



Appendix B

E-UTRA Band 4



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CONTENT

1	EFFECTIVE (ISOTROPIC) RADIATED POWER	3
1.1.	TEST RESULT	3
2.	PEAK-TO-AVERAGE RATIO (CCDF)	9
2.1.	TEST RESULT	9
2.2.	TEST PLOTS	9
3.	MODULATION CHARACTERISTICS	13
3.1.	TEST MODE = LTE /TM1 20MHZ.....	13
3.1.1.	TEST CHANNEL = MCH.....	13
3.2.	TEST MODE = LTE /TM2 20MHZ.....	14
3.2.1.	TEST CHANNEL = MCH.....	14
4.	26DB BANDWIDTH AND OCCUPIED BANDWIDTH	15
4.1.	TEST RESULT	15
4.2.	TEST PLOTS.....	16
5.	BAND EDGE COMPLIANCE	34
5.1.	TEST PLOTS.....	34
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	58
6.1.	TEST PLOTS.....	58
7.	FIELD STRENGTH OF SPURIOUS RADIATION	64
7.1.	TEST MODE =LTE/TM1	64
7.1.1.	TEST CHANNEL = LCH	64
7.1.2.	TEST CHANNEL = MCH.....	64
7.1.3.	TEST CHANNEL = HCH.....	65
8.	FREQUENCY STABILITY	66
8.1.	FREQUENCY VS VOLTAGE	66
8.2.	FREQUENCY VS TEMPERATURE	66



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1 Effective (Isotropic) Radiated Power

1.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	22.73	23.44	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	22.67	23.38	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	22.51	23.22	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#1	22.52	23.23	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#0	22.67	23.38	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#3	22.82	23.53	30.00	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	21.70	22.41	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	22.57	23.28	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	22.83	23.54	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	22.71	23.42	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#0	22.60	23.31	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#1	22.78	23.49	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#3	22.77	23.48	30.00	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	21.72	22.43	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	22.76	23.47	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	22.53	23.24	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	22.78	23.49	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#0	22.76	23.47	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#3	22.59	23.30	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#1	22.57	23.28	30.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	21.81	22.52	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	21.59	22.30	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	21.53	22.24	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	21.59	22.30	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#0	21.59	22.30	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#1	21.61	22.32	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#3	21.54	22.25	30.00	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	20.59	21.30	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	21.54	22.25	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	21.51	22.22	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	21.74	22.45	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#3	21.75	22.46	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#1	21.66	22.37	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#0	21.63	22.34	30.00	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	20.65	21.36	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	21.78	22.49	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	21.78	22.49	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	21.76	22.47	30.00	PASS



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Band4	1.4MHz	16QAM	20393	3RB#3	21.80	22.51	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#1	21.61	22.32	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#0	21.76	22.47	30.00	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	20.61	21.32	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#14	22.65	23.36	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#0	22.68	23.39	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#8	22.70	23.41	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#7	21.62	22.33	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#4	21.59	22.30	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#0	21.66	22.37	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	21.67	22.38	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#14	22.68	23.39	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#8	22.70	23.41	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#0	22.53	23.24	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#7	21.73	22.44	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#0	21.54	22.25	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#4	21.83	22.54	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	21.66	22.37	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#14	22.63	23.34	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#8	22.72	23.43	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#0	22.75	23.46	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#4	21.52	22.23	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#0	21.66	22.37	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#7	21.70	22.41	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	21.57	22.28	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#8	21.67	22.38	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#14	21.69	22.40	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#0	21.59	22.30	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#0	20.55	21.26	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#7	20.64	21.35	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#4	20.55	21.26	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	20.80	21.51	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#8	21.77	22.48	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#14	21.57	22.28	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#0	21.83	22.54	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#4	20.64	21.35	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#0	20.56	21.27	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#7	20.52	21.23	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	20.69	21.40	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#14	21.67	22.38	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#0	21.76	22.47	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#8	21.59	22.30	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#0	20.81	21.52	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#7	20.70	21.41	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#4	20.80	21.51	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	20.73	21.44	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#24	22.71	23.42	30.00	PASS



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Band4	5MHz	QPSK	19975	1RB#12	22.54	23.25	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#0	22.58	23.29	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#6	21.60	22.31	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#0	21.62	22.33	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#13	21.81	22.52	30.00	PASS
Band4	5MHz	QPSK	19975	25RB#0	21.69	22.40	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#24	22.57	23.28	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#0	22.80	23.51	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#12	22.54	23.25	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#6	21.68	22.39	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#0	21.72	22.43	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#13	21.77	22.48	30.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	21.76	22.47	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#0	22.82	23.53	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#12	22.79	23.50	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#24	22.68	23.39	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#0	21.67	22.38	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#6	21.54	22.25	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#13	21.50	22.21	30.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	21.67	22.38	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#0	21.52	22.23	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#12	21.68	22.39	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#24	21.66	22.37	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#13	20.56	21.27	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#0	20.58	21.29	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#6	20.61	21.32	30.00	PASS
Band4	5MHz	16QAM	19975	25RB#0	20.79	21.50	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#0	21.77	22.48	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#12	21.61	22.32	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#24	21.75	22.46	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#0	20.64	21.35	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#13	20.77	21.48	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#6	20.74	21.45	30.00	PASS
Band4	5MHz	16QAM	20175	25RB#0	20.69	21.40	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#0	21.83	22.54	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#24	21.74	22.45	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#12	21.60	22.31	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#0	20.65	21.36	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#6	20.64	21.35	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#13	20.59	21.30	30.00	PASS
Band4	5MHz	16QAM	20375	25RB#0	20.69	21.40	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#0	22.56	23.27	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#24	22.81	23.52	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#49	22.56	23.27	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#12	21.58	22.29	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#0	21.68	22.39	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#25	21.75	22.46	30.00	PASS



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Band4	10MHz	QPSK	20000	50RB#0	21.55	22.26	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#49	22.57	23.28	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#0	22.50	23.21	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#24	22.75	23.46	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#0	21.57	22.28	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#12	21.82	22.53	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#25	21.51	22.22	30.00	PASS
Band4	10MHz	QPSK	20175	50RB#0	21.50	22.21	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#24	22.59	23.30	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#49	22.55	23.26	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#0	22.79	23.50	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#0	21.58	22.29	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#25	21.50	22.21	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#12	21.50	22.21	30.00	PASS
Band4	10MHz	QPSK	20350	50RB#0	21.83	22.54	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#24	21.76	22.47	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#49	21.65	22.36	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#0	21.71	22.42	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#0	20.67	21.38	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#12	20.65	21.36	30.00	PASS
Band4	10MHz	16QAM	20000	25RB#25	20.60	21.31	30.00	PASS
Band4	10MHz	16QAM	20000	50RB#0	20.78	21.49	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#49	21.74	22.45	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#0	21.67	22.38	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#24	21.76	22.47	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#25	20.70	21.41	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#12	20.80	21.51	30.00	PASS
Band4	10MHz	16QAM	20175	25RB#0	20.73	21.44	30.00	PASS
Band4	10MHz	16QAM	20175	50RB#0	20.58	21.29	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#24	21.75	22.46	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#49	21.54	22.25	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#0	21.68	22.39	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#25	20.77	21.48	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#12	20.73	21.44	30.00	PASS
Band4	10MHz	16QAM	20350	25RB#0	20.81	21.52	30.00	PASS
Band4	10MHz	16QAM	20350	50RB#0	20.78	21.49	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#74	22.73	23.44	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#0	22.78	23.49	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#38	22.53	23.24	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#39	21.76	22.47	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#18	21.83	22.54	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#0	21.74	22.45	30.00	PASS
Band4	15MHz	QPSK	20025	75RB#0	21.82	22.53	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#74	22.67	23.38	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#38	22.81	23.52	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#0	22.52	23.23	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#0	21.59	22.30	30.00	PASS



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Band4	15MHz	QPSK	20175	36RB#39	21.56	22.27	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#18	21.69	22.40	30.00	PASS
Band4	15MHz	QPSK	20175	75RB#0	21.74	22.45	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#74	22.61	23.32	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#38	22.79	23.50	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#0	22.56	23.27	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#18	21.74	22.45	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#0	21.51	22.22	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#39	21.68	22.39	30.00	PASS
Band4	15MHz	QPSK	20325	75RB#0	21.70	22.41	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#0	21.78	22.49	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#74	21.60	22.31	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#38	21.74	22.45	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#0	20.63	21.34	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#39	20.60	21.31	30.00	PASS
Band4	15MHz	16QAM	20025	36RB#18	20.52	21.23	30.00	PASS
Band4	15MHz	16QAM	20025	75RB#0	20.61	21.32	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#38	21.66	22.37	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#74	21.82	22.53	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#0	21.76	22.47	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#18	20.61	21.32	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#0	20.52	21.23	30.00	PASS
Band4	15MHz	16QAM	20175	36RB#39	20.50	21.21	30.00	PASS
Band4	15MHz	16QAM	20175	75RB#0	20.52	21.23	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#74	21.82	22.53	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#0	21.52	22.23	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#38	21.82	22.53	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#0	20.81	21.52	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#39	20.66	21.37	30.00	PASS
Band4	15MHz	16QAM	20325	36RB#18	20.55	21.26	30.00	PASS
Band4	15MHz	16QAM	20325	75RB#0	20.58	21.29	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#99	22.79	23.50	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#49	22.80	23.51	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#0	22.62	23.33	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#25	21.63	22.34	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#0	21.74	22.45	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#50	21.72	22.43	30.00	PASS
Band4	20MHz	QPSK	20050	100RB#0	21.63	22.34	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#99	22.55	23.26	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#0	22.59	23.30	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#49	22.83	23.54	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#25	21.52	22.23	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#0	21.50	22.21	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#50	21.80	22.51	30.00	PASS
Band4	20MHz	QPSK	20175	100RB#0	21.67	22.38	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#0	22.59	23.30	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#49	22.53	23.24	30.00	PASS



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Band4	20MHz	QPSK	20300	1RB#99	22.73	23.44	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#0	21.83	22.54	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#25	21.56	22.27	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#50	21.56	22.27	30.00	PASS
Band4	20MHz	QPSK	20300	100RB#0	21.62	22.33	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#0	21.83	22.54	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#49	21.53	22.24	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#99	21.61	22.32	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#50	20.77	21.48	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#0	20.53	21.24	30.00	PASS
Band4	20MHz	16QAM	20050	50RB#25	20.80	21.51	30.00	PASS
Band4	20MHz	16QAM	20050	100RB#0	20.83	21.54	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#0	21.69	22.40	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#49	21.72	22.43	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#99	21.59	22.30	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#0	20.83	21.54	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#50	20.78	21.49	30.00	PASS
Band4	20MHz	16QAM	20175	50RB#25	20.74	21.45	30.00	PASS
Band4	20MHz	16QAM	20175	100RB#0	20.60	21.31	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#0	21.58	22.29	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#99	21.55	22.26	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#49	21.77	22.48	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#0	20.56	21.27	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#25	20.73	21.44	30.00	PASS
Band4	20MHz	16QAM	20300	50RB#50	20.71	21.42	30.00	PASS
Band4	20MHz	16QAM	20300	100RB#0	20.79	21.50	30.00	PASS

Remark:

a: For getting the EIRP (Efficient Isotropic Radiated Power), the following formula should be taken to calculate it,

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]



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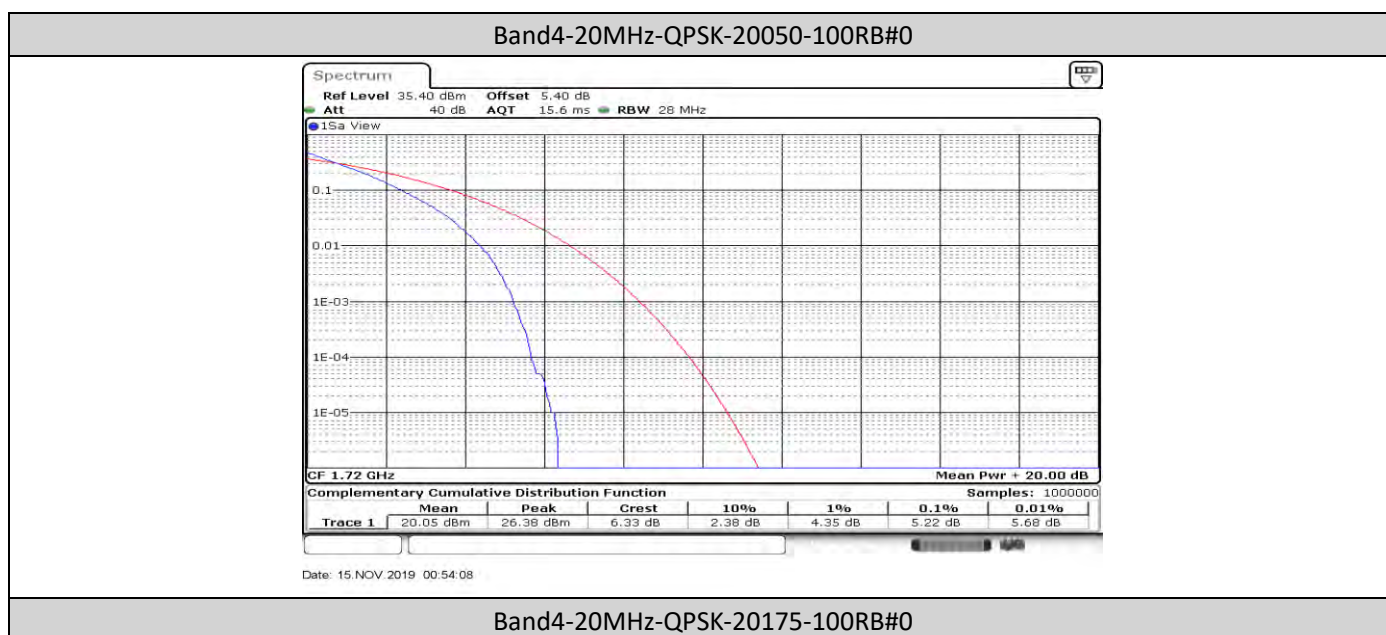


2. Peak-to-Average Ratio (CCDF)

2.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	5.22	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	5.30	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	5.04	13	PASS
Band4	20MHz	16QAM	20050	100RB#0	6.14	13	PASS
Band4	20MHz	16QAM	20175	100RB#0	6.14	13	PASS
Band4	20MHz	16QAM	20300	100RB#0	5.94	13	PASS

2.2. Test Plots





Band4-20MHz-QPSK-20300-100RB#0



Band4-20MHz-16QAM-20050-100RB#0





Band4-20MHz-16QAM-20175-100RB#0



Band4-20MHz-16QAM-20300-100RB#0

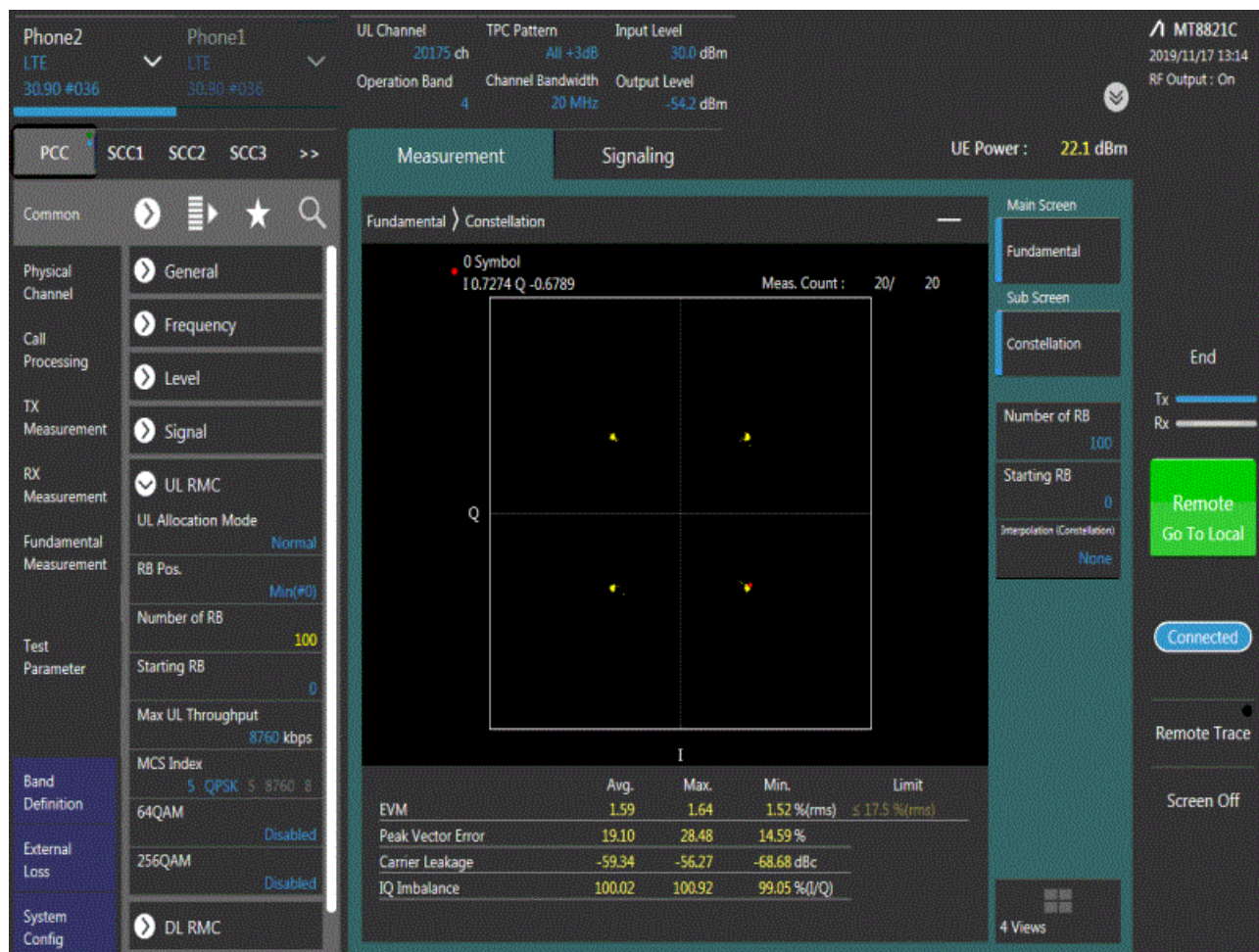




3. Modulation Characteristics

3.1. Test Mode = LTE /TM1 20MHz

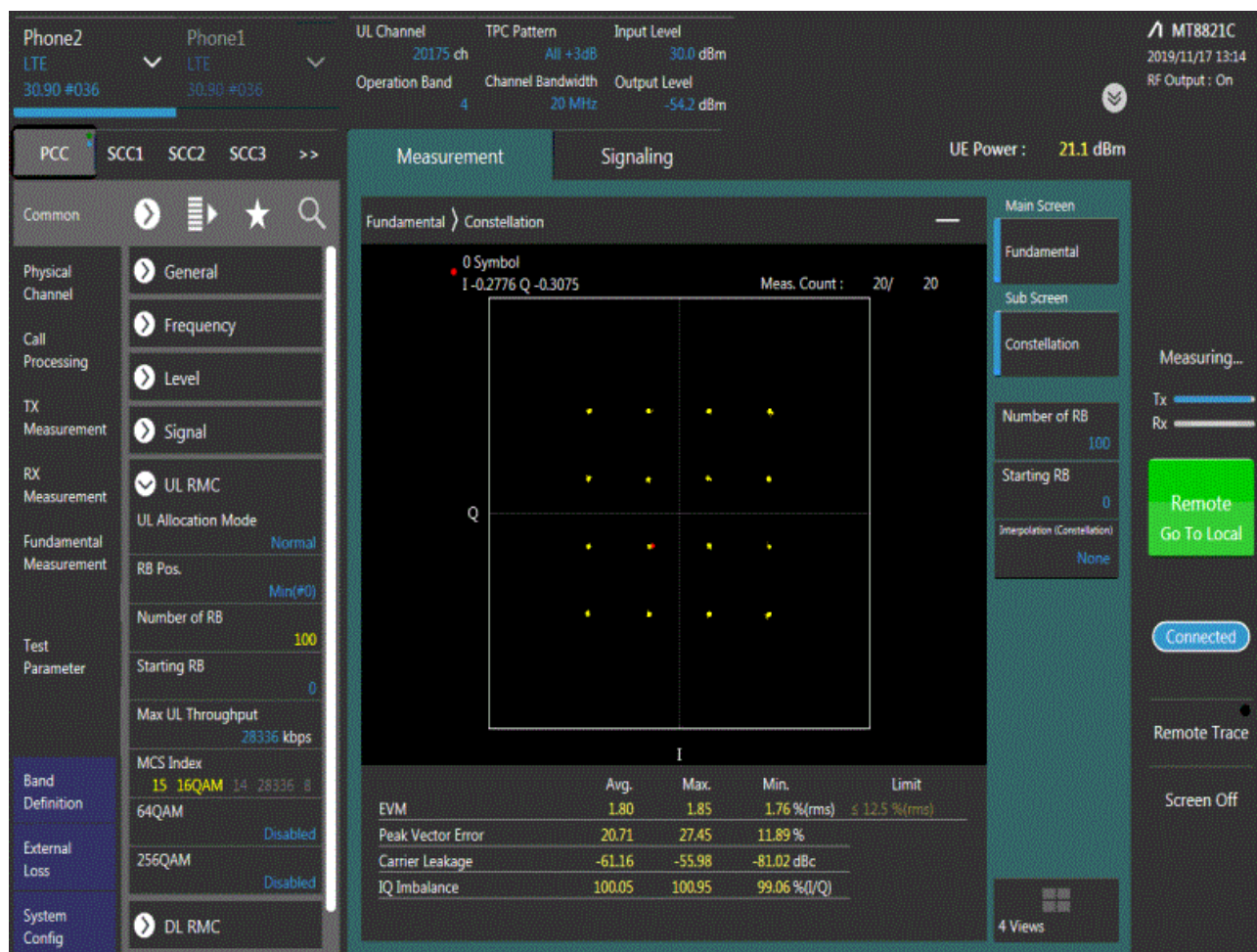
3.1.1. Test Channel = MCH





3.2. Test Mode = LTE /TM2 20MHz

3.2.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.097	1.290	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.091	1.284	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.097	1.296	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.094	1.290	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.091	1.278	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.094	1.287	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.685	2.916	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.685	3.024	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.685	2.886	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.685	2.898	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.685	2.910	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.685	2.910	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.476	4.900	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.476	4.860	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.486	4.830	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.476	4.890	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.466	4.870	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.466	4.800	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.931	9.620	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.931	9.600	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.931	9.660	PASS
Band4	10MHz	16QAM	20000	50RB#0	8.931	9.640	PASS
Band4	10MHz	16QAM	20175	50RB#0	8.931	9.640	PASS
Band4	10MHz	16QAM	20350	50RB#0	8.931	9.560	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.457	14.730	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.427	14.700	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.457	14.790	PASS
Band4	15MHz	16QAM	20025	75RB#0	13.487	14.790	PASS
Band4	15MHz	16QAM	20175	75RB#0	13.457	14.760	PASS
Band4	15MHz	16QAM	20325	75RB#0	13.487	14.700	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.982	19.480	PASS



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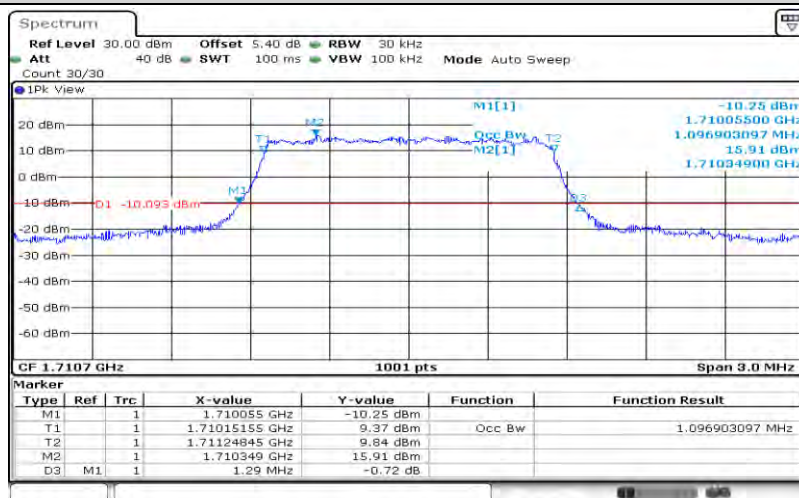
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Band4	20MHz	QPSK	20175	100RB#0	17.862	19.200	PASS
Band4	20MHz	QPSK	20300	100RB#0	17.902	19.120	PASS
Band4	20MHz	16QAM	20050	100RB#0	17.942	19.400	PASS
Band4	20MHz	16QAM	20175	100RB#0	17.862	19.320	PASS
Band4	20MHz	16QAM	20300	100RB#0	17.902	19.320	PASS

4.2. Test Plots

Band4-1.4MHz-QPSK-19957-6RB#0-1.097



Date: 15, NOV 2019 00:12:37

Band4-1.4MHz-QPSK-20175-6RB#0-1.091



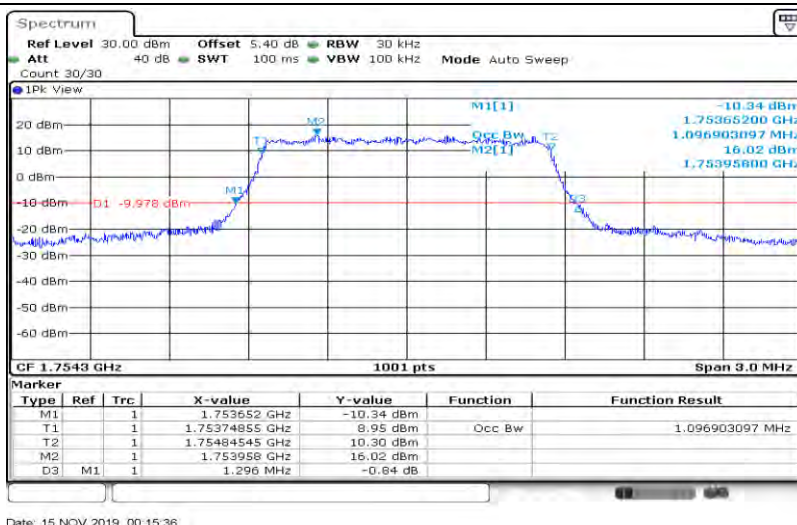
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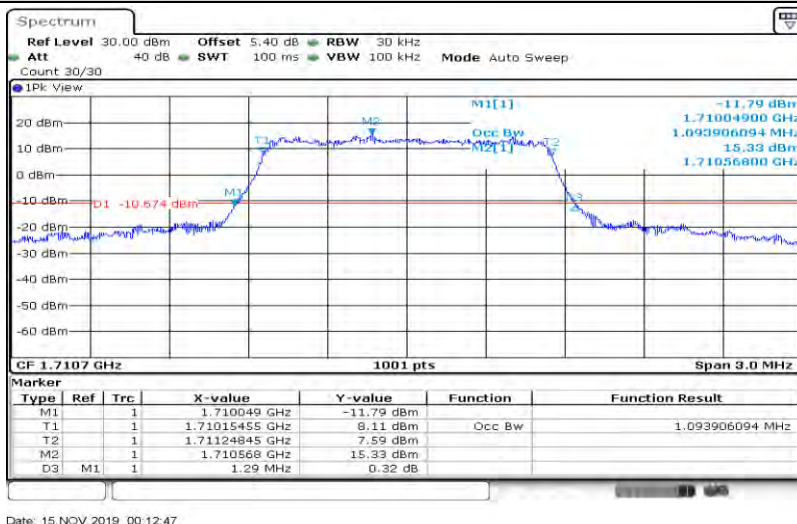


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Band4-1.4MHz-16QAM-19957-6RB#0-1.094

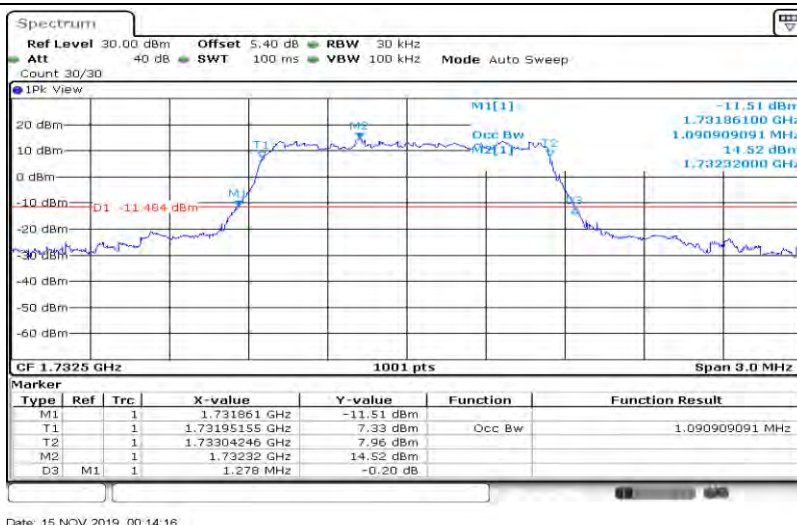


Band4-1.4MHz-16QAM-20175-6RB#0-1.091

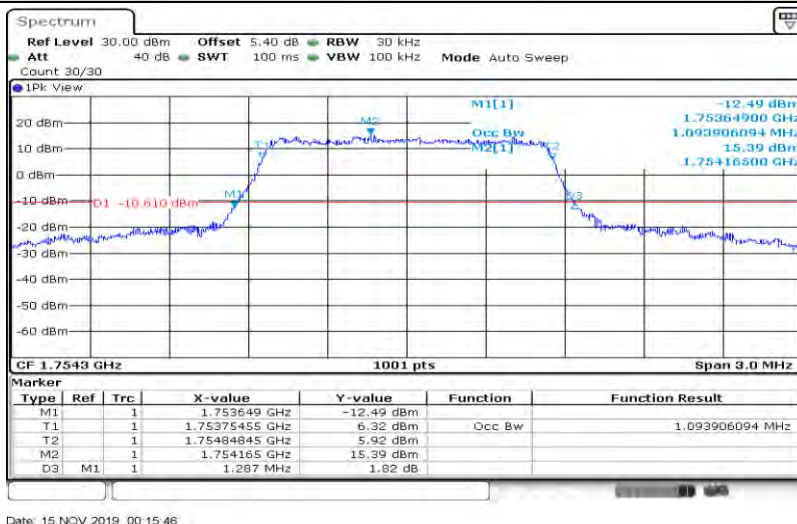


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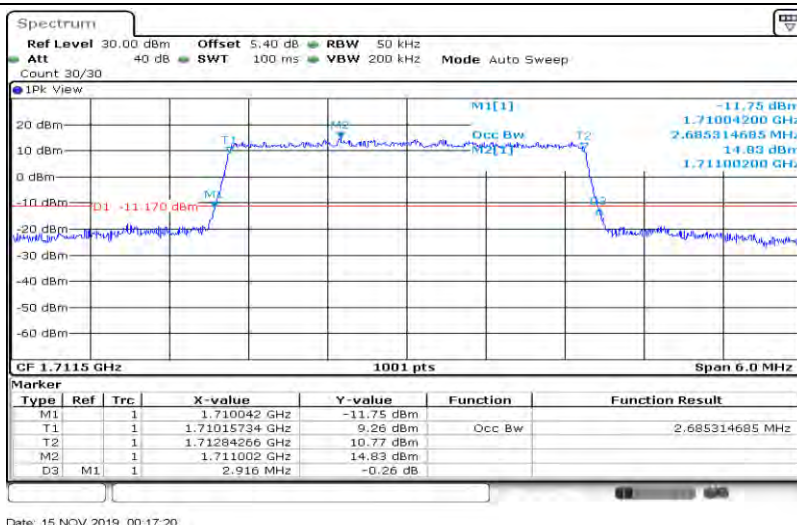


Band4-1.4MHz-16QAM-20393-6RB#0-1.094

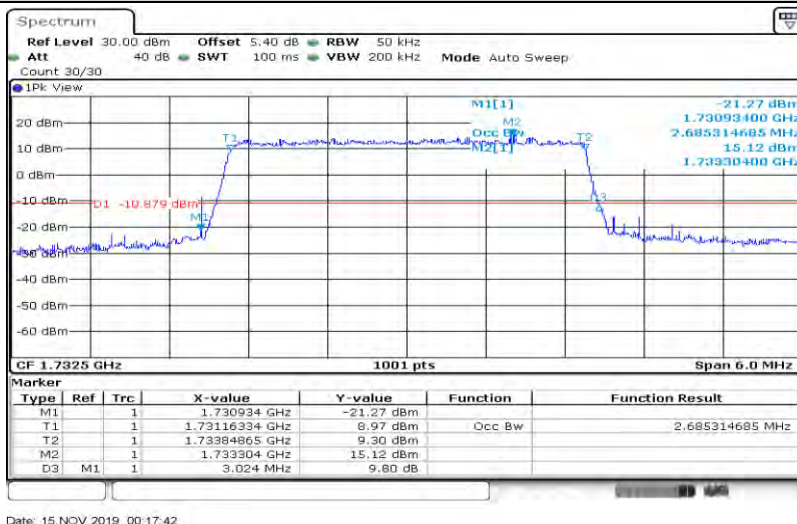


Band4-3MHz-QPSK-19965-15RB#0-2.685



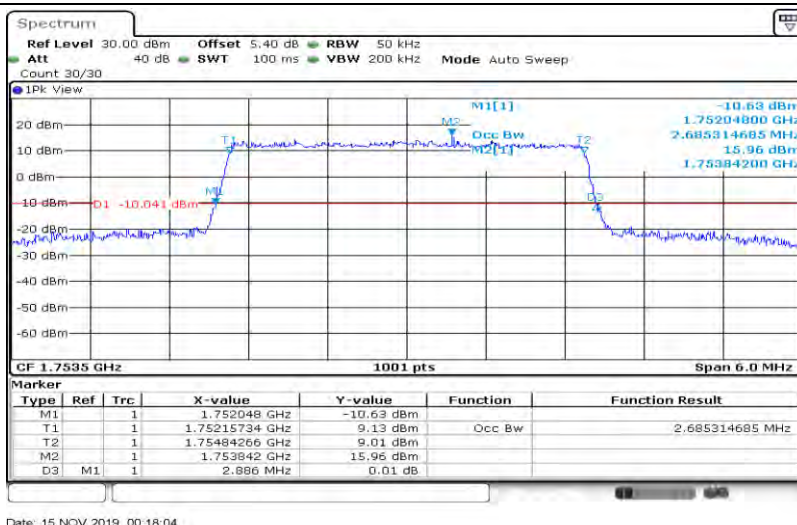


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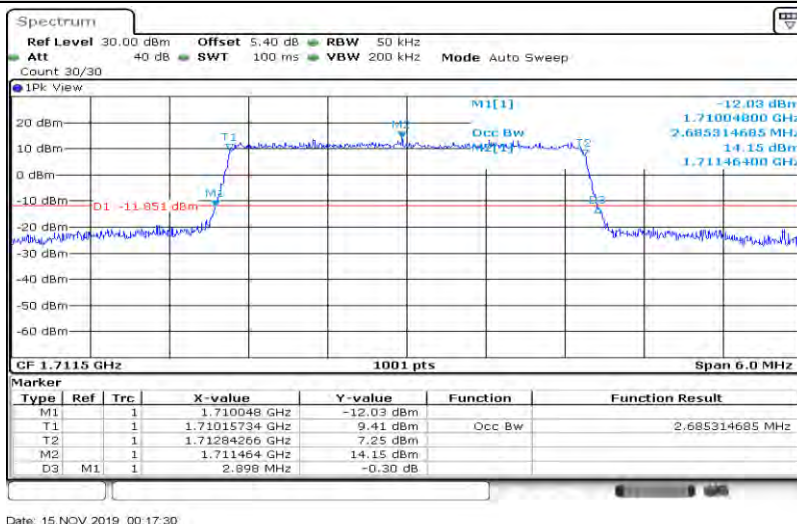


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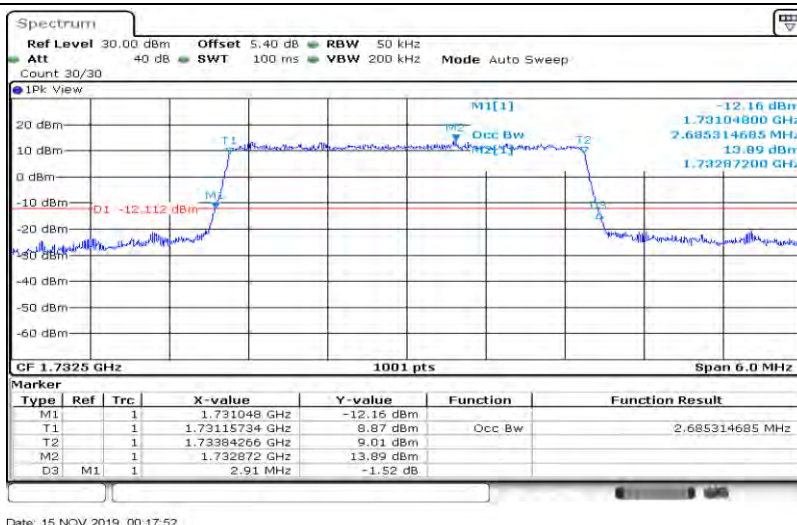


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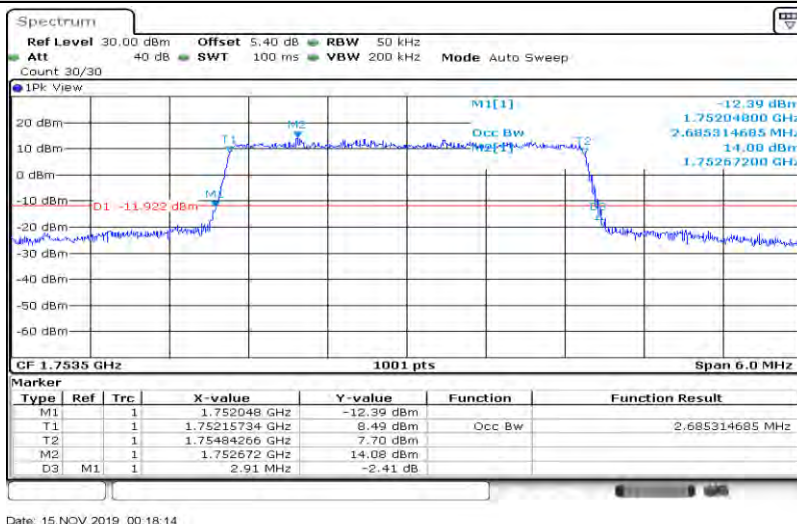


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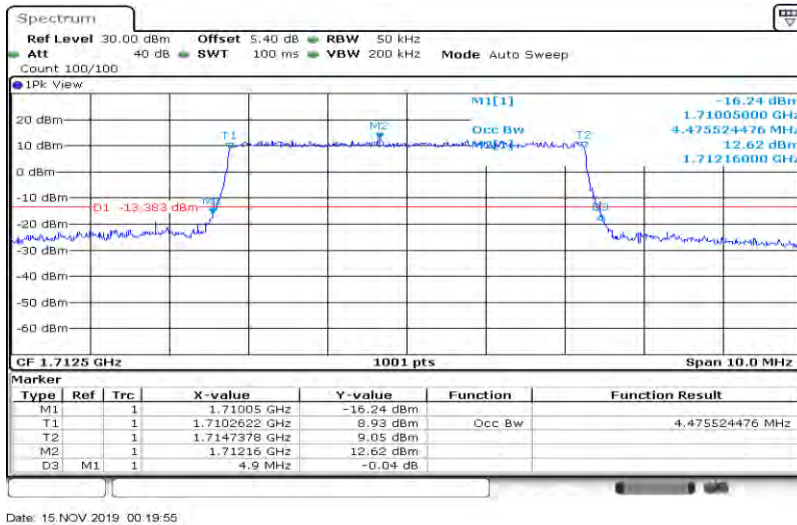




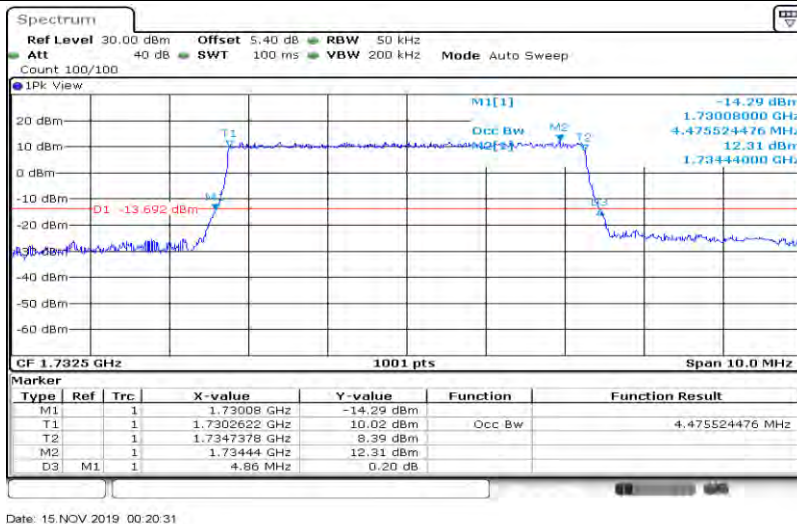
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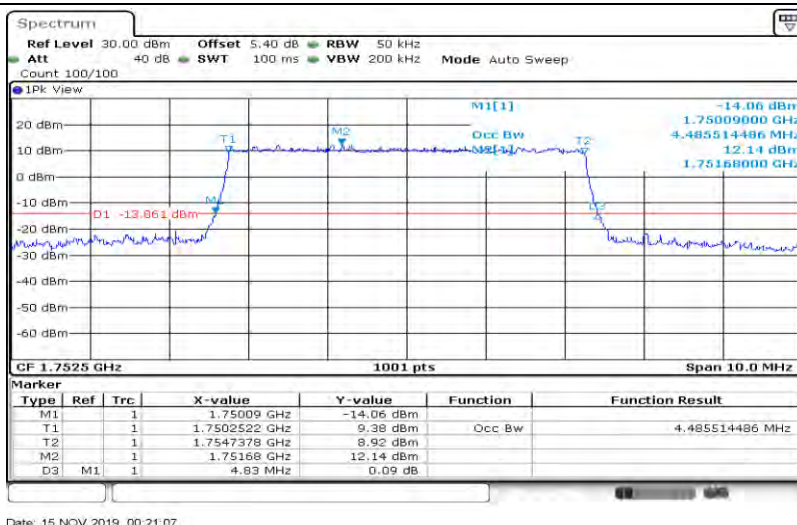


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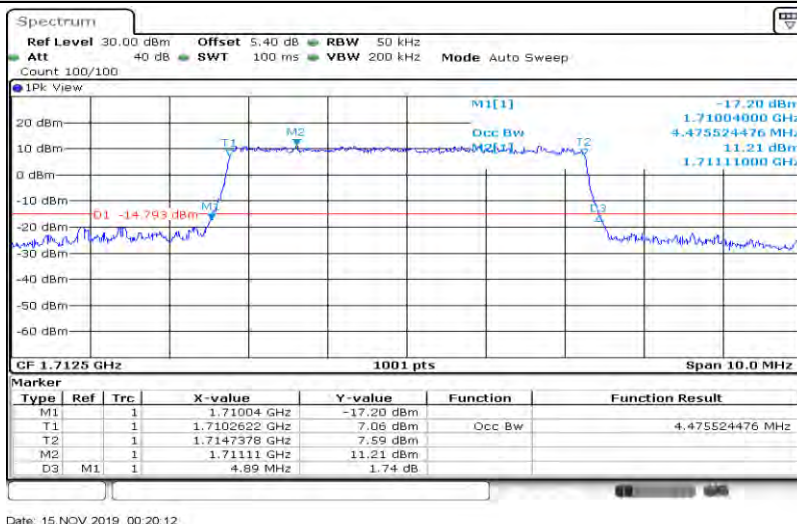


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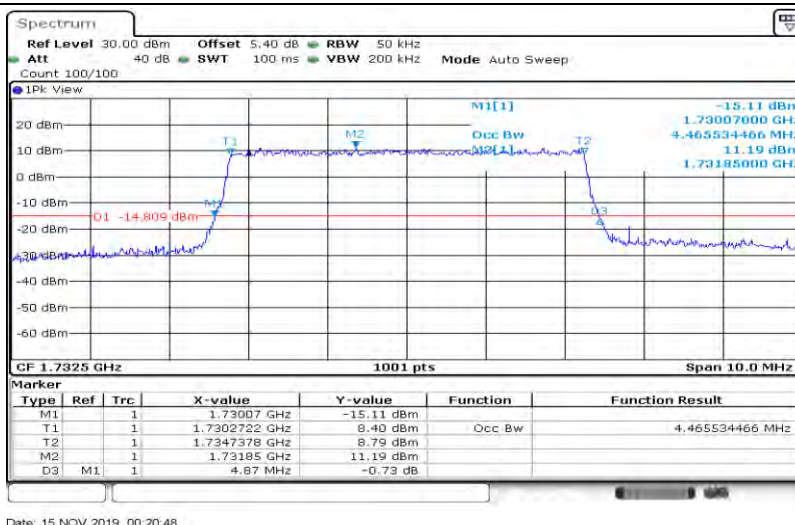


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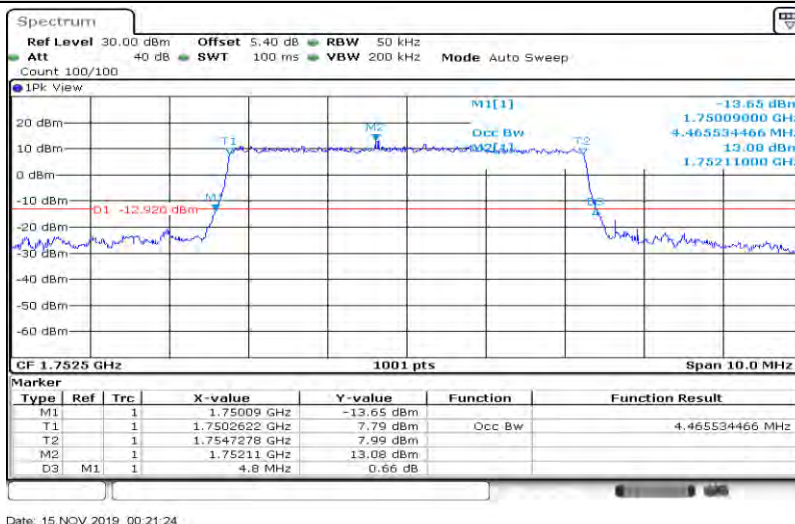


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Band4-5MHz-16QAM-20375-25RB#0-4.466

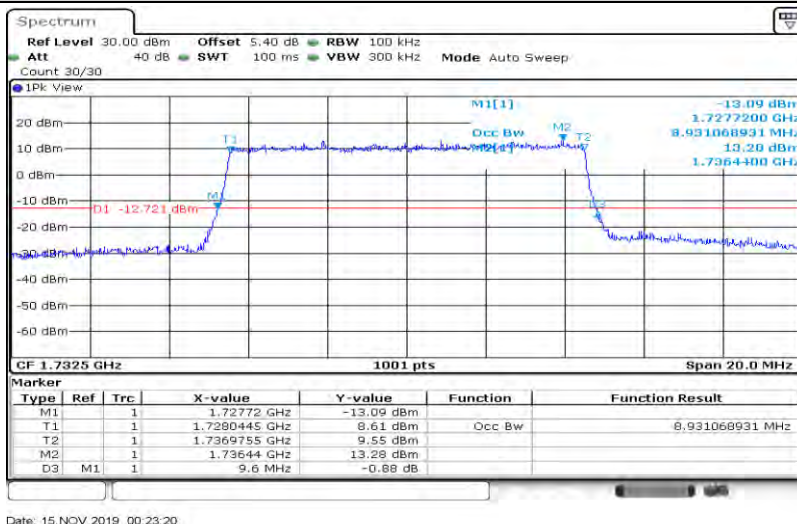


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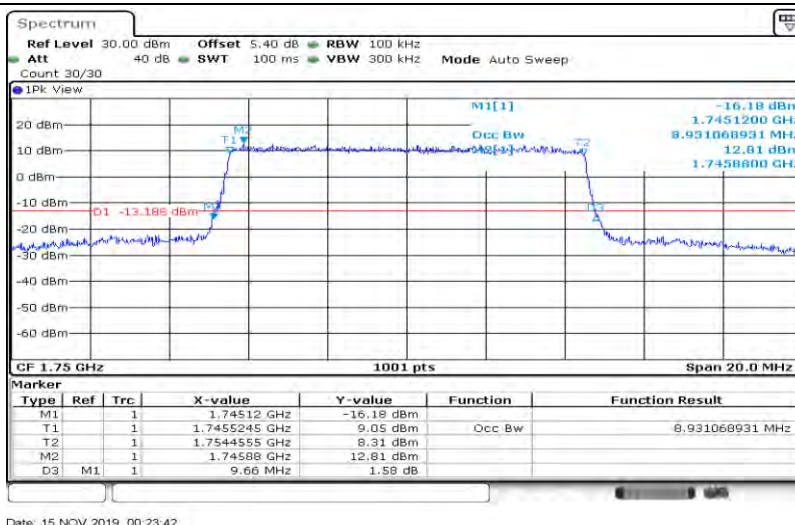


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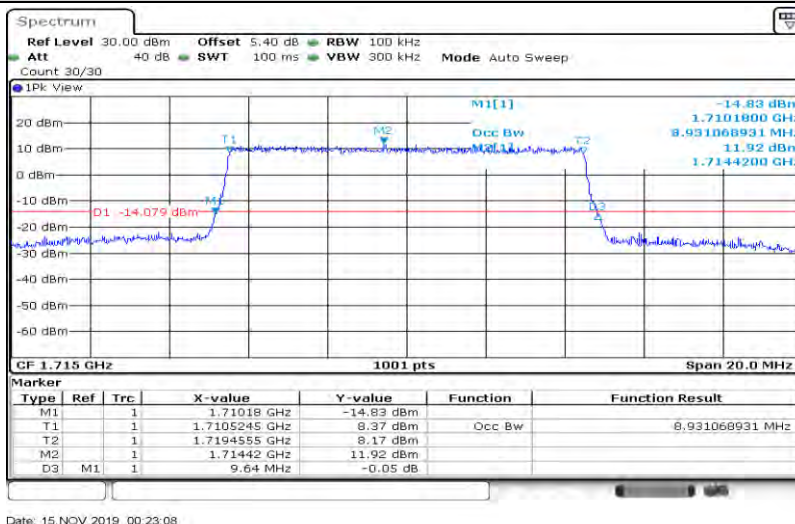


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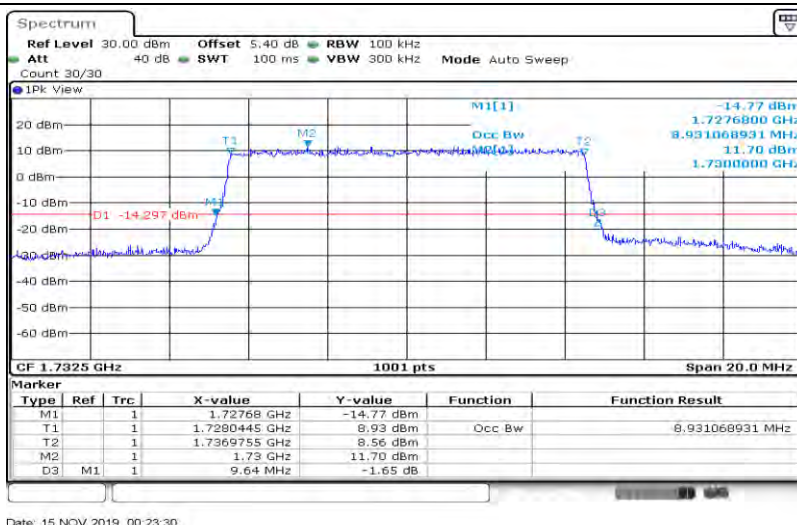


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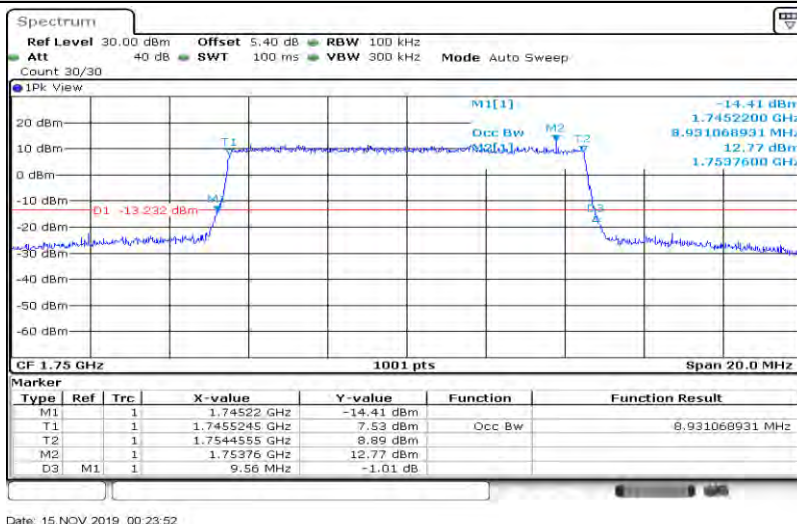


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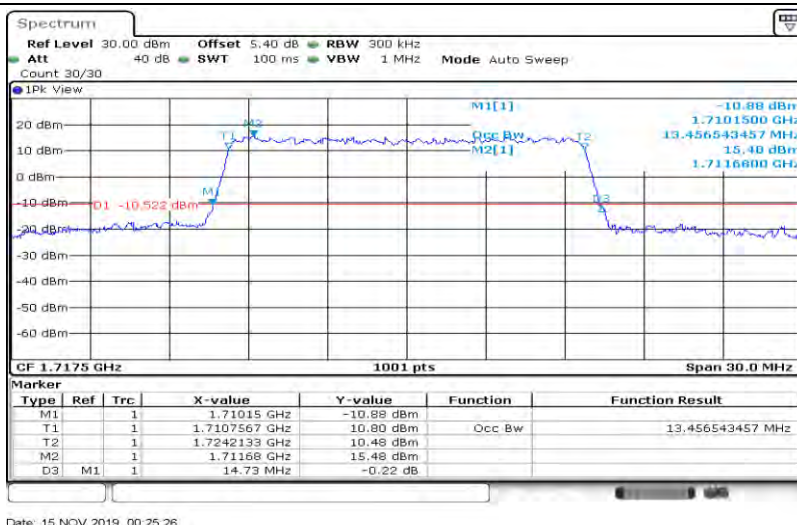


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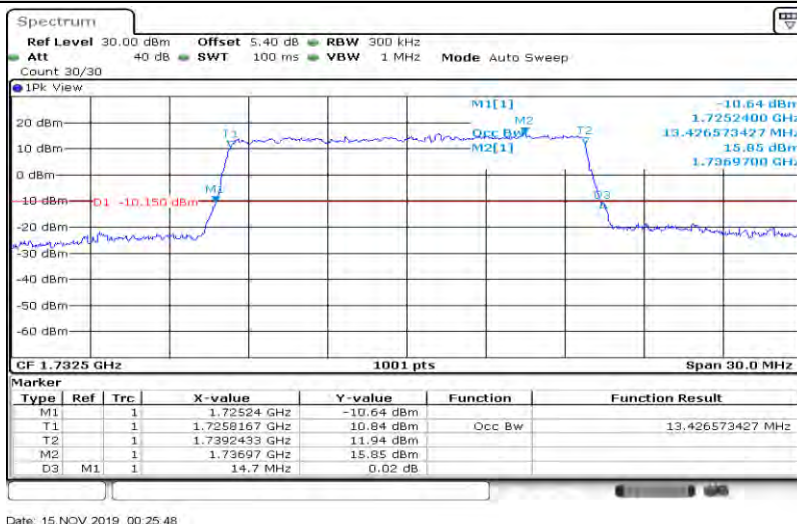


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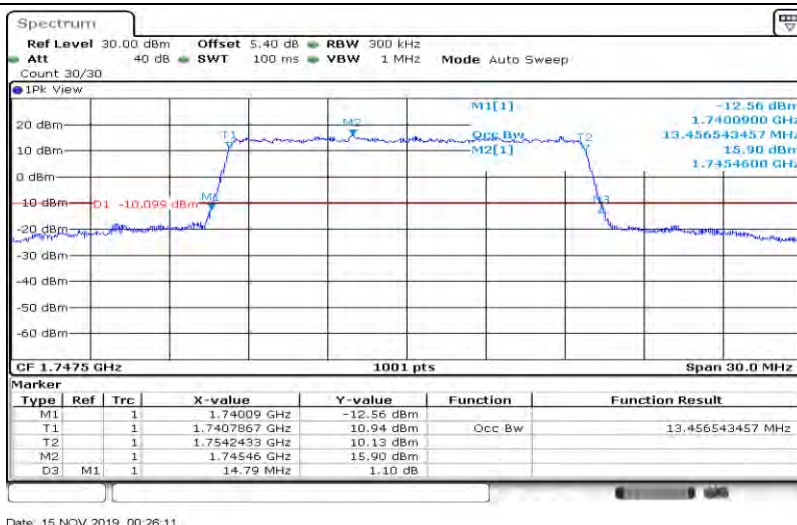


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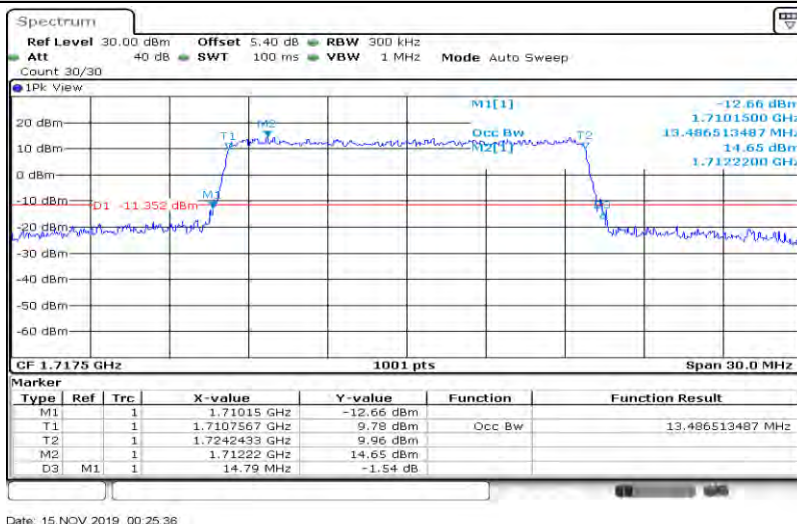


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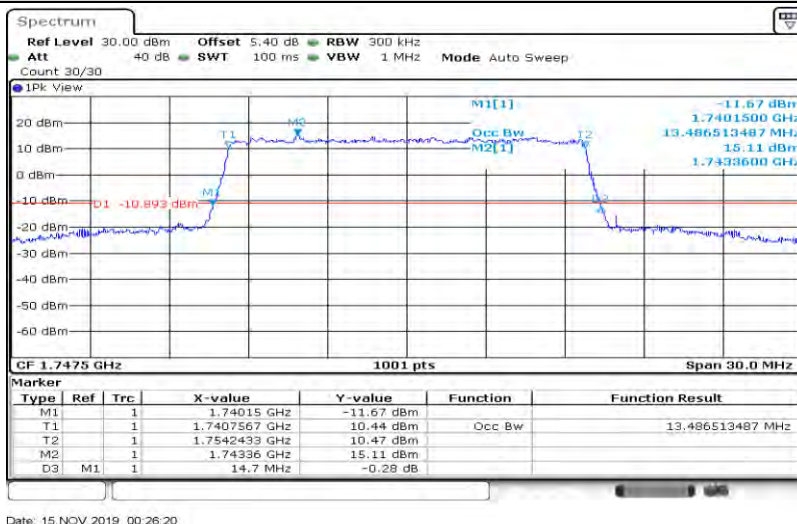


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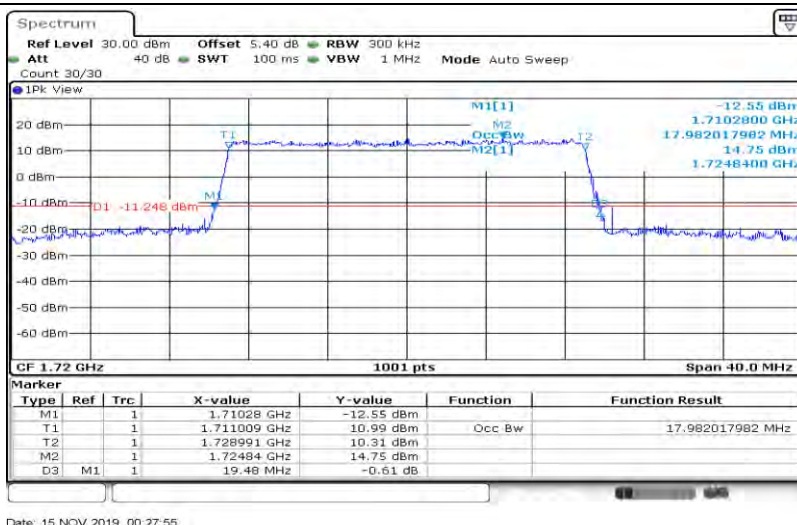


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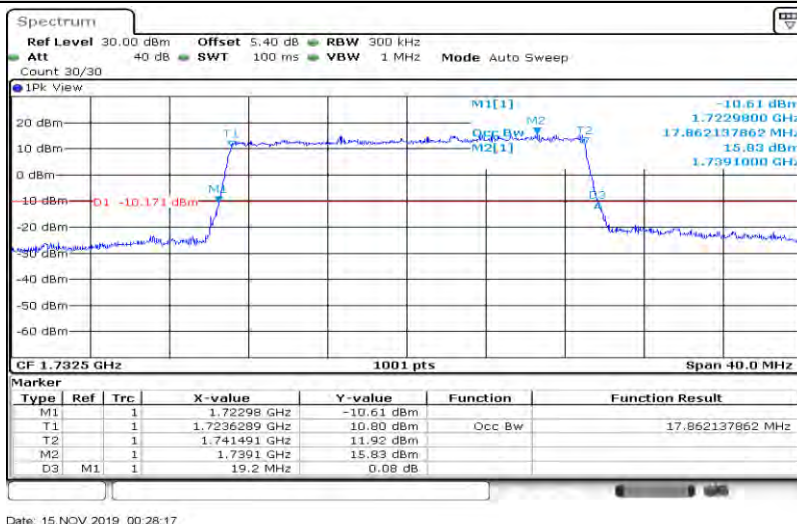


Band4-20MHz-QPSK-20050-100RB#0-17.982





Band4-20MHz-QPSK-20175-100RB#0-17.862

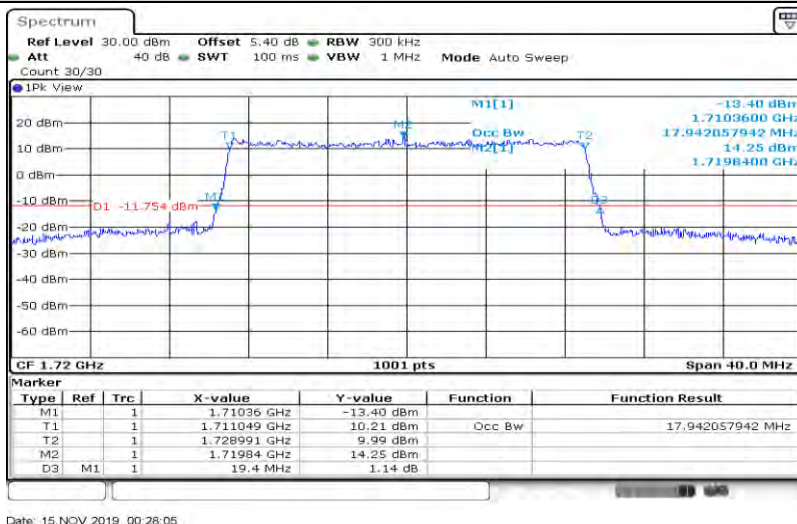


Band4-20MHz-QPSK-20300-100RB#0-17.902



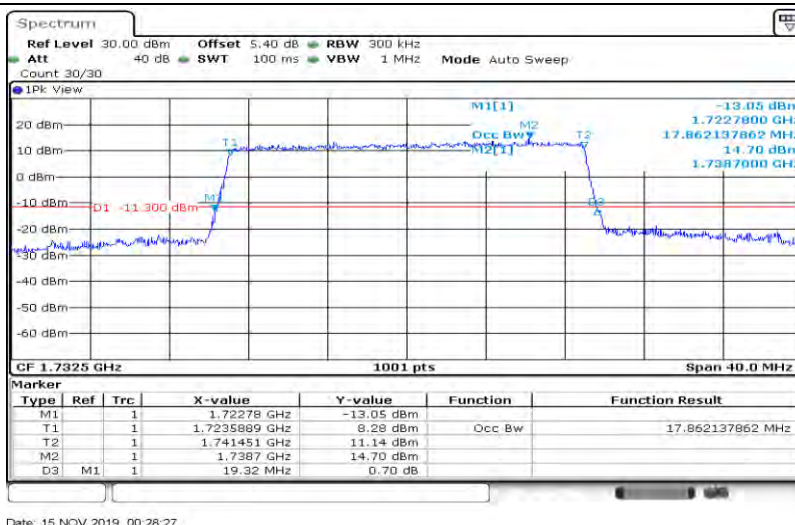


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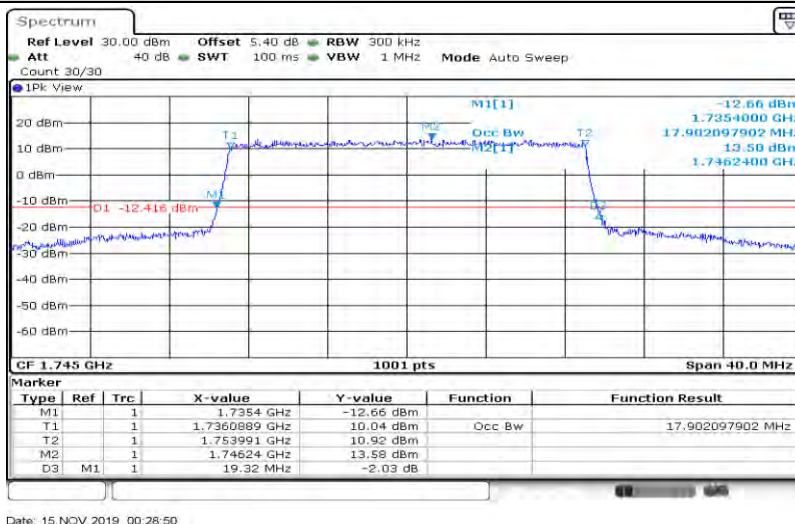


Band4-20MHz-16QAM-20175-100RB#0-17.862





Band4-20MHz-16QAM-20300-100RB#0-17.902



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5. Band Edge Compliance

5.1. Test Plots

Band4-1.4MHz-QPSK-19957-1RB#0



Band4-1.4MHz-QPSK-19957-6RB#0



Band4-1.4MHz-QPSK-20393-1RB#5





Band4-1.4MHz-QPSK-20393-6RB#0



Band4-1.4MHz-16QAM-19957-1RB#0



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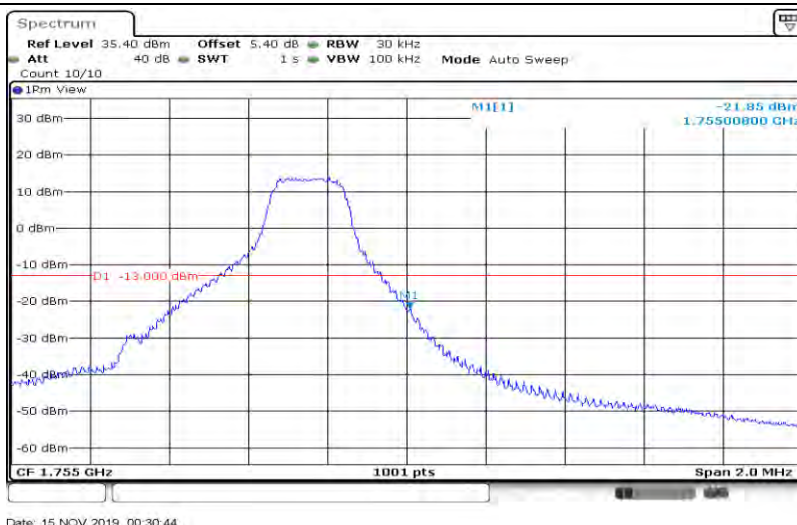


Band4-1.4MHz-16QAM-19957-6RB#0



Band4-1.4MHz-16QAM-20393-1RB#5





Band4-1.4MHz-16QAM-20393-6RB#0



Band4-3MHz-QPSK-19965-1RB#0



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Band4-3MHz-QPSK-19965-15RB#0

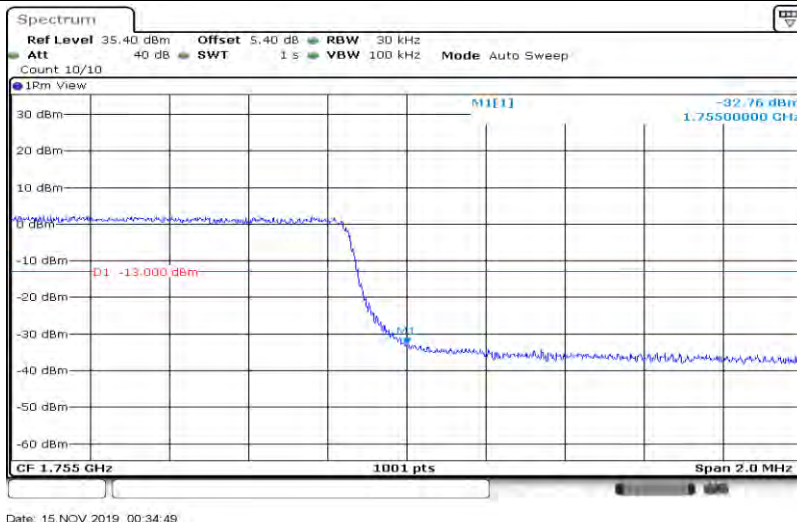


Band4-3MHz-QPSK-20385-1RB#14



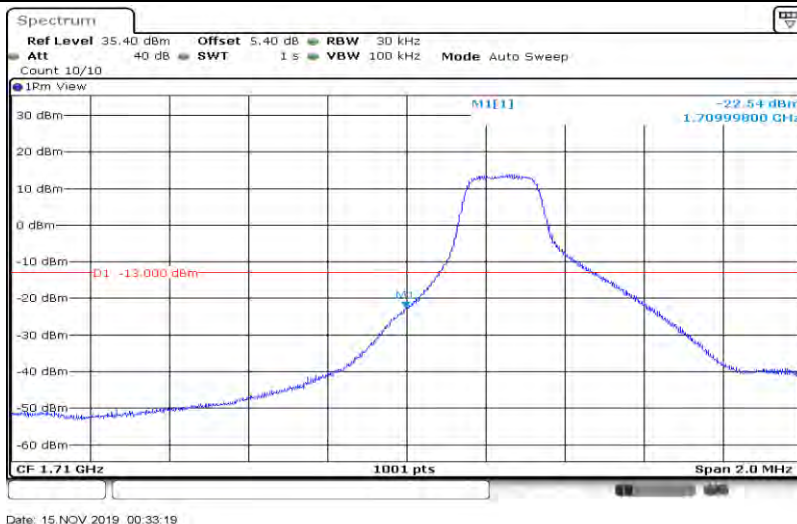


Band4-3MHz-QPSK-20385-15RB#0



Band4-3MHz-16QAM-19965-1RB#0





Band4-3MHz-16QAM-19965-15RB#0



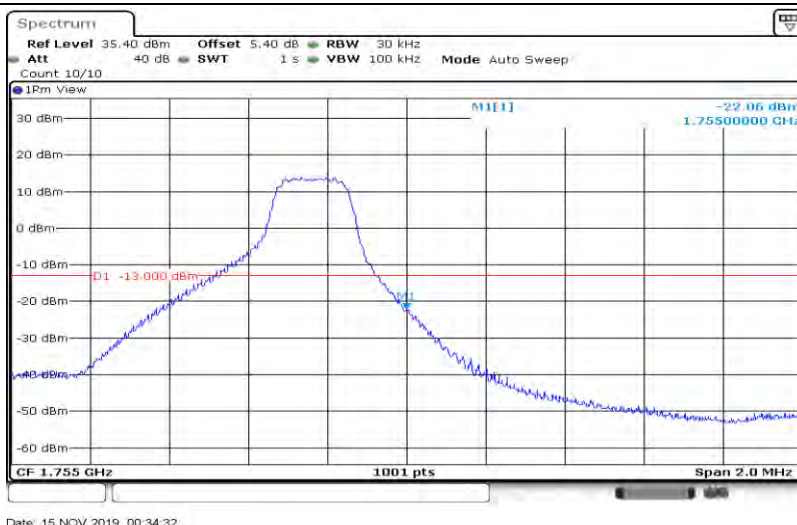
Band4-3MHz-16QAM-20385-1RB#14



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Band4-3MHz-16QAM-20385-15RB#0



Band4-5MHz-QPSK-19975-1RB#0



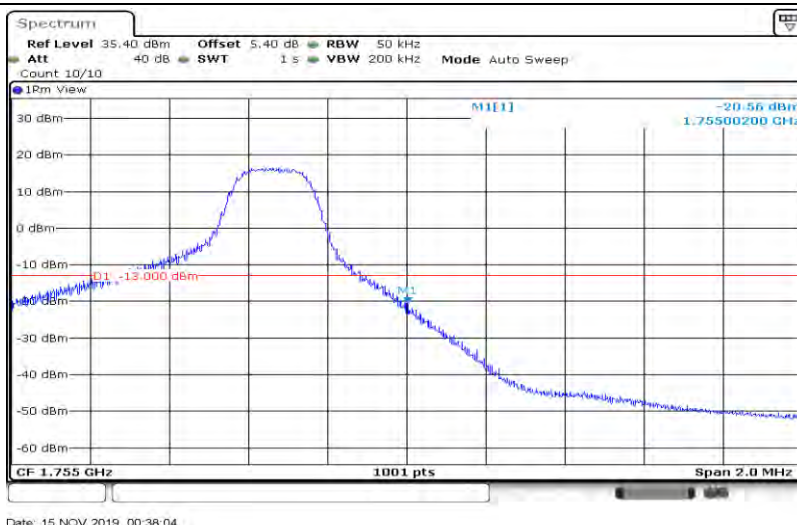


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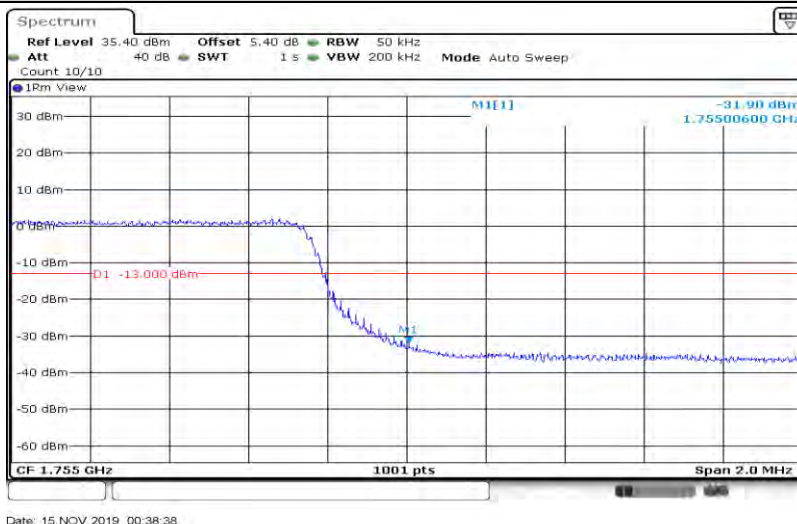


Band4-5MHz-QPSK-20375-1RB#24





Band4-5MHz-QPSK-20375-25RB#0



Band4-5MHz-16QAM-19975-1RB#0



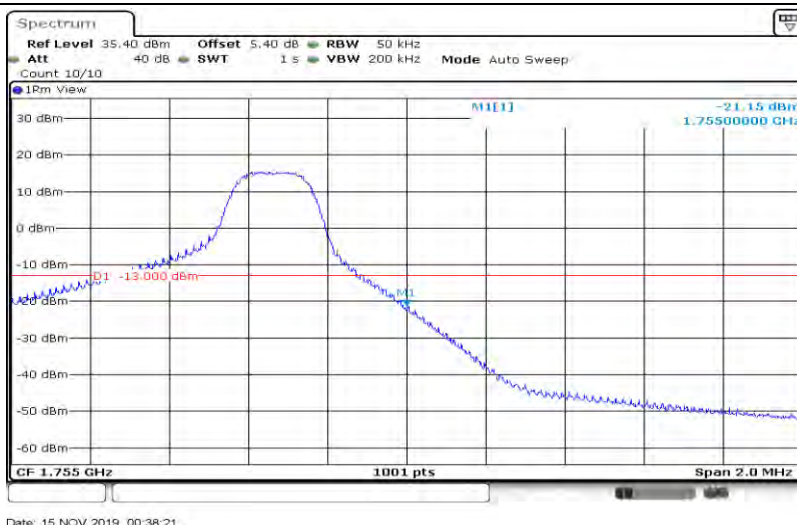


Band4-5MHz-16QAM-19975-25RB#0



Band4-5MHz-16QAM-20375-1RB#24





Date: 15, NOV 2019 00:38:21

Band4-5MHz-16QAM-20375-25RB#0



Date: 15, NOV 2019 00:38:55

Band4-10MHz-QPSK-20000-1RB#0



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Band4-10MHz-QPSK-20000-50RB#0



Band4-10MHz-QPSK-20350-1RB#49





Band4-10MHz-QPSK-20350-50RB#0



Band4-10MHz-16QAM-20000-1RB#0



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Band4-10MHz-16QAM-20000-50RB#0



Band4-10MHz-16QAM-20350-1RB#49





Band4-10MHz-16QAM-20350-50RB#0



Band4-15MHz-QPSK-20025-1RB#0





Band4-15MHz-QPSK-20025-75RB#0



Band4-15MHz-QPSK-20325-1RB#74





Band4-15MHz-QPSK-20325-75RB#0



Band4-15MHz-16QAM-20025-1RB#0



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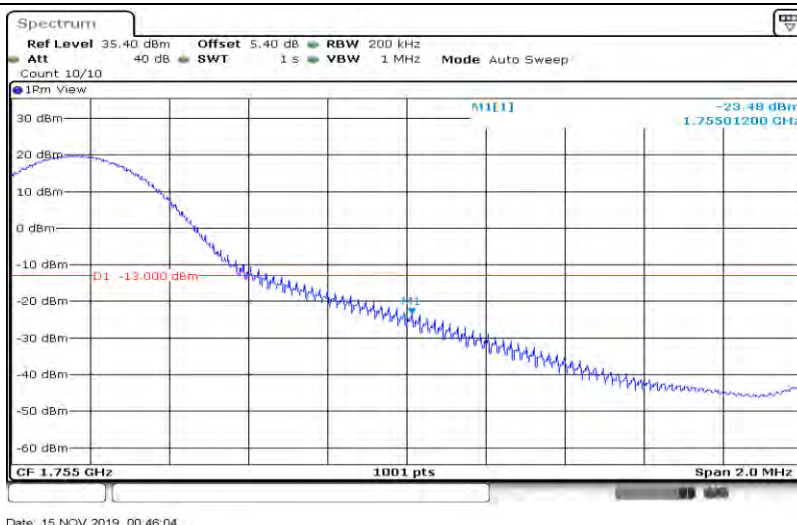
Band4-15MHz-16QAM-20025-75RB#0



Date: 15, NOV 2019 00:45:23

Band4-15MHz-16QAM-20325-1RB#74





Band4-15MHz-16QAM-20325-75RB#0



Band4-20MHz-QPSK-20050-1RB#0





Band4-20MHz-QPSK-20050-100RB#0



Band4-20MHz-QPSK-20300-1RB#99





Band4-20MHz-QPSK-20300-100RB#0



Band4-20MHz-16QAM-20050-1RB#0





Band4-20MHz-16QAM-20050-100RB#0



Band4-20MHz-16QAM-20300-1RB#99



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Band4-20MHz-16QAM-20300-100RB#0



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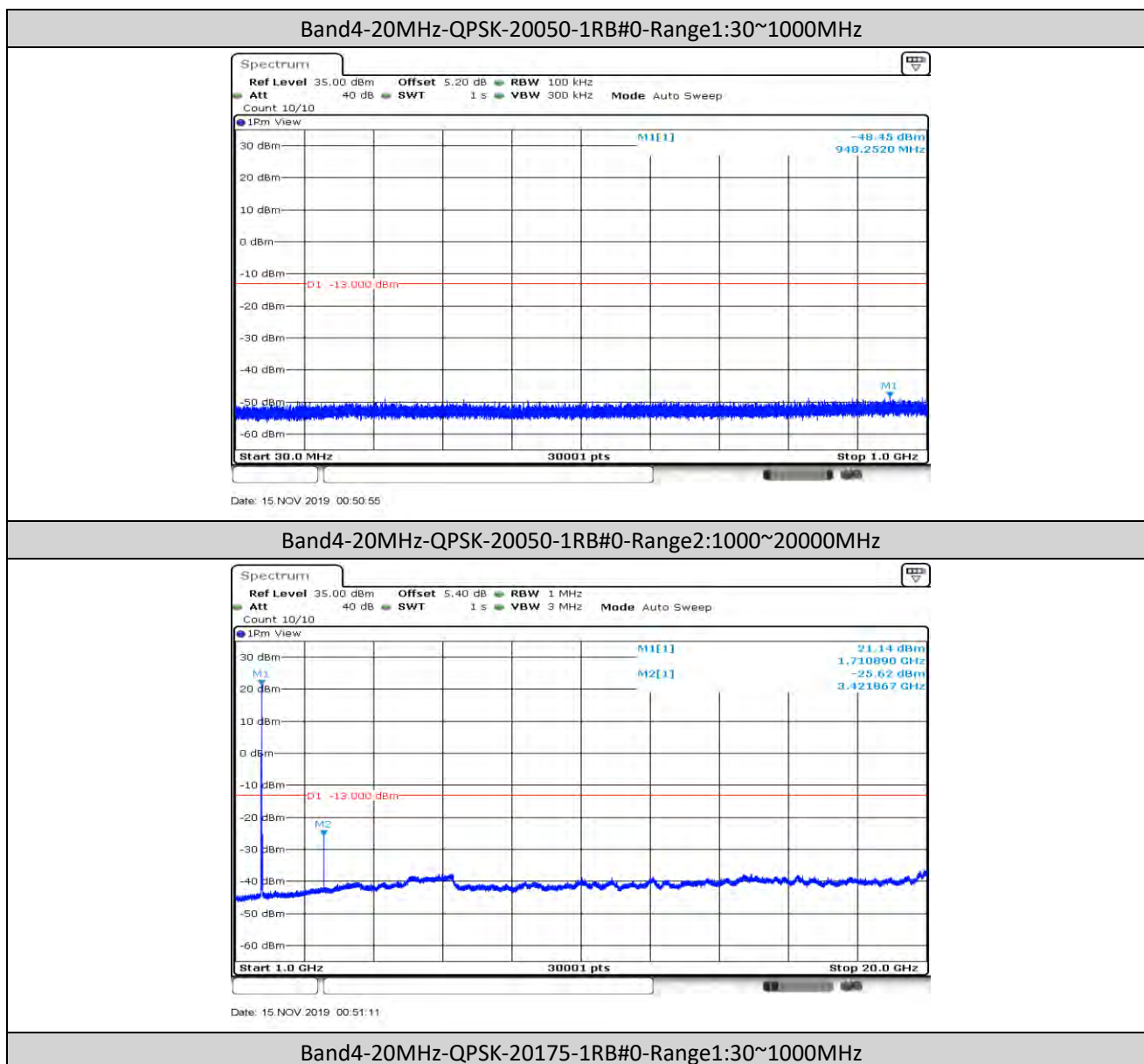


6. Spurious Emission at Antenna Terminal

Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (\text{Span} / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

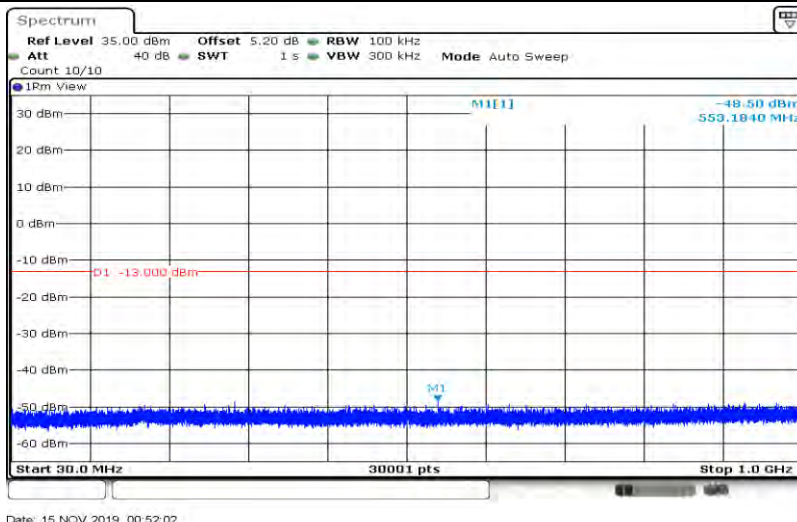
Remark2: only the worst case data displayed in this report.

6.1. Test Plots

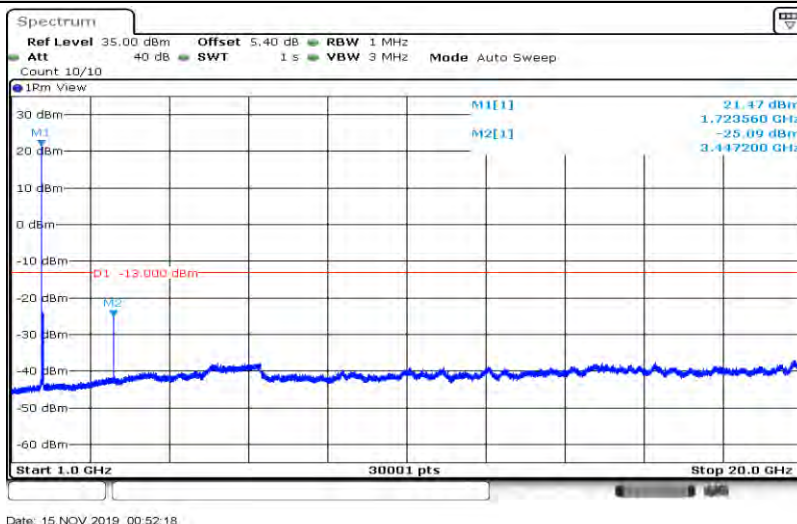


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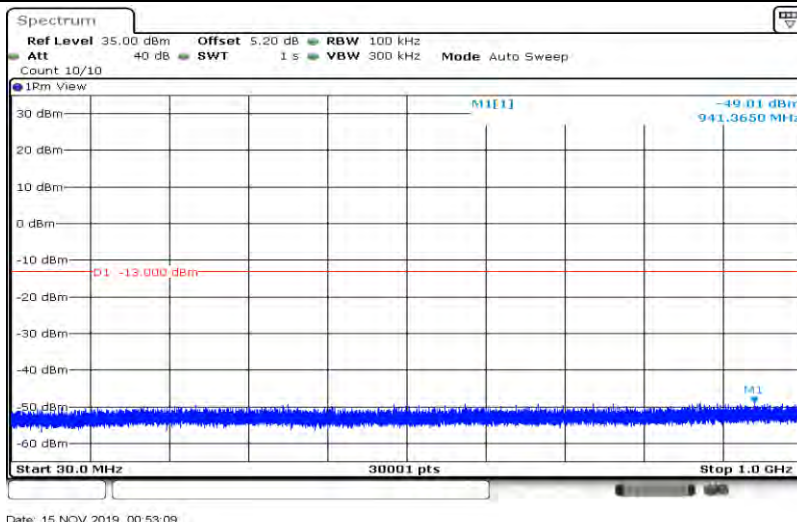


Band4-20MHz-QPSK-20175-1RB#0-Range2:1000~20000MHz

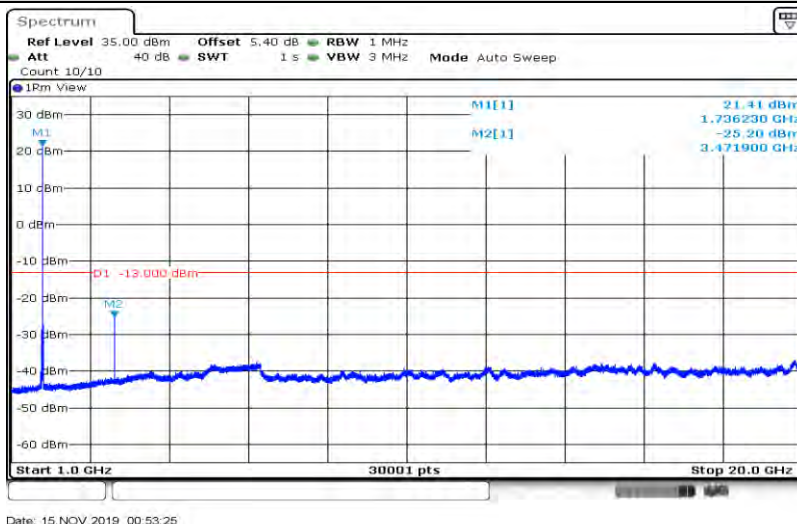


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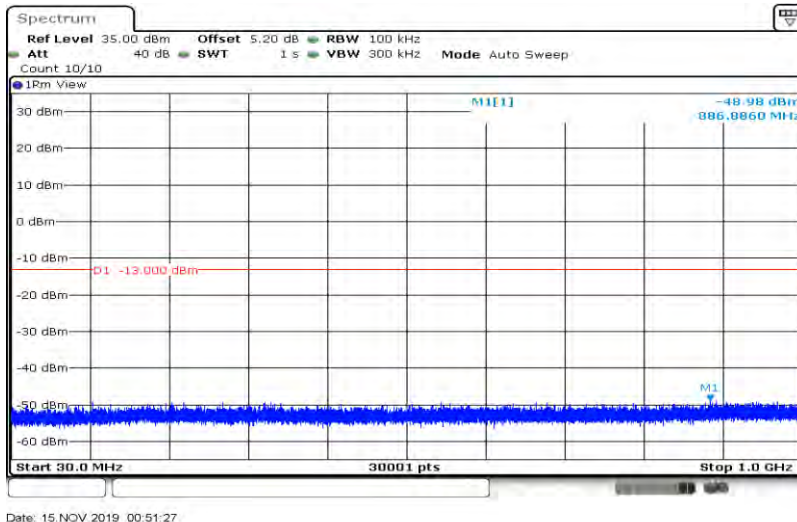


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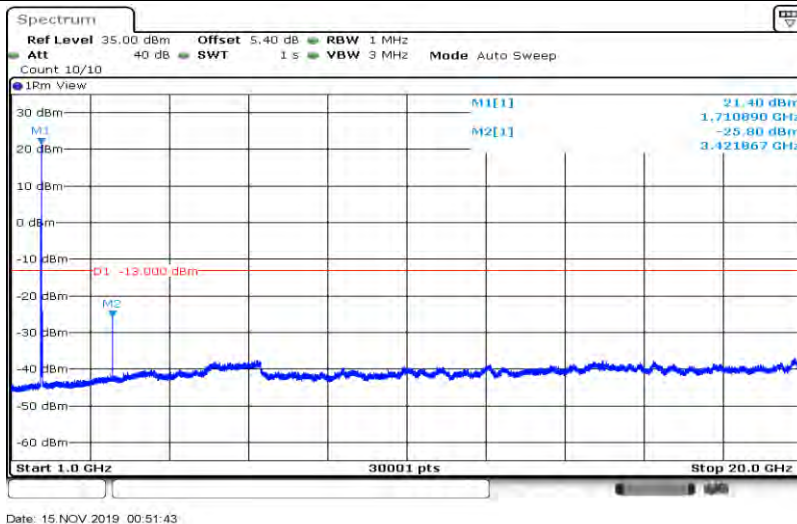


Band4-20MHz-16QAM-20050-1RB#0-Range1:30~1000MHz



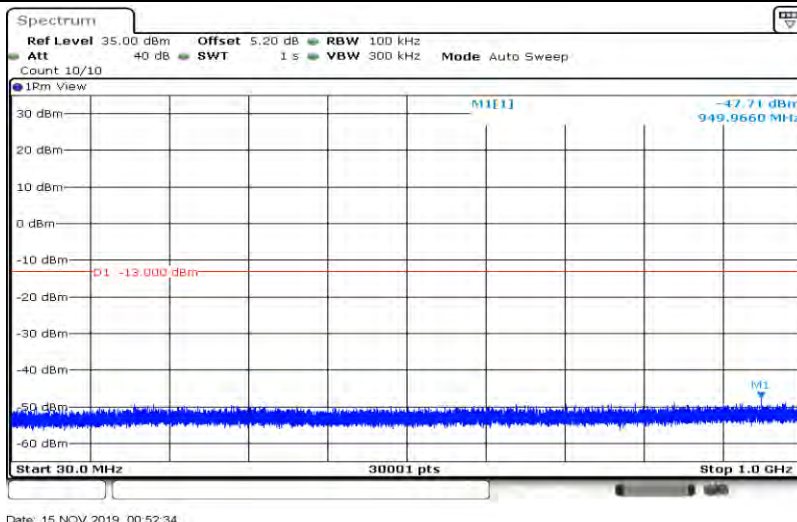


Band4-20MHz-16QAM-20050-1RB#0-Range2:1000~20000MHz

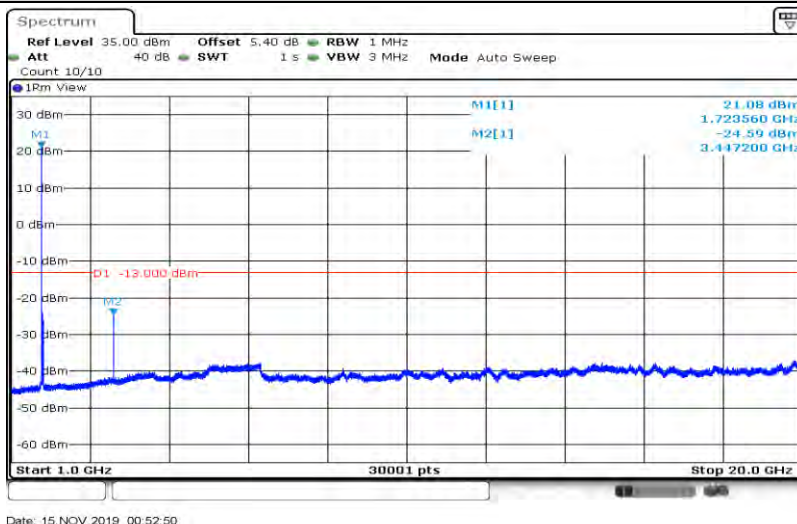


Band4-20MHz-16QAM-20175-1RB#0-Range1:30~1000MHz





Band4-20MHz-16QAM-20175-1RB#0-Range2:1000~20000MHz



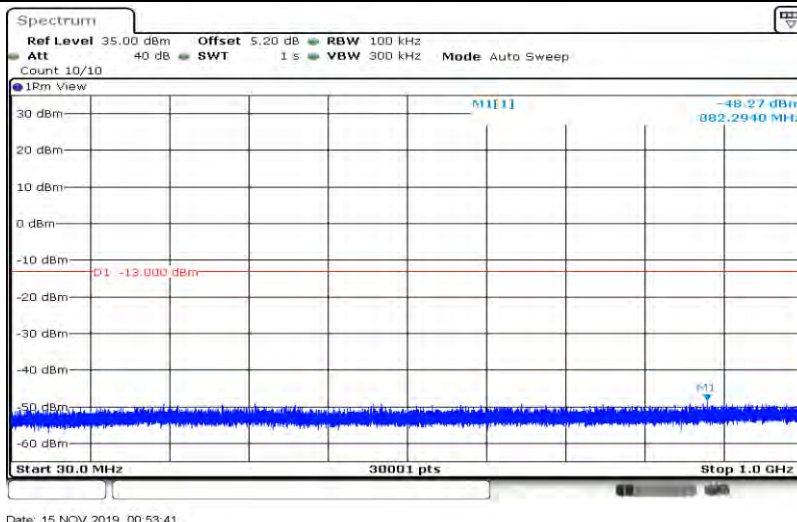
Band4-20MHz-16QAM-20300-1RB#0-Range1:30~1000MHz



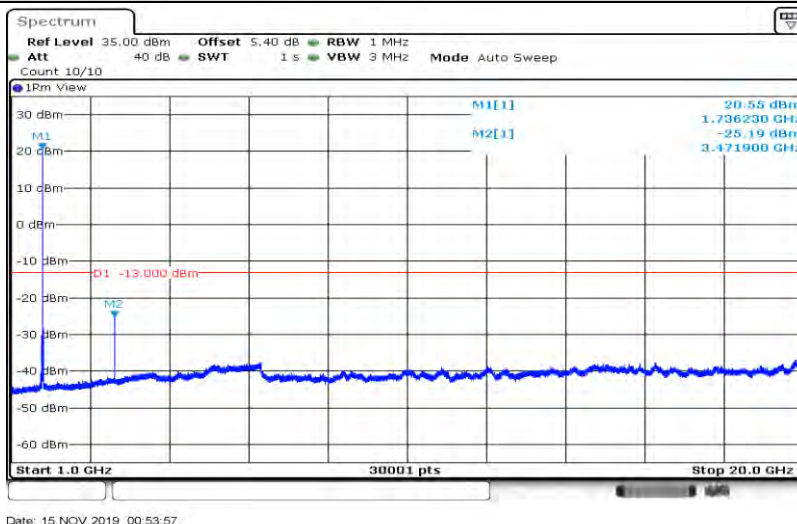
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Band4-20MHz-16QAM-20300-1RB#0-Range2:1000~20000MHz



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7. Field Strength of Spurious Radiation

7.1. Test Mode =LTE/TM1

7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
111.0476	-65.29	-13.00	52.29	284	194	Vertical
2433.8868	-27.34	-13.00	14.34	271	75	Vertical
3422.0141	-30.28	-13.00	17.28	259	226	Vertical
6844.1281	-44.84	-13.00	31.84	241	99	Vertical
8555.6852	-46.33	-13.00	33.33	256	194	Vertical
11977.2992	-43.68	-13.00	30.68	271	36	Vertical
44.1142	-64.84	-13.00	51.84	184	35	Horizontal
768.0129	-60.78	-13.00	47.78	175	131	Horizontal
2700.7401	-36.88	-13.00	23.88	196	154	Horizontal
3422.0141	-28.09	-13.00	15.09	188	258	Horizontal
6844.1281	-46.23	-13.00	33.23	159	321	Horizontal
16385.4462	-37.30	-13.00	24.30	172	290	Horizontal

7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
111.5326	-65.80	-13.00	52.80	184	350	Vertical
3447.0149	-30.39	-13.00	17.39	175	224	Vertical
6894.6298	-41.32	-13.00	28.32	184	192	Vertical
8618.1873	-43.27	-13.00	30.27	179	67	Vertical
12064.8022	-41.99	-13.00	28.99	159	224	Vertical
17999.5000	-33.50	-13.00	20.50	188	255	Vertical
45.0358	-65.04	-13.00	52.04	184	35	Horizontal
2699.5399	-36.75	-13.00	23.75	195	220	Horizontal
3447.0149	-27.48	-13.00	14.48	187	258	Horizontal
6894.1298	-42.98	-13.00	29.98	165	326	Horizontal
8617.6873	-48.07	-13.00	35.07	174	130	Horizontal
16401.9467	-37.74	-13.00	24.74	195	194	Horizontal



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7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Height [cm]	Angle [°]	Polarization
106.4883	-65.39	-13.00	52.39	174	226	Vertical
3472.5158	-31.38	-13.00	18.38	195	226	Vertical
5208.0736	-53.58	-13.00	40.58	188	35	Vertical
6944.1315	-44.31	-13.00	31.31	176	194	Vertical
8680.1893	-44.73	-13.00	31.73	199	35	Vertical
12152.8051	-40.40	-13.00	27.40	185	226	Vertical
43.1442	-64.99	-13.00	51.99	284	233	Horizontal
753.8017	-63.06	-13.00	50.06	274	35	Horizontal
3472.5158	-29.74	-13.00	16.74	265	265	Horizontal
5208.0736	-54.42	-13.00	41.42	184	297	Horizontal
6944.1315	-45.74	-13.00	32.74	198	328	Horizontal
16394.4465	-37.70	-13.00	24.70	178	168	Horizontal

Remark:

- 1 According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.
- 2 The disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data displayed in this report.
- 3 all modulation and all Bandwidth had been tested, but only the worst case data displayed in this report.



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8. Frequency Stability

8.1. Frequency Vs Voltage

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	VL	NT	-5.20	-0.003023	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	-6.30	-0.003663	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	-8.40	-0.004884	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	-1.90	-0.001097	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	-5.90	-0.003405	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	-1.00	-0.000577	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	-4.10	-0.002350	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	-5.60	-0.003209	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	-5.50	-0.003152	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VL	NT	-5.70	-0.003314	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VN	NT	0.80	0.000465	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VH	NT	-0.80	-0.000465	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VL	NT	-4.30	-0.002482	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VN	NT	-7.80	-0.004502	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VH	NT	1.70	0.000981	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VL	NT	-10.30	-0.005903	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VN	NT	-1.60	-0.000917	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VH	NT	-4.40	-0.002521	±2.5	PASS

8.2. Frequency Vs Temperature

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	NV	-30	-9.20	-0.005349	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	-4.70	-0.002733	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	-4.20	-0.002442	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	-1.80	-0.001047	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	2.70	0.001570	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	-5.00	-0.002907	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	-8.00	-0.004651	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	-0.80	-0.000465	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-30	-0.40	-0.000231	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	-6.50	-0.003752	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	-4.80	-0.002771	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	-0.60	-0.000346	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	-3.30	-0.001905	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	-1.50	-0.000866	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	0.80	0.000462	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	-1.30	-0.000750	±2.5	PASS



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Band4	20MHz	QPSK	20300	100RB#0	NV	-30	-1.90	-0.001089	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	-3.80	-0.002178	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	-7.60	-0.004355	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-5.90	-0.003381	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	-2.50	-0.001433	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	-4.40	-0.002521	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	40	-10.50	-0.006017	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	50	-7.60	-0.004355	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-30	-2.50	-0.001453	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-20	-8.70	-0.005058	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	0	-2.60	-0.001512	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	10	-8.80	-0.005116	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	20	-5.10	-0.002965	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	30	-3.50	-0.002035	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	40	-5.00	-0.002907	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	50	-4.30	-0.002500	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-30	2.10	0.001212	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-20	-4.80	-0.002771	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	0	-3.30	-0.001905	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	10	-0.30	-0.000173	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	20	-4.20	-0.002424	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	30	-5.30	-0.003059	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	40	-0.50	-0.000289	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	50	-1.20	-0.000693	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-30	-4.90	-0.002808	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-20	-6.70	-0.003840	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	0	-5.70	-0.003266	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	10	-9.40	-0.005387	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	20	-5.10	-0.002923	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	30	-3.40	-0.001948	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	40	-2.00	-0.001146	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	50	-7.50	-0.004298	±2.5	PASS



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