



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	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.22	24.33	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.50	24.61	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.34	24.45	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.62	24.73	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.56	24.67	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	23.46	24.57	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.54	23.65	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.42	24.53	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.64	24.75	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.54	24.65	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.44	24.55	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.61	24.72	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.65	24.76	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.55	23.66	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.22	24.33	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.39	24.50	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.49	24.60	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.40	24.51	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.49	24.60	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.48	24.59	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.47	23.58	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.20	23.31	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.21	23.32	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.01	23.12	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.82	23.93	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.64	23.75	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	22.60	23.71	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.47	22.58	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	21.96	23.07	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.20	23.31	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	21.91	23.02	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.71	23.82	34.77	PASS



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Shenzhen Branch (CSTC) Laboratory

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Band12	1.4MHz	16QAM	23095	3RB#1	22.78	23.89	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.68	23.79	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.46	22.57	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.07	23.18	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.18	23.29	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	21.95	23.06	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	22.68	23.79	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.59	23.70	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	22.61	23.72	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.31	22.42	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.57	24.68	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.49	24.60	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.28	24.39	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.39	23.50	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.43	23.54	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.46	23.57	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.50	23.61	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.47	24.58	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.62	24.73	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.36	24.47	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.54	23.65	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.59	23.70	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.51	23.62	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.54	23.65	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.38	24.49	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.18	24.29	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.27	24.38	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.47	23.58	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#4	22.33	23.44	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.35	23.46	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.47	23.58	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.07	23.18	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	21.96	23.07	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.14	23.25	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.18	22.29	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.32	22.43	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#7	21.53	22.64	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.71	22.82	34.77	PASS



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Band12	3MHz	16QAM	23095	1RB#0	22.06	23.17	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	21.95	23.06	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.04	23.15	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.23	22.34	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.22	22.33	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.37	22.48	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.66	22.77	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	21.88	22.99	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.15	23.26	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	21.99	23.10	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.17	22.28	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#4	21.23	22.34	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#7	21.23	22.34	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.28	22.39	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.37	24.48	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.30	24.41	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.47	24.58	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.44	23.55	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.49	23.60	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.47	23.58	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.43	23.54	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.24	24.35	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.81	24.92	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.18	24.29	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.47	23.58	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#6	22.66	23.77	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.43	23.54	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.53	23.64	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.32	24.43	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.22	24.33	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	22.80	23.91	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.44	23.55	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.35	23.46	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.26	23.37	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.45	23.56	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.02	23.13	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.34	23.45	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.07	23.18	34.77	PASS



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Band12	5MHz	16QAM	23035	12RB#0	21.45	22.56	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.55	22.66	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.40	22.51	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.55	22.66	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.00	23.11	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.60	23.71	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	21.88	22.99	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.45	22.56	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.51	22.62	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.17	22.28	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.64	22.75	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.05	23.16	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.30	23.41	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.01	23.12	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.27	22.38	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.45	22.56	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#13	21.18	22.29	34.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.35	22.46	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.19	24.30	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.97	25.08	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.27	24.38	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.42	23.53	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.68	23.79	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.48	23.59	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.46	23.57	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.25	24.36	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	24.30	25.41	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	22.87	23.98	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.66	23.77	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#12	22.80	23.91	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.41	23.52	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.47	23.58	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.36	24.47	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	24.01	25.12	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	22.72	23.83	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.73	23.84	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.57	23.68	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.39	23.50	34.77	PASS



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Band12	10MHz	QPSK	23130	50RB#0	22.41	23.52	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	22.04	23.15	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.14	23.25	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.02	23.13	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#0	21.51	22.62	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#12	21.59	22.70	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#25	21.49	22.60	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.61	22.72	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.06	23.17	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.28	23.39	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	22.11	23.22	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#0	21.60	22.71	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#12	21.55	22.66	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#25	21.39	22.50	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.50	22.61	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.23	23.34	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.25	23.36	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	21.94	23.05	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#0	21.63	22.74	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#12	21.54	22.65	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#25	21.46	22.57	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.41	22.52	34.77	PASS

Remark:

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

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b: SGP=Signal Generator Level



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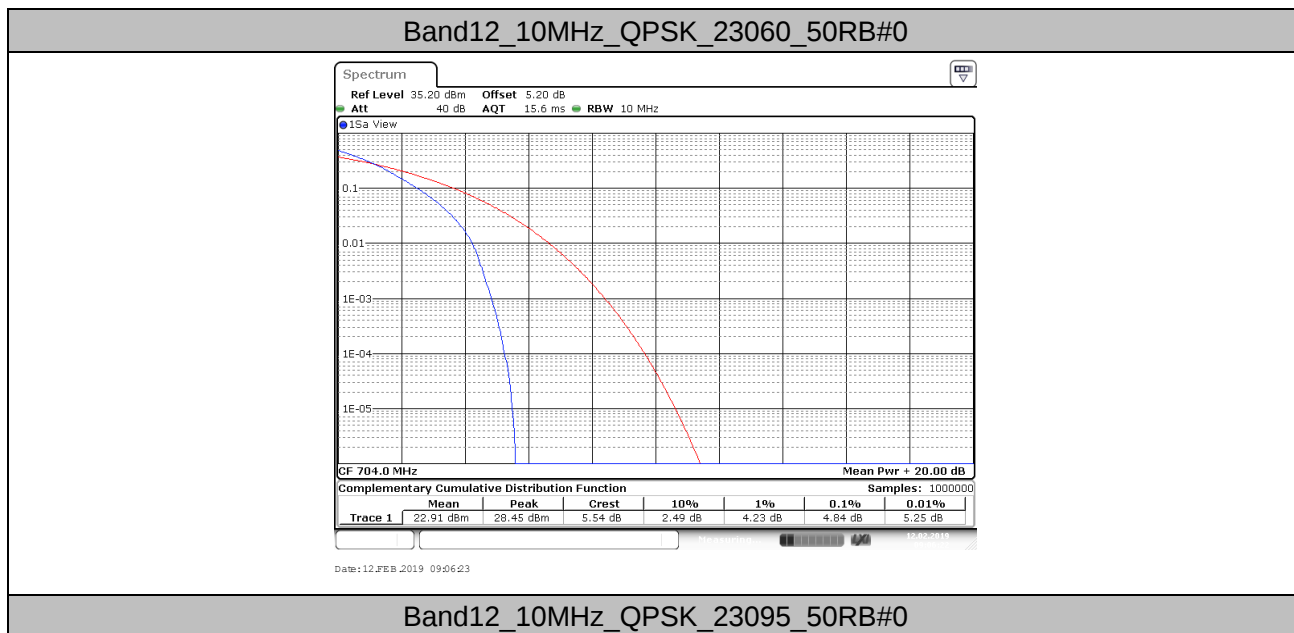
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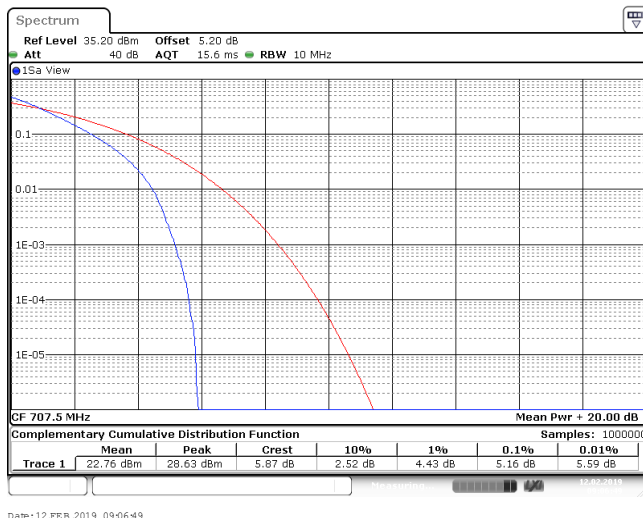
2. Peak-to-Average Ratio(CCDF)

2.1.Test Result

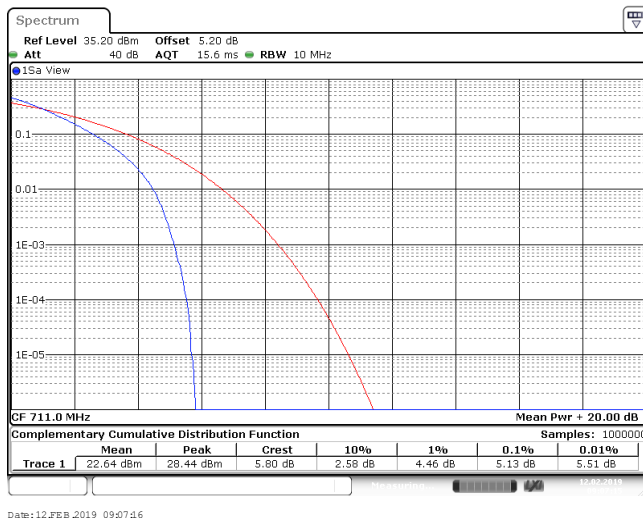
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	4.84	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.16	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.13	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	5.86	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.00	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.12	13	PASS

2.2.Test Plots



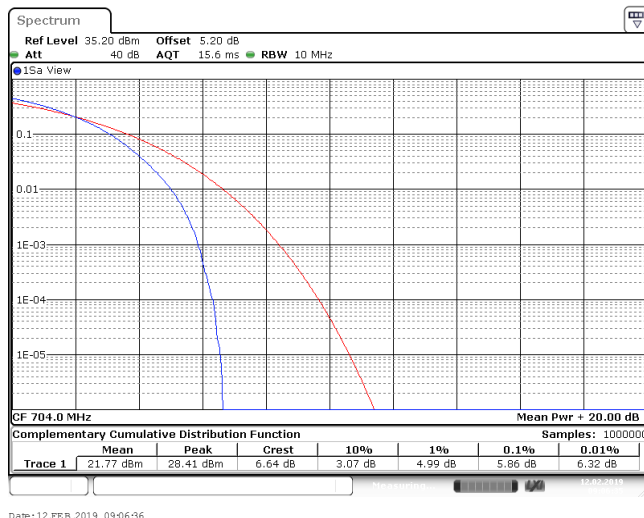


Band12_10MHz_QPSK_23130_50RB#0

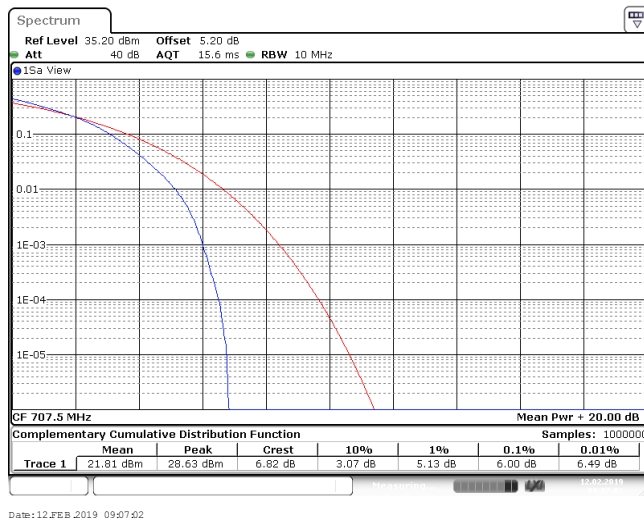


Band12_10MHz_16QAM_23060_50RB#0



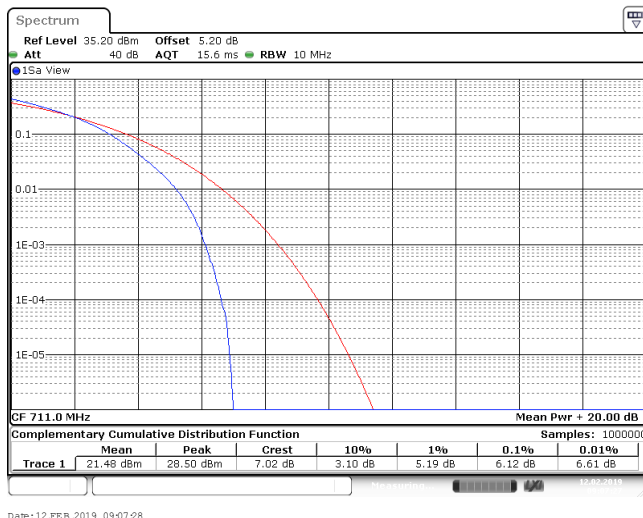


Band12_10MHz_16QAM_23095_50RB#0



Band12_10MHz_16QAM_23130_50RB#0





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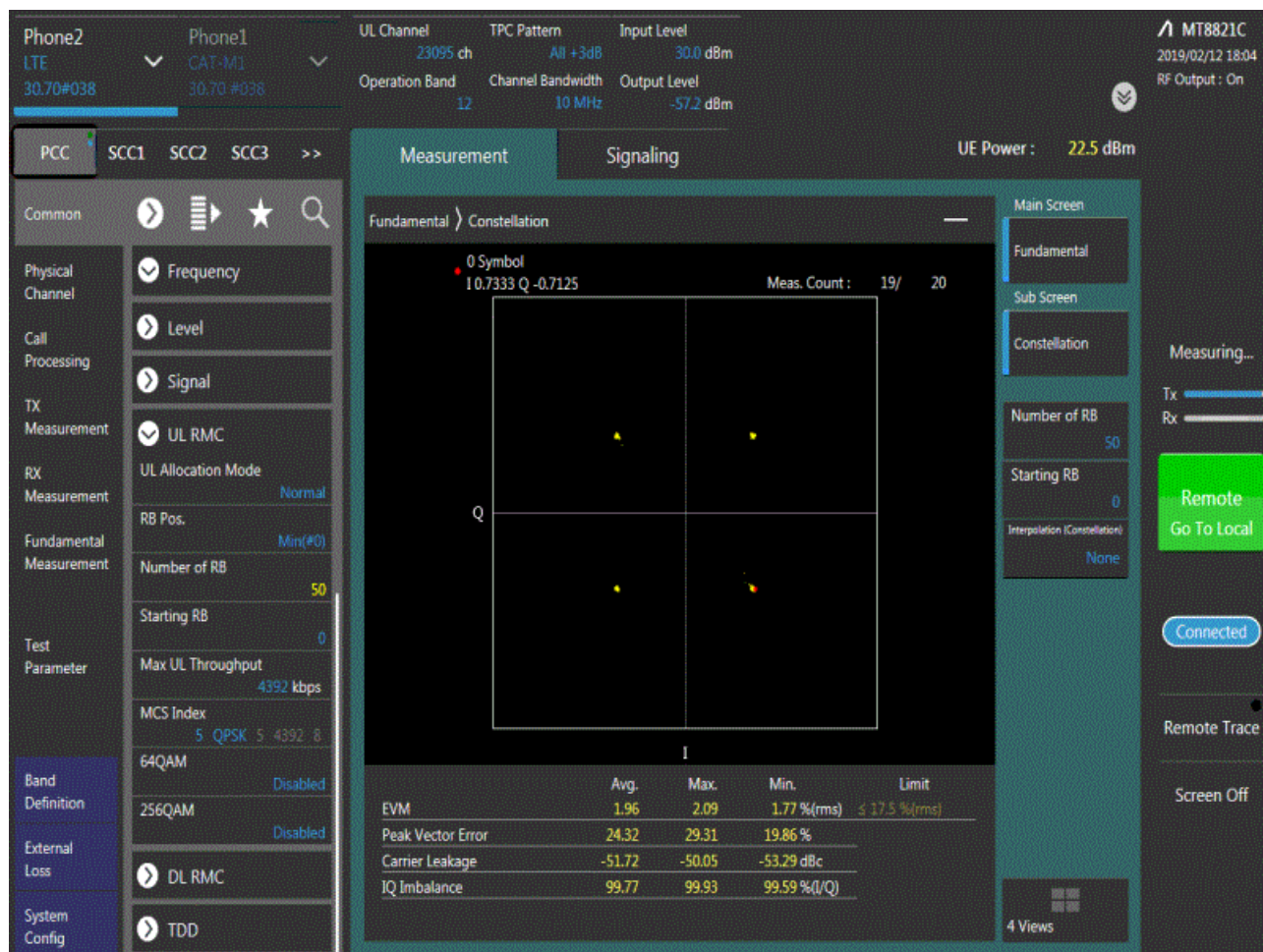
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3. Modulation Characteristics

3.1. Test BAND = LTE BAND12

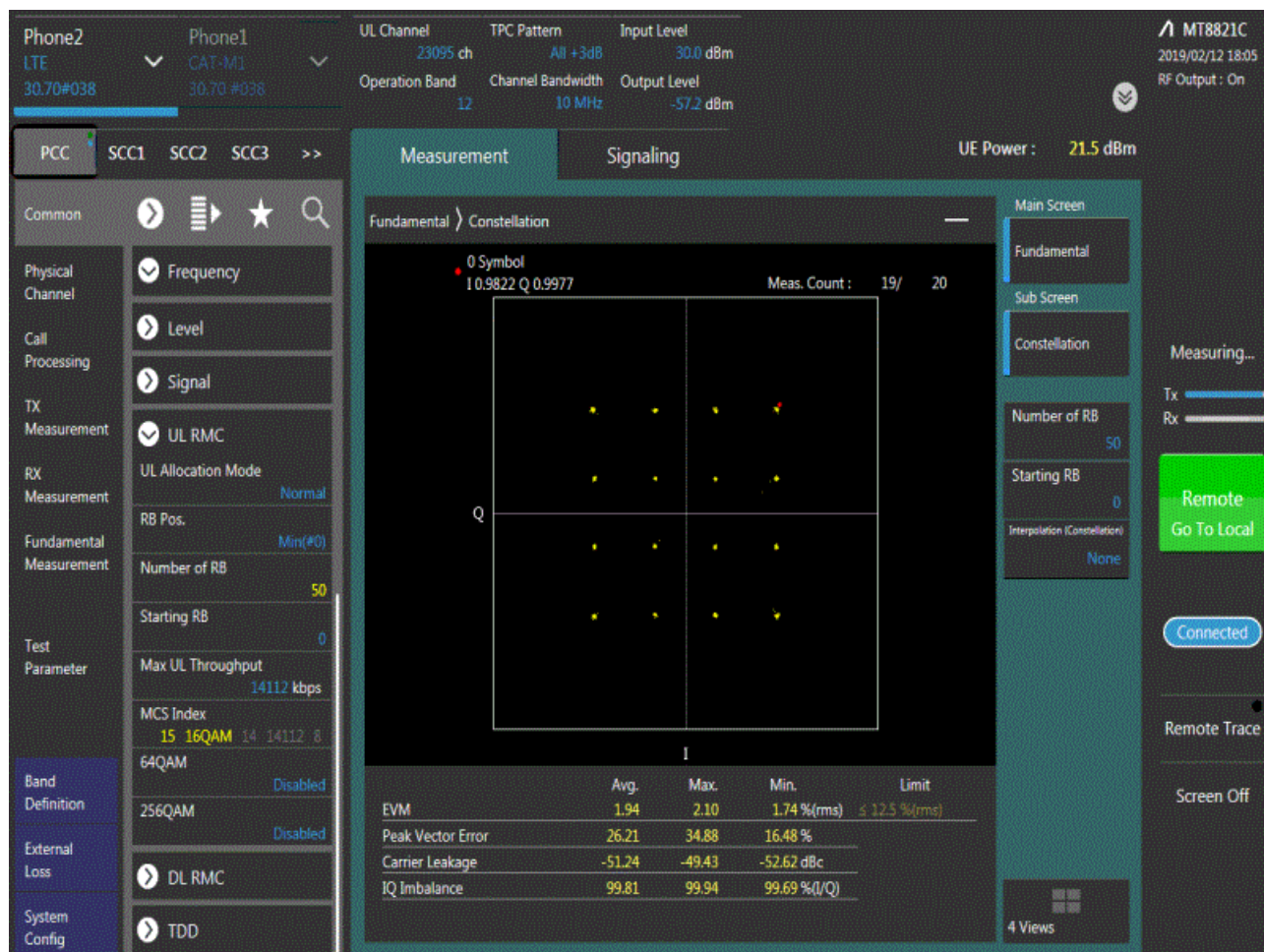
3.1.1. Test Mode = LTE /TM1 10MHz

3.1.1.1. Test Channel = MCH



3.1.2. Test Mode = LTE /TM2 10MHz

3.1.2.1. 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	1.290	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.094	1.290	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.091	1.305	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.091	1.290	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.091	1.293	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.088	1.284	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.697	2.982	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.697	2.982	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.691	2.976	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	2.685	2.964	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.466	4.920	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.476	4.950	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.466	4.910	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.486	4.940	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.496	4.940	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.476	4.950	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.891	9.640	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.931	9.720	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.931	9.760	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.891	9.580	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.911	9.740	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.931	9.740	PASS



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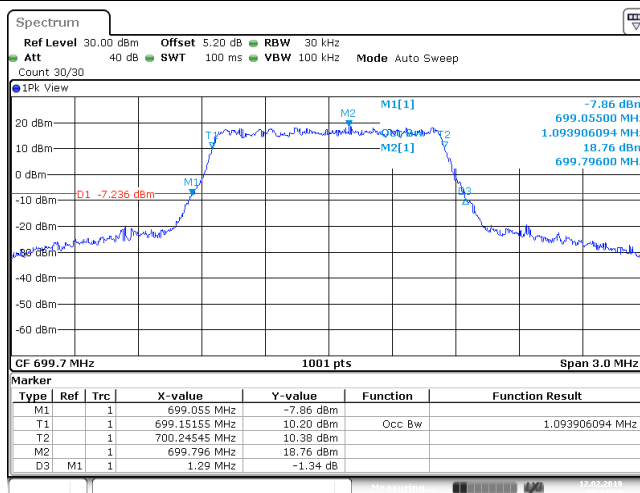
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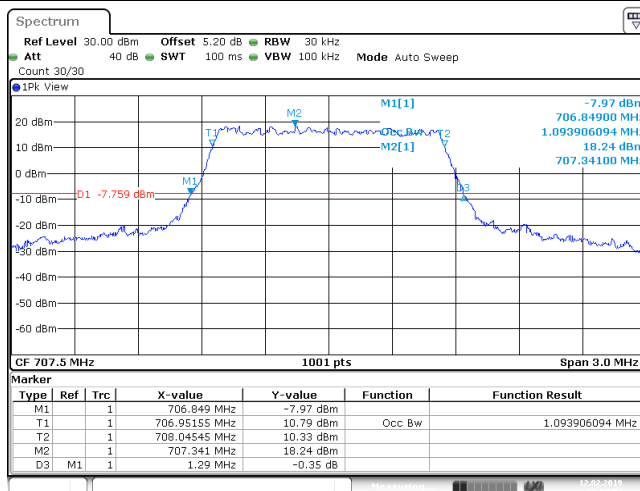
4.2. Test Plots

Band12_1.4MHz_QPSK_23017_6RB#0



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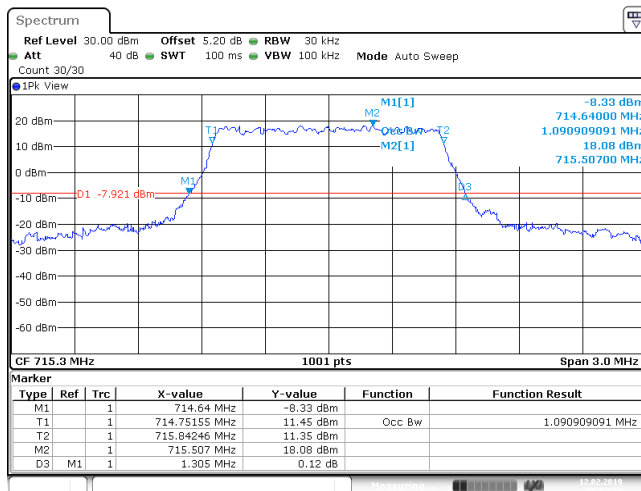
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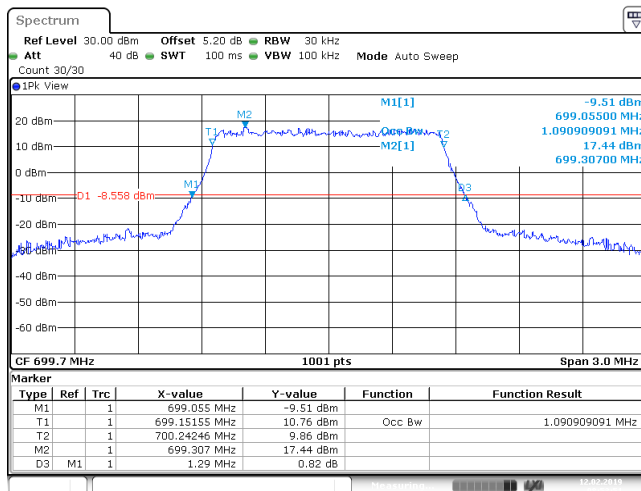
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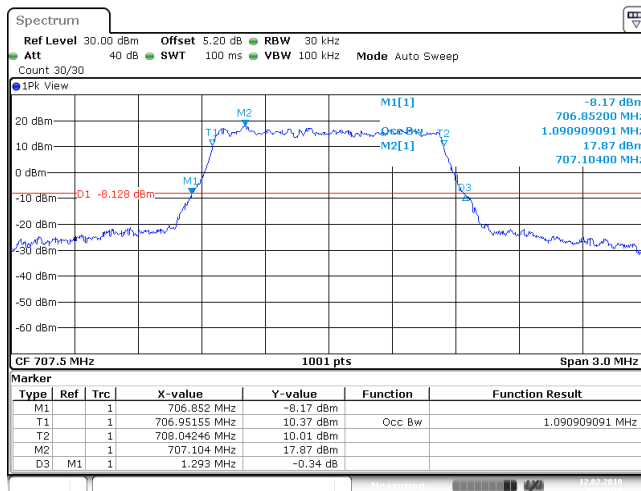
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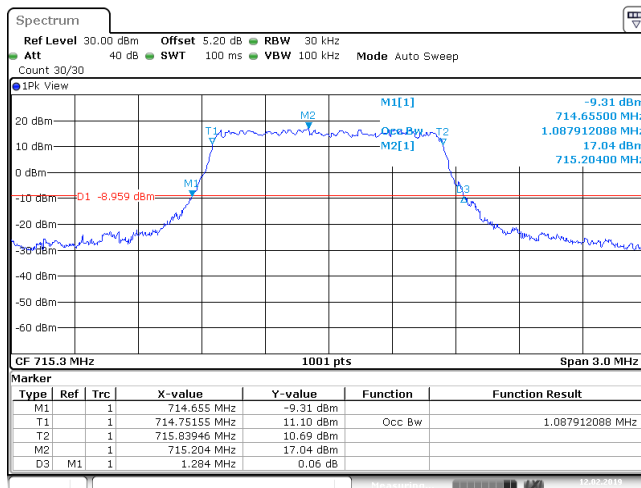
Band12_1.4MHz_16QAM_23095_6RB#0





Date: 12 FEB 2019 08:54:17

Band12_1.4MHz_16QAM_23173_6RB#0



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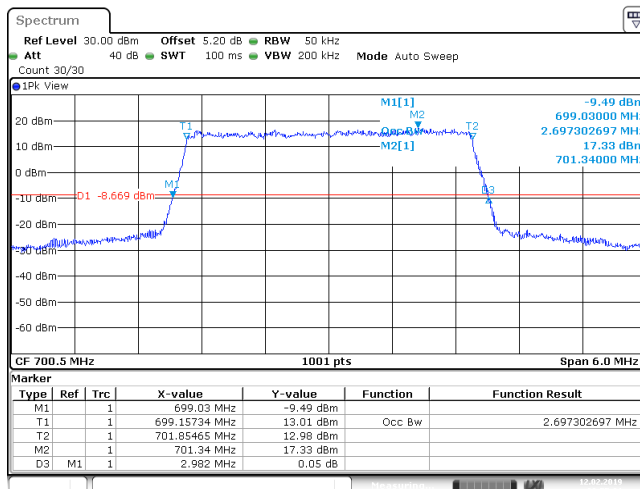
Band12_3MHz_QPSK_23025_15RB#0



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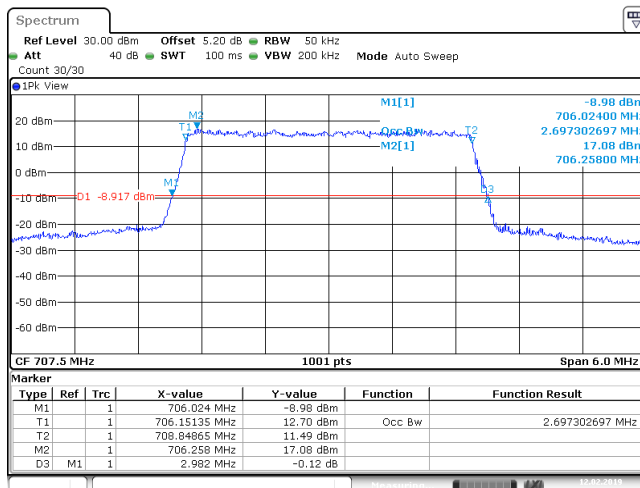
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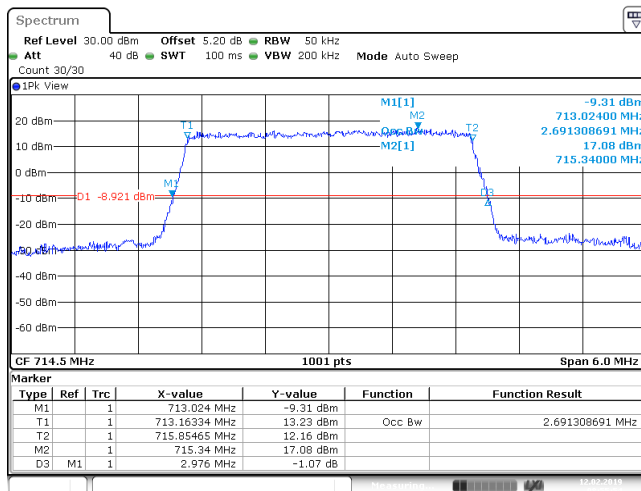
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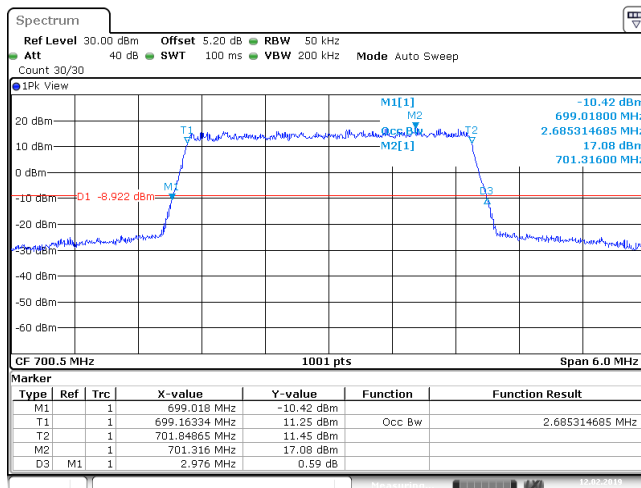
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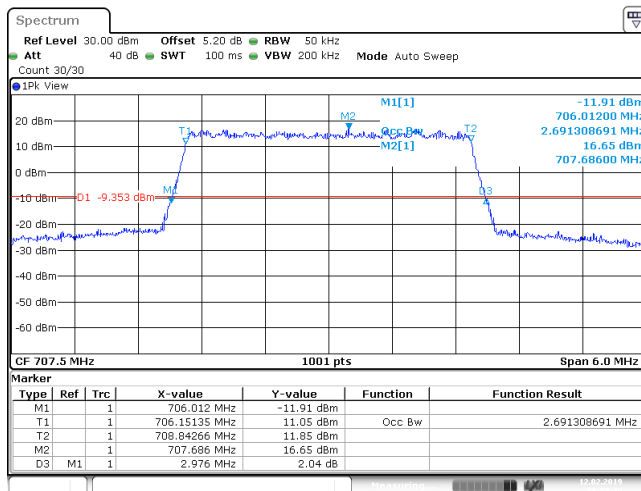
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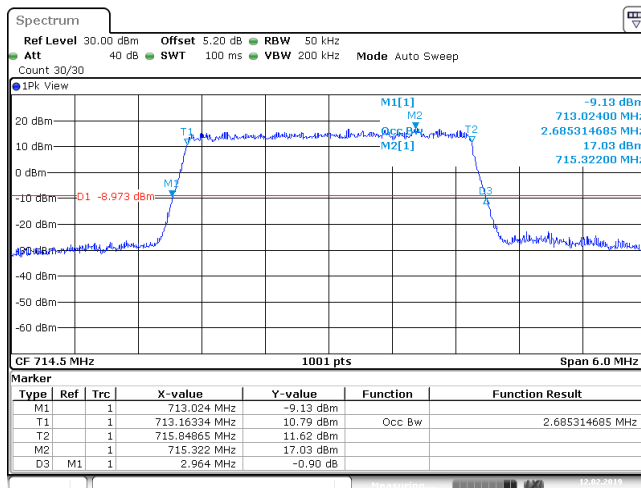
Band12_3MHz_16QAM_23095_15RB#0





Date: 12 FEB 2019 08:55:41

Band12_3MHz_16QAM_23165_15RB#0



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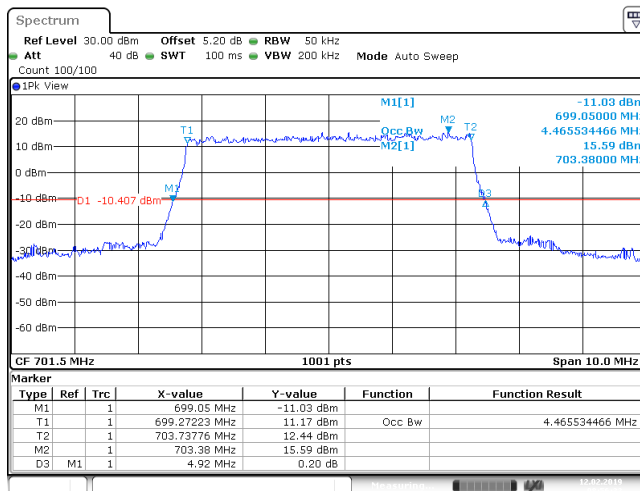
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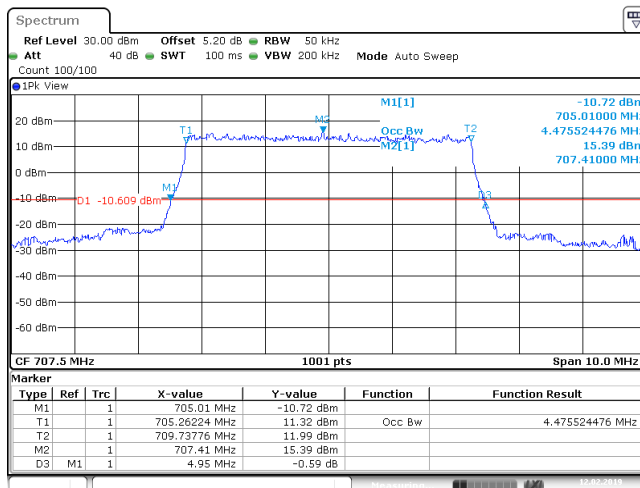
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Band12_5MHz_QPSK_23095_25RB#0



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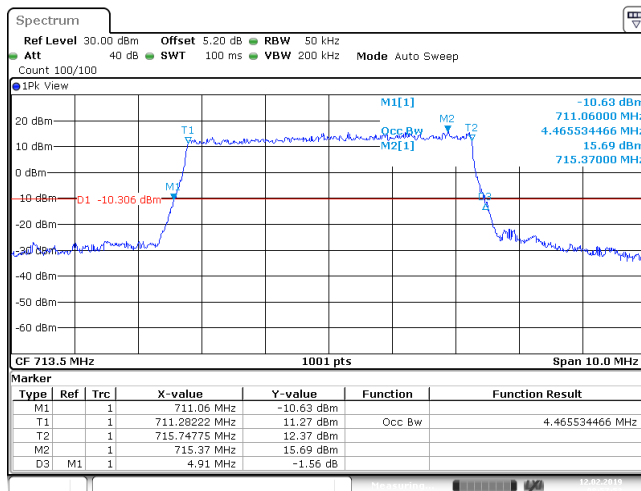
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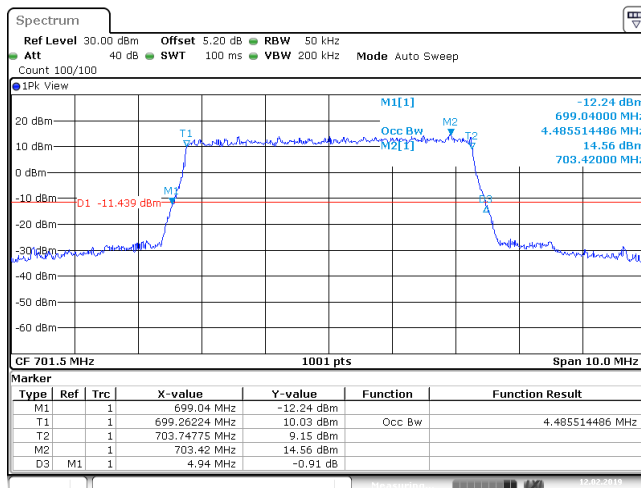
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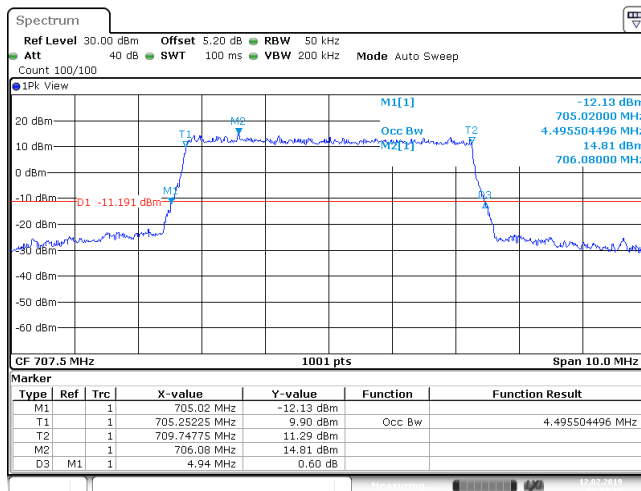
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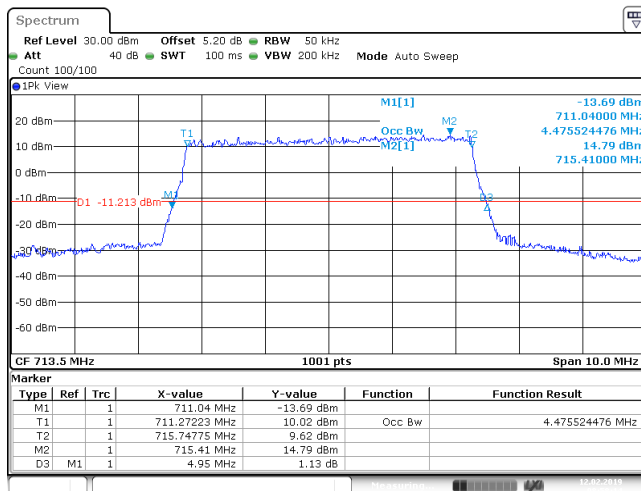
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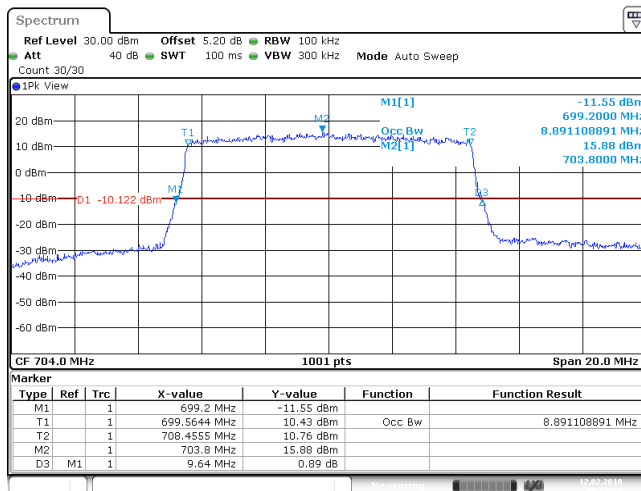
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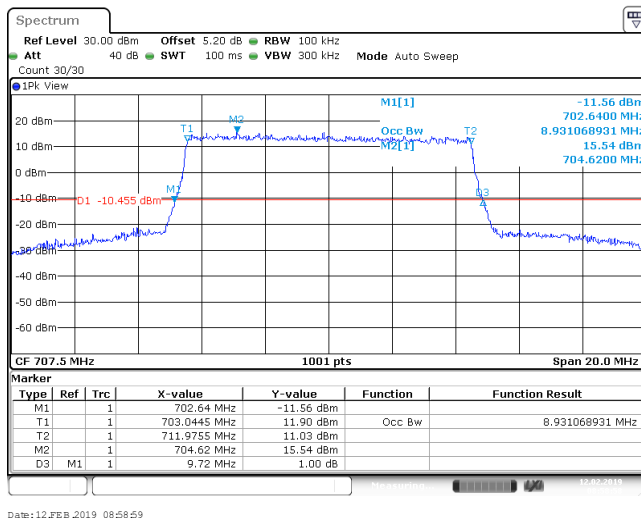
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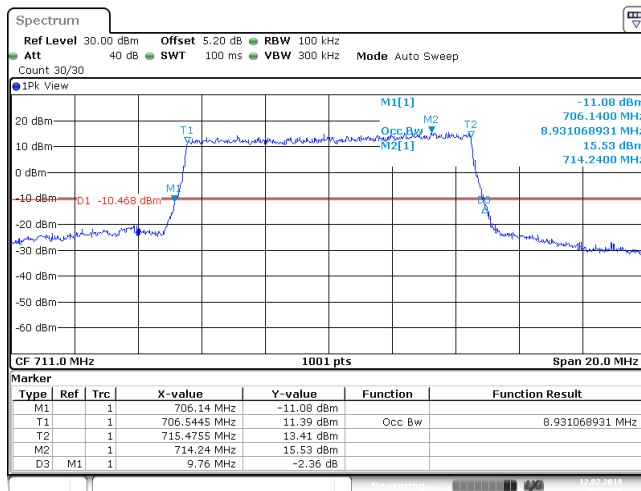


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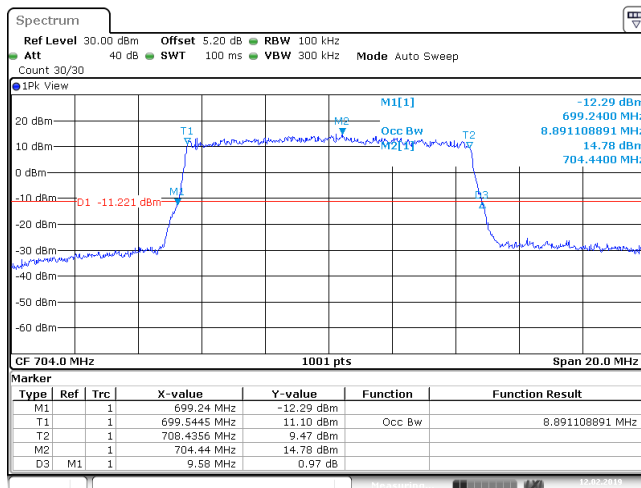
Band12_10MHz_QPSK_23130_50RB#0





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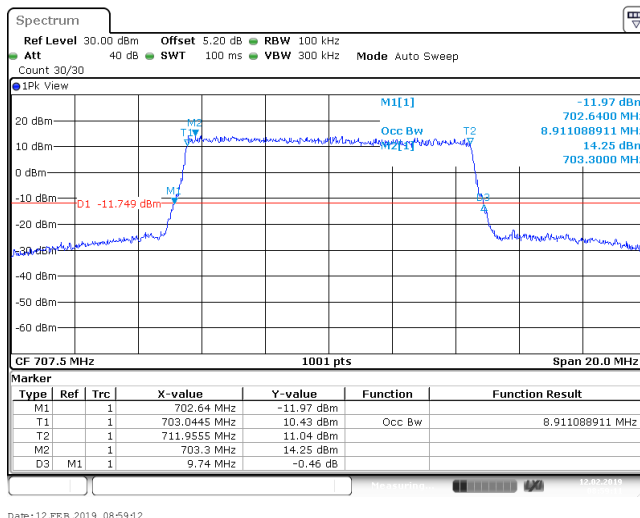
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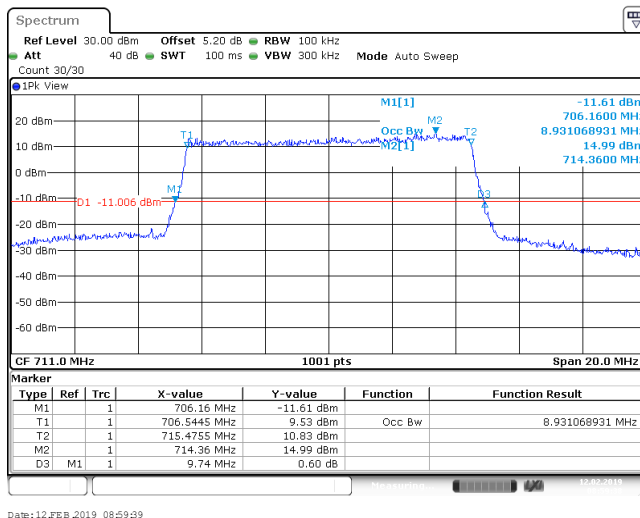
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Band12_10MHz_16QAM_23095_50RB#0





Band12_10MHz_16QAM_23130_50RB#0



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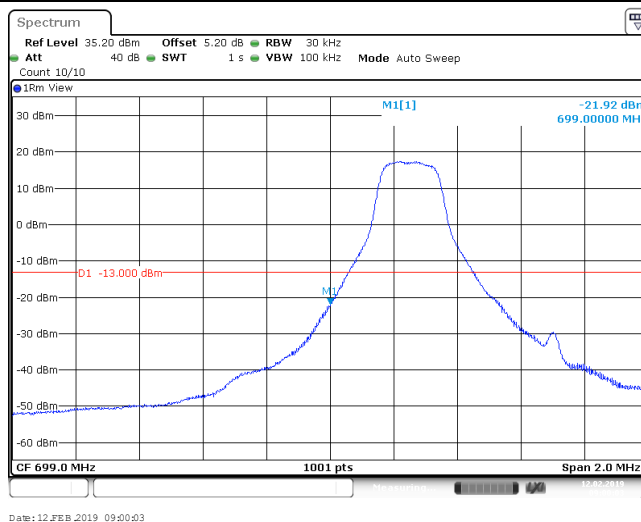
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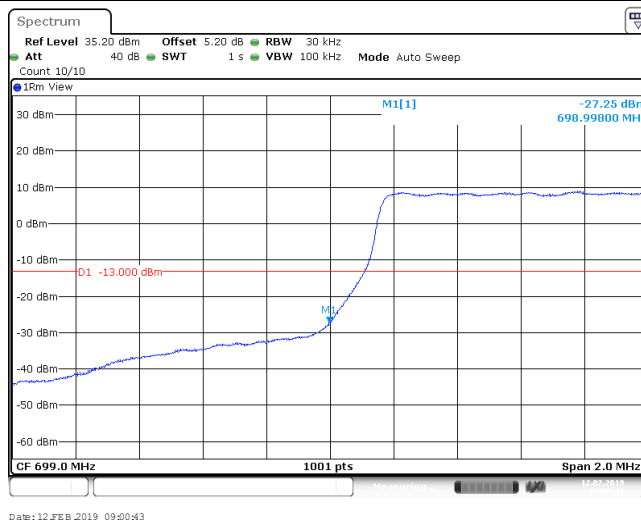
5. Band Edge Compliance

5.1. Test Plots

Band12_1.4MHz_QPSK_23017_1RB#0

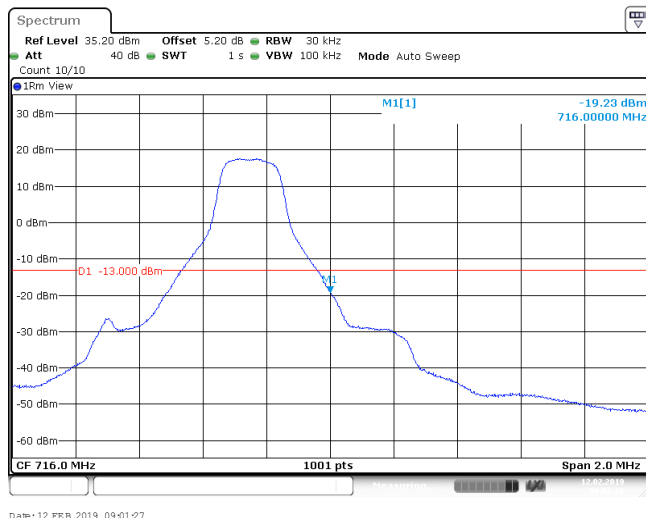


Band12_1.4MHz_QPSK_23017_6RB#0



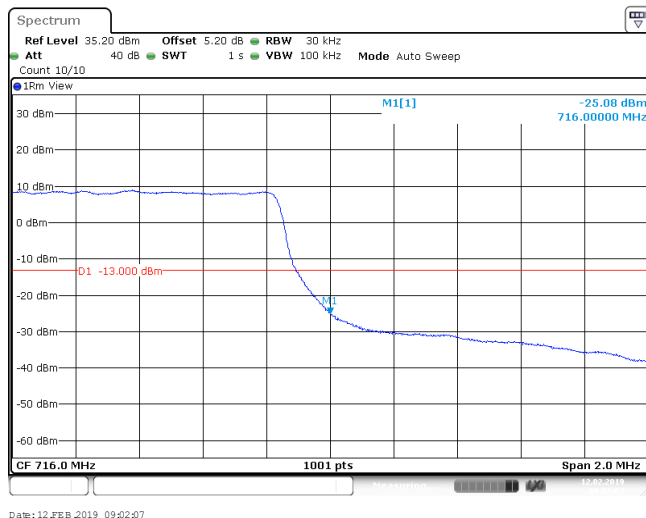
Band12_1.4MHz_QPSK_23173_1RB#5





Date: 12 FEB 2019 09:01:27

Band12_1.4MHz_QPSK_23173_6RB#0



Date: 12 FEB 2019 09:02:07

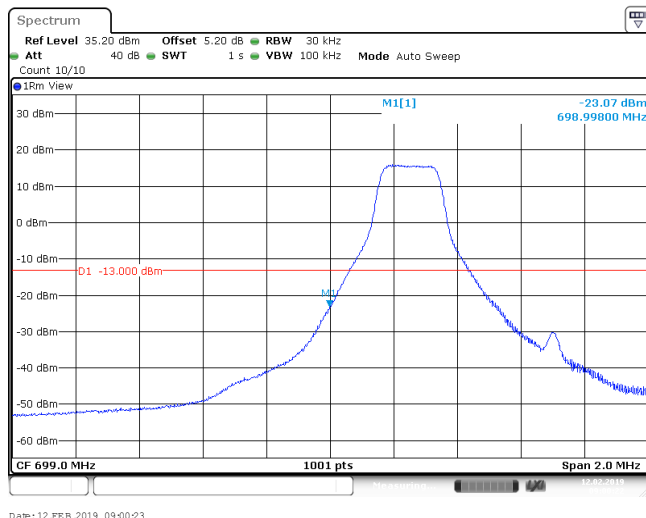
Band12_1.4MHz_16QAM_23017_1RB#0



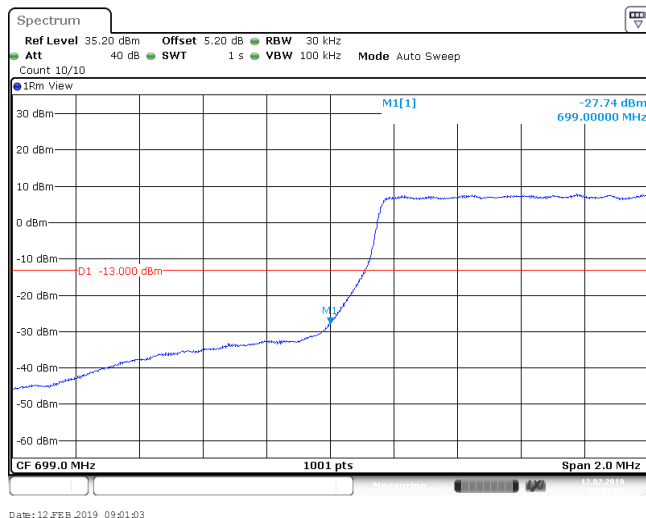
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Band12_1.4MHz_16QAM_23017_6RB#0



Band12_1.4MHz_16QAM_23173_1RB#5

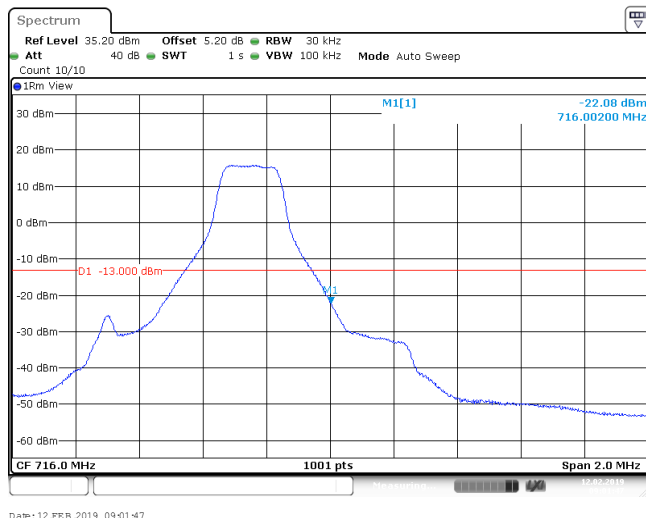


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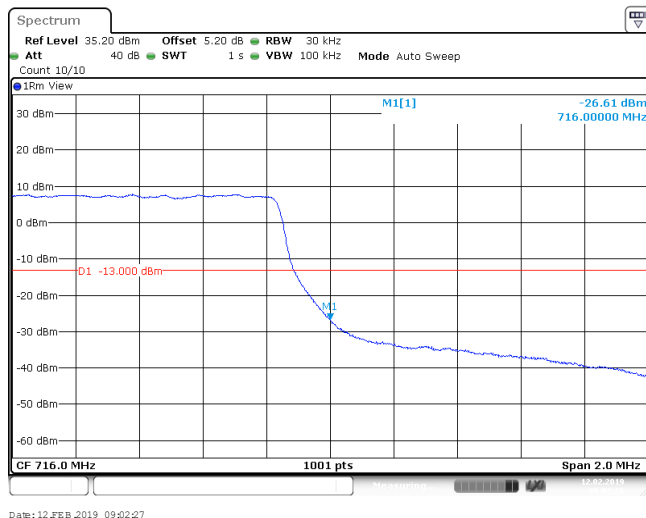
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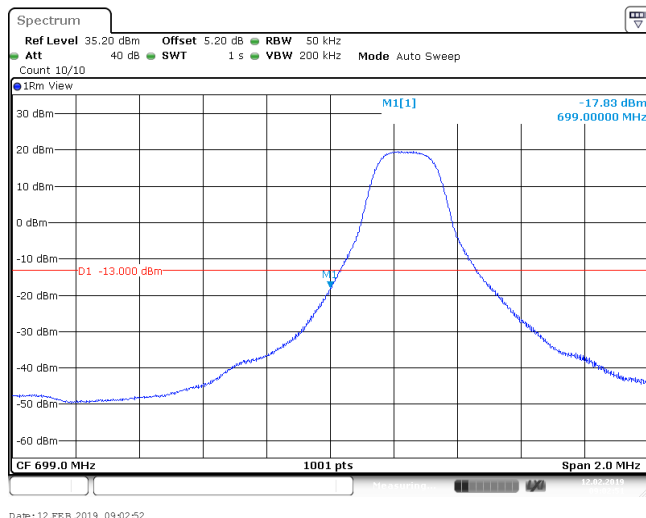


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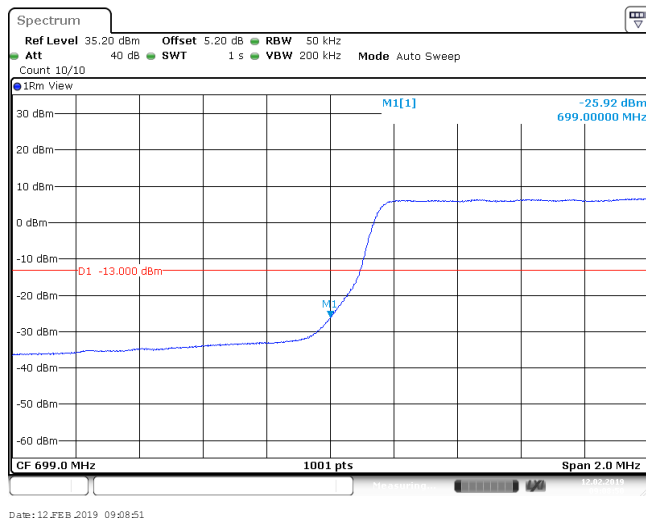


Band12_3MHz_QPSK_23025_1RB#0





Band12_3MHz_QPSK_23025_15RB#0

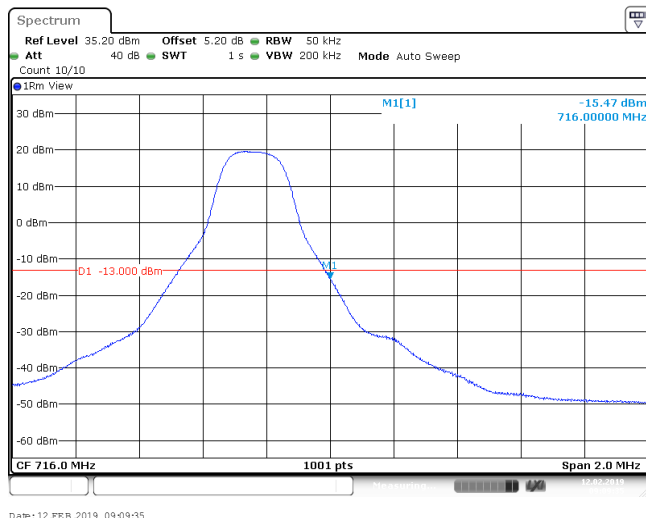


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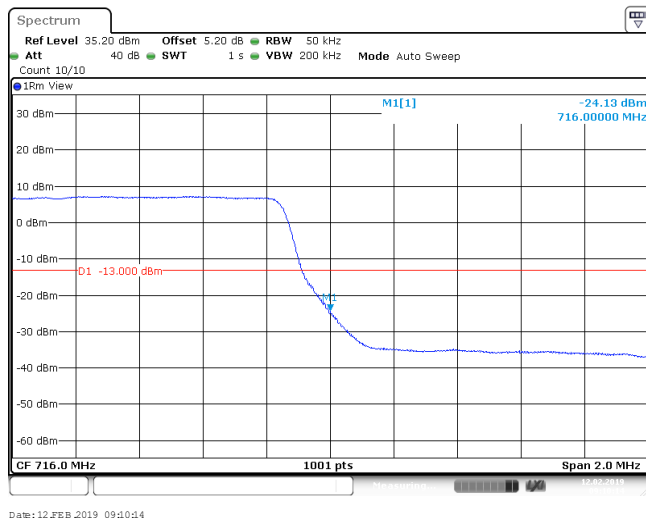


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Band12_3MHz_QPSK_23165_15RB#0

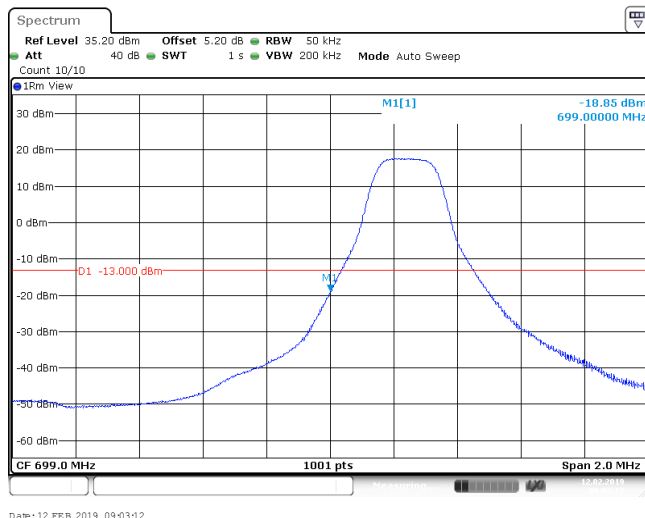


Band12_3MHz_16QAM_23025_1RB#0

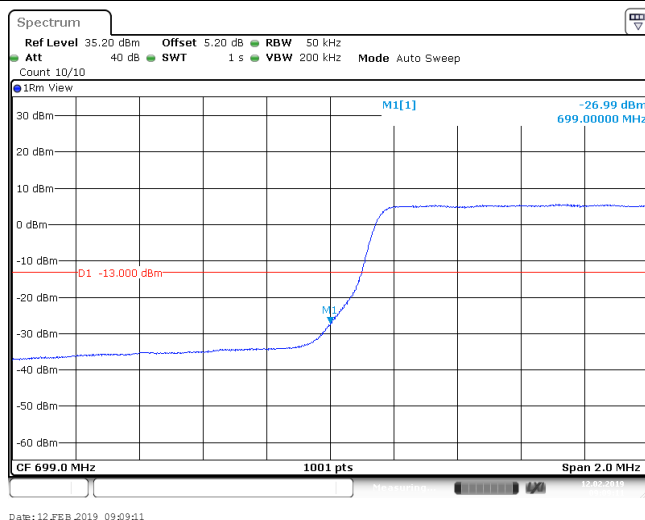


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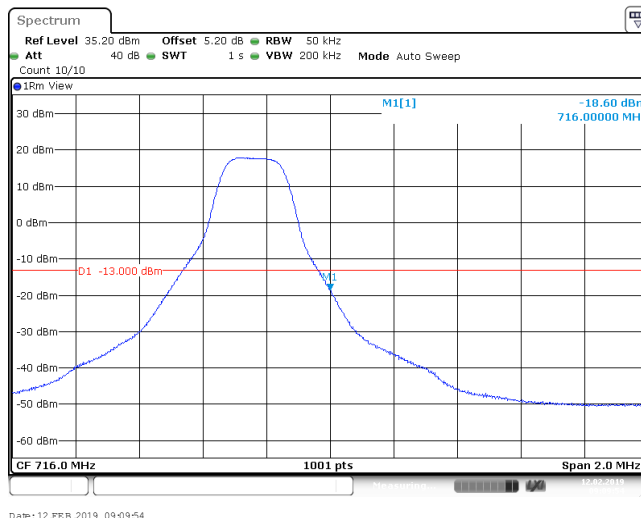


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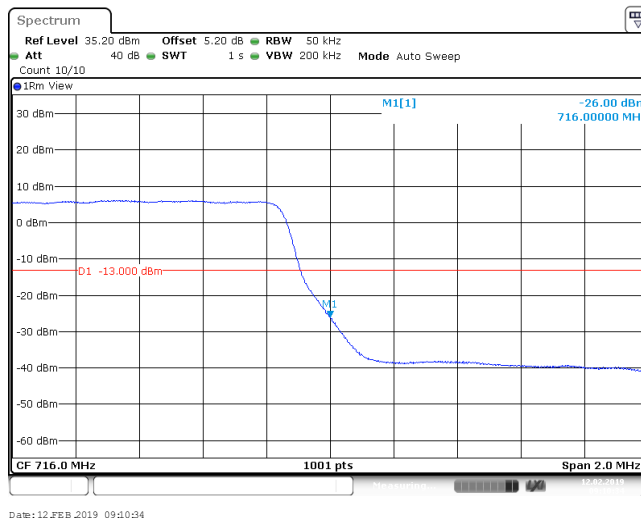


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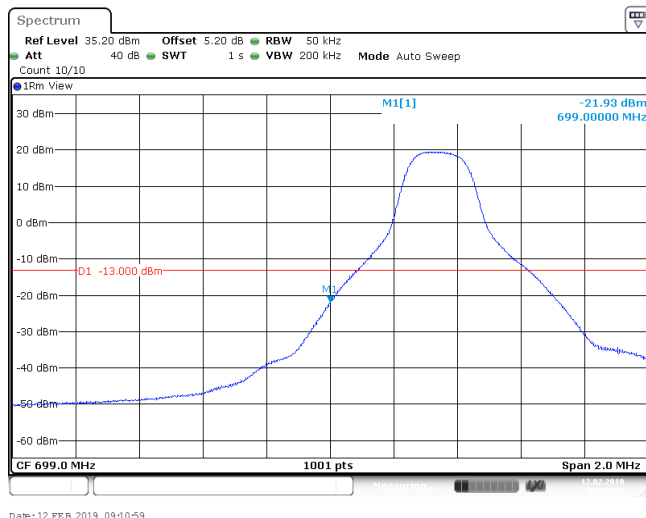
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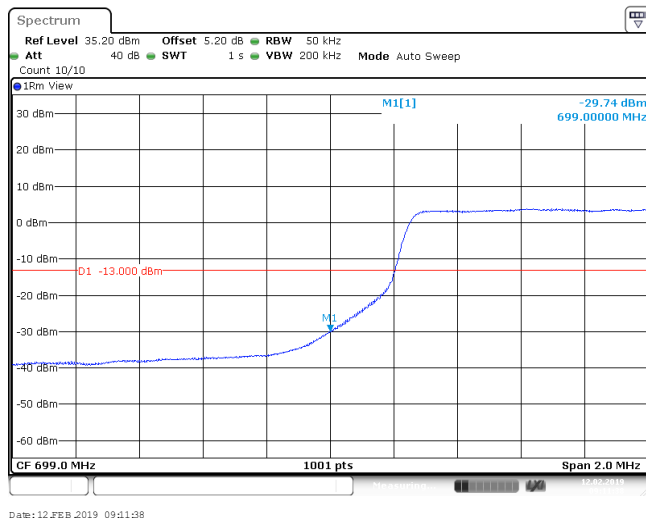
Band12_5MHz_QPSK_23035_1RB#0



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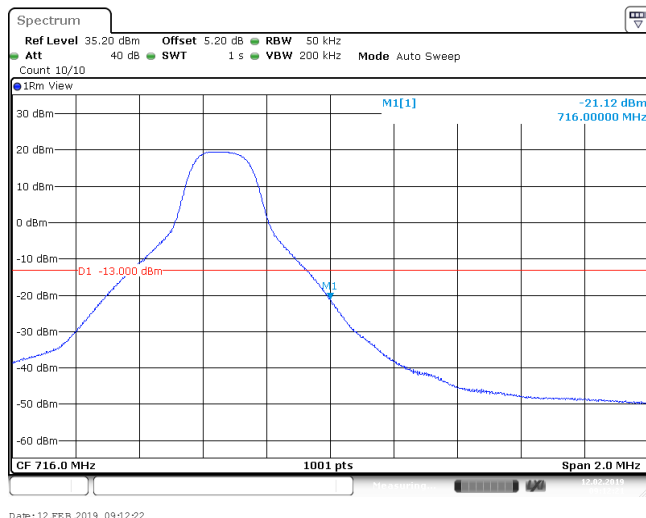


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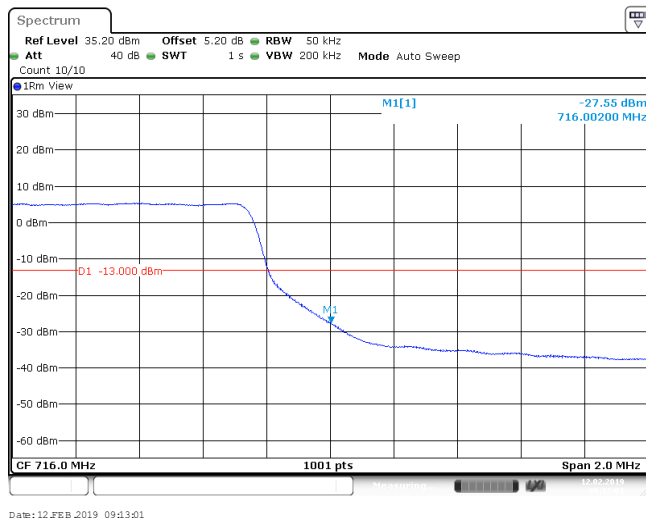


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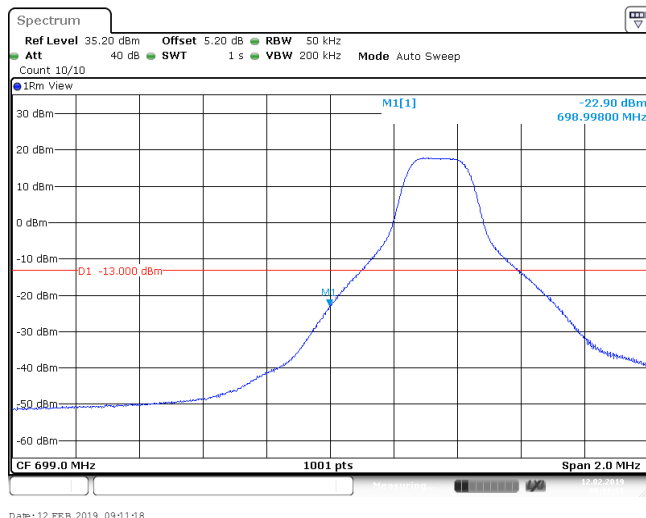


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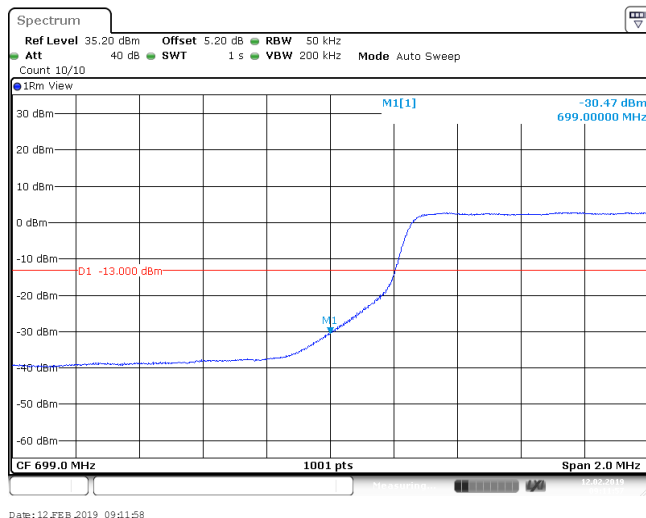


Band12_5MHz_16QAM_23035_1RB#0



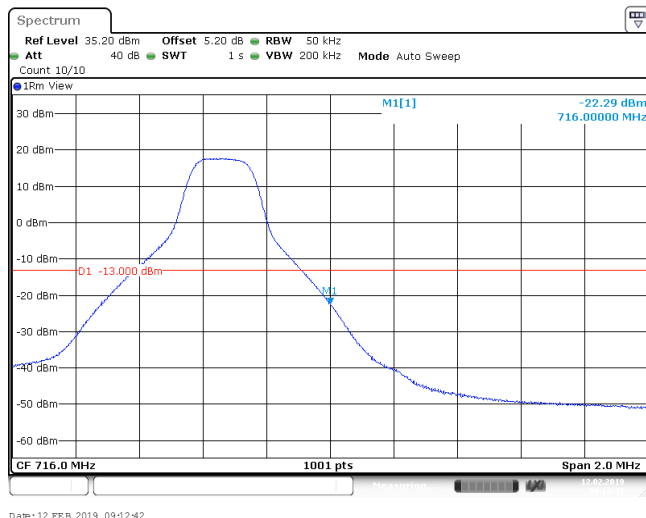


Band12_5MHz_16QAM_23035_25RB#0

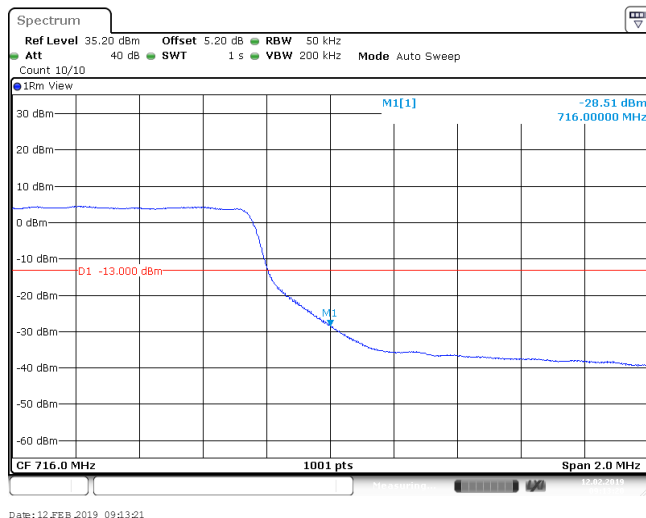


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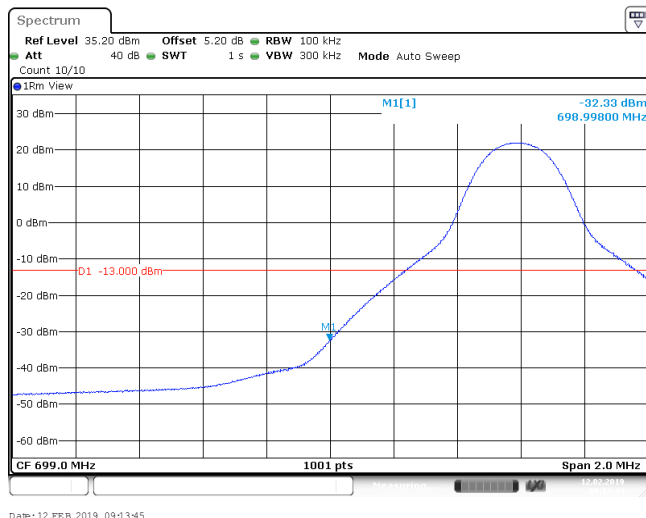


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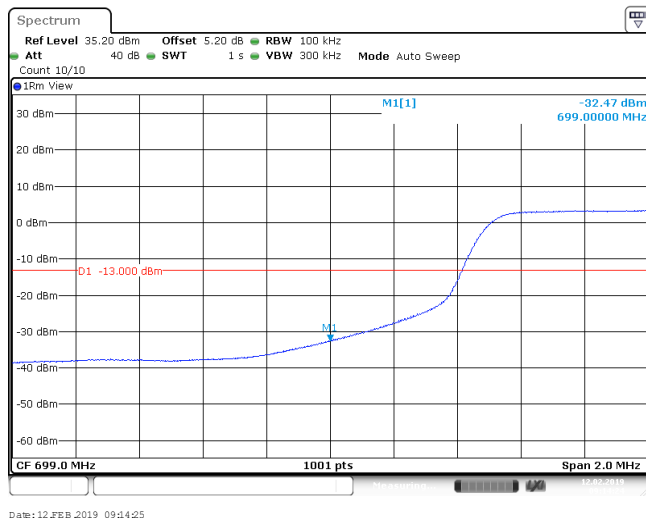


Band12_10MHz_QPSK_23060_1RB#0





Band12_10MHz_QPSK_23060_50RB#0

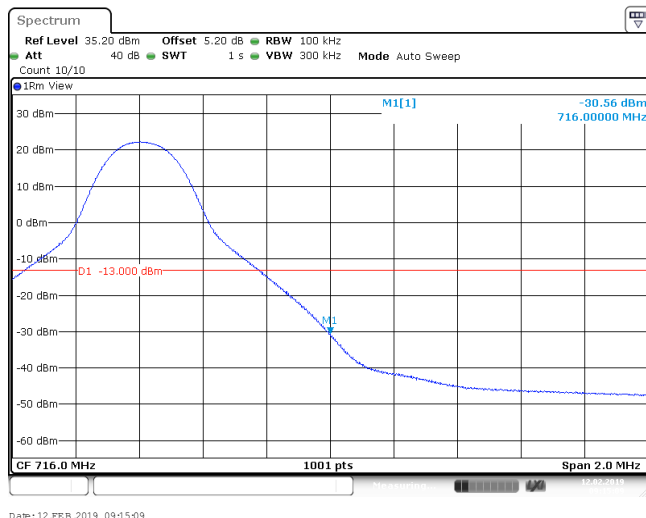


Band12_10MHz_QPSK_23130_1RB#49

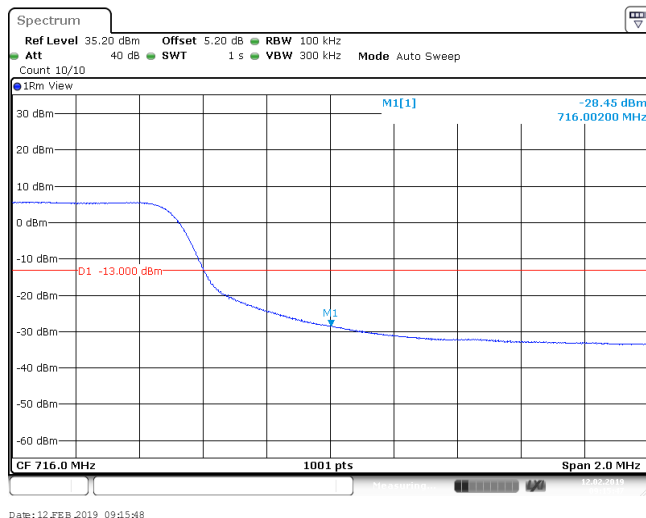


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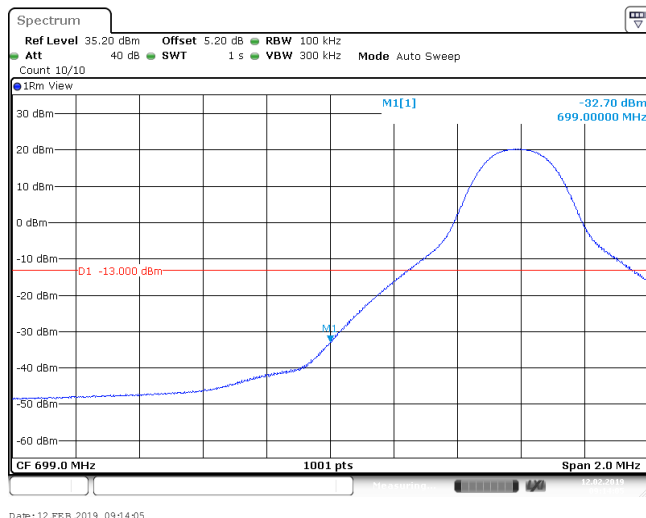


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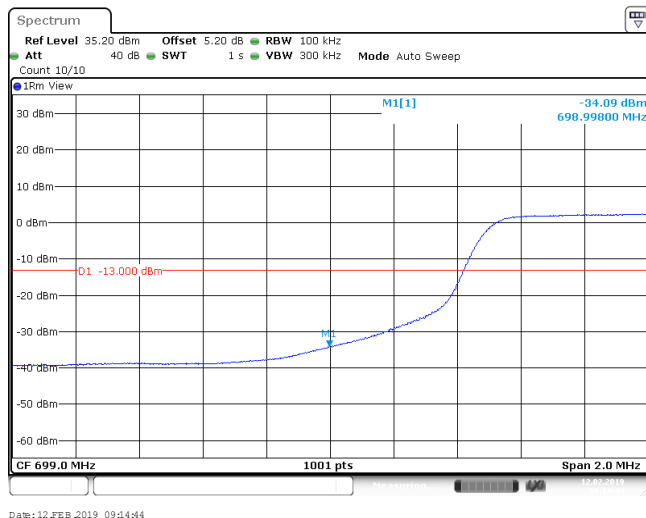


Band12_10MHz_16QAM_23060_1RB#0





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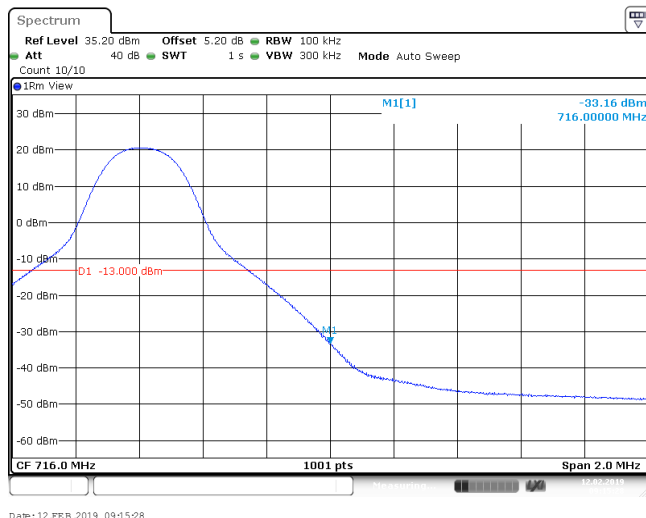


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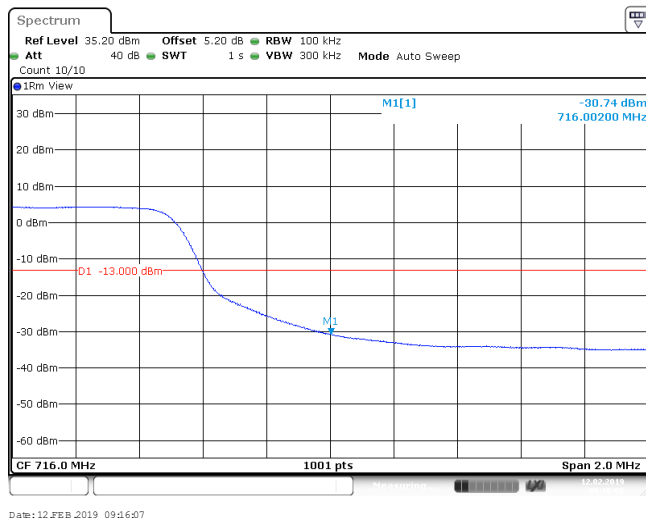


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Band12_10MHz_16QAM_23130_50RB#0



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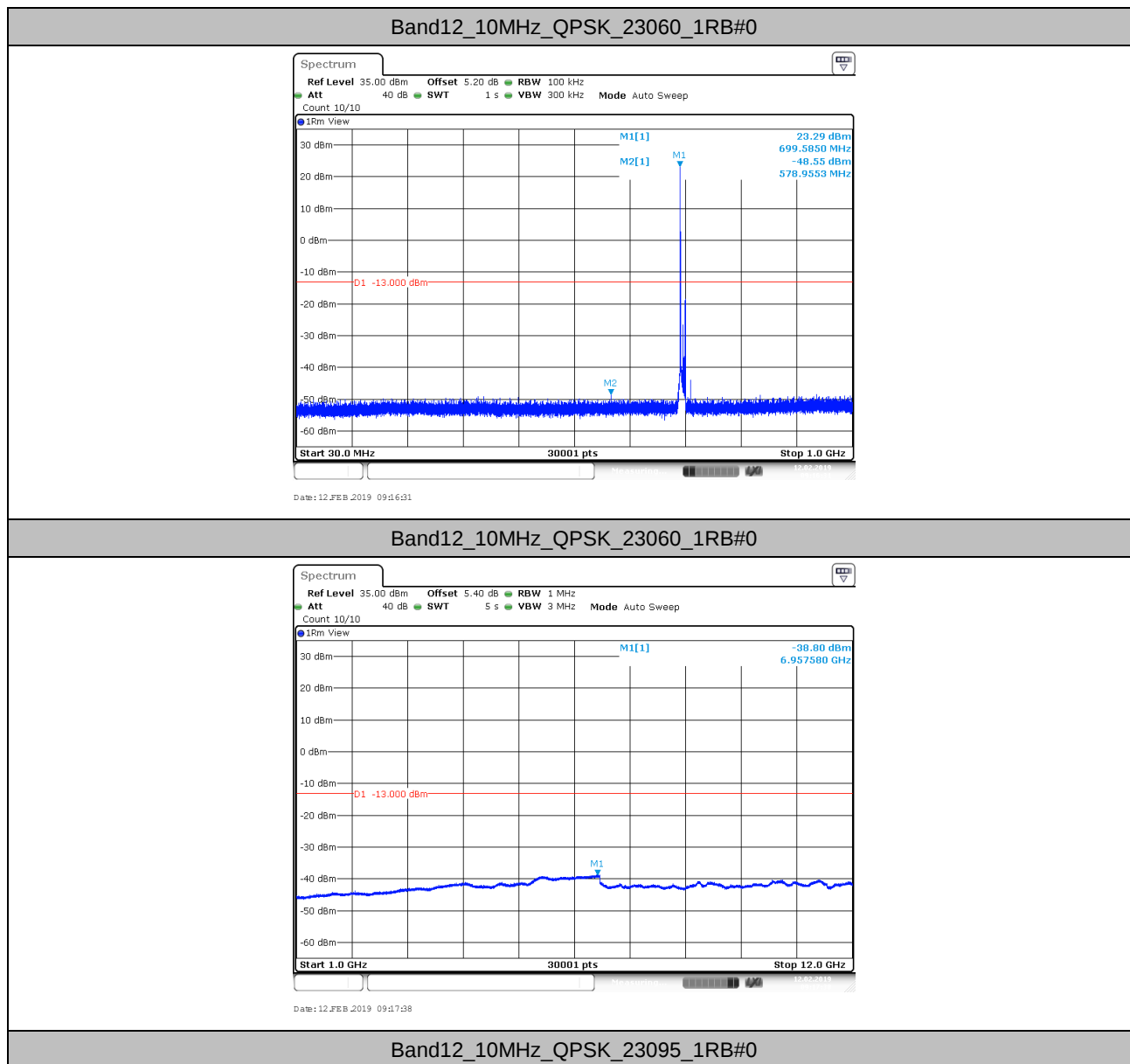
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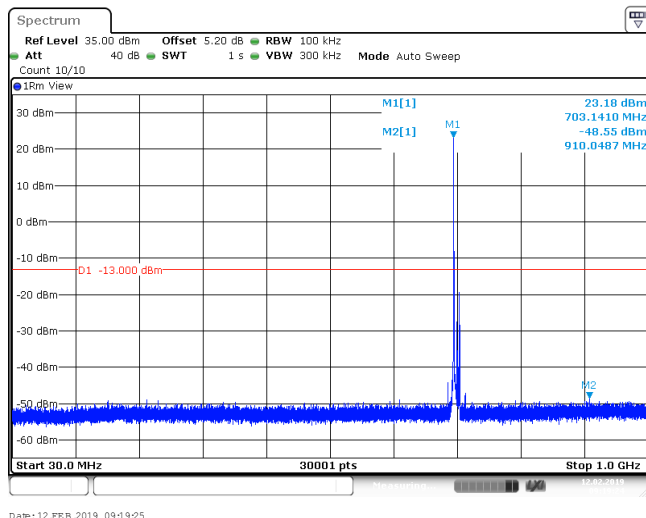
6. Spurious Emission at Antenna Terminal

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.

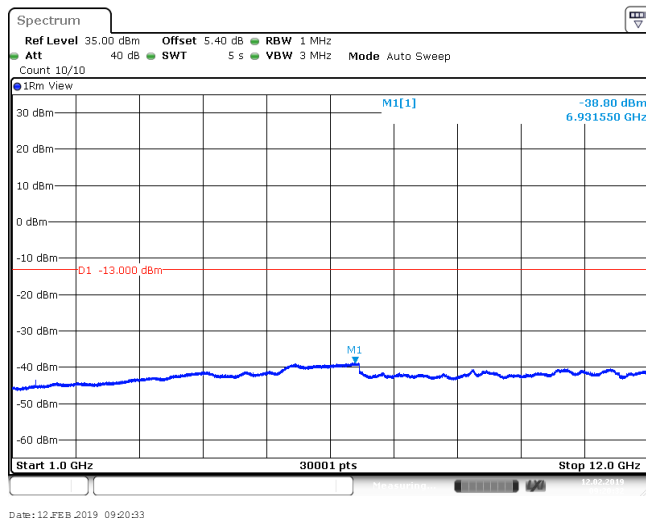
Remark2: only the worst case data displayed in this report.

6.1. Test Plots





Band12_10MHz_QPSK_23095_1RB#0



Band12_10MHz_QPSK_23130_1RB#0

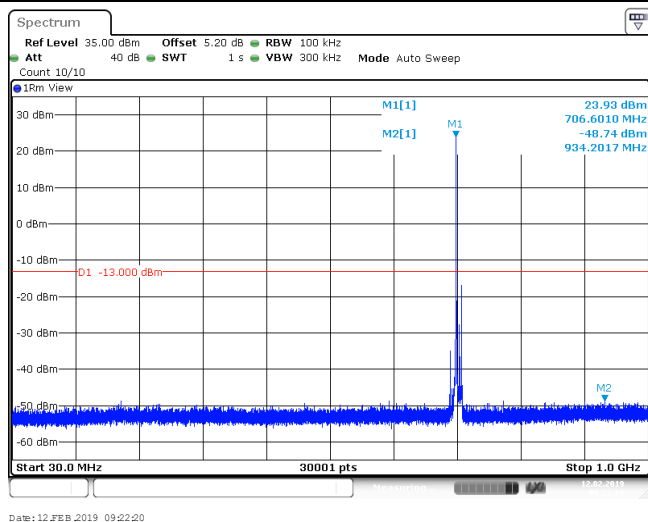


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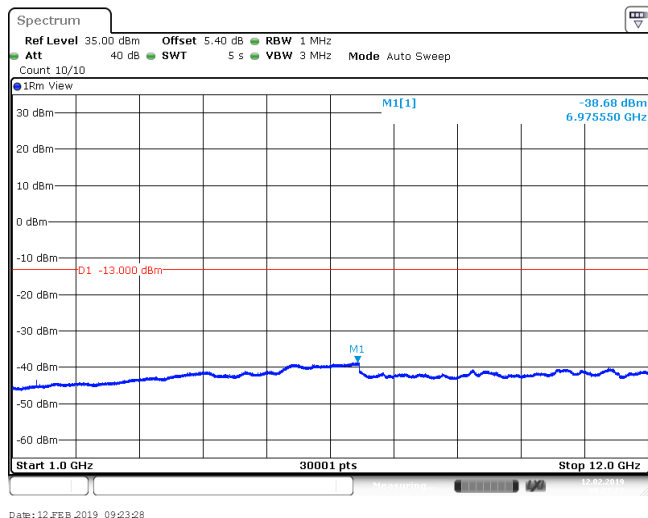
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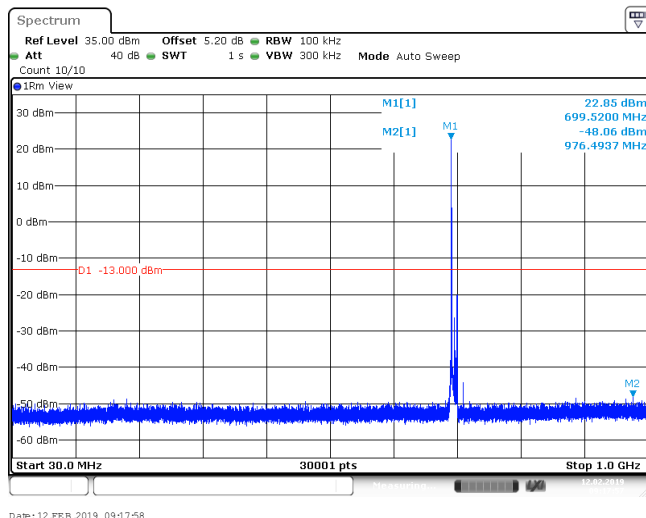


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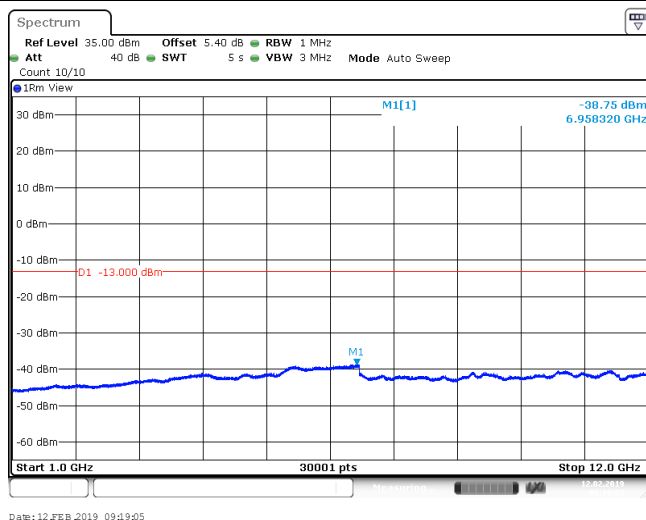


Band12_10MHz_16QAM_23060_1RB#0





Band12_10MHz_16QAM_23060_1RB#0



Band12_10MHz_16QAM_23095_1RB#0

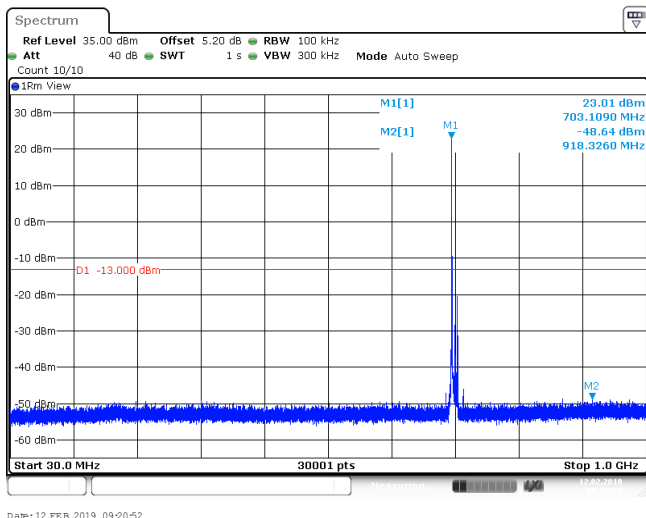


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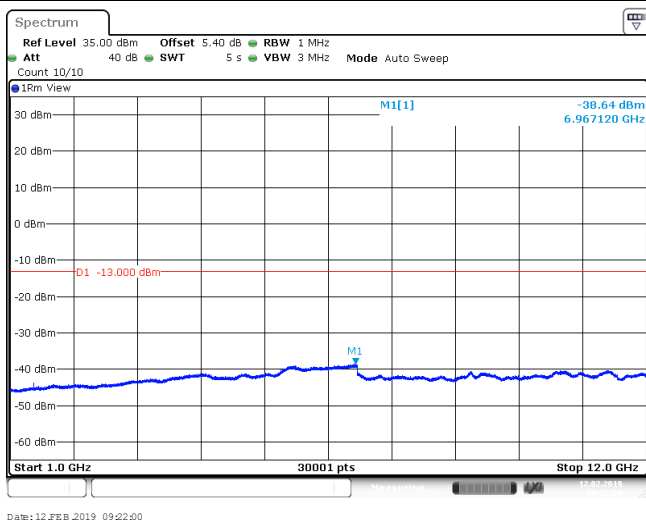
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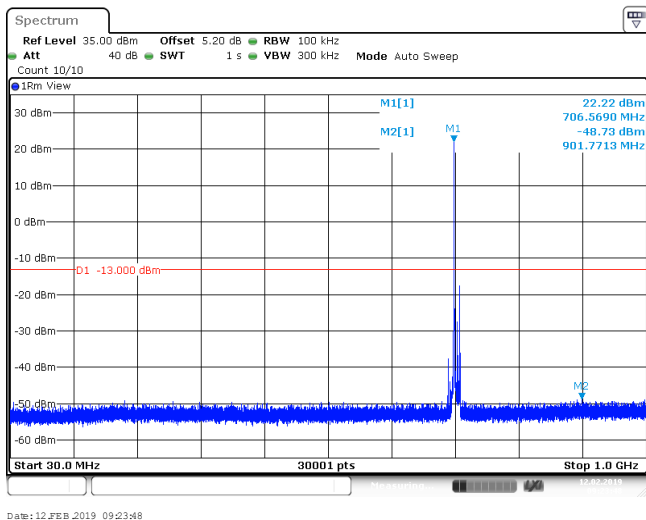
Band12_10MHz_16QAM_23095_1RB#0



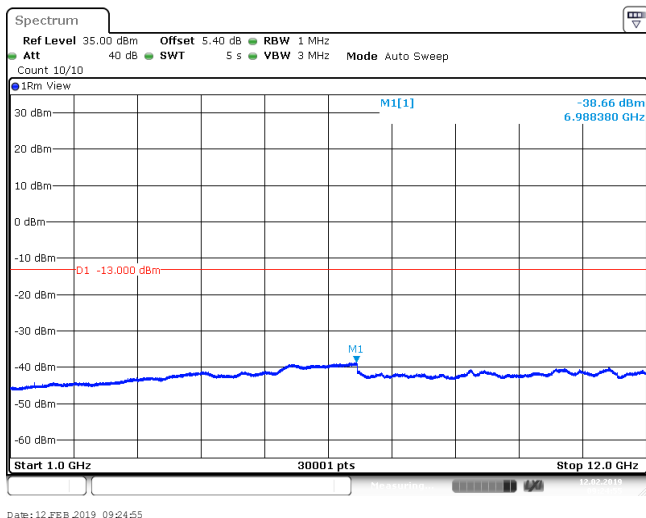
Band12_10MHz_16QAM_23130_1RB#0



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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
66.4253	-70.39	-13.00	57.39	Vertical
111.2901	-65.11	-13.00	52.11	Vertical
387.2689	-68.04	-13.00	55.04	Vertical
1399.2799	-58.05	-13.00	45.05	Vertical
2999.5999	-56.74	-13.00	43.74	Vertical
17998.8000	-33.58	-13.00	20.58	Vertical
43.4837	-64.90	-13.00	51.90	Horizontal
164.9337	-70.01	-13.00	57.01	Horizontal
387.4144	-67.63	-13.00	54.63	Horizontal
1399.2799	-55.80	-13.00	42.80	Horizontal
2986.7974	-56.84	-13.00	43.84	Horizontal
16399.1360	-39.30	-13.00	26.30	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
45.8603	-74.54	-13.00	61.54	Vertical
109.5925	-64.58	-13.00	51.58	Vertical
373.4457	-67.63	-13.00	54.63	Vertical
1406.0812	-62.86	-13.00	49.86	Vertical
3000.0000	-56.70	-13.00	43.70	Vertical
17996.9999	-33.72	-13.00	20.72	Vertical
44.8902	-64.84	-13.00	51.84	Horizontal
164.8367	-69.80	-13.00	56.80	Horizontal



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522.7361	-66.30	-13.00	53.30	Horizontal
1406.0812	-59.23	-13.00	46.23	Horizontal
1943.3887	-54.21	-13.00	41.21	Horizontal
16402.1361	-39.08	-13.00	26.08	Horizontal

7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
79.9090	-69.31	-13.00	56.31	Vertical
110.2715	-65.30	-13.00	52.30	Vertical
554.5537	-66.25	-13.00	53.25	Vertical
1413.2827	-56.07	-13.00	43.07	Vertical
4945.8778	-56.25	-13.00	43.25	Vertical
17972.3989	-33.92	-13.00	20.92	Vertical
42.8046	-63.79	-13.00	50.79	Horizontal
164.9337	-68.72	-13.00	55.72	Horizontal
501.0556	-66.61	-13.00	53.61	Horizontal
1412.8826	-56.36	-13.00	43.36	Horizontal
2700.3401	-56.53	-13.00	43.53	Horizontal
16388.9356	-38.39	-13.00	25.39	Horizontal

7.1.1.4. Spot Check worse mode

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
68.3169	-68.38	-13.00	55.38	Vertical
112.7936	-64.12	-13.00	51.12	Vertical
425.6828	-66.31	-13.00	53.31	Vertical
1406.0812	-53.63	-13.00	40.63	Vertical
2109.4219	-54.08	-13.00	41.08	Vertical
17997.5999	-33.66	-13.00	20.66	Vertical
45.5693	-64.07	-13.00	51.07	Horizontal
152.1776	-68.50	-13.00	55.50	Horizontal



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232.5461	-67.38	-13.00	54.38	Horizontal
1406.0812	-52.36	-13.00	39.36	Horizontal
2697.5395	-55.27	-13.00	42.27	Horizontal
17986.1994	-38.12	-13.00	25.12	Horizontal

Remark:

- 1) 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.
- 2) 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	-0.10	-0.000142	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	0.60	0.000852	±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	0.40	0.000565	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	-0.90	-0.001272	±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	-2.50	-0.003516	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	-2.40	-0.003376	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-2.00	-0.002813	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VL	NT	0.90	0.001278	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VN	NT	-0.90	-0.001278	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VH	NT	-0.30	-0.000426	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VL	NT	-0.60	-0.000848	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VN	NT	1.10	0.001555	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VH	NT	-1.90	-0.002686	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VL	NT	-1.90	-0.002672	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VN	NT	-1.30	-0.001828	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VH	NT	-2.20	-0.003094	±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	0.90	0.001278	±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	0	0.90	0.001278	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	10	0.20	0.000284	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	20	1.20	0.001705	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	30	-0.10	-0.000142	±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	-0.60	-0.000852	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	-1.10	-0.001555	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-1.20	-0.001696	±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	-0.40	-0.000565	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-0.60	-0.000848	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	0.20	0.000283	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	-0.10	-0.000141	±2.5	PASS



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Band12	10MHz	QPSK	23095	50RB#0	NV	50	-2.20	-0.003110	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-30	-2.60	-0.003657	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	-3.00	-0.004219	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-2.50	-0.003516	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	-2.10	-0.002954	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-2.10	-0.002954	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	30	-2.30	-0.003235	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	40	-1.50	-0.002110	±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	-0.90	-0.001278	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-20	-1.00	-0.001420	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	0	1.00	0.001420	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	10	0.90	0.001278	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	20	0.30	0.000426	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	30	0.70	0.000994	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	40	0.50	0.000710	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	50	1.60	0.002273	±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	-0.50	-0.000707	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	0	0.30	0.000424	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	10	1.00	0.001413	±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	0.90	0.001272	±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	0.10	0.000141	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-30	-0.80	-0.001125	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-20	-0.70	-0.000985	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	0	-0.60	-0.000844	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	10	-1.50	-0.002110	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	20	-0.20	-0.000281	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	30	-1.20	-0.001688	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	40	-1.90	-0.002672	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	50	-0.90	-0.001266	±2.5	PASS

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