

8 CONDUCTED RF OUPUT POWER

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8.1 GSM Output Power

GSM 850									
GSM850 Band	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged power			Tune-up Power(dBm)
Channel	128	190	251			128	190	251	
Frequency (MHz)	824.2	836.6	848.8			824.2	836.6	848.8	
GSM (GMSK, 1-Slot)	32.76	32.91	32.91	33.50	9.19	23.57	23.72	23.72	24.31
GPRS (GMSK, 1-Slot)	32.79	32.86	32.90	33.50	9.19	23.60	23.67	23.71	24.31
GPRS (GMSK, 2-Slots)	31.69	31.76	31.79	32.50	6.13	25.56	25.63	25.66	26.37
GPRS (GMSK, 3-Slots)	29.68	29.70	29.75	30.50	4.42	25.26	25.28	25.33	26.08
GPRS (GMSK, 4-Slots)	28.56	28.61	28.63	29.50	3.18	25.38	25.43	25.45	26.32
EGPRS (8PSK, 1-Slot)	26.75	26.78	26.86	28.00	9.19	17.56	17.59	17.67	18.81
EGPRS (8PSK, 2-Slots)	25.65	25.79	25.83	27.00	6.13	19.52	19.66	19.70	20.87
EGPRS (8PSK, 3-Slots)	23.60	23.67	23.58	24.50	4.42	19.18	19.25	19.16	20.08
EGPRS (8PSK, 4-Slots)	22.43	22.46	22.69	23.50	3.18	19.25	19.28	19.51	20.32
GSM 1900									
GSM1900 Band	Burst Average Power(dBm)			Tune-up Power(dBm)	Division Factors	Frame-Averaged			Tune-up Power(dBm)
Channel	512	661	810			512	661	810	
Frequency (MHz)	1850.2	1880	1909.8			1850.2	1880	1909.8	
GSM (GMSK, 1-Slot)	29.99	30.30	30.34	31.00	9.19	20.80	21.11	21.15	21.81
GPRS (GMSK, 1-Slot)	29.98	30.27	30.29	31.00	9.19	20.79	21.08	21.10	21.81
GPRS (GMSK, 2-Slots)	28.93	29.18	29.13	29.50	6.13	22.80	23.05	23.00	23.37
GPRS (GMSK, 3-Slots)	26.88	27.05	26.95	27.50	4.42	22.46	22.63	22.53	23.08
GPRS (GMSK, 4-Slots)	25.74	25.98	25.86	26.50	3.18	22.56	22.80	22.68	23.32
EGPRS (8PSK, 1-Slot)	25.30	25.45	25.29	26.00	9.19	16.11	16.26	16.10	16.81
EGPRS (8PSK, 2-Slots)	24.31	24.32	24.26	25.00	6.13	18.18	18.19	18.13	18.87
EGPRS (8PSK, 3-Slots)	22.16	22.05	22.08	22.50	4.42	17.74	17.63	17.66	18.08
EGPRS (8PSK, 4-Slots)	21.04	20.97	21.07	21.50	3.18	17.86	17.79	17.89	18.32

8.2 WCDMA Output Power

WCDMA II				
Band	Band 2			Tune-up Limit Power(dBm)
TX Channel	9262	9400	9538	
Frequency	1852.40	1880.00	1907.60	
RMC 12.2Kbps	23.30	23.32	23.21	24.00
HSDPA Subtest-1	22.35	22.30	22.25	23.00
HSDPA Subtest-2	22.31	22.28	22.19	23.00
HSDPA Subtest-3	21.83	21.74	21.67	22.50
HSDPA Subtest-4	21.79	21.75	21.68	22.50
HSUPA Subtest-1	22.39	22.38	22.27	23.00
HSUPA Subtest-2	20.49	20.46	20.07	21.00
HSUPA Subtest-3	21.24	21.49	21.18	22.00
HSUPA Subtest-4	20.22	20.21	20.14	21.00
HSUPA Subtest-5	22.34	22.42	22.20	23.00

WCDMA IV				
Band	Band 4			Tune-up Limit Power(dBm)
TX Channel	1312	1413	1513	
Frequency	1712.40	1732.60	1752.60	
RMC 12.2Kbps	23.17	23.23	23.21	24.00
HSDPA Subtest-1	22.16	22.22	22.24	23.00
HSDPA Subtest-2	22.12	22.12	22.21	23.00
HSDPA Subtest-3	21.66	21.64	21.65	22.50
HSDPA Subtest-4	21.61	21.69	21.69	22.50
HSUPA Subtest-1	22.03	22.35	22.30	23.00
HSUPA Subtest-2	20.04	20.29	20.33	21.00
HSUPA Subtest-3	21.11	21.29	21.30	22.00
HSUPA Subtest-4	20.31	20.23	20.37	21.00
HSUPA Subtest-5	22.24	22.29	22.16	23.00

WCDMA V				
Band	Band 5			Tune-up Limit Power(dBm)
TX Channel	4132	4182	4233	
Frequency	826.40	836.40	846.60	
RMC 12.2Kbps	23.00	23.05	22.98	24.00
HSDPA Subtest-1	22.06	22.08	22.03	23.00
HSDPA Subtest-2	22.00	22.04	21.99	23.00
HSDPA Subtest-3	21.49	21.53	21.46	22.50
HSDPA Subtest-4	21.43	21.51	21.47	22.50
HSUPA Subtest-1	22.07	21.96	21.87	23.00
HSUPA Subtest-2	19.91	20.13	20.11	21.00
HSUPA Subtest-3	21.06	21.05	21.07	22.00
HSUPA Subtest-4	19.87	20.19	20.01	21.00
HSUPA Subtest-5	22.15	22.22	22.01	23.00

8.3.1 LTE Band2 Output Power

LTE B2 Full							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				18700	18900	19100	
Frequency (MHz)				1860	1880	1900	
20	1	0	QPSK	22.95	22.90	22.83	24.00
		49	QPSK	23.10	23.14	23.07	24.00
		99	QPSK	22.85	22.78	22.71	24.00
	50	0	QPSK	21.94	22.03	21.80	23.00
		24	QPSK	21.98	21.88	21.79	23.00
		50	QPSK	22.03	21.74	21.61	23.00
	100	0	QPSK	21.91	22.01	21.75	23.00
		0	16QAM	22.16	22.08	21.87	23.00
20	1	49	16QAM	22.63	22.48	22.27	23.00
		99	16QAM	22.17	22.03	21.85	23.00
		0	16QAM	20.97	21.07	20.82	22.00
	50	24	16QAM	21.03	20.92	20.81	22.00
		50	16QAM	21.11	20.78	20.59	22.00
		0	16QAM	21.07	20.98	20.76	22.00
	100	0	16QAM				
Channel				18675	18900	19125	Tune-up limit (dBm)
Frequency (MHz)				1857.5	1880	1902.5	
15	1	0	QPSK	22.90	22.83	22.75	24.00
		37	QPSK	23.08	23.05	23.00	24.00
		74	QPSK	22.94	22.75	22.74	24.00
	36	0	QPSK	21.99	21.99	21.94	23.00
		20	QPSK	22.02	21.93	21.90	23.00
		39	QPSK	22.03	21.82	21.81	23.00
	75	0	QPSK	22.06	21.91	21.87	23.00
		0	16QAM	21.77	22.14	22.11	23.00
15	1	37	16QAM	22.06	22.39	22.37	23.00
		74	16QAM	21.52	22.10	22.04	23.00
		0	16QAM	20.98	21.01	20.92	22.00
	36	20	16QAM	21.06	20.95	20.86	22.00
		39	16QAM	21.03	20.87	20.81	22.00
		0	16QAM	21.05	20.94	20.88	22.00
	75	0	16QAM				
Channel				18650	18900	19150	Tune-up limit (dBm)
Frequency (MHz)				1855	1880	1905	
10	1	0	QPSK	23.01	22.88	22.79	24.00
		25	QPSK	23.03	23.00	22.92	24.00
		49	QPSK	22.98	22.86	22.78	24.00
	25	0	QPSK	21.99	21.92	21.93	23.00
		12	QPSK	22.06	21.85	21.81	23.00
		25	QPSK	21.78	21.70	21.85	23.00
	50	0	QPSK	21.99	21.85	21.83	23.00
		0	16QAM	22.16	22.18	21.81	23.00
10	1	25	16QAM	22.43	22.27	21.88	23.00
		49	16QAM	22.02	22.16	21.74	23.00
		0	16QAM	20.96	20.98	21.04	22.00
	25	12	16QAM	21.00	20.94	20.96	22.00
		25	16QAM	20.97	20.80	20.93	22.00
		0	16QAM	20.80	20.90	20.90	22.00
	50	0	16QAM				
Channel				18625	18900	19175	Tune-up limit (dBm)
Frequency (MHz)				1852.5	1880	1907.5	
5	1	0	QPSK	22.89	22.83	22.77	24.00
		12	QPSK	23.05	23.01	22.97	24.00
		24	QPSK	22.91	22.75	22.74	24.00
	12	0	QPSK	21.94	21.87	21.76	23.00
		7	QPSK	21.93	21.88	21.82	23.00
		13	QPSK	21.90	21.72	21.77	23.00
	25	0	QPSK	21.92	21.79	21.76	23.00
		0	16QAM	22.04	22.28	21.84	23.00
5	1	12	16QAM	22.31	22.46	22.01	23.00
		24	16QAM	22.07	22.23	21.83	23.00
		0	16QAM	21.01	21.02	20.84	22.00
	12	7	16QAM	21.03	21.03	20.88	22.00
		13	16QAM	20.98	20.92	20.80	22.00
		0	16QAM	20.99	20.91	20.76	22.00
	25	0	16QAM				
Channel				18615	18900	19185	Tune-up limit (dBm)
Frequency (MHz)				1851.5	1880	1908.5	
3	1	0	QPSK	23.03	22.92	22.79	24.00
		8	QPSK	23.11	23.03	22.91	24.00
		14	QPSK	23.06	22.93	22.75	24.00
	8	0	QPSK	21.98	21.86	21.78	23.00
		4	QPSK	21.99	21.87	21.80	23.00
		7	QPSK	21.94	21.81	21.75	23.00
	15	0	QPSK	21.95	21.82	21.76	23.00
		0	16QAM	21.91	22.21	21.85	23.00
3	1	8	16QAM	22.01	22.38	21.91	23.00
		14	16QAM	21.89	22.25	21.75	23.00
		0	16QAM	21.09	20.96	20.82	22.00
	8	4	16QAM	21.08	21.01	20.82	22.00
		7	16QAM	21.06	20.92	20.82	22.00
		0	16QAM	20.99	20.90	20.75	22.00
	15	0	16QAM				
Channel				18607	18900	19193	Tune-up limit (dBm)
Frequency (MHz)				1850.7	1880	1909.3	
1.4	1	0	QPSK	22.97	22.90	22.68	24.00
		3	QPSK	23.11	22.98	22.85	24.00
		5	QPSK	22.96	22.85	22.71	24.00
	3	0	QPSK	23.04	22.89	22.78	24.00
		1	QPSK	23.08	22.95	22.87	24.00
		3	QPSK	23.00	22.89	22.74	24.00
	6	0	QPSK	21.98	21.89	21.80	23.00
		0	16QAM	22.08	22.19	21.72	23.00
1.4	1	3	16QAM	22.14	22.29	21.82	23.00
		5	16QAM	22.09	22.18	21.76	23.00
		0	16QAM	22.07	22.04	21.93	23.00
	3	1	16QAM	22.08	22.08	22.01	23.00
		3	16QAM	22.05	22.02	21.92	23.00
		0	16QAM	21.18	20.81	21.02	22.00
	6	0	16QAM				

8.3.2 LTE Band4 Output Power

LTE B4 Full								
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)	
Channel				20050	20175	20300		
Frequency (MHz)				1720	1732.5	1745		
20	1	0	QPSK	22.59	22.56	22.57	24.00	
		49	QPSK	22.97	22.95	23.07	24.00	
		99	QPSK	22.63	22.64	22.65	24.00	
	50	0	QPSK	21.66	21.70	21.84	23.00	
		24	QPSK	21.81	21.79	21.80	23.00	
		50	QPSK	21.81	21.74	21.77	23.00	
20	100	0	QPSK	21.77	21.70	21.85	23.00	
		0	16QAM	21.97	21.95	21.88	23.00	
		49	16QAM	22.46	22.26	22.36	23.00	
	1	99	16QAM	22.06	22.04	21.96	23.00	
		50	0	16QAM	20.70	20.71	20.83	22.00
			24	16QAM	20.79	20.78	20.82	22.00
100	50		16QAM	20.82	20.71	20.76	22.00	
	0	16QAM	20.77	20.68	20.85	22.00		
	Channel				20025	20175	20325	Tune-up limit (dBm)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	1	0	QPSK	22.65	22.64	22.68	24.00	
		37	QPSK	22.87	22.92	23.00	24.00	
		74	QPSK	22.75	22.64	22.79	24.00	
	36	0	QPSK	21.74	21.79	21.93	23.00	
		20	QPSK	21.83	21.84	21.91	23.00	
		39	QPSK	21.89	21.80	21.89	23.00	
15	75	0	QPSK	21.81	21.80	21.89	23.00	
		0	16QAM	21.55	21.99	22.04	23.00	
		37	16QAM	21.83	22.25	22.33	23.00	
	1	74	16QAM	21.63	22.14	22.18	23.00	
		0	16QAM	20.68	20.79	20.86	22.00	
		20	16QAM	20.74	20.83	20.87	22.00	
36	39	16QAM	20.82	20.83	20.77	22.00		
	0	16QAM	20.76	20.77	20.82	22.00		
	Channel				20000	20175	20350	Tune-up limit (dBm)
Frequency (MHz)				1715	1732.5	1750		
10	1	0	QPSK	22.69	22.78	22.73	24.00	
		25	QPSK	22.80	22.82	22.85	24.00	
		49	QPSK	22.79	22.89	22.75	24.00	
	25	0	QPSK	21.70	21.73	21.81	23.00	
		12	QPSK	21.77	21.77	21.85	23.00	
		25	QPSK	21.76	21.73	21.76	23.00	
10	50	0	QPSK	21.73	21.70	21.81	23.00	
		0	16QAM	21.64	22.06	21.75	23.00	
		25	16QAM	21.77	22.14	21.92	23.00	
	1	49	16QAM	21.69	22.16	21.83	23.00	
		0	16QAM	20.73	20.76	20.89	22.00	
		12	16QAM	20.75	20.79	20.90	22.00	
25	25	16QAM	20.80	20.78	20.84	22.00		
	0	16QAM	20.73	20.76	20.86	22.00		
	Channel				19975	20175	20375	Tune-up limit (dBm)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	1	0	QPSK	22.69	22.60	22.75	24.00	
		12	QPSK	22.94	22.89	23.04	24.00	
		24	QPSK	22.69	22.67	22.79	24.00	
	36	0	QPSK	21.71	21.70	21.78	23.00	
		7	QPSK	21.78	21.80	21.88	23.00	
		13	QPSK	21.71	21.71	21.79	23.00	
5	75	0	QPSK	21.67	21.67	21.75	23.00	
		0	16QAM	21.82	22.10	21.89	23.00	
		12	16QAM	22.10	22.37	22.11	23.00	
	1	24	16QAM	21.79	22.15	21.92	23.00	
		0	16QAM	20.75	20.82	20.74	22.00	
		7	16QAM	20.80	20.86	20.87	22.00	
36	13	16QAM	20.74	20.82	20.76	22.00		
	0	16QAM	20.69	20.74	20.71	22.00		
	Channel				19965	20175	20385	Tune-up limit (dBm)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	1	0	QPSK	22.67	22.73	22.76	24.00	
		8	QPSK	22.88	22.93	22.91	24.00	
		14	QPSK	22.75	22.79	22.84	24.00	
	8	0	QPSK	21.78	21.77	21.85	23.00	
		4	QPSK	21.79	21.79	21.93	23.00	
		7	QPSK	21.76	21.73	21.87	23.00	
3	15	0	QPSK	21.75	21.71	21.84	23.00	
		0	16QAM	21.63	22.06	21.84	23.00	
		8	16QAM	21.83	22.25	22.00	23.00	
	1	14	16QAM	21.62	22.12	21.83	23.00	
		8	0	16QAM	20.84	20.83	20.86	22.00
			4	16QAM	20.88	20.83	20.99	22.00
15	7		16QAM	20.84	20.78	20.88	22.00	
	0	16QAM	20.76	20.79	20.78	22.00		
	Channel				19957	20175	20393	Tune-up limit (dBm)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	1	0	QPSK	22.74	22.77	22.67	24.00	
		3	QPSK	22.89	22.85	22.86	24.00	
		5	QPSK	22.75	22.72	22.74	24.00	
	3	0	QPSK	22.83	22.77	22.84	24.00	
		1	QPSK	22.85	22.82	22.90	24.00	
		3	QPSK	22.82	22.76	22.93	24.00	
1.4	6	0	QPSK	21.83	21.80	21.90	23.00	
		0	16QAM	21.88	22.08	21.81	23.00	
		3	16QAM	21.97	22.18	21.94	23.00	
	1	5	16QAM	21.81	22.06	21.85	23.00	
		0	16QAM	21.86	21.98	22.02	23.00	
		1	16QAM	21.92	21.98	22.12	23.00	
3	3	16QAM	21.86	21.95	22.07	23.00		
	0	16QAM	20.95	20.71	21.05	22.00		

8.3.3 LTE Band5 Output Power

LTE B5 Full							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20450	20525	20600	Tune-up limit (dBm)
Frequency (MHz)				829	836.5	844	
10	1	0	QPSK	22.87	22.92	22.81	24.00
		25	QPSK	23.00	23.16	22.93	24.00
		49	QPSK	22.85	22.92	22.83	24.00
	25	0	QPSK	21.95	22.03	21.95	23.00
		12	QPSK	21.98	21.88	21.92	23.00
		25	QPSK	22.02	21.81	21.97	23.00
	50	0	QPSK	22.00	21.89	22.03	23.00
10	1	0	16QAM	21.81	22.22	21.80	23.00
		25	16QAM	22.00	22.30	22.01	23.00
		49	16QAM	21.80	22.23	21.90	23.00
	25	0	16QAM	21.05	21.00	21.16	22.00
		12	16QAM	21.06	20.98	21.08	22.00
		25	16QAM	21.14	20.88	21.09	22.00
	50	0	16QAM	21.03	20.94	21.10	22.00
Channel				20425	20525	20625	Tune-up limit (dBm)
Frequency (MHz)				826.5	836.5	846.5	
5	1	0	QPSK	22.89	22.79	22.83	24.00
		12	QPSK	23.18	23.06	23.14	24.00
		24	QPSK	22.93	22.79	22.86	24.00
	12	0	QPSK	21.96	21.89	21.84	23.00
		7	QPSK	21.98	21.92	21.95	23.00
		13	QPSK	21.96	21.80	21.90	23.00
	25	0	QPSK	21.96	21.85	21.90	23.00
5	1	0	16QAM	21.98	22.25	21.94	23.00
		12	16QAM	22.32	22.53	22.21	23.00
		24	16QAM	22.04	22.25	21.94	23.00
	12	0	16QAM	21.06	21.05	20.97	22.00
		7	16QAM	21.10	21.04	21.05	22.00
		13	16QAM	21.07	20.95	20.97	22.00
	25	0	16QAM	21.02	20.95	20.89	22.00
Channel				20415	20525	20635	Tune-up limit (dBm)
Frequency (MHz)				825.5	836.5	847.5	
3	1	0	QPSK	22.89	22.95	22.89	24.00
		8	QPSK	23.09	23.09	22.92	24.00
		14	QPSK	22.94	22.94	22.82	24.00
	8	0	QPSK	21.96	21.88	21.92	23.00
		4	QPSK	21.97	21.94	21.95	23.00
		7	QPSK	21.94	21.83	21.86	23.00
	15	0	QPSK	21.97	21.89	21.89	23.00
3	1	0	16QAM	21.86	22.21	21.96	23.00
		8	16QAM	22.06	22.39	22.04	23.00
		14	16QAM	21.88	22.21	21.89	23.00
	8	0	16QAM	21.10	21.01	20.97	22.00
		4	16QAM	21.11	21.05	21.00	22.00
		7	16QAM	21.09	20.97	20.97	22.00
	15	0	16QAM	21.03	20.98	20.89	22.00
Channel				20407	20525	20643	Tune-up limit (dBm)
Frequency (MHz)				824.7	836.5	848.3	
1.4	1	0	QPSK	22.90	22.90	22.77	24.00
		3	QPSK	23.01	23.01	22.93	24.00
		5	QPSK	22.89	22.88	22.79	24.00
	3	0	QPSK	22.92	22.95	22.97	24.00
		1	QPSK	22.97	23.02	22.94	24.00
		3	QPSK	22.96	22.90	23.00	24.00
	6	0	QPSK	21.89	21.91	21.88	23.00
1.4	1	0	16QAM	21.99	22.16	21.86	23.00
		3	16QAM	22.13	22.26	21.95	23.00
		5	16QAM	22.01	22.15	21.87	23.00
	3	0	16QAM	21.99	22.05	22.11	23.00
		1	16QAM	22.03	22.08	22.12	23.00
		3	16QAM	22.01	22.03	22.11	23.00
	6	0	16QAM	21.08	20.80	21.08	22.00

8.3.4 LTE Band7 Output Power

LTE B7 Full							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				20850	21100	21350	
Frequency (MHz)				2510	2535	2560	
20	1	0	QPSK	22.87	22.95	23.04	24.00
		49	QPSK	23.31	23.41	23.34	24.00
		99	QPSK	22.98	23.00	23.06	24.00
	50	0	QPSK	22.06	22.17	22.15	23.00
		24	QPSK	22.08	22.22	22.20	23.00
		50	QPSK	22.15	22.20	22.14	23.00
	100	0	QPSK	22.13	22.20	22.17	23.00
20	1	0	16QAM	22.29	22.32	22.33	23.00
		49	16QAM	22.67	22.67	22.61	23.00
		99	16QAM	22.40	22.38	22.32	23.00
	50	0	16QAM	21.07	21.15	21.17	22.00
		24	16QAM	21.14	21.22	21.21	22.00
		50	16QAM	21.17	21.13	21.17	22.00
	100	0	16QAM	21.15	21.16	21.19	22.00
Channel				20825	21100	21375	Tune-up power(dBm)
Frequency (MHz)				2507.5	2535	2562.5	
15	1	0	QPSK	22.88	23.07	23.14	24.00
		37	QPSK	23.22	23.33	23.39	24.00
		74	QPSK	22.93	23.09	23.15	24.00
	36	0	QPSK	22.07	22.21	22.26	23.00
		20	QPSK	22.17	22.29	22.31	23.00
		39	QPSK	22.15	22.23	22.29	23.00
	75	0	QPSK	22.10	22.25	22.24	23.00
15	1	0	16QAM	21.85	22.40	22.52	23.00
		37	16QAM	22.15	22.62	22.76	23.00
		74	16QAM	21.94	22.42	22.56	23.00
	36	0	16QAM	21.04	21.22	21.18	22.00
		20	16QAM	21.12	21.27	21.23	22.00
		39	16QAM	21.10	21.20	21.19	22.00
	75	0	16QAM	21.11	21.21	21.21	22.00
Channel				20800	21100	21400	Tune-up power(dBm)
Frequency (MHz)				2505	2535	2565	
10	1	0	QPSK	23.00	23.19	23.15	24.00
		25	QPSK	23.14	23.27	23.25	24.00
		49	QPSK	23.10	23.22	23.20	24.00
	25	0	QPSK	22.05	22.16	22.20	23.00
		12	QPSK	22.13	22.19	22.23	23.00
		25	QPSK	22.11	22.21	22.26	23.00
	50	0	QPSK	22.04	22.21	22.20	23.00
10	1	0	16QAM	21.92	22.45	22.25	23.00
		25	16QAM	22.08	22.57	22.31	23.00
		49	16QAM	22.04	22.53	22.26	23.00
	25	0	16QAM	21.06	21.24	21.29	22.00
		12	16QAM	21.13	21.23	21.31	22.00
		25	16QAM	21.11	21.21	21.34	22.00
	50	0	16QAM	21.03	21.24	21.23	22.00
Channel				20775	21100	21425	Tune-up power(dBm)
Frequency (MHz)				2502.5	2535	2567.5	
5	1	0	QPSK	22.96	23.09	23.11	24.00
		12	QPSK	23.28	23.30	23.42	24.00
		24	QPSK	23.02	23.04	23.16	24.00
	12	0	QPSK	21.97	22.12	22.24	23.00
		7	QPSK	22.08	22.18	22.29	23.00
		13	QPSK	22.06	22.11	22.20	23.00
	25	0	QPSK	22.02	22.10	22.23	23.00
5	1	0	16QAM	22.09	22.49	22.22	23.00
		12	16QAM	22.37	22.78	22.52	23.00
		24	16QAM	22.17	22.56	22.25	23.00
	12	0	16QAM	21.07	21.22	21.22	22.00
		7	16QAM	21.14	21.28	21.27	22.00
		13	16QAM	21.05	21.17	21.23	22.00
	25	0	16QAM	21.03	21.17	21.16	22.00

8.3.5 LTE Band12 Output Power

LTE B12 Full							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23060	23095	23130	Tune-up limit (dBm)
Frequency (MHz)				704	707.5	711	
10	1	0	QPSK	22.73	22.85	22.78	23.50
		25	QPSK	22.87	22.96	22.88	23.50
		49	QPSK	22.81	22.85	22.80	23.50
	25	0	QPSK	21.78	21.60	21.72	22.50
		12	QPSK	21.65	21.72	21.71	22.50
		25	QPSK	21.59	21.68	21.62	22.50
	50	0	QPSK	21.89	21.62	21.72	22.50
10	1	0	16QAM	21.81	22.04	21.68	22.50
		25	16QAM	21.64	22.10	21.74	22.50
		49	16QAM	21.54	22.10	21.73	22.50
	25	0	16QAM	21.04	20.64	20.85	21.50
		12	16QAM	20.92	20.78	20.79	21.50
		25	16QAM	20.88	20.72	20.73	21.50
	50	0	16QAM	20.79	20.68	20.76	21.50
Channel				23035	23095	23155	Tune-up power(dBm)
Frequency (MHz)				701.5	707.5	713.5	
5	1	0	QPSK	22.57	22.62	22.66	23.50
		12	QPSK	22.88	22.88	22.93	23.50
		24	QPSK	22.69	22.64	22.68	23.50
	12	0	QPSK	21.71	21.62	21.79	22.50
		7	QPSK	21.74	21.77	21.76	22.50
		13	QPSK	21.69	21.73	21.70	22.50
	25	0	QPSK	21.72	21.66	21.76	22.50
5	1	0	16QAM	21.75	22.10	21.68	22.50
		12	16QAM	22.06	22.36	22.00	22.50
		24	16QAM	21.86	22.14	21.71	22.50
	12	0	16QAM	20.85	20.77	20.86	21.50
		7	16QAM	20.82	20.88	20.79	21.50
		13	16QAM	20.80	20.85	20.70	21.50
	25	0	16QAM	20.74	20.74	20.71	21.50
Channel				23025	23095	23165	Tune-up power(dBm)
Frequency (MHz)				700.5	707.5	714.5	
3	1	0	QPSK	22.69	22.72	22.68	23.50
		8	QPSK	22.83	22.89	22.81	23.50
		14	QPSK	22.76	22.72	22.64	23.50
	8	0	QPSK	21.68	21.68	21.71	22.50
		4	QPSK	21.73	21.73	21.73	22.50
		7	QPSK	21.68	21.68	21.69	22.50
	15	0	QPSK	21.70	21.65	21.69	22.50
3	1	0	16QAM	21.60	22.02	21.73	22.50
		8	16QAM	21.75	22.20	21.89	22.50
		14	16QAM	21.69	22.07	21.69	22.50
	8	0	16QAM	20.79	20.77	20.74	21.50
		4	16QAM	20.86	20.84	20.75	21.50
		7	16QAM	20.80	20.79	20.74	21.50
	15	0	16QAM	20.76	20.75	20.66	21.50
Channel				23017	23095	23173	Tune-up power(dBm)
Frequency (MHz)				699.7	707.5	715.3	
1.4	1	0	QPSK	22.65	22.66	22.54	23.50
		3	QPSK	22.72	22.73	22.66	23.50
		5	QPSK	22.63	22.60	22.59	23.50
	3	0	QPSK	22.70	22.73	22.69	23.50
		1	QPSK	22.74	22.75	22.73	23.50
		3	QPSK	22.74	22.69	22.77	23.50
	6	0	QPSK	21.65	21.65	21.66	23.50
1.4	1	0	16QAM	21.70	22.02	21.59	22.50
		3	16QAM	21.81	22.08	21.73	22.50
		5	16QAM	21.73	22.01	21.64	22.50
	3	0	16QAM	21.75	21.90	21.88	22.50
		1	16QAM	21.78	21.93	21.91	22.50
		3	16QAM	21.76	21.95	21.87	22.50
	6	0	16QAM	20.83	20.55	20.84	21.50

8.3.6 LTE Band17 Output Power

LTE B17 Full							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				23780	23790	23800	
Frequency (MHz)				709	710	711	
10	1	0	QPSK	22.68	22.72	22.64	23.50
		25	QPSK	22.75	22.82	22.79	23.50
		49	QPSK	22.70	22.76	22.64	23.50
	25	0	QPSK	21.63	21.70	21.74	22.50
		12	QPSK	21.72	21.73	21.73	22.50
		25	QPSK	21.56	21.58	21.63	22.50
	50	0	QPSK	21.61	21.67	21.72	22.50
10	1	0	16QAM	21.64	22.05	21.67	22.50
		25	16QAM	21.72	22.19	21.81	22.50
		49	16QAM	21.60	22.06	21.73	22.50
	25	0	16QAM	20.69	20.73	20.85	21.50
		12	16QAM	20.74	20.83	20.84	21.50
		25	16QAM	20.61	20.65	20.74	21.50
	50	0	16QAM	20.63	20.71	20.77	21.50
Channel				23755	23790	23825	Tune-up power(dBm)
Frequency (MHz)				706.5	710	713.5	
5	1	0	QPSK	22.77	22.57	22.65	23.50
		12	QPSK	22.91	22.86	22.90	23.50
		24	QPSK	22.68	22.64	22.73	23.50
	12	0	QPSK	21.61	21.72	21.81	22.50
		7	QPSK	21.72	21.75	21.77	22.50
		13	QPSK	21.74	21.55	21.70	22.50
	25	0	QPSK	21.69	21.67	21.72	22.50
5	1	0	16QAM	21.86	22.08	21.68	22.50
		12	16QAM	22.08	22.39	21.96	22.50
		24	16QAM	21.81	22.16	21.72	22.50
	12	0	16QAM	20.71	20.82	20.86	21.50
		7	16QAM	20.81	20.85	20.79	21.50
		13	16QAM	20.78	20.70	20.75	21.50
	25	0	16QAM	20.74	20.76	20.71	21.50

8.3.7 LTE Band66 Output Power

LTE B66 Full							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				132072	132322	132572	
Frequency (MHz)				1720	1745	1770	
20	1	0	QPSK	22.62	22.69	22.75	24.00
		49	QPSK	23.02	23.17	23.14	24.00
		99	QPSK	22.70	22.75	22.80	24.00
	50	0	QPSK	21.68	21.86	21.85	23.00
		24	QPSK	21.71	21.81	21.82	23.00
		50	QPSK	21.81	21.72	21.80	23.00
	100	0	QPSK	21.79	21.89	21.86	23.00
20	1	0	16QAM	22.01	21.97	21.94	23.00
		49	16QAM	22.34	22.35	22.40	23.00
		99	16QAM	22.06	22.09	22.02	23.00
	50	0	16QAM	20.70	20.86	20.84	22.00
		24	16QAM	20.75	20.83	20.88	22.00
		50	16QAM	20.80	20.74	20.80	22.00
	100	0	16QAM	20.80	20.81	20.82	22.00
Channel				132047	132322	132597	
Frequency (MHz)				1717.5	1745	1772.5	
15	1	0	QPSK	22.64	22.71	22.82	24.00
		37	QPSK	22.85	22.99	23.08	24.00
		74	QPSK	22.67	22.72	22.82	24.00
	36	0	QPSK	21.76	21.86	21.95	23.00
		20	QPSK	21.82	21.87	21.98	23.00
		39	QPSK	21.85	21.83	21.92	23.00
	75	0	QPSK	21.78	21.81	21.90	23.00
15	1	0	16QAM	21.56	22.06	22.19	23.00
		37	16QAM	21.77	22.29	22.50	23.00
		74	16QAM	21.60	22.05	22.24	23.00
	36	0	16QAM	20.69	20.87	20.86	22.00
		20	16QAM	20.78	20.90	20.92	22.00
		39	16QAM	20.76	20.81	20.87	22.00
	75	0	16QAM	20.74	20.81	20.88	22.00
Channel				132022	132322	132622	
Frequency (MHz)				1715	1745	1775	
10	1	0	QPSK	22.71	22.78	22.84	24.00
		25	QPSK	22.86	22.94	22.95	24.00
		49	QPSK	22.72	22.82	22.82	24.00
	25	0	QPSK	21.75	21.80	21.89	23.00
		12	QPSK	21.78	21.86	21.91	23.00
		25	QPSK	21.73	21.77	21.85	23.00
	50	0	QPSK	21.76	21.83	21.85	23.00
10	1	0	16QAM	21.64	22.08	21.90	23.00
		25	16QAM	21.75	22.24	21.98	23.00
		49	16QAM	21.68	22.14	21.86	23.00
	25	0	16QAM	20.75	20.84	20.98	22.00
		12	16QAM	20.81	20.89	21.02	22.00
		25	16QAM	20.79	20.81	20.91	22.00
	50	0	16QAM	20.72	20.80	20.88	22.00
Channel				131997	132322	132647	
Frequency (MHz)				1712.5	1745	1777.5	
5	1	0	QPSK	22.69	22.65	22.80	24.00
		12	QPSK	23.01	22.94	23.15	24.00
		24	QPSK	22.74	22.66	22.86	24.00
	12	0	QPSK	21.72	21.76	21.92	23.00
		7	QPSK	21.79	21.83	21.97	23.00
		13	QPSK	21.71	21.75	21.84	23.00
	25	0	QPSK	21.72	21.76	21.86	23.00
5	1	0	16QAM	21.83	22.13	21.93	23.00
		12	16QAM	22.12	22.46	22.19	23.00
		24	16QAM	21.81	22.16	21.94	23.00
	12	0	16QAM	20.74	20.88	20.87	22.00
		7	16QAM	20.85	20.93	20.94	22.00
		13	16QAM	20.77	20.84	20.84	22.00
	25	0	16QAM	20.71	20.80	20.80	22.00
Channel				131987	132322	132657	
Frequency (MHz)				1711.5	1745	1778.5	
3	1	0	QPSK	22.73	22.82	22.90	24.00
		8	QPSK	22.90	22.97	23.05	24.00
		14	QPSK	22.77	22.83	22.84	24.00
	8	0	QPSK	21.78	21.81	21.94	23.00
		4	QPSK	21.82	21.87	21.97	23.00
		7	QPSK	21.78	21.80	21.92	23.00
	15	0	QPSK	21.78	21.79	21.91	23.00
3	1	0	16QAM	21.68	22.14	21.96	23.00
		8	16QAM	21.83	22.31	22.10	23.00
		14	16QAM	21.65	22.17	21.88	23.00
	8	0	16QAM	20.86	20.89	20.94	22.00
		4	16QAM	20.91	20.92	20.98	22.00
		7	16QAM	20.86	20.87	20.89	22.00
	15	0	16QAM	20.79	20.83	20.84	22.00
Channel				131979	132322	132665	
Frequency (MHz)				1710.7	1745	1779.3	
1.4	1	0	QPSK	22.73	22.76	22.77	24.00
		3	QPSK	22.87	22.88	22.89	24.00
		5	QPSK	22.73	22.74	22.76	24.00
	3	0	QPSK	22.75	22.79	22.86	24.00
		1	QPSK	22.78	22.84	22.92	24.00
		3	QPSK	22.77	22.78	22.86	24.00
	6	0	QPSK	21.83	21.82	21.91	23.00
1.4	1	0	16QAM	21.85	22.11	21.83	23.00
		3	16QAM	21.95	22.22	21.93	23.00
		5	16QAM	21.86	22.11	21.86	23.00
	3	0	16QAM	21.80	21.96	22.03	23.00
		1	16QAM	21.87	22.00	22.15	23.00
		3	16QAM	21.79	21.98	22.05	23.00
	6	0	16QAM	20.96	20.72	21.05	22.00

8.3.8 LTE Band71 Output Power

LTE B71 Full							
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				133222	133322	133372	
Frequency (MHz)				673	683	688	
20	1	0	QPSK	22.44	22.66	22.56	23.50
		49	QPSK	22.51	22.57	22.46	23.50
		99	QPSK	22.65	22.55	22.44	23.50
	50	0	QPSK	21.43	21.51	21.67	22.50
		24	QPSK	21.32	21.36	21.71	22.50
		50	QPSK	21.46	21.70	21.56	22.50
	100	0	QPSK	21.34	21.63	21.67	22.50
20	1	0	16QAM	21.73	21.72	21.58	22.50
		49	16QAM	21.63	21.82	21.78	22.50
		99	16QAM	21.63	21.74	21.75	22.50
	50	0	16QAM	20.41	20.45	20.35	21.50
		24	16QAM	20.25	20.47	20.32	21.50
		50	16QAM	20.38	20.40	20.54	21.50
	100	0	16QAM	20.49	20.50	20.45	21.50
Channel				133197	133297	133397	Tune-up limit (dBm)
Frequency (MHz)				670.5	680.5	690.5	
15	1	0	QPSK	22.24	22.54	22.11	23.50
		37	QPSK	22.34	22.33	22.51	23.50
		74	QPSK	22.45	22.28	22.46	23.50
	36	0	QPSK	21.31	21.06	21.44	22.50
		20	QPSK	21.84	21.21	21.63	22.50
		39	QPSK	21.52	21.43	21.60	22.50
	75	0	QPSK	21.87	21.43	21.27	22.50
15	1	0	16QAM	21.60	21.31	21.67	22.50
		37	16QAM	21.54	21.30	21.55	22.50
		74	16QAM	21.58	21.50	21.76	22.50
	36	0	16QAM	20.45	20.25	20.45	21.50
		20	16QAM	20.30	20.08	20.55	21.50
		39	16QAM	20.27	20.33	20.29	21.50
	75	0	16QAM	20.73	20.14	20.42	21.50
Channel				133172	133297	133422	Tune-up limit (dBm)
Frequency (MHz)				668	680.5	693	
10	1	0	QPSK	22.44	22.57	22.27	23.50
		25	QPSK	22.41	22.48	22.35	23.50
		49	QPSK	22.32	22.38	22.31	23.50
	25	0	QPSK	21.17	20.85	21.46	22.50
		12	QPSK	21.90	20.96	21.49	22.50
		25	QPSK	21.69	21.31	21.47	22.50
	50	0	QPSK	21.94	21.09	21.46	22.50
10	1	0	16QAM	21.55	20.96	21.76	22.50
		25	16QAM	21.67	21.15	21.43	22.50
		49	16QAM	21.54	21.32	21.76	22.50
	25	0	16QAM	20.50	20.12	20.53	21.50
		12	16QAM	20.11	19.90	20.74	21.50
		25	16QAM	20.29	20.08	20.33	21.50
	50	0	16QAM	20.64	20.08	20.58	21.50
Channel				133147	133297	133447	Tune-up limit (dBm)
Frequency (MHz)				665.5	680.5	695.5	
5	1	0	QPSK	22.60	22.61	22.38	23.50
		12	QPSK	22.51	22.57	22.28	23.50
		24	QPSK	22.54	22.53	22.37	23.50
	12	0	QPSK	21.53	21.33	21.55	22.50
		7	QPSK	21.38	21.26	21.88	22.50
		13	QPSK	21.26	21.45	21.74	22.50
	25	0	QPSK	21.51	21.20	21.62	22.50
5	1	0	16QAM	21.89	21.43	21.47	22.50
		12	16QAM	21.63	21.65	21.60	22.50
		24	16QAM	21.68	21.55	21.59	22.50
	12	0	16QAM	20.61	20.31	20.45	21.50
		7	16QAM	20.15	20.22	20.17	21.50
		13	16QAM	20.52	20.24	20.60	21.50
	25	0	16QAM	20.59	20.20	20.49	21.50

8.3.9 LTE Band41 Output Power

LTE B41 Full									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power High Ch. / Freq.	Tune-up limit (dBm)
Channel				39750	40185	40620	41055	41490	
Frequency (MHz)				2506	2549.5	2593	2636.5	2680	
20	1	0	QPSK	22.41	22.64	22.83	23.02	23.03	24.00
		49	QPSK	22.93	23.01	23.42	23.41	23.37	24.00
		99	QPSK	22.59	22.71	22.87	23.06	23.06	24.00
	50	0	QPSK	21.77	21.96	22.06	22.02	22.15	23.00
		24	QPSK	21.87	21.96	22.27	22.15	22.18	23.00
		50	QPSK	21.89	21.93	22.07	22.13	22.18	23.00
	100	0	QPSK	21.84	21.90	22.05	22.13	22.23	23.00
20	1	0	16QAM	21.85	21.93	21.96	21.95	22.33	23.00
		49	16QAM	22.18	22.30	22.30	22.30	22.70	23.00
		99	16QAM	21.87	22.01	21.97	21.95	22.44	23.00
	50	0	16QAM	20.73	20.89	21.05	21.02	21.28	22.00
		24	16QAM	20.83	20.92	21.05	21.04	21.30	22.00
		50	16QAM	20.88	20.91	21.05	21.09	21.20	22.00
	100	0	16QAM	20.84	20.91	21.05	21.06	21.21	22.00
Channel				39725	40173	40620	41068	41515	Tune-up limit (dBm)
Frequency (MHz)				2503.5	2548.3	2593	2637.8	2682.5	
15	1	0	QPSK	22.56	22.48	23.00	23.15	23.17	24.00
		37	QPSK	23.04	23.14	23.37	23.36	23.42	24.00
		74	QPSK	22.75	22.56	23.02	22.96	23.15	24.00
	36	0	QPSK	21.89	21.80	22.14	22.26	22.40	23.00
		20	QPSK	21.97	22.10	22.20	22.11	22.38	23.00
		39	QPSK	21.98	21.82	22.16	22.19	22.27	23.00
	75	0	QPSK	21.94	21.96	22.15	22.20	22.36	23.00
15	1	0	16QAM	21.90	21.80	22.32	21.99	22.38	23.00
		37	16QAM	22.31	22.47	22.67	22.53	22.76	23.00
		74	16QAM	22.04	22.01	22.35	22.30	22.44	23.00
	36	0	16QAM	20.81	20.68	21.05	21.01	21.32	22.00
		20	16QAM	20.90	20.84	21.09	21.22	21.29	22.00
		39	16QAM	20.89	20.74	21.09	20.96	21.24	22.00
	75	0	16QAM	20.89	20.93	21.10	20.82	21.27	22.00
Channel				39700	40160	40620	41080	41540	Tune-up limit (dBm)
Frequency (MHz)				2501	2547	2593	2639	2685	
10	1	0	QPSK	22.56	23.03	23.11	23.16	23.25	24.00
		49	QPSK	22.88	23.01	23.41	23.28	23.36	24.00
		99	QPSK	22.83	23.08	23.13	23.33	23.26	24.00
	25	0	QPSK	21.79	21.90	22.05	22.15	22.35	23.00
		24	QPSK	21.87	22.21	22.15	22.24	22.31	23.00
		50	QPSK	21.88	22.15	22.10	22.00	22.25	23.00
	50	0	QPSK	21.83	22.06	22.02	22.16	22.28	23.00
10	1	0	16QAM	22.05	22.43	22.41	22.29	22.57	23.00
		49	16QAM	22.19	22.48	22.52	22.45	22.66	23.00
		99	16QAM	22.10	22.45	22.41	22.49	22.63	23.00
	25	0	16QAM	20.79	20.95	21.03	21.13	21.34	22.00
		24	16QAM	20.85	21.21	21.09	21.04	21.29	22.00
		50	16QAM	20.88	21.08	21.06	21.09	21.27	22.00
	50	0	16QAM	20.82	21.21	21.02	21.00	21.29	22.00
Channel				39675	40148	40620	41093	41565	Tune-up limit (dBm)
Frequency (MHz)				2498.5	2545.8	2593	2640.3	2687.5	
5	1	0	QPSK	22.72	22.80	22.97	23.07	23.15	24.00
		37	QPSK	23.00	23.21	23.31	23.34	23.38	24.00
		74	QPSK	22.66	23.05	22.98	23.11	23.17	24.00
	36	0	QPSK	21.76	21.88	22.05	22.07	22.30	23.00
		20	QPSK	21.85	22.06	22.10	21.92	22.32	23.00
		39	QPSK	21.80	21.98	22.05	21.96	22.26	23.00
	75	0	QPSK	21.78	21.84	22.03	22.01	22.28	23.00
5	1	0	16QAM	22.01	22.30	22.24	22.23	22.54	23.00
		37	16QAM	22.20	22.53	22.53	22.77	22.84	23.00
		74	16QAM	21.99	22.37	22.24	22.27	22.54	23.00
	36	0	16QAM	20.76	20.99	20.99	21.03	21.29	22.00
		20	16QAM	20.86	21.01	21.00	21.14	21.35	22.00
		39	16QAM	20.86	20.92	20.97	20.99	21.32	22.00
	75	0	16QAM	20.79	21.02	21.05	21.10	21.24	22.00