.07	22	0	
5	HQAM	12	13	21.25	21.30	21.20			
5	HQAM	25	0	21.13	21.18	21.10			
5	HQAM	25	0	21.13	21.18	21.10			
5	HQAM	1	0	21.11	21.16	21.07	22	0	
5	HQAM	1	12	21.09	21.20	21.12			
5	HQAM	1	24	21.19	21.20	21.19			
5	HQAM	12	0	21.07	21.17	21.13			
5	HQAM	12	7	21.27	21.21	21.16	22	0	
5	HQAM	12	13	21.12	21.16	21.16			
5	HQAM	25	0	21.03	21.13	21.13			
5	ZSSQAM	1	0	19.29	19.30	19.25	20.5	1.5	
5	ZSSQAM	1	12	19.27	19.27	19.33			
5	ZSSQAM	1	24	19.19	19.31	19.19			
5	ZSSQAM	12	0	19.28	19.29	19.26			
5	ZSSQAM	12	7	19.24	19.17	19.18	20.5	1.5	
5	ZSSQAM	12	13	19.27	19.26	19.16			
5	ZSSQAM	25	0	19.18	19.31	19.14			

Band 48 Main PA Ant6 DSI1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MPR (dB)
Channel									
Frequency (MHz)									
20	QPSK	1	0	21.77	21.81	21.77	22.5	0	
20	QPSK	1	49	21.77	21.75	21.65			
20	QPSK	1	99	21.62	21.76	21.70			
20	QPSK	50	0	21.81	21.85	21.75	22.5	0	
20	QPSK	50	24	21.75	21.78	21.66			
20	QPSK	100	0	21.69	21.68	21.63			
20	QPSK	100	0	21.75	21.83	21.78	21.78	0	
20	HQAM	1	0	21.82	21.79	21.73	22.5	0	
20	HQAM	1	49	21.72	21.72	21.62			
20	HQAM	1	99	21.75	21.81	21.75	21.70	0	
20	HQAM	50	0	21.74	21.79	21.64	22.5	0	
20	HQAM	50	24	21.69	21.76	21.62			
20	HQAM	50	50	21.83	21.84	21.73	21.77	0	
20	HQAM	100	0	21.69	21.75	21.75			
20	HQAM	100	0	21.69	21.71	21.53	21.53	0	
20	HQAM	1	49	21.85	21.84	21.80	22.5	0	
20	HQAM	1	99	21.74	21.76	21.71	21.76	0	
20	HQAM	50	0	21.68	21.68	21.64	21.65	0	
20	HQAM	50	24	21.81	21.86	21.74	21.75	22.5	0
20	HQAM	50	50	21.75	21.71	21.72	21.63	0	
20	HQAM	100	0	21.72	21.79	21.64	21.60	0	
20	ZSSQAM	1	0	19.48	19.56	19.44	19.44	20.5	2
20	ZSSQAM	1	49	19.46	19.58	19.48	19.48		
20	ZSSQAM	1	99	19.38	19.44	19.34	19.34		
20	ZSSQAM	50	0	19.43	19.54	19.48	19.48		
20	ZSSQAM	50	24	19.26	19.37	19.38	19.32	20.5	2
20	ZSSQAM	50	50	19.48	19.46	19.31	19.41		
20	ZSSQAM	100	0	19.35	19.40	19.43	19.43		
Channel									



Band 42 FCC Part27Q Mian PA Ant7 DSI1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MFR (dB)		
Channel										
Frequency (MHz)				42190	42590	42990				
20	QPSK	1	0	20.06	20.13	20.03				
20	QPSK	1	43	19.82	19.84	19.84	21	0		
20	QPSK	1	86	19.80	19.80	19.86				
20	QPSK	50	0	19.07	20.17	19.08				
20	QPSK	50	24	19.86	19.83	19.88	21	0		
20	QPSK	50	48	19.83	19.88	19.88				
20	QPSK	100	0	20.00	20.01	20.00				
20	HQAM	1	0	19.77	19.81	19.85				
20	HQAM	1	43	19.80	19.82	19.81	21	0		
20	HQAM	1	86	19.82	19.82	19.86				
20	HQAM	1	129	20.04	20.05	20.01				
20	HQAM	50	0	19.85	19.87	19.86				
20	HQAM	50	24	19.87	19.82	19.82	21	0		
20	HQAM	50	48	19.85	19.82	19.84				
20	HQAM	100	0	19.79	19.80	19.85				
20	HQAM	100	0	19.85	19.84	19.85				
20	HQAM	100	43	19.88	19.86	19.88	21	0		
20	HQAM	100	86	19.82	19.84	19.86				
20	HQAM	50	24	20.08	20.09	19.96	21	0		
20	HQAM	50	48	19.82	19.80	19.87				
20	HQAM	100	0	19.91	19.92	19.81				
20	HQAM	100	0	19.24	19.24	19.39				
20	ZSSBAM	1	0	18.27	18.30	18.27	19.5	1.5		
20	ZSSBAM	1	43	18.24	18.20	18.25				
20	ZSSBAM	1	86	18.25	18.26	18.24				
20	ZSSBAM	50	24	18.09	18.22	18.16	19.5	1.5		
20	ZSSBAM	50	48	18.06	18.19	18.10				
20	ZSSBAM	100	0	18.14	18.14	18.29				
Channel										
Frequency (MHz)				42196	42596	43000				
15	QPSK	1	0	20.03	20.03	20.02				
15	QPSK	1	37	19.79	19.80	19.87	21	0		
15	QPSK	1	74	19.82	19.81	19.80				
15	QPSK	36	0	20.00	20.00	20.00				
15	QPSK	36	20	19.78	19.80	19.84	21	0		
15	QPSK	36	39	19.88	19.86	19.87				
15	QPSK	75	0	20.00	20.01	20.00				
15	HQAM	1	0	19.78	19.83	19.88				
15	HQAM	1	37	19.84	19.80	19.81	21	0		
15	HQAM	1	74	20.02	20.02	19.99				
15	HQAM	36	0	19.81	19.80	19.89				
15	HQAM	36	20	19.87	19.81	19.84	21	0		
15	HQAM	36	39	20.00	20.00	19.94				
15	HQAM	75	0	19.84	19.86	19.85				
15	HQAM	75	0	19.88	19.80	19.89				
15	HQAM	1	37	20.00	20.04	20.02	21	0		
15	HQAM	1	74	19.88	19.86	19.87				
15	HQAM	36	0	19.87	19.88	19.90				
15	HQAM	36	20	19.89	19.89	19.85	21	0		
15	HQAM	36	39	19.88	19.86	19.85				
15	HQAM	75	0	19.83	19.82	19.84				
15	ZSSBAM	1	0	18.17	18.28	18.23	19.5	1.5		
15	ZSSBAM	1	37	18.17	18.13	18.19				
15	ZSSBAM	1	74	18.13	18.16	18.17				
15	ZSSBAM	36	0	18.20	18.27	18.18	19.5	1.5		
15	ZSSBAM	36	20	17.85	18.10	18.16				
15	ZSSBAM	36	39	17.98	18.13	18.07				
15	ZSSBAM	75	0	18.14	18.14	18.08				
Channel										
Frequency (MHz)				42196	42596	43000				
10	QPSK	1	0	19.80	19.80	19.80				
10	QPSK	1	25	19.80	19.80	19.82	21	0		
10	QPSK	1	49	19.84	19.88	19.87				
10	QPSK	25	0	20.03	19.80	19.80				
10	QPSK	25	12	19.87	19.80	19.84	21	0		
10	QPSK	25	25	19.82	19.84	19.87				
10	QPSK	50	0	20.04	20.04	20.00				
10	HQAM	1	0	19.80	19.80	19.83				
10	HQAM	1	25	19.81	19.86	19.84	21	0		
10	HQAM	1	49	19.88	19.80	19.82				
10	HQAM	25	0	19.82	19.82	19.84				
10	HQAM	25	12	19.87	19.80	19.81	21	0		
10	HQAM	25	25	19.85	19.86	19.85				
10	HQAM	50	0	20.00	20.00	20.00				
10	HQAM	50	0	19.79	19.87	19.81				
10	HQAM	1	0	19.88	19.88	19.88				
10	HQAM	1	25	20.02	20.03	19.99	21	0		
10	HQAM	1	49	19.87	19.89	19.93				
10	HQAM	25	0	19.80	19.81	19.80				
10	HQAM	25	12	20.00	20.07	20.00	21	0		
10	HQAM	25	25	19.86	19.80	19.86				
10	HQAM	50	0	19.82	19.82	19.86				
10	ZSSBAM	1	0	18.16	18.20	18.20	19.5	1.5		
10	ZSSBAM	1	25	18.21	18.16	18.19				
10	ZSSBAM	1	49	18.15	18.19	18.13				
10	ZSSBAM	25	0	18.18	18.19	18.18	19.5	1.5		
10	ZSSBAM	25	12	18.04	18.15	18.07				
10	ZSSBAM	25	25	18.01	18.16	18.00				
10	ZSSBAM	50	0	17.87	18.16	18.09				
Channel										
Frequency (MHz)				3452.5	3600	3645				
5	QPSK	1	0	20.00	20.05	19.94				
5	QPSK	1	12	19.77	19.80	19.82	21	0		
5	QPSK	1	24	19.89	19.80	19.85				
5	QPSK	12	0	19.85	20.00	20.00				
5	QPSK	12	7	19.85	19.87	19.80	21	0		
5	QPSK	12	13	19.84	19.80	19.86				
5	QPSK	25	0	20.03	20.04	20.04				
5	HQAM	1	0	19.85	19.85	19.87				
5	HQAM	1	12	19.85	19.85	19.87	21	0		
5	HQAM	1	24	19.88	20.00	20.00				
5	HQAM	12	0	19.87	19.88	19.90				
5	HQAM	12	7	19.81	19.87	19.87	21	0		
5	HQAM	12	13	20.00	20.02	20.02				
5	HQAM	25	0	19.81	19.85	19.91				
5	HQAM	1	0	19.80	19.86	19.91				
5	HQAM	1	12	20.03	20.00	19.92	21	0		
5	HQAM	1	24	19.81	19.80	19.89				
5	HQAM	12	0	19.87	19.80	19.84				
5	HQAM	12	7	19.88	20.10	19.96	21	0		
5	HQAM	12	13	19.84	19.84	19.91				
5	HQAM	25	0	19.88	19.83	19.81				
5	ZSSBAM	1	0	18.10	18.32	18.23	19.5	1.5		
5	ZSSBAM	1	12	18.16	18.18	18.09				
5	ZSSBAM	1	24	18.18	18.21	18.11				
5	ZSSBAM	12	0	18.17	18.27	18.16	19.5	1.5		
5	ZSSBAM	12	7	18.01	18.16	18.10				
5	ZSSBAM	12	13	17.89	18.11	17.99				
5	ZSSBAM	25	0	17.94	18.14	18.06				

Band 48 Main PA Ant7 DSI1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MFR (dB)		
Channel										
Frequency (MHz)				56340	56840	56950	56660			
20	QPSK	1	0	18.55	18.56	18.51	18.55			
20	QPSK	1	43	18.39	18.57	18.38	18.51	19.5	0	
20	QPSK	1	86	18.38	18.56	18.40	18.43			
20	QPSK	50	0	18.52	18.52	18.55	18.55			
20	QPSK	50	24	18.44	18.53	18.43	18.46	19.5	0	
20	QPSK	50	48	18.47	18.53	18.46	18.46			
20	QPSK	100	0	18.52	18.50	18.52	18.52			
20	HQAM	1	0	18.50	18.55	18.45	18.48			
20	HQAM	1	43	18.41	18.49	18.38	18.47	19.5	0	
20	HQAM	1	86	18.56	18.62	18.59	18.48			



DSI 3 Power for WWAN Main PA

GSM850	GSM850 Ant0 Default			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	Burst Average Power (dBm)				128	159	251	
	128	180	251		824.2	836.4	848.8	
TX Channel	128	180	251	34.00	23.93	24.09	24.05	25.00
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GSM 1 Tx slot	32.93	33.09	33.05	34.00	23.93	24.09	24.05	25.00
GPRS 1 Tx slot	32.97	33.13	33.07	34.00	23.97	24.13	24.07	25.00
GPRS 2 Tx slots	30.09	30.12	30.04	31.00	24.09	24.12	24.04	25.00
GPRS 3 Tx slots	28.23	28.34	28.19	29.20	23.97	24.08	23.93	24.94
GPRS 4 Tx slots	26.91	26.95	26.88	28.00	23.91	23.95	23.88	25.00
EDGE 1 Tx slot	27.01	27.13	27.08	28.00	18.01	18.13	18.08	19.00
EDGE 2 Tx slots	24.17	24.25	24.10	25.00	18.17	18.25	18.10	19.00
EDGE 3 Tx slots	22.31	22.41	22.28	23.20	18.05	18.15	18.02	18.94
EDGE 4 Tx slots	21.12	21.17	21.04	22.00	18.12	18.17	18.04	19.00

Band	WCDMA V	WCDMA V Ant0 Default			Tune-up Limit (dBm)
		4132	4182	4233	
		Rx Channel	4357	4407	
Frequency (MHz)		826.4	836.4	845.6	
3GPP Rel 99	AMR 12.2Kbps	23.98	24.11	24.08	25.00
3GPP Rel 99	RM-C 12.2Kbps	24.04	24.16	24.13	25.00
3GPP Rel 6	HSDPA Subtest-1	23.15	23.15	23.11	24.00
3GPP Rel 6	HSDPA Subtest-2	23.09	23.15	23.07	24.00
3GPP Rel 6	HSDPA Subtest-3	22.54	22.60	22.61	23.50
3GPP Rel 6	HSDPA Subtest-4	22.56	22.63	22.57	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.03	23.14	23.10	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.04	23.14	23.06	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.45	22.60	22.53	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.43	22.56	22.50	23.50
3GPP Rel 6	HSUPA Subtest-1	22.98	23.03	23.05	24.00
3GPP Rel 6	HSUPA Subtest-2	21.08	21.21	21.06	22.00
3GPP Rel 6	HSUPA Subtest-3	22.09	22.26	22.21	23.00
3GPP Rel 6	HSUPA Subtest-4	21.06	21.11	21.03	22.00
3GPP Rel 6	HSUPA Subtest-5	23.02	23.11	23.05	24.00
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	20.57	20.76	20.64	21.50



Band 5 Main PA Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power High Ch / Freq.	Power Mid Ch / Freq.	Turn-up limit (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.45	24.56	24.50	25.5	0		
10	QPSK	1	25	24.45	24.48	24.43	25.5	0		
10	QPSK	1	49	24.35	24.52	24.34	25.5	0		
10	QPSK	25	0	23.48	23.59	23.54	24.5	1		
10	QPSK	25	12	23.43	23.47	23.50	24.5	1		
10	QPSK	25	25	23.34	23.50	23.40	24.5	1		
10	QPSK	50	0	23.43	23.54	23.47	24.5	1		
10	16QAM	1	0	23.79	23.84	23.79	24.5	1		
10	16QAM	1	25	23.72	23.71	23.68	24.5	1		
10	16QAM	1	49	23.68	23.73	23.69	24.5	1		
10	16QAM	25	0	22.39	22.52	22.41	23.5	2		
10	16QAM	25	12	22.37	22.48	22.33	23.5	2		
10	16QAM	25	25	22.36	22.44	22.34	23.5	2		
10	16QAM	50	0	22.30	22.46	22.31	23.5	2		
10	64QAM	1	0	22.69	22.68	22.58	23.5	2		
10	64QAM	1	25	22.49	22.69	22.61	23.5	2		
10	64QAM	1	49	22.51	22.67	22.44	23.5	2		
10	64QAM	25	0	21.38	21.46	21.39	22.5	3		
10	64QAM	25	12	21.52	21.48	21.38	22.5	3		
10	64QAM	25	25	21.28	21.37	21.36	22.5	3		
10	64QAM	50	0	21.23	21.51	21.28	22.5	3		
10	256QAM	1	0	19.44	19.56	19.41	20.5	5		
10	256QAM	1	25	19.38	19.56	19.43	20.5	5		
10	256QAM	1	49	19.38	19.56	19.44	20.5	5		
10	256QAM	25	0	19.28	19.36	19.27	20.5	5		
10	256QAM	25	12	19.24	19.49	19.24	20.5	5		
10	256QAM	25	25	19.34	19.40	19.34	20.5	5		
10	256QAM	50	0	19.43	19.49	19.43	20.5	5		
Channel										
Frequency (MHz)										
5	QPSK	1	0	24.32	24.52	24.41	25.5	0		
5	QPSK	1	12	24.31	24.43	24.40	25.5	0		
5	QPSK	1	24	24.29	24.40	24.22	25.5	0		
5	QPSK	12	0	23.36	23.53	23.45	24.5	1		
5	QPSK	12	7	23.39	23.36	23.38	24.5	1		
5	QPSK	12	13	23.20	23.37	23.26	24.5	1		
5	QPSK	25	0	23.36	23.48	23.38	24.5	1		
5	16QAM	1	0	23.76	23.79	23.72	24.5	1		
5	16QAM	1	12	23.69	23.80	23.54	24.5	1		
5	16QAM	1	24	23.58	23.81	23.61	24.5	1		
5	16QAM	12	0	22.29	22.44	22.52	23.5	2		
5	16QAM	12	7	22.27	22.39	22.27	23.5	2		
5	16QAM	12	13	22.35	22.37	22.27	23.5	2		
5	16QAM	25	0	22.27	22.38	22.50	23.5	2		
5	64QAM	1	0	22.48	22.81	22.53	23.5	2		
5	64QAM	1	12	22.46	22.81	22.48	23.5	2		
5	64QAM	1	24	22.44	22.82	22.35	23.5	2		
5	64QAM	12	0	21.33	21.34	21.53	22.5	3		
5	64QAM	12	7	21.38	21.41	21.28	22.5	3		
5	64QAM	12	13	21.19	21.25	21.25	22.5	3		
5	64QAM	25	0	21.14	21.48	21.14	22.5	3		
5	256QAM	1	0	19.38	19.51	19.28	20.5	5		
5	256QAM	1	12	19.34	19.57	19.31	20.5	5		
5	256QAM	1	24	19.33	19.51	19.36	20.5	5		
5	256QAM	12	0	19.28	19.36	19.27	20.5	5		
5	256QAM	12	7	19.20	19.34	19.19	20.5	5		
5	256QAM	12	13	19.31	19.29	19.27	20.5	5		
5	256QAM	25	0	19.33	19.43	19.29	20.5	5		
Channel										
Frequency (MHz)										
3	QPSK	1	0	24.17	24.59	24.47	25.5	0		
3	QPSK	1	8	24.35	24.43	24.29	25.5	0		
3	QPSK	1	14	24.22	24.45	24.29	25.5	0		
3	QPSK	8	0	23.37	23.51	23.41	24.5	1		
3	QPSK	8	4	23.35	23.38	23.41	24.5	1		
3	QPSK	8	7	23.26	23.47	23.26	24.5	1		
3	QPSK	16	0	23.36	23.44	23.38	24.5	1		
3	16QAM	1	0	23.70	23.71	23.68	24.5	1		
3	16QAM	1	8	23.68	23.68	23.54	24.5	1		
3	16QAM	1	14	23.60	23.69	23.61	24.5	1		
3	16QAM	8	0	22.29	22.42	22.37	23.5	2		
3	16QAM	8	4	22.32	22.42	22.20	23.5	2		
3	16QAM	8	7	22.30	22.38	22.24	23.5	2		
3	16QAM	15	0	22.17	22.34	22.17	23.5	2		
3	64QAM	1	0	22.66	22.83	22.63	23.5	2		
3	64QAM	1	8	22.44	22.54	22.40	23.5	2		
3	64QAM	1	14	22.44	22.35	22.40	23.5	2		
3	64QAM	8	0	21.25	21.41	21.36	22.5	3		
3	64QAM	8	4	21.24	21.35	21.15	22.5	3		
3	64QAM	8	7	21.17	21.27	21.27	22.5	3		
3	256QAM	1	0	19.35	19.47	19.28	20.5	5		
3	256QAM	1	8	19.27	19.54	19.33	20.5	5		
3	256QAM	1	14	19.34	19.43	19.33	20.5	5		
3	256QAM	8	0	19.27	19.32	19.22	20.5	5		
3	256QAM	8	4	19.12	19.39	19.18	20.5	5		
3	256QAM	8	7	19.30	19.36	19.30	20.5	5		
3	256QAM	15	0	19.35	19.46	19.35	20.5	5		
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	24.34	24.42	24.43	25.5	0		
1.4	QPSK	1	3	24.30	24.41	24.37	25.5	0		
1.4	QPSK	1	5	24.31	24.48	24.26	25.5	0		
1.4	QPSK	3	0	24.38	24.42	24.27	25.5	0		
1.4	QPSK	3	1	24.36	24.41	24.36	25.5	0		
1.4	QPSK	3	3	24.20	24.45	24.23	24.5	1		
1.4	QPSK	6	0	23.42	23.50	23.41	24.5	1		
1.4	16QAM	1	0	23.39	23.39	23.35	24.5	1		
1.4	16QAM	1	3	23.21	23.40	23.35	24.5	1		
1.4	16QAM	1	5	23.36	23.39	23.32	24.5	1		
1.4	16QAM	3	0	23.72	23.76	23.70	24.5	1		
1.4	16QAM	3	1	23.66	23.67	23.54	24.5	1		
1.4	16QAM	3	3	23.62	23.67	23.63	24.5	1		
1.4	16QAM	6	0	22.24	22.46	22.38	23.5	2		
1.4	16QAM	1	0	22.28	22.36	22.26	23.5	2		
1.4	16QAM	1	3	22.29	22.36	22.28	23.5	2		
1.4	64QAM	1	5	22.26	22.38	22.23	23.5	2		
1.4	64QAM	3	0	22.46	22.60	22.44	23.5	2		
1.4	64QAM	3	1	22.41	22.61	22.45	23.5	2		
1.4	64QAM	3	3	22.39	22.60	22.34	23.5	2		
1.4	256QAM	1	0	21.26	21.34	21.29	22.5	3		
1.4	256QAM	1	0	19.32	19.49	19.27	20.5	5		
1.4	256QAM	1	3	19.28	19.49	19.27	20.5	5		
1.4	256QAM	1	5	19.34	19.46	19.29	20.5	5		
1.4	256QAM	3	0	19.23	19.34	19.27	20.5	5		
1.4	256QAM	3	1	19.17	19.35	19.11	20.5	5		
1.4	256QAM	3	3	19.29	19.39	19.21	20.5	5		
1.4	256QAM	6	0	19.31	19.42	19.26	20.5	5		

Band 13 Main PA Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power High Ch / Freq.	Power Mid Ch / Freq.	Turn-up limit (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.54	24.54	24.54	25.5	0		
10	QPSK	1	25	24.52	24.52	24.52	25.5	0		
10	QPSK	1	49	24.52	24.52	24.52	25.5	0		
10	QPSK	25	0	23.96	23.96	23.96	24.5	1		
10	QPSK	25	12	23.96	23.96	23.96	24.5	1		
10	QPSK	25	25	23.77	23.77	23.77	24.5	1		
10	QPSK	50	0	23.96	23.96	23.96	24.5	1		
10	16QAM	1	0	23.86	23.86	23.86	24.5	1		
10	16QAM	1	25	23.81	23.81	23.81	24.5	1		
10	16QAM	1	49	23.79	23.79	23.79	24.5	1		
10	16QAM									



Band 26 Main PA Ant0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Turn-up limit (dB)	APR (dB)	
Channel									
Frequency (MHz)				821.5	831.8	841.5			
15	QPSK	1	0	24.52	24.58	24.49			
15	QPSK	1	31	24.42	24.48	24.43	25.5	0	
15	QPSK	1	74	24.41	24.53	24.47			
15	QPSK	36	0	23.48	23.63	23.52			
15	QPSK	36	26	23.43	23.55	23.51			
15	QPSK	36	39	23.52	23.66	23.51	24.5	1	
15	QPSK	75	0	23.54	23.57	23.47			
15	16QAM	1	0	23.48	23.56	23.45			
15	16QAM	1	37	23.35	23.51	23.37	24.5	1	
15	16QAM	1	74	23.42	23.54	23.47			
15	16QAM	36	0	22.42	22.47	22.42			
15	16QAM	36	26	22.45	22.60	22.52			
15	16QAM	36	39	22.53	22.67	22.43	23.5	2	
15	16QAM	75	0	22.50	22.54	22.49			
15	64QAM	1	0	22.59	22.70	22.58			
15	64QAM	1	37	22.63	22.68	22.54	23.5	2	
15	64QAM	1	74	22.63	22.66	22.50			
15	64QAM	36	0	21.25	21.37	21.34			
15	64QAM	36	26	21.41	21.55	21.43	22.5	3	
15	64QAM	36	39	21.45	21.52	21.44			
15	64QAM	75	0	21.41	21.54	21.43			
15	256QAM	1	0	19.58	19.69	19.61			
15	256QAM	1	37	19.42	19.57	19.49	20.5	5	
15	256QAM	1	74	19.60	19.74	19.69			
15	256QAM	36	0	19.35	19.42	19.38			
15	256QAM	36	26	19.48	19.52	19.43	20.5	5	
15	256QAM	36	39	19.46	19.55	19.50			
15	256QAM	75	0	19.38	19.51	19.47			
Channel									
Frequency (MHz)				819	831.8	844			APR (dB)
10	QPSK	1	0	24.42	24.44	24.36			
10	QPSK	1	26	24.39	24.46	24.31	25.5	0	
10	QPSK	1	49	24.28	24.42	24.42			
10	QPSK	26	0	23.43	23.52	23.46			
10	QPSK	26	12	23.29	23.45	23.40	24.5	1	
10	QPSK	26	26	23.48	23.48	23.47			
10	QPSK	50	0	23.42	23.49	23.43			
10	16QAM	1	0	23.41	23.41	23.39			
10	16QAM	1	26	23.33	23.47	23.31	24.5	1	
10	16QAM	1	49	23.35	23.51	23.44			
10	16QAM	26	0	22.36	22.51	22.38			
10	16QAM	26	12	22.35	22.56	22.42	23.5	2	
10	16QAM	26	26	22.48	22.44	22.38			
10	16QAM	50	0	22.36	22.45	22.35			
10	64QAM	1	0	22.51	22.58	22.52			
10	64QAM	1	26	22.50	22.56	22.45	23.5	2	
10	64QAM	1	49	22.63	22.61	22.51			
10	64QAM	26	0	21.18	21.31	21.25			
10	64QAM	26	12	21.33	21.53	21.37	22.5	3	
10	64QAM	26	26	21.32	21.33	21.34			
10	64QAM	50	0	21.34	21.60	21.53			
10	256QAM	1	0	19.45	19.53	19.50			
10	256QAM	1	26	19.32	19.42	19.42	20.5	5	
10	256QAM	1	49	19.54	19.65	19.58			
10	256QAM	26	0	19.36	19.36	19.33			
10	256QAM	26	12	19.43	19.41	19.29	20.5	5	
10	256QAM	26	26	19.39	19.48	19.36			
10	256QAM	50	0	19.35	19.40	19.38			
Channel									
Frequency (MHz)				816.5	831.8	846.5			APR (dB)
5	QPSK	1	0	24.44	24.46	24.38			
5	QPSK	1	12	24.32	24.38	24.25	25.5	0	
5	QPSK	1	24	24.34	24.45	24.39			
5	QPSK	12	0	23.46	23.57	23.48			
5	QPSK	12	7	23.28	23.45	23.45	24.5	1	
5	QPSK	12	13	23.48	23.53	23.38			
5	QPSK	26	0	23.42	23.47	23.39			
5	16QAM	1	0	23.41	23.44	23.33			
5	16QAM	1	12	23.21	23.44	23.22	24.5	1	
5	16QAM	1	24	23.37	23.46	23.34			
5	16QAM	12	0	22.34	22.44	22.34			
5	16QAM	12	7	22.35	22.55	22.42	23.5	2	
5	16QAM	12	13	22.47	22.46	22.38			
5	16QAM	26	0	22.38	22.39	22.45			
5	64QAM	1	0	22.54	22.59	22.53			
5	64QAM	1	12	22.56	22.54	22.46	23.5	2	
5	64QAM	1	24	22.62	22.69	22.76			
5	64QAM	12	0	21.20	21.30	21.21			
5	64QAM	12	7	21.31	21.43	21.37	22.5	3	
5	64QAM	12	13	21.38	21.42	21.37			
5	64QAM	26	0	21.27	21.49	21.39			
5	256QAM	1	0	19.45	19.51	19.45			
5	256QAM	1	12	19.29	19.53	19.36	20.5	5	
5	256QAM	1	24	19.54	19.66	19.55			
5	256QAM	12	0	19.24	19.31	19.29			
5	256QAM	12	7	19.36	19.41	19.37	20.5	5	
5	256QAM	12	13	19.35	19.42	19.43			
5	256QAM	26	0	19.32	19.35	19.28			
Channel									
Frequency (MHz)				817.5	831.8	847.5			APR (dB)
3	QPSK	1	0	24.42	24.42	24.37			
3	QPSK	1	8	24.37	24.42	24.32	25.5	0	
3	QPSK	1	14	24.34	24.45	24.43			
3	QPSK	8	0	23.34	23.51	23.43			
3	QPSK	8	4	23.29	23.45	23.36	24.5	1	
3	QPSK	8	7	23.37	23.46	23.43			
3	QPSK	15	0	23.46	23.52	23.42			
3	16QAM	1	0	23.44	23.52	23.37			
3	16QAM	1	8	23.27	23.45	23.31	24.5	1	
3	16QAM	1	14	23.30	23.45	23.36			
3	16QAM	8	0	22.34	22.42	22.32			
3	16QAM	8	4	22.42	22.64	22.42	23.5	2	
3	16QAM	8	7	22.43	22.53	22.38			
3	16QAM	15	0	22.37	22.47	22.46			
3	64QAM	1	0	22.46	22.57	22.44			
3	64QAM	1	8	22.48	22.61	22.50	23.5	2	
3	64QAM	1	14	22.79	22.86	22.76			
3	64QAM	8	0	21.13	21.28	21.21			
3	64QAM	8	4	21.37	21.45	21.38	22.5	3	
3	64QAM	8	7	21.36	21.38	21.34			
3	64QAM	15	0	21.26	21.45	21.36			
3	256QAM	1	0	19.43	19.56	19.55			
3	256QAM	1	8	19.30	19.45	19.39	20.5	5	
3	256QAM	1	14	19.46	19.71	19.61			
3	256QAM	8	0	19.26	19.36	19.35			
3	256QAM	8	4	19.38	19.39	19.29	20.5	5	
3	256QAM	8	7	19.34	19.32	19.40			
3	256QAM	15	0	19.34	19.45	19.43			
Channel									
Frequency (MHz)				868.7	888.8	910.3			APR (dB)
1.4	QPSK	1	0	24.44	24.54	24.43			
1.4	QPSK	1	3	24.34	24.38	24.26	25.5	0	
1.4	QPSK	1	5	24.35	24.50	24.41			
1.4	QPSK	3	0	24.41	24.45	24.44			
1.4	QPSK	3	1	24.37	24.45	24.48			
1.4	QPSK	3	3	24.34	24.39	24.34	24.5	1	
1.4	QPSK	6	0	23.34	23.59	23.48			
1.4	16QAM	1	0	23.33	23.43	23.35			
1.4	16QAM	1	3	23.42	23.45	23.36	24.5	1	
1.4	16QAM	1	5	23.47	23.54	23.34			
1.4	16QAM	3	0	23.38	23.42	23.40			
1.4	16QAM	3	1	23.24	23.43	23.32			
1.4	16QAM	3	3	23.30	23.45	23.40			
1.4	64QAM	1	0	22.38	22.40	22.32	23.5	2	
1.4	64QAM	1	3	22.35	22.49	22.41			
1.4	64QAM	1	5	22.43	22.47	22.30			
1.4	64QAM	3	0	22.43	22.48	22.38	23.5	2	
1.4	64QAM	3	1	22.50	22.59	22.49			
1.4	64QAM	3	3	22.50	22.56	22.47			
1.4	64QAM	3							



GSM850 Ant1 Default								
GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8	33.50	23.02	23.11	23.02	24.50
GSM 1 Tx slot	32.02	32.11	32.02	33.50	23.02	23.11	23.02	24.50
GPRS 1 Tx slot	32.05	32.16	32.08	33.50	23.05	23.16	23.08	24.50
GPRS 2 Tx slots	29.21	29.24	29.17	30.50	23.21	23.24	23.17	24.50
GPRS 3 Tx slots	27.40	27.44	27.34	28.50	23.14	23.18	23.08	24.24
GPRS 4 Tx slots	25.97	26.07	26.00	27.50	22.97	23.07	23.00	24.50
EDGE 1 Tx slot	26.21	26.25	26.11	27.50	17.21	17.25	17.11	18.50
EDGE 2 Tx slots	23.24	23.29	23.16	24.50	17.24	17.29	17.16	18.50
EDGE 3 Tx slots	21.40	21.53	21.48	22.70	17.14	17.27	17.22	18.44
EDGE 4 Tx slots	20.15	20.28	20.24	21.50	17.15	17.28	17.24	18.50

GSM1900 Ant1 Default								
GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	30.00	1850.2	1880	1909.8	21.00
GSM 1 Tx slot	28.13	28.19	28.15	30.00	19.13	19.19	19.15	21.00
GPRS 1 Tx slot	28.16	28.24	28.22	30.00	19.16	19.24	19.22	21.00
GPRS 2 Tx slots	26.27	26.31	26.25	27.00	19.27	19.31	19.25	21.00
GPRS 3 Tx slots	23.88	23.96	23.87	25.20	19.62	19.70	19.61	20.94
GPRS 4 Tx slots	22.35	22.47	22.37	24.00	19.35	19.47	19.37	21.00
EDGE 1 Tx slot	24.79	24.88	24.82	26.00	15.79	15.88	15.82	17.00
EDGE 2 Tx slots	21.97	22.07	21.93	23.00	15.97	16.07	15.93	17.00
EDGE 3 Tx slots	19.90	20.03	19.89	21.20	15.64	15.77	15.63	16.94
EDGE 4 Tx slots	19.20	19.26	19.21	20.00	16.20	16.26	16.21	17.00

Band	WCDMA II Ant1 Default				WCDMA IV Ant1 Default				WCDMA V Ant1 Default				Tune-up Limit (dBm)
	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)	WCDMA V				
TX Channel	9262	9400	9538		1312	1413	1513		4132	4182	4233	Tune-up Limit (dBm)	
Rx Channel	9662	9800	9938	1637	1638	1738	4357	4407	4458				
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.6	1752.6	826.4	836.4	846.6				
3GPP Rel 99 AMR 12.2kbps	22.02	22.09	22.01	24.00	22.02	22.12	22.07	24.00	23.22	23.32	23.29	25.00	
3GPP Rel 99 RMC 12.2kbps	22.05	22.12	22.03	24.00	22.10	22.19	22.13	24.00	23.27	23.36	23.35	25.00	
3GPP Rel 6 HSDPA Subtest-1	21.06	21.14	21.06	23.00	21.15	21.23	21.20	23.00	22.36	22.34	22.35	24.00	
3GPP Rel 6 HSDPA Subtest-2	21.01	21.11	21.03	23.00	21.06	21.09	21.06	23.00	22.23	22.35	22.31	24.00	
3GPP Rel 6 HSDPA Subtest-3	20.56	20.60	20.60	22.50	20.60	20.69	20.65	22.50	21.76	21.84	21.88	23.50	
3GPP Rel 6 HSDPA Subtest-4	20.53	20.59	20.57	22.50	20.50	20.61	20.55	22.50	21.72	21.85	21.83	23.50	
3GPP Rel 8 DC-HSDPA Subtest-1	21.03	21.05	21.03	23.00	21.04	21.16	21.09	23.00	22.28	22.31	22.34	24.00	
3GPP Rel 8 DC-HSDPA Subtest-2	21.03	21.02	21.03	23.00	21.16	21.13	21.02	23.00	22.17	22.29	22.19	24.00	
3GPP Rel 8 DC-HSDPA Subtest-3	20.52	20.55	20.58	22.50	20.56	20.59	20.52	22.50	21.73	21.81	21.86	23.50	
3GPP Rel 8 DC-HSDPA Subtest-4	20.56	20.69	20.59	22.50	20.56	20.60	20.54	22.50	21.65	21.82	21.72	23.50	
3GPP Rel 6 HSUPA Subtest-1	21.12	21.03	21.01	23.00	21.01	21.10	21.01	23.00	22.15	22.22	22.19	24.00	
3GPP Rel 6 HSUPA Subtest-2	19.07	19.06	19.08	21.00	19.11	19.16	19.05	21.00	20.24	20.38	20.35	22.00	
3GPP Rel 6 HSUPA Subtest-3	20.11	20.14	20.18	22.00	20.13	20.24	20.24	22.00	21.39	21.45	21.43	23.00	
3GPP Rel 6 HSUPA Subtest-4	19.02	19.00	19.03	21.00	19.06	19.03	19.07	21.00	20.20	20.24	20.26	22.00	
3GPP Rel 6 HSUPA Subtest-5	21.01	21.01	21.07	23.00	21.05	21.11	21.04	23.00	22.14	22.33	22.18	24.00	
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	18.63	18.75	18.58	20.50	18.62	18.70	18.63	20.50	19.78	20.00	19.84	21.50	



Band 4 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Time-up limit (min)	MPE (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.96	22.97	22.98		24.5	0	
20	QPSK	1	49	22.94	22.95	22.96				
20	QPSK	50	0	21.75	21.80	21.73		23.5	1	
20	QPSK	50	24	21.65	21.70	21.63				
20	QPSK	50	50	21.84	21.74	21.59				
20	QPSK	100	0	21.72	21.83	21.68				
20	QPSK	100	0	21.80	21.87	21.82				
20	16QAM	1	49	21.71	21.81	21.77		23.5	1	
20	16QAM	1	99	21.72	21.77	21.68				
20	16QAM	50	0	20.80	20.84	20.73				
20	16QAM	50	24	20.71	20.76	20.67		22.5	2	
20	16QAM	50	50	20.69	20.80	20.69				
20	16QAM	100	0	20.65	20.74	20.61				
20	16QAM	100	0	20.82	20.86	20.71				
20	16QAM	1	49	20.76	20.80	20.76		22.5	2	
20	16QAM	1	99	20.76	20.80	20.76				
20	16QAM	50	0	19.84	19.79	19.67				
20	16QAM	50	24	19.58	19.70	19.58		21.5	3	
20	16QAM	50	50	19.72	19.76	19.68				
20	16QAM	100	0	19.52	19.67	19.58				
20	16QAM	100	0	19.80	19.87	19.81				
20	256QAM	1	49	17.80	17.85	17.56		19.5	5	
20	256QAM	1	99	17.67	17.63	17.54				
20	256QAM	50	0	17.66	17.77	17.67				
20	256QAM	50	24	17.54	17.63	17.52		19.5	5	
20	256QAM	50	50	17.66	17.69	17.66				
20	256QAM	100	0	17.52	17.61	17.51				
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.86	22.82	22.78		24.5	0	
15	QPSK	1	37	22.79	22.86	22.82				
15	QPSK	1	74	22.65	22.76	22.62				
15	QPSK	36	0	21.72	21.71	21.67		23.5	1	
15	QPSK	36	25	21.56	21.65	21.60				
15	QPSK	36	39	21.57	21.64	21.64				
15	QPSK	75	0	21.59	21.78	21.58				
15	16QAM	1	0	21.66	21.86	21.76		23.5	1	
15	16QAM	1	37	21.60	21.72	21.72				
15	16QAM	1	74	21.66	21.77	21.67				
15	16QAM	36	0	20.68	20.67	20.69		22.5	2	
15	16QAM	36	25	20.65	20.70	20.63				
15	16QAM	36	39	20.65	20.70	20.63				
15	16QAM	75	0	20.61	20.70	20.58				
15	16QAM	1	0	20.70	20.81	20.50		22.5	2	
15	16QAM	1	37	20.65	20.76	20.61				
15	16QAM	1	74	20.60	20.65	20.51				
15	16QAM	36	0	19.55	19.68	19.62		21.5	3	
15	16QAM	36	25	19.66	19.75	19.68				
15	16QAM	36	39	19.53	19.71	19.61				
15	16QAM	75	0	19.66	19.65	19.54				
15	256QAM	1	0	17.76	17.72	17.56		19.5	5	
15	256QAM	1	37	17.64	17.67	17.63				
15	256QAM	1	74	17.63	17.66	17.61				
15	256QAM	36	0	17.61	17.68	17.60		19.5	5	
15	256QAM	36	25	17.58	17.58	17.52				
15	256QAM	36	39	17.71	17.70	17.63		19.5	5	
15	256QAM	75	0	17.56	17.72	17.56				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.60	22.66	22.65		24.5	0	
10	QPSK	1	25	22.77	22.88	22.75				
10	QPSK	1	49	22.64	22.81	22.66				
10	QPSK	25	0	21.54	21.73	21.67		23.5	1	
10	QPSK	25	25	21.54	21.66	21.53				
10	16QAM	1	0	21.72	21.72	21.72		23.5	1	
10	16QAM	1	24	21.66	21.68	21.71				
10	16QAM	25	0	20.66	20.80	20.69		22.5	2	
10	16QAM	25	12	20.66	20.68	20.63				
10	16QAM	25	24	20.65	20.70	20.63				
10	16QAM	50	0	20.61	20.68	20.59				
10	16QAM	50	0	20.71	20.73	20.68		22.5	2	
10	16QAM	1	24	20.72	20.85	20.67				
10	16QAM	1	49	20.61	20.70	20.56		21.5	3	
10	16QAM	25	0	19.59	19.70	19.64				
10	16QAM	25	12	19.60	19.62	19.55				
10	16QAM	25	24	19.60	19.61	19.63				
10	16QAM	50	0	19.53	19.63	19.59		19.5	5	
10	256QAM	1	24	17.71	17.66	17.60		19.5	5	
10	256QAM	1	49	17.64	17.68	17.61				
10	256QAM	1	74	17.63	17.66	17.61				
10	256QAM	12	0	17.62	17.62	17.56		19.5	5	
10	256QAM	12	12	17.56	17.64	17.63				
10	256QAM	50	0	17.51	17.71	17.58				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.50	22.51	22.51		24.5	0	
5	QPSK	1	12	22.79	22.87	22.85				
5	QPSK	1	24	22.67	22.83	22.72				
5	QPSK	12	0	21.65	21.82	21.83		23.5	1	
5	QPSK	12	7	21.58	21.64	21.67				
5	QPSK	12	13	21.63	21.60	21.52				
5	QPSK	25	0	21.47	21.62	21.67		23.5	1	
5	16QAM	1	0	21.74	21.79	21.74		23.5	1	
5	16QAM	1	12	21.60	21.72	21.74				
5	16QAM	12	0	20.64	20.76	20.65		22.5	2	
5	16QAM	12	7	20.63	20.71	20.56				
5	16QAM	25	0	20.57	20.61	20.67		22.5	2	
5	16QAM	25	0	20.72	20.72	20.59				
5	16QAM	12	7	19.53	19.62	19.58		21.5	3	
5	16QAM	12	13	19.64	19.64	19.56				
5	16QAM	25	0	19.57	19.65	19.62				
5	16QAM	15	0	17.65	17.77	17.60		19.5	5	
5	256QAM	1	12	17.64	17.73	17.61				
5	256QAM	1	24	17.56	17.60	17.57		19.5	5	
5	256QAM	12	0	17.65	17.76	17.66				
5	256QAM	12	7	17.60	17.63	17.63		19.5	5	
5	256QAM	12	13	17.69	17.75	17.65				
5	256QAM	50	0	17.55	17.66	17.67				
Channel										
Frequency (MHz)										
3	QPSK	1	0	22.32	22.32	22.32		24.5	0	
3	QPSK	1	8	22.73	22.81	22.76				
3	QPSK	1	14	22.63	22.77	22.69				
3	QPSK	8	0	21.65	21.82	21.83		23.5	1	
3	QPSK	8	4	21.60	21.71	21.68				
3	QPSK	15	0	21.56	21.62	21.63				
3	16QAM	1	0	21.75	21.82	21.70		23.5	1	
3	16QAM	1	8	21.62	21.74	21.68				
3	16QAM	1	14	21.68	21.72	21.67				
3	16QAM	8	0	20.73	20.77	20.64		22.5	2	
3	16QAM	8	4	20.60	20.63	20.63				
3	16QAM	15	0	20.64	20.71	20.63				
3	16QAM	15	0	20.52	20.66	20.56		22.5	2	
3	16QAM	1	0	20.73	20.79	20.65				
3	16QAM	1	8	20.66	20.66	20.71				
3	16QAM	1	14	20.51	20.62	20.64				
3	16QAM	8	0	19.68	19.79	19.76		21.5	3	
3	16QAM	8	4	19.62	19.74	19.58				
3	16QAM	8	7	19.73	19.80	19.67				
3	256QAM	1	0	17.67	17.72	17.63		19.5	5	
3	256QAM	1	8	17.62	17.66	17.54				
3	256QAM	1	14	17.63	17.66	17.67				
3	256QAM	8	0	17.65	17.65	17.59		19.5	5	
3	256QAM	8	4	17.53	17.61	17.58				



Band 13 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MFR (dB)		
Channel										
752										
10	QPSK	1	0	23.60	23.60	23.60	25.5	0		
10	QPSK	1	49	23.85	23.85	23.85				
10	QPSK	25	0	22.00	22.00	22.00	24.5	1		
10	QPSK	25	49	22.84	22.84	22.84				
10	QPSK	25	25	22.79	22.79	22.79				
10	QPSK	50	0	22.65	22.65	22.65	24.5	1		
10	QPSK	50	49	22.79	22.79	22.79				
10	16QAM	1	25	22.75	22.75	22.75				
10	16QAM	1	49	21.99	21.99	21.99	23.5	2		
10	16QAM	25	12	21.81	21.81	21.81				
10	16QAM	25	25	21.85	21.85	21.85				
10	16QAM	50	0	21.79	21.79	21.79	22.5	3		
10	16QAM	50	49	21.97	21.97	21.97				
10	64QAM	1	0	22.07	22.07	22.07				
10	64QAM	1	25	22.01	22.01	22.01				
10	64QAM	25	0	20.87	20.87	20.87	22.5	2		
10	64QAM	25	12	20.76	20.76	20.76				
10	64QAM	25	25	20.83	20.83	20.83				
10	64QAM	50	0	20.75	20.75	20.75	20.5	5		
10	256QAM	1	0	18.94	18.94	18.94				
10	256QAM	1	49	18.88	18.88	18.88				
10	256QAM	25	0	18.88	18.88	18.88	20.5	5		
10	256QAM	25	12	18.78	18.78	18.78				
10	256QAM	25	25	18.84	18.84	18.84				
10	256QAM	50	0	18.81	18.81	18.81	20.5	5		
Channel										
2305										
5	QPSK	1	0	23.84	23.84	23.84	25.5	0		
5	QPSK	1	16	23.87	23.87	23.87				
5	QPSK	1	24	23.78	23.80	23.77				
5	QPSK	12	0	22.87	22.78	22.89	24.5	1		
5	QPSK	12	7	22.72	22.70	22.73				
5	QPSK	12	13	22.73	22.72	22.68				
5	QPSK	25	0	22.84	22.71	22.78	24.5	1		
5	16QAM	1	0	22.74	22.71	22.78				
5	16QAM	1	12	22.65	22.71	22.72				
5	16QAM	12	0	21.78	21.84	21.78	23.5	2		
5	16QAM	12	7	21.69	21.68	21.74				
5	16QAM	25	0	21.69	21.75	21.64				
5	64QAM	1	0	21.65	21.65	21.68	23.5	2		
5	64QAM	1	0	20.67	20.63	20.65				
5	64QAM	12	0	20.74	20.74	20.78	22.5	3		
5	64QAM	12	7	20.67	20.63	20.65				
5	64QAM	12	13	20.76	20.73	20.70				
5	64QAM	25	0	20.68	20.64	20.60	20.5	5		
5	256QAM	1	0	18.84	18.81	18.84				
5	256QAM	1	12	18.77	18.87	18.82				
5	256QAM	1	24	18.79	18.72	18.78				
5	256QAM	12	0	18.74	18.76	18.84	20.5	5		
5	256QAM	12	7	18.72	18.73	18.84				
5	256QAM	12	13	18.69	18.76	18.79				
5	256QAM	25	0	18.71	18.70	18.68	20.5	5		

Band 26 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MFR (dB)		
Channel										
821.5										
15	QPSK	1	0	23.70	23.77	23.65	25.5	0		
15	QPSK	1	31	23.81	23.84	23.82				
15	QPSK	1	74	23.51	23.64	23.52				
15	QPSK	36	0	22.62	22.74	22.66	24.5	1		
15	QPSK	36	29	22.53	22.63	22.64				
15	QPSK	36	39	22.54	22.63	22.58				
15	QPSK	75	0	22.60	22.67	22.60	24.5	1		
15	16QAM	1	0	22.66	22.67	22.72				
15	16QAM	1	37	22.81	22.75	22.83				
15	16QAM	1	74	22.67	22.71	22.60	23.5	2		
15	16QAM	36	0	22.63	22.76	22.62				
15	16QAM	36	20	21.83	21.68	21.58				
15	16QAM	36	39	21.88	21.72	21.59				
15	16QAM	75	0	21.54	21.69	21.58	23.5	2		
15	64QAM	1	0	21.82	21.92	21.84				
15	64QAM	1	37	21.78	21.86	21.80				
15	64QAM	36	0	20.84	20.89	20.79	22.5	3		
15	64QAM	36	20	20.74	20.89	20.72				
15	64QAM	36	39	20.72	20.86	20.70				
15	64QAM	75	0	20.69	20.77	20.67	20.5	5		
15	256QAM	1	0	18.61	18.76	18.63				
15	256QAM	1	37	18.58	18.72	18.64				
15	256QAM	1	74	18.64	18.67	18.60				
15	256QAM	36	0	18.54	18.58	18.52	20.5	5		
15	256QAM	36	20	18.54	18.58	18.51				
15	256QAM	36	39	18.60	18.62	18.55				
15	256QAM	75	0	18.60	18.63	18.56	20.5	5		
Channel										
810										
10	QPSK	1	0	23.60	23.74	23.62	25.5	0		
10	QPSK	1	29	23.68	23.64	23.62				
10	QPSK	1	49	23.55	23.70	23.56				
10	QPSK	25	0	22.63	22.67	22.70	24.5	1		
10	QPSK	25	12	22.59	22.58	22.63				
10	QPSK	25	25	22.59	22.56	22.58				
10	QPSK	50	0	22.66	22.69	22.66	24.5	1		
10	16QAM	1	0	22.74	22.81	22.70				
10	16QAM	1	29	22.59	22.81	22.62				
10	16QAM	1	49	21.65	21.62	21.65	23.5	2		
10	16QAM	25	0	21.61	21.62	21.58				
10	16QAM	25	12	21.67	21.65	21.53				
10	16QAM	25	25	21.52	21.63	21.55				
10	64QAM	1	0	21.72	21.77	21.80	23.5	2		
10	64QAM	1	29	21.65	21.72	21.65				
10	64QAM	1	49	21.63	21.75	21.59				
10	64QAM	25	0	20.71	20.76	20.68	22.5	3		
10	64QAM	25	12	20.66	20.69	20.65				
10	64QAM	25	25	20.58	20.60	20.51				
10	64QAM	50	0	20.56	20.68	20.63	20.5	5		
10	256QAM	1	0	18.57	18.70	18.62				
10	256QAM	1	29	18.61	18.70	18.57				
10	256QAM	1	49	18.54	18.60	18.57				
10	256QAM	25	0	18.54	18.60	18.57	20.5	5		
10	256QAM	25	12	18.58	18.61	18.54				
10	256QAM	25	25	18.58	18.61	18.54				
10	256QAM	50	0	18.71	18.65	18.62	20.5	5		
Channel										
816.5										
5	QPSK	1	0	23.59	23.63	23.55	25.5	0		
5	QPSK	1	12	23.59	23.63	23.55				
5	QPSK	1	24	23.55	23.65	23.52				
5	QPSK	1	49	22.80	22.84	22.80	24.5	1		
5	QPSK	12	0	22.63	22.74	22.54				
5	QPSK	12	13	22.56	22.62	22.58				
5	QPSK	25	0	22.66	22.69	22.66	24.5	1		
5	16QAM	1	0	22.64	22.78	22.79				
5	16QAM	1	12	22.59	22.76	22.67				
5	16QAM	1	24	21.69	21.77	21.64	23.5	2		
5	16QAM	12	0	21.66	21.69	21.62				
5	16QAM	12	7	21.66	21.69	21.51				
5	16QAM	12	13	21.62	21.71	21.63				
5	16QAM	25	0	21.54	21.68	21.62	23.5	2		
5	64QAM	1	0	21.72	21.80	21.75				
5	64QAM	1	12	21.65	21.72	21.65				
5	64QAM	1	24	21.66	21.77	21.61				
5	64QAM	12	0	20.81	20.78	20.75	22.5	3		
5	64QAM	12	7	20.68	20.69	20.65				
5	64QAM	12	13	20.58	20.71	20.64				
5										



Band 38 Main PA Ant1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	23.66	23.73	23.81	25	0	
20	QPSK	1	49	23.62	23.69	23.76			
20	QPSK	50	0	23.62	23.69	23.76			
20	QPSK	50	24	22.77	22.81	22.71	24	1	
20	QPSK	100	0	22.82	22.84	22.74			
20	16QAM	1	0	22.83	22.85	22.87	24	1	
20	16QAM	1	49	21.77	21.84	21.89			
20	16QAM	1	99	22.87	22.90	22.82			
20	16QAM	50	0	21.86	21.90	21.76			
20	16QAM	50	24	21.77	21.84	21.89	23	2	
20	16QAM	100	0	21.77	21.89	21.77			
20	16QAM	100	0	21.49	21.54	21.25			
20	16QAM	1	49	21.43	21.55	21.42	23	2	
20	16QAM	1	99	21.33	21.42	21.34			
20	16QAM	50	0	20.78	20.91	20.84			
20	16QAM	50	24	20.74	20.78	20.69	22	3	
20	16QAM	50	50	20.74	20.79	20.71			
20	16QAM	100	0	20.61	20.68	20.67			
20	25QAM	1	0	18.81	18.85	18.56			
20	25QAM	1	49	18.48	18.66	18.62	20	5	
20	25QAM	1	99	18.48	18.62	18.67			
20	25QAM	50	0	18.48	18.67	18.61			
20	25QAM	50	24	18.84	18.87	18.73	20	5	
20	25QAM	50	50	18.81	18.86	18.89			
20	25QAM	100	0	18.83	18.75	18.74			
Channel									
Frequency (MHz)									
15	QPSK	1	0	23.72	23.95	24.15	25	0	
15	QPSK	1	37	23.50	23.81	23.85			
15	QPSK	1	74	23.46	23.58	23.46			
15	QPSK	36	0	22.86	22.86	22.72	24	1	
15	QPSK	36	20	22.74	22.77	22.60			
15	QPSK	36	39	22.72	22.74	22.68			
15	QPSK	75	0	22.46	22.49	22.50			
15	16QAM	1	0	22.79	22.90	22.78	24	1	
15	16QAM	1	39	22.86	22.77	22.86			
15	16QAM	1	74	22.84	22.82	22.74			
15	16QAM	36	0	21.74	21.86	21.71	23	2	
15	16QAM	36	20	21.65	21.80	21.64			
15	16QAM	36	39	21.70	21.76	21.64			
15	16QAM	75	0	21.88	21.80	21.84			
15	16QAM	75	0	21.36	21.50	21.34	23	2	
15	16QAM	1	37	21.34	21.41	21.38			
15	16QAM	74	0	21.27	21.33	21.24			
15	16QAM	36	0	20.63	20.66	20.78	22	3	
15	16QAM	36	20	20.69	20.71	20.59			
15	16QAM	36	39	20.67	20.72	20.67			
15	16QAM	75	0	20.25	20.25	20.45			
15	25QAM	1	0	18.39	18.51	18.42	20	5	
15	25QAM	1	39	18.48	18.52	18.45			
15	25QAM	1	74	18.45	18.57	18.51			
15	25QAM	36	0	18.84	18.85	18.68	20	5	
15	25QAM	36	20	18.84	18.83	18.68			
15	25QAM	36	39	18.86	18.86	18.68			
15	25QAM	75	0	18.80	18.88	18.60			
Channel									
Frequency (MHz)									
10	QPSK	1	0	23.36	23.44	23.54	25	0	
10	QPSK	1	25	23.54	23.62	23.56			
10	QPSK	1	49	23.47	23.50	23.48			
10	QPSK	25	0	22.63	22.63	22.73	24	1	
10	QPSK	25	12	22.85	22.89	22.57			
10	QPSK	25	25	22.81	22.79	22.67			
10	16QAM	1	0	22.71	22.80	22.80	24	1	
10	16QAM	1	25	22.87	22.73	22.86			
10	16QAM	1	49	22.73	22.87	22.74			
10	16QAM	25	0	21.79	21.82	21.70	23	2	
10	16QAM	25	12	21.68	21.76	21.64			
10	16QAM	25	25	21.75	21.80	21.69			
10	16QAM	50	0	21.74	21.79	21.69	23	2	
10	16QAM	50	0	21.44	21.50	21.38			
10	16QAM	1	25	21.30	21.43	21.30	23	2	
10	16QAM	1	49	21.27	21.31	21.27			
10	16QAM	25	0	20.70	20.78	20.78	22	3	
10	16QAM	25	12	20.62	20.63	20.57			
10	16QAM	25	25	20.60	20.67	20.61			
10	16QAM	50	0	20.57	20.60	20.45			
10	25QAM	1	0	18.42	18.59	18.47	20	5	
10	25QAM	1	25	18.45	18.61	18.47			
10	25QAM	1	49	18.43	18.48	18.51			
10	25QAM	25	0	18.88	18.86	18.77	20	5	
10	25QAM	25	12	18.77	18.73	18.66			
10	25QAM	25	25	18.87	18.86	18.70			
10	25QAM	50	0	18.88	18.71	18.67			
Channel									
Frequency (MHz)									
5	QPSK	1	0	23.57	23.69	23.54	25	0	
5	QPSK	1	19	23.61	23.68	23.50			
5	QPSK	1	24	23.38	23.52	23.43			
5	QPSK	10	0	22.71	22.86	22.72	24	1	
5	QPSK	10	7	22.84	22.86	22.86			
5	QPSK	12	18	22.85	22.72	22.69			
5	QPSK	25	0	22.59	22.79	22.65	24	1	
5	QPSK	25	0	22.73	22.91	22.79			
5	16QAM	1	12	22.67	22.77	22.68	24	1	
5	16QAM	1	24	22.80	22.81	22.74			
5	16QAM	12	0	21.74	21.88	21.65	23	2	
5	16QAM	12	7	21.84	21.79	21.66			
5	16QAM	12	13	21.74	21.78	21.72			
5	16QAM	25	0	21.74	21.74	21.72			
5	16QAM	1	0	21.30	21.43	21.30	23	2	
5	16QAM	1	12	21.30	21.42	21.38			
5	16QAM	1	24	21.27	21.32	21.22			
5	16QAM	10	0	20.73	20.84	20.66	22	3	
5	16QAM	25	0	20.67	20.74	20.55			
5	16QAM	12	13	20.69	20.74	20.67			
5	16QAM	25	0	20.54	20.64	20.46			
5	25QAM	1	0	18.40	18.57	18.45	20	5	
5	25QAM	1	12	18.54	18.58	18.41			
5	25QAM	1	24	18.37	18.58	18.43			
5	25QAM	12	0	18.87	18.83	18.72	20	5	
5	25QAM	12	7	18.80	18.84	18.60			
5	25QAM	12	13	18.85	18.89	18.77			
5	25QAM	25	0	18.83	18.88	18.61			

Band 41 Main PA Ant1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	23.64	23.73	23.81	24.5	0	
20	QPSK	1	49	23.63	23.73	23.75	23.62		
20	QPSK	50	0	23.63	23.69	23.76	23.67		
20	QPSK	50	24	22.80	22.84	22.82	23.5	1	
20	QPSK	100	0	22.82	22.82	22.78			
20	QPSK	100	0	22.75	22.77	22.81	22.85		
20	16QAM	1	0	22.81	22.80	22.85	22.88		
20	16QAM	1	49	22.84	22.82	22.85	22.78		
20	16QAM	1	99	22.84	22.85	22.85	22.82		
20	16QAM	50	0	21.88	21.94	22.01	21.89		
20	16QAM	50	24	21.81	21.92	21.95	21.84		
20	16QAM	50	50	21.89	21.84	22.05	21.85		
20	16QAM	100	0	21.88	21.67	21.68	21.81		
20	16QAM	1	99	21.50	21.54	21.61	21.59		
20	16QAM	1	49	21.48	21.67	21.62	21.50		
20	16QAM	1	99	21.47	21.42	21.52	21.40		
20	16QAM	50	0	20.91	20.88	21.02	20.83		
20	16QAM	50	24	20.78	20.81	20.89	20.81		
20	16QAM	50	50	20.78	20.85	20.87	20.85		
20	16QAM	100	0	20.71	20.68	20.81	20.67		
20	25QAM	1	0	18.64	18.64	18.81	18.64		
20	25QAM	1	49	18.62	18.70	18.82	18.67		
20	25QAM	1	99	18.67	18.63	18.68	18.64		
20</									



Band 42 FCC Par27Q Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel				42190	42690	42990				
Frequency (MHz)				3473	3500	3543				
20	QPSK	1	0	23.40	23.35	23.30				
20	QPSK	1	49	23.36	23.41	23.30		25	0	
20	QPSK	1	99	23.35	23.38	23.28				
20	QPSK	50	0	22.30	22.41	22.31				
20	QPSK	50	24	22.26	22.38	22.36		24	1	
20	QPSK	100	0	22.24	22.28	22.18				
20	QPSK	100	0	22.30	22.36	22.31				
20	16QAM	1	0	22.27	22.31	22.17		24	1	
20	16QAM	1	49	22.18	22.28	22.18				
20	16QAM	1	99	22.13	22.24	22.20				
20	16QAM	50	0	21.28	21.37	21.26				
20	16QAM	50	24	21.22	21.28	21.21		23	2	
20	16QAM	50	50	21.22	21.28	21.20				
20	16QAM	100	0	21.25	21.28	21.19				
20	16QAM	100	0	21.14	21.22	21.15				
20	16QAM	1	49	21.88	21.16	21.11		23	2	
20	16QAM	1	99	21.10	21.15	21.10				
20	16QAM	50	0	20.26	20.37	20.22				
20	16QAM	50	24	20.16	20.27	20.24		22	3	
20	16QAM	50	50	20.27	20.31	20.16				
20	16QAM	100	0	20.17	20.23	20.19				
20	256QAM	1	0	18.16	18.27	18.22				
20	256QAM	1	49	18.20	18.23	18.21		20	5	
20	256QAM	1	99	18.21	18.26	18.17				
20	256QAM	50	0	18.20	18.26	18.14				
20	256QAM	50	24	18.11	18.21	18.20		20	5	
20	256QAM	50	50	18.19	18.24	18.12				
20	256QAM	100	0	18.23	18.27	18.23				
Channel				43165	43665	43915				
Frequency (MHz)				36123	37000	37425				
15	QPSK	1	0	23.23	23.33	23.22				
15	QPSK	1	37	23.31	23.26	23.18		25	0	
15	QPSK	1	74	23.28	23.29	23.18				
15	QPSK	36	0	22.17	22.29	22.26				
15	QPSK	36	20	22.11	22.22	22.23		24	1	
15	QPSK	75	0	22.22	22.32	22.23				
15	16QAM	1	0	22.23	22.20	22.07		24	1	
15	16QAM	1	37	22.14	22.24	22.13				
15	16QAM	1	74	22.00	22.10	22.13				
15	16QAM	36	0	21.17	21.33	21.23		23	2	
15	16QAM	36	20	21.05	21.11	21.10				
15	16QAM	36	39	21.08	21.19	21.15				
15	16QAM	75	0	21.21	21.18	21.10				
15	16QAM	75	0	21.05	21.11	21.10				
15	16QAM	1	37	21.10	21.13	21.07		23	2	
15	16QAM	1	74	21.04	21.16	21.10				
15	16QAM	36	0	20.15	20.20	20.15		22	3	
15	16QAM	36	20	20.05	20.15	20.19				
15	16QAM	36	39	20.17	20.28	20.24				
15	16QAM	75	0	20.13	20.15	20.04				
15	256QAM	1	0	18.13	18.24	18.08		20	5	
15	256QAM	1	37	18.16	18.24	18.15				
15	256QAM	1	74	18.18	18.20	18.02				
15	256QAM	36	0	18.09	18.26	18.21		20	5	
15	256QAM	36	20	18.01	18.09	18.08				
15	256QAM	36	39	18.07	18.16	18.10				
15	256QAM	75	0	18.16	18.16	18.00				
Channel				44165	44665	45000				
Frequency (MHz)				38123	39000	39450				
10	QPSK	1	0	23.30	23.40	23.30				
10	QPSK	1	25	23.26	23.33	23.21		25	0	
10	QPSK	1	49	23.25	23.28	23.22				
10	QPSK	12	0	22.15	22.26	22.22				
10	QPSK	25	12	22.11	22.27	22.26		24	1	
10	QPSK	25	25	22.17	22.24	22.10				
10	QPSK	1	0	22.22	22.22	22.08		24	1	
10	16QAM	1	0	22.15	22.22	22.08				
10	16QAM	1	25	22.06	22.16	22.06				
10	16QAM	1	49	22.08	22.18	22.12				
10	16QAM	25	0	21.16	21.30	21.12		23	2	
10	16QAM	25	12	21.12	21.21	21.14				
10	16QAM	25	25	21.17	21.23	21.15				
10	16QAM	50	0	21.18	21.25	21.07				
10	16QAM	50	0	21.04	21.11	21.00				
10	16QAM	1	25	21.08	21.14	21.03		23	2	
10	16QAM	1	49	21.02	21.11	21.02				
10	16QAM	25	0	20.15	20.28	20.13		22	3	
10	16QAM	25	12	20.02	20.19	20.11				
10	16QAM	25	25	20.12	20.23	20.07				
10	16QAM	50	0	20.03	20.17	20.05				
10	256QAM	1	0	18.03	18.12	18.08		20	5	
10	256QAM	1	25	18.09	18.26	18.06				
10	256QAM	1	49	18.14	18.19	18.06				
10	256QAM	25	0	18.14	18.25	18.05				
10	256QAM	25	12	18.00	18.11	18.05		20	5	
10	256QAM	25	25	18.16	18.14	18.01				
10	256QAM	50	0	18.14	18.12	18.07				
Channel				45115	45615	45915				
Frequency (MHz)				38123	39000	39450				
5	QPSK	1	0	23.37	23.38	23.32				
5	QPSK	1	12	23.02	23.33	23.24		25	0	
5	QPSK	1	24	23.27	23.30	23.15				
5	QPSK	12	0	22.25	22.24	22.20				
5	QPSK	12	7	22.18	22.24	22.24		24	1	
5	QPSK	12	13	22.18	22.28	22.12				
5	QPSK	1	0	22.21	22.24	22.24				
5	16QAM	1	0	22.23	22.18	22.07		24	1	
5	16QAM	1	12	22.09	22.16	22.04				
5	16QAM	1	24	22.05	22.16	22.11				
5	16QAM	12	0	21.24	21.28	21.19				
5	16QAM	12	7	21.15	21.17	21.14		23	2	
5	16QAM	12	13	21.18	21.24	21.11				
5	16QAM	25	0	21.16	21.25	21.15				
5	16QAM	1	0	21.11	21.14	21.08				
5	16QAM	1	12	21.08	21.12	21.00		23	2	
5	16QAM	1	24	21.07	21.03	21.06				
5	16QAM	12	0	20.12	20.29	20.11		22	3	
5	16QAM	12	7	20.02	20.18	20.10				
5	16QAM	12	13	20.12	20.19	20.09				
5	16QAM	25	0	20.06	20.15	20.07				
5	256QAM	1	0	18.06	18.23	18.10		20	5	
5	256QAM	1	12	18.12	18.29	18.08				
5	256QAM	1	24	18.06	18.16	18.03				
5	256QAM	12	0	18.11	18.21	18.10				
5	256QAM	12	7	18.00	18.13	18.00		20	5	
5	256QAM	12	13	18.12	18.17	18.02				
5	256QAM	25	0	18.08	18.14	18.01				

Band 48 FCC Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel				56590	56890	56150				
Frequency (MHz)				5660	5660	5660				
20	QPSK	1	0	23.54	23.43	23.43				
20	QPSK	1	49	23.40	23.49	23.42		25	0	
20	QPSK	1	99	23.48	23.69	23.44				
20	QPSK	50	0	22.30	22.51	22.47				
20	QPSK	50	24	22.38	22.42	22.34		24	1	
20	QPSK	100	0	22.24	22.28	22.30				
20	QPSK	100	0	22.40	22.40	22.38				
20	16QAM	1	0	22.36	22.47	22.38		24	1	
20	16QAM	1	49	22.27	22.40	22.32				
20	16QAM	1	99	22.21	22.32	22.19				
20	16QAM	50	0	21.26	21.37	21.42		23	2	
20	16QAM	50	24	21.30	21.37	21.28				
20	16QAM	50	50	21.36	21.40	21.26				
20	16QAM	100	0	21.20	21.29	21.26				
20	16QAM	100	0	21.20	21.25	21.15				
20	16QAM	1	49	21.20	21.31	21.25		23	2	
20	16QAM	1	99	21.15	21.23	21.00				
20	16QAM	50	0	20.38	20.50	20.37				
20	16QAM	50	24	20.23	20.36	20.27		22	3	
20	16QAM	50	50	20.38	20.45	20.33				
20	16QAM	100	0	20.28	20.38	20.24				
20	256QAM	1	0	18.20	18.32	18.22		20	5	
20	256QAM	1	49	18.26	18.47	18.44				
20	256QAM	1	99	18.37	18.42	18.36				
20	256QAM	50	0	18.21	18.29	18.20				
20	256QAM	50	24	18.21	18.30	18.23		20	5	
20	256QAM	50	50	18.25	18.32	18.17				
20	256QAM	100	0	18.34						

GSM1900 Ant2 Default								
GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	31.00	1850.2	1880	1909.8	22.00
GSM 1 Tx slot	29.89	29.95	29.93	31.00	20.89	20.95	20.93	22.00
GPRS 1 Tx slot	29.92	30.01	29.95	31.00	20.92	21.01	20.95	22.00
GPRS 2 Tx slots	27.08	27.11	27.03	28.00	21.08	21.11	21.03	22.00
GPRS 3 Tx slots	25.21	25.34	25.26	26.20	20.95	21.08	21.00	21.94
GPRS 4 Tx slots	23.92	24.02	23.90	25.00	20.82	21.02	20.90	22.00
EDGE 1 Tx slot	26.15	26.26	26.18	27.00	17.15	17.26	17.18	18.00
EDGE 2 Tx slots	23.36	23.44	23.35	24.00	17.36	17.44	17.35	18.00
EDGE 3 Tx slots	21.53	21.56	21.50	22.20	17.27	17.30	17.24	17.94
EDGE 4 Tx slots	20.54	20.68	20.60	21.00	17.54	17.68	17.60	18.00

Band	WCDMA II Ant2 Default				Tune-up Limit (dBm)	WCDMA IV Ant2 Default			Tune-up Limit (dBm)
	9262	9400	9538	9662		9800	9938	1312	
TX Channel	9262	9400	9538	9662	9800	9938	1312	1413	1513
Rx Channel	9662	9800	9938	1312	1413	1513	1537	1638	1738
Frequency (MHz)	1852.4	1880	1907.6	1712.4	1732.6	1752.6			
3GPP Rel 99 AMR 12.2kbps	23.47	23.56	23.53	25.00	23.43	23.55	23.49	25.00	25.00
3GPP Rel 99 RMC 12.2kbps	23.50	23.61	23.56	25.00	23.50	23.57	23.52	25.00	25.00
3GPP Rel 6 HSDPA Subtest-1	22.48	22.69	22.63	24.00	22.82	22.58	22.59	24.00	24.00
3GPP Rel 6 HSDPA Subtest-2	22.54	22.53	22.56	24.00	22.57	22.60	22.55	24.00	24.00
3GPP Rel 6 HSDPA Subtest-3	22.09	22.11	22.02	23.50	22.07	22.16	22.02	23.50	23.50
3GPP Rel 6 HSDPA Subtest-4	22.00	22.02	22.00	23.50	21.94	22.01	22.03	23.50	23.50
3GPP Rel 8 DC-HSDPA Subtest-1	22.56	22.53	22.57	24.00	22.54	22.59	22.50	24.00	24.00
3GPP Rel 8 DC-HSDPA Subtest-2	22.48	22.55	22.46	24.00	22.47	22.55	22.43	24.00	24.00
3GPP Rel 8 DC-HSDPA Subtest-3	21.86	22.05	21.93	23.50	21.94	22.08	21.93	23.50	23.50
3GPP Rel 8 DC-HSDPA Subtest-4	21.90	22.02	21.96	23.50	21.82	21.96	21.93	23.50	23.50
3GPP Rel 6 HSUPA Subtest-1	22.34	22.47	22.30	24.00	22.41	22.49	22.50	24.00	24.00
3GPP Rel 6 HSUPA Subtest-2	20.56	20.65	20.56	22.00	20.56	20.64	20.57	22.00	22.00
3GPP Rel 6 HSUPA Subtest-3	21.62	21.71	21.68	23.00	21.82	21.63	21.60	23.00	23.00
3GPP Rel 6 HSUPA Subtest-4	20.46	20.50	20.51	22.00	20.46	20.59	20.42	22.00	22.00
3GPP Rel 6 HSUPA Subtest-5	22.39	22.60	22.42	24.00	22.40	22.59	22.45	24.00	24.00
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	20.07	20.14	20.08	21.50	20.11	20.21	20.06	21.50	21.50



Band 2 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power High Ch./Freq.	Time-up limit (sec)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.54	23.60	23.67				
20	QPSK	1	49	23.40	23.47	23.45		25	0	
20	QPSK	1	99	23.40	23.47	23.45				
20	QPSK	50	0	22.64	22.70	22.75				
20	QPSK	50	24	22.67	22.68	22.69		24	1	
20	QPSK	50	50	22.52	22.66	22.59				
20	QPSK	100	0	22.62	22.75	22.71				
20	16QAM	1	0	22.31	22.31	22.31				
20	16QAM	1	49	22.67	22.73	22.81		24	1	
20	16QAM	1	99	22.80	22.89	22.82				
20	16QAM	50	0	21.90	21.79	21.82				
20	16QAM	50	24	21.87	21.72	21.87		23	2	
20	16QAM	50	50	21.87	21.74	21.81				
20	16QAM	100	0	21.85	21.75	21.81				
20	84QAM	1	0	21.81	21.84	21.84				
20	84QAM	1	49	21.78	21.88	21.78		23	2	
20	84QAM	1	99	21.81	21.98	21.83				
20	84QAM	50	0	20.75	20.79	20.75				
20	84QAM	50	24	20.96	20.70	20.61		22	3	
20	84QAM	50	50	20.99	20.99	20.95				
20	84QAM	100	0	20.59	20.69	20.55				
20	256QAM	1	0	18.96	18.96	18.97				
20	256QAM	1	49	18.58	18.72	18.58		20	5	
20	256QAM	1	99	18.70	18.80	18.70				
20	256QAM	50	0	18.58	18.68	18.54				
20	256QAM	50	24	18.58	18.68	18.54		20	5	
20	256QAM	50	50	18.50	18.60	18.45				
20	256QAM	100	0	18.50	18.50	18.51				
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.43	23.43	23.40				
15	QPSK	1	37	23.36	23.42	23.30		25	0	
15	QPSK	1	74	23.30	23.42	23.30				
15	QPSK	36	0	22.58	22.69	22.68				
15	QPSK	36	29	22.48	22.48	22.48		24	1	
15	QPSK	36	39	22.46	22.57	22.49				
15	QPSK	75	0	22.67	22.66	22.67				
15	16QAM	1	0	22.94	22.94	22.77				
15	16QAM	1	37	22.58	22.67	22.49		24	1	
15	16QAM	1	74	22.80	22.89	22.82				
15	16QAM	36	0	21.97	21.98	21.48				
15	16QAM	36	29	21.46	21.59	21.59		23	2	
15	16QAM	36	39	21.80	21.89	21.82				
15	16QAM	75	0	21.63	21.61	21.55				
15	84QAM	1	0	21.72	21.84	21.77				
15	84QAM	1	37	21.81	21.89	21.84		23	2	
15	84QAM	1	74	21.72	21.75	21.75				
15	84QAM	36	0	20.71	20.64	20.61				
15	84QAM	36	29	20.40	20.68	20.67		22	3	
15	84QAM	36	39	20.48	20.53	20.45				
15	84QAM	75	0	20.49	20.60	20.46				
15	256QAM	1	0	18.58	18.58	18.58				
15	256QAM	1	37	18.48	18.58	18.47		20	5	
15	256QAM	1	74	18.58	18.70	18.58				
15	256QAM	36	0	18.58	18.68	18.54				
15	256QAM	36	29	18.52	18.64	18.40		20	5	
15	256QAM	36	39	18.41	18.54	18.38				
15	256QAM	75	0	18.52	18.52	18.52				
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.11	23.11	23.11				
10	QPSK	1	25	23.34	23.41	23.35		25	0	
10	QPSK	1	49	23.20	23.42	23.31				
10	QPSK	12	0	22.56	22.56	22.56				
10	QPSK	25	12	22.44	22.65	22.40		24	1	
10	QPSK	25	25	22.48	22.53	22.47				
10	16QAM	1	0	22.87	22.87	22.87				
10	16QAM	1	0	22.84	22.84	22.79				
10	16QAM	1	24	22.63	22.69	22.52		24	1	
10	16QAM	1	49	22.76	22.86	22.79				
10	16QAM	25	0	21.92	21.64	21.51				
10	16QAM	25	12	21.49	21.68	21.43		23	2	
10	16QAM	25	25	21.60	21.68	21.60				
10	16QAM	50	0	21.55	21.63	21.51				
10	84QAM	1	0	21.69	21.87	21.81				
10	84QAM	1	24	21.76	21.85	21.73		23	2	
10	84QAM	1	49	21.66	21.80	21.77				
10	84QAM	25	0	20.99	20.73	20.64				
10	84QAM	25	12	20.99	20.73	20.64		22	3	
10	84QAM	25	25	20.53	20.63	20.46				
10	84QAM	50	0	20.46	20.55	20.45				
10	256QAM	1	0	18.58	18.58	18.57				
10	256QAM	1	24	18.50	18.64	18.63		20	5	
10	256QAM	1	49	18.58	18.75	18.59				
10	256QAM	12	0	18.50	18.60	18.50				
10	256QAM	25	12	18.50	18.56	18.41		20	5	
10	256QAM	25	25	18.46	18.50	18.41				
10	256QAM	50	0	18.55	18.55	18.59				
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.41	23.41	23.41				
5	QPSK	1	12	23.36	23.39	23.32		25	0	
5	QPSK	1	24	23.32	23.35	23.32				
5	QPSK	12	0	22.56	22.56	22.56				
5	QPSK	12	13	22.42	22.54	22.44		24	1	
5	QPSK	25	0	22.48	22.48	22.47				
5	16QAM	1	0	22.83	22.82	22.84				
5	16QAM	1	12	22.59	22.64	22.56		24	1	
5	16QAM	1	24	22.69	22.77	22.64				
5	16QAM	12	0	21.64	21.63	21.68				
5	16QAM	12	7	21.46	21.60	21.45		23	2	
5	16QAM	12	13	21.57	21.68	21.60				
5	16QAM	25	0	21.63	21.64	21.62				
5	84QAM	1	0	21.66	21.74	21.75				
5	84QAM	1	12	21.71	21.79	21.79		23	2	
5	84QAM	1	24	21.74	21.82	21.80				
5	84QAM	12	0	20.61	20.74	20.69				
5	84QAM	12	7	20.51	20.62	20.48		22	3	
5	84QAM	12	13	20.63	20.54	20.43				
5	84QAM	25	0	20.96	20.97	20.41				
5	256QAM	1	0	18.51	18.51	18.53				
5	256QAM	1	12	18.50	18.59	18.48		20	5	
5	256QAM	1	24	18.59	18.73	18.55				
5	256QAM	12	0	18.54	18.70	18.64				
5	256QAM	12	7	18.54	18.53	18.49		20	5	
5	256QAM	12	13	18.38	18.54	18.52				
5	256QAM	25	0	18.48	18.56	18.51				
Channel										
Frequency (MHz)										
3	QPSK	1	0	23.47	23.55	23.55				
3	QPSK	1	8	23.40	23.39	23.38		25	0	
3	QPSK	1	14	23.34	23.37	23.33				
3	QPSK	8	0	22.57	22.62	22.68				
3	QPSK	8	4	22.44	22.60	22.49		24	1	
3	QPSK	8	7	22.37	22.59	22.53				
3	QPSK	15	0	22.59	22.69	22.64				
3	16QAM	1	0	22.83	22.88	22.78				
3	16QAM	1	8	22.63	22.61	22.46		24	1	
3	16QAM	1	14	22.73	22.78	22.72				
3	16QAM	8	0	21.46	21.68	21.49				
3	16QAM	8	4	21.42	21.58	21.47		23	2	
3	16QAM	8	7	21.61	21.64	21.68				
3	16QAM	15	0	21.52	21.66	21.56				
3	84QAM	1	0	21.75	21.82	21.78				
3	84QAM	1	8	21.69	21.74	21.73		23	2	
3	84QAM	1	14							



Band 25 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Turn-up (min)	MPR (dB)		
Channel										
	Frequency (MHz)			1860	1880	1900				
20	QPSK	1	0	23.53	23.60	23.60	25	0		
20	QPSK	1	49	23.52	23.63	23.68				
20	QPSK	1	99	23.45	23.51	23.46				
20	QPSK	50	0	22.59	22.73	22.88				
20	QPSK	50	24	22.57	22.64	22.84				
20	QPSK	50	50	22.84	22.70	22.84	24	1		
20	QPSK	100	0	22.56	22.67	22.56				
20	16QAM	1	0	22.59	22.59	22.59				
20	16QAM	1	49	22.47	22.59	22.50	24	1		
20	16QAM	1	99	22.59	22.63	22.57				
20	16QAM	50	0	21.70	21.80	21.77				
20	16QAM	50	24	21.56	21.80	21.54				
20	16QAM	50	50	21.86	21.73	21.87				
20	16QAM	100	0	21.82	21.89	21.59				
20	64QAM	1	0	21.79	21.84	21.78				
20	64QAM	1	49	21.84	21.76	21.70				
20	64QAM	1	99	21.84	21.90	21.80				
20	64QAM	50	0	20.55	20.60	20.57				
20	64QAM	50	24	20.57	20.56	20.58				
20	64QAM	50	50	20.51	20.51	20.57				
20	64QAM	100	0	20.56	20.58	20.58				
20	256QAM	1	0	18.75	18.86	18.71				
20	256QAM	1	49	18.96	18.73	18.59				
20	256QAM	1	99	18.71	18.75	18.66				
20	256QAM	50	0	18.54	18.65	18.55				
20	256QAM	50	24	18.56	18.60	18.57				
20	256QAM	50	50	18.60	18.68	18.61				
20	256QAM	100	0	18.63	18.65	18.65				
Channel										
	Frequency (MHz)			1875	1880	1907.5	Turn-up (min)	MPR (dB)		
15	QPSK	1	0	23.48	23.61	23.58	25	0		
15	QPSK	1	37	23.41	23.50	23.61				
15	QPSK	1	74	23.35	23.46	23.39				
15	QPSK	36	0	22.48	22.70	22.82				
15	QPSK	36	20	22.45	22.50	22.59				
15	QPSK	36	39	22.59	22.62	22.67	24	1		
15	16QAM	1	0	22.36	22.52	22.48				
15	16QAM	1	37	22.41	22.49	22.42	24	1		
15	16QAM	1	74	22.59	22.62	22.51				
15	16QAM	36	0	21.82	21.78	21.87				
15	16QAM	36	20	21.44	21.53	21.46				
15	16QAM	36	39	21.57	21.59	21.57				
15	64QAM	1	0	21.54	21.56	21.48				
15	64QAM	1	37	21.71	21.73	21.73				
15	64QAM	36	0	20.44	20.55	20.46				
15	64QAM	36	20	20.49	20.49	20.43				
15	64QAM	36	39	20.47	20.57	20.59				
15	64QAM	75	0	20.43	20.61	20.43				
15	256QAM	1	0	18.64	18.73	18.67				
15	256QAM	1	37	18.54	18.56	18.45				
15	256QAM	1	74	18.83	18.70	18.52				
15	256QAM	36	0	18.53	18.53	18.58				
15	256QAM	36	20	18.51	18.50	18.47				
15	256QAM	36	39	18.48	18.53	18.53				
15	256QAM	75	0	18.54	18.53	18.42				
Channel										
	Frequency (MHz)			1890	1894	1910	Turn-up (min)	MPR (dB)		
10	QPSK	1	0	23.43	23.50	23.43	25	0		
10	QPSK	1	25	23.45	23.57	23.47				
10	QPSK	1	49	23.37	23.45	23.38				
10	QPSK	25	0	22.47	22.50	22.48				
10	QPSK	25	12	22.54	22.61	22.58				
10	QPSK	25	25	22.50	22.66	22.63	24	1		
10	16QAM	1	0	22.38	22.52	22.48				
10	16QAM	1	25	22.33	22.56	22.42	24	1		
10	16QAM	1	49	22.53	22.58	22.51				
10	16QAM	25	0	21.58	21.78	21.83				
10	16QAM	25	12	21.45	21.57	21.51				
10	16QAM	25	25	21.60	21.68	21.64				
10	16QAM	50	0	21.54	21.50	21.54				
10	64QAM	1	0	21.67	21.73	21.70				
10	64QAM	1	25	21.50	21.68	21.63				
10	64QAM	1	49	21.81	21.83	21.72				
10	64QAM	25	0	20.47	20.59	20.46				
10	64QAM	25	12	20.45	20.45	20.48				
10	64QAM	25	25	20.55	20.60	20.61				
10	64QAM	50	0	20.41	20.63	20.46				
10	256QAM	1	0	18.65	18.73	18.58				
10	256QAM	1	25	18.63	18.64	18.51				
10	256QAM	1	49	18.67	18.60	18.61				
10	256QAM	25	0	18.51	18.50	18.57				
10	256QAM	25	12	18.45	18.50	18.50				
10	256QAM	25	25	18.50	18.50	18.57				
10	256QAM	50	0	18.49	18.60	18.42				
Channel										
	Frequency (MHz)			1895	1896	1915	Turn-up (min)	MPR (dB)		
5	QPSK	1	0	23.43	23.50	23.43	25	0		
5	QPSK	1	12	23.45	23.53	23.50				
5	QPSK	1	24	23.33	23.39	23.41				
5	QPSK	12	0	22.50	22.54	22.62				
5	QPSK	12	7	22.43	22.52	22.58				
5	QPSK	12	13	22.57	22.64	22.61	24	1		
5	QPSK	25	0	22.48	22.54	22.50				
5	16QAM	1	0	22.48	22.53	22.51				
5	16QAM	1	12	22.35	22.47	22.38	24	1		
5	16QAM	1	24	22.50	22.56	22.51				
5	16QAM	12	0	21.60	21.73	21.82				
5	16QAM	12	7	21.41	21.57	21.50				
5	16QAM	12	13	21.54	21.62	21.52				
5	64QAM	1	0	21.47	21.54	21.49				
5	64QAM	1	12	21.50	21.68	21.63				
5	64QAM	1	24	21.77	21.80	21.74				
5	64QAM	12	0	20.52	20.62	20.48				
5	64QAM	12	7	20.50	20.50	20.54				
5	64QAM	12	13	20.56	20.67	20.55				
5	64QAM	25	0	20.51	20.56	20.49				
5	256QAM	1	0	18.60	18.73	18.60				
5	256QAM	1	12	18.58	18.60	18.48				
5	256QAM	1	24	18.60	18.66	18.57				
5	256QAM	12	0	18.54	18.50	18.58				
5	256QAM	12	7	18.41	18.52	18.50				
5	256QAM	12	13	18.50	18.60	18.50				
5	256QAM	25	0	18.49	18.50	18.50				
Channel										
	Frequency (MHz)			1895	1894	1915	Turn-up (min)	MPR (dB)		
3	QPSK	1	0	23.43	23.50	23.43	25	0		
3	QPSK	1	8	23.38	23.51	23.40				
3	QPSK	1	14	23.32	23.41	23.33				
3	QPSK	8	0	22.46	22.49	22.64				
3	QPSK	8	4	22.52	22.59	22.86				
3	QPSK	8	7	22.59	22.60	22.56				
3	QPSK	15	0	22.53	22.59	22.51				
3	16QAM	1	0	22.38	22.50	22.43				
3	16QAM	1	8	22.33	22.45	22.46	24	1		
3	16QAM	1	15	22.48	22.50	22.49				
3	16QAM	8	0	21.62	21.74	21.71				
3	16QAM	8	4	21.41	21.56	21.51				
3	16QAM	8	7	21.62	21.68	21.61				
3	64QAM	1	0	21.50	21.50	21.60				
3	64QAM	1	14	21.78	21.88	21.76				
3	64QAM	8	0	20.47	20.50	20.46				
3	64QAM	8	4	20.50	20.60	20.45				
3	64QAM	8	7	20.49	20.56	20.57				</



Band 38 Main PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	25.18	25.22	25.23				
20	QPSK	1	49	25.08	25.18	25.09		25.5	0	
20	QPSK	50	0	25.18	25.18	25.18				
20	QPSK	50	24	24.17	24.27	24.21		24.5	1	
20	QPSK	100	0	24.13	24.23	24.17				
20	16QAM	1	0	23.16	23.23	23.08		24.5	1	
20	16QAM	1	49	23.09	23.14	23.00				
20	16QAM	1	99	23.02	23.17	23.09				
20	16QAM	50	0	23.19	23.27	23.22				
20	16QAM	50	24	23.17	23.22	23.11				
20	16QAM	50	50	23.26	23.31	23.27		23.5	2	
20	16QAM	100	0	22.24	22.32	22.11				
20	16QAM	1	49	22.81	22.81	22.84		23.5	2	
20	16QAM	1	99	22.71	22.82	22.78				
20	16QAM	50	0	22.22	22.27	22.21				
20	16QAM	50	24	22.28	22.22	22.28				
20	16QAM	50	50	22.29	22.27	22.19				
20	16QAM	100	0	22.16	22.22	22.19				
20	25QAM	1	0	20.26	20.30	20.24				
20	25QAM	1	49	20.16	20.21	20.13		20.5	5	
20	25QAM	1	99	20.18	20.24	20.12				
20	25QAM	50	0	20.14	20.20	20.16				
20	25QAM	50	24	20.03	20.16	20.11		20.5	5	
20	25QAM	50	50	20.08	20.20	20.11				
20	25QAM	100	0	20.09	20.13	20.08				
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.23	23.22	23.17				
15	QPSK	1	37	23.05	23.11	24.85		25.5	0	
15	QPSK	1	74	24.98	24.94	24.95				
15	QPSK	36	0	24.15	24.15	24.15				
15	QPSK	36	20	24.04	24.20	24.11		24.5	1	
15	16QAM	1	0	23.11	23.15	22.93		24.5	1	
15	16QAM	1	37	23.09	23.06	22.99				
15	16QAM	1	74	23.02	23.06	22.99				
15	16QAM	36	0	23.15	23.17	23.14				
15	16QAM	36	20	23.03	23.12	23.07		23.5	2	
15	16QAM	36	36	23.18	23.18	23.22				
15	16QAM	75	0	23.14	23.15	23.06				
15	16QAM	1	0	22.71	22.79	22.78				
15	16QAM	1	37	22.72	22.82	22.78		23.5	2	
15	16QAM	1	74	22.89	22.78	22.96				
15	16QAM	36	0	23.11	23.17	23.13				
15	16QAM	36	20	23.04	22.14	22.09		22.5	3	
15	16QAM	36	36	23.13	23.13	23.18				
15	16QAM	75	0	23.05	23.11	22.95				
15	25QAM	1	0	20.21	20.22	20.12		20.5	5	
15	25QAM	1	37	20.09	20.12	20.05				
15	25QAM	1	74	20.07	20.15	20.09				
15	25QAM	36	0	20.04	20.19	20.11				
15	25QAM	36	20	19.92	20.08	20.05		20.5	5	
15	25QAM	36	36	19.98	20.12	20.03				
15	25QAM	75	0	20.03	20.07	19.98				
Channel										
Frequency (MHz)										
10	QPSK	1	0	25.06	25.12	25.05				
10	QPSK	1	25	25.01	25.14	25.05		25.5	0	
10	QPSK	1	49	24.95	25.12	25.01				
10	QPSK	1	74	24.15	24.22	24.18				
10	QPSK	25	12	24.08	24.21	24.16		24.5	1	
10	QPSK	25	25	24.01	24.05	24.02				
10	16QAM	1	0	23.08	23.14	23.04		24.5	1	
10	16QAM	1	25	22.89	23.07	22.89				
10	16QAM	1	49	22.92	23.08	23.04				
10	16QAM	25	0	23.09	23.13	23.13				
10	16QAM	25	12	23.08	23.11	23.07				
10	16QAM	25	25	23.15	23.20	23.16		23.5	2	
10	16QAM	50	0	23.14	23.22	23.08				
10	16QAM	1	0	22.78	22.83	22.71				
10	16QAM	1	25	22.77	22.78	22.76		23.5	2	
10	16QAM	1	49	22.81	22.76	22.89				
10	16QAM	25	0	22.12	22.18	22.12				
10	16QAM	25	12	22.02	22.13	21.96		22.5	3	
10	16QAM	25	25	22.11	22.17	22.05				
10	16QAM	50	0	22.04	22.14	22.07				
10	25QAM	1	0	20.20	20.18	20.11				
10	25QAM	1	25	20.11	20.13	20.01		20.5	5	
10	25QAM	1	49	20.14	20.15	20.03				
10	25QAM	25	0	20.04	20.17	20.10				
10	25QAM	25	12	19.91	20.04	19.97		20.5	5	
10	25QAM	25	25	20.03	20.06	20.00				
10	25QAM	50	0	19.98	20.09	19.91				
Channel										
Frequency (MHz)										
5	QPSK	1	0	25.05	25.19	25.13				
5	QPSK	1	19	24.99	25.14	24.97		25.5	0	
5	QPSK	1	24	24.99	25.00	25.04				
5	QPSK	12	0	24.19	24.26	24.14				
5	QPSK	12	7	24.04	24.19	24.11		24.5	1	
5	QPSK	12	19	24.07	24.08	24.09				
5	QPSK	25	0	24.07	24.15	24.03				
5	QPSK	0	25.10	25.12	23.00					
5	16QAM	1	12	22.80	23.09	22.88		24.5	1	
5	16QAM	1	24	23.04	23.10	22.97				
5	16QAM	12	0	23.12	23.17	23.12				
5	16QAM	12	7	23.03	23.18	23.06		23.5	2	
5	16QAM	12	13	23.15	23.20	23.00				
5	16QAM	25	0	23.15	23.12	23.04				
5	16QAM	1	0	22.70	22.78	22.73		23.5	2	
5	16QAM	1	12	22.73	22.80	22.78				
5	16QAM	1	24	22.86	22.82	22.70				
5	16QAM	12	0	22.10	22.21	22.14				
5	16QAM	12	7	22.05	22.15	22.09		22.5	3	
5	16QAM	12	13	22.18	22.18	22.06				
5	16QAM	25	0	22.06	22.16	22.06				
5	25QAM	1	0	20.17	20.15	20.15				
5	25QAM	1	12	20.16	20.16	20.03		20.5	5	
5	25QAM	1	24	20.10	20.11	20.01				
5	25QAM	12	0	20.00	20.11	20.09				
5	25QAM	12	7	19.92	20.03	19.97		20.5	5	
5	25QAM	12	13	20.01	20.16	20.07				
5	25QAM	25	0	19.98	20.05	19.95				

Band 41 Main PA Ant2											
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Power High Mod Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel											
Frequency (MHz)											
20	QPSK	1	0	25.18	25.23	25.23	25.21		25.5	0	
20	QPSK	1	49	25.04	25.20	25.24	25.25				
20	QPSK	50	0	25.18	25.20	25.20	25.20				
20	QPSK	50	24	24.33	24.41	24.40	24.32		24.5	1	
20	QPSK	50	24	24.29	24.27	24.43	24.38				
20	QPSK	100	0	24.18	24.24	24.24	24.24				
20	QPSK	100	0	24.19	24.25	24.31	24.24				
20	16QAM	1	0	23.18	23.27	23.34	23.22		24.5	1	
20	16QAM	1	49	23.09	23.08	23.20	23.09				
20	16QAM	1	99	23.14	23.13	23.33	23.25				
20	16QAM	50	0	23.07	23.26	23.40	23.32				
20	16QAM	50	24	23.02	23.10	23.38	23.17				
20	16QAM	50	50	23.29	23.36	23.38	23.34		23.5	2	
20	16QAM	100	0	22.18	22.26	22.37	22.25				
20	16QAM	1	0	22.83	22.30	23.03	23.01				
20	16QAM	1	49	22.94	22.87	23.08	22.92		23.5	2	
20	16QAM	1	99	22.88	22.82	23.02	22.87				
20	16QAM	50	0	22.20	22.34	22.30	22.26				
20	16QAM	50	24	22.09	22.25	22.28	22.20		22.5	3	
20	16QAM	50	50	22.02	22.28	22.37	22.25				
20	16QAM	100	0	22.21	22.23	22.37	22.29				
20	25QAM	1	0	20.27	20.23	20.36	20.21		20.5	5	
20	25QAM	1	49	20.24	20.23	20.36	20.21				
20	25QAM	1	99	20.21	20.26	20.35	20.22				
20	25QAM	50	0	20.07	20.22	20.30	20.24				
20	25QAM	50	24	20.14	20.14	20.30	20.20		20.5	5	
20	25QAM	50	50	20.13	20.21	20.29	20.16				
20	25QAM	100	0	20.20	20.13	20.34	20.15				
Channel											
Frequency (MHz)											
16	QPSK	1	0	25.05	25.23	25.23	25.21				
16	QPSK	1	37	24.90	25.09	25.15	25.20		26	0	
16	QPSK	1	74	24.98	25.16	25.19	25.12				
16	QPSK	36	0	24.24	24.24	24.24	24.20				
16	QPSK	36	20	24.19	24.12	24.34	24.25		24.5	1	
16	QPSK	36	36	24.04	24.04	24.04	24.00				



Band 4 Main PA Ant3										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Time-up (min)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	22.52	22.61	22.67				
20	QPSK	1	49	22.52	22.61	22.67	24.5	0		
20	QPSK	1	99	22.52	22.61	22.67				
20	QPSK	50	0	21.50	21.55	21.51				
20	QPSK	50	24	21.51	21.51	21.51	23.5	1		
20	QPSK	50	50	21.53	21.51	21.50				
20	QPSK	100	0	21.50	21.57	21.52				
20	16QAM	100	0	21.51	21.61	21.55				
20	16QAM	1	49	21.53	21.55	21.59	23.5	1		
20	16QAM	1	99	21.54	21.51	21.53				
20	16QAM	50	0	20.74	20.75	20.75				
20	16QAM	50	24	20.69	20.73	20.67	22.5	2		
20	16QAM	50	50	20.73	20.77	20.73				
20	16QAM	100	0	20.68	20.74	20.63				
20	84QAM	1	0	20.54	20.55	20.62				
20	84QAM	1	49	20.57	20.59	20.50	22.5	2		
20	84QAM	50	0	20.59	20.51	20.51				
20	84QAM	50	24	19.52	19.57	19.57	21.5	3		
20	84QAM	50	50	19.58	19.52	19.52				
20	84QAM	100	0	19.52	19.52	19.59				
20	256QAM	1	49	17.55	17.59	17.54	19.5	5		
20	256QAM	1	99	17.55	17.51	17.52				
20	256QAM	50	0	17.56	17.52	17.52				
20	256QAM	50	24	17.54	17.68	17.58	19.5	5		
20	256QAM	50	50	17.60	17.72	17.67				
20	256QAM	100	0	17.61	17.68	17.68				
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.57	22.56	22.54				
15	QPSK	1	37	22.54	22.54	22.54	24.5	0		
15	QPSK	1	74	22.54	22.56	22.54				
15	QPSK	36	0	21.53	21.58	21.62				
15	QPSK	36	25	21.58	21.51	21.64	23.5	1		
15	QPSK	36	39	21.50	21.59	21.54				
15	QPSK	75	0	21.52	21.59	21.56				
15	16QAM	75	0	21.60	21.55	21.65				
15	16QAM	1	37	21.58	21.57	21.73	23.5	1		
15	16QAM	1	74	21.56	21.61	21.61				
15	16QAM	36	0	20.79	20.84	20.72				
15	16QAM	36	25	20.75	20.80	20.70	22.5	2		
15	16QAM	36	39	20.82	20.85	20.82				
15	16QAM	75	0	20.84	20.84	20.79				
15	84QAM	1	0	20.58	20.68	20.60				
15	84QAM	1	37	20.59	20.61	20.61	22.5	2		
15	84QAM	1	74	20.54	20.55	20.50				
15	84QAM	36	0	19.59	19.63	19.68				
15	84QAM	36	25	19.63	19.58	19.64	21.5	3		
15	84QAM	36	39	19.57	19.53	19.57				
15	84QAM	75	0	19.55	19.70	19.62				
15	256QAM	1	37	17.50	17.52	17.51	19.5	5		
15	256QAM	1	74	17.64	17.53	17.52				
15	256QAM	36	0	17.76	17.61	17.61				
15	256QAM	36	25	17.62	17.72	17.65	19.5	5		
15	256QAM	36	39	17.74	17.76	17.69				
15	256QAM	75	0	17.61	17.60	17.68				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.43	22.43	22.43				
10	QPSK	1	25	22.42	22.47	22.45	24	0		
10	QPSK	1	49	22.30	22.39	22.28				
10	QPSK	1	74	22.34	22.45	22.29				
10	QPSK	12	0	21.76	21.87	21.81				
10	QPSK	25	12	21.82	21.82	21.84	23	1		
10	QPSK	25	25	21.86	21.73	21.83				
10	QPSK	50	0	20.84	20.82	20.82				
10	16QAM	1	0	21.74	21.71	21.68				
10	16QAM	1	25	21.52	21.68	21.58	23	1		
10	16QAM	1	49	21.61	21.62	21.62				
10	16QAM	25	12	20.47	20.63	20.48	22	2		
10	16QAM	25	25	20.56	20.69	20.57				
10	16QAM	50	0	20.49	20.63	20.50				
10	84QAM	1	0	20.39	20.47	20.37				
10	84QAM	1	25	20.31	20.43	20.27	22	2		
10	84QAM	1	49	20.25	20.42	20.32				
10	84QAM	25	0	19.65	19.65	19.59				
10	84QAM	25	12	19.50	19.65	19.47	21	3		
10	84QAM	25	25	19.48	19.62	19.50				
10	84QAM	50	0	19.40	19.55	19.43				
10	256QAM	1	25	17.72	17.82	17.68	19	5		
10	256QAM	1	49	17.63	17.85	17.65				
10	256QAM	12	0	17.70	17.75	17.64				
10	256QAM	25	12	17.43	17.59	17.58	19	5		
10	256QAM	25	25	17.68	17.70	17.64				
10	256QAM	50	0	17.67	17.61	17.68				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.43	22.43	22.43				
5	QPSK	1	12	22.40	22.44	22.43	24	0		
5	QPSK	1	24	22.34	22.45	22.29				
5	QPSK	12	0	21.76	21.87	21.81				
5	QPSK	12	7	21.72	21.83	21.83	23	1		
5	QPSK	12	13	21.68	21.73	21.81				
5	QPSK	25	0	21.74	21.83	21.79				
5	16QAM	1	0	21.84	21.77	21.84				
5	16QAM	1	12	21.48	21.66	21.62	23	1		
5	16QAM	1	24	21.43	21.60	21.58				
5	16QAM	12	0	20.85	20.76	20.68				
5	16QAM	12	7	20.45	20.61	20.51	22	2		
5	16QAM	12	13	20.83	20.71	20.65				
5	16QAM	25	0	20.48	20.58	20.51				
5	84QAM	1	0	20.32	20.41	20.41				
5	84QAM	1	12	20.33	20.44	20.27	22	2		
5	84QAM	1	24	20.31	20.39	20.28				
5	84QAM	12	0	19.68	19.74	19.57				
5	84QAM	12	7	19.48	19.60	19.54	21	3		
5	84QAM	12	13	19.56	19.63	19.63				
5	84QAM	25	0	19.44	19.61	19.46				
5	256QAM	1	0	17.74	17.75	17.75	19	5		
5	256QAM	1	12	17.75	17.75	17.83				
5	256QAM	1	24	17.56	17.72	17.70				
5	256QAM	12	0	17.69	17.66	17.62				
5	256QAM	12	7	17.49	17.57	17.54	19	5		
5	256QAM	12	13	17.65	17.73	17.69				
5	256QAM	25	0	17.63	17.70	17.63				
Channel										
Frequency (MHz)										
3	QPSK	1	0	22.54	22.57	22.51				
3	QPSK	1	8	22.57	22.57	22.56	24.5	0		
3	QPSK	1	14	22.54	22.54	22.55				
3	QPSK	8	0	21.56	21.61	21.67				
3	QPSK	8	4	21.56	21.56	21.63	23.5	1		
3	QPSK	8	7	21.54	21.63	21.53				
3	16QAM	1	0	21.52	21.60	21.63				
3	16QAM	1	8	21.58	21.54	21.66	23.5	1		
3	16QAM	1	14	21.57	21.62	21.63				
3	16QAM	8	0	20.81	20.84	20.70				
3	16QAM	8	4	20.77	20.78	20.78	22.5	2		
3	16QAM	8	7	20.67	20.68	20.72				
3	84QAM	1	0	20.73	20.73	20.84				
3	84QAM	1	8	20.64	20.66	20.74	22.5	2		
3	84QAM	1	14	20.59	20.55	20.58				
3	84QAM	8	0	19.59	19.64	19.53				
3	84QAM	8	4	19.53	19.74	19.50	21.5	3		
3	84QAM	8	7	19.68	19.66	19.65				
3	256QAM	1	0	17.50	17.59	17.50	19.5	5</		



Band 38 Main PA Ant3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	22.94	23.12	23.30			
20	QPSK	1	49	22.80	23.04	23.24		24.5	0
20	QPSK	50	24	22.80	23.04	23.24			
20	QPSK	50	24	22.28	22.19	22.18		23.5	1
20	QPSK	100	0	22.07	22.17	22.07			
20	16QAM	1	0	22.94	23.10	23.02		23.5	1
20	16QAM	1	49	21.95	22.04	21.99			
20	16QAM	1	99	21.95	22.05	21.95			
20	16QAM	50	24	21.08	21.15	21.08		22.5	2
20	16QAM	50	24	20.94	21.07	20.98			
20	16QAM	50	50	21.02	21.11	21.07			
20	16QAM	100	0	20.99	21.05	20.94			
20	16QAM	100	0	20.73	20.83	20.73			
20	16QAM	1	49	20.70	20.77	20.88		22.5	2
20	16QAM	1	99	20.63	20.73	20.68			
20	16QAM	50	0	20.24	20.17	20.25			
20	16QAM	50	24	19.95	20.08	20.02		21.5	3
20	16QAM	50	50	20.10	20.13	20.02			
20	16QAM	100	0	19.94	20.05	20.02			
20	16QAM	100	0	17.84	17.87	17.83			
20	16QAM	1	49	17.84	17.84	17.79		19.5	5
20	16QAM	1	99	17.79	17.89	17.76			
20	16QAM	50	0	17.90	17.89	18.03			
20	16QAM	50	24	17.08	18.08	17.96		19.5	5
20	16QAM	50	50	18.09	18.14	18.09			
20	16QAM	100	0	17.76	17.84	17.84			
Channel									
Frequency (MHz)									
15	QPSK	1	0	22.73	22.95	23.15			
15	QPSK	1	37	22.82	22.80	22.86		24.5	0
15	QPSK	1	74	22.86	22.86	22.77			
15	QPSK	36	20	21.94	22.22	22.02		23.5	1
15	QPSK	36	20	21.94	22.26	22.12			
15	QPSK	75	0	22.00	22.08	21.94			
15	16QAM	1	0	22.21	22.26	21.88		23.5	1
15	16QAM	1	37	21.88	21.92	21.92			
15	16QAM	1	74	21.88	21.90	21.82			
15	16QAM	36	0	20.95	21.08	20.94		22.5	2
15	16QAM	36	20	20.83	20.92	20.88			
15	16QAM	36	20	20.71	20.75	20.81			
15	16QAM	36	59	20.91	21.06	20.96		22.5	2
15	16QAM	75	0	20.83	20.92	20.88			
15	16QAM	75	0	20.73	20.82	20.81			
15	16QAM	1	37	20.58	20.68	20.60		22.5	2
15	16QAM	1	74	20.61	20.60	20.58			
15	16QAM	36	0	19.96	20.02	19.92		21.5	3
15	16QAM	36	20	19.87	20.04	19.93			
15	16QAM	36	20	19.87	20.06	19.88			
15	16QAM	75	0	19.94	19.94	19.90			
15	16QAM	1	0	17.73	17.82	17.84		19.5	5
15	16QAM	1	37	17.73	17.82	17.84			
15	16QAM	1	74	17.69	17.81	17.65			
15	16QAM	36	0	18.02	18.06	17.93		19.5	5
15	16QAM	36	20	17.90	17.99	17.92			
15	16QAM	36	59	18.04	18.01	18.02			
15	16QAM	75	0	17.82	17.96	17.82			
Channel									
Frequency (MHz)									
10	QPSK	1	0	22.38	22.49	22.59			
10	QPSK	1	25	22.27	22.96	22.82		24.5	0
10	QPSK	1	49	22.82	22.81	22.74			
10	QPSK	12	13	22.04	22.12	22.08		23.5	1
10	QPSK	25	12	22.01	22.07	22.00			
10	QPSK	25	25	22.96	22.90	22.90			
10	16QAM	1	0	21.96	22.05	21.96		23.5	1
10	16QAM	1	25	21.96	21.98	21.88			
10	16QAM	1	49	21.87	21.93	21.89			
10	16QAM	25	0	20.95	21.08	20.96		22.5	2
10	16QAM	25	12	20.87	20.93	20.89			
10	16QAM	25	12	20.88	20.95	20.90			
10	16QAM	25	25	20.98	20.92	20.98		22.5	2
10	16QAM	1	0	20.68	20.72	20.68			
10	16QAM	1	25	20.65	20.70	20.59		22.5	2
10	16QAM	1	49	20.57	20.62	20.62			
10	16QAM	25	0	19.97	20.14	19.97		21.5	3
10	16QAM	25	12	19.91	20.00	19.98			
10	16QAM	25	25	20.26	20.07	19.95			
10	16QAM	50	0	19.81	19.91	19.92			
10	16QAM	1	0	17.78	17.85	17.81		19.5	5
10	16QAM	1	25	17.73	17.82	17.73			
10	16QAM	1	49	17.76	17.82	17.63			
10	16QAM	25	0	17.59	18.05	17.93		19.5	5
10	16QAM	25	12	17.68	18.00	17.96			
10	16QAM	25	25	17.97	18.02	17.99			
10	16QAM	50	0	17.88	17.87	17.82			
Channel									
Frequency (MHz)									
5	QPSK	1	0	22.90	23.01	22.99		24.5	0
5	QPSK	1	19	22.78	22.92	22.87			
5	QPSK	1	24	22.78	22.84	22.82			
5	QPSK	12	13	22.03	22.14	22.09		23.5	1
5	QPSK	12	13	22.00	22.02	21.96			
5	QPSK	25	0	21.97	22.05	21.96			
5	QPSK	25	0	21.93	22.04	21.89			
5	16QAM	1	12	21.84	21.95	21.90		23.5	1
5	16QAM	1	24	21.84	21.86	21.80			
5	16QAM	12	0	21.03	21.11	20.97		22.5	2
5	16QAM	12	7	20.87	20.99	20.94			
5	16QAM	12	13	20.66	20.97	20.93			
5	16QAM	25	0	20.84	20.91	20.80		22.5	2
5	16QAM	1	0	20.69	20.74	20.68			
5	16QAM	1	12	20.57	20.64	20.58			
5	16QAM	1	24	20.54	20.70	20.55		21.5	3
5	16QAM	12	0	19.96	20.09	19.98			
5	16QAM	12	7	19.81	19.95	19.88			
5	16QAM	12	13	20.07	20.10	19.91			
5	16QAM	25	0	19.93	19.94	19.92			
5	16QAM	1	0	17.80	17.88	17.79		19.5	5
5	16QAM	1	12	17.79	17.81	17.75			
5	16QAM	1	24	17.74	17.82	17.63			
5	16QAM	12	0	18.00	18.14	17.92		19.5	5
5	16QAM	12	7	17.94	18.02	17.86			
5	16QAM	12	13	17.97	18.11	18.03			
5	16QAM	25	0	17.82	17.94	17.88			

Band 41 Main PA Ant3									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	0	23.12	23.30	23.50			
20	QPSK	1	49	23.03	23.28	23.12		24.5	0
20	QPSK	50	24	23.01	23.12	23.07			
20	QPSK	50	0	22.30	22.20	22.41		23.5	1
20	QPSK	50	24	22.63	22.15	22.30			
20	QPSK	100	0	22.17	22.12	22.08		23.5	1
20	QPSK	100	0	22.18	22.15	22.30			
20	16QAM	1	0	22.11	22.17	22.17		23.5	1
20	16QAM	1	49	22.14	22.05	22.13			
20	16QAM	1	99	22.02	22.08	22.14			
20	16QAM	50	0	21.17	21.26	21.26		22.5	2
20	16QAM	50	24	21.07	21.09	21.18			
20	16QAM	50	50	21.17	21.11	21.27		22.5	2
20	16QAM	100	0	21.08	21.09	21.05			
20	16QAM	100	0	20.85	20.85	20.87		22.5	2
20	16QAM	1	49	20.71	20.78	20.83			
20	16QAM	1	99	20.78	20.63	20.78			
20	16QAM	50	0	20.18	20.12	20.25		21.5	3
20	16QAM	50	24	20.08	20.08	20.21			
20	16QAM	50	50	20.16	20.27	20.26			
20	16QAM	100	0	20.07	20.03	20.11			
20	16QAM	100	0	18.86	17.84	18.09		19.5	5
20	16QAM	1	49	17.80	18.02	17.87			
20	16QAM	1	99	17.89	17.82	18.02			
20	16QAM	50	0	18.08	18.14	18.03		19.5	5
20	16QAM	50	24	18.11	18.06	18.20			
20	16QAM	50	50	18.12	18.17	18.21			
20	16QAM	100	0	18.05	18.10	18.04			
Channel									
Frequency (MHz)									
16	QPSK	1	0	22.93	23.10	23.30			
16	QPSK	1	37	22.99	22.88	23.04		25	0
16	QPSK	1	74	22.94	22.89	23.01			
16	QPSK	36	0	22.21	22.29	22.17		23.5	1
16	QPSK	36	20	22.13	22.08	22.16			
16	QPSK	75	0	22.10	22.11	22.10			
16	16QAM	1	0	22.20	22.11	22.07		23.5	1
16	16QAM	1	37	22.04	22.06	22.04			
16	16QAM	1	74	21.87	21.84	22.00			
16	16QAM	36	0	21.09	21.16	21.15		22.5	2
16	16QAM	36	20	21.02	20.98	21.04			
16	16QAM	36	59	21.03	21.02	21.24			
16	16QAM	75	0	20.93	21.00	20.98		22.5	2
16	16QAM	75	0	20.73	20.78	20.76			
16	16QAM	1	37	20.51	20.74	20.73		22.5	



Band 2 Main PA Ant4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Turn-up time (sec)	MFR (dB)		
Channel										
1860 1860 1900										
20	QPSK	1	0	23.26	23.33	23.31			24.5	0
20	QPSK	1	49	23.18	23.22	23.16				
20	QPSK	1	99	23.18	23.22	23.16				
20	QPSK	50	0	22.36	22.42	22.36			23.5	1
20	QPSK	50	24	22.36	22.38	22.34				
20	QPSK	50	50	22.16	22.31	22.23				
20	QPSK	100	0	22.33	22.37	22.28			23.5	1
20	QPSK	100	24	22.32	22.34	22.27				
20	16QAM	1	49	22.68	22.78	22.68			23.5	1
20	16QAM	1	99	22.68	22.74	22.63				
20	16QAM	50	0	21.33	21.36	21.28			22.5	2
20	16QAM	50	24	21.17	21.32	21.27				
20	16QAM	50	50	21.29	21.38	21.25				
20	16QAM	100	0	21.26	21.30	21.22			22.5	2
20	16QAM	100	24	21.39	21.52	21.41				
20	64QAM	1	49	21.43	21.46	21.39			22.5	2
20	64QAM	1	99	21.36	21.45	21.31				
20	64QAM	50	0	20.43	20.47	20.41			21.5	3
20	64QAM	50	24	20.59	20.58	20.51				
20	64QAM	50	50	20.35	20.34	20.30				
20	256QAM	100	0	20.22	20.35	20.30			19.5	5
20	256QAM	100	24	18.44	18.56	18.37				
20	256QAM	100	49	18.40	18.47	18.33			19.5	5
20	256QAM	100	99	18.34	18.42	18.33				
20	256QAM	50	0	18.30	18.35	18.28			19.5	5
20	256QAM	50	24	18.31	18.35	18.24				
20	256QAM	50	50	18.30	18.40	18.34				
20	256QAM	100	0	18.27	18.27	18.27			19.5	5
Channel										
1867.5 1860 1902.5										
15	QPSK	1	0	23.21	23.28	23.18			24.5	0
15	QPSK	1	37	23.19	23.19	23.14				
15	QPSK	1	74	23.15	23.12	23.06				
15	QPSK	36	0	22.30	22.32	22.31			23.5	1
15	QPSK	36	25	22.18	22.26	22.20				
15	QPSK	36	39	22.11	22.22	22.19				
15	QPSK	75	0	22.19	22.25	22.19			23.5	1
15	QPSK	75	25	22.00	22.06	22.07				
15	16QAM	1	37	22.02	22.70	22.02			23.5	1
15	16QAM	1	74	22.04	22.04	22.04				
15	16QAM	36	0	21.20	21.30	21.16			22.5	2
15	16QAM	36	29	21.13	21.29	21.12				
15	16QAM	36	49	21.18	21.25	21.18				
15	16QAM	75	0	21.19	21.25	21.07			22.5	2
15	64QAM	1	0	21.35	21.46	21.28			22.5	2
15	64QAM	1	37	21.36	21.37	21.31				
15	64QAM	1	74	21.29	21.35	21.23			21.5	3
15	64QAM	36	0	20.36	20.35	20.33				
15	64QAM	36	29	20.36	20.36	20.30				
15	64QAM	36	39	20.32	20.35	20.25			21.5	3
15	64QAM	75	0	20.12	20.21	20.15				
15	256QAM	100	0	18.30	18.32	18.28			19.5	5
15	256QAM	100	25	18.27	18.41	18.30				
15	256QAM	100	37	18.27	18.41	18.30				
15	256QAM	100	74	18.30	18.39	18.19			19.5	5
15	256QAM	50	0	18.30	18.30	18.28				
15	256QAM	50	24	18.28	18.28	18.11			19.5	5
15	256QAM	50	39	18.17	18.24	18.27				
15	256QAM	75	0	18.23	18.24	18.27			20.5	5
Channel										
1865 1860 1905										
10	QPSK	1	0	23.18	23.24	23.18			24.5	0
10	QPSK	1	25	23.14	23.14	23.15				
10	QPSK	1	49	23.11	23.13	23.06				
10	QPSK	12	0	22.33	22.33	22.33			23.5	1
10	QPSK	25	12	22.17	22.28	22.19				
10	QPSK	25	25	22.07	22.26	22.13				
10	16QAM	1	0	22.61	22.72	22.62			23.5	1
10	16QAM	1	26	22.61	22.73	22.56				
10	16QAM	12	0	21.27	21.30	21.19			22.5	2
10	16QAM	12	19	21.09	21.23	21.15				
10	16QAM	12	49	21.18	21.27	21.14				
10	16QAM	50	0	21.17	21.16	21.15			22.5	2
10	64QAM	1	0	21.26	21.43	21.33			22.5	2
10	64QAM	1	26	21.37	21.37	21.37				
10	64QAM	1	49	21.24	21.28	21.27			21.5	3
10	64QAM	25	0	20.35	20.43	20.36				
10	64QAM	25	12	20.36	20.36	20.29				
10	64QAM	25	26	20.28	20.39	20.29				
10	64QAM	50	0	20.09	20.22	20.23			19.5	5
10	256QAM	100	0	18.34	18.44	18.27				
10	256QAM	100	1	18.32	18.42	18.22			19.5	5
10	256QAM	100	49	18.34	18.33	18.23				
10	256QAM	50	0	18.30	18.30	18.28			19.5	5
10	256QAM	50	12	18.26	18.28	18.16				
10	256QAM	50	25	18.22	18.29	18.19			19.5	5
10	256QAM	50	0	18.23	18.24	18.21				
Channel										
1862.5 1860 1907.5										
5	QPSK	1	0	23.18	23.24	23.18			24.5	0
5	QPSK	1	12	23.13	23.13	23.00				
5	QPSK	1	24	23.04	23.13	23.02				
5	QPSK	12	0	22.33	22.33	22.33			23.5	1
5	QPSK	12	7	22.21	22.26	22.19				
5	QPSK	12	13	22.08	22.19	22.15				
5	QPSK	25	0	22.26	22.28	22.25			23.5	1
5	QPSK	25	1	22.04	22.09	22.04				
5	16QAM	1	0	22.69	22.72	22.60			23.5	1
5	16QAM	1	24	22.61	22.71	22.60				
5	16QAM	12	0	21.20	21.28	21.18			22.5	2
5	16QAM	12	7	21.09	21.24	21.13				
5	16QAM	12	13	21.24	21.31	21.14				
5	16QAM	25	0	21.14	21.21	21.12			22.5	2
5	64QAM	1	0	21.26	21.40	21.30			22.5	2
5	64QAM	1	12	21.37	21.42	21.34				
5	64QAM	1	24	21.24	21.30	21.21			21.5	3
5	64QAM	12	0	20.29	20.39	20.35				
5	64QAM	12	7	20.17	20.24	20.18				
5	64QAM	12	13	20.25	20.31	20.33				
5	64QAM	25	0	20.14	20.21	20.17			19.5	5
5	256QAM	100	0	18.37	18.41	18.31				
5	256QAM	100	1	18.32	18.39	18.19			19.5	5
5	256QAM	100	24	18.27	18.28	18.23				
5	256QAM	12	0	18.26	18.31	18.26			19.5	5
5	256QAM	12	7	18.19	18.28	18.11				
5	256QAM	12	13	18.26	18.31	18.22			19.5	5
5	256QAM	12	0	18.18	18.18	18.23				
Channel										
1861.5 1860 1918.5										
3	QPSK	1	0	23.13	23.13	23.15			24.5	0
3	QPSK	1	8	23.13	23.23	23.07				
3	QPSK	1	14	23.13	23.14	23.12				
3	QPSK	8	0	22.31	22.33	22.28			23.5	1
3	QPSK	8	4	22.23	22.31	22.14				
3	QPSK	8	7	22.10	22.19	22.20				
3	QPSK	15	0	22.22	22.27	22.18			23.5	1
3	16QAM	1	0	22.64	22.77	22.60				
3	16QAM	1	8	22.65	22.67	22.59			23.5	1
3	16QAM	1	14	22.60	22.67	22.61				
3	16QAM	8	0	21.21	21.34	21.17			22.5	2
3	16QAM	8	4	21.08	21.19	21.21				
3	16QAM	8	7	21.15	21.24	21.12				
3	16QAM	1								



Band 25 Main PA Ant4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Turn-up (dB)	MPR (dB)		
Channel										
20	QPSK	1	0	20.31	20.42	20.27				
20	QPSK	1	49	21.29	21.34	21.24	24.5	0		
20	QPSK	1	99	22.16	22.29	22.21				
20	QPSK	50	0	22.24	22.32	22.26				
20	QPSK	50	24	22.22	22.32	22.21				
20	QPSK	50	50	22.16	22.24	22.12	23.5	1		
20	QPSK	100	0	22.16	22.24	22.20				
20	QPSK	100	24	22.55	22.56	22.56				
20	16QAM	1	49	22.45	22.59	22.47	23.5	1		
20	16QAM	1	99	22.52	22.55	22.43				
20	16QAM	50	0	21.31	21.38	21.28				
20	16QAM	50	24	21.15	21.28	21.15	22.5	2		
20	16QAM	50	50	21.18	21.32	21.22				
20	16QAM	100	0	21.18	21.30	21.19				
20	64QAM	1	0	21.44	21.51	21.47				
20	64QAM	1	49	21.31	21.45	21.39	22.5	2		
20	64QAM	1	99	21.27	21.41	21.28				
20	64QAM	50	0	20.31	20.42	20.32				
20	64QAM	50	24	20.19	20.33	20.22	21.5	3		
20	64QAM	50	50	20.38	20.38	20.25				
20	64QAM	100	0	20.27	20.30	20.26				
20	256QAM	1	49	18.45	18.45	18.38	19.5	5		
20	256QAM	1	99	18.38	18.42	18.32				
20	256QAM	50	0	18.28	18.41	18.28				
20	256QAM	50	24	18.27	18.31	18.18	18.5	5		
20	256QAM	50	50	18.25	18.37	18.33				
20	256QAM	100	0	18.23	18.36	18.33				
Channel										
15	QPSK	1	0	18.75	18.82	18.75				
15	QPSK	1	37	19.20	19.29	19.20	24.5	0		
15	QPSK	1	74	19.07	19.16	19.17				
15	QPSK	36	0	22.13	22.26	22.07				
15	QPSK	36	20	22.15	22.11	22.07				
15	QPSK	36	39	22.12	22.09	22.06	23.5	1		
15	QPSK	75	0	22.09	22.16	22.11				
15	16QAM	1	49	22.45	22.54	22.49				
15	16QAM	1	37	22.38	22.55	22.33	23.5	1		
15	16QAM	36	0	21.43	21.44	21.43				
15	16QAM	36	20	21.18	21.22	21.23				
15	16QAM	36	39	21.13	21.18	21.09	22.5	2		
15	64QAM	1	0	21.32	21.42	21.41				
15	64QAM	1	37	21.32	21.46	21.47	22.5	2		
15	64QAM	1	74	21.17	21.32	21.19				
15	64QAM	36	0	20.20	20.36	20.17	21.5	3		
15	64QAM	36	20	20.33	20.26	20.17				
15	64QAM	36	39	20.22	20.25	20.19				
15	64QAM	75	0	20.22	20.23	20.16				
15	256QAM	1	49	18.34	18.46	18.38	19.5	5		
15	256QAM	1	37	18.34	18.32	18.29				
15	256QAM	1	74	18.29	18.36	18.22				
15	256QAM	36	0	18.18	18.38	18.22				
15	256QAM	36	20	18.13	18.25	18.11	18.5	5		
15	256QAM	36	39	18.15	18.32	18.28				
15	256QAM	75	0	18.13	18.38	18.28				
Channel										
10	QPSK	1	0	18.77	18.82	18.77				
10	QPSK	1	25	19.23	19.24	19.20	24.5	0		
10	QPSK	1	49	19.10	19.18	19.09				
10	QPSK	25	0	22.16	22.21	22.11				
10	QPSK	25	12	22.16	22.19	22.07				
10	QPSK	25	25	22.04	22.11	22.01	23.5	1		
10	QPSK	50	0	22.02	22.16	22.11				
10	16QAM	1	0	22.42	22.50	22.47				
10	16QAM	1	25	22.34	22.50	22.42	23.5	1		
10	16QAM	25	0	21.22	21.30	21.15				
10	16QAM	25	12	21.14	21.17	21.08				
10	16QAM	25	25	21.05	21.18	21.15	22.5	2		
10	64QAM	1	0	21.32	21.38	21.44				
10	64QAM	1	25	21.32	21.35	21.38	22.5	2		
10	64QAM	1	49	21.17	21.34	21.18				
10	64QAM	25	0	20.24	20.30	20.29				
10	64QAM	25	12	20.35	20.26	20.18	21.5	3		
10	64QAM	25	25	20.23	20.33	20.20				
10	64QAM	50	0	20.20	20.22	20.20				
10	256QAM	1	49	18.40	18.43	18.33	19.5	5		
10	256QAM	1	25	18.38	18.39	18.33				
10	256QAM	1	49	18.30	18.38	18.27				
10	256QAM	25	0	18.21	18.30	18.21				
10	256QAM	25	12	18.20	18.20	18.12	19.5	5		
10	256QAM	25	25	18.11	18.25	18.20				
10	256QAM	50	0	18.20	18.20	18.24				
Channel										
5	QPSK	1	0	18.24	18.33	18.24				
5	QPSK	1	12	18.18	18.30	18.15	24.5	0		
5	QPSK	1	24	18.02	18.15	18.14				
5	QPSK	12	0	22.13	22.26	22.18				
5	QPSK	12	7	22.09	22.21	22.16				
5	QPSK	12	13	22.08	22.14	22.09	23.5	1		
5	QPSK	25	0	22.09	22.21	22.18				
5	16QAM	1	0	22.47	22.51	22.45				
5	16QAM	1	12	22.43	22.44	22.43	23.5	1		
5	16QAM	1	24	22.37	22.45	22.37				
5	16QAM	12	0	21.17	21.33	21.24				
5	16QAM	12	7	21.07	21.24	21.07	22.5	2		
5	16QAM	12	13	21.08	21.22	21.08				
5	64QAM	1	0	21.39	21.43	21.32				
5	64QAM	1	12	21.20	21.33	21.37	22.5	2		
5	64QAM	1	24	21.18	21.28	21.17				
5	64QAM	12	0	20.17	20.31	20.20				
5	64QAM	12	7	20.08	20.20	20.13	21.5	3		
5	64QAM	12	13	20.20	20.20	20.20				
5	64QAM	25	0	20.19	20.16	20.21				
5	256QAM	1	13	18.31	18.38	18.33	19.5	5		
5	256QAM	1	12	18.35	18.37	18.27				
5	256QAM	1	24	18.28	18.20	18.16				
5	256QAM	12	0	18.18	18.30	18.25				
5	256QAM	12	7	18.23	18.20	18.07	19.5	5		
5	256QAM	12	13	18.12	18.32	18.21				
5	256QAM	25	0	18.14	18.28	18.25				
Channel										
3	QPSK	1	0	23.24	23.38	23.13				
3	QPSK	1	8	23.18	23.24	23.16	24.5	0		
3	QPSK	1	14	23.03	23.22	23.08				
3	QPSK	8	0	22.16	22.21	22.11				
3	QPSK	8	4	22.12	22.18	22.13				
3	QPSK	8	7	22.05	22.14	22.08	23.5	1		
3	QPSK	15	0	22.02	22.14	22.14				
3	16QAM	1	0	22.50	22.60	22.42				
3	16QAM	1	8	22.38	22.45	22.38	23.5	1		
3	16QAM	1	15	22.44	22.49	22.30				
3	16QAM	8	0	21.20	21.23	21.22				
3	16QAM	8	4	21.16	21.27	21.01	22.5	2		
3	16QAM	8	7	21.11	21.26	21.11				
3	64QAM	1	0	21.06	21.20	21.09				
3	64QAM	1	8	21.39	21.44	21.39	22.5	2		
3	64QAM	1	15	21.27	21.30	21.30				
3	64QAM	8	0	21.13	21.38	21.16				
3	64QAM	8	7	20.29	20.39	20.19	21.5	3		
3	64QAM	8	4	20.16	20.23	20.16				
3	64QAM	8	7	20.18	20.29	20.20				
3	256QAM	1	0	18.38	18.48	18.34	19.5	5		
3	256QAM	1	8	18.34	18.					



Band 42 FCC Part27Q Main PA Ant5 DSI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	21.94	22.02	21.97	22.5	0
20	QPSK	1	49	21.84	21.99	21.78		
20	QPSK	1	99	21.71	21.86	21.65		
20	QPSK	50	0	21.96	22.02	21.91		
20	QPSK	50	24	21.83	21.88	21.84	22.5	0
20	QPSK	50	49	21.74	21.80	21.81		
20	QPSK	100	0	21.88	22.02	21.96		
20	HQAM	1	0	21.82	21.88	21.79	22.5	0
20	HQAM	1	49	21.74	21.80	21.81		
20	HQAM	1	99	21.58	22.11	22.01		
20	HQAM	50	0	21.89	21.97	21.79	22.5	0
20	HQAM	50	24	21.89	21.90	21.89		
20	HQAM	50	50	22.02	22.02	21.98		
20	HQAM	100	0	21.82	21.96	21.82		
20	HQAM	100	1	21.77	21.91	21.81		
20	HQAM	1	49	21.86	21.99	21.88	22.5	0
20	HQAM	1	99	21.85	21.90	21.88		
20	HQAM	50	0	21.73	21.93	21.78		
20	HQAM	50	24	22.04	22.05	21.99	22.5	0
20	HQAM	50	50	21.85	21.90	21.81		
20	HQAM	100	0	21.74	21.86	21.86		
20	ZSSQAM	1	0	19.76	19.84	19.70	20.5	2
20	ZSSQAM	1	49	19.67	19.80	19.67		
20	ZSSQAM	1	99	19.64	19.79	19.73		
20	ZSSQAM	50	0	19.68	19.82	19.80		
20	ZSSQAM	50	24	19.57	19.63	19.51	20.5	2
20	ZSSQAM	50	50	19.64	19.75	19.68		
20	ZSSQAM	100	0	19.65	19.84	19.87		
Channel								
Frequency (MHz)								
15	QPSK	1	0	347.5	350.0	347.5	22.5	0
15	QPSK	1	37	341.81	343.7	343.0		
15	QPSK	1	74	341.75	343.4	341.78		
15	QPSK	36	0	21.68	22.02	21.81	22.5	0
15	QPSK	36	20	21.89	21.84	21.79		
15	QPSK	36	39	21.74	21.88	21.88		
15	QPSK	75	0	21.68	22.08	22.01		
15	HQAM	1	0	21.90	21.99	21.89	22.5	0
15	HQAM	1	37	21.71	21.86	21.86		
15	HQAM	1	74	21.67	22.00	21.90		
15	HQAM	36	0	21.86	22.00	21.88	22.5	0
15	HQAM	36	20	21.75	21.83	21.83		
15	HQAM	36	39	22.00	22.00	21.93		
15	HQAM	75	0	21.81	22.00	21.80		
15	HQAM	75	0	21.72	21.90	21.79	22.5	0
15	HQAM	1	37	22.01	22.11	21.94		
15	HQAM	1	74	21.86	21.91	21.79		
15	HQAM	36	0	21.73	21.83	21.83		
15	HQAM	36	20	21.67	21.69	21.58	22.5	0
15	HQAM	36	39	21.83	21.84	21.54		
15	HQAM	75	0	21.62	21.62	21.51		
15	ZSSQAM	1	0	19.66	19.79	19.68	20.5	2
15	ZSSQAM	1	37	19.63	19.76	19.67		
15	ZSSQAM	1	74	19.53	19.60	19.62		
15	ZSSQAM	36	0	19.65	19.72	19.59	20.5	2
15	ZSSQAM	36	20	19.49	19.52	19.47		
15	ZSSQAM	36	39	19.59	19.61	19.58		
15	ZSSQAM	75	0	19.63	19.63	19.51		
Channel								
Frequency (MHz)								
10	QPSK	1	0	347.5	350.0	347.5	22.5	0
10	QPSK	1	25	341.82	343.8	341.87		
10	QPSK	1	49	341.71	343.0	341.80		
10	QPSK	12	7	21.83	22.00	21.84	22.5	0
10	QPSK	25	12	21.81	21.80	21.85		
10	QPSK	25	25	21.76	21.91	21.79		
10	QPSK	50	0	22.01	22.02	21.94	22.5	0
10	HQAM	1	0	21.92	21.98	21.87		
10	HQAM	1	25	21.80	21.88	21.80	22.5	0
10	HQAM	1	49	22.02	22.00	21.93		
10	HQAM	25	0	21.82	22.00	21.86	22.5	0
10	HQAM	25	12	21.74	21.86	21.80		
10	HQAM	25	25	22.03	22.07	21.95		
10	HQAM	50	0	21.88	21.82	21.89	22.5	0
10	HQAM	50	25	21.78	21.83	21.82		
10	HQAM	1	25	22.03	22.00	21.95	22.5	0
10	HQAM	1	49	21.88	21.89	21.86		
10	HQAM	25	0	21.78	21.83	21.80	22.5	0
10	HQAM	25	12	21.58	21.59	21.59		
10	HQAM	25	25	21.60	21.66	21.61		
10	HQAM	50	0	21.60	21.63	21.63	22.5	0
10	ZSSQAM	1	0	19.72	19.80	19.56	20.5	2
10	ZSSQAM	1	25	19.68	19.74	19.64		
10	ZSSQAM	1	49	19.61	19.70	19.67		
10	ZSSQAM	25	0	19.59	19.70	19.69	20.5	2
10	ZSSQAM	25	12	19.47	19.55	19.47		
10	ZSSQAM	25	25	19.55	19.63	19.57		
10	ZSSQAM	50	0	19.49	19.52	19.47		
Channel								
Frequency (MHz)								
5	QPSK	1	0	21.85	22.00	21.94	22.5	0
5	QPSK	1	12	21.83	21.90	21.87		
5	QPSK	1	24	21.71	21.87	21.87		
5	QPSK	12	0	22.00	22.00	21.89	22.5	0
5	QPSK	12	7	21.83	21.91	21.81		
5	QPSK	12	13	21.74	21.84	21.78		
5	QPSK	25	0	22.05	22.05	21.86	22.5	0
5	HQAM	1	0	21.86	21.98	21.80		
5	HQAM	1	12	21.69	21.83	21.79	22.5	0
5	HQAM	1	24	21.69	22.01	21.84		
5	HQAM	12	0	21.60	21.89	21.87		
5	HQAM	12	7	21.61	21.86	21.80	22.5	0
5	HQAM	12	13	22.04	22.05	21.93		
5	HQAM	25	0	21.83	21.89	21.88		
5	HQAM	1	0	21.70	21.86	21.79	22.5	0
5	HQAM	1	12	21.69	22.00	21.99		
5	HQAM	1	24	21.89	21.92	21.88		
5	HQAM	12	0	21.73	21.87	21.84	22.5	0
5	HQAM	12	7	21.56	21.61	21.58		
5	HQAM	12	13	21.67	21.64	21.60		
5	HQAM	25	0	21.93	21.68	21.66	22.5	0
5	ZSSQAM	1	0	19.64	19.70	19.55	20.5	2
5	ZSSQAM	1	12	19.66	19.71	19.62		
5	ZSSQAM	1	24	19.60	19.71	19.69		
5	ZSSQAM	12	0	19.58	19.70	19.59	20.5	2
5	ZSSQAM	12	7	19.49	19.45	19.47		
5	ZSSQAM	12	13	19.59	19.69	19.58		
5	ZSSQAM	25	0	19.49	19.50	19.45		

Band 48 Main PA Ant5 DSI3								
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	21.58	21.62	21.49	22	0
20	QPSK	1	49	21.54	21.48	21.43		
20	QPSK	1	99	21.59	21.45	21.47		
20	QPSK	50	0	21.60	21.62	21.58		
20	QPSK	50	24	21.52	21.49	21.41	22	0
20	QPSK	50	49	21.53	21.45	21.38		
20	QPSK	100	0	21.55	21.58	21.54		
20	HQAM	1	0	21.47	21.53	21.39	22	0
20	HQAM	1	49	21.36	21.47	21.48		
20	HQAM	1	99	21.59	21.52	21.56		
20	HQAM	50	0	21.51	21.51	21.36	22	0
20	HQAM	50	24	21.52	21.49	21.39		
20	HQAM	50	50	21.61	21.59	21.55	22	0
20	HQAM	100	0	21.54	21.56	21.42		
20	HQAM	100	1	21.30	21.43	21.43		
20	HQAM	1	49	21.54	21.58	21.58	22	0
20	HQAM	1	99	21.47	21.58	21.43		
20	HQAM	50	0	21.35	21.51	21.45		
20	HQAM	50	24	21.58	21.58	21.54	22	0
20	HQAM	50	50	21.45	21.49	21.43		
20	HQAM	100	0	21.37	21.52	21.36	22	0
20	ZSSQAM	1	0	19.92	19.93	19.84	20.5	1.5
20	ZSSQAM	1	49	19.73	19.88	19.73		
20	ZSSQAM	1	99	19.72	19.85	19.88		
20	ZSSQAM	50	0	19.65	19.87	19.84		
20	ZSSQAM	50	24	19.70	19.75	19.72	20.5	1.5
20	ZSSQAM	50	50	19.78	19.80	19.75		
20	ZSSQAM	100	0	19.64	19.89	19.95		
Channel								
Frequency (MHz)								
15	QPSK	1	0	21.52				



Band 42 FCC Part27Q Main PA Ant6 DS13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				42160	42560	42960			
20	QPSK	1	0	21.18	21.20	21.15	22	0	
20	QPSK	1	49	21.13	21.13	21.06			
20	QPSK	1	99	21.07	21.10	21.06			
20	QPSK	50	0	21.18	21.17	21.13			
20	QPSK	50	24	21.15	21.18	21.05	22	0	
20	QPSK	100	0	21.20	21.21	21.13			
20	HDQAM	1	0	21.14	21.21	21.14	22	0	
20	HDQAM	1	49	21.03	21.13	21.15			
20	HDQAM	1	99	21.22	21.20	21.14			
20	HDQAM	50	0	21.19	21.20	21.08			
20	HDQAM	50	24	21.20	21.22	21.07	22	0	
20	HDQAM	100	0	21.20	21.20	21.07			
20	HDQAM	100	0	21.02	21.15	21.04			
20	HDQAM	1	49	21.18	21.20	21.19	22	0	
20	HDQAM	1	99	21.18	21.18	21.06			
20	HDQAM	50	0	21.01	21.10	21.10			
20	HDQAM	50	24	21.28	21.27	21.17	22	0	
20	HDQAM	50	50	21.15	21.18	21.07			
20	HDQAM	100	0	21.02	21.19	21.10			
20	ZSSQAM	1	0	19.34	19.47	19.38			
20	ZSSQAM	1	49	19.26	19.46	19.40	20.5	1.5	
20	ZSSQAM	1	99	19.26	19.39	19.31			
20	ZSSQAM	50	0	19.27	19.32	19.28			
20	ZSSQAM	50	24	19.17	19.31	19.22	20.5	1.5	
20	ZSSQAM	50	50	19.31	19.37	19.23			
20	ZSSQAM	100	0	19.25	19.28	19.28			
Channel									
Frequency (MHz)				42160	42560	42960	Tune-up Int. (dBm)	MPR (dB)	
15	QPSK	1	0	21.03	21.20	21.22	22	0	
15	QPSK	1	47	21.19	21.19	21.07			
15	QPSK	1	74	21.03	21.10	21.10			
15	QPSK	36	0	21.07	21.10	21.06			
15	QPSK	36	20	21.17	21.21	21.06	22	0	
15	HDQAM	1	0	21.09	21.20	21.09			
15	HDQAM	1	47	21.19	21.18	21.21	22	0	
15	HDQAM	1	74	21.19	21.18	21.21			
15	HDQAM	36	0	21.13	21.22	21.11			
15	HDQAM	36	20	21.09	21.10	21.04	22	0	
15	HDQAM	36	59	21.18	21.22	21.14			
15	HDQAM	75	0	21.14	21.14	21.07			
15	HDQAM	1	0	21.09	21.10	21.04			
15	HDQAM	1	47	21.24	21.24	21.18	22	0	
15	HDQAM	1	74	21.13	21.24	21.19			
15	HDQAM	36	0	21.01	21.20	21.04			
15	HDQAM	36	20	21.25	21.29	21.17	22	0	
15	HDQAM	36	59	21.08	21.20	21.06			
15	HDQAM	75	0	21.04	21.08	21.11			
15	ZSSQAM	1	0	19.25	19.34	19.23			
15	ZSSQAM	1	47	19.23	19.32	19.22	20.5	1.5	
15	ZSSQAM	1	74	19.16	19.24	19.18			
15	ZSSQAM	36	0	19.21	19.28	19.20			
15	ZSSQAM	36	20	19.28	19.27	19.14	20.5	1.5	
15	ZSSQAM	36	59	19.27	19.23	19.13			
15	ZSSQAM	75	0	19.15	19.24	19.22			
Channel									
Frequency (MHz)				3455	3500	3545	Tune-up Int. (dBm)	MPR (dB)	
10	QPSK	1	0	21.03	21.20	21.14	22	0	
10	QPSK	1	25	21.10	21.19	21.12			
10	QPSK	1	49	21.05	21.10	21.04			
10	QPSK	12	7	21.14	21.20	21.18			
10	QPSK	25	12	21.13	21.21	21.13	22	0	
10	QPSK	25	25	21.05	21.19	21.09			
10	HDQAM	1	0	21.08	21.13	21.11			
10	HDQAM	1	25	21.08	21.11	21.10	22	0	
10	HDQAM	1	49	21.07	21.20	21.18			
10	HDQAM	25	0	21.12	21.19	21.16			
10	HDQAM	25	25	21.17	21.21	21.20	22	0	
10	HDQAM	25	50	21.20	21.20	21.12			
10	HDQAM	1	25	21.28	21.30	21.23	22	0	
10	HDQAM	1	49	21.12	21.20	21.12			
10	HDQAM	25	0	21.09	21.17	21.08			
10	HDQAM	25	12	21.24	21.32	21.17	22	0	
10	HDQAM	25	25	21.17	21.18	21.14			
10	HDQAM	50	0	21.09	21.10	21.04			
10	ZSSQAM	1	0	19.26	19.37	19.32			
10	ZSSQAM	1	25	19.26	19.41	19.38	20.5	1.5	
10	ZSSQAM	1	49	19.23	19.28	19.23			
10	ZSSQAM	25	0	19.23	19.28	19.24			
10	ZSSQAM	25	12	19.25	19.26	19.15	20.5	1.5	
10	ZSSQAM	25	25	19.27	19.27	19.12			
10	ZSSQAM	50	0	19.11	19.33	19.16			
Channel									
Frequency (MHz)				3453.5	3500	3547.5	Tune-up Int. (dBm)	MPR (dB)	
5	QPSK	1	0	21.19	21.31	21.18	22	0	
5	QPSK	1	12	21.18	21.19	21.13			
5	QPSK	1	24	21.08	21.10	21.13			
5	QPSK	12	0	21.22	21.32	21.19			
5	QPSK	12	7	21.14	21.20	21.17	22	0	
5	QPSK	12	13	21.03	21.10	21.07			
5	HDQAM	1	0	21.29	21.29	21.18			
5	HDQAM	1	12	21.17	21.18	21.07	22	0	
5	HDQAM	1	24	21.04	21.21	21.21			
5	HDQAM	12	0	21.19	21.13	21.11			
5	HDQAM	12	7	21.01	21.13	21.07	22	0	
5	HDQAM	12	13	21.25	21.30	21.20			
5	HDQAM	25	0	21.13	21.18	21.10			
5	HDQAM	1	0	21.11	21.16	21.07	22	0	
5	HDQAM	1	12	21.19	21.20	21.12			
5	HDQAM	1	24	21.19	21.20	21.13			
5	HDQAM	12	0	21.07	21.17	21.14			
5	HDQAM	12	7	21.27	21.27	21.16	22	0	
5	HDQAM	12	13	21.12	21.16	21.16			
5	HDQAM	25	0	21.03	21.13	21.13			
5	ZSSQAM	1	0	19.29	19.30	19.25	20.5	1.5	
5	ZSSQAM	1	12	19.27	19.27	19.33			
5	ZSSQAM	1	24	19.19	19.31	19.19			
5	ZSSQAM	12	0	19.28	19.29	19.26			
5	ZSSQAM	12	7	19.24	19.17	19.18	20.5	1.5	
5	ZSSQAM	12	13	19.27	19.26	19.16			
5	ZSSQAM	25	0	19.19	19.31	19.14			

Band 48 Main PA Ant6 DS13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MPR (dB)
Channel									
Frequency (MHz)				56340	56930	56150	56640		
20	QPSK	1	0	21.77	21.63	21.77	21.75	22.5	0
20	QPSK	1	49	21.77	21.75	21.65	21.64		
20	QPSK	1	99	21.62	21.76	21.70	21.66		
20	QPSK	50	0	21.81	21.65	21.75	21.78	22.5	0
20	QPSK	50	24	21.75	21.76	21.66	21.66		
20	QPSK	100	0	21.69	21.68	21.63	21.65		
20	QPSK	100	0	21.75	21.83	21.78	21.78		
20	HDQAM	1	0	21.82	21.79	21.73	21.67	22.5	0
20	HDQAM	1	49	21.72	21.72	21.62	21.66		
20	HDQAM	1	99	21.75	21.81	21.75	21.70		
20	HDQAM	50	0	21.74	21.79	21.64	21.59		
20	HDQAM	50	24	21.69	21.76	21.62	21.67	22.5	0
20	HDQAM	50	50	21.83	21.84	21.73	21.77		
20	HDQAM	100	0	21.67	21.75	21.72	21.69		
20	HDQAM	100	0	21.69	21.71	21.53	21.55		
20	HDQAM	1	49	21.85	21.84	21.80	21.89	22.5	0
20	HDQAM	1	99	21.74	21.76	21.71	21.76		
20	HDQAM	50	0	21.68	21.68	21.64	21.65		
20	HDQAM	50	24	21.81	21.86	21.74	21.75	22.5	0
20	HDQAM	50	50	21.75	21.71	21.72	21.63		
20	HDQAM	100	0	21.72	21.79	21.64	21.60		
20	ZSSQAM	1	0	19.48	19.56	19.44	19.44		
20	ZSSQAM	1	49	19.46	19.58	19.48	19.48	20.5	2
20	ZSSQAM	1	99	19.38	19.44	19.45	19.34		
20	ZSSQAM	50	0	19.43	19.54	19.48	19.42		
20	ZSSQAM	50	24	19.26	19.37	19.38	19.32	20.5	2
20	ZSSQAM	50	50	19.48	19.46	19.31	19.41		
20	ZSSQAM	100	0	19.35	19.40	19.35	19.35		
Channel									
Frequency (MHz)				56340	56930	56150	56640	Tune-up Int. (dBm)	MPR (dB)
15	QPSK	1	0	21.74	21.63	21.74	21.73	22.5	0
15	QPSK	1	37	21.76	21.80	21.74	21.67		
15	QPSK	1	74	21.70	21.76	21.67	21.60		
15	QPSK	36	0	21.75	21.84	21.69	21.66		
15	QPSK	36	20	21.79	21.73	21.67	21.65	22.5	0
15	HDQAM	1	0	21.68	21.70	21.64	21.64		
15	HDQAM	1	37	21.72	21.69	21.62	21.62	22.5	0
15	HDQAM	1	74	21.81	21.82	21.74	21.67		
15	HDQAM	36	0	21.74	21.79	21.74	21.68		
15	HDQAM	36	20	21.68	21.71	21.63	21.62	22.5	0
15	HDQAM	36	59	21.81	21.84	21.83	21.73		
15	HDQAM	75	0	21.78	21.70	21.69	21.60		
15	HDQAM</								



Band 42 FCC Part27Q Mian PA Ant7									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				42160	42590	42990			
20	QPSK	1	0	23.52	23.52	23.48	24.5	0	
20	QPSK	1	49	23.52	23.44	23.38			
20	QPSK	1	99	23.38	23.40	23.36			
20	QPSK	50	0	22.45	22.50	22.40	23.5	1	
20	QPSK	50	24	22.37	22.48	22.43			
20	QPSK	50	49	22.20	22.31	22.25			
20	QPSK	100	0	22.28	22.31	22.25			
20	HQAM	1	0	22.28	22.37	22.33	23.5	1	
20	HQAM	1	49	22.20	22.31	22.25			
20	HQAM	1	99	22.13	22.22	22.12			
20	HQAM	50	0	21.40	21.36	21.46	22.5	2	
20	HQAM	50	24	21.32	21.40	21.36			
20	HQAM	50	49	21.24	21.40	21.39			
20	HQAM	100	0	21.27	21.36	21.26			
20	HQAM	100	0	21.25	21.42	21.33			
20	HQAM	1	49	21.27	21.36	21.26	22.5	2	
20	HQAM	1	99	21.18	21.25	21.12			
20	HQAM	50	0	20.41	20.50	20.43			
20	HQAM	50	24	20.35	20.38	20.26			
20	HQAM	50	50	20.32	20.40	20.33	21.5	3	
20	HQAM	100	0	20.28	20.35	20.28			
20	ZSSQAM	1	0	18.24	18.26	18.35	19.5	5	
20	ZSSQAM	1	49	18.27	18.30	18.27			
20	ZSSQAM	1	99	18.24	18.30	18.25			
20	ZSSQAM	50	0	18.28	18.26	18.36			
20	ZSSQAM	50	24	18.09	18.22	18.16	19.5	5	
20	ZSSQAM	50	50	18.06	18.19	18.10			
20	ZSSQAM	100	0	18.09	18.20	18.14			
Channel									
Frequency (MHz)				42160	42590	42990	Tune-up Int (dBm)	MPR (dB)	
15	QPSK	1	0	23.44	23.50	23.43	24.5	0	
15	QPSK	1	47	23.28	23.32	23.32			
15	QPSK	1	74	23.22	23.30	23.24			
15	QPSK	36	0	22.41	22.30	22.36	23.5	1	
15	QPSK	36	20	22.28	22.30	22.35			
15	QPSK	36	37	22.23	22.29	22.28			
15	QPSK	75	0	22.24	22.32	22.21			
15	HQAM	1	0	22.25	22.29	22.25	23.5	1	
15	HQAM	1	47	22.13	22.20	22.18			
15	HQAM	1	74	22.07	22.15	22.03			
15	HQAM	36	0	21.31	21.37	21.37	22.5	2	
15	HQAM	36	20	21.29	21.30	21.29			
15	HQAM	36	37	21.31	21.34	21.31			
15	HQAM	75	0	21.14	21.21	21.15			
15	HQAM	1	0	21.24	21.29	21.22	22.5	2	
15	HQAM	1	47	21.18	21.32	21.15			
15	HQAM	1	74	21.11	21.22	21.09			
15	HQAM	36	0	20.33	20.40	20.38	21.5	3	
15	HQAM	36	20	20.25	20.29	20.22			
15	HQAM	36	37	20.28	20.30	20.28			
15	HQAM	75	0	20.15	20.22	20.22			
15	ZSSQAM	1	0	18.17	18.28	18.23	19.5	5	
15	ZSSQAM	1	47	18.17	18.18	18.23			
15	ZSSQAM	1	74	18.13	18.15	18.17			
15	ZSSQAM	36	0	18.20	18.27	18.18	19.5	5	
15	ZSSQAM	36	20	17.28	18.10	18.02			
15	ZSSQAM	36	37	17.98	18.13	18.07			
15	ZSSQAM	75	0	18.16	18.10	18.00			
Channel									
Frequency (MHz)				42160	42590	42990	Tune-up Int (dBm)	MPR (dB)	
10	QPSK	1	0	23.44	23.44	23.34	24.5	0	
10	QPSK	1	25	23.18	23.29	23.20			
10	QPSK	1	49	23.31	23.32	23.33			
10	QPSK	12	0	22.23	22.28	22.26	23.5	1	
10	QPSK	25	12	22.28	22.42	22.35			
10	QPSK	25	25	22.18	22.29	22.19			
10	QPSK	50	0	22.23	22.29	22.19			
10	HQAM	1	0	22.17	22.23	22.26	23.5	1	
10	HQAM	1	25	22.11	22.16	22.12			
10	HQAM	1	49	22.00	22.11	21.98			
10	HQAM	25	0	21.31	21.40	21.38	22.5	2	
10	HQAM	25	12	21.27	21.40	21.21			
10	HQAM	25	25	21.21	21.44	21.20			
10	HQAM	50	0	21.09	21.24	21.18			
10	HQAM	1	0	21.24	21.31	21.26	22.5	2	
10	HQAM	1	25	21.23	21.28	21.21			
10	HQAM	1	49	21.09	21.17	21.08			
10	HQAM	25	0	20.33	20.37	20.40	21.5	3	
10	HQAM	25	12	20.32	20.33	20.12			
10	HQAM	25	25	20.22	20.33	20.28			
10	HQAM	50	0	20.15	20.25	20.18			
10	ZSSQAM	1	0	18.16	18.20	18.20	19.5	5	
10	ZSSQAM	1	25	18.21	18.16	18.09			
10	ZSSQAM	1	49	18.09	18.05	18.13			
10	ZSSQAM	25	0	18.18	18.19	18.18	19.5	5	
10	ZSSQAM	25	12	18.04	18.15	18.07			
10	ZSSQAM	25	25	18.01	18.15	18.00			
10	ZSSQAM	50	0	17.97	18.16	18.09			
Channel									
Frequency (MHz)				3453.5	3500	3547.5	Tune-up Int (dBm)	MPR (dB)	
5	QPSK	1	0	23.45	23.43	23.35	24.5	0	
5	QPSK	1	24	23.29	23.31	23.31			
5	QPSK	1	24	23.29	23.30	23.28			
5	QPSK	12	0	22.23	22.40	22.36	23.5	1	
5	QPSK	12	7	22.29	22.45	22.38			
5	QPSK	12	13	22.28	22.29	22.19			
5	QPSK	25	0	22.25	22.29	22.17			
5	QPSK	25	0	22.23	22.30	22.23			
5	HQAM	1	12	22.16	22.26	22.14	23.5	1	
5	HQAM	1	24	22.01	22.10	22.06			
5	HQAM	12	0	21.36	21.40	21.41	22.5	2	
5	HQAM	12	7	21.24	21.33	21.22			
5	HQAM	12	31	21.28	21.30	21.26			
5	HQAM	25	0	21.09	21.30	21.17	22.5	2	
5	HQAM	1	0	21.28	21.28	21.28			
5	HQAM	1	12	21.16	21.24	21.11	22.5	2	
5	HQAM	1	24	21.02	21.21	21.00			
5	HQAM	12	0	20.34	20.37	20.29	21.5	3	
5	HQAM	12	7	20.20	20.34	20.21			
5	HQAM	12	13	20.28	20.40	20.20			
5	HQAM	25	0	20.13	20.26	20.17			
5	ZSSQAM	1	0	18.10	18.32	18.23	19.5	5	
5	ZSSQAM	1	12	18.16	18.18	18.09			
5	ZSSQAM	1	24	18.18	18.21	18.11			
5	ZSSQAM	12	0	18.17	18.27	18.16	19.5	5	
5	ZSSQAM	12	7	18.01	18.16	18.10			
5	ZSSQAM	12	31	17.83	18.11	17.99			
5	ZSSQAM	25	0	17.94	18.14	18.06			

Band 48 Main PA Ant7 DS13									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MPR (dB)
Channel									
Frequency (MHz)				56340	56930	56160	56640		
20	QPSK	1	0	18.55	18.60	18.41	18.54	19.5	0
20	QPSK	1	49	18.39	18.57	18.38	18.51		
20	QPSK	1	99	18.50	18.56	18.40	18.48		
20	QPSK	50	0	18.58	18.62	18.55	18.55	19.5	0
20	QPSK	50	24	18.44	18.53	18.43	18.48		
20	QPSK	50	49	18.47	18.58	18.37	18.46		
20	QPSK	100	0	18.58	18.59	18.52	18.52		
20	HQAM	1	0	18.50	18.55	18.45	18.48	19.5	0
20	HQAM	1	49	18.41	18.49	18.39	18.41		
20	HQAM	1	99	18.56	18.65	18.59	18.48		
20	HQAM	50	0	18.47	18.59	18.41	18.53	19.5	0
20	HQAM	50	24	18.37	18.47	18.37	18.41		
20	HQAM	50	49	18.44	18.46	18.42	18.47		
20	HQAM	100	0	18.40	18.49	18.40	18.45	19.5	0
20	HQAM	1	49	18.61	18.61	18.52	18.55	19.5	0
20	HQAM	1	99	18.41	18.52	18.44	18.56		
20	HQAM	50	0	18.39	18.57	18.41	18.48		
20	HQAM	50	24	18.28	18.58	18.47	18.52	19.5	0
20	HQAM	50	50	18.40	18.56	18.41	18.58		
20	HQAM	100	0	18.45	18.52	18.34	18.51		
20	ZSSQAM	1	0	18.32	18.47	18.36	18.41	19.5	0
20	ZSSQAM	1	49	18.36	18.38	18.29	18.25		
20	ZSSQAM	1	99	18.33	18.36	18.24	18.36		
20	ZSSQAM	50	0	18.49	18.49	18.37	18.42	19.5	0
20	ZSSQAM	50	24	18.15	18.29	18.26	18.22		
20	ZSSQAM	50	50	18.19	18.31	18.27	18.18		
20	ZSSQAM	100	0	18.25	18.29	18.20	18.25		
Channel									
Frequency (MHz)				56340	56930	56160	56640	Tune-up Int (dBm)	MPR (dB)
15	QPSK	1	0	18.57	18.60	18.42	18.54	19.5	0
15	QPSK	1	37	18.48	18.51	18.37	18.46		
15	QPSK	1	74	18.37	18.53	18.42	18.45		
15	QPSK	36	0	18.62	18.62	18.49	18.45	19.5	0
15	QPSK	36	20	18.41	18.59	18.38	18.57		
15	QPSK	36	37	18.42	18.59	18.34	18.47		
15	QPSK	75</							



DSI 4 Power for WWAN Main PA

GSM850 Ant0 Default								
GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
TX Channel	824.2	836.4	848.8	34.00	824.2	836.4	848.8	25.00
Frequency (MHz)	824.2	836.4	848.8	34.00	824.2	836.4	848.8	25.00
GSM 1 Tx slot	32.93	33.09	33.05	34.00	23.93	24.09	24.05	25.00
GPRS 1 Tx slot	32.97	33.13	33.07	34.00	23.97	24.13	24.07	25.00
GPRS 2 Tx slots	30.09	30.12	30.04	31.00	24.09	24.12	24.04	25.00
GPRS 3 Tx slots	28.23	28.34	28.15	29.20	23.97	24.08	23.93	24.94
GPRS 4 Tx slots	28.91	28.95	28.88	29.00	23.91	23.95	23.88	25.00
EDGE 1 Tx slot	27.01	27.13	27.08	28.00	18.01	18.13	18.08	19.00
EDGE 2 Tx slots	24.17	24.25	24.10	25.00	18.17	18.25	18.10	19.00
EDGE 3 Tx slots	22.31	22.41	22.28	23.20	18.05	18.15	18.02	18.94
EDGE 4 Tx slots	21.12	21.17	21.04	22.00	18.12	18.17	18.04	19.00

WCDMA V Ant0 Default					
Band	WCDMA V			Tune-up Limit (dBm)	
TX Channel	4192	4192	4238		
Rx Channel	4357	4407	4453		
Frequency (MHz)	826.4	836.4	846.6		
3GPP Rel 99	AMR 12.2kbps	23.98	24.11	24.08	25.00
3GPP Rel 99	RMC 12.2kbps	24.04	24.16	24.13	25.00
3GPP Rel 6	HSDPA Subtest-1	23.15	23.15	23.11	24.00
3GPP Rel 6	HSDPA Subtest-2	23.09	23.15	23.07	24.00
3GPP Rel 6	HSDPA Subtest-3	22.54	22.69	22.61	23.50
3GPP Rel 6	HSDPA Subtest-4	22.56	22.63	22.57	23.50
3GPP Rel 8	DC-HSDPA Subtest-1	23.03	23.14	23.10	24.00
3GPP Rel 8	DC-HSDPA Subtest-2	23.04	23.14	23.06	24.00
3GPP Rel 8	DC-HSDPA Subtest-3	22.45	22.60	22.53	23.50
3GPP Rel 8	DC-HSDPA Subtest-4	22.43	22.58	22.50	23.50
3GPP Rel 6	HSUPA Subtest-1	22.98	23.03	23.05	24.00
3GPP Rel 6	HSUPA Subtest-2	21.08	21.21	21.06	22.00
3GPP Rel 6	HSUPA Subtest-3	22.09	22.26	22.21	23.00
3GPP Rel 6	HSUPA Subtest-4	21.06	21.11	21.03	22.00
3GPP Rel 6	HSUPA Subtest-5	23.02	23.11	23.05	24.00
3GPP Rel 7	HSPA+ (10QAM) Subtest-1	20.57	20.76	20.64	21.50



Band 5 Main PA Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power High Ch / Freq.	Power High Ch / Freq.	Turn-up limit (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.45	24.56	24.55	25.5	0		
10	QPSK	1	25	24.52	24.48	24.51				
10	QPSK	1	49	24.35	24.52	24.34				
10	QPSK	25	0	23.48	23.59	23.54	24.5	1		
10	QPSK	25	12	23.51	23.47	23.50				
10	QPSK	25	25	23.34	23.50	23.40				
10	QPSK	50	0	23.43	23.54	23.47				
10	16QAM	1	0	23.79	23.84	23.79				
10	16QAM	1	25	23.72	23.71	23.68	24.5	1		
10	16QAM	1	49	23.68	23.73	23.69				
10	16QAM	25	0	22.39	22.52	22.41				
10	16QAM	25	12	22.37	22.48	22.33	23.5	2		
10	16QAM	25	25	22.36	22.44	22.34				
10	16QAM	50	0	22.30	22.46	22.31				
10	64QAM	1	0	22.69	22.68	22.58				
10	64QAM	1	25	22.49	22.69	22.61	23.5	2		
10	64QAM	1	49	22.51	22.67	22.44				
10	64QAM	25	0	21.38	21.46	21.39				
10	64QAM	25	12	21.52	21.48	21.38	22.5	3		
10	64QAM	25	25	21.28	21.37	21.36				
10	64QAM	50	0	21.23	21.51	21.28				
10	256QAM	1	0	19.44	19.56	19.41				
10	256QAM	1	25	19.38	19.56	19.43	20.5	5		
10	256QAM	1	49	19.38	19.56	19.44				
10	256QAM	25	0	19.28	19.36	19.27				
10	256QAM	25	12	19.24	19.49	19.24	20.5	5		
10	256QAM	25	25	19.34	19.40	19.34				
10	256QAM	50	0	19.43	19.49	19.43				
Channel										
Frequency (MHz)										
5	QPSK	1	0	24.32	24.52	24.41	25.5	0		
5	QPSK	1	12	24.31	24.43	24.40				
5	QPSK	1	24	24.29	24.40	24.22				
5	QPSK	12	0	23.36	23.53	23.45	24.5	1		
5	QPSK	12	7	23.39	23.36	23.38				
5	QPSK	12	13	23.20	23.37	23.26				
5	QPSK	25	0	23.36	23.48	23.38				
5	16QAM	1	0	23.76	23.79	23.72	24.5	1		
5	16QAM	1	12	23.69	23.80	23.54				
5	16QAM	1	24	23.58	23.81	23.61	23.5	2		
5	16QAM	12	0	22.29	22.44	22.52				
5	16QAM	12	7	22.27	22.39	22.27				
5	16QAM	12	13	22.35	22.31	22.27				
5	16QAM	25	0	22.27	22.38	22.20				
5	64QAM	1	0	22.48	22.81	22.53	22.5	2		
5	64QAM	1	12	22.46	22.82	22.42				
5	64QAM	1	24	22.44	22.82	22.35				
5	64QAM	12	0	21.33	21.34	21.53	22.5	3		
5	64QAM	12	7	21.36	21.41	21.28				
5	64QAM	12	13	21.19	21.25	21.25				
5	64QAM	25	0	21.14	21.48	21.14				
5	256QAM	1	0	19.38	19.51	19.28				
5	256QAM	1	12	19.34	19.57	19.31	20.5	5		
5	256QAM	1	24	19.33	19.51	19.36				
5	256QAM	12	0	19.28	19.36	19.27				
5	256QAM	12	7	19.20	19.34	19.19	20.5	5		
5	256QAM	12	13	19.31	19.29	19.27				
5	256QAM	25	0	19.33	19.43	19.29				
Channel										
Frequency (MHz)										
3	QPSK	1	0	24.17	24.59	24.47	25.5	0		
3	QPSK	1	8	24.35	24.43	24.29				
3	QPSK	1	14	24.22	24.45	24.29				
3	QPSK	8	0	23.37	23.51	23.41	24.5	1		
3	QPSK	8	4	23.35	23.38	23.41				
3	QPSK	8	7	23.26	23.47	23.26				
3	QPSK	15	0	23.36	23.44	23.38				
3	16QAM	1	0	23.70	23.71	23.68	24.5	1		
3	16QAM	1	8	23.68	23.68	23.64				
3	16QAM	1	14	23.60	23.69	23.62	23.5	2		
3	16QAM	8	0	22.28	22.42	22.37				
3	16QAM	8	4	22.32	22.42	22.20				
3	16QAM	8	7	22.30	22.38	22.24				
3	16QAM	15	0	22.17	22.34	22.17				
3	64QAM	1	0	22.66	22.83	22.63	23.5	2		
3	64QAM	1	8	22.44	22.84	22.40				
3	64QAM	1	14	22.44	22.85	22.40				
3	64QAM	8	0	21.25	21.41	21.36	22.5	3		
3	64QAM	8	4	21.24	21.36	21.15				
3	64QAM	8	7	21.17	21.27	21.27				
3	256QAM	1	0	19.35	19.47	19.28				
3	256QAM	1	8	19.27	19.54	19.33	20.5	5		
3	256QAM	1	14	19.34	19.43	19.33				
3	256QAM	8	0	19.27	19.32	19.22				
3	256QAM	8	4	19.12	19.39	19.18	20.5	5		
3	256QAM	8	7	19.30	19.36	19.30				
3	256QAM	15	0	19.35	19.46	19.35				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	24.34	24.42	24.43	25.5	0		
1.4	QPSK	1	3	24.30	24.41	24.37				
1.4	QPSK	1	5	24.31	24.48	24.26				
1.4	QPSK	3	0	24.38	24.42	24.37	24.5	1		
1.4	QPSK	3	1	24.36	24.41	24.36				
1.4	QPSK	3	3	24.20	24.45	24.23				
1.4	QPSK	6	0	23.42	23.50	23.41	24.5	1		
1.4	16QAM	1	0	23.39	23.39	23.35				
1.4	16QAM	1	3	23.21	23.40	23.35	24.5	1		
1.4	16QAM	1	5	23.36	23.39	23.32				
1.4	16QAM	3	0	23.72	23.76	23.70				
1.4	16QAM	3	1	23.66	23.67	23.64				
1.4	16QAM	3	3	23.62	23.67	23.63	23.5	2		
1.4	16QAM	6	0	22.24	22.46	22.38				
1.4	16QAM	1	0	22.28	22.36	22.26				
1.4	16QAM	1	3	22.29	22.36	22.28				
1.4	64QAM	1	5	22.26	22.38	22.23	23.5	2		
1.4	64QAM	3	0	22.46	22.60	22.44				
1.4	64QAM	3	1	22.41	22.61	22.45				
1.4	64QAM	3	3	22.39	22.60	22.34	22.5	3		
1.4	256QAM	1	0	19.32	19.49	19.27				
1.4	256QAM	1	3	19.28	19.40	19.37	20.5	5		
1.4	256QAM	1	5	19.34	19.46	19.29				
1.4	256QAM	3	0	19.23	19.34	19.27				
1.4	256QAM	3	1	19.17	19.35	19.11				
1.4	256QAM	3	3	19.29	19.39	19.21	20.5	5		
1.4	256QAM	6	0	19.31	19.42	19.30				

Band 13 Main PA Ant0										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power High Ch / Freq.	Power High Ch / Freq.	Turn-up limit (dB)	MPE (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.64			25.5	0		
10	QPSK	1	25	24.59						
10	QPSK	1	49	24.52						
10	QPSK	25	0	23.96			24.5	1		
10	QPSK	25	12	23.97						
10	QPSK	25	25	23.77						
10	QPSK	50	0	23.90						
10	16QAM	1	0	23.86			24.5	1		
10	16QAM	1	25	23.81						
10	16QAM	1	49	23.78						
10	16QAM	25	0	22.77						
10	16QAM	25	12	22.92			23.5	2		
10	16QAM	25	25	22.71						
10	16QAM	50	0	22.88						
10	64QAM	1	0	22.58						
10	64QAM	1	25	22.59			23.5	2		
10	64QAM	1	49	22.54						
10	64QAM	25	0	21.59			22.5	3		
10	64QAM	25	12	21.69						
10	64QAM	25	25	21.41						
10	64									



Band 26 Main PA Ant0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Turn-up limit (dB)	APR (dB)	
Channel									
Frequency (MHz)				821.5	831.8	841.5			
15	QPSK	1	0	24.52	24.58	24.49	25.5	0	
15	QPSK	1	31	24.42	24.51	24.43			
15	QPSK	1	74	24.41	24.53	24.47			
15	QPSK	36	0	23.48	23.63	23.52	24.5	1	
15	QPSK	36	20	23.43	23.55	23.51			
15	QPSK	36	39	23.52	23.60	23.51			
15	QPSK	75	0	23.54	23.57	23.47			
15	16QAM	1	0	23.48	23.56	23.45	24.5	1	
15	16QAM	1	37	23.35	23.51	23.37			
15	16QAM	1	74	23.42	23.54	23.47			
15	16QAM	36	0	22.42	22.47	22.42	23.5	2	
15	16QAM	36	20	22.45	22.50	22.52			
15	16QAM	36	39	22.53	22.57	22.43			
15	16QAM	75	0	22.50	22.54	22.49			
15	64QAM	1	0	22.59	22.70	22.58	23.5	2	
15	64QAM	1	37	22.63	22.68	22.54			
15	64QAM	1	74	22.63	22.66	22.50			
15	64QAM	36	0	21.25	21.37	21.34	22.5	3	
15	64QAM	36	20	21.41	21.55	21.43			
15	64QAM	36	39	21.45	21.52	21.44			
15	64QAM	75	0	21.41	21.54	21.43			
15	256QAM	1	0	19.58	19.69	19.61	20.5	5	
15	256QAM	1	37	19.42	19.57	19.49			
15	256QAM	1	74	19.60	19.74	19.69			
15	256QAM	36	0	19.35	19.42	19.38	20.5	5	
15	256QAM	36	20	19.48	19.52	19.43			
15	256QAM	36	39	19.46	19.55	19.50			
15	256QAM	75	0	19.38	19.51	19.47			
Channel									
Frequency (MHz)				819	831.8	844			APR (dB)
10	QPSK	1	0	24.42	24.44	24.36	25.5	0	
10	QPSK	1	25	24.39	24.46	24.31			
10	QPSK	1	49	24.28	24.42	24.42			
10	QPSK	25	0	23.43	23.52	23.46	24.5	1	
10	QPSK	25	12	23.29	23.45	23.40			
10	QPSK	25	25	23.48	23.48	23.47			
10	QPSK	50	0	23.42	23.49	23.43			
10	16QAM	1	0	23.41	23.49	23.39	24.5	1	
10	16QAM	1	25	23.33	23.47	23.31			
10	16QAM	1	49	23.35	23.51	23.44			
10	16QAM	25	0	22.36	22.51	22.38	23.5	2	
10	16QAM	25	12	22.35	22.56	22.42			
10	16QAM	25	25	22.48	22.44	22.38			
10	16QAM	50	0	22.36	22.45	22.35			
10	64QAM	1	0	22.51	22.58	22.52	23.5	2	
10	64QAM	1	25	22.50	22.56	22.45			
10	64QAM	1	49	22.63	22.61	22.54			
10	64QAM	25	0	21.18	21.31	21.25	22.5	3	
10	64QAM	25	12	21.32	21.53	21.37			
10	64QAM	25	25	21.32	21.33	21.34			
10	64QAM	50	0	21.34	21.50	21.53			
10	256QAM	1	0	19.45	19.53	19.50	20.5	5	
10	256QAM	1	25	19.32	19.42	19.42			
10	256QAM	1	49	19.54	19.65	19.58			
10	256QAM	25	0	19.36	19.26	19.33	20.5	5	
10	256QAM	25	12	19.43	19.41	19.29			
10	256QAM	25	25	19.39	19.48	19.36			
10	256QAM	50	0	19.28	19.40	19.38			
Channel									
Frequency (MHz)				816.5	831.8	846.5			APR (dB)
5	QPSK	1	0	24.44	24.46	24.38	25.5	0	
5	QPSK	1	12	24.32	24.38	24.25			
5	QPSK	1	24	24.34	24.45	24.39			
5	QPSK	12	0	23.46	23.57	23.48	24.5	1	
5	QPSK	12	7	23.28	23.45	23.45			
5	QPSK	12	13	23.48	23.53	23.38			
5	QPSK	25	0	23.42	23.47	23.38			
5	16QAM	1	0	23.41	23.44	23.33	24.5	1	
5	16QAM	1	12	23.21	23.44	23.22			
5	16QAM	1	24	23.37	23.46	23.34			
5	16QAM	12	0	22.34	22.44	22.34	23.5	2	
5	16QAM	12	7	22.35	22.55	22.42			
5	16QAM	12	13	22.47	22.46	22.38			
5	16QAM	25	0	22.38	22.39	22.45			
5	64QAM	1	0	22.54	22.59	22.53	23.5	2	
5	64QAM	1	12	22.56	22.54	22.46			
5	64QAM	1	24	22.62	22.69	22.76			
5	64QAM	12	0	21.20	21.30	21.21	22.5	3	
5	64QAM	12	7	21.31	21.43	21.37			
5	64QAM	12	13	21.38	21.42	21.37			
5	64QAM	25	0	21.27	21.49	21.59			
5	256QAM	1	0	19.45	19.51	19.45	20.5	5	
5	256QAM	1	12	19.29	19.53	19.36			
5	256QAM	1	24	19.54	19.66	19.55			
5	256QAM	12	0	19.24	19.31	19.29	20.5	5	
5	256QAM	12	7	19.36	19.41	19.37			
5	256QAM	12	13	19.35	19.42	19.43			
5	256QAM	25	0	19.32	19.38	19.38			
Channel									
Frequency (MHz)				817.5	831.8	847.5			APR (dB)
3	QPSK	1	0	24.42	24.42	24.37	25.5	0	
3	QPSK	1	8	24.37	24.42	24.32			
3	QPSK	1	14	24.34	24.45	24.43			
3	QPSK	8	0	23.34	23.51	23.43	24.5	1	
3	QPSK	8	4	23.29	23.45	23.36			
3	QPSK	8	7	23.37	23.46	23.43			
3	QPSK	15	0	23.46	23.52	23.42			
3	16QAM	1	0	23.44	23.52	23.37	24.5	1	
3	16QAM	1	8	23.27	23.45	23.31			
3	16QAM	1	14	23.30	23.45	23.36			
3	16QAM	8	0	22.34	22.42	22.32	23.5	2	
3	16QAM	8	4	22.42	22.64	22.42			
3	16QAM	8	7	22.43	22.53	22.38			
3	64QAM	1	0	22.46	22.57	22.44	23.5	2	
3	64QAM	1	8	22.48	22.61	22.50			
3	64QAM	1	14	22.79	22.86	22.76			
3	64QAM	8	0	21.13	21.28	21.21	22.5	3	
3	64QAM	8	4	21.37	21.45	21.38			
3	64QAM	8	7	21.36	21.38	21.34			
3	64QAM	15	0	21.28	21.45	21.36			
3	256QAM	1	0	19.43	19.56	19.55	20.5	5	
3	256QAM	1	8	19.30	19.45	19.39			
3	256QAM	1	14	19.46	19.71	19.61			
3	256QAM	8	0	19.26	19.36	19.35	20.5	5	
3	256QAM	8	4	19.38	19.39	19.29			
3	256QAM	8	7	19.34	19.32	19.40			
3	256QAM	15	0	19.34	19.45	19.43			
Channel									
Frequency (MHz)				816.7	831.8	847.3			APR (dB)
1.4	QPSK	1	0	24.44	24.54	24.45	25.5	0	
1.4	QPSK	1	3	24.34	24.38	24.26			
1.4	QPSK	1	5	24.35	24.50	24.41			
1.4	QPSK	3	0	24.41	24.45	24.44	24.5	1	
1.4	QPSK	3	1	24.37	24.45	24.48			
1.4	QPSK	3	3	24.34	24.39	24.34			
1.4	QPSK	6	0	23.34	23.59	23.48	24.5	1	
1.4	16QAM	1	0	23.33	23.43	23.35			
1.4	16QAM	1	3	23.42	23.45	23.36	24.5	1	
1.4	16QAM	1	5	23.47	23.54	23.34			
1.4	16QAM	3	0	23.38	23.42	23.40			
1.4	16QAM	3	1	23.24	23.43	23.32			
1.4	16QAM	3	3	23.30	23.45	23.40			
1.4	64QAM	1	0	22.38	22.40	22.32	23.5	2	
1.4	64QAM	1	0	22.35	22.49	22.41			
1.4	64QAM	1	3	22.43	22.47	22.30			
1.4	64QAM	1	5	22.43	22.48	22.38	23.5	2	
1.4	64QAM	3	0	22.50	22.59	22.49			
1.4	64QAM	3	1	22.50	22.56	22.47			
1.4	64QAM	3	3	22.58	22.79	22.75	22.5	3	
1.4									

GSM850 Ant1 DS4								
GSM850 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8	32.50	22.11	22.21	22.17	23.50
GSM 1 Tx slot	31.11	31.21	31.17	32.50	22.11	22.21	22.17	23.50
GPRS 1 Tx slot	31.15	31.23	31.20	32.50	22.15	22.23	22.20	23.50
GPRS 2 Tx slots	27.89	28.11	28.03	29.50	21.89	22.11	22.03	23.50
GPRS 3 Tx slots	26.22	26.33	26.35	27.50	21.96	22.07	22.09	23.24
GPRS 4 Tx slots	24.80	24.88	24.95	26.50	21.80	21.98	21.95	23.50
EDGE 1 Tx slot	25.05	25.12	25.00	26.50	16.05	16.12	16.00	17.50
EDGE 2 Tx slots	22.22	22.23	22.18	23.50	16.22	16.23	16.18	17.50
EDGE 3 Tx slots	20.44	20.49	20.45	21.70	16.18	16.23	16.19	17.44
EDGE 4 Tx slots	19.28	19.27	19.26	20.50	16.28	16.27	16.26	17.50

GSM1900 Ant1 DS4								
GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	24.00	13.38	13.45	13.38	15.00
GSM 1 Tx slot	22.38	22.45	22.38	24.00	13.38	13.45	13.38	15.00
GPRS 1 Tx slot	22.39	22.49	22.41	24.00	13.39	13.49	13.41	15.00
GPRS 2 Tx slots	19.53	19.61	19.54	21.00	13.53	13.61	13.54	15.00
GPRS 3 Tx slots	17.87	17.93	17.92	19.20	13.61	13.67	13.66	14.94
GPRS 4 Tx slots	16.46	16.53	16.34	18.00	13.46	13.53	13.34	15.00
EDGE 1 Tx slot	18.39	18.56	18.41	20.00	9.39	9.56	9.41	11.00
EDGE 2 Tx slots	15.82	15.90	15.80	17.00	9.82	9.90	9.80	11.00
EDGE 3 Tx slots	13.67	13.70	13.58	15.20	9.41	9.44	9.32	10.94
EDGE 4 Tx slots	12.67	12.88	12.80	14.00	9.67	9.88	9.80	11.00

Band	WCDMA II Ant1 DS4				WCDMA IV Ant1 DS4				WCDMA V Ant1 DS4				Tune-up Limit (dBm)
	9262	9400	9538	16.50	1312	1413	1513	16.50	4132	4182	4233	16.50	
3GPP Rel 99	9262	9400	9538	16.50	1312	1413	1513	16.50	4132	4182	4233	16.50	
Rx Channel	9662	9800	9938	16.50	1637	1638	1738	16.50	4357	4407	4458	16.50	
Frequency (MHz)	1852.4	1880	1907.6	16.50	1712.4	1732.6	1752.6	16.50	826.4	836.4	846.6	16.50	
3GPP Rel 99	AMR 12.2kbps	15.63	15.67	15.58	17.50	17.03	17.20	17.03	19.00	21.83	21.79	21.77	23.50
3GPP Rel 99	RMC 12.2kbps	15.57	15.68	15.66	17.50	17.12	17.26	17.24	19.00	21.73	21.93	21.90	23.50
3GPP Rel 6	HSDPA Subtest-1	14.59	14.81	14.65	16.50	16.15	16.28	16.29	18.00	20.94	20.77	20.73	22.50
3GPP Rel 6	HSDPA Subtest-2	14.52	14.78	14.73	16.50	16.13	16.20	16.06	18.00	20.65	20.84	20.72	22.50
3GPP Rel 6	HSDPA Subtest-3	14.24	14.17	14.14	16.00	15.60	15.67	15.74	17.50	20.21	20.39	20.35	22.00
3GPP Rel 6	HSDPA Subtest-4	14.20	14.23	14.21	16.00	15.52	15.65	15.62	17.50	20.19	20.38	20.37	22.00
3GPP Rel 8	DC-HSDPA Subtest-1	14.65	14.66	14.71	16.50	16.10	16.25	16.01	18.00	20.89	20.88	20.80	22.50
3GPP Rel 8	DC-HSDPA Subtest-2	14.72	14.76	14.67	16.50	16.05	16.02	16.03	18.00	20.77	20.75	20.77	22.50
3GPP Rel 8	DC-HSDPA Subtest-3	14.03	14.09	14.21	16.00	15.63	15.67	16.01	17.50	20.19	20.26	20.19	22.00
3GPP Rel 8	DC-HSDPA Subtest-4	14.19	14.32	14.14	16.00	15.56	15.53	15.53	17.50	20.07	20.30	20.30	22.00
3GPP Rel 6	HSUPA Subtest-1	14.73	14.54	14.61	16.50	16.08	16.10	16.03	18.00	20.59	20.66	20.66	22.50
3GPP Rel 6	HSUPA Subtest-2	12.68	12.59	12.69	14.50	14.07	14.10	14.14	16.00	18.75	18.96	18.97	20.50
3GPP Rel 6	HSUPA Subtest-3	13.69	13.85	13.83	15.50	15.03	15.23	15.18	17.00	19.83	20.02	19.82	21.50
3GPP Rel 6	HSUPA Subtest-4	12.57	12.66	12.71	14.50	13.95	14.00	14.04	16.00	18.59	18.82	18.86	20.50
3GPP Rel 6	HSUPA Subtest-5	14.53	14.73	14.69	16.50	16.07	16.02	16.15	18.00	20.56	20.74	20.68	22.50
3GPP Rel 7	HSPA+ (16QAM) Subtest-1	12.33	12.38	12.18	14.00	13.57	13.61	13.63	15.50	18.37	18.61	18.46	20.00



Band 4 Main PA Ant1 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Turn-up time (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	14.46	14.62	14.67				
20	QPSK	1	49	14.47	14.63	14.68			16	0
20	QPSK	1	99	14.14	14.28	14.36				
20	QPSK	50	0	14.28	14.35	14.23				
20	QPSK	50	24	14.30	14.37	14.25				
20	QPSK	50	50	14.23	14.31	14.28			16	0
20	QPSK	100	0	14.28	14.35	14.29				
20	QPSK	100	0	14.42	14.45	14.27				
20	16QAM	1	49	14.12	14.39	14.28			16	0
20	16QAM	1	99	14.29	14.25	14.09				
20	16QAM	50	0	14.47	14.39	14.33				
20	16QAM	50	24	14.30	14.17	14.13			16	0
20	16QAM	50	50	14.10	14.11	14.21				
20	16QAM	100	0	14.30	14.13	14.13				
20	16QAM	1	0	14.30	14.43	14.11				
20	16QAM	1	49	14.29	14.23	14.52			16	0
20	16QAM	50	0	14.28	14.22	14.14				
20	16QAM	50	24	14.18	14.23	14.39				
20	16QAM	50	50	14.36	14.29	14.21			16	0
20	16QAM	100	0	14.09	14.23	14.08				
20	256QAM	1	49	14.23	14.31	14.13			16	0
20	256QAM	1	99	14.26	14.14	14.25				
20	256QAM	50	0	14.17	14.21	14.08				
20	256QAM	50	24	14.23	14.24	14.18				
20	256QAM	50	50	14.39	14.40	14.14			16	0
20	256QAM	100	0	14.18	14.23	14.07				
Channel										
Frequency (MHz)										
15	QPSK	1	0	14.33	14.47	14.44				
15	QPSK	1	37	14.43	14.46	14.28				
15	QPSK	1	74	14.23	14.37	14.27			16	0
15	QPSK	36	0	14.00	14.46	14.12				
15	QPSK	36	25	14.10	14.20	14.24				
15	QPSK	36	39	14.12	14.11	14.16			16	0
15	QPSK	75	0	14.11	14.28	14.21				
15	16QAM	1	0	14.28	14.23	14.23				
15	16QAM	1	37	14.22	14.40	14.21			16	0
15	16QAM	1	74	14.17	14.28	14.28				
15	16QAM	36	0	14.40	14.18	14.19				
15	16QAM	36	29	14.21	14.22	14.10			16	0
15	16QAM	36	39	14.20	14.18	14.20				
15	16QAM	75	0	14.24	14.24	14.23				
15	16QAM	1	0	14.33	14.50	14.20				
15	16QAM	1	37	14.44	14.23	14.23			16	0
15	16QAM	1	74	14.18	14.25	14.24				
15	16QAM	36	0	14.24	14.22	14.14				
15	16QAM	36	29	14.11	14.37	14.21			16	0
15	16QAM	36	39	14.14	14.25	14.14				
15	16QAM	75	0	14.03	14.20	14.23				
15	16QAM	1	0	14.03	14.20	14.23				
15	256QAM	1	37	14.08	14.20	14.05			16	0
15	256QAM	1	74	14.19	14.10	14.14				
15	256QAM	36	0	14.07	14.18	14.05				
15	256QAM	36	29	14.08	14.09	14.14			16	0
15	256QAM	36	39	14.33	14.16	14.24				
15	256QAM	75	0	14.13	14.09	14.23				
Channel										
Frequency (MHz)										
10	QPSK	1	0	14.40	14.54	14.47				
10	QPSK	1	25	14.30	14.39	14.53			16	0
10	QPSK	1	49	14.34	14.38	14.34				
10	QPSK	12	0	14.27	14.35	14.33				
10	QPSK	25	12	14.11	14.28	14.18				
10	QPSK	25	25	14.28	14.28	14.16			16	0
10	QPSK	50	0	14.20	14.20	14.20				
10	16QAM	1	0	14.22	14.32	14.37				
10	16QAM	1	24	14.29	14.28	14.14			16	0
10	16QAM	1	49	14.30	14.28	14.28				
10	16QAM	25	0	14.31	14.27	14.39				
10	16QAM	25	12	14.28	14.08	14.19			16	0
10	16QAM	50	0	14.20	14.30	14.20				
10	16QAM	50	0	14.19	14.05	14.05				
10	16QAM	1	0	14.47	14.50	14.03				
10	16QAM	1	24	14.03	14.20	14.23			16	0
10	16QAM	1	49	14.21	14.11	14.23				
10	16QAM	25	0	14.22	14.21	14.21				
10	16QAM	25	12	14.27	14.29	14.20			16	0
10	16QAM	50	0	14.23	14.17	14.28				
10	16QAM	50	0	14.23	14.05	14.20				
10	256QAM	1	24	14.19	14.21	14.06			16	0
10	256QAM	1	49	14.08	14.17	14.08				
10	256QAM	25	0	14.14	14.13	14.13				
10	256QAM	25	12	14.22	14.14	14.28			16	0
10	256QAM	25	25	14.15	14.25	14.23				
10	256QAM	50	0	14.12	14.08	14.20				
Channel										
Frequency (MHz)										
5	QPSK	1	0	14.40	14.54	14.47				
5	QPSK	1	12	14.33	14.47	14.38			16	0
5	QPSK	1	24	14.36	14.33	14.15				
5	QPSK	12	0	14.27	14.35	14.33				
5	QPSK	12	7	14.10	14.26	14.09				
5	QPSK	12	13	14.23	14.22	14.13			16	0
5	QPSK	25	0	14.23	14.20	14.12				
5	16QAM	1	0	14.37	14.32	14.20				
5	16QAM	1	12	14.33	14.39	14.33			16	0
5	16QAM	1	24	14.15	14.29	14.21				
5	16QAM	12	0	14.41	14.31	14.19				
5	16QAM	12	7	14.26	14.02	14.23			16	0
5	16QAM	25	0	14.10	14.09	14.18				
5	16QAM	25	0	14.11	14.22	14.07				
5	16QAM	1	0	14.39	14.46	14.20				
5	16QAM	1	12	14.46	14.29	14.20			16	0
5	16QAM	1	24	14.21	14.32	14.28				
5	16QAM	12	0	14.18	14.11	14.15				
5	16QAM	12	7	14.21	14.16	14.23			16	0
5	16QAM	25	0	14.16	14.05	14.06				
5	16QAM	25	13	14.21	14.18	14.15				
5	16QAM	50	0	14.16	14.05	14.06				
5	16QAM	50	0	14.07	14.03	14.09			16	0
5	16QAM	15	0	14.47	14.43	14.09				
5	16QAM	15	0	14.34	14.29	14.14			16	0
5	16QAM	1	14	14.11	14.21	14.06				
5	16QAM	8	0	14.09	14.31	14.30				
5	16QAM	8	7	14.30	14.32	14.20			16	0
5	16QAM	8	0	14.16	14.22	14.22				
5	256QAM	1	0	14.10	14.01	14.20				
5	256QAM	1	8	14.25	14.19	14.03			16	0
5	256QAM	8	0	14.15	14.29	14.24				
5	256QAM	8	0	14.27	14.21	14.11				
5	256QAM	8	4	14.23	14.16	14.14			16	0
5	256QAM	8	7	14.16	14.23	14.23				
5	256QAM	15	0	14.06	14.13	14.22				
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	14.51	14.46	14.54				
1.4	QPSK	1	3	14.39	14.56	14.57			16	0
1.4	QPSK	1	3	14.22	14.40	14.35				
1.4	QPSK	3	0	14.19	14.28	14.14				
1.4	QPSK	3	1	14.27	14.35	14.19				
1.4	QPSK	3	1	14.12	14.21	14.16			16	0
1.4	QPSK	3	4	14.16	14.16	14.05				
1.4	16QAM	1	0	14.27	14.29	14.40				
1.4	16QAM	1	3	14.12	14.21	14.16			16	0
1.4	16QAM	3	0	14.16	14.16	14.05				
1.4	16QAM									



Band 13 Main PA Ant1 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MFR (dB)		
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.47	23.47	23.47	25	0		
10	QPSK	1	26	23.44	23.44	23.44				
10	QPSK	1	49	23.28	23.28	23.28				
10	QPSK	25	0	22.00	22.00	22.00	24.5	0.5		
10	QPSK	25	26	22.04	22.04	22.04				
10	QPSK	25	26	22.79	22.79	22.79				
10	QPSK	50	0	22.02	22.02	22.02				
10	16QAM	1	26	22.79	22.79	22.79	24.5	0.5		
10	16QAM	1	49	22.75	22.75	22.75				
10	16QAM	1	26	21.89	21.89	21.89				
10	16QAM	25	12	21.81	21.81	21.81	23.5	1.5		
10	16QAM	25	25	21.85	21.85	21.85				
10	16QAM	50	0	21.79	21.79	21.79				
10	64QAM	1	0	22.07	22.07	22.07				
10	64QAM	1	26	22.01	22.01	22.01	23.5	1.5		
10	64QAM	1	49	21.97	21.97	21.97				
10	64QAM	25	0	20.87	20.87	20.87				
10	64QAM	25	12	20.76	20.76	20.76	22.5	2.5		
10	64QAM	25	26	20.83	20.83	20.83				
10	64QAM	50	0	20.75	20.75	20.75				
10	256QAM	1	0	18.94	18.94	18.94				
10	256QAM	1	26	18.91	18.91	18.91	20.5	4.5		
10	256QAM	1	49	18.88	18.88	18.88				
10	256QAM	25	0	18.88	18.88	18.88				
10	256QAM	25	12	18.78	18.78	18.78	20.5	4.5		
10	256QAM	25	26	18.84	18.84	18.84				
10	256QAM	50	0	18.81	18.81	18.81				
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.46	23.41	23.36	25	0		
5	QPSK	1	16	23.23	23.27	23.37				
5	QPSK	1	24	23.17	23.20	23.15				
5	QPSK	12	0	22.87	22.78	22.83				
5	QPSK	12	7	22.72	22.73	22.73	24.5	0.5		
5	QPSK	12	13	22.73	22.72	22.66				
5	16QAM	1	0	22.74	22.71	22.78				
5	16QAM	1	12	22.65	22.71	22.72	24.5	0.5		
5	16QAM	12	7	21.73	21.70	21.73				
5	16QAM	12	13	21.78	21.84	21.76	23.5	1.5		
5	16QAM	12	7	21.69	21.68	21.74				
5	64QAM	1	0	21.69	21.68	21.64	23.5	1.5		
5	64QAM	1	24	21.94	21.82	21.83				
5	64QAM	12	0	20.74	20.74	20.78				
5	64QAM	12	7	20.67	20.63	20.65	22.5	2.5		
5	64QAM	12	13	20.76	20.73	20.70				
5	64QAM	25	0	20.68	20.64	20.60				
5	256QAM	1	0	18.84	18.81	18.84				
5	256QAM	1	12	18.77	18.87	18.82	20.5	4.5		
5	256QAM	1	24	18.79	18.72	18.76				
5	256QAM	12	0	18.74	18.76	18.84				
5	256QAM	12	7	18.72	18.73	18.64	20.5	4.5		
5	256QAM	12	13	18.69	18.76	18.70				
5	256QAM	25	0	18.71	18.70	18.68				

Band 26 Main PA Ant1 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power Mid Ch./Freq.	Time-up (min)	MFR (dB)		
Channel										
Frequency (MHz)										
15	QPSK	1	0	22.29	22.38	22.23	24	0		
15	QPSK	1	31	22.15	22.17	22.11				
15	QPSK	1	74	22.11	22.03	22.06				
15	QPSK	36	0	22.16	22.21	22.13				
15	QPSK	36	29	22.08	22.12	22.02	24	0		
15	QPSK	36	38	22.03	22.03	22.07				
15	QPSK	75	0	22.14	22.15	22.01				
15	16QAM	1	0	22.27	22.23	22.29				
15	16QAM	1	37	22.03	22.24	22.06	24	0		
15	16QAM	1	74	22.23	22.10	22.11				
15	16QAM	36	0	21.83	21.76	21.82				
15	16QAM	36	20	21.83	21.68	21.58	23.5	0.5		
15	16QAM	36	39	21.88	21.72	21.89				
15	16QAM	75	0	21.54	21.66	21.58				
15	64QAM	1	0	21.82	21.92	21.84	23.5	0.5		
15	64QAM	1	37	21.78	21.86	21.80				
15	64QAM	1	74	21.73	21.85	21.81	22.5	1.5		
15	64QAM	36	0	20.84	20.89	20.79				
15	64QAM	36	20	20.74	20.89	20.72	22.5	1.5		
15	64QAM	36	39	20.72	20.85	20.70				
15	64QAM	75	0	20.69	20.77	20.67				
15	256QAM	1	0	18.61	18.76	18.63				
15	256QAM	1	37	18.58	18.72	18.64	20.5	3.5		
15	256QAM	1	74	18.64	18.67	18.60				
15	256QAM	36	0	18.54	18.62	18.52				
15	256QAM	36	20	18.54	18.58	18.51	20.5	3.5		
15	256QAM	36	39	18.60	18.62	18.55				
15	256QAM	75	0	18.60	18.68	18.56				
Channel										
Frequency (MHz)										
10	QPSK	1	0	22.15	22.22	22.05	24	0		
10	QPSK	1	28	22.12	22.06	22.03				
10	QPSK	1	48	22.03	22.06	22.04				
10	QPSK	26	0	22.12	22.03	22.02				
10	QPSK	26	12	22.09	22.12	22.09	24	0		
10	QPSK	26	28	22.06	22.04	22.05				
10	16QAM	1	0	22.07	22.09	22.06				
10	16QAM	1	12	22.18	22.06	22.03	24	0		
10	16QAM	1	28	22.08	22.10	22.04				
10	16QAM	26	0	21.81	21.82	21.88				
10	16QAM	26	12	21.67	21.65	21.53	23.5	0.5		
10	16QAM	26	28	21.65	21.62	21.63				
10	64QAM	1	0	21.72	21.77	21.80	23.5	0.5		
10	64QAM	1	12	21.65	21.71	21.67				
10	64QAM	1	48	21.63	21.75	21.59				
10	64QAM	26	0	20.71	20.76	20.68				
10	64QAM	26	12	20.65	20.69	20.65	22.5	1.5		
10	64QAM	26	28	20.68	20.63	20.61				
10	64QAM	50	0	20.56	20.68	20.63				
10	256QAM	1	0	18.57	18.70	18.57				
10	256QAM	1	28	18.57	18.70	18.71	20.5	3.5		
10	256QAM	1	48	18.70	18.70	18.57				
10	256QAM	26	0	18.54	18.60	18.57				
10	256QAM	26	12	18.59	18.64	18.53	20.5	3.5		
10	256QAM	26	28	18.58	18.61	18.54				
10	256QAM	50	0	18.65	18.66	18.52				
Channel										
Frequency (MHz)										
5	QPSK	1	0	22.15	22.17	22.13	24	0		
5	QPSK	1	12	22.14	22.14	22.16				
5	QPSK	1	24	22.25	22.23	22.04				
5	QPSK	12	0	22.03	22.06	22.07				
5	QPSK	12	7	22.03	22.07	22.01	24	0		
5	QPSK	12	13	22.23	22.31	22.09				
5	16QAM	1	0	22.17	22.18	22.12				
5	16QAM	1	12	22.19	22.28	22.05	24	0		
5	16QAM	1	24	21.69	21.77	21.64				
5	16QAM	12	0	21.66	21.69	21.51	23.5	0.5		
5	16QAM	12	7	21.66	21.69	21.51				
5	16QAM	12	13	21.67	21.71	21.63				
5	64QAM	1	0	21.54	21.68	21.62				
5	64QAM	1	12	21.72	21.80	21.75	23.5	0.5		
5	64QAM	1	24	21.66	21.77	21.61				
5	64QAM	12	0	20.81	20.79	20.75				
5	64QAM	12	7	20.68	20.71	20.64	22.5	1.5		
5	64QAM	12	13	20.68	20.71	20.64				
5	64QAM	26	0	20.56	20.69	20.67				



Band 38 Main PA Ant1 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	19.59	19.57	19.55			21	0
20	QPSK	1	49	19.56	19.53	19.49				
20	QPSK	50	24	19.49	19.46	19.41				
20	QPSK	50	24	19.37	19.34	19.29			21	0
20	QPSK	100	0	19.48	19.45	19.41				
20	16QAM	1	0	19.59	19.54	19.39			21	0
20	16QAM	1	49	19.49	19.44	19.40				
20	16QAM	1	99	19.50	19.57	19.82				
20	16QAM	50	24	19.39	19.42	19.46				
20	16QAM	50	24	19.45	19.44	19.46			21	0
20	16QAM	100	0	19.29	19.37	19.23				
20	16QAM	100	0	19.33	19.48	19.55				
20	16QAM	1	49	19.33	19.31	19.51			21	0
20	16QAM	1	99	19.24	19.26	19.16				
20	16QAM	50	0	19.44	19.49	19.49				
20	16QAM	50	24	19.42	19.41	19.50			21	0
20	16QAM	50	50	19.48	19.44	19.31				
20	16QAM	100	0	19.43	19.55	19.41				
20	256QAM	1	0	18.81	18.85	18.86				
20	256QAM	1	49	18.86	18.86	18.86			20	1
20	256QAM	1	99	18.48	18.82	18.67				
20	256QAM	50	0	18.84	18.87	18.73				
20	256QAM	50	24	18.81	18.86	18.89			20	1
20	256QAM	100	0	18.73	18.75	18.74				
Channel										
Frequency (MHz)										
15	QPSK	1	0	19.59	19.57	19.55			21	0
15	QPSK	1	37	19.43	19.51	19.29				
15	QPSK	1	74	19.40	19.37	19.38				
15	QPSK	36	0	19.45	19.48	19.38				
15	QPSK	36	20	19.19	19.49	19.19			21	0
15	QPSK	36	39	19.37	19.49	19.49				
15	QPSK	75	0	19.24	19.32	19.45				
15	16QAM	1	0	19.54	19.48	19.13			21	0
15	16QAM	1	37	19.58	19.52	19.48				
15	16QAM	1	74	19.42	19.39	19.48				
15	16QAM	36	0	19.32	19.54	19.45				
15	16QAM	36	20	19.24	19.30	19.45			21	0
15	16QAM	36	39	19.23	19.28	19.05				
15	16QAM	75	0	19.27	19.34	19.46				
15	16QAM	75	0	19.35	19.42	19.37				
15	16QAM	1	37	19.33	19.15	19.30			21	0
15	16QAM	1	74	19.06	19.17	19.04				
15	16QAM	36	0	19.33	19.42	19.37				
15	16QAM	36	20	19.34	19.42	19.41			21	0
15	16QAM	36	39	19.46	19.45	19.45				
15	16QAM	75	0	19.32	19.35	19.22				
15	256QAM	1	0	18.39	18.51	18.42			20	1
15	256QAM	1	37	18.52	18.52	18.45				
15	256QAM	1	74	18.45	18.57	18.51				
15	256QAM	36	0	18.84	18.85	18.82			20	1
15	256QAM	36	20	18.83	18.83	18.83				
15	256QAM	36	39	18.86	18.86	18.86				
15	256QAM	75	0	18.80	18.88	18.80				
Channel										
Frequency (MHz)										
10	QPSK	1	0	19.38	19.47	19.40			21	0
10	QPSK	1	25	19.38	19.49	19.27				
10	QPSK	1	49	19.45	19.82	19.48				
10	QPSK	25	0	19.25	19.49	19.45				
10	QPSK	25	12	19.23	19.52	19.08			21	0
10	QPSK	25	25	19.21	19.49	19.36				
10	QPSK	25	37	19.47	19.47	19.44				
10	16QAM	1	0	19.55	19.55	19.19				
10	16QAM	1	25	19.32	19.30	19.31			21	0
10	16QAM	1	49	19.43	19.40	19.45				
10	16QAM	25	0	19.27	19.52	19.49				
10	16QAM	25	12	19.20	19.28	19.39			21	0
10	16QAM	25	25	19.20	19.36	19.11				
10	16QAM	25	37	19.28	19.33	19.47				
10	16QAM	1	0	19.32	19.48	19.46				
10	16QAM	1	25	19.21	19.17	19.49			21	0
10	16QAM	1	49	19.07	19.21	19.18				
10	16QAM	25	0	19.37	19.49	19.42				
10	16QAM	25	12	19.41	19.39	19.52			21	0
10	16QAM	25	25	19.31	19.22	19.12				
10	16QAM	50	0	19.24	19.36	19.31				
10	256QAM	1	0	18.42	18.59	18.47				
10	256QAM	1	25	18.45	18.81	18.47			20	1
10	256QAM	1	49	18.43	18.48	18.51				
10	256QAM	25	0	18.88	18.88	18.77				
10	256QAM	25	12	18.77	18.83	18.64			20	1
10	256QAM	25	25	18.87	18.86	18.76				
10	256QAM	50	0	18.88	18.71	18.67				
Channel										
Frequency (MHz)										
5	QPSK	1	0	19.48	19.50	19.44			21	0
5	QPSK	1	19	19.37	19.60	19.38				
5	QPSK	1	24	19.27	19.53	19.42				
5	QPSK	12	0	19.34	19.41	19.26				
5	QPSK	12	7	19.36	19.52	19.09			21	0
5	QPSK	12	19	19.19	19.50	19.42				
5	QPSK	25	0	19.41	19.31	19.23				
5	QPSK	0	19	19.37	19.48	19.25				
5	16QAM	1	12	19.58	19.42	19.17			21	0
5	16QAM	1	24	19.47	19.46	19.02				
5	16QAM	12	0	19.32	19.42	19.46				
5	16QAM	12	7	19.43	19.43	19.30			21	0
5	16QAM	12	19	19.20	19.20	19.21				
5	16QAM	25	0	19.25	19.42	19.41				
5	16QAM	1	0	19.21	19.30	19.30			21	0
5	16QAM	1	12	19.33	19.13	19.45				
5	16QAM	1	24	19.24	19.26	19.11				
5	16QAM	12	0	19.20	19.42	19.32			21	0
5	16QAM	25	0	19.35	19.35	19.26				
5	16QAM	1	0	18.40	18.57	18.45				
5	256QAM	1	12	18.54	18.58	18.41			20	1
5	256QAM	1	24	18.37	18.58	18.43				
5	256QAM	12	0	18.87	18.83	18.72				
5	256QAM	12	7	18.80	18.84	18.60			20	1
5	256QAM	12	19	18.85	18.89	18.77				
5	256QAM	25	0	18.83	18.88	18.61				

Band 41 Main PA Ant1 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Power High Mod Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel										
Frequency (MHz)										
20	QPSK	1	0	19.59	19.57	19.55			20.5	0
20	QPSK	1	49	19.85	19.77	19.81	19.80	19.80		
20	QPSK	50	24	19.83	19.77	19.80	19.80	19.81		
20	QPSK	50	0	19.30	19.44	19.37	19.34	19.36		
20	QPSK	50	24	19.38	19.36	19.51	19.47	19.33		
20	QPSK	100	0	19.34	19.32	19.35	19.35	19.34		
20	QPSK	100	0	19.37	19.37	19.43	19.33	19.35		
20	16QAM	1	0	19.55	19.49	19.51	19.53	19.45		
20	16QAM	1	49	19.30	19.21	19.33	19.40	19.38		
20	16QAM	1	99	19.46	19.58	19.70	19.58	19.43		
20	16QAM	50	0	19.43	19.46	19.46	19.52	19.49		
20	16QAM	50	24	19.27	19.45	19.42	19.30	19.43		
20	16QAM	50	50	19.49	19.57	19.63	19.50	19.42		
20	16QAM	100	0	19.44	19.49	19.52	19.26	19.28		
20	16QAM	100	0	19.35	19.13	19.11	19.08	19.15		
20	16QAM	1	49	18.97	19.10	19.25	19.03	19.01		
20	16QAM	1	99	19.00	19.83	19.21	19.04	19.84		
20	16QAM	50	0	19.40	19.20	19.30	19.34	19.40		
20	16QAM	50	24	19.19	19.26	19.29	19.16	19.20		
20	16QAM	50	50	19.34	19.21	19.31	19.40	19.19		
20	16QAM	100	0	19.08	19.03	19.20	19.05	19.11		
20	256QAM	1	0	18.64	18.64	18.81	18.64	18.70		
20	256QAM	1	49	18.62	18.70	18.82	18.67	18.88		
20	256QAM	1	99	18.57	18.63	18.68	18.64	18.57		
20	256QAM	50	0	18.67	18.67	18.67	18.68	18.68		
20	256QAM	50	24	18.86	18.91	18.97	18.87	18.88		
20	256QAM	50	50	18.88	19.04	19.01	19.02	18.87		
20	256QAM	100	0	18.70	18.70	18.80	18.74	18.74		
Channel										
Frequency (MHz)										
16	QPSK	1	0	19.54	19.52	19.52	19.46	19.52	21	0
16	QPSK	1	37	19.59	19.62	19.77	19.64	19.39		
16	QPSK	1	74	19.59	19.60	19.67	19.47	19.53		
16	QPSK	36	0	19.09	19.27	19.46	19.19	19.16		
16	QPSK	36	20	19.15	19.27	19.44	19.20	19.19		
16	QPSK	36	39	19.37	19.49	19.49	19.40			



Band 42 FCC Part27Q Main PA Ant1 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	19.96	20.02	19.94	21.5	0		
20	QPSK	1	49	19.82	19.83	19.89				
20	QPSK	1	99	19.73	19.80	19.79				
20	QPSK	50	0	19.87	19.87	19.82				
20	QPSK	50	24	19.72	19.76	19.71				
20	QPSK	100	0	19.74	19.84	19.82				
20	16QAM	1	0	19.87	19.79	19.51	21.5	0		
20	16QAM	1	49	19.84	19.71	19.52				
20	16QAM	1	99	19.80	19.69	19.51				
20	16QAM	50	0	19.81	19.69	19.66				
20	16QAM	50	24	19.84	19.59	19.51				
20	16QAM	50	50	19.55	19.63	19.59	21.5	0		
20	16QAM	100	0	19.51	19.59	19.54				
20	16QAM	100	0	19.82	19.59	19.52				
20	16QAM	100	49	19.84	19.59	19.59	21.5	0		
20	16QAM	100	99	19.84	19.62	19.57				
20	16QAM	50	0	19.50	19.58	19.54				
20	16QAM	50	24	19.55	19.62	19.56	21.5	0		
20	16QAM	50	50	19.55	19.67	19.60				
20	16QAM	100	0	19.84	19.55	19.64				
20	25QAM	1	0	18.16	18.27	18.22	20	1.5		
20	25QAM	1	49	18.20	18.33	18.21				
20	25QAM	1	99	18.21	18.26	18.17				
20	25QAM	50	0	18.20	18.26	18.14				
20	25QAM	50	24	18.11	18.21	18.20	20	1.5		
20	25QAM	50	50	18.19	18.24	18.12				
20	25QAM	100	0	18.23	18.31	18.25				
Channel										
Frequency (MHz)										
15	QPSK	1	0	19.15	19.16	19.20	21.5	0		
15	QPSK	1	37	19.17	19.07	19.08				
15	QPSK	1	74	19.12	19.02	19.06				
15	QPSK	36	0	19.11	19.02	19.01				
15	QPSK	36	20	19.10	19.05	19.10	21.5	0		
15	QPSK	75	0	19.02	19.09	19.03				
15	16QAM	1	0	19.84	19.77	19.65	21.5	0		
15	16QAM	1	37	19.73	19.75	19.60				
15	16QAM	1	74	19.02	19.01	19.54				
15	16QAM	36	0	19.07	19.10	19.00	21.5	0		
15	16QAM	36	20	19.02	19.06	19.02				
15	16QAM	36	39	19.51	19.09	19.03				
15	16QAM	75	0	19.07	19.08	19.08	21.5	0		
15	16QAM	75	0	19.50	19.08	19.11				
15	16QAM	1	37	19.54	19.04	19.02				
15	16QAM	1	74	19.53	19.06	19.05				
15	16QAM	36	0	19.50	19.00	19.00	21.5	0		
15	16QAM	36	20	19.51	19.00	19.00				
15	16QAM	36	39	19.54	19.00	19.00				
15	16QAM	75	0	19.54	19.04	19.02	21.5	0		
15	16QAM	75	0	19.53	19.06	19.05				
15	16QAM	1	37	19.53	19.03	19.03				
15	16QAM	1	74	19.53	19.06	19.05				
15	16QAM	36	0	19.50	19.00	19.00	21.5	0		
15	16QAM	36	20	19.51	19.02	19.00				
15	16QAM	36	39	19.54	19.00	19.00				
15	16QAM	75	0	19.16	19.04	19.01	20	1.5		
15	25QAM	1	0	18.13	18.24	18.08				
15	25QAM	1	37	18.16	18.24	18.15				
15	25QAM	1	74	18.16	18.20	18.05				
15	25QAM	36	0	18.09	18.26	18.21	20	1.5		
15	25QAM	36	20	18.01	18.09	18.08				
15	25QAM	36	39	18.07	18.16	18.10				
15	25QAM	75	0	18.16	18.10	18.00				
Channel										
Frequency (MHz)										
10	QPSK	1	0	19.19	19.19	19.19	21.5	0		
10	QPSK	1	25	19.19	19.02	19.19				
10	QPSK	1	49	19.13	19.08	19.05				
10	QPSK	25	0	19.10	19.06	19.07	21.5	0		
10	QPSK	25	12	19.10	19.07	19.13				
10	QPSK	25	25	19.01	19.01	19.06				
10	QPSK	100	0	19.04	19.04	19.04				
10	16QAM	1	0	19.10	19.14	19.08	21.5	0		
10	16QAM	1	25	19.06	19.17	19.00				
10	16QAM	1	49	19.04	19.00	19.00				
10	16QAM	25	0	19.51	19.03	19.19	21.5	0		
10	16QAM	25	12	19.02	19.06	19.14				
10	16QAM	25	25	19.02	19.06	19.04				
10	16QAM	100	0	19.50	19.04	19.06				
10	16QAM	100	0	19.56	19.08	19.07	21.5	0		
10	16QAM	100	25	19.02	19.06	19.04				
10	16QAM	100	25	19.02	19.06	19.04				
10	16QAM	50	0	19.56	19.08	19.07				
10	16QAM	50	0	19.50	19.04	19.06	21.5	0		
10	16QAM	50	25	19.02	19.06	19.04				
10	16QAM	50	25	19.02	19.06	19.04				
10	16QAM	100	0	19.50	19.04	19.06	21.5	0		
10	16QAM	100	25	19.02	19.06	19.04				
10	16QAM	100	25	19.02	19.06	19.04				
10	25QAM	1	0	18.03	18.12	18.06	20	1.5		
10	25QAM	1	25	18.09	18.20	18.06				
10	25QAM	1	49	18.14	18.19	18.06				
10	25QAM	25	0	18.14	18.25	18.05	20	1.5		
10	25QAM	25	12	18.06	18.11	18.05				
10	25QAM	25	25	18.16	18.14	18.01				
10	25QAM	50	0	18.14	18.12	18.07				
Channel										
Frequency (MHz)										
5	QPSK	1	0	19.80	19.88	19.72	21.5	0		
5	QPSK	1	12	19.73	19.81	19.86				
5	QPSK	1	24	19.66	19.83	19.87				
5	QPSK	12	0	19.56	19.80	19.82	21.5	0		
5	QPSK	12	7	19.76	19.72	19.72				
5	QPSK	12	13	19.77	19.78	19.80				
5	QPSK	7	0	19.82	19.86	19.83				
5	16QAM	1	0	19.72	19.81	19.52	21.5	0		
5	16QAM	1	12	19.83	19.80	19.81				
5	16QAM	1	24	19.72	19.76	19.81				
5	16QAM	12	0	19.71	19.80	19.71	21.5	0		
5	16QAM	12	7	19.75	19.67	19.63				
5	16QAM	12	13	19.60	19.52	19.60				
5	16QAM	24	0	19.54	19.66	19.58				
5	16QAM	1	0	19.81	19.58	19.71	21.5	0		
5	16QAM	1	12	19.87	19.63	19.64				
5	16QAM	1	24	19.82	19.62	19.63				
5	16QAM	12	0	19.81	19.61	19.70	21.5	0		
5	16QAM	12	7	19.80	19.71	19.62				
5	16QAM	12	13	19.64	19.73	19.51				
5	16QAM	24	0	19.60	19.64	19.68				
5	25QAM	1	0	18.06	18.23	18.10	20	1.5		
5	25QAM	1	12	18.12	18.29	18.08				
5	25QAM	1	24	18.06	18.16	18.03				
5	25QAM	12	0	18.11	18.21	18.10	20	1.5		
5	25QAM	12	7	18.00	18.13	18.00				
5	25QAM	12	13	18.15	18.17	18.02				
5	25QAM	25	0	18.08	18.14	18.01				

Band 48 FCC Main PA Ant1 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	20.07	20.02	20.10	21.5	0		
20	QPSK	1	49	19.95	20.02	20.02				
20	QPSK	1	99	19.79	19.87	19.89				
20	QPSK	50	0	19.78	20.02	19.91				
20	QPSK	50	24	19.77	19.91	19.82	21.5	0		
20	QPSK	100	0	19.75	19.96	19.83				
20	16QAM	1	0	19.76	19.79	19.82	21.5	0		
20	16QAM	1	49	19.75	19.77	19.76				
20	16QAM	1	99	19.55	19.83	19.74				
20	16QAM	50	0	19.71	19.89	19.71	21.5	0		
20	16QAM	50	24	19.82	19.69	19.76				
20	16QAM	50	50	19.66	19.70	19.61				
20	16QAM	100	0	19.69	19.73	19.67				
20	16QAM	100	0	19.50	19.75	19.61	21.5	0		
20	16QAM	100	49	19.69	19.78	19.67				
20	16QAM	100	99	19.54	19.52	19.64				
20	16QAM	50	0	19.58	19.95	19.66	21.5	0		
20	16QAM	50	24	19.68	19.79	19.70				
20	16QAM	50	50	19.74	19.63	19.65				
20	16QAM	100	0	19.66	19.74	19.70	21.5	0		
20	25QAM	1	0	18.20	18.32	18.22	20	1.5		
20	25QAM	1	49	18.25	18.47	18.44				
20	25QAM	1	99	18.27	18.42	18.36				
20	25QAM	50	0	18.21	18.30	18.25				
20	25QAM	50	24	18.21	18.30	18.23	20	1.5		
20	25QAM	50	50	18.25	18.					

GSM1900 Ant2 Default

GSM1900 TX Channel	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
	512	661	910		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	31.00	1850.2	1880	1909.8	22.00
GSM 1 Tx slot	29.89	29.95	29.93	31.00	20.89	20.95	20.93	22.00
GPRS 1 Tx slot	29.92	30.01	29.95	31.00	20.92	21.01	20.95	22.00
GPRS 2 Tx slots	27.08	27.11	27.03	28.00	21.08	21.11	21.03	22.00
GPRS 3 Tx slots	25.21	25.34	25.26	26.20	20.95	21.08	21.00	21.94
GPRS 4 Tx slots	23.92	24.02	23.90	25.00	20.82	21.02	20.90	22.00
EDGE 1 Tx slot	26.15	26.26	26.18	27.00	17.15	17.26	17.18	18.00
EDGE 2 Tx slots	23.36	23.44	23.35	24.00	17.36	17.44	17.35	18.00
EDGE 3 Tx slots	21.53	21.56	21.50	22.20	17.27	17.30	17.24	17.94
EDGE 4 Tx slots	20.54	20.68	20.60	21.00	17.54	17.68	17.60	18.00

WCDMA II Ant2 DSH

WCDMA IV Ant2 DSH

Band TX Channel	WCDMA II			Tune-up Limit (dBm)	WCDMA IV			Tune-up Limit (dBm)
	9262	9400	9538		1312	1413	1513	
Rx Channel	9662	9800	9938		1537	1638	1738	
Frequency (MHz)	1852.4	1880	1907.6		1712.4	1732.6	1752.6	
3GPP Rel 99 AMR 12.2kbps	20.51	20.59	20.52	22.00	20.98	21.04	21.02	22.50
3GPP Rel 99 RMC 12.2kbps	20.54	20.60	20.51	22.00	20.95	21.11	21.04	22.50
3GPP Rel 6 HSDPA Subtest-1	19.47	19.73	19.58	21.00	20.03	20.02	20.05	21.50
3GPP Rel 6 HSDPA Subtest-2	19.60	19.49	19.52	21.00	20.06	20.15	20.00	21.50
3GPP Rel 6 HSDPA Subtest-3	19.10	19.05	19.01	20.50	19.56	19.64	19.52	21.00
3GPP Rel 6 HSDPA Subtest-4	18.94	18.96	19.02	20.50	19.46	19.53	19.59	21.00
3GPP Rel 8 DC-HSDPA Subtest-1	19.61	19.49	19.55	21.00	20.01	20.11	20.04	21.50
3GPP Rel 8 DC-HSDPA Subtest-2	19.49	19.59	19.45	21.00	20.03	20.04	19.94	21.50
3GPP Rel 8 DC-HSDPA Subtest-3	18.86	19.08	18.96	20.50	19.40	19.61	19.41	21.00
3GPP Rel 8 DC-HSDPA Subtest-4	18.88	19.07	18.99	20.50	19.27	19.44	19.43	21.00
3GPP Rel 6 HSUPA Subtest-1	19.31	19.47	19.48	21.00	19.95	19.99	20.03	21.50
3GPP Rel 6 HSUPA Subtest-2	17.61	17.67	17.58	19.00	18.02	18.15	18.03	19.50
3GPP Rel 6 HSUPA Subtest-3	18.58	18.66	18.62	20.00	19.09	19.15	19.15	20.50
3GPP Rel 6 HSUPA Subtest-4	17.44	17.46	17.47	19.00	17.95	18.11	17.97	19.50
3GPP Rel 6 HSUPA Subtest-5	19.43	19.62	19.43	21.00	19.93	20.07	19.97	21.50
3GPP Rel 7 HSPA+ (16QAM) Subtest-1	17.02	17.08	17.02	18.50	17.66	17.69	17.56	19.00



Band 2 Main PA Ant2 DSI4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Time-up limit (min)	MFR (dB)		
Channel										
1800 1800 1900										
20	QPSK	1	0	17.46	17.73	17.68				
20	QPSK	1	49	17.46	17.73	17.68	10	0		
20	QPSK	1	99	17.56	17.61	17.81				
20	QPSK	50	0	17.50	17.62	17.49				
20	QPSK	50	24	17.53	17.63	17.44				
20	QPSK	50	50	17.39	17.59	17.81				
20	QPSK	100	0	17.27	17.53	17.51				
20	QPSK	100	24	17.30	17.36	17.52				
20	16QAM	1	49	17.21	17.43	17.41				
20	16QAM	1	99	17.49	17.59	17.45				
20	16QAM	50	0	17.27	17.41	17.41				
20	16QAM	50	24	17.45	17.43	17.40				
20	16QAM	50	50	17.19	17.39	17.37				
20	16QAM	100	0	17.32	17.49	17.31				
20	16QAM	100	24	17.29	17.37	17.37				
20	16QAM	100	50	17.23	17.47	17.39				
20	64QAM	1	49	17.23	17.33	17.28				
20	64QAM	50	0	17.57	17.59	17.49				
20	64QAM	50	24	17.37	17.53	17.42				
20	64QAM	50	50	17.39	17.44	17.34				
20	64QAM	100	0	17.23	17.47	17.39				
20	256QAM	1	49	17.65	17.65	17.51				
20	256QAM	1	99	17.70	17.63	17.70				
20	256QAM	50	0	17.58	17.68	17.54				
20	256QAM	50	24	17.58	17.68	17.54				
20	256QAM	50	50	17.50	17.60	17.45				
20	256QAM	100	0	17.60	17.71	17.57				
Channel										
1807.5 1800 1900.5										
15	QPSK	1	0	17.61	17.66	17.61				
15	QPSK	1	37	17.37	17.58	17.68				
15	QPSK	1	74	17.48	17.50	17.48				
15	QPSK	36	0	17.27	17.49	17.48				
15	QPSK	36	25	17.38	17.56	17.48				
15	QPSK	36	39	17.28	17.49	17.44				
15	QPSK	75	0	17.36	17.48	17.48				
15	16QAM	1	49	17.16	17.43	17.40				
15	16QAM	1	37	17.44	17.56	17.38				
15	16QAM	36	0	17.36	17.48	17.48				
15	16QAM	36	25	17.28	17.38	17.42				
15	16QAM	36	29	17.17	17.41	17.37				
15	16QAM	75	0	17.36	17.48	17.48				
15	64QAM	1	9	17.27	17.30	17.18				
15	64QAM	1	37	17.22	17.38	17.28				
15	64QAM	1	74	17.48	17.53	17.45				
15	64QAM	36	0	17.30	17.49	17.42				
15	64QAM	36	25	17.34	17.38	17.44				
15	64QAM	36	39	17.26	17.43	17.45				
15	64QAM	75	0	17.55	17.56	17.52				
15	256QAM	1	37	17.48	17.53	17.47				
15	256QAM	1	74	17.58	17.70	17.58				
15	256QAM	36	0	17.52	17.62	17.52				
15	256QAM	36	25	17.52	17.64	17.54				
15	256QAM	36	29	17.42	17.54	17.38				
15	256QAM	75	0	17.52	17.63	17.57				
Channel										
216.1 216.8 217.2										
10	QPSK	1	0	17.61	17.61	17.52				
10	QPSK	1	25	17.48	17.42	17.43				
10	QPSK	1	49	17.25	17.45	17.49				
10	QPSK	12	0	17.36	17.44	17.44				
10	QPSK	25	12	17.28	17.54	17.48				
10	QPSK	25	25	17.36	17.37	17.25				
10	16QAM	1	0	17.45	17.54	17.44				
10	16QAM	1	24	17.31	17.41	17.49				
10	16QAM	25	0	17.36	17.48	17.48				
10	16QAM	25	0	17.19	17.44	17.39				
10	16QAM	25	12	17.29	17.56	17.37				
10	16QAM	50	0	17.28	17.38	17.38				
10	16QAM	50	0	17.24	17.35	17.25				
10	64QAM	1	0	17.36	17.30	17.27				
10	64QAM	1	24	17.48	17.48	17.48				
10	64QAM	1	49	17.29	17.52	17.47				
10	64QAM	25	0	17.36	17.38	17.34				
10	64QAM	50	0	17.58	17.50	17.47				
10	64QAM	50	25	17.48	17.50	17.47				
10	256QAM	1	25	17.50	17.64	17.63				
10	256QAM	1	49	17.58	17.51	17.59				
10	256QAM	12	0	17.50	17.62	17.58				
10	256QAM	25	12	17.50	17.56	17.41				
10	256QAM	25	25	17.46	17.50	17.41				
10	256QAM	50	0	17.56	17.56	17.49				
Channel										
1802.5 1800 1907.5										
5	QPSK	1	0	17.62	17.62	17.53				
5	QPSK	1	12	17.37	17.54	17.56				
5	QPSK	1	24	17.50	17.51	17.41				
5	QPSK	12	0	17.36	17.44	17.44				
5	QPSK	12	7	17.41	17.50	17.54				
5	QPSK	12	13	17.29	17.54	17.48				
5	QPSK	25	0	17.44	17.47	17.47				
5	16QAM	1	0	17.20	17.48	17.37				
5	16QAM	1	12	17.46	17.59	17.37				
5	16QAM	12	0	17.28	17.48	17.40				
5	16QAM	12	7	17.20	17.34	17.34				
5	16QAM	12	13	17.26	17.53	17.29				
5	16QAM	25	0	17.23	17.32	17.39				
5	64QAM	1	0	17.33	17.35	17.22				
5	64QAM	1	12	17.23	17.49	17.27				
5	64QAM	1	24	17.54	17.53	17.42				
5	64QAM	12	0	17.35	17.45	17.43				
5	64QAM	12	7	17.33	17.24	17.41				
5	64QAM	12	13	17.22	17.49	17.45				
5	64QAM	25	0	17.52	17.50	17.44				
5	256QAM	1	0	17.71	17.63	17.53				
5	256QAM	1	12	17.50	17.59	17.48				
5	256QAM	1	24	17.59	17.51	17.55				
5	256QAM	12	0	17.54	17.70	17.64				
5	256QAM	12	7	17.54	17.53	17.48				
5	256QAM	12	13	17.38	17.54	17.52				
5	256QAM	25	0	17.48	17.56	17.51				
Channel										
1861.6 1800 1918.6										
3	QPSK	1	0	17.57	17.57	17.53				
3	QPSK	1	8	17.43	17.50	17.63				
3	QPSK	1	14	17.53	17.52	17.39				
3	QPSK	8	0	17.38	17.45	17.46				
3	QPSK	8	4	17.43	17.54	17.48				
3	QPSK	8	7	17.33	17.48	17.46				
3	QPSK	15	0	17.31	17.41	17.28				
3	16QAM	1	0	17.18	17.49	17.33				
3	16QAM	1	8	17.41	17.53	17.38				
3	16QAM	1	14	17.31	17.29	17.45				
3	16QAM	8	0	17.45	17.49	17.29				
3	16QAM	8	4	17.15	17.45	17.30				
3	16QAM	15	0	17.35	17.47	17.29				
3	64QAM	1	0	17.28	17.27	17.18				
3	64QAM	1	8	17.26	17.29	17.29				
3	64QAM	1	14	17.47	17.57	17.42				
3	64QAM	8	0	17.29	17.48	17.44				
3	64QAM	8	4	17.40	17.40	17.42				
3	64QAM	8	7	17.24	17.44	17.44				
3	64QAM	15	0	17.45	17.45	17.45				
3	256QAM	1	0	17.31	17.63	17.72				
3	256QAM	1	8	17.53	17.62	17.49				
3	256QAM	1	14	17.62	17.59	17.48				
3	256QAM	8	0	17.59	17.6					



Band 25 Main PA Ant2 DSI4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Middle Ch / Freq.	Power High Ch / Freq.	Turn-up (min)	MPR (dB)		
Channel										
	Frequency (MHz)			1860	1880	1900				
20	QPSK	1	0	20.51	20.72	20.58				
20	QPSK	1	49	20.48	20.48	20.58	22	0		
20	QPSK	1	99	20.34	20.54	20.40				
20	QPSK	50	0	20.48	20.71	20.63				
20	QPSK	50	24	20.54	20.48	20.58				
20	QPSK	50	50	20.41	20.56	20.47	22	0		
20	QPSK	100	0	20.59	20.65	20.61				
20	16QAM	1	0	20.48	20.52	20.53				
20	16QAM	1	49	20.43	20.51	20.46	22	0		
20	16QAM	1	99	20.55	20.62	20.63				
20	16QAM	50	0	20.52	20.60	20.59				
20	16QAM	50	24	20.42	20.48	20.43	22	0		
20	16QAM	50	50	20.52	20.71	20.56				
20	16QAM	100	0	20.55	20.60	20.61				
20	64QAM	1	0	20.35	20.54	20.50				
20	64QAM	1	49	20.50	20.66	20.56	22	0		
20	64QAM	1	99	20.47	20.60	20.65				
20	64QAM	50	0	20.41	20.48	20.51				
20	64QAM	50	24	20.47	20.61	20.57	22	0		
20	64QAM	50	50	20.50	20.66	20.56				
20	256QAM	100	0	20.35	20.47	20.42				
20	256QAM	1	49	18.73	18.66	18.71				
20	256QAM	1	99	18.96	18.72	18.59	20	2		
20	256QAM	1	99	18.71	18.75	18.66				
20	256QAM	50	24	18.54	18.65	18.68				
20	256QAM	50	24	18.96	18.60	18.57	20	2		
20	256QAM	50	50	18.60	18.68	18.61				
20	256QAM	100	0	18.53	18.60	18.61				
Channel										
	Frequency (MHz)			1875	1880	1907.5	Turn-up (min)	MPR (dB)		
15	QPSK	1	0	20.54	20.65	20.61				
15	QPSK	1	37	20.46	20.56	20.61	22	0		
15	QPSK	1	74	20.29	20.57	20.40				
15	QPSK	36	0	20.48	20.71	20.59				
15	QPSK	36	20	20.55	20.61	20.61	22	0		
15	QPSK	36	39	20.45	20.52	20.50				
15	QPSK	75	0	20.63	20.66	20.67				
15	16QAM	1	0	20.50	20.66	20.50				
15	16QAM	1	37	20.49	20.48	20.47	22	0		
15	16QAM	1	74	20.59	20.66	20.66				
15	16QAM	36	0	20.49	20.64	20.56				
15	16QAM	36	20	20.46	20.48	20.48	22	0		
15	16QAM	36	39	20.48	20.70	20.58				
15	64QAM	1	0	20.30	20.59	20.46				
15	64QAM	1	37	20.50	20.60	20.64	22	0		
15	64QAM	1	74	20.45	20.57	20.53				
15	64QAM	36	0	20.38	20.50	20.45				
15	64QAM	36	20	20.53	20.66	20.66	22	0		
15	64QAM	36	39	20.47	20.71	20.54				
15	64QAM	75	0	20.32	20.43	20.38				
15	256QAM	1	0	18.64	18.72	18.67				
15	256QAM	1	37	18.54	18.60	18.45	20	2		
15	256QAM	1	74	18.83	18.70	18.52				
15	256QAM	36	0	18.53	18.62	18.68				
15	256QAM	36	20	18.51	18.50	18.47	20	2		
15	256QAM	36	39	18.48	18.53	18.53				
15	256QAM	75	0	18.56	18.53	18.42				
Channel										
	Frequency (MHz)			1890	1894	1910	Turn-up (min)	MPR (dB)		
10	QPSK	1	0	20.50	20.60	20.55				
10	QPSK	1	25	20.46	20.56	20.55	22	0		
10	QPSK	1	49	20.31	20.50	20.42				
10	QPSK	25	0	20.48	20.68	20.68				
10	QPSK	25	12	20.57	20.61	20.61	22	0		
10	QPSK	25	25	20.39	20.51	20.51				
10	QPSK	50	0	20.63	20.66	20.67				
10	16QAM	1	0	20.48	20.64	20.57				
10	16QAM	1	25	20.39	20.47	20.52	22	0		
10	16QAM	1	49	20.50	20.66	20.66				
10	16QAM	25	0	20.48	20.60	20.59				
10	16QAM	25	12	20.47	20.47	20.44	22	0		
10	16QAM	25	25	20.50	20.70	20.44				
10	16QAM	50	0	20.57	20.68	20.57				
10	64QAM	1	0	20.36	20.48	20.51				
10	64QAM	1	25	20.51	20.60	20.60	22	0		
10	64QAM	1	49	20.51	20.64	20.54				
10	64QAM	25	0	20.42	20.46	20.59				
10	64QAM	25	12	20.52	20.66	20.67	22	0		
10	64QAM	25	25	20.54	20.71	20.51				
10	64QAM	50	0	20.32	20.41	20.42				
10	256QAM	1	0	18.65	18.72	18.58				
10	256QAM	1	25	18.63	18.64	18.51	20	2		
10	256QAM	1	49	18.67	18.66	18.61				
10	256QAM	25	0	18.51	18.52	18.57				
10	256QAM	25	12	18.45	18.60	18.50	20	2		
10	256QAM	25	25	18.48	18.50	18.57				
10	256QAM	50	0	18.49	18.60	18.48				
Channel										
	Frequency (MHz)			1895	1896	1915	Turn-up (min)	MPR (dB)		
5	QPSK	1	0	20.58	20.72	20.75				
5	QPSK	1	12	20.50	20.53	20.51	22	0		
5	QPSK	1	24	20.36	20.51	20.41				
5	QPSK	12	0	20.52	20.58	20.68				
5	QPSK	12	7	20.51	20.60	20.60	22	0		
5	QPSK	12	13	20.39	20.51	20.50				
5	QPSK	25	0	20.63	20.70	20.60				
5	16QAM	1	0	20.44	20.68	20.55				
5	16QAM	1	12	20.38	20.50	20.49	22	0		
5	16QAM	1	24	20.18	20.30	20.27				
5	16QAM	12	0	20.50	20.71	20.56				
5	16QAM	12	7	20.43	20.51	20.44	22	0		
5	16QAM	12	13	20.52	20.72	20.58				
5	16QAM	25	0	20.57	20.67	20.56				
5	64QAM	1	0	20.33	20.56	20.53				
5	64QAM	1	12	20.48	20.60	20.53	22	0		
5	64QAM	1	24	20.53	20.64	20.56				
5	64QAM	12	0	20.42	20.42	20.63				
5	64QAM	12	7	20.50	20.62	20.56	22	0		
5	64QAM	12	13	20.48	20.48	20.46				
5	256QAM	1	0	18.60	18.72	18.60				
5	256QAM	1	12	18.58	18.60	18.48	20	2		
5	256QAM	1	24	18.60	18.66	18.57				
5	256QAM	12	0	18.54	18.50	18.48				
5	256QAM	12	7	18.41	18.62	18.50	20	2		
5	256QAM	12	13	18.50	18.60	18.50				
5	256QAM	25	0	18.55	18.50	18.50				
Channel										
	Frequency (MHz)			1905	1906	1915	Turn-up (min)	MPR (dB)		
3	QPSK	1	0	20.49	20.67	20.57				
3	QPSK	1	8	20.53	20.58	20.58	22	0		
3	QPSK	1	14	20.31	20.50	20.40				
3	QPSK	8	0	20.44	20.70	20.62				
3	QPSK	8	4	20.53	20.64	20.59	22	0		
3	QPSK	8	7	20.36	20.50	20.44				
3	QPSK	15	0	20.57	20.60	20.60				
3	16QAM	1	0	20.45	20.66	20.48				
3	16QAM	1	8	20.42	20.55	20.46	22	0		
3	16QAM	1	14	20.58	20.60	20.64				
3	16QAM	8	0	20.57	20.67	20.60				
3	16QAM	8	4	20.48	20.47	20.48	22	0		
3	16QAM	8	7	20.52	20.60	20.58				
3	16QAM	15	0	20.51	20.62					



Band 38 Main PA Ant2 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid-Mid Ch / Freq	Power High-Mid Ch / Freq	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.22	23.27	23.13				
20	QPSK	1	49	23.22	23.15	23.09		23.5	0	
20	QPSK	50	24	23.19	23.16	23.06				
20	QPSK	50	0	23.17	23.28	23.22				
20	QPSK	50	24	23.10	23.15	23.18		23.5	0	
20	QPSK	100	0	23.15	23.22	23.21				
20	16QAM	1	0	23.08	23.20	23.18		23.5	0	
20	16QAM	1	49	23.14	23.13	23.08				
20	16QAM	1	99	23.17	23.26	23.26				
20	16QAM	50	0	23.11	23.22	23.15				
20	16QAM	50	24	23.06	23.14	23.06				
20	16QAM	50	50	23.21	23.22	23.19		23.5	0	
20	16QAM	100	0	23.13	23.15	23.05				
20	16QAM	100	0	23.05	23.16	23.09				
20	16QAM	1	49	23.05	23.22	23.16		23.5	0	
20	16QAM	1	99	23.04	23.20	23.13				
20	16QAM	50	24	22.22	22.27	22.21				
20	16QAM	50	24	22.08	22.22	22.08		22.5	1	
20	16QAM	50	50	22.20	22.27	22.19				
20	16QAM	100	0	22.16	22.22	22.19				
20	25QAM	1	0	20.26	20.30	20.24				
20	25QAM	1	49	20.26	20.23	20.13		20.5	3	
20	25QAM	1	99	20.18	20.24	20.12				
20	25QAM	50	0	20.24	20.25	20.16				
20	25QAM	50	24	20.23	20.16	20.11		20.5	3	
20	25QAM	50	50	20.08	20.20	20.11				
20	25QAM	100	0	20.09	20.13	20.08				
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.23	23.24	23.23				
15	QPSK	1	37	23.04	23.14	23.14		23.5	0	
15	QPSK	1	74	23.12	23.11	23.07				
15	QPSK	36	0	23.22	23.25	23.19				
15	QPSK	36	20	23.08	23.15	23.18		23.5	0	
15	16QAM	1	0	23.09	23.19	23.09				
15	16QAM	1	74	23.14	23.23	23.20		23.5	0	
15	16QAM	36	0	23.18	23.24	23.11				
15	16QAM	36	20	23.04	23.15	23.18		23.5	0	
15	16QAM	36	59	23.27	23.28	23.20				
15	16QAM	75	0	23.15	23.13	23.02				
15	16QAM	1	0	23.12	23.14	23.14				
15	16QAM	1	37	23.10	23.23	23.08		23.5	0	
15	16QAM	1	74	23.01	23.18	23.16				
15	16QAM	36	0	23.11	23.17	23.13				
15	16QAM	36	20	21.94	22.14	22.00		22.5	1	
15	16QAM	36	59	23.13	23.12	23.05				
15	16QAM	75	0	21.95	22.11	22.00				
15	25QAM	1	0	20.21	20.22	20.10		20.5	3	
15	25QAM	1	37	20.20	20.12	20.00				
15	25QAM	1	74	20.07	20.15	20.09				
15	25QAM	36	0	20.04	20.19	20.11		20.5	3	
15	25QAM	36	20	19.92	20.08	20.05				
15	25QAM	36	59	19.88	20.12	20.03				
15	25QAM	75	0	20.03	20.07	19.98				
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.16	23.27	23.18				
10	QPSK	1	25	23.08	23.19	23.13		23.5	0	
10	QPSK	1	49	23.15	23.21	23.08				
10	QPSK	25	0	23.22	23.20	23.17				
10	QPSK	25	12	23.05	23.13	23.14		23.5	0	
10	QPSK	25	25	23.04	23.16	23.00				
10	16QAM	1	0	23.16	23.25	23.15				
10	16QAM	1	0	23.10	23.25	23.15				
10	16QAM	1	25	23.06	23.16	23.08		23.5	0	
10	16QAM	1	49	23.18	23.26	23.31				
10	16QAM	25	0	23.08	23.27	23.19				
10	16QAM	25	12	23.05	23.16	23.05		23.5	0	
10	16QAM	25	19	23.05	23.16	23.05				
10	16QAM	25	26	23.22	23.20	23.23				
10	16QAM	50	0	23.11	23.13	23.02				
10	16QAM	1	0	23.03	23.12	23.05				
10	16QAM	1	25	23.00	23.20	23.12		23.5	0	
10	16QAM	1	49	22.99	23.18	23.07				
10	16QAM	25	0	22.12	22.18	22.12		22.5	1	
10	16QAM	25	12	22.02	22.13	21.96				
10	16QAM	25	19	22.11	22.17	22.05				
10	16QAM	50	0	22.24	22.14	22.07				
10	25QAM	1	0	20.20	20.18	20.11				
10	25QAM	1	25	20.11	20.13	20.01		20.5	3	
10	25QAM	1	49	20.14	20.15	20.03				
10	25QAM	25	0	20.04	20.17	20.10				
10	25QAM	25	12	19.91	20.04	19.97		20.5	3	
10	25QAM	25	19	19.93	20.06	20.00				
10	25QAM	50	0	19.98	20.09	19.91				
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.18	23.26	23.12				
5	QPSK	1	19	23.04	23.12	23.12		23.5	0	
5	QPSK	1	24	23.09	23.10	23.05				
5	QPSK	12	0	23.22	23.24	23.16				
5	QPSK	12	7	23.13	23.21	23.15		23.5	0	
5	QPSK	12	19	23.00	23.12	23.01				
5	QPSK	25	0	23.16	23.21	23.26				
5	QPSK	25	0	23.07	23.14	23.12				
5	16QAM	1	12	23.05	23.16	23.13		23.5	0	
5	16QAM	1	24	23.19	23.26	23.26				
5	16QAM	12	0	23.06	23.22	23.16				
5	16QAM	12	7	23.08	23.14	23.07		23.5	0	
5	16QAM	12	13	23.16	23.18	23.14				
5	16QAM	25	0	23.13	23.12	23.06				
5	16QAM	1	0	23.12	23.18	23.07		23.5	0	
5	16QAM	1	12	22.96	23.22	23.11				
5	16QAM	1	24	23.09	23.22	23.09				
5	16QAM	12	0	22.10	22.21	22.14		22.5	1	
5	16QAM	12	7	22.05	22.15	22.00				
5	16QAM	12	13	22.16	22.18	22.06				
5	16QAM	25	0	22.06	22.16	22.06				
5	25QAM	1	0	20.17	20.15	20.15				
5	25QAM	1	12	20.16	20.16	20.03		20.5	3	
5	25QAM	1	24	20.10	20.11	20.09				
5	25QAM	12	0	20.00	20.11	20.09				
5	25QAM	12	7	19.92	20.03	19.97		20.5	3	
5	25QAM	12	13	20.01	20.16	20.07				
5	25QAM	25	0	19.98	20.05	19.95				

Band 41 Main PA Ant2 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Low-Mid Ch / Freq	Power High-Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)	
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.23	23.25	23.19	23.22			
20	QPSK	1	49	23.03	23.17	23.20	23.20		23.5	0
20	QPSK	1	99	23.18	23.19	23.26	23.20			
20	QPSK	50	0	23.16	23.20	23.22	23.26			
20	QPSK	50	24	23.00	23.21	23.21	23.24		23.5	0
20	QPSK	100	0	23.19	23.26	23.22	23.27			
20	16QAM	1	0	22.98	23.20	23.26	23.26		23.5	0
20	16QAM	1	49	23.14	23.21	23.26	23.27			
20	16QAM	1	99	23.17	23.22	23.29	23.26			
20	16QAM	50	0	23.09	23.26	23.27	23.20		23.5	0
20	16QAM	50	24	23.12	23.19	23.26	23.24			
20	16QAM	50	50	23.18	23.26	23.28	23.26		23.5	0
20	16QAM	100	0	23.04	23.27	23.22	23.20			
20	16QAM	100	0	23.14	23.21	23.23	23.28			
20	16QAM	1	49	23.07	23.23	23.28	23.26		23.5	0
20	16QAM	1	99	23.17	23.19	23.28	23.22			
20	16QAM	50	24	22.20	22.24	22.20	22.26			
20	16QAM	50	24	22.09	22.25	22.28	22.20		22.5	1
20	16QAM	50	50	22.02	22.28	22.27	22.25			
20	16QAM	100	0	22.21	22.23	22.27	22.29			
20	25QAM	1	0	20.27	20.23	20.26	20.21		20.5	3
20	25QAM	1	49	20.24	20.25	20.19	20.20			
20	25QAM	1	99	20.21	20.26	20.25	20.22		20.5	3
20	25QAM	50	0	20.27	20.22	20.20	20.24			
20	25QAM	50	24	20.14	20.14	20.20	20.20		20.5	3
20	25QAM	50	50	20.13	20.21	20.29	20.16			
20	25QAM	100	0	20.20	20.13	20.04	20.15			
Channel										
Frequency (MHz)										
16	QPSK	1	0	23.24	23.25	23.23	23.27			
16	QPSK	1	37	22.99	23.14	23.20	23.25		24	0
16	QPSK	1	74	23.16	23.13	23.04	23.21			
16	QPSK	36	0	23.18	23.26	23.27	23.24			
16	QPSK	36	20	22.95	23.21	23.20	23.26		23.5	



Band 4 Main PA Ant3 DSI4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Mid Ch./Freq.	Power High Ch./Freq.	Time-up limit (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	17.81	17.83	17.78				
20	QPSK	1	49	17.87	17.89	17.84	19.5	0		
20	QPSK	1	99	17.89	17.78	17.78				
20	QPSK	50	0	17.97	17.74	17.62				
20	QPSK	50	24	17.71	17.71	17.66	19.5	0		
20	QPSK	50	50	17.59	17.54	17.59				
20	QPSK	100	0	17.66	17.63	17.61				
20	16QAM	1	0	17.82	17.81	17.81	19.5	0		
20	16QAM	1	49	17.59	17.61	17.63				
20	16QAM	1	99	17.63	17.63	17.64				
20	16QAM	50	0	17.86	17.66	17.59				
20	16QAM	50	24	17.74	17.76	17.73	19.5	0		
20	16QAM	50	50	17.57	17.61	17.67				
20	16QAM	100	0	17.79	17.66	17.57				
20	84QAM	1	0	17.63	17.64	17.70				
20	84QAM	1	49	17.80	17.74	17.68	19.5	0		
20	84QAM	1	99	17.65	17.63	17.63				
20	84QAM	50	0	17.56	17.67	17.67				
20	84QAM	50	24	17.53	17.58	17.52	19.5	0		
20	84QAM	50	50	17.58	17.56	17.56				
20	256QAM	1	0	17.55	17.59	17.64				
20	256QAM	1	49	17.55	17.54	17.54	19.5	0		
20	256QAM	1	99	17.55	17.51	17.52				
20	256QAM	50	0	17.58	17.59	17.62				
20	256QAM	50	24	17.54	17.68	17.58	19.5	0		
20	256QAM	50	50	17.60	17.72	17.67				
20	256QAM	100	0	17.61	17.66	17.68				
Channel										
Frequency (MHz)										
15	QPSK	1	0	17.72	17.60	17.57				
15	QPSK	1	37	17.66	17.63	17.62	19.5	0		
15	QPSK	1	74	17.76	17.63	17.66				
15	QPSK	36	0	17.64	17.72	17.67				
15	QPSK	36	29	17.78	17.66	17.71	19.5	0		
15	QPSK	36	39	17.68	17.60	17.69				
15	QPSK	75	0	17.66	17.67	17.67				
15	16QAM	1	0	17.66	17.66	17.72	19.5	0		
15	16QAM	1	37	17.68	17.59	17.69				
15	16QAM	1	74	17.78	17.66	17.66				
15	16QAM	36	0	17.68	17.51	17.60	19.5	0		
15	16QAM	36	29	17.67	17.68	17.74				
15	16QAM	36	39	17.66	17.66	17.66				
15	16QAM	75	0	17.74	17.62	17.62				
15	84QAM	1	0	17.67	17.52	17.57	19.5	0		
15	84QAM	1	37	17.79	17.63	17.63				
15	84QAM	1	74	17.77	17.67	17.60				
15	84QAM	36	0	17.59	17.63	17.68	19.5	0		
15	84QAM	36	29	17.66	17.64	17.64				
15	84QAM	36	39	17.67	17.63	17.57				
15	84QAM	75	0	17.65	17.70	17.62				
15	256QAM	1	0	17.65	17.59	17.62				
15	256QAM	1	37	17.60	17.51	17.51	19.5	0		
15	256QAM	1	74	17.64	17.63	17.59				
15	256QAM	36	0	17.58	17.66	17.70	19.5	0		
15	256QAM	36	29	17.76	17.66	17.66				
15	256QAM	36	39	17.67	17.71	17.65				
15	256QAM	75	0	17.74	17.76	17.69	19.5	0		
15	256QAM	75	0	17.61	17.60	17.67				
Channel										
Frequency (MHz)										
20	QPSK	1	0	17.15	17.25	17.20				
20	QPSK	1	25	17.66	17.69	17.63	19.5	0		
20	QPSK	1	49	17.69	17.59	17.71				
20	QPSK	12	0	17.60	17.60	17.60				
20	QPSK	25	12	17.71	17.62	17.66	19.5	0		
20	QPSK	25	25	17.58	17.58	17.69				
20	QPSK	50	0	17.66	17.66	17.66				
20	16QAM	1	0	17.58	17.51	17.54	19.5	0		
20	16QAM	1	24	17.63	17.62	17.66				
20	16QAM	1	49	17.66	17.54	17.54				
20	16QAM	25	0	17.64	17.65	17.60	19.5	0		
20	16QAM	25	12	17.56	17.62	17.62				
20	16QAM	50	0	17.53	17.51	17.55				
20	256QAM	1	0	17.62	17.54	17.62	19.5	0		
20	256QAM	1	49	17.66	17.55	17.64				
20	256QAM	1	99	17.61	17.62	17.62				
20	256QAM	25	12	17.57	17.70	17.74	19.5	0		
20	256QAM	25	25	17.66	17.74	17.74				
20	256QAM	50	0	17.56	17.44	17.68				
Channel										
Frequency (MHz)										
5	QPSK	1	0	17.62	17.66	17.63				
5	QPSK	1	12	17.64	17.77	17.61	19.5	0		
5	QPSK	1	24	17.63	17.60	17.65				
5	QPSK	12	0	17.60	17.60	17.60				
5	QPSK	12	7	17.71	17.54	17.59	19.5	0		
5	QPSK	12	13	17.71	17.62	17.67				
5	QPSK	25	0	17.52	17.62	17.67				
5	16QAM	1	0	17.67	17.59	17.68	19.5	0		
5	16QAM	1	24	17.63	17.66	17.64				
5	16QAM	12	0	17.59	17.71	17.66	19.5	0		
5	16QAM	12	7	17.76	17.70	17.68				
5	16QAM	12	13	17.68	17.66	17.68				
5	16QAM	25	0	17.71	17.66	17.66	19.5	0		
5	84QAM	1	0	17.77	17.50	17.76	19.5	0		
5	84QAM	1	12	17.74	17.66	17.66				
5	84QAM	1	24	17.80	17.56	17.62				
5	84QAM	12	0	17.50	17.63	17.58	19.5	0		
5	84QAM	12	7	17.64	17.60	17.68				
5	84QAM	12	13	17.68	17.60	17.63				
5	84QAM	25	0	17.61	17.63	17.62				
5	256QAM	1	0	17.60	17.61	17.60	19.5	0		
5	256QAM	1	12	17.50	17.71	17.69				
5	256QAM	1	24	17.54	17.65	17.63				
5	256QAM	12	0	17.59	17.66	17.67	19.5	0		
5	256QAM	12	7	17.52	17.73	17.69				
5	256QAM	12	13	17.69	17.74	17.74				
5	256QAM	25	0	17.72	17.66	17.66	19.5	0		
Channel										
Frequency (MHz)										
3	QPSK	1	0	17.68	17.62	17.63				
3	QPSK	1	8	17.78	17.72	17.63	19.5	0		
3	QPSK	1	14	17.67	17.66	17.74				
3	QPSK	8	0	17.68	17.63	17.63				
3	QPSK	8	4	17.60	17.63	17.67	19.5	0		
3	QPSK	8	7	17.67	17.62	17.56				
3	QPSK	16	0	17.76	17.66	17.66				
3	16QAM	1	0	17.71	17.59	17.68	19.5	0		
3	16QAM	1	8	17.50	17.69	17.61				
3	16QAM	1	16	17.77	17.66	17.65				
3	16QAM	8	0	17.75	17.65	17.60	19.5	0		
3	16QAM	8	4	17.71	17.68	17.64				
3	16QAM	8	7	17.66	17.66	17.65				
3	84QAM	1	0	17.78	17.67	17.61	19.5	0		
3	84QAM	1	8	17.66	17.66	17.66				
3	84QAM	1	14	17.81	17.51	17.59				
3	84QAM	8	0	17.66	17.74	17.64	19.5	0		
3	84QAM	8	4	17.63	17.63	17.50				
3	84QAM	8	7	17.68	17.66	17.65				
3	84QAM	16	0	17.60	17.69	17.69	19.5	0		
3	256QAM	1	0	17.54	17.65	17.61				
3	256QAM	1	8	17.52	17.67	17.68	19.5	0		
3	256QAM	1	16	17.54	17.66	17.66				
3	256QAM	8	0	17.75	17.63	17.76				
3	256QAM	8	4	1						



Band 38 Main PA Ant3 DSI4

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
				38750	38900	38150		
20	QPSK	1	0	20.90	21.22	21.10		
20	QPSK	1	49	20.94	21.05	20.94	22.5	0
20	QPSK	50	99	20.98	21.04	20.78		
20	QPSK	50	0	20.84	21.12	20.89		
20	QPSK	50	24	20.96	20.93	20.97	22.5	0
20	QPSK	100	0	20.92	21.02	20.88		
20	QPSK	100	0	20.86	21.08	20.83		
20	16QAM	1	0	20.82	21.08	20.91	22.5	0
20	16QAM	1	49	20.92	20.93	20.84		
20	16QAM	1	99	20.72	20.80	20.70		
20	16QAM	50	0	21.08	21.15	21.08		
20	16QAM	50	24	20.84	21.07	20.98	22.5	0
20	16QAM	50	50	21.02	21.11	21.07		
20	16QAM	100	0	20.90	21.05	20.94		
20	16QAM	100	0	20.75	20.83	20.73		
20	16QAM	1	49	20.70	20.77	20.68	22.5	0
20	16QAM	1	99	20.61	20.73	20.68		
20	16QAM	50	24	19.95	20.08	20.02	21.5	1
20	16QAM	50	50	20.10	20.13	20.02		
20	16QAM	100	0	19.94	20.05	20.02		
20	16QAM	100	0	19.94	20.05	20.02		
20	256QAM	1	0	17.84	17.91	17.86	19.5	3
20	256QAM	1	49	17.86	17.84	17.79		
20	256QAM	1	99	17.79	17.89	17.76		
20	256QAM	50	0	18.06	18.06	18.06		
20	256QAM	50	24	17.98	18.08	17.96	19.5	3
20	256QAM	50	50	18.09	18.14	18.09		
20	256QAM	100	0	17.76	17.84	17.76		
Channel								
Frequency (MHz)								
				38750	38900	38150	Tune-up limit (dBm)	MPR (dB)
15	QPSK	1	0	20.70	21.04	21.03		
15	QPSK	1	37	20.78	20.90	20.81	22.5	0
15	QPSK	1	74	20.81	20.97	20.78		
15	QPSK	36	0	20.91	20.97	20.78		
15	QPSK	36	20	20.75	20.85	20.67	22.5	0
15	QPSK	36	36	20.82	20.87	20.86		
15	QPSK	75	0	20.75	21.05	20.83		
15	16QAM	1	0	20.73	21.07	20.94	22.5	0
15	16QAM	1	37	20.79	20.81	20.74		
15	16QAM	1	74	20.69	20.77	20.67		
15	16QAM	36	0	21.07	21.06	20.90		
15	16QAM	36	20	20.72	20.87	20.86	22.5	0
15	16QAM	36	36	20.94	21.07	20.88		
15	16QAM	75	0	20.95	20.89	20.87		
15	16QAM	75	0	20.90	20.84	20.82		
15	16QAM	1	37	20.68	20.56	20.64	22.5	0
15	16QAM	1	74	20.61	20.61	20.61		
15	16QAM	36	0	19.95	20.02	19.92		
15	16QAM	36	20	19.87	20.04	19.93	21.5	1
15	16QAM	36	36	20.06	20.02	19.98		
15	16QAM	75	0	19.94	19.94	19.90		
15	256QAM	1	0	17.73	17.82	17.82	19.5	3
15	256QAM	1	37	17.73	17.87	17.75		
15	256QAM	1	74	17.69	17.81	17.65		
15	256QAM	36	0	18.02	18.06	17.93		
15	256QAM	36	20	17.90	17.99	17.82	19.5	3
15	256QAM	36	36	18.04	18.01	18.02		
15	256QAM	75	0	17.82	17.96	17.82		
Channel								
Frequency (MHz)								
				38750	38900	38150	Tune-up limit (dBm)	MPR (dB)
10	QPSK	1	0	20.30	21.07	21.03		
10	QPSK	1	26	20.70	21.02	20.93	22.5	0
10	QPSK	1	49	20.99	20.90	20.70		
10	QPSK	12	0	20.85	20.95	20.76		
10	QPSK	12	12	20.81	20.78	20.85	22.5	0
10	QPSK	25	0	20.72	20.85	20.71		
10	QPSK	25	0	20.62	21.03	20.74		
10	16QAM	1	0	20.75	20.90	20.78	22.5	0
10	16QAM	1	26	20.93	20.84	20.67		
10	16QAM	1	49	20.72	20.80	20.66		
10	16QAM	25	0	21.09	21.16	21.09		
10	16QAM	25	0	20.84	20.90	20.87	22.5	0
10	16QAM	25	26	20.92	21.04	20.92		
10	16QAM	50	0	20.78	21.05	20.83		
10	16QAM	1	0	20.73	20.72	20.63	22.5	0
10	16QAM	1	26	20.54	20.74	20.53		
10	16QAM	1	49	20.62	20.51	20.69		
10	16QAM	25	0	19.97	20.14	19.97		
10	16QAM	25	12	19.91	20.00	19.98	21.5	1
10	16QAM	25	25	20.08	20.07	19.95		
10	16QAM	50	0	19.81	20.01	19.92		
10	256QAM	1	0	17.76	17.85	17.81	19.5	3
10	256QAM	1	26	17.76	17.82	17.63		
10	256QAM	25	0	17.99	18.05	17.93		
10	256QAM	25	12	17.96	18.00	17.86	19.5	3
10	256QAM	25	25	17.97	18.02	17.98		
10	256QAM	50	0	17.88	17.97	17.82		
Channel								
Frequency (MHz)								
				38750	38900	38150	Tune-up limit (dBm)	MPR (dB)
5	QPSK	1	0	20.74	21.06	20.90	22.5	0
5	QPSK	1	12	20.88	20.95	20.83		
5	QPSK	1	24	20.83	21.02	20.87		
5	QPSK	12	0	20.71	20.84	20.71	22.5	0
5	QPSK	12	7	20.87	20.82	20.84		
5	QPSK	12	13	20.63	20.90	20.72		
5	QPSK	25	0	20.69	20.85	20.65		
5	QPSK	25	0	20.79	21.03	20.91		
5	16QAM	1	12	20.82	20.74	20.79	22.5	0
5	16QAM	1	24	20.68	20.86	20.70		
5	16QAM	12	0	21.08	21.16	21.04		
5	16QAM	12	7	20.85	21.07	20.91	22.5	0
5	16QAM	12	13	21.02	21.02	21.00		
5	16QAM	25	0	20.94	21.06	20.85		
5	16QAM	1	0	20.81	20.72	20.81	22.5	0
5	16QAM	1	12	20.65	20.88	20.60		
5	16QAM	1	24	20.56	20.74	20.65		
5	16QAM	12	0	19.96	20.09	19.99		
5	16QAM	12	7	19.81	19.98	19.88	21.5	1
5	16QAM	12	13	20.07	20.10	19.91		
5	16QAM	25	0	19.83	19.94	19.92		
5	256QAM	1	0	17.80	17.88	17.79	19.5	3
5	256QAM	1	12	17.79	17.81	17.70		
5	256QAM	1	24	17.74	17.82	17.63		
5	256QAM	12	0	18.00	18.14	17.92		
5	256QAM	12	7	17.94	18.02	17.86	19.5	3
5	256QAM	12	13	17.97	18.11	18.03		
5	256QAM	25	0	17.82	17.94	17.82		

Band 41 Main PA Ant3 DSI4

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
				38750	40185	40500	41055	41460
20	QPSK	1	0	21.15	21.20	21.33	21.24	21.52
20	QPSK	1	49	21.00	21.10	21.26	21.00	21.07
20	QPSK	1	99	21.14	20.92	21.09	21.13	20.98
20	QPSK	50	0	21.05	21.00	21.07	21.11	21.10
20	QPSK	50	24	20.97	21.07	21.20	21.18	21.08
20	QPSK	50	50	21.00	20.97	20.99	20.90	20.80
20	QPSK	100	0	21.06	21.06	21.16	20.89	20.96
20	16QAM	1	0	20.97	20.95	20.97	20.99	20.81
20	16QAM	1	49	20.95	20.85	21.07	20.88	20.79
20	16QAM	1	99	20.95	20.87	20.89	21.02	20.77
20	16QAM	50	0	21.07	21.06	21.26	21.22	21.11
20	16QAM	50	24	21.07	21.09	21.18	21.14	21.08
20	16QAM	50	50	21.17	21.11	21.27	21.19	21.08
20	16QAM	100	0	21.06	21.09	21.19	21.05	20.95
20	16QAM	1	0	20.85	20.85	20.97	20.85	20.85
20	16QAM	1	49	20.71	20.78	20.83	20.84	20.70
20	16QAM	1	99	20.75	20.65	20.88	20.76	20.79
20	16QAM	50	0	20.16	20.12	20.25	20.20	20.47
20	16QAM	50	24	20.08	20.08	20.21	20.11	20.06
20	16QAM	50	50	20.16	20.27	20.26	20.15	20.16
20	16QAM	100	0	20.07	20.03	20.11	20.16	19.98
20	256QAM	1	0	18.86	17.94	18.09	18.03	17.89
20	256QAM	1	49	17.80	18.04	17.87	17.89	17.89
20	256QAM	1	99	17.89	17.82	18.02	17.88	17.80
20	256QAM	50	0	18.08	18.04	18.08	18.14	18.14
20	256QAM	50	24	18.11	18.06	18.20	18.06	18.11
20	256QAM	50	50	18.12	18.17	18.21	18.14	18.06
20	256QAM	100	0	18.05	18.10	18.06	18.06	17.87
Channel								
Frequency (MHz)								
				38750	40185	40500	41055	41460
15	QPSK	1	0	20.97	21.02	21.07	21.22	21.14
15	QPSK	1	37	20.90	20.83	21.14	20.83	20.96
15	QPSK	1	74	21.10	20.81	21.06	21.15	20.88
15	QPSK	36	0	20.95	21.00	21.03	21.09	21.05
15	QPSK	36	20	20.76	20.99	21.07	21.20	21.01
15	QPSK	36	36	20.81	20.86	20.86	20.76	20.76
15	QPSK	75	0	21.02	21.05	21.05	20.89	20.89
15	16QAM	1	0	20.79	20.80	20.79	20.86	20.67
15	16QAM	1	37	20.75	20.82	20.76	20.82	20.68
15	16QAM							



Band 2 Main PA Ant4 DS14										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power High Ch./Freq.	Turn-up time (sec)	MFR (dB)		
Channel										
1860 1860 1900										
20	QPSK	1	0	18.41	18.43	19.38	20.5	0		
20	QPSK	1	49	18.27	18.26	19.18	20.5	0		
20	QPSK	50	0	18.36	18.42	19.36	20.5	0		
20	QPSK	50	24	18.36	18.31	19.24	20.5	0		
20	QPSK	50	50	18.16	18.31	19.23	20.5	0		
20	QPSK	100	0	18.33	18.37	19.28	20.5	0		
20	16QAM	50	0	18.32	18.36	19.27	20.5	0		
20	16QAM	1	49	18.17	18.16	19.14	20.5	0		
20	16QAM	1	99	18.28	18.15	19.10	20.5	0		
20	16QAM	50	0	18.33	18.40	19.28	20.5	0		
20	16QAM	50	24	18.17	18.32	19.27	20.5	0		
20	16QAM	50	50	18.29	18.36	19.25	20.5	0		
20	16QAM	100	0	18.24	18.30	19.22	20.5	0		
20	84QAM	1	0	18.39	18.32	19.41	20.5	0		
20	84QAM	1	49	18.43	18.46	19.59	20.5	0		
20	84QAM	50	0	18.36	18.43	19.31	20.5	0		
20	84QAM	50	99	18.43	18.47	19.41	20.5	0		
20	84QAM	50	24	18.29	18.38	19.31	20.5	0		
20	84QAM	50	50	18.36	18.36	19.36	20.5	0		
20	84QAM	100	0	18.22	18.35	19.30	20.5	0		
20	256QAM	1	0	18.44	18.56	19.37	19.5	1		
20	256QAM	1	49	18.40	18.47	18.33	19.5	1		
20	256QAM	1	99	18.34	18.42	18.33	19.5	1		
20	256QAM	50	0	18.31	18.35	18.24	19.5	1		
20	256QAM	50	50	18.30	18.40	18.34	19.5	1		
20	256QAM	100	0	18.27	18.31	18.22	19.5	1		
Channel										
1875 1890 1915										
15	QPSK	1	0	18.31	18.25	19.23	20.5	0		
15	QPSK	1	37	18.14	18.14	19.13	20.5	0		
15	QPSK	1	74	18.19	18.12	19.23	20.5	0		
15	QPSK	36	0	18.30	18.32	19.31	20.5	0		
15	QPSK	36	25	18.18	18.26	19.20	20.5	0		
15	QPSK	36	39	18.11	18.22	19.19	20.5	0		
15	QPSK	75	0	18.19	18.24	19.16	20.5	0		
15	QPSK	75	0	18.14	18.14	19.16	20.5	0		
15	16QAM	1	37	18.10	18.10	19.22	20.5	0		
15	16QAM	1	74	18.20	18.20	19.22	20.5	0		
15	16QAM	36	0	18.20	18.20	19.16	20.5	0		
15	16QAM	36	25	18.13	18.20	19.12	20.5	0		
15	16QAM	36	39	18.26	18.26	19.22	20.5	0		
15	16QAM	75	0	18.19	18.25	19.07	20.5	0		
15	84QAM	1	0	18.35	18.40	19.28	20.5	0		
15	84QAM	1	37	18.36	18.43	19.28	20.5	0		
15	84QAM	1	74	18.29	18.35	19.23	20.5	0		
15	84QAM	36	0	18.36	18.35	19.33	20.5	0		
15	84QAM	36	25	18.26	18.28	19.28	20.5	0		
15	84QAM	36	39	18.32	18.35	19.25	20.5	0		
15	84QAM	75	0	18.12	18.21	19.15	20.5	0		
15	256QAM	1	0	18.30	18.30	19.27	19.5	1		
15	256QAM	1	37	18.27	18.41	18.30	19.5	1		
15	256QAM	1	74	18.30	18.39	18.19	19.5	1		
15	256QAM	36	0	18.28	18.28	19.28	19.5	1		
15	256QAM	36	25	18.18	18.25	18.11	19.5	1		
15	256QAM	36	39	18.17	18.34	18.27	19.5	1		
15	256QAM	75	0	18.22	18.24	18.27	19.5	1		
Channel										
1860 1890 1915										
10	QPSK	1	0	18.28	18.28	19.28	20.5	0		
10	QPSK	1	25	18.12	18.21	19.16	20.5	0		
10	QPSK	1	49	18.24	18.28	19.26	20.5	0		
10	QPSK	12	0	18.33	18.36	19.28	20.5	0		
10	QPSK	25	12	18.17	18.28	19.19	20.5	0		
10	QPSK	25	25	18.07	18.26	19.13	20.5	0		
10	16QAM	1	0	18.08	18.19	19.10	20.5	0		
10	16QAM	1	24	18.22	18.16	19.16	20.5	0		
10	16QAM	1	49	18.28	18.28	19.27	20.5	0		
10	16QAM	25	0	18.27	18.25	19.19	20.5	0		
10	16QAM	25	12	18.09	18.23	19.15	20.5	0		
10	16QAM	36	0	18.18	18.27	19.13	20.5	0		
10	16QAM	50	0	18.17	18.15	19.15	20.5	0		
10	84QAM	1	0	18.26	18.43	19.33	20.5	0		
10	84QAM	1	24	18.37	18.48	19.27	20.5	0		
10	84QAM	1	49	18.24	18.28	19.27	20.5	0		
10	84QAM	25	0	18.35	18.43	19.36	20.5	0		
10	84QAM	12	0	18.28	18.36	19.29	20.5	0		
10	84QAM	25	25	18.26	18.39	19.29	20.5	0		
10	256QAM	1	0	18.09	18.22	19.23	20.5	0		
10	256QAM	1	24	18.34	18.44	19.28	20.5	0		
10	256QAM	1	28	18.32	18.42	18.22	19.5	1		
10	256QAM	1	49	18.24	18.33	18.23	19.5	1		
10	256QAM	12	0	18.30	18.32	19.23	19.5	1		
10	256QAM	25	12	18.26	18.28	18.16	19.5	1		
10	256QAM	25	25	18.22	18.29	18.19	19.5	1		
10	256QAM	50	0	18.23	18.24	18.21	19.5	1		
Channel										
1875 1890 1915										
5	QPSK	1	0	18.28	18.28	19.28	20.5	0		
5	QPSK	1	12	18.31	18.15	18.22	20.5	0		
5	QPSK	1	24	18.23	18.15	19.13	20.5	0		
5	QPSK	12	0	18.33	18.36	19.28	20.5	0		
5	QPSK	12	7	18.21	18.26	19.18	20.5	0		
5	QPSK	12	13	18.08	18.19	19.15	20.5	0		
5	QPSK	25	0	18.26	18.26	19.26	20.5	0		
5	16QAM	1	0	18.19	18.32	19.05	20.5	0		
5	16QAM	1	12	18.05	18.17	19.07	20.5	0		
5	16QAM	1	24	18.20	18.28	19.28	20.5	0		
5	16QAM	12	0	18.20	18.28	19.18	20.5	0		
5	16QAM	12	7	18.03	18.24	19.13	20.5	0		
5	16QAM	12	13	18.24	18.31	19.14	20.5	0		
5	16QAM	25	0	18.14	18.21	19.12	20.5	0		
5	84QAM	1	0	18.26	18.40	19.30	20.5	0		
5	84QAM	1	12	18.37	18.48	19.25	20.5	0		
5	84QAM	1	24	18.24	18.30	19.21	20.5	0		
5	84QAM	12	0	18.29	18.39	19.31	20.5	0		
5	84QAM	12	7	18.17	18.35	19.18	20.5	0		
5	84QAM	12	13	18.25	18.31	19.33	20.5	0		
5	84QAM	25	0	18.14	18.21	19.13	20.5	0		
5	256QAM	1	0	18.17	18.41	18.28	19.5	1		
5	256QAM	1	12	18.32	18.29	18.19	19.5	1		
5	256QAM	12	0	18.26	18.31	18.26	19.5	1		
5	256QAM	12	7	18.19	18.28	18.11	19.5	1		
5	256QAM	12	13	18.26	18.21	18.22	19.5	1		
5	256QAM	25	0	18.18	18.28	18.21	19.5	1		
Channel										
1865 1890 1915										
3	QPSK	1	0	18.25	18.27	19.25	20.5	0		
3	QPSK	1	8	18.23	18.22	19.13	20.5	0		
3	QPSK	1	14	18.30	18.16	19.25	20.5	0		
3	QPSK	8	0	18.21	18.33	19.28	20.5	0		
3	QPSK	8	4	18.23	18.31	19.14	20.5	0		
3	QPSK	8	7	18.10	18.19	19.20	20.5	0		
3	QPSK	15	0	18.22	18.27	19.28	20.5	0		
3	16QAM	1	0	18.30	18.36	19.23	20.5	0		
3	16QAM	1	8	18.10	18.30	19.13	20.5	0		
3	16QAM	1	14	18.26	18.13	19.07	20.5	0		
3	16QAM	8	0	18.21	18.34	19.17	20.5	0		
3	16QAM	8	4	18.08	18.13	19.21				



Band 25 Main PA Ant4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Turn-up (min)	MPR (dB)	
Channel									
	Frequency (MHz)			1860	1868	1905			
20	QPSK	1	0	20.31	20.42	20.27	24.5	0	
20	QPSK	1	49	21.29	21.34	21.24			
20	QPSK	1	99	22.16	22.29	22.21			
20	QPSK	50	0	22.24	22.25	22.26			
20	QPSK	50	24	22.22	22.22	22.21			
20	QPSK	50	50	22.16	22.24	22.12	23.5	1	
20	QPSK	100	0	22.16	22.25	22.26			
20	QPSK	100	24	22.55	22.56	22.56			
20	16QAM	1	49	22.48	22.59	22.47	23.5	1	
20	16QAM	1	99	22.52	22.55	22.43			
20	16QAM	50	0	21.31	21.38	21.28			
20	16QAM	50	24	21.19	21.28	21.15	22.5	2	
20	16QAM	50	50	21.18	21.32	21.22			
20	16QAM	100	0	21.18	21.30	21.19			
20	64QAM	1	0	21.44	21.51	21.47			
20	64QAM	1	49	21.31	21.45	21.39	22.5	2	
20	64QAM	1	99	21.27	21.41	21.28			
20	64QAM	50	0	20.31	20.42	20.32			
20	64QAM	50	24	20.19	20.33	20.22	21.5	3	
20	64QAM	50	50	20.38	20.38	20.25			
20	64QAM	100	0	20.27	20.30	20.26			
20	256QAM	1	49	18.45	18.45	18.38	19.5	5	
20	256QAM	1	99	18.38	18.42	18.32			
20	256QAM	50	0	18.28	18.41	18.28			
20	256QAM	50	24	18.27	18.31	18.18	18.5	5	
20	256QAM	50	50	18.25	18.37	18.33			
20	256QAM	100	0	18.23	18.38	18.33			
Channel									
	Frequency (MHz)			1875	1880	1907.5	Turn-up (min)	MPR (dB)	
15	QPSK	1	0	23.20	23.36	23.13	24.5	0	
15	QPSK	1	37	23.20	23.29	23.20			
15	QPSK	1	74	23.07	23.16	23.17			
15	QPSK	36	0	22.13	22.26	22.07	23.5	1	
15	QPSK	36	20	22.15	22.11	22.07			
15	QPSK	36	39	22.12	22.09	22.06			
15	QPSK	75	0	22.09	22.16	22.11			
15	16QAM	1	49	22.45	22.54	22.49	23.5	1	
15	16QAM	1	37	22.38	22.55	22.33			
15	16QAM	36	0	21.43	21.44	21.43			
15	16QAM	36	20	21.18	21.22	21.23	22.5	2	
15	16QAM	36	39	21.13	21.18	21.08			
15	64QAM	1	0	21.35	21.46	21.37	22.5	2	
15	64QAM	1	74	21.17	21.30	21.19			
15	64QAM	36	0	20.20	20.36	20.17	21.5	3	
15	64QAM	36	20	20.33	20.28	20.17			
15	64QAM	36	39	20.22	20.25	20.19			
15	64QAM	75	0	20.22	20.23	20.16			
15	256QAM	1	49	18.34	18.36	18.28	19.5	5	
15	256QAM	1	37	18.34	18.32	18.29			
15	256QAM	1	74	18.29	18.36	18.22			
15	256QAM	36	0	18.16	18.38	18.22			
15	256QAM	36	20	18.13	18.25	18.11	18.5	5	
15	256QAM	36	39	18.15	18.32	18.28			
15	256QAM	75	0	18.13	18.38	18.28			
Channel									
	Frequency (MHz)			1895	1898	1910	Turn-up (min)	MPR (dB)	
10	QPSK	1	0	23.27	23.38	23.27	24.5	0	
10	QPSK	1	25	23.17	23.24	23.20			
10	QPSK	1	49	23.10	23.18	23.09			
10	QPSK	25	0	22.20	22.21	22.11	23.5	1	
10	QPSK	25	12	22.16	22.19	22.07			
10	QPSK	25	25	22.04	22.11	22.01			
10	QPSK	50	0	22.05	22.16	22.11			
10	16QAM	1	0	22.42	22.59	22.47	23.5	1	
10	16QAM	1	25	22.34	22.50	22.42			
10	16QAM	25	0	21.22	21.30	21.15	22.5	2	
10	16QAM	25	12	21.14	21.17	21.08			
10	16QAM	25	25	21.05	21.16	21.15			
10	64QAM	1	0	21.32	21.38	21.44	22.5	2	
10	64QAM	1	25	21.26	21.35	21.28			
10	64QAM	1	49	21.17	21.34	21.18			
10	64QAM	25	0	20.24	20.30	20.29	21.5	3	
10	64QAM	25	12	20.25	20.28	20.18			
10	64QAM	25	25	20.23	20.33	20.20			
10	64QAM	50	0	20.20	20.22	20.20			
10	256QAM	1	49	18.40	18.43	18.33	19.5	5	
10	256QAM	1	25	18.38	18.39	18.33			
10	256QAM	1	49	18.30	18.38	18.27			
10	256QAM	25	0	18.20	18.38	18.22			
10	256QAM	25	12	18.20	18.20	18.12	19.5	5	
10	256QAM	25	25	18.11	18.25	18.20			
10	256QAM	50	0	18.20	18.20	18.24			
Channel									
	Frequency (MHz)			1892.5	1898	1912.5	Turn-up (min)	MPR (dB)	
5	QPSK	1	0	23.24	23.33	23.15	24.5	0	
5	QPSK	1	12	23.18	23.30	23.15			
5	QPSK	1	24	23.02	23.15	23.14			
5	QPSK	12	0	22.13	22.26	22.18	23.5	1	
5	QPSK	12	7	22.09	22.21	22.16			
5	QPSK	12	13	22.08	22.14	22.09			
5	QPSK	25	0	22.09	22.21	22.18			
5	16QAM	1	0	22.47	22.51	22.45	23.5	1	
5	16QAM	1	12	22.43	22.44	22.43			
5	16QAM	1	24	22.37	22.45	22.37			
5	16QAM	12	0	21.17	21.33	21.24	22.5	2	
5	16QAM	12	7	21.07	21.24	21.07			
5	16QAM	12	13	21.08	21.22	21.08			
5	64QAM	1	0	21.39	21.43	21.32	22.5	2	
5	64QAM	1	12	21.20	21.33	21.27			
5	64QAM	1	24	21.18	21.28	21.17			
5	64QAM	12	0	20.17	20.31	20.20	21.5	3	
5	64QAM	12	7	20.08	20.20	20.13			
5	64QAM	12	13	20.20	20.30	20.20			
5	64QAM	25	0	20.19	20.16	20.21			
5	256QAM	1	18	18.31	18.38	18.33	19.5	5	
5	256QAM	1	12	18.35	18.37	18.27			
5	256QAM	1	24	18.28	18.20	18.16			
5	256QAM	12	0	18.18	18.38	18.25			
5	256QAM	12	7	18.23	18.20	18.07	19.5	5	
5	256QAM	12	13	18.12	18.32	18.21			
5	256QAM	25	0	18.14	18.38	18.25			
Channel									
	Frequency (MHz)			1895.5	1898	1908.5	Turn-up (min)	MPR (dB)	
3	QPSK	1	0	23.24	23.38	23.15	24.5	0	
3	QPSK	1	8	23.18	23.24	23.16			
3	QPSK	1	14	23.03	23.22	23.08			
3	QPSK	3	0	22.16	22.21	22.11	23.5	1	
3	QPSK	3	4	22.12	22.18	22.13			
3	QPSK	3	7	22.05	22.14	22.08			
3	QPSK	15	0	22.02	22.14	22.14			
3	16QAM	1	0	22.50	22.60	22.42	23.5	1	
3	16QAM	1	8	22.38	22.48	22.38			
3	16QAM	1	16	22.44	22.49	22.30			
3	16QAM	3	0	21.20	21.23	21.22	22.5	2	
3	16QAM	3	4	21.11	21.26	21.11			
3	16QAM	3	8	21.06	21.20	21.09			
3	64QAM	1	0	21.39	21.44	21.39	22.5	2	
3	64QAM	1	8	21.27	21.38	21.30			
3	64QAM	1	14	21.13	21.38	21.16			
3	64QAM	3	0	20.20	20.30	20.19	21.5	3	
3	64QAM	3	4	20.18	20.23	20.18			
3	64QAM	3	7	20.18	20.29	20.20			
3	256QAM	1	0	18.38	18.48	18.34	19.5	5	
3	256QAM	1	8	18.34	18.43	18.27			
3	256QAM	1	14	18.35	18.38	18.19			
3	256QAM	3	0	18.20	18.33	18.19			
3	256QAM	3	4	18.20	18.25	18.14	19.5	5	
3	256QAM	3	7	18.15	18.38	18.26			</



Band 38 Main PA Ant4 DSI4

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
38750 38950 39150								
Frequency (MHz)								
20	QPSK	1	0	21.26	21.32	21.33	21.7	0
20	QPSK	1	49	21.10	21.31	21.15		
20	QPSK	1	99	21.09	21.32	21.01		
20	QPSK	50	0	21.09	21.10	21.19		
20	QPSK	50	24	21.18	21.06	21.06		
20	QPSK	50	48	21.09	21.01	20.97		
20	QPSK	100	0	21.04	21.16	20.97		
20	HQAM	1	0	21.21	21.19	21.04		
20	HQAM	1	49	21.03	21.01	20.97		
20	HQAM	1	99	21.05	21.01	20.87		
20	HQAM	50	0	21.08	21.17	21.04		
20	HQAM	50	24	21.14	21.20	21.04		
20	HQAM	50	48	21.13	21.28	21.23		
20	HQAM	100	0	21.09	21.23	21.04		
20	HQAM	1	0	21.13	21.17	21.11		
20	HQAM	1	49	21.04	21.04	21.16		
20	HQAM	1	99	20.96	21.03	20.93		
20	HQAM	50	0	21.13	21.09	21.12		
20	HQAM	50	24	21.09	21.13	21.12		
20	HQAM	50	48	21.18	21.10	21.11		
20	HQAM	100	0	21.16	21.10	20.92		
20	SSBAM	1	0	20.23	20.28	20.19		
20	SSBAM	1	49	20.09	20.16	20.09		
20	SSBAM	1	99	20.00	20.07	19.95		
20	SSBAM	50	0	20.09	20.12	20.00		
20	SSBAM	50	24	20.20	20.10	20.04		
20	SSBAM	50	48	20.14	20.18	20.08		
20	SSBAM	100	0	20.05	20.17	20.00		
Channel								
39150 39350 39550								
Frequency (MHz)								
15	QPSK	1	0	21.27	21.34	21.23	21.7	0
15	QPSK	1	37	20.99	21.17	20.99		
15	QPSK	1	74	21.02	21.20	20.91		
15	QPSK	1	111	21.09	20.99	21.13		
15	QPSK	36	20	20.97	20.96	20.96		
15	QPSK	36	39	21.17	20.99	20.97		
15	QPSK	75	0	21.00	20.99	20.97		
15	HQAM	1	0	21.07	20.98	20.92		
15	HQAM	1	37	20.91	21.01	20.78		
15	HQAM	1	74	20.99	20.83	20.73		
15	HQAM	36	0	21.08	21.13	21.06		
15	HQAM	36	20	20.99	21.04	21.05		
15	HQAM	36	39	20.91	21.08	21.24		
15	HQAM	75	0	20.87	21.03	20.91		
15	HQAM	75	0	21.01	21.04	21.05		
15	HQAM	1	37	20.97	21.05	20.88		
15	HQAM	1	74	20.97	20.93	20.82		
15	HQAM	36	0	21.01	21.05	21.05		
15	HQAM	36	20	20.91	21.02	21.02		
15	HQAM	36	39	21.08	21.06	20.98		
15	HQAM	75	0	21.04	20.90	20.82		
15	SSBAM	1	0	20.14	20.14	20.08		
15	SSBAM	1	37	19.98	19.93	19.82		
15	SSBAM	1	74	19.96	20.02	19.97		
15	SSBAM	36	20	19.99	19.99	19.97		
15	SSBAM	36	39	20.61	20.05	19.99		
15	SSBAM	75	0	19.99	20.13	19.96		
Channel								
39550 39750 39950								
Frequency (MHz)								
10	QPSK	1	0	21.16	21.31	21.00	21.7	0
10	QPSK	1	25	21.11	21.28	21.00		
10	QPSK	1	49	21.02	21.15	20.90		
10	QPSK	1	74	21.03	21.15	21.00		
10	QPSK	25	12	21.17	20.88	20.90		
10	QPSK	25	25	21.03	20.89	21.09		
10	QPSK	1	0	21.00	21.13	20.87		
10	HQAM	1	0	21.00	21.13	20.87		
10	HQAM	1	25	20.84	20.98	20.96		
10	HQAM	1	49	21.00	20.95	20.99		
10	HQAM	25	0	20.90	21.07	21.02		
10	HQAM	25	12	20.99	21.10	20.96		
10	HQAM	25	25	20.99	21.02	21.02		
10	HQAM	50	0	20.99	21.05	20.96		
10	HQAM	50	12	20.99	21.02	20.96		
10	HQAM	50	25	20.99	21.02	20.96		
10	HQAM	1	0	21.02	21.13	20.91		
10	HQAM	1	25	21.05	21.01	21.08		
10	HQAM	1	49	20.83	21.01	20.85		
10	HQAM	25	0	20.97	21.03	20.96		
10	HQAM	25	12	21.05	20.97	21.13		
10	HQAM	25	25	21.10	20.81	20.98		
10	HQAM	50	0	20.95	21.08	20.77		
10	SSBAM	1	0	20.11	20.11	20.08		
10	SSBAM	1	25	19.98	20.02	19.95		
10	SSBAM	1	49	19.90	19.92	19.91		
10	SSBAM	25	0	19.95	19.99	19.88		
10	SSBAM	25	12	19.90	20.00	20.00		
10	SSBAM	25	25	20.00	20.14	20.03		
10	SSBAM	50	0	19.93	20.13	19.97		
Channel								
39950 40150 40350								
Frequency (MHz)								
5	QPSK	1	0	21.17	21.25	21.27	21.7	0
5	QPSK	1	19	20.95	21.21	20.94		
5	QPSK	1	24	21.05	21.13	21.01		
5	QPSK	12	0	21.07	21.06	21.00		
5	QPSK	12	7	21.01	20.87	20.91		
5	QPSK	12	19	21.05	21.08	20.94		
5	QPSK	25	0	21.01	20.99	20.77		
5	QPSK	25	0	21.01	20.99	21.04		
5	HQAM	1	0	20.91	20.81	20.96		
5	HQAM	1	24	21.04	20.93	20.87		
5	HQAM	12	0	20.94	21.15	20.88		
5	HQAM	12	7	21.01	21.25	20.99		
5	HQAM	12	19	21.03	21.18	21.04		
5	HQAM	25	0	20.86	21.05	20.99		
5	HQAM	1	0	21.00	21.02	21.07		
5	HQAM	1	12	21.00	20.92	21.08		
5	HQAM	1	24	21.00	20.96	20.70		
5	HQAM	12	0	20.93	21.07	21.04		
5	HQAM	12	7	21.10	21.07	20.90		
5	HQAM	12	19	20.99	20.92	21.01		
5	HQAM	25	0	20.90	20.97	20.80		
5	SSBAM	1	0	20.09	20.23	20.11		
5	SSBAM	1	12	19.97	20.12	20.01		
5	SSBAM	1	24	19.88	19.84	19.88		
5	SSBAM	12	0	19.98	19.99	19.98		
5	SSBAM	12	7	19.85	19.88	19.94		
5	SSBAM	12	19	20.09	20.09	19.96		
5	SSBAM	25	0	19.92	20.06	19.91		

Band 41 Main PA Ant4 DSI4

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPR (dB)
Channel								
39750 40185 40620 41055 41490								
Frequency (MHz)								
20	QPSK	1	0	21.16	21.43	21.09	21.7	0
20	QPSK	1	49	21.32	21.13	21.45		
20	QPSK	1	99	21.08	21.27	21.29		
20	QPSK	50	0	21.30	21.18	21.42		
20	QPSK	50	24	21.25	21.17	21.23		
20	QPSK	50	48	21.17	21.12	21.08		
20	QPSK	100	0	21.15	21.22	21.31		
20	HQAM	1	0	21.34	21.31	21.26		
20	HQAM	1	49	21.02	21.36	21.37		
20	HQAM	1	99	21.35	21.37	21.30		
20	HQAM	50	0	21.12	21.16	21.27		
20	HQAM	50	24	21.00	21.48	21.15		
20	HQAM	50	48	21.12	21.21	21.31		
20	HQAM	100	0	21.08	21.29	21.20		
20	HQAM	1	0	20.84	20.75	20.82		
20	HQAM	1	49	20.77	20.76	20.88		
20	HQAM	1	99	20.85	20.83	20.82		
20	HQAM	50	0	21.19	21.23	21.42		
20	HQAM	50	24	21.12	21.03	21.15		
20	HQAM	50	48	21.16	21.13	21.32		
20	HQAM	100	0	21.18	21.18	21.22		
20	SSBAM	1	0	20.27	20.20	20.32		
20	SSBAM	1	49	20.23	20.18	20.29		
20	SSBAM	1	99	20.16	20.17	20.24		
20	SSBAM	50	0	20.19	20.20	20.11		
20	SSBAM	50	24	19.98	20.08	20.13		
20	SSBAM	50	48	20.14	20.13	20.19		
20	SSBAM	100	0	20.13	20.17	20.18		
Channel								
40185 40620 41055 41490 41875								
Frequency (MHz)								
16	QPSK	1	0	21.04	21.43	21.09	22	0
16	QPSK	1	37	21.31	21.13	21.35		
16	QPSK	1	74	21.04	21.20	21.22		
16	QPSK	1	111	21.09	21.40	21.18		
16	QPSK	36	20	21.14	21.08	21.24		
16	QPSK	36	39	21.17	21.09	21.01		
16	QPSK	75	0	21.05	21.25	21.20		
16	HQAM	1	0	21.37	21.29	21.31		
16	HQAM	1	37	21.09	21.48	21.31		
16	HQAM	1	74	21.30	21.27	21.23		
16	HQAM	36	0	21.00	21.04	21.01		
16	HQAM	36	20	20.85	21.21	21.11		
16	HQAM	36	39	21.13	21.20	21.14		
16	HQAM	75	0	20.85	20.86	21.10		
16	HQAM	75	0	20.97	20.98	20.88		
16	HQAM	1	37	20.71	20.70	20.89		
16	HQAM	1	74	20.82	20.80	20.71		
16	HQAM	36	0	21.07	21.05	21.17		
16								



Band 42 FCC Part27Q Main PA Ant5 DSI4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)	
Channel									
Frequency (MHz)				42160	42590	42990			
20	QPSK	1	0	20.60	20.60	20.64	21	0	
20	QPSK	1	49	20.52	20.58	20.65			
20	QPSK	1	99	20.31	20.60	20.65			
20	QPSK	50	0	20.19	20.47	20.34			
20	QPSK	50	24	20.06	20.32	20.14	21	0	
20	QPSK	50	49	20.04	20.28	20.14			
20	QPSK	100	0	20.15	20.21	20.20			
20	HQAM	1	0	20.61	20.17	20.21	21	0	
20	HQAM	1	49	20.15	20.15	19.96			
20	HQAM	1	99	20.09	20.24	20.08			
20	HQAM	50	0	20.40	20.34	20.37	21	0	
20	HQAM	50	24	20.27	20.30	20.30			
20	HQAM	50	49	20.23	20.44	20.32			
20	HQAM	100	0	20.28	20.28	20.22			
20	HQAM	100	0	19.95	20.14	20.04			
20	HQAM	1	49	19.88	20.00	20.13	21	0	
20	HQAM	1	99	19.98	19.92	19.95			
20	HQAM	50	0	20.33	20.32	20.28			
20	HQAM	50	24	19.90	20.11	20.10	21	0	
20	HQAM	50	49	20.13	20.07	19.99			
20	HQAM	100	0	19.98	20.02	20.09			
20	ZSSBAM	1	0	19.75	19.84	19.70	20.5	0.5	
20	ZSSBAM	1	49	19.67	19.80	19.67			
20	ZSSBAM	1	99	19.64	19.79	19.73			
20	ZSSBAM	50	0	19.69	19.66	19.66			
20	ZSSBAM	50	24	19.57	19.63	19.51	20.5	0.5	
20	ZSSBAM	50	49	19.64	19.75	19.68			
20	ZSSBAM	100	0	19.65	19.65	19.59			
Channel									
Frequency (MHz)				42166	42596	43016	Tune-up Int. (dBm)	MFR (dB)	
15	QPSK	1	0	20.34	20.30	20.43	21	0	
15	QPSK	1	47	20.38	20.54	20.48			
15	QPSK	1	74	20.30	20.65	20.23			
15	QPSK	36	0	19.96	20.30	20.26			
15	QPSK	36	20	19.98	20.21	20.09	21	0	
15	QPSK	36	39	20.01	20.20	20.07			
15	HQAM	1	0	19.91	20.11	20.21	21	0	
15	HQAM	1	47	20.09	19.96	19.99			
15	HQAM	1	74	19.91	20.17	19.98			
15	HQAM	36	0	20.09	20.24	20.24	21	0	
15	HQAM	36	20	20.20	20.30	20.08			
15	HQAM	36	39	20.07	20.41	20.16			
15	HQAM	75	0	20.08	20.23	20.13	21	0	
15	HQAM	1	0	19.84	20.12	19.89			
15	HQAM	1	47	19.72	19.92	20.13	21	0	
15	HQAM	1	74	19.76	19.76	19.72			
15	HQAM	36	0	20.12	20.14	20.11	21	0	
15	HQAM	36	20	19.84	20.09	19.80			
15	HQAM	36	39	19.83	19.84	19.83			
15	HQAM	75	0	19.97	19.83	20.04			
15	ZSSBAM	1	0	19.68	19.79	19.68	20.5	0.5	
15	ZSSBAM	1	47	19.60	19.73	19.63			
15	ZSSBAM	1	74	19.53	19.69	19.62			
15	ZSSBAM	36	0	19.65	19.72	19.59	20.5	0.5	
15	ZSSBAM	36	20	19.69	19.82	19.67			
15	ZSSBAM	36	39	19.59	19.61	19.58			
15	ZSSBAM	75	0	19.43	19.63	19.61			
Channel									
Frequency (MHz)				42162	42592	43012	Tune-up Int. (dBm)	MFR (dB)	
10	QPSK	1	0	20.28	20.30	20.43	21	0	
10	QPSK	1	25	20.49	20.43	20.40			
10	QPSK	1	49	20.14	20.47	20.39			
10	QPSK	12	7	19.95	20.20	20.25			
10	QPSK	25	12	19.88	20.24	20.11	21	0	
10	QPSK	25	25	19.92	20.02	20.12			
10	QPSK	50	0	20.00	20.14	20.06			
10	HQAM	1	0	19.83	20.09	20.02	21	0	
10	HQAM	1	25	20.13	20.00	19.96			
10	HQAM	1	49	19.97	20.21	19.94			
10	HQAM	25	0	20.28	20.28	20.26	21	0	
10	HQAM	25	12	20.24	20.30	20.00			
10	HQAM	25	25	20.12	20.42	20.24			
10	HQAM	50	0	20.26	20.19	20.02	21	0	
10	HQAM	1	0	19.80	20.10	20.04			
10	HQAM	1	25	19.68	19.93	19.91	21	0	
10	HQAM	1	49	19.94	19.78	19.75			
10	HQAM	25	0	20.27	20.18	20.05			
10	HQAM	25	12	19.85	20.03	19.80	21	0	
10	HQAM	25	25	19.87	20.04	19.92			
10	HQAM	50	0	19.96	19.95	19.90			
10	ZSSBAM	1	0	19.72	19.80	19.56	20.5	0.5	
10	ZSSBAM	1	25	19.68	19.73	19.64			
10	ZSSBAM	1	49	19.61	19.70	19.67			
10	ZSSBAM	25	0	19.59	19.70	19.69	20.5	0.5	
10	ZSSBAM	25	12	19.67	19.60	19.47			
10	ZSSBAM	25	25	19.55	19.63	19.57			
10	ZSSBAM	50	0	19.49	19.52	19.47			
Channel									
Frequency (MHz)				3433.5	3500	3547.5	Tune-up Int. (dBm)	MFR (dB)	
5	QPSK	1	0	20.41	20.32	20.46	21	0	
5	QPSK	1	12	20.40	20.37	20.50			
5	QPSK	1	24	20.11	20.51	20.45			
5	QPSK	12	0	20.16	20.38	20.24	21	0	
5	QPSK	12	7	19.95	20.20	19.94			
5	QPSK	12	13	19.94	20.00	20.11			
5	QPSK	25	0	19.87	20.20	20.16			
5	HQAM	1	0	19.88	20.04	20.05	21	0	
5	HQAM	1	12	20.13	19.80	19.85			
5	HQAM	1	24	20.00	20.18	19.90			
5	HQAM	12	0	20.09	20.28	20.27	21	0	
5	HQAM	12	7	20.23	20.36	20.13			
5	HQAM	12	13	20.01	20.40	20.25			
5	HQAM	25	0	20.16	20.10	20.23			
5	HQAM	1	0	19.87	20.06	19.80	21	0	
5	HQAM	1	12	19.88	19.88	20.04			
5	HQAM	1	24	19.87	19.80	19.90			
5	HQAM	12	0	20.28	20.16	20.08	21	0	
5	HQAM	12	7	19.87	20.17	19.86			
5	HQAM	12	13	19.95	20.07	19.77			
5	HQAM	25	0	19.87	19.91	20.06			
5	ZSSBAM	1	0	19.64	19.70	19.56	20.5	0.5	
5	ZSSBAM	1	12	19.66	19.71	19.62			
5	ZSSBAM	1	24	19.60	19.71	19.69			
5	ZSSBAM	12	0	19.49	19.46	19.47	20.5	0.5	
5	ZSSBAM	12	13	19.59	19.69	19.58			
5	ZSSBAM	25	0	19.49	19.50	19.45			

Band 48 Main PA Ant5 DSI4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MFR (dB)
Channel									
Frequency (MHz)				56340	56830	56160	56650		
20	QPSK	1	0	20.14	20.00	20.03	20.16	20.5	0
20	QPSK	1	49	20.10	20.21	19.90	20.04		
20	QPSK	1	99	20.60	19.96	19.91	19.99		
20	QPSK	50	0	19.96	20.11	20.01	19.95	20.5	0
20	QPSK	50	24	19.84	19.78	19.84	19.90		
20	QPSK	50	49	19.73	19.82	19.84	19.74		
20	QPSK	100	0	19.82	20.02	19.77	19.87		
20	HQAM	1	0	19.82	19.87	19.67	19.73	20.5	0
20	HQAM	1	49	19.83	19.80	19.67	19.64		
20	HQAM	1	99	19.82	19.89	19.64	19.69		
20	HQAM	50	0	20.04	19.96	20.11	20.04	20.5	0
20	HQAM	50	24	19.76	19.95	19.88	19.78		
20	HQAM	50	49	19.86	20.05	19.94	19.84		
20	HQAM	100	0	19.87	19.76	19.81	19.76		
20	HQAM	100	0	19.65	19.76	19.58	19.74	20.5	0
20	HQAM	1	49	19.64	19.74	19.61	19.77		
20	HQAM	1	99	19.62	19.53	19.55	19.58		
20	HQAM	50	0	19.72	19.95	19.73	19.85	20.5	0
20	HQAM	50	24	19.55	19.75	19.56	19.57		
20	HQAM	50	49	19.62	19.84	19.61	19.63		
20	HQAM	100	0	19.79	19.71	19.68	19.61		
20	ZSSBAM	1	0	19.92	19.80	19.84	19.80	20.5	0
20	ZSSBAM	1	49	19.73	19.68	19.73	19.77		
20	ZSSBAM	1	99	19.72	19.65	19.68	19.65		
20	ZSSBAM	50	0	19.65	19.67	19.62	19.63	20.5	0
20	ZSSBAM	50	24	19.70	19.75	19.72	19.67		
20	ZSSBAM	50	49	19.70	19.80	19.75	19.68		
20	ZSSBAM	100	0	19.64	19.64	19.59	19.59		
Channel									
Frequency (MHz)				56312	56830	56160	56650	Tune-up Int. (dBm)	MFR (dB)
15	QPSK	1	0	20.14	20.00	20.01	20.01	20.5	0
15	QPSK	1	37	19.96	20.00	19.77	19.84		
15	QPSK	1	74	19.76	19.88	19.86	19.81		
15	QPSK	36	0	19.83	20.03	19.83	19.85	20.5	0
15	QPSK	36	20	19.80	19.65	19.68	19.76		
15	QPSK	36	39	19.58	19.60	19.69	19.69		
15	QPSK	75	0	19.99	19.82	19.63	19.69		
15	HQAM	1	0	19.60	19.66				



Band 42 FCC Part27Q Main PA Ant6 DSI4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3416	3500	3584			
20	QPSK	1	0	17.84	17.84	17.84	18.5	0	
20	QPSK	1	49	17.87	17.79	17.82			
20	QPSK	1	99	17.74	17.82	17.76			
20	QPSK	50	0	17.83	17.85	17.82			
20	QPSK	50	24	17.85	17.86	17.86	18.5	0	
20	QPSK	100	0	17.82	17.82	17.82			
20	HQAM	1	0	17.88	17.82	17.85	18.5	0	
20	HQAM	1	49	17.88	17.85	17.81			
20	HQAM	1	99	17.25	17.41	17.28			
20	HQAM	50	0	17.82	17.84	17.84	18.5	0	
20	HQAM	50	24	17.82	17.81	17.82			
20	HQAM	50	50	17.89	17.82	17.78			
20	HQAM	100	0	17.83	17.82	17.82			
20	HQAM	100	0	17.87	17.83	17.87	18.5	0	
20	HQAM	100	49	17.88	17.83	17.83			
20	HQAM	50	0	17.81	17.82	17.82	18.5	0	
20	HQAM	50	24	17.28	17.45	17.44			
20	HQAM	50	50	17.83	17.83	17.87			
20	HQAM	100	0	17.82	17.84	17.84	18.5	0	
20	ZSSQAM	1	0	17.82	17.82	17.82	18.5	0	
20	ZSSQAM	1	49	17.82	17.81	17.81			
20	ZSSQAM	1	99	17.12	17.52	17.30			
20	ZSSQAM	50	0	17.82	17.82	17.82	18.5	0	
20	ZSSQAM	50	24	16.96	17.27	17.09			
20	ZSSQAM	50	50	17.29	17.19	17.65			
20	ZSSQAM	100	0	17.83	17.82	17.82			
Channel									
Frequency (MHz)				4216	4299	4383			
15	QPSK	1	0	17.83	17.83	17.84	18.5	0	
15	QPSK	1	37	17.77	17.86	17.81			
15	QPSK	1	74	17.85	17.86	17.86			
15	QPSK	36	0	17.81	17.82	17.82	18.5	0	
15	QPSK	36	20	17.82	17.81	17.81			
15	QPSK	36	37	17.82	17.82	17.82			
15	QPSK	75	0	17.88	17.84	17.88	18.5	0	
15	HQAM	1	0	17.28	17.47	17.33	18.5	0	
15	HQAM	1	37	17.87	17.82	17.82			
15	HQAM	1	74	17.07	17.38	17.28			
15	HQAM	36	0	17.81	17.82	17.82	18.5	0	
15	HQAM	36	20	17.82	17.82	17.82			
15	HQAM	36	37	17.82	17.82	17.82			
15	HQAM	75	0	17.83	17.82	17.83	18.5	0	
15	HQAM	75	0	17.29	17.52	17.30			
15	HQAM	1	0	17.82	17.82	17.82	18.5	0	
15	HQAM	1	37	17.38	17.52	17.33			
15	HQAM	1	74	16.82	17.23	17.06			
15	HQAM	36	0	17.87	17.82	17.82	18.5	0	
15	HQAM	36	20	17.15	17.33	17.43			
15	HQAM	36	37	17.82	17.82	17.82			
15	HQAM	75	0	17.14	17.44	17.40			
15	ZSSQAM	1	0	17.89	17.81	17.87	18.5	0	
15	ZSSQAM	1	37	17.85	17.84	17.84			
15	ZSSQAM	1	74	16.95	17.22	17.12			
15	ZSSQAM	36	0	17.21	17.83	17.24	18.5	0	
15	ZSSQAM	36	20	16.88	17.52	17.07			
15	ZSSQAM	36	37	17.30	17.14	16.84			
15	ZSSQAM	75	0	17.13	17.82	17.84			
Channel									
Frequency (MHz)				3415	3500	3585			
10	QPSK	1	0	17.83	17.83	17.84	18.5	0	
10	QPSK	1	25	17.87	17.77	17.84			
10	QPSK	1	49	17.73	17.84	17.88			
10	QPSK	12	0	17.82	17.82	17.82	18.5	0	
10	QPSK	25	12	17.85	17.48	17.28			
10	QPSK	25	25	17.48	17.38	17.29			
10	QPSK	50	0	17.82	17.84	17.82	18.5	0	
10	HQAM	1	0	17.88	17.84	17.88	18.5	0	
10	HQAM	1	25	17.28	17.41	17.28			
10	HQAM	1	49	17.29	17.27	17.28			
10	HQAM	25	0	17.27	17.59	17.47			
10	HQAM	25	12	17.88	17.28	17.59	18.5	0	
10	HQAM	25	25	17.29	17.81	17.21			
10	HQAM	50	0	17.84	17.84	17.84	18.5	0	
10	HQAM	50	0	17.27	17.41	17.34			
10	HQAM	1	0	17.84	17.84	17.84	18.5	0	
10	HQAM	1	25	17.11	17.20	17.23			
10	HQAM	1	49	16.85	17.28	17.03			
10	HQAM	25	0	17.83	17.83	17.83	18.5	0	
10	HQAM	25	12	17.15	17.40	17.46			
10	HQAM	25	25	17.33	17.55	17.46			
10	HQAM	50	0	17.88	17.82	17.88	18.5	0	
10	ZSSQAM	1	0	17.21	17.26	17.18	18.5	0	
10	ZSSQAM	1	25	17.26	17.86	17.27			
10	ZSSQAM	1	49	17.81	17.82	17.82			
10	ZSSQAM	25	0	17.31	17.22	17.21			
10	ZSSQAM	25	12	16.88	17.56	17.06			
10	ZSSQAM	25	25	17.09	17.04	17.01			
10	ZSSQAM	50	0	17.83	17.17	17.16			
Channel									
Frequency (MHz)				3415.5	3500	3585.5			
5	QPSK	1	0	17.87	17.85	17.89	18.5	0	
5	QPSK	1	12	17.82	17.82	17.84			
5	QPSK	1	24	17.88	17.82	17.87			
5	QPSK	12	0	17.83	17.86	17.84	18.5	0	
5	QPSK	12	7	17.81	17.85	17.82			
5	QPSK	12	13	17.48	17.82	17.38			
5	QPSK	25	0	17.88	17.86	17.84	18.5	0	
5	HQAM	1	0	17.83	17.83	17.82	18.5	0	
5	HQAM	1	12	17.82	17.82	17.82			
5	HQAM	1	24	17.84	17.88	17.81			
5	HQAM	12	0	17.81	17.81	17.82	18.5	0	
5	HQAM	12	7	17.81	17.81	17.82			
5	HQAM	12	13	17.83	17.81	17.82			
5	HQAM	25	0	17.89	17.86	17.86	18.5	0	
5	HQAM	25	0	17.18	17.20	17.31			
5	ZSSQAM	1	0	17.88	17.19	17.21	18.5	0	
5	ZSSQAM	1	12	17.87	17.86	17.86			
5	ZSSQAM	1	24	16.81	17.18	17.18			
5	ZSSQAM	12	0	17.37	17.20	17.26			
5	ZSSQAM	12	7	16.87	17.26	16.93	18.5	0	
5	ZSSQAM	12	13	17.24	17.50	16.98			
5	ZSSQAM	25	0	17.14	17.26	16.99			

Band 48 Main PA Ant6 DSI4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int. (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				5630	5690	5690			
20	QPSK	1	0	16.73	16.73	16.84	17.5	0	
20	QPSK	1	49	16.95	16.85	16.74			
20	QPSK	1	99	16.87	16.84	16.87			
20	QPSK	50	0	16.90	16.81	16.81	17.5	0	
20	QPSK	50	24	16.86	16.87	16.85			
20	QPSK	100	0	16.82	16.82	16.82			
20	HQAM	1	0	16.89	16.82	16.84	17.5	0	
20	HQAM	1	49	16.44	16.83	16.81			
20	HQAM	1	99	16.35	16.87	16.38			
20	HQAM	50	0	16.71	16.73	16.84	17.5	0	
20	HQAM	50	24	16.95	16.89	16.81			
20	HQAM	50	50	16.42	16.82	16.83			
20	HQAM	100	0	16.82	16.82	16.82	17.5	0	
20	HQAM	100	0	16.37	16.82	16.43			
20	HQAM	1	49	16.27	16.86	16.82	17.5	0	
20	HQAM	1	99	16.22	16.84	16.29			
20	HQAM	50	0	16.68	16.73	16.50	17.5	0	
20	HQAM	50	24	16.39	16.81	16.87			
20	HQAM	50	50	16.83	16.76	16.89			
20	HQAM	100	0	16.82	16.80	16.84	17.5	0	
20	ZSSQAM	1	0	16.38	16.81	16.26	17.5	0	
20	ZSSQAM	1	49	16.35	16.84	16.82			
20	ZSSQAM	1	99	16.22	16.82	16.36			
20	ZSSQAM	50	0	16.46	16.86	16.27	17.5	0	



Band 42 FCC Part27Q Mian PA Ant7 DSI4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				42190	42590	42990			
20	QPSK	1	0	19.53	19.53	19.44			
20	QPSK	1	49	19.28	19.39	19.42		20.5	0
20	QPSK	1	99	19.03	19.01	19.21			
20	QPSK	50	0	19.51	19.55	19.47			
20	QPSK	50	24	19.34	19.43	19.44		20.5	0
20	QPSK	100	0	19.52	19.53	19.51			
20	QPSK	100	49	19.29	19.39	19.36		20.5	0
20	HQAM	1	0	19.35	19.47	19.36			
20	HQAM	1	49	19.29	19.41	19.42		20.5	0
20	HQAM	1	99	19.48	19.52	19.53			
20	HQAM	50	0	19.37	19.46	19.44			
20	HQAM	50	24	19.35	19.45	19.42		20.5	0
20	HQAM	50	50	19.48	19.56	19.54			
20	HQAM	100	0	19.37	19.47	19.54			
20	HQAM	100	49	19.35	19.35	19.33		20.5	0
20	HQAM	1	49	19.48	19.61	19.45			
20	HQAM	1	99	19.33	19.46	19.60			
20	HQAM	50	0	19.35	19.39	19.35			
20	HQAM	50	24	19.47	19.60	19.49		20.5	0
20	HQAM	50	50	19.29	19.41	19.43			
20	HQAM	100	0	19.33	19.43	19.37			
20	HQAM	100	49	19.33	19.43	19.37		20.5	0
20	HQAM	100	99	19.24	19.36	19.35			
20	ZSSBAM	1	0	18.24	18.36	18.35		19.5	1
20	ZSSBAM	1	49	18.27	18.37	18.37			
20	ZSSBAM	1	99	18.24	18.36	18.25			
20	ZSSBAM	50	0	18.28	18.38	18.38			
20	ZSSBAM	50	24	18.09	18.23	18.16		19.5	1
20	ZSSBAM	50	50	18.06	18.19	18.10			
20	ZSSBAM	100	0	18.18	18.14	18.16			
Channel									
Frequency (MHz)				42190	42590	42990	Tune-up Int (dBm)	MPR (dB)	
15	QPSK	1	0	19.32	19.33	19.43			
15	QPSK	1	37	19.27	19.39	19.33		20.5	0
15	QPSK	1	74	19.31	19.40	19.30			
15	QPSK	36	0	19.28	19.39	19.42			
15	QPSK	36	20	19.38	19.47	19.42		20.5	0
15	QPSK	75	0	19.28	19.39	19.46			
15	QPSK	75	0	19.28	19.35	19.46			
15	HQAM	1	0	19.38	19.42	19.42			
15	HQAM	1	37	19.40	19.46	19.49		20.5	0
15	HQAM	1	74	19.35	19.50	19.50			
15	HQAM	36	0	19.32	19.44	19.36			
15	HQAM	36	20	19.33	19.45	19.40		20.5	0
15	HQAM	36	59	19.24	19.49	19.52			
15	HQAM	75	0	19.32	19.46	19.43			
15	HQAM	1	0	19.30	19.45	19.41			
15	HQAM	1	37	19.49	19.57	19.42		20.5	0
15	HQAM	1	74	19.33	19.46	19.39			
15	HQAM	36	0	19.34	19.39	19.37			
15	HQAM	36	20	19.38	19.50	19.47		20.5	0
15	HQAM	36	59	19.25	19.48	19.46			
15	HQAM	75	0	19.35	19.42	19.35			
15	ZSSBAM	1	0	18.17	18.28	18.23		19.5	1
15	ZSSBAM	1	37	18.17	18.13	18.13			
15	ZSSBAM	1	74	18.13	18.18	18.17			
15	ZSSBAM	36	0	18.20	18.27	18.18		19.5	1
15	ZSSBAM	36	20	17.98	18.13	18.02			
15	ZSSBAM	36	59	17.98	18.13	18.07			
15	ZSSBAM	75	0	18.14	18.17	18.09			
Channel									
Frequency (MHz)				3455	3500	3545	Tune-up Int (dBm)	MPR (dB)	
10	QPSK	1	0	19.49	19.49	19.54			
10	QPSK	1	25	19.26	19.43	19.36		20.5	0
10	QPSK	1	49	19.41	19.41	19.34			
10	QPSK	12	0	19.24	19.41	19.44			
10	QPSK	25	12	19.30	19.42	19.33		20.5	0
10	QPSK	25	25	19.42	19.40	19.38			
10	QPSK	50	0	19.47	19.46	19.49			
10	HQAM	1	0	19.32	19.43	19.36			
10	HQAM	1	25	19.32	19.41	19.34		20.5	0
10	HQAM	1	49	19.37	19.39	19.47			
10	HQAM	25	0	19.27	19.48	19.43			
10	HQAM	25	12	19.32	19.41	19.43		20.5	0
10	HQAM	25	25	19.29	19.53	19.44			
10	HQAM	50	0	19.31	19.40	19.43			
10	HQAM	1	0	19.38	19.46	19.38			
10	HQAM	1	25	19.38	19.51	19.49		20.5	0
10	HQAM	1	49	19.31	19.50	19.44			
10	HQAM	25	0	19.35	19.45	19.33			
10	HQAM	25	12	19.27	19.55	19.50		20.5	0
10	HQAM	25	25	19.32	19.45	19.36			
10	HQAM	50	0	19.32	19.47	19.32			
10	ZSSBAM	1	0	18.16	18.30	18.20			
10	ZSSBAM	1	25	18.21	18.16	18.09		19.5	1
10	ZSSBAM	1	49	18.20	18.20	18.13			
10	ZSSBAM	25	0	18.18	18.19	18.18			
10	ZSSBAM	25	12	18.04	18.15	18.07		19.5	1
10	ZSSBAM	25	25	18.01	18.15	18.00			
10	ZSSBAM	50	0	17.97	18.16	18.09			

Band 48 Main PA Ant7 DSI4									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up Int (dBm)	MPR (dB)
Channel									
Frequency (MHz)				56340	56930	56160	56640		
20	QPSK	1	0	18.55	18.60	18.41			
20	QPSK	1	49	18.39	18.57	18.38	18.51	19.5	0
20	QPSK	1	99	18.58	18.56	18.40	18.43		
20	QPSK	50	0	18.58	18.52	18.55	18.55		
20	QPSK	50	24	18.44	18.53	18.43	18.48	19.5	0
20	QPSK	100	0	18.47	18.58	18.41	18.46		
20	QPSK	100	49	18.58	18.59	18.52	18.55		
20	HQAM	1	0	18.50	18.55	18.45	18.48		
20	HQAM	1	49	18.41	18.49	18.39	18.41	19.5	0
20	HQAM	1	99	18.55	18.55	18.59	18.48		
20	HQAM	50	0	18.47	18.59	18.41	18.53		
20	HQAM	50	24	18.37	18.47	18.40	18.41	19.5	0
20	HQAM	50	50	18.56	18.60	18.46	18.47		
20	HQAM	100	0	18.44	18.46	18.42	18.37		
20	HQAM	100	49	18.40	18.49	18.39	18.45		
20	HQAM	1	49	18.61	18.61	18.52	18.55	19.5	0
20	HQAM	1	99	18.41	18.52	18.44	18.56		
20	HQAM	50	0	18.39	18.57	18.41	18.48		
20	HQAM	50	24	18.28	18.58	18.47	18.52	19.5	0
20	HQAM	50	50	18.40	18.56	18.41	18.58		
20	HQAM	100	0	18.45	18.52	18.34	18.51		
20	ZSSBAM	1	0	18.32	18.47	18.36	18.41		
20	ZSSBAM	1	49	18.36	18.38	18.29	18.25	19.5	0
20	ZSSBAM	1	99	18.33	18.36	18.24	18.36		
20	ZSSBAM	50	0	18.49	18.49	18.37	18.42		
20	ZSSBAM	50	24	18.15	18.29	18.26	18.22	19.5	0
20	ZSSBAM	50	50	18.19	18.31	18.27	18.18		
20	ZSSBAM	100	0	18.35	18.39	18.29	18.35		
Channel									
Frequency (MHz)				56340	56930	56160	56640	Tune-up Int (dBm)	MPR (dB)
15	QPSK	1	0	18.57	18.60	18.52	18.55		
15	QPSK	1	37	18.48	18.51	18.37	18.46	19.5	0
15	QPSK	1	74	18.37	18.53	18.42	18.45		
15	QPSK	36	0	18.62	18.63	18.46	18.45		
15	QPSK	36	20	18.41	18.59	18.38	18.57	19.5	0
15	QPSK	75	0	18.42	18.59	18.59	18.52		
15	QPSK	75	0	18.61	18.60	18.48	18.52		
15	HQAM	1	0	18.40	18.54	18.44	18.55		
15	HQAM	1	37	18.40	18.59	18.49	18.54	19.5	0
15	HQAM	1	74	18.59	18.61	18.50	18.51		
15	HQAM	36	0	18.50	18.50	18.39	18.54		
15	HQAM	36	20	18.30	18.55	18.41	18.56	19.5	0
15	HQAM	36	59	18.61	18.58	18.56	18.54		
15	HQAM	75	0	18.47	18.58	18.37	18.55		
15	HQAM	75	0	18.45	18.59	18.59	18.52		
15	HQAM	1	37	18.61	18.59	18.57	18.55	19.5	0
15	HQAM	1	74	18.46	18.52	18.40	18.51		
15	HQAM	36	0	18.43	18.57	18.35	18.53		
15	HQAM	36	20	18.37	18.65	18.53	18.58	19.5	0
15	HQAM	36	59	18.48	18.53	18.46	18.53		
15	HQAM	75	0	18.42	18.48	18.42	18.52		
15	ZSSBAM	1	0	18.25	18.40	18.27	18.26	19.5	0
15	ZSSBAM	1	37	18.28	18.35	18.25	18.26		
15	ZSSBAM	1	74	18.19	18.30	18.09	18.26		
15	ZSSBAM	36	0	18.28	18.36	18.30	18.38		
15	ZSSBAM	36	20	18.14	18.23	18.13	18.14	19.5	0
15	ZSSBAM	36	59	18.13	18.21	18.13	18.14		
15	ZSSBAM	75	0	18.17	18.31	18.22	18.14		
Channel									
Frequency (MHz)				3655	3697.5	3641.5	3699.5	Tune-up Int (dBm)	MPR (dB)
10	QPSK	1	0	18.66	18.42	18.51	18.54		
10									



DSI 4 Power for WWAN EN-DC Main PA

Band 38 Main PA Ant4 DSI4 ENDC										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	20.06	20.09	20.06				
20	QPSK	1	49	19.93	20.03	20.05	20.2	0		
20	QPSK	1	99	19.91	20.06	19.94				
20	QPSK	50	0	19.86	20.05	19.95				
20	QPSK	50	24	19.92	19.82	19.83	20.2	0		
20	QPSK	50	50	19.96	19.94	19.87				
20	QPSK	100	0	19.84	20.01	19.83				
20	16QAM	1	0	20.01	20.00	19.84				
20	16QAM	1	49	19.92	19.82	19.73	20.2	0		
20	16QAM	1	99	19.90	19.79	19.71				
20	16QAM	50	0	19.87	19.85	19.83				
20	16QAM	50	24	19.96	20.06	19.90				
20	16QAM	50	50	19.97	20.07	20.00	20.2	0		
20	16QAM	100	0	19.88	20.08	19.84				
20	16QAM	1	49	19.85	19.87	19.97	20.2	0		
20	16QAM	1	99	19.92	19.82	19.83				
20	16QAM	50	0	19.90	19.85	19.88				
20	16QAM	50	24	19.92	19.99	19.91	20.2	0		
20	16QAM	50	50	20.01	19.96	19.96				
20	16QAM	100	0	19.96	19.81	19.86				
20	256QAM	1	0	19.87	19.84	19.78				
20	256QAM	1	49	19.85	19.90	19.75	20.2	0		
20	256QAM	1	99	19.92	20.00	19.86				
20	256QAM	50	0	19.86	19.86	19.83				
20	256QAM	50	24	19.91	19.88	19.86	20.2	0		
20	256QAM	50	50	20.02	19.88	19.89				
20	256QAM	100	0	20.02	19.84	19.84				
Channel										
Frequency (MHz)										
15	QPSK	1	0	19.95	20.05	20.02				
15	QPSK	1	37	19.83	19.99	19.84	20.2	0		
15	QPSK	1	74	19.86	19.99	19.80				
15	QPSK	1	111	19.74	19.81	19.70				
15	QPSK	36	20	19.81	19.70	19.78	20.2	0		
15	QPSK	36	39	19.89	19.83	19.75				
15	QPSK	1	0	19.76	19.85	19.75				
15	16QAM	1	0	19.98	19.90	19.73				
15	16QAM	1	37	19.79	19.73	19.68	20.2	0		
15	16QAM	1	74	19.83	19.75	19.59				
15	16QAM	36	20	19.77	19.82	19.71				
15	16QAM	36	20	19.82	19.87	19.85	20.2	0		
15	16QAM	36	39	19.85	19.83	19.86				
15	16QAM	75	0	19.81	20.00	19.74				
15	16QAM	1	0	19.94	19.88	19.87				
15	16QAM	1	37	19.77	19.78	19.81	20.2	0		
15	16QAM	1	74	19.82	19.75	19.79				
15	16QAM	36	0	19.86	19.79	19.74				
15	16QAM	36	39	19.85	19.87	19.86	20.2	0		
15	16QAM	75	0	19.80	19.89	19.82				
15	256QAM	1	0	19.88	19.90	19.74				
15	256QAM	1	37	19.84	19.84	19.89	20.2	0		
15	256QAM	1	74	19.80	19.86	19.77				
15	256QAM	36	0	19.81	19.89	19.80				
15	256QAM	36	20	19.82	19.80	19.75	20.2	0		
15	256QAM	36	39	19.84	19.80	19.77				
15	256QAM	75	0	19.78	19.88	19.79				
Channel										
Frequency (MHz)										
10	QPSK	1	0	20.01	20.04	20.05				
10	QPSK	1	26	19.81	19.85	19.78	20.2	0		
10	QPSK	1	49	19.86	20.03	19.75				
10	QPSK	25	0	19.81	19.90	19.89				
10	QPSK	1	0	19.84	19.77	19.68				
10	QPSK	25	25	19.91	19.84	19.75	20.2	0		
10	QPSK	50	0	19.72	19.80	19.79				
10	16QAM	1	0	19.92	19.87	19.71				
10	16QAM	1	25	19.76	19.78	19.63	20.2	0		
10	16QAM	1	49	19.80	19.88	19.81				
10	16QAM	1	74	19.78	19.90	19.78				
10	16QAM	25	12	19.84	20.01	19.82	20.2	0		
10	16QAM	25	25	19.89	19.87	19.90				
10	16QAM	50	0	19.82	20.03	19.81				
10	16QAM	1	0	19.90	19.94	19.88				
10	16QAM	1	25	19.73	19.77	19.89	20.2	0		
10	16QAM	1	49	19.81	19.72	19.78				
10	16QAM	25	0	19.80	19.75	19.77				
10	16QAM	25	12	19.81	19.90	19.79	20.2	0		
10	16QAM	50	0	19.85	19.90	19.87				
10	256QAM	1	0	20.01	20.05	20.06				
10	256QAM	1	25	19.84	20.01	19.84	20.2	0		
10	256QAM	1	49	19.85	19.90	19.87				
10	256QAM	25	0	19.86	19.84	19.87				
10	256QAM	25	12	19.86	19.76	19.73	20.2	0		
10	256QAM	25	25	19.87	19.83	19.79				
10	256QAM	50	0	19.78	19.90	19.80				
Channel										
Frequency (MHz)										
5	QPSK	1	0	19.92	20.04	20.08				
5	QPSK	1	12	19.82	20.03	19.77	20.2	0		
5	QPSK	1	24	19.84	19.87	19.71				
5	QPSK	12	0	19.74	19.85	19.82				
5	QPSK	12	7	19.79	19.78	19.74	20.2	0		
5	QPSK	1	0	19.87	19.87	19.75				
5	QPSK	25	0	19.73	19.97	19.78				
5	16QAM	1	0	19.91	19.83	19.71				
5	16QAM	1	12	19.71	19.70	19.58	20.2	0		
5	16QAM	1	24	19.87	19.71	19.67				
5	16QAM	12	0	19.74	19.80	19.71				
5	16QAM	12	7	19.82	20.03	19.81	20.2	0		
5	16QAM	12	13	19.85	19.99	19.85				
5	16QAM	25	0	19.78	20.04	19.71				
5	16QAM	1	0	19.97	19.89	19.89				
5	16QAM	1	12	19.73	19.81	19.91	20.2	0		
5	16QAM	1	24	19.89	19.70	19.71				
5	16QAM	12	0	19.89	19.83	19.75				
5	16QAM	12	7	19.84	19.88	19.84	20.2	0		
5	16QAM	12	13	19.89	19.83	19.81				
5	16QAM	25	0	19.92	19.77	19.78				
5	256QAM	1	0	19.90	19.82	19.82				
5	256QAM	1	12	19.84	20.07	19.88	20.2	0		
5	256QAM	1	24	19.80	19.89	19.74				
5	256QAM	12	0	19.88	19.92	19.90				
5	256QAM	12	7	19.88	19.80	19.77	20.2	0		
5	256QAM	12	13	19.87	19.82	19.75				
5	256QAM	25	0	19.76	19.90	19.78				

Band 41 Main PA Ant4 DSI4 ENDC										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power Mid Ch / Freq	Power High Ch / Freq	Turn-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	19.91	20.11	20.13	19.98	19.88		
20	QPSK	1	49	19.82	20.11	20.04	19.89	19.74	20.2	0
20	QPSK	1	99	19.72	20.03	19.97	19.81	19.82		
20	QPSK	50	0	20.07	19.83	20.11	19.80	20.09		
20	QPSK	50	24	19.96	19.83	19.82	19.82	19.70	20.2	0
20	QPSK	50	50	19.88	19.84	19.82	19.82	19.84		
20	QPSK	100	0	19.90	19.92	20.06	19.88	19.84		
20	16QAM	1	0	19.80	20.10	20.04	19.83	19.85		
20	16QAM	1	49	19.77	20.02	20.02	19.92	19.74	20.2	0
20	16QAM	1	99	19.92	20.08	20.02	19.95	19.87		
20	16QAM	50	0	19.89	19.80	20.00	19.80	19.80	20.2	0
20	16QAM	50	24	19.87	19.74	19.84	19.74	19.83		
20	16QAM	50	50	19.80	19.94	19.90	19.96	19.76	20.2	0



Default Power for WWAN Other PA

Band 5 Ant0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq. (2040)	Power Middle Ch./Freq. (2052)	Power High Ch./Freq. (2060)	Tune-up limit (dBm)	MPR (dB)	
Channel				829	838.5	844			
Frequency (MHz)									
10	QPSK	1	0	24.82	24.85	24.77	25.5	0	
10	QPSK	1	25	24.74	24.73	24.69			
10	QPSK	1	49	24.68	24.68	24.61			
10	QPSK	25	0	23.64	23.75	23.66	24.5	1	
10	QPSK	25	12	23.64	23.65	23.64			
10	QPSK	25	25	23.67	23.58	23.65			
10	QPSK	50	0	23.59	23.72	23.62	24.5	1	
10	16QAM	1	0	23.73	23.86	23.73			
10	16QAM	1	25	23.74	23.80	23.71			
10	16QAM	1	49	23.70	23.76	23.67	23.5	2	
10	16QAM	25	0	22.79	22.91	22.78			
10	16QAM	25	12	22.70	22.77	22.71			
10	16QAM	25	25	22.66	22.71	22.66	23.5	2	
10	16QAM	50	0	22.69	22.80	22.70			
10	64QAM	1	0	22.74	22.84	22.71			
10	64QAM	1	25	22.61	22.76	22.70	22.5	3	
10	64QAM	1	49	22.59	22.69	22.62			
10	64QAM	25	0	21.79	21.89	21.79			
10	64QAM	25	12	21.65	21.76	21.69	20.5	5	
10	64QAM	25	25	21.71	21.82	21.72			
10	64QAM	50	0	21.68	21.81	21.73			
10	256QAM	1	0	19.62	19.65	19.58	20.5	5	
10	256QAM	1	25	19.42	19.56	19.47			
10	256QAM	1	49	19.42	19.52	19.41			
10	256QAM	25	0	19.54	19.60	19.52	20.5	5	
10	256QAM	25	12	19.44	19.54	19.39			
10	256QAM	25	25	19.36	19.47	19.33			
10	256QAM	50	0	19.45	19.52	19.37			
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				828.5	838.5	846.5			
5	QPSK	1	0	24.73	24.77	24.64	25.5	0	
5	QPSK	1	12	24.61	24.66	24.57			
5	QPSK	1	24	24.61	24.54	24.54			
5	QPSK	12	0	23.57	23.67	23.56	24.5	1	
5	QPSK	12	7	23.58	23.64	23.55			
5	QPSK	12	13	23.54	23.43	23.58			
5	QPSK	25	0	23.46	23.58	23.55	24.5	1	
5	16QAM	1	0	23.64	23.80	23.67			
5	16QAM	1	12	23.62	23.73	23.60			
5	16QAM	1	24	23.62	23.63	23.58	23.5	2	
5	16QAM	12	0	22.67	22.82	22.65			
5	16QAM	12	7	22.63	22.63	22.60			
5	16QAM	12	13	22.54	22.82	22.57	23.5	2	
5	16QAM	25	0	22.63	22.69	22.60			
5	64QAM	1	0	22.68	22.74	22.63			
5	64QAM	1	12	22.51	22.64	22.58	22.5	3	
5	64QAM	1	24	22.47	22.59	22.50			
5	64QAM	12	0	21.67	21.77	21.71			
5	64QAM	12	7	21.58	21.62	21.60	20.5	5	
5	64QAM	12	13	21.86	21.88	21.81			
5	64QAM	25	0	21.60	21.75	21.61			
5	256QAM	1	0	19.45	19.56	19.44	20.5	5	
5	256QAM	1	12	19.34	19.49	19.38			
5	256QAM	1	24	19.33	19.44	19.29			
5	256QAM	12	0	19.46	19.45	19.41	20.5	5	
5	256QAM	12	7	19.33	19.45	19.33			
5	256QAM	12	13	19.27	19.40	19.20			
5	256QAM	25	0	19.32	19.41	19.28			
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				825.5	838.5	847.5			
3	QPSK	1	0	24.77	24.77	24.65	25.5	0	
3	QPSK	1	8	24.65	24.63	24.55			
3	QPSK	1	14	24.54	24.54	24.52			
3	QPSK	8	0	23.50	23.68	23.55	24.5	1	
3	QPSK	8	4	23.50	23.60	23.59			
3	QPSK	8	7	23.56	23.52	23.52			
3	QPSK	15	0	23.51	23.57	23.48	24.5	1	
3	16QAM	1	0	23.66	23.81	23.59			
3	16QAM	1	8	23.60	23.67	23.60			
3	16QAM	1	14	23.62	23.62	23.60	23.5	2	
3	16QAM	8	0	22.71	22.85	22.72			
3	16QAM	8	4	22.56	22.70	22.65			
3	16QAM	8	7	22.55	22.57	22.53	23.5	2	
3	16QAM	15	0	22.58	22.67	22.65			
3	64QAM	1	0	22.60	22.78	22.61			
3	64QAM	1	8	22.52	22.70	22.59	22.5	3	
3	64QAM	1	14	22.45	22.63	22.50			
3	64QAM	8	0	21.68	21.80	21.67			
3	64QAM	8	4	21.51	21.64	21.57	20.5	5	
3	64QAM	8	7	21.57	21.68	21.61			
3	64QAM	15	0	21.60	21.70	21.65			
3	256QAM	1	0	19.42	19.50	19.52	20.5	5	
3	256QAM	1	8	19.32	19.44	19.33			
3	256QAM	1	14	19.35	19.45	19.36			
3	256QAM	8	0	19.47	19.51	19.44	20.5	5	
3	256QAM	8	4	19.39	19.47	19.33			
3	256QAM	8	7	19.27	19.38	19.23			
3	256QAM	15	0	19.34	19.41	19.24			
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				824.7	838.5	848.3			
1.4	QPSK	1	0	24.74	24.78	24.64	25.5	0	
1.4	QPSK	1	3	24.63	24.67	24.54			
1.4	QPSK	1	5	24.61	24.55	24.50			
1.4	QPSK	3	0	23.56	23.68	23.59	24.5	1	
1.4	QPSK	3	1	23.51	23.57	23.52			
1.4	QPSK	3	3	23.55	23.51	23.59			
1.4	QPSK	6	0	23.46	23.62	23.49	24.5	1	
1.4	16QAM	1	0	23.61	23.79	23.58			
1.4	16QAM	1	3	23.66	23.69	23.62			
1.4	16QAM	1	5	23.60	23.65	23.56	24.5	1	
1.4	16QAM	3	0	23.59	23.75	23.64			
1.4	16QAM	3	1	23.64	23.67	23.63			
1.4	16QAM	3	3	23.55	23.63	23.52	23.5	2	
1.4	16QAM	6	0	22.74	22.81	22.69			
1.4	64QAM	1	0	22.63	22.69	22.66			
1.4	64QAM	1	3	22.57	22.58	22.53	23.5	2	
1.4	64QAM	1	5	22.56	22.71	22.56			
1.4	64QAM	3	0	22.64	22.77	22.63			
1.4	64QAM	3	1	22.49	22.66	22.59	22.5	3	
1.4	64QAM	3	3	22.49	22.61	22.48			
1.4	64QAM	6	0	21.70	21.76	21.64			
1.4	256QAM	1	0	19.47	19.55	19.51	20.5	5	
1.4	256QAM	1	3	19.34	19.42	19.38			
1.4	256QAM	1	5	19.30	19.42	19.30			
1.4	256QAM	3	0	19.40	19.49	19.38	20.5	5	
1.4	256QAM	3	1	19.32	19.41	19.27			
1.4	256QAM	3	3	19.22	19.32	19.19			
1.4	256QAM	6	0	19.31	19.42	19.32			



Band 4 Other PA Ant1										
RF [MHz]	Modulation	RB Size	RB Offset	Power Ch./Frac	Power Ind. Ch./Frac	Power High Ch./Frac	Power Low Ch./Frac	Turn-up limit (dB)	MFR (dB)	
Channel										
Frequency (MHz)										
20	QPSK	1	0	24.44	24.49	24.41		25.5	0	
20	QPSK	1	49	24.44	24.47	24.38		25.5	0	
20	QPSK	1	99	24.29	24.42	24.38		25.5	0	
20	QPSK	10	0	23.31	23.33	23.33		24.5	1	
20	QPSK	10	24	23.30	23.43	23.40		24.5	1	
20	QPSK	60	50	23.32	23.38	23.38		24.5	1	
20	QPSK	100	0	23.37	23.46	23.38		24.5	1	
20	QPSK	100	0	23.32	23.45	23.38		24.5	1	
20	HQAM	1	49	23.32	23.39	23.30		24.5	1	
20	HQAM	1	99	23.24	23.35	23.30		24.5	1	
20	HQAM	50	0	22.41	22.55	22.50		23.5	2	
20	HQAM	50	24	22.31	22.41	22.27		23.5	2	
20	HQAM	100	0	22.44	22.50	22.38		23.5	2	
20	HQAM	100	0	22.37	22.52	22.49		23.5	2	
20	HQAM	1	99	22.24	22.37	22.31		22.5	3	
20	HQAM	50	0	21.41	21.46	21.38		22.5	3	
20	HQAM	50	50	21.27	21.39	21.31		22.5	3	
20	HQAM	100	0	21.30	21.41	21.36		22.5	3	
20	HQAM	1	0	19.41	19.49	19.44		20.5	5	
20	HQAM	1	49	19.29	19.40	19.35		20.5	5	
20	HQAM	1	99	19.24	19.36	19.28		20.5	5	
20	HQAM	10	0	19.34	19.38	19.34		20.5	5	
20	HQAM	10	24	19.30	19.38	19.25		20.5	5	
20	HQAM	60	50	19.27	19.31	19.18		20.5	5	
20	HQAM	100	0	19.27	19.32	19.20		20.5	5	
Channel										
Frequency (MHz)										
15	QPSK	1	0	24.40	24.42	24.24		25.5	0	
15	QPSK	1	37	24.28	24.34	24.26		25.5	0	
15	QPSK	1	74	24.19	24.28	24.32		25.5	0	
15	QPSK	10	0	23.27	23.28	23.16		24.5	1	
15	QPSK	10	20	23.24	23.28	23.35		24.5	1	
15	QPSK	36	30	23.23	23.22	23.23		24.5	1	
15	QPSK	15	4	23.28	23.42	23.23		24.5	1	
15	HQAM	1	0	23.28	23.38	23.24		24.5	1	
15	HQAM	1	37	23.22	23.29	23.19		24.5	1	
15	HQAM	1	74	23.11	23.22	23.24		24.5	1	
15	HQAM	36	30	23.21	22.50	22.37		23.5	2	
15	HQAM	36	20	22.23	22.28	22.18		23.5	2	
15	HQAM	36	39	22.21	22.26	22.23		23.5	2	
15	HQAM	75	0	22.33	22.37	22.27		23.5	2	
15	HQAM	1	0	22.24	22.43	22.38		23.5	2	
15	HQAM	1	37	22.26	22.39	22.32		23.5	2	
15	HQAM	1	74	22.21	22.24	22.24		23.5	2	
15	HQAM	36	0	21.34	21.35	21.24		22.5	3	
15	HQAM	36	20	21.28	21.43	21.27		22.5	3	
15	HQAM	36	39	21.18	21.34	21.27		22.5	3	
15	HQAM	75	0	21.21	21.31	21.25		22.5	3	
15	HQAM	1	0	19.33	19.44	19.35		20.5	5	
15	HQAM	1	37	19.18	19.28	19.28		20.5	5	
15	HQAM	1	74	19.14	19.25	19.20		20.5	5	
15	HQAM	10	0	19.20	19.37	19.27		20.5	5	
15	HQAM	10	20	19.27	19.33	19.18		20.5	5	
15	HQAM	36	30	19.19	19.27	19.10		20.5	5	
15	HQAM	100	0	19.11	19.32	19.20		20.5	5	
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.15	24.17	24.23		25.5	0	
10	QPSK	1	25	24.20	24.32	24.17		25.5	0	
10	QPSK	1	49	24.17	24.30	24.29		25.5	0	
10	QPSK	10	0	23.17	23.20	23.18		24.5	1	
10	QPSK	10	24	23.17	23.20	23.18		24.5	1	
10	QPSK	36	30	23.23	23.28	23.28		24.5	1	
10	QPSK	15	4	23.20	23.42	23.23		24.5	1	
10	HQAM	1	0	23.19	23.32	23.28		24.5	1	
10	HQAM	1	25	23.27	23.31	23.20		24.5	1	
10	HQAM	1	49	23.10	23.27	23.20		24.5	1	
10	HQAM	36	30	22.33	22.44	22.34		23.5	2	
10	HQAM	36	20	22.19	22.28	22.14		23.5	2	
10	HQAM	36	39	22.10	22.30	22.23		23.5	2	
10	HQAM	75	0	22.39	22.41	22.25		23.5	2	
10	HQAM	1	0	22.27	22.41	22.41		23.5	2	
10	HQAM	1	25	22.29	22.33	22.31		23.5	2	
10	HQAM	1	49	22.18	22.32	22.25		23.5	2	
10	HQAM	36	0	21.35	21.39	21.29		22.5	3	
10	HQAM	36	20	21.28	21.24	21.24		22.5	3	
10	HQAM	36	39	21.22	21.25	21.24		22.5	3	
10	HQAM	75	0	21.17	21.23	21.24		22.5	3	
10	HQAM	1	0	19.27	19.43	19.35		20.5	5	
10	HQAM	1	25	19.23	19.27	19.22		20.5	5	
10	HQAM	1	49	19.12	19.28	19.14		20.5	5	
10	HQAM	10	0	19.34	19.30	19.23		20.5	5	
10	HQAM	10	20	19.19	19.30	19.12		20.5	5	
10	HQAM	36	30	19.17	19.19	19.06		20.5	5	
10	HQAM	100	0	19.17	19.24	19.21		20.5	5	
Channel										
Frequency (MHz)										
5	QPSK	1	0	24.33	24.45	24.34		25.5	0	
5	QPSK	1	12	24.24	24.33	24.17		25.5	0	
5	QPSK	1	24	24.18	24.33	24.33		25.5	0	
5	QPSK	12	0	23.17	23.46	23.21		24.5	1	
5	QPSK	12	7	23.27	23.34	23.28		24.5	1	
5	QPSK	12	13	23.23	23.22	23.16		24.5	1	
5	QPSK	15	4	23.20	23.42	23.23		24.5	1	
5	HQAM	1	0	23.25	23.31	23.24		24.5	1	
5	HQAM	1	12	23.17	23.33	23.21		24.5	1	
5	HQAM	1	24	23.10	23.29	23.23		24.5	1	
5	HQAM	12	0	22.29	22.43	22.34		23.5	2	
5	HQAM	12	7	22.20	22.34	22.20		23.5	2	
5	HQAM	12	13	22.10	22.25	22.12		23.5	2	
5	HQAM	25	0	22.30	22.40	22.28		23.5	2	
5	HQAM	1	0	22.22	22.41	22.39		23.5	2	
5	HQAM	1	12	22.14	22.37	22.30		23.5	2	
5	HQAM	1	24	22.13	22.28	22.20		23.5	2	
5	HQAM	12	0	21.30	21.34	21.28		22.5	3	
5	HQAM	12	7	21.04	21.20	21.18		22.5	3	
5	HQAM	12	13	21.21	21.29	21.21		22.5	3	
5	HQAM	25	0	21.11	21.21	21.21		22.5	3	
5	HQAM	1	0	19.28	19.43	19.38		20.5	5	
5	HQAM	1	12	19.23	19.31	19.22		20.5	5	
5	HQAM	1	24	19.10	19.32	19.22		20.5	5	
5	HQAM	12	0	19.35	19.37	19.25		20.5	5	
5	HQAM	12	7	19.24	19.31	19.19		20.5	5	
5	HQAM	12	13	19.15	19.20	19.04		20.5	5	
5	HQAM	25	0	19.11	19.30	19.18		20.5	5	
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	24.29	24.46	24.29		25.5	0	
1.4	QPSK	1	3	24.30	24.39	24.21		25.5	0	
1.4	QPSK	1	6	24.12	24.29	24.31		25.5	0	
1.4	QPSK	3	0	24.30	24.44	24.31		25.5	0	
1.4	QPSK	3	1	24.27	24.34	24.28		25.5	0	
1.4	QPSK	3	4	24.24	24.34	24.32		25.5	0	
1.4	QPSK	6	0	23.19	23.40	23.23		24.5	1	
1.4	HQAM	1	0	23.31	23.32	23.32		24.5	1	
1.4	HQAM	1	3	23.22	23.32	23.14		24.5	1	
1.4	HQAM	1	5	23.25	23.39	23.30		24.5	1	
1.4	HQAM	3	0	23.20	23.38	23.25		23.5	2	
1.4	HQAM	3	3	23.19	23.32	23.17		23.5	2	
1.4	HQAM	6	0	22.37	22.43	22.33		23.5	2	
1.4	HQAM	1	0	21.15	21.34	21.15		22.5	3	
1.4	HQAM	1	3	22.19	22.28	22.12		22.5	3	
1.4	HQAM	1	5	22.35	22.37	22.25		22.5	3	
1.4	HQAM	3	0	22.22	22.44	22.46		22.5	3	
1.4	HQAM	3	1	22.32	22.32	22.29		22.5	3	
1.4	HQAM	3	2	22.10	22.30	22.25		22.5	3	
1.4	HQAM	6	0	21.10	21.35	21.28		22.5	3	
1.4	HQAM	1	0	19.27	19.45	19.36		20.5	5	
1.4	HQAM	1	3	19.16	19.32	19.22		20.5	5	
1.4	HQAM	3	0	19.15	19.27	19.22		20.5	5	
1.4	HQAM	3	1	19.29	19.36	19.21		20.5	5	
1.4	HQAM	3	2	19.20	19.27	19.21		20.5	5	
1.4	HQAM	6	0	19.19	19.28	19.22		20.5	5	

Band 5 Other PA Ant1										
RF [MHz]	Modulation	RB Size	RB Offset	Power Ch./Frac	Power Ind. Ch./Frac	Power High Ch./Frac	Power Low Ch./Frac	Turn-up limit (dB)	MFR (dB)	
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.89	23.38	23.92		25.5	0	
10	QPSK	1	25	23.89	23.89	23.89		25.5	0	
10	QPSK	1	49	23.87	23.81	23.73		25.5	0	
10										



Band 4 Other PA Ant2										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up (dB)	MPR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.68	23.85	23.77	24.5	0		
20	QPSK	1	49	23.67	23.73	23.81	24.5	0		
20	QPSK	1	99	23.65	23.76	23.66	24.5	0		
20	QPSK	50	0	22.69	22.82	22.70	23.5	1		
20	QPSK	50	24	22.67	22.81	22.66	23.5	1		
20	QPSK	50	50	22.71	22.79	22.74	23.5	1		
20	QPSK	100	0	22.64	22.76	22.68	23.5	1		
20	16QAM	1	0	22.69	22.75	22.67	23.5	1		
20	16QAM	1	49	22.54	22.69	22.62	23.5	1		
20	16QAM	1	99	22.57	22.65	22.58	23.5	1		
20	16QAM	50	0	21.64	21.71	21.59	22.5	2		
20	16QAM	50	24	21.43	21.57	21.49	22.5	2		
20	16QAM	50	55	21.37	21.51	21.46	22.5	2		
20	16QAM	100	0	21.55	21.64	21.54	22.5	2		
20	64QAM	1	0	21.55	21.69	21.58	22.5	2		
20	64QAM	1	49	21.48	21.61	21.49	22.5	2		
20	64QAM	1	99	21.48	21.54	21.42	22.5	2		
20	64QAM	50	0	20.52	20.62	20.50	21.5	3		
20	64QAM	50	24	20.38	20.49	20.36	21.5	3		
20	64QAM	50	50	20.45	20.55	20.40	21.5	3		
20	64QAM	100	0	20.52	20.58	20.51	21.5	3		
20	256QAM	1	0	18.48	18.58	18.50	19.5	5		
20	256QAM	1	49	18.43	18.49	18.40	19.5	5		
20	256QAM	1	99	18.37	18.45	18.39	19.5	5		
20	256QAM	50	0	18.43	18.50	18.43	19.5	5		
20	256QAM	50	24	18.36	18.44	18.36	19.5	5		
20	256QAM	50	50	18.28	18.37	18.28	19.5	5		
20	256QAM	100	0	18.32	18.44	18.36	19.5	5		
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.62	23.77	23.64	24.5	0		
15	QPSK	1	37	23.54	23.68	23.56	24.5	0		
15	QPSK	1	74	23.59	23.62	23.57	24.5	0		
15	QPSK	36	8	22.60	22.70	22.65	23.5	1		
15	QPSK	36	20	22.59	22.73	22.57	23.5	1		
15	QPSK	36	39	22.62	22.71	22.67	23.5	1		
15	QPSK	75	0	22.54	22.72	22.57	23.5	1		
15	16QAM	1	0	22.62	22.67	22.58	23.5	1		
15	16QAM	1	37	22.43	22.59	22.55	23.5	1		
15	16QAM	1	74	22.44	22.53	22.46	23.5	1		
15	16QAM	36	0	21.58	21.65	21.53	22.5	2		
15	16QAM	36	20	21.35	21.50	21.39	22.5	2		
15	16QAM	36	39	21.26	21.37	21.23	22.5	2		
15	16QAM	75	0	21.48	21.58	21.43	22.5	2		
15	64QAM	1	0	21.41	21.55	21.42	22.5	2		
15	64QAM	1	37	21.39	21.50	21.35	22.5	2		
15	64QAM	1	74	21.40	21.48	21.34	22.5	2		
15	64QAM	36	0	20.40	20.53	20.36	21.5	3		
15	64QAM	36	20	20.29	20.36	20.22	21.5	3		
15	64QAM	36	39	20.37	20.50	20.41	21.5	3		
15	64QAM	75	0	20.37	20.49	20.40	21.5	3		
15	256QAM	1	0	18.42	18.44	18.44	19.5	5		
15	256QAM	1	37	18.34	18.38	18.27	19.5	5		
15	256QAM	1	74	18.26	18.38	18.31	19.5	5		
15	256QAM	36	0	18.28	18.37	18.36	19.5	5		
15	256QAM	36	20	18.24	18.37	18.30	19.5	5		
15	256QAM	36	39	18.20	18.28	18.15	19.5	5		
15	256QAM	75	0	18.22	18.37	18.22	19.5	5		
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.58	23.76	23.65	24.5	0		
10	QPSK	1	25	23.55	23.59	23.53	24.5	0		
10	QPSK	1	49	23.54	23.71	23.55	24.5	0		
10	QPSK	25	0	22.60	22.70	22.65	23.5	1		
10	QPSK	25	12	22.55	22.73	22.61	23.5	1		
10	QPSK	25	25	22.63	22.72	22.64	23.5	1		
10	QPSK	50	0	22.58	22.67	22.55	23.5	1		
10	16QAM	1	0	22.61	22.61	22.58	23.5	1		
10	16QAM	1	25	22.44	22.63	22.54	23.5	1		
10	16QAM	1	49	22.48	22.55	22.46	23.5	1		
10	16QAM	25	0	21.49	21.59	21.51	22.5	2		
10	16QAM	25	12	21.31	21.49	21.42	22.5	2		
10	16QAM	25	25	21.29	21.43	21.33	22.5	2		
10	16QAM	50	0	21.45	21.52	21.46	22.5	2		
10	64QAM	1	0	21.42	21.58	21.50	22.5	2		
10	64QAM	1	25	21.35	21.50	21.35	22.5	2		
10	64QAM	1	49	21.36	21.40	21.35	22.5	2		
10	64QAM	25	0	20.39	20.53	20.43	21.5	3		
10	64QAM	25	12	20.29	20.43	20.21	21.5	3		
10	64QAM	25	25	20.38	20.47	20.41	21.5	3		
10	64QAM	50	0	20.43	20.43	20.36	21.5	3		
10	256QAM	1	0	18.39	18.48	18.44	19.5	5		
10	256QAM	1	25	18.30	18.39	18.30	19.5	5		
10	256QAM	1	49	18.26	18.37	18.32	19.5	5		
10	256QAM	25	0	18.38	18.42	18.31	19.5	5		
10	256QAM	25	12	18.23	18.32	18.23	19.5	5		
10	256QAM	25	25	18.18	18.23	18.21	19.5	5		
10	256QAM	50	0	18.20	18.31	18.23	19.5	5		
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.62	23.78	23.63	24.5	0		
5	QPSK	1	12	23.58	23.66	23.46	24.5	0		
5	QPSK	1	24	23.55	23.62	23.52	24.5	0		
5	QPSK	12	0	22.62	22.70	22.63	23.5	1		
5	QPSK	12	7	22.62	22.74	22.60	23.5	1		
5	QPSK	12	13	22.66	22.75	22.61	23.5	1		
5	QPSK	25	0	22.53	22.65	22.53	23.5	1		
5	16QAM	1	0	22.63	22.65	22.58	23.5	1		
5	16QAM	1	12	22.47	22.56	22.60	23.5	1		
5	16QAM	1	24	22.43	22.59	22.47	23.5	1		
5	16QAM	12	0	21.49	21.56	21.48	22.5	2		
5	16QAM	12	7	21.29	21.48	21.39	22.5	2		
5	16QAM	12	13	21.24	21.46	21.37	22.5	2		
5	16QAM	25	0	21.43	21.58	21.41	22.5	2		
5	64QAM	1	0	21.46	21.58	21.42	22.5	2		
5	64QAM	1	12	21.39	21.50	21.35	22.5	2		
5	64QAM	1	24	21.35	21.48	21.31	22.5	2		
5	64QAM	12	0	20.39	20.49	20.37	21.5	3		
5	64QAM	12	7	20.33	20.42	20.32	21.5	3		
5	64QAM	12	13	20.37	20.42	20.39	21.5	3		
5	64QAM	25	0	20.46	20.47	20.42	21.5	3		
5	256QAM	1	0	18.38	18.44	18.36	19.5	5		
5	256QAM	1	12	18.34	18.37	18.33	19.5	5		
5	256QAM	1	24	18.26	18.38	18.31	19.5	5		
5	256QAM	12	0	18.38	18.40	18.31	19.5	5		
5	256QAM	12	7	18.29	18.29	18.28	19.5	5		
5	256QAM	12	13	18.19	18.23	18.22	19.5	5		
5	256QAM	25	0	18.18	18.36	18.24	19.5	5		
Channel										
Frequency (MHz)										
3	QPSK	1	0	23.54	23.72	23.66	24.5	0		
3	QPSK	1	8	23.57	23.66	23.50	24.5	0		
3	QPSK	1	14	23.54	23.70	23.59	24.5	0		
3	QPSK	8	0	22.68	22.66	22.61	23.5	1		
3	QPSK	8	4	22.53	22.72	22.64	23.5	1		
3	QPSK	8	7	22.65	22.76	22.64	23.5	1		
3	QPSK	15	0	22.51	22.66	22.54	23.5	1		
3	16QAM	1	0	22.59	22.65	22.60	23.5	1		
3	16QAM	1	8	22.40	22.60	22.44	23.5	1		
3	16QAM	1	14	22.43	22.54	22.47	23.5	1		
3	16QAM	8	0	21.67	21.62	21.50</				



Band 4 Other PA Ant4

SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq 20000	Tune-up limit (dBm)	MPE (dB)
Channel								
Frequency (MHz)								
1720 1725.5 1745								
20	QPSK	1	0	23.07	23.27	23.21	24.5	0
20	QPSK	1	49	22.91	23.15	23.12		
20	QPSK	1	99	23.03	23.22	23.20		
20	QPSK	50	0	21.98	22.27	22.14		
20	QPSK	50	24	22.00	22.18	22.14		
20	QPSK	50	50	22.05	22.23	22.24		
20	QPSK	100	0	22.00	22.19	22.10	23.5	1
20	16QAM	1	0	22.03	22.21	22.11		
20	16QAM	1	49	22.14	22.31	22.27		
20	16QAM	1	99	22.09	22.27	22.25		
20	16QAM	50	0	21.05	21.25	21.22		
20	16QAM	50	24	21.08	21.26	21.20		
20	16QAM	50	50	21.04	21.21	21.14		
20	16QAM	100	0	20.99	21.23	21.15		
20	84QAM	1	0	20.93	21.13	21.11		
20	84QAM	1	49	21.00	21.24	21.14		
20	84QAM	1	99	21.00	21.23	21.17		
20	84QAM	50	0	20.93	20.22	20.17		
20	84QAM	50	24	20.98	20.25	20.20		
20	84QAM	50	50	20.95	20.23	20.18		
20	84QAM	100	0	20.91	20.20	20.16		
20	256QAM	1	0	17.81	18.02	17.92		
20	256QAM	1	49	17.87	18.11	18.07		
20	256QAM	1	99	17.83	18.04	17.97		
20	256QAM	50	0	18.06	18.26	18.18		
20	256QAM	50	24	17.93	18.16	18.15		
20	256QAM	50	50	17.94	18.17	18.14		
20	256QAM	100	0	18.00	18.19	18.13		
Channel								
Frequency (MHz)								
20005 20175 20325								
1717.5 1723.5 1747.5								
15	QPSK	1	0	22.83	23.12	23.14	24.5	0
15	QPSK	1	37	22.80	23.03	23.04		
15	QPSK	1	74	22.90	23.11	23.12		
15	QPSK	36	0	21.80	22.14	22.04		
15	QPSK	36	20	21.89	22.12	22.05		
15	QPSK	36	39	22.00	22.16	22.10		
15	QPSK	75	0	21.88	22.14	22.08		
15	16QAM	1	0	21.97	22.15	22.01		
15	16QAM	1	37	22.02	22.17	22.14		
15	16QAM	1	74	21.94	22.17	22.20		
15	16QAM	36	0	20.97	21.14	21.11		
15	16QAM	36	20	21.01	21.12	21.08		
15	16QAM	36	39	20.90	21.08	21.03		
15	16QAM	75	0	20.92	21.17	21.02		
15	84QAM	1	0	20.82	21.02	21.05		
15	84QAM	1	37	20.89	21.15	21.09		
15	84QAM	1	74	20.90	21.16	21.11		
15	84QAM	36	0	19.94	20.09	20.09		
15	84QAM	36	20	19.97	20.16	20.05		
15	84QAM	36	39	19.98	20.08	20.03		
15	84QAM	75	0	19.92	20.07	20.06		
15	256QAM	1	0	17.68	17.90	17.83		
15	256QAM	1	37	17.74	18.04	17.97		
15	256QAM	1	74	17.76	17.92	17.90		
15	256QAM	36	0	17.97	18.11	18.02		
15	256QAM	36	20	17.82	18.03	18.01		
15	256QAM	36	39	17.89	18.11	18.02		
15	256QAM	75	0	17.90	18.08	18.05		
Channel								
Frequency (MHz)								
20000 20175 20350								
1715 1723.5 1750								
10	QPSK	1	0	23.02	23.15	23.17	24.5	0
10	QPSK	1	25	22.78	23.03	23.01		
10	QPSK	1	49	22.98	23.08	23.12		
10	QPSK	25	0	21.84	22.17	22.08		
10	QPSK	25	12	21.84	22.06	22.05		
10	QPSK	25	25	21.98	22.20	22.12		
10	QPSK	50	0	21.85	22.04	21.98		
10	16QAM	1	0	21.98	22.08	22.02		
10	16QAM	1	25	22.00	22.20	22.13		
10	16QAM	1	49	22.04	22.21	22.18		
10	16QAM	25	0	20.95	21.19	21.15		
10	16QAM	25	12	20.99	21.21	21.07		
10	16QAM	25	25	20.97	21.11	21.01		
10	16QAM	50	0	20.91	21.15	21.08		
10	84QAM	1	0	20.83	21.06	21.01		
10	84QAM	1	25	20.91	21.18	21.04		
10	84QAM	1	49	20.84	21.16	21.10		
10	84QAM	25	0	19.90	20.07	20.10		
10	84QAM	25	12	19.94	20.15	20.07		
10	84QAM	25	25	19.92	20.15	20.07		
10	84QAM	50	0	19.95	20.13	20.02		
10	256QAM	1	0	17.67	17.82	17.88		
10	256QAM	1	25	17.73	18.03	17.96		
10	256QAM	1	49	17.72	17.90	17.85		
10	256QAM	25	0	17.91	18.14	18.02		
10	256QAM	25	12	17.88	18.08	18.00		
10	256QAM	25	25	17.81	18.10	18.06		
10	256QAM	50	0	17.81	18.09	18.05		
Channel								
Frequency (MHz)								
19975 20175 20375								
1712.5 1723.5 1823.5								
5	QPSK	1	0	22.82	23.14	23.11	24.5	0
5	QPSK	1	12	22.83	23.06	23.03		
5	QPSK	1	24	22.96	23.16	23.09		
5	QPSK	12	0	21.83	22.17	22.05		
5	QPSK	12	7	21.91	22.12	22.05		
5	QPSK	12	13	21.98	22.15	22.12		
5	QPSK	25	0	21.85	22.08	21.98		
5	16QAM	1	0	21.93	22.07	21.97		
5	16QAM	1	12	22.03	22.18	22.14		
5	16QAM	1	24	21.99	22.15	22.11		
5	16QAM	12	0	20.86	21.17	21.13		
5	16QAM	12	7	20.96	21.16	21.09		
5	16QAM	12	13	20.96	21.10	21.08		
5	16QAM	25	0	20.80	21.13	21.07		
5	84QAM	1	0	20.88	21.05	21.02		
5	84QAM	1	12	20.88	21.09	21.07		
5	84QAM	1	24	20.86	21.12	21.10		
5	84QAM	12	0	19.95	20.14	20.03		
5	84QAM	12	7	19.98	20.11	20.06		
5	84QAM	12	13	19.92	20.13	20.07		
5	84QAM	25	0	19.90	20.12	20.10		
5	256QAM	1	0	17.72	17.94	17.83		
5	256QAM	1	12	17.81	18.04	17.95		
5	256QAM	1	24	17.69	17.93	17.84		
5	256QAM	12	0	17.99	18.14	18.01		
5	256QAM	12	7	17.80	18.08	18.07		
5	256QAM	12	13	17.80	18.07	18.05		
5	256QAM	25	0	17.85	18.07	18.00		
Channel								
Frequency (MHz)								
19965 20175 20385								
1711.5 1723.5 1823.5								
3	QPSK	1	0	23.01	23.15	23.15	24.5	0
3	QPSK	1	8	22.82	23.03	23.06		
3	QPSK	1	14	22.90	23.10	23.07		
3	QPSK	8	0	21.93	22.14	22.02		
3	QPSK	8	4	21.90	22.12	22.02		
3	QPSK	8	7	21.92	22.21	22.12		
3	QPSK	15	0	21.92	22.09	22.01		
3	16QAM	1	0	21.90	22.08	22.05		
3	16QAM	1	8	22.06	22.23	22.13		
3	16QAM	1	14	21.99	22.13	22.10		
3	16QAM	8	0	20.98	21.16	21.09		
3	16QAM	8	4	20.88	21.17	21.07		
3	16QAM	8	7	20.99	21.14	21.00		
3	84QAM	1	0	20.85	21.09	21.02		
3	84QAM	1	8	20.82	21.01	20.96		
3	84QAM	1	14	20.94	21.09	21.07		
3	84QAM	8	0	19.94	20.09	20.04		
3	84QAM	8	4	20.00	20.15	20.12		
3	84QAM	8	7	19.93	20.08	20.04		
3	84QAM	15	0	19.87	20.11	20.09		
3	256QAM	1	0	17.75	17.88	17.78		
3	256QAM	1	8	17.78	17.97	17.95		
3	256QAM	1	14	17.74	17.95	17.87		
3	256QAM	8	0	17.93	18.14	18.04		
3	256QAM	8	4	17.82	18.08	18.04		
3	256QAM	8	7	17.88	18.05	18.01		
3	256QAM	15	0	17.94	18.11	18.03		
Channel								
Frequency (MHz)								
19957 20175 20393								
1710.7 1723.5 1824.3								
1.4	QPSK	1	0	23.01	23.12	23.13	24.5	0
1.4	QPSK	1	3	22.82	23.03	23.02		
1.4	QPSK	1	5	22.93	23.16	23.14		
1.4	QPSK	3	0	22.86	23.17	23.03		
1.4	QPSK	3	1	22.85	23.05	23.08		
1.4	QPSK	3	3	22.90	23.17	23.14		
1.4	QPSK	6	0	21.95	22.05	21.97		
1.4	16QAM	1	0	21.90	22.13	22.00		
1.4	16QAM	1	3	22.05	22.24	22.21		
1.4	16QAM	1	5	21.97	22.20	22.10		
1.4	16QAM	3	0	21.89	22.09	21.97		
1.4	16QAM	3	1	22.08	22.22	22.21		
1.4	16QAM	3	3	21.94	22.20	22.13		
1.4	84QAM	1	0	20.87	21.10	21.06		
1.4	84QAM	1	0	21.01	21.14	21.12		
1.4	84QAM	1	3	20.98	21.11	21.05		
1.4	84QAM	1	5	20.84	21.17	21.01		
1.4	84QAM	3	0	20.82	21.04	21.05		
1.4	84QAM	3	1	20.92	21.18	21.07		
1.4	84QAM	3	3	20.94	21.16	21.10		
1.4	84QAM	6	0	19.93	20.11	20.06		
1.4	256QAM	1	0	17.71	17.92	17.80		
1.4	256QAM	1	3	17.73	18.02	17.92		



Band 12 Other PA Ant0									
BW (MHz)	Modulation	RE Size	RB Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Time-up limit (dB)	MPE (dB)	
Channel									
				704	707.5	711			
10	QPSK	1	0	24.50	24.50	24.44			
10	QPSK	1	25	24.37	24.44	24.45	23.5	0	
10	QPSK	1	49	24.40	24.50	24.45			
10	QPSK	25	0	23.70	23.74	23.63			
10	QPSK	25	12	23.63	23.67	23.61	24.5	1	
10	QPSK	25	25	23.49	23.64	23.58			
10	QPSK	50	0	23.55	23.59	23.55			
10	16QAM	1	0	23.47	23.52	23.56			
10	16QAM	1	25	23.59	23.58	23.62	24.5	1	
10	16QAM	1	49	23.54	23.57	23.48			
10	16QAM	25	0	22.55	22.65	22.62			
10	16QAM	25	12	22.81	22.56	22.52	23.5	2	
10	16QAM	25	25	22.44	22.51	22.44			
10	16QAM	50	0	22.84	22.91	22.86			
10	64QAM	1	0	22.54	22.56	22.54			
10	64QAM	1	25	22.60	22.68	22.54	23.5	2	
10	64QAM	1	49	22.70	22.75	22.61			
10	64QAM	25	0	21.48	21.59	21.55			
10	64QAM	25	12	21.61	21.86	21.84	22.5	3	
10	64QAM	25	25	21.60	21.75	21.65			
10	64QAM	50	0	21.90	22.04	21.92			
10	256QAM	1	0	20.00	20.17	19.99			
10	256QAM	1	25	19.81	19.92	19.88	20.5	5	
10	256QAM	1	49	20.05	20.17	20.05			
10	256QAM	25	0	19.47	19.56	19.52			
10	256QAM	25	12	19.80	19.84	19.75	20.5	5	
10	256QAM	25	25	19.60	19.72	19.67			
10	256QAM	50	0	19.65	19.89	19.85			
Channel									
				701.5	707.5	713.5			
5	QPSK	1	0	24.42	24.46	24.36			
5	QPSK	1	12	24.24	24.34	24.33	23.5	0	
5	QPSK	1	24	24.27	24.38	24.37			
5	QPSK	12	0	23.57	23.68	23.55			
5	QPSK	12	7	23.61	23.63	23.54	24.5	1	
5	QPSK	12	13	23.39	23.55	23.50			
5	16QAM	1	0	23.38	23.53	23.49			
5	16QAM	1	12	23.47	23.61	23.58	24.5	1	
5	16QAM	1	24	23.39	23.51	23.38			
5	16QAM	12	0	22.48	22.54	22.55			
5	16QAM	12	7	22.49	22.51	22.48	23.5	2	
5	16QAM	12	13	22.31	22.48	22.41			
5	16QAM	25	0	22.74	22.85	22.73			
5	64QAM	1	0	22.45	22.62	22.41	23.5	2	
5	64QAM	1	12	22.50	22.55	22.48			
5	64QAM	1	24	22.50	22.63	22.54			
5	64QAM	12	0	21.42	21.55	21.41			
5	64QAM	12	7	21.71	21.80	21.73	22.5	3	
5	64QAM	12	13	21.53	21.65	21.51			
5	64QAM	25	0	21.85	21.97	21.77			
5	256QAM	1	0	19.88	19.99	19.89			
5	256QAM	1	12	19.70	19.81	19.75	20.5	5	
5	256QAM	1	24	19.97	20.14	19.91			
5	256QAM	12	0	19.41	19.62	19.58			
5	256QAM	12	7	19.50	19.74	19.57	20.5	5	
5	256QAM	12	13	19.45	19.59	19.51			
5	256QAM	25	0	19.71	19.82	19.73			
Channel									
				701.5	707.5	714.5			
3	QPSK	1	0	24.40	24.52	24.44			
3	QPSK	1	8	24.34	24.34	24.34	23.5	0	
3	QPSK	1	14	24.36	24.40	24.38			
3	QPSK	8	0	23.68	23.65	23.49			
3	QPSK	8	4	23.55	23.59	23.58	24.5	1	
3	QPSK	8	7	23.39	23.52	23.53			
3	16QAM	1	0	23.60	23.62	23.48			
3	16QAM	1	8	23.47	23.53	23.55	24.5	1	
3	16QAM	1	14	23.48	23.53	23.59			
3	16QAM	8	0	22.45	22.58	22.59			
3	16QAM	8	4	22.47	22.59	22.48	23.5	2	
3	16QAM	8	7	22.70	22.40	22.45			
3	16QAM	15	0	22.77	22.77	22.70			
3	64QAM	1	0	22.44	22.57	22.41	23.5	2	
3	64QAM	1	8	22.56	22.58	22.38			
3	64QAM	1	14	22.59	22.73	22.52			
3	64QAM	8	0	21.44	21.55	21.43			
3	64QAM	8	4	21.77	21.83	21.75	22.5	3	
3	64QAM	8	7	21.49	21.61	21.52			
3	256QAM	1	0	19.79	19.91	19.89			
3	256QAM	1	8	19.67	19.80	19.77	20.5	5	
3	256QAM	1	14	19.98	20.04	19.92			
3	256QAM	8	0	19.63	19.50	19.63			
3	256QAM	8	4	19.72	19.70	19.59	20.5	5	
3	256QAM	8	7	19.48	19.59	19.53			
3	256QAM	15	0	19.81	19.81	19.81			
Channel									
				2317	2319.5	2319.3			
1.4	QPSK	1	0	24.41	24.49	24.53			
1.4	QPSK	1	3	24.34	24.38	24.25	23.5	0	
1.4	QPSK	1	5	24.35	24.41	24.38			
1.4	QPSK	3	0	24.40	24.44	24.26			
1.4	QPSK	3	1	24.20	24.35	24.30	24.5	1	
1.4	QPSK	3	3	24.30	24.41	24.32			
1.4	16QAM	1	0	23.51	23.54	23.53			
1.4	16QAM	1	3	23.39	23.52	23.52	24.5	1	
1.4	16QAM	1	5	23.46	23.59	23.47			
1.4	16QAM	3	0	23.42	23.48	23.47			
1.4	16QAM	3	1	23.50	23.59	23.56			
1.4	16QAM	3	3	23.44	23.48	23.35	23.8	2	
1.4	16QAM	6	0	22.81	22.81	22.47			
1.4	16QAM	1	0	22.49	22.54	22.41			
1.4	16QAM	1	3	22.49	22.43	22.38			
1.4	16QAM	1	5	22.45	22.50	22.42	23.5	2	
1.4	16QAM	3	0	22.47	22.59	22.47			
1.4	16QAM	3	1	22.50	22.60	22.47			
1.4	16QAM	3	3	22.59	22.62	22.55			
1.4	256QAM	1	0	21.56	21.62	21.59	22.5	3	
1.4	256QAM	1	0	19.89	19.89	19.85			
1.4	256QAM	1	3	19.69	19.89	19.74			
1.4	256QAM	1	5	19.81	20.03	19.86	20.5	5	
1.4	256QAM	3	0	19.59	19.46	19.46			
1.4	256QAM	3	1	19.70	19.73	19.57			
1.4	256QAM	3	3	19.56	19.88	19.56			
1.4	256QAM	5	0	19.79	19.76	19.70	20.5	5	



Band 17 Other PA Ant0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power High Ch. F.Freq.	Power Mid Ch. F.Freq.	Turn-up limit (dB)	MFR (dB)	
Channel									
				709	710	711			
10	QPSK	1	0	24.43	24.61	24.46	25.5	0	
10	QPSK	1	25	24.31	24.40	24.38			
10	QPSK	1	49	24.38	24.47	24.33			
10	QPSK	25	0	23.64	23.66	23.67	24.5	1	
10	QPSK	25	12	23.62	23.69	23.66			
10	QPSK	25	25	23.34	23.46	23.34			
10	QPSK	50	0	23.48	23.50	23.49	24.5	1	
10	16QAM	1	0	23.46	23.50	23.47			
10	16QAM	1	25	23.29	23.42	23.32			
10	16QAM	1	49	23.21	23.34	23.26	23.5	2	
10	16QAM	25	0	22.98	22.73	22.82			
10	16QAM	25	12	22.89	22.72	22.58			
10	16QAM	25	25	22.65	22.73	22.62	22.5	3	
10	16QAM	50	0	22.67	22.79	22.73			
10	64QAM	1	0	22.43	22.50	22.41			
10	64QAM	1	25	22.50	22.54	22.48	20.5	5	
10	64QAM	1	49	22.36	22.35	22.51			
10	64QAM	25	0	21.59	21.66	21.59			
10	64QAM	25	12	21.68	21.77	21.66	20.5	5	
10	64QAM	25	25	21.50	21.56	21.69			
10	64QAM	50	0	21.59	21.66	21.62			
10	256QAM	1	0	19.82	19.90	19.81	20.5	5	
10	256QAM	1	25	19.83	19.85	19.78			
10	256QAM	1	49	19.59	19.70	19.66			
10	256QAM	25	0	19.47	19.58	19.45	20.5	5	
10	256QAM	25	12	19.52	19.60	19.56			
10	256QAM	25	25	19.50	19.54	19.43			
10	256QAM	50	0	19.50	19.67	19.58			
Channel									
				709.5	710.5	711.5	Turn-up limit (dB)	MFR (dB)	Appl.
				709.5	710	711.5			
5	QPSK	1	0	24.39	24.45	24.43	25.5	0	
5	QPSK	1	12	24.24	24.30	24.25			
5	QPSK	1	24	24.35	24.38	24.22			
5	QPSK	12	0	23.59	23.81	23.49	24.5	1	
5	QPSK	12	7	23.40	23.47	23.39			
5	QPSK	12	13	23.28	23.42	23.25			
5	QPSK	25	0	23.44	23.55	23.39	24.5	1	
5	16QAM	1	0	23.32	23.45	23.31			
5	16QAM	1	12	23.20	23.32	23.26			
5	16QAM	1	24	23.07	23.29	23.22	23.5	2	
5	16QAM	12	0	22.94	22.61	22.51			
5	16QAM	12	7	22.66	22.59	22.54			
5	16QAM	12	13	22.58	22.79	22.61	20.5	5	
5	16QAM	25	0	22.97	22.67	22.63			
5	64QAM	1	0	22.38	22.37	22.37			
5	64QAM	1	12	22.41	22.46	22.37	22.5	3	
5	64QAM	1	24	22.22	22.27	22.15			
5	64QAM	12	0	21.44	21.58	21.53			
5	64QAM	12	7	21.50	21.70	21.64	20.5	5	
5	64QAM	12	13	21.37	21.51	21.35			
5	64QAM	25	0	21.44	21.57	21.49			
5	256QAM	1	0	19.76	19.79	19.69	20.5	5	
5	256QAM	1	12	19.72	19.75	19.66			
5	256QAM	1	24	19.48	19.59	19.53			
5	256QAM	12	0	19.37	19.48	19.33	20.5	5	
5	256QAM	12	7	19.39	19.47	19.43			
5	256QAM	12	13	19.44	19.48	19.53			
5	256QAM	25	0	19.56	19.63	19.52			



Band 12 Other PA Ant1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Time-up limit (dB)	MPE (dB)	
Channel									
				704	707.5	711			
10	QPSK	1	0	23.69	23.74	23.67			
10	QPSK	1	25	23.69	23.66	23.67	25.5	0	
10	QPSK	1	49	23.67	23.61	23.62			
10	QPSK	25	0	22.66	22.76	22.67			
10	QPSK	25	12	22.66	22.70	22.69	24.5	1	
10	QPSK	25	25	22.65	22.65	22.66			
10	QPSK	50	0	22.59	22.72	22.67			
10	16QAM	1	0	22.68	22.67	22.65			
10	16QAM	1	25	22.53	22.61	22.58	24.5	1	
10	16QAM	1	49	22.54	22.57	22.51			
10	16QAM	25	0	21.73	21.81	21.71			
10	16QAM	25	12	21.70	21.73	21.65	23.5	2	
10	16QAM	25	25	21.63	21.77	21.66			
10	16QAM	50	0	21.68	21.71	21.67			
10	64QAM	1	0	21.65	21.79	21.71			
10	64QAM	1	25	21.59	21.72	21.66	23.5	2	
10	64QAM	1	49	21.65	21.69	21.64			
10	64QAM	25	0	20.90	20.95	20.88			
10	64QAM	25	12	20.81	20.86	20.76	22.5	3	
10	64QAM	25	25	20.81	20.81	20.84			
10	64QAM	50	0	20.68	20.83	20.72			
10	256QAM	1	0	18.65	18.66	18.62			
10	256QAM	1	25	18.83	18.93	18.88	20.5	5	
10	256QAM	1	49	18.85	18.88	18.74			
10	256QAM	25	0	18.73	18.87	18.84			
10	256QAM	25	12	18.68	18.77	18.72	20.5	5	
10	256QAM	25	25	18.74	18.83	18.69			
10	256QAM	50	0	18.65	18.91	18.82			
Channel									
				701.5	707.5	713.5			
5	QPSK	1	0	23.62	23.67	23.68			
5	QPSK	1	12	23.67	23.68	23.68	25.5	0	
5	QPSK	1	24	23.67	23.56	23.62			
5	QPSK	12	0	22.55	22.67	22.64			
5	QPSK	12	7	22.51	22.64	22.60	24.5	1	
5	QPSK	12	13	22.51	22.52	22.52			
5	QPSK	25	0	22.65	22.67	22.61			
5	16QAM	1	0	22.57	22.58	22.58			
5	16QAM	1	12	22.51	22.55	22.59	24.5	1	
5	16QAM	1	24	22.59	22.54	22.59			
5	16QAM	12	0	21.85	21.74	21.83			
5	16QAM	12	7	21.81	21.83	21.59	23.5	2	
5	16QAM	12	13	21.83	21.66	21.59			
5	16QAM	25	0	21.53	21.98	21.51			
5	64QAM	1	0	21.54	21.71	21.58	23.5	2	
5	64QAM	1	12	21.65	21.64	21.64			
5	64QAM	1	24	21.51	21.61	21.58			
5	64QAM	12	0	20.77	20.90	20.83	22.5	3	
5	64QAM	12	7	20.69	20.79	20.65			
5	64QAM	12	13	20.67	20.85	20.72			
5	64QAM	25	0	20.58	20.80	20.60			
5	256QAM	1	0	18.71	18.96	18.73			
5	256QAM	1	12	18.74	18.82	18.81	20.5	5	
5	256QAM	1	24	18.73	18.77	18.65			
5	256QAM	12	0	18.64	18.78	18.72			
5	256QAM	12	7	18.59	18.67	18.63	20.5	5	
5	256QAM	12	13	18.62	18.74	18.55			
5	256QAM	25	0	18.73	18.86	18.71			
Channel									
				2305	2309	2316			
Channel									
				701.5	707.5	714.5			
3	QPSK	1	0	23.64	23.63	23.66			
3	QPSK	1	8	23.57	23.56	23.58	25.5	0	
3	QPSK	1	14	23.53	23.57	23.59			
3	QPSK	8	0	22.52	22.66	22.52			
3	QPSK	8	4	22.58	22.57	22.51	24.5	1	
3	QPSK	8	7	22.56	22.54	22.58			
3	QPSK	16	0	22.60	22.58	22.61			
3	16QAM	1	0	22.59	22.54	22.59	24.5	1	
3	16QAM	1	8	22.58	22.51	22.80			
3	16QAM	1	14	22.63	22.56	22.61			
3	16QAM	8	0	21.59	21.75	21.65			
3	16QAM	8	4	21.58	21.87	21.81	23.5	2	
3	16QAM	8	7	21.56	21.72	21.65			
3	16QAM	16	0	21.55	21.63	21.54			
3	64QAM	1	0	21.60	21.72	21.63	23.5	2	
3	64QAM	1	8	21.56	21.64	21.60			
3	64QAM	1	14	21.59	21.64	21.57			
3	64QAM	8	0	20.79	20.86	20.79	22.5	3	
3	64QAM	8	4	20.77	20.71	20.72			
3	64QAM	8	7	20.74	20.79	20.71			
3	64QAM	16	0	20.63	20.75	20.61			
3	256QAM	1	0	18.74	18.88	18.79			
3	256QAM	1	8	18.76	18.78	18.79	20.5	5	
3	256QAM	1	14	18.79	18.84	18.61			
3	256QAM	8	0	18.70	18.82	18.72			
3	256QAM	8	4	18.58	18.71	18.61	20.5	5	
3	256QAM	8	7	18.62	18.79	18.63			
3	256QAM	16	0	18.73	18.87	18.72			
Channel									
				2301.7	2309	2317.3			
1.4	QPSK	1	0	23.64	23.55	23.58			
1.4	QPSK	1	3	23.52	23.51	23.55	25.5	0	
1.4	QPSK	1	5	23.58	23.70	23.65			
1.4	QPSK	3	0	23.55	23.63	23.59			
1.4	QPSK	3	1	23.56	23.58	23.59			
1.4	QPSK	3	3	23.52	23.52	23.54	24.5	1	
1.4	QPSK	6	0	22.68	22.72	22.61			
1.4	16QAM	1	0	22.52	22.68	22.59			
1.4	16QAM	1	3	22.64	22.51	22.57	24.5	1	
1.4	16QAM	1	5	22.64	22.60	22.53			
1.4	16QAM	3	0	22.84	22.57	22.61			
1.4	16QAM	3	1	22.51	22.57	22.60			
1.4	16QAM	3	3	22.68	22.52	22.60			
1.4	16QAM	6	0	21.66	21.75	21.68	23.5	2	
1.4	64QAM	1	0	21.59	21.59	21.52			
1.4	64QAM	1	3	21.59	21.67	21.52			
1.4	64QAM	1	5	21.84	21.58	21.52	23.5	2	
1.4	64QAM	3	0	21.55	21.71	21.60			
1.4	64QAM	3	1	21.59	21.69	21.63			
1.4	64QAM	3	3	21.53	21.58	21.53			
1.4	256QAM	1	0	20.74	20.82	20.66	22.5	3	
1.4	256QAM	1	0	18.75	18.87	18.87			
1.4	256QAM	1	3	18.77	18.87	18.79			
1.4	256QAM	1	5	18.79	18.74	18.61	20.5	5	
1.4	256QAM	3	0	18.70	18.73	18.74			
1.4	256QAM	3	1	18.65	18.67	18.60			
1.4	256QAM	3	3	18.66	18.76	18.66	20.5	5	
1.4	256QAM	6	0	18.79	18.78	18.76			



Band 17 Other PA Ant1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power High Ch. F.Freq.	Power Mid Ch. F.Freq.	Turn-up limit (dB)	MFR (dB)
Channel								
Frequency (MHz)				709	710	711		
10	QPSK	1	0	23.07	23.70	23.69	25.5	0
10	QPSK	1	25	23.54	23.69	23.51		
10	QPSK	1	49	23.05	23.69	23.81		
10	QPSK	25	0	22.60	22.60	22.58	24.5	1
10	QPSK	25	12	22.53	22.59	22.85		
10	QPSK	25	25	22.83	22.58	22.58		
10	QPSK	50	0	22.07	22.61	22.54	24.5	1
10	16QAM	1	0	22.90	22.56	22.59		
10	16QAM	1	25	22.57	22.53	22.51		
10	16QAM	1	49	22.53	22.59	22.52	23.5	2
10	16QAM	25	0	21.81	21.71	21.66		
10	16QAM	25	12	21.81	21.58	21.58		
10	16QAM	25	25	21.51	21.72	21.52	23.5	2
10	16QAM	50	0	21.57	21.60	21.58		
10	64QAM	1	0	21.50	21.74	21.63		
10	64QAM	1	25	21.58	21.59	21.63	22.5	3
10	64QAM	1	49	21.54	21.66	21.60		
10	64QAM	25	0	20.86	20.87	20.85		
10	64QAM	25	12	20.71	20.81	20.86	20.5	5
10	64QAM	25	25	20.71	20.78	20.78		
10	64QAM	50	0	20.53	20.73	20.63		
10	256QAM	1	0	18.72	18.80	18.81	20.5	5
10	256QAM	1	25	18.73	18.78	18.74		
10	256QAM	1	49	18.78	18.84	18.83		
10	256QAM	25	0	18.60	18.76	18.73	20.5	5
10	256QAM	25	12	18.67	18.67	18.63		
10	256QAM	25	25	18.66	18.72	18.55		
10	256QAM	50	0	18.72	18.87	18.71		
Channel								
Frequency (MHz)				709.5	710	711.5	Turn-up limit (dB)	APPR (dB)
5	QPSK	1	0	23.51	23.65	23.54	25.5	0
5	QPSK	1	12	23.50	23.65	23.57		
5	QPSK	1	24	23.54	23.64	23.56		
5	QPSK	12	0	22.72	22.83	22.67	24.5	1
5	QPSK	12	7	22.92	22.74	22.69		
5	QPSK	12	13	22.58	22.72	22.59		
5	QPSK	25	0	22.68	22.72	22.64	24.5	1
5	16QAM	1	0	22.67	22.65	22.59		
5	16QAM	1	12	22.55	22.86	22.57		
5	16QAM	1	24	22.51	22.59	22.58	23.5	2
5	16QAM	12	0	21.75	21.84	21.73		
5	16QAM	12	7	21.72	21.67	21.81		
5	16QAM	12	13	21.61	21.69	21.66	23.5	2
5	16QAM	25	0	21.58	21.69	21.56		
5	64QAM	1	0	21.59	21.72	21.67		
5	64QAM	1	12	21.54	21.60	21.60	22.5	3
5	64QAM	1	24	21.51	21.61	21.52		
5	64QAM	12	0	20.92	20.90	20.85		
5	64QAM	12	7	20.83	20.76	20.85	20.5	5
5	64QAM	12	13	20.73	20.75	20.74		
5	64QAM	25	0	20.65	20.69	20.59		
5	256QAM	1	0	18.72	18.80	18.81	20.5	5
5	256QAM	1	12	18.72	18.85	18.77		
5	256QAM	1	24	18.79	18.81	18.69		
5	256QAM	12	0	18.75	18.72	18.69	20.5	5
5	256QAM	12	7	18.60	18.70	18.61		
5	256QAM	12	13	18.66	18.73	18.67		
5	256QAM	25	0	18.68	18.93	18.69		



DSI 0 Power for WWAN Other PA

Band 5 Other PA Ant0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq. [2042]	Power Middle Ch./Freq. [2052]	Power High Ch./Freq. [2060]	Tune-up limit (dBm)	MPR (dB)	
Channel				829	838.5	844			
Frequency (MHz)									
10	QPSK	1	0	24.82	24.85	24.77	25.5	0	
10	QPSK	1	25	24.74	24.73	24.69			
10	QPSK	1	49	24.68	24.68	24.61			
10	QPSK	25	0	23.64	23.75	23.66	24.5	1	
10	QPSK	25	12	23.64	23.65	23.64			
10	QPSK	25	25	23.67	23.58	23.65			
10	QPSK	50	0	23.59	23.72	23.62	24.5	1	
10	16QAM	1	0	23.73	23.86	23.73			
10	16QAM	1	25	23.74	23.80	23.71			
10	16QAM	1	49	23.70	23.76	23.67	23.5	2	
10	16QAM	25	0	22.79	22.91	22.78			
10	16QAM	25	12	22.70	22.77	22.71			
10	16QAM	25	25	22.66	22.71	22.66	23.5	2	
10	16QAM	50	0	22.69	22.80	22.70			
10	64QAM	1	0	22.74	22.84	22.71			
10	64QAM	1	25	22.61	22.76	22.70	22.5	3	
10	64QAM	1	49	22.59	22.69	22.62			
10	64QAM	25	0	21.79	21.89	21.79			
10	64QAM	25	12	21.65	21.76	21.69	20.5	5	
10	64QAM	25	25	21.71	21.82	21.72			
10	64QAM	50	0	21.68	21.81	21.73			
10	256QAM	1	0	19.62	19.65	19.58	20.5	5	
10	256QAM	1	25	19.42	19.56	19.47			
10	256QAM	1	49	19.42	19.52	19.41			
10	256QAM	25	0	19.54	19.60	19.52	20.5	5	
10	256QAM	25	12	19.44	19.54	19.39			
10	256QAM	25	25	19.36	19.47	19.33			
10	256QAM	50	0	19.45	19.52	19.37			
Channel				20425	20525	20625			
Frequency (MHz)				828.5	838.5	848.5			
5	QPSK	1	0	24.73	24.77	24.64	25.5	0	
5	QPSK	1	12	24.61	24.66	24.57			
5	QPSK	1	24	24.61	24.54	24.54			
5	QPSK	12	0	23.57	23.67	23.56	24.5	1	
5	QPSK	12	7	23.58	23.64	23.55			
5	QPSK	12	13	23.54	23.43	23.58			
5	QPSK	25	0	23.46	23.58	23.55	24.5	1	
5	16QAM	1	0	23.64	23.80	23.67			
5	16QAM	1	12	23.62	23.73	23.60			
5	16QAM	1	24	23.62	23.63	23.58	23.5	2	
5	16QAM	12	0	22.67	22.82	22.65			
5	16QAM	12	7	22.63	22.63	22.60			
5	16QAM	12	13	22.54	22.82	22.57	23.5	2	
5	16QAM	25	0	22.63	22.69	22.60			
5	64QAM	1	0	22.68	22.74	22.63			
5	64QAM	1	12	22.51	22.64	22.58	22.5	3	
5	64QAM	1	24	22.47	22.59	22.50			
5	64QAM	12	0	21.67	21.77	21.71			
5	64QAM	12	7	21.58	21.62	21.60	20.5	5	
5	64QAM	12	13	21.86	21.88	21.81			
5	64QAM	25	0	21.60	21.75	21.61			
5	256QAM	1	0	19.45	19.56	19.44	20.5	5	
5	256QAM	1	12	19.34	19.49	19.38			
5	256QAM	1	24	19.33	19.44	19.29			
5	256QAM	12	0	19.46	19.45	19.41	20.5	5	
5	256QAM	12	7	19.33	19.45	19.33			
5	256QAM	12	13	19.27	19.40	19.20			
5	256QAM	25	0	19.32	19.41	19.28			
Channel				20415	20525	20635			
Frequency (MHz)				825.5	838.5	847.5			
3	QPSK	1	0	24.77	24.77	24.65	25.5	0	
3	QPSK	1	8	24.65	24.63	24.55			
3	QPSK	1	14	24.54	24.54	24.52			
3	QPSK	8	0	23.50	23.68	23.55	24.5	1	
3	QPSK	8	4	23.50	23.60	23.59			
3	QPSK	8	7	23.56	23.52	23.52			
3	QPSK	15	0	23.51	23.57	23.48	24.5	1	
3	16QAM	1	0	23.66	23.81	23.59			
3	16QAM	1	8	23.60	23.67	23.60			
3	16QAM	1	14	23.62	23.62	23.60	23.5	2	
3	16QAM	8	0	22.71	22.85	22.72			
3	16QAM	8	4	22.56	22.70	22.65			
3	16QAM	8	7	22.55	22.57	22.53	23.5	2	
3	16QAM	15	0	22.58	22.67	22.65			
3	64QAM	1	0	22.60	22.78	22.61			
3	64QAM	1	8	22.52	22.70	22.59	22.5	3	
3	64QAM	1	14	22.45	22.63	22.50			
3	64QAM	8	0	21.68	21.80	21.67			
3	64QAM	8	4	21.51	21.64	21.57	20.5	5	
3	64QAM	8	7	21.57	21.68	21.61			
3	64QAM	15	0	21.60	21.70	21.65			
3	256QAM	1	0	19.42	19.50	19.52	20.5	5	
3	256QAM	1	8	19.32	19.44	19.33			
3	256QAM	1	14	19.35	19.45	19.36			
3	256QAM	8	0	19.47	19.51	19.44	20.5	5	
3	256QAM	8	4	19.39	19.47	19.33			
3	256QAM	8	7	19.27	19.38	19.23			
3	256QAM	15	0	19.34	19.41	19.24			
Channel				20407	20525	20643			
Frequency (MHz)				824.7	838.5	848.3			
1.4	QPSK	1	0	24.74	24.78	24.64	25.5	0	
1.4	QPSK	1	3	24.63	24.67	24.54			
1.4	QPSK	1	5	24.61	24.55	24.50			
1.4	QPSK	3	0	23.56	23.68	23.59	24.5	1	
1.4	QPSK	3	1	23.51	23.57	23.52			
1.4	QPSK	3	3	23.55	23.51	23.59			
1.4	QPSK	6	0	23.46	23.62	23.49	24.5	1	
1.4	16QAM	1	0	23.81	23.79	23.58			
1.4	16QAM	1	3	23.66	23.69	23.62			
1.4	16QAM	1	5	23.60	23.65	23.56	24.5	1	
1.4	16QAM	3	0	23.59	23.75	23.64			
1.4	16QAM	3	1	23.64	23.67	23.63			
1.4	16QAM	3	3	23.55	23.63	23.52	23.5	2	
1.4	16QAM	6	0	22.74	22.81	22.69			
1.4	64QAM	1	0	22.63	22.69	22.66			
1.4	64QAM	1	3	22.57	22.58	22.53	23.5	2	
1.4	64QAM	1	5	22.56	22.71	22.56			
1.4	64QAM	3	0	22.64	22.77	22.63			
1.4	64QAM	3	1	22.49	22.66	22.59	22.5	3	
1.4	64QAM	3	3	22.49	22.61	22.48			
1.4	64QAM	6	0	21.70	21.76	21.64			
1.4	256QAM	1	0	19.47	19.55	19.51	20.5	5	
1.4	256QAM	1	3	19.34	19.42	19.38			
1.4	256QAM	1	5	19.30	19.42	19.30			
1.4	256QAM	3	0	19.40	19.49	19.38	20.5	5	
1.4	256QAM	3	1	19.32	19.41	19.27			
1.4	256QAM	3	3	19.22	19.32	19.19			
1.4	256QAM	6	0	19.31	19.42	19.32			



Band 4 Other PA Ant1 DS10										
BW (MHz)	Modulation	RB Size	RB Offset	Power Max Ch./Freq.	Power Min Ch./Freq.	Power High Ch./Freq.	Time-up (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	16.01	15.98	15.99				
20	QPSK	1	49	15.87	15.87	15.82	17	0		
20	QPSK	1	99	15.87	15.87	15.82				
20	QPSK	50	0	15.94	15.91	15.84				
20	QPSK	50	24	15.87	15.86	15.85				
20	QPSK	50	50	15.86	15.81	15.89				
20	QPSK	100	0	15.89	15.96	15.92				
20	HQAM	1	0	15.84	15.74	15.79				
20	HQAM	1	49	15.81	15.71	15.84	17	0		
20	HQAM	1	99	15.85	15.87	15.83				
20	HQAM	50	0	15.77	15.81	15.87				
20	HQAM	50	24	15.89	15.87	15.87				
20	HQAM	50	50	15.91	15.78	15.80				
20	HQAM	100	0	15.86	15.87	15.80				
20	HQAM	1	0	15.86	15.86	15.86				
20	HQAM	1	49	15.78	15.89	15.99	17	0		
20	HQAM	1	99	15.86	15.82	15.78				
20	HQAM	50	0	15.75	15.84	15.89				
20	HQAM	50	24	15.75	15.88	15.85				
20	HQAM	50	50	15.85	15.72	15.89				
20	HQAM	100	0	15.85	15.77	15.74				
20	HQAM	1	49	15.89	15.75	15.73	17	0		
20	HQAM	1	99	15.80	15.86	15.85				
20	HQAM	50	0	15.82	15.85	15.80				
20	HQAM	50	24	15.79	15.75	15.88				
20	HQAM	50	50	15.70	15.87	15.87	17	0		
20	HQAM	100	0	15.84	15.84	15.86				
Channel										
Frequency (MHz)										
15	QPSK	1	0	15.83	15.89	15.96				
15	QPSK	1	49	15.84	15.96	15.81	17	0		
15	QPSK	1	99	15.74	15.88	15.85				
15	QPSK	36	0	15.81	15.89	15.78				
15	QPSK	36	24	15.72	15.82	15.47				
15	QPSK	36	36	15.47	15.84	15.53	17	0		
15	HQAM	1	0	15.86	15.87	15.86				
15	HQAM	1	37	15.81	15.83	15.45	17	0		
15	HQAM	1	74	15.75	15.77	15.74				
15	HQAM	36	0	15.74	15.75	15.58				
15	HQAM	36	20	15.52	15.79	15.77	17	0		
15	HQAM	36	36	15.76	15.64	15.80				
15	HQAM	75	0	15.73	15.78	15.83				
15	HQAM	1	0	15.82	15.73	15.86				
15	HQAM	1	37	15.82	15.85	15.81	17	0		
15	HQAM	1	74	15.80	15.53	15.68				
15	HQAM	36	0	15.82	15.47	15.74				
15	HQAM	36	20	15.76	15.64	15.84				
15	HQAM	36	36	15.83	15.85	15.70	17	0		
15	HQAM	75	0	15.86	15.81	15.74				
15	HQAM	1	0	15.83	15.84	15.84				
15	HQAM	1	37	15.48	15.71	15.79	17	0		
15	HQAM	1	74	15.46	15.78	15.52				
15	HQAM	36	0	15.82	15.84	15.81				
15	HQAM	36	20	15.56	15.57	15.56				
15	HQAM	36	36	15.65	15.74	15.83	17	0		
15	HQAM	75	0	15.77	15.88	15.88				
Channel										
Frequency (MHz)										
20	QPSK	1	0	15.81	15.87	15.87				
20	QPSK	1	25	15.82	15.88	15.84	17	0		
20	QPSK	1	49	15.70	15.80	15.84				
20	QPSK	1	74	15.86	15.87	15.78				
20	QPSK	25	12	15.87	15.52	15.48				
20	QPSK	25	25	15.54	15.85	15.42	17	0		
20	HQAM	1	0	15.80	15.76	15.81				
20	HQAM	1	25	15.81	15.86	15.52	17	0		
20	HQAM	1	49	15.80	15.87	15.48				
20	HQAM	1	74	15.84	15.83	15.78				
20	HQAM	25	0	15.89	15.82	15.53				
20	HQAM	25	12	15.86	15.84	15.83	17	0		
20	HQAM	25	25	15.81	15.80	15.82				
20	HQAM	50	0	15.85	15.85	15.73				
20	HQAM	1	0	15.85	15.77	15.89	17	0		
20	HQAM	1	25	15.75	15.71	15.47				
20	HQAM	1	49	15.79	15.58	15.58				
20	HQAM	25	0	15.81	15.41	15.75				
20	HQAM	25	12	15.75	15.71	15.47				
20	HQAM	25	25	15.84	15.88	15.84	17	0		
20	HQAM	50	0	15.84	15.88	15.84				
20	HQAM	50	12	15.78	15.83	15.84				
20	HQAM	50	25	15.82	15.80	15.84				
20	HQAM	100	0	15.82	15.80	15.84				
20	HQAM	1	0	15.81	15.81	15.81				
20	HQAM	1	25	15.82	15.81	15.81	17	0		
20	HQAM	1	49	15.81	15.81	15.81				
20	HQAM	1	74	15.81	15.81	15.81				
20	HQAM	25	0	15.82	15.82	15.82				
20	HQAM	25	12	15.82	15.82	15.82				
20	HQAM	25	25	15.82	15.82	15.82	17	0		
20	HQAM	50	0	15.82	15.82	15.82				
20	HQAM	50	12	15.82	15.82	15.82				
20	HQAM	50	25	15.82	15.82	15.82	17	0		
20	HQAM	100	0	15.82	15.82	15.82				
Channel										
Frequency (MHz)										
15	QPSK	1	0	15.83	15.89	15.96				
15	QPSK	1	12	15.83	15.71	15.69	17	0		
15	QPSK	1	24	15.85	15.80	15.72				
15	QPSK	12	0	15.82	15.81	15.81				
15	QPSK	12	12	15.71	15.52	15.51				
15	QPSK	12	13	15.43	15.52	15.47				
15	HQAM	1	0	15.76	15.83	15.78				
15	HQAM	1	0	15.72	15.69	15.64				
15	HQAM	1	12	15.84	15.87	15.59	17	0		
15	HQAM	1	14	15.53	15.44	15.64				
15	HQAM	12	0	15.89	15.73	15.66				
15	HQAM	12	7	15.65	15.84	15.88	17	0		
15	HQAM	12	13	15.89	15.66	15.52				
15	HQAM	25	0	15.87	15.81	15.72				
15	HQAM	1	0	15.84	15.80	15.77	17	0		
15	HQAM	1	12	15.88	15.96	15.89				
15	HQAM	1	24	15.86	15.84	15.74				
15	HQAM	12	0	15.73	15.39	15.77				
15	HQAM	12	7	15.77	15.56	15.46				
15	HQAM	12	13	15.83	15.83	15.82	17	0		
15	HQAM	25	0	15.71	15.80	15.80				
15	HQAM	1	0	15.72	15.88	15.81				
15	HQAM	1	12	15.41	15.84	15.81	17	0		
15	HQAM	1	24	15.59	15.90	15.59				
15	HQAM	12	0	15.83	15.80	15.80				
15	HQAM	12	7	15.41	15.46	15.70	17	0		
15	HQAM	12	13	15.82	15.76	15.88				
15	HQAM	25	0	15.78	15.83	15.51				
Channel										
Frequency (MHz)										
15	QPSK	1	0	15.83	15.89	15.96				
15	QPSK	1	14	15.84	15.87	15.72	17	0		
15	QPSK	8	4	15.83	15.99	15.78				
15	QPSK	8	4	15.84	15.81	15.80				
15	QPSK	8	7	15.78	15.70	15.74	17	0		
15	QPSK	8	7	15.85	15.90	15.84				
15	HQAM	1	0	15.70	15.88	15.89				
15	HQAM	1	8	15.74	15.82	15.59	17	0		
15	HQAM	1	14	15.83	15.49	15.77				
15	HQAM	8	0	15.70	15.73	15.49				
15	HQAM	8	4	15.88	15.83	15.86	17	0		
15	HQAM	16	0	15.87	15.76	15.83				
15	HQAM	16	0							



Band 4 Other PA Ant2

SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up (dB)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	23.68	23.85	23.77	24.5	0
20	QPSK	1	49	23.67	23.73	23.81		
20	QPSK	1	99	23.65	23.76	23.68		
20	QPSK	50	0	22.69	22.82	22.70	23.5	1
20	QPSK	50	24	22.67	22.81	22.69		
20	QPSK	50	50	22.71	22.79	22.74		
20	QPSK	100	0	22.64	22.76	22.68		
20	16QAM	1	0	22.69	22.75	22.67	23.5	1
20	16QAM	1	49	22.54	22.69	22.62		
20	16QAM	1	99	22.57	22.65	22.58		
20	16QAM	50	0	21.64	21.71	21.59	22.5	2
20	16QAM	50	24	21.43	21.57	21.49		
20	16QAM	50	55	21.37	21.51	21.46		
20	16QAM	100	0	21.55	21.64	21.54		
20	64QAM	1	0	21.55	21.69	21.58	22.5	2
20	64QAM	1	49	21.48	21.61	21.49		
20	64QAM	1	99	21.48	21.54	21.42		
20	64QAM	50	0	20.52	20.62	20.50	21.5	3
20	64QAM	50	24	20.38	20.49	20.38		
20	64QAM	50	50	20.45	20.55	20.40		
20	64QAM	100	0	20.52	20.58	20.51		
20	256QAM	1	0	18.48	18.58	18.50	19.5	5
20	256QAM	1	49	18.43	18.49	18.40		
20	256QAM	1	99	18.37	18.45	18.39		
20	256QAM	50	0	18.43	18.50	18.43		
20	256QAM	50	24	18.36	18.44	18.36	19.5	5
20	256QAM	50	50	18.28	18.37	18.28		
20	256QAM	100	0	18.32	18.44	18.36		
Channel								
Frequency (MHz)								
15	QPSK	1	0	23.62	23.77	23.68	24.5	0
15	QPSK	1	37	23.54	23.68	23.56		
15	QPSK	1	74	23.59	23.62	23.57		
15	QPSK	36	8	22.60	22.70	22.65	23.5	1
15	QPSK	36	20	22.59	22.73	22.57		
15	QPSK	36	39	22.62	22.71	22.67		
15	QPSK	75	0	22.54	22.72	22.57		
15	16QAM	1	0	22.62	22.67	22.58	23.5	1
15	16QAM	1	37	22.43	22.59	22.55		
15	16QAM	1	74	22.44	22.53	22.46		
15	16QAM	36	0	21.58	21.65	21.53	22.5	2
15	16QAM	36	20	21.35	21.50	21.39		
15	16QAM	36	39	21.26	21.37	21.23		
15	16QAM	75	0	21.48	21.58	21.43		
15	64QAM	1	0	21.41	21.55	21.42	22.5	2
15	64QAM	1	37	21.39	21.50	21.35		
15	64QAM	1	74	21.40	21.48	21.34		
15	64QAM	36	0	20.40	20.53	20.36	21.5	3
15	64QAM	36	20	20.29	20.36	20.22		
15	64QAM	36	39	20.37	20.50	20.41		
15	64QAM	75	0	20.37	20.49	20.40		
15	256QAM	1	0	18.42	18.44	18.44	19.5	5
15	256QAM	1	37	18.34	18.38	18.27		
15	256QAM	1	74	18.26	18.38	18.31		
15	256QAM	36	0	18.28	18.37	18.30		
15	256QAM	36	20	18.24	18.37	18.30	19.5	5
15	256QAM	36	39	18.20	18.28	18.15		
15	256QAM	75	0	18.22	18.37	18.22		
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.58	23.76	23.65	24.5	0
10	QPSK	1	25	23.55	23.59	23.53		
10	QPSK	1	49	23.54	23.71	23.55		
10	QPSK	25	0	22.60	22.70	22.60	23.5	1
10	QPSK	25	12	22.55	22.73	22.61		
10	QPSK	25	25	22.63	22.72	22.64		
10	QPSK	50	0	22.58	22.67	22.55		
10	16QAM	1	0	22.61	22.61	22.58	23.5	1
10	16QAM	1	25	22.44	22.63	22.54		
10	16QAM	1	49	22.48	22.55	22.46		
10	16QAM	25	0	21.49	21.59	21.51	22.5	2
10	16QAM	25	12	21.31	21.49	21.42		
10	16QAM	25	25	21.29	21.43	21.33		
10	16QAM	50	0	21.45	21.52	21.46		
10	64QAM	1	0	21.42	21.58	21.50	22.5	2
10	64QAM	1	25	21.35	21.50	21.35		
10	64QAM	1	49	21.36	21.40	21.35		
10	64QAM	25	0	20.39	20.53	20.43	21.5	3
10	64QAM	25	12	20.29	20.43	20.21		
10	64QAM	25	25	20.38	20.47	20.41		
10	64QAM	50	0	20.43	20.43	20.36		
10	256QAM	1	0	18.39	18.48	18.44	19.5	5
10	256QAM	1	25	18.30	18.39	18.30		
10	256QAM	1	49	18.26	18.37	18.32		
10	256QAM	25	0	18.38	18.42	18.31		
10	256QAM	25	12	18.23	18.32	18.23	19.5	5
10	256QAM	25	25	18.18	18.23	18.21		
10	256QAM	50	0	18.20	18.31	18.23		
Channel								
Frequency (MHz)								
5	QPSK	1	0	23.52	23.78	23.63	24.5	0
5	QPSK	1	12	23.58	23.66	23.46		
5	QPSK	1	24	23.55	23.62	23.52		
5	QPSK	12	0	22.62	22.70	22.63	23.5	1
5	QPSK	12	7	22.62	22.74	22.60		
5	QPSK	12	13	22.66	22.75	22.61		
5	QPSK	25	0	22.53	22.65	22.53		
5	16QAM	1	0	22.63	22.65	22.58	23.5	1
5	16QAM	1	12	22.47	22.56	22.60		
5	16QAM	1	24	22.43	22.59	22.47		
5	16QAM	12	0	21.49	21.56	21.48	22.5	2
5	16QAM	12	7	21.29	21.48	21.39		
5	16QAM	12	13	21.24	21.46	21.37		
5	16QAM	25	0	21.43	21.58	21.41		
5	64QAM	1	0	21.46	21.58	21.42	22.5	2
5	64QAM	1	12	21.39	21.50	21.35		
5	64QAM	1	24	21.35	21.48	21.31		
5	64QAM	12	0	20.39	20.49	20.37	21.5	3
5	64QAM	12	7	20.33	20.42	20.32		
5	64QAM	12	13	20.37	20.42	20.39		
5	64QAM	25	0	20.46	20.47	20.42		
5	256QAM	1	0	18.38	18.44	18.36	19.5	5
5	256QAM	1	12	18.34	18.37	18.33		
5	256QAM	1	24	18.26	18.38	18.31		
5	256QAM	12	0	18.38	18.40	18.31		
5	256QAM	12	7	18.29	18.29	18.28	19.5	5
5	256QAM	12	13	18.19	18.23	18.22		
5	256QAM	25	0	18.18	18.36	18.24		
Channel								
Frequency (MHz)								
3	QPSK	1	0	23.54	23.72	23.66	24.5	0
3	QPSK	1	8	23.57	23.66	23.50		
3	QPSK	1	14	23.54	23.70	23.59		
3	QPSK	8	0	22.68	22.66	22.61	23.5	1
3	QPSK	8	4	22.53	22.72	22.64		
3	QPSK	8	7	22.65	22.76	22.66		
3	QPSK	15	0	22.51	22.66	22.54		
3	16QAM	1	0	22.59	22.65	22.60	23.5	1
3	16QAM	1	8	22.40	22.60	22.44		
3	16QAM	1	14	22.43	22.54	22.47		
3	16QAM	8	0	21.67	21.62	21.50	22.5	2
3	16QAM	8	4	21.38	21.46	21.44		
3	16QAM	8	7	21.24	21.36	21.37		
3	16QAM	15	0	21.41	21.58	21.45		
3	64QAM	1	0	21.43	21.61	21.51	22.5	2
3	64QAM	1	8	21.42	21.54	21.34		
3	64QAM	1	14	21.34	21.48	21.30		
3	64QAM	8	0	20.45	20.47	20.39	21.5	3
3	64QAM	8	4	20.28	20.36	20.23		
3	64QAM	8	7	20.34	20.41	20.36		
3	64QAM	15	0	20.44	20.49	20.40		
3	256QAM	1	0	18.40	18.47	18.40	19.5	5
3	256QAM	1	8	18.36	18.35	18.33		
3	256QAM	1	14	18.28	18.38	18.28		
3	256QAM	8	0	18.29	18.41	18.30		
3	256QAM	8	4	18.26	18.31	18.28	19.5	5
3	256QAM	8	7	18.14	18.26	18.17		
3	256QAM	15	0	18.26	18.33	18.21		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	23.61	23.75	23.71	24.5	0
1.4	QPSK	1	3	23.59	23.65	23.54		
1.4	QPSK	1	5	23.60	23.62	23.58		
1.4	QPSK	3	0	23.62	23.70	23.62	23.5	1
1.4	QPSK	3	1	23.59	23.68	23.55		
1.4	QPSK	3	3	23.67	23.62	23.55		
1.4	QPSK	6	0	22.58	22.73	22.57		
1.4	16QAM	1	0	22.63	22.71	22.56	23.5	1
1.4	16QAM	1	3	22.60	22.70	22.61		
1.4	16QAM	1	5	22.56	22.67	22.56		
1.4	16QAM	3	0	22.57	22.62	22.58		
1.4	16QAM	3	1	22.44	22.58	22.51	22.5	2
1.4	16QAM	3	3	22.52	22.57	22.51		
1.4	16QAM	6	0	21.50	21.66	21.45	22.5	2
1.4	64QAM	1	0	21.28	21.43	21.45		
1.4	64QAM	1	3	21.28	21.38	21.30		
1.4	64QAM	1	5	21.44	21.57	21.46	22.5	2
1.4	64QAM	3	0	21.44	21.60	21.46		
1.4	64QAM	3	1	21.39	21.51	21.36		
1.4	64QAM	3	3	21.39	21.39	21.33		
1.4	64QAM	6	0	20.41	20.48	20.36	21.5	3
1.4	256QAM	1	0	18.34	18.52	18.42	19.5	5
1.4	256QAM	1	3	18.34	18.34			



Band 4 Other PA Ant3 DSI0										Band 66 Other PA Ant3 DSI0									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MFR (dB)		BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power High Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MFR (dB)	
Channel										Channel									
Frequency (MHz)										Frequency (MHz)									
20	QPSK	1	0	19.12	19.20	19.13	20.5	0		20	QPSK	1	0	16.64	16.57	16.61	18	0	
20	QPSK	1	48	18.98	18.92	18.94	20.5	0		20	QPSK	1	48	16.52	16.51	16.51	18	0	
20	QPSK	1	96	18.93	18.92	18.95	20.5	0		20	QPSK	1	96	16.47	16.33	16.38	18	0	
20	QPSK	50	0	19.11	19.16	19.15	20.5	0		20	QPSK	50	0	16.48	16.56	16.55	18	0	
20	QPSK	50	24	18.93	18.93	18.93	20.5	0		20	QPSK	50	24	16.49	16.49	16.41	18	0	
20	QPSK	50	50	18.96	18.96	18.92	20.5	0		20	QPSK	50	50	16.42	16.18	16.37	18	0	
20	QPSK	100	0	19.14	19.16	19.11	20.5	0		20	QPSK	100	0	16.27	16.47	16.26	18	0	
20	16QAM	1	0	19.93	19.99	19.99	20.5	0		20	16QAM	1	0	16.34	16.17	16.29	18	0	
20	16QAM	1	48	18.95	18.72	18.69	20.5	0		20	16QAM	1	48	16.28	16.19	16.12	18	0	
20	16QAM	1	96	18.82	18.82	18.90	20.5	0		20	16QAM	1	96	16.12	16.11	16.22	18	0	
20	16QAM	50	0	19.94	19.92	19.98	20.5	0		20	16QAM	50	0	16.29	16.48	16.36	18	0	
20	16QAM	50	24	18.99	18.88	18.82	20.5	0		20	16QAM	50	24	16.49	16.34	16.31	18	0	
20	16QAM	50	50	18.92	18.92	18.98	20.5	0		20	16QAM	50	50	16.17	16.38	16.26	18	0	
20	16QAM	100	0	19.93	19.78	19.86	20.5	0		20	16QAM	100	0	16.28	16.68	16.30	18	0	
20	16QAM	1	0	18.94	18.89	18.98	20.5	0		20	16QAM	1	0	16.29	16.44	16.22	18	0	
20	16QAM	1	48	18.99	18.72	18.92	20.5	0		20	16QAM	1	48	16.40	16.30	16.21	18	0	
20	16QAM	1	96	18.93	18.95	18.95	20.5	0		20	16QAM	1	96	16.31	16.26	16.27	18	0	
20	16QAM	50	24	18.87	18.73	18.83	20.5	0		20	16QAM	50	24	16.25	16.17	16.22	18	0	
20	16QAM	50	50	18.93	18.78	18.84	20.5	0		20	16QAM	50	50	16.28	16.36	16.22	18	0	
20	16QAM	100	0	18.94	18.88	18.88	20.5	0		20	16QAM	100	0	16.15	16.39	16.22	18	0	
20	16QAM	1	0	18.92	18.82	18.88	20.5	0		20	16QAM	1	0	16.30	16.37	16.37	18	0	
20	16QAM	1	48	18.96	18.99	18.95	20.5	0		20	16QAM	1	48	16.22	16.30	16.13	18	0	
20	16QAM	1	96	18.91	18.85	18.82	20.5	0		20	16QAM	1	96	16.23	16.24	16.31	18	0	
20	16QAM	50	24	18.93	18.95	18.93	20.5	0		20	16QAM	50	24	16.31	16.42	16.34	18	0	
20	16QAM	50	50	18.99	18.85	18.91	20.5	0		20	16QAM	50	50	16.31	16.31	16.27	18	0	
20	16QAM	100	0	19.93	19.88	19.83	20.5	0		20	16QAM	100	0	16.23	16.37	16.29	18	0	
Channel										Channel									
Frequency (MHz)										Frequency (MHz)									
15	QPSK	1	0	19.10	19.18	19.06	20.5	0		15	QPSK	1	0	16.30	16.52	16.38	18	0	
15	QPSK	1	37	18.84	18.92	18.92	20.5	0		15	QPSK	1	37	16.20	16.17	16.06	18	0	
15	QPSK	1	74	18.92	18.83	18.91	20.5	0		15	QPSK	1	74	16.22	16.31	16.26	18	0	
15	QPSK	36	0	18.94	18.99	19.10	20.5	0		15	QPSK	36	0	16.28	16.49	16.13	18	0	
15	QPSK	36	20	18.74	18.84	18.81	20.5	0		15	QPSK	36	20	16.26	16.39	16.24	18	0	
15	QPSK	36	36	18.79	18.84	19.02	20.5	0		15	QPSK	36	36	16.28	16.12	16.23	18	0	
15	QPSK	75	0	18.97	18.99	19.09	20.5	0		15	QPSK	75	0	16.18	16.30	16.27	18	0	
15	16QAM	1	0	19.87	19.89	19.78	20.5	0		15	16QAM	1	0	16.17	16.07	16.16	18	0	
15	16QAM	1	37	18.96	18.81	18.77	20.5	0		15	16QAM	1	37	16.14	16.13	16.11	18	0	
15	16QAM	1	74	18.74	18.74	18.77	20.5	0		15	16QAM	1	74	16.32	16.32	16.30	18	0	
15	16QAM	36	0	18.94	18.74	18.82	20.5	0		15	16QAM	36	0	16.25	16.35	16.29	18	0	
15	16QAM	36	20	18.97	18.83	18.83	20.5	0		15	16QAM	36	20	16.28	16.23	16.29	18	0	
15	16QAM	36	36	18.95	18.87	18.92	20.5	0		15	16QAM	36	36	16.27	16.27	16.23	18	0	
15	16QAM	75	0	18.94	18.85	18.99	20.5	0		15	16QAM	75	0	16.14	16.39	16.17	18	0	
15	16QAM	1	0	18.98	18.70	18.87	20.5	0		15	16QAM	1	0	16.19	16.39	16.23	18	0	
15	16QAM	1	37	18.93	18.85	18.93	20.5	0		15	16QAM	1	37	16.17	16.22	16.21	18	0	
15	16QAM	1	74	18.95	18.91	18.91	20.5	0		15	16QAM	1	74	16.04	16.11	16.13	18	0	
15	16QAM	36	0	18.83	18.81	18.85	20.5	0		15	16QAM	36	0	16.25	16.30	16.19	18	0	
15	16QAM	36	20	18.95	18.86	18.96	20.5	0		15	16QAM	36	20	16.28	16.11	16.19	18	0	
15	16QAM	36	36	18.96	18.89	18.98	20.5	0		15	16QAM	36	36	16.02	16.25	16.08	18	0	
15	16QAM	75	0	18.70	18.77	18.86	20.5	0		15	16QAM	75	0	16.11	16.27	16.09	18	0	
15	16QAM	1	0	18.95	18.86	18.95	20.5	0		15	16QAM	1	0	16.03	16.36	16.22	18	0	
15	16QAM	1	37	18.93	18.99	18.98	20.5	0		15	16QAM	1	37	16.17	16.16	16.14	18	0	
15	16QAM	1	74	18.92	18.92	18.98	20.5	0		15	16QAM	1	74	16.08	16.17	16.24	18	0	
15	16QAM	36	0	18.91	18.84	18.93	20.5	0		15	16QAM	36	0	16.03	16.44	16.21	18	0	
15	16QAM	36	20	18.94	18.87	18.92	20.5	0		15	16QAM	36	20	16.21	16.43	16.18	18	0	
15	16QAM	36	36	18.92	18.89	18.93	20.5	0		15	16QAM	36	36	16.37	16.05	16.28	18	0	
15	16QAM	75	0	18.97	18.92	18.92	20.5	0		15	16QAM	75	0	16.10	16.28	16.21	18	0	
Channel										Channel									
Frequency (MHz)										Frequency (MHz)									
10	QPSK	1	0	18.98	19.07	19.03	20.5	0		10	QPSK	1	0	16.48	16.44	16.46	18	0	
10	QPSK	1	25	18.93	19.01	19.18	20.5	0		10	QPSK	1	25	16.24	16.19	16.01	18	0	
10	QPSK	1	49	18.82	18.78	19.01	20.5	0		10	QPSK	1	49	16.21	16.31	16.29	18	0	
10	QPSK	25	0	18.97	18.99	19.09	20.5	0		10	QPSK	25	0	16.41	16.41	16.21	18	0	
10	QPSK	25	12	18.91	19.06	19.09	20.5	0		10	QPSK	25	12	16.36	16.33	16.18	18	0	
10	QPSK	25	25	18.84	18.84	18.87	20.5	0		10	QPSK	25	25	16.27	16.15	16.37	18	0	
10	QPSK	50	0	19.93	19.89	19.99	20.5	0		10	QPSK	50	0	16.23	16.40	16.29	18	0	
10	16QAM	1	0	19.82	19.73	19.84	20.5	0		10	16QAM	1	0	16.33	16.11	16.06	18	0	
10	16QAM	1	25	18.87	18.71	18.54	20.5	0		10	16QAM	1	25	16.21	16.11	16.08	18	0	
10	16QAM	1	49	18.90	18.63	18.74	20.5	0		10	16QAM	1	49	16.08	16.02	16.06	18	0	
10	16QAM	25	0	18.90	18.74	18.85	20.5	0		10	16QAM	25	0	16.31	16.45	16.30	18	0	
10	16QAM	25	12	18.98	18.78	18.60	20.5	0		10	16QAM	25	12	16.2					



Band 4 Other PA Ant4

SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up Int. (dBm)	MFR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	23.07	23.27	23.21	24.5	0
20	QPSK	1	49	22.91	23.15	23.12	24.5	0
20	QPSK	1	99	23.03	23.22	23.20	24.5	0
20	QPSK	50	0	21.98	22.27	22.14	23.5	1
20	QPSK	50	24	22.00	22.18	22.14	23.5	1
20	QPSK	50	50	22.05	22.23	22.24	23.5	1
20	QPSK	100	0	22.00	22.19	22.10	23.5	1
20	16QAM	1	0	22.03	22.21	22.11	23.5	1
20	16QAM	1	49	22.14	22.31	22.27	23.5	1
20	16QAM	1	99	22.09	22.27	22.25	23.5	1
20	16QAM	50	0	21.05	21.25	21.22	22.5	2
20	16QAM	50	24	21.08	21.26	21.20	22.5	2
20	16QAM	50	50	21.04	21.21	21.14	22.5	2
20	16QAM	100	0	20.99	21.23	21.15	22.5	2
20	84QAM	1	0	20.93	21.13	21.11	22.5	2
20	84QAM	1	49	21.00	21.24	21.14	22.5	2
20	84QAM	1	99	21.00	21.23	21.17	22.5	2
20	84QAM	50	0	20.93	20.22	20.17	21.5	3
20	84QAM	50	24	20.98	20.25	20.20	21.5	3
20	84QAM	50	50	20.95	20.23	20.18	21.5	3
20	84QAM	100	0	20.91	20.20	20.16	21.5	3
20	256QAM	1	0	17.81	18.02	17.98	19.5	5
20	256QAM	1	49	17.87	18.11	18.07	19.5	5
20	256QAM	1	99	17.83	18.04	17.97	19.5	5
20	256QAM	50	0	18.06	18.26	18.18	19.5	5
20	256QAM	50	24	17.93	18.16	18.15	19.5	5
20	256QAM	50	50	17.94	18.17	18.14	19.5	5
20	256QAM	100	0	18.00	18.19	18.13	19.5	5
Channel								
Frequency (MHz)								
15	QPSK	1	0	22.83	23.12	23.14	24.5	0
15	QPSK	1	37	22.80	23.03	23.04	24.5	0
15	QPSK	1	74	22.90	23.11	23.12	24.5	0
15	QPSK	36	0	21.80	22.14	22.04	23.5	1
15	QPSK	36	20	21.89	22.12	22.05	23.5	1
15	QPSK	36	39	22.00	22.16	22.10	23.5	1
15	QPSK	75	0	21.88	22.14	22.09	23.5	1
15	16QAM	1	0	21.97	22.15	22.01	23.5	1
15	16QAM	1	37	22.02	22.17	22.14	23.5	1
15	16QAM	1	74	21.94	22.17	22.05	23.5	1
15	16QAM	36	0	20.97	21.14	21.11	22.5	2
15	16QAM	36	20	21.01	21.12	21.06	22.5	2
15	16QAM	36	39	20.90	21.08	21.03	22.5	2
15	16QAM	75	0	20.92	21.17	21.02	22.5	2
15	84QAM	1	0	20.82	21.02	21.05	22.5	2
15	84QAM	1	37	20.93	21.15	21.08	22.5	2
15	84QAM	1	74	20.90	21.16	21.11	22.5	2
15	84QAM	36	0	19.94	20.09	20.09	21.5	3
15	84QAM	36	20	19.97	20.16	20.05	21.5	3
15	84QAM	36	39	19.98	20.08	20.03	21.5	3
15	84QAM	75	0	19.92	20.07	20.06	21.5	3
15	256QAM	1	0	17.68	17.90	17.83	19.5	5
15	256QAM	1	37	17.74	18.04	17.97	19.5	5
15	256QAM	1	74	17.76	17.92	17.90	19.5	5
15	256QAM	36	0	17.97	18.11	18.02	19.5	5
15	256QAM	36	20	17.82	18.03	18.01	19.5	5
15	256QAM	36	39	17.89	18.11	18.02	19.5	5
15	256QAM	75	0	17.90	18.08	18.02	19.5	5
Channel								
Frequency (MHz)								
10	QPSK	1	0	23.02	23.15	23.11	24.5	0
10	QPSK	1	25	22.78	23.03	23.01	24.5	0
10	QPSK	1	49	22.98	23.08	23.12	24.5	0
10	QPSK	25	0	21.84	22.17	22.03	23.5	1
10	QPSK	25	12	21.94	22.06	22.05	23.5	1
10	QPSK	25	25	21.98	22.20	22.12	23.5	1
10	QPSK	50	0	21.85	22.04	21.98	23.5	1
10	16QAM	1	0	21.98	22.08	22.02	23.5	1
10	16QAM	1	25	22.00	22.20	22.13	23.5	1
10	16QAM	1	49	22.04	22.21	22.18	23.5	1
10	16QAM	25	0	20.95	21.19	21.15	22.5	2
10	16QAM	25	12	20.99	21.21	21.07	22.5	2
10	16QAM	25	25	20.97	21.11	21.01	22.5	2
10	16QAM	50	0	20.91	21.15	21.08	22.5	2
10	84QAM	1	0	20.83	21.06	21.01	22.5	2
10	84QAM	1	25	20.91	21.18	21.04	22.5	2
10	84QAM	1	49	20.94	21.16	21.10	22.5	2
10	84QAM	25	0	19.90	20.07	20.10	21.5	3
10	84QAM	25	12	19.94	20.16	20.07	21.5	3
10	84QAM	25	25	19.92	20.15	20.07	21.5	3
10	84QAM	50	0	19.95	20.13	20.02	21.5	3
10	256QAM	1	0	17.67	17.92	17.86	19.5	5
10	256QAM	1	25	17.73	18.03	17.96	19.5	5
10	256QAM	1	49	17.72	17.90	17.85	19.5	5
10	256QAM	25	0	17.81	18.14	18.02	19.5	5
10	256QAM	25	12	17.88	18.08	18.00	19.5	5
10	256QAM	25	25	17.81	18.10	18.06	19.5	5
10	256QAM	50	0	17.81	18.09	18.05	19.5	5
Channel								
Frequency (MHz)								
5	QPSK	1	0	22.82	23.14	23.11	24.5	0
5	QPSK	1	12	22.83	23.06	23.03	24.5	0
5	QPSK	1	24	22.96	23.16	23.09	24.5	0
5	QPSK	12	0	21.83	22.17	22.05	23.5	1
5	QPSK	12	7	21.91	22.12	22.05	23.5	1
5	QPSK	12	13	21.98	22.15	22.12	23.5	1
5	QPSK	25	0	21.85	22.08	21.98	23.5	1
5	16QAM	1	0	21.93	22.07	21.97	23.5	1
5	16QAM	1	12	22.03	22.18	22.14	23.5	1
5	16QAM	1	24	21.99	22.15	22.11	23.5	1
5	16QAM	12	0	20.96	21.17	21.13	22.5	2
5	16QAM	12	7	20.96	21.16	21.08	22.5	2
5	16QAM	12	13	20.98	21.10	21.08	22.5	2
5	16QAM	25	0	20.90	21.13	21.07	22.5	2
5	84QAM	1	0	20.88	21.05	21.02	22.5	2
5	84QAM	1	12	20.98	21.09	21.07	22.5	2
5	84QAM	1	24	20.86	21.12	21.10	22.5	2
5	84QAM	12	0	19.96	20.14	20.03	21.5	3
5	84QAM	12	7	19.98	20.11	20.06	21.5	3
5	84QAM	12	13	19.92	20.13	20.07	21.5	3
5	84QAM	25	0	19.90	20.12	20.10	21.5	3
5	256QAM	1	0	17.72	17.94	17.83	19.5	5
5	256QAM	1	12	17.81	18.04	17.95	19.5	5
5	256QAM	1	24	17.69	17.93	17.94	19.5	5
5	256QAM	12	0	17.99	18.14	18.01	19.5	5
5	256QAM	12	7	17.80	18.08	18.07	19.5	5
5	256QAM	12	13	17.80	18.07	18.05	19.5	5
5	256QAM	25	0	17.85	18.07	18.00	19.5	5
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	23.01	23.15	23.15	24.5	0
1.4	QPSK	1	3	22.82	23.03	23.02	24.5	0
1.4	QPSK	1	5	22.93	23.16	23.14	24.5	0
1.4	QPSK	3	0	22.86	23.17	23.03	24.5	0
1.4	QPSK	3	1	22.85	23.05	23.06	24.5	0
1.4	QPSK	3	3	22.90	23.17	23.14	24.5	0
1.4	QPSK	6	0	21.95	22.05	21.97	23.5	1
1.4	16QAM	1	0	21.90	22.13	22.00	23.5	1
1.4	16QAM	1	3	22.05	22.24	22.21	23.5	1
1.4	16QAM	1	5	21.97	22.20	22.15	23.5	1
1.4	16QAM	3	0	21.89	22.09	21.97	23.5	1
1.4	16QAM	3	1	22.08	22.22	22.21	23.5	1
1.4	16QAM	3	3	21.94	22.20	22.13	23.5	1
1.4	16QAM	6	0	20.87	21.10	21.06	22.5	2
1.4	84QAM	1	0	21.01	21.14	21.12	22.5	2
1.4	84QAM	1	3	20.98	21.11	21.05	22.5	2
1.4	84QAM	1	5	20.94	21.17	21.01	22.5	2
1.4	84QAM	3	0	20.82	21.04	21.05	22.5	2
1.4	84QAM	3	1	20.92	21.18	21.07	22.5	2
1.4	84QAM	3	3	20.94	21.16	21.10	22.5	2
1.4	84QAM	6	0	19.93	20.11	20.06	21.5	3
1.4	256QAM	1	0	17.71	17.92	17.80	19.5	5
1.4	256QAM	1	3	17.73	18.02	17.92	19.5	5
1.4	256QAM	1	5	17.73	17.90	17.80	19.5	5
1.4	256QAM	3	0	17.96	18.21	18.02	19.5	5
1.4	256QAM	3	1	17.80	18.01	18.06	19.5	5
1.4	256QAM	3	3	17.85	18.03	18.01	19.5	5
1.4	256QAM	6	0	17.93	18.05	18.00	19.5	5



Band 12 Other PA Ant0

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Med. Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPE (dB)
Channel								
Frequency (MHz)								
704 707.5 711								
10	QPSK	1	0	24.50	24.56	24.44		
10	QPSK	25	0	24.37	24.44	24.40	25.5	0
10	QPSK	1	49	24.40	24.50	24.45		
10	QPSK	25	0	23.70	23.74	23.63		
10	QPSK	25	12	23.63	23.67	23.61	24.5	1
10	QPSK	25	25	23.49	23.84	23.58		
10	QPSK	50	0	23.65	23.69	23.55		
10	HQAM	1	0	23.67	23.62	23.56		
10	HQAM	1	25	23.59	23.85	23.62	24.5	1
10	HQAM	1	49	23.54	23.57	23.48		
10	HQAM	25	0	22.55	22.65	22.50		
10	HQAM	25	12	22.51	22.65	22.52	23.5	2
10	HQAM	25	25	22.44	22.51	22.44		
10	HQAM	50	0	22.44	22.51	22.41		
10	HQAM	1	0	22.54	22.66	22.54		
10	HQAM	1	25	22.40	22.58	22.54	23.5	2
10	HQAM	1	49	22.70	22.76	22.69		
10	HQAM	25	0	21.48	21.59	21.50		
10	HQAM	25	12	21.41	21.56	21.44	22.5	3
10	HQAM	25	25	21.60	21.75	21.65		
10	HQAM	50	0	21.50	22.04	21.50		
10	ZSSBAM	1	0	20.00	20.11	20.00		
10	ZSSBAM	1	25	19.81	19.92	19.88	20.5	5
10	ZSSBAM	1	49	20.05	20.17	20.05		
10	ZSSBAM	25	0	19.87	19.95	19.82		
10	ZSSBAM	25	12	19.80	19.84	19.70	20.5	5
10	ZSSBAM	25	25	19.60	19.72	19.67		
10	ZSSBAM	50	0	19.85	19.98	19.85		
Channel								
Frequency (MHz)								
701.5 707.5 713.5								
5	QPSK	1	0	24.42	24.45	24.36		
5	QPSK	1	12	24.34	24.34	24.37	25.5	0
5	QPSK	1	24	24.27	24.38	24.37		
5	QPSK	12	0	23.57	23.65	23.55		
5	QPSK	12	7	23.51	23.63	23.54	24.5	1
5	QPSK	12	13	23.39	23.55	23.50		
5	QPSK	25	0	23.44	23.56	23.49		
5	HQAM	1	0	23.38	23.53	23.46		
5	HQAM	1	12	23.47	23.61	23.58	24.5	1
5	HQAM	1	24	23.29	23.51	23.39		
5	HQAM	12	0	22.48	22.54	22.55		
5	HQAM	12	7	22.49	22.51	22.46	23.5	2
5	HQAM	12	13	22.31	22.48	22.41		
5	HQAM	25	0	22.74	22.85	22.73		
5	HQAM	1	0	22.45	22.92	22.41		
5	HQAM	1	12	22.69	22.85	22.48	23.5	2
5	HQAM	1	24	22.50	22.63	22.54		
5	HQAM	12	0	21.42	21.55	21.41		
5	HQAM	12	7	21.71	21.80	21.79		
5	HQAM	12	13	21.53	21.68	21.51	22.5	3
5	HQAM	25	0	21.85	21.97	21.77		
5	ZSSBAM	1	0	19.85	19.90	19.86		
5	ZSSBAM	1	12	19.70	19.81	19.75	20.5	5
5	ZSSBAM	1	24	19.97	20.14	19.91		
5	ZSSBAM	12	0	19.41	19.62	19.38		
5	ZSSBAM	12	7	19.65	19.74	19.57	20.5	5
5	ZSSBAM	12	13	19.45	19.59	19.61		
5	ZSSBAM	25	0	19.71	19.85	19.78		
Channel								
Frequency (MHz)								
700.5 707.5 714.5								
3	QPSK	1	0	24.40	24.52	24.41		
3	QPSK	1	8	24.34	24.34	24.34	25.5	0
3	QPSK	1	14	24.36	24.40	24.36		
3	QPSK	1	0	23.66	23.66	23.49		
3	QPSK	8	4	23.55	23.59	23.54	24.5	1
3	QPSK	8	7	23.39	23.52	23.53		
3	QPSK	8	0	23.60	23.62	23.48		
3	HQAM	1	0	23.38	23.49	23.49		
3	HQAM	1	8	23.47	23.53	23.55	24.5	1
3	HQAM	1	14	23.45	23.43	23.36		
3	HQAM	8	0	22.45	22.58	22.59		
3	HQAM	8	4	22.47	22.59	22.48	23.5	2
3	HQAM	8	7	22.39	22.40	22.40		
3	HQAM	16	0	22.77	22.77	22.79		
3	HQAM	1	0	22.44	22.67	22.41		
3	HQAM	1	8	22.25	22.38	22.39	23.5	2
3	HQAM	1	14	22.59	22.73	22.52		
3	HQAM	8	0	21.44	21.55	21.43		
3	HQAM	8	4	21.77	21.83	21.78	22.5	3
3	HQAM	8	7	21.49	21.61	21.52		
3	HQAM	16	0	21.79	22.00	21.83		
3	ZSSBAM	1	0	19.85	20.01	19.80		
3	ZSSBAM	1	8	19.67	19.80	19.77	20.5	5
3	ZSSBAM	1	14	19.96	20.04	19.92		
3	ZSSBAM	8	0	19.43	19.50	19.43		
3	ZSSBAM	8	4	19.72	19.70	19.59	20.5	5
3	ZSSBAM	8	7	19.48	19.59	19.53		
3	ZSSBAM	16	0	19.81	19.81	19.81		
Channel								
Frequency (MHz)								
699.7 707.5 715.3								
1.4	QPSK	1	0	24.41	24.49	24.33		
1.4	QPSK	1	3	24.34	24.38	24.25		
1.4	QPSK	1	5	24.35	24.41	24.38	25.5	0
1.4	QPSK	3	0	24.40	24.44	24.36		
1.4	QPSK	3	1	24.25	24.35	24.30		
1.4	QPSK	3	3	24.30	24.41	24.32	24.5	1
1.4	QPSK	3	0	23.58	23.69	23.54		
1.4	HQAM	1	0	23.51	23.54	23.53		
1.4	HQAM	1	3	23.39	23.52	23.52		
1.4	HQAM	1	5	23.46	23.59	23.47	24.5	1
1.4	HQAM	3	0	23.42	23.48	23.47		
1.4	HQAM	3	1	23.50	23.59	23.56		
1.4	HQAM	3	3	23.44	23.48	23.35		
1.4	HQAM	6	0	22.51	22.61	22.47	23.5	2
1.4	HQAM	1	0	22.40	22.54	22.44		
1.4	HQAM	1	3	22.40	22.43	22.36		
1.4	HQAM	1	5	22.45	22.50	22.42	23.5	2
1.4	HQAM	3	0	22.47	22.59	22.47		
1.4	HQAM	3	1	22.50	22.60	22.47		
1.4	HQAM	3	3	22.59	22.62	22.55		
1.4	HQAM	6	0	21.56	21.62	21.59	22.5	3
1.4	ZSSBAM	1	0	19.89	19.98	19.85		
1.4	ZSSBAM	1	3	19.69	19.89	19.74	20.5	5
1.4	ZSSBAM	1	5	19.91	20.03	19.93		
1.4	ZSSBAM	3	0	19.59	19.46	19.46		
1.4	ZSSBAM	3	1	19.70	19.73	19.57		
1.4	ZSSBAM	3	3	19.95	19.98	19.98	20.5	5



Band 17 other PA Ant0									
BW (MHz)	Modulation	RE Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (min)	MRP (dB)	
Channel									
				23.90	23.90	23.90			
Frequency (MHz)				700	710	711			
10	QPSK	1	0	24.43	24.51	24.46			
10	QPSK	1	25	24.31	24.40	24.38		25.5	0
10	QPSK	1	49	24.38	24.47	24.33			
10	QPSK	25	0	23.64	23.66	23.67			
10	QPSK	25	12	23.65	23.69	23.66			
10	QPSK	25	25	23.34	23.46	23.34		24.5	1
10	QPSK	50	0	23.48	23.50	23.49			
10	16QAM	1	0	23.46	23.50	23.42			
10	16QAM	1	25	23.29	23.42	23.32		24.5	1
10	16QAM	1	49	23.21	23.34	23.26			
10	16QAM	25	0	22.68	22.73	22.62			
10	16QAM	25	12	22.69	22.72	22.58			
10	16QAM	25	25	22.65	22.73	22.65			
10	16QAM	50	0	22.67	22.79	22.73			
10	64QAM	1	0	22.43	22.50	22.41			
10	64QAM	1	25	22.50	22.54	22.46		23.5	2
10	64QAM	1	49	22.36	22.32	22.21			
10	64QAM	25	0	21.69	21.66	21.59			
10	64QAM	25	12	21.68	21.77	21.66			
10	64QAM	25	25	21.60	21.68	21.49		22.5	3
10	64QAM	50	0	21.69	21.66	21.62			
10	256QAM	1	0	19.62	19.62	19.61			
10	256QAM	1	25	19.83	19.89	19.73		20.5	5
10	256QAM	1	49	19.69	19.70	19.68			
10	256QAM	25	0	19.17	19.58	19.45			
10	256QAM	25	12	19.52	19.60	19.58			
10	256QAM	25	25	19.60	19.54	19.43		20.5	5
10	256QAM	50	0	19.60	19.67	19.52			
Channel									
				23.95	23.95	23.95			
Frequency (MHz)				706.5	710	713.5			
5	QPSK	1	0	24.39	24.46	24.43			
5	QPSK	1	12	24.24	24.36	24.26		25.5	0
5	QPSK	1	24	24.35	24.36	24.22			
5	QPSK	12	0	23.69	23.61	23.49			
5	QPSK	12	7	23.60	23.47	23.39			
5	QPSK	12	13	23.28	23.42	23.26		24.5	1
5	QPSK	25	0	23.44	23.56	23.39			
5	16QAM	1	0	23.32	23.48	23.31			
5	16QAM	1	12	23.20	23.32	23.28		24.5	1
5	16QAM	1	24	23.07	23.29	23.22			
5	16QAM	12	0	22.64	22.61	22.51			
5	16QAM	12	7	22.68	22.59	22.54			
5	16QAM	12	13	22.68	22.59	22.51		23.5	2
5	16QAM	25	0	22.67	22.67	22.63			
5	64QAM	1	0	22.38	22.37	22.37			
5	64QAM	1	12	22.41	22.46	22.37		23.5	2
5	64QAM	1	24	22.22	22.27	22.15			
5	64QAM	12	0	21.44	21.58	21.53			
5	64QAM	12	7	21.60	21.70	21.64			
5	64QAM	12	13	21.37	21.51	21.38		22.5	3
5	64QAM	25	0	21.44	21.67	21.49			
5	256QAM	1	0	19.78	19.79	19.69			
5	256QAM	1	12	19.72	19.75	19.66		20.5	5
5	256QAM	1	24	19.48	19.59	19.53			
5	256QAM	12	0	19.37	19.48	19.33			
5	256QAM	12	7	19.39	19.47	19.43			
5	256QAM	12	13	19.44	19.48	19.33		20.5	5
5	256QAM	25	0	19.58	19.63	19.52			



Band 12 Other PA Ant1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Time-up limit (dB)	MPE (dB)
				Low Ch / Freq.	Mid Ch / Freq.	High Ch / Freq.		
Channel								
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	23.69	23.74	23.67	25.5	0
10	QPSK	1	25	23.69	23.66	23.67		
10	QPSK	1	49	23.67	23.61	23.62		
10	QPSK	25	0	22.66	22.76	22.67	24.5	1
10	QPSK	25	12	22.66	22.70	22.67		
10	QPSK	25	25	22.65	22.65	22.66		
10	QPSK	50	0	22.59	22.72	22.67		
10	16QAM	1	0	22.68	22.67	22.56	24.5	1
10	16QAM	1	25	22.53	22.61	22.58		
10	16QAM	1	49	22.54	22.57	22.51		
10	16QAM	25	0	21.73	21.81	21.71	23.5	2
10	16QAM	25	12	21.70	21.73	21.65		
10	16QAM	25	25	21.63	21.77	21.66		
10	16QAM	50	0	21.68	21.71	21.67		
10	64QAM	1	0	21.65	21.79	21.71	23.5	2
10	64QAM	1	25	21.59	21.72	21.66		
10	64QAM	1	49	21.65	21.69	21.64		
10	64QAM	25	0	20.90	20.95	20.88	22.5	3
10	64QAM	25	12	20.87	20.86	20.76		
10	64QAM	25	25	20.81	20.81	20.84		
10	64QAM	50	0	20.68	20.83	20.72		
10	256QAM	1	0	18.85	18.96	18.82	20.5	5
10	256QAM	1	25	18.83	18.93	18.88		
10	256QAM	1	49	18.85	18.88	18.74		
10	256QAM	25	0	18.73	18.87	18.84	20.5	5
10	256QAM	25	12	18.68	18.77	18.72		
10	256QAM	25	25	18.74	18.83	18.69		
10	256QAM	50	0	18.65	18.91	18.82		
Channel								
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	23.62	23.67	23.64	25.5	0
5	QPSK	1	12	23.67	23.68	23.64		
5	QPSK	1	24	23.67	23.56	23.62		
5	QPSK	12	0	22.55	22.67	22.64	24.5	1
5	QPSK	12	7	22.51	22.64	22.60		
5	QPSK	12	13	22.51	22.52	22.52		
5	QPSK	25	0	22.55	22.67	22.61	24.5	1
5	16QAM	1	0	22.57	22.58	22.48		
5	16QAM	1	12	22.51	22.55	22.59	23.5	2
5	16QAM	1	24	22.59	22.54	22.59		
5	16QAM	12	0	21.65	21.74	21.63		
5	16QAM	12	7	21.61	21.63	21.59	23.5	2
5	16QAM	12	13	21.63	21.66	21.59		
5	16QAM	25	0	21.53	21.68	21.51	23.5	2
5	64QAM	1	0	21.54	21.71	21.58		
5	64QAM	1	12	21.55	21.64	21.64		
5	64QAM	1	24	21.51	21.61	21.58	22.5	3
5	64QAM	12	0	20.77	20.90	20.83		
5	64QAM	12	7	20.69	20.79	20.68		
5	64QAM	12	13	20.67	20.85	20.72		
5	64QAM	25	0	20.58	20.80	20.60		
5	256QAM	1	0	18.71	18.96	18.73	20.5	5
5	256QAM	1	12	18.74	18.82	18.81		
5	256QAM	1	24	18.73	18.77	18.65		
5	256QAM	12	0	18.64	18.78	18.72	20.5	5
5	256QAM	12	7	18.59	18.67	18.63		
5	256QAM	12	13	18.62	18.74	18.55		
5	256QAM	25	0	18.73	18.96	18.71		
Channel								
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	23.64	23.63	23.66	25.5	0
3	QPSK	1	8	23.57	23.56	23.58		
3	QPSK	1	14	23.53	23.57	23.59		
3	QPSK	8	0	22.52	22.66	22.52	24.5	1
3	QPSK	8	4	22.58	22.57	22.51		
3	QPSK	8	7	22.56	22.54	22.58		
3	QPSK	16	0	22.60	22.58	22.61	24.5	1
3	16QAM	1	0	22.59	22.54	22.59		
3	16QAM	1	8	22.58	22.51	22.80	23.5	2
3	16QAM	1	14	22.63	22.58	22.61		
3	16QAM	8	0	21.59	21.75	21.65		
3	16QAM	8	4	21.58	21.67	21.61	23.5	2
3	16QAM	8	7	21.56	21.72	21.65		
3	16QAM	16	0	21.55	21.63	21.54		
3	64QAM	1	0	21.60	21.72	21.63	23.5	2
3	64QAM	1	8	21.56	21.64	21.60		
3	64QAM	1	14	21.59	21.64	21.57		
3	64QAM	8	0	20.79	20.86	20.79	22.5	3
3	64QAM	8	4	20.77	20.71	20.72		
3	64QAM	8	7	20.74	20.79	20.71		
3	64QAM	16	0	20.63	20.75	20.61		
3	256QAM	1	0	18.74	18.88	18.79	20.5	5
3	256QAM	1	8	18.76	18.78	18.79		
3	256QAM	1	14	18.79	18.84	18.61		
3	256QAM	8	0	18.70	18.82	18.72	20.5	5
3	256QAM	8	4	18.68	18.71	18.61		
3	256QAM	8	7	18.62	18.79	18.63		
3	256QAM	16	0	18.73	18.87	18.72		
Channel								
Frequency (MHz)				699.7	707.5	716.3		
1.4	QPSK	1	0	23.64	23.55	23.58	25.5	0
1.4	QPSK	1	3	23.52	23.51	23.55		
1.4	QPSK	1	5	23.58	23.70	23.65		
1.4	QPSK	3	0	23.55	23.63	23.59	24.5	1
1.4	QPSK	3	1	23.56	23.58	23.59		
1.4	QPSK	3	3	23.52	23.52	23.54		
1.4	QPSK	6	0	22.68	22.72	22.61	24.5	1
1.4	16QAM	1	0	22.62	22.68	22.59		
1.4	16QAM	1	3	22.64	22.51	22.57	24.5	1
1.4	16QAM	1	5	22.64	22.60	22.53		
1.4	16QAM	3	0	22.84	22.57	22.61		
1.4	16QAM	3	1	22.61	22.57	22.60	23.5	2
1.4	16QAM	3	3	22.68	22.52	22.56		
1.4	16QAM	6	0	21.66	21.75	21.68	23.5	2
1.4	64QAM	1	0	21.59	21.59	21.62		
1.4	64QAM	1	3	21.59	21.67	21.52	23.5	2
1.4	64QAM	1	5	21.64	21.58	21.62		
1.4	64QAM	3	0	21.55	21.71	21.60		
1.4	64QAM	3	1	21.59	21.68	21.63	22.5	3
1.4	64QAM	3	3	21.53	21.58	21.53		
1.4	256QAM	1	0	20.74	20.82	20.66	20.5	5
1.4	256QAM	1	3	18.75	18.87	18.87		
1.4	256QAM	1	5	18.77	18.87	18.79		
1.4	256QAM	3	0	18.79	18.74	18.61	20.5	5
1.4	256QAM	3	3	18.70	18.73	18.74		
1.4	256QAM	3	1	18.65	18.67	18.60		
1.4	256QAM	3	3	18.66	18.76	18.66	20.5	5
1.4	256QAM	6	0	18.79	18.78	18.76		



Band 17 Other PA Ant1

BW [MHz]	Modulation	RB [Sub]	RB Offset	Power Low Ch. [Freq]	Power High Ch. [Freq]	Power Mid Ch. [Freq]	Turn-up limit [dB]	MFR [dB]
Channel								
Frequency [MHz]				709	710	711		
10	QPSK	1	0	23.07	23.70	23.69	25.5	0
10	QPSK	1	25	23.54	23.69	23.51		
10	QPSK	1	49	23.05	23.69	23.81		
10	QPSK	25	0	22.60	22.60	22.58		
10	QPSK	25	12	22.53	22.59	22.85		
10	QPSK	25	25	22.83	22.58	22.58		
10	QPSK	50	0	22.07	22.61	22.54		
10	16QAM	1	0	22.90	22.96	22.59		
10	16QAM	1	25	22.87	22.53	22.81	24.5	1
10	16QAM	1	49	22.63	22.59	22.62		
10	16QAM	25	0	21.81	21.71	21.68		
10	16QAM	25	12	21.81	21.58	21.58		
10	16QAM	25	25	21.81	21.72	21.62		
10	16QAM	50	0	21.87	21.69	21.68		
10	64QAM	1	0	21.50	21.74	21.63		
10	64QAM	1	25	21.58	21.59	21.63	23.5	2
10	64QAM	1	49	21.54	21.66	21.60		
10	64QAM	25	0	20.86	20.87	20.85		
10	64QAM	25	12	20.71	20.81	20.86		
10	64QAM	25	25	20.71	20.78	20.78		
10	64QAM	50	0	20.53	20.73	20.63		
10	256QAM	1	0	18.72	18.89	18.81		
10	256QAM	1	25	18.73	18.78	18.74	20.5	5
10	256QAM	1	49	18.78	18.84	18.83		
10	256QAM	25	0	18.69	18.76	18.73		
10	256QAM	25	12	18.67	18.67	18.63		
10	256QAM	25	25	18.66	18.72	18.66		
10	256QAM	50	0	18.72	18.87	18.71		
Channel								
Frequency [MHz]				709.5	710	711.5	Turn-up limit [dB]	APPR [dB]
5	QPSK	1	0	23.51	23.65	23.54	25.5	0
5	QPSK	1	12	23.53	23.56	23.57		
5	QPSK	1	24	23.54	23.64	23.56		
5	QPSK	12	0	22.72	22.83	22.67		
5	QPSK	12	7	22.92	22.74	22.69		
5	QPSK	12	13	22.58	22.72	22.59		
5	QPSK	25	0	22.68	22.72	22.64		
5	16QAM	1	0	22.67	22.66	22.59		
5	16QAM	1	12	22.55	22.86	22.57	24.5	1
5	16QAM	1	24	22.51	22.59	22.58		
5	16QAM	12	0	21.75	21.84	21.73		
5	16QAM	12	7	21.72	21.67	21.81		
5	16QAM	12	13	21.61	21.69	21.68		
5	16QAM	25	0	21.58	21.69	21.56		
5	64QAM	1	0	21.59	21.72	21.67		
5	64QAM	1	12	21.54	21.62	21.60	23.5	2
5	64QAM	1	24	21.51	21.61	21.62		
5	64QAM	12	0	20.92	20.90	20.85		
5	64QAM	12	7	20.83	20.76	20.85		
5	64QAM	12	13	20.73	20.75	20.74		
5	64QAM	25	0	20.65	20.69	20.59		
5	256QAM	1	0	18.72	18.86	18.83		
5	256QAM	1	12	18.72	18.85	18.77	20.5	5
5	256QAM	1	24	18.79	18.81	18.69		
5	256QAM	12	0	18.75	18.72	18.69		
5	256QAM	12	7	18.60	18.70	18.61		
5	256QAM	12	13	18.66	18.73	18.67		
5	256QAM	25	0	18.68	18.93	18.69		



Band 66 Other PA Ant3 DS10 ENDC

Band (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Time-up limit (min)	MPE (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	16.54	16.57	16.51	18	0
20	QPSK	1	49	16.22	16.31	16.38	18	0
20	QPSK	1	99	16.27	16.33	16.38	18	0
20	QPSK	50	0	16.48	16.56	16.55	18	0
20	QPSK	50	24	16.60	16.49	16.51	18	0
20	QPSK	50	50	16.42	16.18	16.37	18	0
20	QPSK	100	0	16.27	16.47	16.29	18	0
20	16QAM	1	0	16.34	16.17	16.29	18	0
20	16QAM	1	49	16.28	16.19	16.12	18	0
20	16QAM	1	99	16.12	16.11	16.22	18	0
20	16QAM	50	0	16.39	16.48	16.34	18	0
20	16QAM	50	24	16.40	16.34	16.31	18	0
20	16QAM	50	50	16.17	16.38	16.45	18	0
20	16QAM	100	0	16.29	16.46	16.32	18	0
20	64QAM	1	0	16.29	16.44	16.32	18	0
20	64QAM	1	49	16.30	16.30	16.27	18	0
20	64QAM	1	99	16.18	16.34	16.30	18	0
20	64QAM	50	0	16.34	16.42	16.23	18	0
20	64QAM	50	24	16.25	16.17	16.22	18	0
20	64QAM	50	50	16.38	16.34	16.10	18	0
20	64QAM	100	0	16.15	16.39	16.23	18	0
20	256QAM	1	0	16.64	16.57	16.47	18	0
20	256QAM	1	49	16.22	16.30	16.13	18	0
20	256QAM	1	99	16.23	16.24	16.31	18	0
20	256QAM	50	0	16.41	16.42	16.24	18	0
20	256QAM	50	24	16.31	16.31	16.27	18	0
20	256QAM	50	50	16.31	16.13	16.33	18	0
20	256QAM	100	0	16.23	16.37	16.29	18	0
Channel								
Frequency (MHz)								
15	QPSK	1	0	16.35	16.52	16.28	18	0
15	QPSK	1	37	16.20	16.17	16.08	18	0
15	QPSK	1	74	16.22	16.31	16.25	18	0
15	QPSK	36	0	16.28	16.48	16.15	18	0
15	QPSK	36	20	16.39	16.39	16.19	18	0
15	QPSK	36	36	16.26	16.12	16.23	18	0
15	QPSK	75	0	16.19	16.39	16.24	18	0
15	16QAM	1	0	16.17	16.27	16.16	18	0
15	16QAM	1	37	16.14	16.13	16.11	18	0
15	16QAM	1	74	16.08	16.09	16.07	18	0
15	16QAM	36	0	16.25	16.35	16.29	18	0
15	16QAM	36	20	16.39	16.23	16.28	18	0
15	16QAM	36	36	16.07	16.30	16.28	18	0
15	16QAM	75	0	16.14	16.30	16.17	18	0
15	64QAM	1	0	16.19	16.39	16.23	18	0
15	64QAM	1	37	16.17	16.22	16.21	18	0
15	64QAM	1	74	16.04	16.11	16.13	18	0
15	64QAM	36	0	16.25	16.30	16.19	18	0
15	64QAM	36	20	16.16	16.11	16.13	18	0
15	64QAM	36	36	16.02	16.25	16.08	18	0
15	64QAM	75	0	16.11	16.27	16.09	18	0
15	256QAM	1	0	16.42	16.36	16.23	18	0
15	256QAM	1	37	16.17	16.16	16.14	18	0
15	256QAM	1	74	16.08	16.17	16.24	18	0
15	256QAM	36	0	16.42	16.44	16.21	18	0
15	256QAM	36	20	16.21	16.43	16.18	18	0
15	256QAM	36	36	16.37	16.05	16.26	18	0
15	256QAM	75	0	16.10	16.28	16.28	18	0
Channel								
Frequency (MHz)								
10	QPSK	1	0	16.68	16.44	16.24	18	0
10	QPSK	1	25	16.24	16.19	16.01	18	0
10	QPSK	1	49	16.21	16.31	16.29	18	0
10	QPSK	25	0	16.35	16.41	16.25	18	0
10	QPSK	25	12	16.36	16.33	16.18	18	0
10	QPSK	25	25	16.27	16.15	16.37	18	0
10	QPSK	50	0	16.22	16.40	16.16	18	0
10	16QAM	1	0	16.33	16.11	16.08	18	0
10	16QAM	1	25	16.21	16.11	16.06	18	0
10	16QAM	1	49	16.08	16.02	16.01	18	0
10	16QAM	25	0	16.31	16.45	16.30	18	0
10	16QAM	25	12	16.26	16.27	16.27	18	0
10	16QAM	25	25	16.04	16.30	16.15	18	0
10	16QAM	50	0	16.23	16.44	16.22	18	0
10	64QAM	1	0	16.24	16.30	16.24	18	0
10	64QAM	1	25	16.15	16.32	16.18	18	0
10	64QAM	1	49	16.11	16.15	16.18	18	0
10	64QAM	25	0	16.30	16.29	16.12	18	0
10	64QAM	25	12	16.17	16.39	16.26	18	0
10	64QAM	25	25	16.09	16.29	16.05	18	0
10	64QAM	50	0	16.01	16.36	16.29	18	0
10	256QAM	1	0	16.23	16.26	16.01	18	0
10	256QAM	1	49	16.19	16.17	16.28	18	0
10	256QAM	25	0	16.31	16.52	16.24	18	0
10	256QAM	25	12	16.35	16.42	16.17	18	0
10	256QAM	25	25	16.35	16.02	16.36	18	0
10	256QAM	50	0	16.29	16.42	16.11	18	0
Channel								
Frequency (MHz)								
5	QPSK	1	0	16.51	16.44	16.24	18	0
5	QPSK	1	12	16.20	16.21	16.17	18	0
5	QPSK	1	24	16.12	16.24	16.29	18	0
5	QPSK	12	0	16.60	16.37	16.19	18	0
5	QPSK	12	7	16.30	16.35	16.12	18	0
5	QPSK	12	13	16.39	16.02	16.32	18	0
5	QPSK	25	0	16.09	16.39	16.23	18	0
5	16QAM	1	0	16.22	16.15	16.14	18	0
5	16QAM	1	12	16.19	16.11	16.02	18	0
5	16QAM	1	24	16.06	16.11	16.13	18	0
5	16QAM	12	0	16.31	16.39	16.23	18	0
5	16QAM	12	7	16.36	16.28	16.19	18	0
5	16QAM	12	13	16.08	16.23	16.15	18	0
5	16QAM	25	0	16.16	16.40	16.19	18	0
5	64QAM	1	0	16.21	16.37	16.26	18	0
5	64QAM	1	12	16.25	16.25	16.13	18	0
5	64QAM	1	24	16.14	16.16	16.13	18	0
5	64QAM	12	0	16.19	16.29	16.17	18	0
5	64QAM	12	7	16.21	16.49	16.14	18	0
5	64QAM	12	13	16.00	16.29	16.05	18	0
5	64QAM	25	0	16.09	16.39	16.15	18	0
5	256QAM	1	0	16.46	16.44	16.29	18	0
5	256QAM	1	12	16.14	16.11	16.06	18	0
5	256QAM	1	24	16.21	16.16	16.23	18	0
5	256QAM	12	0	16.46	16.33	16.29	18	0
5	256QAM	12	7	16.31	16.34	16.16	18	0
5	256QAM	12	13	16.25	16.00	16.24	18	0
5	256QAM	25	0	16.29	16.32	16.22	18	0
Channel								
Frequency (MHz)								
3	QPSK	1	0	16.41	16.38	16.29	18	0
3	QPSK	1	8	16.14	16.25	16.07	18	0
3	QPSK	1	14	16.24	16.16	16.15	18	0
3	QPSK	8	0	16.41	16.38	16.12	18	0
3	QPSK	8	4	16.25	16.31	16.24	18	0
3	QPSK	8	7	16.41	16.08	16.22	18	0
3	QPSK	15	0	16.14	16.28	16.21	18	0
3	16QAM	1	0	16.20	16.00	16.03	18	0
3	16QAM	1	8	16.13	16.09	16.02	18	0
3	16QAM	1	14	16.06	16.05	16.05	18	0
3	16QAM	8	0	16.27	16.44	16.21	18	0
3	16QAM	8	4	16.38	16.24	16.17	18	0
3	16QAM	8	7	16.12	16.26	16.22	18	0
3	16QAM	15	0	16.18	16.36	16.17	18	0
3	64QAM	1	0	16.40	16.39	16.26	18	0
3	64QAM	1	8	16.17	16.27	16.19	18	0
3	64QAM	1	14	16.10	16.13	16.12	18	0
3	64QAM	8	0	16.29	16.27	16.19	18	0
3	64QAM	8	4	16.19	16.14	16.14	18	0
3	64QAM	8	7	16.03	16.26	16.06	18	0
3	256QAM	1	0	16.08	16.25	16.16	18	0
3	256QAM	1	8	16.34	16.43	16.21	18	0
3	256QAM	1	14	16.21	16.29	16.04	18	0
3	256QAM	8	0	16.23	16.37	16.28	18	0
3	256QAM	8	4	16.26	16.48	16.15	18	0
3	256QAM	8	7	16.07	16.56	16.19		



DSI 1 Power for WWAN Other PA

Band 5 Ant0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq. (2040)	Power Middle Ch./Freq. (2052)	Power High Ch./Freq. (2060)	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				829	836.5	844			
10	QPSK	1	0	24.82	24.85	24.77	25.5	0	
10	QPSK	1	25	24.74	24.73	24.69			
10	QPSK	1	49	24.68	24.68	24.61			
10	QPSK	25	0	23.64	23.75	23.66	24.5	1	
10	QPSK	25	12	23.64	23.85	23.64			
10	QPSK	25	25	23.67	23.58	23.65			
10	QPSK	50	0	23.59	23.72	23.62	24.5	1	
10	16QAM	1	0	23.73	23.86	23.73			
10	16QAM	1	25	23.74	23.80	23.71			
10	16QAM	1	49	23.70	23.76	23.67	23.5	2	
10	16QAM	25	0	22.79	22.91	22.78			
10	16QAM	25	12	22.70	22.77	22.71			
10	16QAM	25	25	22.86	22.71	22.86	23.5	2	
10	16QAM	50	0	22.69	22.80	22.70			
10	64QAM	1	0	22.74	22.84	22.71			
10	64QAM	1	25	22.61	22.76	22.70	23.5	2	
10	64QAM	1	49	22.59	22.69	22.62			
10	64QAM	25	0	21.79	21.89	21.79			
10	64QAM	25	12	21.85	21.76	21.89	22.5	3	
10	64QAM	25	25	21.71	21.82	21.72			
10	64QAM	50	0	21.68	21.81	21.73			
10	256QAM	1	0	19.82	19.85	19.58	20.5	5	
10	256QAM	1	25	19.42	19.56	19.47			
10	256QAM	1	49	19.42	19.52	19.41			
10	256QAM	25	0	19.54	19.60	19.52	20.5	5	
10	256QAM	25	12	19.44	19.54	19.39			
10	256QAM	25	25	19.36	19.47	19.33			
10	256QAM	50	0	19.45	19.52	19.37			
Channel									
Frequency (MHz)				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	0	24.73	24.77	24.64	25.5	0	
5	QPSK	1	12	24.61	24.66	24.57			
5	QPSK	1	24	24.61	24.54	24.54			
5	QPSK	12	0	23.57	23.67	23.56	24.5	1	
5	QPSK	12	7	23.68	23.54	23.55			
5	QPSK	12	13	23.54	23.43	23.58			
5	QPSK	25	0	23.46	23.58	23.55	24.5	1	
5	16QAM	1	0	23.64	23.80	23.67			
5	16QAM	1	12	23.62	23.73	23.60			
5	16QAM	1	24	23.62	23.63	23.58	23.5	2	
5	16QAM	12	0	22.67	22.82	22.65			
5	16QAM	12	7	22.63	22.63	22.60			
5	16QAM	12	13	22.54	22.82	22.57	23.5	2	
5	16QAM	25	0	22.63	22.69	22.60			
5	64QAM	1	0	22.68	22.74	22.63			
5	64QAM	1	12	22.51	22.64	22.58	23.5	2	
5	64QAM	1	24	22.47	22.59	22.50			
5	64QAM	12	0	21.67	21.77	21.71			
5	64QAM	12	7	21.68	21.62	21.60	22.5	3	
5	64QAM	12	13	21.86	21.88	21.61			
5	64QAM	25	0	21.60	21.75	21.61			
5	256QAM	1	0	19.45	19.56	19.44	20.5	5	
5	256QAM	1	12	19.34	19.49	19.38			
5	256QAM	1	24	19.33	19.44	19.29			
5	256QAM	12	0	19.46	19.45	19.41	20.5	5	
5	256QAM	12	7	19.33	19.45	19.33			
5	256QAM	12	13	19.27	19.40	19.20			
5	256QAM	25	0	19.32	19.41	19.28			
Channel									
Frequency (MHz)				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				825.5	836.5	847.5			
3	QPSK	1	0	24.77	24.77	24.65	25.5	0	
3	QPSK	1	8	24.65	24.63	24.55			
3	QPSK	1	14	24.54	24.54	24.52			
3	QPSK	8	0	23.50	23.68	23.55	24.5	1	
3	QPSK	8	4	23.50	23.60	23.59			
3	QPSK	8	7	23.56	23.52	23.52			
3	QPSK	15	0	23.51	23.57	23.48	24.5	1	
3	16QAM	1	0	23.66	23.81	23.59			
3	16QAM	1	8	23.60	23.67	23.60			
3	16QAM	1	14	23.62	23.62	23.60	23.5	2	
3	16QAM	8	0	22.71	22.85	22.72			
3	16QAM	8	4	22.56	22.70	22.65			
3	16QAM	8	7	22.55	22.57	22.53	23.5	2	
3	16QAM	15	0	22.58	22.67	22.65			
3	64QAM	1	0	22.60	22.78	22.61			
3	64QAM	1	8	22.52	22.70	22.59	23.5	2	
3	64QAM	1	14	22.45	22.63	22.50			
3	64QAM	8	0	21.68	21.80	21.67			
3	64QAM	8	4	21.51	21.64	21.57	22.5	3	
3	64QAM	8	7	21.57	21.68	21.61			
3	64QAM	15	0	21.60	21.70	21.65			
3	256QAM	1	0	19.42	19.50	19.52	20.5	5	
3	256QAM	1	8	19.32	19.44	19.33			
3	256QAM	1	14	19.35	19.45	19.36			
3	256QAM	8	0	19.47	19.51	19.44	20.5	5	
3	256QAM	8	4	19.39	19.47	19.33			
3	256QAM	8	7	19.27	19.38	19.23			
3	256QAM	15	0	19.34	19.41	19.24			
Channel									
Frequency (MHz)				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				824.7	836.5	848.3			
1.4	QPSK	1	0	24.74	24.78	24.64	25.5	0	
1.4	QPSK	1	3	24.63	24.67	24.54			
1.4	QPSK	1	5	24.61	24.55	24.50			
1.4	QPSK	3	0	23.56	23.68	23.59	24.5	1	
1.4	QPSK	3	1	23.51	23.57	23.52			
1.4	QPSK	3	3	23.55	23.51	23.59			
1.4	QPSK	6	0	23.46	23.62	23.49	24.5	1	
1.4	16QAM	1	0	23.61	23.79	23.58			
1.4	16QAM	1	3	23.66	23.69	23.62			
1.4	16QAM	1	5	23.60	23.65	23.56	24.5	1	
1.4	16QAM	3	0	23.59	23.75	23.64			
1.4	16QAM	3	1	23.64	23.67	23.63			
1.4	16QAM	3	3	23.55	23.63	23.52	23.5	2	
1.4	16QAM	6	0	22.74	22.81	22.69			
1.4	64QAM	1	0	22.63	22.69	22.66			
1.4	64QAM	1	3	22.57	22.58	22.53	23.5	2	
1.4	64QAM	1	5	22.56	22.71	22.56			
1.4	64QAM	3	0	22.64	22.77	22.63			
1.4	64QAM	3	1	22.49	22.66	22.59	22.5	3	
1.4	64QAM	3	3	22.49	22.61	22.48			
1.4	64QAM	6	0	21.70	21.76	21.64			
1.4	256QAM	1	0	19.47	19.55	19.51	20.5	5	
1.4	256QAM	1	3	19.34	19.42	19.38			
1.4	256QAM	1	5	19.30	19.42	19.30			
1.4	256QAM	3	0	19.40	19.49	19.38	20.5	5	
1.4	256QAM	3	1	19.32	19.41	19.27			
1.4	256QAM	3	3	19.22	19.32	19.19			
1.4	256QAM	6	0	19.31	19.42	19.32			



Band 4 Other PA Ant1 DS11										
BW (MHz)	Modulation	RB Size	RB Offset	Power Ch./Frac	Power Ch./Frac	Power Ch./Frac	Time-up limit (dBm)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	24.00	24.13	24.07	25	0		
20	QPSK	1	49	23.88	23.84	23.81	25	0		
20	QPSK	1	99	23.83	23.84	23.81	25	0		
20	QPSK	50	0	23.31	23.33	23.33	24.5	0.5		
20	QPSK	50	24	23.30	23.43	23.40	24.5	0.5		
20	QPSK	50	50	23.32	23.36	23.28	24.5	0.5		
20	QPSK	100	0	23.27	23.46	23.36	24.5	0.5		
20	QPSK	100	24	23.32	23.45	23.40	24.5	0.5		
20	HQAM	1	49	23.32	23.39	23.33	24.5	0.5		
20	HQAM	1	99	23.24	23.35	23.30	24.5	0.5		
20	HQAM	50	0	22.41	22.55	22.44	23.5	1.5		
20	HQAM	50	24	22.31	22.41	22.27	23.5	1.5		
20	HQAM	100	0	22.21	22.35	22.26	23.5	1.5		
20	HQAM	100	0	22.44	22.50	22.36	23.5	1.5		
20	HQAM	1	0	22.37	22.52	22.49	23.5	1.5		
20	HQAM	1	49	22.30	22.44	22.39	23.5	1.5		
20	HQAM	1	99	22.24	22.37	22.31	23.5	1.5		
20	HQAM	50	0	21.41	21.46	21.38	22.5	2.5		
20	HQAM	50	24	21.27	21.39	21.31	22.5	2.5		
20	HQAM	100	0	21.30	21.41	21.36	22.5	2.5		
20	HQAM	1	0	19.41	19.40	19.44	20.5	4.5		
20	HQAM	1	49	19.29	19.40	19.38	20.5	4.5		
20	HQAM	1	99	19.24	19.36	19.28	20.5	4.5		
20	HQAM	50	0	19.46	19.44	19.34	20.5	4.5		
20	HQAM	50	24	19.30	19.38	19.25	20.5	4.5		
20	HQAM	100	0	19.27	19.31	19.18	20.5	4.5		
20	HQAM	100	0	19.24	19.38	19.20	20.5	4.5		
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.26	23.00	23.01	25	0		
15	QPSK	1	37	23.18	23.15	23.16	25	0		
15	QPSK	1	74	23.13	23.05	23.12	25	0		
15	QPSK	36	39	23.27	23.28	23.28	24.5	0.5		
15	QPSK	36	39	23.24	23.28	23.35	24.5	0.5		
15	QPSK	36	39	23.27	23.22	23.23	24.5	0.5		
15	HQAM	1	0	23.28	23.38	23.24	24.5	0.5		
15	HQAM	1	37	23.22	23.29	23.19	24.5	0.5		
15	HQAM	1	74	23.18	23.22	23.23	24.5	0.5		
15	HQAM	36	0	22.31	22.50	22.37	23.5	1.5		
15	HQAM	36	20	22.23	22.38	22.18	23.5	1.5		
15	HQAM	36	39	22.23	22.35	22.22	23.5	1.5		
15	HQAM	75	0	22.53	22.57	22.27	23.5	1.5		
15	HQAM	1	0	22.34	22.43	22.38	23.5	1.5		
15	HQAM	1	37	22.32	22.39	22.33	23.5	1.5		
15	HQAM	1	74	22.21	22.24	22.24	23.5	1.5		
15	HQAM	36	0	21.34	21.35	21.24	22.5	2.5		
15	HQAM	36	20	21.28	21.43	21.32	22.5	2.5		
15	HQAM	36	39	21.18	21.34	21.27	22.5	2.5		
15	HQAM	75	0	21.21	21.31	21.25	22.5	2.5		
15	HQAM	1	0	19.18	19.44	19.24	20.5	4.5		
15	HQAM	1	37	19.18	19.26	19.28	20.5	4.5		
15	HQAM	1	74	19.14	19.25	19.20	20.5	4.5		
15	HQAM	36	0	19.32	19.37	19.27	20.5	4.5		
15	HQAM	36	20	19.27	19.33	19.18	20.5	4.5		
15	HQAM	36	39	19.19	19.27	19.10	20.5	4.5		
15	HQAM	75	0	19.11	19.32	19.20	20.5	4.5		
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.02	24.10	24.05	25	0		
10	QPSK	1	25	23.67	23.72	23.73	25	0		
10	QPSK	1	49	23.72	23.70	23.79	25	0		
10	QPSK	36	39	23.24	23.28	23.28	24.5	0.5		
10	QPSK	36	39	23.29	23.28	23.28	24.5	0.5		
10	QPSK	36	39	23.20	23.25	23.18	24.5	0.5		
10	HQAM	1	0	23.38	23.42	23.23	24.5	0.5		
10	HQAM	1	0	23.19	23.32	23.28	24.5	0.5		
10	HQAM	1	49	23.27	23.31	23.20	24.5	0.5		
10	HQAM	1	99	23.27	23.27	23.20	24.5	0.5		
10	HQAM	50	0	22.33	22.44	22.34	23.5	1.5		
10	HQAM	50	12	22.19	22.28	22.14	23.5	1.5		
10	HQAM	50	25	22.22	22.30	22.22	23.5	1.5		
10	HQAM	100	0	22.39	22.41	22.25	23.5	1.5		
10	HQAM	1	0	22.27	22.41	22.41	23.5	1.5		
10	HQAM	1	49	22.29	22.33	22.25	23.5	1.5		
10	HQAM	1	99	22.18	22.32	22.25	23.5	1.5		
10	HQAM	50	0	21.35	21.39	21.29	22.5	2.5		
10	HQAM	50	12	21.28	21.24	21.24	22.5	2.5		
10	HQAM	50	25	21.22	21.25	21.24	22.5	2.5		
10	HQAM	100	0	21.17	21.35	21.24	22.5	2.5		
10	HQAM	1	0	19.27	19.43	19.35	20.5	4.5		
10	HQAM	1	25	19.23	19.27	19.22	20.5	4.5		
10	HQAM	1	49	19.12	19.28	19.14	20.5	4.5		
10	HQAM	1	99	19.34	19.30	19.20	20.5	4.5		
10	HQAM	50	0	19.17	19.19	19.06	20.5	4.5		
10	HQAM	50	0	19.17	19.24	19.21	20.5	4.5		
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.75	23.85	23.85	25	0		
5	QPSK	1	12	23.84	23.79	23.69	25	0		
5	QPSK	1	24	23.64	23.81	23.69	25	0		
5	QPSK	12	0	22.68	22.78	22.64	24.5	0.5		
5	QPSK	12	13	22.61	22.69	22.61	24.5	0.5		
5	HQAM	1	0	22.78	22.92	22.83	24.5	0.5		
5	HQAM	1	12	22.74	22.87	22.77	24.5	0.5		
5	HQAM	1	24	22.16	22.37	22.80	24.5	0.5		
5	HQAM	12	0	21.83	21.99	21.87	23.5	1.5		
5	HQAM	12	7	21.72	21.78	21.73	23.5	1.5		
5	HQAM	12	14	21.60	21.74	21.63	23.5	1.5		
5	HQAM	25	0	21.75	21.91	21.77	23.5	1.5		
5	HQAM	1	0	21.77	21.91	21.80	23.5	1.5		
5	HQAM	1	24	21.60	21.72	21.65	23.5	1.5		
5	HQAM	12	0	20.77	20.87	20.72	22.5	3		
5	HQAM	12	7	20.65	20.80	20.61	22.5	3		
5	HQAM	12	13	20.74	20.81	20.64	22.5	3		
5	HQAM	25	0	20.69	20.76	20.64	22.5	3		
5	HQAM	1	0	18.67	18.72	18.63	20.5	5		
5	HQAM	1	12	18.67	18.68	18.60	20.5	5		
5	HQAM	1	24	18.62	18.66	18.60	20.5	5		
5	HQAM	12	0	18.67	18.66	18.60	20.5	5		
5	HQAM	12	7	18.64	18.65	18.60	20.5	5		
5	HQAM	12	13	18.60	18.62	18.60	20.5	5		
5	HQAM	25	0	18.63	18.63	18.60	20.5	5		
Channel										
Frequency (MHz)										
3	QPSK	1	0	23.71	23.78	23.74	25.5	0		
3	QPSK	1	14	23.55	23.74	23.64	25.5	0		
3	QPSK	1	28	23.31	23.80	23.60	25.5	0		
3	QPSK	8	7	22.53	22.68	22.60	24.5	0.5		
3	QPSK	8	7	22.60	22.68	22.60	24.5	0.5		
3	HQAM	1	0	22.84	22.90	22.82	24.5	0.5		
3	HQAM	1	8	22.75	22.90	22.73	24.5	0.5		
3	HQAM	1	16	22.66	22.85	22.61	24.5	0.5		
3	HQAM	8	0	21.81	21.90	21.78	23.5	1.5		
3	HQAM	8	4	21.79	21.82	21.74	23.5	1.5		
3	HQAM	8	7	21.61	21.76	21.74	23.5	1.5		
3	HQAM	15	0	21.81	21.94	21.85	23.5	1.5		
3	HQAM	1	0	21.79	21.87	21.80	23.5	1.5		
3	HQAM	1	8	21.74	21.78	21.73	23.5	1.5		
3	HQAM	1	14	21.63	21.79	21				



Band 4 Other PA Ant2 DSH1

SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq	Tune-up limit (dBm)	MPE (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	0	21.34	21.39	21.38	22	0
20	QPSK	1	49	21.03	21.24	21.25		
20	QPSK	1	99	21.09	21.15	21.27		
20	QPSK	50	0	21.32	21.34	21.36		
20	QPSK	50	24	21.18	21.22	21.14		
20	QPSK	50	50	21.09	21.03	21.27	22	0
20	QPSK	100	0	21.26	21.31	21.28		
20	16QAM	1	0	21.15	21.08	20.97		
20	16QAM	1	49	21.16	20.92	21.00	22	0
20	16QAM	1	99	21.01	21.03	21.13		
20	16QAM	50	0	21.01	21.11	21.30		
20	16QAM	50	24	21.07	21.14	21.31	22	0
20	16QAM	50	50	21.31	21.17	21.18		
20	16QAM	100	0	21.00	21.18	21.18		
20	84QAM	1	0	21.13	21.12	21.34		
20	84QAM	1	49	21.17	21.33	21.38	22	0
20	84QAM	1	99	21.18	21.14	21.11		
20	84QAM	50	0	20.52	20.62	20.50		
20	84QAM	50	24	20.38	20.49	20.38		
20	84QAM	50	50	20.45	20.55	20.49	21.5	0.5
20	84QAM	100	0	20.52	20.58	20.51		
20	256QAM	1	0	18.48	18.58	18.50		
20	256QAM	1	49	18.43	18.49	18.40	19.5	2.5
20	256QAM	1	99	18.37	18.45	18.39		
20	256QAM	50	0	18.43	18.50	18.43		
20	256QAM	50	24	18.36	18.44	18.38	19.5	2.5
20	256QAM	50	50	18.28	18.37	18.29		
20	256QAM	100	0	18.32	18.44	18.38		
Channel								
Frequency (MHz)								
15	QPSK	1	0	21.21	21.24	21.22	22	0
15	QPSK	1	37	21.13	21.19	21.14		
15	QPSK	1	74	21.08	21.04	21.19		
15	QPSK	36	0	21.21	21.19	21.22		
15	QPSK	36	20	21.07	21.09	21.02	22	0
15	QPSK	36	39	20.99	20.99	21.13		
15	QPSK	75	0	21.24	21.21	21.17		
15	16QAM	1	0	20.95	20.92	20.90		
15	16QAM	1	37	21.07	20.77	20.83	22	0
15	16QAM	1	74	20.84	20.92	21.08		
15	16QAM	36	0	20.89	21.05	21.17		
15	16QAM	36	20	20.99	21.13	21.28	22	0
15	16QAM	36	39	21.30	21.07	20.98		
15	16QAM	75	0	20.83	21.12	21.12		
15	84QAM	1	0	21.10	20.99	21.31		
15	84QAM	1	37	21.00	21.23	21.23	22	0
15	84QAM	1	74	21.08	20.99	21.05		
15	84QAM	36	0	20.40	20.53	20.38		
15	84QAM	36	20	20.29	20.36	20.22	21.5	0.5
15	84QAM	36	39	20.37	20.50	20.41		
15	84QAM	75	0	20.37	20.49	20.40		
15	256QAM	1	0	18.42	18.44	18.44		
15	256QAM	1	37	18.34	18.38	18.27	19.5	2.5
15	256QAM	1	74	18.26	18.38	18.31		
15	256QAM	36	0	18.28	18.37	18.36		
15	256QAM	36	20	18.24	18.37	18.30	19.5	2.5
15	256QAM	36	39	18.20	18.28	18.16		
15	256QAM	75	0	18.25	18.37	18.22		
Channel								
Frequency (MHz)								
10	QPSK	1	0	21.32	21.27	21.18	22	0
10	QPSK	1	25	21.05	21.04	21.13		
10	QPSK	1	49	21.01	21.11	21.24		
10	QPSK	25	0	21.08	21.27	21.28		
10	QPSK	25	12	21.04	21.08	21.07	22	0
10	QPSK	25	25	21.05	20.84	21.19		
10	QPSK	50	0	21.22	21.21	21.14		
10	16QAM	1	0	20.98	20.91	20.89		
10	16QAM	1	25	20.98	20.86	20.83	22	0
10	16QAM	1	49	20.86	20.93	21.01		
10	16QAM	25	0	20.83	21.11	21.28		
10	16QAM	25	12	20.91	21.12	21.25	22	0
10	16QAM	25	25	21.18	20.98	21.14		
10	16QAM	50	0	20.91	21.07	21.09		
10	84QAM	1	0	21.09	20.96	21.20		
10	84QAM	1	25	21.04	21.21	21.28	22	0
10	84QAM	1	49	21.03	21.02	20.96		
10	84QAM	25	0	20.39	20.53	20.43		
10	84QAM	25	12	20.29	20.43	20.22	21.5	0.5
10	84QAM	25	25	20.38	20.47	20.41		
10	84QAM	50	0	20.43	20.43	20.36		
10	256QAM	1	0	18.39	18.48	18.44		
10	256QAM	1	25	18.30	18.39	18.30	19.5	2.5
10	256QAM	1	49	18.28	18.37	18.32		
10	256QAM	25	0	18.36	18.42	18.31		
10	256QAM	25	12	18.23	18.32	18.23	19.5	2.5
10	256QAM	25	25	18.18	18.23	18.21		
10	256QAM	50	0	18.20	18.31	18.23		
Channel								
Frequency (MHz)								
5	QPSK	1	0	21.27	21.28	21.26	22	0
5	QPSK	1	12	21.08	21.12	21.15		
5	QPSK	1	24	21.07	20.97	21.12		
5	QPSK	12	0	21.18	21.33	21.22		
5	QPSK	12	7	21.17	21.20	21.04	22	0
5	QPSK	12	13	20.99	20.86	21.20		
5	QPSK	25	0	21.17	21.28	21.28		
5	16QAM	1	0	21.07	21.03	20.86		
5	16QAM	1	12	21.09	20.85	20.91	22	0
5	16QAM	1	24	20.92	20.93	21.10		
5	16QAM	12	0	21.00	21.11	21.17		
5	16QAM	12	7	20.95	21.00	21.20	22	0
5	16QAM	12	13	21.09	21.03	21.03		
5	16QAM	25	0	20.96	21.01	20.98		
5	84QAM	1	0	20.95	21.05	21.17		
5	84QAM	1	12	21.10	21.32	21.30	22	0
5	84QAM	1	24	21.02	21.14	20.99		
5	84QAM	12	0	20.39	20.49	20.37		
5	84QAM	12	7	20.33	20.42	20.29	21.5	0.5
5	84QAM	12	13	20.37	20.42	20.39		
5	84QAM	25	0	20.46	20.47	20.42		
5	256QAM	1	0	18.38	18.44	18.39		
5	256QAM	1	12	18.34	18.37	18.33	19.5	2.5
5	256QAM	1	24	18.26	18.38	18.31		
5	256QAM	12	0	18.38	18.40	18.31		
5	256QAM	12	7	18.29	18.29	18.28	19.5	2.5
5	256QAM	12	13	18.19	18.23	18.23		
5	256QAM	25	0	18.18	18.36	18.24		
Channel								
Frequency (MHz)								
3	QPSK	1	0	21.15	21.28	21.21	22	0
3	QPSK	1	8	21.08	21.15	21.13		
3	QPSK	1	14	20.92	21.14	21.25		
3	QPSK	8	0	21.04	21.23	21.19		
3	QPSK	8	4	21.13	21.12	21.01	22	0
3	QPSK	8	7	20.95	21.01	21.08		
3	QPSK	15	0	21.09	21.20	21.28		
3	16QAM	1	0	20.97	21.07	20.95		
3	16QAM	1	8	21.03	20.81	21.00	22	0
3	16QAM	1	14	20.82	20.93	21.10		
3	16QAM	8	0	20.82	20.93	21.29		
3	16QAM	8	4	20.96	21.06	21.16	22	0
3	16QAM	8	7	21.23	21.13	21.55		
3	16QAM	15	0	20.83	21.01	21.04		
3	84QAM	1	0	21.09	21.01	21.20		
3	84QAM	1	8	21.10	21.29	21.20	22	0
3	84QAM	1	14	21.13	20.99	21.09		
3	84QAM	8	0	20.48	20.47	20.39		
3	84QAM	8	4	20.28	20.36	20.23	21.5	0.5
3	84QAM	8	7	20.34	20.41	20.36		
3	84QAM	15	0	20.44	20.49	20.42		
3	256QAM	1	0	18.40	18.47	18.40		
3	256QAM	1	8	18.36	18.35	18.33	19.5	2.5
3	256QAM	1	14	18.28	18.38	18.28		
3	256QAM	8	0	18.29	18.41	18.30		
3	256QAM	8	4	18.26	18.31	18.28	19.5	2.5
3	256QAM	8	7	18.14	18.26	18.17		
3	256QAM	15	0	18.28	18.33	18.21		
Channel								
Frequency (MHz)								
1.4	QPSK	1	0	21.05	21.31	21.35	22	0
1.4	QPSK	1	3	21				



Band 4 Other PA Ant3										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Time-up (min)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.98	24.17	23.88	25.5	0		
20	QPSK	1	49	23.78	23.88	23.78	25.5	0		
20	QPSK	50	0	22.87	23.12	22.86	24.5	1		
20	QPSK	50	24	22.86	23.00	22.74	24.5	1		
20	QPSK	50	50	22.66	23.02	22.69	24.5	1		
20	QPSK	100	0	22.58	22.81	22.60	24.5	1		
20	QPSK	1	0	22.57	22.67	22.55	24.5	1		
20	16QAM	1	49	22.58	22.81	22.56	24.5	1		
20	16QAM	50	24	21.59	21.68	21.52	23.5	2		
20	16QAM	50	50	21.52	21.62	21.55	23.5	2		
20	16QAM	100	0	21.53	21.58	21.56	23.5	2		
20	16QAM	1	0	21.54	21.80	21.56	23.5	2		
20	16QAM	1	49	21.59	21.72	21.52	23.5	2		
20	16QAM	1	99	21.53	21.65	21.52	23.5	2		
20	16QAM	50	0	20.54	20.75	20.52	22.5	3		
20	16QAM	50	50	20.56	20.68	20.53	22.5	3		
20	16QAM	100	0	20.51	20.71	20.53	22.5	3		
20	16QAM	1	0	18.52	18.68	18.55	20.5	5		
20	16QAM	1	49	18.56	18.59	18.56	20.5	5		
20	256QAM	1	99	18.51	18.55	18.52	20.5	5		
20	256QAM	50	0	18.58	18.61	18.53	20.5	5		
20	256QAM	50	24	18.53	18.55	18.51	20.5	5		
20	256QAM	50	50	18.59	18.58	18.53	20.5	5		
20	256QAM	100	0	18.52	18.58	18.56	20.5	5		
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.52	23.81	23.58	25.5	0		
15	QPSK	1	49	23.53	23.88	23.54	25.5	0		
15	QPSK	1	74	23.55	23.89	23.54	25.5	0		
15	QPSK	36	0	22.57	22.76	22.59	24.5	1		
15	QPSK	36	20	22.58	22.80	22.59	24.5	1		
15	QPSK	36	36	22.54	22.89	22.62	24.5	1		
15	QPSK	75	0	22.59	22.82	22.54	24.5	1		
15	16QAM	1	0	22.59	22.74	22.54	24.5	1		
15	16QAM	1	37	22.55	22.66	22.55	24.5	1		
15	16QAM	1	74	21.54	22.71	21.52	23.5	2		
15	16QAM	36	0	21.54	21.74	21.52	23.5	2		
15	16QAM	36	20	21.57	21.53	21.53	23.5	2		
15	16QAM	36	36	21.58	21.57	21.53	23.5	2		
15	16QAM	75	0	21.54	21.55	21.59	23.5	2		
15	16QAM	1	0	21.58	21.70	21.57	23.5	2		
15	16QAM	1	37	21.52	21.63	21.53	23.5	2		
15	16QAM	1	74	21.55	21.51	21.51	23.5	2		
15	16QAM	36	0	20.52	20.70	20.54	22.5	3		
15	16QAM	36	20	20.54	20.62	20.55	22.5	3		
15	16QAM	36	36	20.55	20.58	20.59	22.5	3		
15	16QAM	75	0	20.59	20.66	20.59	22.5	3		
15	256QAM	1	0	18.52	18.55	18.51	20.5	5		
15	256QAM	1	37	18.53	18.59	18.58	20.5	5		
15	256QAM	1	74	18.50	18.52	18.53	20.5	5		
15	256QAM	36	0	18.51	18.52	18.67	20.5	5		
15	256QAM	36	20	18.64	18.67	18.62	20.5	5		
15	256QAM	36	36	18.52	18.59	18.53	20.5	5		
15	256QAM	75	0	18.52	18.52	18.51	20.5	5		
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.76	23.88	23.74	25.5	0		
10	QPSK	1	25	23.53	23.62	23.64	25.5	0		
10	QPSK	1	49	23.78	23.83	23.57	25.5	0		
10	QPSK	25	0	22.82	22.82	22.74	24.5	1		
10	QPSK	25	12	22.80	22.91	22.86	24.5	1		
10	QPSK	25	25	22.81	22.89	22.55	24.5	1		
10	QPSK	50	0	22.72	22.77	22.51	24.5	1		
10	16QAM	1	0	22.83	22.79	22.75	24.5	1		
10	16QAM	1	25	22.81	22.73	22.67	24.5	1		
10	16QAM	1	49	22.82	22.72	22.68	24.5	1		
10	16QAM	25	0	21.60	21.74	21.65	23.5	2		
10	16QAM	25	12	21.58	21.56	21.60	23.5	2		
10	16QAM	25	25	21.55	21.53	21.58	23.5	2		
10	16QAM	50	0	21.51	21.70	21.70	23.5	2		
10	16QAM	1	0	21.60	21.68	21.63	23.5	2		
10	16QAM	1	25	21.54	21.60	21.60	23.5	2		
10	16QAM	1	49	21.58	21.57	21.57	23.5	2		
10	16QAM	25	0	20.62	20.65	20.58	22.5	3		
10	16QAM	25	12	20.54	20.55	20.51	22.5	3		
10	16QAM	25	25	20.53	20.58	20.66	22.5	3		
10	16QAM	50	0	20.55	20.61	20.53	22.5	3		
10	256QAM	1	0	18.52	18.60	18.59	20.5	5		
10	256QAM	1	25	18.53	18.59	18.59	20.5	5		
10	256QAM	1	49	18.53	18.54	18.51	20.5	5		
10	256QAM	25	0	18.53	18.55	18.57	20.5	5		
10	256QAM	25	12	18.56	18.53	18.58	20.5	5		
10	256QAM	25	25	18.58	18.58	18.52	20.5	5		
10	256QAM	50	0	18.52	18.52	18.53	20.5	5		
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.81	23.83	23.85	25.5	0		
5	QPSK	1	12	23.56	23.69	23.60	25.5	0		
5	QPSK	1	24	23.75	23.89	23.89	25.5	0		
5	QPSK	12	0	22.68	22.72	22.71	24.5	1		
5	QPSK	12	7	22.76	22.86	22.85	24.5	1		
5	QPSK	12	13	22.86	22.96	22.95	24.5	1		
5	QPSK	25	0	22.65	22.77	22.83	24.5	1		
5	16QAM	1	0	22.69	22.80	22.71	24.5	1		
5	16QAM	1	12	22.59	22.75	22.68	24.5	1		
5	16QAM	1	24	22.60	22.63	22.64	24.5	1		
5	16QAM	12	0	21.90	22.03	22.00	23.5	2		
5	16QAM	12	7	21.77	21.85	21.96	23.5	2		
5	16QAM	12	13	21.66	21.78	21.88	23.5	2		
5	16QAM	25	0	21.87	21.98	21.95	23.5	2		
5	16QAM	1	0	21.97	22.05	21.97	23.5	2		
5	16QAM	1	12	21.80	21.82	21.95	23.5	2		
5	16QAM	1	24	21.77	21.86	21.84	23.5	2		
5	16QAM	12	0	20.88	21.00	20.90	22.5	3		
5	16QAM	12	7	20.74	20.82	20.80	22.5	3		
5	16QAM	12	13	20.79	20.90	20.90	22.5	3		
5	16QAM	25	0	20.77	20.86	20.82	22.5	3		
5	256QAM	1	0	18.80	18.85	18.84	20.5	5		
5	256QAM	1	12	18.84	18.78	18.71	20.5	5		
5	256QAM	1	24	18.80	18.76	18.88	20.5	5		
5	256QAM	12	0	18.87	18.83	18.82	20.5	5		
5	256QAM	12	7	18.80	18.78	18.73	20.5	5		
5	256QAM	12	13	18.81	18.85	18.75	20.5	5		
5	256QAM	25	0	18.73	18.75	18.77	20.5	5		
Channel										
Frequency (MHz)										
3	QPSK	1	0	24.92	24.93	24.95	25.5	0		
3	QPSK	1	8	23.90	23.95	23.93	25.5	0		
3	QPSK	1	14	24.04	24.12	24.10	25.5	0		
3	QPSK	8	0	23.90	23.10	23.07	24.5	1		
3	QPSK	8	4	23.06	23.17	23.15	24.5	1		
3	QPSK	8	7	23.14	23.21	23.25	24.5	1		
3	QPSK	15	0	22.98	23.07	23.08	24.5	1		
3	16QAM	1	0	22.93	23.10	23.05	24.5	1		
3	16QAM	1	8	22.89	23.03	22.95	24.5	1		
3	16QAM	1	14	22.88	22.87	23.04	24.5	1		
3	16QAM	8	0	21.94	22.03	21.93	23.5	2		
3	16QAM	8	4	21.76	21.90	21.89	23.5	2		
3	16QAM	8	7	21.67	21.78	21.82	23.5	2		
3	16QAM	15	0	21.85	22.01	21.91	23.5	2		
3	16QAM	1	0	21.89	21.96	21.84	23.5	2		
3	16QAM	1	8	21.83	21.80	21.97	23.5	2		
3	16QAM	1	14	21.85	21.84	21.84	23.5	2		
3	16QAM	8	0	20.94	20.97	20.96	22.5	3		
3	16QAM	8	4	20.73	20.82	20.82	22.5	3		
3	16QAM	8	7	20.77	20.83	20.97	22.5	3		
3	16QAM	15	0	20.80	20.82	20.86	22.5	3		
3	256QAM	1	0	18.83	18.83	18.89	20.5	5		
3	256QAM	1	8	18.82	18.78	18.74	20.5	5		
3	256QAM	1	14	18.84	18.77	18.76	20.5	5		
3	256QAM	8	0	18.70	18.84	18.81	20.5	5		
3	256QAM	8	4	18.81	18.79	18.67	20.5	5		
3	256QAM	8	7	18.86	18.87	18.68	20.5	5		
3	256QAM	15	0	18.70	18.74	18.81	20.5	5		
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	23.74	23.81	23.83	25.5	0		
1.4	QPSK	1	3	23.56	23.62	23.59	25.5	0		
1.4	QPSK	1	5	23.76	23.81	23.81	25.5	0		
1.4	QPSK	3	0	23.83	23.89	23.89</				



Band 4 Other PA Ant4

SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq 20000	Tune-up limit (dBm)	MPE (dB)
Channel								
Frequency (MHz)								
1720 1725.5 1745								
20	QPSK	1	0	23.07	23.27	23.21	24.5	0
20	QPSK	1	49	22.91	23.15	23.12		
20	QPSK	1	99	23.03	23.22	23.20		
20	QPSK	50	0	21.98	22.27	22.14		
20	QPSK	50	24	22.00	22.18	22.14		
20	QPSK	50	50	22.05	22.23	22.24		
20	QPSK	100	0	22.00	22.19	22.10	23.5	1
20	16QAM	1	0	22.03	22.21	22.11		
20	16QAM	1	49	22.14	22.31	22.27		
20	16QAM	1	99	22.09	22.27	22.25		
20	16QAM	50	0	21.05	21.25	21.22		
20	16QAM	50	24	21.08	21.26	21.20		
20	16QAM	50	50	21.04	21.21	21.14		
20	16QAM	100	0	20.99	21.23	21.15		
20	84QAM	1	0	20.93	21.13	21.11		
20	84QAM	1	49	21.00	21.24	21.14		
20	84QAM	1	99	21.00	21.23	21.17		
20	84QAM	50	0	20.93	20.22	20.17		
20	84QAM	50	24	20.98	20.25	20.20		
20	84QAM	50	50	20.95	20.23	20.18		
20	84QAM	100	0	20.91	20.20	20.16		
20	256QAM	1	0	17.81	18.02	17.92		
20	256QAM	1	49	17.87	18.11	18.07		
20	256QAM	1	99	17.83	18.04	17.97		
20	256QAM	50	0	18.06	18.26	18.18		
20	256QAM	50	24	17.93	18.16	18.15		
20	256QAM	50	50	17.94	18.17	18.14		
20	256QAM	100	0	18.00	18.19	18.13		
Channel								
Frequency (MHz)								
20005 20175 20325								
1717.5 1723.5 1747.5								
15	QPSK	1	0	22.83	23.12	23.14	24.5	0
15	QPSK	1	37	22.80	23.03	23.04		
15	QPSK	1	74	22.90	23.11	23.12		
15	QPSK	36	0	21.80	22.14	22.04		
15	QPSK	36	20	21.89	22.12	22.05		
15	QPSK	36	39	22.00	22.16	22.10		
15	QPSK	75	0	21.88	22.14	22.08		
15	16QAM	1	0	21.97	22.15	22.01		
15	16QAM	1	37	22.02	22.17	22.14		
15	16QAM	1	74	21.94	22.17	22.20		
15	16QAM	36	0	20.97	21.14	21.11		
15	16QAM	36	20	21.01	21.12	21.08		
15	16QAM	36	39	20.90	21.08	21.03		
15	16QAM	75	0	20.92	21.17	21.02		
15	84QAM	1	0	20.82	21.02	21.05		
15	84QAM	1	37	20.89	21.15	21.09		
15	84QAM	1	74	20.90	21.16	21.11		
15	84QAM	36	0	19.94	20.09	20.09		
15	84QAM	36	20	19.97	20.16	20.05		
15	84QAM	36	39	19.98	20.08	20.03		
15	84QAM	75	0	19.92	20.07	20.06		
15	256QAM	1	0	17.68	17.90	17.83		
15	256QAM	1	37	17.74	18.04	17.97		
15	256QAM	1	74	17.76	17.92	17.90		
15	256QAM	36	0	17.97	18.11	18.02		
15	256QAM	36	20	17.82	18.03	18.01		
15	256QAM	36	39	17.89	18.11	18.02		
15	256QAM	75	0	17.90	18.08	18.05		
Channel								
Frequency (MHz)								
20000 20175 20350								
1715 1723.5 1750								
10	QPSK	1	0	23.02	23.15	23.17	24.5	0
10	QPSK	1	25	22.78	23.03	23.01		
10	QPSK	1	49	22.98	23.08	23.12		
10	QPSK	25	0	21.84	22.17	22.08		
10	QPSK	25	12	21.84	22.06	22.05		
10	QPSK	25	25	21.98	22.20	22.12		
10	QPSK	50	0	21.85	22.04	21.98		
10	16QAM	1	0	21.98	22.08	22.02		
10	16QAM	1	25	22.00	22.20	22.13		
10	16QAM	1	49	22.04	22.21	22.18		
10	16QAM	25	0	20.95	21.19	21.15		
10	16QAM	25	12	20.99	21.21	21.07		
10	16QAM	25	25	20.97	21.11	21.01		
10	16QAM	50	0	20.91	21.15	21.08		
10	84QAM	1	0	20.83	21.06	21.01		
10	84QAM	1	25	20.91	21.18	21.04		
10	84QAM	1	49	20.84	21.16	21.10		
10	84QAM	25	0	19.90	20.07	20.10		
10	84QAM	25	12	19.94	20.15	20.07		
10	84QAM	25	25	19.92	20.15	20.07		
10	84QAM	50	0	19.95	20.13	20.02		
10	256QAM	1	0	17.67	17.82	17.88		
10	256QAM	1	25	17.73	18.03	17.96		
10	256QAM	1	49	17.72	17.90	17.85		
10	256QAM	25	0	17.91	18.14	18.02		
10	256QAM	25	12	17.88	18.08	18.00		
10	256QAM	25	25	17.81	18.10	18.06		
10	256QAM	50	0	17.81	18.09	18.05		
Channel								
Frequency (MHz)								
19975 20175 20375								
1712.5 1723.5 1823.5								
5	QPSK	1	0	22.82	23.14	23.11	24.5	0
5	QPSK	1	12	22.83	23.06	23.03		
5	QPSK	1	24	22.96	23.16	23.09		
5	QPSK	12	0	21.83	22.17	22.05		
5	QPSK	12	7	21.91	22.12	22.05		
5	QPSK	12	13	21.98	22.15	22.12		
5	QPSK	25	0	21.85	22.08	21.98		
5	16QAM	1	0	21.93	22.07	21.97		
5	16QAM	1	12	22.03	22.18	22.14		
5	16QAM	1	24	21.99	22.15	22.11		
5	16QAM	12	0	20.86	21.17	21.13		
5	16QAM	12	7	20.96	21.16	21.09		
5	16QAM	12	13	20.98	21.10	21.08		
5	16QAM	25	0	20.80	21.13	21.07		
5	84QAM	1	0	20.88	21.05	21.02		
5	84QAM	1	12	20.88	21.09	21.07		
5	84QAM	1	24	20.86	21.12	21.10		
5	84QAM	12	0	19.95	20.14	20.03		
5	84QAM	12	7	19.98	20.11	20.06		
5	84QAM	12	13	19.92	20.13	20.07		
5	84QAM	25	0	19.90	20.12	20.10		
5	256QAM	1	0	17.72	17.94	17.83		
5	256QAM	1	12	17.81	18.04	17.95		
5	256QAM	1	24	17.69	17.93	17.84		
5	256QAM	12	0	17.99	18.14	18.01		
5	256QAM	12	7	17.80	18.08	18.07		
5	256QAM	12	13	17.80	18.07	18.05		
5	256QAM	25	0	17.85	18.07	18.00		
Channel								
Frequency (MHz)								
19965 20175 20385								
1711.5 1723.5 1823.5								
3	QPSK	1	0	23.01	23.15	23.15	24.5	0
3	QPSK	1	8	22.82	23.03	23.06		
3	QPSK	1	14	22.90	23.10	23.07		
3	QPSK	8	0	21.93	22.14	22.02		
3	QPSK	8	4	21.90	22.12	22.02		
3	QPSK	8	7	21.92	22.21	22.12		
3	QPSK	15	0	21.92	22.09	22.01		
3	16QAM	1	0	21.90	22.08	22.05		
3	16QAM	1	8	22.06	22.23	22.13		
3	16QAM	1	14	21.99	22.13	22.10		
3	16QAM	8	0	20.98	21.16	21.09		
3	16QAM	8	4	20.88	21.17	21.07		
3	16QAM	8	7	20.99	21.14	21.00		
3	84QAM	1	0	20.85	21.09	21.02		
3	84QAM	1	8	20.82	21.01	20.96		
3	84QAM	1	14	20.94	21.09	21.07		
3	84QAM	8	0	19.94	20.09	20.04		
3	84QAM	8	4	20.00	20.15	20.12		
3	84QAM	8	7	19.93	20.08	20.04		
3	84QAM	15	0	19.87	20.11	20.09		
3	256QAM	1	0	17.75	17.88	17.78		
3	256QAM	1	8	17.78	17.97	17.95		
3	256QAM	1	14	17.74	17.95	17.87		
3	256QAM	8	0	17.93	18.14	18.04		
3	256QAM	8	4	17.82	18.08	18.04		
3	256QAM	8	7	17.88	18.05	18.01		
3	256QAM	15	0	17.94	18.11	18.03		
Channel								
Frequency (MHz)								
19957 20175 20393								
1710.7 1723.5 1824.3								
1.4	QPSK	1	0	23.01	23.12	23.13	24.5	0
1.4	QPSK	1	3	22.82	23.03	23.02		
1.4	QPSK	1	5	22.93	23.16	23.14		
1.4	QPSK	3	0	22.86	23.17	23.03		
1.4	QPSK	3	1	22.85	23.05	23.08		
1.4	QPSK	3	3	22.90	23.17	23.14		
1.4	QPSK	6	0	21.95	22.05	21.97		
1.4	16QAM	1	0	21.90	22.13	22.00		
1.4	16QAM	1	3	22.05	22.24	22.21		
1.4	16QAM	1	5	21.97	22.20	22.10		
1.4	16QAM	3	0	21.89	22.09	21.97		
1.4	16QAM	3	1	22.08	22.22	22.21		
1.4	16QAM	3	3	21.94	22.20	22.13		
1.4	84QAM	1	0	20.87	21.10	21.06		
1.4	84QAM	1	0	21.01	21.14	21.12		
1.4	84QAM	1	3	20.98	21.11	21.05		
1.4	84QAM	1	5	20.84	21.17	21.01		
1.4	84QAM	3	0	20.82	21.04	21.05		
1.4	84QAM	3	1	20.92	21.18	21.07		
1.4	84QAM	3	3	20.94	21.16	21.10		
1.4	84QAM	6	0	19.93	20.11	20.06		
1.4	256QAM	1	0	17.71	17.92	17.80		
1.4	256QAM	1	3	17.73	18.02	17.92		



Band 12 Other PA Ant0									
BW (MHz)	Modulation	RE Size	RB Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Time-up limit (dB)	MPE (dB)	
Channel									
				704	707.5	711			
10	QPSK	1	0	24.50	24.50	24.44			
10	QPSK	1	25	24.37	24.44	24.45	23.5	0	
10	QPSK	1	49	24.40	24.50	24.45			
10	QPSK	25	0	23.70	23.74	23.63			
10	QPSK	25	12	23.63	23.67	23.61	24.5	1	
10	QPSK	25	25	23.49	23.64	23.58			
10	QPSK	50	0	23.55	23.59	23.55			
10	16QAM	1	0	23.47	23.52	23.56			
10	16QAM	1	25	23.59	23.58	23.62	24.5	1	
10	16QAM	1	49	23.54	23.57	23.48			
10	16QAM	25	0	22.55	22.65	22.62			
10	16QAM	25	12	22.81	22.56	22.52	23.5	2	
10	16QAM	25	25	22.44	22.51	22.44			
10	16QAM	50	0	22.84	22.91	22.86			
10	64QAM	1	0	22.54	22.56	22.54			
10	64QAM	1	25	22.60	22.68	22.54	23.5	2	
10	64QAM	1	49	22.70	22.75	22.61			
10	64QAM	25	0	21.48	21.59	21.55			
10	64QAM	25	12	21.61	21.86	21.84	22.5	3	
10	64QAM	25	25	21.60	21.75	21.65			
10	64QAM	50	0	21.90	22.04	21.92			
10	256QAM	1	0	20.00	20.17	19.99			
10	256QAM	1	25	19.81	19.92	19.88	20.5	5	
10	256QAM	1	49	20.05	20.17	20.05			
10	256QAM	25	0	19.47	19.56	19.52			
10	256QAM	25	12	19.80	19.84	19.75	20.5	5	
10	256QAM	25	25	19.60	19.72	19.67			
10	256QAM	50	0	19.65	19.89	19.85			
Channel									
				701.5	707.5	713.5			
5	QPSK	1	0	24.42	24.46	24.36			
5	QPSK	1	12	24.24	24.34	24.33	23.5	0	
5	QPSK	1	24	24.27	24.38	24.37			
5	QPSK	12	0	23.57	23.68	23.55			
5	QPSK	12	7	23.61	23.63	23.54	24.5	1	
5	QPSK	12	13	23.39	23.55	23.50			
5	16QAM	1	0	23.44	23.58	23.49			
5	16QAM	1	0	23.38	23.53	23.49			
5	16QAM	1	12	23.47	23.61	23.58	24.5	1	
5	16QAM	1	24	23.39	23.51	23.38			
5	16QAM	12	0	22.48	22.54	22.55			
5	16QAM	12	7	22.49	22.51	22.48	23.5	2	
5	16QAM	12	13	22.31	22.48	22.41			
5	16QAM	25	0	22.74	22.85	22.73			
5	64QAM	1	0	22.45	22.62	22.41	23.5	2	
5	64QAM	1	12	22.50	22.55	22.48			
5	64QAM	1	24	22.50	22.63	22.54			
5	64QAM	12	0	21.42	21.55	21.41			
5	64QAM	12	7	21.71	21.80	21.73	22.5	3	
5	64QAM	12	13	21.53	21.65	21.51			
5	64QAM	25	0	21.85	21.97	21.77			
5	256QAM	1	0	19.88	19.96	19.88			
5	256QAM	1	12	19.70	19.81	19.75	20.5	5	
5	256QAM	1	24	19.97	20.14	19.91			
5	256QAM	12	0	19.41	19.62	19.38			
5	256QAM	12	7	19.50	19.74	19.52	20.5	5	
5	256QAM	12	13	19.45	19.59	19.51			
5	256QAM	25	0	19.71	19.82	19.73			
Channel									
				701.5	707.5	714.5			
3	QPSK	1	0	24.40	24.52	24.44			
3	QPSK	1	8	24.34	24.34	24.34	23.5	0	
3	QPSK	1	14	24.36	24.40	24.38			
3	QPSK	8	0	23.68	23.65	23.49			
3	QPSK	8	4	23.55	23.59	23.58	24.5	1	
3	QPSK	8	7	23.39	23.52	23.53			
3	16QAM	1	0	23.60	23.62	23.48			
3	16QAM	1	8	23.47	23.53	23.55	24.5	1	
3	16QAM	1	14	23.48	23.53	23.58			
3	16QAM	8	0	22.45	22.58	22.59			
3	16QAM	8	4	22.47	22.59	22.48	23.5	2	
3	16QAM	8	7	22.70	22.40	22.45			
3	16QAM	15	0	22.77	22.77	22.70			
3	64QAM	1	0	22.44	22.57	22.41	23.5	2	
3	64QAM	1	8	22.56	22.58	22.38			
3	64QAM	1	14	22.59	22.73	22.52			
3	64QAM	8	0	21.44	21.55	21.43			
3	64QAM	8	4	21.77	21.83	21.75	22.5	3	
3	64QAM	8	7	21.49	21.61	21.52			
3	256QAM	1	0	19.88	19.91	19.89			
3	256QAM	1	8	19.67	19.80	19.77	20.5	5	
3	256QAM	1	14	19.98	20.04	19.92			
3	256QAM	8	0	19.63	19.50	19.63			
3	256QAM	8	4	19.72	19.70	19.59	20.5	5	
3	256QAM	8	7	19.48	19.59	19.53			
3	256QAM	15	0	19.81	19.81	19.81			
Channel									
				2317	2319.5	2319.5			
1.4	QPSK	1	0	24.41	24.49	24.53			
1.4	QPSK	1	3	24.34	24.38	24.25	23.5	0	
1.4	QPSK	1	5	24.35	24.41	24.38			
1.4	QPSK	3	0	24.40	24.44	24.26			
1.4	QPSK	3	1	24.20	24.35	24.30	24.5	1	
1.4	QPSK	3	3	24.30	24.41	24.32			
1.4	16QAM	1	0	23.51	23.54	23.53			
1.4	16QAM	1	3	23.39	23.52	23.52	24.5	1	
1.4	16QAM	1	5	23.46	23.59	23.47			
1.4	16QAM	3	0	23.42	23.48	23.47			
1.4	16QAM	3	1	23.50	23.59	23.56			
1.4	16QAM	3	3	23.44	23.48	23.35			
1.4	16QAM	6	0	22.81	22.81	22.47	23.8	2	
1.4	16QAM	1	0	22.49	22.54	22.41			
1.4	16QAM	1	3	22.49	22.43	22.38			
1.4	16QAM	1	5	22.45	22.50	22.42	23.5	2	
1.4	16QAM	3	0	22.47	22.59	22.47			
1.4	16QAM	3	1	22.50	22.60	22.47			
1.4	16QAM	3	3	22.59	22.62	22.55			
1.4	256QAM	1	0	21.56	21.62	21.59	22.5	3	
1.4	256QAM	1	0	19.89	19.89	19.85			
1.4	256QAM	1	3	19.69	19.89	19.74			
1.4	256QAM	1	5	19.81	20.03	19.86	20.5	5	
1.4	256QAM	3	0	19.59	19.46	19.46			
1.4	256QAM	3	1	19.70	19.73	19.57			
1.4	256QAM	3	3	19.56	19.68	19.56			
1.4	256QAM	5	0	19.79	19.76	19.70	20.5	5	



Band 17 Other PA Ant0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dB)	MFR (dB)	
Channel				709	710	711			
10	QPSK	1	0	24.43	24.51	24.46			
10	QPSK	1	25	24.31	24.40	24.36	25.5	0	
10	QPSK	1	49	24.38	24.47	24.33			
10	QPSK	25	0	23.64	23.66	23.67			
10	QPSK	25	12	23.62	23.69	23.66	24.5	1	
10	QPSK	25	25	23.34	23.46	23.34			
10	QPSK	50	0	23.48	23.50	23.49			
10	16QAM	1	0	23.46	23.50	23.47			
10	16QAM	1	25	23.29	23.42	23.32	24.5	1	
10	16QAM	1	49	23.21	23.34	23.26			
10	16QAM	25	0	22.98	22.73	22.82			
10	16QAM	25	12	22.89	22.72	22.58	23.5	2	
10	16QAM	25	25	22.69	22.73	22.62			
10	16QAM	50	0	22.67	22.79	22.73			
10	64QAM	1	0	22.43	22.50	22.41			
10	64QAM	1	25	22.50	22.54	22.48	23.5	2	
10	64QAM	1	49	22.36	22.35	22.31			
10	64QAM	25	0	21.59	21.66	21.59			
10	64QAM	25	12	21.68	21.77	21.66	22.5	3	
10	64QAM	25	25	21.50	21.56	21.49			
10	64QAM	50	0	21.59	21.66	21.62			
10	256QAM	1	0	19.82	19.90	19.81			
10	256QAM	1	25	19.83	19.85	19.78	20.5	5	
10	256QAM	1	49	19.59	19.70	19.66			
10	256QAM	25	0	19.47	19.58	19.45			
10	256QAM	25	12	19.52	19.60	19.56	20.5	5	
10	256QAM	25	25	19.50	19.54	19.43			
10	256QAM	50	0	19.50	19.67	19.58			
Channel				23705	23706	23705			
Frequency (MHz)				709.5	710	711.5	Turn-up limit (dB)	APPR (dB)	
5	QPSK	1	0	24.39	24.45	24.43			
5	QPSK	1	12	24.24	24.30	24.25	25.5	0	
5	QPSK	1	24	24.35	24.35	24.22			
5	QPSK	12	0	23.59	23.81	23.49			
5	QPSK	12	7	23.40	23.47	23.39	24.5	1	
5	QPSK	12	13	23.28	23.42	23.25			
5	QPSK	25	0	23.44	23.55	23.39			
5	16QAM	1	0	23.32	23.45	23.31			
5	16QAM	1	12	23.20	23.32	23.26	24.5	1	
5	16QAM	1	24	23.07	23.29	23.22			
5	16QAM	12	0	22.94	22.61	22.51			
5	16QAM	12	7	22.66	22.59	22.54	23.5	2	
5	16QAM	12	13	22.58	22.79	22.61			
5	16QAM	25	0	22.97	22.67	22.63			
5	64QAM	1	0	22.38	22.37	22.37			
5	64QAM	1	12	22.41	23.46	22.37	23.5	2	
5	64QAM	1	24	22.22	22.27	22.15			
5	64QAM	12	0	21.44	21.58	21.53			
5	64QAM	12	7	21.50	21.70	21.54	22.5	3	
5	64QAM	12	13	21.37	21.51	21.35			
5	64QAM	25	0	21.44	21.57	21.49			
5	256QAM	1	0	19.76	19.79	19.69			
5	256QAM	1	12	19.72	19.75	19.66	20.5	5	
5	256QAM	1	24	19.48	19.59	19.53			
5	256QAM	12	0	19.37	19.48	19.33			
5	256QAM	12	7	19.39	19.47	19.43	20.5	5	
5	256QAM	12	13	19.44	19.48	19.33			
5	256QAM	25	0	19.36	19.63	19.52			



Band 12 Other PA Ant1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Time-up limit (dB)	MPE (dB)
				Low Ch / Freq.	Mid Ch / Freq.	High Ch / Freq.		
Channel								
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	23.69	23.74	23.67	25.5	0
10	QPSK	1	25	23.69	23.66	23.67		
10	QPSK	1	49	23.67	23.61	23.62		
10	QPSK	25	0	22.66	22.76	22.67	24.5	1
10	QPSK	25	12	22.66	22.70	22.67		
10	QPSK	25	25	22.65	22.65	22.66		
10	QPSK	50	0	22.59	22.72	22.67		
10	16QAM	1	0	22.68	22.67	22.65	24.5	1
10	16QAM	1	25	22.53	22.61	22.58		
10	16QAM	1	49	22.54	22.57	22.51		
10	16QAM	25	0	21.73	21.81	21.71	23.5	2
10	16QAM	25	12	21.70	21.73	21.65		
10	16QAM	25	25	21.63	21.77	21.65		
10	16QAM	50	0	21.68	21.71	21.67		
10	64QAM	1	0	21.65	21.79	21.71	23.5	2
10	64QAM	1	25	21.59	21.72	21.66		
10	64QAM	1	49	21.65	21.69	21.64		
10	64QAM	25	0	20.90	20.95	20.88	22.5	3
10	64QAM	25	12	20.87	20.88	20.78		
10	64QAM	25	25	20.81	20.81	20.84		
10	64QAM	50	0	20.68	20.83	20.72		
10	256QAM	1	0	18.85	18.96	18.82	20.5	5
10	256QAM	1	25	18.83	18.93	18.88		
10	256QAM	1	49	18.85	18.88	18.74		
10	256QAM	25	0	18.73	18.87	18.84	20.5	5
10	256QAM	25	12	18.68	18.77	18.72		
10	256QAM	25	25	18.74	18.83	18.69		
10	256QAM	50	0	18.65	18.91	18.82		
Channel								
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	23.62	23.67	23.64	25.5	0
5	QPSK	1	12	23.67	23.68	23.64		
5	QPSK	1	24	23.67	23.56	23.62		
5	QPSK	12	0	22.55	22.67	22.64	24.5	1
5	QPSK	12	7	22.51	22.64	22.60		
5	QPSK	12	13	22.51	22.52	22.52		
5	QPSK	25	0	22.55	22.67	22.61		
5	16QAM	1	0	22.57	22.58	22.58	24.5	1
5	16QAM	1	12	22.51	22.55	22.59		
5	16QAM	1	24	22.59	22.54	22.59		
5	16QAM	12	0	21.85	21.74	21.83	23.5	2
5	16QAM	12	7	21.81	21.83	21.59		
5	16QAM	12	13	21.63	21.66	21.59		
5	16QAM	25	0	21.53	21.98	21.51	23.5	2
5	64QAM	1	0	21.54	21.71	21.58		
5	64QAM	1	12	21.55	21.64	21.64		
5	64QAM	1	24	21.51	21.61	21.58	22.5	3
5	64QAM	12	0	20.77	20.90	20.83		
5	64QAM	12	7	20.69	20.79	20.65		
5	64QAM	12	13	20.67	20.85	20.72		
5	64QAM	25	0	20.58	20.80	20.60		
5	256QAM	1	0	18.71	18.96	18.73	20.5	5
5	256QAM	1	12	18.74	18.82	18.81		
5	256QAM	1	24	18.73	18.77	18.65		
5	256QAM	12	0	18.64	18.78	18.72	20.5	5
5	256QAM	12	7	18.59	18.67	18.63		
5	256QAM	12	13	18.62	18.74	18.55		
5	256QAM	25	0	18.73	18.92	18.71		
Channel								
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	23.64	23.63	23.66	25.5	0
3	QPSK	1	8	23.57	23.56	23.58		
3	QPSK	1	14	23.53	23.57	23.59		
3	QPSK	8	0	22.52	22.66	22.52	24.5	1
3	QPSK	8	4	22.58	22.57	22.51		
3	QPSK	8	7	22.56	22.54	22.58		
3	QPSK	16	0	22.60	22.58	22.61		
3	16QAM	1	0	22.59	22.54	22.59	24.5	1
3	16QAM	1	8	22.58	22.51	22.80		
3	16QAM	1	14	22.63	22.58	22.61		
3	16QAM	8	0	21.59	21.75	21.65	23.5	2
3	16QAM	8	4	21.58	21.87	21.81		
3	16QAM	8	7	21.56	21.72	21.65		
3	16QAM	16	0	21.55	21.63	21.54		
3	64QAM	1	0	21.60	21.72	21.63	23.5	2
3	64QAM	1	8	21.56	21.64	21.60		
3	64QAM	1	14	21.59	21.64	21.57		
3	64QAM	8	0	20.79	20.86	20.79	22.5	3
3	64QAM	8	4	20.77	20.71	20.72		
3	64QAM	8	7	20.74	20.79	20.71		
3	64QAM	16	0	20.63	20.75	20.61		
3	256QAM	1	0	18.74	18.88	18.79	20.5	5
3	256QAM	1	8	18.76	18.78	18.79		
3	256QAM	1	14	18.79	18.84	18.61		
3	256QAM	8	0	18.70	18.82	18.72	20.5	5
3	256QAM	8	4	18.68	18.71	18.61		
3	256QAM	8	7	18.62	18.79	18.63		
3	256QAM	16	0	18.73	18.87	18.72		
Channel								
Frequency (MHz)				699.7	707.5	716.3		
1.4	QPSK	1	0	23.64	23.55	23.58	25.5	0
1.4	QPSK	1	3	23.52	23.51	23.55		
1.4	QPSK	1	5	23.58	23.70	23.65		
1.4	QPSK	3	0	23.55	23.63	23.59	24.5	1
1.4	QPSK	3	1	23.56	23.58	23.59		
1.4	QPSK	3	3	23.52	23.52	23.54		
1.4	QPSK	6	0	22.68	22.72	22.61	24.5	1
1.4	16QAM	1	0	22.62	22.68	22.59		
1.4	16QAM	1	3	22.64	22.51	22.57	24.5	1
1.4	16QAM	1	5	22.64	22.60	22.53		
1.4	16QAM	3	0	22.84	22.57	22.61		
1.4	16QAM	3	1	22.51	22.57	22.60		
1.4	16QAM	3	3	22.68	22.52	22.59	23.5	2
1.4	16QAM	6	0	21.66	21.75	21.68		
1.4	64QAM	1	0	21.59	21.59	21.52	23.5	2
1.4	64QAM	1	3	21.59	21.67	21.52		
1.4	64QAM	1	5	21.64	21.58	21.52		
1.4	64QAM	3	0	21.55	21.71	21.60		
1.4	64QAM	3	1	21.59	21.68	21.63		
1.4	64QAM	3	3	21.53	21.58	21.53	22.5	3
1.4	256QAM	1	0	20.74	20.82	20.66		
1.4	256QAM	1	0	18.75	18.87	18.87	20.5	5
1.4	256QAM	1	3	18.77	18.87	18.79		
1.4	256QAM	1	5	18.79	18.74	18.61		
1.4	256QAM	3	0	18.70	18.73	18.74	20.5	5
1.4	256QAM	3	1	18.65	18.67	18.60		
1.4	256QAM	3	3	18.66	18.76	18.66		
1.4	256QAM	6	0	18.79	18.78	18.76	20.5	5



Band 17 Other PA Ant1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. [Freq.]	Power High Ch. [Freq.]	Power Mid Ch. [Freq.]	Turn-up limit [dB]	MFR [dB]
Channel				709	710	711		
10	QPSK	1	0	23.07	23.70	23.69	25.5	0
10	QPSK	1	25	23.54	23.69	23.51		
10	QPSK	1	49	23.05	23.69	23.81		
10	QPSK	25	0	22.60	22.60	22.58	24.5	1
10	QPSK	25	12	22.53	22.59	22.85		
10	QPSK	25	25	22.83	22.58	22.58		
10	QPSK	50	0	22.07	22.61	22.54		
10	16QAM	1	0	22.90	22.96	22.59	24.5	1
10	16QAM	1	25	22.87	22.53	22.81		
10	16QAM	1	49	22.63	22.59	22.62		
10	16QAM	25	0	21.81	21.71	21.68	23.5	2
10	16QAM	25	12	21.81	21.58	21.58		
10	16QAM	25	25	21.81	21.72	21.62		
10	16QAM	50	0	21.87	21.69	21.68		
10	64QAM	1	0	21.50	21.74	21.63	23.5	2
10	64QAM	1	25	21.58	21.59	21.63		
10	64QAM	1	49	21.54	21.66	21.60		
10	64QAM	25	0	20.86	20.87	20.85	22.5	3
10	64QAM	25	12	20.71	20.81	20.86		
10	64QAM	25	25	20.71	20.78	20.78		
10	64QAM	50	0	20.53	20.73	20.63		
10	256QAM	1	0	18.72	18.89	18.81	20.5	5
10	256QAM	1	25	18.73	18.78	18.74		
10	256QAM	1	49	18.78	18.84	18.83		
10	256QAM	25	0	18.69	18.76	18.73	20.5	5
10	256QAM	25	12	18.67	18.67	18.63		
10	256QAM	25	25	18.66	18.72	18.55		
10	256QAM	50	0	18.72	18.87	18.71		
Channel				21765	21769	21805		
Frequency [MHz]				709.5	710	711.5	Turn-up limit [dB]	MFR [dB]
5	QPSK	1	0	23.51	23.65	23.54	25.5	0
5	QPSK	1	12	23.53	23.56	23.57		
5	QPSK	1	24	23.54	23.64	23.56		
5	QPSK	12	0	22.72	22.83	22.67	24.5	1
5	QPSK	12	7	22.92	22.74	22.69		
5	QPSK	12	13	22.58	22.72	22.59		
5	QPSK	25	0	22.68	22.72	22.64		
5	16QAM	1	0	22.67	22.66	22.59	24.5	1
5	16QAM	1	12	22.55	22.86	22.57		
5	16QAM	1	24	22.51	22.59	22.58		
5	16QAM	12	0	21.75	21.84	21.73	23.5	2
5	16QAM	12	7	21.72	21.67	21.81		
5	16QAM	12	13	21.61	21.69	21.68		
5	16QAM	25	0	21.58	21.69	21.56		
5	64QAM	1	0	21.59	21.72	21.67	23.5	2
5	64QAM	1	12	21.54	21.62	21.60		
5	64QAM	1	24	21.51	21.61	21.62		
5	64QAM	12	0	20.92	20.90	20.85	22.5	3
5	64QAM	12	7	20.83	20.76	20.85		
5	64QAM	12	13	20.73	20.75	20.74		
5	64QAM	25	0	20.65	20.69	20.59		
5	256QAM	1	0	18.72	18.86	18.83	20.5	5
5	256QAM	1	12	18.72	18.85	18.77		
5	256QAM	1	24	18.79	18.81	18.69		
5	256QAM	12	0	18.75	18.72	18.69	20.5	5
5	256QAM	12	7	18.60	18.70	18.61		
5	256QAM	12	13	18.66	18.73	18.67		
5	256QAM	25	0	18.68	18.93	18.69		



DSI 3 Power for WWAN Other PA

Band 5 Ant0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				20450	20525	20600			
Frequency (MHz)				829	836.5	844			
10	QPSK	1	0	24.82	24.85	24.77			
10	QPSK	1	25	24.74	24.73	24.69	25.5	0	
10	QPSK	1	49	24.68	24.68	24.61			
10	QPSK	25	0	23.64	23.75	23.66			
10	QPSK	25	12	23.64	23.65	23.64	24.5	1	
10	QPSK	25	25	23.67	23.65	23.65			
10	QPSK	50	0	23.59	23.72	23.62			
10	16QAM	1	0	23.73	23.86	23.73			
10	16QAM	1	25	23.74	23.80	23.71	24.5	1	
10	16QAM	1	49	23.70	23.76	23.67			
10	16QAM	25	0	22.79	22.91	22.78			
10	16QAM	25	12	22.70	22.77	22.71	23.5	2	
10	16QAM	25	25	22.86	22.71	22.66			
10	16QAM	50	0	22.69	22.80	22.70			
10	64QAM	1	0	22.74	22.84	22.71			
10	64QAM	1	25	22.61	22.76	22.70	23.5	2	
10	64QAM	1	49	22.59	22.69	22.62			
10	64QAM	25	0	21.79	21.89	21.79			
10	64QAM	25	12	21.65	21.76	21.69	22.5	3	
10	64QAM	25	25	21.71	21.82	21.72			
10	64QAM	50	0	21.68	21.81	21.73			
10	256QAM	1	0	19.52	19.65	19.58			
10	256QAM	1	25	19.42	19.56	19.47	20.5	5	
10	256QAM	1	49	19.42	19.52	19.41			
10	256QAM	25	0	19.54	19.60	19.52			
10	256QAM	25	12	19.44	19.54	19.39	20.5	5	
10	256QAM	25	25	19.36	19.47	19.33			
10	256QAM	50	0	19.45	19.52	19.37			
Channel				20425	20525	20625			
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	0	24.73	24.77	24.64			
5	QPSK	1	12	24.61	24.66	24.57	25.5	0	
5	QPSK	1	24	24.61	24.54	24.54			
5	QPSK	12	0	23.57	23.67	23.56			
5	QPSK	12	7	23.58	23.54	23.55	24.5	1	
5	QPSK	12	13	23.54	23.43	23.58			
5	QPSK	25	0	23.46	23.58	23.55			
5	16QAM	1	0	23.64	23.80	23.67			
5	16QAM	1	12	23.62	23.73	23.60	24.5	1	
5	16QAM	1	24	23.62	23.63	23.58			
5	16QAM	12	0	22.67	22.82	22.65			
5	16QAM	12	7	22.68	22.62	22.60	23.5	2	
5	16QAM	12	13	22.54	22.62	22.57			
5	16QAM	25	0	22.63	22.69	22.60			
5	64QAM	1	0	22.68	22.74	22.63			
5	64QAM	1	12	22.51	22.64	22.58	23.5	2	
5	64QAM	1	24	22.47	22.59	22.50			
5	64QAM	12	0	21.67	21.77	21.71			
5	64QAM	12	7	21.58	21.62	21.60	22.5	3	
5	64QAM	12	13	21.66	21.68	21.61			
5	64QAM	25	0	21.60	21.75	21.61			
5	256QAM	1	0	19.45	19.56	19.44			
5	256QAM	1	12	19.34	19.49	19.38	20.5	5	
5	256QAM	1	24	19.33	19.44	19.29			
5	256QAM	12	0	19.46	19.45	19.41			
5	256QAM	12	7	19.33	19.45	19.33	20.5	5	
5	256QAM	12	13	19.27	19.40	19.20			
5	256QAM	25	0	19.32	19.41	19.28			
Channel				20415	20525	20635			
Frequency (MHz)				825.5	836.5	847.5			
3	QPSK	1	0	24.77	24.77	24.65			
3	QPSK	1	8	24.65	24.63	24.55	25.5	0	
3	QPSK	1	14	24.54	24.54	24.52			
3	QPSK	8	0	23.50	23.58	23.55			
3	QPSK	8	4	23.50	23.60	23.59	24.5	1	
3	QPSK	8	7	23.56	23.52	23.52			
3	QPSK	15	0	23.51	23.57	23.48			
3	16QAM	1	0	23.66	23.81	23.59			
3	16QAM	1	8	23.60	23.67	23.60	24.5	1	
3	16QAM	1	14	23.62	23.62	23.60			
3	16QAM	8	0	22.71	22.85	22.72			
3	16QAM	8	4	22.56	22.70	22.65	23.5	2	
3	16QAM	8	7	22.55	22.57	22.53			
3	16QAM	15	0	22.58	22.67	22.65			
3	64QAM	1	0	22.60	22.78	22.61			
3	64QAM	1	8	22.52	22.70	22.59	23.5	2	
3	64QAM	1	14	22.45	22.63	22.50			
3	64QAM	8	0	21.68	21.80	21.67			
3	64QAM	8	4	21.51	21.64	21.57	22.5	3	
3	64QAM	8	7	21.57	21.68	21.61			
3	64QAM	15	0	21.60	21.70	21.65			
3	256QAM	1	0	19.42	19.50	19.52			
3	256QAM	1	8	19.32	19.44	19.33	20.5	5	
3	256QAM	1	14	19.35	19.45	19.36			
3	256QAM	8	0	19.47	19.51	19.44			
3	256QAM	8	4	19.39	19.47	19.33	20.5	5	
3	256QAM	8	7	19.27	19.38	19.23			
3	256QAM	15	0	19.34	19.41	19.24			
Channel				20407	20525	20643			
Frequency (MHz)				824.7	836.5	848.3			
1.4	QPSK	1	0	24.74	24.78	24.64			
1.4	QPSK	1	3	24.63	24.67	24.54	25.5	0	
1.4	QPSK	1	5	24.61	24.55	24.50			
1.4	QPSK	3	0	23.56	23.68	23.59			
1.4	QPSK	3	1	23.51	23.57	23.52			
1.4	QPSK	3	3	23.55	23.51	23.59	24.5	1	
1.4	QPSK	6	0	23.46	23.62	23.49			
1.4	16QAM	1	0	23.61	23.79	23.58			
1.4	16QAM	1	3	23.66	23.69	23.62			
1.4	16QAM	1	5	23.60	23.65	23.56	24.5	1	
1.4	16QAM	3	0	23.59	23.75	23.64			
1.4	16QAM	3	1	23.64	23.67	23.63			
1.4	16QAM	3	3	23.55	23.63	23.52			
1.4	16QAM	6	0	22.74	22.81	22.69	23.5	2	
1.4	64QAM	1	0	22.63	22.69	22.66			
1.4	64QAM	1	3	22.57	22.58	22.53			
1.4	64QAM	1	5	22.56	22.71	22.56	23.5	2	
1.4	64QAM	3	0	22.64	22.77	22.63			
1.4	64QAM	3	1	22.49	22.66	22.59			
1.4	64QAM	3	3	22.49	22.61	22.48			
1.4	64QAM	6	0	21.70	21.76	21.64	22.5	3	
1.4	256QAM	1	0	19.47	19.55	19.51			
1.4	256QAM	1	3	19.34	19.42	19.38			
1.4	256QAM	1	5	19.30	19.42	19.30	20.5	5	
1.4	256QAM	3	0	19.40	19.49	19.38			
1.4	256QAM	3	1	19.32	19.41	19.27			
1.4	256QAM	3	3	19.22	19.32	19.19			
1.4	256QAM	6	0	19.31	19.42	19.32	20.5	5	



Band 4 Other PA Ant1										
RF [MHz]	Modulation	RB Size	RB Offset	Power Ch./Frac	Power Ind. Ch./Frac	Power High Ch./Frac	Power Low Ch./Frac	Turn-up limit (dB)	MFR (dB)	
Channel										
Frequency (MHz)										
20	QPSK	1	0	24.44	24.49	24.41		25.5	0	
20	QPSK	1	49	24.44	24.47	24.43		25.5	0	
20	QPSK	1	99	24.29	24.42	24.38		25.5	0	
20	QPSK	10	0	23.31	23.33	23.33		24.5	1	
20	QPSK	10	24	23.30	23.43	23.40		24.5	1	
20	QPSK	60	50	23.32	23.38	23.36		24.5	1	
20	QPSK	100	0	23.37	23.46	23.36		24.5	1	
20	QPSK	100	0	23.32	23.45	23.35		24.5	1	
20	HQAM	1	49	23.32	23.39	23.30		24.5	1	
20	HQAM	1	99	23.24	23.35	23.30		24.5	1	
20	HQAM	50	0	22.41	22.55	22.54		23.5	2	
20	HQAM	50	24	22.31	22.41	22.27		23.5	2	
20	HQAM	100	0	22.44	22.50	22.38		23.5	2	
20	HQAM	100	0	22.37	22.52	22.49		23.5	2	
20	HQAM	1	99	22.24	22.37	22.31		22.5	3	
20	HQAM	50	0	21.41	21.46	21.38		22.5	3	
20	HQAM	50	50	21.27	21.39	21.31		22.5	3	
20	HQAM	100	0	21.30	21.41	21.36		22.5	3	
20	HQAM	100	0	19.41	19.49	19.44		20.5	5	
20	HQAM	1	49	19.29	19.40	19.35		20.5	5	
20	HQAM	1	99	19.24	19.36	19.28		20.5	5	
20	HQAM	50	24	19.30	19.38	19.25		20.5	5	
20	HQAM	50	24	19.30	19.38	19.25		20.5	5	
20	HQAM	50	50	19.27	19.31	19.18		20.5	5	
20	HQAM	100	0	19.27	19.32	19.22		20.5	5	
Channel										
Frequency (MHz)										
15	QPSK	1	0	24.40	24.42	24.42		25.5	0	
15	QPSK	1	37	24.28	24.34	24.28		25.5	0	
15	QPSK	1	74	24.19	24.28	24.32		25.5	0	
15	QPSK	10	0	23.27	23.31	23.28		24.5	1	
15	QPSK	10	20	23.24	23.28	23.30		24.5	1	
15	QPSK	36	30	23.23	23.22	23.23		24.5	1	
15	QPSK	36	30	23.23	23.22	23.23		24.5	1	
15	HQAM	1	0	23.28	23.38	23.24		24.5	1	
15	HQAM	1	37	23.22	23.29	23.19		24.5	1	
15	HQAM	1	74	23.17	23.22	23.24		24.5	1	
15	HQAM	36	0	22.31	22.50	22.37		23.5	2	
15	HQAM	36	20	22.23	22.28	22.18		23.5	2	
15	HQAM	36	39	22.12	22.26	22.23		23.5	2	
15	HQAM	75	0	22.33	22.37	22.27		23.5	2	
15	HQAM	1	0	22.24	22.43	22.38		23.5	2	
15	HQAM	1	37	22.26	22.39	22.32		23.5	2	
15	HQAM	1	74	22.21	22.24	22.24		23.5	2	
15	HQAM	36	0	21.34	21.35	21.24		22.5	3	
15	HQAM	36	20	21.28	21.43	21.27		22.5	3	
15	HQAM	36	39	21.18	21.34	21.27		22.5	3	
15	HQAM	75	0	21.21	21.31	21.25		22.5	3	
15	HQAM	1	0	19.33	19.44	19.44		20.5	5	
15	HQAM	1	37	19.18	19.28	19.28		20.5	5	
15	HQAM	1	74	19.14	19.25	19.20		20.5	5	
15	HQAM	36	0	19.20	19.37	19.27		20.5	5	
15	HQAM	36	20	19.27	19.33	19.18		20.5	5	
15	HQAM	36	39	19.19	19.27	19.10		20.5	5	
15	HQAM	75	0	19.11	19.32	19.20		20.5	5	
Channel										
Frequency (MHz)										
10	QPSK	1	0	24.43	24.45	24.43		25.5	0	
10	QPSK	1	25	24.20	24.32	24.17		25.5	0	
10	QPSK	1	49	24.17	24.30	24.29		25.5	0	
10	QPSK	10	0	23.17	23.18	23.18		24.5	1	
10	QPSK	10	25	23.29	23.28	23.28		24.5	1	
10	QPSK	25	25	23.20	23.25	23.18		24.5	1	
10	QPSK	100	0	23.28	23.42	23.23		24.5	1	
10	HQAM	1	0	23.19	23.32	23.28		24.5	1	
10	HQAM	1	25	23.27	23.31	23.20		24.5	1	
10	HQAM	1	49	23.20	23.27	23.20		24.5	1	
10	HQAM	25	0	22.33	22.44	22.34		23.5	2	
10	HQAM	25	12	22.19	22.28	22.14		23.5	2	
10	HQAM	25	29	22.10	22.30	22.23		23.5	2	
10	HQAM	50	0	22.39	22.41	22.25		23.5	2	
10	HQAM	1	0	22.27	22.41	22.41		23.5	2	
10	HQAM	1	25	22.29	22.33	22.31		23.5	2	
10	HQAM	1	49	22.18	22.32	22.25		23.5	2	
10	HQAM	25	0	21.35	21.39	21.29		22.5	3	
10	HQAM	25	12	21.08	21.24	21.22		22.5	3	
10	HQAM	25	25	21.22	21.25	21.24		22.5	3	
10	HQAM	50	0	21.17	21.33	21.24		22.5	3	
10	HQAM	50	0	19.27	19.43	19.35		20.5	5	
10	HQAM	1	25	19.23	19.27	19.22		20.5	5	
10	HQAM	1	49	19.12	19.28	19.24		20.5	5	
10	HQAM	25	0	19.34	19.30	19.20		20.5	5	
10	HQAM	25	12	19.19	19.30	19.12		20.5	5	
10	HQAM	25	25	19.17	19.19	19.06		20.5	5	
10	HQAM	50	0	19.17	19.24	19.21		20.5	5	
Channel										
Frequency (MHz)										
5	QPSK	1	0	24.53	24.45	24.44		25.5	0	
5	QPSK	1	12	24.24	24.33	24.17		25.5	0	
5	QPSK	1	24	24.18	24.33	24.33		25.5	0	
5	QPSK	12	0	23.17	23.18	23.18		24.5	1	
5	QPSK	12	7	23.27	23.24	23.28		24.5	1	
5	QPSK	12	13	23.23	23.22	23.16		24.5	1	
5	QPSK	12	13	23.20	23.42	23.23		24.5	1	
5	HQAM	1	0	23.25	23.31	23.24		24.5	1	
5	HQAM	1	12	23.17	23.33	23.21		24.5	1	
5	HQAM	1	24	23.10	23.29	23.23		24.5	1	
5	HQAM	12	0	22.29	22.43	22.34		23.5	2	
5	HQAM	12	7	22.20	22.34	22.20		23.5	2	
5	HQAM	12	13	22.10	22.25	22.12		23.5	2	
5	HQAM	25	0	22.30	22.40	22.28		23.5	2	
5	HQAM	1	0	22.22	22.41	22.39		23.5	2	
5	HQAM	1	12	22.14	22.37	22.30		23.5	2	
5	HQAM	1	24	22.13	22.28	22.20		23.5	2	
5	HQAM	12	0	21.30	21.34	21.28		22.5	3	
5	HQAM	12	7	21.04	21.20	21.18		22.5	3	
5	HQAM	12	13	21.21	21.29	21.24		22.5	3	
5	HQAM	25	0	21.11	21.29	21.22		22.5	3	
5	HQAM	50	0	19.28	19.43	19.38		20.5	5	
5	HQAM	1	12	19.23	19.31	19.22		20.5	5	
5	HQAM	1	24	19.19	19.32	19.24		20.5	5	
5	HQAM	12	0	19.35	19.37	19.25		20.5	5	
5	HQAM	12	7	19.24	19.31	19.19		20.5	5	
5	HQAM	12	13	19.15	19.20	19.04		20.5	5	
5	HQAM	25	0	19.11	19.30	19.18		20.5	5	
Channel										
Frequency (MHz)										
1.4	QPSK	1	0	24.29	24.46	24.29		25.5	0	
1.4	QPSK	1	3	24.30	24.39	24.21		25.5	0	
1.4	QPSK	1	6	24.12	24.29	24.31		25.5	0	
1.4	QPSK	3	0	24.30	24.44	24.31		25.5	0	
1.4	QPSK	3	1	24.27	24.34	24.28		25.5	0	
1.4	QPSK	3	24	24.24	24.34	24.29		25.5	0	
1.4	QPSK	6	0	23.19	23.40	23.23		24.5	1	
1.4	HQAM	1	0	23.31	23.32	23.32		24.5	1	
1.4	HQAM	1	24	23.12	23.22	23.14		24.5	1	
1.4	HQAM	1	5	23.25	23.39	23.30		24.5	1	
1.4	HQAM	3	0	23.20	23.38	23.25		24.5	1	
1.4	HQAM	3	3	23.19	23.32	23.17		24.5	1	
1.4	HQAM	6	0	22.37	22.43	22.33		23.5	2	
1.4	HQAM	1	0	21.15	21.34	21.15		22.5	3	
1.4	HQAM	1	3	22.19	22.28	22.12		23.5	2	
1.4	HQAM	1	5	22.35	22.37	22.25		23.5	2	
1.4	HQAM	3	0	22.22	22.44	22.46		23.5	2	
1.4	HQAM	3	1	22.32	22.32	22.29		23.5	2	
1.4	HQAM	3	2	22.10	22.30	22.25		23.5	2	
1.4	HQAM	6	0	21.10	21.35	21.28		22.5	3	
1.4	HQAM	1	0	19.27	19.45	19.36		20.5	5	
1.4	HQAM	1	3	19.16	19.32	19.22		20.5	5	
1.4	HQAM	3	0	19.15	19.27	19.22		20.5	5	
1.4	HQAM	3	0	19.29	19.36	19.21		20.5	5	
1.4	HQAM	3	1	19.20	19.27	19.21		20.5	5	
1.4	HQAM	3	1	19.19	19.25	19.08		20.5	5	
1.4	HQAM	6	0	19.19	19.28	19.22		20.5	5	

Band 5 Other PA Ant1										
RF [MHz]	Modulation	RB Size	RB Offset	Power Ch./Frac	Power Ind. Ch./Frac	Power High Ch./Frac	Power Low Ch./Frac	Turn-up limit (dB)	MFR (dB)	
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.89	23.38	23.92		25.5	0	
10	QPSK	1	25	23.89	23.89	23.89		25.5	0	
10										



Band 4 Other PA Ant2

SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up (dB)	MPR (dB)
Channel								
Frequency (MHz)								
1720 1732.5 1745								
20	QPSK	1	0	23.68	23.35	23.77	24.5	0
20	QPSK	1	49	23.67	23.73	23.61		
20	QPSK	1	99	23.65	23.76	23.66		
20	QPSK	50	0	22.69	22.82	22.70	23.5	1
20	QPSK	50	24	22.67	22.81	22.66		
20	QPSK	50	50	22.71	22.79	22.74		
20	QPSK	100	0	22.64	22.76	22.68	23.5	1
20	16QAM	1	0	22.69	22.75	22.67		
20	16QAM	1	49	22.54	22.69	22.62		
20	16QAM	1	99	22.57	22.65	22.58		
20	16QAM	50	0	21.64	21.71	21.59	22.5	2
20	16QAM	50	24	21.43	21.57	21.49		
20	16QAM	50	55	21.37	21.51	21.46		
20	16QAM	100	0	21.55	21.64	21.54	22.5	2
20	64QAM	1	0	21.55	21.69	21.56		
20	64QAM	1	49	21.48	21.61	21.49	21.5	3
20	64QAM	1	99	21.48	21.54	21.42		
20	64QAM	50	0	20.52	20.62	20.50	19.5	5
20	64QAM	50	24	20.38	20.49	20.36		
20	64QAM	50	50	20.45	20.55	20.40		
20	64QAM	100	0	20.52	20.58	20.51	19.5	5
20	256QAM	1	0	18.48	18.58	18.50		
20	256QAM	1	49	18.43	18.49	18.40	19.5	5
20	256QAM	1	99	18.37	18.45	18.39		
20	256QAM	50	0	18.43	18.50	18.43		
20	256QAM	50	24	18.36	18.44	18.36	19.5	5
20	256QAM	50	50	18.28	18.37	18.29		
20	256QAM	100	0	18.32	18.44	18.36		
Channel								
Frequency (MHz)								
20005 20175 20325								
1717.5 1732.5 1747.5								
15	QPSK	1	0	23.62	23.77	23.64	24.5	0
15	QPSK	1	37	23.54	23.68	23.56		
15	QPSK	1	74	23.59	23.62	23.57		
15	QPSK	36	8	22.60	22.70	22.66	23.5	1
15	QPSK	36	20	22.59	22.73	22.57		
15	QPSK	36	39	22.62	22.71	22.67		
15	QPSK	75	0	22.54	22.72	22.59	23.5	1
15	16QAM	1	0	22.62	22.67	22.58		
15	16QAM	1	37	22.43	22.59	22.55	23.5	1
15	16QAM	1	74	22.44	22.53	22.46		
15	16QAM	36	0	21.58	21.65	21.53	22.5	2
15	16QAM	36	20	21.35	21.50	21.39		
15	16QAM	36	39	21.26	21.37	21.23		
15	16QAM	75	0	21.48	21.58	21.43	22.5	2
15	64QAM	1	0	21.41	21.55	21.42		
15	64QAM	1	37	21.39	21.50	21.35	21.5	3
15	64QAM	1	74	21.40	21.48	21.34		
15	64QAM	36	0	20.40	20.53	20.36	19.5	5
15	64QAM	36	20	20.29	20.36	20.22		
15	64QAM	36	39	20.37	20.50	20.41		
15	64QAM	75	0	20.37	20.49	20.40	19.5	5
15	256QAM	1	0	18.42	18.44	18.44		
15	256QAM	1	37	18.34	18.38	18.27	19.5	5
15	256QAM	1	74	18.26	18.38	18.31		
15	256QAM	36	0	18.28	18.37	18.36		
15	256QAM	36	20	18.24	18.37	18.30	19.5	5
15	256QAM	36	39	18.20	18.28	18.15		
15	256QAM	75	0	18.22	18.37	18.22		
Channel								
Frequency (MHz)								
20000 20175 20350								
1715 1725 1735								
10	QPSK	1	0	23.58	23.76	23.65	24.5	0
10	QPSK	1	25	23.55	23.59	23.53		
10	QPSK	1	49	23.54	23.71	23.55		
10	QPSK	25	0	22.60	22.70	22.60	23.5	1
10	QPSK	25	12	22.55	22.73	22.61		
10	QPSK	25	25	22.63	22.72	22.64		
10	QPSK	50	0	22.58	22.67	22.55	23.5	1
10	16QAM	1	0	22.61	22.61	22.58		
10	16QAM	1	25	22.44	22.63	22.54	23.5	1
10	16QAM	1	49	22.48	22.55	22.46		
10	16QAM	25	0	21.49	21.59	21.51	22.5	2
10	16QAM	25	12	21.31	21.49	21.42		
10	16QAM	25	25	21.29	21.43	21.33		
10	16QAM	50	0	21.45	21.52	21.46	22.5	2
10	64QAM	1	0	21.42	21.58	21.50		
10	64QAM	1	25	21.35	21.50	21.38	21.5	3
10	64QAM	1	49	21.36	21.40	21.35		
10	64QAM	25	0	20.39	20.53	20.43	19.5	5
10	64QAM	25	12	20.29	20.43	20.21		
10	64QAM	25	25	20.38	20.47	20.41		
10	64QAM	50	0	20.43	20.43	20.36	19.5	5
10	256QAM	1	0	18.39	18.48	18.44		
10	256QAM	1	25	18.30	18.39	18.30	19.5	5
10	256QAM	1	49	18.26	18.37	18.32		
10	256QAM	25	0	18.38	18.42	18.31	19.5	5
10	256QAM	25	12	18.23	18.32	18.23		
10	256QAM	25	25	18.18	18.23	18.21		
10	256QAM	50	0	18.20	18.31	18.23		
Channel								
Frequency (MHz)								
19975 20175 20375								
1712.5 1722.5 1732.5								
5	QPSK	1	0	23.52	23.78	23.63	24.5	0
5	QPSK	1	12	23.58	23.66	23.46		
5	QPSK	1	24	23.55	23.62	23.52		
5	QPSK	12	0	22.62	22.70	22.63	23.5	1
5	QPSK	12	7	22.62	22.74	22.60		
5	QPSK	12	13	22.66	22.75	22.61		
5	QPSK	25	0	22.53	22.65	22.53	23.5	1
5	16QAM	1	0	22.63	22.65	22.58		
5	16QAM	1	12	22.47	22.56	22.60	23.5	1
5	16QAM	1	24	22.43	22.59	22.47		
5	16QAM	12	0	21.49	21.56	21.48	22.5	2
5	16QAM	12	7	21.29	21.48	21.39		
5	16QAM	12	13	21.24	21.46	21.37		
5	16QAM	25	0	21.43	21.58	21.41	22.5	2
5	64QAM	1	0	21.46	21.58	21.42		
5	64QAM	1	12	21.39	21.50	21.35	21.5	3
5	64QAM	1	24	21.35	21.48	21.31		
5	64QAM	12	0	20.39	20.49	20.37	19.5	5
5	64QAM	12	7	20.33	20.42	20.32		
5	64QAM	12	13	20.37	20.42	20.39		
5	64QAM	25	0	20.46	20.47	20.42	19.5	5
5	256QAM	1	0	18.38	18.44	18.36		
5	256QAM	1	12	18.34	18.37	18.33	19.5	5
5	256QAM	1	24	18.26	18.38	18.31		
5	256QAM	12	0	18.38	18.40	18.31	19.5	5
5	256QAM	12	7	18.29	18.29	18.28		
5	256QAM	12	13	18.19	18.23	18.22		
5	256QAM	25	0	18.18	18.36	18.24		
Channel								
Frequency (MHz)								
19962 20175 20393								
1710.7 1722.5 1734.3								
3	QPSK	1	0	23.54	23.72	23.66	24.5	0
3	QPSK	1	8	23.57	23.66	23.50		
3	QPSK	1	14	23.54	23.70	23.59		
3	QPSK	8	0	22.58	22.66	22.61	23.5	1
3	QPSK	8	4	22.53	22.72	22.64		
3	QPSK	8	7	22.65	22.76	22.66		
3	QPSK	15	0	22.51	22.66	22.54	23.5	1
3	16QAM	1	0	22.59	22.65	22.60		
3	16QAM	1	8	22.40	22.60	22.44	23.5	1
3	16QAM	1	14	22.43	22.54	22.47		
3	16QAM	8	0	21.67	21.62	21.50	22.5	2
3	16QAM	8	4	21.38	21.46	21.44		
3	16QAM	8	7	21.24	21.36	21.37		
3	16QAM	15	0	21.41	21.58	21.45	22.5	2
3	64QAM	1	0	21.43	21.61	21.51		
3	64QAM	1	8	21.42	21.54	21.34	21.5	3
3	64QAM	1	14	21.34	21.48	21.36		
3	64QAM	8	0	20.45	20.47	20.39	19.5	5
3	64QAM	8	4	20.28	20.36	20.23		
3	64QAM	8	7	20.34	20.41	20.36		
3	64QAM	15	0	20.44	20.49	20.40	19.5	5
3	256QAM	1	0	18.40	18.47	18.40		
3	256QAM	1	8	18.36	18.35	18.33	19.5	5
3	256QAM	1	14	18.28	18.38	18.28		
3	256QAM	8	0	18.29	18.41	18.36		
3	256QAM	8	4	18.26	18.31	18.28	19.5	5
3	256QAM	8	7	18.14	18.26	18.17		
3	256QAM	15	0	18.26	18.33	18.21		
Channel								
Frequency (MHz)								
19957 20175 20393								
1710.7 1722.5 1734.3								
1.4	QPSK	1	0	23.61	23.75	23.71	24.5	0
1.4	QPSK	1	3	23.59	23.65	23.54		
1.4	QPSK	1	5	23.60	23.62	23.58		
1.4	QPSK	3	0	23.62	23.70	23.62	23.5	1
1.4	QPSK	3	1	23.59	23.68	23.55		
1.4	QPSK	3	3	23.67	23.62	23.55		
1.4	QPSK	6	0	22.58	22.73	22.57	23.5	1
1.4	16QAM	1	0	22.63	22.71	22.56		
1.4	16QAM	1	3	22.60	22.70	22.61	23.5	1
1.4	16QAM	1	5	22.56	22.67	22.56		
1.4	16QAM	3	0	22.57	22.62	22.58		
1.4	16QAM	3	1	22.44	22.58	22.51	22.5	2
1.4	16QAM	3	3	22.52	22.57	22.51		
1.4	16QAM	6	0	21.50	21.66	21.45	22.5	2
1.4	64QAM	1	0	21.28	21.43	21.45		
1.4	64QAM	1	3	21.28	21.38	21.36	22.5	2
1.4	64QAM	1	5	21.44	21.57			



Band 4 Other PA Ant3										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Turn-up (dB)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	23.98	24.17	23.88	25.5	0		
20	QPSK	1	49	23.78	23.89	23.78				
20	QPSK	1	99	23.78	23.97	23.75				
20	QPSK	50	0	22.87	23.12	22.96	24.5	1		
20	QPSK	50	24	22.86	23.00	22.74				
20	QPSK	50	50	22.66	23.02	22.69				
20	QPSK	100	0	22.58	22.61	22.60				
20	QPSK	100	24	22.57	22.67	22.55				
20	16QAM	1	49	22.58	22.81	22.56	24.5	1		
20	16QAM	1	99	22.58	22.77	22.59				
20	16QAM	50	0	21.54	21.62	21.58				
20	16QAM	50	24	21.59	21.68	21.52	23.5	2		
20	16QAM	50	49	21.52	21.62	21.55				
20	16QAM	100	0	21.53	21.78	21.56				
20	16QAM	100	24	21.54	21.80	21.56				
20	16QAM	100	49	21.59	21.72	21.52				
20	16QAM	1	99	21.53	21.65	21.52	23.5	2		
20	16QAM	50	0	20.54	20.75	20.52				
20	16QAM	50	24	20.52	20.62	20.52				
20	16QAM	50	50	20.50	20.68	20.53	22.5	3		
20	16QAM	100	0	20.51	20.71	20.57				
20	16QAM	100	24	20.52	20.68	20.55				
20	16QAM	100	49	18.56	18.68	18.56	20.5	5		
20	256QAM	1	49	18.56	18.59	18.56				
20	256QAM	1	99	18.51	18.55	18.52				
20	256QAM	50	0	18.58	18.61	18.53				
20	256QAM	50	24	18.53	18.55	18.51	20.5	5		
20	256QAM	50	50	18.59	18.58	18.53				
20	256QAM	100	0	18.52	18.52	18.51				
Channel										
Frequency (MHz)										
15	QPSK	1	0	23.52	23.81	23.58	25.5	0		
15	QPSK	1	30	23.53	23.68	23.54				
15	QPSK	1	74	23.55	23.89	23.54				
15	QPSK	36	0	22.57	22.79	22.69	24.5	1		
15	QPSK	36	20	22.58	22.80	22.59				
15	QPSK	36	36	22.54	22.89	22.62				
15	QPSK	75	0	22.59	22.88	22.63				
15	16QAM	1	0	22.59	22.74	22.54	24.5	1		
15	16QAM	1	37	22.55	22.66	22.55				
15	16QAM	1	74	21.56	21.71	21.56				
15	16QAM	36	0	21.54	21.74	21.52				
15	16QAM	36	20	21.57	21.53	21.53	23.5	2		
15	16QAM	36	36	21.56	21.57	21.53				
15	16QAM	75	0	21.54	21.65	21.59				
15	16QAM	1	0	21.58	21.70	21.57	23.5	2		
15	16QAM	1	37	21.52	21.63	21.53				
15	16QAM	1	74	21.55	21.51	21.51				
15	16QAM	36	0	20.52	20.70	20.54				
15	16QAM	36	20	20.54	20.62	20.55				
15	16QAM	36	36	20.55	20.58	20.59	22.5	3		
15	16QAM	75	0	20.59	20.66	20.59				
15	256QAM	1	0	18.52	18.52	18.51				
15	256QAM	1	37	18.53	18.59	18.58	20.5	5		
15	256QAM	1	74	18.50	18.52	18.53				
15	256QAM	36	0	18.51	18.51	18.57				
15	256QAM	36	20	18.64	18.67	18.62				
15	256QAM	36	36	18.52	18.59	18.53	20.5	5		
15	256QAM	75	0	18.57	18.52	18.51				
Channel										
Frequency (MHz)										
10	QPSK	1	0	23.75	23.84	23.74	25.5	0		
10	QPSK	1	25	23.53	23.62	23.64				
10	QPSK	1	49	23.78	23.83	23.67				
10	QPSK	25	0	22.82	22.82	22.74	24.5	1		
10	QPSK	25	12	22.80	22.91	22.66				
10	QPSK	25	25	22.81	22.89	22.56				
10	QPSK	50	0	22.72	22.72	22.61				
10	16QAM	1	0	22.63	22.79	22.75	24.5	1		
10	16QAM	1	25	22.61	22.73	22.67				
10	16QAM	1	49	22.62	22.72	22.65				
10	16QAM	25	0	21.60	21.74	21.65				
10	16QAM	25	12	21.58	21.56	21.60	23.5	2		
10	16QAM	25	25	21.51	21.53	21.53				
10	16QAM	50	0	21.51	21.70	21.70				
10	16QAM	1	0	21.60	21.68	21.63	23.5	2		
10	16QAM	1	25	21.54	21.62	21.62				
10	16QAM	1	49	21.58	21.57	21.57				
10	16QAM	25	0	20.62	20.65	20.58				
10	16QAM	25	12	20.54	20.65	20.51	22.5	3		
10	16QAM	25	25	20.53	20.58	20.66				
10	16QAM	50	0	20.52	20.61	20.53				
10	256QAM	1	0	18.55	18.60	18.59				
10	256QAM	1	25	18.53	18.59	18.59	20.5	5		
10	256QAM	1	49	18.53	18.54	18.51				
10	256QAM	25	0	18.53	18.55	18.57				
10	256QAM	25	12	18.56	18.53	18.58	20.5	5		
10	256QAM	25	25	18.58	18.58	18.52				
10	256QAM	50	0	18.52	18.52	18.53				
Channel										
Frequency (MHz)										
5	QPSK	1	0	23.81	23.82	23.85	25.5	0		
5	QPSK	1	24	23.56	23.69	23.60				
5	QPSK	1	24	23.75	23.69	23.69				
5	QPSK	12	0	22.68	22.72	22.71	24.5	1		
5	QPSK	12	7	22.76	22.88	22.95				
5	QPSK	12	13	22.85	22.96	22.85				
5	QPSK	25	0	22.65	22.77	22.83				
5	16QAM	1	0	22.69	22.80	22.71	24.5	1		
5	16QAM	1	12	22.59	22.75	22.68				
5	16QAM	1	49	22.60	22.63	22.64				
5	16QAM	12	0	21.90	22.03	22.00				
5	16QAM	12	7	21.77	21.85	21.96	23.5	2		
5	16QAM	12	13	21.65	21.78	21.88				
5	16QAM	25	0	21.87	21.98	21.95				
5	16QAM	1	0	21.97	22.05	21.97	23.5	2		
5	16QAM	1	12	21.80	21.92	21.95				
5	16QAM	1	24	21.77	21.86	21.84				
5	16QAM	12	0	20.88	21.00	20.90				
5	16QAM	12	7	20.74	20.82	20.80	22.5	3		
5	16QAM	12	13	20.79	20.90	20.90				
5	256QAM	1	0	20.77	20.86	20.81				
5	256QAM	1	1	18.80	18.85	18.84	20.5	5		
5	256QAM	1	12	18.64	18.78	18.71				
5	256QAM	1	24	18.60	18.75	18.68				
5	256QAM	12	0	18.67	18.83	18.82				
5	256QAM	12	7	18.60	18.78	18.73	20.5	5		
5	256QAM	12	13	18.61	18.85	18.81				
5	256QAM	25	0	18.73	18.75	18.77				
Channel										
Frequency (MHz)										
3	QPSK	1	0	24.06	24.16	24.16	25.5	0		
3	QPSK	1	8	23.90	23.95	23.93				
3	QPSK	1	14	24.04	24.12	24.10				
3	QPSK	8	0	23.90	23.10	23.07	24.5	1		
3	QPSK	8	4	23.95	23.17	23.23				
3	QPSK	8	7	23.14	23.21	23.15				
3	QPSK	15	0	23.88	23.07	23.08				
3	16QAM	1	0	22.93	23.10	23.05	24.5	1		
3	16QAM	1	8	22.89	23.03	22.95				
3	16QAM	1	14	22.88	22.97	23.04				
3	16QAM	8	0	21.94	22.03	21.93				
3	16QAM	8	4	21.78	21.90	21.89	23.5	2		
3	16QAM	8	7	21.67	21.78	21.82				
3	16QAM	15	0	21.85</						



Band 4 Other PA Ant4

SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq 20000	Tune-up limit (dBm)	MPE (dB)
Channel								
Frequency (MHz)								
1720 1725.5 1745								
20	QPSK	1	0	23.07	23.27	23.21	24.5	0
20	QPSK	1	49	22.91	23.15	23.12		
20	QPSK	1	99	23.03	23.22	23.20		
20	QPSK	50	0	21.98	22.27	22.14		
20	QPSK	50	24	22.00	22.18	22.14		
20	QPSK	50	50	22.05	22.23	22.24		
20	QPSK	100	0	22.00	22.19	22.10	23.5	1
20	16QAM	1	0	22.03	22.21	22.11		
20	16QAM	1	49	22.14	22.31	22.27		
20	16QAM	1	99	22.09	22.27	22.25		
20	16QAM	50	0	21.05	21.25	21.22		
20	16QAM	50	24	21.08	21.26	21.20		
20	16QAM	50	50	21.04	21.21	21.14		
20	16QAM	100	0	20.99	21.23	21.15		
20	84QAM	1	0	20.93	21.13	21.11		
20	84QAM	1	49	21.00	21.24	21.14		
20	84QAM	1	99	21.00	21.23	21.17		
20	84QAM	50	0	20.93	20.22	20.17		
20	84QAM	50	24	20.98	20.25	20.20		
20	84QAM	50	50	20.95	20.23	20.18		
20	84QAM	100	0	20.91	20.20	20.16		
20	256QAM	1	0	17.81	18.02	17.92		
20	256QAM	1	49	17.87	18.11	18.07		
20	256QAM	1	99	17.83	18.04	17.97		
20	256QAM	50	0	18.06	18.26	18.18		
20	256QAM	50	24	17.93	18.16	18.15		
20	256QAM	50	50	17.94	18.17	18.14		
20	256QAM	100	0	18.00	18.19	18.13		
Channel								
Frequency (MHz)								
20005 20175 20325								
1717.5 1723.5 1747.5								
15	QPSK	1	0	22.83	23.12	23.14	24.5	0
15	QPSK	1	37	22.80	23.03	23.04		
15	QPSK	1	74	22.90	23.11	23.12		
15	QPSK	36	0	21.80	22.14	22.04		
15	QPSK	36	20	21.89	22.12	22.05		
15	QPSK	36	39	22.00	22.16	22.10		
15	QPSK	75	0	21.88	22.14	22.08		
15	16QAM	1	0	21.97	22.15	22.01		
15	16QAM	1	37	22.02	22.17	22.14		
15	16QAM	1	74	21.94	22.17	22.20		
15	16QAM	36	0	20.97	21.14	21.11		
15	16QAM	36	20	21.01	21.12	21.08		
15	16QAM	36	39	20.90	21.08	21.03		
15	16QAM	75	0	20.92	21.17	21.02		
15	84QAM	1	0	20.82	21.02	21.05		
15	84QAM	1	37	20.89	21.15	21.09		
15	84QAM	1	74	20.90	21.16	21.11		
15	84QAM	36	0	19.94	20.09	20.09		
15	84QAM	36	20	19.97	20.16	20.05		
15	84QAM	36	39	19.98	20.08	20.03		
15	84QAM	75	0	19.92	20.07	20.06		
15	256QAM	1	0	17.68	17.90	17.83		
15	256QAM	1	37	17.74	18.04	17.97		
15	256QAM	1	74	17.76	17.92	17.90		
15	256QAM	36	0	17.97	18.11	18.02		
15	256QAM	36	20	17.82	18.03	18.01		
15	256QAM	36	39	17.89	18.11	18.02		
15	256QAM	75	0	17.90	18.08	18.05		
Channel								
Frequency (MHz)								
20000 20175 20350								
1715 1723.5 1750								
10	QPSK	1	0	23.02	23.15	23.17	24.5	0
10	QPSK	1	25	22.78	23.03	23.01		
10	QPSK	1	49	22.98	23.08	23.12		
10	QPSK	25	0	21.84	22.17	22.08		
10	QPSK	25	12	21.84	22.06	22.05		
10	QPSK	25	25	21.98	22.20	22.12		
10	QPSK	50	0	21.85	22.04	21.98		
10	16QAM	1	0	21.98	22.08	22.02		
10	16QAM	1	25	22.00	22.20	22.13		
10	16QAM	1	49	22.04	22.21	22.18		
10	16QAM	25	0	20.95	21.19	21.15		
10	16QAM	25	12	20.99	21.21	21.07		
10	16QAM	25	25	20.97	21.11	21.01		
10	16QAM	50	0	20.91	21.15	21.08		
10	84QAM	1	0	20.83	21.06	21.01		
10	84QAM	1	25	20.91	21.18	21.04		
10	84QAM	1	49	20.84	21.16	21.10		
10	84QAM	25	0	19.90	20.07	20.10		
10	84QAM	25	12	19.94	20.15	20.07		
10	84QAM	25	25	19.92	20.15	20.07		
10	84QAM	50	0	19.95	20.13	20.02		
10	256QAM	1	0	17.67	17.82	17.88		
10	256QAM	1	25	17.73	18.03	17.96		
10	256QAM	1	49	17.72	17.90	17.85		
10	256QAM	25	0	17.91	18.14	18.02		
10	256QAM	25	12	17.88	18.08	18.00		
10	256QAM	25	25	17.81	18.10	18.06		
10	256QAM	50	0	17.81	18.09	18.05		
Channel								
Frequency (MHz)								
20005 20175 20375								
1712.5 1723.5 1823.5								
5	QPSK	1	0	22.82	23.14	23.11	24.5	0
5	QPSK	1	12	22.83	23.06	23.03		
5	QPSK	1	24	22.96	23.16	23.09		
5	QPSK	12	0	21.83	22.17	22.05		
5	QPSK	12	7	21.91	22.12	22.05		
5	QPSK	12	13	21.98	22.15	22.12		
5	QPSK	25	0	21.85	22.08	21.98		
5	16QAM	1	0	21.93	22.07	21.97		
5	16QAM	1	12	22.03	22.18	22.14		
5	16QAM	1	24	21.99	22.15	22.11		
5	16QAM	12	0	20.86	21.17	21.13		
5	16QAM	12	7	20.96	21.16	21.09		
5	16QAM	12	13	20.96	21.10	21.08		
5	16QAM	25	0	20.80	21.13	21.07		
5	84QAM	1	0	20.88	21.05	21.02		
5	84QAM	1	12	20.88	21.09	21.07		
5	84QAM	1	24	20.86	21.12	21.10		
5	84QAM	12	0	19.95	20.14	20.03		
5	84QAM	12	7	19.98	20.11	20.06		
5	84QAM	12	13	19.92	20.13	20.07		
5	84QAM	25	0	19.90	20.12	20.10		
5	256QAM	1	0	17.72	17.94	17.83		
5	256QAM	1	12	17.81	18.04	17.95		
5	256QAM	1	24	17.69	17.93	17.84		
5	256QAM	12	0	17.99	18.14	18.01		
5	256QAM	12	7	17.80	18.08	18.07		
5	256QAM	12	13	17.80	18.07	18.05		
5	256QAM	25	0	17.85	18.07	18.00		
Channel								
Frequency (MHz)								
19965 20175 20385								
1711.5 1723.5 1823.5								
3	QPSK	1	0	23.01	23.15	23.15	24.5	0
3	QPSK	1	8	22.82	23.03	23.06		
3	QPSK	1	14	22.90	23.10	23.07		
3	QPSK	8	0	21.93	22.14	22.02		
3	QPSK	8	4	21.90	22.12	22.02		
3	QPSK	8	7	21.92	22.21	22.12		
3	QPSK	15	0	21.92	22.09	22.01		
3	16QAM	1	0	21.90	22.08	22.05		
3	16QAM	1	8	22.06	22.23	22.13		
3	16QAM	1	14	21.99	22.13	22.10		
3	16QAM	8	0	20.98	21.16	21.09		
3	16QAM	8	4	20.88	21.17	21.07		
3	16QAM	8	7	20.99	21.14	21.00		
3	84QAM	1	0	20.85	21.09	21.02		
3	84QAM	1	8	20.82	21.01	20.96		
3	84QAM	1	8	20.90	21.18	21.08		
3	84QAM	1	14	20.94	21.09	21.07		
3	84QAM	8	0	19.94	20.09	20.04		
3	84QAM	8	4	20.00	20.15	20.12		
3	84QAM	8	7	19.93	20.08	20.04		
3	84QAM	15	0	19.87	20.11	20.09		
3	256QAM	1	0	17.75	17.88	17.78		
3	256QAM	1	8	17.78	17.97	17.95		
3	256QAM	1	14	17.74	17.95	17.87		
3	256QAM	8	0	17.93	18.14	18.04		
3	256QAM	8	4	17.82	18.08	18.04		
3	256QAM	8	7	17.88	18.05	18.01		
3	256QAM	15	0	17.94	18.11	18.03		
Channel								
Frequency (MHz)								
19967 20175 20393								
1710.7 1723.5 1824.3								
1.4	QPSK	1	0	23.01	23.12	23.13	24.5	0
1.4	QPSK	1	3	22.82	23.03	23.02		
1.4	QPSK	1	5	22.93	23.16	23.14		
1.4	QPSK	3	0	22.86	23.17	23.03		
1.4	QPSK	3	1	22.85	23.05	23.08		
1.4	QPSK	3	3	22.90	23.17	23.14		
1.4	QPSK	6	0	21.95	22.05	21.97		
1.4	16QAM	1	0	21.90	22.13	22.00		
1.4	16QAM	1	3	22.05	22.24	22.21		
1.4	16QAM	1	5	21.97	22.20	22.10		
1.4	16QAM	3	0	21.89	22.09	21.97		
1.4	16QAM	3	1	22.08	22.22	22.21		
1.4	16QAM	3	3	21.94	22.20	22.13		
1.4	84QAM	1	0	20.87	21.10	21.06		
1.4	84QAM	1	0	21.01	21.14	21.12		
1.4	84QAM	1	3	20.98	21.11	21.05		
1.4	84QAM	1	5	20.84	21.17	21.01		
1.4	84QAM	3	0	20.82	21.04	21.05		
1.4	84QAM	3	1	20.92	21.18	21.07		
1.4	84QAM	3	3	20.94	21.16	21.10		
1.4	84QAM	6	0	19.93	20.11	20.06		
1.4	256QAM	1	0	17.71	17.92	17.80		



Band 12 Other PA Ant0

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Med. Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPE (dB)
Channel								
Frequency (MHz)								
704 707.5 711								
10	QPSK	1	0	24.50	24.56	24.44		
10	QPSK	25	0	24.37	24.44	24.40	25.5	0
10	QPSK	1	49	24.40	24.50	24.45		
10	QPSK	25	0	23.70	23.74	23.63		
10	QPSK	25	12	23.63	23.67	23.61	24.5	1
10	QPSK	25	25	23.49	23.84	23.58		
10	QPSK	50	0	23.65	23.69	23.55		
10	HQAM	1	0	23.67	23.62	23.56		
10	HQAM	1	25	23.59	23.85	23.62	24.5	1
10	HQAM	1	49	23.54	23.57	23.48		
10	HQAM	25	0	22.55	22.65	22.50		
10	HQAM	25	12	22.51	22.65	22.52	23.5	2
10	HQAM	25	25	22.44	22.51	22.44		
10	HQAM	50	0	22.44	22.51	22.41		
10	HQAM	1	0	22.54	22.66	22.54		
10	HQAM	1	25	22.40	22.58	22.54	23.5	2
10	HQAM	1	49	22.70	22.76	22.69		
10	HQAM	25	0	21.48	21.59	21.50		
10	HQAM	25	12	21.41	21.56	21.44	22.5	3
10	HQAM	25	25	21.60	21.75	21.65		
10	HQAM	50	0	21.50	22.04	21.50		
10	ZSSBAM	1	0	20.00	20.11	20.00		
10	ZSSBAM	1	25	19.81	19.92	19.88	20.5	5
10	ZSSBAM	1	49	20.05	20.17	20.05		
10	ZSSBAM	25	0	19.87	19.95	19.92		
10	ZSSBAM	25	12	19.80	19.84	19.70	20.5	5
10	ZSSBAM	25	25	19.60	19.72	19.67		
10	ZSSBAM	50	0	19.85	19.98	19.85		
Channel								
Frequency (MHz)								
701.5 707.5 713.5								
5	QPSK	1	0	24.42	24.45	24.36		
5	QPSK	1	12	24.34	24.34	24.37	25.5	0
5	QPSK	1	24	24.27	24.38	24.37		
5	QPSK	12	0	23.57	23.65	23.55		
5	QPSK	12	7	23.61	23.63	23.54	24.5	1
5	QPSK	12	13	23.39	23.55	23.50		
5	QPSK	25	0	23.44	23.56	23.49		
5	HQAM	1	0	23.38	23.53	23.46		
5	HQAM	1	12	23.47	23.61	23.58	24.5	1
5	HQAM	1	24	23.29	23.51	23.59		
5	HQAM	12	0	22.48	22.54	22.55		
5	HQAM	12	7	22.49	22.51	22.46	23.5	2
5	HQAM	12	13	22.31	22.48	22.41		
5	HQAM	25	0	22.74	22.85	22.73		
5	HQAM	1	0	22.45	22.92	22.41		
5	HQAM	1	12	22.69	22.85	22.48	23.5	2
5	HQAM	1	24	22.50	22.63	22.54		
5	HQAM	12	0	21.42	21.55	21.41		
5	HQAM	12	7	21.71	21.80	21.79		
5	HQAM	12	13	21.53	21.68	21.51	22.5	3
5	HQAM	25	0	21.85	21.97	21.77		
5	ZSSBAM	1	0	19.85	19.99	19.86		
5	ZSSBAM	1	12	19.78	19.81	19.75	20.5	5
5	ZSSBAM	1	24	19.97	20.14	19.91		
5	ZSSBAM	12	0	19.41	19.62	19.58		
5	ZSSBAM	12	7	19.68	19.74	19.57	20.5	5
5	ZSSBAM	12	13	19.45	19.59	19.61		
5	ZSSBAM	25	0	19.71	19.85	19.78		
Channel								
Frequency (MHz)								
700.5 707.5 714.5								
3	QPSK	1	0	24.40	24.52	24.41		
3	QPSK	1	8	24.34	24.34	24.34	25.5	0
3	QPSK	1	14	24.36	24.40	24.36		
3	QPSK	1	0	23.66	23.66	23.49		
3	QPSK	8	4	23.55	23.59	23.58	24.5	1
3	QPSK	8	7	23.39	23.52	23.53		
3	QPSK	8	0	23.60	23.62	23.48		
3	HQAM	1	0	23.38	23.49	23.49		
3	HQAM	1	8	23.47	23.53	23.55	24.5	1
3	HQAM	1	14	23.45	23.43	23.56		
3	HQAM	8	0	22.45	22.58	22.59		
3	HQAM	8	4	22.47	22.59	22.48	23.5	2
3	HQAM	8	7	22.39	22.40	22.40		
3	HQAM	16	0	22.77	22.77	22.79		
3	HQAM	1	0	22.44	22.67	22.41		
3	HQAM	1	8	22.25	22.58	22.39	23.5	2
3	HQAM	1	14	22.59	22.73	22.52		
3	HQAM	8	0	21.44	21.55	21.43		
3	HQAM	8	4	21.77	21.83	21.78	22.5	3
3	HQAM	8	7	21.49	21.61	21.52		
3	HQAM	16	0	21.79	22.00	21.83		
3	ZSSBAM	1	0	19.85	20.01	19.89		
3	ZSSBAM	1	8	19.67	19.80	19.77	20.5	5
3	ZSSBAM	1	14	19.96	20.04	19.92		
3	ZSSBAM	8	0	19.43	19.50	19.43		
3	ZSSBAM	8	4	19.72	19.70	19.59	20.5	5
3	ZSSBAM	8	7	19.48	19.59	19.53		
3	ZSSBAM	16	0	19.81	19.81	19.81		
Channel								
Frequency (MHz)								
699.7 707.5 715.3								
1.4	QPSK	1	0	24.41	24.49	24.33		
1.4	QPSK	1	3	24.34	24.38	24.25		
1.4	QPSK	1	5	24.35	24.41	24.38	25.5	0
1.4	QPSK	3	0	24.40	24.44	24.36		
1.4	QPSK	3	1	24.25	24.35	24.30		
1.4	QPSK	3	3	24.30	24.41	24.32	24.5	1
1.4	QPSK	3	0	23.58	23.69	23.54		
1.4	HQAM	1	0	23.51	23.54	23.53		
1.4	HQAM	1	3	23.39	23.52	23.52		
1.4	HQAM	1	5	23.46	23.59	23.47	24.5	1
1.4	HQAM	3	0	23.42	23.48	23.47		
1.4	HQAM	3	1	23.50	23.59	23.56		
1.4	HQAM	3	3	23.44	23.48	23.35		
1.4	HQAM	6	0	22.51	22.61	22.47	23.5	2
1.4	HQAM	1	0	22.40	22.54	22.44		
1.4	HQAM	1	3	22.40	22.43	22.36		
1.4	HQAM	1	5	22.45	22.50	22.42	23.5	2
1.4	HQAM	3	0	22.47	22.59	22.47		
1.4	HQAM	3	1	22.50	22.60	22.47		
1.4	HQAM	3	3	22.59	22.62	22.55		
1.4	HQAM	6	0	21.56	21.62	21.59	22.5	3
1.4	ZSSBAM	1	0	19.89	19.98	19.85		
1.4	ZSSBAM	1	3	19.69	19.89	19.74		
1.4	ZSSBAM	1	5	19.91	20.03	19.93	20.5	5
1.4	ZSSBAM	3	0	19.59	19.46	19.46		
1.4	ZSSBAM	3	1	19.70	19.73	19.57		
1.4	ZSSBAM	3	3	19.95	19.98	19.98		
1.4	ZSSBAM	6	0	19.79	19.76	19.75	20.5	5



Band 17 Other PA Ant0									
BW (MHz)	Modulation	RE Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Time-up limit (min)	MPE (dB)	
Channel									
Frequency (MHz)				700	710	713			
10	QPSK	1	0	24.43	24.51	24.46		25.5	0
10	QPSK	1	25	24.31	24.40	24.35			
10	QPSK	1	49	24.38	24.47	24.33			
10	QPSK	25	0	23.64	23.66	23.67		24.5	1
10	QPSK	25	12	23.65	23.69	23.66			
10	QPSK	25	25	23.34	23.46	23.34			
10	QPSK	50	0	23.48	23.50	23.49			
10	16QAM	1	0	23.46	23.50	23.42		24.5	1
10	16QAM	1	25	23.29	23.42	23.32			
10	16QAM	1	49	23.21	23.34	23.26			
10	16QAM	25	0	22.68	22.73	22.62		23.5	2
10	16QAM	25	12	22.69	22.72	22.58			
10	16QAM	25	25	22.65	22.73	22.65			
10	16QAM	50	0	22.67	22.79	22.73			
10	64QAM	1	0	22.43	22.50	22.41		23.5	2
10	64QAM	1	25	22.50	22.54	22.46			
10	64QAM	1	49	22.35	22.32	22.21			
10	64QAM	25	0	21.69	21.66	21.59		22.5	3
10	64QAM	25	12	21.68	21.77	21.66			
10	64QAM	25	25	21.60	21.68	21.49			
10	64QAM	50	0	21.69	21.66	21.62			
10	256QAM	1	0	19.62	19.62	19.61		20.5	5
10	256QAM	1	25	19.83	19.89	19.73			
10	256QAM	1	49	19.69	19.70	19.68			
10	256QAM	25	0	19.17	19.58	19.45		20.5	5
10	256QAM	25	12	19.52	19.60	19.58			
10	256QAM	25	25	19.60	19.54	19.43			
10	256QAM	50	0	19.60	19.67	19.52			
Channel									
Frequency (MHz)				706.5	710	713.5			
5	QPSK	1	0	24.39	24.46	24.43		25.5	0
5	QPSK	1	12	24.24	24.36	24.26			
5	QPSK	1	24	24.35	24.36	24.22			
5	QPSK	12	0	23.69	23.61	23.49		24.5	1
5	QPSK	12	7	23.60	23.47	23.39			
5	QPSK	12	13	23.28	23.42	23.26			
5	QPSK	25	0	23.44	23.56	23.39			
5	16QAM	1	0	23.32	23.48	23.31		24.5	1
5	16QAM	1	12	23.20	23.32	23.28			
5	16QAM	1	24	23.07	23.29	23.22			
5	16QAM	12	0	22.64	22.61	22.51		23.5	2
5	16QAM	12	7	22.68	22.59	22.54			
5	16QAM	12	13	22.68	22.59	22.51			
5	16QAM	25	0	22.67	22.67	22.63			
5	64QAM	1	0	22.38	22.37	22.37		23.5	2
5	64QAM	1	12	22.41	22.46	22.37			
5	64QAM	1	24	22.22	22.27	22.15			
5	64QAM	12	0	21.44	21.58	21.53		22.5	3
5	64QAM	12	7	21.60	21.70	21.64			
5	64QAM	12	13	21.37	21.51	21.38			
5	64QAM	25	0	21.44	21.67	21.49			
5	256QAM	1	0	19.78	19.79	19.69		20.5	5
5	256QAM	1	12	19.72	19.75	19.66			
5	256QAM	1	24	19.48	19.59	19.53			
5	256QAM	12	0	19.37	19.48	19.33		20.5	5
5	256QAM	12	7	19.39	19.47	19.43			
5	256QAM	12	13	19.44	19.48	19.33			
5	256QAM	25	0	19.58	19.63	19.52			



Band 12 Other PA Ant1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq.	Power Mid Ch / Freq.	Power High Ch / Freq.	Time-up limit (dB)	MPE (dB)	
Channel									
				704	707.5	711			
10	QPSK	1	0	23.69	23.74	23.67			
10	QPSK	1	25	23.69	23.66	23.67	25.5	0	
10	QPSK	1	49	23.67	23.61	23.62			
10	QPSK	25	0	22.66	22.76	22.67			
10	QPSK	25	12	22.66	22.70	22.69	24.5	1	
10	QPSK	25	25	22.65	22.65	22.66			
10	QPSK	50	0	22.59	22.72	22.67			
10	16QAM	1	0	22.68	22.67	22.65			
10	16QAM	1	25	22.53	22.61	22.58	24.5	1	
10	16QAM	1	49	22.54	22.57	22.51			
10	16QAM	25	0	21.73	21.81	21.71			
10	16QAM	25	12	21.70	21.73	21.65	23.5	2	
10	16QAM	25	25	21.63	21.77	21.66			
10	16QAM	50	0	21.68	21.71	21.67			
10	64QAM	1	0	21.65	21.79	21.71			
10	64QAM	1	25	21.59	21.72	21.66	23.5	2	
10	64QAM	1	49	21.65	21.69	21.64			
10	64QAM	25	0	20.90	20.95	20.88			
10	64QAM	25	12	20.81	20.86	20.76	22.5	3	
10	64QAM	25	25	20.81	20.81	20.84			
10	64QAM	50	0	20.68	20.83	20.72			
10	256QAM	1	0	18.65	18.66	18.62			
10	256QAM	1	25	18.83	18.93	18.88	20.5	5	
10	256QAM	1	49	18.85	18.88	18.74			
10	256QAM	25	0	18.73	18.87	18.84			
10	256QAM	25	12	18.68	18.77	18.72	20.5	5	
10	256QAM	25	25	18.74	18.83	18.69			
10	256QAM	50	0	18.65	18.91	18.82			
Channel									
				701.5	707.5	713.5			
5	QPSK	1	0	23.62	23.67	23.68			
5	QPSK	1	12	23.67	23.68	23.68	25.5	0	
5	QPSK	1	24	23.67	23.56	23.62			
5	QPSK	12	0	22.55	22.67	22.64			
5	QPSK	12	7	22.51	22.64	22.60	24.5	1	
5	QPSK	12	13	22.51	22.52	22.52			
5	QPSK	25	0	22.65	22.67	22.61			
5	16QAM	1	0	22.57	22.58	22.58			
5	16QAM	1	12	22.51	22.55	22.59	24.5	1	
5	16QAM	1	24	22.59	22.54	22.59			
5	16QAM	12	0	21.65	21.74	21.63			
5	16QAM	12	7	21.61	21.63	21.59	23.5	2	
5	16QAM	12	13	21.63	21.66	21.59			
5	16QAM	25	0	21.53	21.68	21.51			
5	64QAM	1	0	21.54	21.71	21.58	23.5	2	
5	64QAM	1	12	21.65	21.64	21.64			
5	64QAM	1	24	21.51	21.61	21.58			
5	64QAM	12	0	20.77	20.90	20.83	22.5	3	
5	64QAM	12	7	20.69	20.79	20.68			
5	64QAM	12	13	20.67	20.85	20.72			
5	64QAM	25	0	20.58	20.80	20.60			
5	256QAM	1	0	18.71	18.96	18.73			
5	256QAM	1	12	18.74	18.82	18.81	20.5	5	
5	256QAM	1	24	18.73	18.77	18.65			
5	256QAM	12	0	18.64	18.78	18.72			
5	256QAM	12	7	18.59	18.67	18.63	20.5	5	
5	256QAM	12	13	18.62	18.74	18.55			
5	256QAM	25	0	18.73	18.86	18.71			
Channel									
				2305	2309	2316			
Channel									
				701.5	707.5	714.5			
3	QPSK	1	0	23.64	23.63	23.66			
3	QPSK	1	8	23.57	23.56	23.58	25.5	0	
3	QPSK	1	14	23.53	23.57	23.59			
3	QPSK	8	0	22.52	22.66	22.58			
3	QPSK	8	4	22.58	22.57	22.51	24.5	1	
3	QPSK	8	7	22.56	22.54	22.58			
3	QPSK	16	0	22.60	22.58	22.61			
3	16QAM	1	0	22.59	22.54	22.59	24.5	1	
3	16QAM	1	8	22.58	22.51	22.80			
3	16QAM	1	14	22.63	22.59	22.61			
3	16QAM	8	0	21.59	21.75	21.65			
3	16QAM	8	4	21.58	21.67	21.61	23.5	2	
3	16QAM	8	7	21.56	21.72	21.65			
3	16QAM	16	0	21.55	21.63	21.54			
3	64QAM	1	0	21.60	21.72	21.63	23.5	2	
3	64QAM	1	8	21.56	21.64	21.60			
3	64QAM	1	14	21.59	21.64	21.57			
3	64QAM	8	0	20.79	20.86	20.79	22.5	3	
3	64QAM	8	4	20.77	20.71	20.72			
3	64QAM	8	7	20.74	20.79	20.71			
3	64QAM	16	0	20.63	20.75	20.61			
3	256QAM	1	0	18.74	18.88	18.79			
3	256QAM	1	8	18.76	18.78	18.79	20.5	5	
3	256QAM	1	14	18.79	18.84	18.61			
3	256QAM	8	0	18.70	18.82	18.72			
3	256QAM	8	4	18.58	18.71	18.61	20.5	5	
3	256QAM	8	7	18.62	18.79	18.63			
3	256QAM	16	0	18.73	18.87	18.72			
Channel									
				2301.7	2309	2317.3			
1.4	QPSK	1	0	23.64	23.55	23.58			
1.4	QPSK	1	3	23.52	23.51	23.55	25.5	0	
1.4	QPSK	1	5	23.58	23.70	23.65			
1.4	QPSK	3	0	23.55	23.63	23.59			
1.4	QPSK	3	1	23.59	23.58	23.59			
1.4	QPSK	3	3	23.52	23.52	23.54	24.5	1	
1.4	QPSK	6	0	22.68	22.72	22.61			
1.4	16QAM	1	0	22.52	22.68	22.59			
1.4	16QAM	1	3	22.64	22.51	22.57	24.5	1	
1.4	16QAM	1	5	22.64	22.60	22.53			
1.4	16QAM	3	0	22.84	22.57	22.61			
1.4	16QAM	3	1	22.51	22.57	22.60			
1.4	16QAM	3	3	22.68	22.52	22.60	23.5	2	
1.4	16QAM	6	0	21.66	21.75	21.68			
1.4	64QAM	1	0	21.59	21.59	21.52			
1.4	64QAM	1	3	21.59	21.67	21.52	23.5	2	
1.4	64QAM	1	5	21.64	21.58	21.52			
1.4	64QAM	3	0	21.55	21.71	21.60			
1.4	64QAM	3	1	21.59	21.69	21.63			
1.4	64QAM	3	3	21.53	21.58	21.53			
1.4	256QAM	1	0	20.74	20.82	20.66	22.5	3	
1.4	256QAM	1	0	18.75	18.87	18.87			
1.4	256QAM	1	3	18.77	18.87	18.79			
1.4	256QAM	1	5	18.79	18.74	18.61	20.5	5	
1.4	256QAM	3	0	18.70	18.73	18.74			
1.4	256QAM	3	1	18.65	18.67	18.60			
1.4	256QAM	3	3	18.66	18.76	18.66	20.5	5	
1.4	256QAM	6	0	18.79	18.78	18.76			



Band 17 Other PA Ant1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. F.Freq.	Power High Ch. F.Freq.	Power Mid Ch. F.Freq.	Turn-up limit (dB)	MFR (dB)
Channel								
Frequency (MHz)				709	710	711		
10	QPSK	1	0	23.07	23.70	23.69	25.5	0
10	QPSK	1	25	23.54	23.69	23.51		
10	QPSK	1	49	23.05	23.69	23.81		
10	QPSK	25	0	22.60	22.60	22.58	24.5	1
10	QPSK	25	12	22.53	22.59	22.85		
10	QPSK	25	25	22.83	22.58	22.58		
10	QPSK	50	0	22.07	22.61	22.54	24.5	1
10	16QAM	1	0	22.90	22.56	22.59		
10	16QAM	1	25	22.57	22.53	22.51		
10	16QAM	1	49	22.53	22.59	22.52	23.5	2
10	16QAM	25	0	21.81	21.71	21.68		
10	16QAM	25	12	21.81	21.58	21.58		
10	16QAM	25	25	21.51	21.72	21.52	23.5	2
10	16QAM	50	0	21.57	21.60	21.58		
10	64QAM	1	0	21.50	21.74	21.63		
10	64QAM	1	25	21.58	21.59	21.63	22.5	3
10	64QAM	1	49	21.54	21.66	21.60		
10	64QAM	25	0	20.86	20.87	20.85		
10	64QAM	25	12	20.71	20.81	20.86	20.5	5
10	64QAM	25	25	20.71	20.78	20.78		
10	64QAM	50	0	20.53	20.73	20.63		
10	256QAM	1	0	18.72	18.80	18.81	20.5	5
10	256QAM	1	25	18.73	18.78	18.74		
10	256QAM	1	49	18.78	18.84	18.83		
10	256QAM	25	0	18.60	18.76	18.73	20.5	5
10	256QAM	25	12	18.67	18.67	18.63		
10	256QAM	25	25	18.66	18.72	18.55		
10	256QAM	50	0	18.72	18.87	18.71		
Channel								
Frequency (MHz)				709.5	710	711.5	Turn-up limit (dB)	APPR (dB)
5	QPSK	1	0	23.51	23.65	23.54	25.5	0
5	QPSK	1	12	23.53	23.56	23.57		
5	QPSK	1	24	23.54	23.64	23.56		
5	QPSK	12	0	22.72	22.83	22.67	24.5	1
5	QPSK	12	7	22.92	22.74	22.69		
5	QPSK	12	13	22.58	22.72	22.59		
5	QPSK	25	0	22.68	22.72	22.64	24.5	1
5	16QAM	1	0	22.67	22.65	22.59		
5	16QAM	1	12	22.55	22.86	22.57		
5	16QAM	1	24	22.51	22.59	22.58	23.5	2
5	16QAM	12	0	21.75	21.84	21.73		
5	16QAM	12	7	21.72	21.67	21.81		
5	16QAM	12	13	21.61	21.69	21.68	23.5	2
5	16QAM	25	0	21.58	21.69	21.56		
5	64QAM	1	0	21.59	21.72	21.67		
5	64QAM	1	12	21.54	21.62	21.60	22.5	3
5	64QAM	1	24	21.51	21.61	21.52		
5	64QAM	12	0	20.92	20.90	20.85		
5	64QAM	12	7	20.83	20.76	20.85	20.5	5
5	64QAM	12	13	20.73	20.75	20.74		
5	64QAM	25	0	20.65	20.69	20.59		
5	256QAM	1	0	18.72	18.80	18.81	20.5	5
5	256QAM	1	12	18.72	18.85	18.77		
5	256QAM	1	24	18.79	18.81	18.69		
5	256QAM	12	0	18.75	18.72	18.69	20.5	5
5	256QAM	12	7	18.60	18.70	18.61		
5	256QAM	12	13	18.66	18.73	18.67		
5	256QAM	25	0	18.68	18.93	18.69		



DSI 4 Power for WWAN for Other PA

Band 5 Ant0									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq. (2042)	Power Middle Ch./Freq. (2052)	Power High Ch./Freq. (2060)	Tune-up limit (dBm)	MPR (dB)	
Channel				829	838.5	844			
Frequency (MHz)									
10	QPSK	1	0	24.82	24.85	24.77	25.5	0	
10	QPSK	1	25	24.74	24.73	24.69			
10	QPSK	1	49	24.68	24.68	24.61			
10	QPSK	25	0	23.64	23.75	23.66	24.5	1	
10	QPSK	25	12	23.64	23.65	23.64			
10	QPSK	25	25	23.67	23.58	23.65			
10	QPSK	50	0	23.59	23.72	23.62	24.5	1	
10	16QAM	1	0	23.73	23.86	23.73			
10	16QAM	1	25	23.74	23.80	23.71			
10	16QAM	1	49	23.70	23.76	23.67	23.5	2	
10	16QAM	25	0	22.79	22.91	22.78			
10	16QAM	25	12	22.70	22.77	22.71			
10	16QAM	25	25	22.66	22.71	22.66	23.5	2	
10	16QAM	50	0	22.69	22.80	22.70			
10	64QAM	1	0	22.74	22.84	22.71			
10	64QAM	1	25	22.61	22.76	22.70	23.5	2	
10	64QAM	1	49	22.59	22.69	22.62			
10	64QAM	25	0	21.79	21.89	21.79			
10	64QAM	25	12	21.65	21.76	21.69	22.5	3	
10	64QAM	25	25	21.71	21.82	21.72			
10	64QAM	50	0	21.68	21.81	21.73			
10	256QAM	1	0	19.62	19.65	19.58	20.5	5	
10	256QAM	1	25	19.42	19.56	19.47			
10	256QAM	1	49	19.42	19.52	19.41			
10	256QAM	25	0	19.54	19.60	19.52	20.5	5	
10	256QAM	25	12	19.44	19.54	19.39			
10	256QAM	25	25	19.36	19.47	19.33			
10	256QAM	50	0	19.45	19.52	19.37			
Channel				20425	20525	20625	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				828.5	838.5	848.5			
5	QPSK	1	0	24.73	24.77	24.64	25.5	0	
5	QPSK	1	12	24.61	24.66	24.57			
5	QPSK	1	24	24.61	24.54	24.54			
5	QPSK	12	0	23.57	23.67	23.56	24.5	1	
5	QPSK	12	7	23.58	23.64	23.55			
5	QPSK	12	13	23.54	23.43	23.58			
5	QPSK	25	0	23.46	23.58	23.55	24.5	1	
5	16QAM	1	0	23.64	23.80	23.67			
5	16QAM	1	12	23.62	23.73	23.60			
5	16QAM	1	24	23.62	23.63	23.58	23.5	2	
5	16QAM	12	0	22.67	22.82	22.65			
5	16QAM	12	7	22.63	22.63	22.60			
5	16QAM	12	13	22.54	22.82	22.57	23.5	2	
5	16QAM	25	0	22.63	22.69	22.60			
5	64QAM	1	0	22.68	22.74	22.63			
5	64QAM	1	12	22.51	22.64	22.58	23.5	2	
5	64QAM	1	24	22.47	22.59	22.50			
5	64QAM	12	0	21.67	21.77	21.71			
5	64QAM	12	7	21.58	21.62	21.60	22.5	3	
5	64QAM	12	13	21.86	21.88	21.81			
5	64QAM	25	0	21.60	21.75	21.61			
5	256QAM	1	0	19.45	19.56	19.44	20.5	5	
5	256QAM	1	12	19.34	19.49	19.38			
5	256QAM	1	24	19.33	19.44	19.29			
5	256QAM	12	0	19.46	19.45	19.41	20.5	5	
5	256QAM	12	7	19.33	19.45	19.33			
5	256QAM	12	13	19.27	19.40	19.20			
5	256QAM	25	0	19.32	19.41	19.28			
Channel				20415	20525	20635	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				825.5	838.5	847.5			
3	QPSK	1	0	24.77	24.77	24.65	25.5	0	
3	QPSK	1	8	24.65	24.63	24.55			
3	QPSK	1	14	24.54	24.54	24.52			
3	QPSK	8	0	23.50	23.68	23.55	24.5	1	
3	QPSK	8	4	23.50	23.60	23.59			
3	QPSK	8	7	23.56	23.52	23.52			
3	QPSK	15	0	23.51	23.57	23.48	24.5	1	
3	16QAM	1	0	23.66	23.81	23.59			
3	16QAM	1	8	23.60	23.67	23.60			
3	16QAM	1	14	23.62	23.62	23.60	23.5	2	
3	16QAM	8	0	22.71	22.85	22.72			
3	16QAM	8	4	22.56	22.70	22.65			
3	16QAM	8	7	22.55	22.57	22.53	23.5	2	
3	16QAM	15	0	22.58	22.67	22.65			
3	64QAM	1	0	22.60	22.78	22.61			
3	64QAM	1	8	22.52	22.70	22.59	23.5	2	
3	64QAM	1	14	22.45	22.63	22.50			
3	64QAM	8	0	21.68	21.80	21.67			
3	64QAM	8	4	21.51	21.64	21.57	22.5	3	
3	64QAM	8	7	21.57	21.68	21.61			
3	64QAM	15	0	21.60	21.70	21.65			
3	256QAM	1	0	19.42	19.50	19.52	20.5	5	
3	256QAM	1	8	19.32	19.44	19.33			
3	256QAM	1	14	19.35	19.45	19.36			
3	256QAM	8	0	19.47	19.51	19.44	20.5	5	
3	256QAM	8	4	19.39	19.47	19.33			
3	256QAM	8	7	19.27	19.38	19.23			
3	256QAM	15	0	19.34	19.41	19.24			
Channel				20407	20525	20643	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				824.7	838.5	848.3			
1.4	QPSK	1	0	24.74	24.78	24.64	25.5	0	
1.4	QPSK	1	3	24.63	24.67	24.54			
1.4	QPSK	1	5	24.61	24.55	24.50			
1.4	QPSK	3	0	23.56	23.68	23.59	24.5	1	
1.4	QPSK	3	1	23.51	23.57	23.52			
1.4	QPSK	3	3	23.55	23.51	23.59			
1.4	QPSK	6	0	23.46	23.62	23.49	24.5	1	
1.4	16QAM	1	0	23.81	23.79	23.58			
1.4	16QAM	1	3	23.66	23.69	23.62			
1.4	16QAM	1	5	23.60	23.65	23.56	24.5	1	
1.4	16QAM	3	0	23.59	23.75	23.64			
1.4	16QAM	3	1	23.64	23.67	23.63			
1.4	16QAM	3	3	23.55	23.63	23.52	23.5	2	
1.4	16QAM	6	0	22.74	22.81	22.69			
1.4	64QAM	1	0	22.63	22.69	22.66			
1.4	64QAM	1	3	22.57	22.58	22.53	23.5	2	
1.4	64QAM	1	5	22.56	22.71	22.56			
1.4	64QAM	3	0	22.64	22.77	22.63			
1.4	64QAM	3	1	22.49	22.66	22.59	22.5	3	
1.4	64QAM	3	3	22.49	22.61	22.48			
1.4	64QAM	6	0	21.70	21.76	21.64			
1.4	256QAM	1	0	19.47	19.55	19.51	20.5	5	
1.4	256QAM	1	3	19.34	19.42	19.38			
1.4	256QAM	1	5	19.30	19.42	19.30			
1.4	256QAM	3	0	19.40	19.49	19.38	20.5	5	
1.4	256QAM	3	1	19.32	19.41	19.27			
1.4	256QAM	3	3	19.22	19.32	19.19			
1.4	256QAM	6	0	19.31	19.42	19.32			



Band 4 Other PA Ant1 DS14										
RF [MHz]	Modulation	RB Size	RB Offset	Power Ch./Frac	Power Ch./Frac	Power Ch./Frac	Tune-up [dB]	MPR [dB]		
Channel										
Frequency [MHz]										
20	QPSK	1	0	16.01	16.08	15.99		17	0	
20	QPSK	40	0	15.87	15.81	15.83				
20	QPSK	1	99	15.87	15.87	15.92				
20	QPSK	50	0	15.84	15.81	15.84				
20	QPSK	24	0	15.87	15.86	15.86				
20	QPSK	60	50	15.86	15.81	15.89				
20	QPSK	100	0	15.89	15.96	15.92				
20	16QAM	1	0	15.84	15.74	15.70				
20	16QAM	1	49	15.81	15.71	15.84				
20	16QAM	1	99	15.85	15.87	15.83				
20	16QAM	50	0	15.77	15.81	15.87				
20	16QAM	50	24	15.89	15.87	15.87				
20	16QAM	100	0	15.66	15.87	15.80				
20	64QAM	1	0	15.86	15.88	15.96				
20	64QAM	1	49	15.78	15.95	15.99				
20	64QAM	1	99	15.86	15.82	15.78				
20	64QAM	50	0	15.75	15.84	15.89				
20	64QAM	50	24	15.75	15.89	15.85				
20	64QAM	100	0	15.85	15.72	15.89				
20	256QAM	1	0	15.75	15.77	15.83				
20	256QAM	1	49	15.89	15.75	15.73				
20	256QAM	1	99	15.80	15.86	15.85				
20	256QAM	50	0	15.79	15.73	15.80				
20	256QAM	50	24	15.79	15.73	15.86				
20	256QAM	100	0	15.70	15.87	15.87				
20	256QAM	100	0	15.84	15.84	15.86				
Channel										
Frequency [MHz]				20025	20075	20025		Tune-up [dB]	MPR [dB]	
15	QPSK	1	0	15.83	15.89	15.94		17	0	
15	QPSK	1	74	15.74	15.88	15.85				
15	QPSK	1	149	15.74	15.88	15.85				
15	QPSK	36	20	15.72	15.82	15.47				
15	QPSK	36	39	15.47	15.54	15.53				
15	16QAM	1	0	15.66	15.67	15.66				
15	16QAM	1	37	15.81	15.83	15.45				
15	16QAM	1	74	15.75	15.77	15.74				
15	16QAM	36	20	15.74	15.78	15.83				
15	16QAM	36	39	15.50	15.79	15.77				
15	16QAM	75	0	15.73	15.73	15.83				
15	64QAM	1	0	15.80	15.73	15.88				
15	64QAM	1	37	15.80	15.84	15.88				
15	64QAM	1	74	15.89	15.53	15.68				
15	64QAM	36	20	15.60	15.47	15.74				
15	64QAM	36	39	15.64	15.68	15.68				
15	64QAM	75	0	15.66	15.85	15.70				
15	64QAM	75	0	15.66	15.61	15.88				
15	256QAM	1	37	15.48	15.71	15.79				
15	256QAM	1	74	15.46	15.76	15.52				
15	256QAM	1	149	15.75	15.86	15.86				
15	256QAM	36	20	15.58	15.57	15.68				
15	256QAM	36	39	15.65	15.74	15.83				
15	256QAM	75	0	15.77	15.49	15.83				
Channel										
Frequency [MHz]				20010	20075	20050		Tune-up [dB]	MPR [dB]	
10	QPSK	1	0	15.83	15.87	15.87		17	0	
10	QPSK	1	25	15.82	15.88	15.84				
10	QPSK	1	49	15.70	15.60	15.64				
10	QPSK	36	20	15.68	15.87	15.78				
10	QPSK	36	39	15.67	15.52	15.48				
10	QPSK	25	25	15.54	15.65	15.42				
10	16QAM	1	0	15.80	15.78	15.87				
10	16QAM	1	0	15.81	15.66	15.52				
10	16QAM	1	25	15.80	15.67	15.48				
10	16QAM	1	49	15.80	15.63	15.74				
10	16QAM	25	0	15.69	15.62	15.53				
10	16QAM	25	12	15.56	15.84	15.93				
10	16QAM	25	25	15.81	15.60	15.92				
10	16QAM	50	0	15.65	15.95	15.73				
10	64QAM	1	0	15.65	15.77	15.89				
10	64QAM	1	25	15.68	15.88	15.89				
10	64QAM	1	49	15.79	15.58	15.58				
10	64QAM	25	0	15.61	15.41	15.75				
10	64QAM	25	12	15.75	15.71	15.47				
10	64QAM	25	25	15.64	15.88	15.84				
10	64QAM	50	0	15.76	15.88	15.78				
10	64QAM	50	0	15.62	15.80	15.81				
10	256QAM	1	25	15.49	15.56	15.91				
10	256QAM	1	49	15.59	15.90	15.99				
10	256QAM	25	0	15.73	15.64	15.84				
10	256QAM	25	12	15.55	15.83	15.71				
10	256QAM	50	25	15.70	15.70	15.87				
10	256QAM	50	0	15.74	15.50	15.84				
Channel										
Frequency [MHz]				19975	20075	20075		Tune-up [dB]	MPR [dB]	
5	QPSK	1	0	15.86	15.89	15.88		17	0	
5	QPSK	1	12	15.83	15.71	15.69				
5	QPSK	1	24	15.85	15.60	15.72				
5	QPSK	12	0	15.62	15.83	15.83				
5	QPSK	12	7	15.71	15.82	15.51				
5	QPSK	12	13	15.43	15.52	15.47				
5	16QAM	1	0	15.75	15.93	15.79				
5	16QAM	1	0	15.72	15.69	15.54				
5	16QAM	1	12	15.64	15.87	15.89				
5	16QAM	1	24	15.63	15.64	15.64				
5	16QAM	12	0	15.69	15.73	15.66				
5	16QAM	12	7	15.85	15.80	15.88				
5	16QAM	12	13	15.80	15.66	15.82				
5	16QAM	25	0	15.67	15.81	15.72				
5	16QAM	1	0	15.54	15.80	15.77				
5	16QAM	1	12	15.68	15.96	15.89				
5	64QAM	1	24	15.86	15.54	15.74				
5	64QAM	12	0	15.73	15.39	15.77				
5	64QAM	12	7	15.77	15.58	15.46				
5	64QAM	12	13	15.63	15.83	15.82				
5	64QAM	25	0	15.67	15.81	15.82				
5	256QAM	1	0	15.72	15.68	15.81				
5	256QAM	1	12	15.41	15.64	15.81				
5	256QAM	1	24	15.45	15.85	15.87				
5	256QAM	12	0	15.63	15.60	15.80				
5	256QAM	12	7	15.41	15.46	15.70				
5	256QAM	12	13	15.40	15.78	15.84				
5	256QAM	25	0	15.78	15.63	15.91				
Channel										
Frequency [MHz]				19985	20075	20085		Tune-up [dB]	MPR [dB]	
3	QPSK	1	0	15.86	15.92	15.88		17	0	
3	QPSK	1	8	15.73	15.77	15.66				
3	QPSK	1	16	15.84	15.60	15.72				
3	QPSK	8	0	15.63	15.99	15.78				
3	QPSK	8	4	15.84	15.81	15.80				
3	QPSK	8	7	15.78	15.70	15.74				
3	16QAM	1	0	15.85	15.80	15.84				
3	16QAM	1	8	15.70	15.68	15.69				
3	16QAM	1	16	15.74	15.62	15.59				
3	16QAM	1	14	15.63	15.49	15.77				
3	16QAM	8	0	15.70	15.73	15.49				
3	16QAM	8	4	15.86	15.83	15.96				
3	16QAM	8	7	15.81	15.78	15.83				
3	16QAM	15	0	15.51	15.98	15.77				
3	64QAM	1	0	15.81	15.80	15.82				
3	64QAM	1	8	15.73	15.74	15.66				
3	64QAM	1	14	15.82	15.47	15.71				
3	64QAM	8	0	15.74	15.52	15.68				
3	64QAM	8	4	15.74	15.57	15.59				
3	64QAM	8	7	15.69	15.93	15.69				
3	256QAM	1	0	15.59	15.66	15.92				
3	256QAM	1	8	15.67	15.62	15.78				
3	256QAM	1	14	15.55	15.85	15.47				
3	256QAM	8	0	15.82	15.61	15.71				
3	256QAM	8	4	15.58	15.56	15.77				
3	256QAM	8	7	15.54	15.78	15.84				
3	256QAM	15	0	15.73	15.57	15.80				
Channel										
Frequency [MHz]				19967	20075	20093		Tune-up [dB]	MPR [dB]	
1.4	QPSK	1	0	15.70	15.66	15.53		17	0	
1.4	QPSK	1	3	15.67	15.72	15.48				
1.4	QPSK	1	6	15.83	15.59	15.78				
1.4	QPSK	3	0	15.79	15.80	15.87				
1.4	QPSK	3	1	15.55	15.71	15.65				
1.4	QPSK	6	0	15.68	15.41	15.67				
1.4	QPSK	6	0	15.78	15.85	15.77				
1.4	16QAM	1	0	15.74	15.69	15.61				
1.4	16QAM	1	3	15.68	15.60	15.66				
1.4	16QAM	1	5	15.72	15.82	15.78				
1.4	16QAM	3	0	15.62	15.49	15.66				
1.4	16QAM	3	1	15.55	15.48	15.51				
1.4	16QAM	3	3	15.55						



Band 4 Other PA Ant2 DS14

SW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Mid Ch. / Freq.	Power High Ch. / Freq.	Tune-up (dB)	MPR (dB)
Channel								
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	18.84	18.39	18.88	19.5	0
20	QPSK	1	49	18.73	18.74	18.76		
20	QPSK	1	99	18.59	18.65	18.77		
20	QPSK	50	0	18.82	18.54	18.86	19.5	0
20	QPSK	50	24	18.68	18.72	18.84		
20	QPSK	50	50	18.59	18.53	18.77		
20	QPSK	100	0	18.76	18.31	18.78	19.5	0
20	16QAM	1	0	18.65	18.58	18.47		
20	16QAM	1	49	18.66	18.42	18.50	19.5	0
20	16QAM	1	99	18.51	18.53	18.63		
20	16QAM	50	0	18.51	18.61	18.65	19.5	0
20	16QAM	50	24	18.57	18.54	18.81		
20	16QAM	50	50	18.61	18.67	18.69		
20	16QAM	100	0	18.50	18.68	18.66	19.5	0
20	84QAM	1	0	18.63	18.62	18.84		
20	84QAM	1	49	18.67	18.53	18.65	19.5	0
20	84QAM	1	99	18.68	18.64	18.61		
20	84QAM	50	0	18.52	18.62	18.50	19.5	0
20	84QAM	50	24	18.38	18.49	18.26		
20	84QAM	50	50	18.45	18.55	18.40		
20	84QAM	100	0	18.52	18.58	18.51	19.5	0
20	256QAM	1	0	18.48	18.58	18.55		
20	256QAM	1	49	18.43	18.49	18.40	19.5	0
20	256QAM	1	99	18.37	18.45	18.39		
20	256QAM	50	0	18.43	18.50	18.43	19.5	0
20	256QAM	50	24	18.36	18.44	18.36		
20	256QAM	50	50	18.28	18.37	18.28	19.5	0
20	256QAM	100	0	18.32	18.44	18.38		
Channel								
Frequency (MHz)				20005	20175	20325		
15	QPSK	1	0	18.71	18.74	18.72		
15	QPSK	1	37	18.63	18.69	18.64	19.5	0
15	QPSK	1	74	18.58	18.54	18.65		
15	QPSK	36	0	18.71	18.69	18.72	19.5	0
15	QPSK	36	20	18.57	18.59	18.52		
15	QPSK	36	39	18.49	18.49	18.63		
15	QPSK	75	0	18.74	18.71	18.67	19.5	0
15	16QAM	1	0	18.45	18.42	18.40		
15	16QAM	1	37	18.57	18.27	18.33	19.5	0
15	16QAM	1	74	18.34	18.42	18.55		
15	16QAM	36	0	18.38	18.55	18.67	19.5	0
15	16QAM	36	20	18.49	18.63	18.76		
15	16QAM	36	39	18.60	18.57	18.49		
15	16QAM	75	0	18.33	18.62	18.52	19.5	0
15	84QAM	1	0	18.60	18.49	18.81		
15	84QAM	1	37	18.50	18.73	18.71	19.5	0
15	84QAM	1	74	18.58	18.49	18.55		
15	84QAM	36	0	18.40	18.53	18.36	19.5	0
15	84QAM	36	20	18.29	18.36	18.22		
15	84QAM	36	39	18.37	18.50	18.41		
15	84QAM	75	0	18.37	18.49	18.40	19.5	0
15	256QAM	1	0	18.42	18.44	18.44		
15	256QAM	1	37	18.34	18.38	18.27	19.5	0
15	256QAM	1	74	18.26	18.38	18.31		
15	256QAM	36	0	18.28	18.37	18.36	19.5	0
15	256QAM	36	20	18.24	18.37	18.30		
15	256QAM	36	39	18.20	18.28	18.16	19.5	0
15	256QAM	75	0	18.22	18.37	18.22		
Channel								
Frequency (MHz)				20000	20175	20359		
10	QPSK	1	0	18.62	18.77	18.66		
10	QPSK	1	25	18.55	18.54	18.63	19.5	0
10	QPSK	1	49	18.51	18.61	18.74		
10	QPSK	25	0	18.78	18.77	18.78	19.5	0
10	QPSK	25	12	18.54	18.58	18.51		
10	QPSK	25	25	18.55	18.34	18.68		
10	QPSK	50	0	18.72	18.71	18.66	19.5	0
10	16QAM	1	0	18.48	18.41	18.39		
10	16QAM	1	25	18.48	18.36	18.33	19.5	0
10	16QAM	1	49	18.36	18.43	18.51		
10	16QAM	25	0	18.33	18.61	18.76	19.5	0
10	16QAM	25	12	18.41	18.62	18.75		
10	16QAM	25	25	18.68	18.48	18.46		
10	16QAM	50	0	18.41	18.57	18.59	19.5	0
10	84QAM	1	0	18.59	18.46	18.70		
10	84QAM	1	25	18.54	18.71	18.65	19.5	0
10	84QAM	1	49	18.53	18.52	18.46		
10	84QAM	25	0	18.39	18.53	18.43	19.5	0
10	84QAM	25	12	18.29	18.43	18.23		
10	84QAM	25	25	18.38	18.47	18.41		
10	84QAM	50	0	18.43	18.43	18.36	19.5	0
10	256QAM	1	0	18.39	18.48	18.44		
10	256QAM	1	25	18.30	18.39	18.30	19.5	0
10	256QAM	1	49	18.26	18.37	18.32		
10	256QAM	25	0	18.38	18.42	18.31	19.5	0
10	256QAM	25	12	18.23	18.32	18.23		
10	256QAM	25	25	18.18	18.23	18.21	19.5	0
10	256QAM	50	0	18.20	18.31	18.23		
Channel								
Frequency (MHz)				19975	20175	20375		
5	QPSK	1	0	18.77	18.78	18.86		
5	QPSK	1	12	18.58	18.62	18.65	19.5	0
5	QPSK	1	24	18.57	18.47	18.62		
5	QPSK	12	0	18.69	18.93	18.72	19.5	0
5	QPSK	12	7	18.67	18.70	18.54		
5	QPSK	12	13	18.49	18.38	18.70		
5	QPSK	25	0	18.67	18.78	18.78	19.5	0
5	16QAM	1	0	18.67	18.53	18.36		
5	16QAM	1	12	18.59	18.36	18.41	19.5	0
5	16QAM	1	24	18.42	18.43	18.60		
5	16QAM	12	0	18.50	18.61	18.67	19.5	0
5	16QAM	12	7	18.48	18.50	18.70		
5	16QAM	12	13	18.79	18.53	18.53		
5	16QAM	25	0	18.46	18.51	18.48	19.5	0
5	84QAM	1	0	18.46	18.55	18.67		
5	84QAM	1	12	18.60	18.92	18.86	19.5	0
5	84QAM	1	24	18.52	18.64	18.49		
5	84QAM	12	0	18.39	18.49	18.37	19.5	0
5	84QAM	12	7	18.33	18.42	18.26		
5	84QAM	12	13	18.37	18.42	18.39	19.5	0
5	84QAM	25	0	18.46	18.47	18.42		
5	256QAM	1	0	18.38	18.44	18.36		
5	256QAM	1	12	18.34	18.37	18.33	19.5	0
5	256QAM	1	24	18.26	18.38	18.31		
5	256QAM	12	0	18.38	18.40	18.31	19.5	0
5	256QAM	12	7	18.29	18.29	18.28		
5	256QAM	12	13	18.19	18.23	18.23	19.5	0
5	256QAM	25	0	18.18	18.36	18.24		
Channel								
Frequency (MHz)				19965	20175	20395		
3	QPSK	1	0	18.65	18.78	18.71		
3	QPSK	1	8	18.58	18.65	18.63	19.5	0
3	QPSK	1	14	18.42	18.54	18.75		
3	QPSK	8	0	18.74	18.73	18.69	19.5	0
3	QPSK	8	4	18.63	18.62	18.51		
3	QPSK	8	7	18.46	18.51	18.58		
3	QPSK	15	0	18.59	18.70	18.76	19.5	0
3	16QAM	1	0	18.47	18.57	18.45		
3	16QAM	1	8	18.63	18.31	18.56	19.5	0
3	16QAM	1	14	18.32	18.43	18.90		
3	16QAM	8	0	18.32	18.43	18.79	19.5	0
3	16QAM	8	4	18.48	18.56	18.66		
3	16QAM	8	7	18.73	18.93	18.65		
3	16QAM	15	0	18.33	18.51	18.54	19.5	0
3	84QAM	1	0	18.69	18.51	18.70		
3	84QAM	1	8	18.60	18.79	18.70	19.5	0
3	84QAM	1	14	18.63	18.49	18.59		
3	84QAM	8	0	18.45	18.47	18.38	19.5	0
3	84QAM	8	4	18.28	18.36	18.23		
3	84QAM	8	7	18.34	18.41	18.36		
3	84QAM	15	0	18.44	18.49	18.42	19.5	0
3	256QAM	1	0	18.40	18.47	18.40		
3	256QAM	1	8	18.36	18.35	18.33	19.5	0
3	256QAM	1	14	18.28	18.38	18.28		
3	256QAM	8	0	18.29	18.41	18.36	19.5	0
3	256QAM	8	4	18.				



Band 4 Other PA Ant3 DSI4										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up (dB)	MFR (dB)		
Channel										
Frequency (MHz)										
20	QPSK	1	0	19.12	19.20	19.13	20.5	0		
20	QPSK	1	49	19.98	19.92	19.94				
20	QPSK	1	99	18.93	18.92	19.05				
20	QPSK	50	0	19.11	19.15	19.15	20.5	0		
20	QPSK	50	24	19.93	19.10	19.00				
20	QPSK	50	50	18.98	18.98	19.02				
20	QPSK	100	0	19.14	19.16	19.11				
20	QPSK	100	24	19.93	19.90	19.89				
20	16QAM	1	49	18.95	18.72	18.69	20.5	0		
20	16QAM	1	99	18.82	18.82	18.99				
20	16QAM	50	0	19.54	18.82	18.52				
20	16QAM	50	24	18.59	18.68	18.52	20.5	0		
20	16QAM	50	49	18.57	18.72	18.52				
20	16QAM	100	0	18.53	18.78	18.56				
20	16QAM	100	24	18.54	18.80	18.56	20.5	0		
20	16QAM	100	49	18.57	18.72	18.52				
20	16QAM	1	99	18.53	18.65	18.52				
20	16QAM	50	0	18.65	18.86	18.63				
20	16QAM	50	24	18.67	18.82	18.63	20.5	0		
20	16QAM	50	49	18.67	18.79	18.64				
20	16QAM	100	0	18.62	18.82	18.64				
20	16QAM	100	24	18.52	18.85	18.58	20.5	0		
20	256QAM	1	49	18.56	18.59	18.56	20.5	0		
20	256QAM	1	99	18.51	18.55	18.52				
20	256QAM	50	0	18.58	18.51	18.53				
20	256QAM	50	24	18.53	18.55	18.51	20.5	0		
20	256QAM	50	49	18.59	18.58	18.53				
20	256QAM	100	0	18.52	18.55	18.51				
Channel										
Frequency (MHz)										
15	QPSK	1	0	18.18	18.15	18.18	20.5	0		
15	QPSK	1	37	18.84	18.82	18.82				
15	QPSK	1	74	18.92	18.83	19.01				
15	QPSK	36	0	18.54	18.89	18.18	20.5	0		
15	QPSK	36	20	18.74	18.84	18.81				
15	QPSK	36	36	18.79	18.84	19.02				
15	QPSK	75	0	18.93	19.09	18.99				
15	16QAM	1	0	18.87	18.89	18.78	20.5	0		
15	16QAM	1	37	18.86	18.81	18.97				
15	16QAM	1	74	18.74	18.84	18.55				
15	16QAM	36	0	18.54	18.74	18.52	20.5	0		
15	16QAM	36	20	18.57	18.53	18.53				
15	16QAM	36	36	18.56	18.52	18.53				
15	16QAM	75	0	18.54	18.65	18.59				
15	16QAM	1	0	18.58	18.70	18.57	20.5	0		
15	16QAM	1	37	18.52	18.63	18.53				
15	16QAM	1	74	18.55	18.51	18.51				
15	16QAM	36	0	18.63	18.81	18.65	20.5	0		
15	16QAM	36	20	18.62	18.62	18.66				
15	16QAM	36	36	18.66	18.69	18.70				
15	16QAM	75	0	18.70	18.77	18.66				
15	256QAM	1	0	18.52	18.52	18.51	20.5	0		
15	256QAM	1	37	18.53	18.59	18.58				
15	256QAM	1	74	18.50	18.52	18.53				
15	256QAM	36	0	18.51	18.51	18.67	20.5	0		
15	256QAM	36	20	18.64	18.67	18.82				
15	256QAM	36	36	18.52	18.59	18.53	20.5	0		
15	256QAM	75	0	18.67	18.52	18.51				
Channel										
Frequency (MHz)										
10	QPSK	1	0	18.58	19.07	18.99	20.5	0		
10	QPSK	1	25	18.83	19.01	18.78				
10	QPSK	1	49	18.82	18.78	19.01				
10	QPSK	25	0	18.93	19.18	19.06	20.5	0		
10	QPSK	25	12	18.91	19.06	18.99				
10	QPSK	25	25	18.84	18.84	18.87				
10	QPSK	50	0	18.13	19.03	18.11	20.5	0		
10	16QAM	1	0	18.82	18.73	18.84	20.5	0		
10	16QAM	1	25	18.87	18.71	18.84				
10	16QAM	1	49	18.80	18.62	18.74				
10	16QAM	25	0	18.60	18.74	18.65	20.5	0		
10	16QAM	25	12	18.58	18.56	18.80				
10	16QAM	25	25	18.51	18.53	18.53				
10	16QAM	50	0	18.51	18.70	18.70				
10	16QAM	1	0	18.60	18.68	18.63	20.5	0		
10	16QAM	1	25	18.66	18.62	18.62				
10	16QAM	1	49	18.58	18.57	18.57				
10	16QAM	25	0	18.73	18.76	18.59	20.5	0		
10	16QAM	25	12	18.66	18.62	18.62				
10	16QAM	25	25	18.64	18.67	18.77				
10	16QAM	50	0	18.61	18.72	18.84				
10	256QAM	1	0	18.55	18.59	18.59	20.5	0		
10	256QAM	1	25	18.53	18.59	18.59				
10	256QAM	1	49	18.53	18.54	18.51				
10	256QAM	25	0	18.53	18.55	18.57	20.5	0		
10	256QAM	25	12	18.56	18.53	18.58				
10	256QAM	25	25	18.58	18.58	18.54				
10	256QAM	50	0	18.52	18.52	18.53	20.5	0		
Channel										
Frequency (MHz)										
5	QPSK	1	0	18.13	18.02	18.19	20.5	0		
5	QPSK	1	12	18.94	19.01	18.92				
5	QPSK	1	24	18.82	18.88	19.01				
5	QPSK	12	0	18.02	18.12	18.08	20.5	0		
5	QPSK	12	7	18.88	19.03	18.89				
5	QPSK	12	13	18.96	18.91	18.98				
5	QPSK	25	0	18.12	18.12	18.05	20.5	0		
5	16QAM	1	0	18.90	18.84	18.70	20.5	0		
5	16QAM	1	12	18.86	18.84	18.84				
5	16QAM	1	24	18.65	18.80	18.85				
5	16QAM	12	0	18.90	19.03	19.00	20.5	0		
5	16QAM	12	7	18.77	18.85	18.96				
5	16QAM	12	13	18.67	18.76	18.88				
5	16QAM	25	0	18.87	18.88	18.95	20.5	0		
5	16QAM	1	0	18.97	19.05	18.97				
5	16QAM	1	12	18.80	18.82	18.96				
5	16QAM	1	24	18.77	18.86	18.84				
5	16QAM	12	0	18.78	18.90	18.80	20.5	0		
5	16QAM	12	7	18.84	18.72	18.70				
5	16QAM	12	13	18.69	18.80	18.80				
5	256QAM	1	0	18.67	18.86	18.72	20.5	0		
5	256QAM	1	1	18.80	18.85	18.84				
5	256QAM	1	12	18.64	18.78	18.71				
5	256QAM	1	24	18.60	18.76	18.65	20.5	0		
5	256QAM	12	0	18.67	18.83	18.82				
5	256QAM	12	7	18.60	18.78	18.73				
5	256QAM	12	13	18.61	18.65	18.84	20.5	0		
5	256QAM	25	0	18.73	18.75	18.77				
Channel										
Frequency (MHz)										
3	QPSK	1	0	19.07	19.11	19.09	20.5	0		
3	QPSK	1	8	18.82	19.08	18.86				
3	QPSK	1	14	18.77	18.75	19.01				
3	QPSK	8	0	18.93	19.04	19.09	20.5	0		
3	QPSK	8	4	18.93	18.99	19.11				
3	QPSK	8	7	18.92	18.94	18.90				
3	QPSK	8	14	19.10	19.01	19.00	20.5	0		
3	16QAM	1	0	18.84	18.78	18.74	20.5	0		
3	16QAM	1	8	18.86	18.82	18.89				
3	16QAM	1	14	18.85	18.75	18.72				
3	16QAM	8	0	18.94	19.03	18.93	20.5	0		
3	16QAM	8	4	18.78	18.90	18.89				
3	16QAM	8	7	18.87	18.78	18.82				
3	16QAM	15	0	18.89	18.82	18.76	20.5	0		



Band 4 Other PA Ant4

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch / Freq	Power High Ch / Freq	Power High Ch / Freq 200%	Turn-up limit (dBm)	MPE (dB)	Channel			
									Frequency (MHz)	1720	1725.5	1745
20	QPSK	1	0	23.07	23.27	23.21	24.5	0				
20	QPSK	1	49	22.91	23.15	23.12						
20	QPSK	1	99	23.03	23.22	23.20						
20	QPSK	50	0	21.98	22.27	22.14						
20	QPSK	50	24	22.00	22.18	22.14			23.5			
20	QPSK	50	50	22.05	22.23	22.24						
20	QPSK	100	0	22.00	22.19	22.10						
20	16QAM	1	0	22.03	22.21	22.11			23.5			
20	16QAM	1	49	22.14	22.31	22.27						
20	16QAM	1	99	22.09	22.27	22.25						
20	16QAM	50	0	21.05	21.25	21.22						
20	16QAM	50	24	21.08	21.26	21.20			22.5			
20	16QAM	50	50	21.04	21.21	21.14						
20	16QAM	100	0	20.99	21.23	21.15						
20	84QAM	1	0	20.93	21.13	21.11			22.5			
20	84QAM	1	49	21.00	21.24	21.14						
20	84QAM	1	99	21.00	21.23	21.17						
20	84QAM	50	0	20.93	20.22	20.17						
20	84QAM	50	24	20.98	20.25	20.20			21.5			
20	84QAM	50	50	20.95	20.23	20.18						
20	84QAM	100	0	20.91	20.20	20.16						
20	256QAM	1	0	17.81	18.02	17.90						
20	256QAM	1	49	17.87	18.11	18.07			19.5			
20	256QAM	1	99	17.83	18.04	17.97						
20	256QAM	50	0	18.06	18.26	18.18						
20	256QAM	50	24	17.93	18.16	18.15			19.5			
20	256QAM	50	50	17.94	18.17	18.14						
20	256QAM	100	0	18.00	18.19	18.13						
				20005	20175	20325						
				1717.5	1723.5	1747.5						
15	QPSK	1	0	22.83	23.12	23.14						
15	QPSK	1	37	22.80	23.03	23.04			24.5			
15	QPSK	1	74	22.90	23.11	23.12						
15	QPSK	36	0	21.80	22.14	22.04						
15	QPSK	36	20	21.89	22.12	22.05			23.5			
15	QPSK	36	39	22.00	22.16	22.10						
15	QPSK	75	0	21.88	22.14	22.08						
15	16QAM	1	0	21.97	22.15	22.01			23.5			
15	16QAM	1	37	22.02	22.17	22.14						
15	16QAM	1	74	21.94	22.17	22.20						
15	16QAM	36	0	20.97	21.14	21.11						
15	16QAM	36	20	21.01	21.12	21.08			22.5			
15	16QAM	36	39	20.90	21.08	21.03						
15	16QAM	75	0	20.92	21.17	21.02						
15	84QAM	1	0	20.82	21.02	21.05			22.5			
15	84QAM	1	37	20.89	21.15	21.09						
15	84QAM	1	74	20.90	21.16	21.11						
15	84QAM	36	0	19.94	20.09	20.09			21.5			
15	84QAM	36	20	19.97	20.16	20.05						
15	84QAM	36	39	19.98	20.08	20.03						
15	84QAM	75	0	19.92	20.07	20.06						
15	256QAM	1	0	17.68	17.90	17.83						
15	256QAM	1	37	17.74	18.04	17.97			19.5			
15	256QAM	1	74	17.76	17.92	17.90						
15	256QAM	36	0	17.97	18.11	18.02						
15	256QAM	36	20	17.82	18.03	18.01			19.5			
15	256QAM	36	39	17.89	18.11	18.02						
15	256QAM	75	0	17.90	18.08	18.05						
				20000	20175	20350						
				1715	1723.5	1750						
10	QPSK	1	0	23.02	23.15	23.17						
10	QPSK	1	25	22.78	23.03	23.01			24.5			
10	QPSK	1	49	22.98	23.08	23.12						
10	QPSK	25	0	21.84	22.17	22.08						
10	QPSK	25	12	21.84	22.06	22.05			23.5			
10	QPSK	25	25	21.98	22.20	22.12						
10	QPSK	50	0	21.85	22.04	21.98						
10	16QAM	1	0	21.98	22.08	22.02			23.5			
10	16QAM	1	25	22.00	22.20	22.13						
10	16QAM	1	49	22.04	22.21	22.18						
10	16QAM	25	0	20.95	21.19	21.15						
10	16QAM	25	12	20.99	21.21	21.07			22.5			
10	16QAM	25	25	20.97	21.11	21.01						
10	16QAM	50	0	20.91	21.15	21.08						
10	84QAM	1	0	20.83	21.06	21.01			22.5			
10	84QAM	1	25	20.91	21.18	21.04						
10	84QAM	1	49	20.84	21.16	21.10						
10	84QAM	25	0	19.90	20.07	20.10			21.5			
10	84QAM	25	12	19.94	20.15	20.07						
10	84QAM	25	25	19.92	20.15	20.07						
10	84QAM	50	0	19.95	20.13	20.02						
10	256QAM	1	0	17.67	17.82	17.88						
10	256QAM	1	25	17.73	18.03	17.96			19.5			
10	256QAM	1	49	17.72	17.90	17.85						
10	256QAM	25	0	17.91	18.14	18.02						
10	256QAM	25	12	17.88	18.08	18.00			19.5			
10	256QAM	25	25	17.81	18.10	18.06						
10	256QAM	50	0	17.81	18.09	18.05						
				19975	20175	20375						
				1712.5	1723.5	1752.5						
5	QPSK	1	0	22.83	23.14	23.11						
5	QPSK	1	12	22.83	23.06	23.03			24.5			
5	QPSK	1	24	22.96	23.16	23.09						
5	QPSK	12	0	21.83	22.17	22.05						
5	QPSK	12	7	21.91	22.12	22.05			23.5			
5	QPSK	12	13	21.98	22.15	22.12						
5	QPSK	25	0	21.85	22.08	21.98						
5	16QAM	1	0	21.93	22.07	21.97			23.5			
5	16QAM	1	12	22.03	22.18	22.14						
5	16QAM	1	24	21.99	22.15	22.11						
5	16QAM	12	0	20.86	21.17	21.13						
5	16QAM	12	7	20.96	21.16	21.09			22.5			
5	16QAM	12	13	20.96	21.10	21.08						
5	16QAM	25	0	20.80	21.13	21.07						
5	84QAM	1	0	20.88	21.05	21.02			22.5			
5	84QAM	1	12	20.88	21.09	21.07						
5	84QAM	1	24	20.86	21.12	21.10						
5	84QAM	12	0	19.95	20.14	20.03			21.5			
5	84QAM	12	7	19.98	20.11	20.06						
5	84QAM	12	13	19.92	20.13	20.07						
5	84QAM	25	0	19.90	20.12	20.10						
5	256QAM	1	0	17.72	17.94	17.83						
5	256QAM	1	12	17.81	18.04	17.95			19.5			
5	256QAM	1	24	17.69	17.93	17.84						
5	256QAM	12	0	17.99	18.14	18.01						
5	256QAM	12	7	17.80	18.08	18.07			19.5			
5	256QAM	12	13	17.80	18.07	18.05						
5	256QAM	25	0	17.85	18.07	18.00						
				19965	20175	20385						
				1711.5	1723.5	1753.5						
3	QPSK	1	0	23.01	23.15	23.15						
3	QPSK	1	8	22.82	23.03	23.06			24.5			
3	QPSK	1	14	22.90	23.10	23.07						
3	QPSK	8	0	21.93	22.14	22.02						
3	QPSK	8	4	21.90	22.12	22.02			23.5			
3	QPSK	8	7	21.92	22.21	22.12						
3	16QAM	1	0	21.92	22.09	22.01						
3	16QAM	1	8	21.90	22.08	22.05			23.5			
3	16QAM	1	14	21.99	22.13	22.10						
3	16QAM	8	0	20.98	21.16	21.09						
3	16QAM	8	4	20.98	21.17	21.07			22.5			
3	16QAM	8	7	20.99	21.14	21.00						
3	84QAM	1	0	20.85	21.09	21.02			22.5			
3	84QAM	1	8	20.90	21.18	21.08						
3	84QAM	1	14	20.94	21.09	21.07						
3	84QAM	8	0	19.94	20.09	20.04			21.5			
3	84QAM	8	4	20.00	20.15	20.12						



Band 12 Other PA Ant0

BW (MHz)	Modulation	RE Size	RB Offset	Power			Time-up limit (min)	MPE (dB)
				Low Ch / Freq.	Mid Ch / Freq.	High Ch / Freq.		
Channel								
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	24.50	24.50	24.44	25.5	0
10	QPSK	1	25	24.37	24.44	24.45		
10	QPSK	1	49	24.40	24.50	24.45		
10	QPSK	25	0	23.70	23.74	23.63	24.5	1
10	QPSK	25	12	23.63	23.67	23.61		
10	QPSK	25	25	23.49	23.64	23.58		
10	QPSK	50	0	23.55	23.59	23.55		
10	16QAM	1	0	23.47	23.52	23.56	24.5	1
10	16QAM	1	25	23.59	23.58	23.62		
10	16QAM	1	49	23.54	23.57	23.48		
10	16QAM	25	0	22.55	22.65	22.62	23.5	2
10	16QAM	25	12	22.81	22.56	22.52		
10	16QAM	25	25	22.44	22.51	22.44		
10	16QAM	50	0	22.84	22.91	22.86		
10	64QAM	1	0	22.54	22.56	22.54	23.5	2
10	64QAM	1	25	22.60	22.68	22.54		
10	64QAM	1	49	22.70	22.75	22.61		
10	64QAM	25	0	21.48	21.59	21.55		
10	64QAM	25	12	21.61	21.86	21.84	22.5	3
10	64QAM	25	25	21.60	21.75	21.65		
10	64QAM	50	0	21.90	22.04	21.92		
10	256QAM	1	0	20.00	20.17	19.99	20.5	5
10	256QAM	1	25	19.81	19.92	19.88		
10	256QAM	1	49	20.05	20.17	20.05		
10	256QAM	25	0	19.47	19.56	19.52	20.5	5
10	256QAM	25	12	19.80	19.84	19.75		
10	256QAM	25	25	19.60	19.72	19.67		
10	256QAM	50	0	19.65	19.89	19.85		
Channel								
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	24.42	24.46	24.36	25.5	0
5	QPSK	1	12	24.24	24.34	24.33		
5	QPSK	1	24	24.27	24.38	24.37		
5	QPSK	12	0	23.57	23.68	23.55	24.5	1
5	QPSK	12	7	23.61	23.63	23.54		
5	QPSK	12	13	23.39	23.55	23.50		
5	QPSK	25	0	23.44	23.58	23.49		
5	16QAM	1	0	23.38	23.53	23.49	24.5	1
5	16QAM	1	12	23.47	23.61	23.58		
5	16QAM	1	24	23.39	23.51	23.38		
5	16QAM	12	0	22.48	22.54	22.55	23.5	2
5	16QAM	12	7	22.49	22.51	22.48		
5	16QAM	12	13	22.31	22.48	22.41		
5	64QAM	1	0	22.45	22.62	22.41	23.5	2
5	64QAM	1	12	22.50	22.55	22.48		
5	64QAM	1	24	22.50	22.63	22.54		
5	64QAM	12	0	21.42	21.55	21.41	22.5	3
5	64QAM	12	7	21.71	21.80	21.75		
5	64QAM	12	13	21.53	21.65	21.51		
5	64QAM	25	0	21.85	21.97	21.77		
5	256QAM	1	0	19.88	19.99	19.89	20.5	5
5	256QAM	1	12	19.70	19.81	19.75		
5	256QAM	1	24	19.97	20.14	19.91		
5	256QAM	12	0	19.41	19.62	19.38	20.5	5
5	256QAM	12	7	19.50	19.74	19.52		
5	256QAM	12	13	19.45	19.59	19.51		
5	256QAM	25	0	19.71	19.82	19.73		
Channel								
Frequency (MHz)				701.5	707.5	714.5		
3	QPSK	1	0	24.40	24.52	24.41	25.5	0
3	QPSK	1	8	24.34	24.34	24.34		
3	QPSK	1	14	24.36	24.40	24.38		
3	QPSK	8	0	23.68	23.65	23.49	24.5	1
3	QPSK	8	4	23.55	23.59	23.58		
3	QPSK	8	7	23.39	23.52	23.53		
3	QPSK	16	0	23.60	23.62	23.48		
3	16QAM	1	0	23.39	23.49	23.49	24.5	1
3	16QAM	1	8	23.47	23.53	23.55		
3	16QAM	1	14	23.48	23.53	23.59		
3	16QAM	8	0	22.45	22.58	22.59	23.5	2
3	16QAM	8	4	22.47	22.59	22.48		
3	16QAM	8	7	22.70	22.40	22.48		
3	16QAM	16	0	22.77	22.77	22.70		
3	64QAM	1	0	22.44	22.57	22.41	23.5	2
3	64QAM	1	8	22.56	22.58	22.38		
3	64QAM	1	14	22.59	22.73	22.52		
3	64QAM	8	0	21.44	21.55	21.43	22.5	3
3	64QAM	8	4	21.77	21.83	21.75		
3	64QAM	8	7	21.49	21.61	21.52		
3	256QAM	1	0	21.79	22.00	21.83	20.5	5
3	256QAM	1	8	19.88	19.91	19.89		
3	256QAM	1	14	19.98	20.04	19.92		
3	256QAM	8	0	19.63	19.50	19.63	20.5	5
3	256QAM	8	4	19.72	19.70	19.59		
3	256QAM	8	7	19.48	19.59	19.53		
3	256QAM	16	0	19.81	19.81	19.81		
Channel								
Frequency (MHz)				2317	2319.5	2319.5		
1.4	QPSK	1	0	24.11	24.09	24.23	25.5	0
1.4	QPSK	1	3	24.34	24.38	24.25		
1.4	QPSK	1	5	24.35	24.41	24.38		
1.4	QPSK	3	0	24.40	24.44	24.26	24.5	1
1.4	QPSK	3	1	24.20	24.35	24.30		
1.4	QPSK	3	3	24.30	24.41	24.32		
1.4	QPSK	6	0	23.58	23.60	23.54	24.5	1
1.4	16QAM	1	0	23.51	23.54	23.53		
1.4	16QAM	1	3	23.39	23.52	23.52	24.5	1
1.4	16QAM	1	5	23.46	23.59	23.47		
1.4	16QAM	3	0	23.42	23.48	23.47		
1.4	16QAM	3	1	23.50	23.59	23.56		
1.4	16QAM	3	3	23.44	23.48	23.35	23.8	2
1.4	16QAM	6	0	22.81	22.81	22.47		
1.4	64QAM	1	0	22.49	22.54	22.41	23.5	2
1.4	64QAM	1	3	22.49	22.43	22.38		
1.4	64QAM	1	5	22.45	22.50	22.42		
1.4	64QAM	3	0	22.47	22.59	22.47		
1.4	64QAM	3	1	22.50	22.60	22.47		
1.4	64QAM	3	3	22.59	22.62	22.55		
1.4	256QAM	1	0	21.56	21.62	21.59	22.5	3
1.4	256QAM	1	0	19.89	19.89	19.85	20.5	5
1.4	256QAM	1	3	19.69	19.89	19.74		
1.4	256QAM	1	5	19.91	20.03	19.95		
1.4	256QAM	3	0	19.59	19.46	19.46	20.5	5
1.4	256QAM	3	1	19.70	19.73	19.57		
1.4	256QAM	3	3	19.56	19.68	19.56		
1.4	256QAM	6	0	19.79	19.76	19.70	20.5	5



Band 17 Other PA Ant0										
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power High Ch. / Freq.	Power Mid Ch. / Freq.	Turn-up limit (dB)	MFR (dB)		
Channel				709	710	711				
10	QPSK	1	0	24.43	24.51	24.46				
10	QPSK	1	25	24.31	24.40	24.36	25.5	0		
10	QPSK	1	49	24.38	24.47	24.33				
10	QPSK	25	0	23.64	23.66	23.67				
10	QPSK	25	12	23.45	23.59	23.46	24.5	1		
10	QPSK	25	25	23.34	23.46	23.34				
10	QPSK	50	0	23.48	23.50	23.49				
10	16QAM	1	0	23.46	23.50	23.47				
10	16QAM	1	25	23.29	23.42	23.32	24.5	1		
10	16QAM	1	49	23.21	23.34	23.26				
10	16QAM	25	0	22.98	22.73	22.82				
10	16QAM	25	12	22.89	22.72	22.58	23.5	2		
10	16QAM	25	25	22.85	22.73	22.82				
10	16QAM	50	0	22.87	22.79	22.73				
10	64QAM	1	0	22.43	22.50	22.41				
10	64QAM	1	25	22.50	22.54	22.48	23.5	2		
10	64QAM	1	49	22.36	22.35	22.31				
10	64QAM	25	0	21.59	21.86	21.59				
10	64QAM	25	12	21.88	21.77	21.86	22.5	3		
10	64QAM	25	25	21.50	21.56	21.49				
10	64QAM	50	0	21.59	21.86	21.62				
10	256QAM	1	0	19.42	19.60	19.41				
10	256QAM	1	25	19.83	19.85	19.78	20.5	5		
10	256QAM	1	49	19.59	19.70	19.66				
10	256QAM	25	0	19.47	19.58	19.45				
10	256QAM	25	12	19.52	19.60	19.56	20.5	5		
10	256QAM	25	25	19.50	19.54	19.43				
10	256QAM	50	0	19.50	19.67	19.38				
Channel				23705	23706	23705				
Frequency (MHz)				709.5	710	711.5	Turn-up limit (dB)	MFR (dB)	APPR (dB)	
5	QPSK	1	0	24.39	24.45	24.43				
5	QPSK	1	12	24.24	24.36	24.25	25.5	0		
5	QPSK	1	24	24.35	24.35	24.22				
5	QPSK	12	0	23.59	23.81	23.49				
5	QPSK	12	7	23.40	23.47	23.39	24.5	1		
5	QPSK	12	13	23.28	23.42	23.25				
5	QPSK	25	0	23.44	23.55	23.39				
5	16QAM	1	0	23.32	23.45	23.31				
5	16QAM	1	12	23.20	23.32	23.26	24.5	1		
5	16QAM	1	24	23.07	23.29	23.22				
5	16QAM	12	0	22.94	22.61	22.51				
5	16QAM	12	7	22.66	22.59	22.54	23.5	2		
5	16QAM	12	13	22.58	22.59	22.51				
5	16QAM	25	0	22.97	22.67	22.63				
5	64QAM	1	0	22.38	22.37	22.37				
5	64QAM	1	12	22.41	23.46	22.37	23.5	2		
5	64QAM	1	24	22.22	22.27	22.15				
5	64QAM	12	0	21.44	21.58	21.53				
5	64QAM	12	7	21.50	21.70	21.54	22.5	3		
5	64QAM	12	13	21.37	21.51	21.35				
5	64QAM	25	0	21.44	21.57	21.49				
5	256QAM	1	0	19.76	19.79	19.69				
5	256QAM	1	12	19.72	19.75	19.66	20.5	5		
5	256QAM	1	24	19.48	19.59	19.53				
5	256QAM	12	0	19.37	19.48	19.33				
5	256QAM	12	7	19.39	19.47	19.43	20.5	5		
5	256QAM	12	13	19.44	19.48	19.53				
5	256QAM	25	0	19.56	19.63	19.52				



Band 12 Other PA Ant1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Time-up limit (dB)	MPE (dB)
				Low Ch / Freq.	Mid Ch / Freq.	High Ch / Freq.		
Channel								
Frequency (MHz)				704	707.5	711		
10	QPSK	1	0	23.69	23.74	23.67	25.5	0
10	QPSK	1	25	23.69	23.66	23.67		
10	QPSK	1	49	23.67	23.61	23.62		
10	QPSK	25	0	22.66	22.76	22.67	24.5	1
10	QPSK	25	12	22.66	22.70	22.67		
10	QPSK	25	25	22.65	22.65	22.66		
10	QPSK	50	0	22.59	22.72	22.67		
10	16QAM	1	0	22.68	22.67	22.65	24.5	1
10	16QAM	1	25	22.53	22.61	22.58		
10	16QAM	1	49	22.54	22.57	22.51		
10	16QAM	25	0	21.73	21.81	21.71	23.5	2
10	16QAM	25	12	21.70	21.73	21.65		
10	16QAM	25	25	21.63	21.77	21.65		
10	16QAM	50	0	21.68	21.71	21.67		
10	64QAM	1	0	21.65	21.79	21.71	23.5	2
10	64QAM	1	25	21.59	21.72	21.66		
10	64QAM	1	49	21.65	21.69	21.64		
10	64QAM	25	0	20.90	20.95	20.88	22.5	3
10	64QAM	25	12	20.87	20.86	20.76		
10	64QAM	25	25	20.81	20.81	20.84		
10	64QAM	50	0	20.68	20.83	20.72		
10	256QAM	1	0	18.85	18.86	18.82	20.5	5
10	256QAM	1	25	18.83	18.93	18.88		
10	256QAM	1	49	18.85	18.88	18.74		
10	256QAM	25	0	18.73	18.87	18.84	20.5	5
10	256QAM	25	12	18.68	18.77	18.72		
10	256QAM	25	25	18.74	18.83	18.69		
10	256QAM	50	0	18.65	18.91	18.82		
Channel								
Frequency (MHz)				701.5	707.5	713.5		
5	QPSK	1	0	23.62	23.67	23.64	25.5	0
5	QPSK	1	12	23.67	23.68	23.64		
5	QPSK	1	24	23.67	23.56	23.62		
5	QPSK	12	0	22.55	22.67	22.64	24.5	1
5	QPSK	12	7	22.51	22.64	22.60		
5	QPSK	12	13	22.51	22.52	22.52		
5	QPSK	25	0	22.55	22.67	22.61	24.5	1
5	16QAM	1	0	22.57	22.58	22.58		
5	16QAM	1	12	22.51	22.55	22.59	23.5	2
5	16QAM	1	24	22.59	22.54	22.59		
5	16QAM	12	0	21.65	21.74	21.63		
5	16QAM	12	7	21.61	21.63	21.59	23.5	2
5	16QAM	12	13	21.63	21.66	21.59		
5	16QAM	25	0	21.53	21.68	21.51	23.5	2
5	64QAM	1	0	21.54	21.71	21.58		
5	64QAM	1	12	21.55	21.64	21.64		
5	64QAM	1	24	21.51	21.61	21.58	22.5	3
5	64QAM	12	0	20.77	20.90	20.83		
5	64QAM	12	7	20.69	20.79	20.65		
5	64QAM	12	13	20.67	20.85	20.72		
5	64QAM	25	0	20.58	20.80	20.60		
5	256QAM	1	0	18.71	18.86	18.73	20.5	5
5	256QAM	1	12	18.74	18.82	18.81		
5	256QAM	1	24	18.73	18.77	18.65		
5	256QAM	12	0	18.64	18.78	18.72	20.5	5
5	256QAM	12	7	18.59	18.67	18.63		
5	256QAM	12	13	18.62	18.74	18.55		
5	256QAM	25	0	18.73	18.82	18.71		
Channel								
Frequency (MHz)				700.5	707.5	714.5		
3	QPSK	1	0	23.64	23.63	23.66	25.5	0
3	QPSK	1	8	23.57	23.56	23.58		
3	QPSK	1	14	23.53	23.57	23.59		
3	QPSK	8	0	22.52	22.66	22.52	24.5	1
3	QPSK	8	4	22.58	22.57	22.51		
3	QPSK	8	7	22.56	22.54	22.58		
3	QPSK	16	0	22.60	22.58	22.61	24.5	1
3	16QAM	1	0	22.59	22.54	22.59		
3	16QAM	1	8	22.58	22.51	22.80	23.5	2
3	16QAM	1	14	22.63	22.59	22.61		
3	16QAM	8	0	21.59	21.75	21.65		
3	16QAM	8	4	21.58	21.67	21.61	23.5	2
3	16QAM	8	7	21.56	21.72	21.65		
3	16QAM	16	0	21.55	21.63	21.54		
3	64QAM	1	0	21.60	21.72	21.63	23.5	2
3	64QAM	1	8	21.56	21.64	21.60		
3	64QAM	1	14	21.59	21.64	21.57		
3	64QAM	8	0	20.79	20.86	20.79	22.5	3
3	64QAM	8	4	20.77	20.71	20.72		
3	64QAM	8	7	20.74	20.79	20.71		
3	64QAM	16	0	20.63	20.75	20.61		
3	256QAM	1	0	18.74	18.88	18.79	20.5	5
3	256QAM	1	8	18.76	18.78	18.79		
3	256QAM	1	14	18.79	18.84	18.61		
3	256QAM	8	0	18.70	18.82	18.72	20.5	5
3	256QAM	8	4	18.68	18.71	18.61		
3	256QAM	8	7	18.62	18.79	18.63		
3	256QAM	16	0	18.73	18.87	18.72		
Channel								
Frequency (MHz)				699.7	707.5	716.3		
1.4	QPSK	1	0	23.64	23.55	23.58	25.5	0
1.4	QPSK	1	3	23.52	23.51	23.55		
1.4	QPSK	1	5	23.58	23.70	23.65		
1.4	QPSK	3	0	23.55	23.63	23.59	24.5	1
1.4	QPSK	3	1	23.56	23.58	23.59		
1.4	QPSK	3	3	23.52	23.52	23.54		
1.4	QPSK	6	0	22.68	22.72	22.61	24.5	1
1.4	16QAM	1	0	22.62	22.68	22.59		
1.4	16QAM	1	3	22.64	22.51	22.57	24.5	1
1.4	16QAM	1	5	22.64	22.60	22.53		
1.4	16QAM	3	0	22.84	22.57	22.61		
1.4	16QAM	3	1	22.51	22.57	22.60	23.5	2
1.4	16QAM	3	3	22.68	22.52	22.60		
1.4	16QAM	6	0	21.66	21.75	21.68	23.5	2
1.4	64QAM	1	0	21.59	21.59	21.62		
1.4	64QAM	1	3	21.59	21.67	21.52	23.5	2
1.4	64QAM	1	5	21.64	21.58	21.62		
1.4	64QAM	3	0	21.55	21.71	21.60		
1.4	64QAM	3	1	21.59	21.68	21.63		
1.4	64QAM	3	3	21.53	21.58	21.53	22.5	3
1.4	256QAM	1	0	20.74	20.82	20.66		
1.4	256QAM	1	3	18.75	18.87	18.87	20.5	5
1.4	256QAM	1	5	18.77	18.87	18.79		
1.4	256QAM	3	0	18.79	18.74	18.61		
1.4	256QAM	3	3	18.70	18.73	18.74		
1.4	256QAM	3	1	18.65	18.67	18.60		
1.4	256QAM	3	3	18.66	18.76	18.66	20.5	5
1.4	256QAM	6	0	18.79	18.78	18.76		



Band 17 Other PA Ant1

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. [Freq.]	Power High Ch. [Freq.]	Power Mid Ch. [Freq.]	Turn-up limit [dB]	MFR [dB]
Channel				709	710	711		
10	QPSK	1	0	23.07	23.70	23.69	25.5	0
10	QPSK	1	25	23.54	23.69	23.51		
10	QPSK	1	49	23.05	23.69	23.81		
10	QPSK	25	0	22.60	22.60	22.58		
10	QPSK	25	12	22.53	22.59	22.85	24.5	1
10	QPSK	25	25	22.83	22.58	22.58		
10	QPSK	50	0	22.07	22.61	22.54		
10	16QAM	1	0	22.90	22.96	22.59		
10	16QAM	1	25	22.87	22.53	22.81	24.5	1
10	16QAM	1	49	22.63	22.59	22.62		
10	16QAM	25	0	21.81	21.71	21.68		
10	16QAM	25	12	21.81	21.58	21.58	23.5	2
10	16QAM	25	25	21.81	21.72	21.62		
10	16QAM	50	0	21.87	21.69	21.68		
10	64QAM	1	0	21.50	21.74	21.63		
10	64QAM	1	25	21.58	21.59	21.63	23.5	2
10	64QAM	1	49	21.54	21.66	21.60		
10	64QAM	25	0	20.86	20.87	20.85		
10	64QAM	25	12	20.71	20.81	20.86	22.5	3
10	64QAM	25	25	20.71	20.78	20.78		
10	64QAM	50	0	20.53	20.73	20.63		
10	256QAM	1	0	18.72	18.89	18.81	20.5	5
10	256QAM	1	25	18.73	18.78	18.74		
10	256QAM	1	49	18.78	18.84	18.83		
10	256QAM	25	0	18.60	18.76	18.73		
10	256QAM	25	12	18.67	18.67	18.63	20.5	5
10	256QAM	25	25	18.66	18.72	18.55		
10	256QAM	50	0	18.72	18.87	18.71		
Channel				21765	21769	21805		
Frequency [MHz]				709.5	710	711.5	Turn-up limit [dB]	MFR [dB]
5	QPSK	1	0	23.51	23.65	23.54	25.5	0
5	QPSK	1	12	23.53	23.65	23.57		
5	QPSK	1	24	23.54	23.64	23.56		
5	QPSK	12	0	22.72	22.83	22.67		
5	QPSK	12	7	22.92	22.74	22.69	24.5	1
5	QPSK	12	13	22.58	22.72	22.59		
5	QPSK	25	0	22.68	22.72	22.64		
5	16QAM	1	0	22.67	22.65	22.59		
5	16QAM	1	12	22.55	22.86	22.57	24.5	1
5	16QAM	1	24	22.51	22.59	22.58		
5	16QAM	12	0	21.75	21.84	21.73		
5	16QAM	12	7	21.72	21.67	21.81	23.5	2
5	16QAM	12	13	21.61	21.69	21.68		
5	16QAM	25	0	21.58	21.69	21.56		
5	64QAM	1	0	21.59	21.72	21.67	23.5	2
5	64QAM	1	12	21.54	21.62	21.60		
5	64QAM	1	24	21.51	21.61	21.62		
5	64QAM	12	0	20.92	20.90	20.85		
5	64QAM	12	7	20.83	20.76	20.85	22.5	3
5	64QAM	12	13	20.73	20.75	20.74		
5	64QAM	25	0	20.65	20.69	20.59		
5	256QAM	1	0	18.72	18.86	18.83	20.5	5
5	256QAM	1	12	18.72	18.85	18.77		
5	256QAM	1	24	18.79	18.81	18.69		
5	256QAM	12	0	18.75	18.72	18.69		
5	256QAM	12	7	18.60	18.70	18.61	20.5	5
5	256QAM	12	13	18.66	18.73	18.67		
5	256QAM	25	0	18.68	18.93	18.69		



DL CA Power

2CA DL

CA List	PCC										SCC				Power	
	LTE	BW	BW	UL	UL	Mod.	UL#	UL	DL Antenna Configuration	LTE	BW	DL	DL	DL Antenna Configuration	With CA	Without CA
	Band	Ant	(MHz)	Freq. (MHz)	Channel		RB	RB Offset		Band	(MHz)	Freq. (MHz)	Channel		Tx. Power (dBm)	Tx. Power (dBm)
CA_2A-2A	Band 2	Ant2	20M	1880	18900	QPSK	1	0		Band 2	5M	1987.5	1175		23.54	23.66
	Band 2	Ant4	20M	1880	18900	QPSK	1	0		Band 2	5M	1987.5	1175		23.35	23.43
CA_2A-26A	Band 2	Ant2	20M	1880	18900	QPSK	1	0		Band 26	15M	876.5	8865		23.52	23.66
	Band 2	Ant4	20M	1880	18900	QPSK	1	0		Band 26	15M	876.5	8865		23.35	23.43
	Band 26	Ant0	15M	831.5	26865	QPSK	1	0		Band 2	20M	1960	900		24.46	24.53
	Band 26	Ant1	15M	831.5	26865	QPSK	1	0		Band 2	20M	1960	900		23.68	23.74
CA_2A-38A	Band 2	Ant2	20M	1880	18900	QPSK	1	0		Band 38	20M	2595	38000	4x4MIMO	23.54	23.66
	Band 2	Ant4	20M	1880	18900	QPSK	1	0		Band 38	20M	2595	38000	4x4MIMO	23.39	23.43
	Band 38	Ant1	20M	2595	38000	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		23.81	23.84
	Band 38	Ant2	20M	2595	38000	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		25.32	25.42
CA_2C	Band 38	Ant3	20M	2595	38000	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		23.13	23.19
	Band 38	Ant4	20M	2595	38000	QPSK	1	0	4x4MIMO	Band 2	20M	1960	900		25.21	25.35
	Band 2	Ant2	20M	1880	18900	QPSK	1	0		Band 2	20M	1979.8	1098		23.57	23.66
	Band 2	Ant4	20M	1880	18900	QPSK	1	0		Band 2	20M	1979.8	1098		23.35	23.43
CA_4A-4A	Band 4	Ant1	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 4	5M	2152.5	2375	4x4MIMO	22.96	23.01
	Band 4	Ant2	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 4	5M	2152.5	2375	4x4MIMO	24.62	24.67
	Band 4	Ant3	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 4	5M	2152.5	2375	4x4MIMO	22.31	22.39
	Band 4	Ant4	20M	1732.5	20175	QPSK	1	0	4x4MIMO	Band 4	5M	2152.5	2375	4x4MIMO	24.34	24.44
CA_7A-26A	Band 7	Ant1	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		23.35	23.45
	Band 7	Ant2	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		24.73	24.80
	Band 7	Ant3	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		22.62	22.70
	Band 7	Ant4	20M	2535	21100	QPSK	1	0	4x4MIMO	Band 26	15M	876.5	8865		24.74	24.80
CA_12A-66A	Band 26	Ant0	15M	831.5	26865	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	24.50	24.53
	Band 26	Ant1	15M	831.5	26865	QPSK	1	0		Band 7	20M	2655	3100	4x4MIMO	23.67	23.74
	Band 12	Ant0	10M	707.5	23095	QPSK	1	0		Band 66	20M	2155	66886	4x4MIMO	24.47	24.50
	Band 12	Ant1	10M	707.5	23095	QPSK	1	0		Band 66	20M	2155	66886	4x4MIMO	23.44	23.54
CA_26A-38A	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 12	10M	737.5	5095		22.23	22.27
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 12	10M	737.5	5095		23.67	23.73
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 12	10M	737.5	5095		21.44	21.53
	Band 66	Ant4	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 12	10M	737.5	5095		23.29	23.43
CA_26A-41A	Band 26	Ant0	15M	831.5	26865	QPSK	1	0		Band 38	20M	2595	38000	4x4MIMO	24.45	24.53
	Band 26	Ant1	15M	831.5	26865	QPSK	1	0		Band 38	20M	2595	38000	4x4MIMO	23.62	23.74
	Band 26	Ant2	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	24.48	24.53
	Band 26	Ant3	15M	831.5	26865	QPSK	1	0		Band 41	20M	2593	40620	4x4MIMO	23.63	23.74
CA_38C	Band 38	Ant1	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	23.72	23.84
	Band 38	Ant2	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	25.30	25.42
	Band 38	Ant3	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	23.12	23.19
	Band 38	Ant4	20M	2580	37850	QPSK	1	0	4x4MIMO	Band 38	20M	2599.8	38048	4x4MIMO	25.30	25.35
CA_41C	Band 41	Ant1	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2612.8	40818	4x4MIMO	23.66	23.70
	Band 41	Ant2	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2612.8	40818	4x4MIMO	25.33	25.41
	Band 41	Ant3	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2612.8	40818	4x4MIMO	23.11	23.22
	Band 41	Ant4	20M	2593	40620	QPSK	1	0	4x4MIMO	Band 41	20M	2612.8	40818	4x4MIMO	25.05	25.27
CA_42C	Band 42	Ant1	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 42	20M	3519.8	42788	4x4MIMO	23.21	23.32
	Band 42	Ant5	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 42	20M	3519.8	42788	4x4MIMO	24.86	24.97
	Band 42	Ant6	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 42	20M	3519.8	42788	4x4MIMO	24.60	24.69
	Band 42	Ant7	20M	3500	42590	QPSK	1	0	4x4MIMO	Band 42	20M	3519.8	42788	4x4MIMO	23.40	23.48
CA_66B	Band 66	Ant1	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	22.12	22.27
	Band 66	Ant2	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	23.66	23.73
	Band 66	Ant3	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	21.42	21.53
	Band 66	Ant4	15M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	5M	2164.3	66979	4x4MIMO	23.39	23.43
CA_66C	Band 66	Ant1	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	22.19	22.27
	Band 66	Ant2	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	23.60	23.73
	Band 66	Ant3	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	21.41	21.53
	Band 66	Ant4	20M	1745	132322	QPSK	1	0	4x4MIMO	Band 66	20M	2164.8	66984	4x4MIMO	23.40	23.43



3CA DL

3CA List	PCC										SCC1				SCC2				Power			
	LTE Band	BW (MHz)	UL Freq (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	DL Antenna Configuration	LTE Band	BW (MHz)	DL Freq (MHz)	DL Channel	DL Antenna Configuration	With CA Tx. Power (dBm)	Without CA Tx. Power (dBm)		
	Ant								Ant					Ant								
CA_2A-4A-5A	Band 2	Ant2	20M	1880	1890Q	QPSK	1	0		Band 4	20M	2132.5	2175	4xMIMO	Band 5	10M	881.5	2525		23.51	23.66	
	Band 2	Ant4	20M	1880	1890Q	QPSK	1	0		Band 4	20M	2132.5	2175	4xMIMO	Band 5	10M	881.5	2525		23.36	23.43	
	Band 4	Ant1	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 2	20M	1960	900		22.95	23.01	
	Band 4	Ant2	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 2	20M	1960	900		24.57	24.67	
	Band 4	Ant3	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 2	20M	1960	900		22.32	22.39	
	Band 4	Ant4	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 5	10M	881.5	2525		Band 2	20M	1960	900		24.41	24.44	
CA_2A-4A-7A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 2	20M	1960	900		Band 4	20M	2132.5	2175	4xMIMO		24.55	24.67
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 2	20M	1960	900		Band 4	20M	2132.5	2175	4xMIMO		23.65	23.75
	Band 2	Ant2	20M	1880	1890Q	QPSK	1	0		Band 4	20M	2132.5	2175	4xMIMO	Band 7	20M	2655	3100	4xMIMO		23.61	23.66
	Band 2	Ant4	20M	1880	1890Q	QPSK	1	0		Band 4	20M	2132.5	2175	4xMIMO	Band 7	20M	2655	3100	4xMIMO		23.37	23.43
	Band 4	Ant1	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 7	20M	2655	3100	4xMIMO	Band 2	20M	1960	900		22.94	23.01	
	Band 4	Ant2	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 7	20M	2655	3100	4xMIMO	Band 2	20M	1960	900		24.58	24.67	
CA_2A-5A-7A	Band 4	Ant3	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 7	20M	2655	3100	4xMIMO	Band 2	20M	1960	900		22.31	22.39	
	Band 4	Ant4	20M	1732.5	20175	QPSK	1	0	4xMIMO	Band 7	20M	2655	3100	4xMIMO	Band 2	20M	1960	900		24.30	24.44	
	Band 2	Ant2	20M	1880	1890Q	QPSK	1	0		Band 5	10M	881.5	2525		Band 7	20M	2655	3100	4xMIMO		23.58	23.66
	Band 2	Ant4	20M	1880	1890Q	QPSK	1	0		Band 5	10M	881.5	2525		Band 7	20M	2655	3100	4xMIMO		23.40	23.43
	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 5	10M	2655	3100	4xMIMO	Band 2	20M	1960	900		24.61	24.67	
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 5	10M	2655	3100	4xMIMO	Band 2	20M	1960	900		23.66	23.75	
CA_2A-5A-6A	Band 7	Ant1	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 2	20M	1960	900		Band 5	10M	881.5	2525		23.32	23.45	
	Band 7	Ant2	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 2	20M	1960	900		Band 5	10M	881.5	2525		24.69	24.80	
	Band 7	Ant3	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 2	20M	1960	900		Band 5	10M	881.5	2525		22.64	22.70	
	Band 7	Ant4	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 2	20M	1960	900		Band 5	10M	881.5	2525		24.64	24.80	
	Band 2	Ant2	20M	1880	1890Q	QPSK	1	0		Band 5	10M	881.5	2525		Band 66	20M	2155	68886	4xMIMO		23.50	23.66
	Band 2	Ant4	20M	1880	1890Q	QPSK	1	0		Band 5	10M	881.5	2525		Band 66	20M	2155	68886	4xMIMO		23.36	23.43
CA_2A-7A-6A	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 66	20M	2155	68886	4xMIMO	Band 2	20M	1960	900		24.59	24.67	
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 66	20M	2155	68886	4xMIMO	Band 2	20M	1960	900		23.72	23.75	
	Band 66	Ant1	20M	1745	132322	QPSK	1	0		Band 2	20M	1960	900		Band 5	10M	881.5	2525		22.19	22.27	
	Band 66	Ant2	20M	1745	132322	QPSK	1	0		Band 2	20M	1960	900		Band 5	10M	881.5	2525		23.61	23.73	
	Band 66	Ant3	20M	1745	132322	QPSK	1	0		Band 2	20M	1960	900		Band 5	10M	881.5	2525		21.45	21.53	
	Band 66	Ant4	20M	1745	132322	QPSK	1	0		Band 2	20M	1960	900		Band 5	10M	881.5	2525		23.36	23.43	
CA_2A-7A-7A	Band 2	Ant2	20M	1880	1890Q	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO		23.59	23.66
	Band 2	Ant4	20M	1880	1890Q	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO		23.31	23.43
	Band 7	Ant1	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	Band 2	20M	1960	900		23.38	23.45	
	Band 7	Ant2	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	Band 2	20M	1960	900		24.75	24.80	
	Band 7	Ant3	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	Band 2	20M	1960	900		22.63	22.70	
	Band 7	Ant4	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO	Band 2	20M	1960	900		24.68	24.80	
CA_2A-7A-6A	Band 2	Ant2	20M	1880	1890Q	QPSK	1	0		Band 66	20M	2155	68886	4xMIMO	Band 7	20M	2655	3100	4xMIMO		23.60	23.66
	Band 2	Ant4	20M	1880	1890Q	QPSK	1	0		Band 66	20M	2155	68886	4xMIMO	Band 7	20M	2655	3100	4xMIMO		23.29	23.43
	Band 66	Ant1	20M	1745	132322	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 2	20M	1960	900		22.20	22.27	
	Band 66	Ant2	20M	1745	132322	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 2	20M	1960	900		23.64	23.73	
	Band 66	Ant3	20M	1745	132322	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 2	20M	1960	900		21.49	21.53	
	Band 66	Ant4	20M	1745	132322	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 2	20M	1960	900		23.33	23.43	
CA_2A-7C	Band 2	Ant2	20M	1880	1890Q	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO		23.56	23.66
	Band 2	Ant4	20M	1880	1890Q	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO		23.36	23.43
	Band 7	Ant1	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 2	20M	1960	900		23.37	23.45	
	Band 7	Ant2	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 2	20M	1960	900		24.69	24.80	
	Band 7	Ant3	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 2	20M	1960	900		22.66	22.70	
	Band 7	Ant4	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 2	20M	1960	900		24.61	24.80	
CA_4A-7C	Band 4	Ant1	20M	1732.5	20175	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO		22.88	23.01
	Band 4	Ant2	20M	1732.5	20175	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO		24.60	24.67
	Band 4	Ant3	20M	1732.5	20175	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO		22.32	22.39
	Band 4	Ant4	20M	1732.5	20175	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO		24.35	24.44
	Band 7	Ant1	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 4	20M	2132.5	2175		23.40	23.45	
	Band 7	Ant2	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 4	20M	2132.5	2175		24.77	24.80	
CA_5A-7A-7A	Band 7	Ant3	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 4	20M	2132.5	2175		22.63	22.70	
	Band 7	Ant4	20M	2535	2110Q	QPSK	1	0	4xMIMO	Band 7	20M	2554.8	3298	4xMIMO	Band 4	20M	2132.5	2175		24.70	24.80	
	Band 5	Ant0	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO		24.63	24.67
	Band 5	Ant1	10M	836.5	20525	QPSK	1	0		Band 7	20M	2655	3100	4xMIMO	Band 7	5M	2687.5	3425	4xMIMO		23.69	23.75
	Band 7	Ant1	20M	2535	2110Q	QPS																

Default Uplink CA Power

CA_7C Ant1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.95	24.00
21100	21298	QPSK	1	99	1	0	23.06	24.00
21350	21152	QPSK	1	0	1	99	23.02	24.00

CA_7C Ant2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	24.18	25.50
21100	21298	QPSK	1	99	1	0	24.22	25.50
21350	21152	QPSK	1	0	1	99	24.07	25.50

CA_38C Ant1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	23.29	25.00
37901	38099	QPSK	1	99	1	0	23.31	25.00
38150	37952	QPSK	1	0	1	99	23.12	25.00

CA_38C Ant2								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	24.84	25.50
37901	38099	QPSK	1	99	1	0	24.94	25.50
38150	37952	QPSK	1	0	1	99	24.90	25.50

CA_7C Ant3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	22.19	24.00
21100	21298	QPSK	1	99	1	0	22.30	24.00
21350	21152	QPSK	1	0	1	99	22.25	24.00

CA_7C Ant4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	24.31	25.50
21100	21298	QPSK	1	99	1	0	24.37	25.50
21350	21152	QPSK	1	0	1	99	24.18	25.50

CA_38C Ant3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.46	24.50
37901	38099	QPSK	1	99	1	0	22.62	24.50
38150	37952	QPSK	1	0	1	99	22.60	24.50

CA_38C Ant4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	24.76	25.70
37901	38099	QPSK	1	99	1	0	24.83	25.70
38150	37952	QPSK	1	0	1	99	24.69	25.70



Reduced Uplink CA Power

CA_7C Ant1 DSI0&4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	15.51	16.50
21100	21298	QPSK	1	99	1	0	15.55	16.50
21350	21152	QPSK	1	0	1	99	15.51	16.50

CA_38C Ant1 DSI0&4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	19.28	21.00
37901	38099	QPSK	1	99	1	0	19.34	21.00
38150	37952	QPSK	1	0	1	99	19.02	21.00

CA_7C Ant1 DSI1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	19.97	21.00
21100	21298	QPSK	1	99	1	0	20.03	21.00
21350	21152	QPSK	1	0	1	99	19.96	21.00

CA_38C Ant1 DSI1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	21.76	23.50
37901	38099	QPSK	1	99	1	0	21.80	23.50
38150	37952	QPSK	1	0	1	99	21.73	23.50

CA_7C Ant2 DSI1&4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.15	21.50
21100	21298	QPSK	1	99	1	0	20.29	21.50
21350	21152	QPSK	1	0	1	99	20.12	21.50

CA_38C Ant2 DSI1&4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	22.82	23.50
37901	38099	QPSK	1	99	1	0	22.91	23.50
38150	37952	QPSK	1	0	1	99	22.76	23.50

CA_7C Ant2 DSI3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	23.23	24.50
21100	21298	QPSK	1	99	1	0	23.31	24.50
21350	21152	QPSK	1	0	1	99	23.21	24.50

CA_38C Ant3 DSI0&4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	20.49	22.50
37901	38099	QPSK	1	99	1	0	20.74	22.50
38150	37952	QPSK	1	0	1	99	20.68	22.50

CA_7C Ant3 DSI0&4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	17.02	19.00
21100	21298	QPSK	1	99	1	0	17.41	19.00
21350	21152	QPSK	1	0	1	99	17.32	19.00

CA_38C Ant4 DSI0&4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	20.79	21.70
37901	38099	QPSK	1	99	1	0	20.82	21.70
38150	37952	QPSK	1	0	1	99	20.79	21.70

CA_7C Ant3 DSI1								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	21.67	23.50
21100	21298	QPSK	1	99	1	0	21.83	23.50
21350	21152	QPSK	1	0	1	99	21.76	23.50

CA_38C Ant4 DSI1&3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	1	99	1	0	23.29	24.20
37901	38099	QPSK	1	99	1	0	23.35	24.20
38150	37952	QPSK	1	0	1	99	23.21	24.20

CA_7C Ant4 DSI0&4								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	18.29	19.50
21100	21298	QPSK	1	99	1	0	18.40	19.50
21350	21152	QPSK	1	0	1	99	18.33	19.50

CA_7C Ant4 DSI1&3								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	1	99	1	0	20.77	22.00
21100	21298	QPSK	1	99	1	0	20.85	22.00
21350	21152	QPSK	1	0	1	99	20.70	22.00



Default Power for FR1 Main PA

n5 Main PA Ant0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	24.48	24.57	24.51		
20	PI/2 BPSK	1	53	24.41	24.51	24.38	25.5	0.0
20	PI/2 BPSK	1	104	24.33	24.46	24.39		
20	PI/2 BPSK	50	0	24.16	24.21	24.15	25.0	0.5
20	PI/2 BPSK	50	28	24.54	24.59	24.51	25.5	0.0
20	PI/2 BPSK	50	56	24.12	24.21	24.17	25.0	0.5
20	PI/2 BPSK	100	0	24.13	24.18	24.10		
20	QPSK	1	1	24.52	24.63	24.48		
20	QPSK	1	53	24.43	24.53	24.41	25.5	0.0
20	QPSK	1	104	24.37	24.46	24.33		
20	QPSK	50	0	23.65	23.71	23.61	24.5	1.0
20	QPSK	50	28	24.56	24.61	24.54	25.5	0.0
20	QPSK	50	56	23.49	23.62	23.53	24.5	1.0
20	QPSK	100	0	23.60	23.66	23.52		
20	16QAM	1	1	23.28	23.34	23.31	24.5	1.0
20	64QAM	1	1	21.84	21.93	21.83	23.0	2.5
20	256QAM	1	1	20.66	20.69	20.61	21.0	4.5
Channel				166300	167300	168300		
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	24.48	24.53	24.44	25.5	0.0
Channel				165800	167300	168800		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	24.55	24.59	24.40	25.5	0.0
Channel				165300	167300	169300		
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	24.50	24.57	24.49	25.5	0.0



n5 Main PA Ant1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				165000	167500	167500		
Frequency (MHz)				834	836.5	839		
20	P12 BPSK	1	1	23.59	23.68	23.55		
20	P12 BPSK	1	53	23.61	23.66	23.55	25.5	0.0
20	P12 BPSK	1	104	23.56	23.61	23.57		
20	P12 BPSK	50	0	23.23	23.31	23.22	25.0	0.5
20	P12 BPSK	50	28	23.58	23.65	23.58	25.5	0.0
20	P12 BPSK	50	56	23.20	23.27	23.14	25.0	0.5
20	P12 BPSK	100	0	23.20	23.33	23.25		
20	QPSK	1	1	23.68	23.73	23.64		
20	QPSK	1	53	23.53	23.65	23.55	25.5	0.0
20	QPSK	1	104	23.60	23.68	23.54		
20	QPSK	50	0	22.69	22.83	22.75	24.5	1.0
20	QPSK	50	28	23.56	23.66	23.60	25.5	0.0
20	QPSK	50	56	22.64	22.77	22.70	24.5	1.0
20	QPSK	100	0	22.76	22.81	22.78		
20	16QAM	1	1	22.57	22.84	22.52	24.5	1.0
20	64QAM	1	1	21.15	21.29	21.22	23.0	2.5
20	256QAM	1	1	19.58	19.72	19.62	21.0	4.5
Channel				166300	167300	168300		
Frequency (MHz)				831.5	838.5	841.5		
15	QPSK	1	1	23.51	23.62	23.55	25.5	0.0
Channel				165800	167200	168800		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	23.56	23.63	23.58	25.5	0.0
Channel				165300	167300	169300		
Frequency (MHz)				826.5	834.5	842.5		
5	QPSK	1	1	23.92	23.66	23.63	25.5	0.0

n7 Main PA Ant1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				505000	507000	509000		
Frequency (MHz)				2625	2635	2645		
50	P12 BPSK	1	1	23.19	23.32	23.15		
50	P12 BPSK	1	135	23.14	23.20	23.17	24.0	0.0
50	P12 BPSK	1	268	23.16	23.19	23.08		
50	P12 BPSK	135	0	22.82	22.88	22.88	23.5	0.5
50	P12 BPSK	135	68	23.23	23.29	23.15	24.0	0.0
50	P12 BPSK	135	135	22.83	22.89	22.87	23.5	0.5
50	P12 BPSK	270	0	22.84	22.95	22.84		
50	QPSK	1	1	23.27	23.33	23.25		
50	QPSK	1	135	23.08	23.19	23.13	24.0	0.0
50	QPSK	1	268	23.07	23.16	23.13		
50	QPSK	135	0	22.37	22.38	22.38	23.0	1.0
50	QPSK	135	68	23.17	23.26	23.21	24.0	0.0
50	QPSK	135	135	22.24	22.31	22.25	23.0	1.0
50	QPSK	270	0	22.26	22.40	22.31		
50	16QAM	1	1	22.02	22.08	22.00	23.0	1.0
50	64QAM	1	1	20.53	20.59	20.48	21.5	2.5
50	256QAM	1	1	19.27	19.34	19.20	19.5	4.5
Channel				504000	507000	510000		
Frequency (MHz)				2620	2635	2650		
40	QPSK	1	1	23.20	23.18	23.16	24.0	0.0
Channel				503000	507000	511000		
Frequency (MHz)				2615	2635	2655		
30	QPSK	1	1	23.17	23.26	23.10	24.0	0.0
Channel				502500	507000	511500		
Frequency (MHz)				2612.5	2635	2657.5		
25	QPSK	1	1	23.17	23.19	23.10	24.0	0.0
Channel				502000	507000	512000		
Frequency (MHz)				2610	2635	2660		
20	QPSK	1	1	23.16	23.28	23.16	24.0	0.0
Channel				501500	507000	512500		
Frequency (MHz)				2607.5	2635	2662.5		
15	QPSK	1	1	23.15	23.30	23.11	24.0	0.0
Channel				501000	513000	513000		
Frequency (MHz)				2605	2635	2665		
10	QPSK	1	1	23.22	23.22	23.21	24.0	0.0
Channel				500500	507000	513500		
Frequency (MHz)				2602.5	2635	2667.5		
5	QPSK	1	1	23.17	23.28	23.10	24.0	0.0

n66 Main PA Ant1

BW (MHz)	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				346500	349000	351500		
Frequency (MHz)				1732.5	1745	1757.5		
45	P12 BPSK	1	1	22.19	22.24	22.15		
45	P12 BPSK	1	120	22.10	22.18	22.06	24.0	0.0
45	P12 BPSK	1	243	22.11	22.13	22.08		
45	P12 BPSK	120	0	21.78	21.86	21.79	23.5	0.5
45	P12 BPSK	120	60	22.17	22.24	22.08	24.0	0.0
45	P12 BPSK	120	120	21.74	21.79	21.84	23.5	0.5
45	P12 BPSK	240	0	21.78	21.80	21.76		
45	QPSK	1	1	22.24	22.30	22.20		
45	QPSK	1	120	22.05	22.14	22.10	24.0	0.0
45	QPSK	1	243	22.13	22.18	22.07		
45	QPSK	120	0	21.27	21.29	21.24	23.0	1.0
45	QPSK	120	60	22.17	22.22	22.19	24.0	0.0
45	QPSK	120	120	21.08	21.19	21.13	23.0	1.0
45	QPSK	240	0	21.14	21.21	21.16		
45	16QAM	1	1	21.09	21.18	21.13	23.0	1.0
45	64QAM	1	1	19.73	19.81	19.61	21.5	2.5
45	256QAM	1	1	18.20	18.27	18.20	19.5	4.5
Channel				346000	349000	352000		
Frequency (MHz)				1720	1745	1760		
40	QPSK	1	1	22.09	22.11	22.08	24.5	0.0
Channel				345500	349000	352500		
Frequency (MHz)				1727.5	1745	1762.5		
35	QPSK	1	1	22.10	22.21	22.17	24.0	0.0
Channel				345000	349000	353000		
Frequency (MHz)				1725	1745	1765		
30	QPSK	1	1	22.19	22.25	22.14	24.0	0.0
Channel				344500	349000	353500		
Frequency (MHz)				1722.5	1745	1767.5		
25	QPSK	1	1	22.12	22.19	22.17	24.0	0.0
Channel				344000	349000	354000		
Frequency (MHz)				1720	1745	1770		
20	QPSK	1	1	22.14	22.21	22.13	24.0	0.0
Channel				343500	349000	354500		
Frequency (MHz)				1717.5	1745	1772.5		
15	QPSK	1	1	22.09	22.19	22.06	24.0	0.0
Channel				343000	349000	355000		
Frequency (MHz)				1715	1745	1775		
10	QPSK	1	1	22.13	22.19	22.06	24.0	0.0
Channel				342500	349000	355500		
Frequency (MHz)				1712.5	1745	1777.5		
5	QPSK	1	1	22.15	22.22	22.10	24.0	0.0



n38 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. (dBm)	Power Middle Ch. Freq. (dBm)	Power High Ch. Freq. (dBm)	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)				2590.02	2595	2599.98				
40	PI2 BPSK	1	1	23.54	23.85	23.77				
40	PI2 BPSK	1	53	23.68	23.83	23.70	25.0	0.0		
40	PI2 BPSK	1	104	23.55	23.71	23.56				
40	PI2 BPSK	50	0	23.37	23.42	23.27	24.5	0.5		
40	PI2 BPSK	50	28	23.81	23.83	23.74	25.0	0.0		
40	PI2 BPSK	50	56	23.27	23.39	23.26				
40	PI2 BPSK	100	0	23.29	23.38	23.37	24.5	0.5		
40	QPSK	1	1	23.80	23.91	23.81				
40	QPSK	1	53	23.78	23.87	23.80	25.0	0.0		
40	QPSK	1	104	23.80	23.76	23.62				
40	QPSK	50	0	22.74	22.94	22.83	24.0	1.0		
40	QPSK	50	28	23.72	23.87	23.76	25.0	0.0		
40	QPSK	50	56	22.79	22.91	22.86	24.0	1.0		
40	QPSK	100	0	22.89	23.00	22.92				
40	6QAM	1	1	22.72	22.90	22.86	24.0	1.0		
40	6QAM	1	1	21.15	21.30	21.24	22.5	2.5		
40	25QAM	1	1	19.34	19.41	19.43	20.5	4.5		
Channel										
Frequency (MHz)				517002	519000	520998	time-up limit (dBm)	MPR (dB)		
30	QPSK	1	1	23.61	23.69	23.64	25.0	0.0		
Channel										
Frequency (MHz)				516504	519000	521496	time-up limit (dBm)	MPR (dB)		
25	QPSK	1	1	23.84	23.80	23.73	25.0	0.0		
Channel										
Frequency (MHz)				516000	518000	520000	time-up limit (dBm)	MPR (dB)		
20	QPSK	1	1	23.90	23.95	23.90	25.0	0.0		
20	QPSK	1	1	23.79	23.81	23.70	25.0	0.0		
Channel										
Frequency (MHz)				515502	519000	522498	time-up limit (dBm)	MPR (dB)		
15	QPSK	1	1	23.73	23.75	23.72	25.0	0.0		
Channel										
Frequency (MHz)				515004	519000	522996	time-up limit (dBm)	MPR (dB)		
10	QPSK	1	1	23.83	23.83	23.74	25.0	0.0		

n41 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. (dBm)	Power Middle Ch. Freq. (dBm)	Power High Ch. Freq. (dBm)	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)				2546.01	2592.99	2640				
100	PI2 BPSK	1	1	23.58	23.54	23.81				
100	PI2 BPSK	1	137	23.78	23.87	23.81	25.0	0.0		
100	PI2 BPSK	1	271	23.60	23.75	23.64				
100	PI2 BPSK	135	0	23.43	23.47	23.37	24.5	0.5		
100	PI2 BPSK	135	69	23.89	23.93	23.80	25.0	0.0		
100	PI2 BPSK	135	138	23.34	23.46	23.38	24.5	0.5		
100	PI2 BPSK	270	0	23.40	23.51	23.45				
100	QPSK	1	1	23.93	23.98	23.89				
100	QPSK	1	137	23.84	23.93	23.87	25.0	0.0		
100	QPSK	1	271	23.75	23.86	23.76				
100	QPSK	135	0	22.87	22.88	22.87	24.0	1.0		
100	QPSK	135	69	23.78	23.92	23.85	25.0	0.0		
100	QPSK	135	138	22.88	22.97	22.90	24.0	1.0		
100	QPSK	270	0	22.94	23.07	23.01				
100	6QAM	1	1	22.80	22.95	22.91	24.0	1.0		
100	6QAM	1	1	21.28	21.34	21.30	22.5	2.5		
100	25QAM	1	1	19.43	19.56	19.49	20.5	4.5		
Channel										
Frequency (MHz)				508200	518598	528996	time-up limit (dBm)	MPR (dB)		
90	QPSK	1	1	23.41	23.49	23.44	25.0	0.0		
90	QPSK	1	1	23.63	23.69	23.61	25.0	0.0		
Channel										
Frequency (MHz)				507204	518598	528996	time-up limit (dBm)	MPR (dB)		
80	QPSK	1	1	23.84	23.91	23.77	25.0	0.0		
Channel										
Frequency (MHz)				506202	518598	531000	time-up limit (dBm)	MPR (dB)		
70	QPSK	1	1	23.80	23.93	23.88	25.0	0.0		
Channel										
Frequency (MHz)				505200	518598	531996	time-up limit (dBm)	MPR (dB)		
60	QPSK	1	1	23.90	23.94	23.76	25.0	0.0		
60	QPSK	1	1	23.90	23.94	23.76	25.0	0.0		
Channel										
Frequency (MHz)				504204	518598	532998	time-up limit (dBm)	MPR (dB)		
50	QPSK	1	1	23.89	23.87	23.77	25.0	0.0		
Channel										
Frequency (MHz)				503202	518598	534000	time-up limit (dBm)	MPR (dB)		
40	QPSK	1	1	23.86	23.92	23.76	25.0	0.0		
40	QPSK	1	1	23.86	23.92	23.76	25.0	0.0		
Channel										
Frequency (MHz)				502200	518598	534996	time-up limit (dBm)	MPR (dB)		
30	QPSK	1	1	23.81	23.87	23.74	25.0	0.0		
30	QPSK	1	1	23.81	23.90	23.84	25.0	0.0		
Channel										
Frequency (MHz)				501204	518598	535998	time-up limit (dBm)	MPR (dB)		
20	QPSK	1	1	23.81	23.86	23.83	25.0	0.0		
Channel										
Frequency (MHz)				500202	518598	536996	time-up limit (dBm)	MPR (dB)		
15	QPSK	1	1	23.88	23.87	23.76	25.0	0.0		
Channel										
Frequency (MHz)				500202	518598	537000	time-up limit (dBm)	MPR (dB)		
10	QPSK	1	1	23.85	23.93	23.80	25.0	0.0		

Part270 n77 Main PA Ant1										
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq. (dBm)	Power Middle Ch. Freq. (dBm)	Power High Ch. Freq. (dBm)	Tune-up limit (dBm)	MPR (dB)		
Channel										
Frequency (MHz)				3705	3840	3975				
100	PI2 BPSK	1	1	20.51	20.62	20.53				
100	PI2 BPSK	1	137	20.48	20.61	20.49	22.0	0.0		
100	PI2 BPSK	1	271	20.33	20.47	20.40				
100	PI2 BPSK	135	0	20.40	20.53	20.29	22.0	0.0		
100	PI2 BPSK	135	69	20.54	20.65	20.56	22.0	0.0		
100	PI2 BPSK	135	138	20.46	20.45	20.30	22.0	0.0		
100	PI2 BPSK	270	0	20.45	20.47	20.40				
100	QPSK	1	1	20.56	20.67	20.54				
100	QPSK	1	137	20.49	20.54	20.45	22.0	0.0		
100	QPSK	1	271	20.57	20.58	20.58				
100	QPSK	135	0	20.43	20.51	20.43	22.0	0.0		
100	QPSK	135	69	20.49	20.63	20.55	22.0	0.0		
100	QPSK	135	138	20.38	20.44	20.50	22.0	0.0		
100	QPSK	270	0	20.50	20.56	20.46				
100	6QAM	1	1	20.26	20.26	20.27	22.0	0.0		
100	6QAM	1	1	20.04	20.01	20.01	22.0	0.0		
100	25QAM	1	1	18.87	19.07	18.90	20.5	1.5		
Channel										
Frequency (MHz)				649668	650000	662334	time-up limit (dBm)	MPR (dB)		
90	QPSK	1	1	20.48	20.55	20.46	22.0	0.0		
Channel										
Frequency (MHz)				649334	650000	663668	time-up limit (dBm)	MPR (dB)		
80	QPSK	1	1	20.42	20.62	20.45	22.0	0.0		
Channel										
Frequency (MHz)				649000	650000	663000	time-up limit (dBm)	MPR (dB)		
70	QPSK	1	1	20.48	20.58	20.51	22.0	0.0		
Channel										
Frequency (MHz)				648668	650000	663334	time-up limit (dBm)	MPR (dB)		
60	QPSK	1	1	20.52	20.53	20.44	22.0	0.0		
60	QPSK	1	1	20.52	20.53	20.44	22.0	0.0		
Channel										
Frequency (MHz)				648334	650000	663668	time-up limit (dBm)	MPR (dB)		
50	QPSK	1	1	20.48	20.59	20.44	22.0	0.0		
Channel										
Frequency (MHz)				648000	650000	663000	time-up limit (dBm)	MPR (dB)		
40	QPSK	1	1	20.47	20.64	20.40	22.0	0.0		
Channel										
Frequency (MHz)				647668	650000	663334	time-up limit (dBm)	MPR (dB)		
30	QPSK	1	1	20.42	20.57	20.41	22.0	0.0		
Channel										
Frequency (MHz)				647300	650000	664000	time-up limit (dBm)	MPR (dB)		
25	QPSK	1	1	20.42	20.59	20.43	22.0	0.0		
Channel										
Frequency (MHz)				647000	650000	664500	time-up limit (dBm)	MPR (dB)		
20	QPSK	1	1	20.42	20.59	20.43	22.0	0.0		
Channel										
Frequency (MHz)				646334	650000	664868	time-up limit (dBm)	MPR (dB)		
15	QPSK	1	1	20.51	20.54	20.42	22.0	0.0		
Channel										
Frequency (MHz)				646000	650000	664500	time-up limit (dBm)	MPR (dB)		
10	QPSK	1	1	20.42	20.60	20.41	22.0	0.0		



Part270 n77 PC2 Main PA Ant1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1	23.45	23.01	23.53			
100	PI2 BPSK	1	137	23.44	23.49	23.41	25.0	0.0	
100	PI2 BPSK	1	271	23.34	23.42	23.26			
100	PI2 BPSK	135	0	22.96	23.08	22.96	24.5	0.5	
100	PI2 BPSK	135	69	23.33	23.46	23.45	25.0	0.0	
100	PI2 BPSK	135	138	22.84	23.03	22.87	24.5	0.5	
100	PI2 BPSK	270	0	23.02	23.11	23.01			
100	QPSK	1	1	23.59	23.05	23.56			
100	QPSK	1	137	23.45	23.49	23.44	25.0	0.0	
100	QPSK	1	271	23.45	23.33	23.42			
100	QPSK	135	0	22.40	22.50	22.43	24.0	1.0	
100	QPSK	135	69	23.47	23.59	23.36	25.0	0.0	
100	QPSK	135	138	22.36	22.46	22.41	24.0	1.0	
100	QPSK	270	0	22.50	22.53	22.45	24.0	1.0	
100	64QAM	1	1	22.15	22.18	22.11	24.0	1.0	
100	64QAM	1	1	20.54	20.52	20.56	22.5	2.5	
100	256QAM	1	1	18.66	18.83	18.84	20.5	4.5	
Channel									
Frequency (MHz)									
50	QPSK	1	1	64968	65000	66234	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3745.02	3840	3924.01	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	64934	65000	66268	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	3740.01	3840	3940.02	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	23.51	23.54	23.48	25.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	64968	65000	66334	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	3745.02	3840	3924.01	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	64934	65000	66368	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3725.01	3840	3950.02	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	23.54	23.58	23.53	25.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	64968	65000	66434	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	3720	3840	3960	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	23.44	23.53	23.47	25.0	0.0	
Channel									
Frequency (MHz)									
30	QPSK	1	1	64768	65000	66434	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	3745.02	3840	3924.01	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	23.54	23.51	23.49	25.0	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	64700	65000	66400	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
25	QPSK	1	1	3742.5	3840	3967.5	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
25	QPSK	1	1	23.46	23.50	23.48	25.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	64734	65000	66368	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	3710.01	3840	3970.02	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	23.44	23.54	23.49	25.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	64768	65000	66434	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	3747.52	3840	3972.51	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	23.56	23.52	23.43	25.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	64700	65000	66500	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3705	3840	3975	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	23.48	23.62	23.41	25.0	0.0	

Part27Q n77 Main PA Ant1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		3000.01				
100	PI2 BPSK	1	137		20.83		22.0	0.0	
100	PI2 BPSK	1	271		20.73				
100	PI2 BPSK	135	0		20.59				
100	PI2 BPSK	135	69		20.68		22.0	0.0	
100	PI2 BPSK	135	138		20.81		22.0	0.0	
100	PI2 BPSK	270	0		20.65		22.0	0.0	
100	QPSK	1	1		20.63				
100	QPSK	1	137		20.86		22.0	0.0	
100	QPSK	1	271		20.69				
100	QPSK	135	0		20.78		22.0	0.0	
100	QPSK	135	69		20.64		22.0	0.0	
100	QPSK	135	138		20.80		22.0	0.0	
100	QPSK	270	0		20.63		22.0	0.0	
100	QPSK	270	0		20.70		22.0	0.0	
100	64QAM	1	1		20.43		22.0	0.0	
100	64QAM	1	1		20.23		22.0	0.0	
100	256QAM	1	1		18.21		20.5	1.5	
Channel									
Frequency (MHz)									
50	QPSK	1	1	63300	63334	63668	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	3485	3500.01	3525.02	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
80	QPSK	1	1	63268	63334	63600	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	3480.02	3500.01	3510	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
70	QPSK	1	1	20.74	20.74	20.73	22.0	0.0	
Channel									
Frequency (MHz)									
60	QPSK	1	1	63234	63334	63434	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	3485.01	3500.01	3515.01	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
60	QPSK	1	1	20.73	20.78	20.71	22.0	0.0	
Channel									
Frequency (MHz)									
50	QPSK	1	1	63200	63334	63668	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3480	3500.01	3520.02	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	63168	63334	63500	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
50	QPSK	1	1	3475.02	3500.01	3525	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
40	QPSK	1	1	20.76	20.73	20.65	22.0	0.0	
Channel									
Frequency (MHz)									
40	QPSK	1	1	63100	63334	63568	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	3480	3500.01	3520.02	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
30	QPSK	1	1	20.77	20.83	20.74	22.0	0.0	
Channel									
Frequency (MHz)									
25	QPSK	1	1	63084	63334	63584	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
25	QPSK	1	1	3482.51	3500.01	3537.51	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
25	QPSK	1	1	20.75	20.76	20.68	22.0	0.0	
Channel									
Frequency (MHz)									
20	QPSK	1	1	63058	63334	63500	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	3480.02	3500.01	3540	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
20	QPSK	1	1	20.70	20.78	20.65	22.0	0.0	
Channel									
Frequency (MHz)									
15	QPSK	1	1	63050	63334	63668	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	3477.5	3500.01	3542.52	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
15	QPSK	1	1	20.73	20.72	20.69	22.0	0.0	
Channel									
Frequency (MHz)									
10	QPSK	1	1	63034	63334	63634	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	3455.01	3500.01	3545.01	Unsup limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
10	QPSK	1	1	20.74	20.75	20.62	22.0	0.0	

Part27Q n77 PC2 Main PA Ant1									
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)									
100	PI2 BPSK	1	1		3000.01				
100	PI2 BPSK	1	137		23.29		25.0	0.0	
100	PI2 BPSK	1	271		23.82				
100	PI2 BPSK	135	0		23.75				
100	PI2 BPSK	135	69		23.39		24.5	0.5	
100	PI2 BPSK	135	138		23.80		25.0	0.0	
100	PI2 BPSK	270	0		23.28		24.5	0.5	
100	QPSK	1	1		23.88				
100	QPSK	1	137		23.80		25.0	0.0	
100	QPSK	1	271		23.86				
100	QPSK	135	0		22.81		24.0		



Part270 n78 Main PA Ant1									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	650000	650000			
Frequency (MHz)				3750	3750	3750			
100	PV2 BPSK	1	1		22.15				
100	PV2 BPSK	1	137		22.06		23.0	0.0	
100	PV2 BPSK	1	271		22.03				
100	PV2 BPSK	135	0		21.95		23.0	0.0	
100	PV2 BPSK	135	69		22.19		23.0	0.0	
100	PV2 BPSK	135	138		21.97				
100	PV2 BPSK	270	0		22.03		23.0	0.0	
100	QPSK	1	1		22.22				
100	QPSK	1	137		22.05		23.0	0.0	
100	QPSK	1	271		22.03				
100	QPSK	135	0		22.07		23.0	0.0	
100	QPSK	135	69		22.13		23.0	0.0	
100	QPSK	135	138		21.99		23.0	0.0	
100	QPSK	270	0		22.10		23.0	0.0	
100	16QAM	1	1		22.90		23.0	0.0	
100	64QAM	1	1		21.99		23.0	0.0	
100	256QAM	1	1		20.57		21.5	1.5	
Channel				649668	650000	650334	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3742.02	3750	3760.01			
90	QPSK	1	1		22.08		23.0	0.0	
Channel				649334	650000	650668	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3760.02			
80	QPSK	1	1		22.09	22.15	21.99	23.0	0.0
Channel				649000	650000	651000	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1		22.10	22.09	21.99	23.0	0.0
Channel				648668	650000	651334	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3732.02	3750	3763.01			
60	QPSK	1	1		22.04	22.15	22.02	23.0	0.0
Channel				648334	650000	651668	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3726.01	3750	3776.02			
50	QPSK	1	1		22.04	22.19	22.07	23.0	0.0
Channel				648000	650000	652000	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3780			
40	QPSK	1	1		22.04	22.16	22.00	23.0	0.0
Channel				647668	650000	652334	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.02	3750	3783.01			
30	QPSK	1	1		22.14	22.08	21.97	23.0	0.0
Channel				647000	650000	652500	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3750	3787.5			
25	QPSK	1	1		22.06	22.11	22.04	23.0	0.0
Channel				647334	650000	652668	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3790.02			
20	QPSK	1	1		22.06	22.12	22.05	23.0	0.0
Channel				647168	650000	652834	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3782.51			
15	QPSK	1	1		22.04	22.16	22.03	23.0	0.0
Channel				647000	650000	653000	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1		22.08	22.08	21.98	23.0	0.0

Part270 n78 PC2 Main PA Ant1									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel				650000	650000	650000			
Frequency (MHz)				3750	3750	3750			
100	PV2 BPSK	1	1		23.07				
100	PV2 BPSK	1	137		23.02		28.0	0.0	
100	PV2 BPSK	1	271		24.96				
100	PV2 BPSK	135	0		24.70		25.5	0.5	
100	PV2 BPSK	135	69		24.99		26.0	0.0	
100	PV2 BPSK	135	138		24.90				
100	PV2 BPSK	270	0		24.54		25.5	0.5	
100	QPSK	1	1		25.11				
100	QPSK	1	137		25.01		26.0	0.0	
100	QPSK	1	271		25.04				
100	QPSK	135	0		24.02		25.0	1.0	
100	QPSK	135	69		25.09		26.0	0.0	
100	QPSK	135	138		24.05		25.0	1.0	
100	QPSK	270	0		23.99		25.0	1.0	
100	16QAM	1	1		24.07		25.0	1.0	
100	64QAM	1	1		22.20		23.5	2.5	
100	256QAM	1	1		20.88		21.5	4.5	
Channel				649668	650000	650334	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3742.02	3750	3763.01			
90	QPSK	1	1		25.01	24.98	23.00	23.0	0.0
Channel				649334	650000	650668	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3740.01	3750	3760.02			
80	QPSK	1	1		25.04	24.99	24.90	26.0	0.0
Channel				649000	650000	651000	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3735	3750	3765			
70	QPSK	1	1		24.98	25.03	24.88	26.0	0.0
Channel				648668	650000	651334	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3732.02	3750	3763.01			
60	QPSK	1	1		24.93	24.98	24.95	26.0	0.0
Channel				648334	650000	651668	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3726.01	3750	3776.02			
50	QPSK	1	1		25.03	24.98	24.93	26.0	0.0
Channel				648000	650000	652000	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3720	3750	3780			
40	QPSK	1	1		24.94	25.05	24.94	26.0	0.0
Channel				647668	650000	652334	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.02	3750	3783.01			
30	QPSK	1	1		24.97	25.03	24.98	26.0	0.0
Channel				647000	650000	652500	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3712.5	3750	3787.5			
25	QPSK	1	1		24.94	24.99	24.99	26.0	0.0
Channel				647334	650000	652668	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3710.01	3750	3790.02			
20	QPSK	1	1		24.94	24.98	24.88	26.0	0.0
Channel				647168	650000	652834	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3707.52	3750	3782.51			
15	QPSK	1	1		25.02	24.99	24.96	26.0	0.0
Channel				647000	650000	653000	time-up limit (dBm)	MPR (dB)	
Frequency (MHz)				3705	3750	3795			
10	QPSK	1	1		25.02	25.05	24.94	26.0	0.0



Part27Q n78 Main PA Ant1							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. [Freq. 633334]	Power Middle Ch. [Freq. 633334]	Power High Ch. [Freq. 633334]	MPR (dB)
Channel							
Frequency (MHz)							
100	Pi/2 BPSK	1	1	22.25	3500.01		
100	Pi/2 BPSK	1	137	22.17			23.0
100	Pi/2 BPSK	1	271	22.17			
100	Pi/2 BPSK	135	0	22.09			23.0
100	Pi/2 BPSK	135	69	22.07			23.0
100	Pi/2 BPSK	135	138	22.10			23.0
100	Pi/2 BPSK	270	0	22.29			23.0
100	QPSK	1	1	22.30			
100	QPSK	1	137	22.19			23.0
100	QPSK	1	271	22.17			
100	QPSK	135	0	22.16			23.0
100	QPSK	135	69	22.23			23.0
100	QPSK	135	138	22.07			23.0
100	QPSK	270	0	22.19			23.0
100	16QAM	1	1	22.08			23.0
100	16QAM	1	1	21.85			23.0
100	256QAM	1	1	20.68			21.5
Channel							
Frequency (MHz)							
90	QPSK	1	1	22.06	633000	633334	633668
Channel							
Frequency (MHz)							
80	QPSK	1	1	22.13	3490.02	3500.01	3510.00
Channel							
Frequency (MHz)							
70	QPSK	1	1	22.13	3485.01	3500.01	3515.01
Channel							
Frequency (MHz)							
60	QPSK	1	1	22.14	632668	633334	634000
Channel							
Frequency (MHz)							
50	QPSK	1	1	22.14	631668	633334	635000
Channel							
Frequency (MHz)							
40	QPSK	1	1	22.12	3475.02	3500.01	3525
Channel							
Frequency (MHz)							
30	QPSK	1	1	22.05	631000	633334	635668
Channel							
Frequency (MHz)							
25	QPSK	1	1	22.17	3462.51	3500.01	3537.51
Channel							
Frequency (MHz)							
20	QPSK	1	1	22.10	630500	633334	636168
Channel							
Frequency (MHz)							
15	QPSK	1	1	22.11	3455.01	3500.01	3545.01
Channel							
Frequency (MHz)							
10	QPSK	1	1	22.10	630000	633334	636668

Part27Q n78 PC2 Main PA Ant1							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. [Freq. 633334]	Power Middle Ch. [Freq. 633334]	Power High Ch. [Freq. 633334]	MPR (dB)
Channel							
Frequency (MHz)							
100	Pi/2 BPSK	1	1	24.57	3500.01		
100	Pi/2 BPSK	1	137	24.93			28.0
100	Pi/2 BPSK	1	271	24.92			
100	Pi/2 BPSK	135	0	24.80			25.5
100	Pi/2 BPSK	135	69	24.92			26.0
100	Pi/2 BPSK	135	138	24.44			25.5
100	Pi/2 BPSK	270	0	24.48			25.5
100	QPSK	1	1	25.04			
100	QPSK	1	137	24.98			26.0
100	QPSK	1	271	24.96			
100	QPSK	135	0	23.97			25.0
100	QPSK	135	69	24.96			26.0
100	QPSK	135	138	23.90			25.0
100	QPSK	270	0	23.94			25.0
100	16QAM	1	1	23.94			25.0
100	16QAM	1	1	22.10			23.5
100	256QAM	1	1	20.60			21.5
Channel							
Frequency (MHz)							
90	QPSK	1	1	24.88	633000	633334	633668
Channel							
Frequency (MHz)							
80	QPSK	1	1	24.87	3490.02	3500.01	3510.00
Channel							
Frequency (MHz)							
70	QPSK	1	1	24.90	3485.01	3500.01	3515.01
Channel							
Frequency (MHz)							
60	QPSK	1	1	24.99	632668	633334	634000
Channel							
Frequency (MHz)							
50	QPSK	1	1	24.97	631668	633334	635000
Channel							
Frequency (MHz)							
40	QPSK	1	1	24.90	3475.02	3500.01	3525
Channel							
Frequency (MHz)							
30	QPSK	1	1	24.90	631000	633334	635668
Channel							
Frequency (MHz)							
25	QPSK	1	1	24.92	3462.51	3500.01	3537.51
Channel							
Frequency (MHz)							
20	QPSK	1	1	24.96	630500	633334	636168
Channel							
Frequency (MHz)							
15	QPSK	1	1	24.96	3455.01	3500.01	3545.01
Channel							
Frequency (MHz)							
10	QPSK	1	1	24.86	630000	633334	636668



n7 Main PA Ant2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 505000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	MPR (dB)
Channel				2525	2535	2545	
Frequency (MHz)				2525	2535	2545	
50	PI/2 BPSK	1	1	24.82	24.86	24.75	
50	PI/2 BPSK	1	135	24.67	24.76	24.71	25.7
50	PI/2 BPSK	1	268	24.49	24.69	24.54	0.0
50	PI/2 BPSK	135	0	24.29	24.39	24.28	25.2
50	PI/2 BPSK	135	68	24.79	24.82	24.72	25.7
50	PI/2 BPSK	135	135	24.26	24.34	24.31	25.2
50	PI/2 BPSK	270	0	24.28	24.40	24.39	0.0
50	QPSK	1	1	24.88	24.82	24.83	25.7
50	QPSK	1	135	24.76	24.82	24.78	0.0
50	QPSK	1	268	24.67	24.73	24.71	1.0
50	QPSK	135	0	23.78	23.91	23.81	24.7
50	QPSK	135	68	24.72	24.85	24.73	25.7
50	QPSK	135	135	23.76	23.83	23.81	24.7
50	QPSK	270	0	23.83	23.99	23.96	24.7
50	16QAM	1	1	23.71	23.81	23.85	24.7
50	64QAM	1	1	22.21	22.29	22.28	23.2
50	256QAM	1	1	20.32	20.49	20.44	21.2
Channel				504000	507000	510000	
Frequency (MHz)				504000	507000	510000	
40	QPSK	1	1	24.75	24.85	24.75	25.7
Channel				503000	507000	511000	
Frequency (MHz)				503000	507000	511000	
30	QPSK	1	1	24.74	24.86	24.69	25.7
Channel				502500	507000	511500	
Frequency (MHz)				502500	507000	511500	
25	QPSK	1	1	24.76	24.80	24.74	25.7
Channel				503000	507000	512000	
Frequency (MHz)				503000	507000	512000	
20	QPSK	1	1	24.76	24.88	24.72	25.7
Channel				501500	507000	512500	
Frequency (MHz)				501500	507000	512500	
15	QPSK	1	1	25.075	25.35	25.025	25.7
Channel				501000	507000	513000	
Frequency (MHz)				501000	507000	513000	
10	QPSK	1	1	24.84	24.78	24.75	25.7
Channel				500500	507000	513500	
Frequency (MHz)				500500	507000	513500	
5	QPSK	1	1	24.81	24.79	24.70	25.7

n66 Main PA Ant2							
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346500	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 351500	MPR (dB)
Channel				1732.5	1745	1767.5	
Frequency (MHz)				1732.5	1745	1767.5	
45	PI/2 BPSK	1	1	23.79	23.87	23.75	
45	PI/2 BPSK	1	120	23.72	23.81	23.71	24.5
45	PI/2 BPSK	1	243	23.47	23.65	23.55	0.0
45	PI/2 BPSK	120	0	23.28	23.40	23.23	24.0
45	PI/2 BPSK	120	60	23.75	23.86	23.66	24.5
45	PI/2 BPSK	120	120	23.26	23.35	23.24	24.0
45	PI/2 BPSK	240	0	23.28	23.45	23.34	0.0
45	QPSK	1	1	23.86	23.50	23.83	
45	QPSK	1	120	23.75	23.79	23.71	24.5
45	QPSK	1	243	23.59	23.80	23.64	1.0
45	QPSK	120	0	22.71	22.89	22.80	23.5
45	QPSK	120	60	23.67	23.82	23.72	24.5
45	QPSK	120	120	22.73	22.88	22.74	23.5
45	QPSK	240	0	22.85	23.01	22.82	1.0
45	16QAM	1	1	22.74	22.79	22.81	23.5
45	64QAM	1	1	21.20	21.20	21.15	22.0
45	256QAM	1	1	19.30	19.44	19.39	20.0
Channel				346000	349000	352000	
Frequency (MHz)				346000	349000	352000	
40	QPSK	1	1	23.84	23.79	23.69	24.5
Channel				345500	349000	352500	
Frequency (MHz)				345500	349000	352500	
35	QPSK	1	1	23.78	23.87	23.81	24.5
Channel				345000	349000	353000	
Frequency (MHz)				345000	349000	353000	
30	QPSK	1	1	23.78	23.81	23.73	24.5
Channel				344500	349000	353500	
Frequency (MHz)				344500	349000	353500	
25	QPSK	1	1	23.75	23.85	23.71	24.5
Channel				344000	349000	354000	
Frequency (MHz)				344000	349000	354000	
20	QPSK	1	1	23.80	23.77	23.70	24.5
Channel				343500	349000	354500	
Frequency (MHz)				343500	349000	354500	
15	QPSK	1	1	23.80	23.80	23.76	24.5
Channel				343000	349000	355000	
Frequency (MHz)				343000	349000	355000	
10	QPSK	1	1	23.82	23.87	23.76	24.5
Channel				342500	349000	355500	
Frequency (MHz)				342500	349000	355500	
5	QPSK	1	1	23.72	23.75	23.73	24.5



n38 Main PA Ant2									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 518004	Power Middle Ch. / Freq. 519000	Power High Ch. / Freq. 519996	Tune-up limit (dBm)	MPR (dB)	
Channel				2590.02	2595	2599.98			
Frequency (MHz)				2590.02	2595	2599.98			
40	PI/2 BPSK	1	1	25.11	25.25	25.21			
40	PI/2 BPSK	1	53	25.00	25.12	25.02	25.7	0.0	
40	PI/2 BPSK	1	104	24.99	25.02	24.93			
40	PI/2 BPSK	50	0	24.71	24.81	24.77	25.2	0.5	
40	PI/2 BPSK	50	28	25.16	25.19	25.15	25.7	0.0	
40	PI/2 BPSK	50	56	24.64	24.73	24.64	25.2	0.5	
40	PI/2 BPSK	100	0	24.75	24.87	24.74			
40	QPSK	1	1	25.20	25.29	25.26			
40	QPSK	1	53	25.09	25.21	25.15	25.7	0.0	
40	QPSK	1	104	25.13	25.16	25.13			
40	QPSK	50	0	24.29	24.34	24.27	24.7	1.0	
40	QPSK	50	28	25.15	25.22	25.11	25.7	0.0	
40	QPSK	50	56	24.26	24.30	24.16	24.7	1.0	
40	QPSK	100	0	24.32	24.41	24.29			
40	16QAM	1	1	24.12	24.22	24.08	24.7	1.0	
40	64QAM	1	1	22.50	22.63	22.56	23.2	2.5	
40	256QAM	1	1	20.73	20.85	20.77	21.2	4.5	
Channel				517002	519000	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				517002	519000	520998			
30	QPSK	1	1	25.10	25.19	25.22	25.7	0.0	
Channel				516504	519000	521498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				516504	519000	521498			
25	QPSK	1	1	25.10	25.16	25.14	25.7	0.0	
Channel				516000	519000	522000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				516000	519000	522000			
20	QPSK	1	1	25.15	25.24	25.19	25.7	0.0	
Channel				515502	519000	522498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				515502	519000	522498			
15	QPSK	1	1	25.06	25.21	25.11	25.7	0.0	
Channel				515004	519000	522998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				515004	519000	522998			
10	QPSK	1	1	25.16	25.26	25.19	25.7	0.0	

n41 Main PA Ant2									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 502002	Power Middle Ch. / Freq. 518098	Power High Ch. / Freq. 520000	Tune-up limit (dBm)	MPR (dB)	
Channel				2546.01	2592.99	2640			
Frequency (MHz)				2546.01	2592.99	2640			
100	PI/2 BPSK	1	1	25.20	25.33	25.30			
100	PI/2 BPSK	1	137	25.07	25.19	25.18	25.7	0.0	
100	PI/2 BPSK	1	271	25.04	25.19	24.99			
100	PI/2 BPSK	135	0	24.85	24.90	24.93	25.2	0.5	
100	PI/2 BPSK	135	69	25.31	25.24	25.21	25.7	0.0	
100	PI/2 BPSK	135	138	24.70	24.85	24.73	25.2	0.5	
100	PI/2 BPSK	270	0	24.88	25.01	24.91			
100	QPSK	1	1	25.27	25.38	25.36			
100	QPSK	1	137	25.24	25.37	25.28	25.7	0.0	
100	QPSK	1	271	25.18	25.28	25.18			
100	QPSK	135	0	24.46	24.43	24.41	24.7	1.0	
100	QPSK	135	69	25.20	25.35	25.22	25.7	0.0	
100	QPSK	135	138	24.37	24.39	24.21	24.7	1.0	
100	QPSK	270	0	24.42	24.48	24.44			
100	16QAM	1	1	24.21	24.31	24.14	24.7	1.0	
100	64QAM	1	1	22.64	22.80	22.72	23.2	2.5	
100	256QAM	1	1	20.80	21.00	20.83	21.2	4.5	
Channel				502000	518098	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				502000	518098	520998			
90	QPSK	1	1	25.23	25.29	25.28	25.7	0.0	
Channel				507204	518098	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				507204	518098	520998			
80	QPSK	1	1	25.15	25.32	25.32	25.7	0.0	
Channel				506202	518098	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				506202	518098	531000			
70	QPSK	1	1	25.18	25.25	23.21	25.7	0.0	
Channel				505200	518098	531998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				505200	518098	531998			
60	QPSK	1	1	25.16	25.24	25.22	25.7	0.0	
Channel				504204	518098	532998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				504204	518098	532998			
50	QPSK	1	1	25.17	25.30	25.30	25.7	0.0	
Channel				503202	518098	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				503202	518098	534000			
40	QPSK	1	1	25.23	25.25	25.22	25.7	0.0	
Channel				502200	518098	534998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				502200	518098	534998			
30	QPSK	1	1	25.14	25.25	25.32	25.7	0.0	
Channel				501204	518098	535998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				501204	518098	535998			
20	QPSK	1	1	25.22	25.31	25.29	25.7	0.0	
Channel				500200	518098	536998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				500200	518098	536998			
15	QPSK	1	1	25.23	25.28	25.31	25.7	0.0	
Channel				500202	518098	537000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				500202	518098	537000			
10	QPSK	1	1	25.10	25.30	25.27	25.7	0.0	



n7 Main PA Ant3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 505000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)
Channel				2525	2535	2545		
Frequency (MHz)								
50	PI/2 BPSK	1	1	22.64	22.89	22.55		
50	PI/2 BPSK	1	135	22.48	22.59	22.55	24.0	0.0
50	PI/2 BPSK	1	268	22.29	22.42	22.27		
50	PI/2 BPSK	135	0	22.04	22.18	22.10	23.5	0.5
50	PI/2 BPSK	135	68	22.54	22.64	22.54	24.0	0.0
50	PI/2 BPSK	135	135	22.05	22.16	22.09	23.5	0.5
50	PI/2 BPSK	270	0	22.12	22.23	22.09		
50	QPSK	1	1	22.69	22.74	22.65		
50	QPSK	1	135	22.60	22.67	22.53	24.0	0.0
50	QPSK	1	268	22.55	22.65	22.62		
50	QPSK	135	0	21.62	21.72	21.59	23.0	1.0
50	QPSK	135	68	22.54	22.62	22.56	24.0	0.0
50	QPSK	135	135	21.63	21.73	21.64	23.0	1.0
50	QPSK	270	0	21.65	21.76	21.66		
50	16QAM	1	1	21.56	21.68	21.55	23.0	1.0
50	64QAM	1	1	20.03	20.07	20.03	21.5	2.5
50	256QAM	1	1	18.18	18.24	18.17	19.5	4.5
Channel				504000	507000	510000	Tune-up limit	MPR
Frequency (MHz)				2525	2535	2550	(dBm)	(dB)
40	QPSK	1	1	22.55	22.60	22.55	24.0	0.0
Channel				503000	507000	511000	Tune-up limit	MPR
Frequency (MHz)				2515	2535	2555	(dBm)	(dB)
30	QPSK	1	1	22.68	22.68	22.51	24.0	0.0
Channel				502500	507000	511500	Tune-up limit	MPR
Frequency (MHz)				2512.5	2535	2557.5	(dBm)	(dB)
25	QPSK	1	1	22.62	22.69	22.50	24.0	0.0
Channel				503000	507000	512000	Tune-up limit	MPR
Frequency (MHz)				2510	2535	2560	(dBm)	(dB)
20	QPSK	1	1	22.57	22.70	22.60	24.0	0.0
Channel				501500	507000	512500	Tune-up limit	MPR
Frequency (MHz)				2507.5	2535	2562.5	(dBm)	(dB)
15	QPSK	1	1	22.62	22.61	22.51	24.0	0.0
Channel				501000	507000	513000	Tune-up limit	MPR
Frequency (MHz)				2505	2535	2565	(dBm)	(dB)
10	QPSK	1	1	22.55	22.60	22.50	24.0	0.0
Channel				500500	507000	513500	Tune-up limit	MPR
Frequency (MHz)				2502.5	2535	2567.5	(dBm)	(dB)
5	QPSK	1	1	22.61	22.65	22.57	24.0	0.0

n66 Main PA Ant3								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346500	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 351500	Tune-up limit (dBm)	MPR (dB)
Channel				1732.5	1745	1767.5		
Frequency (MHz)								
45	PI/2 BPSK	1	1	21.67	21.71	21.82		
45	PI/2 BPSK	1	120	21.60	21.63	21.59	23.5	0.0
45	PI/2 BPSK	1	243	21.52	21.59	21.53		
45	PI/2 BPSK	120	0	21.06	21.22	21.07	23.0	0.5
45	PI/2 BPSK	120	60	21.59	21.70	21.58	23.5	0.0
45	PI/2 BPSK	120	120	21.02	21.18	21.12	23.0	0.5
45	PI/2 BPSK	240	0	21.16	21.28	21.06		
45	QPSK	1	1	21.70	21.75	21.66		
45	QPSK	1	120	21.58	21.70	21.64	23.5	0.0
45	QPSK	1	243	21.60	21.69	21.68		
45	QPSK	120	0	20.69	20.78	20.57	22.5	1.0
45	QPSK	120	60	21.56	21.67	21.53	23.5	0.0
45	QPSK	120	120	20.60	20.72	20.66	22.5	1.0
45	QPSK	240	0	20.71	20.83	20.70		
45	16QAM	1	1	20.63	20.72	20.52	22.5	1.0
45	64QAM	1	1	19.01	19.05	19.09	21.0	2.5
45	256QAM	1	1	17.19	17.23	17.14	19.0	4.5
Channel				346000	349000	352000	Tune-up limit	MPR
Frequency (MHz)				1730	1745	1760	(dBm)	(dB)
40	QPSK	1	1	21.55	21.63	21.53	23.5	0.0
Channel				345500	349000	352500	Tune-up limit	MPR
Frequency (MHz)				1727.5	1745	1762.5	(dBm)	(dB)
35	QPSK	1	1	21.60	21.71	21.67	23.5	0.0
Channel				345000	349000	353000	Tune-up limit	MPR
Frequency (MHz)				1725	1745	1765	(dBm)	(dB)
30	QPSK	1	1	21.60	21.70	21.51	23.5	0.0
Channel				344500	349000	353500	Tune-up limit	MPR
Frequency (MHz)				1722.5	1745	1767.5	(dBm)	(dB)
25	QPSK	1	1	21.64	21.63	21.62	23.5	0.0
Channel				344000	349000	354000	Tune-up limit	MPR
Frequency (MHz)				1720	1745	1770	(dBm)	(dB)
20	QPSK	1	1	21.56	21.64	21.51	23.5	0.0
Channel				343500	349000	354500	Tune-up limit	MPR
Frequency (MHz)				1717.5	1745	1772.5	(dBm)	(dB)
15	QPSK	1	1	21.62	21.68	21.53	23.5	0.0
Channel				343000	349000	355000	Tune-up limit	MPR
Frequency (MHz)				1715	1745	1775	(dBm)	(dB)
10	QPSK	1	1	21.57	21.70	21.59	23.5	0.0
Channel				342500	349000	355500	Tune-up limit	MPR
Frequency (MHz)				1712.5	1745	1777.5	(dBm)	(dB)
5	QPSK	1	1	21.63	21.60	21.55	23.5	0.0



n38 Main PA Ant3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 518004	Power Middle Ch. / Freq. 519000	Power High Ch. / Freq. 519996	Tune-up limit (dBm)	MPR (dB)	
Channel				2590.02	2595	2599.98			
Frequency (MHz)				23.07	23.22	23.14			
40	PI/2 BPSK	1	1	23.07	23.22	23.14			
40	PI/2 BPSK	1	53	23.08	23.17	23.02	24.5	0.0	
40	PI/2 BPSK	1	104	22.92	23.08	23.02			
40	PI/2 BPSK	50	0	22.71	22.82	22.71	24.0	0.5	
40	PI/2 BPSK	50	28	23.13	23.19	23.14	24.5	0.0	
40	PI/2 BPSK	50	56	22.82	22.72	22.58	24.0	0.5	
40	PI/2 BPSK	100	0	22.75	22.84	22.74			
40	QPSK	1	1	23.18	23.28	23.22			
40	QPSK	1	53	23.12	23.24	23.14	24.5	0.0	
40	QPSK	1	104	23.17	23.23	23.19			
40	QPSK	50	0	22.31	22.35	22.21	23.5	1.0	
40	QPSK	50	28	23.10	23.21	23.18	24.5	0.0	
40	QPSK	50	56	22.06	22.17	22.06	23.5	1.0	
40	QPSK	100	0	22.23	22.28	22.13			
40	16QAM	1	1	22.13	22.20	22.13	23.5	1.0	
40	64QAM	1	1	20.82	20.85	20.82	22.0	2.5	
40	256QAM	1	1	18.84	18.81	18.87	20.0	4.5	
Channel				517002	519000	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2282.01	2595	2604.99			
30	QPSK	1	1	23.07	23.25	23.16	24.5	0.0	
Channel				516504	519000	521496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2682.52	2595	2607.48			
25	QPSK	1	1	23.03	23.22	23.12	24.5	0.0	
Channel				516000	519000	522000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2550	2595	2610			
20	QPSK	1	1	23.01	23.14	23.12	24.5	0.0	
Channel				515502	519000	522498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2677.51	2595	2612.49			
15	QPSK	1	1	23.13	23.19	23.12	24.5	0.0	
Channel				515004	519000	522996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2673.02	2595	2614.98			
10	QPSK	1	1	23.11	23.17	23.08	24.5	0.0	

n41 Main PA Ant3									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 500202	Power Middle Ch. / Freq. 518598	Power High Ch. / Freq. 520000	Tune-up limit (dBm)	MPR (dB)	
Channel				2546.01	2592.99	2640			
Frequency (MHz)				22.97	23.10	23.00			
100	PI/2 BPSK	1	1	22.97	23.10	23.00			
100	PI/2 BPSK	1	137	23.01	23.12	22.98	24.5	0.0	
100	PI/2 BPSK	1	271	22.78	23.02	22.80			
100	PI/2 BPSK	135	0	22.82	22.70	22.58	24.0	0.5	
100	PI/2 BPSK	135	69	23.07	23.10	23.03	24.5	0.0	
100	PI/2 BPSK	135	138	22.47	22.59	22.53	24.0	0.5	
100	PI/2 BPSK	270	0	22.88	22.69	22.60			
100	QPSK	1	1	23.14	23.19	23.08			
100	QPSK	1	137	23.09	23.14	23.04	24.5	0.0	
100	QPSK	1	271	23.00	23.10	23.05			
100	QPSK	135	0	22.23	22.28	22.13	23.5	1.0	
100	QPSK	135	69	22.99	23.14	23.09	24.5	0.0	
100	QPSK	135	138	21.95	22.09	21.82	23.5	1.0	
100	QPSK	270	0	22.10	22.21	21.98			
100	16QAM	1	1	22.03	22.17	22.05	23.5	1.0	
100	64QAM	1	1	20.50	20.58	20.55	22.0	2.5	
100	256QAM	1	1	18.79	18.86	18.80	20.0	4.5	
Channel				508200	518598	528998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.98			
90	QPSK	1	1	23.05	23.09	23.01	24.5	0.0	
Channel				507204	518598	528998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2536.02	2592.99	2649.99			
80	QPSK	1	1	23.04	23.14	22.93	24.5	0.0	
Channel				506202	518598	531000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655			
70	QPSK	1	1	23.03	23.10	23.06	24.5	0.0	
Channel				505200	518598	531998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2526	2592.99	2659.98			
60	QPSK	1	1	23.07	23.13	22.95	24.5	0.0	
Channel				504204	518598	532998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2521.00	2592.99	2664.99			
50	QPSK	1	1	23.08	23.09	23.03	24.5	0.0	
Channel				503202	518598	534000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2516.01	2592.99	2670			
40	QPSK	1	1	23.00	23.08	22.98	24.5	0.0	
Channel				502200	518598	534998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.98			
30	QPSK	1	1	23.11	23.16	23.01	24.5	0.0	
Channel				501204	518598	535998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2506.02	2592.99	2679.99			
20	QPSK	1	1	23.10	23.11	23.02	24.5	0.0	
Channel				500200	518598	536998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.05	2592.99	2682.48			
15	QPSK	1	1	23.06	23.07	23.04	24.5	0.0	
Channel				500202	518598	537000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2685			
10	QPSK	1	1	23.04	23.15	22.96	24.5	0.0	



n7 Main PA Ant4									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 505000	Power Middle Ch. / Freq. 507000	Power High Ch. / Freq. 509000	Tune-up limit (dBm)	MPR (dB)	
Channel				2525	2535	2545			
Frequency (MHz)				2525	2535	2545			
50	PI/2 BPSK	1	1	24.72	24.83	24.76			
50	PI/2 BPSK	1	135	24.64	24.81	24.58	25.5	0.0	
50	PI/2 BPSK	1	268	24.58	24.88	24.59			
50	PI/2 BPSK	135	0	24.29	24.41	24.34	25.0	0.5	
50	PI/2 BPSK	135	68	24.80	24.81	24.79	25.5	0.0	
50	PI/2 BPSK	135	135	24.27	24.38	24.19	25.0	0.5	
50	PI/2 BPSK	270	0	24.41	24.42	24.37			
50	QPSK	1	1	24.78	24.81	24.84			
50	QPSK	1	135	24.71	24.90	24.75	25.5	0.0	
50	QPSK	1	268	24.79	24.82	24.85			
50	QPSK	135	0	23.98	24.00	23.77	24.5	1.0	
50	QPSK	135	68	24.68	24.88	24.81	25.5	0.0	
50	QPSK	135	135	23.89	23.75	23.61	24.5	1.0	
50	QPSK	270	0	23.78	23.82	23.70			
50	16QAM	1	1	23.78	23.78	23.73	24.5	1.0	
50	64QAM	1	1	22.22	22.31	22.25	23.0	2.5	
50	256QAM	1	1	20.42	20.54	20.46	21.0	4.5	
Channel				504000	507000	510000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				504000	507000	510000			
40	QPSK	1	1	24.63	24.79	24.70	25.5	0.0	
Channel				503000	507000	511000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				503000	507000	511000			
30	QPSK	1	1	24.65	24.84	24.76	25.5	0.0	
Channel				502500	507000	511500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				502500	507000	511500			
25	QPSK	1	1	24.64	24.79	24.73	25.5	0.0	
Channel				503000	507000	512000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				503000	507000	512000			
20	QPSK	1	1	24.73	24.85	24.79	25.5	0.0	
Channel				501500	507000	512500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				501500	507000	512500			
15	QPSK	1	1	24.69	24.87	24.81	25.5	0.0	
Channel				501000	507000	513000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				501000	507000	513000			
10	QPSK	1	1	24.67	24.77	24.75	25.5	0.0	
Channel				500500	507000	513500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				500500	507000	513500			
5	QPSK	1	1	24.63	24.85	24.71	25.5	0.0	

n66 Main PA Ant4									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 346500	Power Middle Ch. / Freq. 349000	Power High Ch. / Freq. 351500	Tune-up limit (dBm)	MPR (dB)	
Channel				1732.5	1745	1757.5			
Frequency (MHz)				1732.5	1745	1757.5			
45	PI/2 BPSK	1	1	23.63	23.72	23.67			
45	PI/2 BPSK	1	120	23.47	23.67	23.35	24.5	0.0	
45	PI/2 BPSK	1	243	23.39	23.55	23.45			
45	PI/2 BPSK	120	0	23.06	23.17	23.20	24.0	0.5	
45	PI/2 BPSK	120	60	23.65	23.66	23.56	24.5	0.0	
45	PI/2 BPSK	120	120	23.09	23.23	22.98	24.0	0.5	
45	PI/2 BPSK	240	0	23.25	23.24	23.18			
45	QPSK	1	1	23.69	23.76	23.72			
45	QPSK	1	120	23.48	23.71	23.59	24.5	0.0	
45	QPSK	1	243	23.64	23.69	23.68			
45	QPSK	120	0	22.74	22.83	22.59	23.5	1.0	
45	QPSK	120	60	23.48	23.65	23.60	24.5	0.0	
45	QPSK	120	120	22.44	22.55	22.47	23.5	1.0	
45	QPSK	240	0	22.58	22.61	22.52			
45	16QAM	1	1	22.83	22.97	22.80	23.5	1.0	
45	64QAM	1	1	20.97	21.17	21.11	22.0	2.5	
45	256QAM	1	1	19.23	19.35	19.33	20.0	4.5	
Channel				346000	349000	352000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				346000	349000	352000			
40	QPSK	1	1	23.62	23.71	23.59	24.5	0.0	
Channel				345500	349000	352500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				345500	349000	352500			
35	QPSK	1	1	23.64	23.73	23.70	24.5	0.0	
Channel				345000	349000	353000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				345000	349000	353000			
30	QPSK	1	1	23.60	23.63	23.62	24.5	0.0	
Channel				344500	349000	353500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				344500	349000	353500			
25	QPSK	1	1	23.66	23.72	23.68	24.5	0.0	
Channel				344000	349000	354000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				344000	349000	354000			
20	QPSK	1	1	23.57	23.69	23.60	24.5	0.0	
Channel				343500	349000	354500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				343500	349000	354500			
15	QPSK	1	1	23.54	23.62	23.59	24.5	0.0	
Channel				343000	349000	355000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				343000	349000	355000			
10	QPSK	1	1	23.56	23.70	23.58	24.5	0.0	
Channel				342500	349000	355500	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				342500	349000	355500			
5	QPSK	1	1	23.55	23.72	23.68	24.5	0.0	



n38 Main PA Ant4									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 516004	Power Middle Ch. / Freq. 519000	Power High Ch. / Freq. 519996	Tune-up limit (dBm)	MPR (dB)	
Channel				2690.02	2595	2599.98			
Frequency (MHz)				2523	2534	2531			
40	PI/2 BPSK	1	1	25.23	25.34	25.31			
40	PI/2 BPSK	1	53	25.15	25.26	25.20	25.7	0.0	
40	PI/2 BPSK	1	104	25.10	25.21	25.10			
40	PI/2 BPSK	50	0	24.76	24.87	24.80	25.2	0.5	
40	PI/2 BPSK	50	28	25.22	25.30	25.17	25.7	0.0	
40	PI/2 BPSK	50	56	24.68	24.81	24.70	25.2	0.5	
40	PI/2 BPSK	100	0	24.82	24.93	24.79			
40	QPSK	1	1	25.28	25.40	25.36			
40	QPSK	1	53	25.31	25.37	25.29	25.7	0.0	
40	QPSK	1	104	25.15	25.28	25.19			
40	QPSK	50	0	24.38	24.46	24.36	24.7	1.0	
40	QPSK	50	28	25.30	25.35	25.25	25.7	0.0	
40	QPSK	50	56	24.25	24.33	24.26	24.7	1.0	
40	QPSK	100	0	24.24	24.38	24.25			
40	16QAM	1	1	24.27	24.33	24.19	24.7	1.0	
40	64QAM	1	1	22.65	22.74	22.70	23.2	2.5	
40	256QAM	1	1	20.91	21.06	20.94	21.2	4.5	
Channel				517002	519000	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2285.01	2595	2604.99	25.7	0.0	
30	QPSK	1	1	25.23	25.37	25.32			
Channel				516504	519000	521496	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2682.52	2595	2607.48	25.7	0.0	
25	QPSK	1	1	25.23	25.25	25.23	25.7	0.0	
Channel				516000	519000	522000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2550	2595	2610	25.7	0.0	
20	QPSK	1	1	25.21	25.29	25.22	25.7	0.0	
Channel				515502	519000	522498	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2677.51	2595	2612.49	25.7	0.0	
15	QPSK	1	1	25.13	25.34	25.28	25.7	0.0	
Channel				515004	519000	522996	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2675.02	2595	2614.98	25.7	0.0	
10	QPSK	1	1	25.15	25.29	25.29	25.7	0.0	

n41 Main PA Ant4									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 502002	Power Middle Ch. / Freq. 518598	Power High Ch. / Freq. 520000	Tune-up limit (dBm)	MPR (dB)	
Channel				2546.01	2592.99	2640			
Frequency (MHz)				2537	2546	2538			
100	PI/2 BPSK	1	1	25.37	25.46	25.38			
100	PI/2 BPSK	1	137	25.32	25.36	25.36	25.7	0.0	
100	PI/2 BPSK	1	271	25.28	25.37	25.23			
100	PI/2 BPSK	135	0	24.92	24.96	24.93	25.2	0.5	
100	PI/2 BPSK	135	69	25.28	25.44	25.24	25.7	0.0	
100	PI/2 BPSK	135	138	24.80	24.87	24.76	25.2	0.5	
100	PI/2 BPSK	270	0	24.95	25.08	24.91			
100	QPSK	1	1	25.42	25.54	25.47			
100	QPSK	1	137	25.36	25.51	25.40	25.7	0.0	
100	QPSK	1	271	25.28	25.43	25.26			
100	QPSK	135	0	24.47	24.53	24.43	24.7	1.0	
100	QPSK	135	69	25.36	25.47	25.31	25.7	0.0	
100	QPSK	135	138	24.36	24.50	24.31	24.7	1.0	
100	QPSK	270	0	24.39	24.52	24.30			
100	16QAM	1	1	24.42	24.41	24.33	24.7	1.0	
100	64QAM	1	1	22.75	22.89	22.81	23.2	2.5	
100	256QAM	1	1	21.03	21.09	21.01	21.2	4.5	
Channel				502000	518598	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2541	2592.99	2644.98	25.7	0.0	
90	QPSK	1	1	25.37	25.50	25.41	25.7	0.0	
Channel				507204	518598	520998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2536.02	2592.99	2649.99	25.7	0.0	
80	QPSK	1	1	25.27	25.40	25.33	25.7	0.0	
Channel				506202	518598	521000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.01	2592.99	2655	25.7	0.0	
70	QPSK	1	1	23.03	23.10	23.06	25.7	0.0	
Channel				505200	518598	521998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2526	2592.99	2659.98	25.7	0.0	
60	QPSK	1	1	25.37	25.41	25.43	25.7	0.0	
Channel				504204	518598	522998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2531.02	2592.99	2664.99	25.7	0.0	
50	QPSK	1	1	25.31	25.43	25.34	25.7	0.0	
Channel				503202	518598	524000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2516.01	2592.99	2670	25.7	0.0	
40	QPSK	1	1	25.33	25.39	25.37	25.7	0.0	
Channel				502200	518598	524998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2511	2592.99	2674.98	25.7	0.0	
30	QPSK	1	1	25.34	25.49	25.36	25.7	0.0	
Channel				501204	518598	525998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2506.02	2592.99	2679.99	25.7	0.0	
20	QPSK	1	1	25.36	25.45	25.35	25.7	0.0	
Channel				500200	518598	526998	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2503.05	2592.99	2682.48	25.7	0.0	
15	QPSK	1	1	25.38	25.39	25.38	25.7	0.0	
Channel				500202	518598	527000	Tune-up limit (dBm)	MPR (dB)	
Frequency (MHz)				2501.01	2592.99	2685	25.7	0.0	
10	QPSK	1	1	25.34	25.48	25.34	25.7	0.0	



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3840	3930		
100	Pl2 BPSK	1	1	22.26	22.31	22.22		
100	Pl2 BPSK	1	137	22.22	22.28	22.14	23.0	0.0
100	Pl2 BPSK	1	271	22.06	22.13	22.04		
100	Pl2 BPSK	135	0	22.11	22.18	22.03	23.0	0.0
100	Pl2 BPSK	135	69	22.20	22.28	22.23	23.0	0.0
100	Pl2 BPSK	135	138	22.06	22.14	22.02		
100	Pl2 BPSK	270	0	22.13	22.20	22.10	23.0	0.0
100	QPSK	1	1	22.30	22.34	22.27		
100	QPSK	1	137	22.14	22.25	22.20	23.0	0.0
100	QPSK	1	271	22.20	22.28	22.24		
100	QPSK	135	0	22.08	22.20	22.06	23.0	0.0
100	QPSK	135	69	22.24	22.27	22.19	23.0	0.0
100	QPSK	135	138	22.06	22.19	22.13		
100	QPSK	270	0	22.20	22.24	22.15	23.0	0.0
100	6QAM	1	1	21.91	22.01	21.97	23.0	0.0
100	6QAM	1	1	21.70	21.76	21.81	23.0	0.0
100	25QAM	1	1	20.58	20.72	20.62	21.5	1.5
Channel								
Frequency (MHz)				649688	650000	652334	time-up limit (dBm)	MPR (dB)
80	QPSK	1	1	3743.02	3840	3930.01	23.0	0.0
Channel								
Frequency (MHz)				649334	650000	650668	time-up limit (dBm)	MPR (dB)
80	QPSK	1	1	3749.01	3840	3940.02	23.0	0.0
Channel								
Frequency (MHz)				649000	650000	650000	time-up limit (dBm)	MPR (dB)
70	QPSK	1	1	3735	3840	3945	23.0	0.0
Channel								
Frequency (MHz)				648668	650000	653334	time-up limit (dBm)	MPR (dB)
60	QPSK	1	1	3721.19	3840	3950.02	23.0	0.0
Channel								
Frequency (MHz)				648334	650000	650668	time-up limit (dBm)	MPR (dB)
50	QPSK	1	1	3725.01	3840	3955.02	23.0	0.0
Channel								
Frequency (MHz)				648000	650000	650000	time-up limit (dBm)	MPR (dB)
40	QPSK	1	1	3720	3840	3960	23.0	0.0
Channel								
Frequency (MHz)				647668	650000	654334	time-up limit (dBm)	MPR (dB)
30	QPSK	1	1	3715.02	3840	3965.01	23.0	0.0
Channel								
Frequency (MHz)				647334	650000	650000	time-up limit (dBm)	MPR (dB)
25	QPSK	1	1	3712.5	3840	3970.02	23.0	0.0
Channel								
Frequency (MHz)				647000	650000	654000	time-up limit (dBm)	MPR (dB)
20	QPSK	1	1	3712.5	3840	3975.01	23.0	0.0
Channel								
Frequency (MHz)				646718	650000	654834	time-up limit (dBm)	MPR (dB)
15	QPSK	1	1	3707.52	3840	3975.01	23.0	0.0
Channel								
Frequency (MHz)				647000	650000	650000	time-up limit (dBm)	MPR (dB)
10	QPSK	1	1	3705	3840	3975	23.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3840	3930		
100	Pl2 BPSK	1	1	25.40	25.45	25.36		
100	Pl2 BPSK	1	137	25.30	25.40	25.26	26.0	0.0
100	Pl2 BPSK	1	271	25.20	25.34	25.20		
100	Pl2 BPSK	135	0	24.87	24.99	24.90	25.5	0.5
100	Pl2 BPSK	135	69	25.28	25.41	25.32	26.0	0.0
100	Pl2 BPSK	135	138	24.77	24.91	24.81		
100	Pl2 BPSK	270	0	24.86	24.96	24.90	25.5	0.5
100	QPSK	1	1	25.43	25.49	25.39		
100	QPSK	1	137	25.36	25.42	25.30	26.0	0.0
100	QPSK	1	271	25.35	25.37	25.26		
100	QPSK	135	0	24.32	24.41	24.31	25.0	1.0
100	QPSK	135	69	25.38	25.42	25.31	26.0	0.0
100	QPSK	135	138	24.27	24.39	24.26		
100	QPSK	270	0	24.38	24.48	24.45	25.0	1.0
100	6QAM	1	1	24.07	24.10	24.03	25.0	1.0
100	6QAM	1	1	22.16	22.27	22.15	23.5	2.5
100	25QAM	1	1	20.55	20.67	20.53	21.5	4.5
Channel								
Frequency (MHz)				649688	650000	652334	time-up limit (dBm)	MPR (dB)
90	QPSK	1	1	3743.02	3840	3930.01	23.0	0.0
Channel								
Frequency (MHz)				649334	650000	650668	time-up limit (dBm)	MPR (dB)
80	QPSK	1	1	3740.01	3840	3940.02	23.0	0.0
Channel								
Frequency (MHz)				649000	650000	650000	time-up limit (dBm)	MPR (dB)
70	QPSK	1	1	3735	3840	3945	23.0	0.0
Channel								
Frequency (MHz)				648668	650000	653334	time-up limit (dBm)	MPR (dB)
60	QPSK	1	1	3729.29	3840	3950.01	23.0	0.0
Channel								
Frequency (MHz)				648334	650000	650668	time-up limit (dBm)	MPR (dB)
50	QPSK	1	1	3725.01	3840	3955.02	23.0	0.0
Channel								
Frequency (MHz)				648000	650000	650000	time-up limit (dBm)	MPR (dB)
40	QPSK	1	1	3720	3840	3960	23.0	0.0
Channel								
Frequency (MHz)				647668	650000	654334	time-up limit (dBm)	MPR (dB)
30	QPSK	1	1	3715.02	3840	3965.01	23.0	0.0
Channel								
Frequency (MHz)				647334	650000	650000	time-up limit (dBm)	MPR (dB)
25	QPSK	1	1	3712.5	3840	3970.02	23.0	0.0
Channel								
Frequency (MHz)				647000	650000	654000	time-up limit (dBm)	MPR (dB)
20	QPSK	1	1	3712.5	3840	3975.01	23.0	0.0
Channel								
Frequency (MHz)				646718	650000	654834	time-up limit (dBm)	MPR (dB)
15	QPSK	1	1	3707.52	3840	3975.01	23.0	0.0
Channel								
Frequency (MHz)				647000	650000	650000	time-up limit (dBm)	MPR (dB)
10	QPSK	1	1	3705	3840	3975	23.0	0.0

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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. Freq.	Power Middle Ch. Freq.	Power High Ch. Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)						3500.01		
100	Pl2 BPSK	1	1			22.59		
100	Pl2 BPSK	1	137			22.40	23.0	0.0
100	Pl2 BPSK	1	271			22.20		
100	Pl2 BPSK	135	0			22.33	23.0	0.0
100	Pl2 BPSK	135	69			22.38	23.0	0.0
100	Pl2 BPSK	135	138			22.21		
100	Pl2 BPSK	270	0			22.35	23.0	0.0
100	QPSK	1	1			22.45		
100	QPSK	1	137			22.40	23.0	0.0
100	QPSK	1	271			22.46		
100	QPSK	135	0			22.28	23.0	0.0
100	QPSK	135	69			22.37	23.0	0.0
100	QPSK	135	138			22.23		
100	QPSK	270	0			22.31	23.0	0.0
100	6QAM	1	1			21.99	23.0	0.0
100	6QAM	1	1			21.66	23.0	0.0
100	25QAM	1	1			20.83	21.5	1.5
Channel								
Frequency (MHz)				639000	633334	636668	time-up limit (dBm)	MPR (dB)
90	QPSK	1	1	3495	3500.01	3505.02	23.0	0.0
Channel								
Frequency (MHz)				639668	633334	639000	time-up limit (dBm)	MPR (dB)
80	QPSK	1	1	3492.02	3500.01	3510	23.0	0.0
Channel								
Frequency (MHz)				639334	633334	639334	time-up limit (dBm)	MPR (dB)
70	QPSK	1	1	3485.01	3500.01	3515.01	23.0	0.0
Channel								
Frequency (MHz)				638999	633334	639000	time-up limit (dBm)	MPR (dB)
60	QPSK	1	1	3482.35	3500.01	3520	23.0	0.0
Channel								
Frequency (MHz)				638668	633334	638668	time-up limit (dBm)	MPR (dB)
50	QPSK	1	1	3479.02	3500.01	3525.01	23.0	0.0
Channel								
Frequency (MHz)				638334	633334	638334	time-up limit (dBm)	MPR (dB)
40	QPSK	1	1	3472.01	3500.01	3530.01	23.0	0.0
Channel								
Frequency (MHz)				637999	633334	638000	time-up limit (dBm)	MPR (dB)
30	QPSK	1	1	3472.32	3500.01	3535.01	23.0	0.0
Channel								
Frequency (MHz)				637668	633334	637668	time-up limit (dBm)	MPR (dB)
25	QPSK	1	1	3472.01	3500.01	3540.01	23.0	0.0
Channel								
Frequency (MHz)				637334	633334	637334	time-up limit (dBm)	MPR (dB)
20	QPSK	1	1	3472.01	3500.01	3545.01	23.0	0.0
Channel								
Frequency (MHz)				637000	633334	637000	time-up limit (dBm)	MPR (dB)
15	QPSK	1	1	3467.52	3500.01	3550.01	23.0	0.0
Channel								
Frequency (MHz)				636668	633334	636668	time-up limit (dBm)	MPR (dB)
10	QPSK	1	1	3465.01	3500.01	3555.01	23.0	0.0



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BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3500.01				
100	PI2 BPSK	1	1	25.56				
100	PI2 BPSK	1	137	25.32			26.0	0.0
100	PI2 BPSK	1	271	25.23				
100	PI2 BPSK	135	0	24.92			25.5	0.5
100	PI2 BPSK	135	69	25.35			26.0	0.0
100	PI2 BPSK	135	138	24.80			25.5	0.5
100	PI2 BPSK	270	0	24.92				
100	QPSK	1	1	25.44				
100	QPSK	1	137	25.39			26.0	0.0
100	QPSK	1	271	25.32				
100	QPSK	135	0	24.33			25.0	1.0
100	QPSK	135	69	25.38			26.0	0.0
100	QPSK	135	138	24.34			25.0	1.0
100	QPSK	270	0	24.42				
100	16QAM	1	1	23.98			25.0	1.0
100	64QAM	1	1	22.37			23.5	2.5
100	256QAM	1	1	20.71			21.5	4.5
Channel								
Frequency (MHz)				633000	633334	633668	turn-up limit (dBm)	MPR (dB)
90	QPSK	1	1	25.27	25.11	25.19	25.0	0.0
Channel								
Frequency (MHz)				633668	633334	633000	turn-up limit (dBm)	MPR (dB)
80	QPSK	1	1	25.30	25.37	25.19	26.0	0.0
Channel								
Frequency (MHz)				634500	3500.01	3515.01	turn-up limit (dBm)	MPR (dB)
70	QPSK	1	1	25.32	25.29	25.23	26.0	0.0
Channel								
Frequency (MHz)				632000	633334	633668	turn-up limit (dBm)	MPR (dB)
80	QPSK	1	1	25.29	25.33	25.16	25.0	0.0
Channel								
Frequency (MHz)				631668	633334	633000	turn-up limit (dBm)	MPR (dB)
50	QPSK	1	1	25.26	25.39	25.24	26.0	0.0
Channel								
Frequency (MHz)				631000	3500.01	3530.01	turn-up limit (dBm)	MPR (dB)
40	QPSK	1	1	25.29	25.36	25.17	26.0	0.0
Channel								
Frequency (MHz)				631000	633334	633668	turn-up limit (dBm)	MPR (dB)
30	QPSK	1	1	25.31	25.32	25.20	25.0	0.0
Channel								
Frequency (MHz)				630834	633334	633834	turn-up limit (dBm)	MPR (dB)
25	QPSK	1	1	25.24	25.37	25.24	26.0	0.0
Channel								
Frequency (MHz)				630668	633334	633000	turn-up limit (dBm)	MPR (dB)
20	QPSK	1	1	25.28	25.39	25.25	26.0	0.0
Channel								
Frequency (MHz)				630500	633334	633168	turn-up limit (dBm)	MPR (dB)
15	QPSK	1	1	25.30	25.29	25.23	25.0	0.0
Channel								
Frequency (MHz)				630334	633334	633334	turn-up limit (dBm)	MPR (dB)
10	QPSK	1	1	25.27	25.36	25.21	26.0	0.0

Part27O n78 Main PA Ant5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750				
100	PI2 BPSK	1	1	23.48				
100	PI2 BPSK	1	137	23.37			24.0	0.0
100	PI2 BPSK	1	271	23.31				
100	PI2 BPSK	135	0	23.25			24.0	0.0
100	PI2 BPSK	135	69	23.43			24.0	0.0
100	PI2 BPSK	135	138	23.29			24.0	0.0
100	PI2 BPSK	270	0	23.30				
100	QPSK	1	1	23.51				
100	QPSK	1	137	23.33			24.0	0.0
100	QPSK	1	271	23.38				
100	QPSK	135	0	23.28			24.0	0.0
100	QPSK	135	69	23.44			24.0	0.0
100	QPSK	135	138	23.30			24.0	0.0
100	QPSK	270	0	23.26				
100	16QAM	1	1	23.24			24.0	0.0
100	64QAM	1	1	22.88			24.0	0.0
100	256QAM	1	1	21.89			22.5	1.5
Channel								
Frequency (MHz)				649688	650000	650334	turn-up limit (dBm)	MPR (dB)
90	QPSK	1	1	23.37	23.33	23.23	24.0	0.0
Channel								
Frequency (MHz)				649334	650000	650668	turn-up limit (dBm)	MPR (dB)
80	QPSK	1	1	23.30	23.39	23.32	24.0	0.0
Channel								
Frequency (MHz)				649000	650000	651000	turn-up limit (dBm)	MPR (dB)
70	QPSK	1	1	23.35	23.46	23.32	24.0	0.0
Channel								
Frequency (MHz)				648688	650000	651334	turn-up limit (dBm)	MPR (dB)
60	QPSK	1	1	23.39	23.41	23.27	24.0	0.0
Channel								
Frequency (MHz)				648334	650000	651668	turn-up limit (dBm)	MPR (dB)
50	QPSK	1	1	23.34	23.44	23.24	24.0	0.0
Channel								
Frequency (MHz)				648000	650000	652000	turn-up limit (dBm)	MPR (dB)
40	QPSK	1	1	23.41	23.48	23.35	24.0	0.0
Channel								
Frequency (MHz)				647688	650000	652334	turn-up limit (dBm)	MPR (dB)
30	QPSK	1	1	23.33	23.37	23.25	24.0	0.0
Channel								
Frequency (MHz)				647500	650000	652500	turn-up limit (dBm)	MPR (dB)
25	QPSK	1	1	23.31	23.42	23.31	24.0	0.0
Channel								
Frequency (MHz)				647334	650000	652668	turn-up limit (dBm)	MPR (dB)
20	QPSK	1	1	23.33	23.43	23.32	24.0	0.0
Channel								
Frequency (MHz)				647168	650000	652834	turn-up limit (dBm)	MPR (dB)
15	QPSK	1	1	23.30	23.48	23.24	24.0	0.0
Channel								
Frequency (MHz)				647000	650000	653000	turn-up limit (dBm)	MPR (dB)
10	QPSK	1	1	23.40	23.46	23.30	24.0	0.0

Part27O n78 PC2 Main PA Ant5

BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Turn-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750				
100	PI2 BPSK	1	1	26.22				
100	PI2 BPSK	1	137	26.22			27.0	0.0
100	PI2 BPSK	1	271	26.18				
100	PI2 BPSK	135	0	25.84			26.5	0.5
100	PI2 BPSK	135	69	26.16			27.0	0.0
100	PI2 BPSK	135	138	25.71			26.5	0.5
100	PI2 BPSK	270	0	25.74				
100	QPSK	1	1	26.32				
100	QPSK	1	137	26.23			27.0	0.0
100	QPSK	1	271	26.26				
100	QPSK	135	0	25.23			26.0	1.0
100	QPSK	135	69	26.27			27.0	0.0
100	QPSK	135	138	25.19			26.0	1.0
100	QPSK	270	0	25.23				
100	16QAM	1	1	25.21			26.0	1.0
100	64QAM	1	1	23.98			24.5	2.5
100	256QAM	1	1	21.89			22.5	4.5
Channel								
Frequency (MHz)				649688	650000	650334	turn-up limit (dBm)	MPR (dB)
90	QPSK	1	1	25.20	25.20	25.15	27.0	0.0
Channel								
Frequency (MHz)				649334	650000	650668	turn-up limit (dBm)	MPR (dB)
80	QPSK	1	1	26.21	26.22	26.14	27.0	0.0
Channel								
Frequency (MHz)				649000	650000	651000	turn-up limit (dBm)	MPR (dB)
70	QPSK	1	1	26.22	26.27	26.17	27.0	0.0
Channel								
Frequency (MHz)				648688	650000	651334	turn-up limit (dBm)	MPR (dB)
60	QPSK	1	1	26.24	26.24	26.19	27.0	0.0
Channel								
Frequency (MHz)				648334	650000	651668	turn-up limit (dBm)	MPR (dB)
50	QPSK	1	1	26.25	26.20	26.15	27.0	0.0
Channel								
Frequency (MHz)				648000	650000	652000	turn-up limit (dBm)	MPR (dB)
40	QPSK	1	1	26.17	26.24	26.11	27.0	0.0
Channel								
Frequency (MHz)				647688	650000	652334	turn-up limit (dBm)	MPR (dB)
30	QPSK	1	1	26.17	26.28	26.18	27.0	0.0
Channel								
Frequency (MHz)				647500	650000	652500	turn-up limit (dBm)	MPR (dB)
25	QPSK	1	1	26.18	26.26	26.12	27.0	0.0
Channel								
Frequency (MHz)				647334	650000	652668	turn-up limit (dBm)	MPR (dB)
20	QPSK	1	1	26.26	26.20	26.16	27.0	0.0
Channel								
Frequency (MHz)				647168	650000	652834	turn-up limit (dBm)	MPR (dB)
15	QPSK	1	1	26.16	26.17	26.13	27.0	0.0
Channel								
Frequency (MHz)				647000	650000	653000	turn-up limit (dBm)	MPR (dB)
10	QPSK	1	1	26.15	26.09	26.09	27.0	0.0



Part27Q n78 Main PA Ant5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. F Freq.	Power Middle Ch. F Freq.	Power High Ch. F Freq.	MPR (dB)
Channel							
Frequency (MHz)							
100	Pi/2 BPSK	1	1	23.42	3500.01		
100	Pi/2 BPSK	1	137	23.37			24.0
100	Pi/2 BPSK	1	271	23.30			
100	Pi/2 BPSK	135	0	23.19		24.0	0.0
100	Pi/2 BPSK	135	69	23.36		24.0	0.0
100	Pi/2 BPSK	135	138	23.14		24.0	0.0
100	Pi/2 BPSK	270	0	23.22		24.0	0.0
100	QPSK	1	1	23.46			
100	QPSK	1	137	23.25		24.0	0.0
100	QPSK	1	271	23.25			
100	QPSK	135	0	23.27		24.0	0.0
100	QPSK	135	69	23.41		24.0	0.0
100	QPSK	135	138	23.20		24.0	0.0
100	QPSK	270	0	23.26		24.0	0.0
100	16QAM	1	1	23.33		24.0	0.0
100	64QAM	1	1	23.11		24.0	0.0
100	256QAM	1	1	22.02		22.5	1.5
Channel							
Frequency (MHz)							
90	QPSK	1	1	23.20	633000	633334	633668
Channel							
Frequency (MHz)							
80	QPSK	1	1	23.30	3490.02	3500.01	3510.00
Channel							
Frequency (MHz)							
70	QPSK	1	1	23.30	3485.01	3500.01	3515.01
Channel							
Frequency (MHz)							
60	QPSK	1	1	23.30	3475.02	3500.01	3525.00
Channel							
Frequency (MHz)							
50	QPSK	1	1	23.29	3470.01	3500.01	3530.01
Channel							
Frequency (MHz)							
40	QPSK	1	1	23.34	3462.51	3500.01	3537.51
Channel							
Frequency (MHz)							
30	QPSK	1	1	23.27	3460.02	3500.01	3540.00
Channel							
Frequency (MHz)							
20	QPSK	1	1	23.32	3456.01	3500.01	3545.01
Channel							
Frequency (MHz)							
15	QPSK	1	1	23.33			
Channel							
Frequency (MHz)							
10	QPSK	1	1	23.33			

Part27Q n78 PC2 Main PA Ant5							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. F Freq.	Power Middle Ch. F Freq.	Power High Ch. F Freq.	MPR (dB)
Channel							
Frequency (MHz)							
100	Pi/2 BPSK	1	1	23.21	3500.01		
100	Pi/2 BPSK	1	137	23.11			27.0
100	Pi/2 BPSK	1	271	23.03			
100	Pi/2 BPSK	135	0	23.75		26.5	0.5
100	Pi/2 BPSK	135	69	23.10		27.0	0.0
100	Pi/2 BPSK	135	138	23.56		26.5	0.5
100	Pi/2 BPSK	270	0	23.64			
100	QPSK	1	1	23.25			
100	QPSK	1	137	23.19		27.0	0.0
100	QPSK	1	271	23.14			
100	QPSK	135	0	23.10		28.0	1.0
100	QPSK	135	69	23.19		27.0	0.0
100	QPSK	135	138	23.14		28.0	1.0
100	QPSK	270	0	23.20		28.0	1.0
100	16QAM	1	1	23.31		28.0	1.0
100	64QAM	1	1	23.56		24.5	2.5
100	256QAM	1	1	22.03		22.5	4.5
Channel							
Frequency (MHz)							
90	QPSK	1	1	23.15	633000	633334	633668
Channel							
Frequency (MHz)							
80	QPSK	1	1	23.15	3490.02	3500.01	3510.00
Channel							
Frequency (MHz)							
70	QPSK	1	1	23.10	3485.01	3500.01	3515.01
Channel							
Frequency (MHz)							
60	QPSK	1	1	23.07	3475.02	3500.01	3525.00
Channel							
Frequency (MHz)							
50	QPSK	1	1	23.07	3470.01	3500.01	3530.01
Channel							
Frequency (MHz)							
40	QPSK	1	1	23.08	3462.51	3500.01	3537.51
Channel							
Frequency (MHz)							
30	QPSK	1	1	23.05	3460.02	3500.01	3540.00
Channel							
Frequency (MHz)							
25	QPSK	1	1	23.12	3456.01	3500.01	3545.01
Channel							
Frequency (MHz)							
20	QPSK	1	1	23.11			
Channel							
Frequency (MHz)							
15	QPSK	1	1	23.13			
Channel							
Frequency (MHz)							
10	QPSK	1	1	23.14			



Part270 n77 Main PA Ant6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	22.14	22.25	22.07		
100	PI2 BPSK	1	137	22.13	22.21	22.01		0.0
100	PI2 BPSK	1	271	21.25	22.08	21.93		
100	PI2 BPSK	135	0	21.99	22.10	21.98	23.5	0.0
100	PI2 BPSK	135	69	22.15	22.15	22.10	23.5	0.0
100	PI2 BPSK	135	138	22.01	22.11	21.89	23.5	0.0
100	PI2 BPSK	270	0	21.99	22.07	21.97		
100	QPSK	1	1	22.27	22.29	22.19		0.0
100	QPSK	1	137	22.20	22.20	22.11	23.5	0.0
100	QPSK	1	271	22.15	22.20	22.09		
100	QPSK	135	0	21.98	22.14	21.94	23.5	0.0
100	QPSK	135	69	22.13	22.23	22.04	23.5	0.0
100	QPSK	135	138	22.03	22.14	22.00	23.5	0.0
100	QPSK	270	0	22.15	22.21	22.04		
100	16QAM	1	1	21.61	21.72	21.65	23.5	0.0
100	64QAM	1	1	21.51	21.58	21.52	23.5	0.0
100	256QAM	1	1	20.15	20.28	20.20	22.0	1.5
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.22	22.18	22.04	23.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	22.13	22.19	22.09	23.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	22.21	22.20	22.00	23.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	22.23	22.15	22.08	23.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	22.12	22.22	22.08	23.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	22.24	22.21	22.06	23.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	22.18	22.17	22.01	23.5	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	22.19	22.15	22.05	23.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	22.21	22.26	22.07	23.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	22.20	22.19	22.02	23.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	22.19	22.26	22.07	23.5	0.0

Part270 n77 PC2 Main PA Ant6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 650000	Power Middle Ch. / Freq. 656000	Power High Ch. / Freq. 662000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1	24.88	24.94	24.83		
100	PI2 BPSK	1	137	24.84	24.89	24.81	26.5	0.0
100	PI2 BPSK	1	271	24.89	24.84	24.72		
100	PI2 BPSK	135	0	24.53	24.56	24.51	26.0	0.5
100	PI2 BPSK	135	69	24.75	24.88	24.76	26.5	0.0
100	PI2 BPSK	135	138	24.36	24.44	24.37	26.0	0.5
100	PI2 BPSK	270	0	24.32	24.44	24.32		
100	QPSK	1	1	24.94	24.97	24.89		0.0
100	QPSK	1	137	24.80	24.87	24.82	26.5	0.0
100	QPSK	1	271	24.86	24.92	24.82		
100	QPSK	135	0	23.85	23.92	23.77	25.5	1.0
100	QPSK	135	69	24.79	24.91	24.83	26.5	0.0
100	QPSK	135	138	23.79	23.87	23.82	25.5	1.0
100	QPSK	270	0	23.82	23.94	23.86		
100	16QAM	1	1	23.78	23.88	23.78	25.5	1.0
100	64QAM	1	1	22.12	22.13	22.15	24.0	2.5
100	256QAM	1	1	20.12	20.10	20.03	22.0	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	24.83	24.92	24.85	26.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	24.87	24.88	24.80	26.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	24.86	24.83	24.78	26.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	24.84	24.82	24.76	26.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	24.83	24.92	24.83	26.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	24.81	24.83	24.83	26.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	24.91	24.86	24.79	26.5	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	24.85	24.84	24.80	26.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	24.84	24.89	24.77	26.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	24.88	24.83	24.85	26.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	24.79	24.91	24.85	26.5	0.0

Part270Q n77 Main PA Ant6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq. 633334	Power Middle Ch. / Freq. 633334	Power High Ch. / Freq. 633334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
100	PI2 BPSK	1	1		3500.01			
100	PI2 BPSK	1	137		22.08			
100	PI2 BPSK	1	271		22.11		23.5	0.0
100	PI2 BPSK	135	0		21.95			
100	PI2 BPSK	135	69		22.03		23.5	0.0
100	PI2 BPSK	135	138		22.13		23.5	0.0
100	PI2 BPSK	270	0		21.98		23.5	0.0
100	QPSK	1	1		22.14			0.0
100	QPSK	1	137		22.09		23.5	0.0
100	QPSK	1	271		22.11			
100	QPSK	135	0		21.98		23.5	0.0
100	QPSK	135	69		22.09		23.5	0.0
100	QPSK	135	138		21.98		23.5	0.0
100	QPSK	270	0		21.99		23.5	0.0
100	16QAM	1	1		21.71		23.5	0.0
100	64QAM	1	1		21.59		23.5	0.0
100	256QAM	1	1		20.03		22.0	4.5
Channel								
Frequency (MHz)								
90	QPSK	1	1	633000	633334	633668	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.90	21.93	21.85	23.5	0.0
Channel								
Frequency (MHz)								
80	QPSK	1	1	21.92	22.00	21.88	23.5	0.0
Channel								
Frequency (MHz)								
70	QPSK	1	1	632334	633334	634334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
70	QPSK	1	1	21.89	21.99	21.89	23.5	0.0
Channel								
Frequency (MHz)								
60	QPSK	1	1	632000	633334	634668	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
60	QPSK	1	1	21.87	21.94	21.91	23.5	0.0
Channel								
Frequency (MHz)								
50	QPSK	1	1	631668	633334	635000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
50	QPSK	1	1	21.88	21.96	21.88	23.5	0.0
Channel								
Frequency (MHz)								
40	QPSK	1	1	631334	633334	635334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
40	QPSK	1	1	21.93	21.95	21.90	23.5	0.0
Channel								
Frequency (MHz)								
30	QPSK	1	1	631000	633334	635668	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
30	QPSK	1	1	21.92	21.95	21.85	23.5	0.0
Channel								
Frequency (MHz)								
25	QPSK	1	1	630834	633334	635834	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
25	QPSK	1	1	21.97	21.91	21.85	23.5	0.0
Channel								
Frequency (MHz)								
20	QPSK	1	1	630500	633334	636000	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
20	QPSK	1	1	21.96	22.00	21.92	23.5	0.0
Channel								
Frequency (MHz)								
15	QPSK	1	1	630000	633334	636334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
15	QPSK	1	1	21.86	21.90	21.81	23.5	0.0
Channel								
Frequency (MHz)								
10	QPSK	1	1	630000	633334	636334	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)								
10	QPSK	1	1	21.92	21.98	21.89	23.5	0.0



Part27Q n77 PC2 Main PA Ant6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3500.01				
100	PI2 BPSK	1	1	24.96	24.96	24.96		
100	PI2 BPSK	1	137	24.87	24.87	24.87	26.5	0.0
100	PI2 BPSK	1	271	24.80	24.80	24.80		
100	PI2 BPSK	135	0	24.50	24.50	24.50	26.0	0.5
100	PI2 BPSK	135	69	24.90	24.90	24.90	26.5	0.0
100	PI2 BPSK	135	138	24.40	24.40	24.40	26.0	0.5
100	PI2 BPSK	270	0	24.47	24.47	24.47		
100	QPSK	1	1	25.00	25.00	25.00		
100	QPSK	1	137	24.95	24.95	24.95	26.5	0.0
100	QPSK	1	271	24.93	24.93	24.93		
100	QPSK	135	0	23.91	23.91	23.91	25.5	1.0
100	QPSK	135	69	24.98	24.98	24.98	26.5	0.0
100	QPSK	135	138	23.85	23.85	23.85	25.5	1.0
100	QPSK	270	0	23.97	23.97	23.97		
100	16QAM	1	1	23.87	23.87	23.87	25.5	1.0
100	64QAM	1	1	22.15	22.15	22.15	24.0	2.5
100	256QAM	1	1	20.05	20.05	20.05	22.0	4.5
Channel								
Frequency (MHz)				633000	633334	633668	Tune-up limit (dB)	MPR
Frequency (MHz)				3495	3500.01	3503.02		
90	QPSK	1	1	24.84	24.96	24.85	26.5	0.0
Channel								
Frequency (MHz)				632668	633334	634000	Tune-up limit (dB)	MPR
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	1	24.89	24.92	24.81	26.5	0.0
Channel								
Frequency (MHz)				632334	633334	634334	Tune-up limit (dB)	MPR
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	1	24.83	24.85	24.78	26.5	0.0
Channel								
Frequency (MHz)				632000	633334	634668	Tune-up limit (dB)	MPR
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	1	24.84	24.87	24.86	26.5	0.0
Channel								
Frequency (MHz)				631668	633334	635000	Tune-up limit (dB)	MPR
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	1	24.90	24.92	24.80	26.5	0.0
Channel								
Frequency (MHz)				631334	633334	635334	Tune-up limit (dB)	MPR
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	1	24.85	24.89	24.85	26.5	0.0
Channel								
Frequency (MHz)				631000	633334	635668	Tune-up limit (dB)	MPR
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	1	24.87	24.96	24.76	26.5	0.0
Channel								
Frequency (MHz)				630668	633334	635834	Tune-up limit (dB)	MPR
Frequency (MHz)				3462.51	3500.01	3537.51		
25	QPSK	1	1	24.84	24.88	24.86	26.5	0.0
Channel								
Frequency (MHz)				630334	633334	636000	Tune-up limit (dB)	MPR
Frequency (MHz)				3460.02	3500.01	3540		
20	QPSK	1	1	24.80	24.86	24.86	26.5	0.0
Channel								
Frequency (MHz)				630000	633334	636168	Tune-up limit (dB)	MPR
Frequency (MHz)				3457.5	3500.01	3542.52		
15	QPSK	1	1	24.81	24.87	24.79	26.5	0.0
Channel								
Frequency (MHz)				629334	633334	636334	Tune-up limit (dB)	MPR
Frequency (MHz)				3455.01	3500.01	3545.01		
10	QPSK	1	1	24.90	24.94	24.86	26.5	0.0

Part27O n78 Main PA Ant6

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3750	3750		
100	PI2 BPSK	1	1	23.10	23.10	23.10		
100	PI2 BPSK	1	137	23.26	23.26	23.26	24.0	0.0
100	PI2 BPSK	1	271	23.10	23.10	23.10		
100	PI2 BPSK	135	0	23.18	23.18	23.18	24.0	0.0
100	PI2 BPSK	135	69	23.31	23.31	23.31	24.0	0.0
100	PI2 BPSK	135	138	23.17	23.17	23.17	24.0	0.0
100	PI2 BPSK	270	0	23.16	23.16	23.16		
100	QPSK	1	1	23.36	23.36	23.36		
100	QPSK	1	137	23.22	23.22	23.22	24.0	0.0
100	QPSK	1	271	23.31	23.31	23.31		
100	QPSK	135	0	23.24	23.24	23.24	24.0	0.0
100	QPSK	135	69	23.29	23.29	23.29	24.0	0.0
100	QPSK	135	138	23.15	23.15	23.15	24.0	0.0
100	QPSK	270	0	23.23	23.23	23.23		
100	16QAM	1	1	22.83	22.83	22.83	24.0	0.0
100	64QAM	1	1	22.77	22.77	22.77	24.0	0.0
100	256QAM	1	1	21.48	21.48	21.48	22.5	1.5
Channel								
Frequency (MHz)				649668	650000	650334	Tune-up limit (dB)	MPR
Frequency (MHz)				3743.02	3750	3753.01		
90	QPSK	1	1	23.29	23.27	23.19	24.0	0.0
Channel								
Frequency (MHz)				649334	650000	650668	Tune-up limit (dB)	MPR
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	23.25	23.30	23.22	24.0	0.0
Channel								
Frequency (MHz)				649000	650000	651000	Tune-up limit (dB)	MPR
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	23.23	23.21	23.19	24.0	0.0
Channel								
Frequency (MHz)				648668	650000	651334	Tune-up limit (dB)	MPR
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	23.19	23.25	23.14	24.0	0.0
Channel								
Frequency (MHz)				648334	650000	651668	Tune-up limit (dB)	MPR
Frequency (MHz)				3725.01	3750	3785.02		
50	QPSK	1	1	23.27	23.28	23.15	24.0	0.0
Channel								
Frequency (MHz)				648000	650000	652000	Tune-up limit (dB)	MPR
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	23.21	23.24	23.24	24.0	0.0
Channel								
Frequency (MHz)				647668	650000	652334	Tune-up limit (dB)	MPR
Frequency (MHz)				3715.02	3750	3785.01		
30	QPSK	1	1	23.19	23.22	23.14	24.0	0.0
Channel								
Frequency (MHz)				647500	650000	652500	Tune-up limit (dB)	MPR
Frequency (MHz)				3712.5	3750	3787.5		
25	QPSK	1	1	23.20	23.28	23.14	24.0	0.0
Channel								
Frequency (MHz)				647334	650000	652668	Tune-up limit (dB)	MPR
Frequency (MHz)				3710.01	3750	3790.02		
20	QPSK	1	1	23.28	23.30	23.19	24.0	0.0
Channel								
Frequency (MHz)				647168	650000	652834	Tune-up limit (dB)	MPR
Frequency (MHz)				3707.52	3750	3792.51		
15	QPSK	1	1	23.21	23.31	23.15	24.0	0.0
Channel								
Frequency (MHz)				647000	650000	653000	Tune-up limit (dB)	MPR
Frequency (MHz)				3705	3750	3795		
10	QPSK	1	1	23.21	23.28	23.13	24.0	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel								
Frequency (MHz)				3750	3750	3750		
100	PI2 BPSK	1	1	26.13	26.13	26.13		
100	PI2 BPSK	1	137	26.01	26.01	26.01	27.0	0.0
100	PI2 BPSK	1	271	25.93	25.93	25.93		
100	PI2 BPSK	135	0	25.88	25.88	25.88	26.5	0.5
100	PI2 BPSK	135	69	25.95	25.95	25.95	27.0	0.0
100	PI2 BPSK	135	138	25.48	25.48	25.48	26.5	0.5
100	PI2 BPSK	270	0	25.54	25.54	25.54		
100	QPSK	1	1	25.18	25.18	25.18		
100	QPSK	1	137	25.09	25.09	25.09	27.0	0.0
100	QPSK	1	271	25.04	25.04	25.04		
100	QPSK	135	0	25.04	25.04	25.04	26.0	1.0
100	QPSK	135	69	25.12	25.12	25.12	27.0	0.0
100	QPSK	135	138	25.02	25.02	25.02	26.0	1.0
100	QPSK	270	0	25.08	25.08	25.08		
100	16QAM	1	1	25.04	25.04	25.04	26.0	1.0
100	64QAM	1	1	22.83	22.83	22.83	24.5	2.5
100	256QAM	1	1	21.24	21.24	21.24	22.5	4.5
Channel								
Frequency (MHz)				649668	650000	650334	Tune-up limit (dB)	MPR
Frequency (MHz)				3743.02	3750	3753.01		
90	QPSK	1	1	25.09	25.12	25.09	27.0	0.0
Channel								
Frequency (MHz)				649334	650000	650668	Tune-up limit (dB)	MPR
Frequency (MHz)				3740.01	3750	3760.02		
80	QPSK	1	1	25.04	25.08	25.06	27.0	0.0
Channel								
Frequency (MHz)				649000	650000	651000	Tune-up limit (dB)	MPR
Frequency (MHz)				3735	3750	3765		
70	QPSK	1	1	25.00	25.06	25.98	27.0	0.0
Channel								
Frequency (MHz)				648668	650000	651334	Tune-up limit (dB)	MPR
Frequency (MHz)				3730.02	3750	3770.01		
60	QPSK	1	1	25.08	25.14	25.02	27.0	0.0
Channel								
Frequency (MHz)				648334	650000	651668	Tune-up limit (dB)	MPR
Frequency (MHz)				3725.01	3750	3785.02		
50	QPSK	1	1	25.07	25.08	25.07	27.0	0.0
Channel								
Frequency (MHz)				648000	650000	652000	Tune-up limit (dB)	MPR
Frequency (MHz)				3720	3750	3780		
40	QPSK	1	1	25.02	25.06	25.95	27.0	0.0
Channel								
Frequency (MHz)								



Part27Q n78 Main PA Ant6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				633334			
Frequency (MHz)				3500.01			
100	PI/2 BPSK	1	1	23.26			
100	PI/2 BPSK	1	137	23.21			24.0
100	PI/2 BPSK	1	271	23.28			24.0
100	PI/2 BPSK	135	0	23.03			0.0
100	PI/2 BPSK	135	69	23.20			0.0
100	PI/2 BPSK	135	138	23.09			24.0
100	PI/2 BPSK	270	0	23.01			24.0
100	QPSK	1	1	23.30			24.0
100	QPSK	1	137	23.22			24.0
100	QPSK	1	271	23.20			24.0
100	QPSK	135	0	23.21			24.0
100	QPSK	135	69	23.16			24.0
100	QPSK	135	138	23.02			24.0
100	QPSK	270	0	23.12			24.0
100	16QAM	1	1	22.89			24.0
100	64QAM	1	1	22.71			24.0
100	256QAM	1	1	21.40			22.5
Channel				633000	633334	633668	
Frequency (MHz)				3495	3500.01	3505.02	
90	QPSK	1	1	23.16	23.15	23.10	24.0
Channel				632668	633334	634000	
Frequency (MHz)				3490.02	3500.01	3510	
80	QPSK	1	1	23.14	23.19	23.10	24.0
Channel				632334	633334	634334	
Frequency (MHz)				3485.01	3500.01	3515.01	
70	QPSK	1	1	23.14	23.25	23.07	24.0
Channel				632000	633334	634668	
Frequency (MHz)				3480	3500.01	3520.02	
60	QPSK	1	1	23.18	23.17	23.04	24.0
Channel				631668	633334	635000	
Frequency (MHz)				3475.02	3500.01	3525	
50	QPSK	1	1	23.11	23.27	23.10	24.0
Channel				631334	633334	635334	
Frequency (MHz)				3470.01	3500.01	3530.01	
40	QPSK	1	1	23.17	23.24	23.08	24.0
Channel				631000	633334	635668	
Frequency (MHz)				3465	3500.01	3535.02	
30	QPSK	1	1	23.09	23.27	23.09	24.0
Channel				630834	633334	635934	
Frequency (MHz)				3462.51	3500.01	3537.51	
25	QPSK	1	1	23.19	23.26	23.14	24.0
Channel				630668	633334	636000	
Frequency (MHz)				3460.02	3500.01	3540	
20	QPSK	1	1	23.17	23.15	23.12	24.0
Channel				630500	633334	636168	
Frequency (MHz)				3457.5	3500.01	3542.52	
15	QPSK	1	1	23.18	23.22	23.13	24.0
Channel				630334	633334	636334	
Frequency (MHz)				3455.01	3500.01	3545.01	
10	QPSK	1	1	23.11	23.20	23.11	24.0

Part27Q n78 PC2 Main PA Ant6							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				633334			
Frequency (MHz)				3500.01			
100	PI/2 BPSK	1	1	28.20			
100	PI/2 BPSK	1	137	28.08			27.0
100	PI/2 BPSK	1	271	28.10			27.0
100	PI/2 BPSK	135	0	28.74			26.5
100	PI/2 BPSK	135	69	28.16			27.0
100	PI/2 BPSK	135	138	28.60			26.5
100	PI/2 BPSK	270	0	28.63			27.0
100	QPSK	1	1	28.23			27.0
100	QPSK	1	137	28.17			27.0
100	QPSK	1	271	28.05			27.0
100	QPSK	135	0	28.12			28.0
100	QPSK	135	69	28.18			27.0
100	QPSK	135	138	28.07			28.0
100	QPSK	270	0	28.17			28.0
100	16QAM	1	1	24.96			26.0
100	64QAM	1	1	22.83			24.5
100	256QAM	1	1	21.02			22.5
Channel				633000	633334	633668	
Frequency (MHz)				3495	3500.01	3505.02	
90	QPSK	1	1	28.10	28.12	28.04	27.0
Channel				632668	633334	634000	
Frequency (MHz)				3490.02	3500.01	3510	
80	QPSK	1	1	28.02	28.18	28.08	27.0
Channel				632334	633334	634334	
Frequency (MHz)				3485.01	3500.01	3515.01	
70	QPSK	1	1	28.04	28.14	28.02	27.0
Channel				632000	633334	634668	
Frequency (MHz)				3480	3500.01	3520.02	
60	QPSK	1	1	28.02	28.19	28.02	27.0
Channel				631668	633334	635000	
Frequency (MHz)				3475.02	3500.01	3525	
50	QPSK	1	1	28.12	28.16	28.07	27.0
Channel				631334	633334	635334	
Frequency (MHz)				3470.01	3500.01	3530.01	
40	QPSK	1	1	28.07	28.17	28.09	27.0
Channel				631000	633334	635668	
Frequency (MHz)				3465	3500.01	3535.02	
30	QPSK	1	1	28.05	28.10	28.09	27.0
Channel				630834	633334	635934	
Frequency (MHz)				3462.51	3500.01	3537.51	
25	QPSK	1	1	28.11	28.10	28.00	27.0
Channel				630668	633334	636000	
Frequency (MHz)				3460.02	3500.01	3540	
20	QPSK	1	1	28.12	28.20	28.04	27.0
Channel				630500	633334	636168	
Frequency (MHz)				3457.5	3500.01	3542.52	
15	QPSK	1	1	28.05	28.08	28.09	27.0
Channel				630334	633334	636334	
Frequency (MHz)				3455.01	3500.01	3545.01	
10	QPSK	1	1	28.07	28.09	28.03	27.0



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BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				3750	3840	3930		
Frequency (MHz)				3750	3840	3930		
100	PI2 BPSK	1	1	20.70	20.77	20.73		
100	PI2 BPSK	1	137	20.53	20.67	20.60		0.0
100	PI2 BPSK	1	271	20.53	20.58	20.51		
100	PI2 BPSK	135	0	20.53	20.60	20.58	22.5	0.0
100	PI2 BPSK	135	69	20.64	20.71	20.59	22.5	0.0
100	PI2 BPSK	135	138	20.55	20.54	20.54	22.5	0.0
100	PI2 BPSK	270	0	20.63	20.56	20.56		
100	QPSK	1	1	20.69	20.81	20.75		
100	QPSK	1	137	20.59	20.68	20.61	22.5	0.0
100	QPSK	1	271	20.59	20.68	20.63		
100	QPSK	135	0	20.63	20.70	20.68	22.5	0.0
100	QPSK	135	69	20.72	20.76	20.69	22.5	0.0
100	QPSK	135	138	20.52	20.65	20.60	22.5	0.0
100	QPSK	270	0	20.61	20.68	20.53		
100	16QAM	1	1	20.53	20.62	20.68	22.5	0.0
100	16QAM	1	1	20.57	20.66	20.59	22.5	0.0
100	256QAM	1	1	19.16	19.29	19.25	21.0	1.5
Channel				648668	656000	662334		
Frequency (MHz)				3745.02	3840	3933.01		
90	QPSK	1	1	20.53	20.76	20.60	22.5	0.0
Channel				648334	656000	662668		
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	20.80	20.75	20.64	22.5	0.0
Channel				649000	656000	663000		
Frequency (MHz)				3735	3840	3945		
70	QPSK	1	1	20.59	20.67	20.70	22.5	0.0
Channel				648668	656000	663334		
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	20.58	20.68	20.70	22.5	0.0
Channel				648334	656000	663668		
Frequency (MHz)				3725.01	3840	3955.02		
50	QPSK	1	1	20.66	20.76	20.65	22.5	0.0
Channel				648000	656000	664000		
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	20.61	20.69	20.64	22.5	0.0
Channel				647668	656000	664334		
Frequency (MHz)				3715.00	3840	3965.01		
30	QPSK	1	1	20.54	20.66	20.62	22.5	0.0
Channel				647500	656000	664500		
Frequency (MHz)				3712.5	3840	3967.5		
25	QPSK	1	1	20.57	20.67	20.67	22.5	0.0
Channel				647334	656000	664668		
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	1	20.62	20.75	20.63	22.5	0.0
Channel				647168	656000	664834		
Frequency (MHz)				3707.52	3840	3972.51		
15	QPSK	1	1	20.59	20.70	20.72	22.5	0.0
Channel				647000	656000	665000		
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	20.65	20.71	20.69	22.5	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				3750	3840	3930		
Frequency (MHz)				3750	3840	3930		
100	PI2 BPSK	1	1	23.74	23.78	23.69		
100	PI2 BPSK	1	137	23.60	23.73	23.68	25.5	0.0
100	PI2 BPSK	1	271	23.61	23.68	23.55		
100	PI2 BPSK	135	0	23.20	23.32	23.26	25.0	0.5
100	PI2 BPSK	135	69	23.69	23.75	23.61	25.5	0.0
100	PI2 BPSK	135	138	23.20	23.27	23.23	25.0	0.5
100	PI2 BPSK	270	0	23.18	23.26	23.22		
100	QPSK	1	1	23.77	23.62	23.72		
100	QPSK	1	137	23.71	23.75	23.67	25.5	0.0
100	QPSK	1	271	23.59	23.67	23.52		
100	QPSK	135	0	22.84	22.73	22.84	24.5	1.0
100	QPSK	135	69	23.63	23.77	23.68	25.5	0.0
100	QPSK	135	138	22.67	22.70	22.57	24.5	1.0
100	QPSK	270	0	22.62	22.74	22.64		
100	16QAM	1	1	22.84	22.89	22.59	24.5	1.0
100	16QAM	1	1	21.12	21.17	21.21	23.0	2.5
100	256QAM	1	1	19.26	19.34	19.30	21.0	4.5
Channel				648668	656000	662334		
Frequency (MHz)				3745.02	3840	3933.01		
90	QPSK	1	1	23.65	23.67	23.59	25.5	0.0
Channel				648334	656000	662668		
Frequency (MHz)				3740.01	3840	3940.02		
80	QPSK	1	1	23.64	23.74	23.67	25.5	0.0
Channel				649000	656000	663000		
Frequency (MHz)				3735	3840	3945		
70	QPSK	1	1	23.70	23.70	23.65	25.5	0.0
Channel				648668	656000	663334		
Frequency (MHz)				3730.02	3840	3950.01		
60	QPSK	1	1	23.65	23.75	23.60	25.5	0.0
Channel				648334	656000	663668		
Frequency (MHz)				3725.01	3840	3955.02		
50	QPSK	1	1	23.71	23.69	23.62	25.5	0.0
Channel				648000	656000	664000		
Frequency (MHz)				3720	3840	3960		
40	QPSK	1	1	23.63	23.78	23.65	25.5	0.0
Channel				647668	656000	664334		
Frequency (MHz)				3715.00	3840	3965.01		
30	QPSK	1	1	23.67	23.68	23.63	25.5	0.0
Channel				647500	656000	664500		
Frequency (MHz)				3712.5	3840	3967.5		
25	QPSK	1	1	23.68	23.70	23.57	25.5	0.0
Channel				647334	656000	664668		
Frequency (MHz)				3710.01	3840	3970.02		
20	QPSK	1	1	23.70	23.78	23.64	25.5	0.0
Channel				647168	656000	664834		
Frequency (MHz)				3707.52	3840	3972.51		
15	QPSK	1	1	23.64	23.71	23.57	25.5	0.0
Channel				647000	656000	665000		
Frequency (MHz)				3705	3840	3975		
10	QPSK	1	1	23.64	23.74	23.61	25.5	0.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power			Tune-up limit (dBm)	MPR (dB)
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.		
Channel				3500.01				
Frequency (MHz)				3500.01				
100	PI2 BPSK	1	1	20.94				
100	PI2 BPSK	1	137	20.87			22.5	0.0
100	PI2 BPSK	1	271	20.79				
100	PI2 BPSK	135	0	20.80			22.5	0.0
100	PI2 BPSK	135	69	20.94			22.5	0.0
100	PI2 BPSK	135	138	20.69			22.5	0.0
100	PI2 BPSK	270	0	20.87				
100	QPSK	1	1	20.96				
100	QPSK	1	137	20.85			22.5	0.0
100	QPSK	1	271	20.90				
100	QPSK	135	0	20.87			22.5	0.0
100	QPSK	135	69	20.93			22.5	0.0
100	QPSK	135	138	20.80			22.5	0.0
100	QPSK	270	0	20.87				
100	16QAM	1	1	20.87			22.5	0.0
100	16QAM	1	1	20.57			22.5	0.0
100	64QAM	1	1	20.83			22.5	0.0
100	256QAM	1	1	19.28			21.0	1.5
Channel				633000	633334	633668		
Frequency (MHz)				3495	3500.01	3505.02		
90	QPSK	1	1	20.90	20.95	20.85	22.5	0.0
Channel				632668	633334	634000		
Frequency (MHz)				3490.02	3500.01	3510		
80	QPSK	1	1	20.84	20.87	20.78	22.5	0.0
Channel				632334	633334	634334		
Frequency (MHz)				3485.01	3500.01	3515.01		
70	QPSK	1	1	20.81	20.88	20.74	22.5	0.0
Channel				632000	633334	634668		
Frequency (MHz)				3480	3500.01	3520.02		
60	QPSK	1	1	20.87	20.89	20.86	22.5	0.0
Channel				631668	633334	635000		
Frequency (MHz)				3475.02	3500.01	3525		
50	QPSK	1	1	20.83	20.86	20.81	22.5	0.0
Channel				631334	633334	635334		
Frequency (MHz)				3470.01	3500.01	3530.01		
40	QPSK	1	1	20.79	20.87	20.74	22.5	0.0
Channel				631000	633334	635668		
Frequency (MHz)				3465	3500.01	3535.02		
30	QPSK	1	1	20.81	20.83	20.77	22.5	0.0
Channel				630834	633334	635834		
Frequency (MHz)				3462.51	3500.01	3537.51		
25	QPSK	1	1	20.80	20.88	20.77	22.5	0.0
Channel				630500	633334	636000		
Frequency (MHz)				3450.02	3500.01	3540		
20	QPSK	1	1	20.84	20.94	20.83	22.5	0.0
Channel				630000	633334	636168		
Frequency (MHz)				3452.51</				



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				6350.01					
100	PV2 BPSK	1	1	23.80					
100	PV2 BPSK	1	137	23.86			25.5	0.0	
100	PV2 BPSK	1	271	23.83					
100	PV2 BPSK	135	0	23.32			25.0	0.5	
100	PV2 BPSK	135	69	23.73			25.5	0.0	
100	PV2 BPSK	135	138	23.24			25.0	0.5	
100	PV2 BPSK	270	0	23.32					
100	QPSK	1	1	23.83					
100	QPSK	1	137	23.77			25.5	0.0	
100	QPSK	1	271	23.65					
100	QPSK	135	0	22.71			24.5	1.0	
100	QPSK	135	69	23.78			25.5	0.0	
100	QPSK	135	138	22.74			24.5	1.0	
100	QPSK	270	0	22.77					
100	16QAM	1	1	22.57			24.5	1.0	
100	16QAM	1	1	21.30			23.0	2.5	
100	256QAM	1	1	19.16			21.0	4.5	
Channel				633000	633334	633668	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3495			3500.01	3505.02	
90	QPSK	1	1	23.69	23.59	23.74	25.5	0.0	
Channel				632668	633334	634000	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3490.02			3500.01	3510	
80	QPSK	1	1	23.85	23.72	23.73	25.5	0.0	
Channel				632334	633334	634334	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3485.01			3500.01	3515.01	
70	QPSK	1	1	23.73	23.68	23.71	25.5	0.0	
Channel				632000	633334	634668	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3480			3500.01	3520.02	
60	QPSK	1	1	23.76	23.79	23.68	25.5	0.0	
Channel				631668	633334	635000	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3475.02			3500.01	3525	
50	QPSK	1	1	23.69	23.74	23.71	25.5	0.0	
Channel				631334	633334	635334	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3470.01			3500.01	3530.01	
40	QPSK	1	1	23.74	23.69	23.66	25.5	0.0	
Channel				631000	633334	635668	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3465			3500.01	3535.02	
30	QPSK	1	1	23.67	23.70	23.68	25.5	0.0	
Channel				630668	633334	635834	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3462.51			3500.01	3537.51	
25	QPSK	1	1	23.73	23.68	23.63	25.5	0.0	
Channel				630334	633334	636000	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3460.02			3500.01	3540	
20	QPSK	1	1	23.75	23.76	23.63	25.5	0.0	
Channel				630000	633334	636168	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3455.01			3500.01	3545.01	
15	QPSK	1	1	23.69	23.68	23.67	25.5	0.0	
Channel				630334	633334	636334	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3455.01			3500.01	3545.01	
10	QPSK	1	1	23.70	23.77	23.64	25.5	0.0	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3760			3760	3760	
100	PV2 BPSK	1	1	21.96					
100	PV2 BPSK	1	137	21.93			23.0	0.0	
100	PV2 BPSK	1	271	21.70					
100	PV2 BPSK	135	0	21.77			23.0	0.0	
100	PV2 BPSK	135	69	21.87			23.0	0.0	
100	PV2 BPSK	135	138	21.70			23.0	0.0	
100	PV2 BPSK	270	0	21.83					
100	QPSK	1	1	21.99					
100	QPSK	1	137	21.82			23.0	0.0	
100	QPSK	1	271	21.95					
100	QPSK	135	0	21.83			23.0	0.0	
100	QPSK	135	69	21.94			23.0	0.0	
100	QPSK	135	138	21.80			23.0	0.0	
100	QPSK	270	0	21.85					
100	16QAM	1	1	21.78			23.0	0.0	
100	16QAM	1	1	21.45			23.0	0.0	
100	256QAM	1	1	20.47			21.5	1.5	
Channel				649668	650000	650334	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3745.02			3760	3765.01	
90	QPSK	1	1	21.89	21.93	21.84	23.0	0.0	
Channel				649334	650000	650668	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3740.01			3760	3760.02	
80	QPSK	1	1	21.79	21.89	21.78	23.0	0.0	
Channel				649000	650000	651000	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3735			3760	3765	
70	QPSK	1	1	21.90	21.94	21.79	23.0	0.0	
Channel				648668	650000	651334	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3730.02			3760	3770.01	
60	QPSK	1	1	21.87	21.88	21.77	23.0	0.0	
Channel				648334	650000	651668	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3725.01			3760	3765.02	
50	QPSK	1	1	21.83	21.87	21.83	23.0	0.0	
Channel				648000	650000	652000	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3720			3760	3760	
40	QPSK	1	1	21.82	21.91	21.73	23.0	0.0	
Channel				647668	650000	652334	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3715.02			3760	3765.01	
30	QPSK	1	1	21.82	21.94	21.72	23.0	0.0	
Channel				647300	650000	652500	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3712.5			3760	3767.5	
25	QPSK	1	1	21.87	21.88	21.84	23.0	0.0	
Channel				647334	650000	652668	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3710.01			3760	3760.02	
20	QPSK	1	1	21.81	21.90	21.72	23.0	0.0	
Channel				647168	650000	652834	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3707.52			3760	3762.51	
15	QPSK	1	1	21.89	21.84	21.72	23.0	0.0	
Channel				647000	650000	653000	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3705			3760	3765	
10	QPSK	1	1	21.83	21.85	21.77	23.0	0.0	

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch./Freq.	Power Middle Ch./Freq.	Power High Ch./Freq.	Tune-up limit (dBm)	MPR (dB)	
Channel									
Frequency (MHz)				3760			3760	3760	
100	PV2 BPSK	1	1	24.86					
100	PV2 BPSK	1	137	24.76			26.0	0.0	
100	PV2 BPSK	1	271	24.79					
100	PV2 BPSK	135	0	24.40			25.5	0.5	
100	PV2 BPSK	135	69	24.76			26.0	0.0	
100	PV2 BPSK	135	138	24.28			25.5	0.5	
100	PV2 BPSK	270	0	24.39					
100	QPSK	1	1	24.54					
100	QPSK	1	137	24.85			26.0	0.0	
100	QPSK	1	271	24.78					
100	QPSK	135	0	23.79			25.0	1.0	
100	QPSK	135	69	24.88			26.0	0.0	
100	QPSK	135	138	23.77			25.0	1.0	
100	QPSK	270	0	23.87					
100	16QAM	1	1	23.70			25.0	1.0	
100	16QAM	1	1	21.99			23.5	2.5	
100	256QAM	1	1	20.48			21.5	4.5	
Channel				649668	650000	650334	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3745.02			3760	3765.01	
90	QPSK	1	1	24.70	24.83	24.71	26.0	0.0	
Channel				649334	650000	650668	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3740.01			3760	3760.02	
80	QPSK	1	1	24.88	24.82	24.89	26.0	0.0	
Channel				649000	650000	651000	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3735			3760	3765	
70	QPSK	1	1	24.87	24.90	24.71	26.0	0.0	
Channel				648668	650000	651334	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3730.02			3760	3770.01	
60	QPSK	1	1	24.82	24.81	24.77	26.0	0.0	
Channel				648334	650000	651668	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3725.01			3760	3765.02	
50	QPSK	1	1	24.77	24.88	24.70	26.0	0.0	
Channel				648000	650000	652000	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3720			3760	3760	
40	QPSK	1	1	24.80	24.90	24.68	26.0	0.0	
Channel				647668	650000	652334	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3715.02			3760	3765.01	
30	QPSK	1	1	24.84	24.89	24.67	26.0	0.0	
Channel				647300	650000	652500	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3712.5			3760	3767.5	
25	QPSK	1	1	24.83	24.82	24.74	26.0	0.0	
Channel				647334	650000	652668	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3710.01			3760	3760.02	
20	QPSK	1	1	24.88	24.82	24.72	26.0	0.0	
Channel				647168	650000	652834	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3707.52			3760	3762.51	
15	QPSK	1	1	24.87	24.89	24.71	26.0	0.0	
Channel				647000	650000	653000	Tune-up limit (dB)	MPR (dB)	
Frequency (MHz)				3705			3760	3765	
10	QPSK	1	1	24.87	24.83	24.68	26.0	0.0	



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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				633000	633334	633668	
Frequency (MHz)				3500.01			
100	PI/2 BPSK	1	1	22.12			
100	PI/2 BPSK	1	137	22.15			23.0
100	PI/2 BPSK	1	271	21.97			0.0
100	PI/2 BPSK	135	0	22.03			23.0
100	PI/2 BPSK	135	69	22.14			23.0
100	PI/2 BPSK	135	138	21.89			23.0
100	PI/2 BPSK	270	0	22.04			23.0
100	QPSK	1	1	22.17			23.0
100	QPSK	1	137	22.04			0.0
100	QPSK	1	271	22.18			23.0
100	QPSK	135	0	22.02			23.0
100	QPSK	135	69	22.13			23.0
100	QPSK	135	138	22.01			23.0
100	QPSK	270	0	22.04			23.0
100	16QAM	1	1	21.97			23.0
100	64QAM	1	1	21.83			23.0
100	256QAM	1	1	20.61			21.5
Channel				633000	633334	633668	
Frequency (MHz)				3495	3500.01	3505.02	
90	QPSK	1	1	21.97	22.13	22.04	23.0
Channel				632968	633334	634000	
Frequency (MHz)				3490.02	3500.01	3510	
80	QPSK	1	1	22.01	22.05	22.01	23.0
Channel				632334	633334	634334	
Frequency (MHz)				3485.01	3500.01	3515.01	
70	QPSK	1	1	21.95	22.04	22.01	23.0
Channel				632000	633334	634668	
Frequency (MHz)				3480	3500.01	3520.02	
60	QPSK	1	1	21.98	22.03	22.05	23.0
Channel				631668	633334	635000	
Frequency (MHz)				3475.02	3500.01	3525	
50	QPSK	1	1	22.00	22.05	21.99	23.0
Channel				631334	633334	635334	
Frequency (MHz)				3470.01	3500.01	3530.01	
40	QPSK	1	1	22.04	22.05	22.02	23.0
Channel				631000	633334	635668	
Frequency (MHz)				3465	3500.01	3535.02	
30	QPSK	1	1	21.98	22.07	21.99	23.0
Channel				630634	633334	635934	
Frequency (MHz)				3462.51	3500.01	3537.51	
25	QPSK	1	1	22.05	22.06	22.03	23.0
Channel				630368	633334	636200	
Frequency (MHz)				3460.02	3500.01	3540	
20	QPSK	1	1	21.97	22.13	22.00	23.0
Channel				630500	633334	636168	
Frequency (MHz)				3457.5	3500.01	3542.52	
15	QPSK	1	1	21.96	22.10	22.09	23.0
Channel				630334	633334	636334	
Frequency (MHz)				3455.01	3500.01	3545.01	
10	QPSK	1	1	22.02	22.12	22.03	23.0

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BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	MPR (dB)
Channel				633000	633334	633668	
Frequency (MHz)				3500.01			
100	PI/2 BPSK	1	1	24.73			
100	PI/2 BPSK	1	137	24.70			26.0
100	PI/2 BPSK	1	271	24.63			25.5
100	PI/2 BPSK	135	0	24.29			26.0
100	PI/2 BPSK	135	69	24.67			26.0
100	PI/2 BPSK	135	138	24.27			25.5
100	PI/2 BPSK	270	0	24.27			26.0
100	QPSK	1	1	24.79			26.0
100	QPSK	1	137	24.72			25.0
100	QPSK	1	271	24.65			26.0
100	QPSK	135	0	23.72			26.0
100	QPSK	135	69	24.71			26.0
100	QPSK	135	138	23.78			25.0
100	QPSK	270	0	23.78			25.0
100	16QAM	1	1	23.72			25.0
100	64QAM	1	1	22.26			23.5
100	256QAM	1	1	20.61			21.5
Channel				633000	633334	633668	
Frequency (MHz)				3495	3500.01	3505.02	
90	QPSK	1	1	24.52	24.70	24.57	26.0
Channel				632968	633334	634000	
Frequency (MHz)				3490.02	3500.01	3510	
80	QPSK	1	1	24.61	24.68	24.54	26.0
Channel				632334	633334	634334	
Frequency (MHz)				3485.01	3500.01	3515.01	
70	QPSK	1	1	24.65	24.70	24.63	26.0
Channel				632000	633334	634668	
Frequency (MHz)				3480	3500.01	3520.02	
60	QPSK	1	1	24.67	24.66	24.61	26.0
Channel				631668	633334	635000	
Frequency (MHz)				3475.02	3500.01	3525	
50	QPSK	1	1	24.61	24.74	24.54	26.0
Channel				631334	633334	635334	
Frequency (MHz)				3470.01	3500.01	3530.01	
40	QPSK	1	1	24.67	24.67	24.55	26.0
Channel				631000	633334	635668	
Frequency (MHz)				3465	3500.01	3535.02	
30	QPSK	1	1	24.66	24.73	24.57	26.0
Channel				630634	633334	635934	
Frequency (MHz)				3462.51	3500.01	3537.51	
25	QPSK	1	1	24.68	24.65	24.63	26.0
Channel				630368	633334	636200	
Frequency (MHz)				3460.02	3500.01	3540	
20	QPSK	1	1	24.67	24.68	24.59	26.0
Channel				630500	633334	636168	
Frequency (MHz)				3457.5	3500.01	3542.52	
15	QPSK	1	1	24.65	24.71	24.57	26.0
Channel				630334	633334	636334	
Frequency (MHz)				3455.01	3500.01	3545.01	
10	QPSK	1	1	24.57	24.64	24.54	26.0



DSI 0 Power for FR1 Main PA

n5 Main PA Ant0								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	MPR (dB)
Channel				166800	167300	167800		
Frequency (MHz)				834	836.5	839		
20	PI/2 BPSK	1	1	24.48	24.57	24.51		
20	PI/2 BPSK	1	53	24.41	24.51	24.38	25.5	0.0
20	PI/2 BPSK	1	104	24.33	24.46	24.39		
20	PI/2 BPSK	50	0	24.16	24.21	24.15	25.0	0.5
20	PI/2 BPSK	50	28	24.54	24.59	24.51	25.5	0.0
20	PI/2 BPSK	50	56	24.12	24.21	24.17		
20	PI/2 BPSK	100	0	24.13	24.18	24.10	25.0	0.5
20	QPSK	1	1	24.52	24.63	24.48		
20	QPSK	1	53	24.43	24.53	24.41	25.5	0.0
20	QPSK	1	104	24.37	24.46	24.33		
20	QPSK	50	0	23.65	23.71	23.61	24.5	1.0
20	QPSK	50	28	24.56	24.61	24.54	25.5	0.0
20	QPSK	50	56	23.49	23.62	23.53		
20	QPSK	100	0	23.60	23.66	23.52	24.5	1.0
20	16QAM	1	1	23.28	23.34	23.31	24.5	1.0
20	64QAM	1	1	21.84	21.93	21.83	23.0	2.5
20	256QAM	1	1	20.66	20.69	20.61	21.0	4.5
Channel				166300	167300	168300		
Frequency (MHz)				831.5	836.5	841.5		
15	QPSK	1	1	24.48	24.53	24.44	25.5	0.0
Channel				165800	167300	168800		
Frequency (MHz)				829	836.5	844		
10	QPSK	1	1	24.55	24.59	24.40	25.5	0.0
Channel				165300	167300	169300		
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	1	24.50	24.57	24.49	25.5	0.0