



Appendix B

E-UTRA Band 12



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1 Effective (Isotropic) Radiated Power

1.1. Test Result

ANT2:

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	24.57	26.02	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	24.77	26.22	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	24.65	26.1	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	24.65	26.1	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	24.92	26.37	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	24.82	26.27	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	23.54	24.99	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	24.60	26.05	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	24.63	26.08	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	24.54	25.99	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	24.75	26.2	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	24.96	26.41	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	24.68	26.13	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	23.63	25.08	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	24.58	26.03	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	24.58	26.03	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	24.55	26	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	24.60	26.05	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	24.74	26.19	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	24.74	26.19	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	23.66	25.11	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	23.14	24.59	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	23.43	24.88	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	23.22	24.67	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	23.80	25.25	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	23.97	25.42	34.77	PASS



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Band12	1.4MHz	16QAM	23017	3RB#3	23.80	25.25	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	22.66	24.11	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	23.35	24.8	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	23.32	24.77	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	23.13	24.58	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	23.77	25.22	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	23.86	25.31	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	24.10	25.55	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	22.77	24.22	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	23.32	24.77	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	23.21	24.66	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	23.09	24.54	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	23.78	25.23	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	23.89	25.34	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	24.05	25.5	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	22.73	24.18	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	24.62	26.07	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	24.54	25.99	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	24.66	26.11	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#0	23.59	25.04	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#4	23.61	25.06	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#7	23.75	25.2	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	23.65	25.1	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	24.68	26.13	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	24.40	25.85	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	24.74	26.19	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#7	23.54	24.99	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#0	23.71	25.16	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#4	23.63	25.08	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	23.68	25.13	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	24.63	26.08	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	24.78	26.23	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	24.54	25.99	34.77	PASS



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Band12	3MHz	QPSK	23165	8RB#0	23.58	25.03	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#7	23.61	25.06	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#4	23.72	25.17	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	23.62	25.07	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	23.21	24.66	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	23.31	24.76	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	23.02	24.47	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#7	22.82	24.27	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#4	22.71	24.16	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#0	22.51	23.96	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	22.77	24.22	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	23.02	24.47	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	23.16	24.61	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	23.12	24.57	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#7	22.69	24.14	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#0	22.66	24.11	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#4	22.62	24.07	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	22.89	24.34	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	23.25	24.7	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	23.13	24.58	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	23.17	24.62	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#0	22.63	24.08	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#4	22.67	24.12	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#7	22.62	24.07	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	22.93	24.38	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	24.53	25.98	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	24.96	26.41	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	24.65	26.1	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#0	23.71	25.16	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#6	23.73	25.18	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#13	23.59	25.04	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	23.51	24.96	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	24.57	26.02	34.77	PASS



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Band12	5MHz	QPSK	23095	1RB#24	24.22	25.67	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	24.80	26.25	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#0	23.66	25.11	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#6	23.69	25.14	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#13	23.51	24.96	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	23.67	25.12	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	24.33	25.78	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	24.40	25.85	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	24.75	26.2	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#0	23.49	24.94	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#6	23.57	25.02	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#13	23.50	24.95	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	23.52	24.97	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	23.30	24.75	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	23.83	25.28	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.93	24.38	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#6	22.91	24.36	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#0	22.65	24.1	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#13	22.67	24.12	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	22.80	24.25	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	23.23	24.68	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	23.61	25.06	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	23.01	24.46	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#13	22.58	24.03	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#0	22.69	24.14	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#6	22.76	24.21	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	22.61	24.06	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	23.64	25.09	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	23.06	24.51	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	23.04	24.49	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#0	22.60	24.05	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#6	22.82	24.27	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#13	22.65	24.1	34.77	PASS



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Band12	5MHz	16QAM	23155	25RB#0	22.56	24.01	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	24.28	25.73	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	25.03	26.48	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	24.37	25.82	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#0	23.81	25.26	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#12	23.66	25.11	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#25	23.52	24.97	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	23.62	25.07	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	24.43	25.88	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	24.32	25.77	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	24.89	26.34	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#25	23.46	24.91	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#0	23.75	25.2	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#12	23.64	25.09	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	23.60	25.05	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	24.88	26.33	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	24.54	25.99	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	24.36	25.81	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#0	23.73	25.18	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#25	23.51	24.96	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#12	23.86	25.31	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	23.55	25	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	23.31	24.76	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	23.25	24.7	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	23.00	24.45	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#25	22.80	24.25	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#12	22.83	24.28	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#0	22.51	23.96	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	22.81	24.26	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	23.10	24.55	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	23.24	24.69	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	23.40	24.85	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#25	22.62	24.07	34.77	PASS



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Band12	10MHz	16QAM	23095	25RB#0	22.73	24.18	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#12	22.69	24.14	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	22.64	24.09	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	23.23	24.68	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	23.33	24.78	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	23.13	24.58	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#0	22.76	24.21	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#12	22.85	24.3	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#25	22.73	24.18	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	22.60	24.05	34.77	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]

The conducted Power is measured by Base Station Simulator



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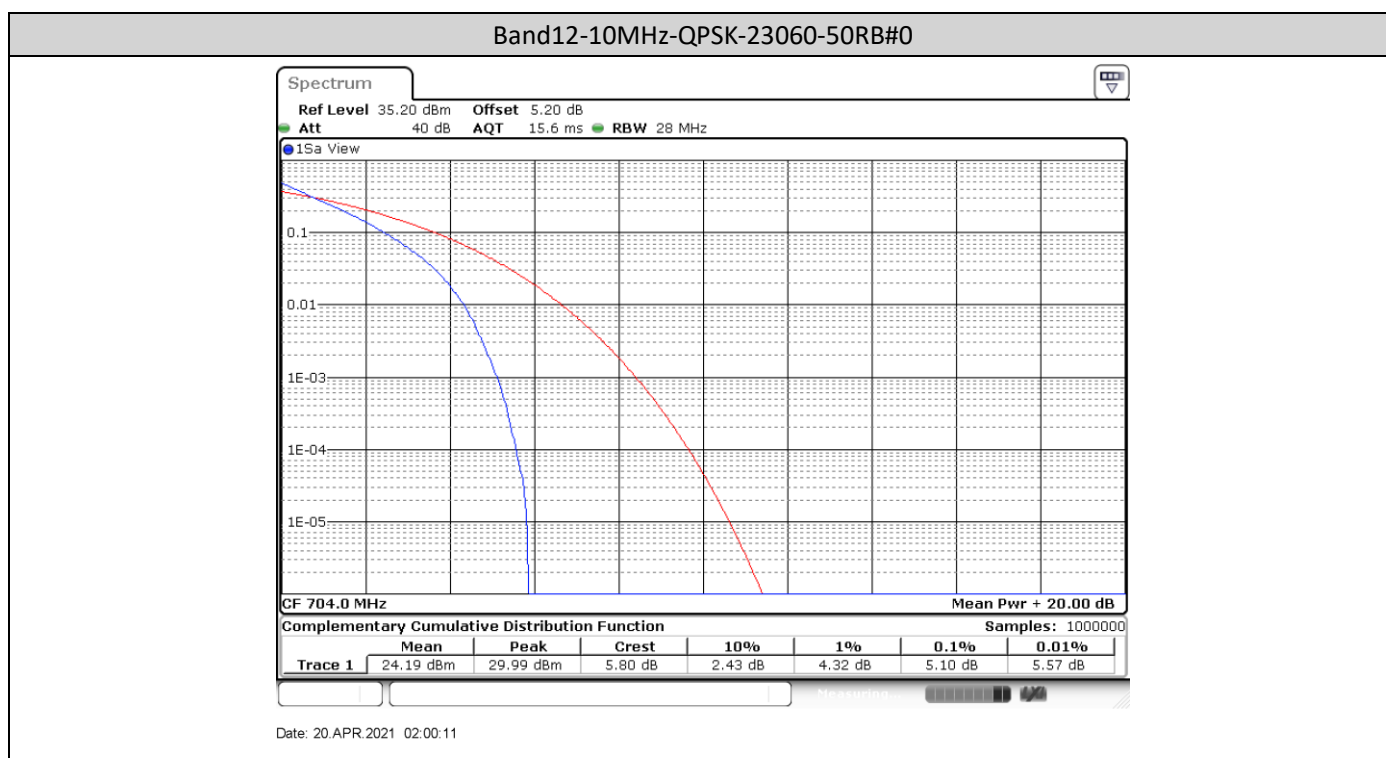


2. Peak-to-Average Ratio (CCDF)

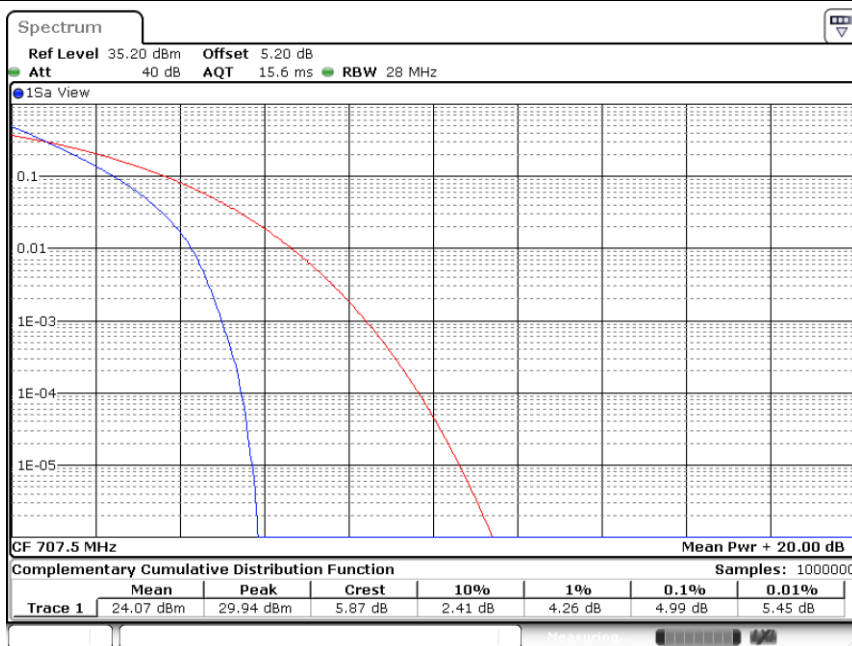
2.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	5.10	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	4.99	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.07	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	5.77	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	5.80	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	5.80	13	PASS

2.2. Test Plots

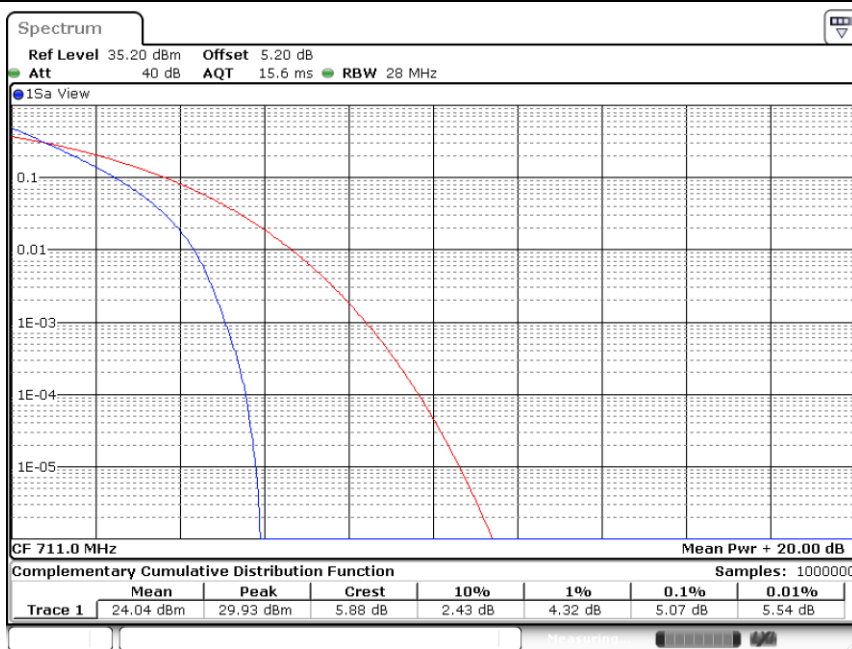


Band12-10MHz-QPSK-23095-50RB#0



Date: 20.APR.2021 02:00:36

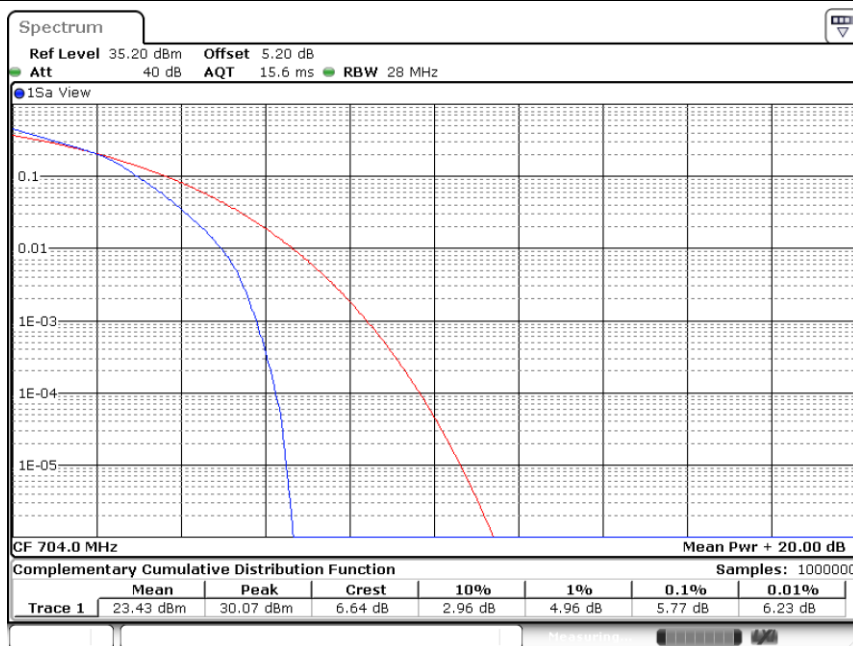
Band12-10MHz-QPSK-23130-50RB#0



Date: 20.APR.2021 02:00:59

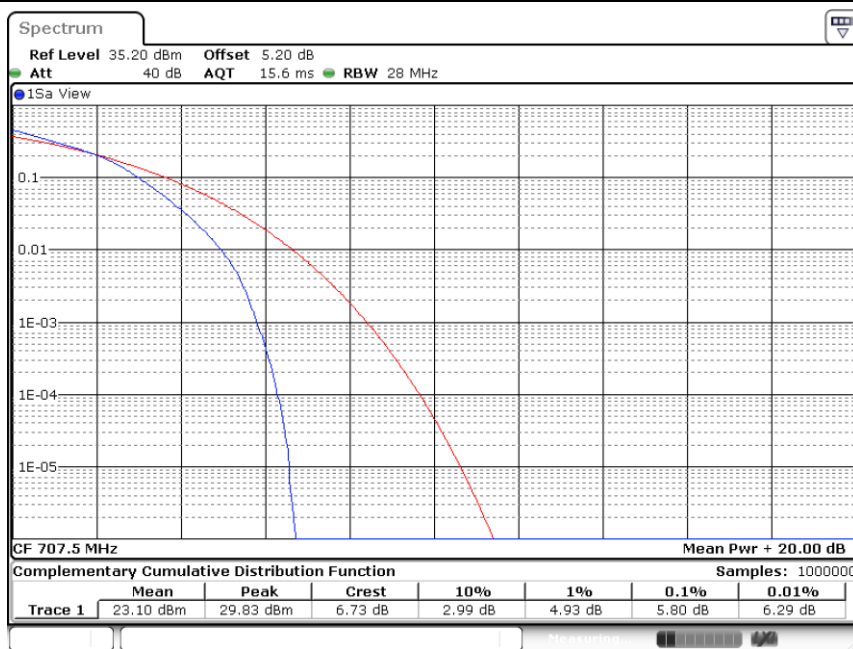


Band12-10MHz-16QAM-23060-50RB#0



Date: 20.APR 2021 02:00:22

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

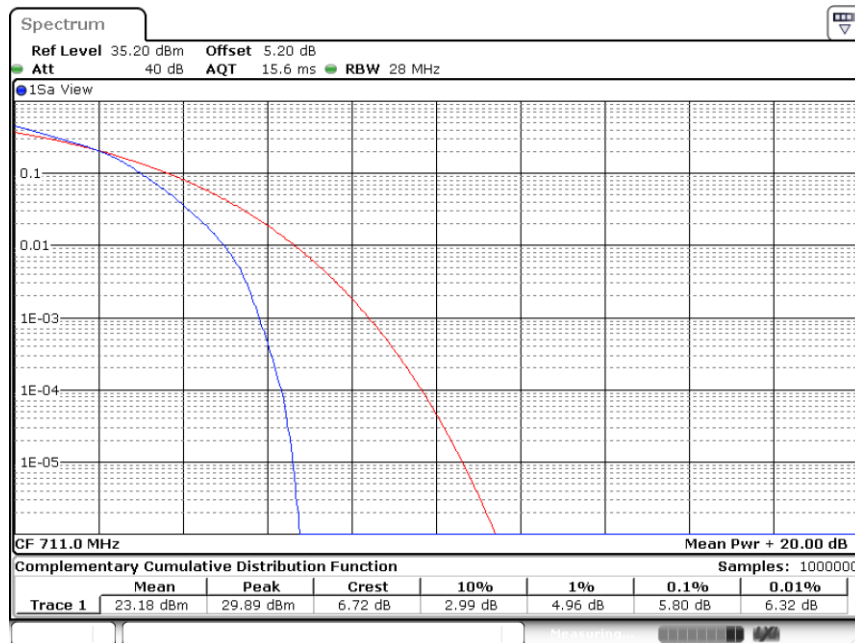


Date: 20.APR 2021 02:00:47





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



Date: 20.APR.2021 02:01:10

Remark: all modulation and all Bandwidth had been tested, but only the worst configuration was displayed in this report.

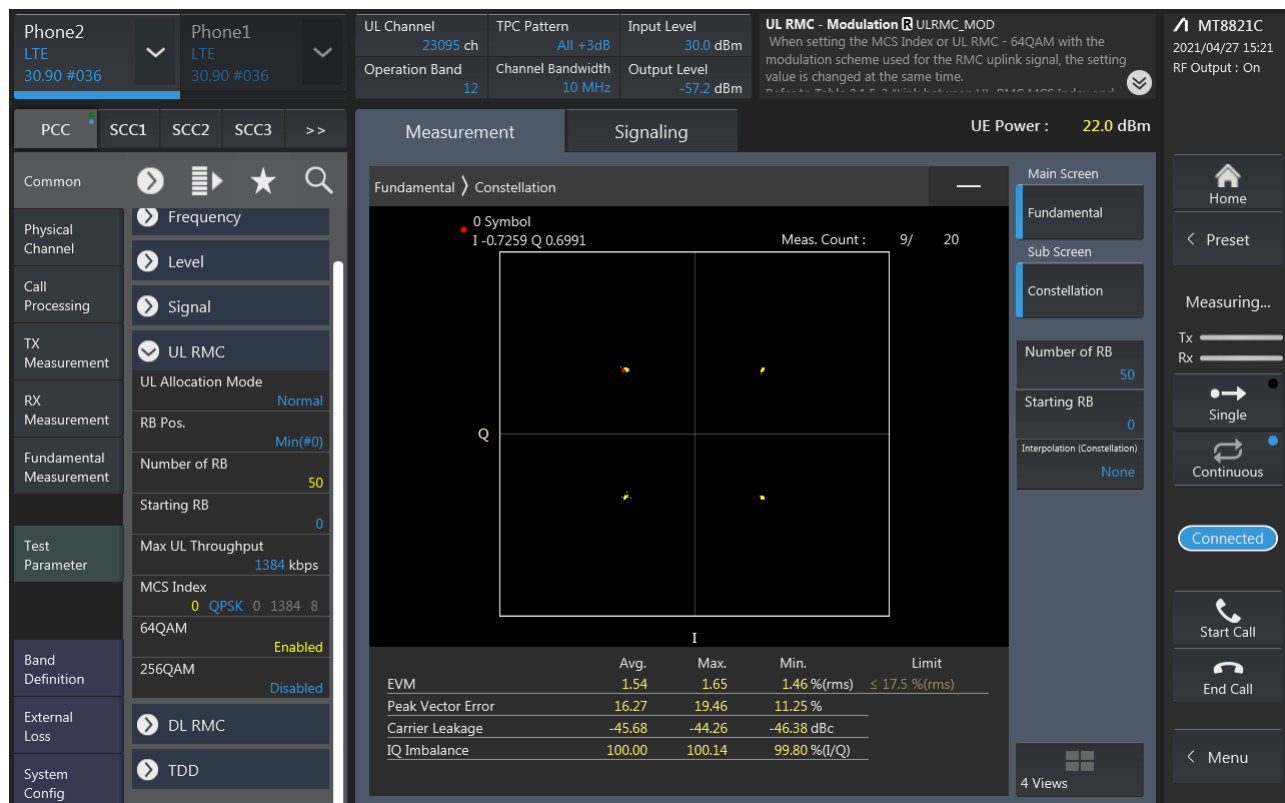




3. Modulation Characteristics

3.1. Test Mode = LTE /TM1 10MHz

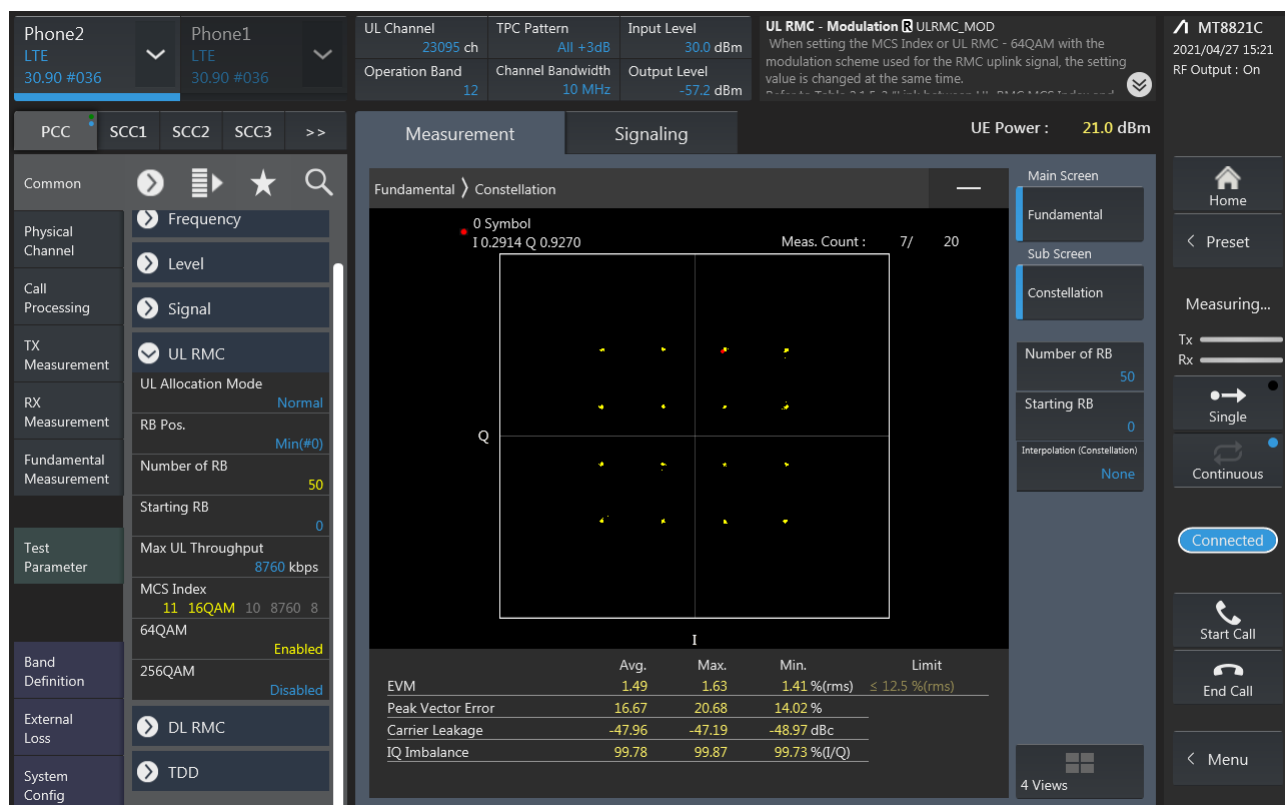
3.1.1. Test Channel = MCH





3.2. Test Mode = LTE /TM2 10MHz

3.2.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

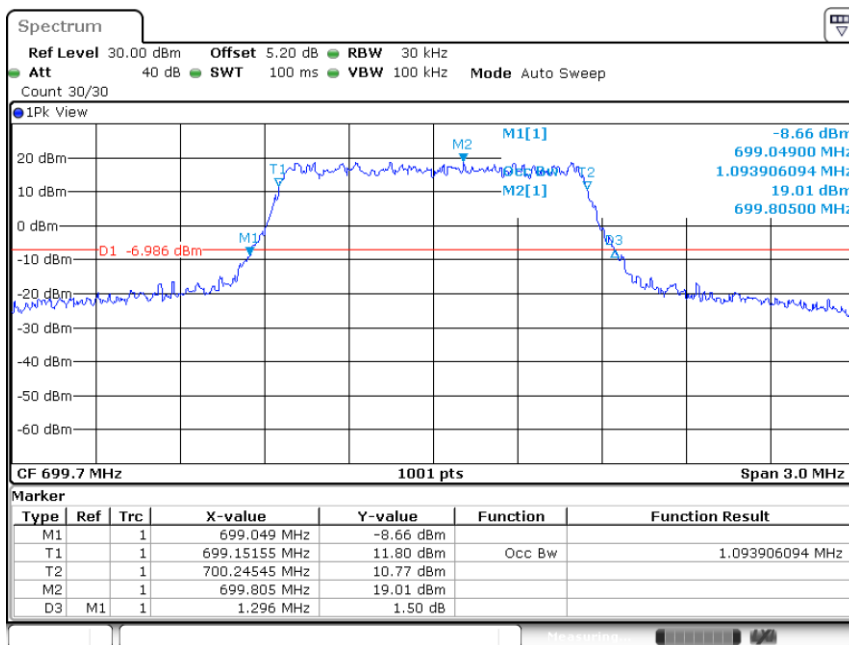
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.094	1.296	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.088	1.299	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.094	1.299	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.091	1.284	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.091	1.296	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.091	1.302	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.697	3.006	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.697	2.994	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.703	2.982	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.685	2.982	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.685	2.964	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.685	2.976	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.476	4.940	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.466	4.920	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.476	4.930	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.476	4.950	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.486	4.960	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.486	4.960	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.931	9.720	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.911	9.640	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.911	9.640	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.931	9.760	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.911	9.680	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.911	9.740	PASS





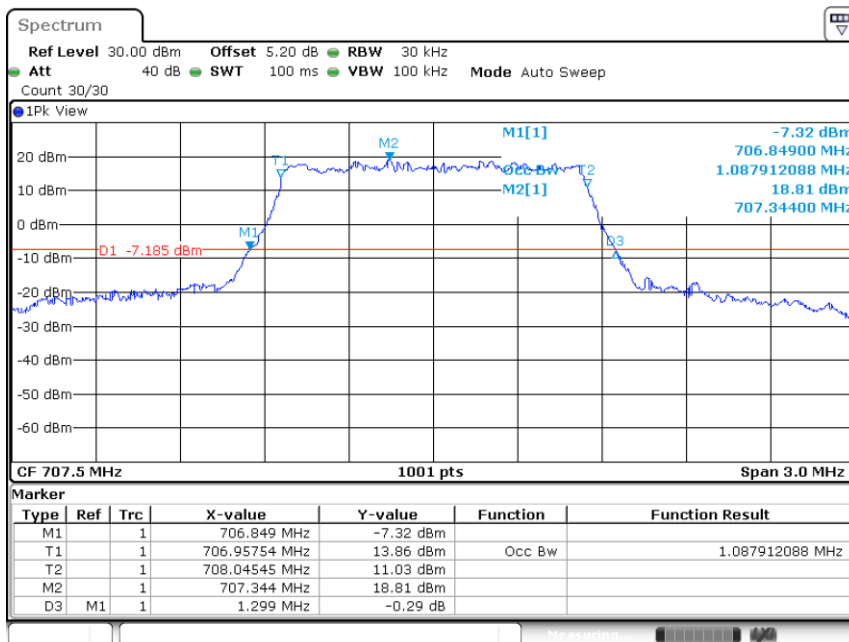
4.2. Test Plots

Band12-1.4MHz-QPSK-23017-6RB#0-1.094



Date: 20.APR.2021 01:39:09

Band12-1.4MHz-QPSK-23095-6RB#0-1.088



Date: 20.APR.2021 01:39:36

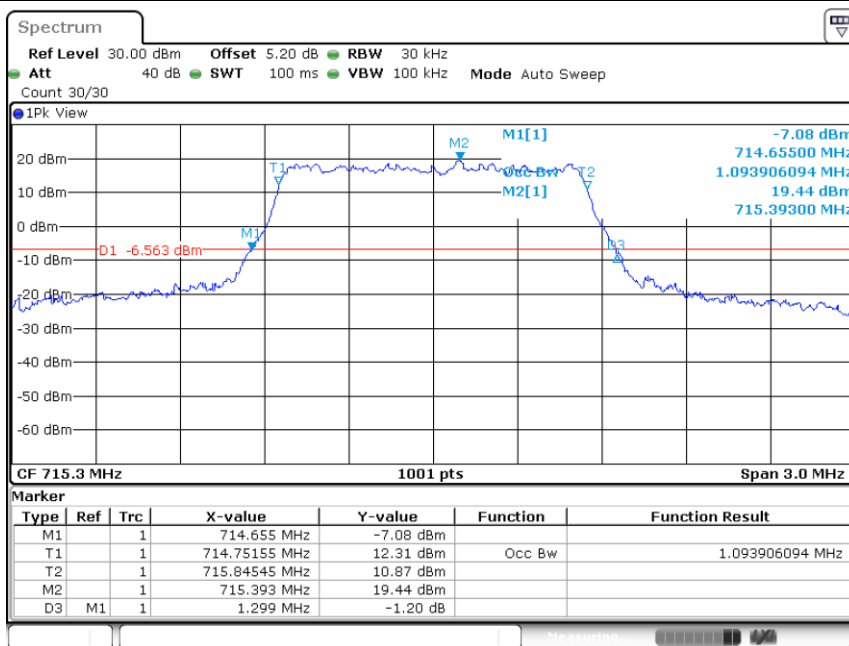


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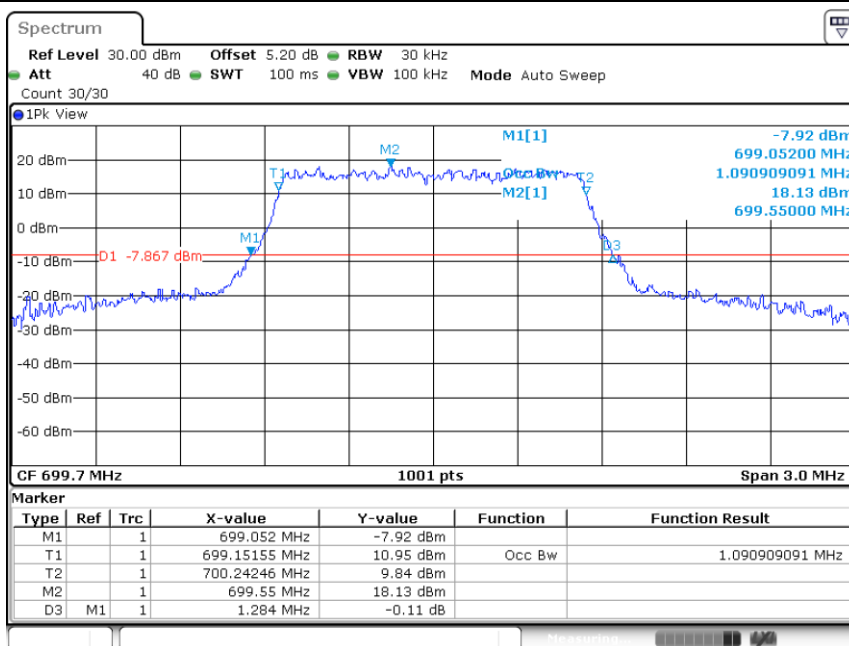


Band12-1.4MHz-QPSK-23173-6RB#0-1.094



Date: 20.APR.2021 01:40:04

Band12-1.4MHz-16QAM-23017-6RB#0-1.091



Date: 20.APR.2021 01:39:22



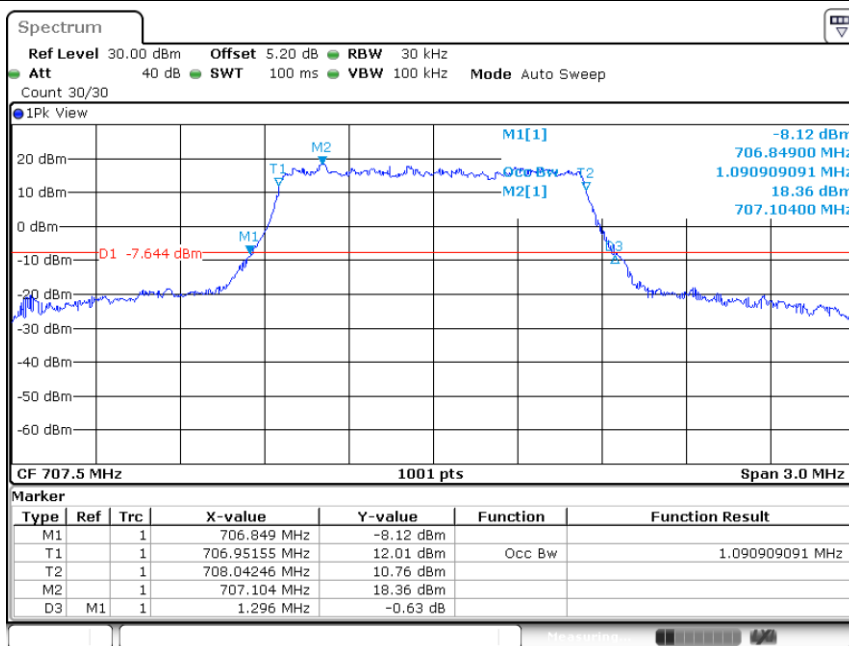
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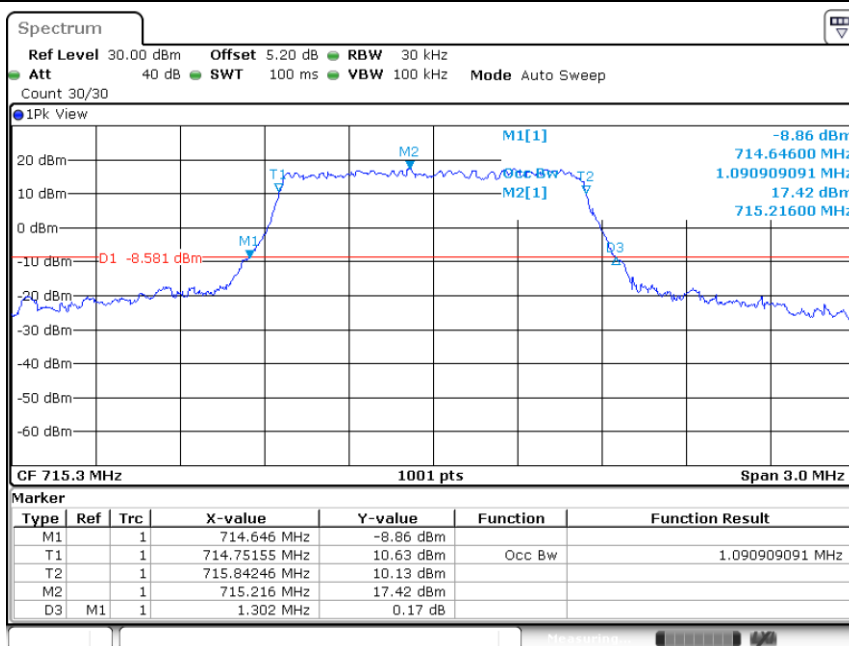


Band12-1.4MHz-16QAM-23095-6RB#0-1.091



Date: 20.APR.2021 01:39:51

Band12-1.4MHz-16QAM-23173-6RB#0-1.091

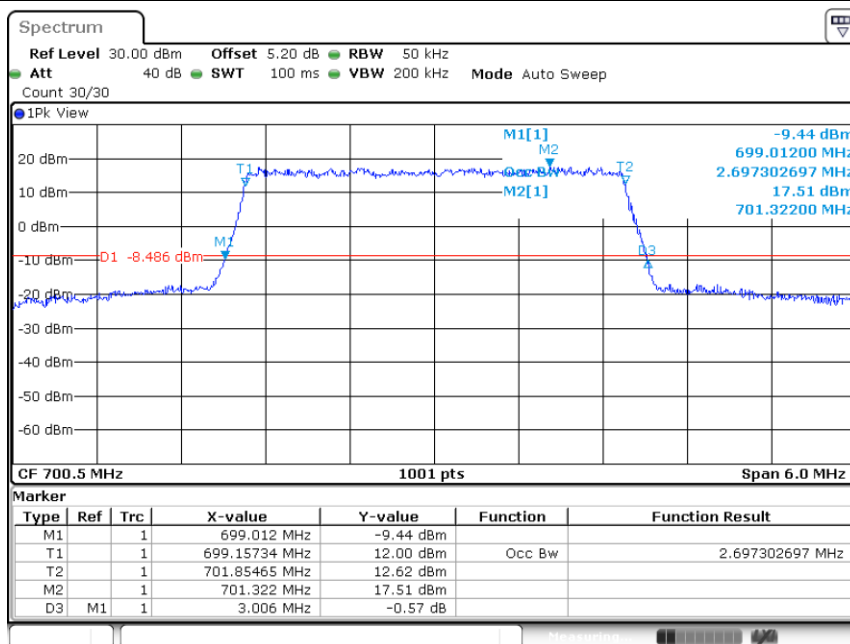


Date: 20.APR.2021 01:40:16



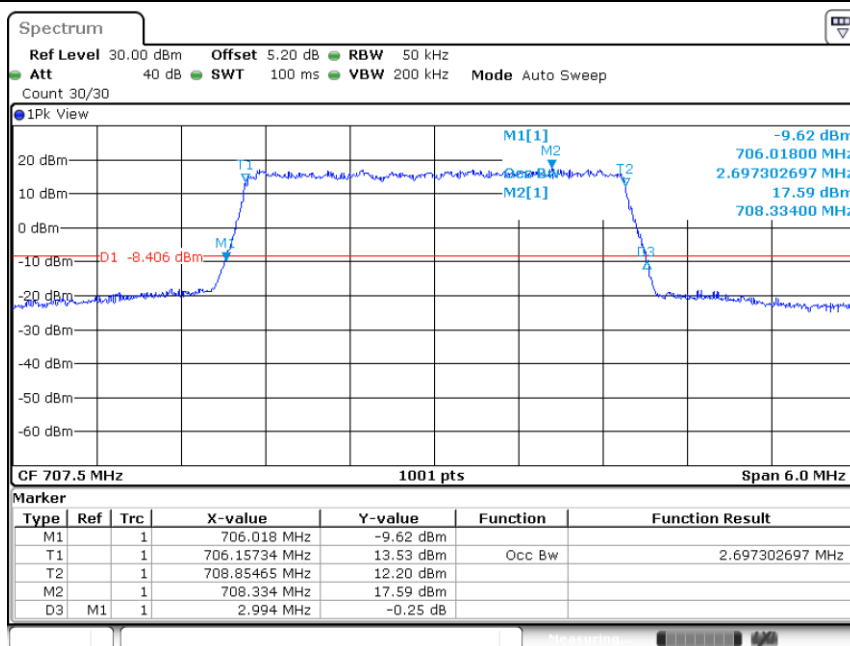


Band12-3MHz-QPSK-23025-15RB#0-2.697



Date: 20.APR.2021 01:40:35

Band12-3MHz-QPSK-23095-15RB#0-2.697



Date: 20.APR.2021 01:41:01



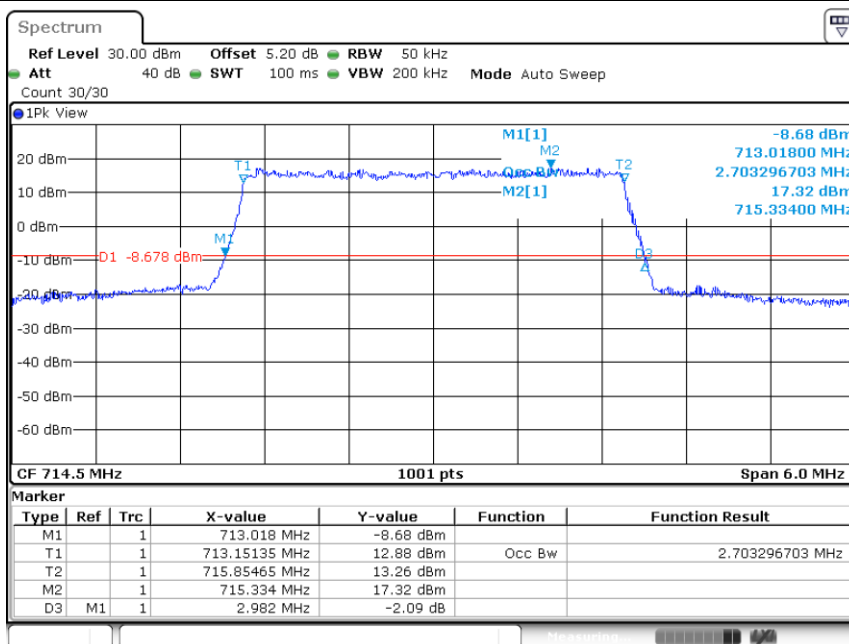
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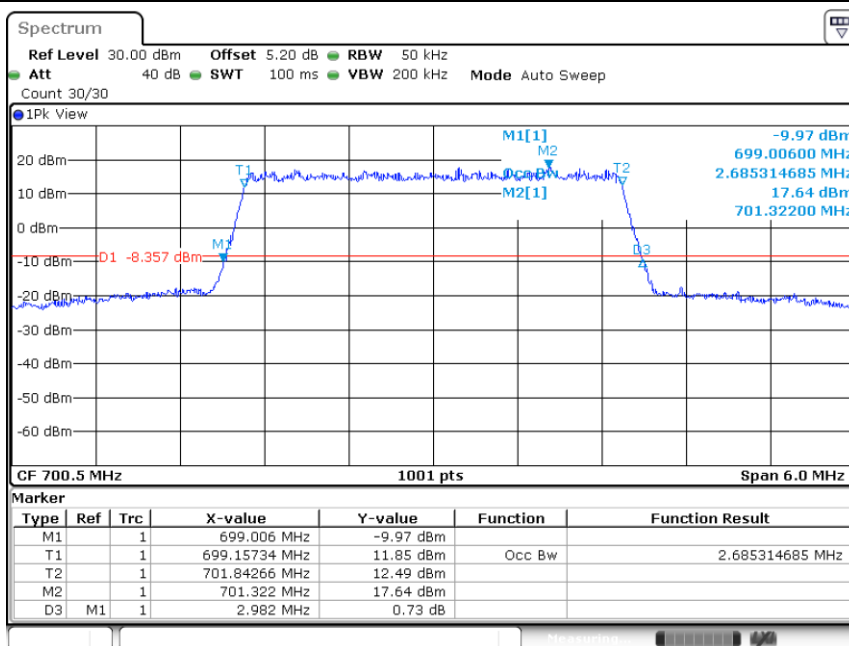


Band12-3MHz-QPSK-23165-15RB#0-2.703



Date: 20.APR.2021 01:41:27

Band12-3MHz-16QAM-23025-15RB#0-2.685



Date: 20.APR.2021 01:40:48



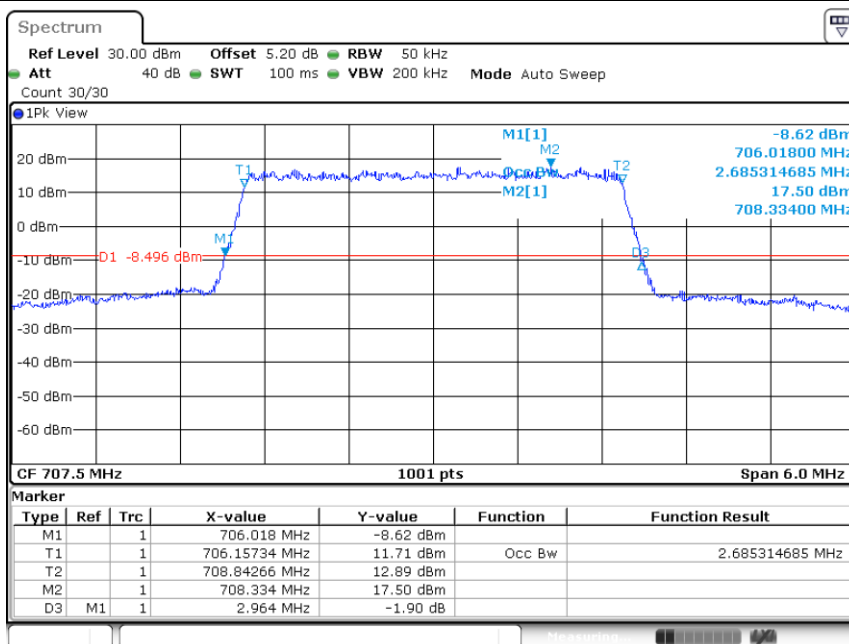
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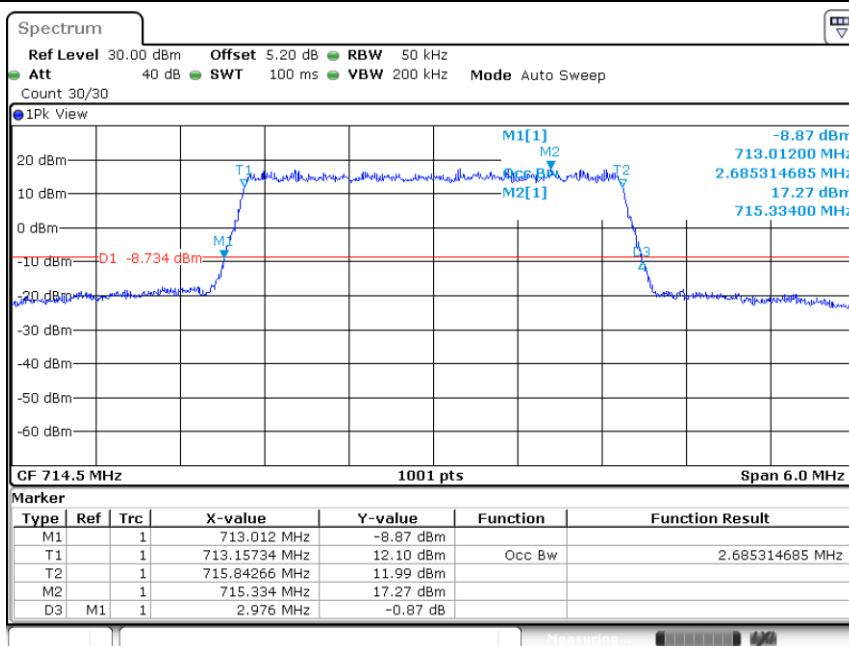


Band12-3MHz-16QAM-23095-15RB#0-2.685



Date: 20.APR.2021 01:41:14

Band12-3MHz-16QAM-23165-15RB#0-2.685



Date: 20.APR.2021 01:41:41

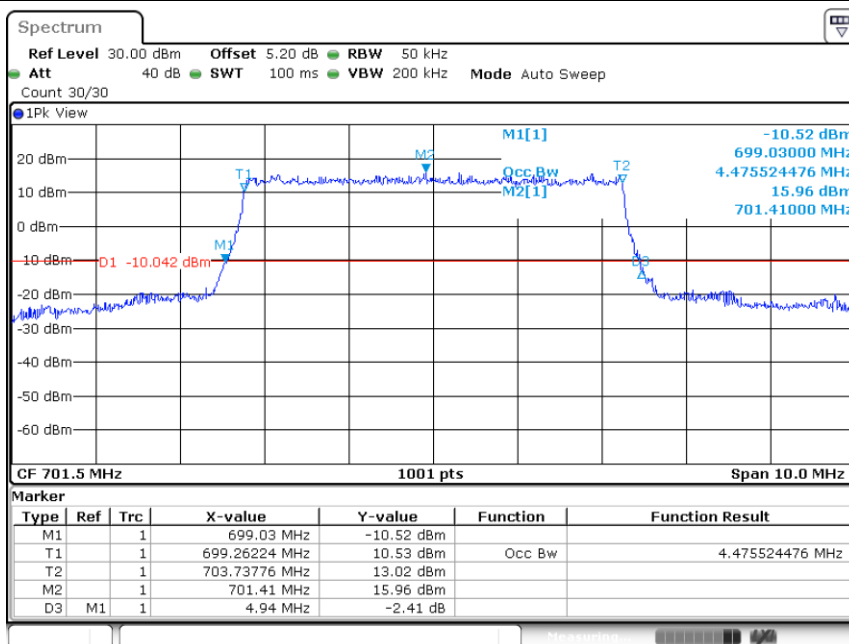


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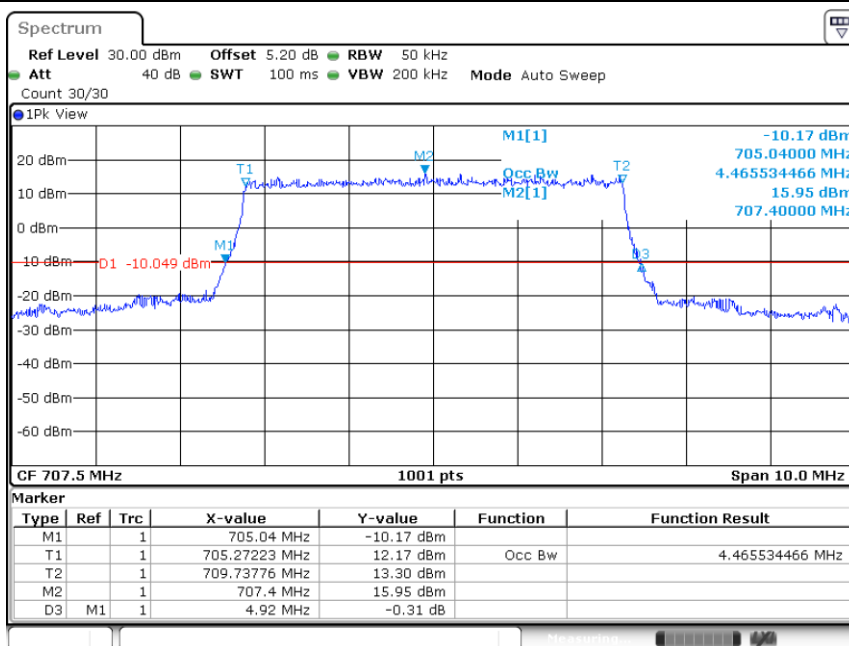


Band12-5MHz-QPSK-23035-25RB#0-4.476



Date: 20.APR.2021 01:42:00

Band12-5MHz-QPSK-23095-25RB#0-4.466

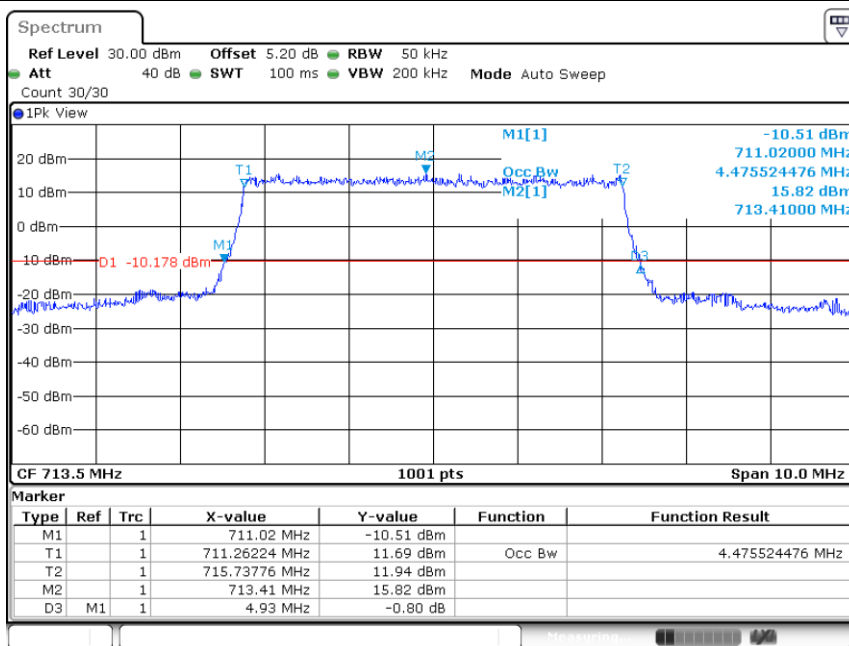


Date: 20.APR.2021 01:42:26



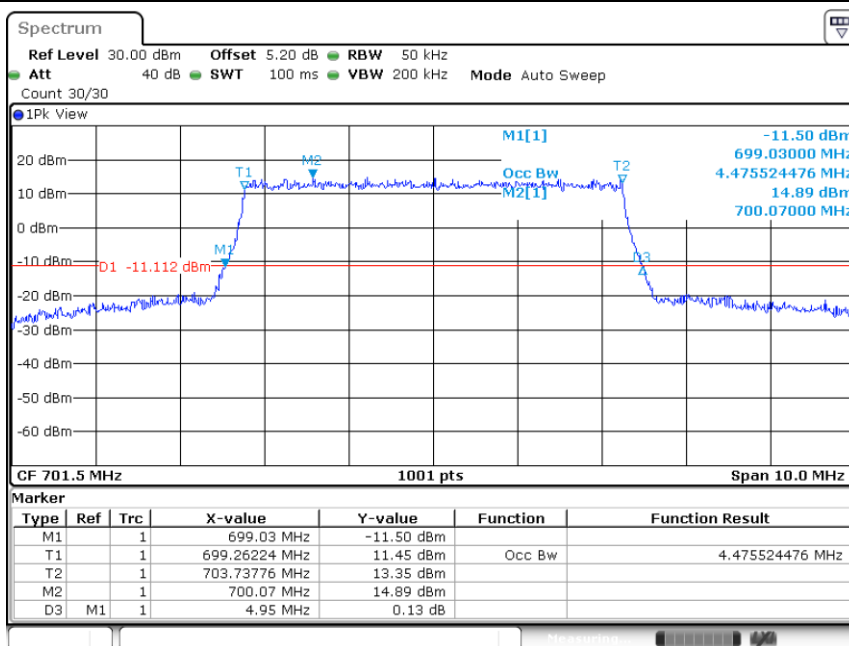


Band12-5MHz-QPSK-23155-25RB#0-4.476



Date: 20.APR.2021 01:42:52

Band12-5MHz-16QAM-23035-25RB#0-4.476

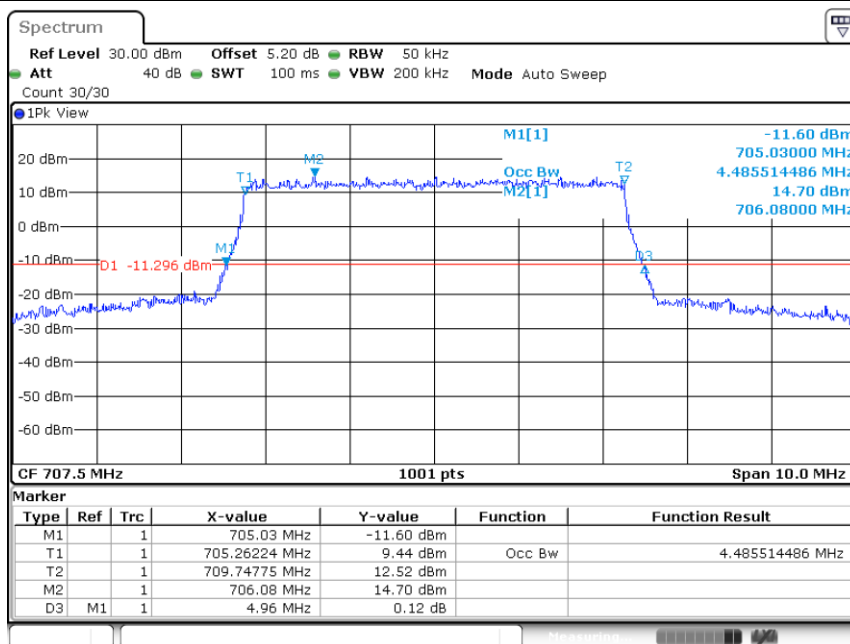


Date: 20.APR.2021 01:42:13



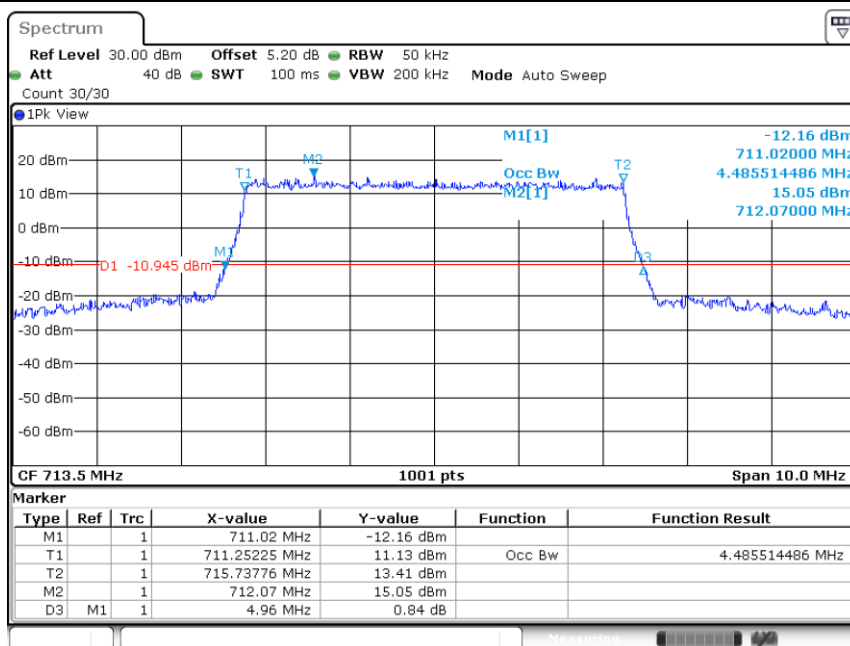


Band12-5MHz-16QAM-23095-25RB#0-4.486



Date: 20.APR.2021 01:42:39

Band12-5MHz-16QAM-23155-25RB#0-4.486



Date: 20.APR.2021 01:43:04

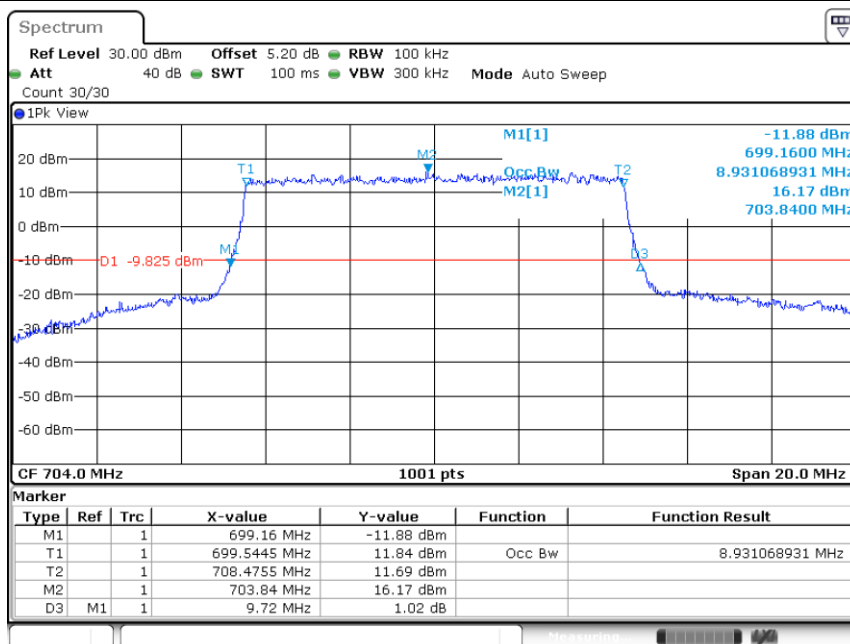


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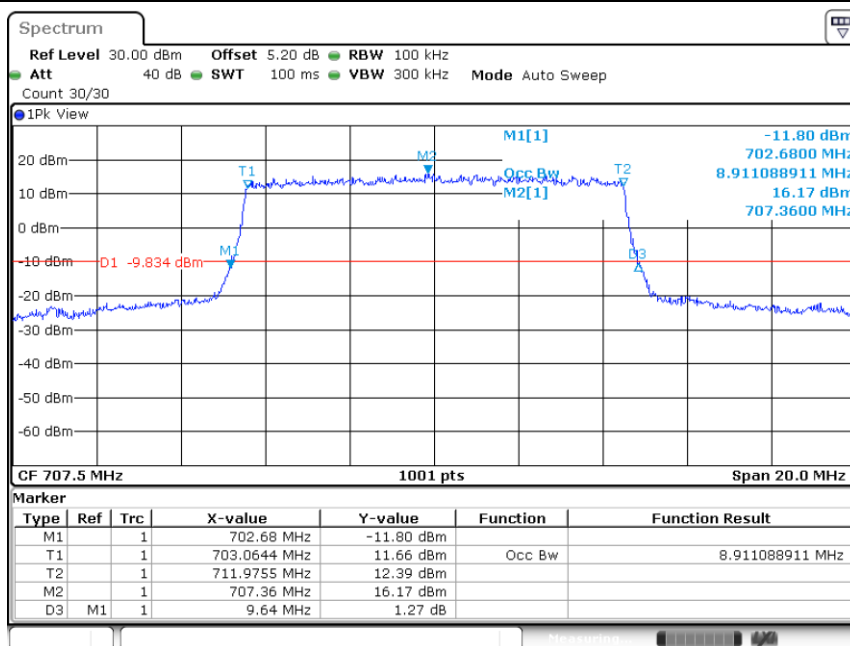


Band12-10MHz-QPSK-23060-50RB#0-8.931



Date: 20.APR.2021 01:43:23

Band12-10MHz-QPSK-23095-50RB#0-8.911

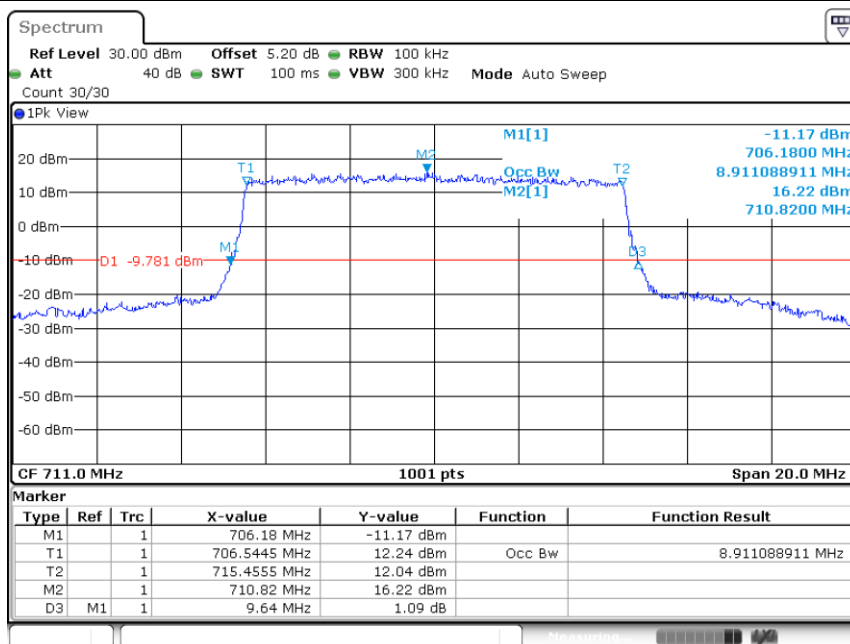


Date: 20.APR.2021 01:43:49



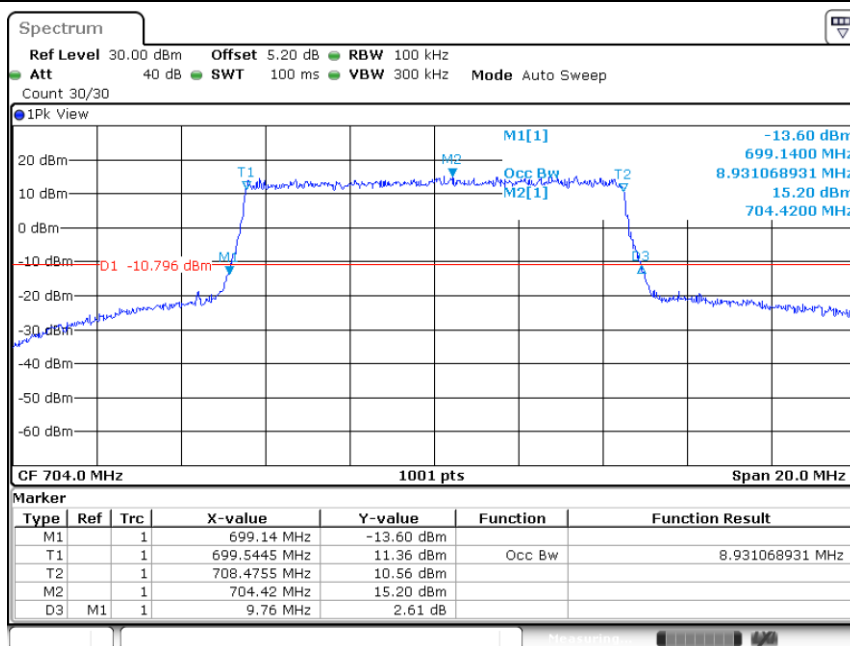


Band12-10MHz-QPSK-23130-50RB#0-8.911



Date: 20.APR 2021 01:44:15

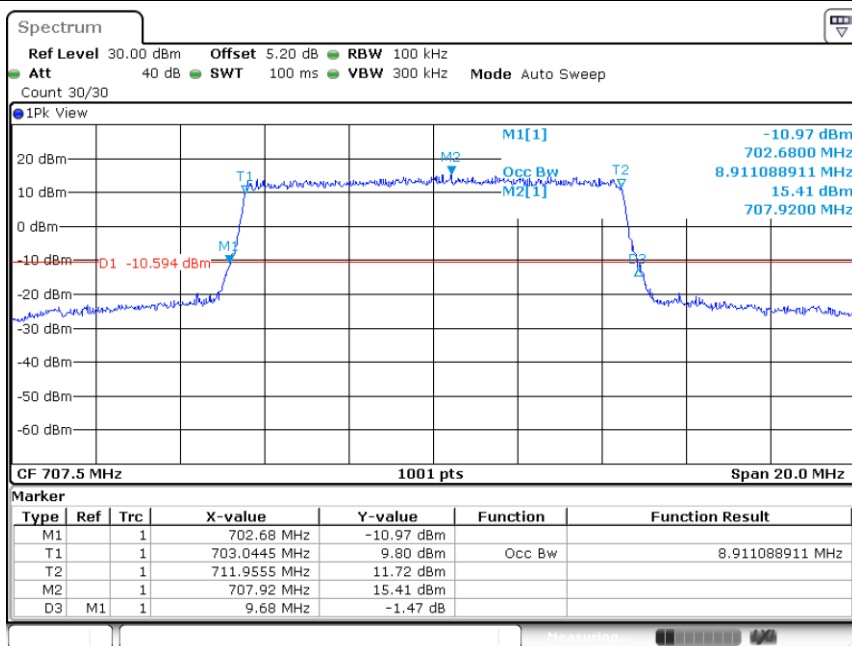
Band12-10MHz-16QAM-23060-50RB#0-8.931



Date: 20.APR 2021 01:43:36

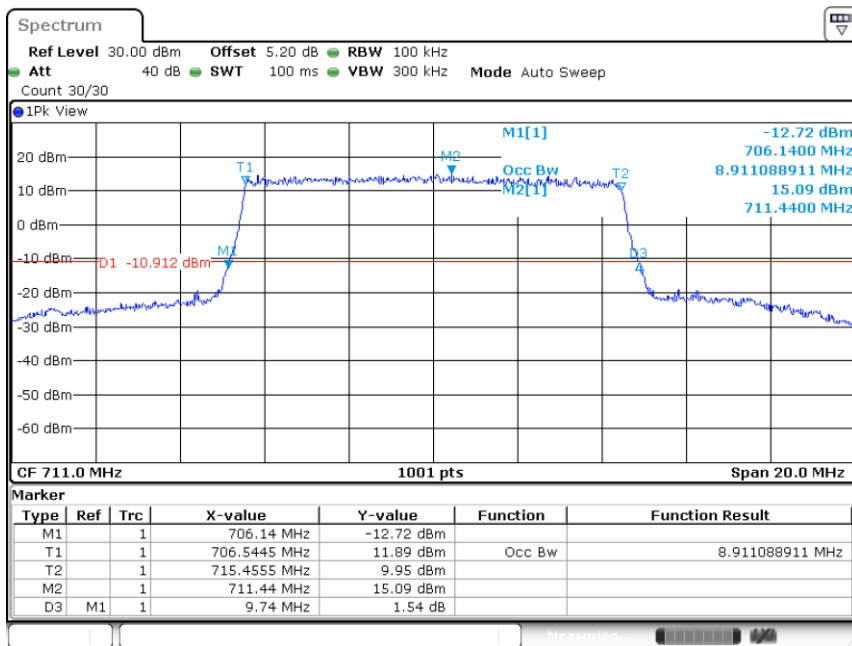


Band12-10MHz-16QAM-23095-50RB#0-8.911



Date: 20.APR 2021 01:44:02

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



Date: 20.APR 2021 01:44:28



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Shenzhen Branch Testing Laboratory

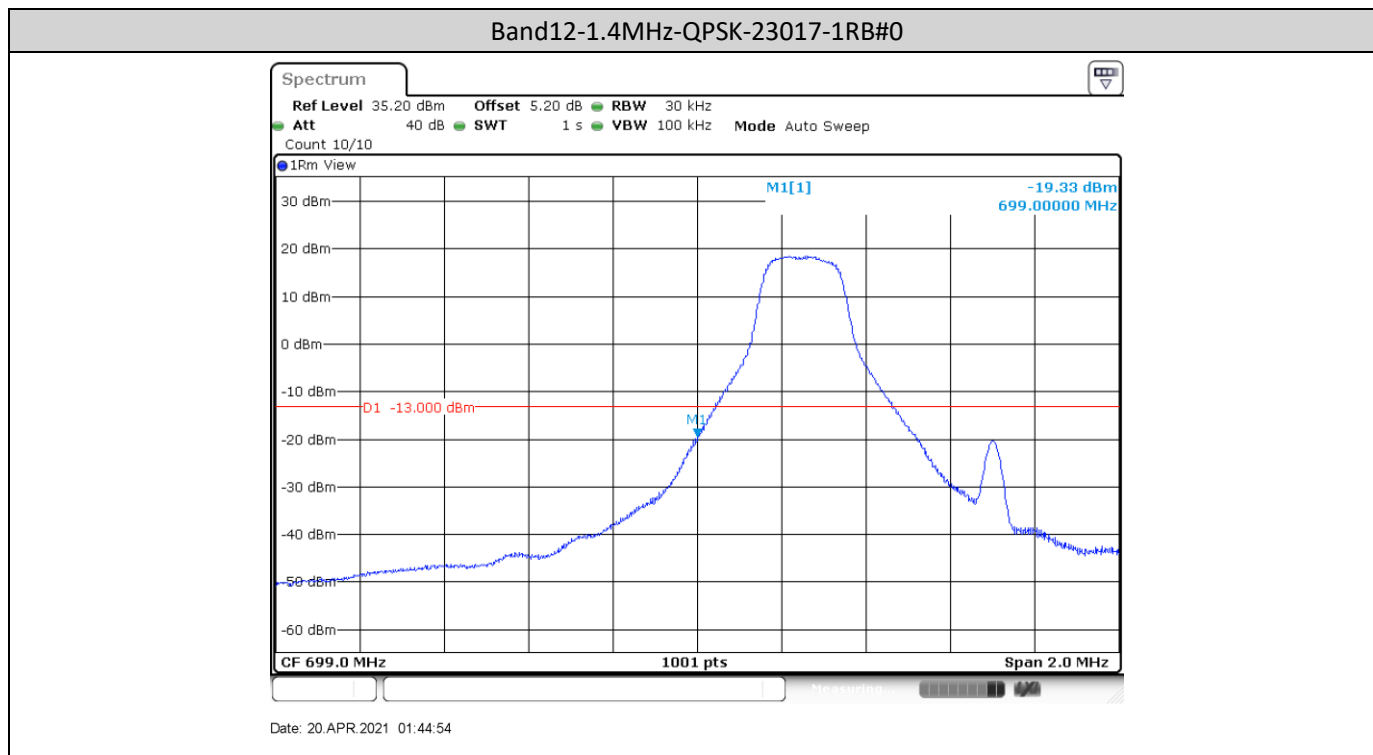
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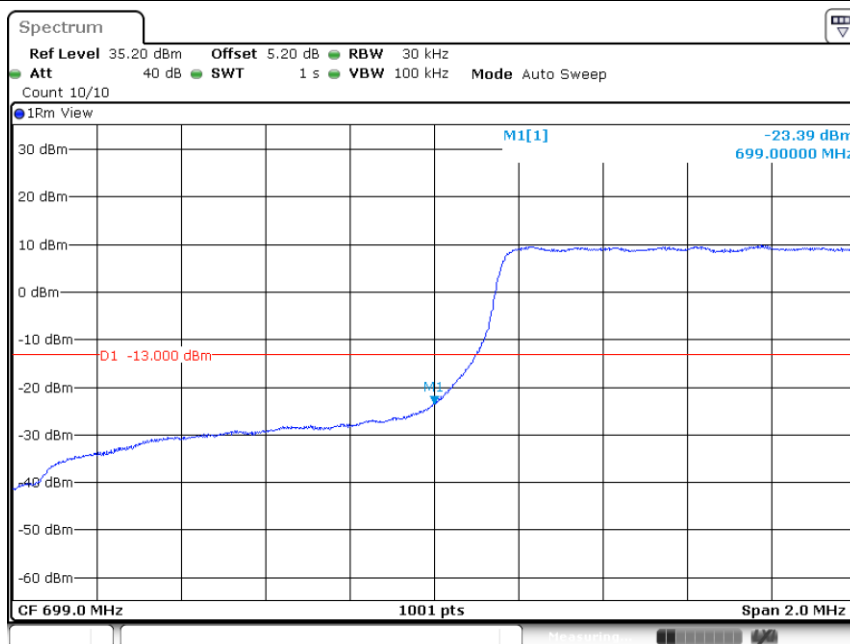


5. Band Edge Compliance

5.1. Test Plots



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



Date: 20.APR.2021 01:45:35

Band12-1.4MHz-QPSK-23173-1RB#5



Date: 20.APR.2021 01:46:21





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



Date: 20.APR 2021 01:47:02

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

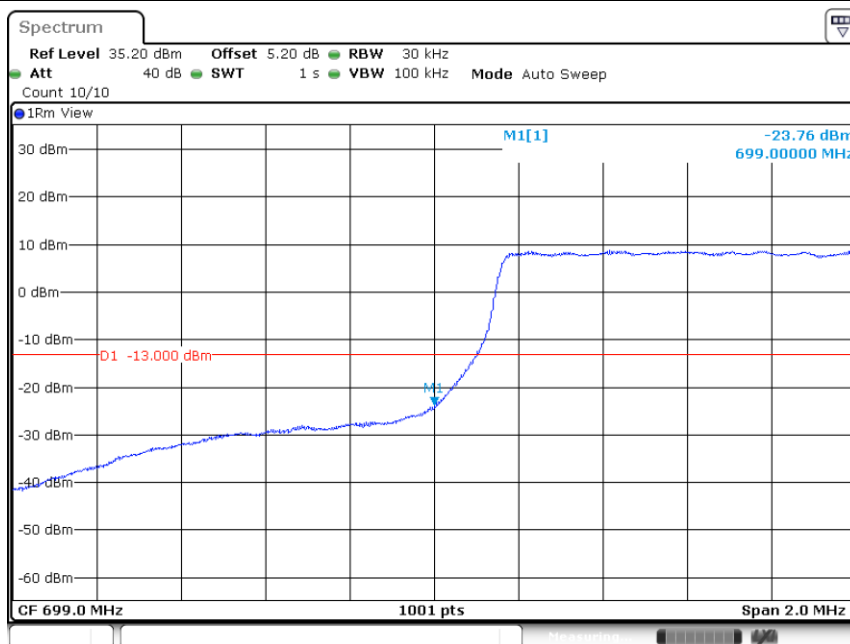


Date: 20.APR 2021 01:45:15





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



Date: 20.APR.2021 01:45:56

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



Date: 20.APR.2021 01:46:42



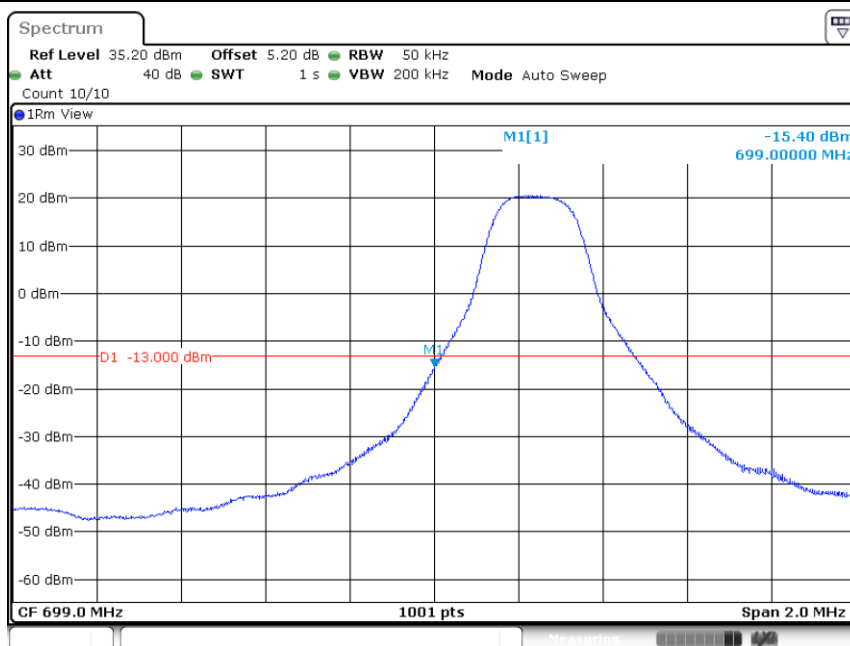


Band12-1.4MHz-16QAM-23173-6RB#0



Date: 20.APR 2021 01:47:23

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

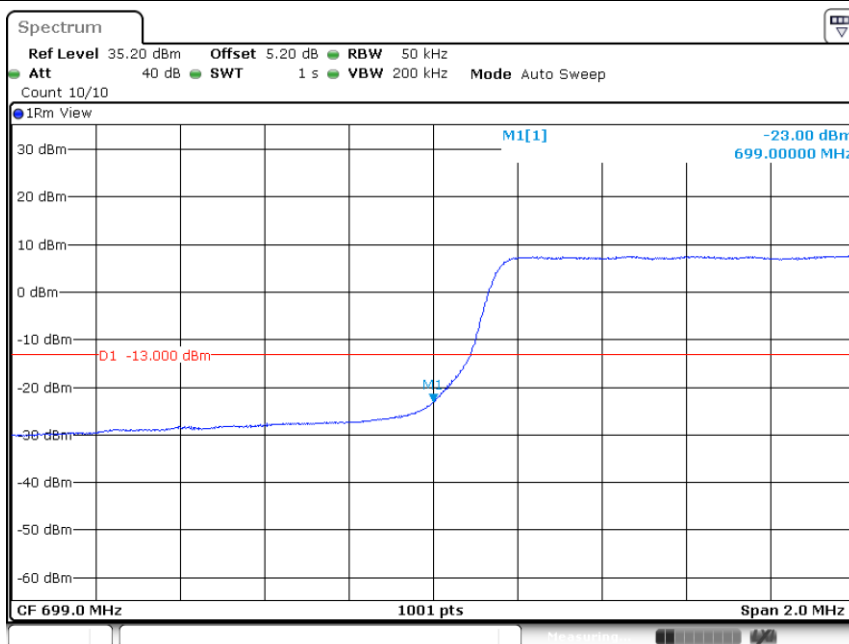


Date: 20.APR 2021 01:47:50



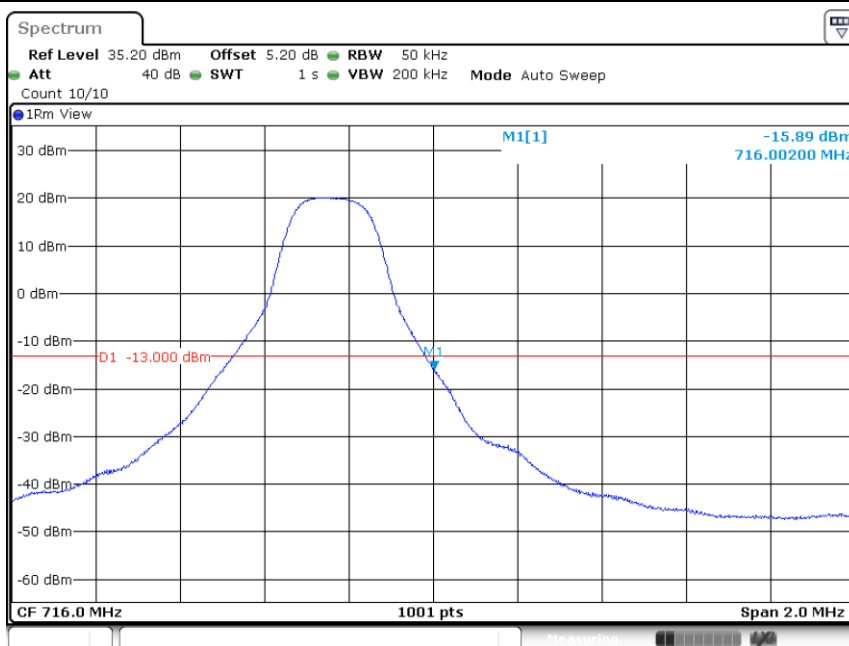


Band12-3MHz-QPSK-23025-15RB#0



Date: 20.APR 2021 01:48:31

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



Date: 20.APR 2021 01:49:17



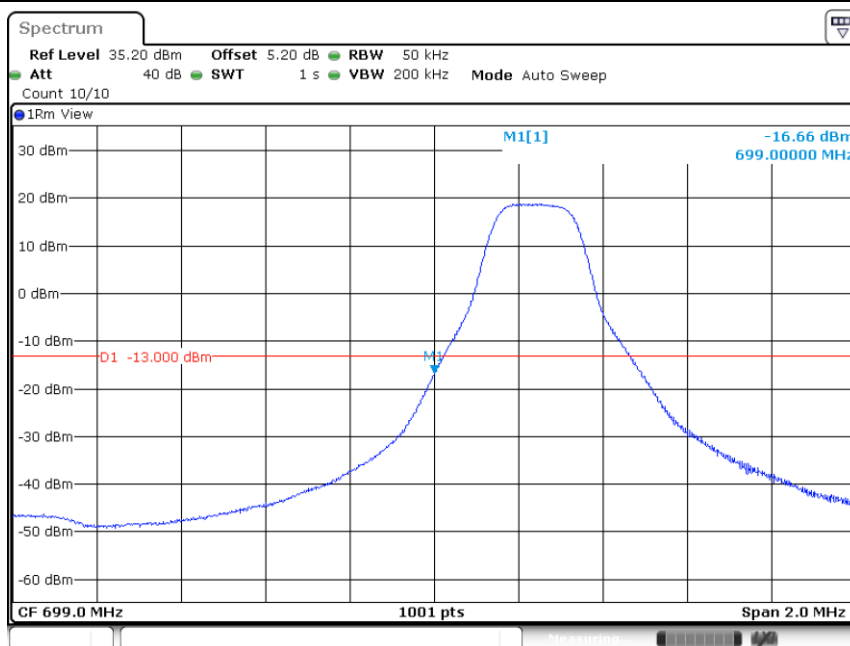


Band12-3MHz-QPSK-23165-15RB#0



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

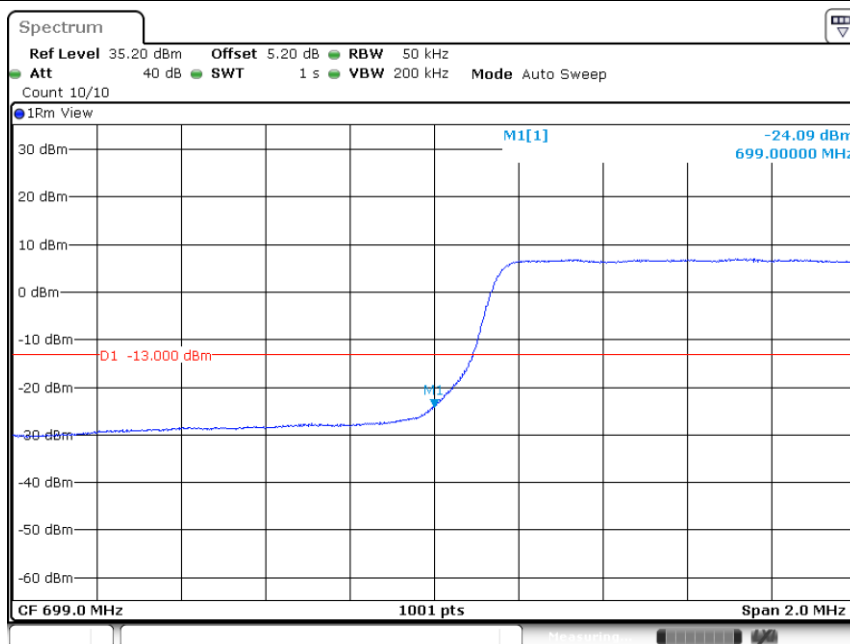


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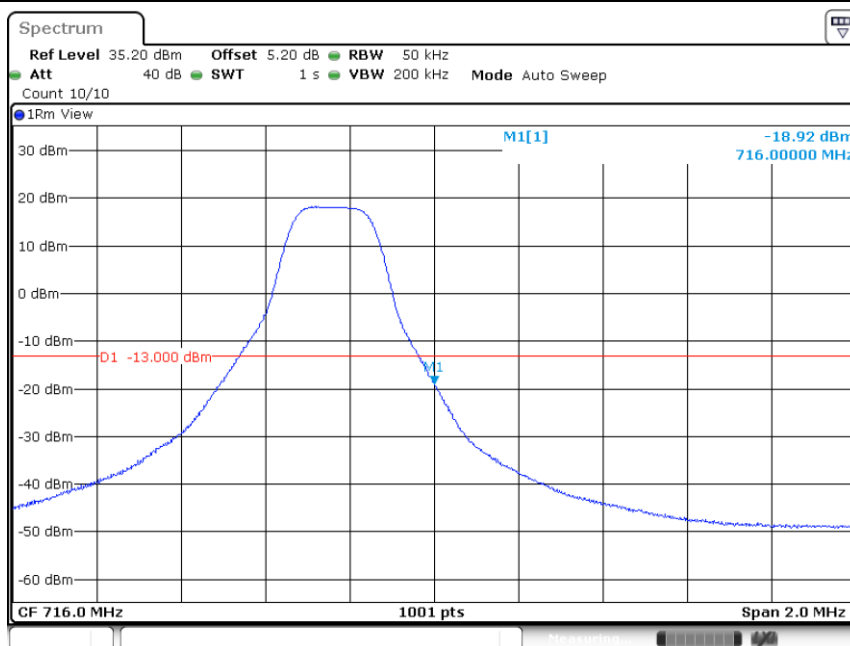


Band12-3MHz-16QAM-23025-15RB#0



Date: 20.APR.2021 01:48:51

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

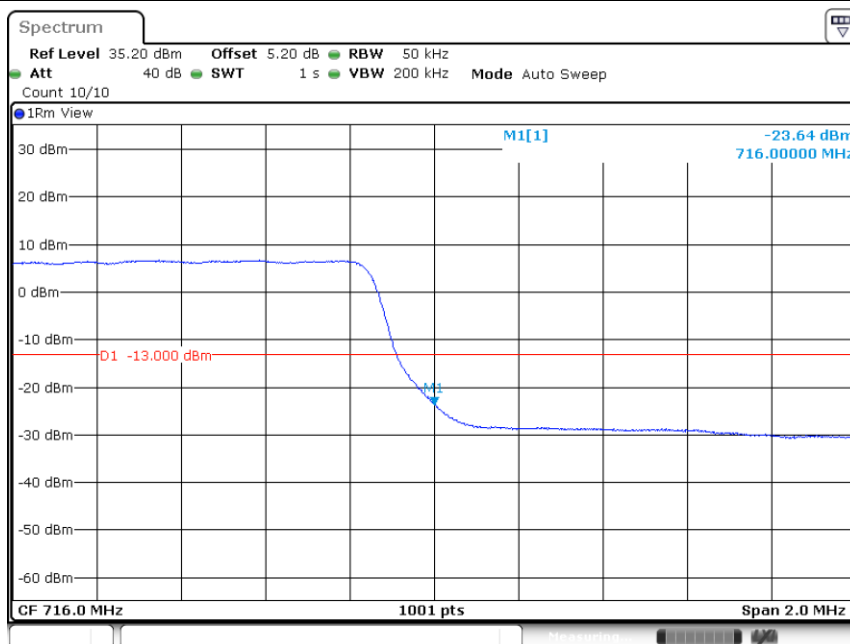


Date: 20.APR.2021 01:49:40



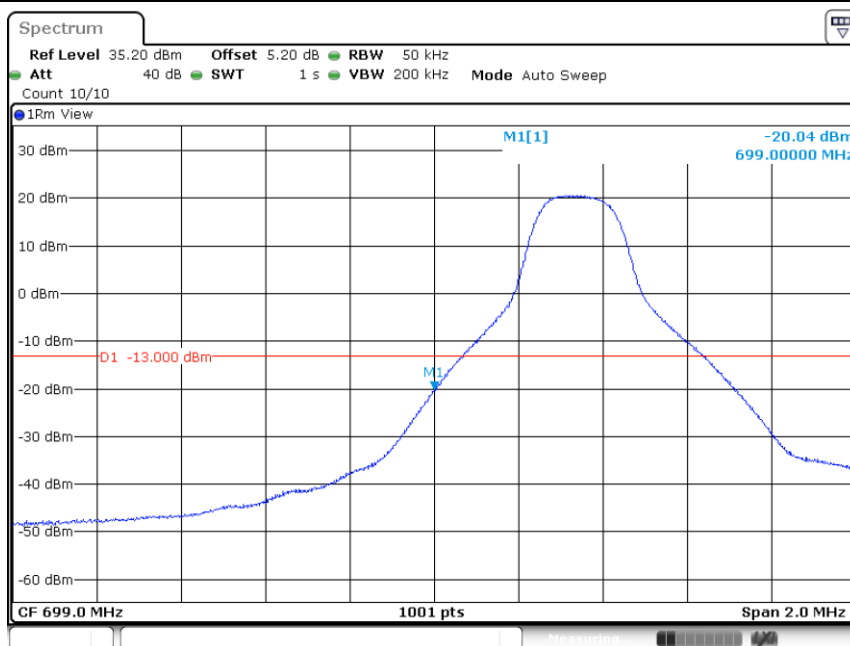


Band12-3MHz-16QAM-23165-15RB#0



Date: 20.APR.2021 01:50:22

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

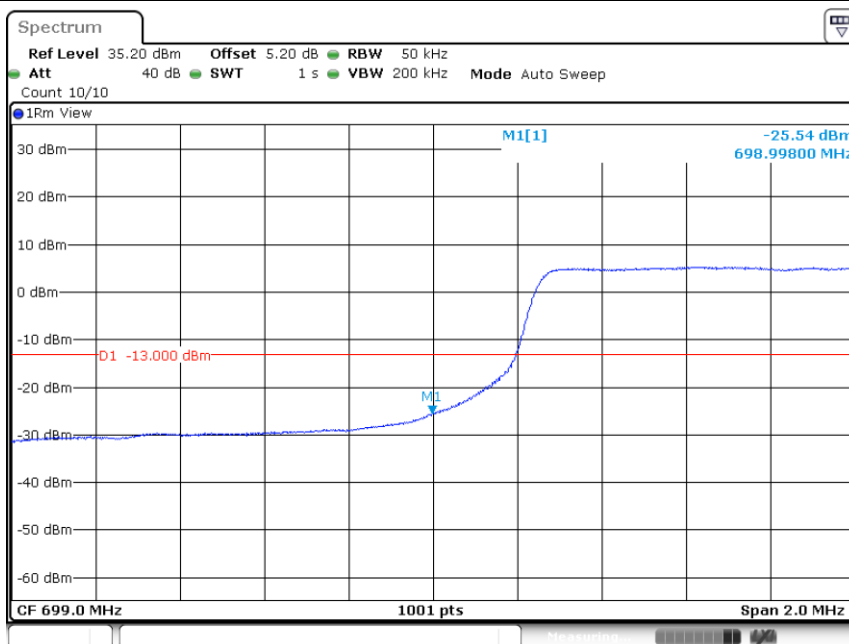


Date: 20.APR.2021 01:50:54



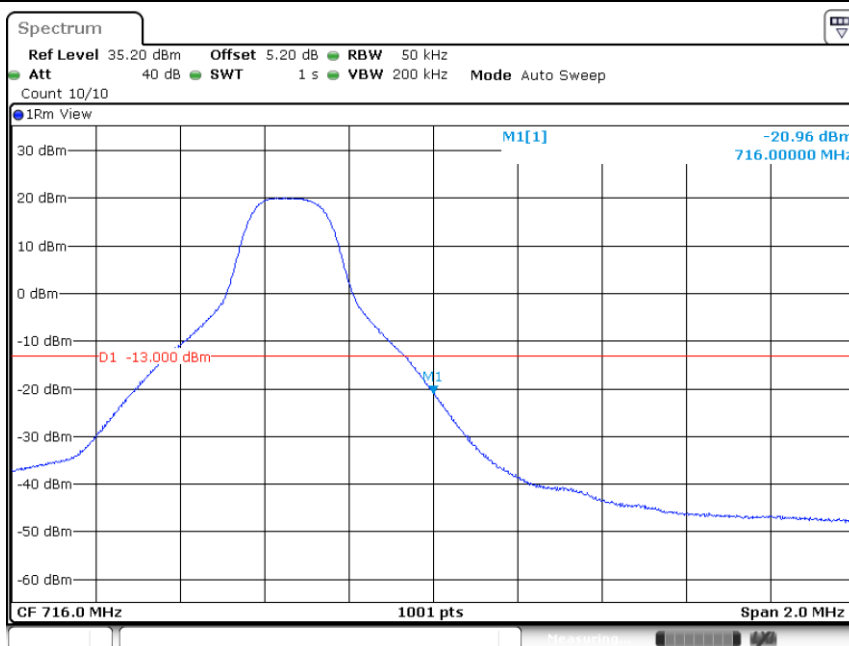


Band12-5MHz-QPSK-23035-25RB#0



Date: 20.APR.2021 01:51:35

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



Date: 20.APR.2021 01:52:21



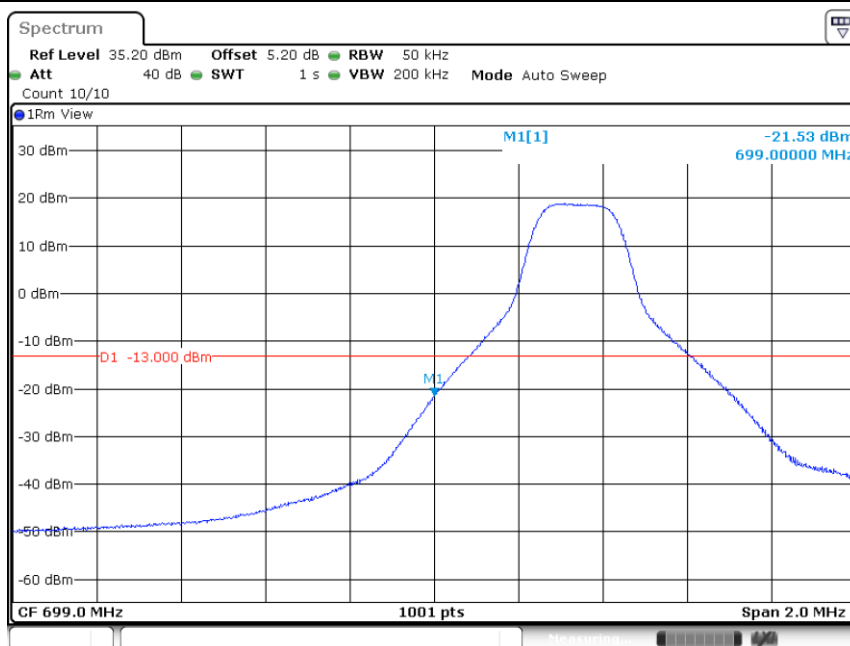


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Date: 20.APR 2021 01:53:02

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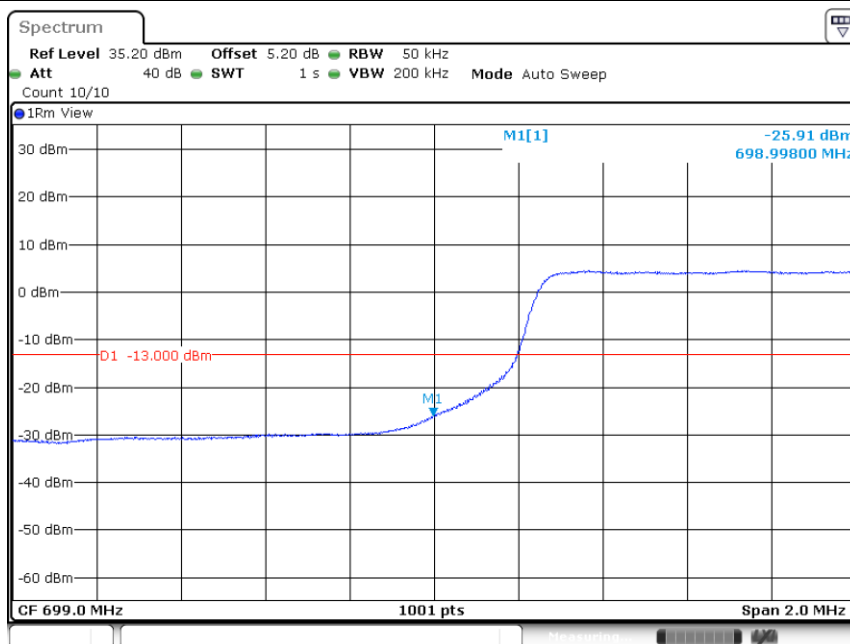


Date: 20.APR 2021 01:51:15



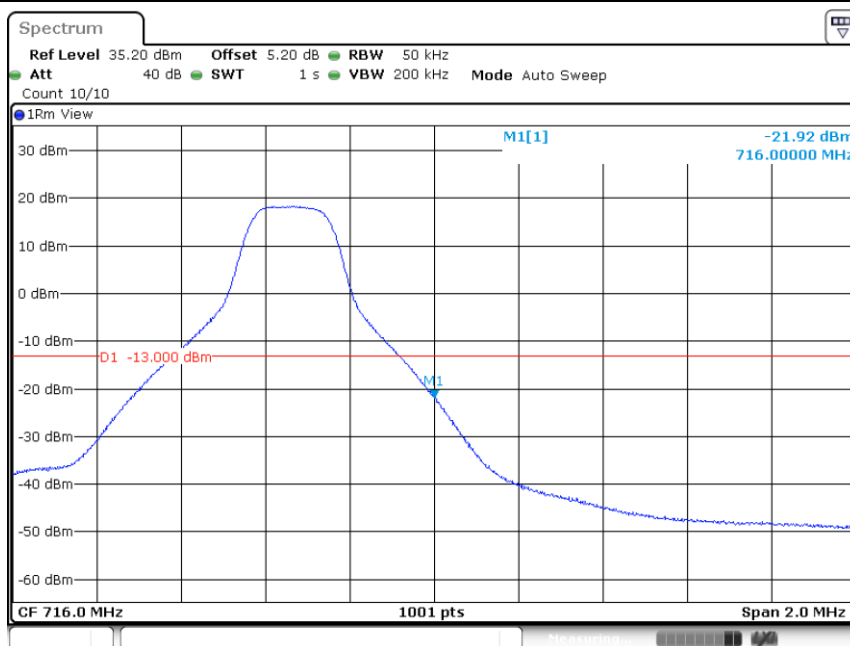


Band12-5MHz-16QAM-23035-25RB#0



Date: 20.APR.2021 01:51:56

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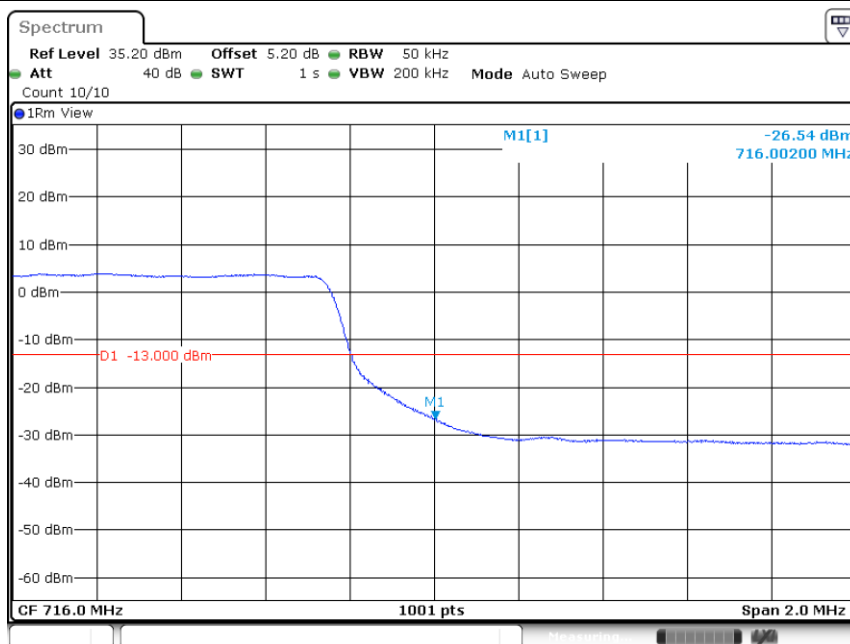


Date: 20.APR.2021 01:52:42



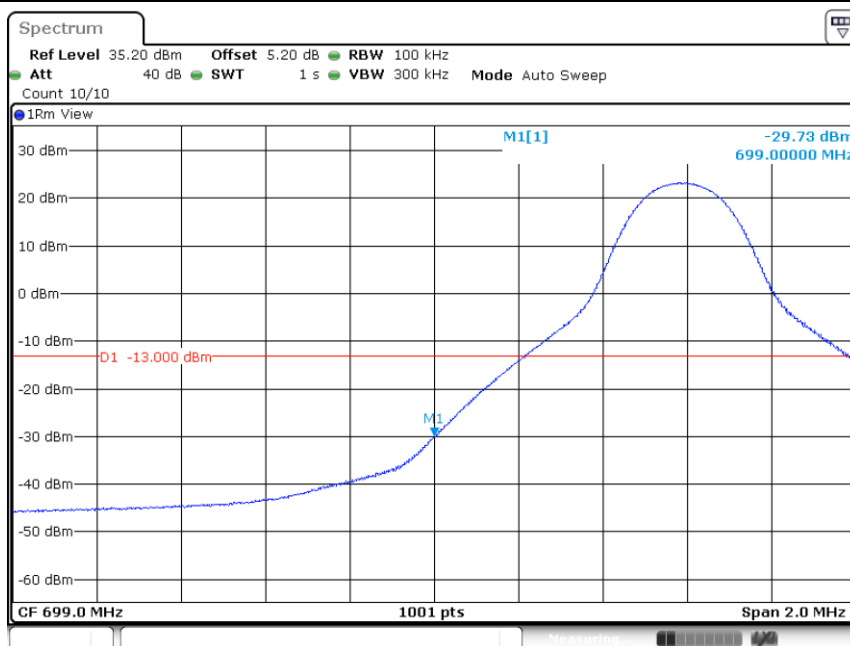


Band12-5MHz-16QAM-23155-25RB#0



Date: 20.APR 2021 01:53:23

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

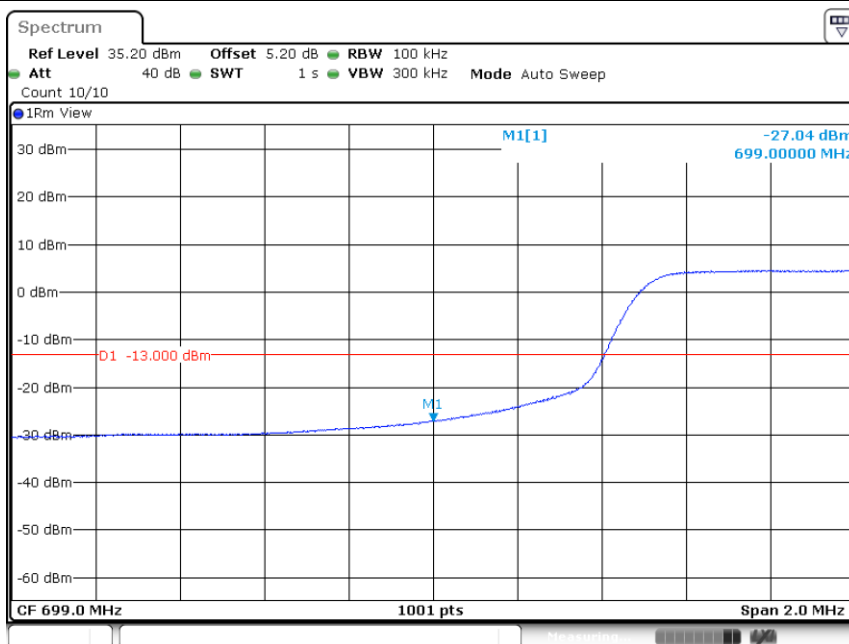


Date: 20.APR 2021 01:53:50



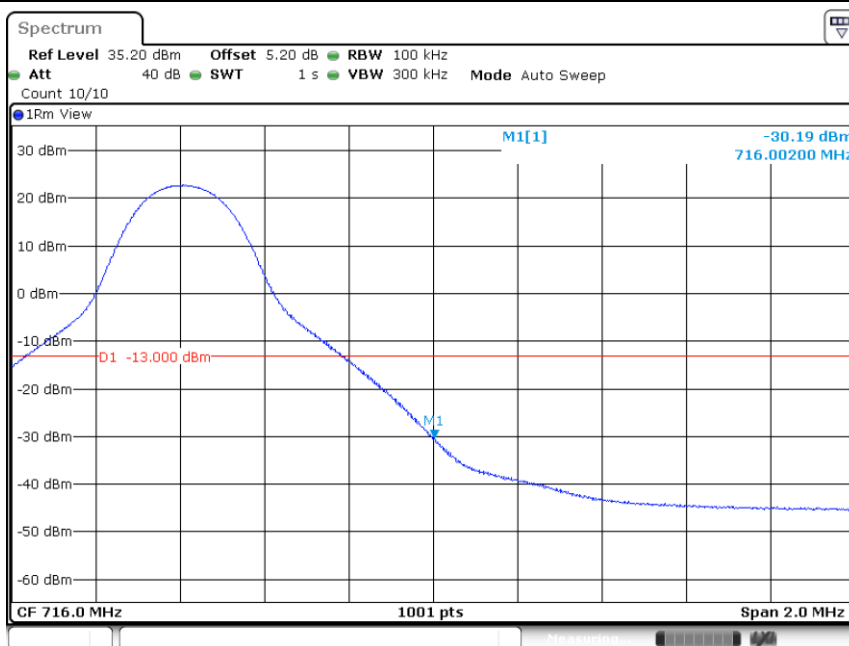


Band12-10MHz-QPSK-23060-50RB#0



Date: 20.APR 2021 01:54:32

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

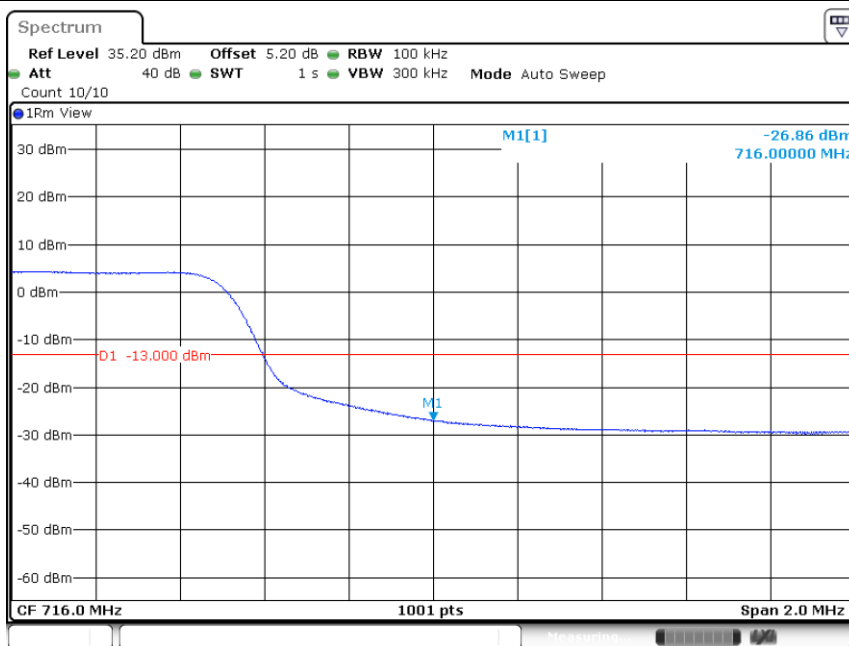


Date: 20.APR 2021 01:55:17



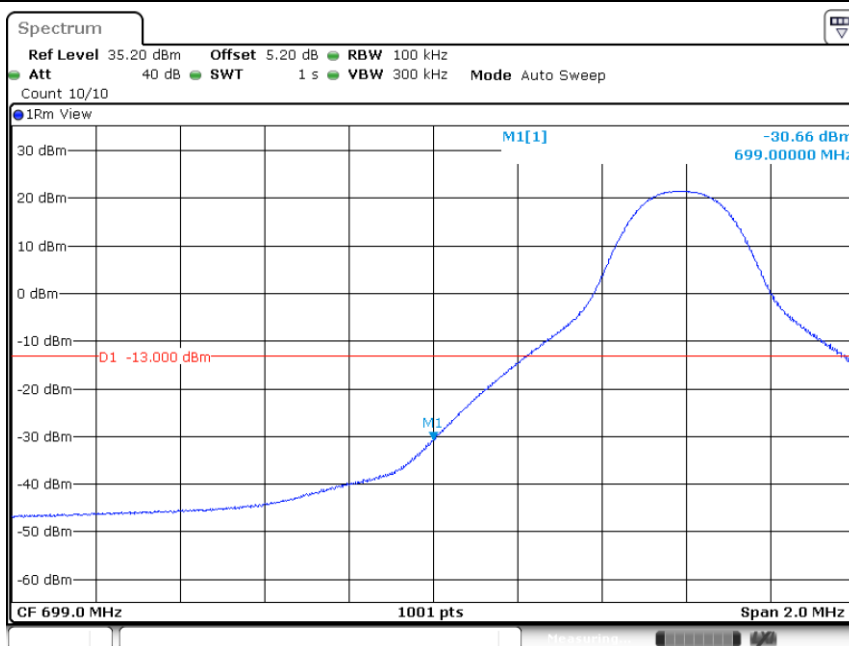


Band12-10MHz-QPSK-23130-50RB#0



Date: 20.APR.2021 01:55:58

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



Date: 20.APR.2021 01:54:11



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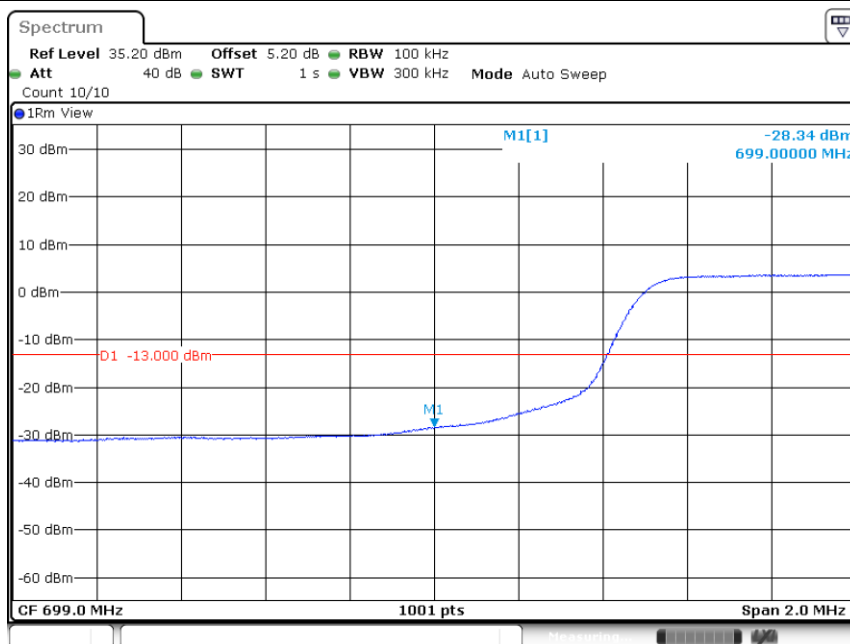
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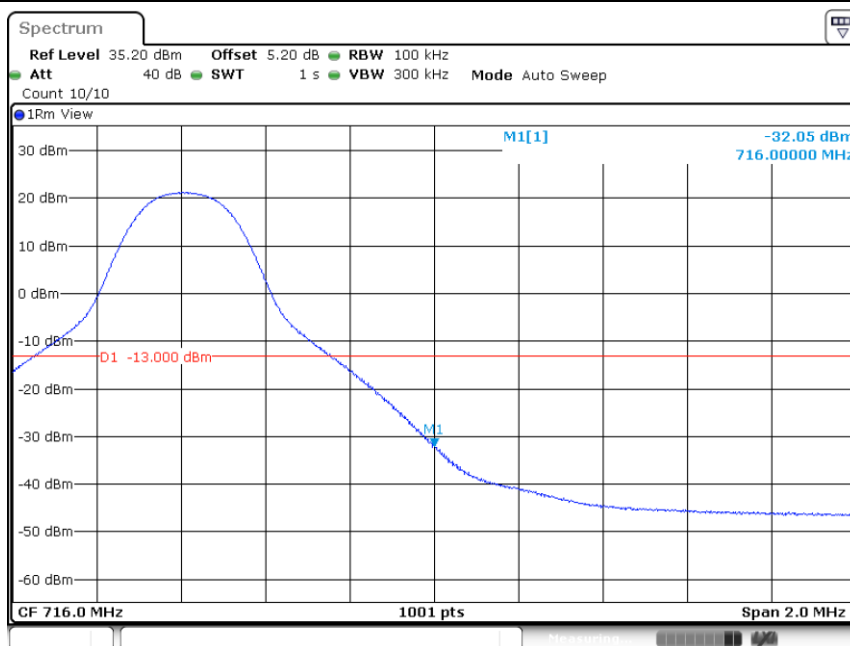


Band12-10MHz-16QAM-23060-50RB#0



Date: 20.APR.2021 01:54:52

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



Date: 20.APR.2021 01:55:38

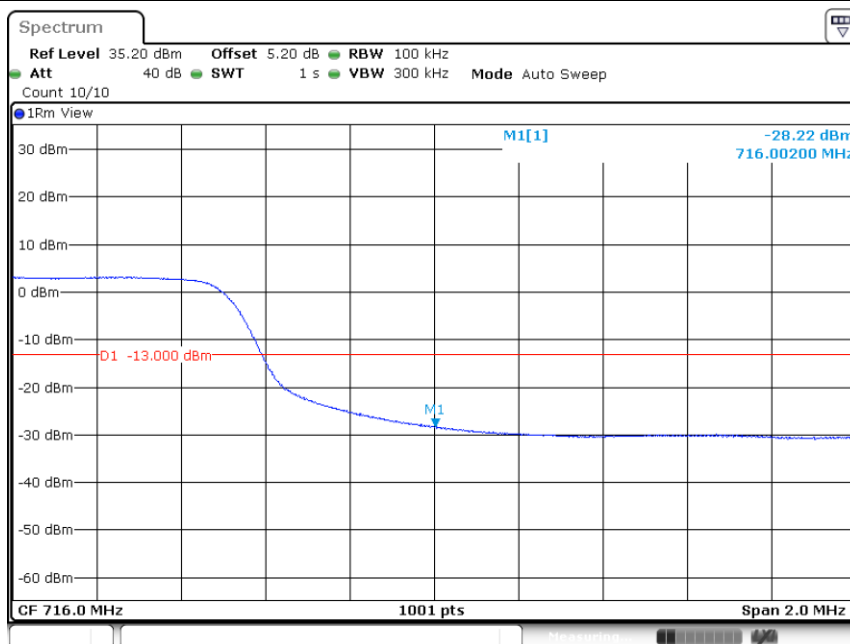


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Band12-10MHz-16QAM-23130-50RB#0



Date: 20.APR.2021 01:56:19



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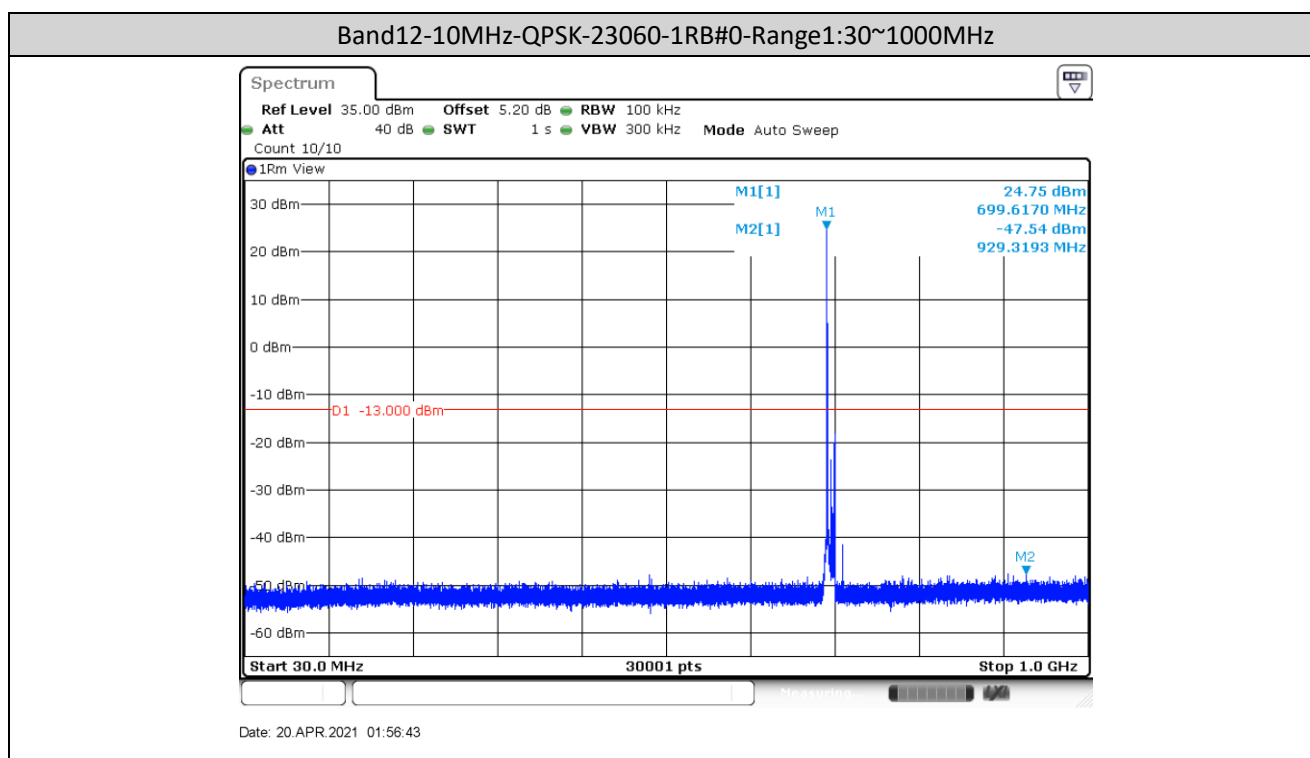
6. Spurious Emission at Antenna Terminal

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.

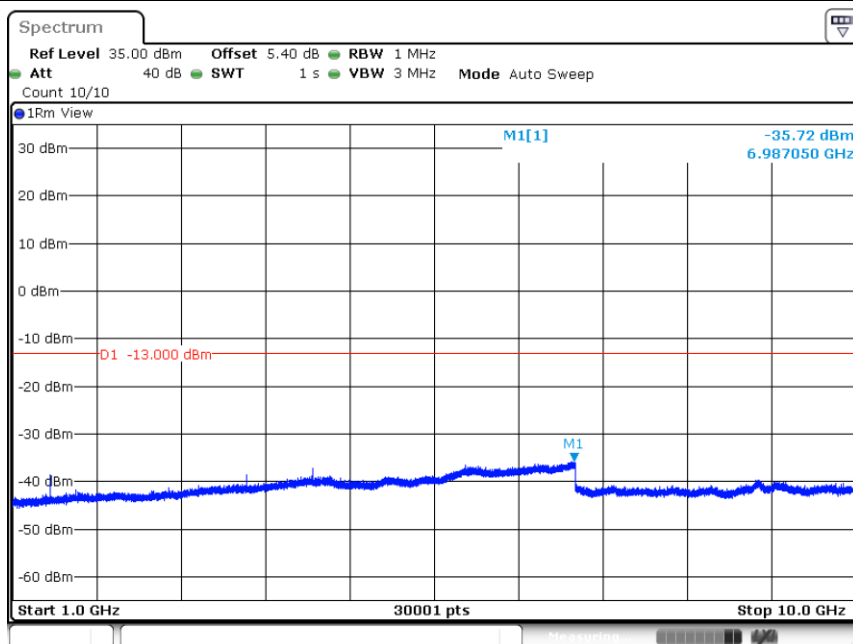
Remark2: According to 971168 D01 Power Meas License Digital Systems, The amplitudes of unwanted emissions that are attenuated more than 20 dB below the applicable limit are not required to be reported.

Remark3: 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.

6.1. Test Plots

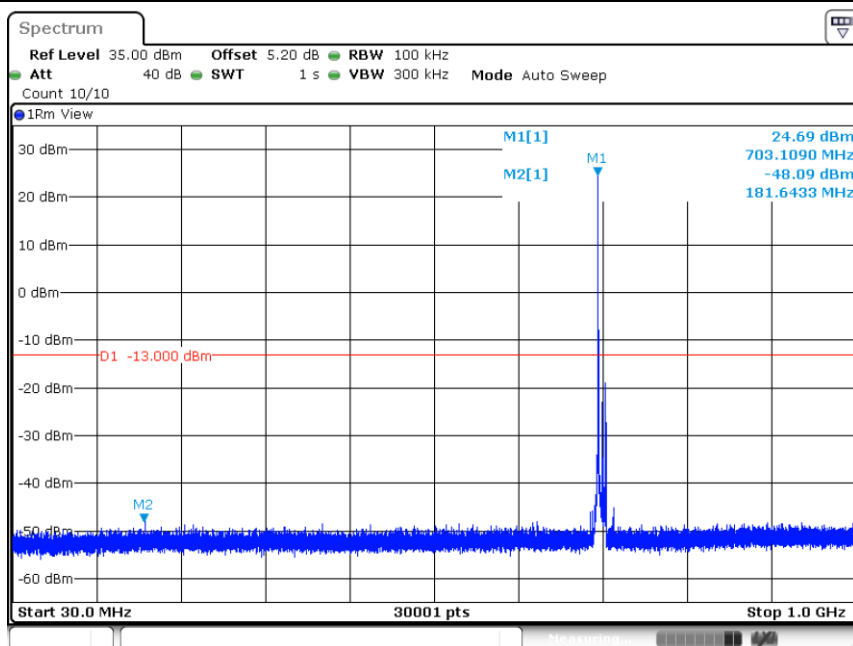


Band12-10MHz-QPSK-23060-1RB#0-Range2:1000~10000MHz



Date: 20.APR.2021 01:56:58

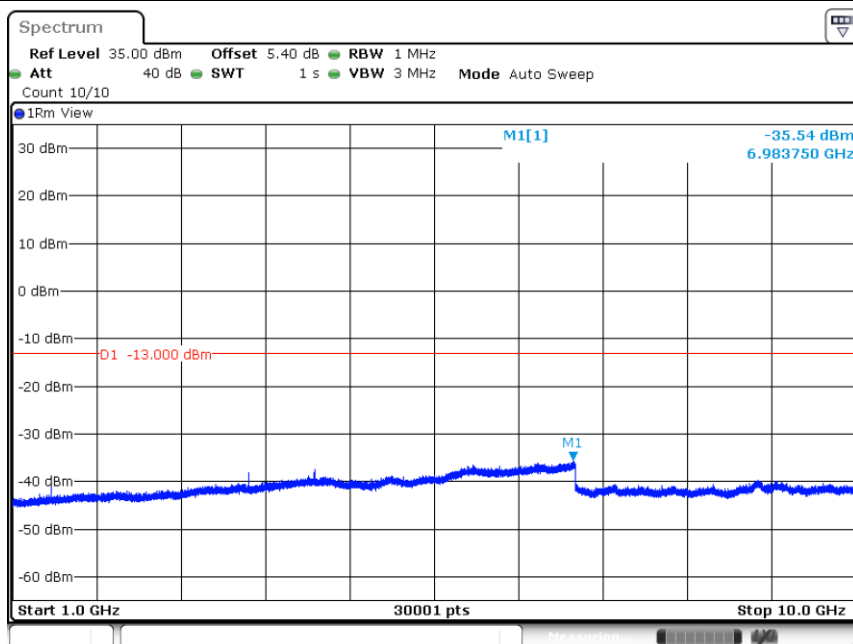
Band12-10MHz-QPSK-23095-1RB#0-Range1:30~1000MHz



Date: 20.APR.2021 01:57:54

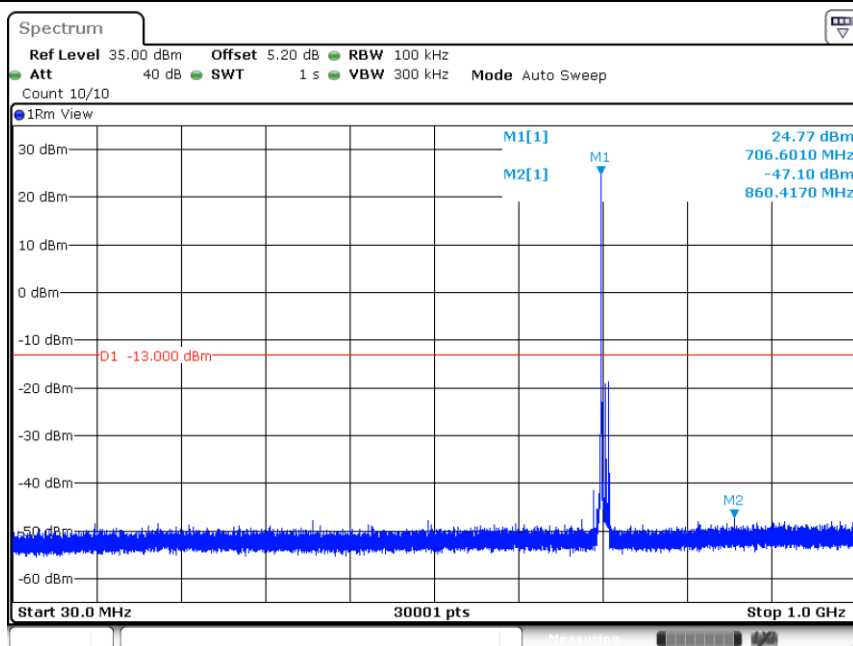


Band12-10MHz-QPSK-23095-1RB#0-Range2:1000~10000MHz



Date: 20.APR.2021 01:58:09

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



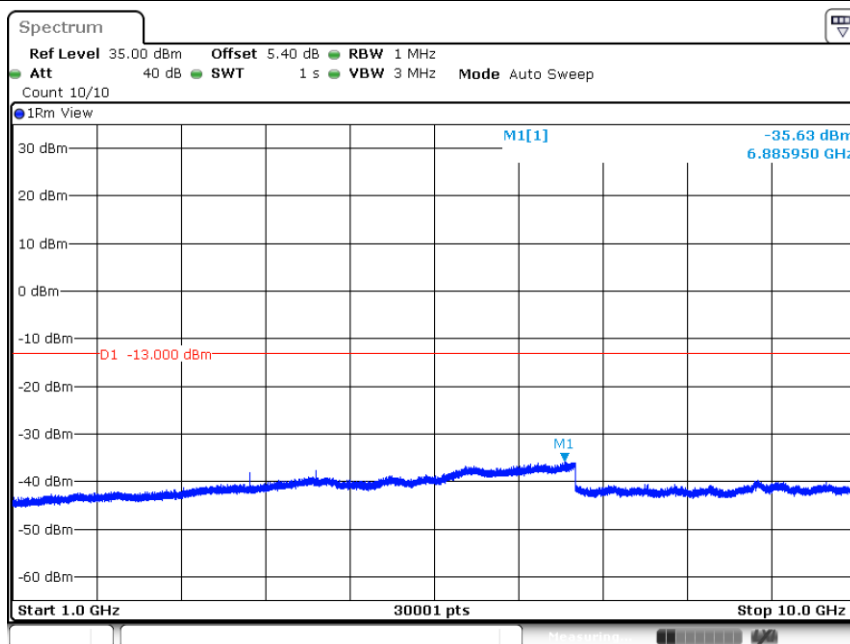
Date: 20.APR.2021 01:59:04



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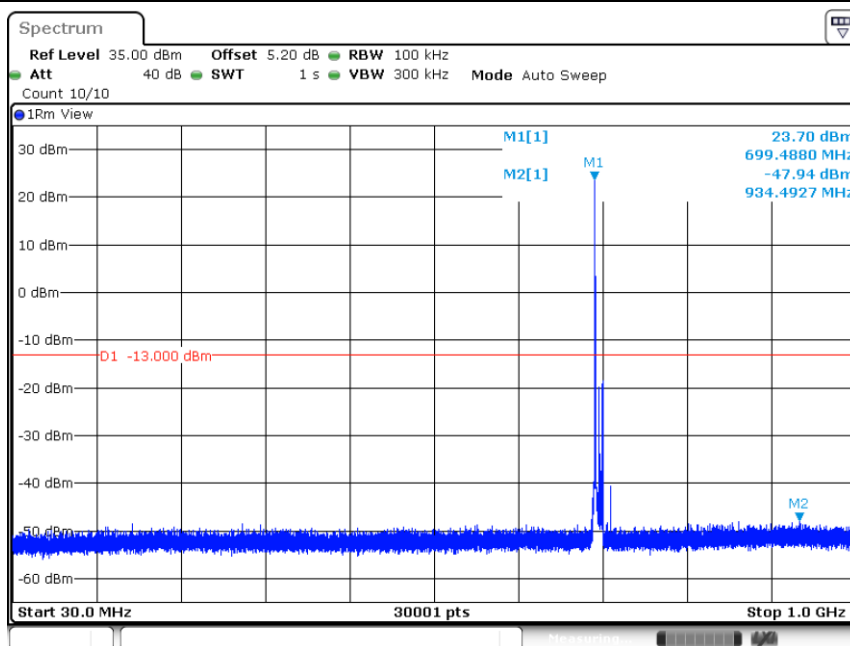
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Band12-10MHz-QPSK-23130-1RB#0-Range2:1000~10000MHz



Date: 20.APR.2021 01:59:20

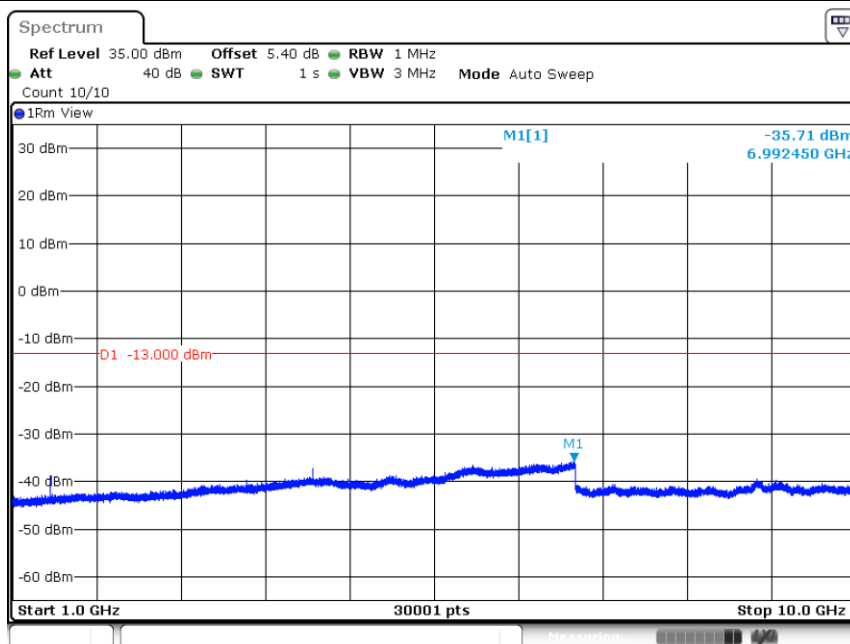
Band12-10MHz-16QAM-23060-1RB#0-Range1:30~1000MHz



Date: 20.APR.2021 01:57:18

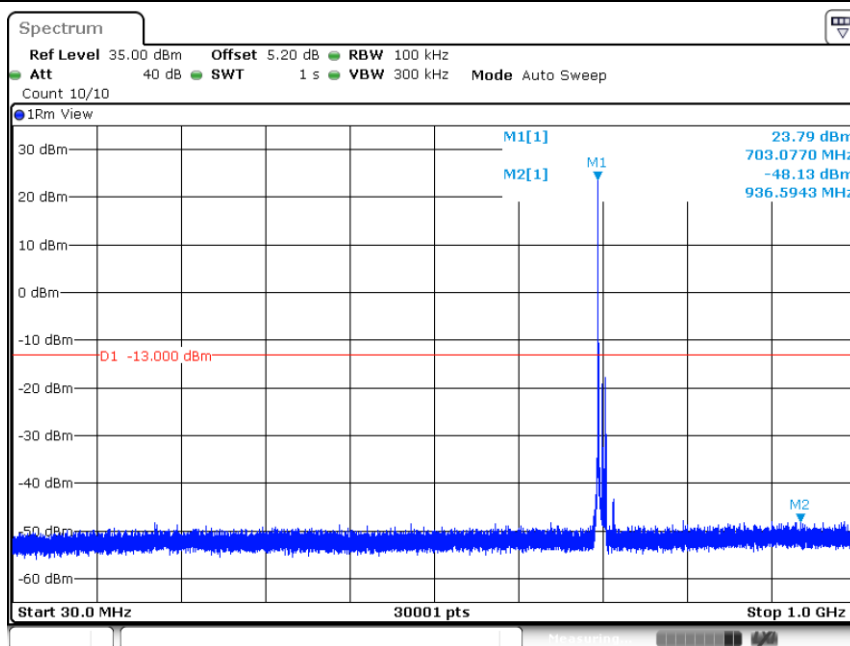


Band12-10MHz-16QAM-23060-1RB#0-Range2:1000~10000MHz



Date: 20.APR.2021 01:57:34

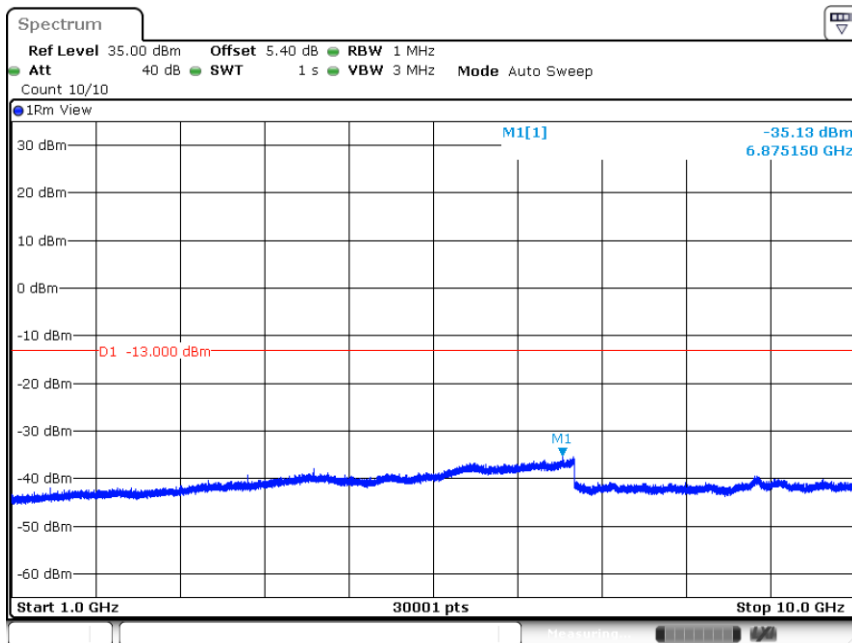
Band12-10MHz-16QAM-23095-1RB#0-Range1:30~1000MHz



Date: 20.APR.2021 01:58:29

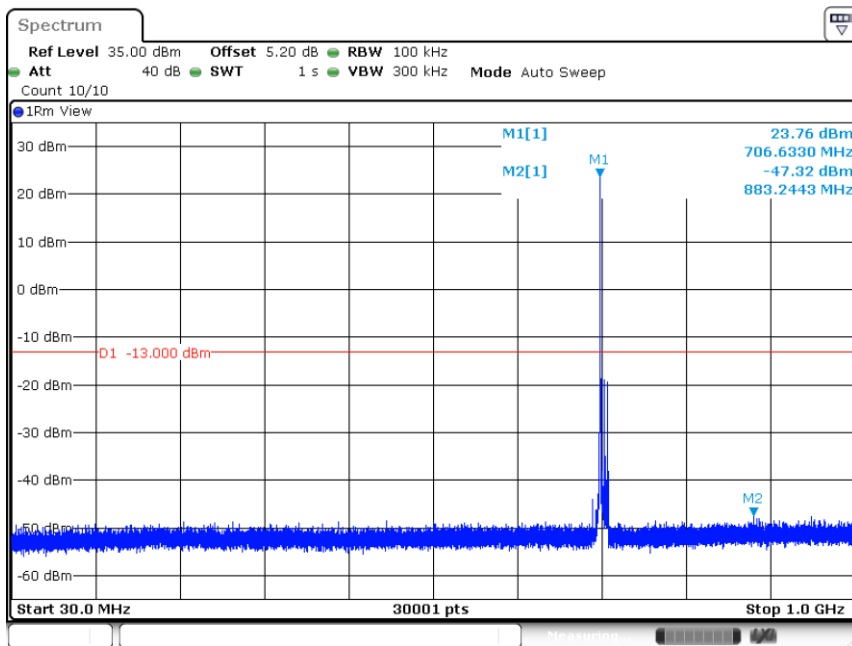


Band12-10MHz-16QAM-23095-1RB#0-Range2:1000~10000MHz



Date: 20.APR.2021 01:58:44

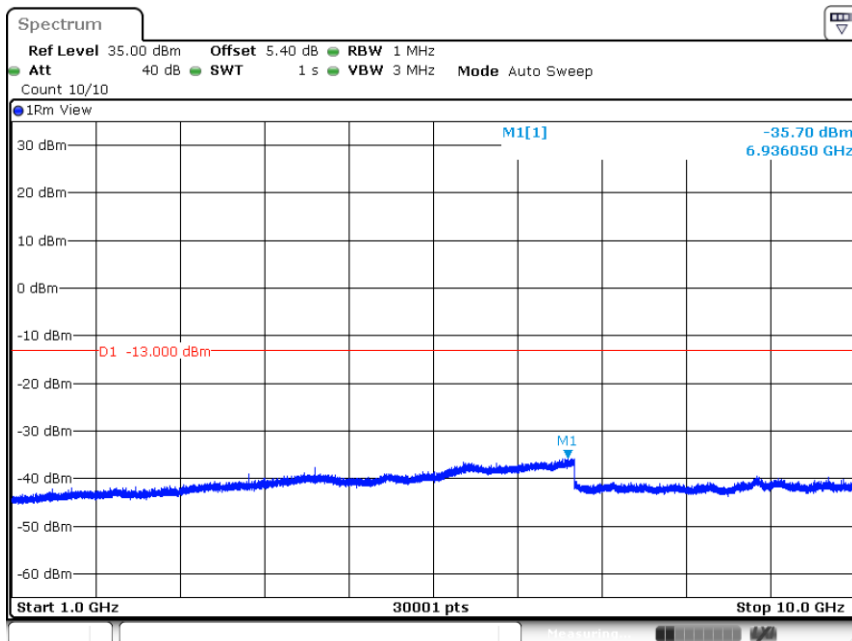
Band12-10MHz-16QAM-23130-1RB#0-Range1:30~1000MHz



Date: 20.APR.2021 01:59:40



Band12-10MHz-16QAM-23130-1RB#0-Range2:1000~10000MHz



Date: 20.APR.2021 01:59:55



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7. Field Strength of Spurious Radiation

ANT1:

7.1. Test Band = LTE_Band=12 BW=20MHz_TM1

7.1.1. Test Channel = Low Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	43.2179	-91.10	-58.70	-13.00	45.70	Horizontal
2	200.0138	-90.01	-65.61	-13.00	52.61	Horizontal
3	463.8867	-88.11	-59.88	-13.00	46.88	Horizontal
4	1772.1909	-60.44	-41.01	-13.00	28.01	Horizontal
5	2798.3919	-56.10	-32.45	-13.00	19.45	Horizontal
6	4197.3279	-32.41	-39.03	-13.00	26.03	Horizontal

7.2. Test Band = LTE_Band=12 BW=20MHz_TM1

7.2.1. Test Channel = Low Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	65.0456	-91.17	-64.28	-13.00	51.28	Vertical
2	108.7011	-90.54	-58.92	-13.00	45.92	Vertical
3	374.2718	-89.38	-61.91	-13.00	48.91	Vertical
4	1399.1360	-71.99	-52.59	-13.00	39.59	Vertical
5	2798.5519	-66.71	-43.60	-13.00	30.60	Vertical
6	4197.3279	-45.60	-52.91	-13.00	39.91	Vertical



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7.3. Test Band = LTE_Band=12 BW=20MHz_TM1

7.3.1. Test Channel = Mid Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	40.3075	-90.78	-58.47	-13.00	45.47	Horizontal
2	235.9082	-89.59	-61.17	-13.00	48.17	Horizontal
3	988.7223	-86.79	-48.41	-13.00	35.41	Horizontal
4	2812.2325	-57.60	-33.99	-13.00	20.99	Horizontal
5	3515.2206	-28.29	-34.93	-13.00	21.93	Horizontal
6	9298.0119	-57.79	-51.06	-13.00	38.06	Horizontal

7.4. Test Band = LTE_Band=12 BW=20MHz_TM1

7.4.1. Test Channel = Mid Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	117.6747	-89.87	-58.62	-13.00	45.62	Vertical
2	388.4598	-89.10	-60.97	-13.00	47.97	Vertical
3	999.1511	-87.38	-48.44	-13.00	35.44	Vertical
4	2812.4725	-67.82	-44.82	-13.00	31.82	Vertical
5	5313.1725	-54.65	-53.75	-13.00	40.75	Vertical
6	9746.8699	-58.43	-50.46	-13.00	37.46	Vertical



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7.5. Test Band = LTE_Band=12 BW=20MHz_TM1

7.5.1. Test Channel = High Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	43.8242	-91.20	-58.78	-13.00	45.78	Horizontal
2	231.5427	-90.07	-61.60	-13.00	48.60	Horizontal
3	999.5149	-87.78	-48.61	-13.00	35.61	Horizontal
4	1774.2710	-64.84	-45.39	-13.00	32.39	Horizontal
5	3532.3013	-32.99	-39.80	-13.00	26.80	Horizontal
6	9247.6099	-57.94	-51.04	-13.00	38.04	Horizontal

7.6. Test Band = LTE_Band=12 BW=20MHz_TM1

7.6.1. Test Channel = High Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	109.1861	-90.92	-59.18	-13.00	46.18	Vertical
2	381.5477	-88.78	-60.82	-13.00	47.82	Vertical
3	998.0598	-87.79	-48.92	-13.00	35.92	Vertical
4	1936.3575	-68.83	-48.84	-13.00	35.84	Vertical
5	2826.1530	-72.07	-49.21	-13.00	36.21	Vertical
6	9733.1493	-58.44	-50.52	-13.00	37.52	Vertical



ANT2:

7.7. Test Band = LTE_Band=12 BW=20MHz _TM1

7.7.1. Test Channel = Low Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	41.1564	-71.82	-56.04	-13.00	43.04	Horizontal
2	232.3915	-81.07	-69.55	-13.00	56.55	Horizontal
3	998.3023	-80.77	-56.17	-13.00	43.17	Horizontal
4	2619.2024	-45.62	-29.15	-13.00	16.15	Horizontal
5	3519.9808	-42.55	-49.24	-13.00	36.24	Horizontal
6	9347.0139	-59.64	-52.97	-13.00	39.97	Horizontal

7.8. Test Band = LTE_Band=12 BW=20MHz _TM1

7.8.1. Test Channel = Low Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	41.1564	-71.58	-68.22	-13.00	55.22	Vertical
2	109.5499	-81.05	-65.83	-13.00	52.83	Vertical
3	1000.0000	-81.25	-56.69	-13.00	43.69	Vertical
4	3000.0000	-66.85	-46.36	-13.00	33.36	Vertical
5	5036.8015	-56.36	-57.99	-13.00	44.99	Vertical
6	9764.7906	-60.40	-52.60	-13.00	39.60	Vertical



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7.9. Test Band = LTE_Band=12 BW=20MHz_TM1

7.9.1. Test Channel = Mid Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	41.0351	-71.86	-56.08	-13.00	43.08	Horizontal
2	167.6360	-74.94	-71.05	-13.00	58.05	Horizontal
3	379.3649	-81.33	-69.00	-13.00	56.00	Horizontal
4	2998.2498	-66.84	-46.51	-13.00	33.51	Horizontal
5	3543.7818	-39.45	-46.37	-13.00	33.37	Horizontal
6	9343.6537	-59.89	-53.22	-13.00	40.22	Horizontal

7.10. Test Band = LTE_Band=12 BW=20MHz_TM1

7.10.1. Test Channel = Mid Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	41.2777	-71.86	-68.39	-13.00	55.39	Vertical
2	118.4023	-80.56	-65.92	-13.00	52.92	Vertical
3	990.4201	-80.02	-56.38	-13.00	43.38	Vertical
4	2984.7481	-66.41	-46.15	-13.00	33.15	Vertical
5	5283.2113	-56.97	-56.22	-13.00	43.22	Vertical
6	9786.9115	-60.25	-52.73	-13.00	39.73	Vertical





7.11. Test Band = LTE_Band=12 BW=20MHz _TM1

7.11.1. Test Channel = High Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	41.2777	-72.34	-56.55	-13.00	43.55	Horizontal
2	172.3653	-73.50	-69.47	-13.00	56.47	Horizontal
3	513.3629	-80.23	-65.52	-13.00	52.52	Horizontal
4	1423.5529	-60.17	-50.72	-13.00	37.72	Horizontal
5	2844.2305	-62.35	-45.34	-13.00	32.34	Horizontal
6	9327.9731	-59.49	-52.80	-13.00	39.80	Horizontal

7.12. Test Band = LTE_Band=12 BW=20MHz _TM1

7.12.1. Test Channel = High Channel

Suspected Data List						
NO.	Freq. [MHz]	Reading [dBm]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	44.4306	-75.03	-68.80	-13.00	55.80	Vertical
2	111.4902	-80.96	-65.77	-13.00	52.77	Vertical
3	457.4597	-80.29	-67.17	-13.00	54.17	Vertical
4	998.1810	-80.41	-56.02	-13.00	43.02	Vertical
5	2978.9974	-66.31	-46.04	-13.00	33.04	Vertical
6	9866.4347	-60.28	-52.52	-13.00	39.52	Vertical

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.





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	-0.10	-0.000142	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	-0.50	-0.000710	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VH	NT	0.90	0.001278	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	-1.80	-0.002544	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	-0.50	-0.000707	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-1.10	-0.001555	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VL	NT	-1.20	-0.001688	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	-1.90	-0.002672	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-2.40	-0.003376	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VL	NT	1.00	0.001420	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VN	NT	0.00	0.000000	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VH	NT	0.90	0.001278	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VL	NT	0.00	0.000000	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VN	NT	-1.70	-0.002403	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VH	NT	0.50	0.000707	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VL	NT	-1.50	-0.002110	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VN	NT	-0.20	-0.000281	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VH	NT	-0.80	-0.001125	±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	-0.70	-0.000994	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-20	0.00	0.000000	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-10	-0.60	-0.000852	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	0	-1.10	-0.001563	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	10	-1.60	-0.002273	±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	0.50	0.000710	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	40	0.20	0.000284	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	50	0.80	0.001136	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	0.70	0.000989	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-0.20	-0.000283	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-10	-1.30	-0.001837	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	-1.10	-0.001555	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	-1.80	-0.002544	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-1.90	-0.002686	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	-1.60	-0.002261	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	-1.20	-0.001696	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	-1.80	-0.002544	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-30	-0.40	-0.000563	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	-1.20	-0.001688	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-10	-0.90	-0.001266	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-1.00	-0.001406	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	-0.50	-0.000703	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-1.60	-0.002250	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	30	-0.80	-0.001125	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	40	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	50	-1.30	-0.001828	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-30	1.30	0.001847	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-20	-1.30	-0.001847	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-10	0.30	0.000426	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	0	1.40	0.001989	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	10	-1.10	-0.001563	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	20	0.20	0.000284	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	30	-1.00	-0.001420	±2.5	PASS



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Band12	10MHz	16QAM	23060	50RB#0	NV	40	0.70	0.000994	±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	-0.60	-0.000848	±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	-10	-1.50	-0.002120	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	0	0.60	0.000848	±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	0.00	0.000000	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	30	0.40	0.000565	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	40	-1.30	-0.001837	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	50	-0.80	-0.001131	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-30	-1.60	-0.002250	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-20	-1.70	-0.002391	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-10	-0.40	-0.000563	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	0	-0.70	-0.000985	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	10	-0.80	-0.001125	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	20	-1.00	-0.001406	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	30	-0.90	-0.001266	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	40	-0.30	-0.000422	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	50	-2.20	-0.003094	±2.5	PASS



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