



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)	limit (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.98	23.93	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	24.00	23.95	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.97	23.92	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.74	23.69	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.88	23.83	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	23.82	23.77	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	23.09	23.04	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.91	23.86	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	24.03	23.98	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.98	23.93	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.81	23.76	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.88	23.83	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.87	23.82	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	23.13	23.08	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.88	23.83	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	24.01	23.96	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.98	23.93	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.70	23.65	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.78	23.73	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.80	23.75	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	23.06	23.01	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.95	22.9	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.18	22.13	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.19	22.14	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	22.58	22.53	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.88	22.83	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.82	22.77	34.77	PASS



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Band12	1.4MHz	16QAM	23017	6RB#0	21.83	21.78	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.40	22.35	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.79	22.74	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.74	22.69	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.82	22.77	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	22.79	22.74	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.96	22.91	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.95	21.9	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.01	21.96	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.24	22.19	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.18	22.13	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	22.77	22.72	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.84	22.79	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	22.89	22.84	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.88	21.83	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	24.08	24.03	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	24.15	24.1	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.83	23.78	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#4	23.12	23.07	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.98	22.93	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.96	22.91	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	23.03	22.98	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.89	23.84	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	24.17	24.12	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	24.10	24.05	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#7	23.13	23.08	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#0	23.18	23.13	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#4	23.17	23.12	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	23.10	23.05	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.84	23.79	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	24.03	23.98	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.86	23.81	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#7	23.07	23.02	34.77	PASS



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Band12	3MHz	QPSK	23165	8RB#0	23.09	23.04	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#4	23.10	23.05	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	23.09	23.04	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.16	22.11	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.61	22.56	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.29	22.24	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.88	21.83	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.83	21.78	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#7	21.80	21.75	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.90	21.85	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	22.84	22.79	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	23.26	23.21	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.02	21.97	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#0	22.18	22.13	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#7	22.34	22.29	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#4	22.20	22.15	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	22.23	22.18	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	23.05	23	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	23.22	23.17	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	23.09	23.04	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.91	21.86	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#4	22.24	22.19	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#7	22.42	22.37	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	22.12	22.07	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.76	23.71	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.85	23.8	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.90	23.85	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#13	23.05	23	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.96	22.91	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#0	23.00	22.95	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	23.01	22.96	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.86	23.81	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	24.25	24.2	34.77	PASS



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Band12	5MHz	QPSK	23095	1RB#24	24.05	24	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#0	23.20	23.15	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#6	23.20	23.15	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#13	23.21	23.16	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	23.12	23.07	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.70	23.65	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.93	23.88	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.86	23.81	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#0	23.04	22.99	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#6	23.13	23.08	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#13	23.02	22.97	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	23.05	23	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.06	22.01	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.98	22.93	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.61	22.56	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#0	21.91	21.86	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.94	21.89	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.89	21.84	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	22.00	21.95	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.97	22.92	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	23.15	23.1	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.23	22.18	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#0	22.05	22	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#6	22.07	22.02	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#13	22.08	22.03	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	22.17	22.12	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.62	22.57	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	23.07	23.02	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.95	22.9	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#0	22.00	21.95	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#6	22.01	21.96	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#13	22.09	22.04	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	22.13	22.08	34.77	PASS



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Band12	10MHz	QPSK	23060	1RB#0	23.77	23.72	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	24.17	24.12	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.99	23.94	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#12	23.02	22.97	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#0	23.27	23.22	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#25	23.23	23.18	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	23.15	23.1	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.71	23.66	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	24.19	24.14	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.91	23.86	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#0	23.24	23.19	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#12	23.17	23.12	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#25	23.22	23.17	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	23.09	23.04	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.82	23.77	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	24.04	23.99	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.80	23.75	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#12	23.23	23.18	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#0	23.23	23.18	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#25	23.21	23.16	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	23.26	23.21	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	23.02	22.97	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	23.12	23.07	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.96	22.91	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#0	22.00	21.95	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#12	22.32	22.27	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#25	22.27	22.22	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	22.24	22.19	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.59	22.54	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	23.72	23.67	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.88	22.83	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#0	22.13	22.08	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#12	22.14	22.09	34.77	PASS



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Band12	10MHz	16QAM	23095	25RB#25	22.17	22.12	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	22.11	22.06	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.81	22.76	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.82	22.77	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.92	22.87	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#25	22.15	22.1	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#12	22.13	22.08	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#0	22.22	22.17	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	22.20	22.15	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]



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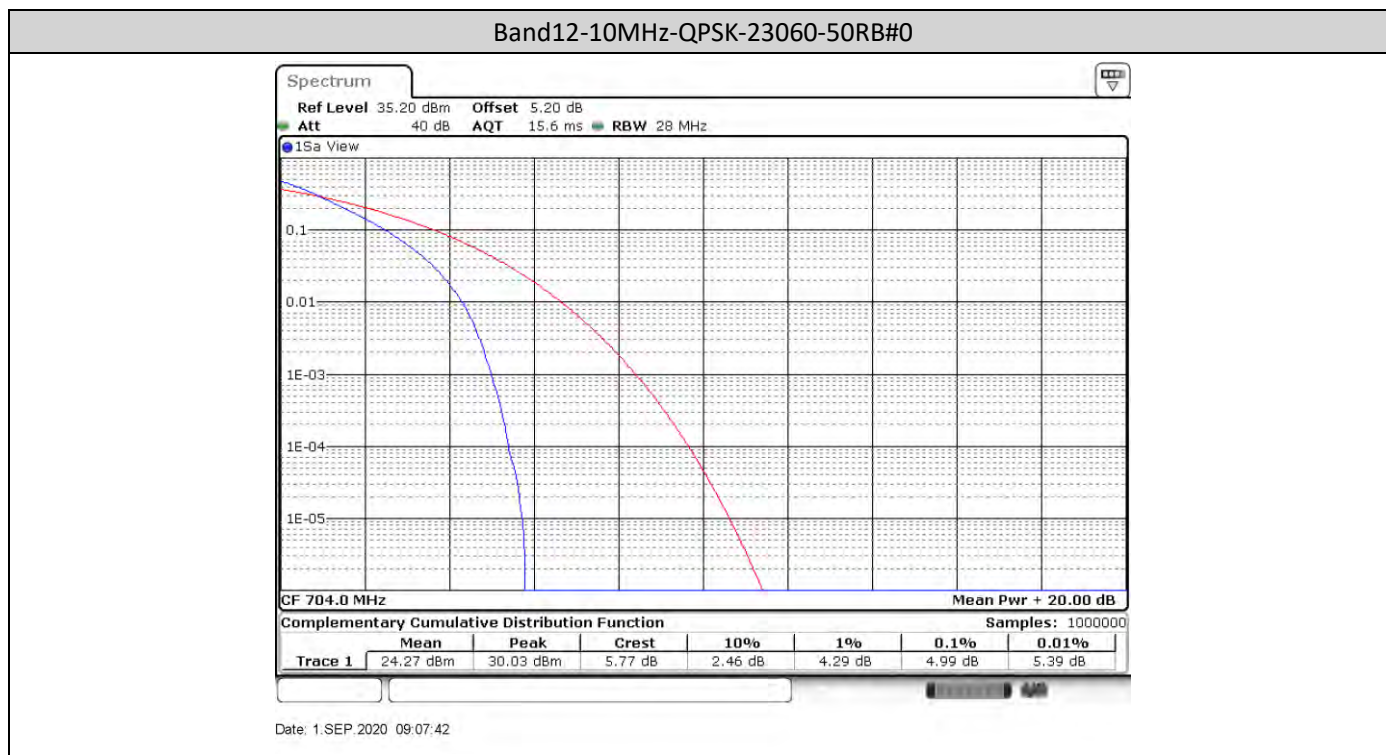


2. Peak-to-Average Ratio (CCDF)

2.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	4.99	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.13	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.22	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	5.91	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	5.91	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.00	13	PASS

2.2. Test Plots

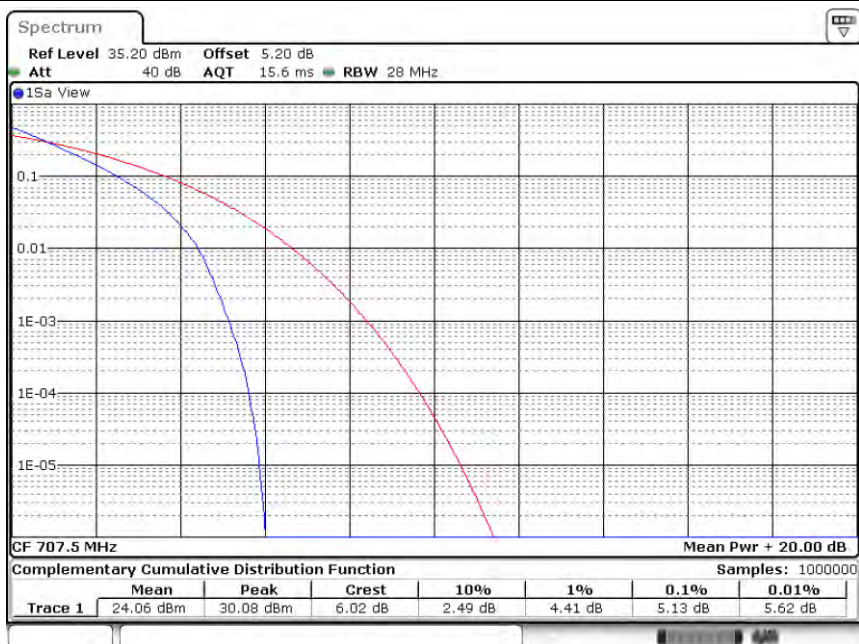


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Band12-10MHz-QPSK-23095-50RB#0



Date: 1.SEP.2020 09:08:05

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



Date: 1.SEP.2020 09:08:27

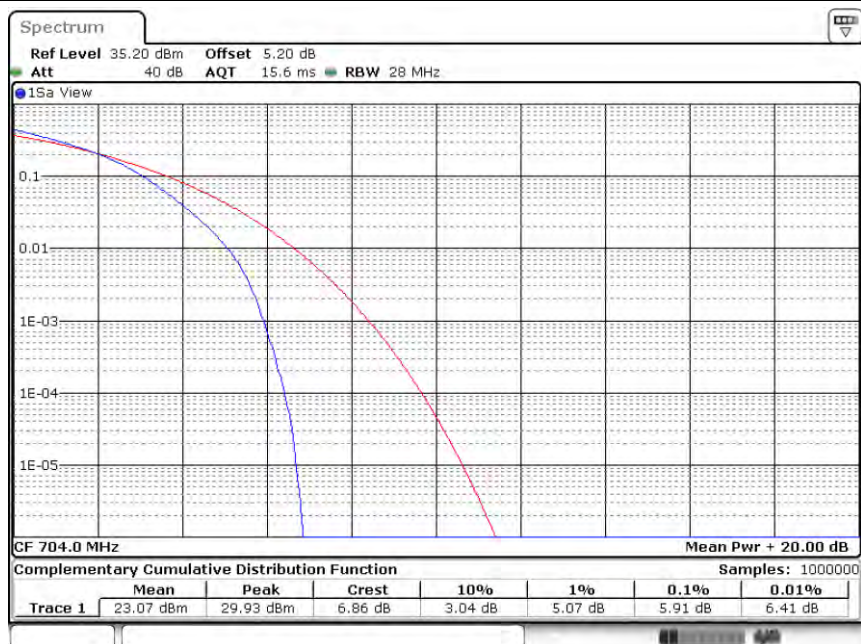


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Band12-10MHz-16QAM-23060-50RB#0



Date: 1.SEP 2020 09:07:53

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



Date: 1.SEP 2020 09:08:16

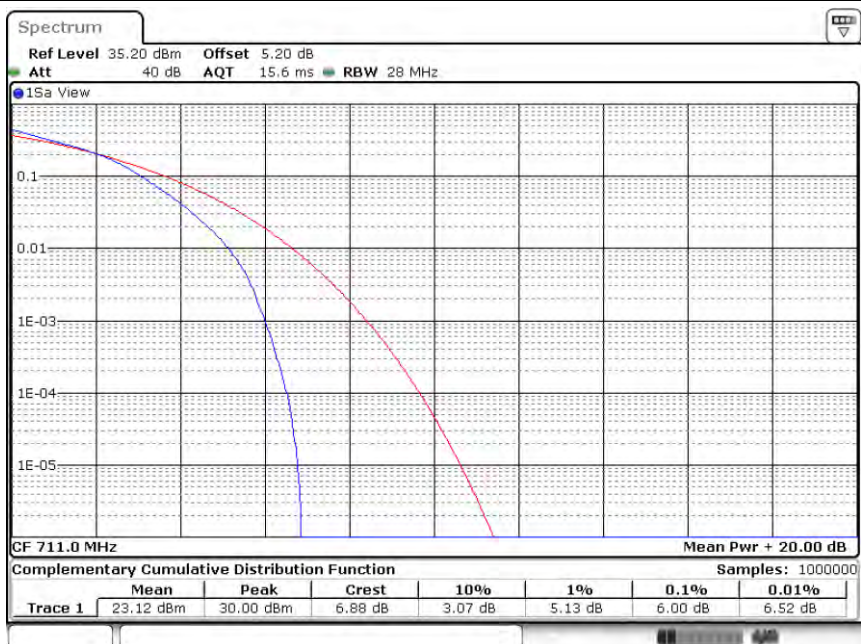


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Band12-10MHz-16QAM-23130-50RB#0



Date: 1.SEP.2020 09:08:39

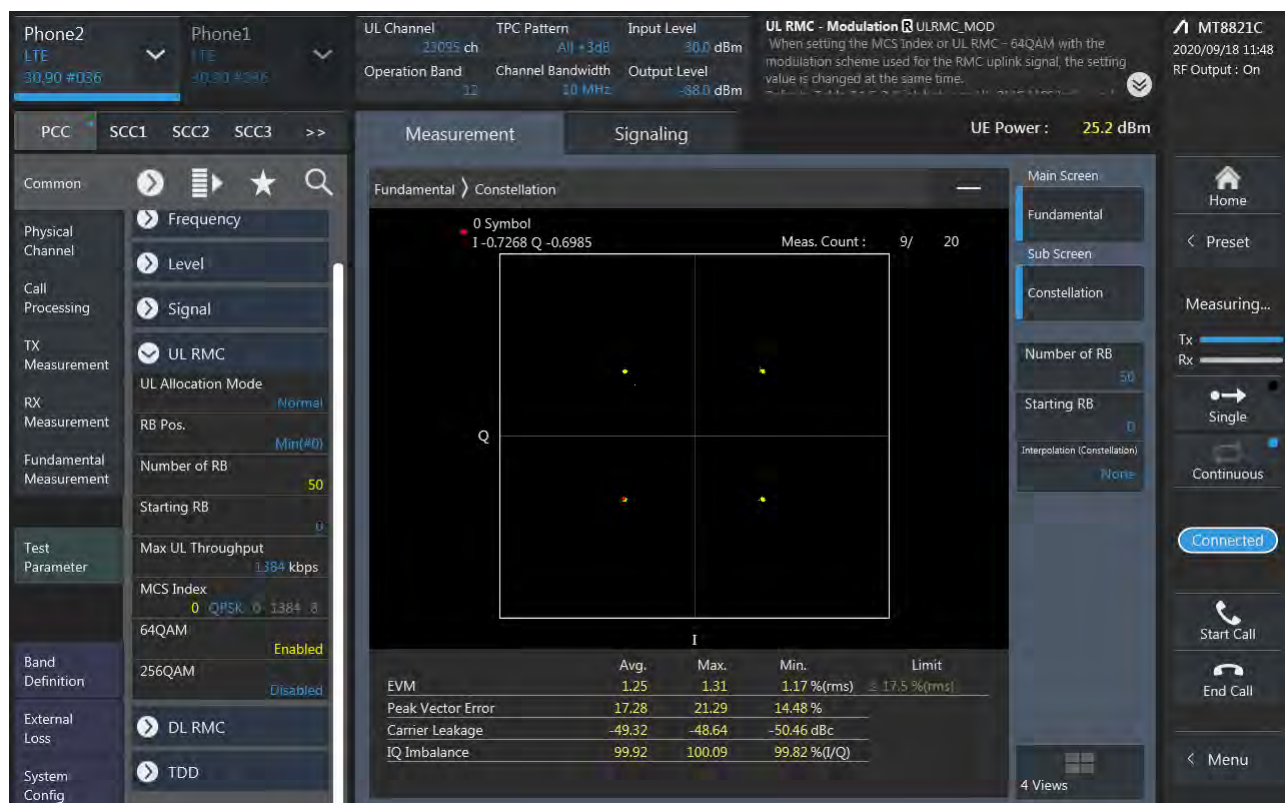




3. Modulation Characteristics

3.1. Test Mode = LTE /TM1 10MHz

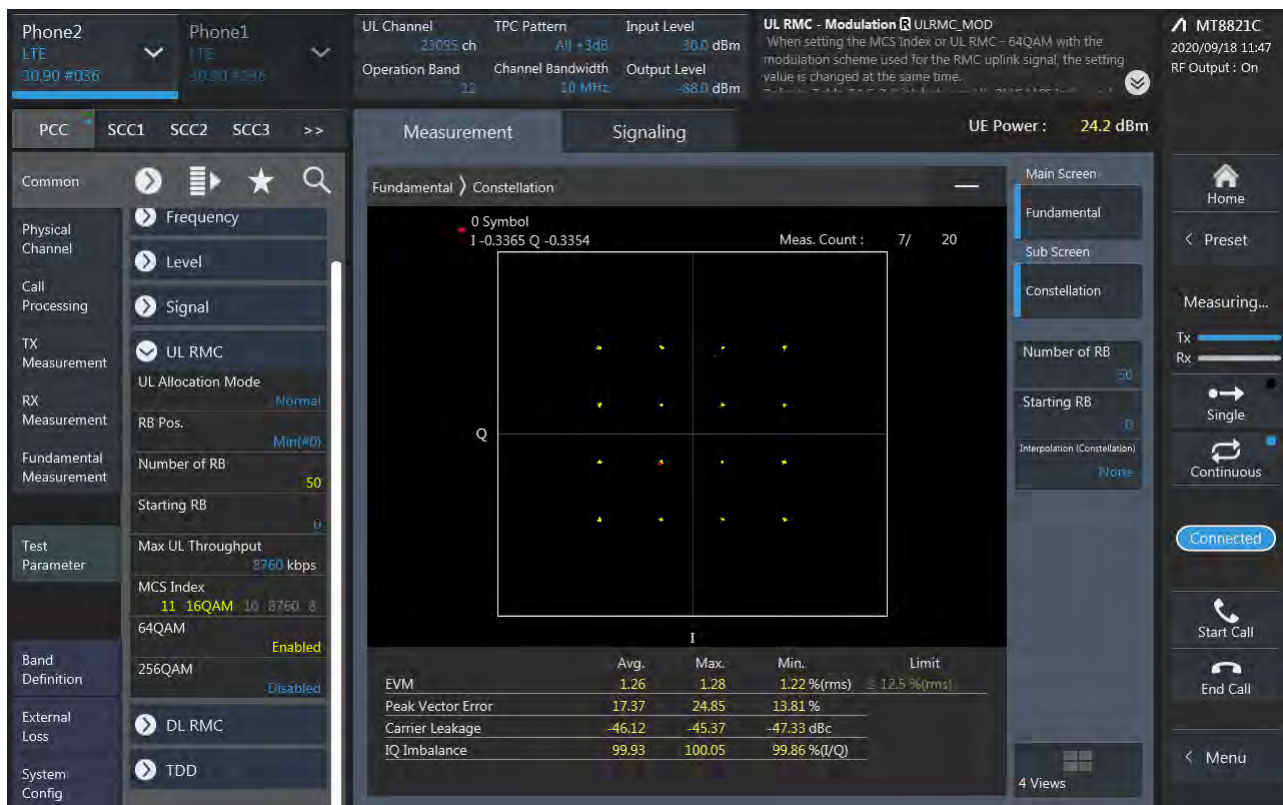
3.1.1. Test Channel = MCH





3.2. Test Mode = LTE /TM2 10MHz

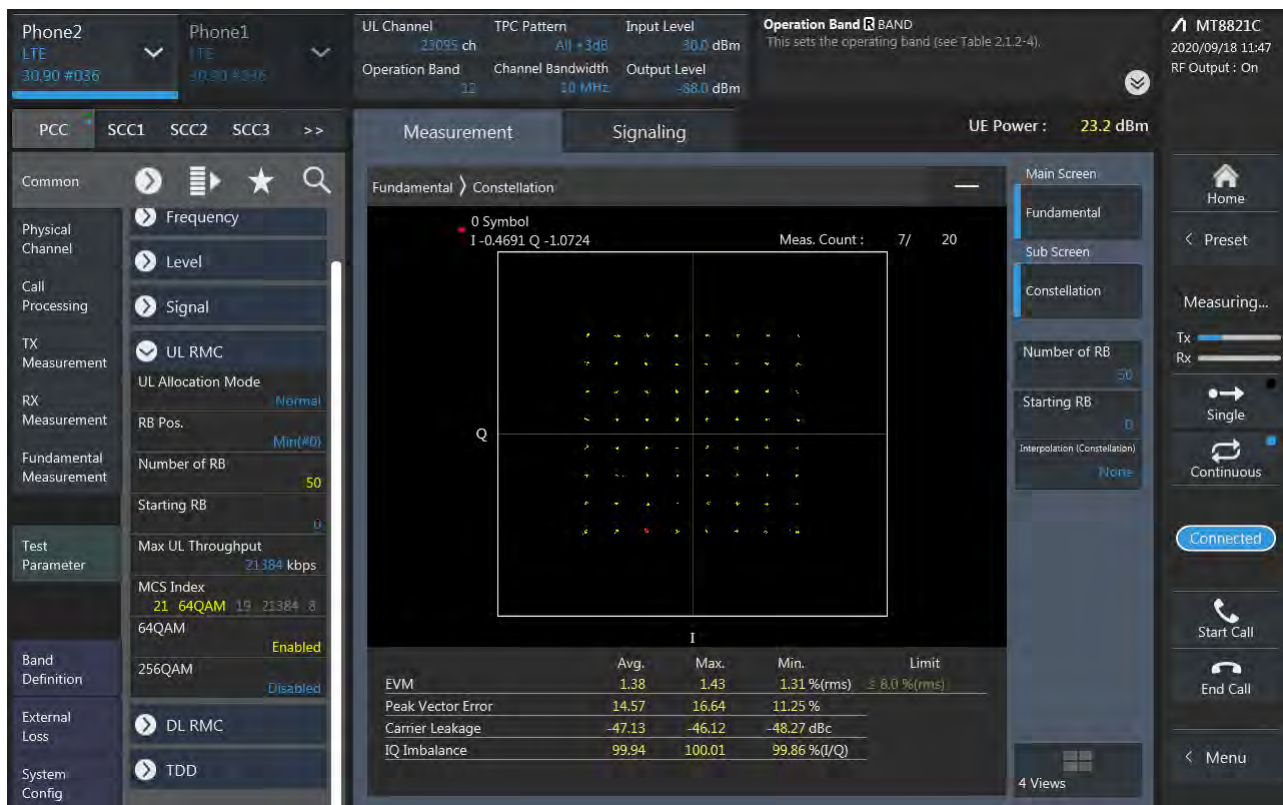
3.2.1. Test Channel = MCH





3.3. Test Mode = LTE /TM3 10MHz

3.3.1. Test Channel = MCH





4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

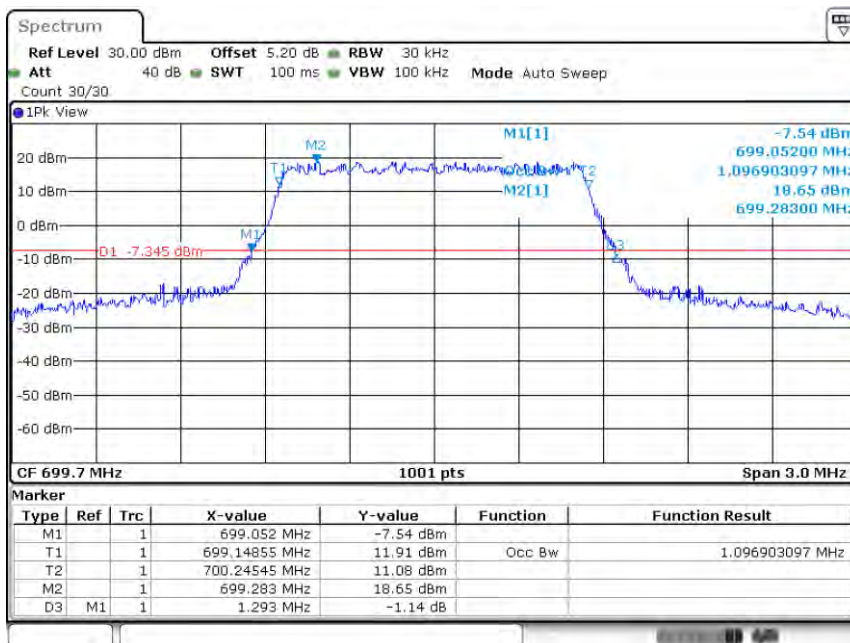
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.097	1.293	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.088	1.293	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.097	1.287	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.091	1.287	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.088	1.281	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.088	1.293	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.697	2.988	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.697	3.000	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.697	2.994	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.685	2.976	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.691	2.964	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.685	2.976	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.466	4.920	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.476	4.940	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.476	4.920	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.486	4.940	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.486	4.920	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.476	4.930	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.911	9.700	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.891	9.620	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.911	9.760	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.891	9.700	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.911	9.700	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.911	9.740	PASS





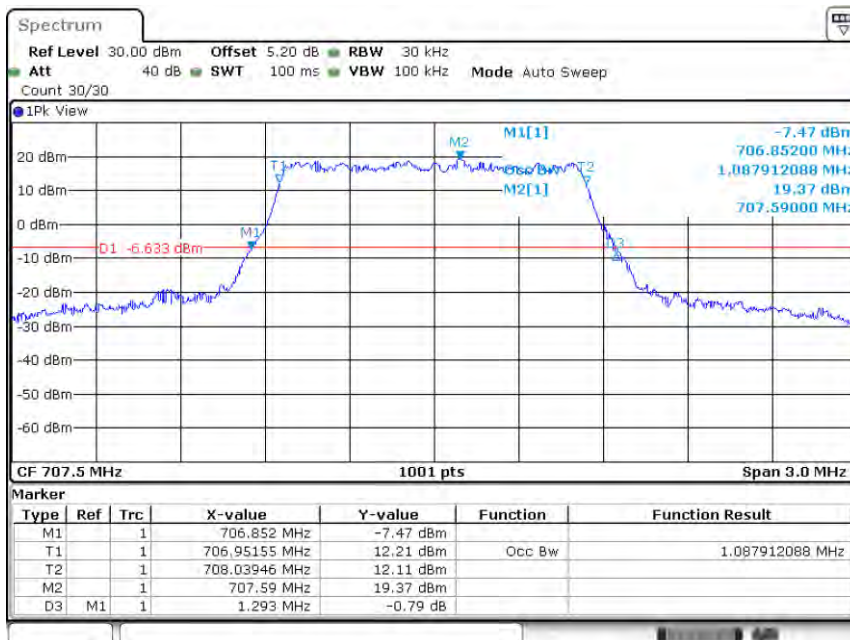
4.2. Test Plots

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



Date: 1.SEP.2020 08:41:16

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



Date: 1.SEP.2020 08:41:42

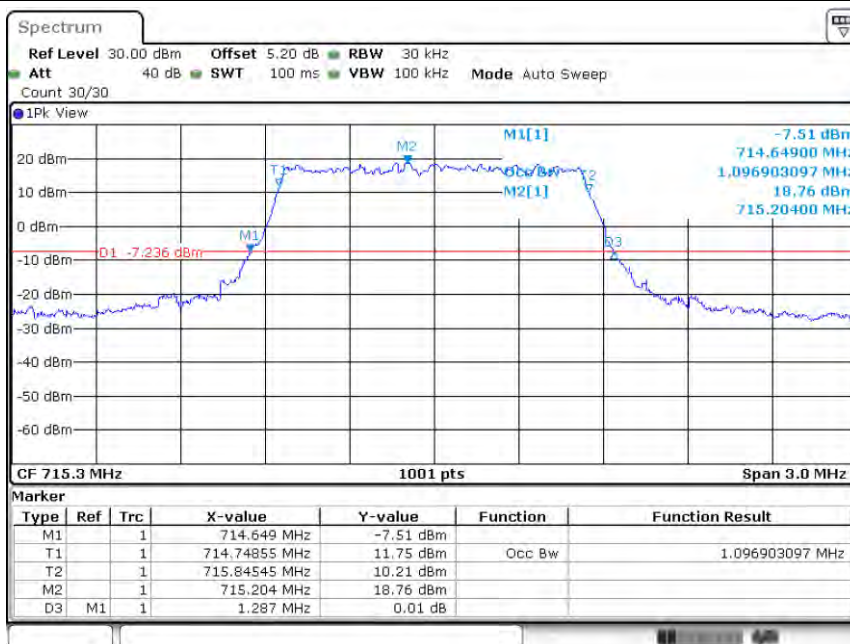


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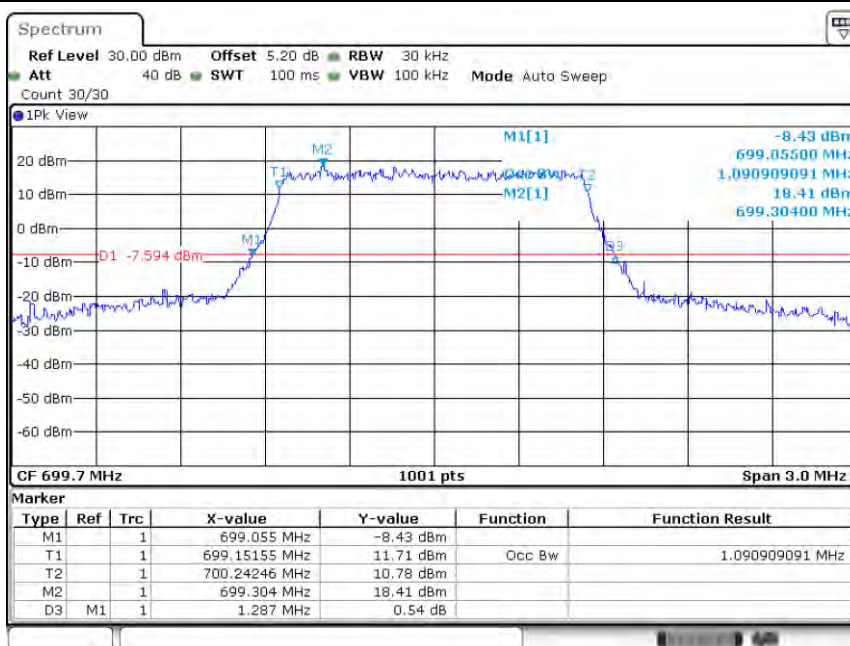


Band12-1.4MHz-QPSK-23173-6RB#0-1.097



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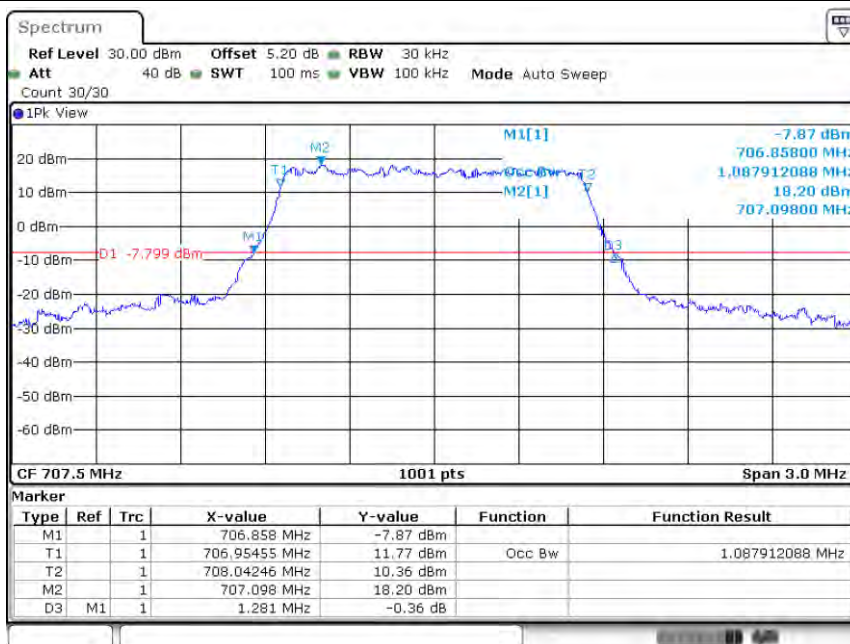
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Date: 1.SEP.2020 08:41:29

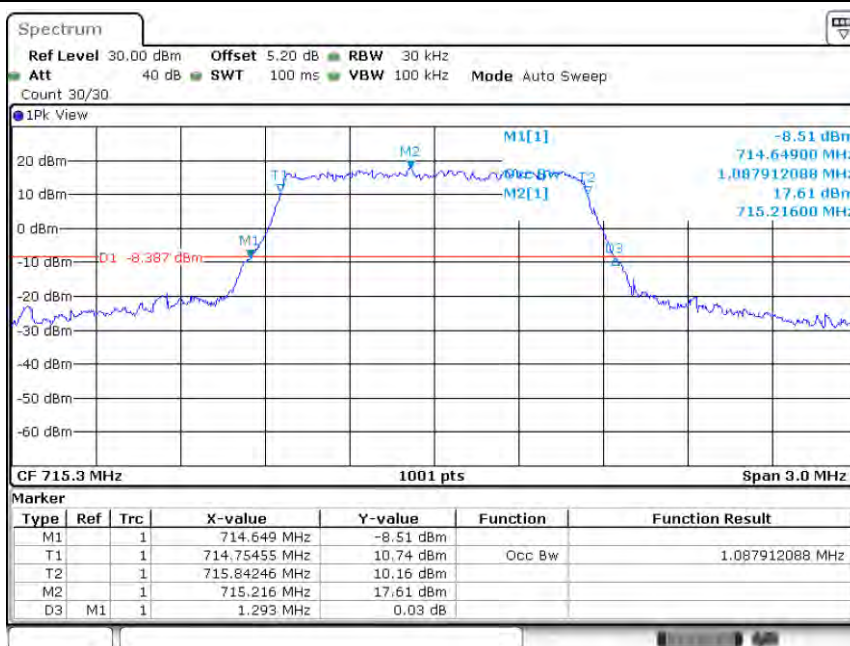


Band12-1.4MHz-16QAM-23095-6RB#0-1.088



Date: 1 SEP 2020 08:41:54

Band12-1.4MHz-16QAM-23173-6RB#0-1.088



Date: 1 SEP 2020 08:42:20



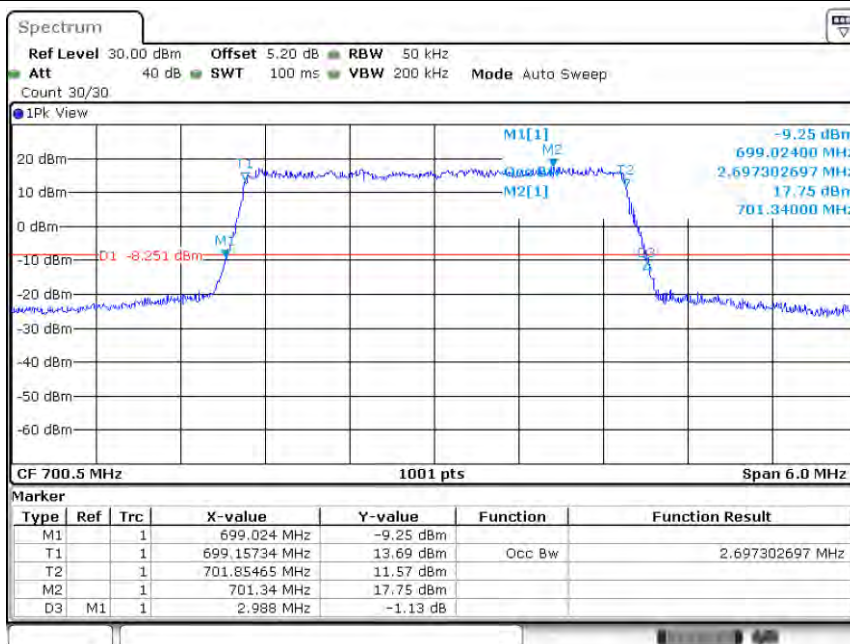
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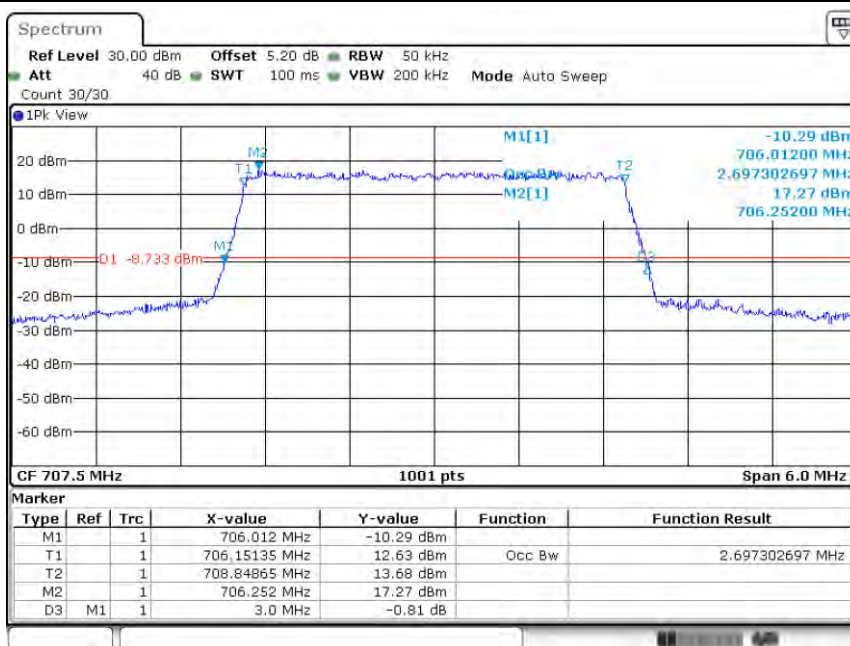


Band12-3MHz-QPSK-23025-15RB#0-2.697



Date: 1.SEP.2020 08:42:38

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



Date: 1.SEP.2020 08:43:03

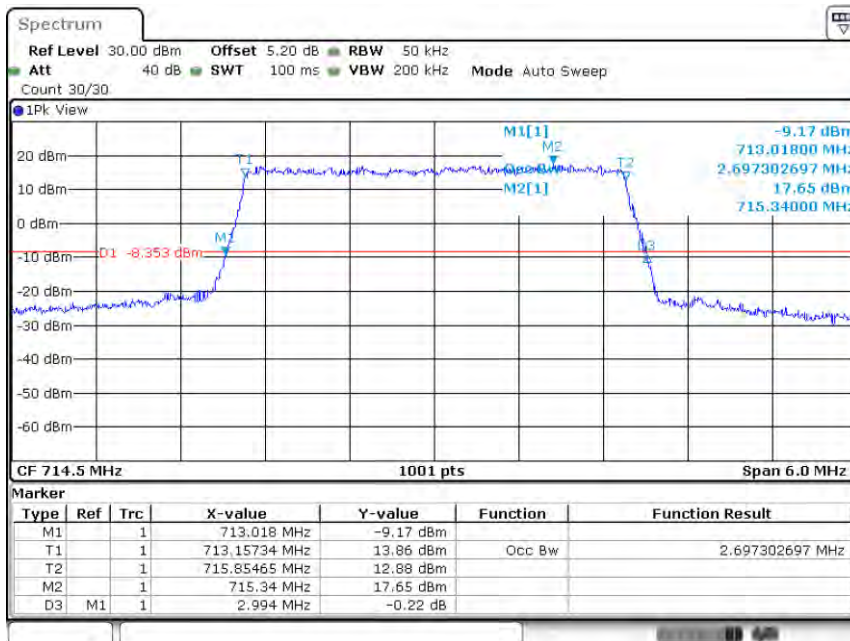


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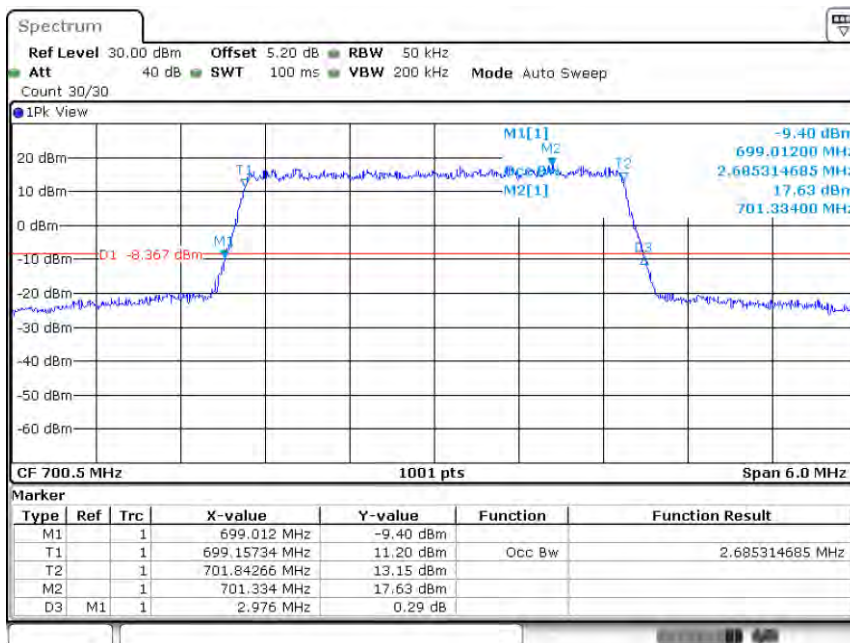
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Band12-3MHz-QPSK-23165-15RB#0-2.697



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

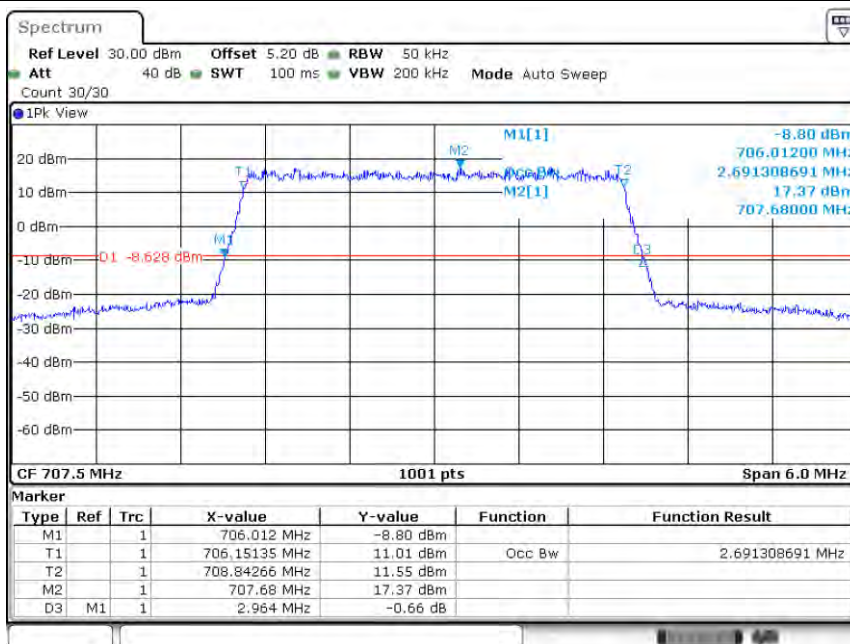


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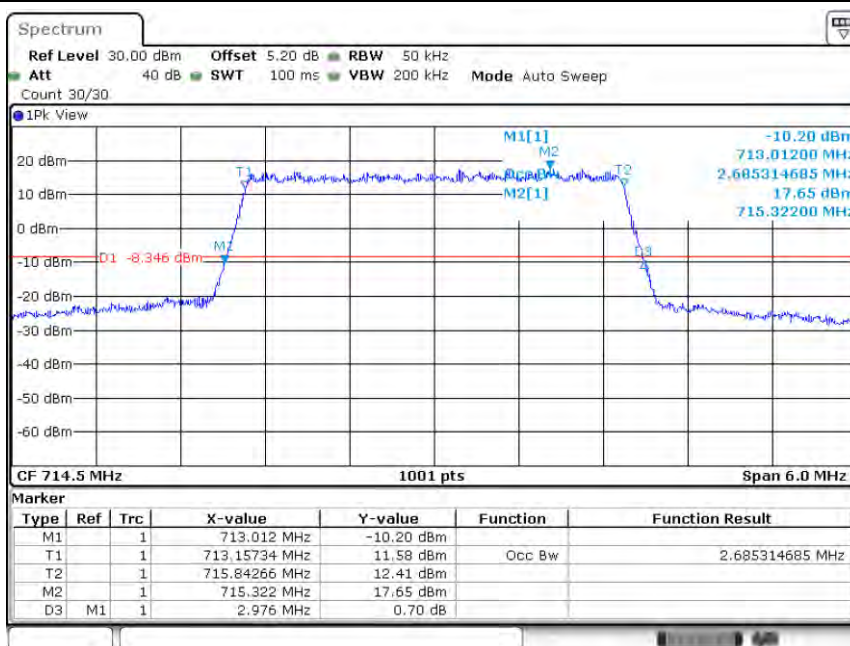


Band12-3MHz-16QAM-23095-15RB#0-2.691



Date: 1.SEP.2020 08:43:16

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



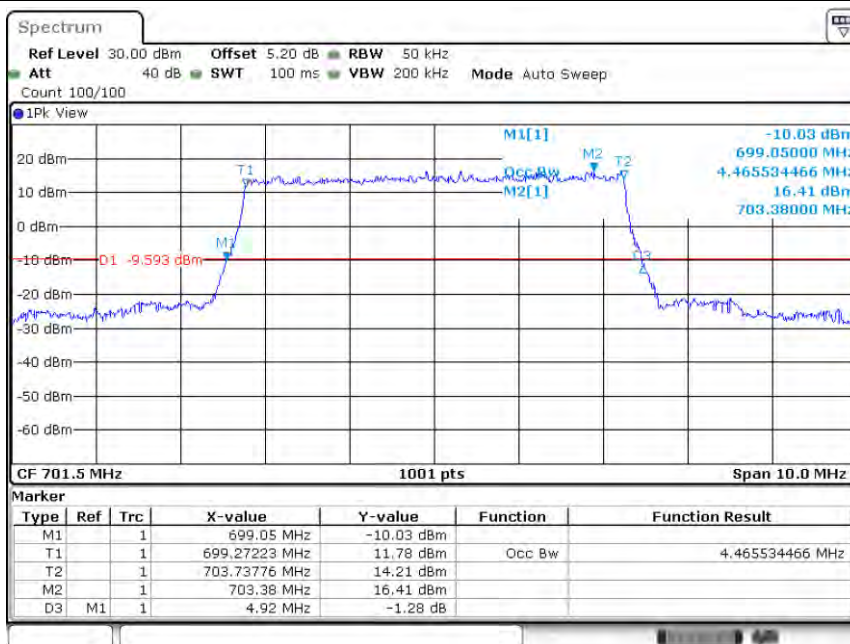
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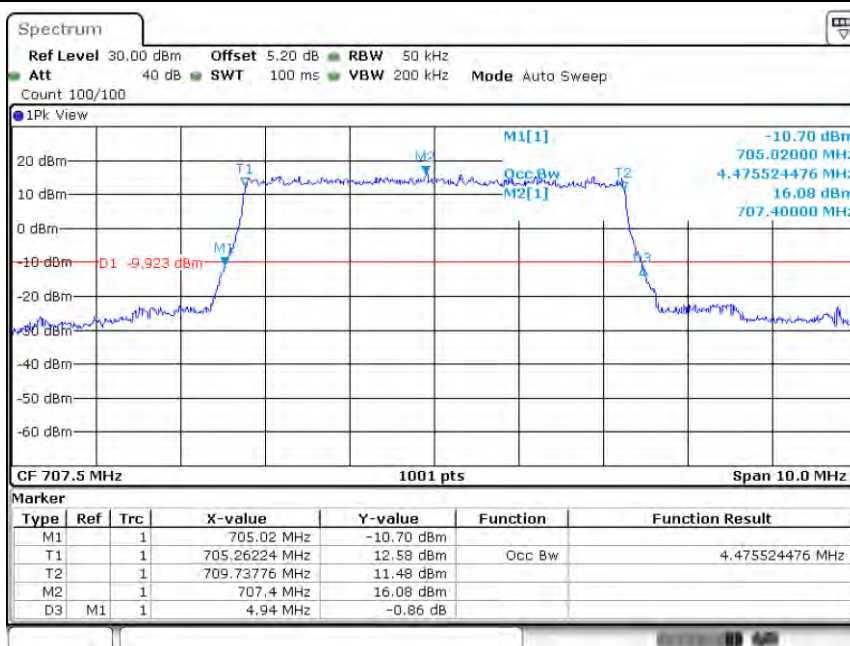
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Band12-5MHz-QPSK-23035-25RB#0-4.466



Date: 1.SEP.2020 08:44:06

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



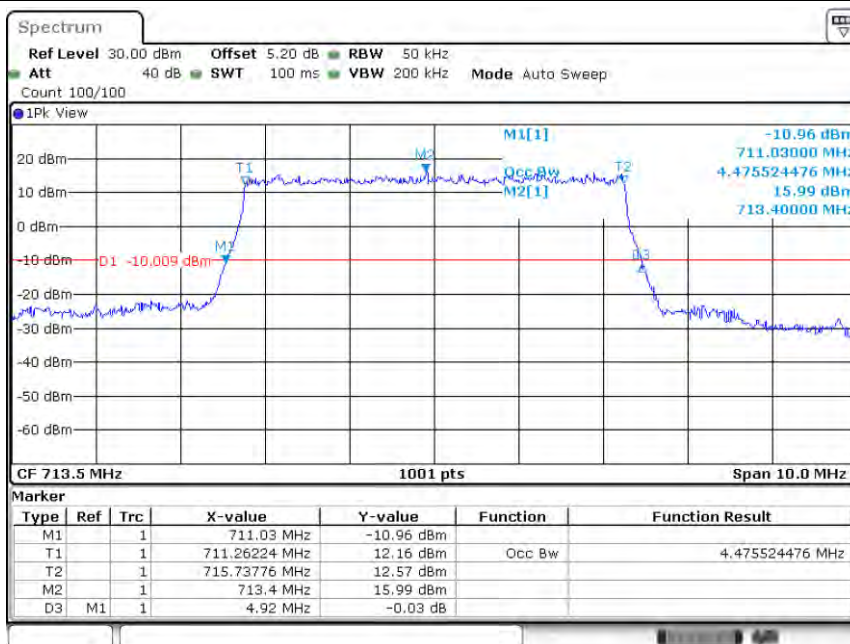
Date: 1.SEP.2020 08:44:46



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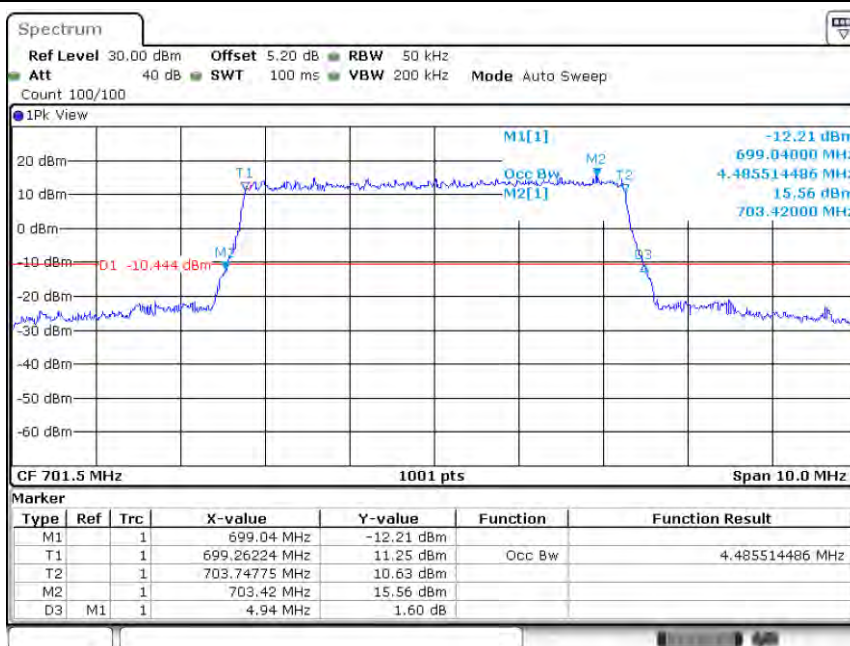
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Band12-5MHz-QPSK-23155-25RB#0-4.476



Date: 1 SEP 2020 08:45:25

Band12-5MHz-16QAM-23035-25RB#0-4.486



Date: 1 SEP 2020 08:44:26



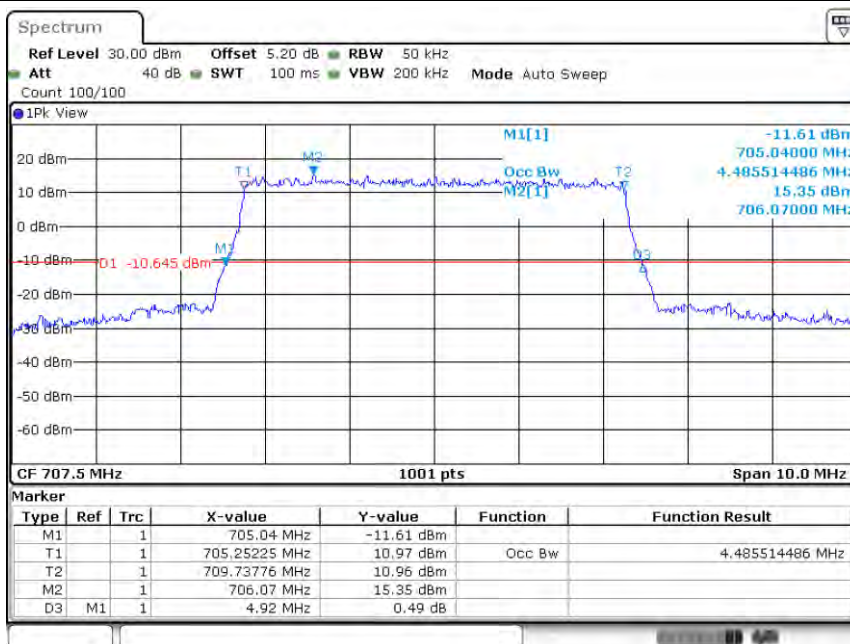
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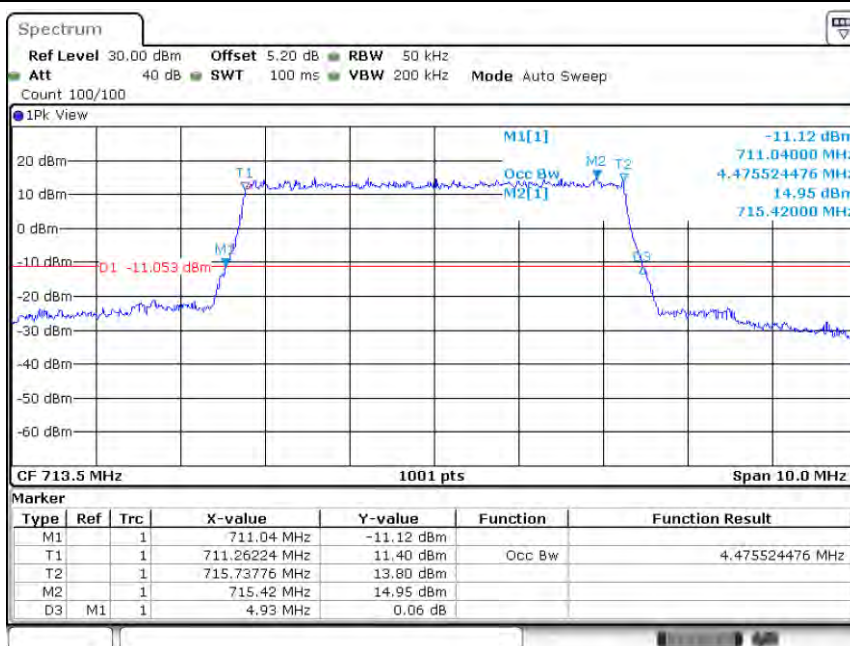


Band12-5MHz-16QAM-23095-25RB#0-4.486



Date: 1.SEP.2020 08:45:05

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

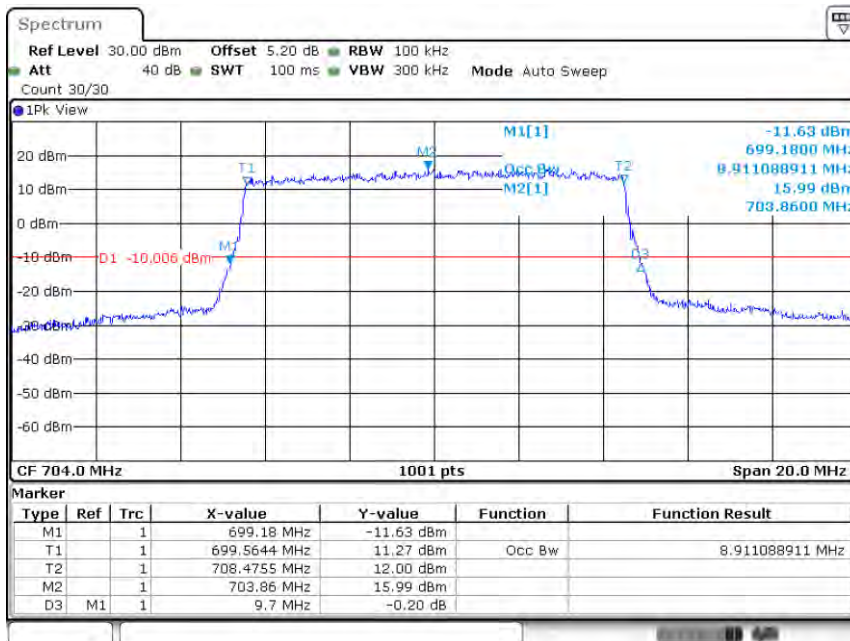


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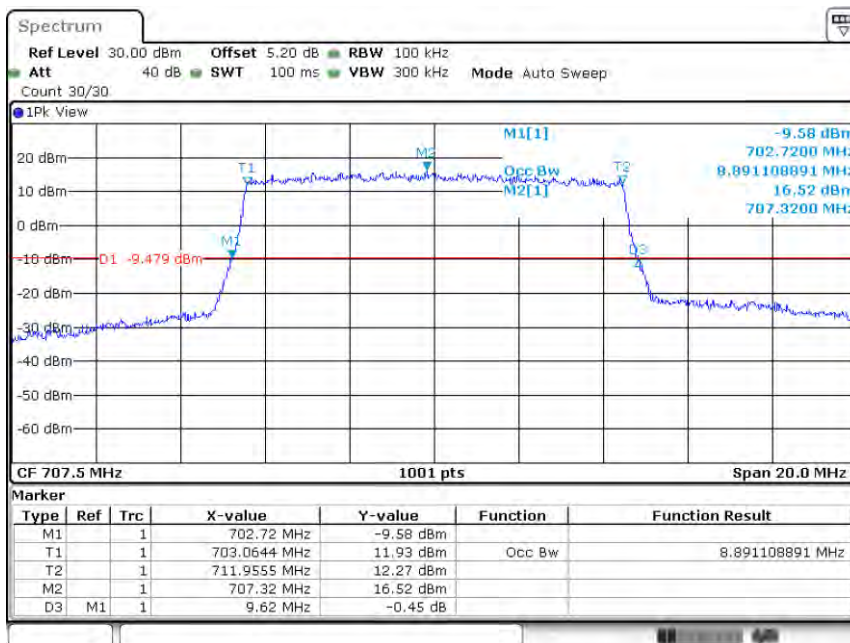


Band12-10MHz-QPSK-23060-50RB#0-8.911



Date: 1.SEP.2020 08:46:02

Band12-10MHz-QPSK-23095-50RB#0-8.891



Date: 1.SEP.2020 08:46:28



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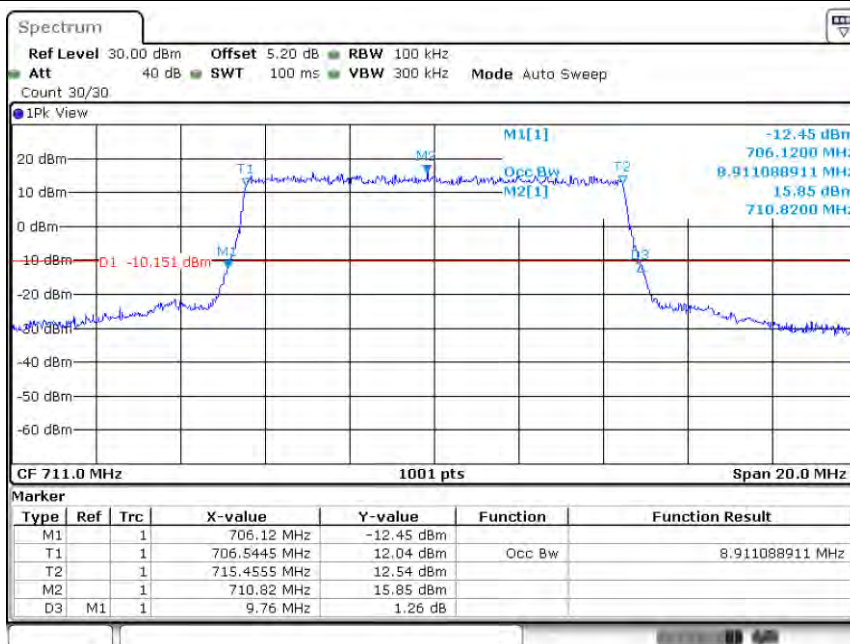
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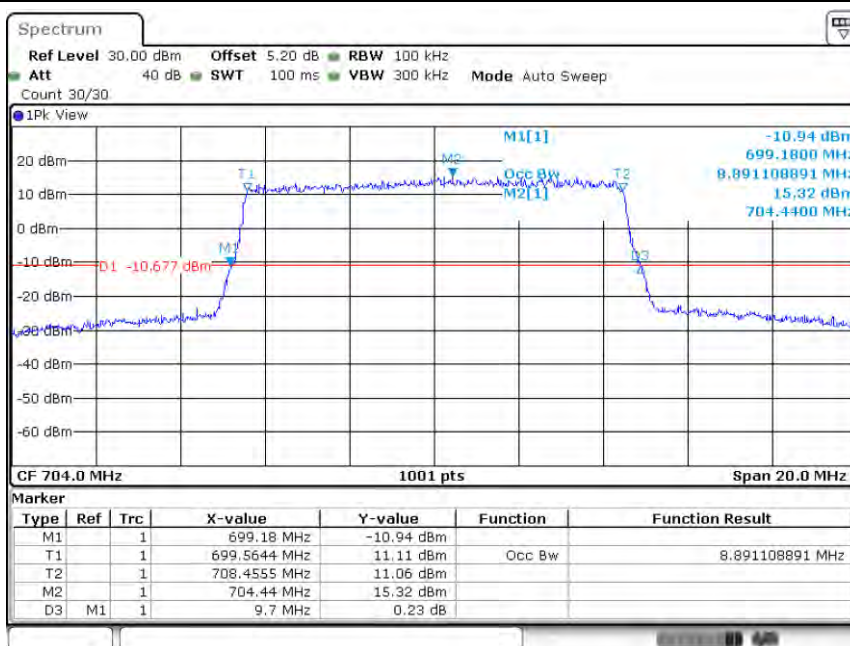


Band12-10MHz-QPSK-23130-50RB#0-8.911



Date: 1.SEP.2020 08:46:54

Band12-10MHz-16QAM-23060-50RB#0-8.891



Date: 1.SEP.2020 08:46:15

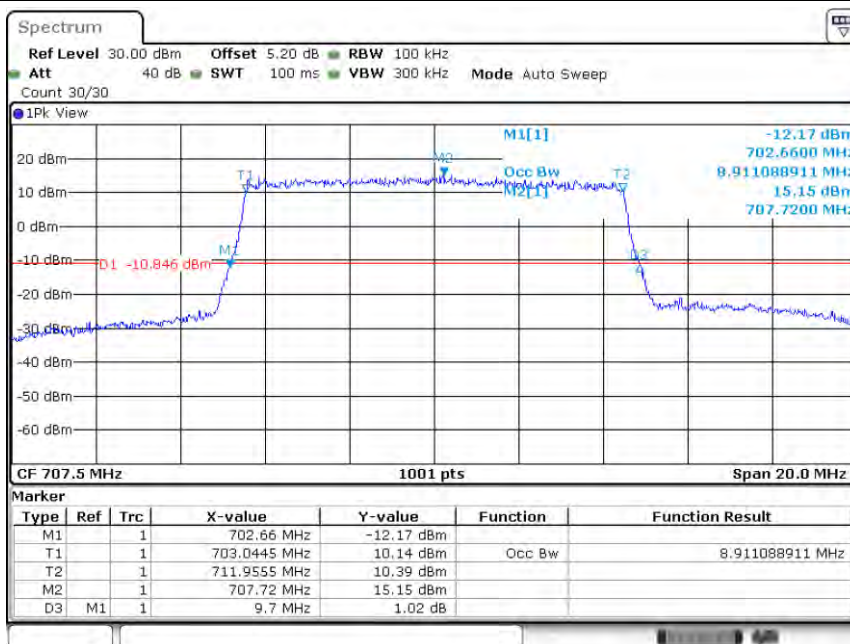


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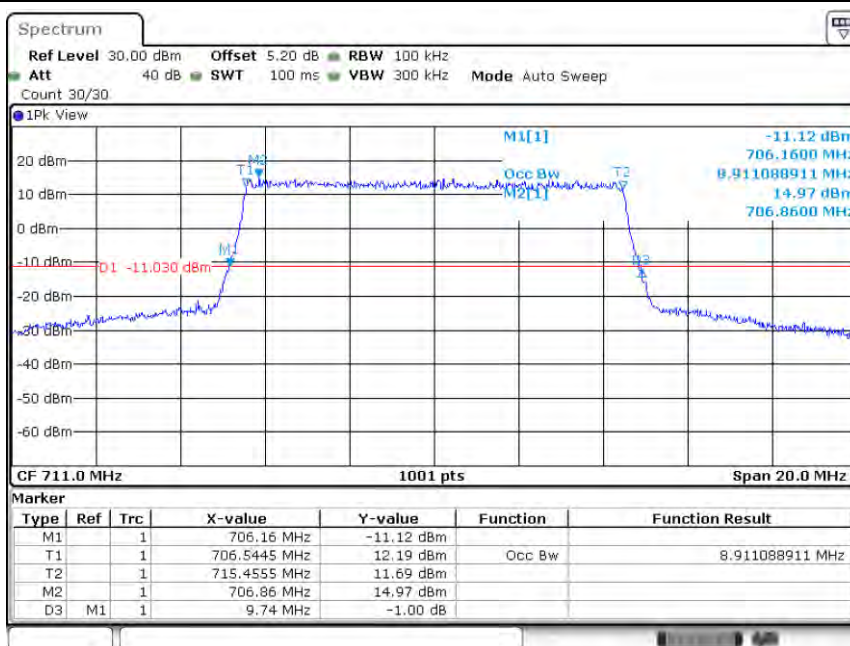


Band12-10MHz-16QAM-23095-50RB#0-8.911



Date: 1.SEP.2020 08:46:41

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



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5. Band Edge Compliance

5.1. Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	-19.74	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	-25.48	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	-19.45	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	-25.78	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	-22.03	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	-25.50	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	-22.02	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	-26.30	PASS
Band12	3MHz	QPSK	23025	1RB#0	-16.96	PASS
Band12	3MHz	QPSK	23025	15RB#0	-24.59	PASS
Band12	3MHz	QPSK	23165	1RB#14	-15.80	PASS
Band12	3MHz	QPSK	23165	15RB#0	-24.07	PASS
Band12	3MHz	16QAM	23025	1RB#0	-17.34	PASS
Band12	3MHz	16QAM	23025	15RB#0	-25.26	PASS
Band12	3MHz	16QAM	23165	1RB#14	-18.68	PASS
Band12	3MHz	16QAM	23165	15RB#0	-24.95	PASS
Band12	5MHz	QPSK	23035	1RB#0	-20.46	PASS
Band12	5MHz	QPSK	23035	25RB#0	-27.54	PASS
Band12	5MHz	QPSK	23155	1RB#24	-21.19	PASS
Band12	5MHz	QPSK	23155	25RB#0	-27.80	PASS
Band12	5MHz	16QAM	23035	1RB#0	-21.72	PASS
Band12	5MHz	16QAM	23035	25RB#0	-27.90	PASS
Band12	5MHz	16QAM	23155	1RB#24	-22.44	PASS
Band12	5MHz	16QAM	23155	25RB#0	-28.17	PASS
Band12	10MHz	QPSK	23060	1RB#0	-31.53	PASS
Band12	10MHz	QPSK	23060	50RB#0	-30.76	PASS
Band12	10MHz	QPSK	23130	1RB#49	-31.19	PASS
Band12	10MHz	QPSK	23130	50RB#0	-29.37	PASS
Band12	10MHz	16QAM	23060	1RB#0	-31.54	PASS
Band12	10MHz	16QAM	23060	50RB#0	-31.62	PASS
Band12	10MHz	16QAM	23130	1RB#49	-33.24	PASS
Band12	10MHz	16QAM	23130	50RB#0	-30.34	PASS



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5.2. Test Plots

Band12-1.4MHz-QPSK-23017-1RB#0



Date: 1.SEP.2020 08:47:32

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



Date: 1.SEP.2020 08:48:13



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



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



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



Date: 1.SEP.2020 08:47:52

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



Date: 1.SEP.2020 08:48:34





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



Date: 1.SEP.2020 08:49:19

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



Date: 1.SEP.2020 08:50:00

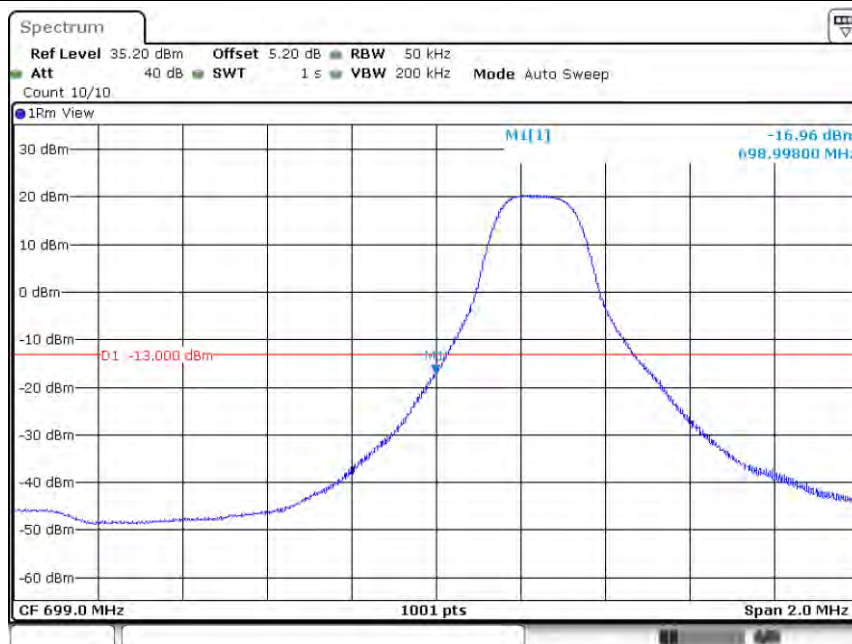


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Band12-3MHz-QPSK-23025-1RB#0



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



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



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Date: 1.SEP.2020 08:50:46

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



Date: 1.SEP.2020 08:51:27



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



Date: 1.SEP.2020 08:52:13

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



Date: 1.SEP.2020 08:52:54



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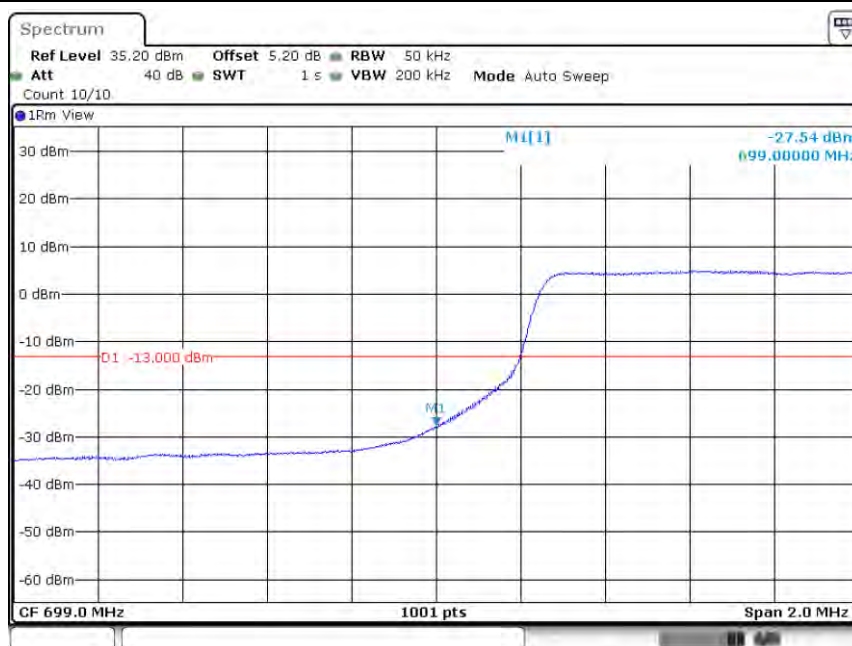
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Band12-5MHz-QPSK-23035-1RB#0



Date: 1.SEP.2020 08:53:19

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



Date: 1.SEP.2020 08:54:00

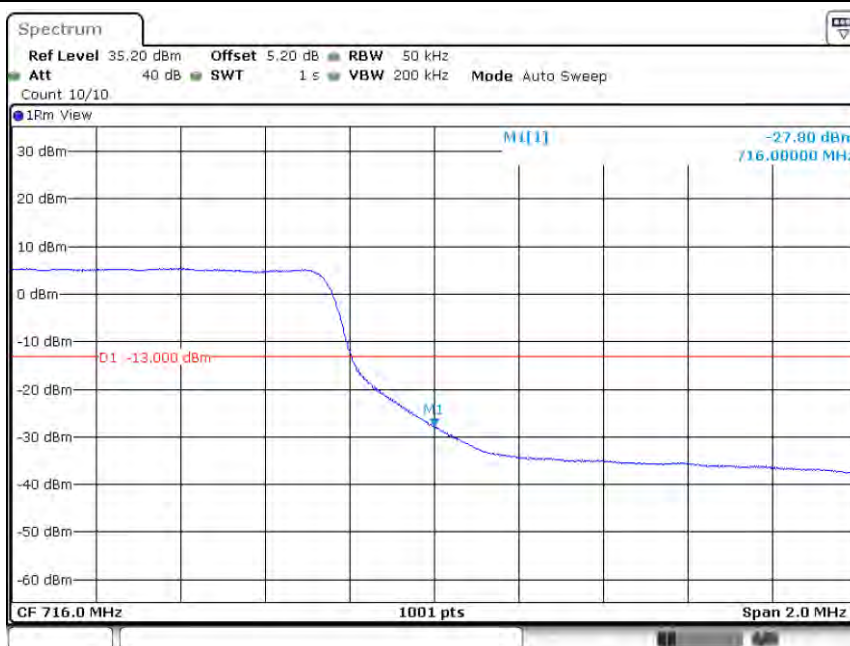


Band12-5MHz-QPSK-23155-1RB#24



Date: 1.SEP.2020 08:54:46

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



Date: 1.SEP.2020 08:55:27



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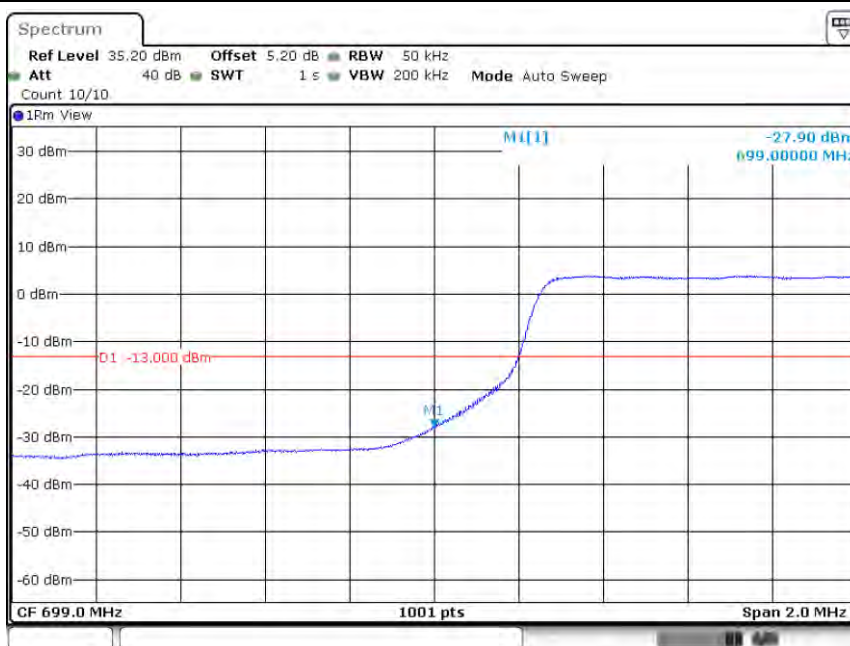


Band12-5MHz-16QAM-23035-1RB#0



Date: 1.SEP.2020 08:53:40

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



Date: 1.SEP.2020 08:54:21



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



Date: 1.SEP.2020 08:55:06

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



Date: 1.SEP.2020 08:55:47



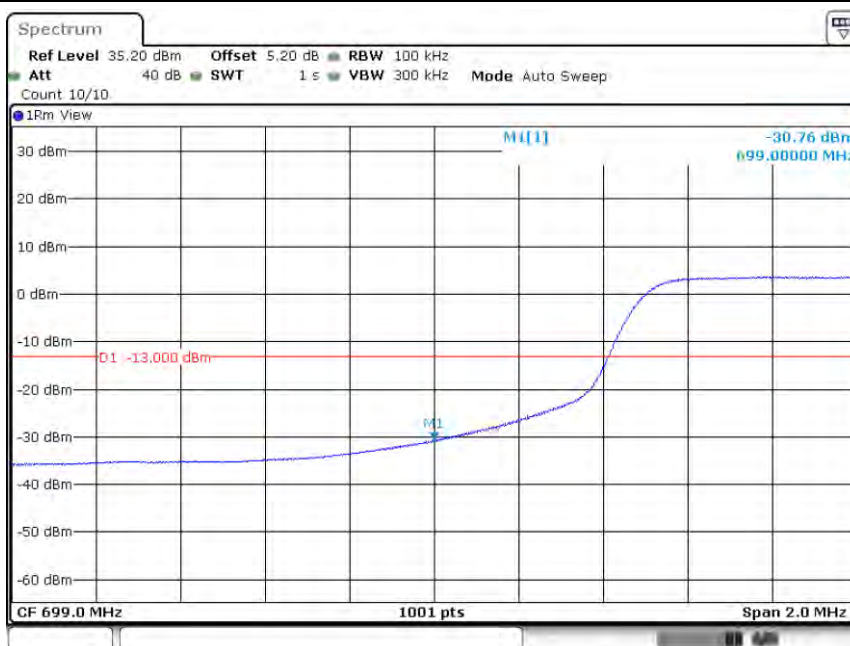


Band12-10MHz-QPSK-23060-1RB#0



Date: 1.SEP.2020 08:56:13

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



Date: 1.SEP.2020 08:56:54



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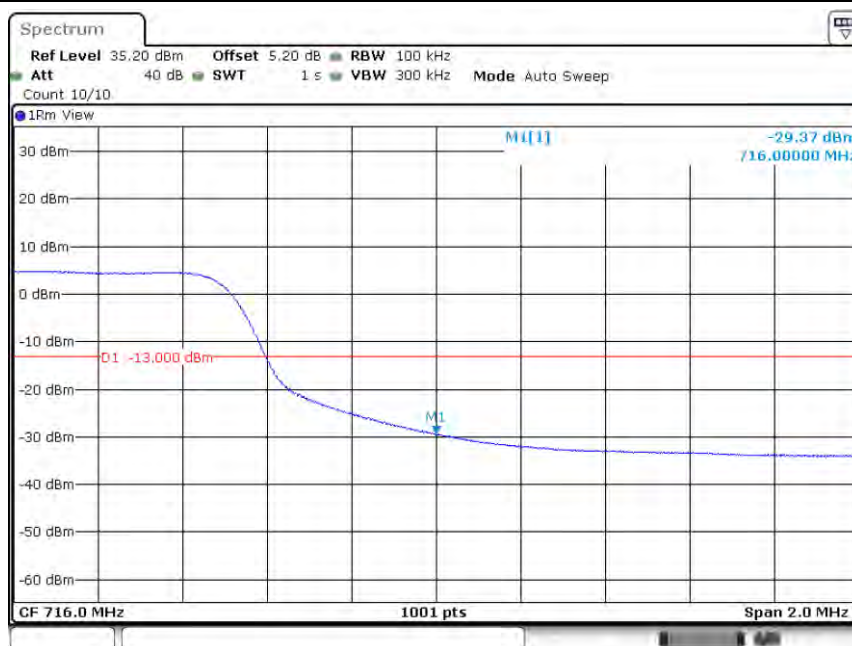


Band12-10MHz-QPSK-23130-1RB#49



Date: 1.SEP.2020 08:57:39

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



Date: 1.SEP.2020 08:58:20



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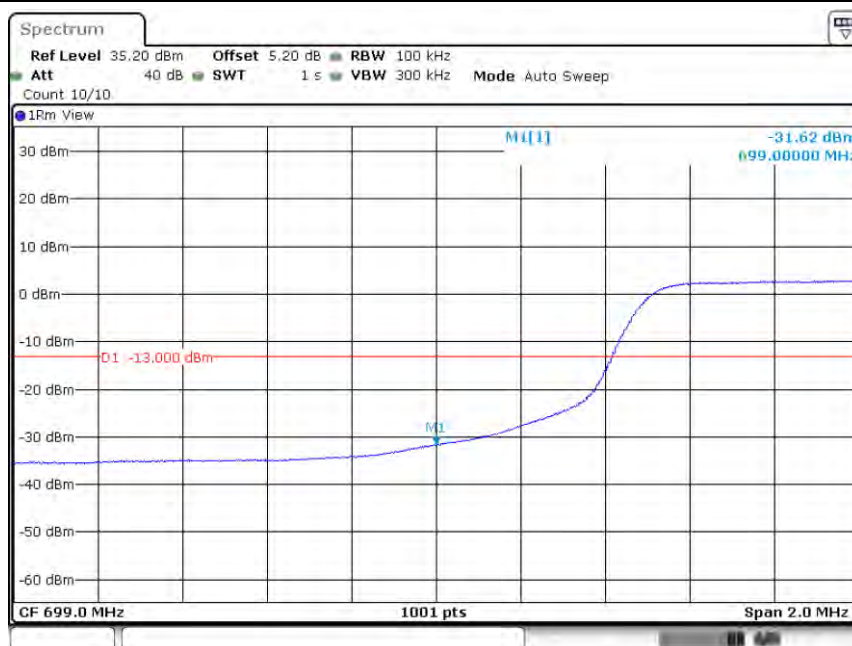


Band12-10MHz-16QAM-23060-1RB#0



Date: 1.SEP.2020 08:56:33

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



Date: 1.SEP.2020 08:57:14



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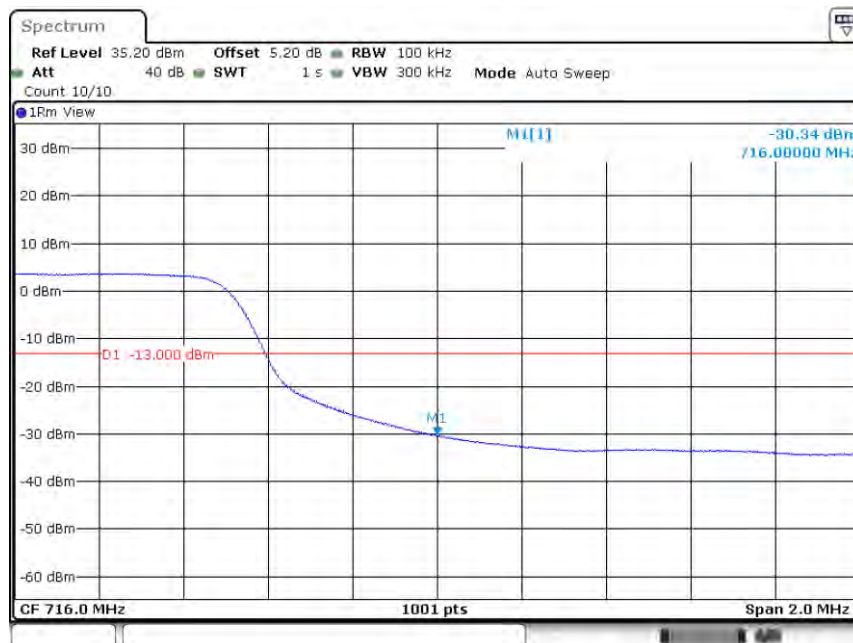


Band12-10MHz-16QAM-23130-1RB#49



Date: 1.SEP.2020 08:58:00

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



Date: 1.SEP.2020 08:58:41



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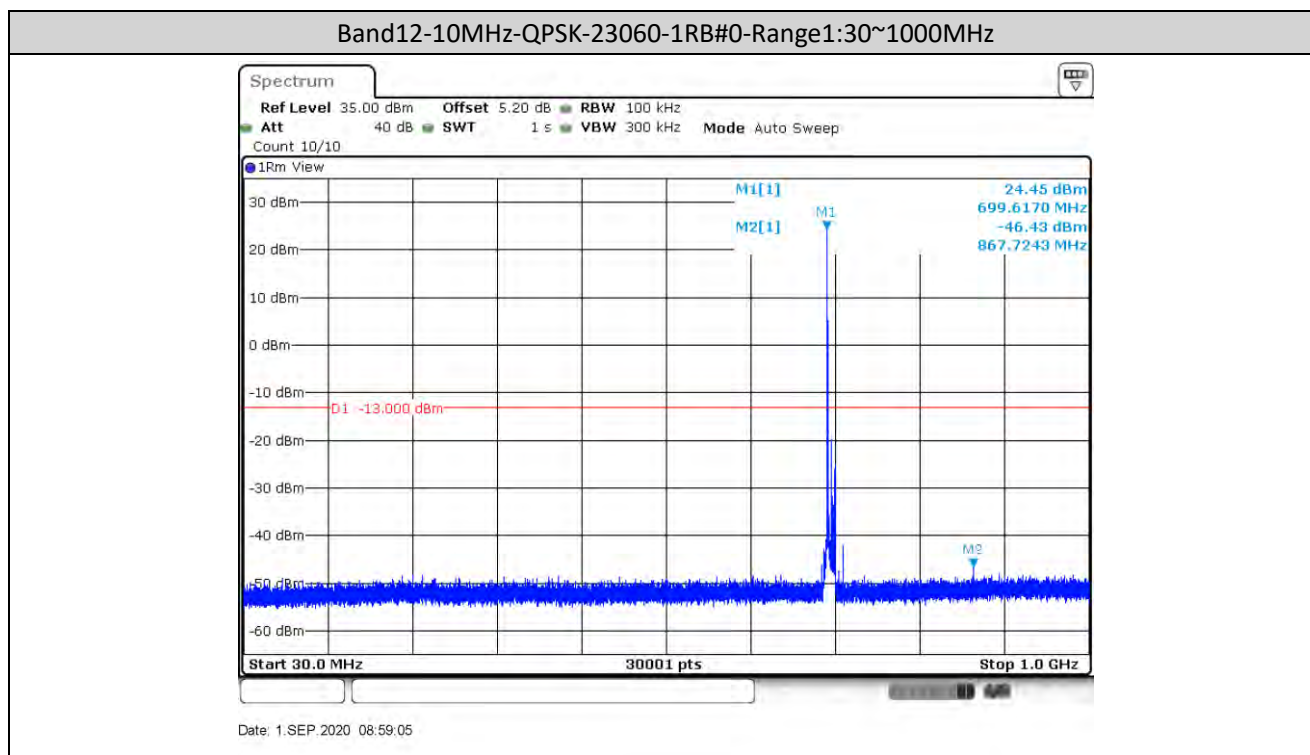


6. Spurious Emission at Antenna Terminal

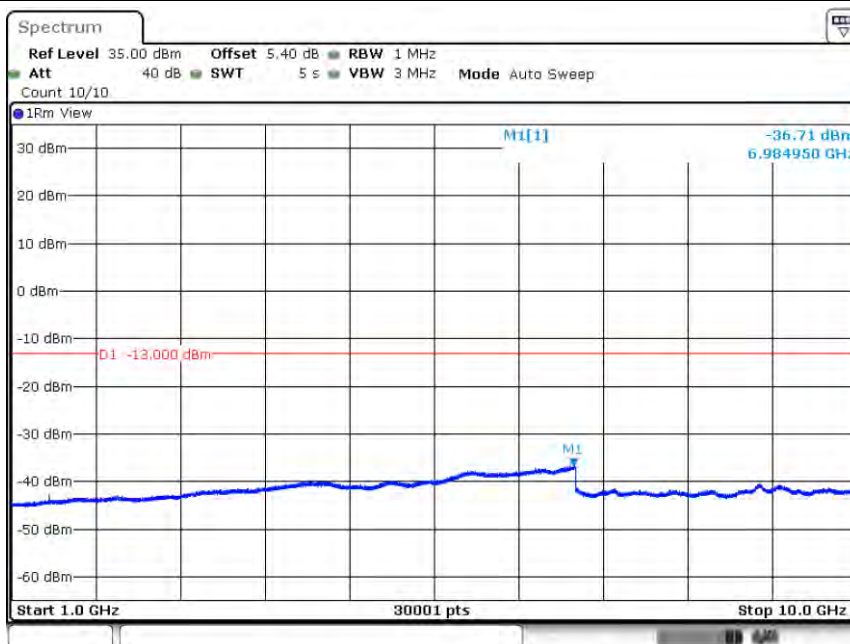
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =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

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

6.1. Test Plots

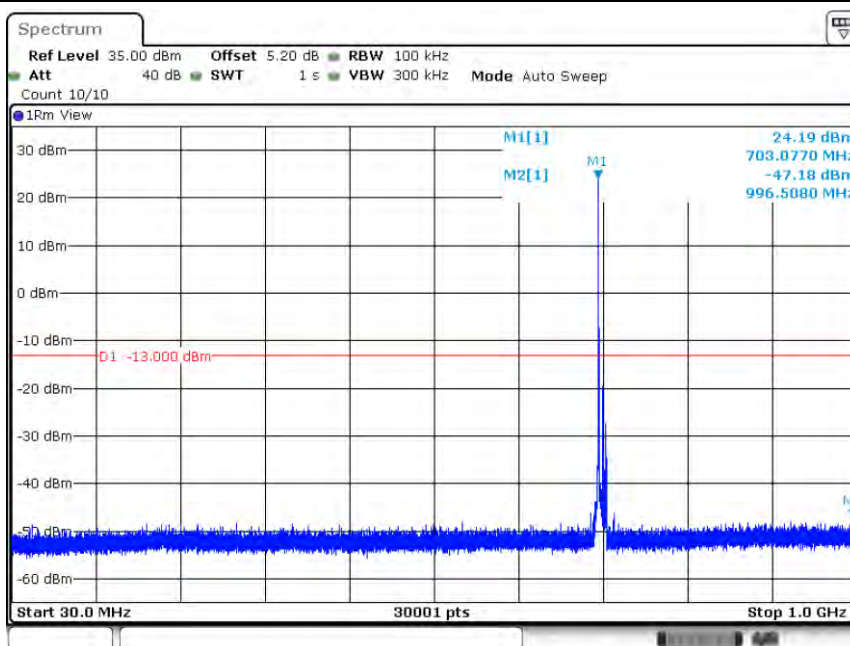


Band12-10MHz-QPSK-23060-1RB#0-Range1:1000~10000MHz



Date: 1.SEP.2020 21:51:17

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



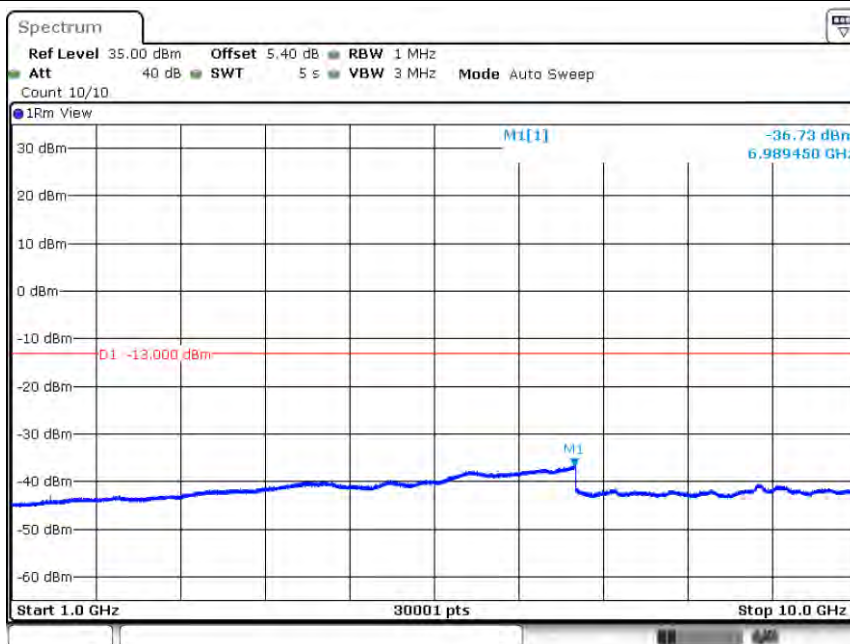
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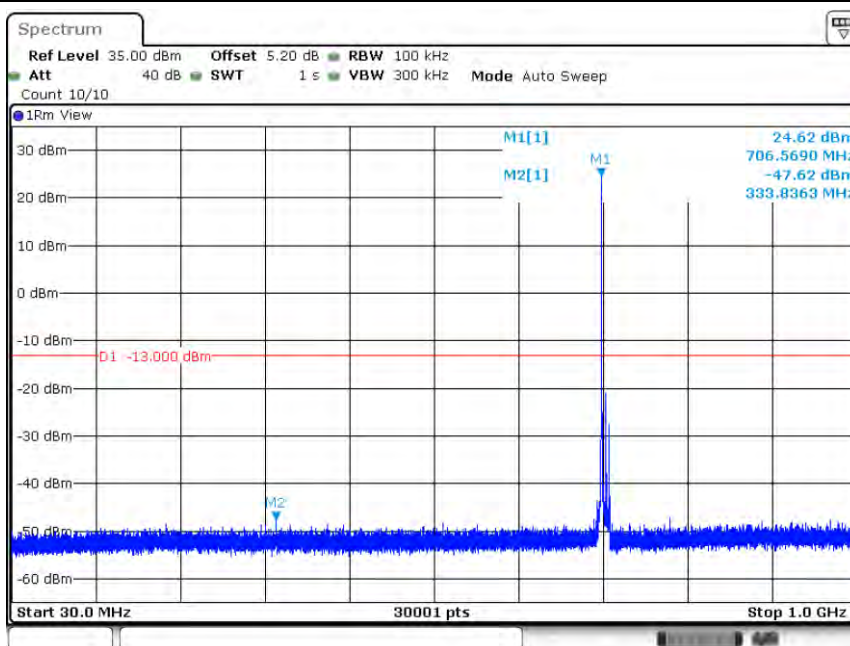
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Band12-10MHz-QPSK-23095-1RB#0-Range1:1000~10000MHz



Date: 1.SEP.2020 21:53:39

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



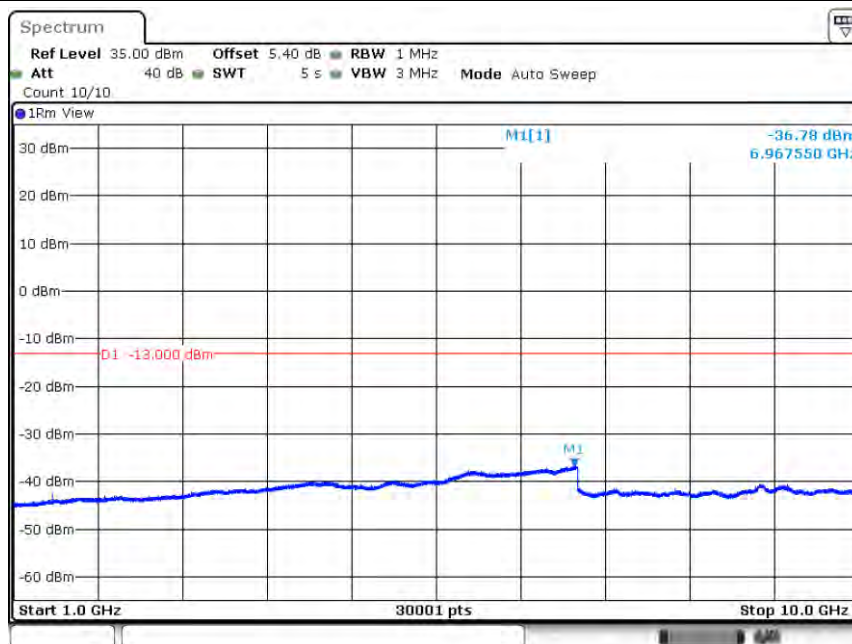
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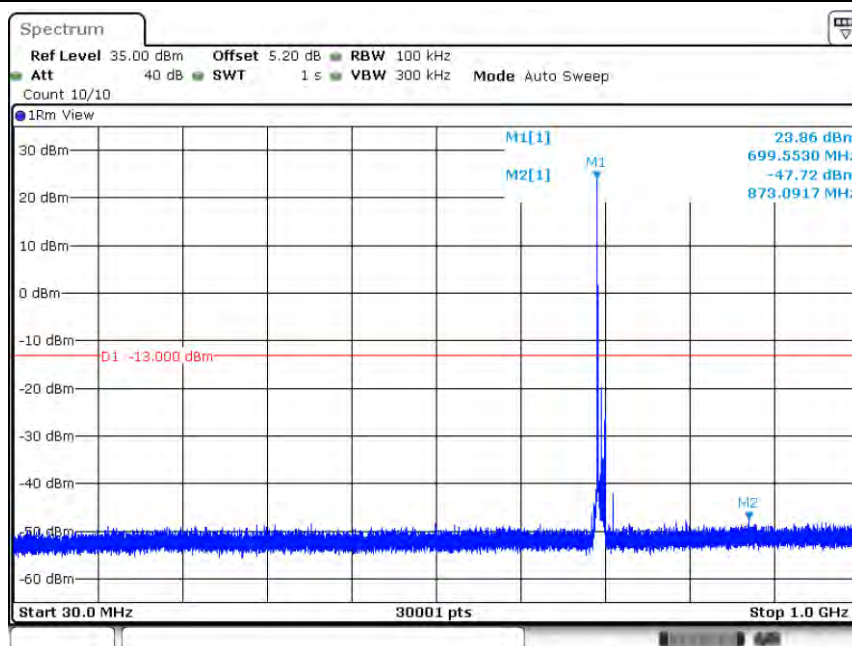
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Band12-10MHz-QPSK-23130-1RB#0-Range1:1000~10000MHz



Date: 1.SEP.2020 21:56:00

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



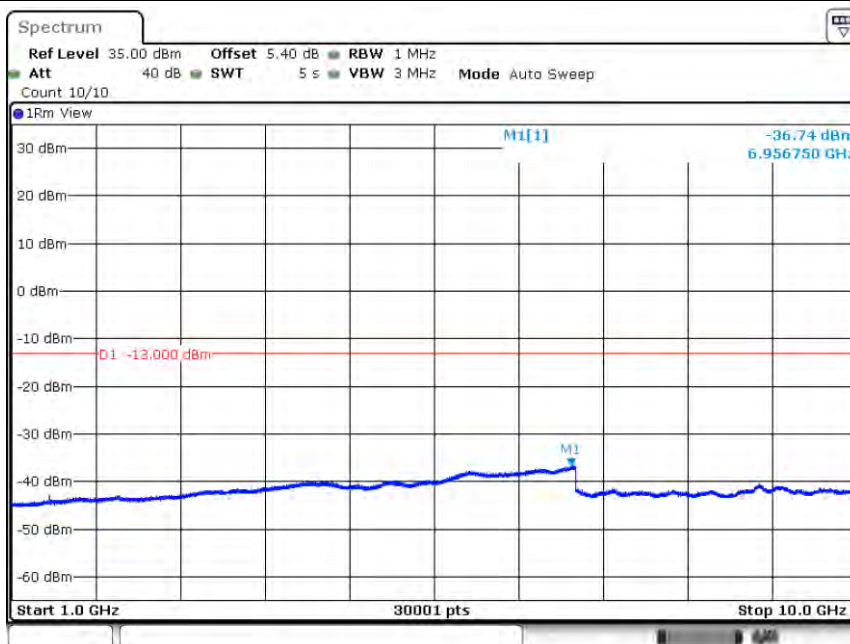
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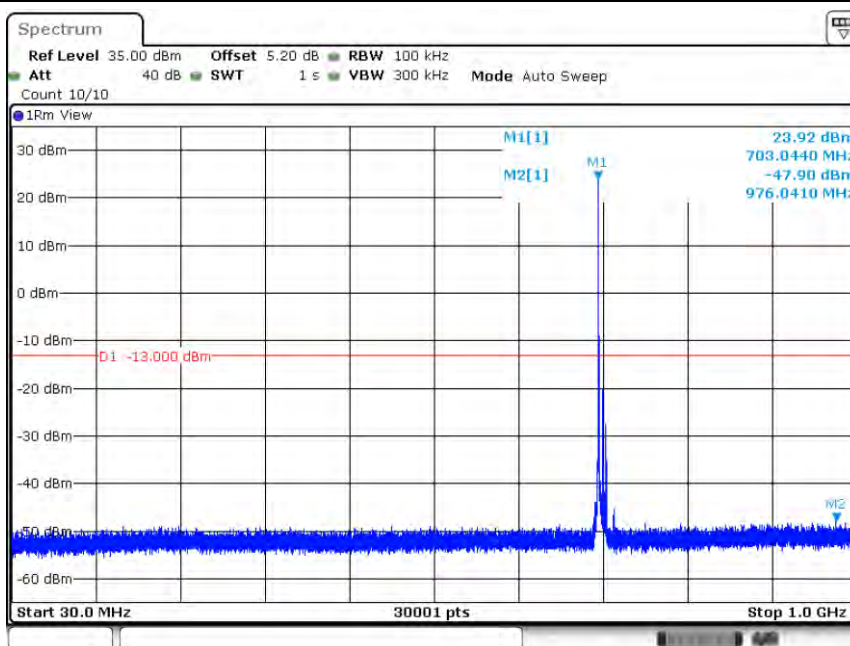
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Band12-10MHz-16QAM-23060-1RB#0-Range1:1000~10000MHz



Date: 1.SEP.2020 21:52:28

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



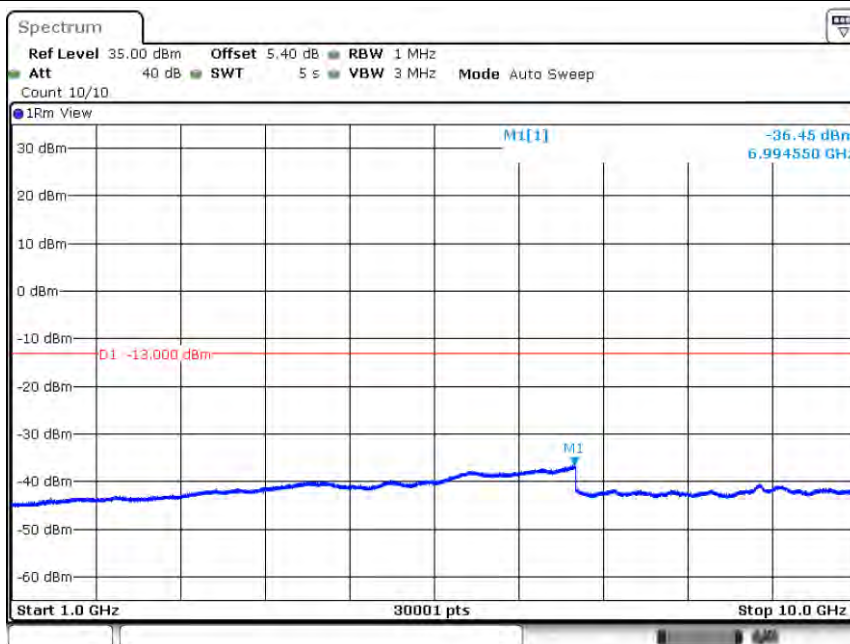
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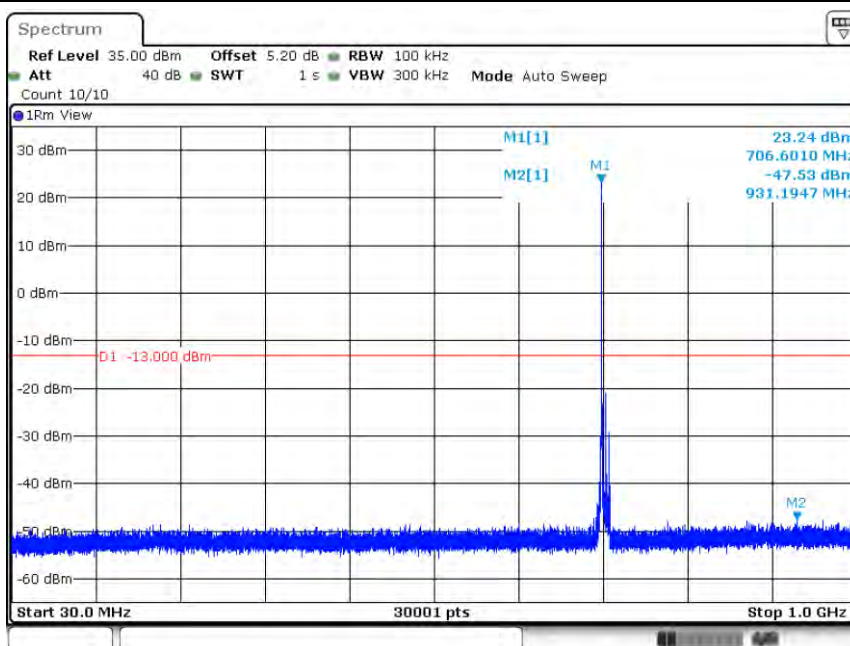
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Band12-10MHz-16QAM-23095-1RB#0-Range1:1000~10000MHz



Date: 1.SEP.2020 21:54:49

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



Date: 1.SEP.2020 09:06:19

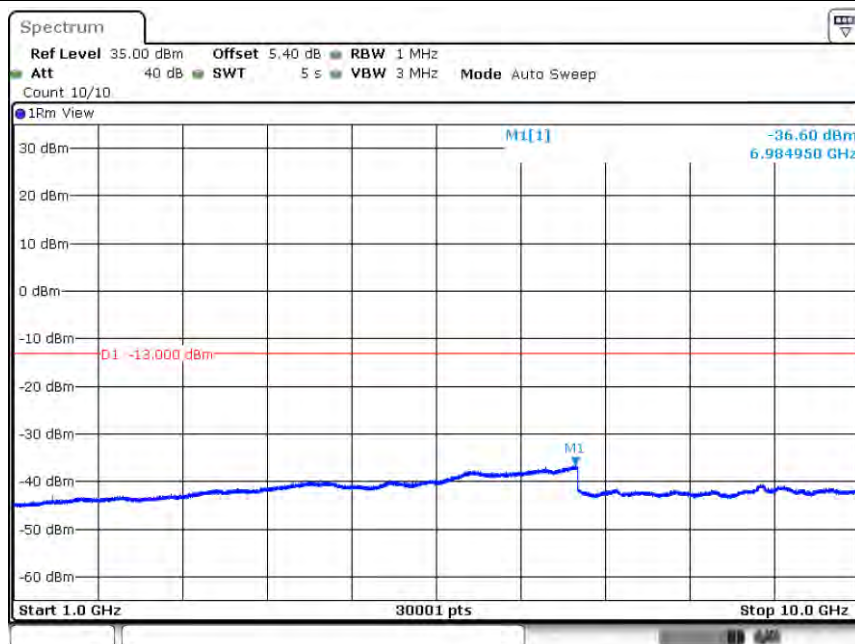


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Band12-10MHz-16QAM-23130-1RB#0-Range1:1000~10000MHz



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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
111.0961	-64.59	-13.00	51.59	Vertical
1398.8798	-52.21	-13.00	39.21	Vertical
2099.0198	-55.34	-13.00	42.34	Vertical
3000.0000	-55.60	-13.00	42.60	Vertical
4897.0759	-55.07	-13.00	42.07	Vertical
9812.3925	-52.52	-13.00	39.52	Vertical
44.0657	-63.65	-13.00	50.65	Horizontal
242.4406	-67.68	-13.00	54.68	Horizontal
1398.8798	-47.40	-13.00	34.40	Horizontal
2099.0198	-49.50	-13.00	36.50	Horizontal
3497.8599	-55.94	-13.00	42.94	Horizontal
4897.0759	-55.70	-13.00	42.70	Horizontal

7.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
115.3643	-65.19	-13.00	52.19	Vertical
1406.0812	-53.76	-13.00	40.76	Vertical
2109.4219	-46.86	-13.00	33.86	Vertical
3515.5006	-54.26	-13.00	41.26	Vertical
4921.4369	-55.67	-13.00	42.67	Vertical
9889.3956	-51.88	-13.00	38.88	Vertical
41.0101	-63.98	-13.00	50.98	Horizontal
238.0269	-67.96	-13.00	54.96	Horizontal
1406.0812	-47.32	-13.00	34.32	Horizontal
2109.4219	-39.70	-13.00	26.70	Horizontal
4921.7169	-57.13	-13.00	44.13	Horizontal
9305.8522	-52.50	-13.00	39.50	Horizontal



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7.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
109.5440	-64.51	-13.00	51.51	Vertical
1412.8826	-53.26	-13.00	40.26	Vertical
2119.8240	-46.82	-13.00	33.82	Vertical
3532.8613	-57.68	-13.00	44.68	Vertical
4946.0778	-57.96	-13.00	44.96	Vertical
9886.0354	-52.45	-13.00	39.45	Vertical
39.5550	-64.31	-13.00	51.31	Horizontal
248.8914	-68.09	-13.00	55.09	Horizontal
1412.8826	-47.25	-13.00	34.25	Horizontal
2119.8240	-40.70	-13.00	27.70	Horizontal
3000.0000	-55.75	-13.00	42.75	Horizontal
9319.5728	-53.12	-13.00	40.12	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	-0.30	-0.000426	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	0.00	0.000000	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VH	NT	0.10	0.000142	±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	-0.20	-0.000283	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VL	NT	-3.20	-0.004501	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	0.10	0.000141	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-1.70	-0.002391	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VL	NT	1.20	0.001705	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VN	NT	-0.80	-0.001136	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VH	NT	0.70	0.000994	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VL	NT	-0.80	-0.001131	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VN	NT	0.20	0.000283	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VH	NT	-1.50	-0.002120	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VL	NT	-2.60	-0.003657	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VN	NT	-1.60	-0.002250	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VH	NT	-1.00	-0.001406	±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	-0.10	-0.000142	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-20	0.40	0.000568	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-10	-0.50	-0.000710	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	0	-1.60	-0.002273	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	10	1.10	0.001563	±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	30	-0.70	-0.000994	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	40	0.50	0.000710	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	50	-0.50	-0.000710	±2.5	PASS



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Band12	10MHz	QPSK	23095	50RB#0	NV	-30	-0.40	-0.000565	±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	-0.40	-0.000565	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	-1.00	-0.001413	±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	0.60	0.000848	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	-0.40	-0.000565	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	-1.00	-0.001413	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-30	-2.90	-0.004079	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	-2.20	-0.003094	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-10	-2.80	-0.003938	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	-1.30	-0.001828	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-1.00	-0.001406	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	30	-1.80	-0.002532	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	40	-3.00	-0.004219	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	50	-1.50	-0.002110	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-30	-0.40	-0.000568	±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	-10	-0.50	-0.000710	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	0	0.20	0.000284	±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	-1.30	-0.001847	±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	-0.10	-0.000142	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	50	-0.80	-0.001136	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-30	-1.20	-0.001696	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-20	-0.40	-0.000565	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-10	-0.30	-0.000424	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	0	-0.50	-0.000707	±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	-0.60	-0.000848	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	30	-1.90	-0.002686	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	40	-1.50	-0.002120	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	50	-1.10	-0.001555	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-30	-2.20	-0.003094	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-20	-1.90	-0.002672	±2.5	PASS



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Band12	10MHz	16QAM	23130	50RB#0	NV	-10	-2.70	-0.003797	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	0	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	10	-2.50	-0.003516	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	20	-1.20	-0.001688	±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	-2.50	-0.003516	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	50	-0.50	-0.000703	±2.5	PASS



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