



Appendix B

E-UTRA Band 12



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1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)	Result (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.44	17.97	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.71	18.24	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.63	18.16	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.51	18.04	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.71	18.24	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	23.74	18.27	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.72	17.25	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.43	17.96	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.66	18.19	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.63	18.16	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.51	18.04	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.87	18.40	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.72	18.25	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.76	17.29	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.61	18.14	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.82	18.35	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.91	18.44	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.61	18.14	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.88	18.41	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.72	18.25	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.89	17.42	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.08	16.61	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.42	16.95	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.26	16.79	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.69	17.22	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.91	17.44	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	22.77	17.30	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.77	16.30	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.17	16.70	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.43	16.96	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.33	16.86	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.82	17.35	34.77	PASS



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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch Testing Laboratory
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
 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



Band12	1.4MHz	16QAM	23095	3RB#1	22.89	17.42	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	23.00	17.53	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.65	16.18	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.38	16.91	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.84	17.37	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.32	16.85	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	22.99	17.52	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.81	17.34	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	22.73	17.26	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.90	16.43	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.49	18.02	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.88	18.41	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.59	18.12	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.61	17.14	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.90	17.43	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.60	17.13	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.74	17.27	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.63	18.16	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.52	18.05	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.56	18.09	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.67	17.20	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.76	17.29	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.82	17.35	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.70	17.23	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.79	18.32	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.77	18.30	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.49	18.02	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.72	17.25	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#4	23.00	17.53	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.83	17.36	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.80	17.33	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.61	17.14	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.36	16.89	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.28	16.81	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.76	16.29	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.64	16.17	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#7	21.65	16.18	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.78	16.31	34.77	PASS



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Band12	3MHz	16QAM	23095	1RB#0	22.42	16.95	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.40	16.93	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.30	16.83	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.62	16.15	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.59	16.12	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.55	16.08	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.77	16.30	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.53	17.06	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.32	16.85	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	22.38	16.91	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.78	16.31	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#4	21.77	16.30	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#7	21.60	16.13	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.77	16.30	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.35	17.88	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.85	18.38	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.47	18.00	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.68	17.21	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.68	17.21	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.51	17.04	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.49	17.02	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.57	18.10	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.68	18.21	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.38	17.91	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.63	17.16	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#6	22.75	17.28	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.58	17.11	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.60	17.13	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.73	18.26	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.91	18.44	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.60	18.13	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.84	17.37	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.89	17.42	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.77	17.30	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.81	17.34	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.12	16.65	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.42	16.95	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.23	16.76	34.77	PASS



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Band12	5MHz	16QAM	23035	12RB#0	21.60	16.13	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.71	16.24	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.44	15.97	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.63	16.16	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.21	16.74	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.37	16.90	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.42	16.95	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.67	16.20	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.78	16.31	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.60	16.13	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.57	16.10	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.51	17.04	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.84	17.37	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.25	16.78	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.80	16.33	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#6	22.00	16.53	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#13	21.77	16.30	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.75	16.28	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.29	17.82	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	24.06	18.59	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.12	17.65	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.90	17.43	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.73	17.26	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.48	17.01	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.60	17.13	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.40	17.93	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	24.11	18.64	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.23	17.76	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.80	17.33	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#12	22.82	17.35	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.57	17.10	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.67	17.20	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.36	17.89	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	24.23	18.76	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.16	17.69	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.83	17.36	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.93	17.46	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.59	17.12	34.77	PASS



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Band12	10MHz	16QAM	23060	1RB#0	22.26	16.79	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.65	17.18	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.11	16.64	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#0	21.77	16.30	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#12	21.71	16.24	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#25	21.70	16.23	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.66	16.19	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.06	16.59	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.44	16.97	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	22.59	17.12	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#0	21.71	16.24	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#12	21.70	16.23	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#25	21.75	16.28	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.63	16.16	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.11	16.64	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.17	16.70	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.50	17.03	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#0	21.63	16.16	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#12	21.91	16.44	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#25	21.73	16.26	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.79	16.32	34.77	PASS

Remark:

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

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



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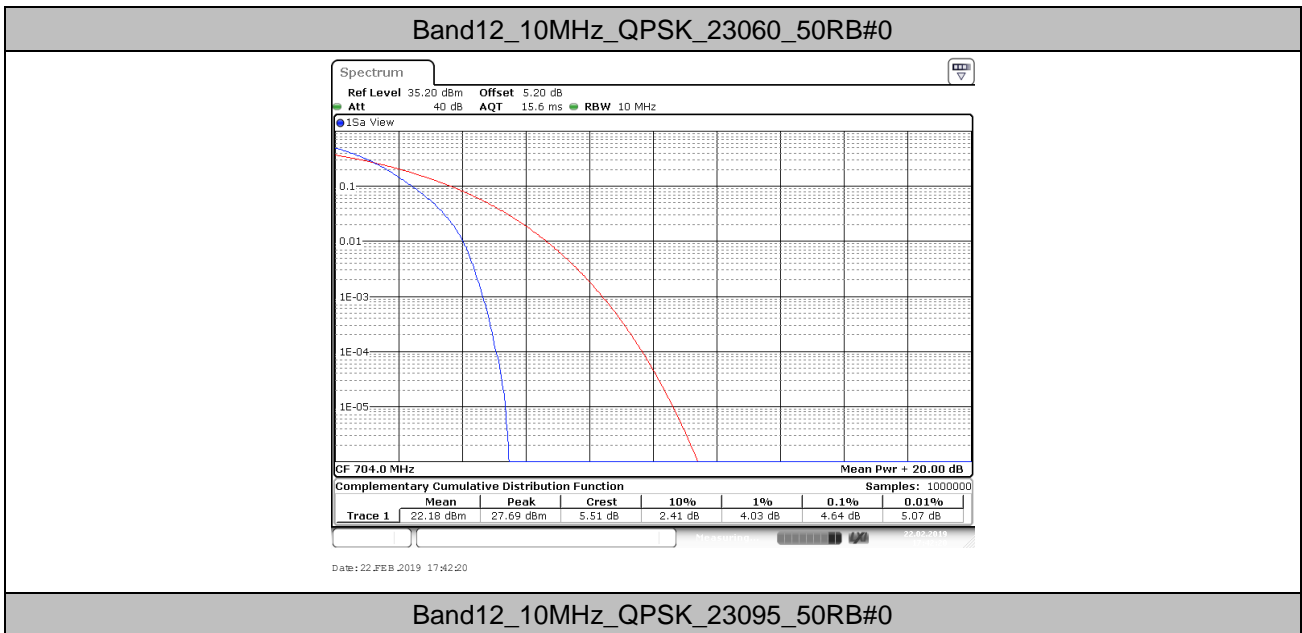


2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

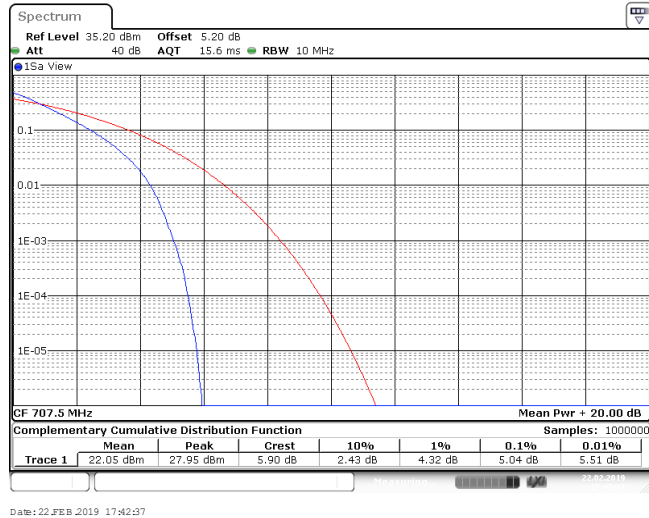
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	4.64	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.04	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	4.90	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	5.68	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	5.83	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	5.83	13	PASS

2.2. Test Plots



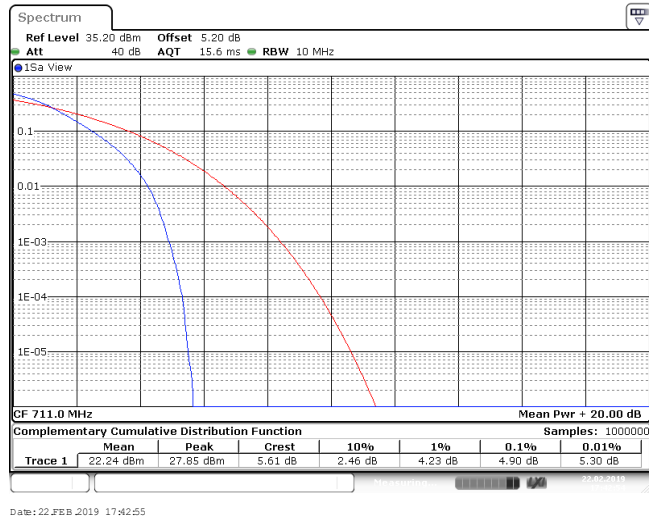
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Date: 22_FEB_2019 17:42:37

Band12_10MHz_QPSK_23130_50RB#0

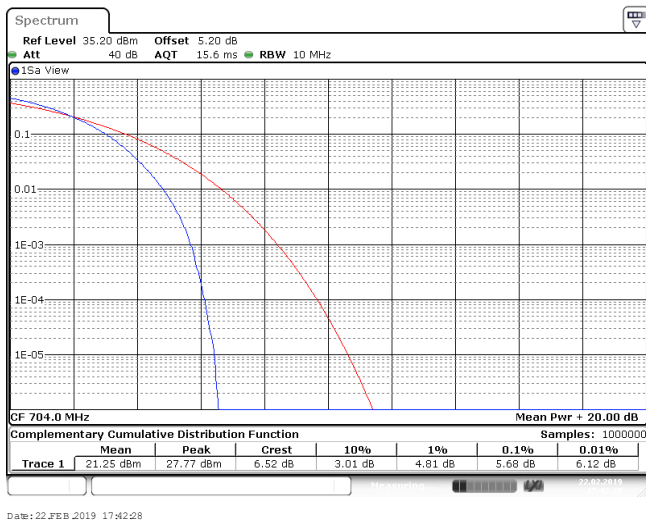


Date: 22_FEB_2019 17:42:55

Band12_10MHz_16QAM_23060_50RB#0

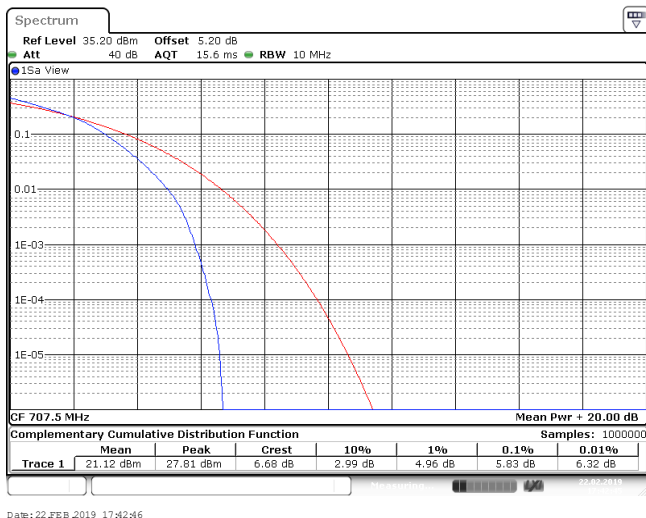


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Date: 22_FEB_2019 17:42:28

Band12_10MHz_16QAM_23095_50RB#0



Date: 22_FEB_2019 17:42:46

Band12_10MHz_16QAM_23130_50RB#0



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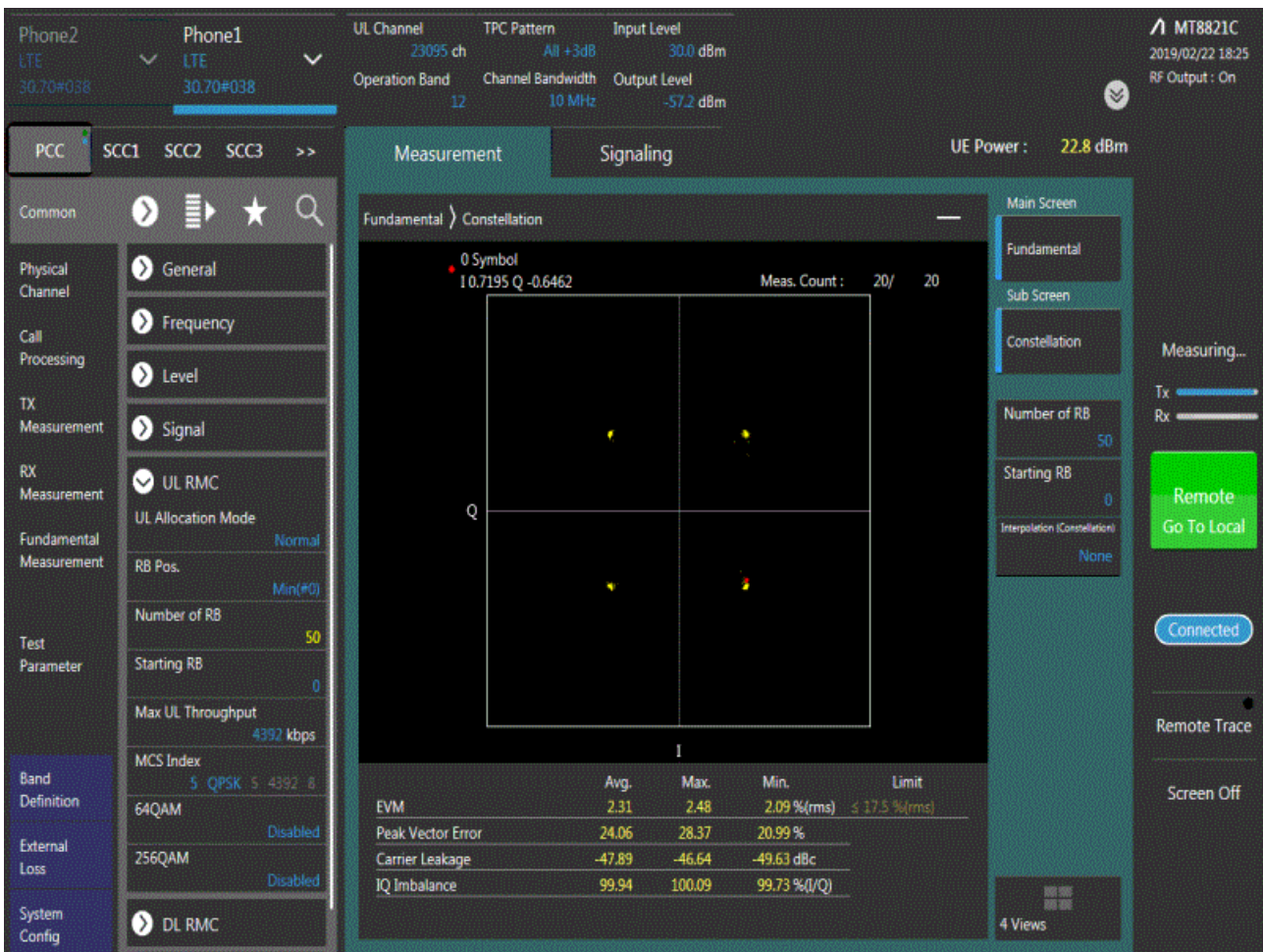
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3. Modulation Characteristics

3.1. Test BAND = LTE Band 12

3.2. Test Mode = LTE /TM1 10MHz

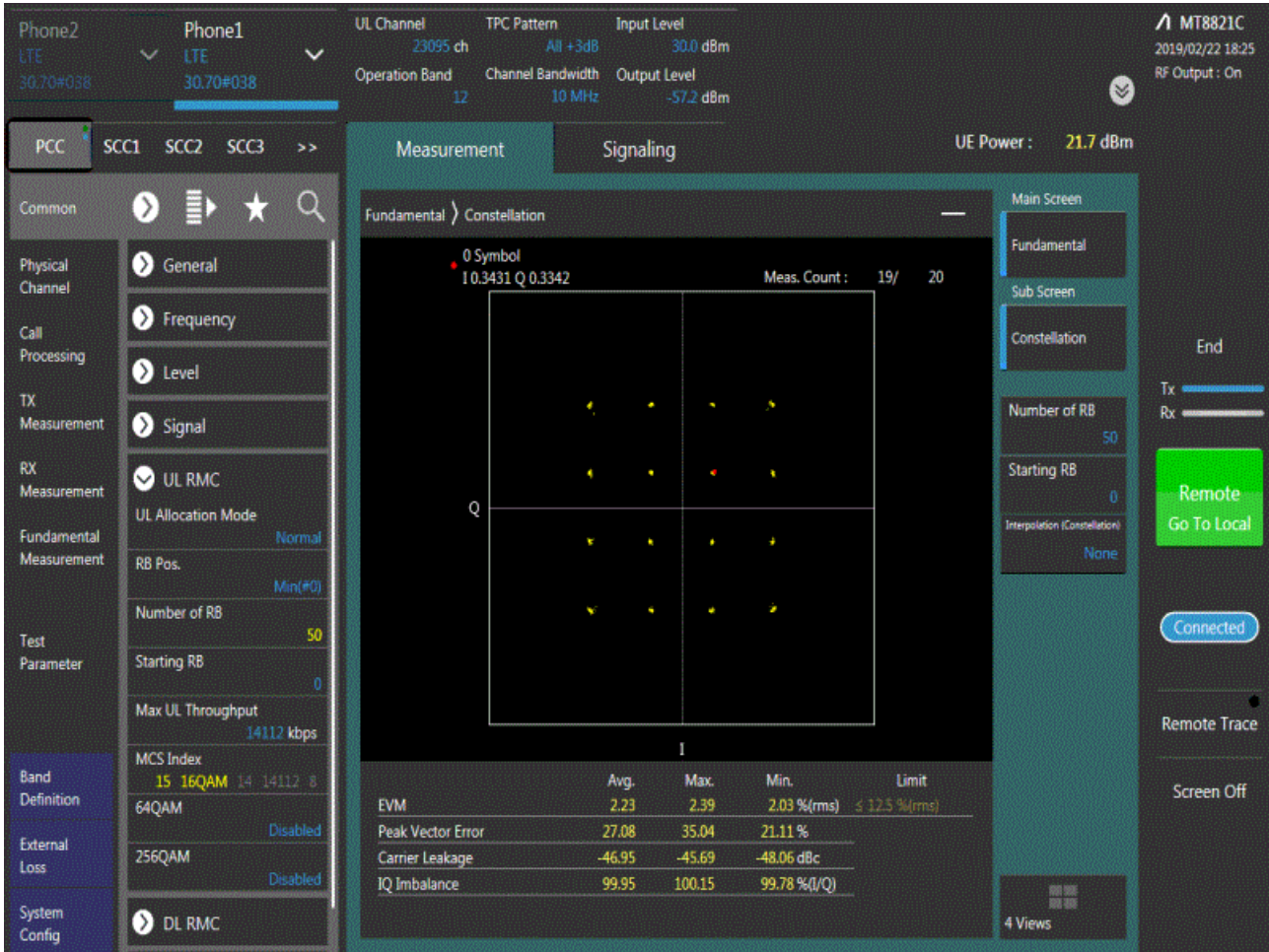
3.2.1. Test Channel = MCH



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3.3. Test Mode = LTE /TM2 10MHz

3.3.1. Test Channel = MCH



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4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

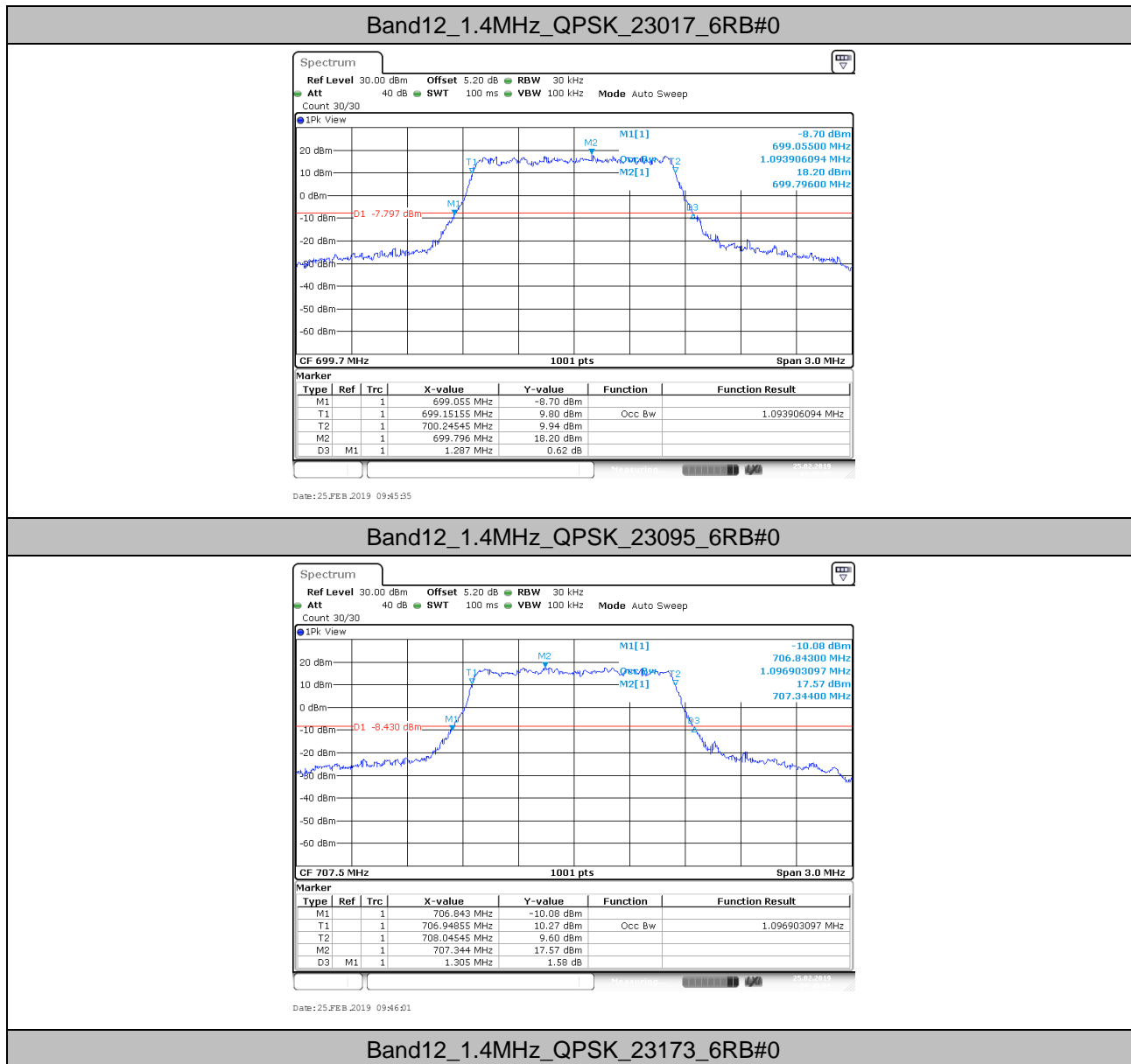
BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.094	1.287	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.097	1.305	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.094	1.311	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.091	1.296	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.091	1.287	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.091	1.305	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.691	2.988	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.697	2.994	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.691	3.000	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.685	2.976	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.691	2.976	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.679	2.964	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.456	4.900	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.476	4.960	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.466	4.890	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.476	4.940	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.486	4.970	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.476	4.950	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.891	9.620	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.931	9.740	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.931	9.680	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.891	9.660	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.951	9.740	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.931	9.720	PASS

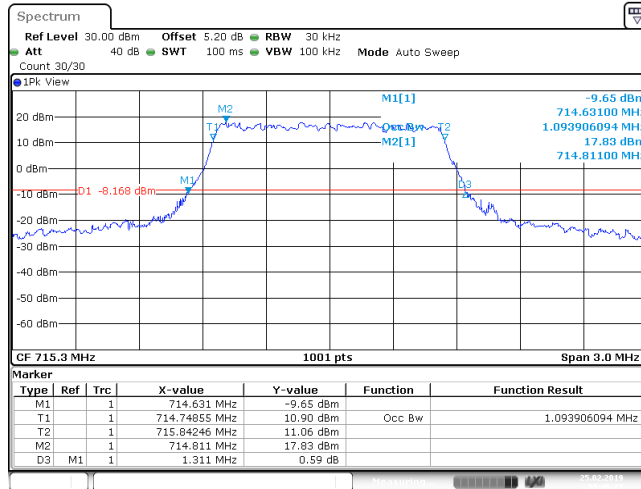


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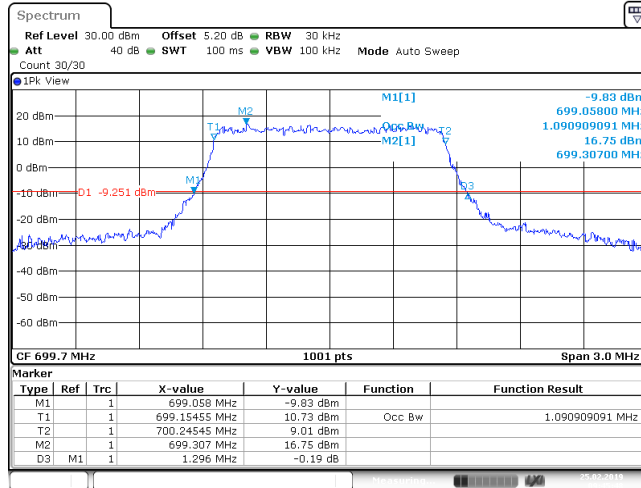
4.2. Test Plots





Date: 25 FEB 2019 09:46:27

Band12_1.4MHz_16QAM_23017_6RB#

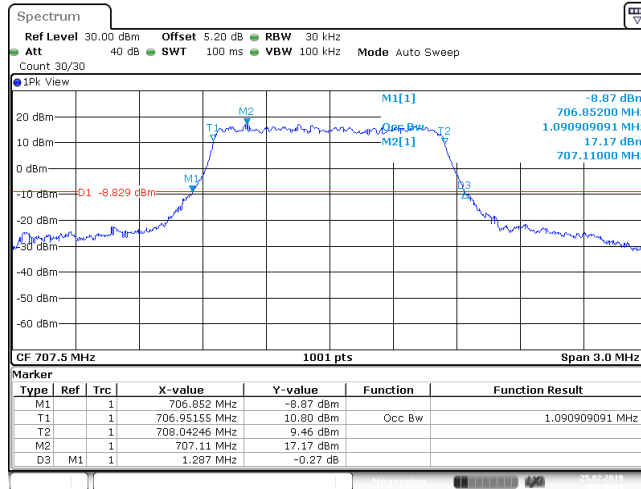


Date: 25 FEB 2019 09:45:48

Band12_1.4MHz_16QAM_23095_6RB#

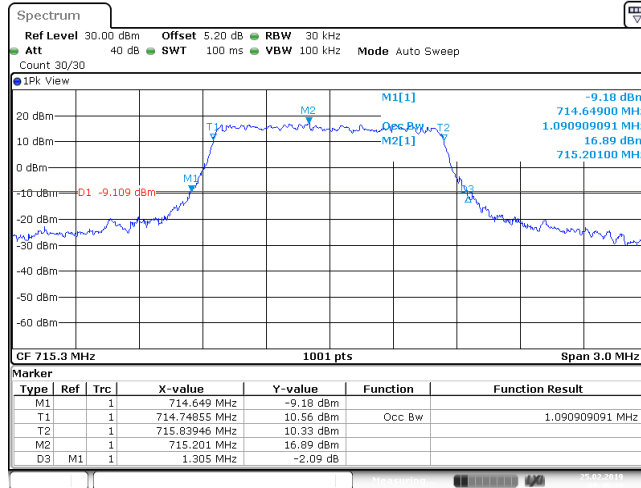


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Date: 25 FEB 2019 09:46:14

Band12_1.4MHz_16QAM_23173_6RB#0

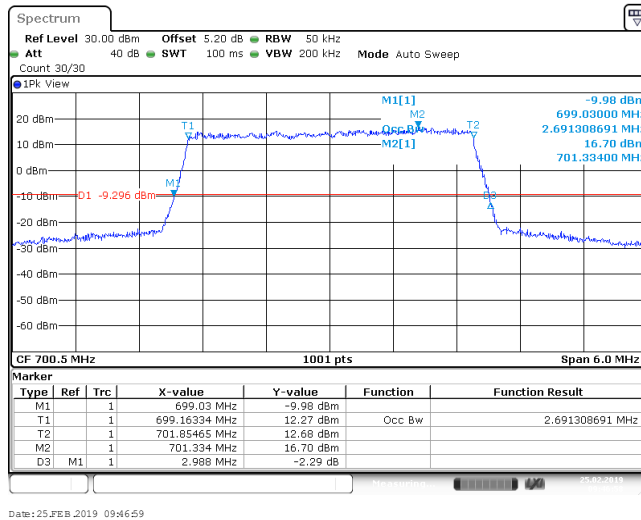


Date: 25 FEB 2019 09:46:40

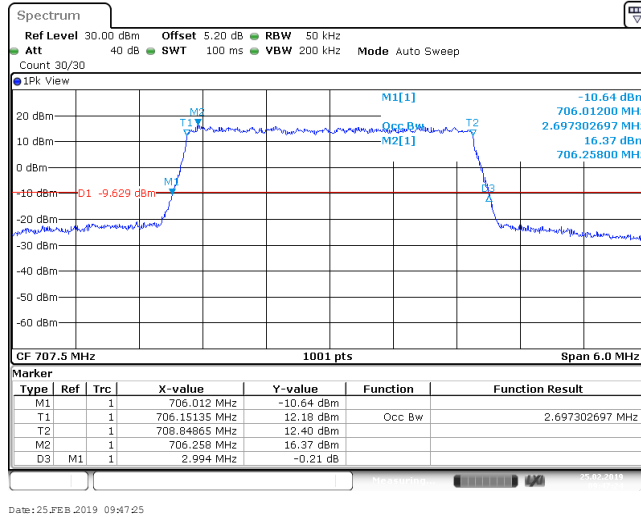
Band12_3MHz_QPSK_23025_15RB#0



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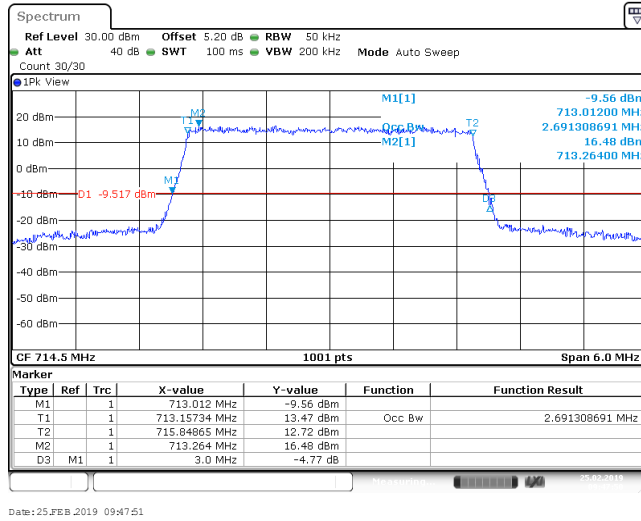
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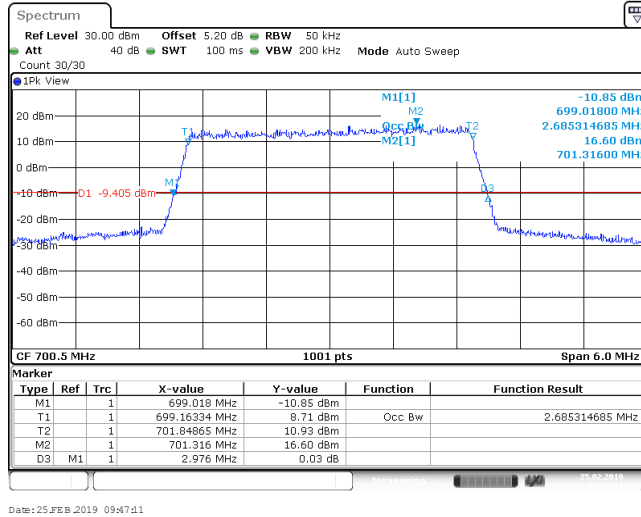
Band12_3MHz_QPSK_23165_15RB#0



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Band12_3MHz_16QAM_23025_15RB#

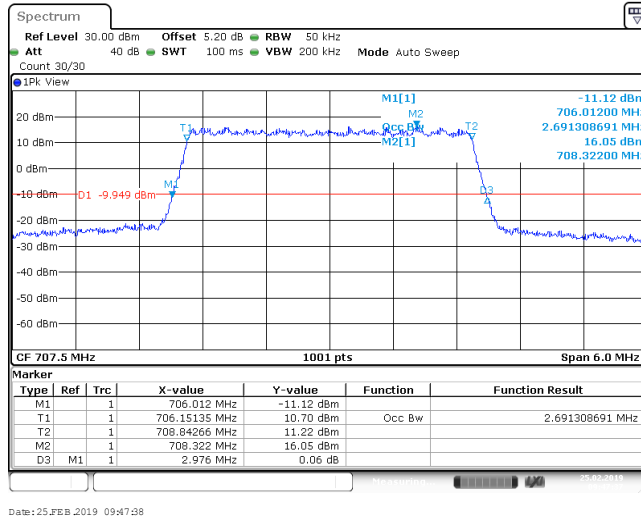


Band12_3MHz_16QAM_23095_15RB#



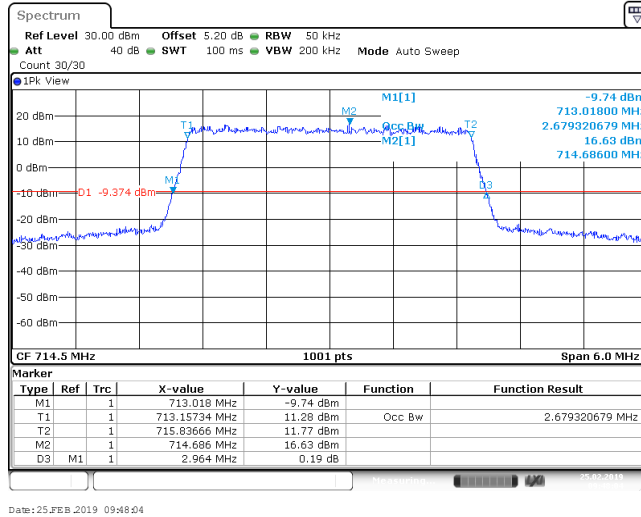
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Band12_3MHz_16QAM_23165_15RB#0

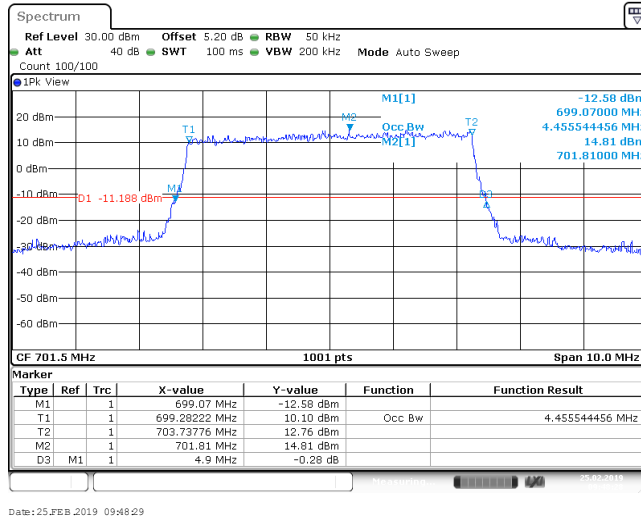


Date: 25 FEB 2019 09:48:24

Band12_5MHz_QPSK_23035_25RB#0

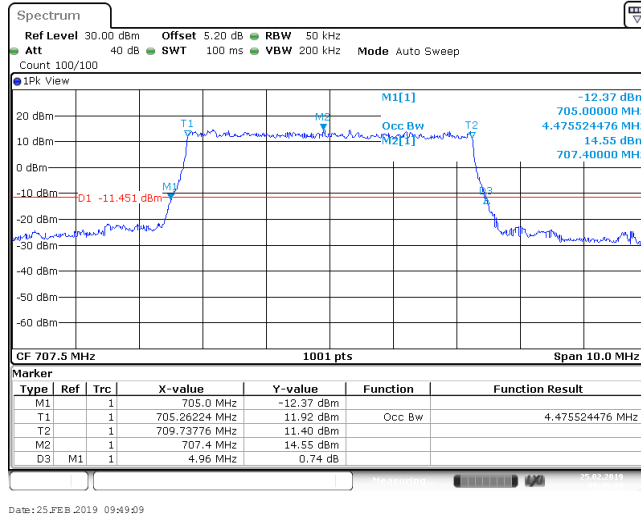


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Date: 25 FEB 2019 09:48:29

Band12_5MHz_QPSK_23095_25RB#0

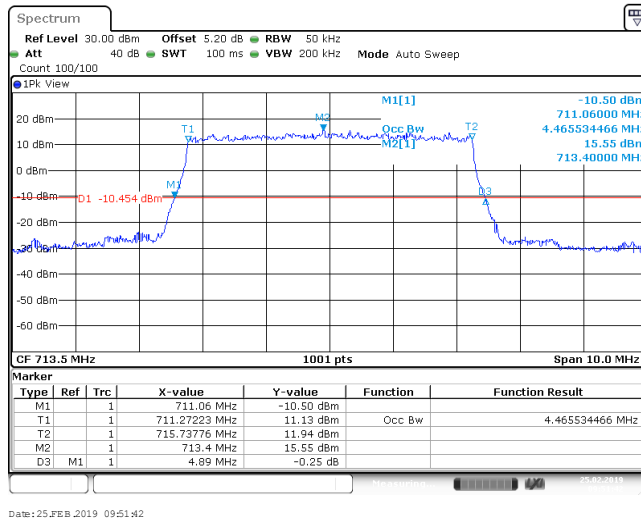


Date: 25 FEB 2019 09:49:09

Band12_5MHz_QPSK_23155_25RB#0

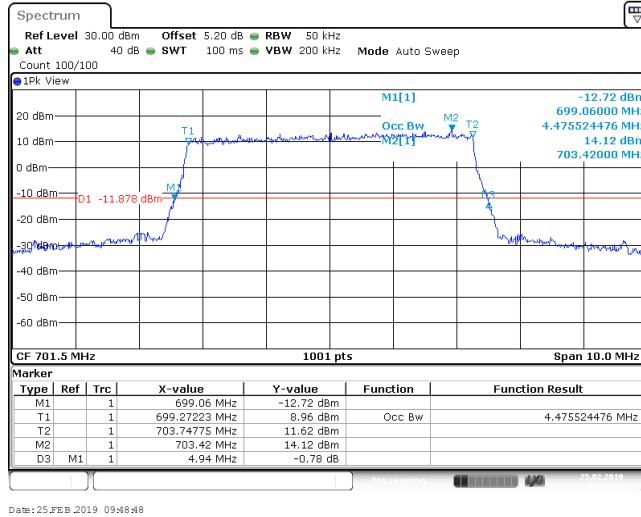


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Date: 25 FEB 2019 09:51:42

Band12_5MHz_16QAM_23035_25RB#0

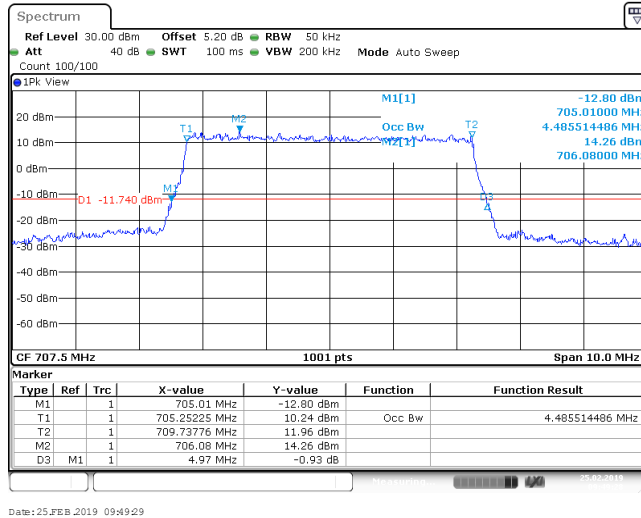


Date: 25 FEB 2019 09:48:48

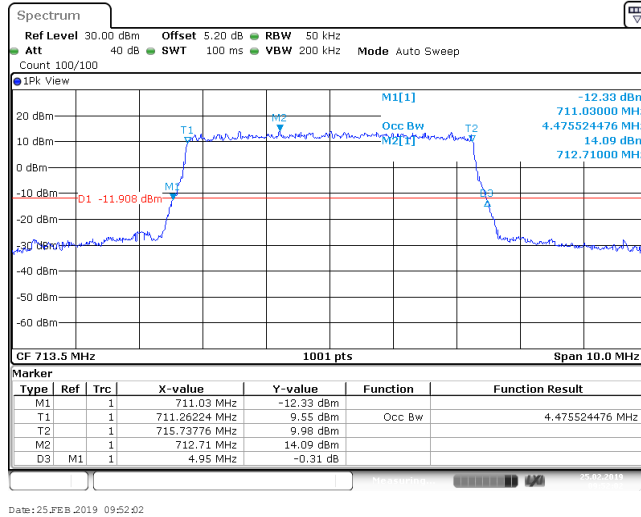
Band12_5MHz_16QAM_23095_25RB#0



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Band12_5MHz_16QAM_23155_25RB#

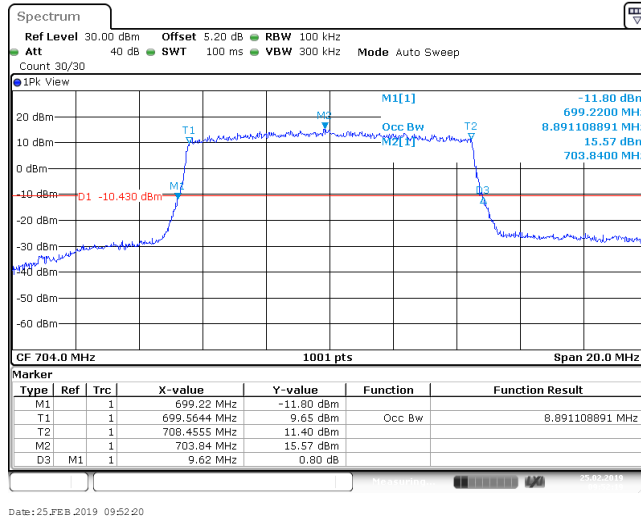


Band12_10MHz_QPSK_23060_50RB#



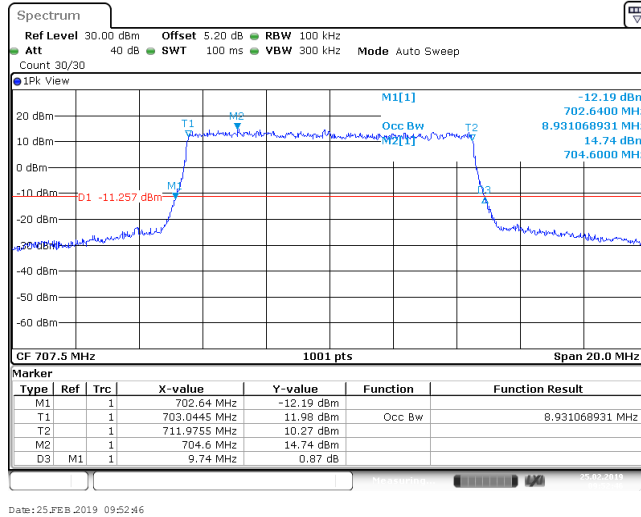
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Date: 25 FEB 2019 09:52:20

Band12_10MHz_QPSK_23095_50RB#0

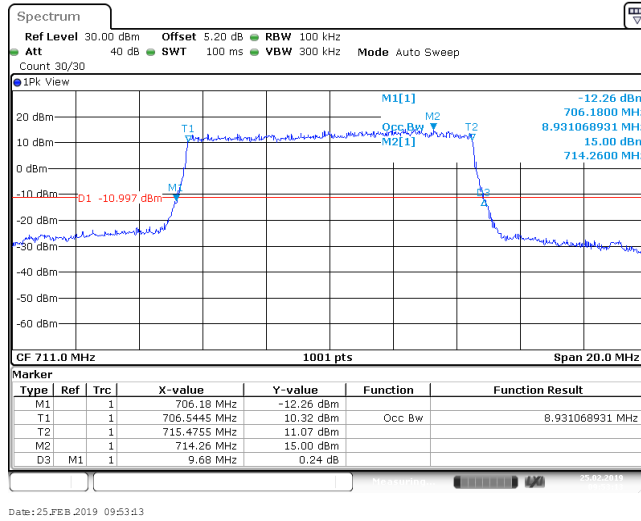


Date: 25 FEB 2019 09:52:46

Band12_10MHz_QPSK_23130_50RB#0

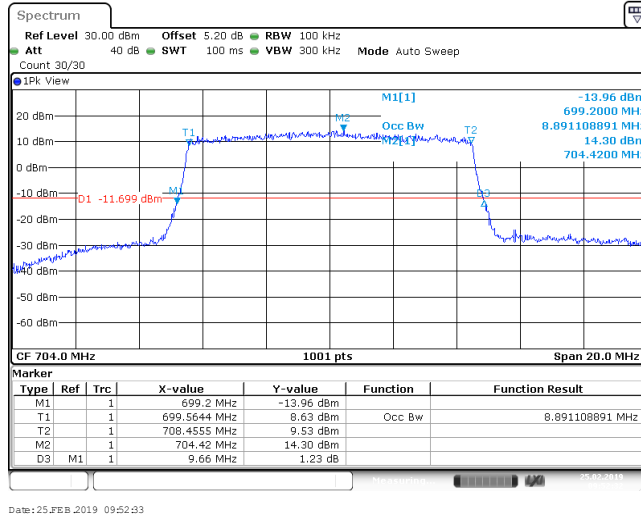


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Date: 25 FEB 2019 09:53:13

Band12_10MHz_16QAM_23060_50RB#0

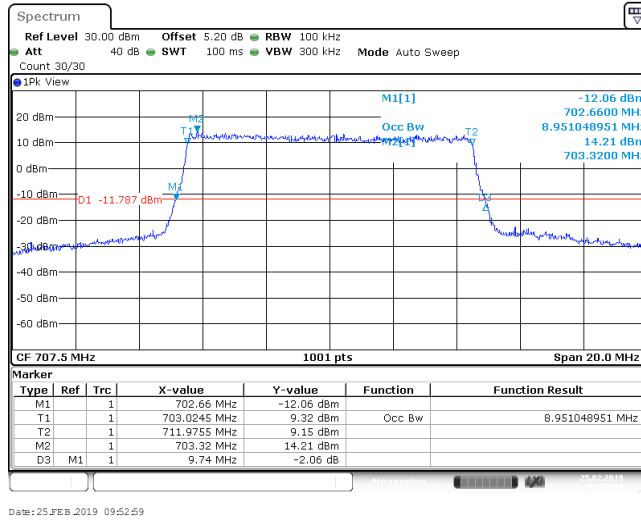


Date: 25 FEB 2019 09:52:33

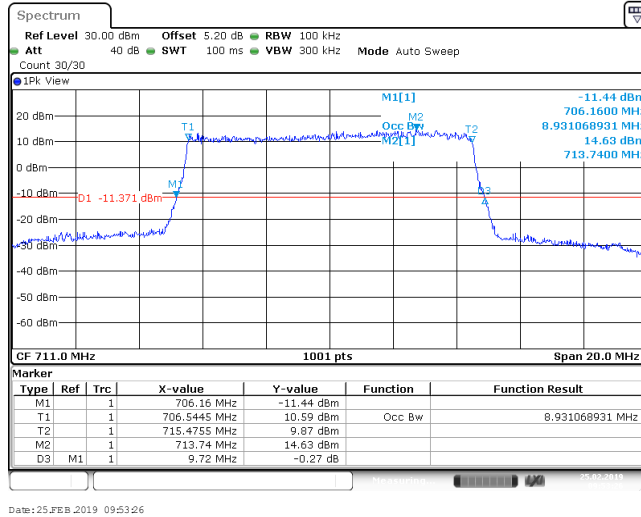
Band12_10MHz_16QAM_23095_50RB#0



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Band12_10MHz_16QAM_23130_50RB#0

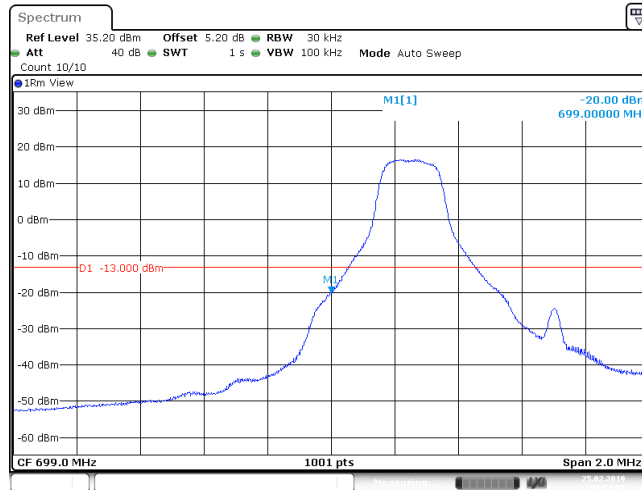


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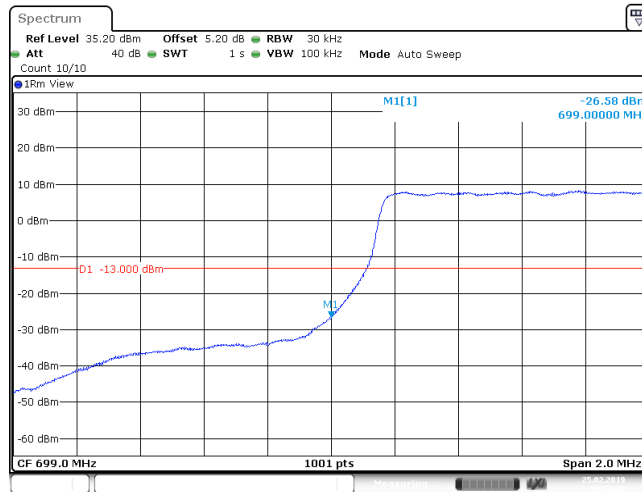
5. Band Edge Compliance

5.1. Test Plots

Band12_1.4MHz_QPSK_23017_1RB#0



Band12_1.4MHz_QPSK_23017_6RB#0

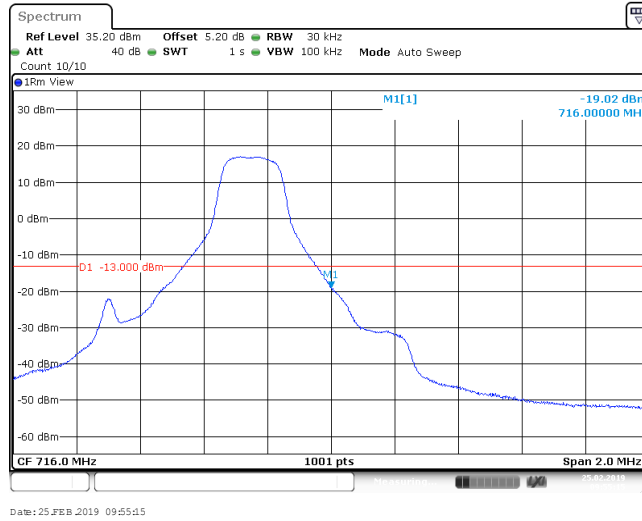


Band12_1.4MHz_QPSK_23173_1RB#5

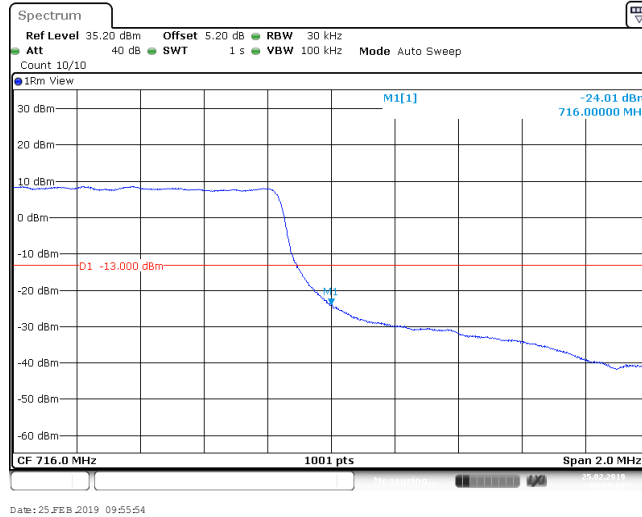


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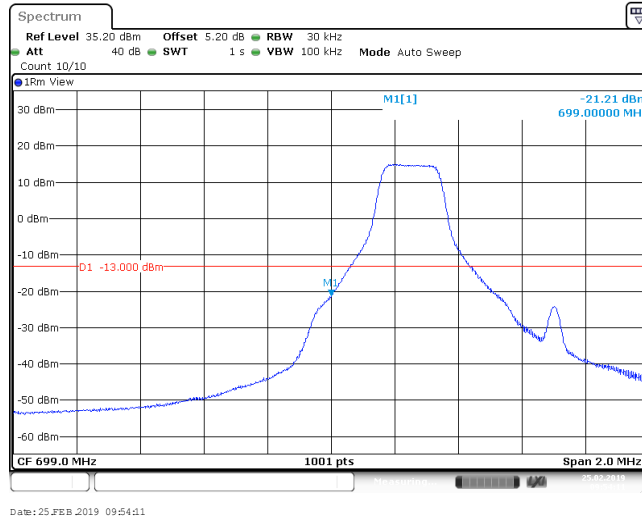
Band12_1.4MHz_QPSK_23173_6RB#0



Band12_1.4MHz_16QAM_23017_1RB#0

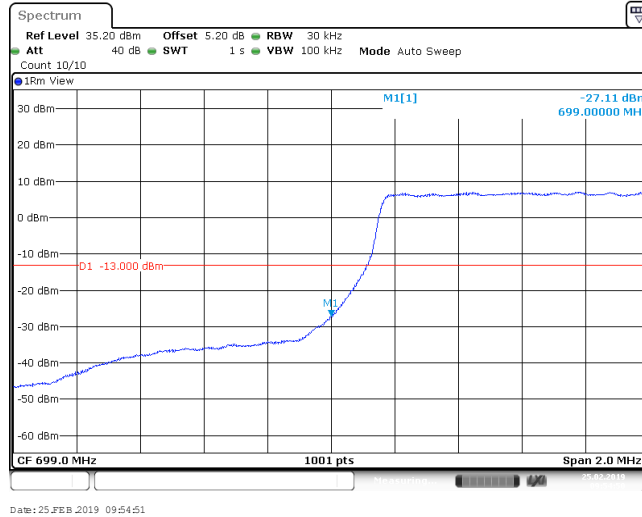


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Date: 25.FEB.2019 09:54:11

Band12_1.4MHz_16QAM_23017_6RB#0

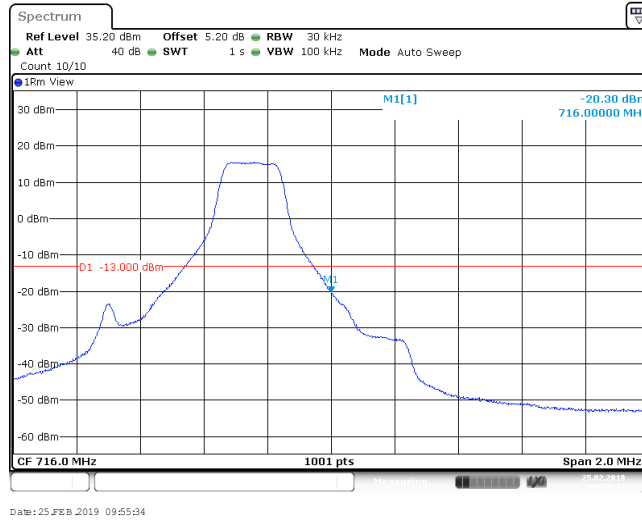


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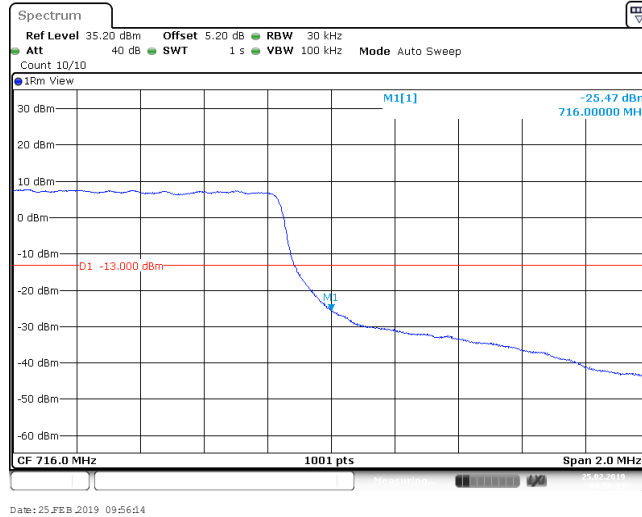
Band12_1.4MHz_16QAM_23173_1RB#5



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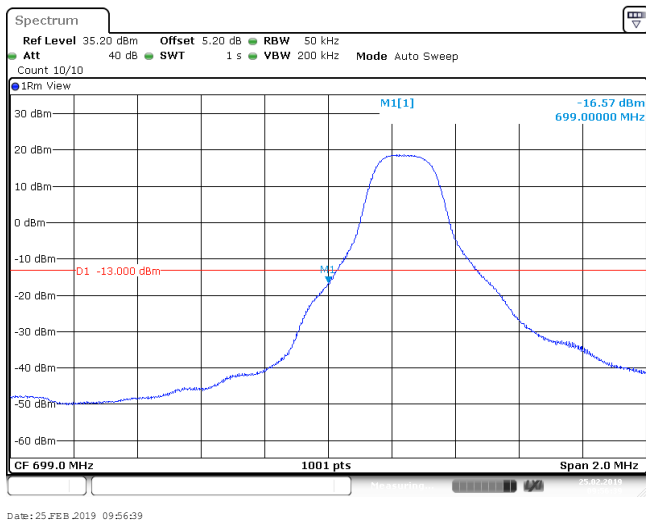
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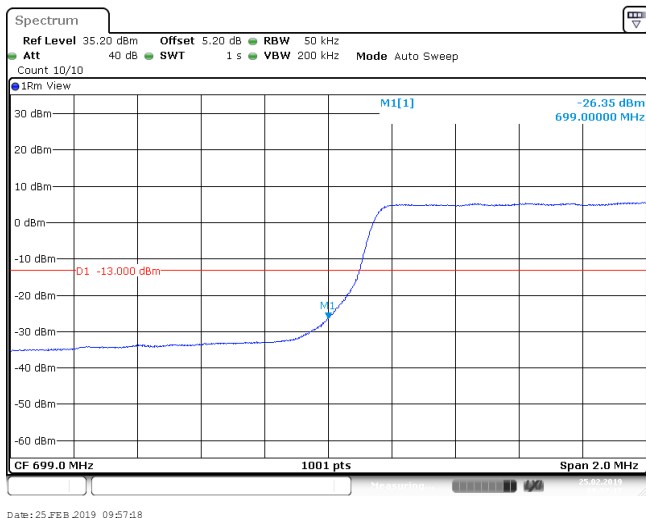
Band12_3MHz_QPSK_23025_1RB#0



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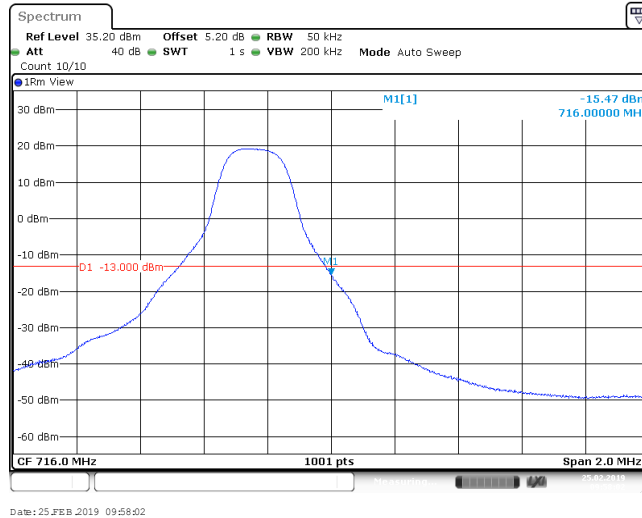
Band12_3MHz_QPSK_23025_15RB#0



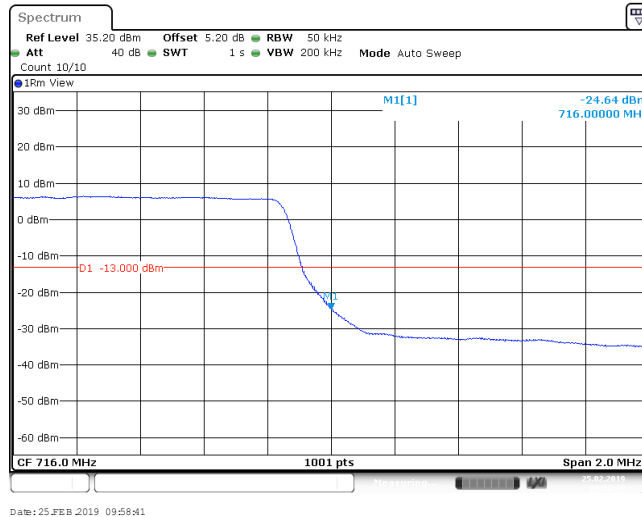
Band12_3MHz_QPSK_23165_1RB#14



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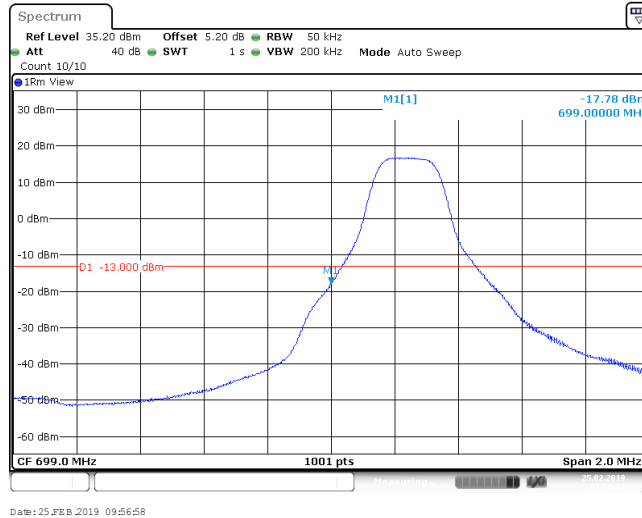
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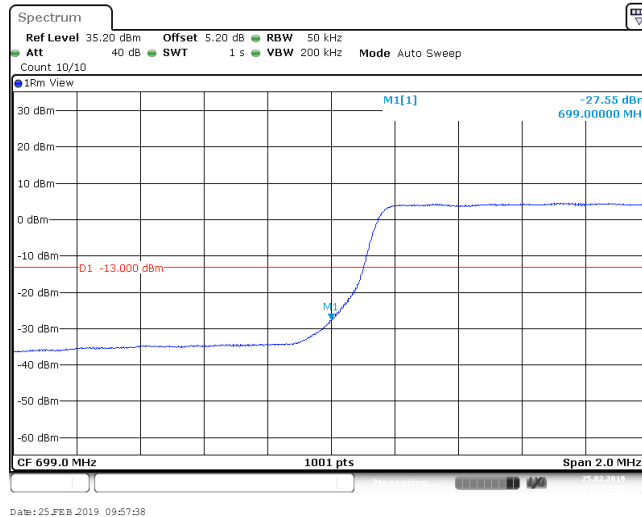
Band12_3MHz_16QAM_23025_1RB#0



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Band12_3MHz_16QAM_23025_15RB#0

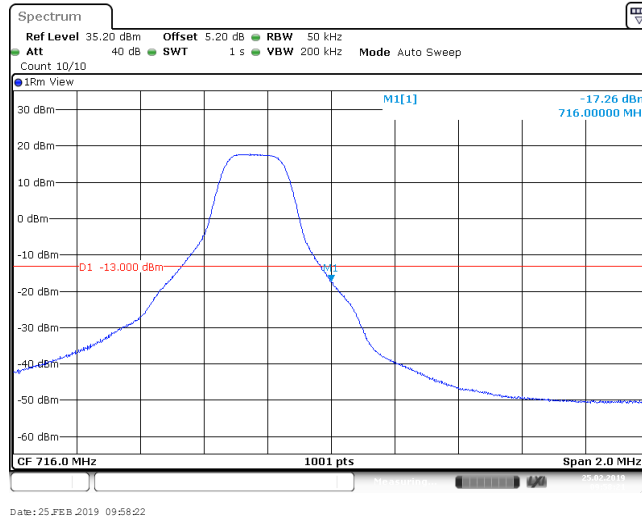


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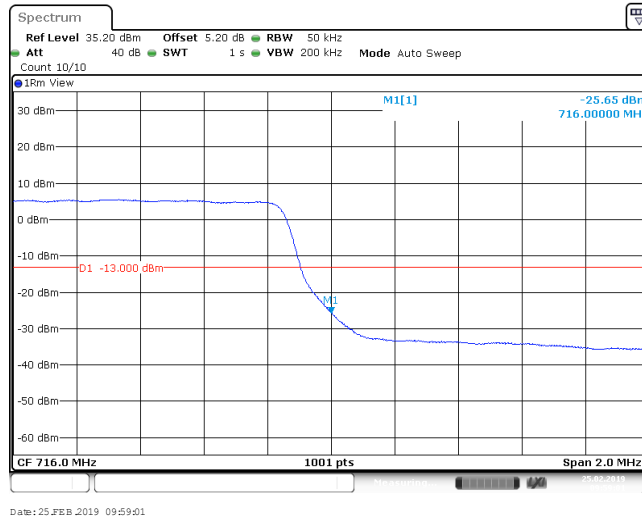


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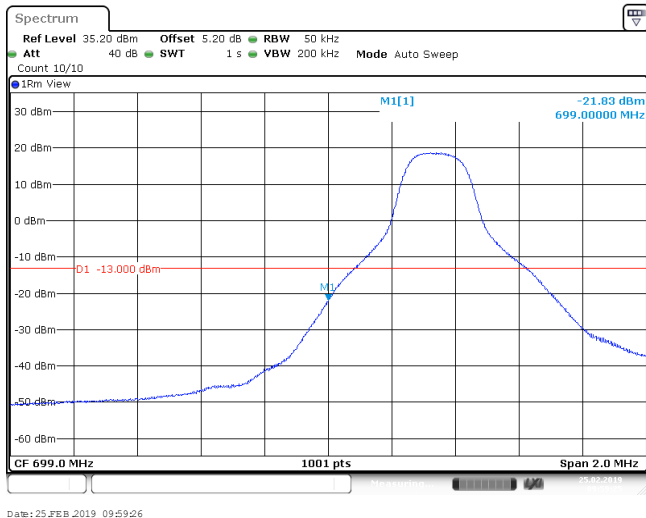
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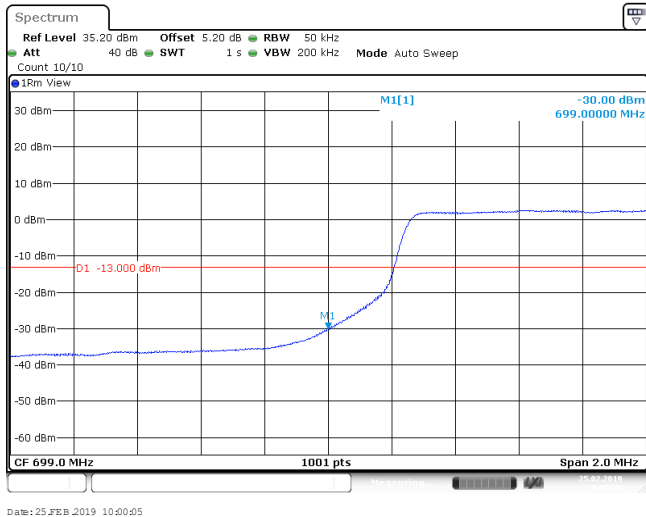
Band12_5MHz_QPSK_23035_1RB#0



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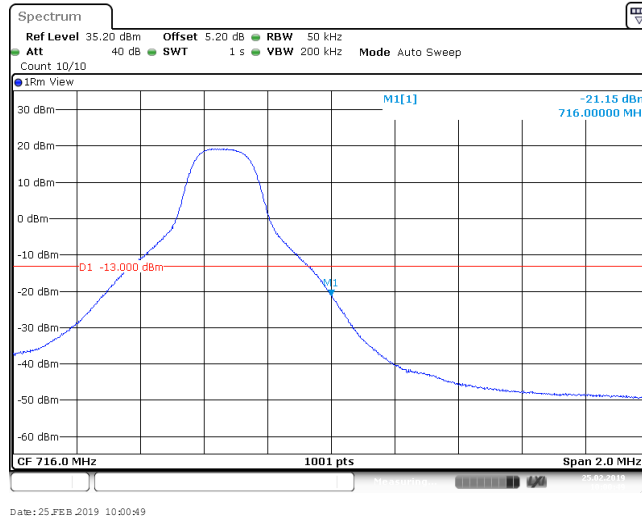
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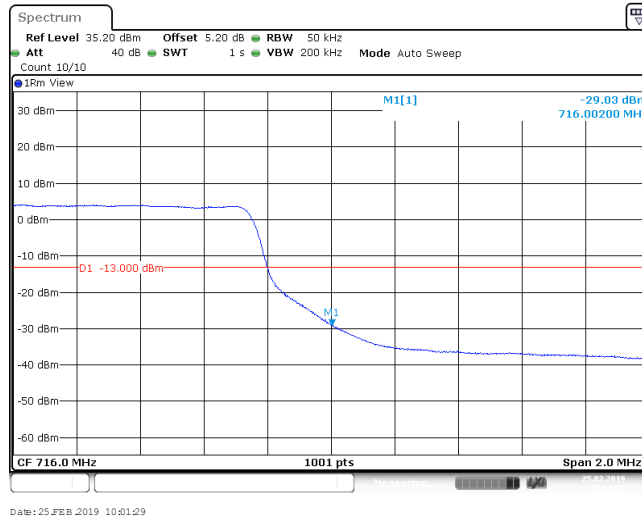
Band12_5MHz_QPSK_23155_1RB#24



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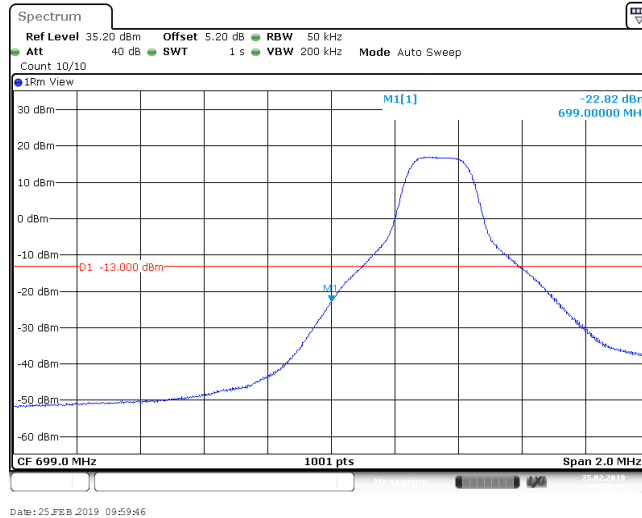


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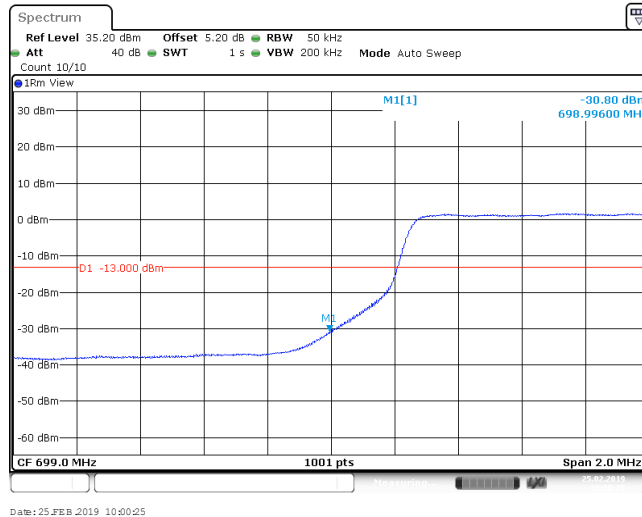


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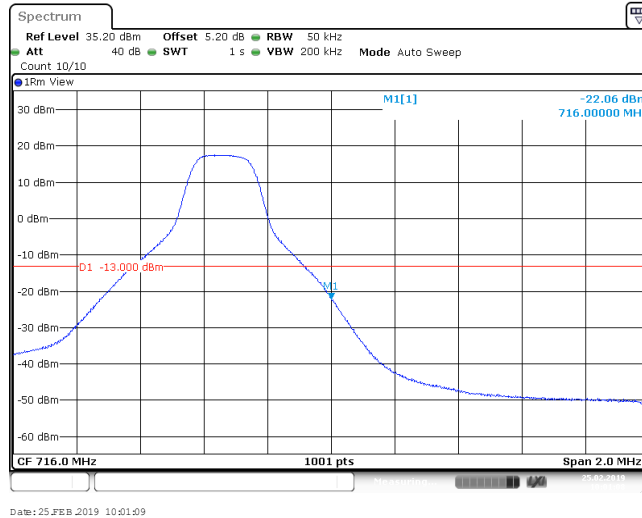


Band12_5MHz_16QAM_23155_1RB#24



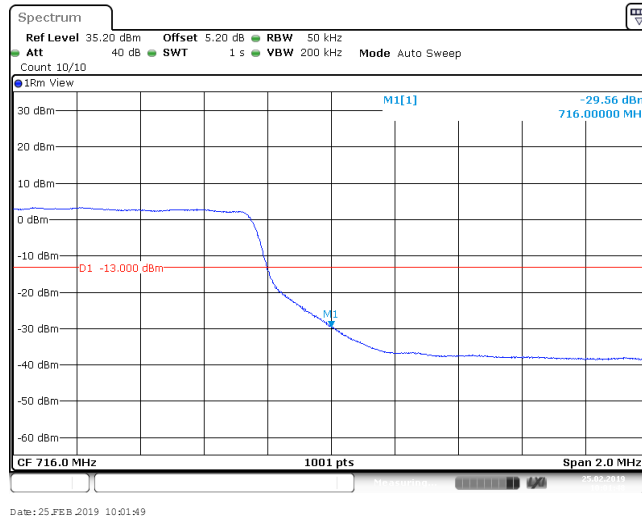
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Band12_5MHz_16QAM_23155_25RB#0

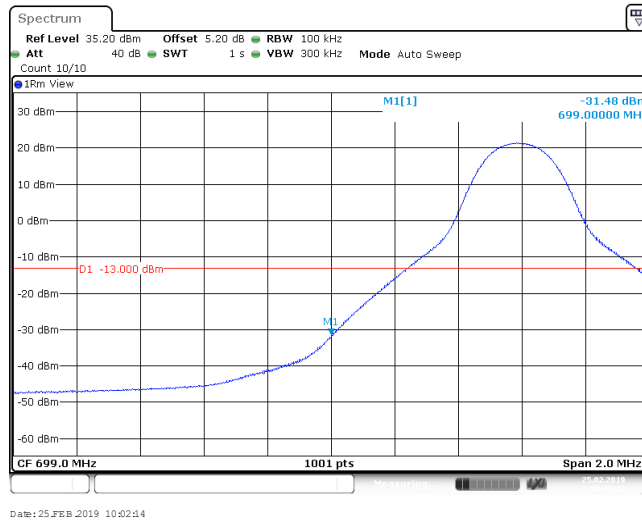


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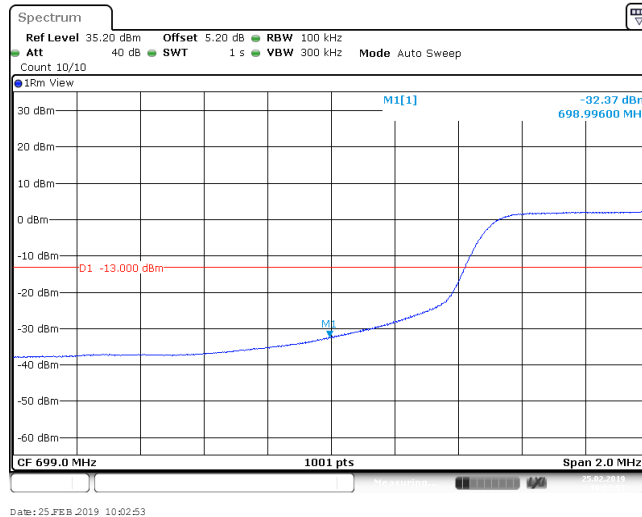
Band12_10MHz_QPSK_23060_1RB#0



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Band12_10MHz_QPSK_23060_50RB#0

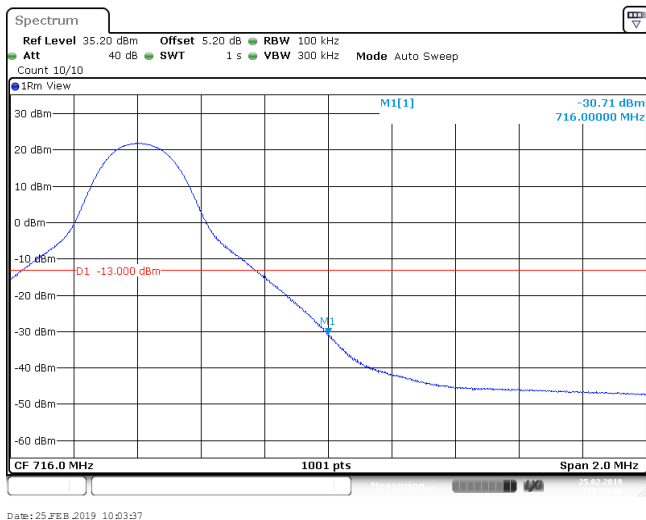


Band12_10MHz_QPSK_23130_1RB#49

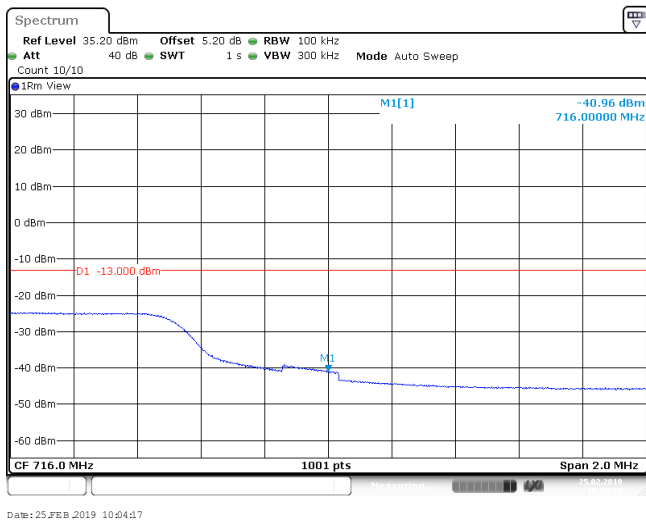


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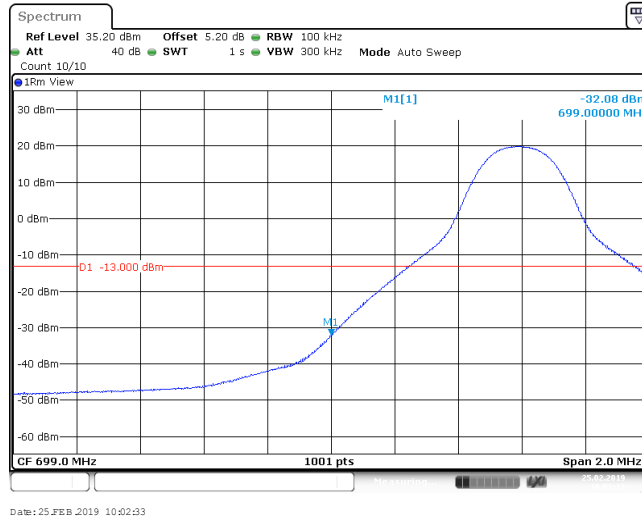
Band12_10MHz_QPSK_23130_50RB#0



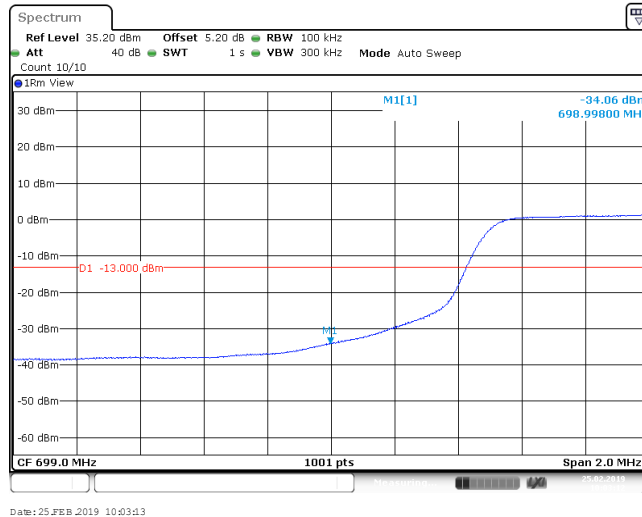
Band12_10MHz_16QAM_23060_1RB#0



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Band12_10MHz_16QAM_23060_50RB#0

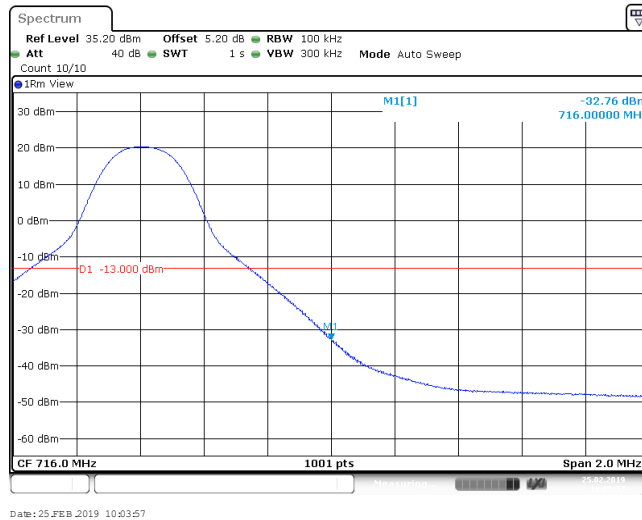


Band12_10MHz_16QAM_23130_1RB#49

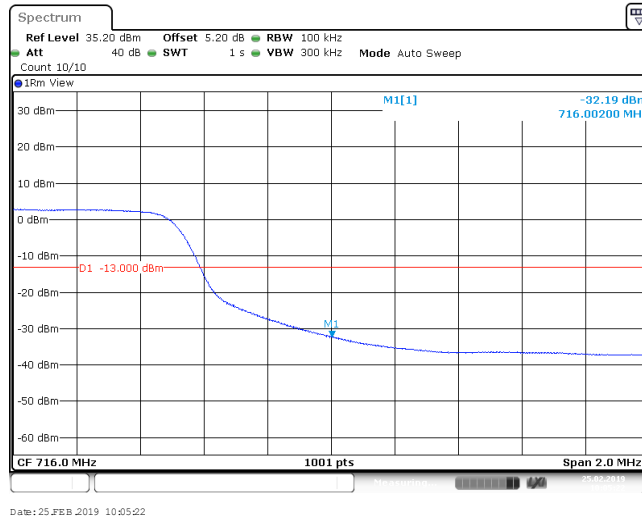


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Band12_10MHz_16QAM_23130_50RB#0



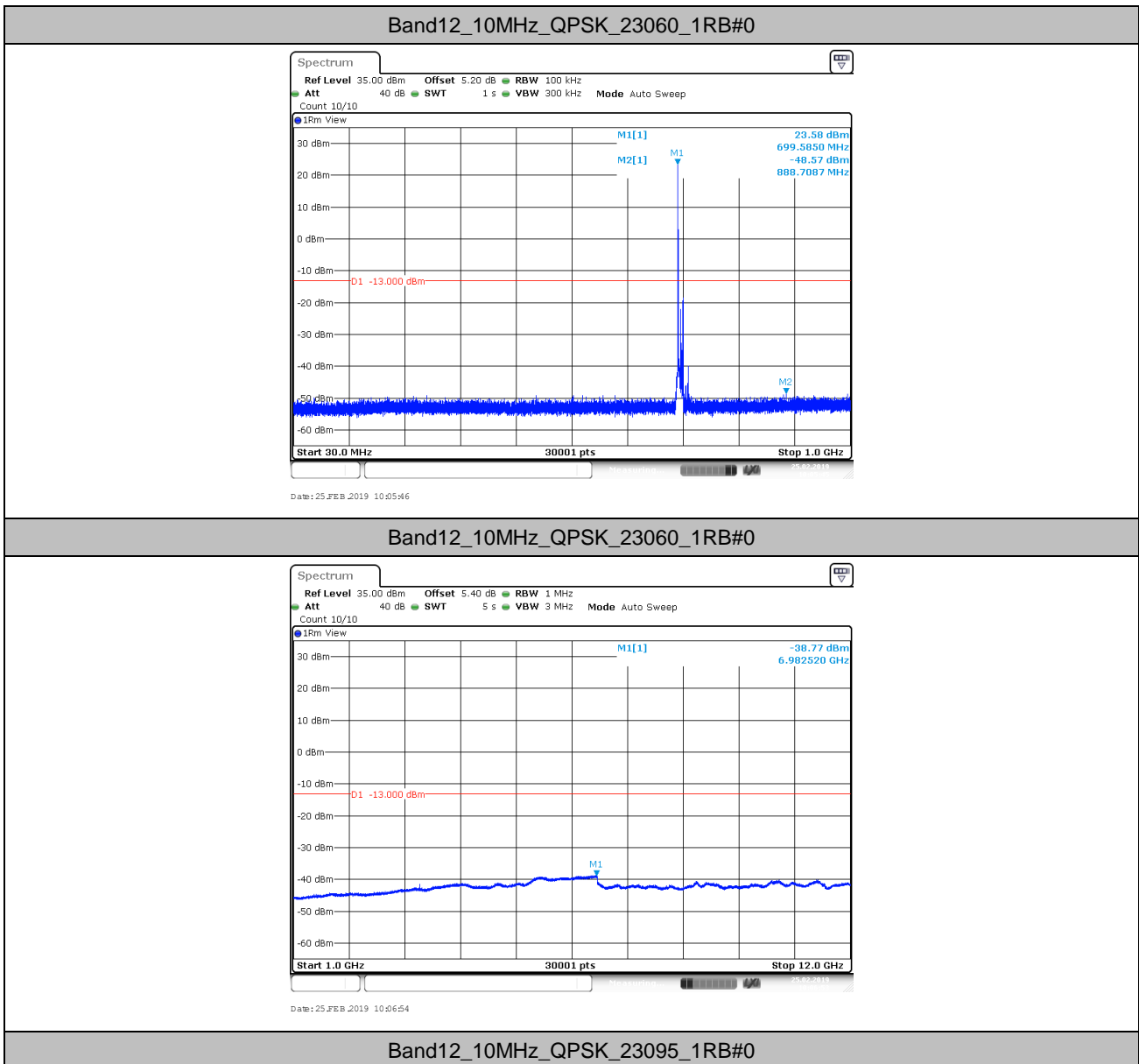
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6. Spurious Emission at Antenna Terminal

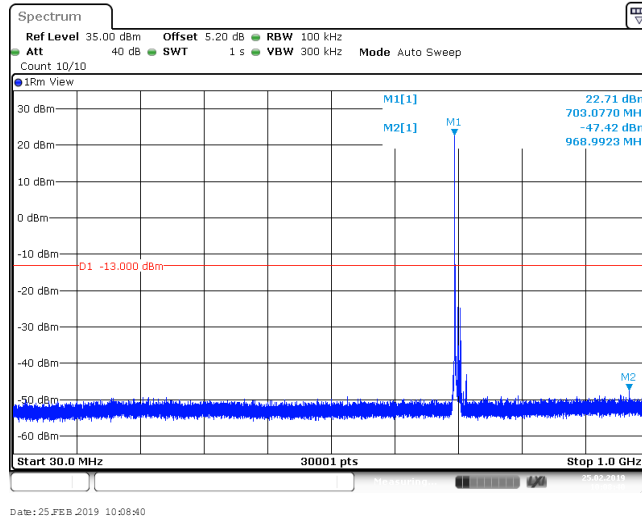
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =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

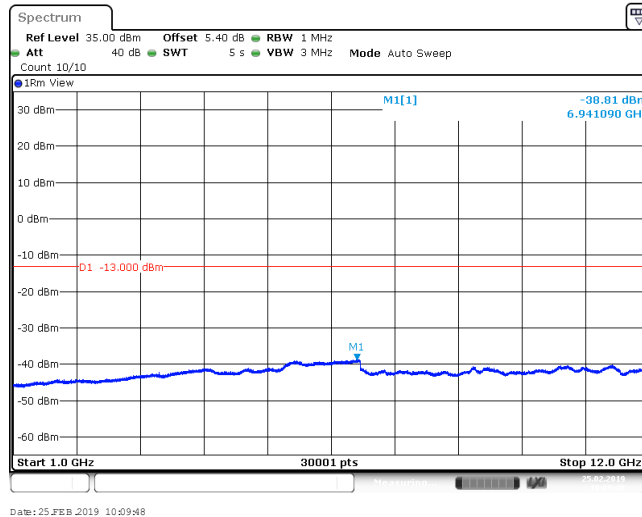
6.1. Test Plots



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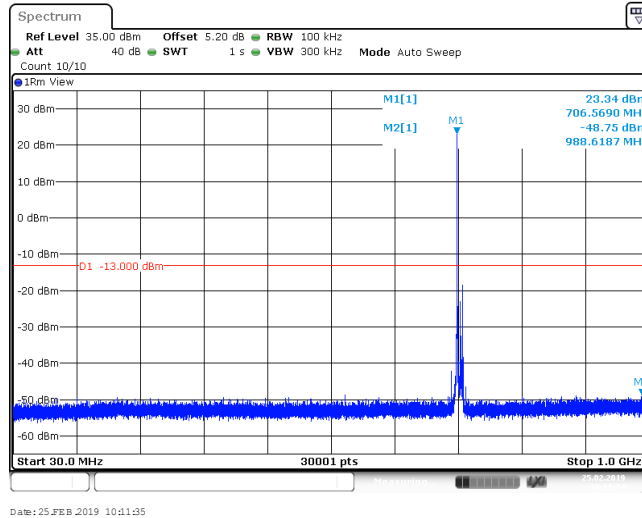
Band12_10MHz_QPSK_23095_1RB#0



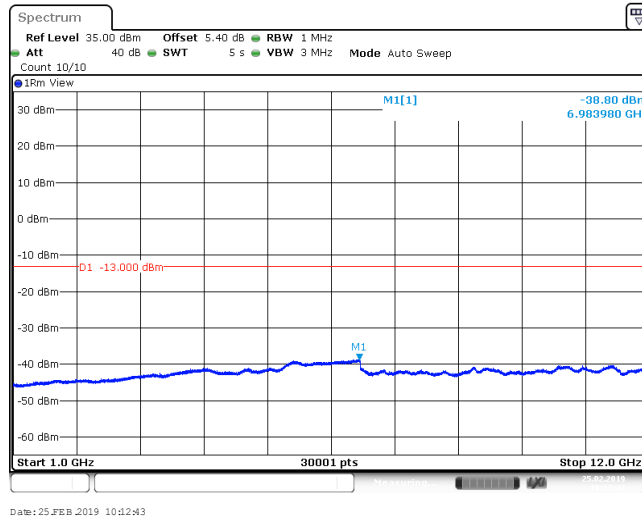
Band12_10MHz_QPSK_23130_1RB#0



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Band12_10MHz_QPSK_23130_1RB#0

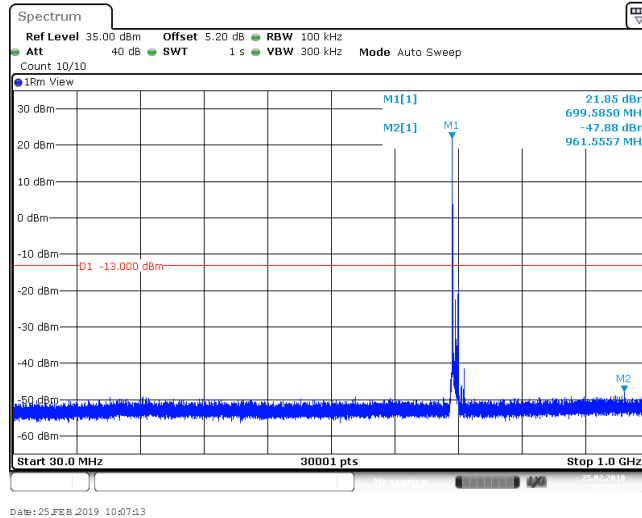


Band12_10MHz_16QAM_23060_1RB#0

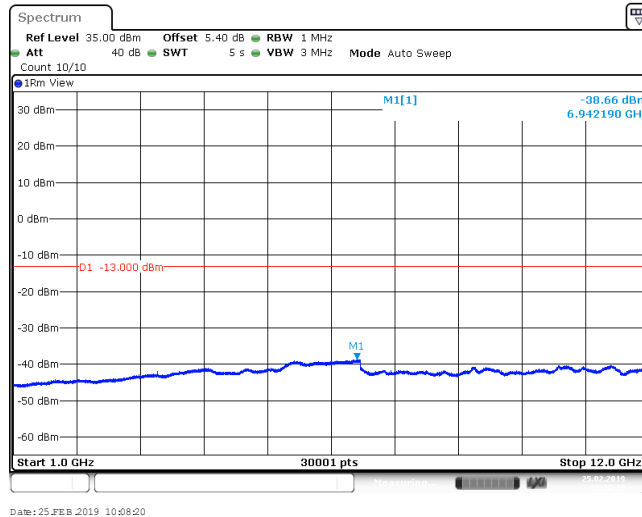


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Band12_10MHz_16QAM_23060_1RB#0

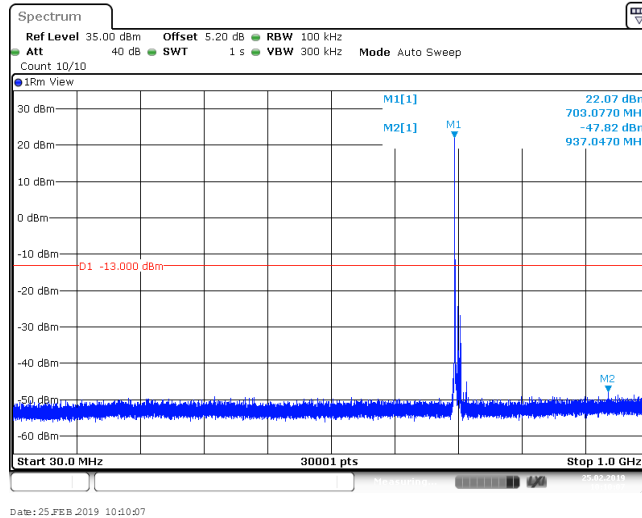


Band12_10MHz_16QAM_23095_1RB#0

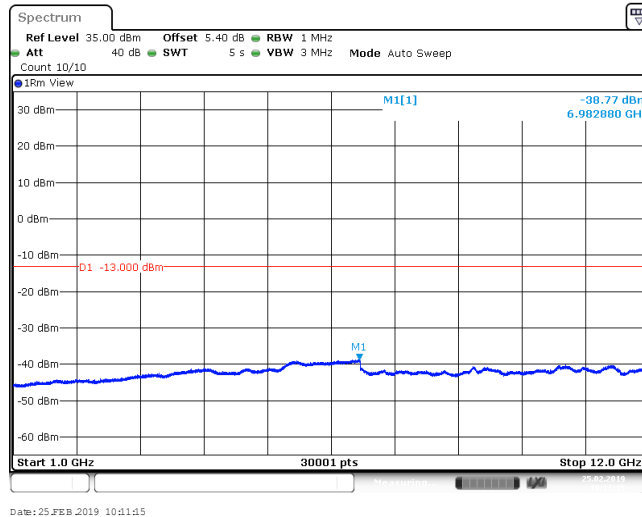


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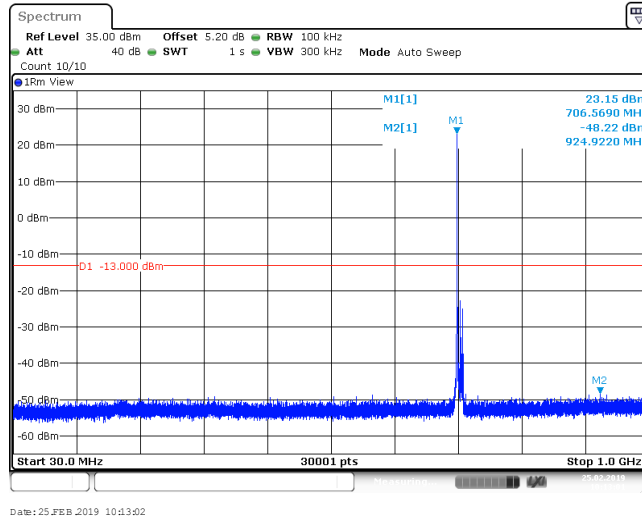
Band12_10MHz_16QAM_23095_1RB#0



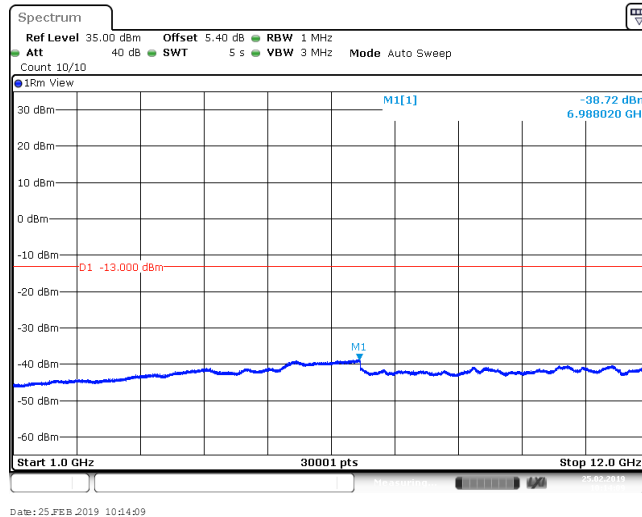
Band12_10MHz_16QAM_23130_1RB#0



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7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE Band 12

7.1.1. Test Mode = LTE/TM1 10MHz

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
33.5892	-71.61	-13.00	58.61	Vertical
117.2074	-65.58	-13.00	52.58	Vertical
460.4590	-67.00	-13.00	54.00	Vertical
1398.8798	-47.45	-13.00	34.45	Vertical
3498.0199	-51.79	-13.00	38.79	Vertical
17994.5998	-32.01	-13.00	19.01	Vertical
40.9130	-64.47	-13.00	51.47	Horizontal
239.3365	-68.80	-13.00	55.80	Horizontal
487.9114	-66.85	-13.00	53.85	Horizontal
1398.8798	-50.30	-13.00	37.30	Horizontal
3498.0199	-45.32	-13.00	32.32	Horizontal
17995.7998	-36.70	-13.00	23.70	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
35.5778	-71.35	-13.00	58.35	Vertical
113.1332	-65.34	-13.00	52.34	Vertical
507.9429	-66.63	-13.00	53.63	Vertical
1406.0812	-46.93	-13.00	33.93	Vertical
3515.4206	-50.08	-13.00	37.08	Vertical
17992.1997	-31.69	-13.00	18.69	Vertical
41.3496	-64.79	-13.00	51.79	Horizontal
248.6004	-68.67	-13.00	55.67	Horizontal
606.5968	-64.17	-13.00	51.17	Horizontal
1406.0812	-50.69	-13.00	37.69	Horizontal
3515.4206	-42.79	-13.00	29.79	Horizontal
17992.7997	-36.85	-13.00	23.85	Horizontal



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7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
35.6263	-71.42	-13.00	58.42	Vertical
77.2414	-67.12	-13.00	54.12	Vertical
119.8265	-65.18	-13.00	52.18	Vertical
1412.8826	-49.64	-13.00	36.64	Vertical
2459.8920	-53.46	-13.00	40.46	Vertical
17999.4000	-31.74	-13.00	18.74	Vertical
44.0657	-64.75	-13.00	51.75	Horizontal
241.8101	-68.31	-13.00	55.31	Horizontal
558.4824	-65.23	-13.00	52.23	Horizontal
1419.6839	-65.01	-13.00	52.01	Horizontal
3532.8213	-47.38	-13.00	34.38	Horizontal
17995.1998	-36.81	-13.00	23.81	Horizontal

Remark:

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 had been displayed.

We have tested all modulation and all Bandwidth , but only the worst case data presented in this report.



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8. Frequency Stability

8.1. Frequency Vs Voltage

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	0.90	0.001278	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	0.70	0.000994	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VH	NT	0.50	0.000710	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	-1.50	-0.002120	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	0.80	0.001131	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-0.40	-0.000565	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VL	NT	-1.40	-0.001969	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-0.90	-0.001266	±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	-0.70	-0.000994	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VH	NT	-1.10	-0.001563	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VL	NT	0.40	0.000565	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VN	NT	0.10	0.000141	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VH	NT	0.30	0.000424	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VL	NT	-1.80	-0.002532	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VN	NT	-1.40	-0.001969	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VH	NT	-2.80	-0.003938	±2.5	PASS

8.2. Frequency Vs Temperature

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	0.70	0.000994	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-20	0.30	0.000426	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	0	0.60	0.000852	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	10	0.40	0.000568	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	20	0.20	0.000284	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	30	-0.50	-0.000710	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	40	-0.30	-0.000426	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	50	-0.90	-0.001278	±2.5	PASS



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Band12	10MHz	QPSK	23095	50RB#0	NV	-30	-0.10	-0.000141	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	0.30	0.000424	±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	-0.90	-0.001272	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-0.80	-0.001131	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	-0.90	-0.001272	±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	-0.80	-0.001131	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-30	-1.60	-0.002250	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	-0.50	-0.000703	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-2.60	-0.003657	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	-1.70	-0.002391	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-1.10	-0.001547	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	30	-0.70	-0.000985	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	40	-2.10	-0.002954	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	50	-1.90	-0.002672	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-30	1.10	0.001563	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-20	1.20	0.001705	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	0	0.90	0.001278	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	10	0.70	0.000994	±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	30	0.10	0.000142	±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	-0.20	-0.000284	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-30	-0.90	-0.001272	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-20	-0.70	-0.000989	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	0	-0.70	-0.000989	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	10	-0.10	-0.000141	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	20	0.20	0.000283	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	30	0.20	0.000283	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	40	0.20	0.000283	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	50	-0.30	-0.000424	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-30	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-20	-1.30	-0.001828	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	0	-1.50	-0.002110	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	10	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	20	-2.20	-0.003094	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	30	-2.20	-0.003094	±2.5	PASS



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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch
 No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn
 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



Band12	10MHz	16QAM	23130	50RB#0	NV	40	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	50	-1.90	-0.002672	±2.5	PASS

The End



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