



Appendix B

E-UTRA Band 12



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CONTENT

1 EFFECTIVE (ISOTROPIC) RADIATED POWER..... 3

1.1. TEST RESULT..... 3

2. PEAK-TO-AVERAGE RATIO (CCDF)..... 7

2.1. TEST RESULT..... 7

2.2. TEST PLOTS 7

3. MODULATION CHARACTERISTICS11

3.1. TEST MODE = LTE /TM1 10MHZ11

3.1.1. TEST CHANNEL = MCH11

3.2. TEST MODE = LTE /TM2 10MHZ12

3.2.1. TEST CHANNEL = MCH12

4. 26DB BANDWIDTH AND OCCUPIED BANDWIDTH13

4.1. TEST RESULT.....13

4.2. TEST PLOTS14

5. BAND EDGE COMPLIANCE26

5.1. TEST PLOTS26

6. SPURIOUS EMISSION AT ANTENNA TERMINAL42

6.1. TEST PLOTS42

7. FIELD STRENGTH OF SPURIOUS RADIATION.....48

7.1. TEST MODE =LTE/TM1 10MHZ.....48

7.1.1. TEST CHANNEL = LCH.....48

7.1.2. TEST CHANNEL = MCH48

7.1.3. TEST CHANNEL = HCH49

8. FREQUENCY STABILITY.....50

8.1. FREQUENCY VS VOLTAGE.....50

8.2. FREQUENCY VS TEMPERATURE50



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1 Effective (Isotropic) Radiated Power

1.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.25	18.30	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.42	18.47	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.40	18.45	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.42	18.47	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.52	18.57	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	23.57	18.62	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.48	17.53	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.24	18.29	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.60	18.65	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.49	18.54	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.48	18.53	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.68	18.73	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.67	18.72	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.56	17.61	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.06	18.11	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.43	18.48	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.44	18.49	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.57	18.62	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.65	18.70	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.40	18.45	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.63	17.68	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.28	17.33	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	21.96	17.01	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	21.92	16.97	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.54	17.59	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.67	17.72	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	22.61	17.66	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.51	16.56	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.19	17.24	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.26	17.31	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.11	17.16	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.43	17.48	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	22.84	17.89	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.84	17.89	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.73	16.78	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.26	17.31	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.03	17.08	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	21.95	17.00	34.77	PASS



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Band12	1.4MHz	16QAM	23173	3RB#3	22.42	17.47	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.77	17.82	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	22.61	17.66	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.62	16.67	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.53	18.58	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.61	18.66	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.55	18.60	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.44	17.49	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.65	17.70	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.57	17.62	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.51	17.56	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.37	18.42	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.18	18.23	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.58	18.63	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.49	17.54	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.64	17.69	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.52	17.57	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.71	17.76	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.16	18.21	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.40	18.45	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.53	18.58	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.55	17.60	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.53	17.58	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#4	22.60	17.65	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.62	17.67	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	21.97	17.02	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	21.82	16.87	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	21.95	17.00	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.38	16.43	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.40	16.45	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#7	21.30	16.35	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.62	16.67	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.14	17.19	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.10	17.15	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	22.08	17.13	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.38	16.43	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.35	16.40	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.35	16.40	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.57	16.62	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.26	17.31	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	22.34	17.39	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.09	17.14	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#7	21.38	16.43	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#4	21.24	16.29	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.24	16.29	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.70	16.75	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.35	18.40	34.77	PASS



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Band12	5MHz	QPSK	23035	1RB#12	23.62	18.67	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.60	18.65	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.67	17.72	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.75	17.80	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.52	17.57	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.59	17.64	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.28	18.33	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.17	18.22	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.66	18.71	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.41	17.46	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#6	22.58	17.63	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.64	17.69	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.57	17.62	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.48	18.53	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.13	18.18	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.45	18.50	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.39	17.44	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.56	17.61	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.49	17.54	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.39	17.44	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	21.94	16.99	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.69	17.74	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	21.88	16.93	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.56	16.61	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.45	16.50	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#0	21.41	16.46	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.73	16.78	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	21.90	16.95	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.47	17.52	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.01	17.06	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.42	16.47	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.37	16.42	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.38	16.43	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.55	16.60	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.19	17.24	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	21.86	16.91	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.49	17.54	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.33	16.38	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.27	16.32	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#13	21.32	16.37	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.35	16.40	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.59	18.64	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	22.70	17.75	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.27	18.32	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.82	17.87	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.61	17.66	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.26	17.31	34.77	PASS



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Band12	10MHz	QPSK	23060	50RB#0	22.63	17.68	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.68	18.73	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.23	18.28	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.36	18.41	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.30	17.35	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.78	17.83	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#12	22.40	17.45	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.66	17.71	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.37	18.42	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.69	18.74	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.31	18.36	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.68	17.73	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.54	17.59	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.61	17.66	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.52	17.57	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.10	17.15	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	22.07	17.12	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.19	17.24	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#25	21.62	16.67	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#12	21.68	16.73	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#0	21.57	16.62	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.57	16.62	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	21.77	16.82	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	21.89	16.94	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.14	17.19	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#25	21.41	16.46	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#0	21.51	16.56	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#12	21.46	16.51	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.54	16.59	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.49	17.54	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.07	17.12	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	21.83	16.88	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#0	21.62	16.67	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#12	21.56	16.61	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#25	21.40	16.45	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.51	16.56	34.77	PASS

Remark:

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

$$ERP [dBm] = \text{Conducted Power [dBm]} + \text{Gain [dBd]}$$

$$EIRP [dBm] = \text{Conducted Power [dBm]} + \text{Gain [dBi]}$$



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 中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

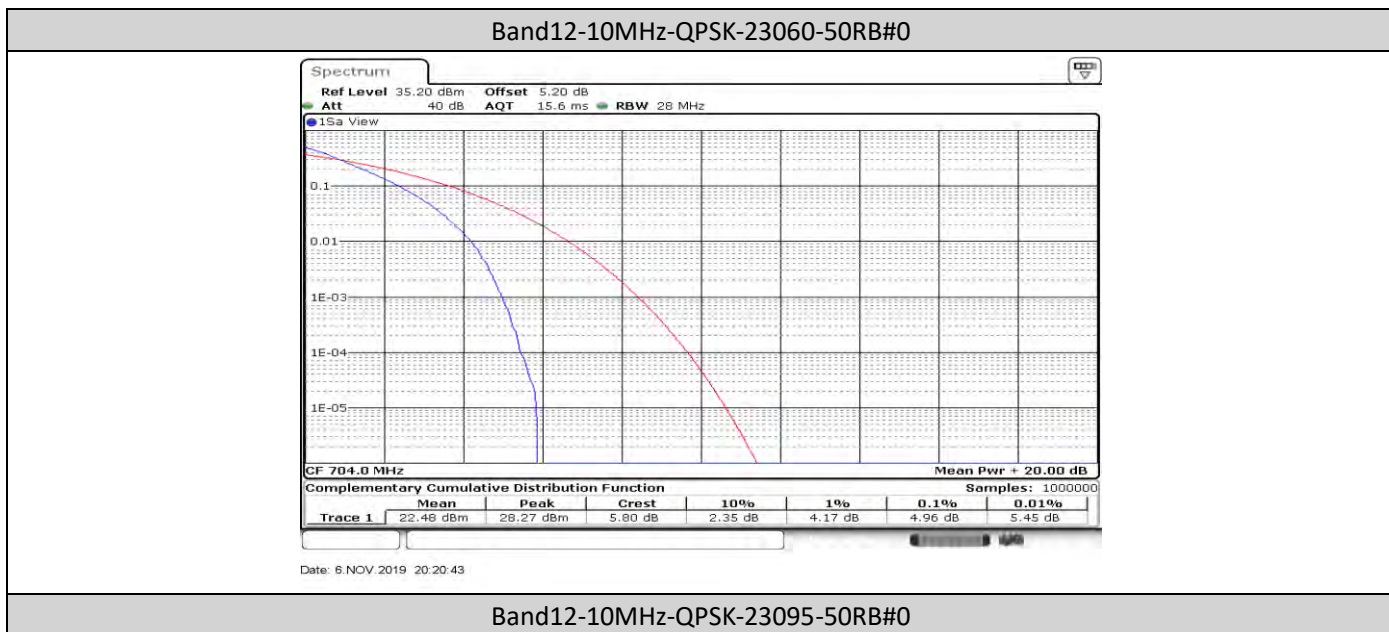


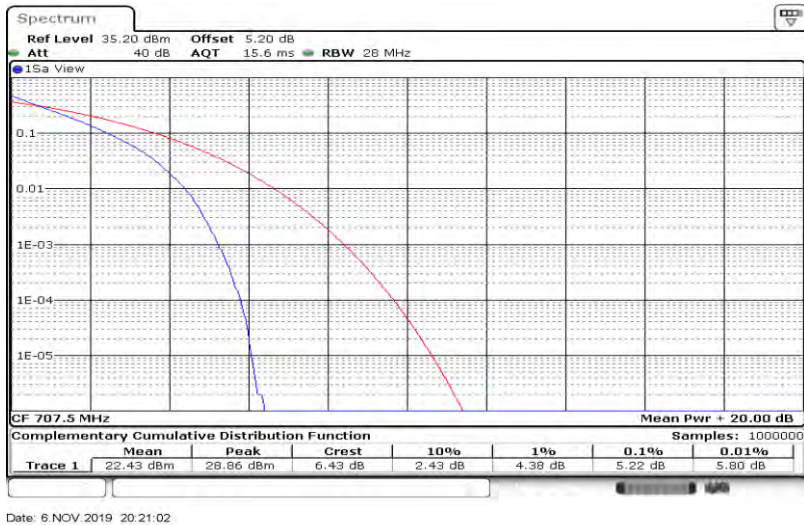
2. Peak-to-Average Ratio (CCDF)

2.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	4.96	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.22	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.10	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	5.88	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.06	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.00	13	PASS

2.2. Test Plots





Date: 6 NOV. 2019 20:21:02

Band12-10MHz-QPSK-23130-50RB#0



Date: 6 NOV. 2019 20:21:21

Band12-10MHz-16QAM-23060-50RB#0



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Date: 6 NOV. 2019 20:20:51

Band12-10MHz-16QAM-23095-50RB#0

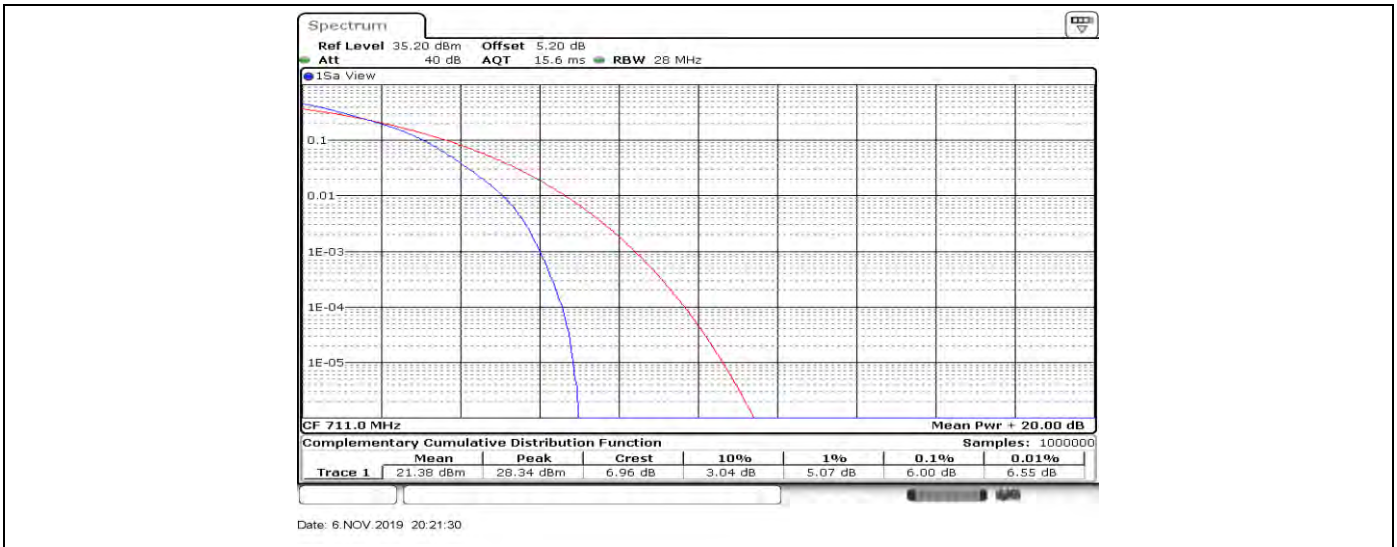


Date: 6 NOV. 2019 20:21:10

Band12-10MHz-16QAM-23130-50RB#0



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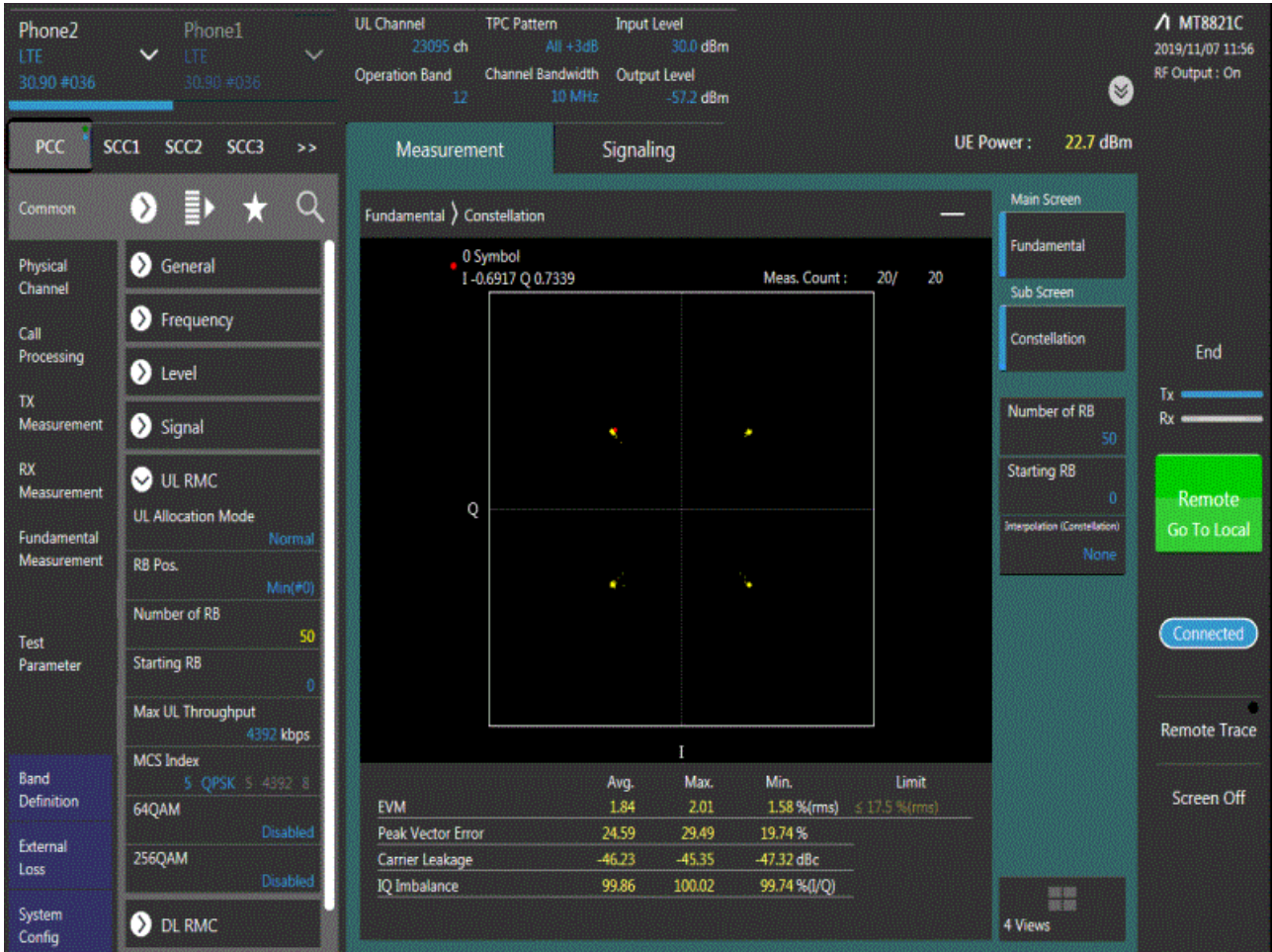
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3. Modulation Characteristics

3.1. Test Mode = LTE /TM1 10MHz

3.1.1. Test Channel = MCH

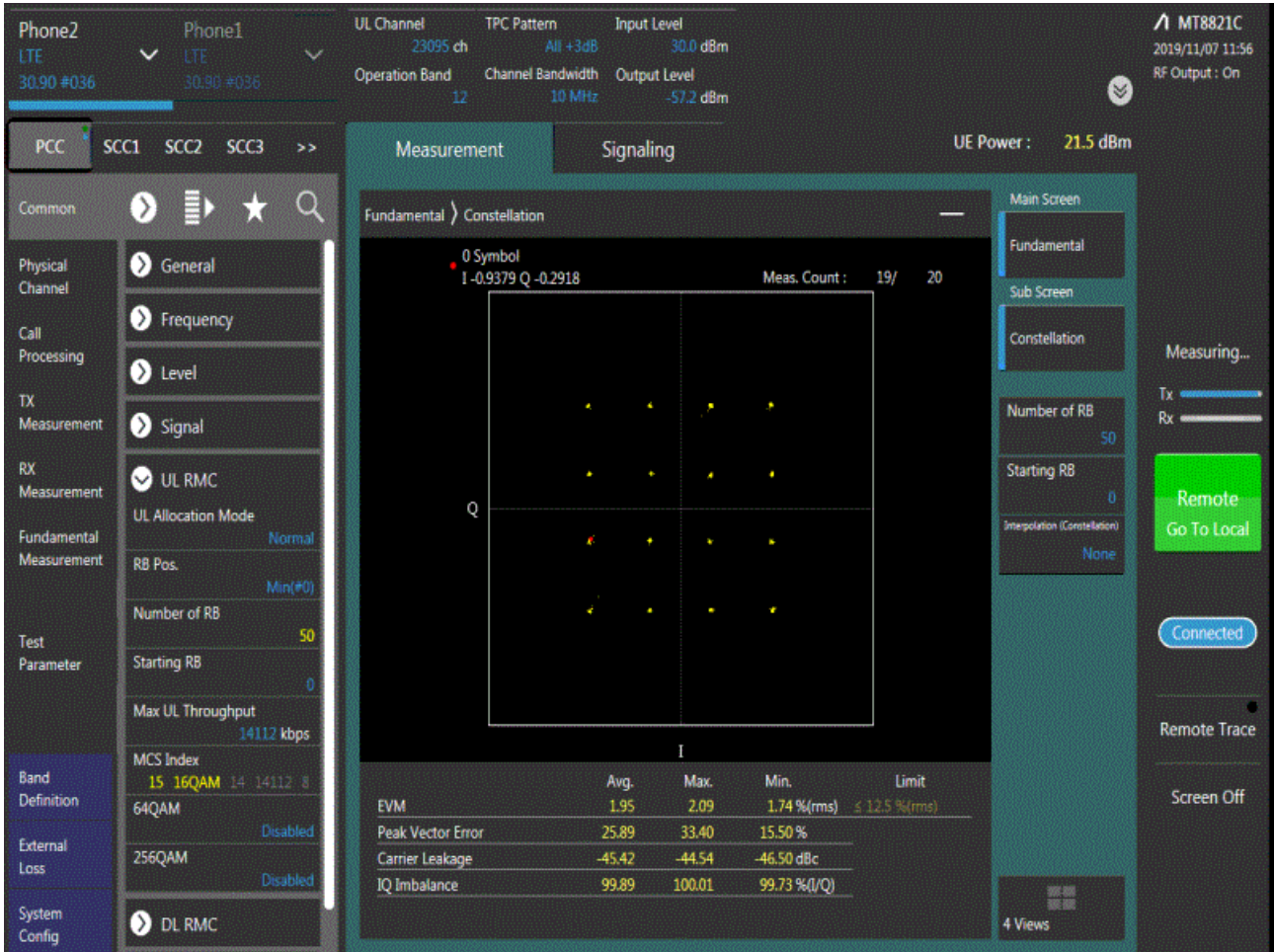


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3.2. Test Mode = LTE /TM2 10MHz

3.2.1. Test Channel = MCH



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4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.097	1.281	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.100	1.296	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.100	1.299	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.097	1.296	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.091	1.275	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.097	1.299	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.697	2.994	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.703	2.970	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.697	2.976	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.691	2.982	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.691	2.994	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.697	2.988	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.486	4.920	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.476	4.940	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.476	4.900	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.466	4.880	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.486	4.990	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.476	4.920	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.911	9.720	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.931	9.780	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.911	9.640	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.911	9.660	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.931	9.740	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.911	9.660	PASS

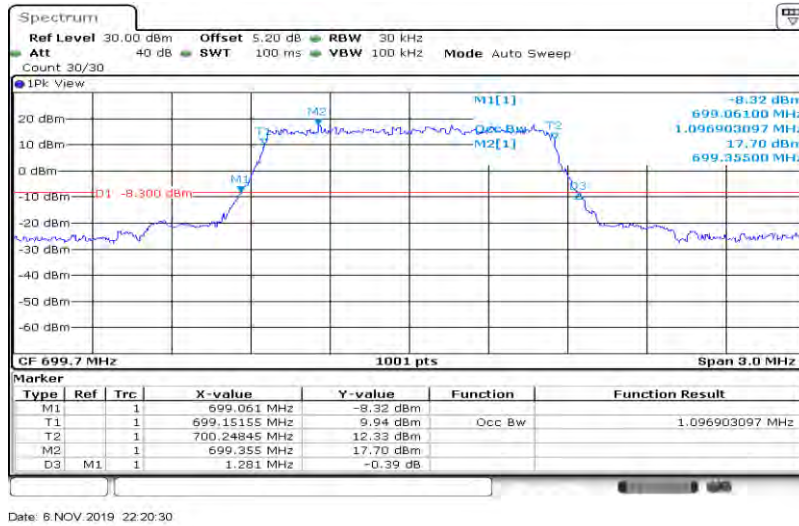


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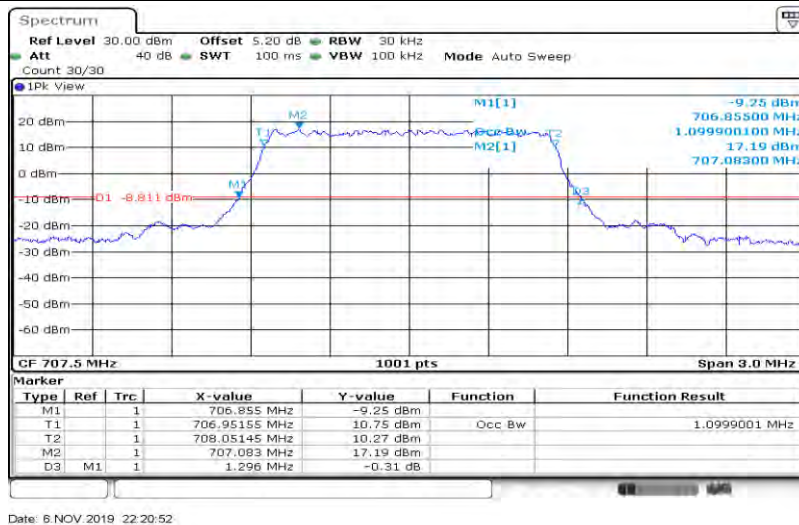


4.2. Test Plots

Band12-1.4MHz-QPSK-23017-6RB#0-1.097



Band12-1.4MHz-QPSK-23095-6RB#0-1.1

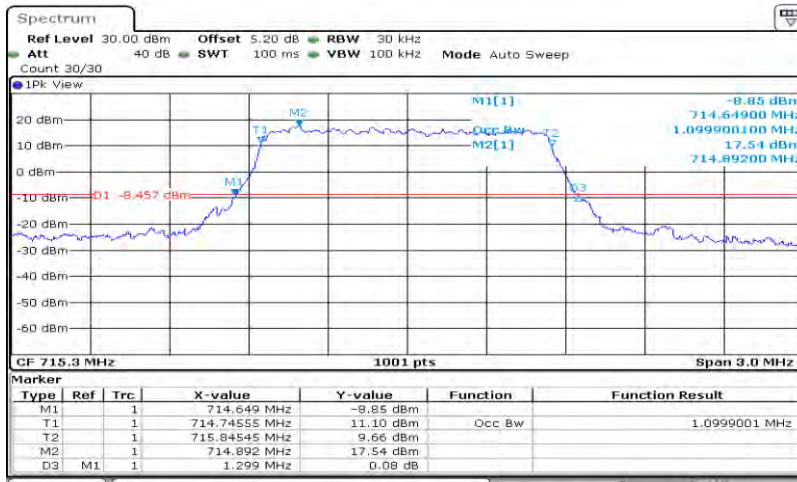


Band12-1.4MHz-QPSK-23173-6RB#0-1.1



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Date: 6 NOV.2019 22:21:14

Band12-1.4MHz-16QAM-23017-6RB#0-1.097

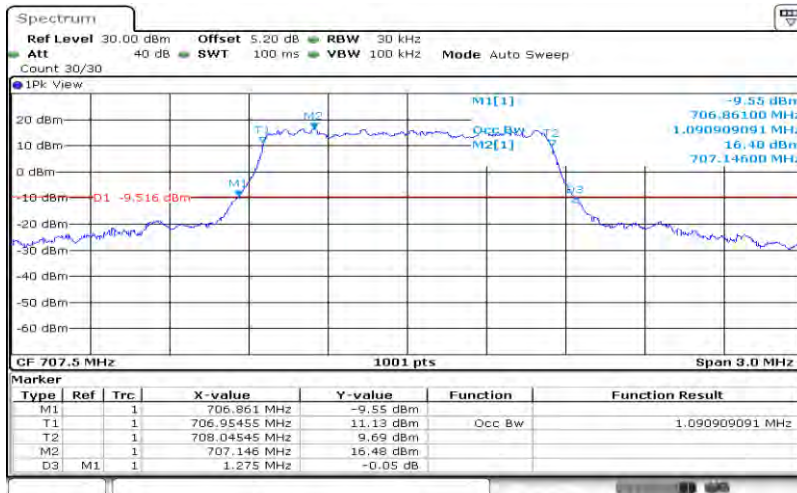


Date: 6 NOV.2019 22:20:40

Band12-1.4MHz-16QAM-23095-6RB#0-1.091

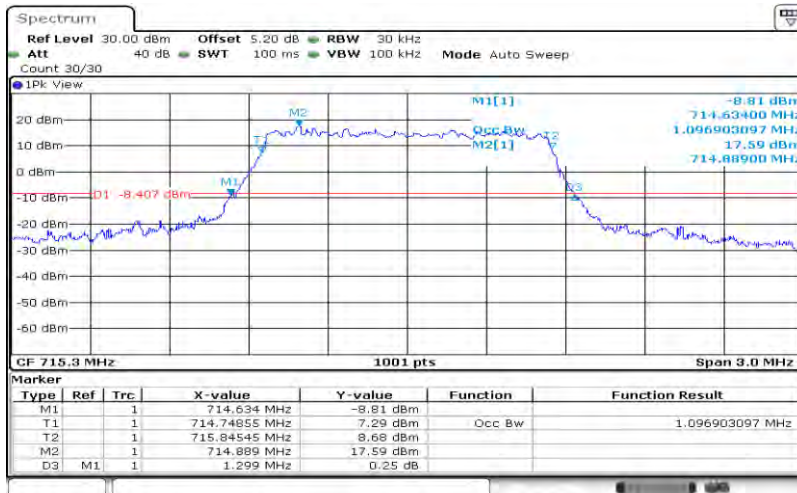


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Date: 6 NOV. 2019 22:21:02

Band12-1.4MHz-16QAM-23173-6RB#0-1.097

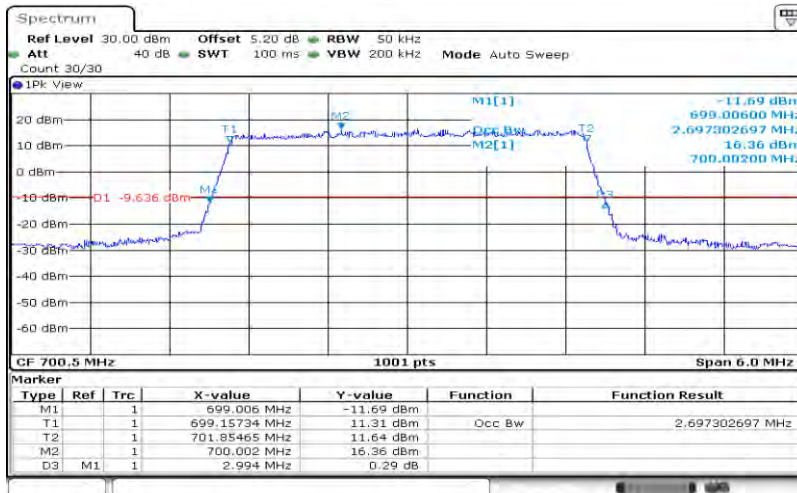


Date: 6 NOV. 2019 22:21:23

Band12-3MHz-QPSK-23025-15RB#0-2.697

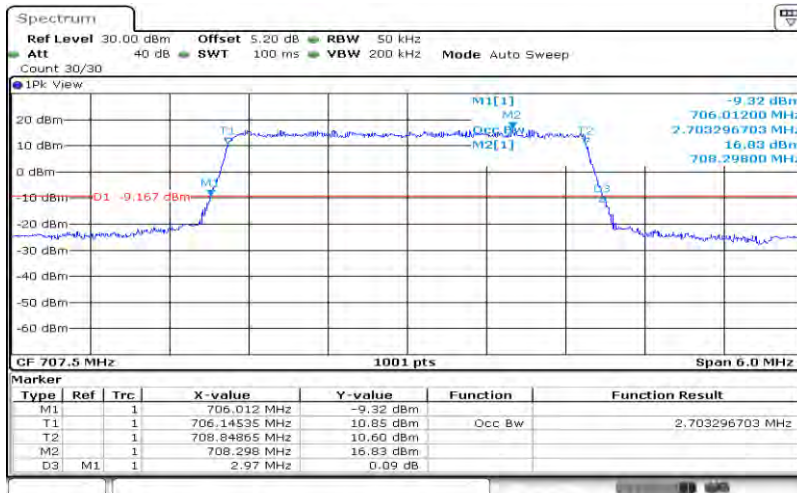


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Date: 6 NOV. 2019 22:24:53

Band12-3MHz-QPSK-23095-15RB#0-2.703

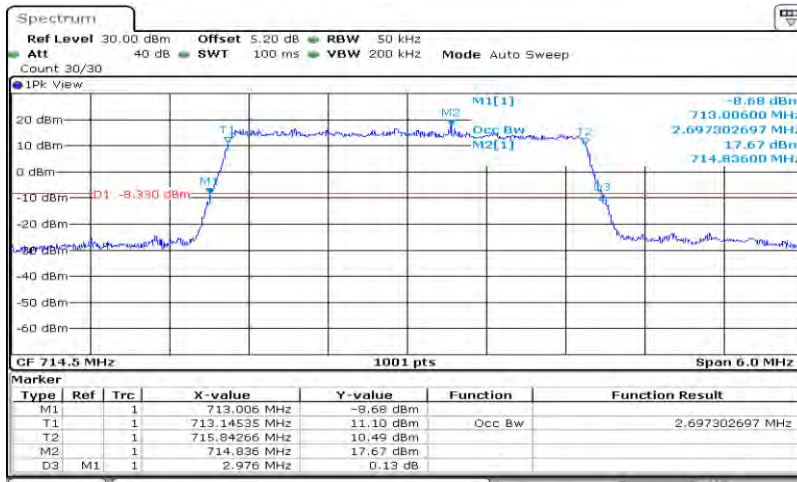


Date: 6 NOV. 2019 22:25:15

Band12-3MHz-QPSK-23165-15RB#0-2.697

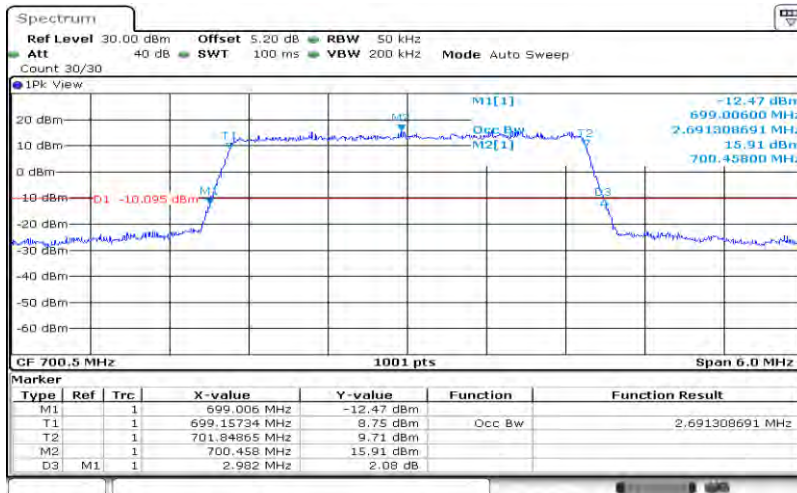


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Date: 6 NOV. 2019 22:25:37

Band12-3MHz-16QAM-23025-15RB#0-2.691

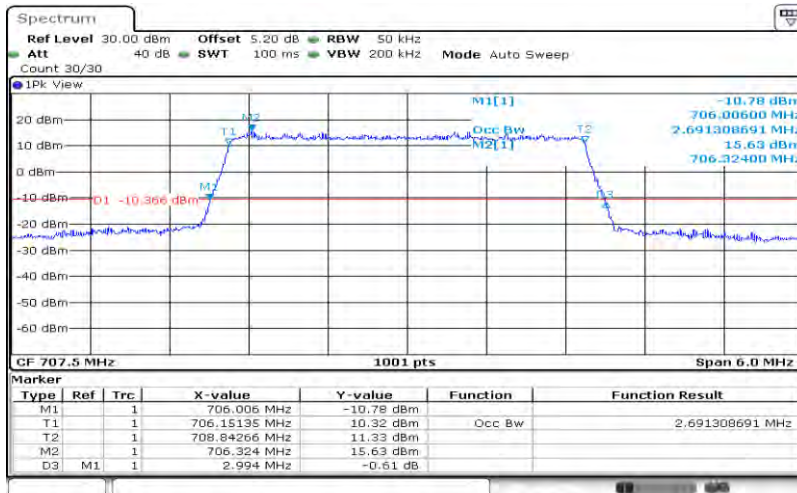


Date: 6 NOV. 2019 22:25:03

Band12-3MHz-16QAM-23095-15RB#0-2.691

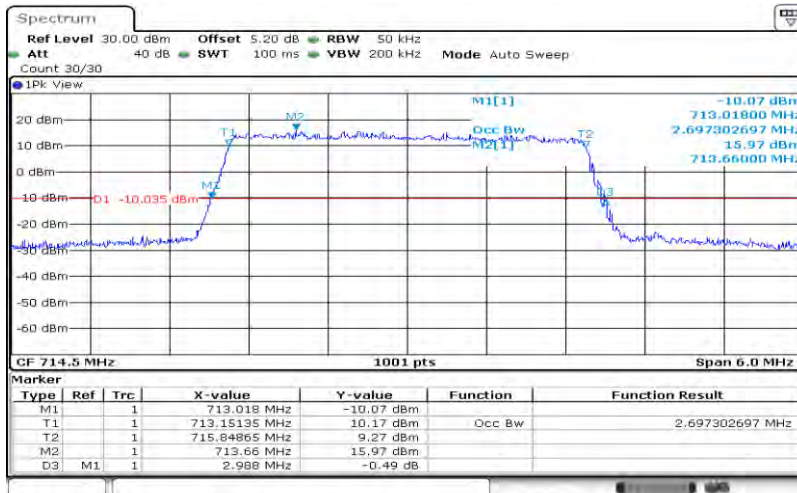


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Band12-3MHz-16QAM-23165-15RB#0-2.697

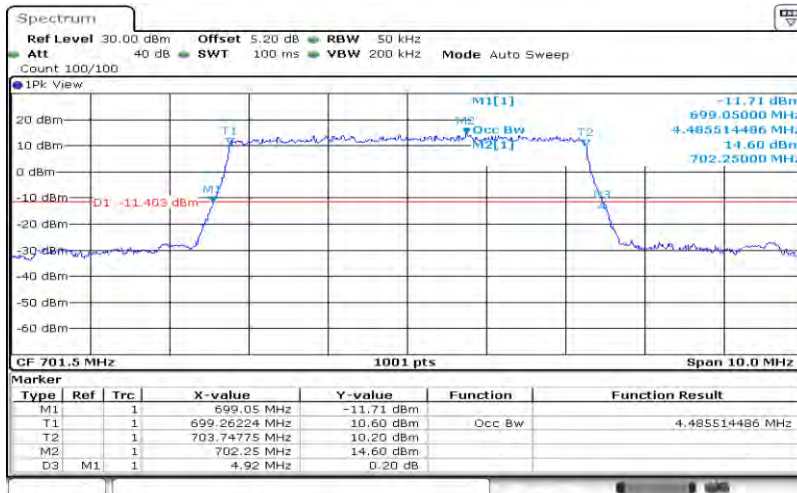


Date: 6 NOV 2019 22:25:47

Band12-5MHz-QPSK-23035-25RB#0-4.486

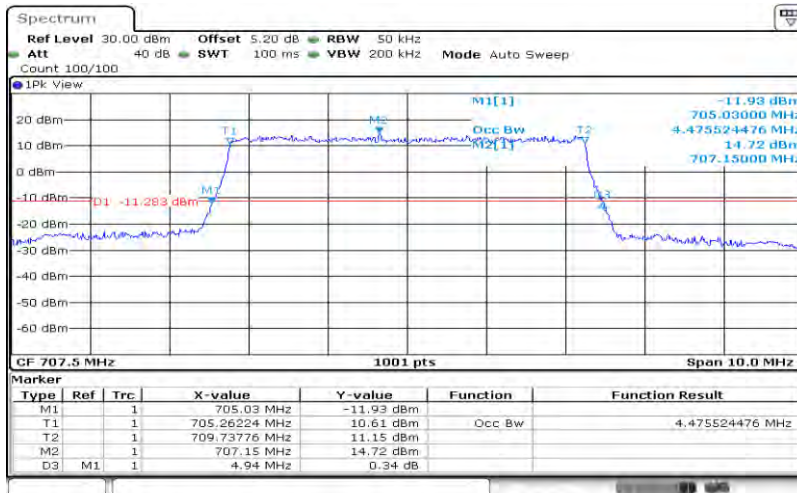


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Date: 6 NOV. 2019 22:29:30

Band12-5MHz-QPSK-23095-25RB#0-4.476

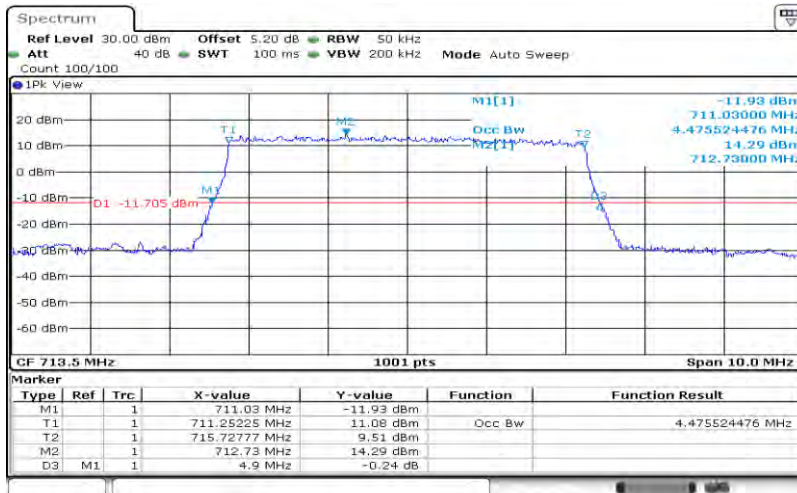


Date: 6 NOV. 2019 22:30:06

Band12-5MHz-QPSK-23155-25RB#0-4.476

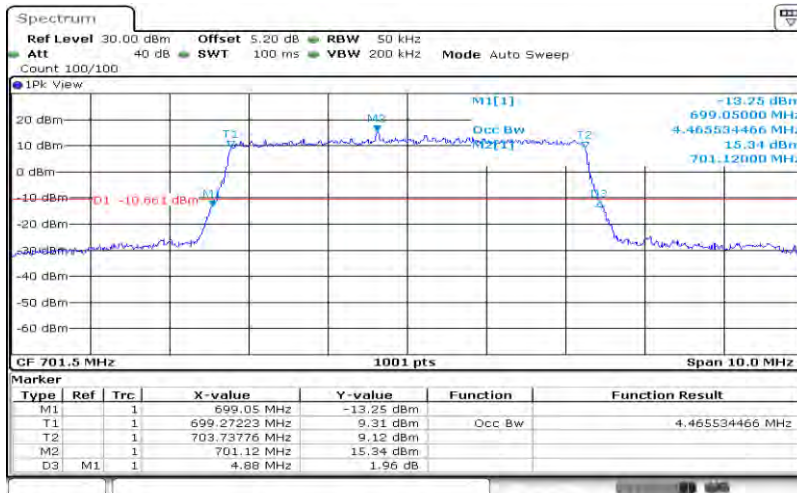


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Date: 6 NOV 2019 22:30:42

Band12-5MHz-16QAM-23035-25RB#0-4.466

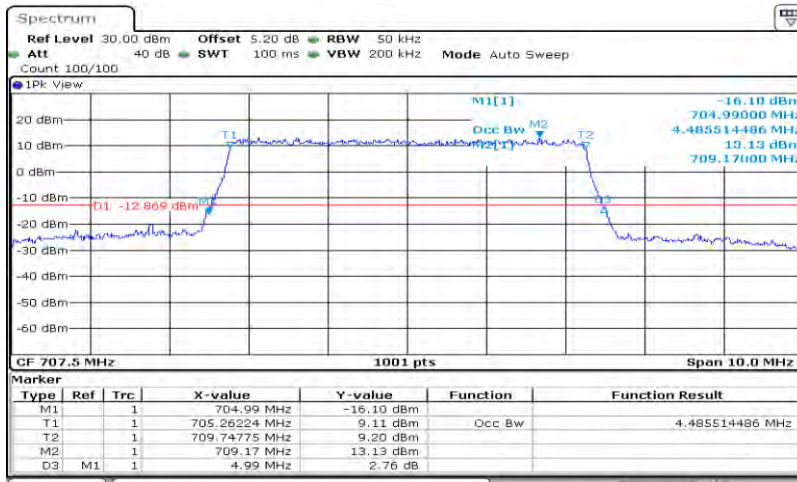


Date: 6 NOV 2019 22:29:47

Band12-5MHz-16QAM-23095-25RB#0-4.486

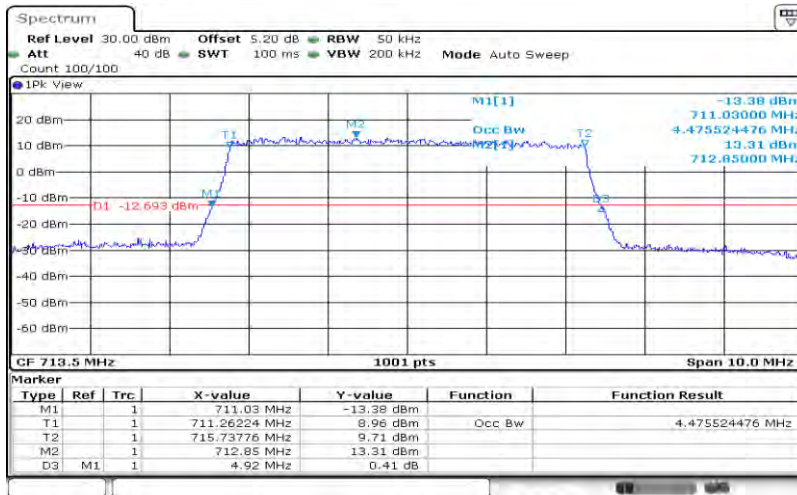


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Date: 6 NOV. 2019 22:30:23

Band12-5MHz-16QAM-23155-25RB#0-4.476

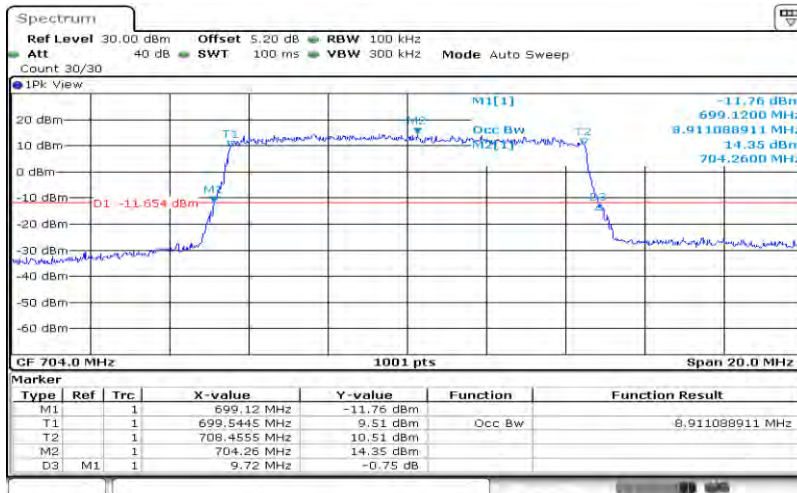


Date: 6 NOV. 2019 22:30:59

Band12-10MHz-QPSK-23060-50RB#0-8.911



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Date: 6 NOV. 2019 22:34:38

Band12-10MHz-QPSK-23095-50RB#0-8.931

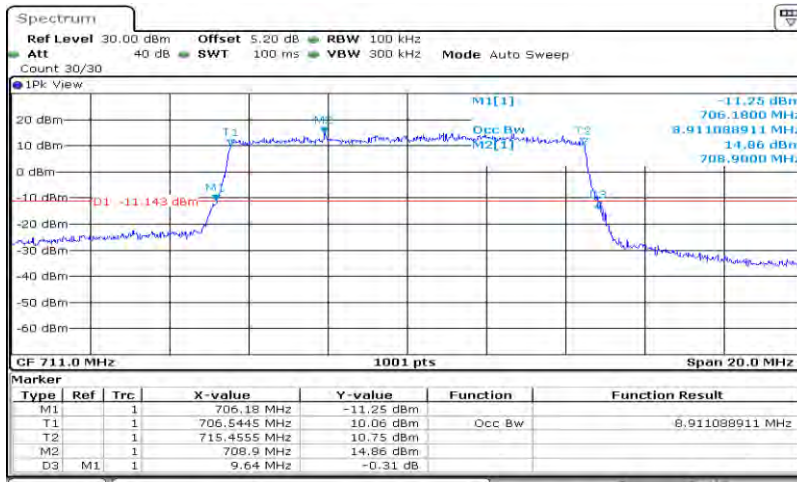


Date: 6 NOV. 2019 22:35:01

Band12-10MHz-QPSK-23130-50RB#0-8.911

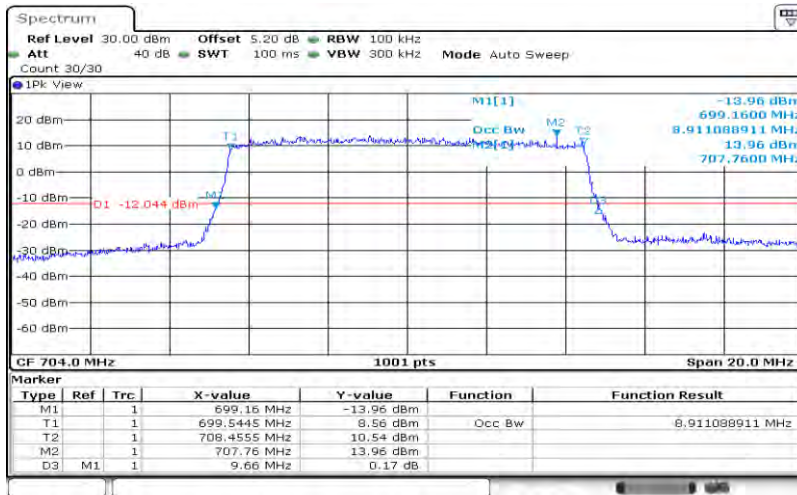


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Date: 6 NOV 2019 22:35:24

Band12-10MHz-16QAM-23060-50RB#0-8.911

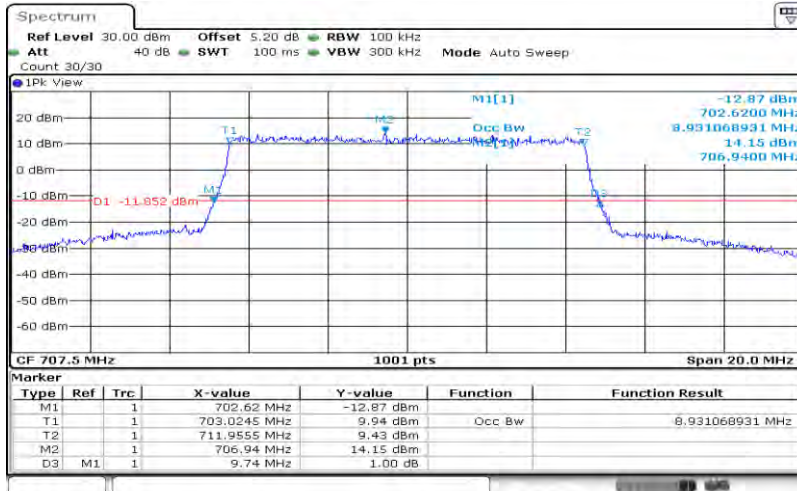


Date: 6 NOV 2019 22:34:49

Band12-10MHz-16QAM-23095-50RB#0-8.931

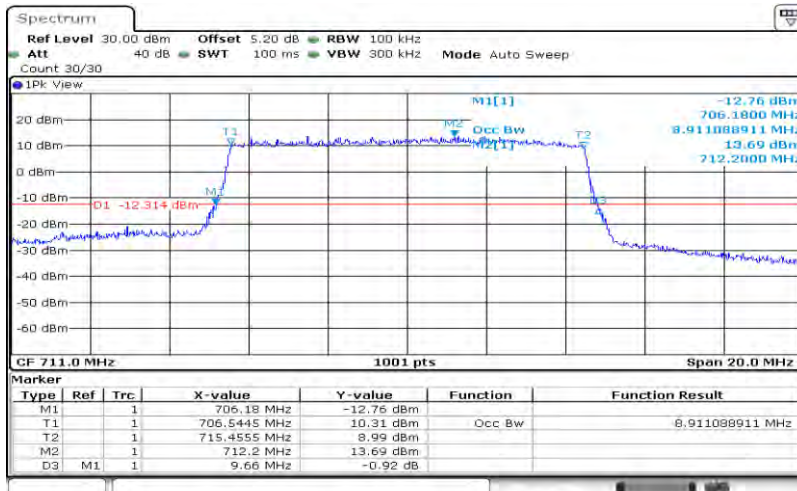


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Date: 6 NOV. 2019 22:35:11

Band12-10MHz-16QAM-23130-50RB#0-8.911



Date: 6 NOV. 2019 22:35:33

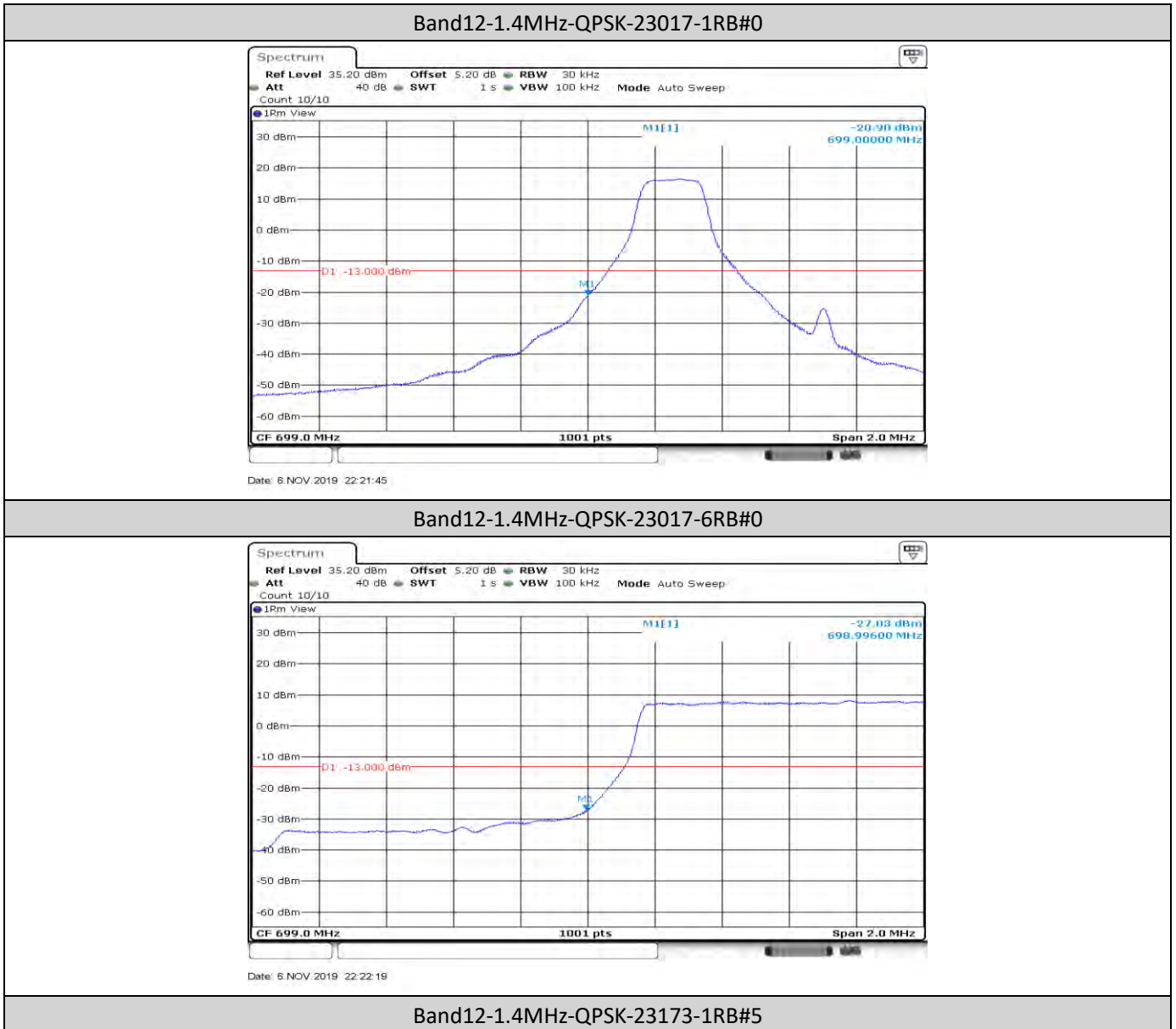


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5. Band Edge Compliance

5.1. Test Plots



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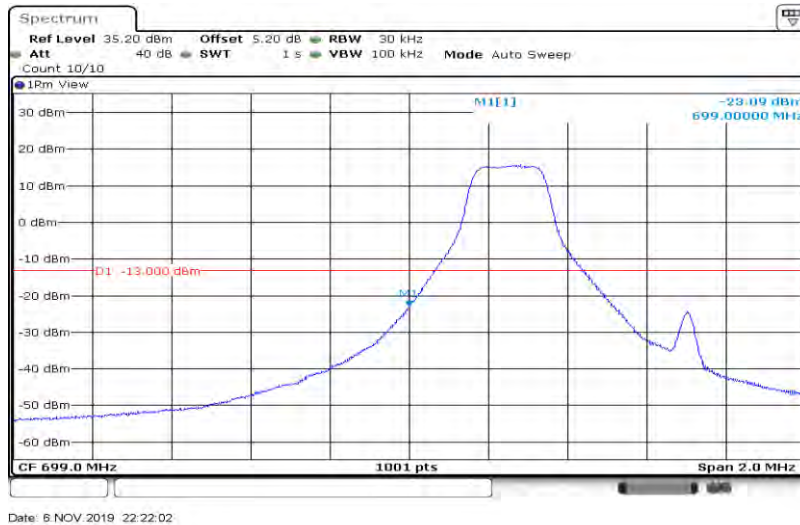
Band12-1.4MHz-QPSK-23173-6RB#0



Band12-1.4MHz-16QAM-23017-1RB#0



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Band12-1.4MHz-16QAM-23017-6RB#0



Band12-1.4MHz-16QAM-23173-1RB#5



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Date: 6 NOV. 2019 22:23:16

Band12-1.4MHz-16QAM-23173-6RB#0

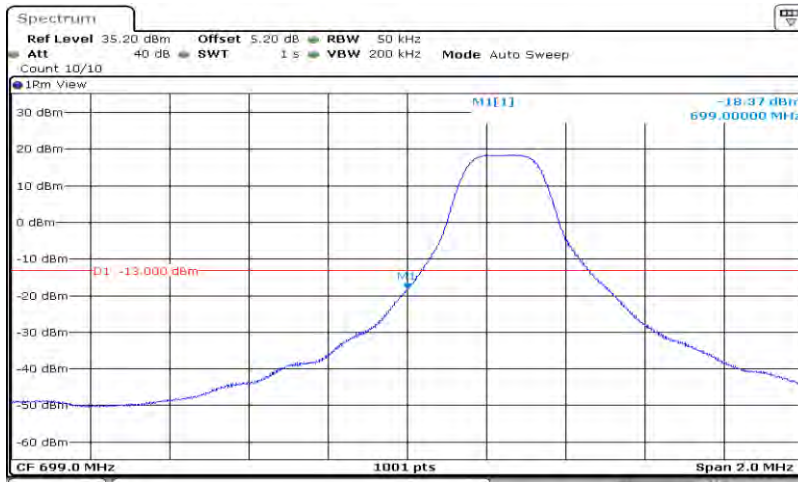


Date: 6 NOV. 2019 22:23:49

Band12-3MHz-QPSK-23025-1RB#0



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Date: 6 NOV. 2019 22:26:08

Band12-3MHz-QPSK-23025-15RB#0



Date: 6 NOV. 2019 22:26:41

Band12-3MHz-QPSK-23165-1RB#14



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Date: 6 NOV. 2019 22:27:21

Band12-3MHz-QPSK-23165-15RB#0



Date: 6 NOV. 2019 22:27:55

Band12-3MHz-16QAM-23025-1RB#0



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Date: 6 NOV. 2019 22:26:25

Band12-3MHz-16QAM-23025-15RB#0

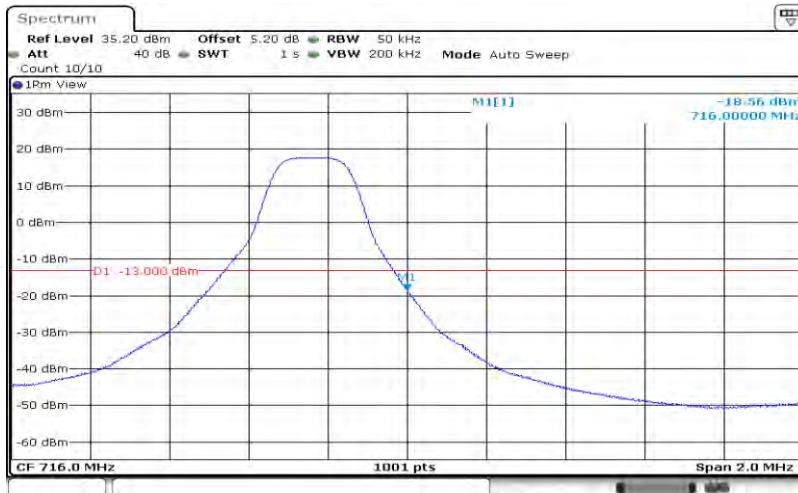


Date: 6 NOV. 2019 22:26:58

Band12-3MHz-16QAM-23165-1RB#14



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Date: 6 NOV. 2019 22:27:38

Band12-3MHz-16QAM-23165-15RB#0



Date: 6 NOV. 2019 22:28:12

Band12-5MHz-QPSK-23035-1RB#0



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Date: 6 NOV. 2019 22:31:22

Band12-5MHz-QPSK-23035-25RB#0

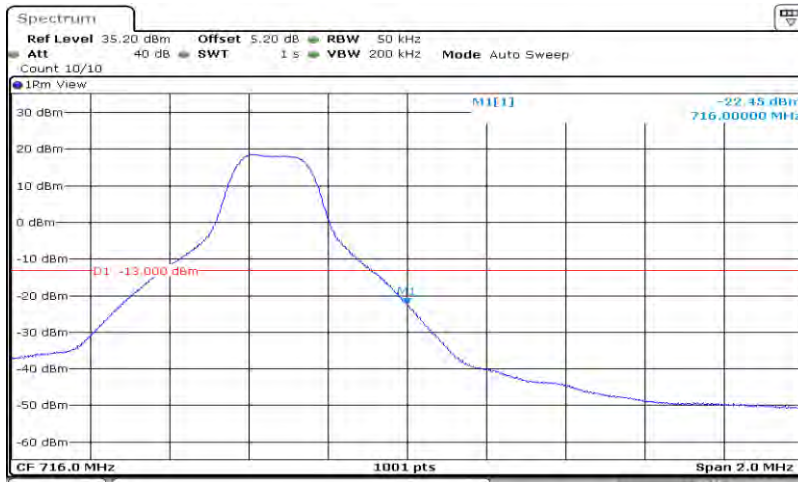


Date: 6 NOV. 2019 22:31:55

Band12-5MHz-QPSK-23155-1RB#24



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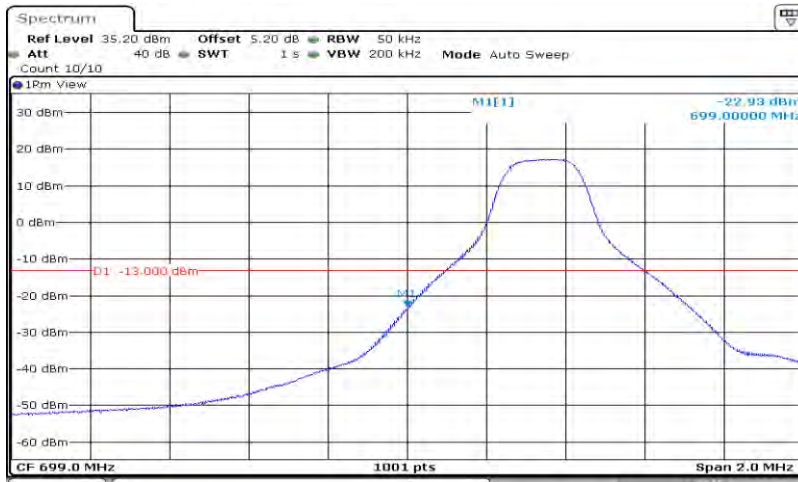
Band12-5MHz-QPSK-23155-25RB#0



Band12-5MHz-16QAM-23035-1RB#0



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Date: 6 NOV. 2019 22:31:38

Band12-5MHz-16QAM-23035-25RB#0

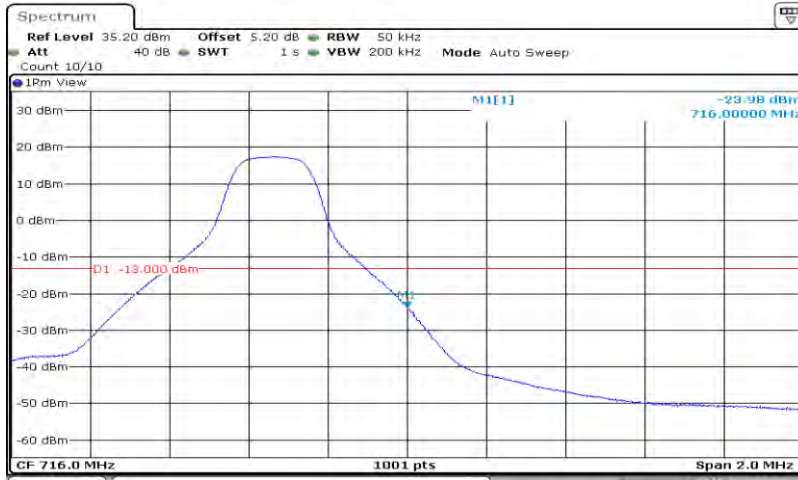


Date: 6 NOV. 2019 22:32:12

Band12-5MHz-16QAM-23155-1RB#24



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Band12-5MHz-16QAM-23155-25RB#0



Band12-10MHz-QPSK-23060-1RB#0



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Date: 6 NOV. 2019 22:35:56

Band12-10MHz-QPSK-23060-50RB#0



Date: 6 NOV. 2019 22:36:30

Band12-10MHz-QPSK-23130-1RB#49



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Date: 6 NOV. 2019 22:37:10

Band12-10MHz-QPSK-23130-50RB#0



Date: 6 NOV. 2019 22:37:45

Band12-10MHz-16QAM-23060-1RB#0



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Date: 6 NOV. 2019 22:36:13

Band12-10MHz-16QAM-23060-50RB#0

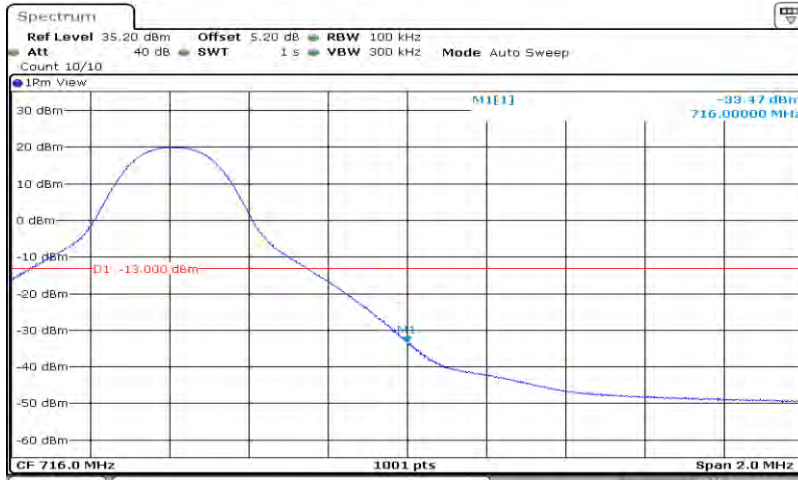


Date: 6 NOV. 2019 22:36:47

Band12-10MHz-16QAM-23130-1RB#49

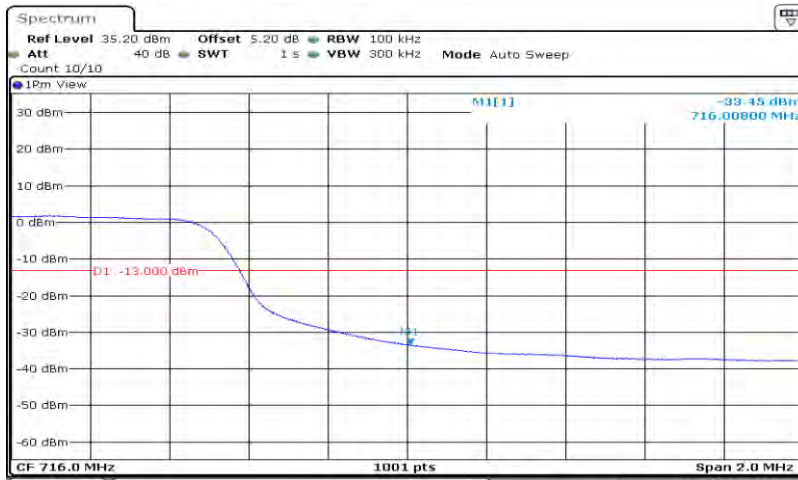


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Date: 6 NOV. 2019 22:37:28

Band12-10MHz-16QAM-23130-50RB#0



Date: 6 NOV. 2019 22:38:02



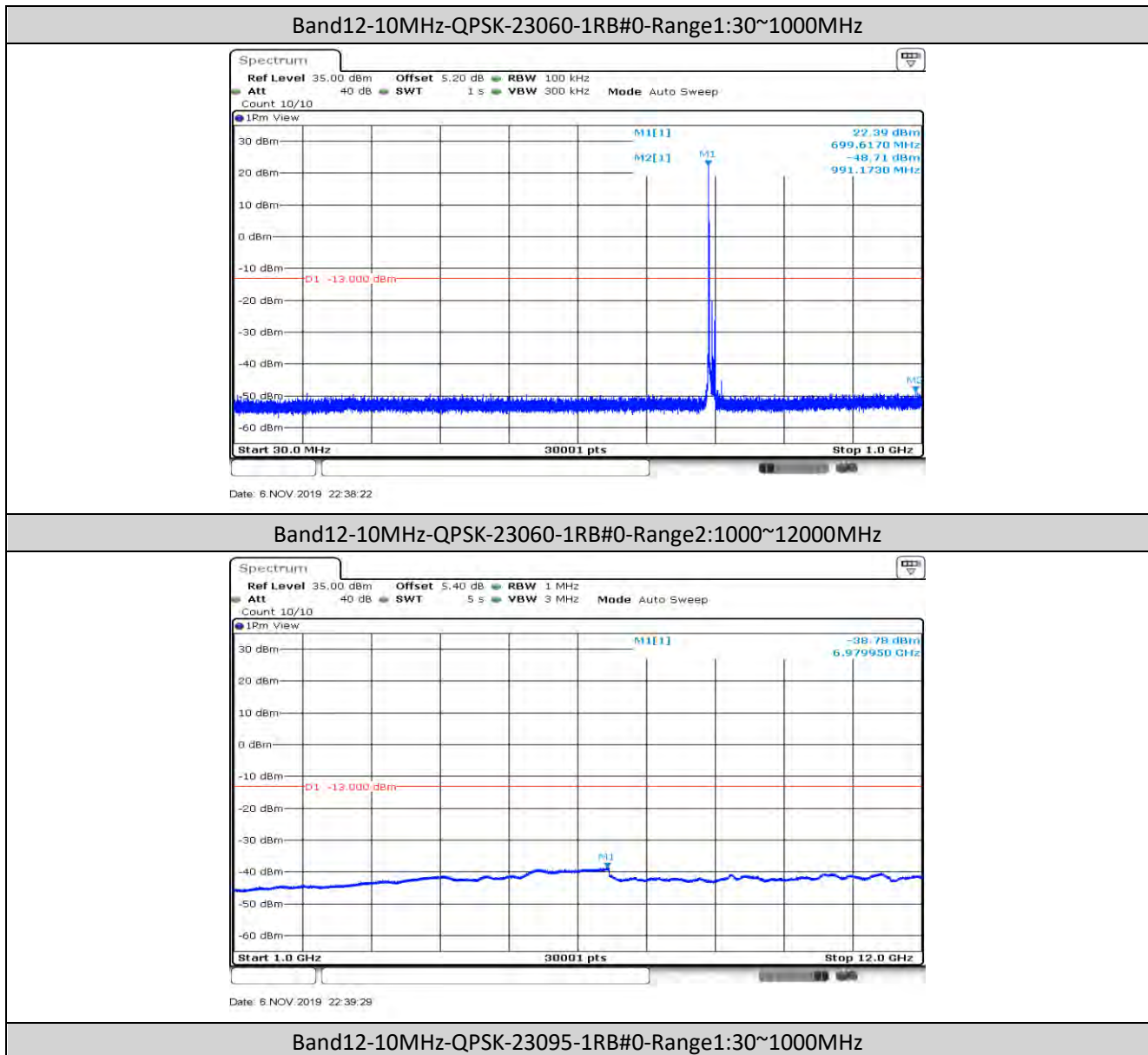
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6. Spurious Emission at Antenna Terminal

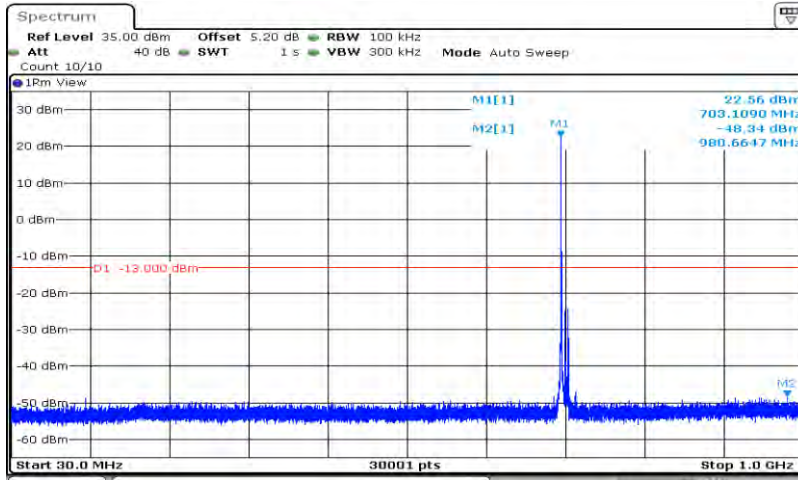
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " 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

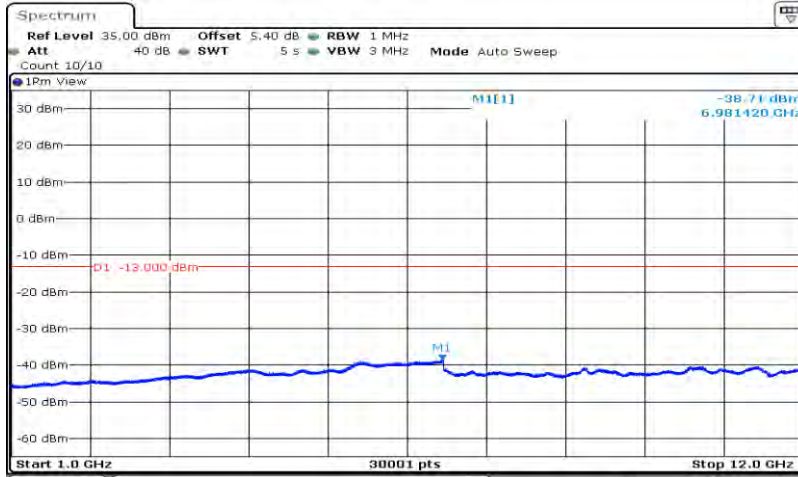


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Date: 6 NOV. 2019 22:41:12

Band12-10MHz-QPSK-23095-1RB#0-Range2:100~12000MHz

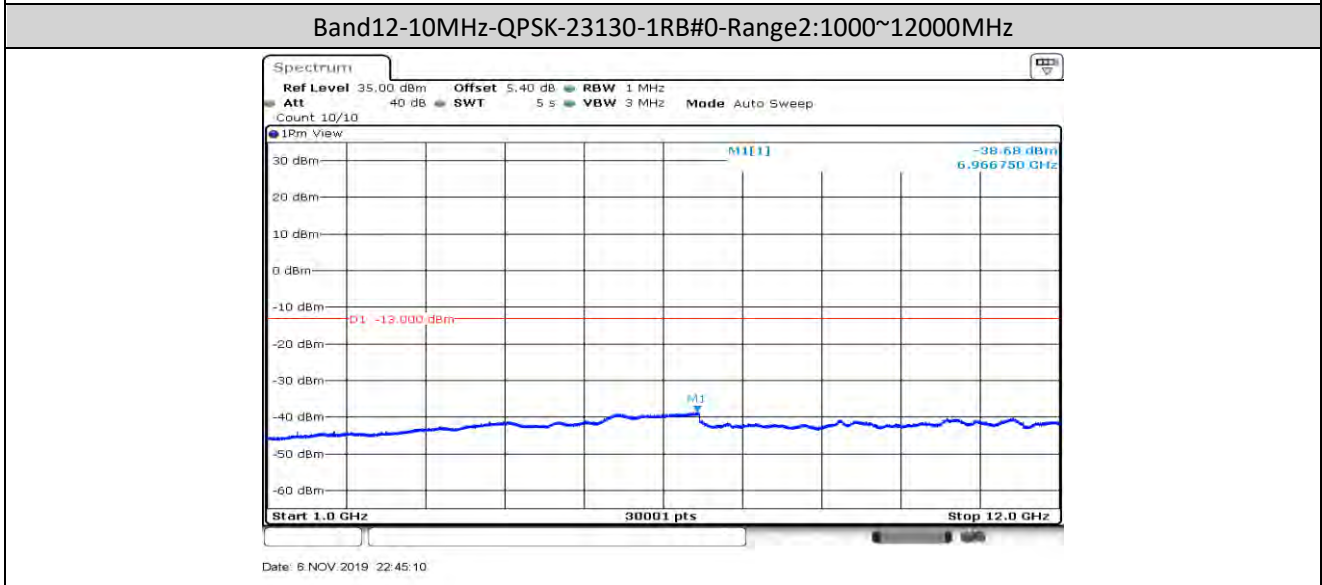
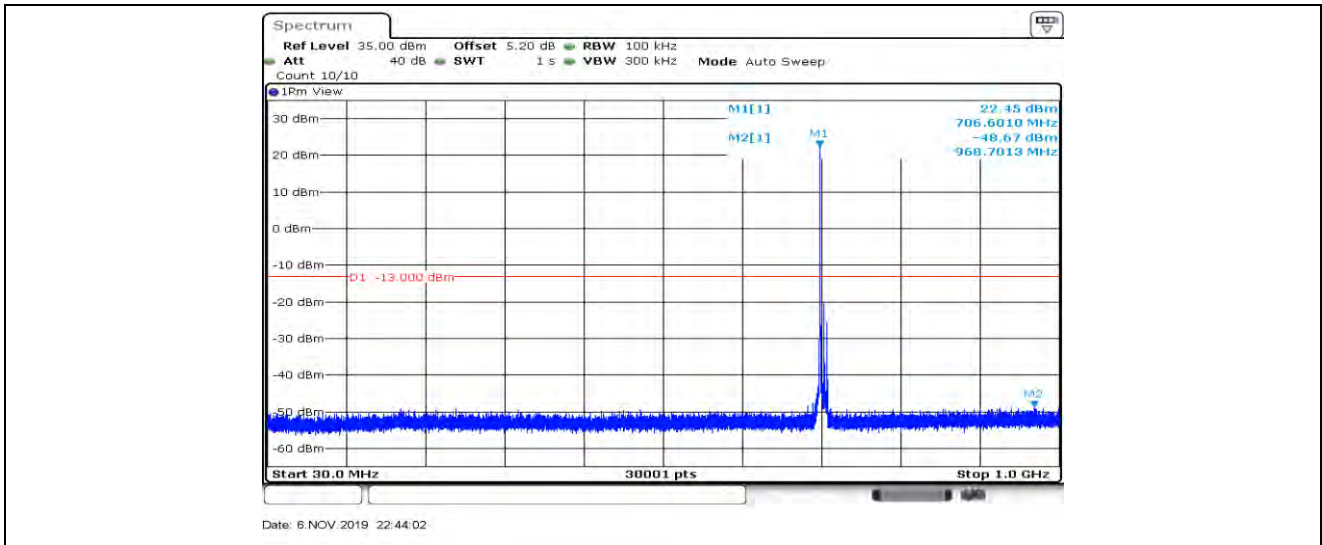


Date: 6 NOV. 2019 22:42:19

Band12-10MHz-QPSK-23130-1RB#0-Range1:30~1000MHz



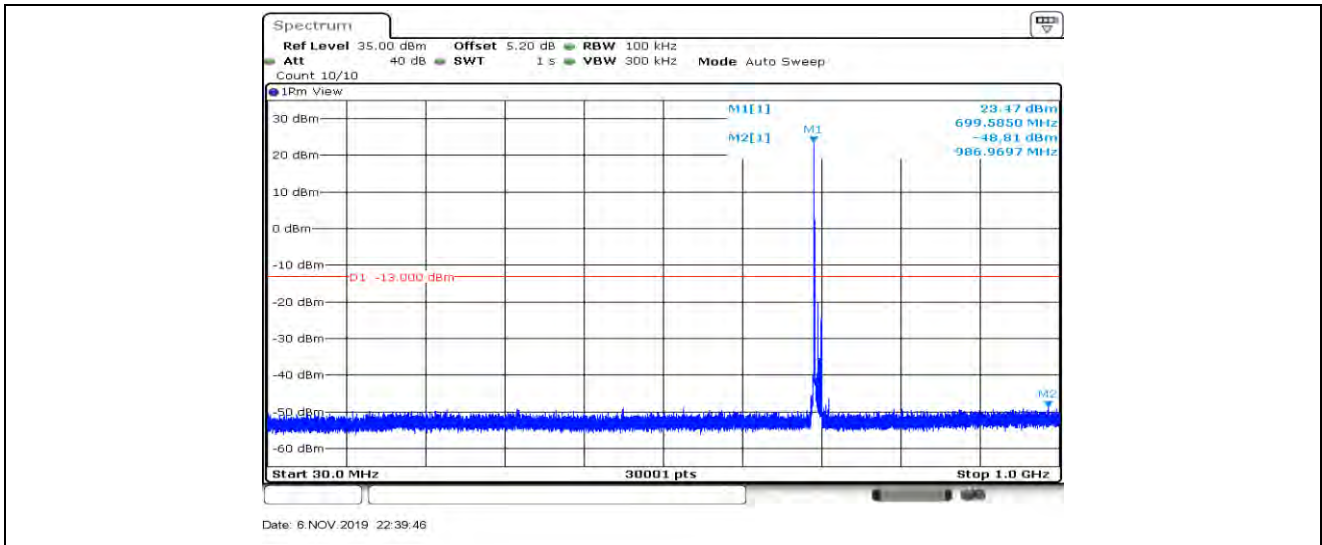
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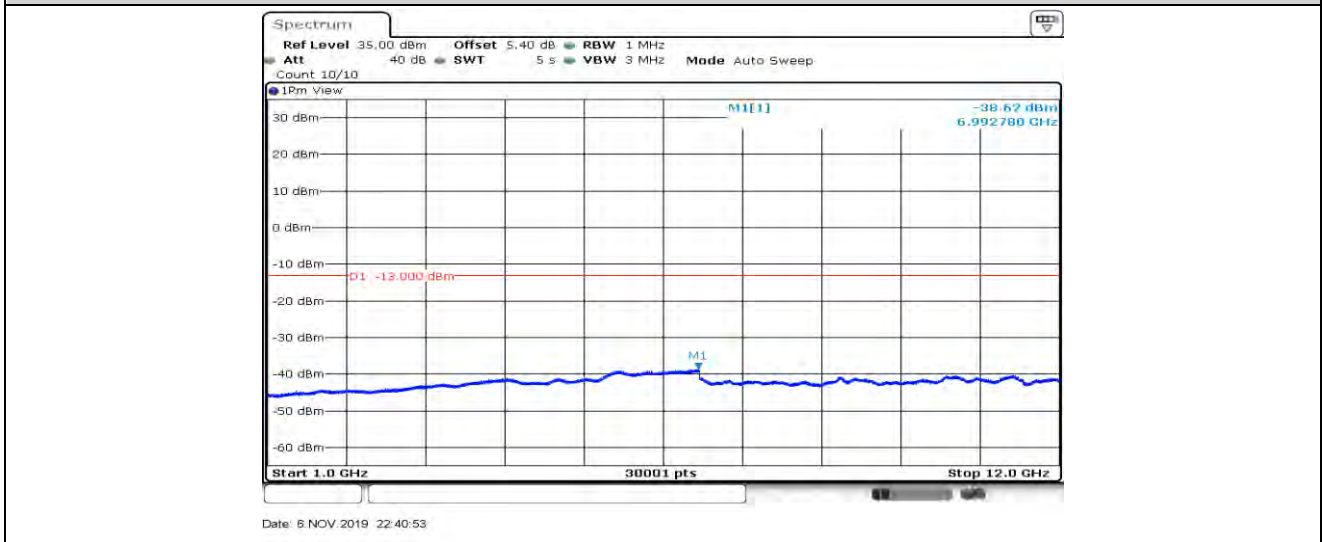
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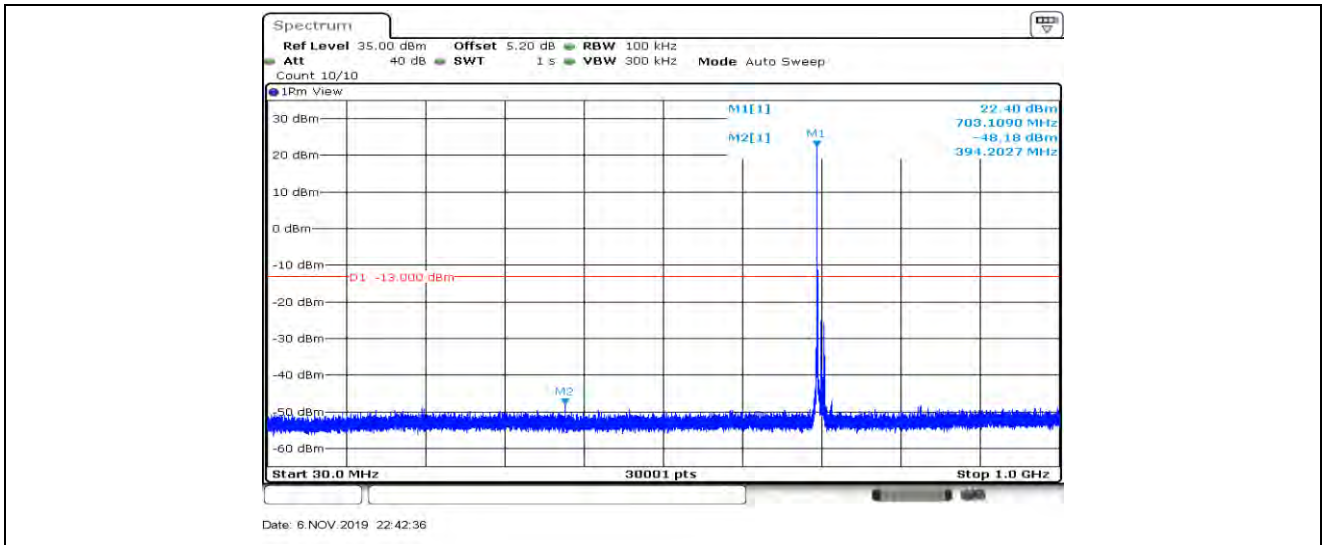
Band12-10MHz-16QAM-23060-1RB#0-Range2:1000~12000MHz



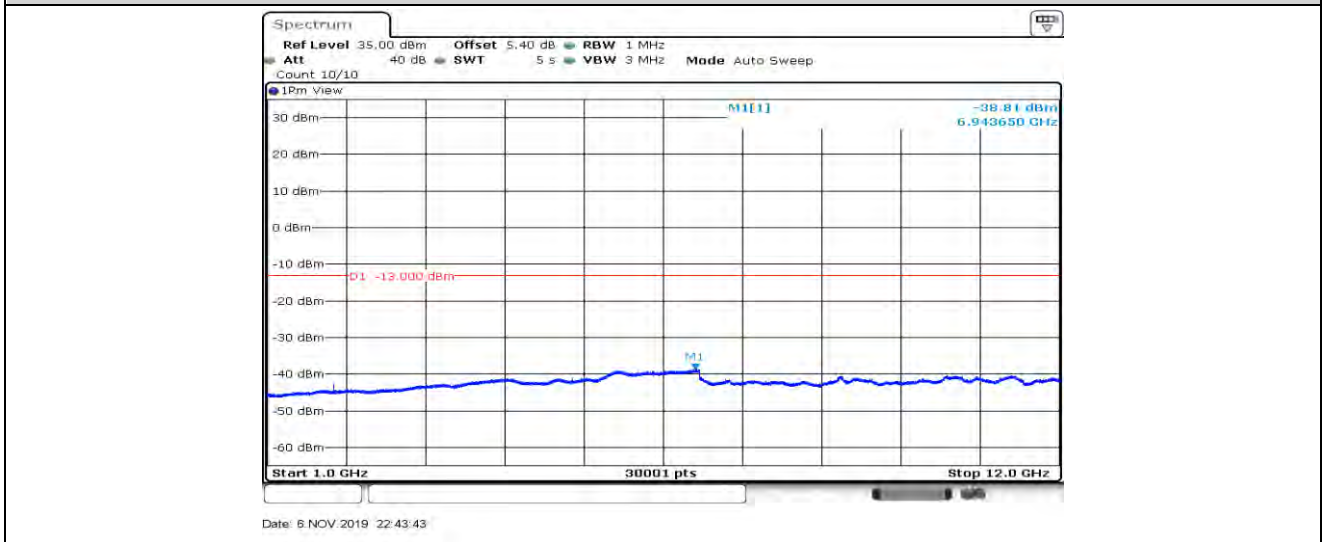
Band12-10MHz-16QAM-23095-1RB#0-Range1:30~1000MHz



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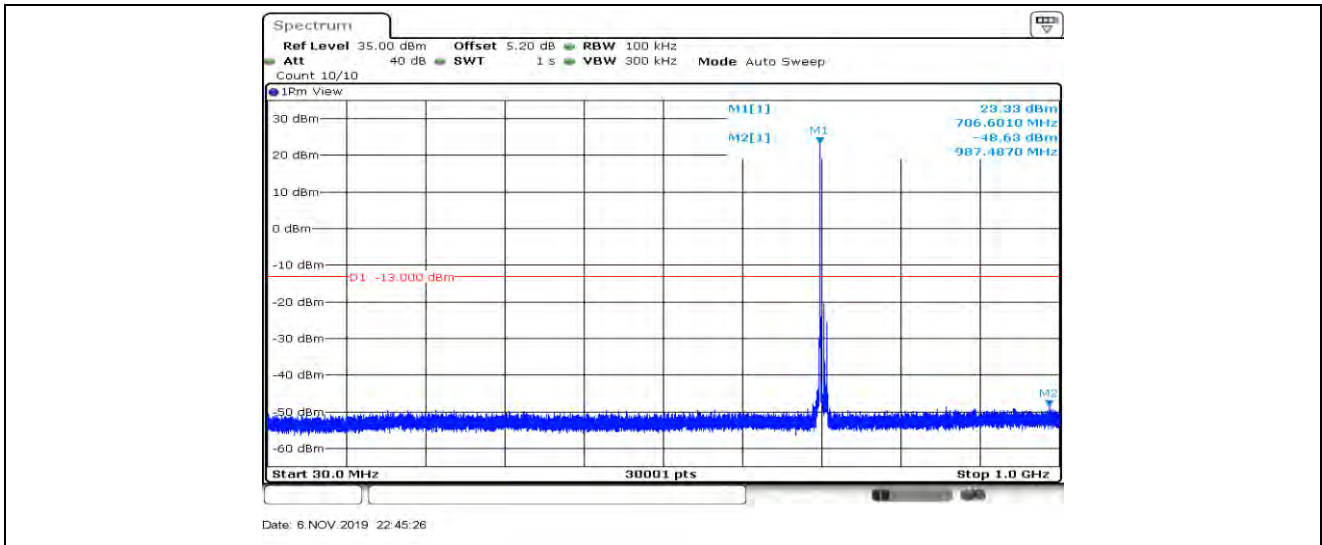
Band12-10MHz-16QAM-23095-1RB#0-Range2:1000~12000MHz



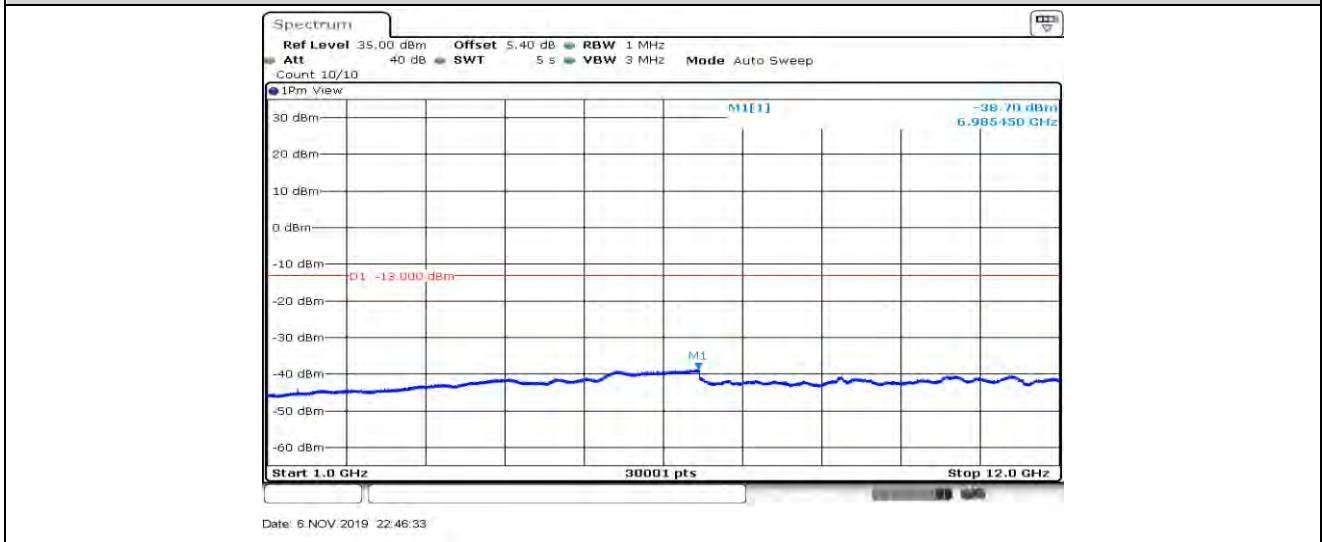
Band12-10MHz-16QAM-23130-1RB#0-Range1:30~1000MHz



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Band12-10MHz-16QAM-23130-1RB#0-Range2:1000~12000MHz



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7. Field Strength of Spurious Radiation

7.1. Test Mode =LTE/TM1 10MHz

7.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
108.0889	-64.79	-13.00	51.79	Vertical
906.6328	-55.06	-13.00	42.06	Vertical
1399.2799	-58.13	-13.00	45.13	Vertical
2098.6197	-54.19	-13.00	41.19	Vertical
10707.9083	-44.95	-13.00	31.95	Vertical
17992.7997	-33.26	-13.00	20.26	Vertical
47.2669	-64.59	-13.00	51.59	Horizontal
237.1054	-67.94	-13.00	54.94	Horizontal
907.3604	-50.00	-13.00	37.00	Horizontal
1399.2799	-54.60	-13.00	41.60	Horizontal
2098.6197	-46.57	-13.00	33.57	Horizontal
16400.3360	-36.99	-13.00	23.99	Horizontal

7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
106.7793	-64.36	-13.00	51.36	Vertical
739.2995	-51.97	-13.00	38.97	Vertical
1406.0812	-59.15	-13.00	46.15	Vertical
1759.3519	-63.56	-13.00	50.56	Vertical
2109.0218	-46.89	-13.00	33.89	Vertical
17991.5997	-32.87	-13.00	19.87	Vertical
44.8902	-64.61	-13.00	51.61	Horizontal
235.4078	-68.29	-13.00	55.29	Horizontal
998.6904	-56.66	-13.00	43.66	Horizontal
1406.0812	-54.54	-13.00	41.54	Horizontal
2109.4219	-40.66	-13.00	27.66	Horizontal
16394.9358	-36.83	-13.00	23.83	Horizontal



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7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
112.0661	-65.04	-13.00	52.04	Vertical
468.5104	-67.10	-13.00	54.10	Vertical
1412.8826	-60.80	-13.00	47.80	Vertical
2119.8240	-50.97	-13.00	37.97	Vertical
10686.3075	-45.55	-13.00	32.55	Vertical
17989.7996	-32.96	-13.00	19.96	Vertical
44.5507	-64.07	-13.00	51.07	Horizontal
232.9826	-68.63	-13.00	55.63	Horizontal
898.8724	-55.76	-13.00	42.76	Horizontal
1412.8826	-55.45	-13.00	42.45	Horizontal
2119.8240	-44.43	-13.00	31.43	Horizontal
16390.1356	-37.54	-13.00	24.54	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
Band12	10MHz	QPSK	23060	50RB#0	VL	NT	-1.30	-0.001847	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	-1.90	-0.002699	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VH	NT	-0.30	-0.000426	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	-0.60	-0.000848	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	0.10	0.000141	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-1.50	-0.002120	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VL	NT	-1.70	-0.002391	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	-2.80	-0.003938	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-1.30	-0.001828	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VL	NT	0.80	0.001136	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VN	NT	0.40	0.000568	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VH	NT	0.00	0.000000	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VL	NT	0.60	0.000848	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VN	NT	-0.80	-0.001131	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VH	NT	-0.60	-0.000848	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VL	NT	-1.70	-0.002391	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VN	NT	-0.60	-0.000844	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VH	NT	-0.50	-0.000703	±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
Band12	10MHz	QPSK	23060	50RB#0	NV	-30	-1.00	-0.001420	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-20	-0.70	-0.000994	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	0	-0.30	-0.000426	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	10	-2.10	-0.002983	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	20	-0.90	-0.001278	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	30	-0.60	-0.000852	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	40	-1.00	-0.001420	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	50	-0.20	-0.000284	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	-1.80	-0.002544	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-1.50	-0.002120	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	-0.60	-0.000848	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	-1.20	-0.001696	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-0.40	-0.000565	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	-1.20	-0.001696	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	0.70	0.000989	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	1.10	0.001555	±2.5	PASS



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Band12	10MHz	QPSK	23130	50RB#0	NV	-30	-2.40	-0.003376	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	-1.90	-0.002672	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-0.90	-0.001266	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	-3.00	-0.004219	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-1.90	-0.002672	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	30	-1.10	-0.001547	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	40	-1.10	-0.001547	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	50	-0.80	-0.001125	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-30	0.50	0.000710	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-20	-0.90	-0.001278	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	0	-1.00	-0.001420	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	10	1.60	0.002273	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	20	-0.30	-0.000426	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	30	-0.60	-0.000852	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	40	0.40	0.000568	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	50	0.10	0.000142	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-30	0.10	0.000141	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-20	0.60	0.000848	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	0	-1.10	-0.001555	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	10	0.20	0.000283	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	20	-0.10	-0.000141	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	30	1.30	0.001837	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	40	-0.70	-0.000989	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	50	-0.50	-0.000707	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-30	-1.00	-0.001406	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-20	-1.80	-0.002532	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	0	-1.80	-0.002532	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	10	-1.20	-0.001688	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	20	-1.40	-0.001969	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	30	-0.70	-0.000985	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	40	-0.40	-0.000563	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	50	0.60	0.000844	±2.5	PASS



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