



Appendix B

E-UTRA BAND 12



CONTENT

1.	EFFECTIVE (ISOTROPIC) RADIATED POWER.....	3
1.1.	Test Result.....	3
2.	PEAK-TO-AVERAGE RATIO(CCDF).....	8
2.1.	Test Result.....	8
2.2.	Test Plots.....	8
3.	MODULATION CHARACTERISTICS	11
3.1.	Test BAND = LTE BAND12	11
3.1.1.	Test Mode = LTE /TM1 10MHz.....	11
3.1.1.1.	Test Channel = MCH.....	11
3.1.2.	Test Mode = LTE /TM2 10MHz.....	12
3.1.2.1.	Test Channel = MCH.....	12
4.	26dB BANDWIDTH AND OCCUPIED BANDWIDTH	13
4.1.	Test Result.....	13
4.2.	Test Plots.....	14
5.	BAND EDGE COMPLIANCE	23
5.1.	Test Plots.....	23
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	40
6.1.	Test Plots.....	40
7.	FIELD STRENGTH OF SPURIOUS RADIATION	45
7.1.	Test BAND = LTE BAND 12	45
7.1.1.	Test Mode =LTE/TM1 10MHz	45
7.1.1.1.	Test Channel = LCH	45
7.1.1.2.	Test Channel = MCH.....	45
7.1.1.3.	Test Channel = HCH.....	46
8.	FREQUENCY STABILITY	47
9.1.	Frequency Vs Voltage.....	47
9.2.	Frequency Vs Temperature	47



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	22.39	20.24	34.77	PASS
BAND12	1.4MHz	QPSK	23017	1RB#2	22.43	20.28	34.77	PASS
BAND12	1.4MHz	QPSK	23017	1RB#5	22.26	20.11	34.77	PASS
BAND12	1.4MHz	QPSK	23017	3RB#0	22.38	20.23	34.77	PASS
BAND12	1.4MHz	QPSK	23017	3RB#1	22.40	20.25	34.77	PASS
BAND12	1.4MHz	QPSK	23017	3RB#3	22.35	20.20	34.77	PASS
BAND12	1.4MHz	QPSK	23017	6RB#0	21.37	19.22	34.77	PASS
BAND12	1.4MHz	QPSK	23095	1RB#0	22.28	20.13	34.77	PASS
BAND12	1.4MHz	QPSK	23095	1RB#2	22.44	20.29	34.77	PASS
BAND12	1.4MHz	QPSK	23095	1RB#5	22.25	20.10	34.77	PASS
BAND12	1.4MHz	QPSK	23095	3RB#0	22.36	20.21	34.77	PASS
BAND12	1.4MHz	QPSK	23095	3RB#1	22.41	20.26	34.77	PASS
BAND12	1.4MHz	QPSK	23095	3RB#3	22.34	20.19	34.77	PASS
BAND12	1.4MHz	QPSK	23095	6RB#0	21.35	19.20	34.77	PASS
BAND12	1.4MHz	QPSK	23173	1RB#0	22.19	20.04	34.77	PASS
BAND12	1.4MHz	QPSK	23173	1RB#2	22.32	20.17	34.77	PASS
BAND12	1.4MHz	QPSK	23173	1RB#5	22.19	20.04	34.77	PASS
BAND12	1.4MHz	QPSK	23173	3RB#0	22.25	20.10	34.77	PASS
BAND12	1.4MHz	QPSK	23173	3RB#1	22.34	20.19	34.77	PASS
BAND12	1.4MHz	QPSK	23173	3RB#3	22.25	20.10	34.77	PASS
BAND12	1.4MHz	QPSK	23173	6RB#0	21.29	19.14	34.77	PASS
BAND12	1.4MHz	16QAM	23017	1RB#0	21.50	19.35	34.77	PASS
BAND12	1.4MHz	16QAM	23017	1RB#2	21.63	19.48	34.77	PASS
BAND12	1.4MHz	16QAM	23017	1RB#5	21.45	19.30	34.77	PASS
BAND12	1.4MHz	16QAM	23017	3RB#0	21.44	19.29	34.77	PASS
BAND12	1.4MHz	16QAM	23017	3RB#1	21.49	19.34	34.77	PASS
BAND12	1.4MHz	16QAM	23017	3RB#3	21.48	19.33	34.77	PASS
BAND12	1.4MHz	16QAM	23017	6RB#0	20.50	18.35	34.77	PASS
BAND12	1.4MHz	16QAM	23095	1RB#0	21.45	19.30	34.77	PASS
BAND12	1.4MHz	16QAM	23095	1RB#2	21.65	19.50	34.77	PASS
BAND12	1.4MHz	16QAM	23095	1RB#5	21.41	19.26	34.77	PASS
BAND12	1.4MHz	16QAM	23095	3RB#0	21.41	19.26	34.77	PASS
BAND12	1.4MHz	16QAM	23095	3RB#1	21.42	19.27	34.77	PASS
BAND12	1.4MHz	16QAM	23095	3RB#3	21.42	19.27	34.77	PASS



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Report No.: SZEM180500457101

Page: 4 of 48

BAND12	1.4MHz	16QAM	23095	6RB#0	20.48	18.33	34.77	PASS
BAND12	1.4MHz	16QAM	23173	1RB#0	21.38	19.23	34.77	PASS
BAND12	1.4MHz	16QAM	23173	1RB#2	21.44	19.29	34.77	PASS
BAND12	1.4MHz	16QAM	23173	1RB#5	21.42	19.27	34.77	PASS
BAND12	1.4MHz	16QAM	23173	3RB#0	21.32	19.17	34.77	PASS
BAND12	1.4MHz	16QAM	23173	3RB#1	21.46	19.31	34.77	PASS
BAND12	1.4MHz	16QAM	23173	3RB#3	21.28	19.13	34.77	PASS
BAND12	1.4MHz	16QAM	23173	6RB#0	20.40	18.25	34.77	PASS
BAND12	3MHz	QPSK	23025	1RB#0	22.33	20.18	34.77	PASS
BAND12	3MHz	QPSK	23025	1RB#8	22.31	20.16	34.77	PASS
BAND12	3MHz	QPSK	23025	1RB#14	22.30	20.15	34.77	PASS
BAND12	3MHz	QPSK	23025	8RB#0	21.30	19.15	34.77	PASS
BAND12	3MHz	QPSK	23025	8RB#4	21.36	19.21	34.77	PASS
BAND12	3MHz	QPSK	23025	8RB#7	21.36	19.21	34.77	PASS
BAND12	3MHz	QPSK	23025	15RB#0	21.34	19.19	34.77	PASS
BAND12	3MHz	QPSK	23095	1RB#0	22.28	20.13	34.77	PASS
BAND12	3MHz	QPSK	23095	1RB#8	22.31	20.16	34.77	PASS
BAND12	3MHz	QPSK	23095	1RB#14	22.27	20.12	34.77	PASS
BAND12	3MHz	QPSK	23095	8RB#0	21.32	19.17	34.77	PASS
BAND12	3MHz	QPSK	23095	8RB#4	21.36	19.21	34.77	PASS
BAND12	3MHz	QPSK	23095	8RB#7	21.29	19.14	34.77	PASS
BAND12	3MHz	QPSK	23095	15RB#0	21.30	19.15	34.77	PASS
BAND12	3MHz	QPSK	23165	1RB#0	22.23	20.08	34.77	PASS
BAND12	3MHz	QPSK	23165	1RB#8	22.20	20.05	34.77	PASS
BAND12	3MHz	QPSK	23165	1RB#14	22.19	20.04	34.77	PASS
BAND12	3MHz	QPSK	23165	8RB#0	21.28	19.13	34.77	PASS
BAND12	3MHz	QPSK	23165	8RB#4	21.28	19.13	34.77	PASS
BAND12	3MHz	QPSK	23165	8RB#7	21.23	19.08	34.77	PASS
BAND12	3MHz	QPSK	23165	15RB#0	21.27	19.12	34.77	PASS
BAND12	3MHz	16QAM	23025	1RB#0	21.54	19.39	34.77	PASS
BAND12	3MHz	16QAM	23025	1RB#8	21.43	19.28	34.77	PASS
BAND12	3MHz	16QAM	23025	1RB#14	21.37	19.22	34.77	PASS
BAND12	3MHz	16QAM	23025	8RB#0	20.40	18.25	34.77	PASS
BAND12	3MHz	16QAM	23025	8RB#4	20.46	18.31	34.77	PASS
BAND12	3MHz	16QAM	23025	8RB#7	20.41	18.26	34.77	PASS
BAND12	3MHz	16QAM	23025	15RB#0	20.36	18.21	34.77	PASS
BAND12	3MHz	16QAM	23095	1RB#0	21.56	19.41	34.77	PASS
BAND12	3MHz	16QAM	23095	1RB#8	21.55	19.40	34.77	PASS
BAND12	3MHz	16QAM	23095	1RB#14	21.50	19.35	34.77	PASS
BAND12	3MHz	16QAM	23095	8RB#0	20.40	18.25	34.77	PASS
BAND12	3MHz	16QAM	23095	8RB#4	20.43	18.28	34.77	PASS

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Report No.: SZEM180500457101

Page: 5 of 48

BAND12	3MHz	16QAM	23095	8RB#7	20.38	18.23	34.77	PASS
BAND12	3MHz	16QAM	23095	15RB#0	20.34	18.19	34.77	PASS
BAND12	3MHz	16QAM	23165	1RB#0	21.41	19.26	34.77	PASS
BAND12	3MHz	16QAM	23165	1RB#8	21.47	19.32	34.77	PASS
BAND12	3MHz	16QAM	23165	1RB#14	21.40	19.25	34.77	PASS
BAND12	3MHz	16QAM	23165	8RB#0	20.35	18.20	34.77	PASS
BAND12	3MHz	16QAM	23165	8RB#4	20.34	18.19	34.77	PASS
BAND12	3MHz	16QAM	23165	8RB#7	20.31	18.16	34.77	PASS
BAND12	3MHz	16QAM	23165	15RB#0	20.27	18.12	34.77	PASS
BAND12	5MHz	QPSK	23035	1RB#0	22.24	20.09	34.77	PASS
BAND12	5MHz	QPSK	23035	1RB#12	22.49	20.34	34.77	PASS
BAND12	5MHz	QPSK	23035	1RB#24	22.22	20.07	34.77	PASS
BAND12	5MHz	QPSK	23035	12RB#0	21.20	19.05	34.77	PASS
BAND12	5MHz	QPSK	23035	12RB#6	21.35	19.20	34.77	PASS
BAND12	5MHz	QPSK	23035	12RB#13	21.31	19.16	34.77	PASS
BAND12	5MHz	QPSK	23035	25RB#0	21.29	19.14	34.77	PASS
BAND12	5MHz	QPSK	23095	1RB#0	22.22	20.07	34.77	PASS
BAND12	5MHz	QPSK	23095	1RB#12	22.50	20.35	34.77	PASS
BAND12	5MHz	QPSK	23095	1RB#24	22.15	20.00	34.77	PASS
BAND12	5MHz	QPSK	23095	12RB#0	21.33	19.18	34.77	PASS
BAND12	5MHz	QPSK	23095	12RB#6	21.31	19.16	34.77	PASS
BAND12	5MHz	QPSK	23095	12RB#13	21.26	19.11	34.77	PASS
BAND12	5MHz	QPSK	23095	25RB#0	21.35	19.20	34.77	PASS
BAND12	5MHz	QPSK	23155	1RB#0	22.18	20.03	34.77	PASS
BAND12	5MHz	QPSK	23155	1RB#12	22.38	20.23	34.77	PASS
BAND12	5MHz	QPSK	23155	1RB#24	22.11	19.96	34.77	PASS
BAND12	5MHz	QPSK	23155	12RB#0	21.23	19.08	34.77	PASS
BAND12	5MHz	QPSK	23155	12RB#6	21.29	19.14	34.77	PASS
BAND12	5MHz	QPSK	23155	12RB#13	21.13	18.98	34.77	PASS
BAND12	5MHz	QPSK	23155	25RB#0	21.22	19.07	34.77	PASS
BAND12	5MHz	16QAM	23035	1RB#0	21.38	19.23	34.77	PASS
BAND12	5MHz	16QAM	23035	1RB#12	21.60	19.45	34.77	PASS
BAND12	5MHz	16QAM	23035	1RB#24	21.35	19.20	34.77	PASS
BAND12	5MHz	16QAM	23035	12RB#0	20.29	18.14	34.77	PASS
BAND12	5MHz	16QAM	23035	12RB#6	20.45	18.30	34.77	PASS
BAND12	5MHz	16QAM	23035	12RB#13	20.40	18.25	34.77	PASS
BAND12	5MHz	16QAM	23035	25RB#0	20.32	18.17	34.77	PASS
BAND12	5MHz	16QAM	23095	1RB#0	21.47	19.32	34.77	PASS
BAND12	5MHz	16QAM	23095	1RB#12	21.69	19.54	34.77	PASS
BAND12	5MHz	16QAM	23095	1RB#24	21.36	19.21	34.77	PASS
BAND12	5MHz	16QAM	23095	12RB#0	20.45	18.30	34.77	PASS

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Report No.: SZEM180500457101

Page: 6 of 48

BAND12	5MHz	16QAM	23095	12RB#6	20.42	18.27	34.77	PASS
BAND12	5MHz	16QAM	23095	12RB#13	20.34	18.19	34.77	PASS
BAND12	5MHz	16QAM	23095	25RB#0	20.40	18.25	34.77	PASS
BAND12	5MHz	16QAM	23155	1RB#0	21.35	19.20	34.77	PASS
BAND12	5MHz	16QAM	23155	1RB#12	21.50	19.35	34.77	PASS
BAND12	5MHz	16QAM	23155	1RB#24	21.32	19.17	34.77	PASS
BAND12	5MHz	16QAM	23155	12RB#0	20.36	18.21	34.77	PASS
BAND12	5MHz	16QAM	23155	12RB#6	20.41	18.26	34.77	PASS
BAND12	5MHz	16QAM	23155	12RB#13	20.24	18.09	34.77	PASS
BAND12	5MHz	16QAM	23155	25RB#0	20.26	18.11	34.77	PASS
BAND12	10MHz	QPSK	23060	1RB#0	22.34	20.19	34.77	PASS
BAND12	10MHz	QPSK	23060	1RB#24	22.40	20.25	34.77	PASS
BAND12	10MHz	QPSK	23060	1RB#49	22.25	20.10	34.77	PASS
BAND12	10MHz	QPSK	23060	25RB#0	21.23	19.08	34.77	PASS
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BAND12	10MHz	QPSK	23060	50RB#0	21.26	19.11	34.77	PASS
BAND12	10MHz	QPSK	23095	1RB#0	22.28	20.13	34.77	PASS
BAND12	10MHz	QPSK	23095	1RB#24	22.39	20.24	34.77	PASS
BAND12	10MHz	QPSK	23095	1RB#49	22.22	20.07	34.77	PASS
BAND12	10MHz	QPSK	23095	25RB#0	21.47	19.32	34.77	PASS
BAND12	10MHz	QPSK	23095	25RB#12	21.33	19.18	34.77	PASS
BAND12	10MHz	QPSK	23095	25RB#25	21.36	19.21	34.77	PASS
BAND12	10MHz	QPSK	23095	50RB#0	21.45	19.30	34.77	PASS
BAND12	10MHz	QPSK	23130	1RB#0	22.28	20.13	34.77	PASS
BAND12	10MHz	QPSK	23130	1RB#24	22.35	20.20	34.77	PASS
BAND12	10MHz	QPSK	23130	1RB#49	22.18	20.03	34.77	PASS
BAND12	10MHz	QPSK	23130	25RB#0	21.39	19.24	34.77	PASS
BAND12	10MHz	QPSK	23130	25RB#12	21.36	19.21	34.77	PASS
BAND12	10MHz	QPSK	23130	25RB#25	21.29	19.14	34.77	PASS
BAND12	10MHz	QPSK	23130	50RB#0	21.35	19.20	34.77	PASS
BAND12	10MHz	16QAM	23060	1RB#0	21.55	19.40	34.77	PASS
BAND12	10MHz	16QAM	23060	1RB#24	21.59	19.44	34.77	PASS
BAND12	10MHz	16QAM	23060	1RB#49	21.37	19.22	34.77	PASS
BAND12	10MHz	16QAM	23060	25RB#0	20.27	18.12	34.77	PASS
BAND12	10MHz	16QAM	23060	25RB#12	20.37	18.22	34.77	PASS
BAND12	10MHz	16QAM	23060	25RB#25	20.25	18.10	34.77	PASS
BAND12	10MHz	16QAM	23060	50RB#0	20.29	18.14	34.77	PASS
BAND12	10MHz	16QAM	23095	1RB#0	21.56	19.41	34.77	PASS
BAND12	10MHz	16QAM	23095	1RB#24	21.67	19.52	34.77	PASS
BAND12	10MHz	16QAM	23095	1RB#49	21.46	19.31	34.77	PASS

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Shenzhen Branch

Report No.: SZEM180500457101

Page: 7 of 48

BAND12	10MHz	16QAM	23095	25RB#0	20.49	18.34	34.77	PASS
BAND12	10MHz	16QAM	23095	25RB#12	20.35	18.20	34.77	PASS
BAND12	10MHz	16QAM	23095	25RB#25	20.38	18.23	34.77	PASS
BAND12	10MHz	16QAM	23095	50RB#0	20.47	18.32	34.77	PASS
BAND12	10MHz	16QAM	23130	1RB#0	21.53	19.38	34.77	PASS
BAND12	10MHz	16QAM	23130	1RB#24	21.64	19.49	34.77	PASS
BAND12	10MHz	16QAM	23130	1RB#49	21.36	19.21	34.77	PASS
BAND12	10MHz	16QAM	23130	25RB#0	20.43	18.28	34.77	PASS
BAND12	10MHz	16QAM	23130	25RB#12	20.38	18.23	34.77	PASS
BAND12	10MHz	16QAM	23130	25RB#25	20.33	18.18	34.77	PASS
BAND12	10MHz	16QAM	23130	50RB#0	20.41	18.26	34.77	PASS

Note:

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

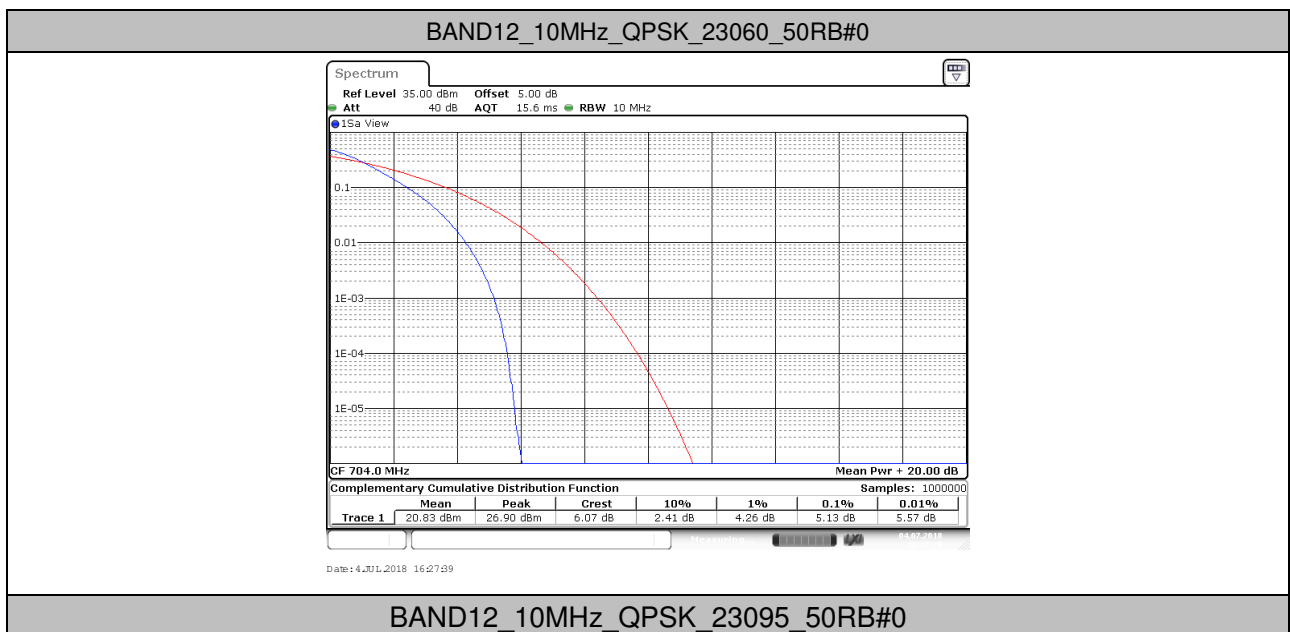


2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
BAND12	10MHz	QPSK	23060	50RB#0	5.13	13	PASS
BAND12	10MHz	QPSK	23095	50RB#0	5.22	13	PASS
BAND12	10MHz	QPSK	23130	50RB#0	5.07	13	PASS
BAND12	10MHz	16QAM	23060	50RB#0	6.00	13	PASS
BAND12	10MHz	16QAM	23095	50RB#0	6.00	13	PASS
BAND12	10MHz	16QAM	23130	50RB#0	5.86	13	PASS

2.2. Test Plots

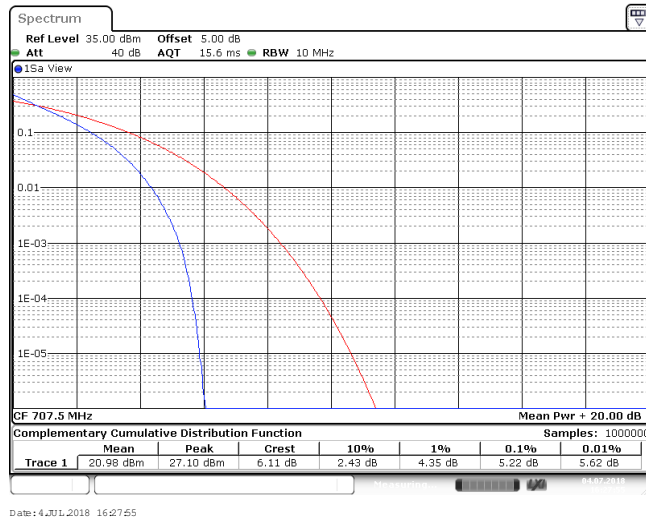




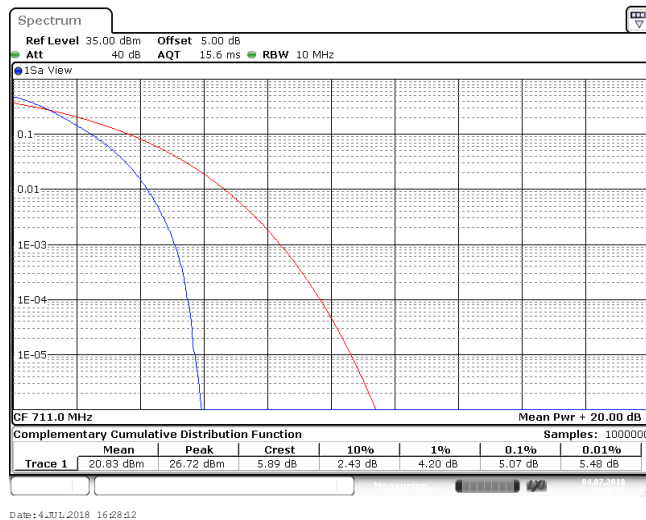
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Report No.: SZEM180500457101

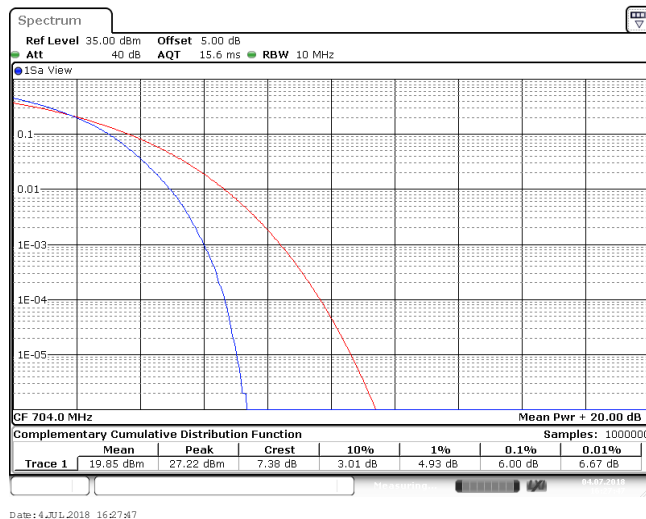
Page: 9 of 48



BAND12_10MHz_QPSK_23130_50RB#0



BAND12_10MHz_16QAM_23060_50RB#0



BAND12_10MHz_16QAM_23095_50RB#0

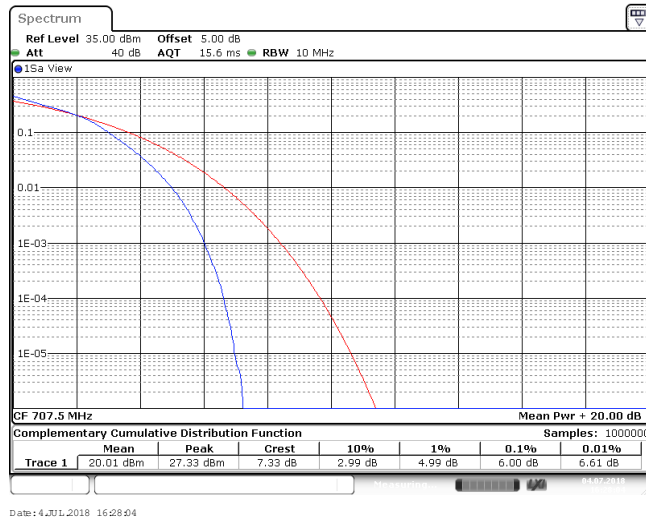
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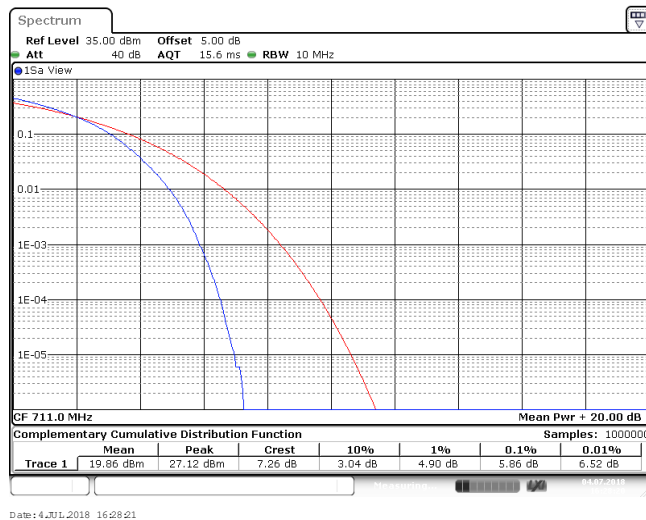
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM180500457101

Page: 10 of 48



BAND12_10MHz_16QAM_23130_50RB#0

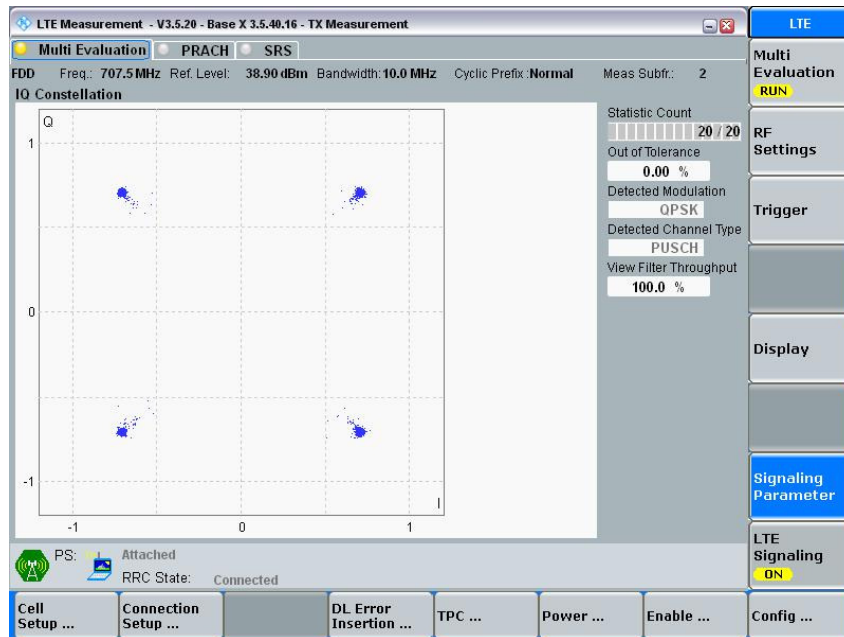


3. Modulation Characteristics

3.1. Test BAND = LTE BAND12

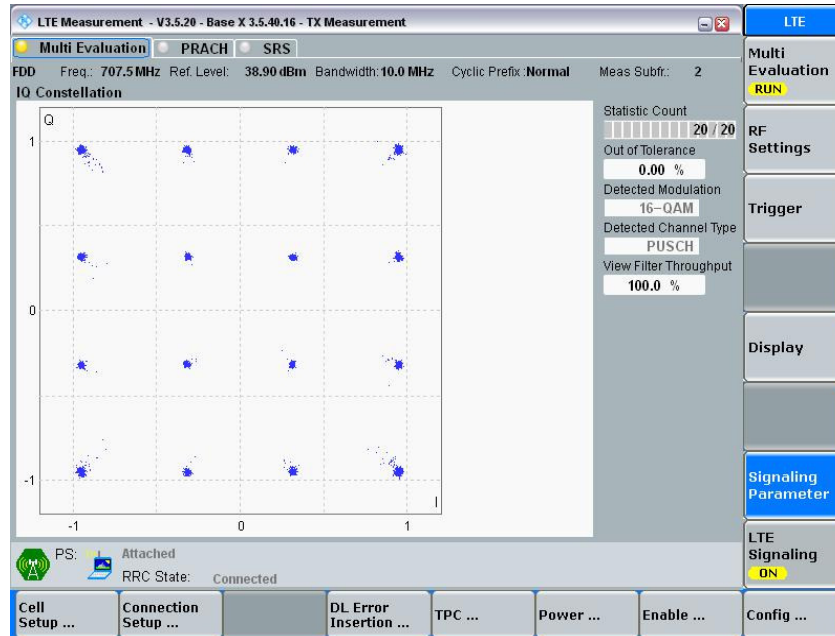
3.1.1. Test Mode = LTE /TM1 10MHz

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	1.091	1.287	PASS
BAND12	1.4MHz	QPSK	23095	6RB#0	1.091	1.287	PASS
BAND12	1.4MHz	QPSK	23173	6RB#0	1.088	1.290	PASS
BAND12	1.4MHz	16QAM	23017	6RB#0	1.091	1.293	PASS
BAND12	1.4MHz	16QAM	23095	6RB#0	1.088	1.281	PASS
BAND12	1.4MHz	16QAM	23173	6RB#0	1.088	1.266	PASS
BAND12	3MHz	QPSK	23025	15RB#0	2.685	2.910	PASS
BAND12	3MHz	QPSK	23095	15RB#0	2.691	2.922	PASS
BAND12	3MHz	QPSK	23165	15RB#0	2.685	2.916	PASS
BAND12	3MHz	16QAM	23025	15RB#0	2.673	2.898	PASS
BAND12	3MHz	16QAM	23095	15RB#0	2.673	2.916	PASS
BAND12	3MHz	16QAM	23165	15RB#0	2.673	2.904	PASS
BAND12	5MHz	QPSK	23035	25RB#0	4.466	5.000	PASS
BAND12	5MHz	QPSK	23095	25RB#0	4.476	5.080	PASS
BAND12	5MHz	QPSK	23155	25RB#0	4.476	4.990	PASS
BAND12	5MHz	16QAM	23035	25RB#0	4.476	5.030	PASS
BAND12	5MHz	16QAM	23095	25RB#0	4.496	5.100	PASS
BAND12	5MHz	16QAM	23155	25RB#0	4.476	5.030	PASS
BAND12	10MHz	QPSK	23060	50RB#0	8.931	9.800	PASS
BAND12	10MHz	QPSK	23095	50RB#0	8.951	9.960	PASS
BAND12	10MHz	QPSK	23130	50RB#0	8.911	9.820	PASS
BAND12	10MHz	16QAM	23060	50RB#0	8.911	9.860	PASS
BAND12	10MHz	16QAM	23095	50RB#0	8.971	9.900	PASS
BAND12	10MHz	16QAM	23130	50RB#0	8.911	9.880	PASS



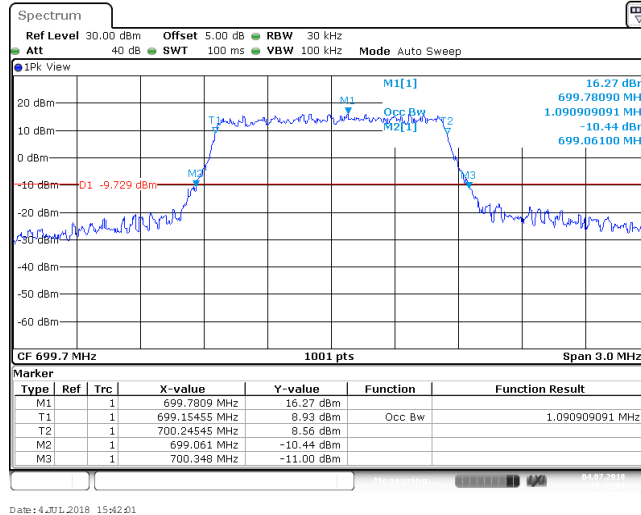
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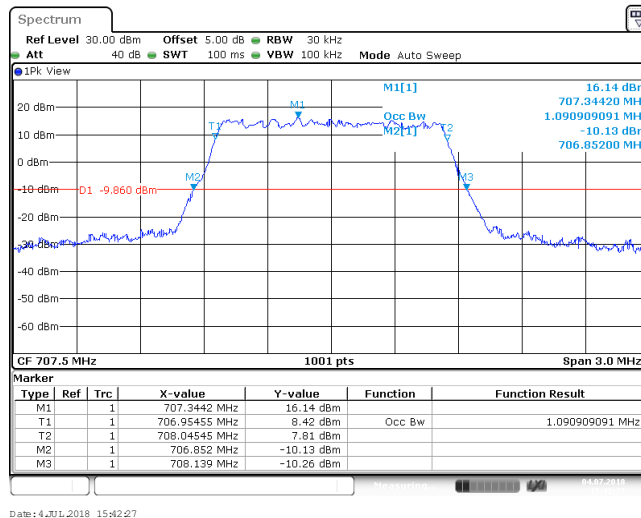
Page: 14 of 48

4.2. Test Plots

BAND12_1.4MHz_QPSK_23017_6RB#0



BAND12_1.4MHz_QPSK_23095_6RB#0



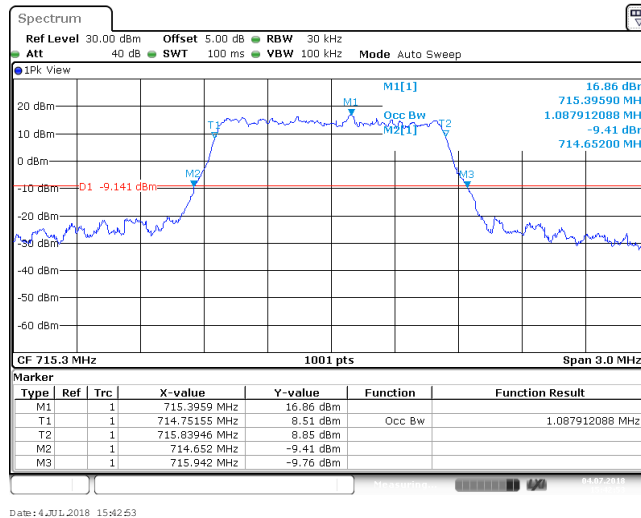
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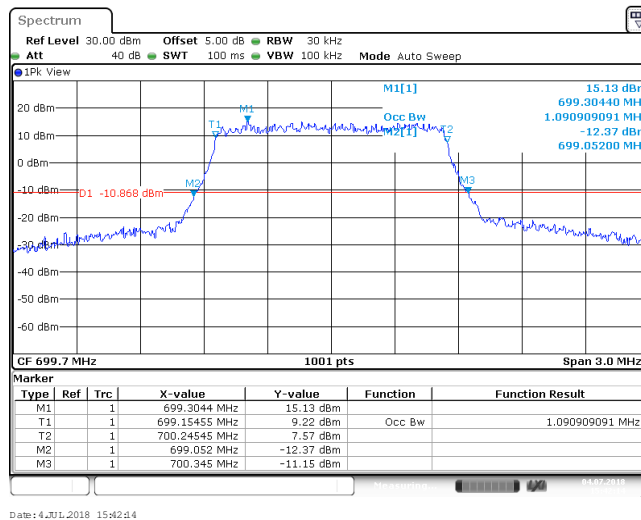
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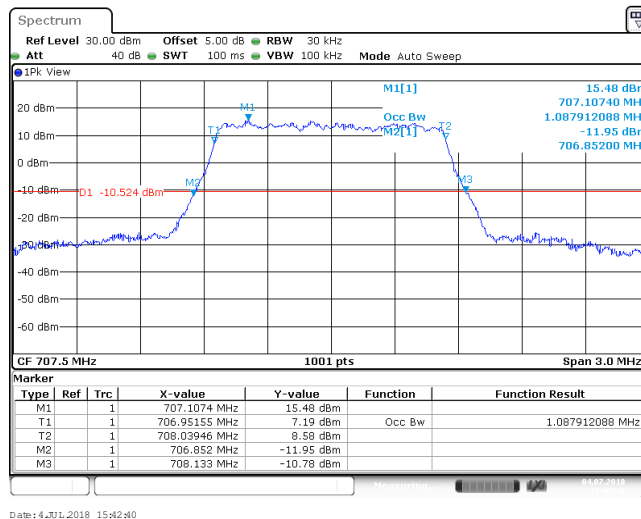
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BAND12_1.4MHz_16QAM_23017_6RB#0



BAND12_1.4MHz_16QAM_23095_6RB#0



BAND12_1.4MHz_16QAM_23173_6RB#0

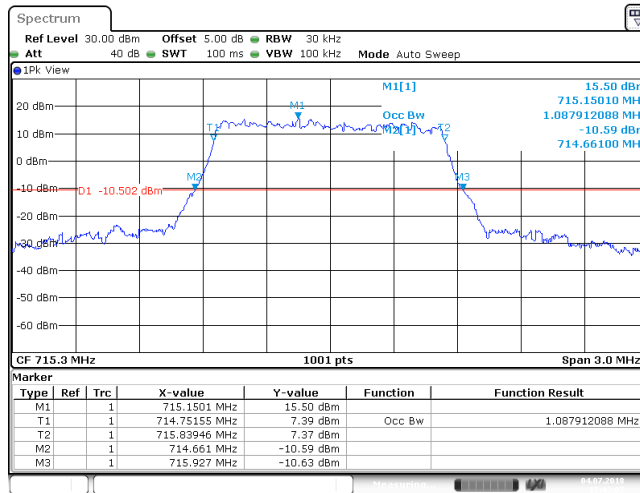
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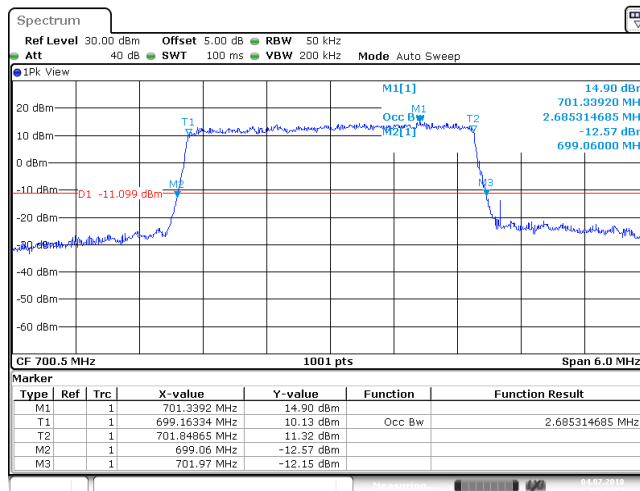
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Page: 16 of 48



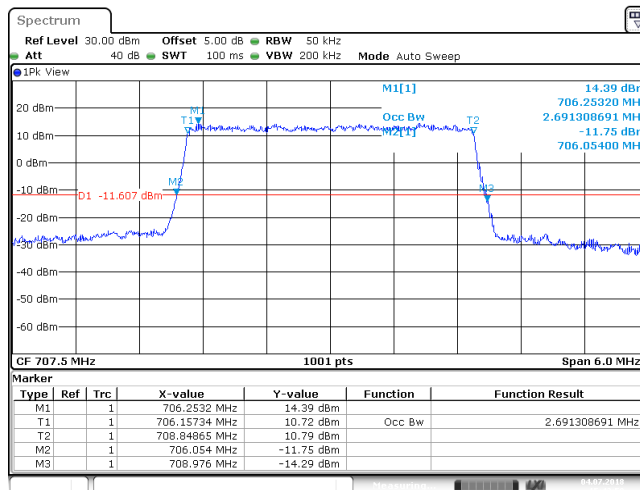
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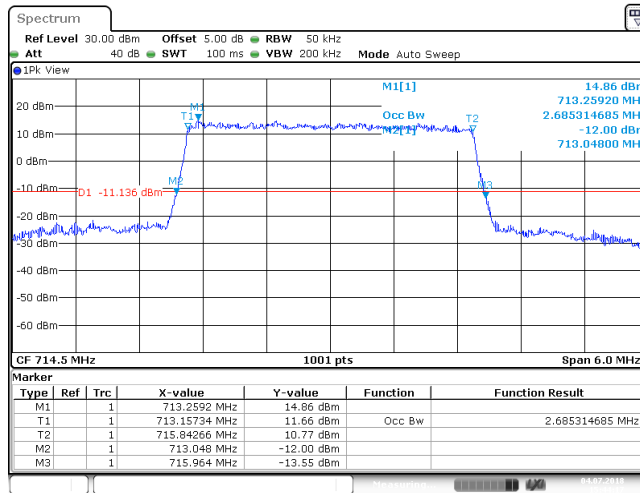
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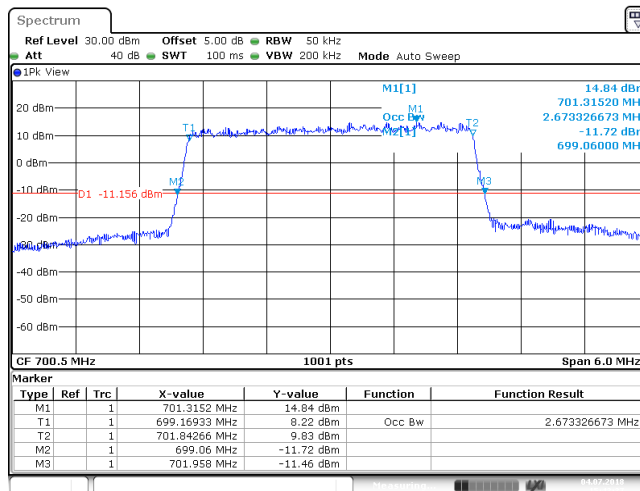
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Page: 17 of 48



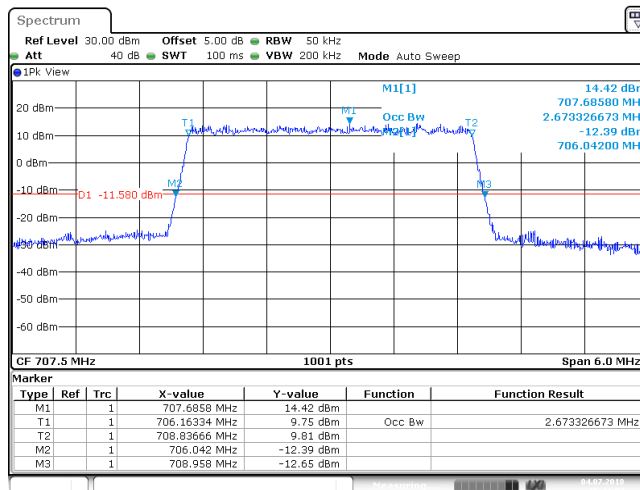
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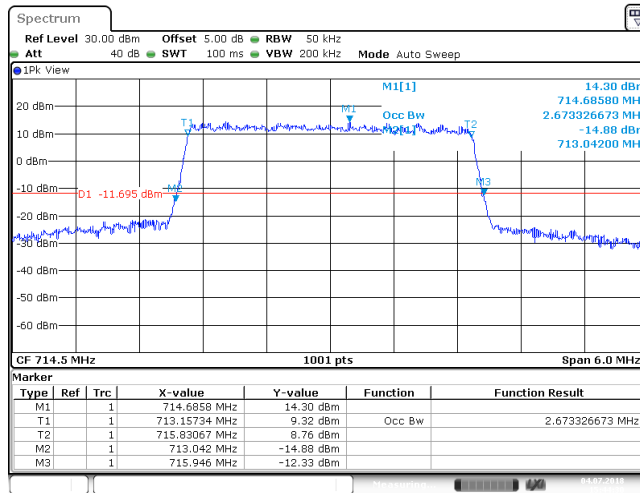
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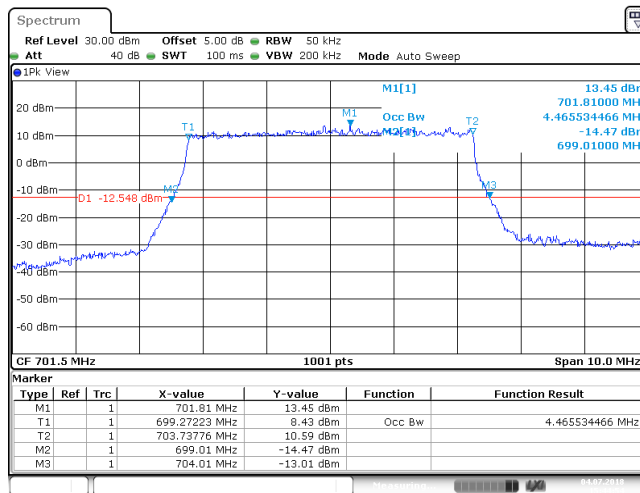
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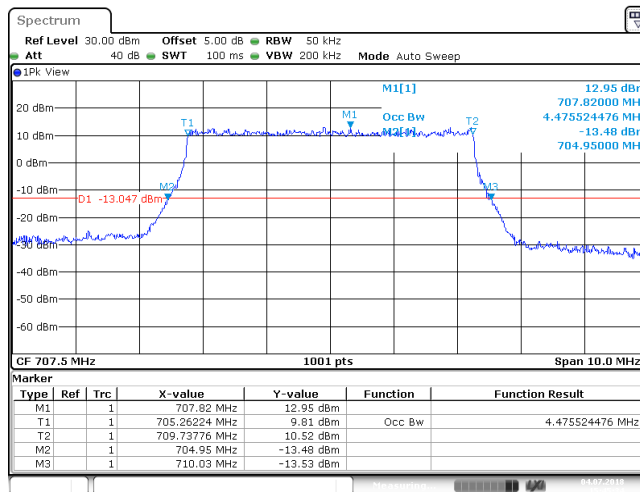
Page: 18 of 48



BAND12_5MHz_QPSK_23035_25RB#0



BAND12_5MHz_QPSK_23095_25RB#0



BAND12_5MHz_QPSK_23155_25RB#0

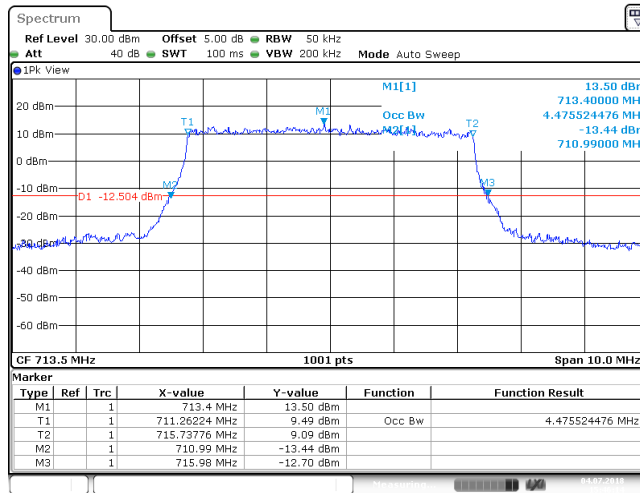
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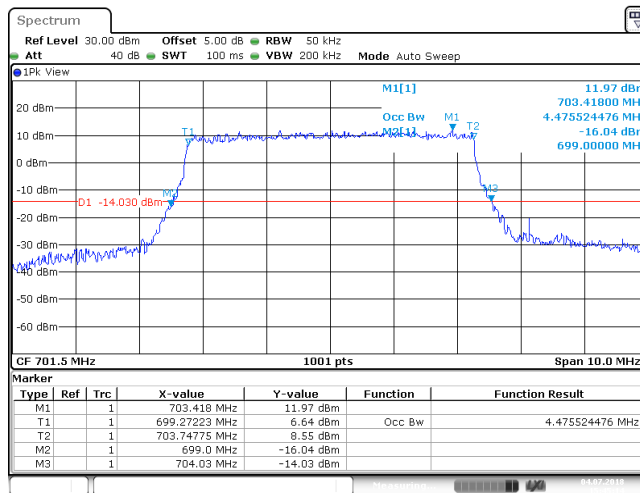
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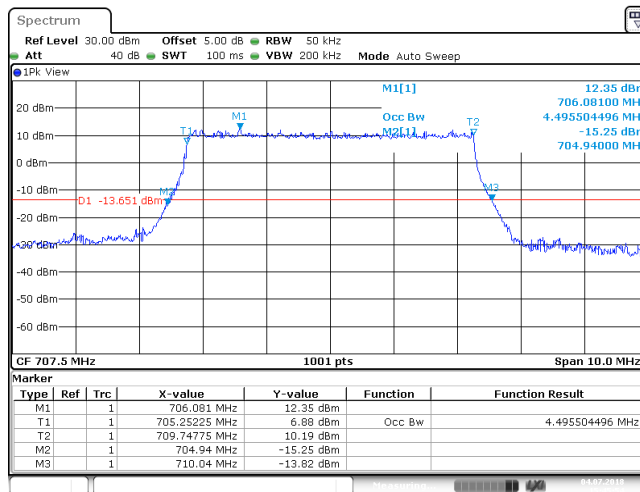
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BAND12_5MHz_16QAM_23035_25RB#0



BAND12_5MHz_16QAM_23095_25RB#0



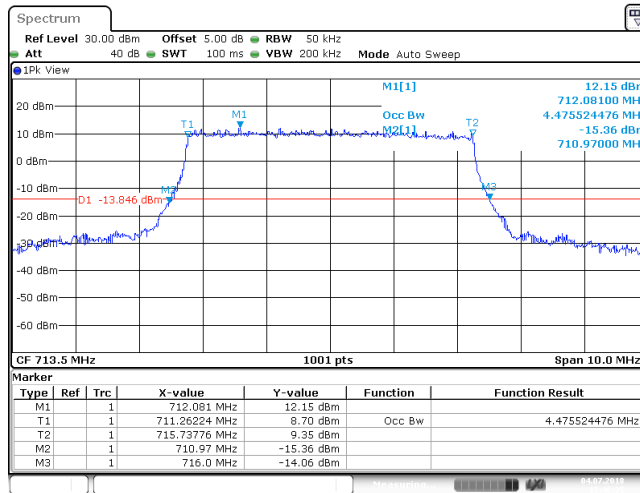
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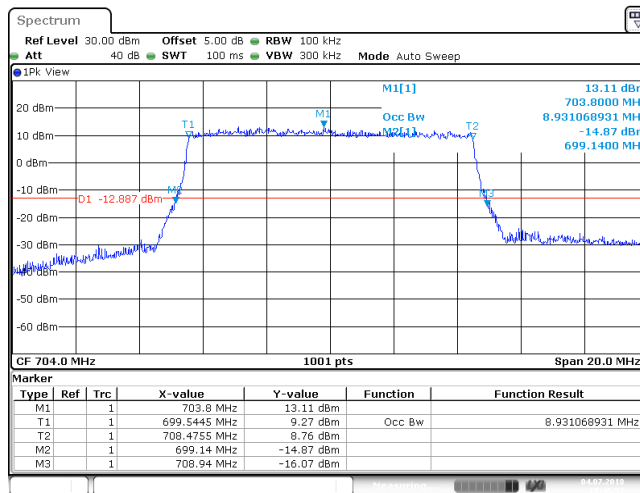
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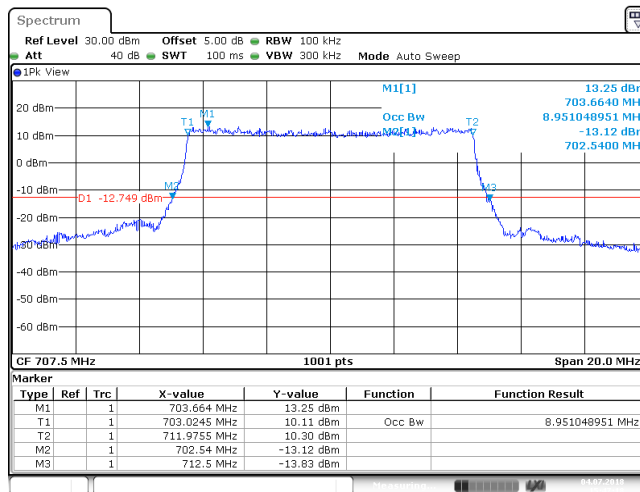
Page: 20 of 48



BAND12_10MHz_QPSK_23060_50RB#0



BAND12_10MHz_QPSK_23095_50RB#0



BAND12_10MHz_QPSK_23130_50RB#0

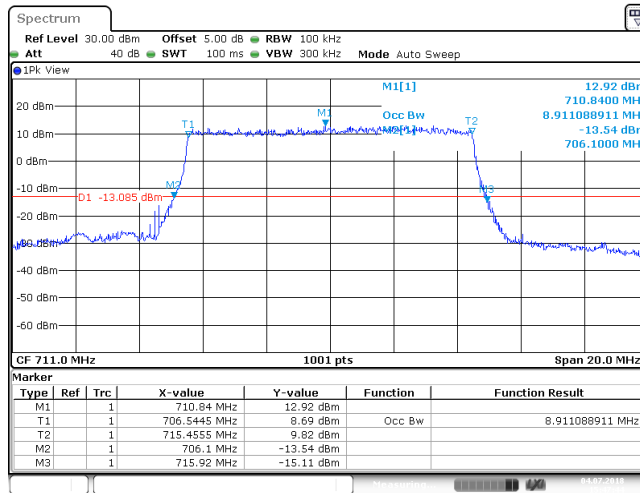
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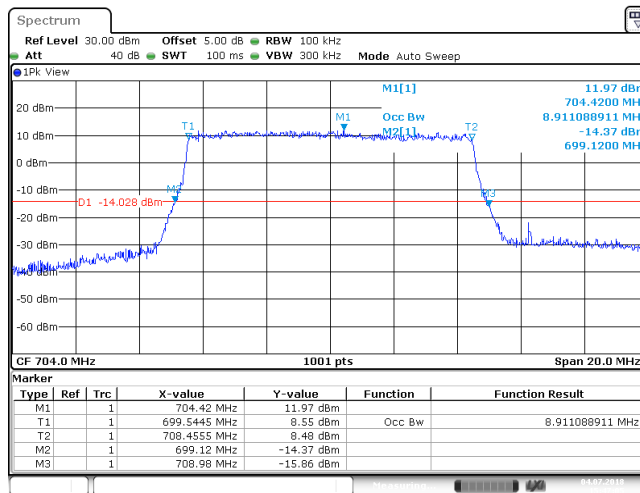
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Page: 21 of 48



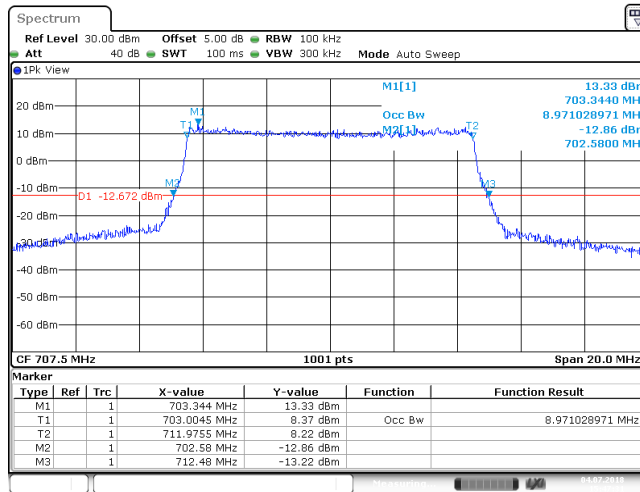
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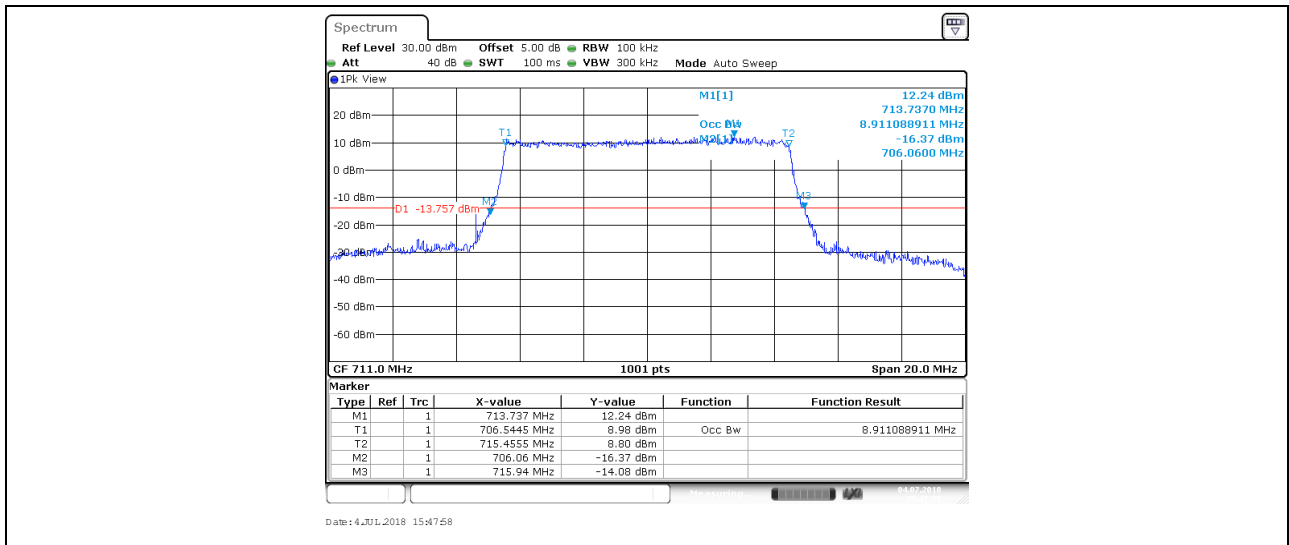
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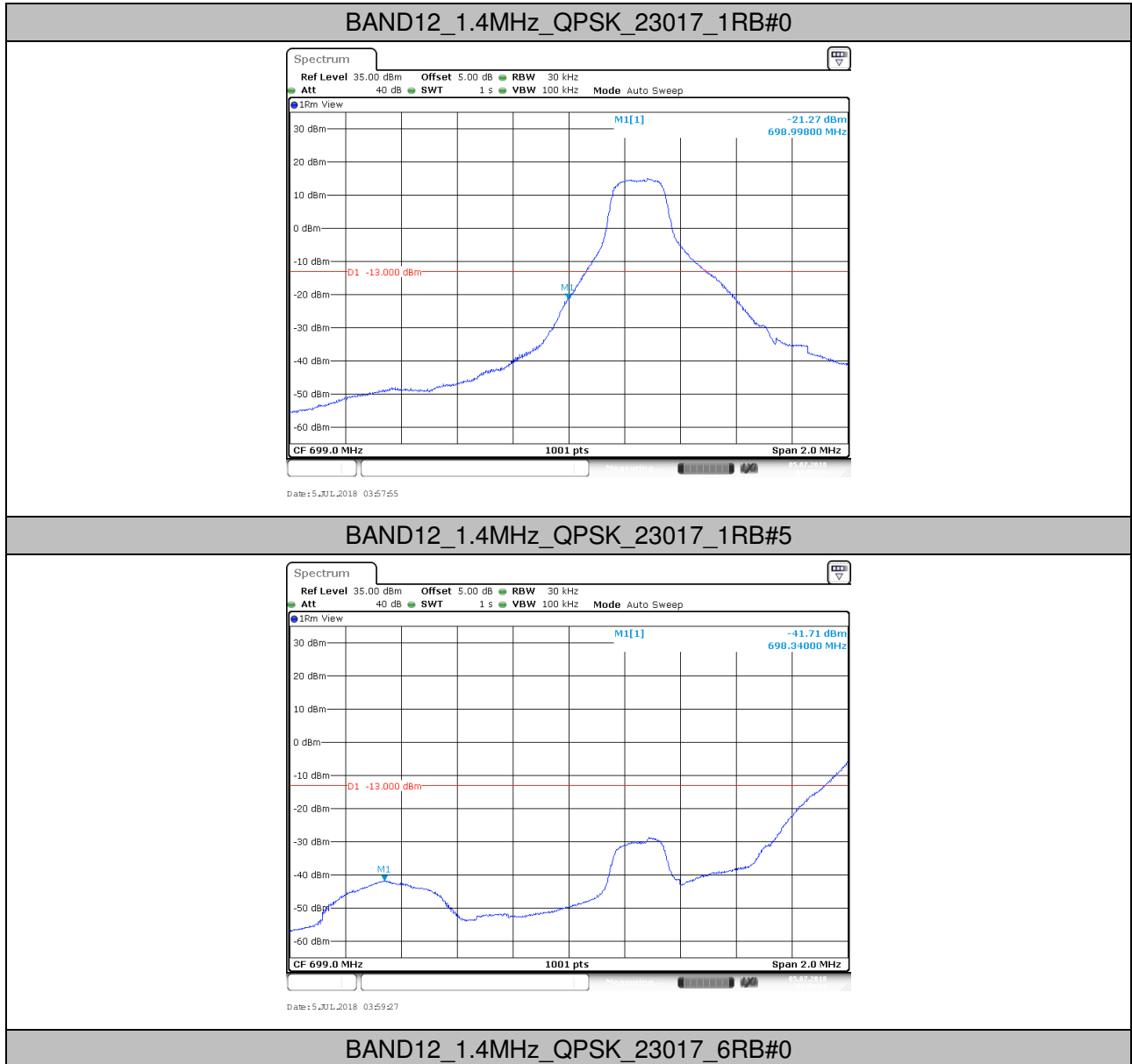
Page: 22 of 48





5. Band Edge Compliance

5.1. Test Plots

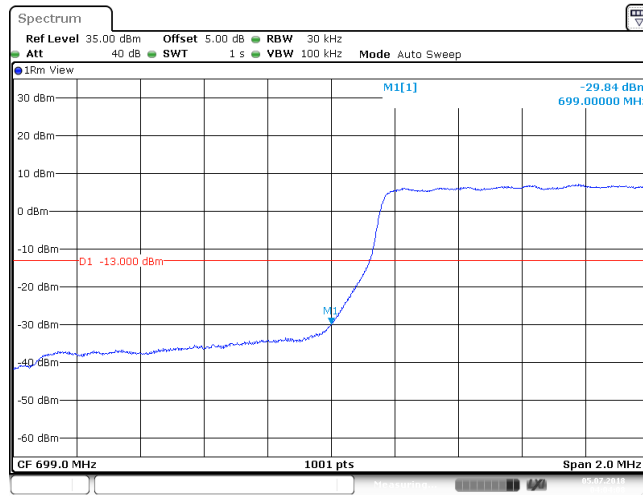




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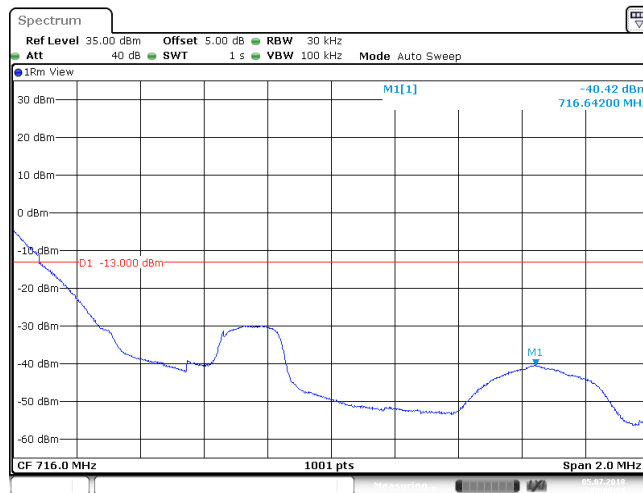
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Page: 24 of 48



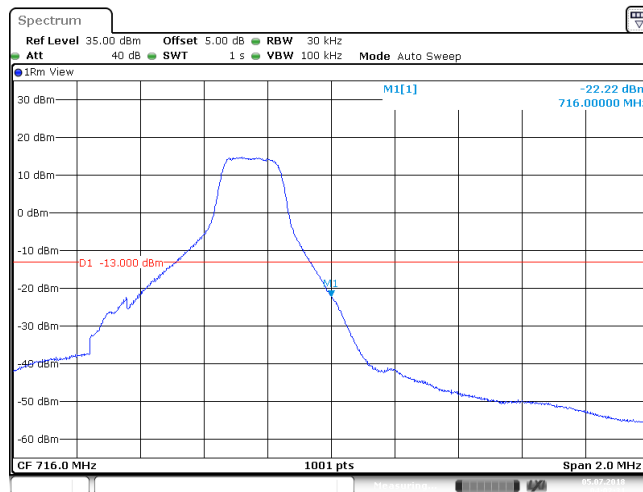
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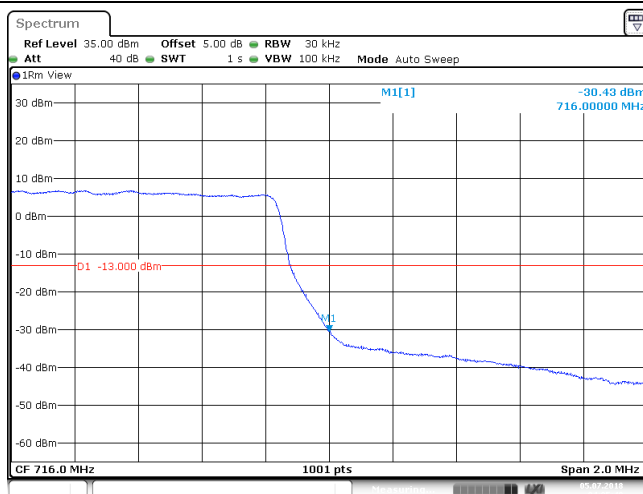
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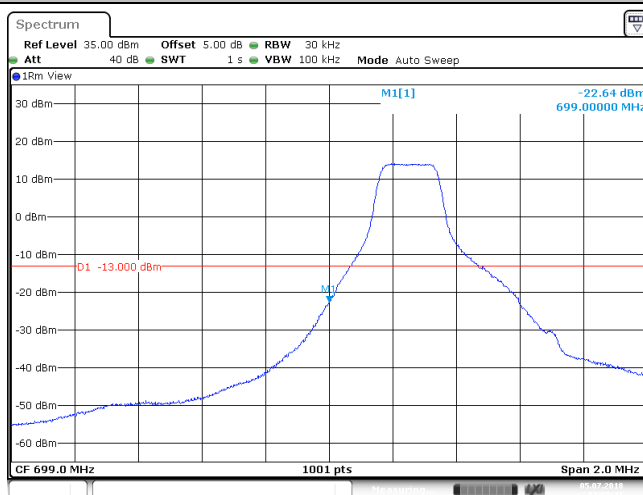
Report No.: SZEM180500457101

Page: 25 of 48



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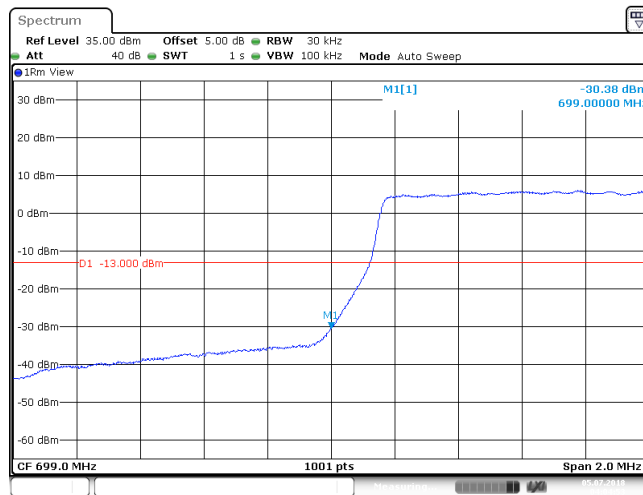
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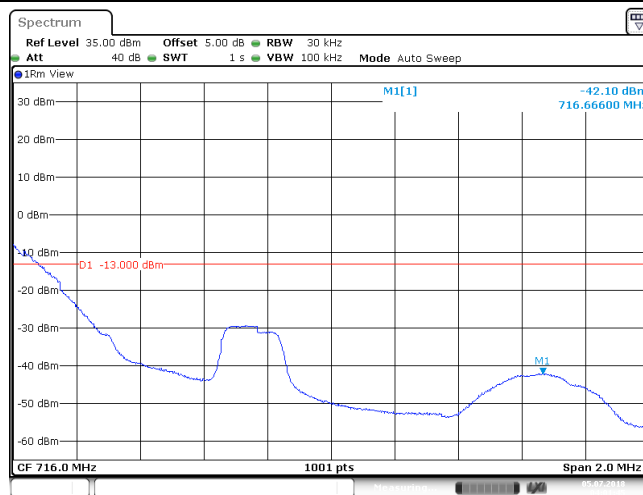
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Page: 26 of 48



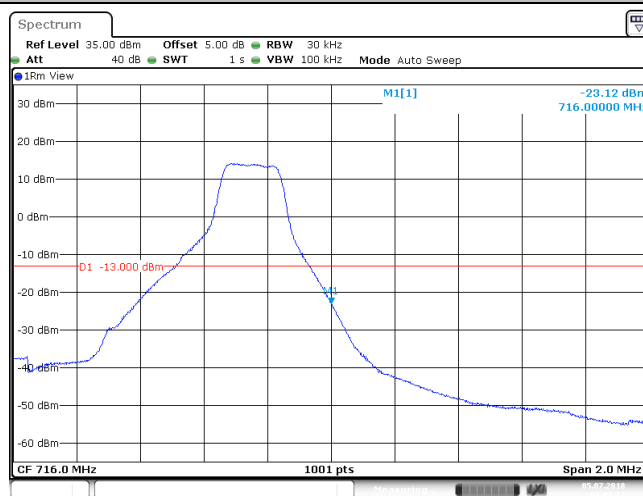
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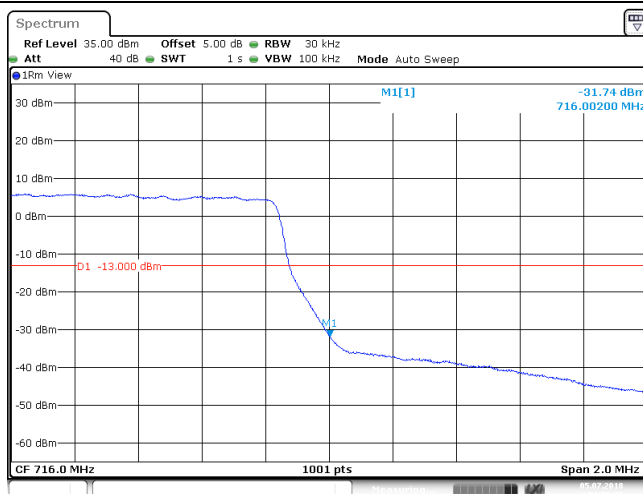
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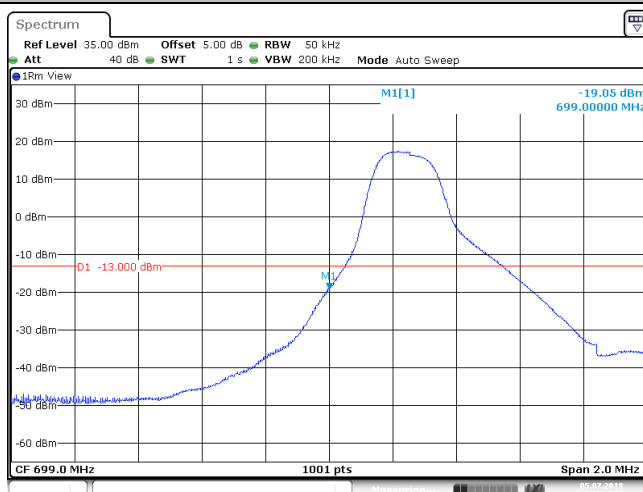
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Page: 27 of 48



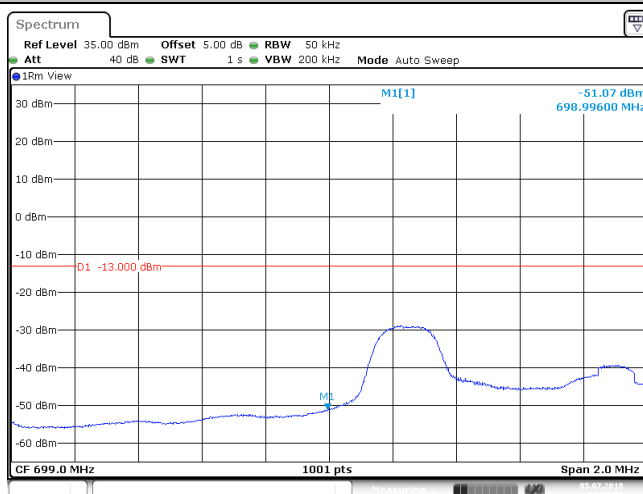
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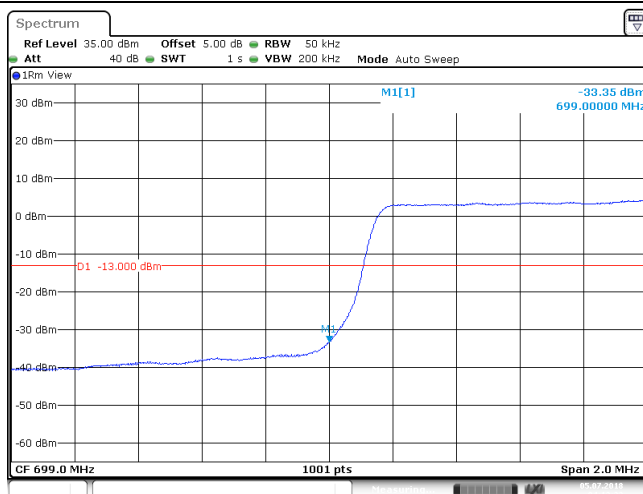
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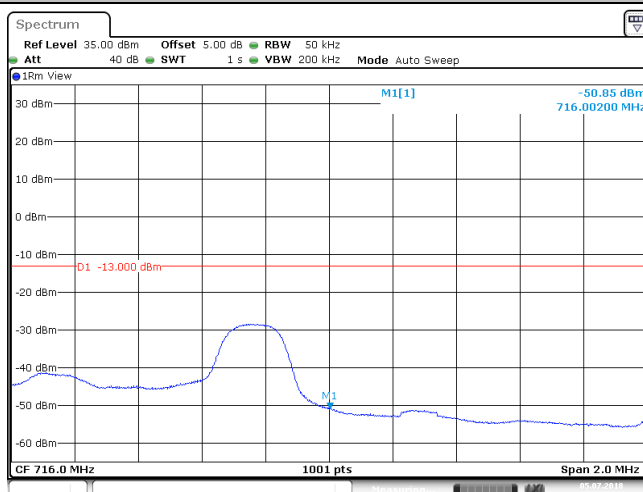
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Page: 28 of 48



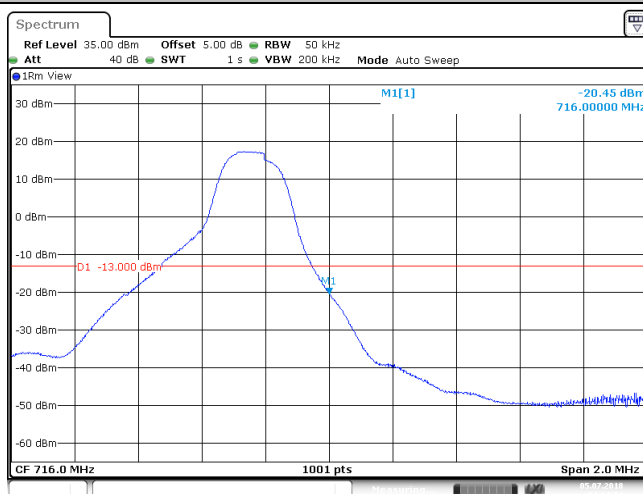
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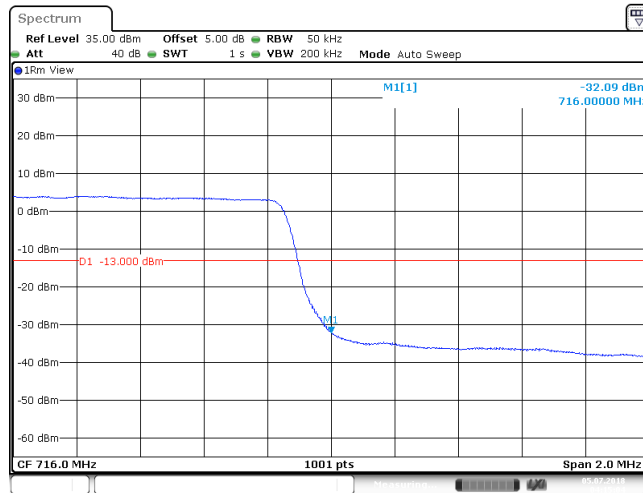
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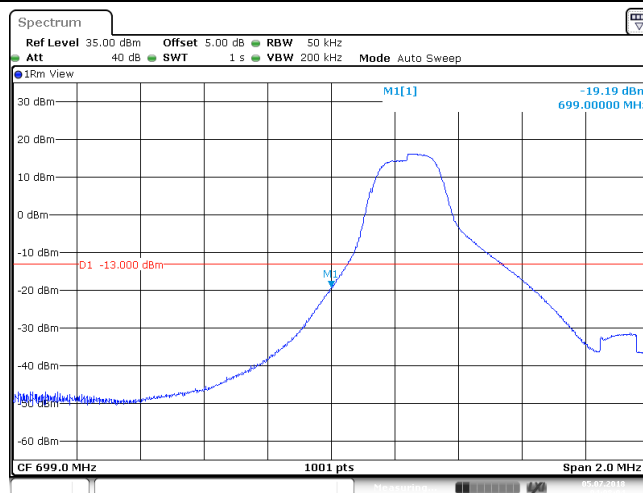
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Page: 29 of 48



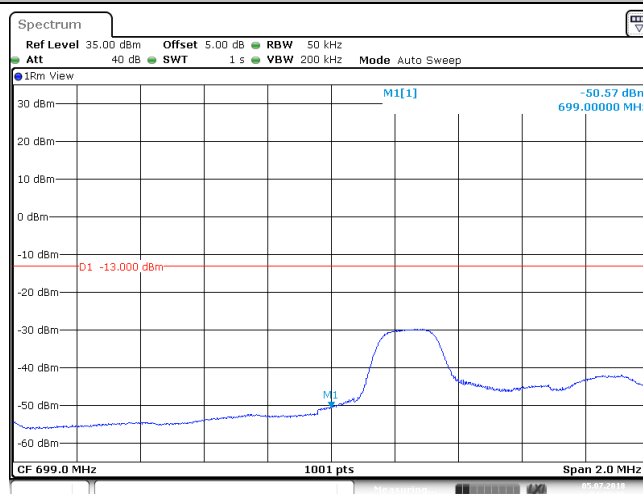
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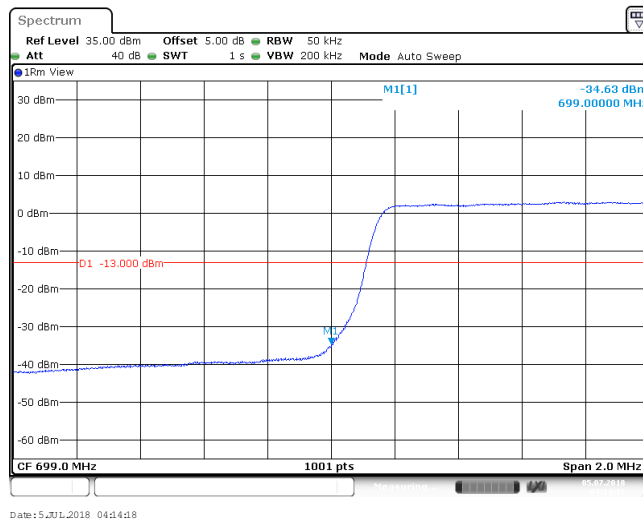
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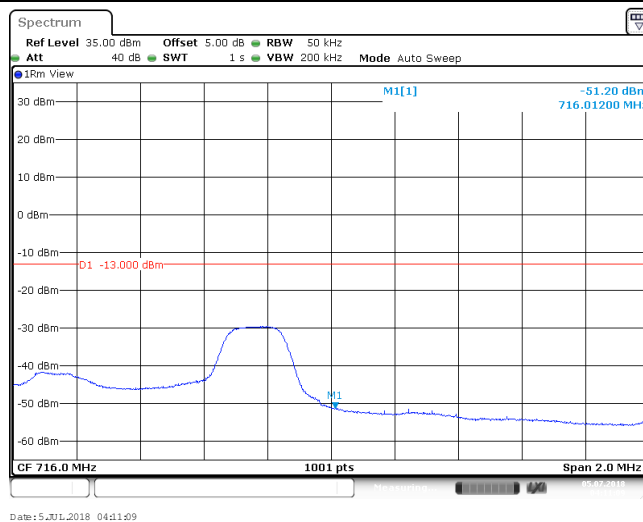
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Report No.: SZEM180500457101

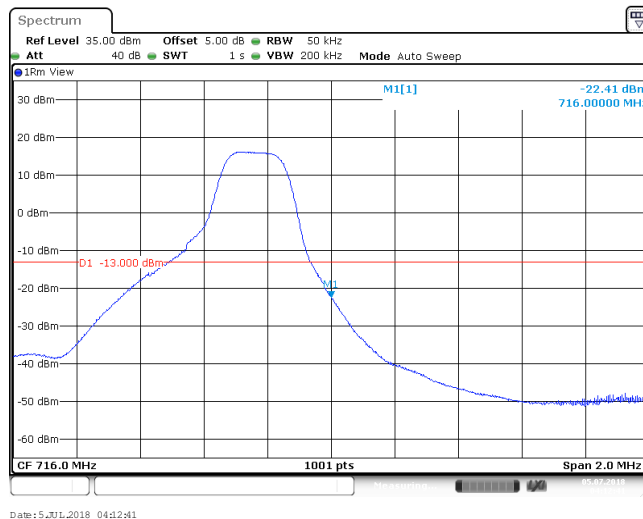
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BAND12_3MHz_16QAM_23165_1RB#0



BAND12_3MHz_16QAM_23165_1RB#14



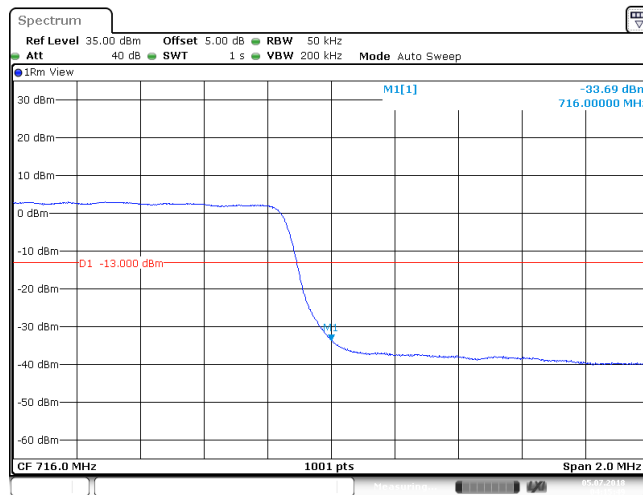
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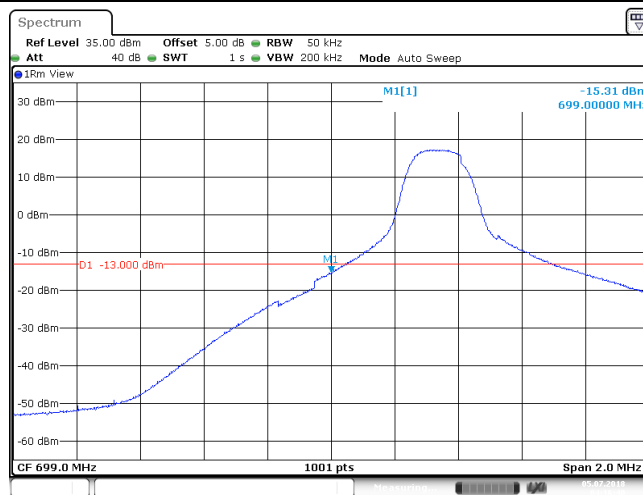
Report No.: SZEM180500457101

Page: 31 of 48



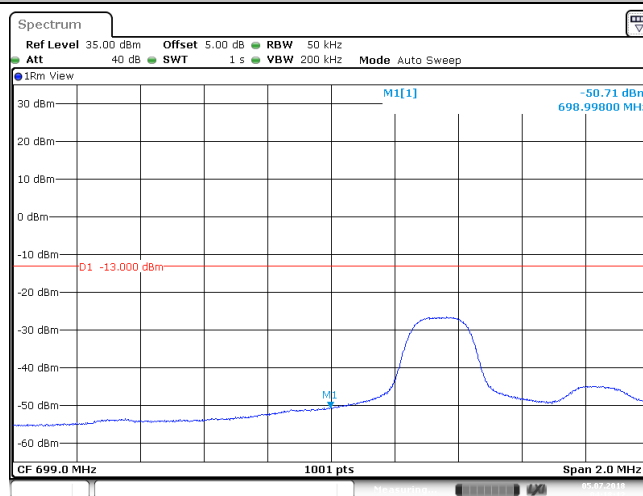
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Date: 5 JUL 2018 04d641

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Date: 5 JUL 2018 04d8d3

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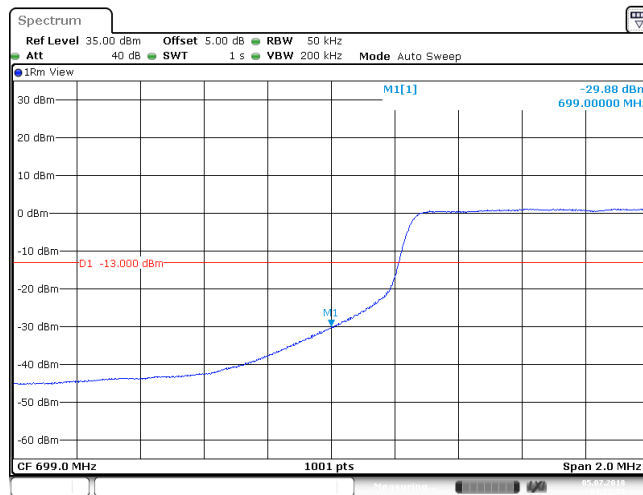
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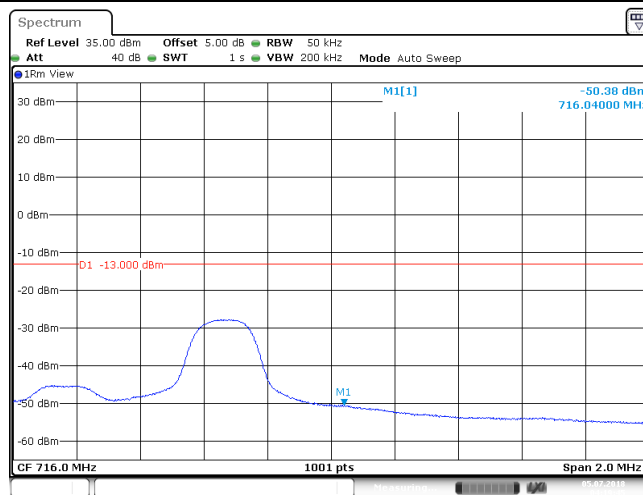
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Page: 32 of 48



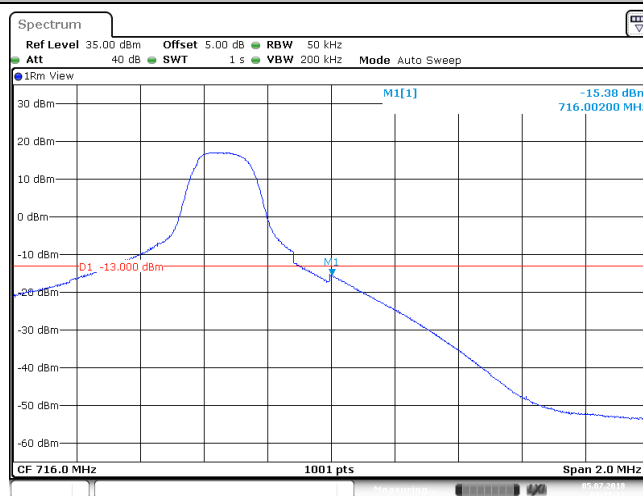
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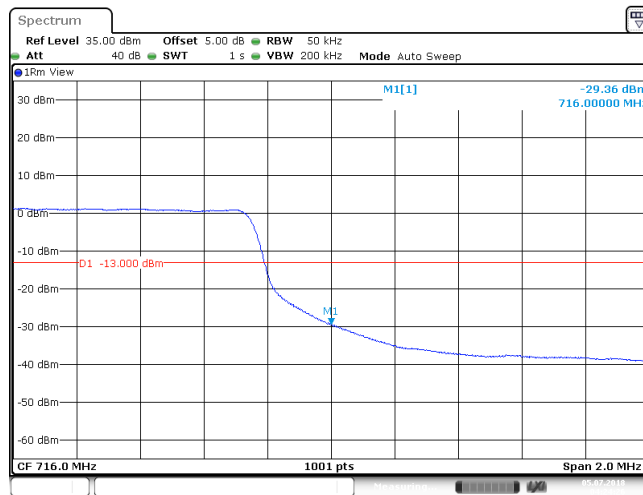
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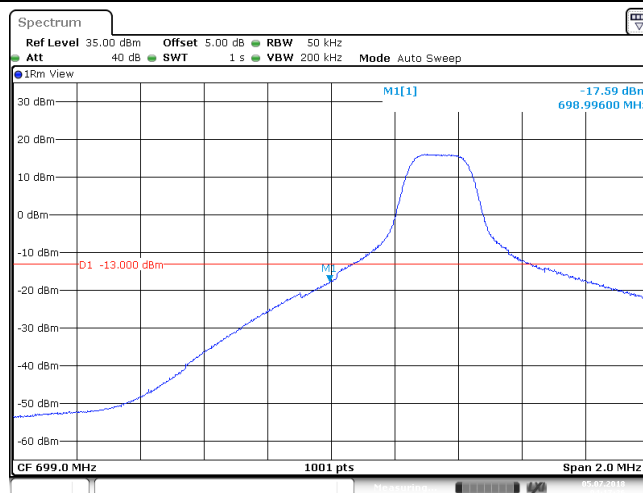
Report No.: SZEM180500457101

Page: 33 of 48



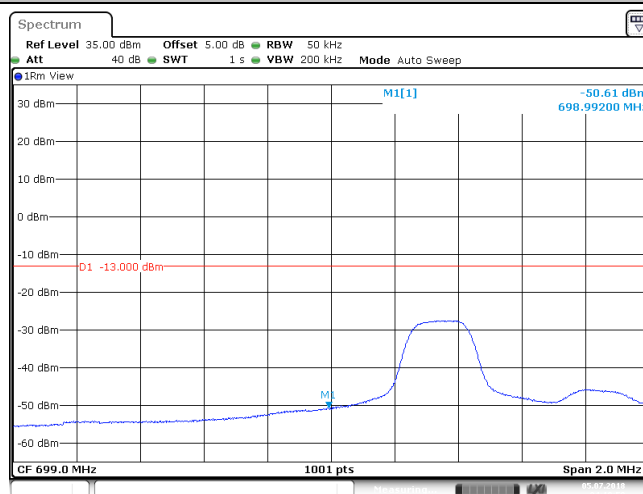
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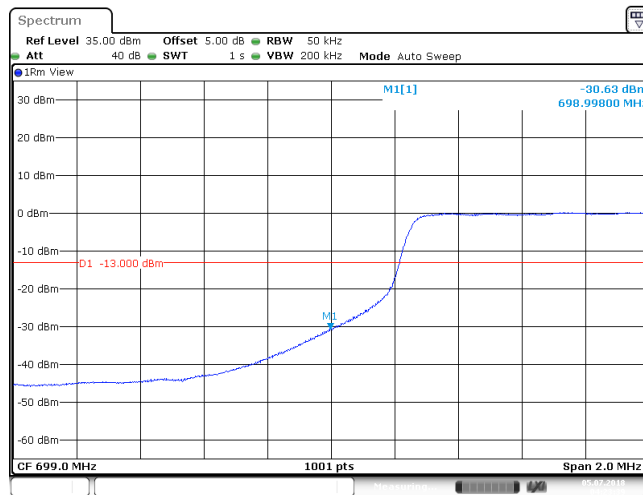
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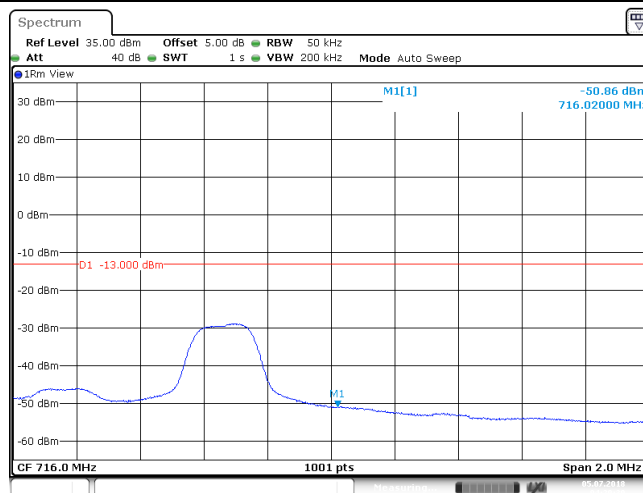
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Page: 34 of 48



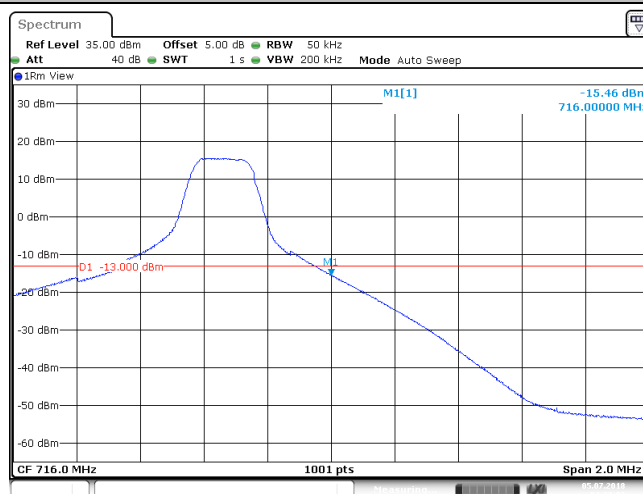
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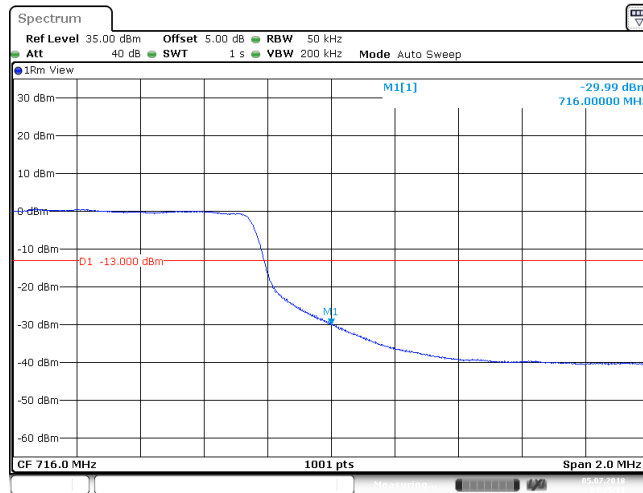
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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

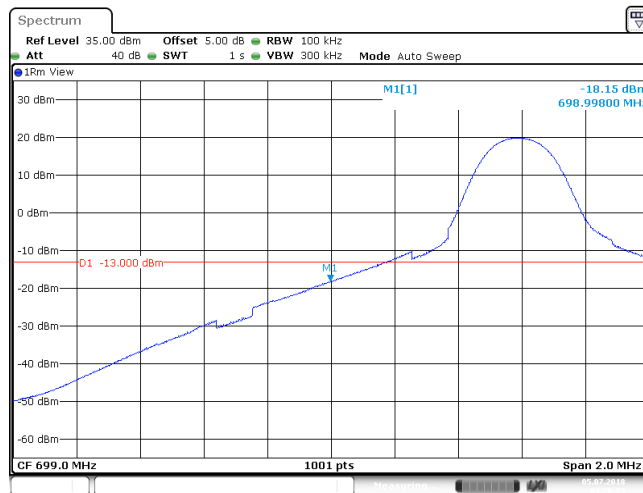
Report No.: SZEM180500457101

Page: 35 of 48



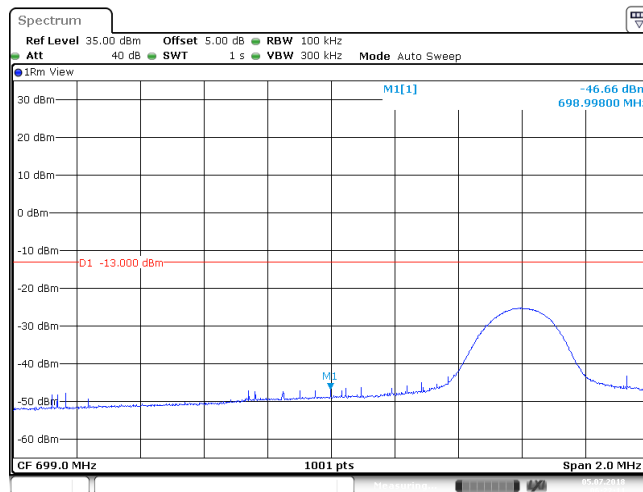
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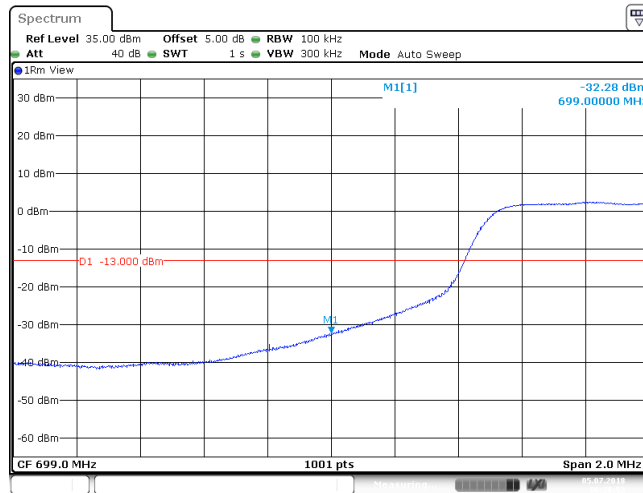
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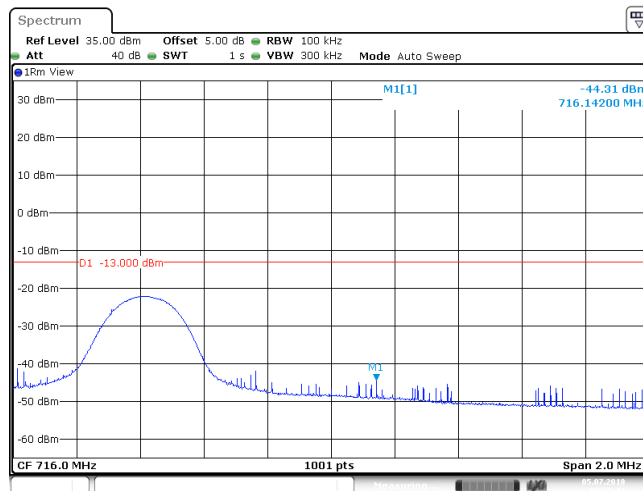
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Page: 36 of 48



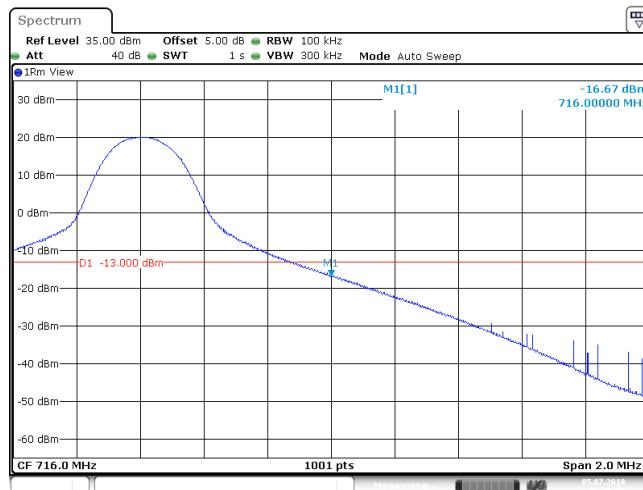
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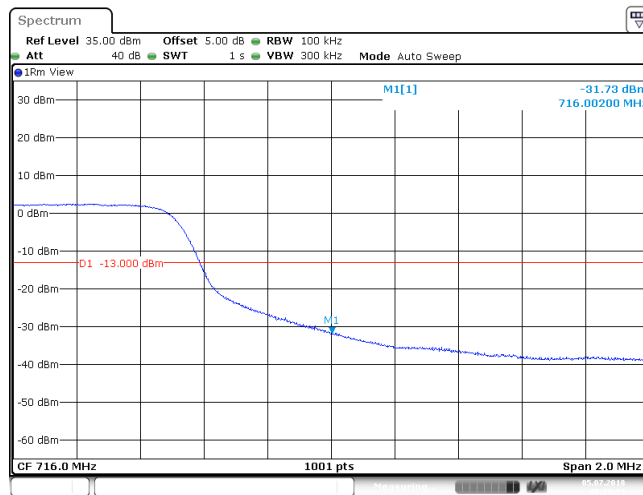
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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

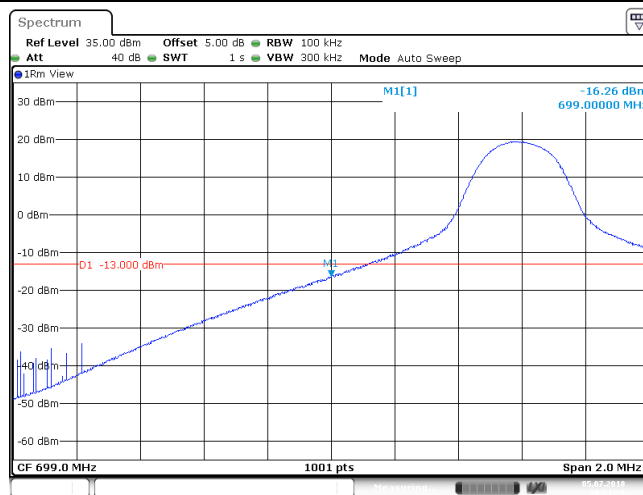
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Page: 37 of 48



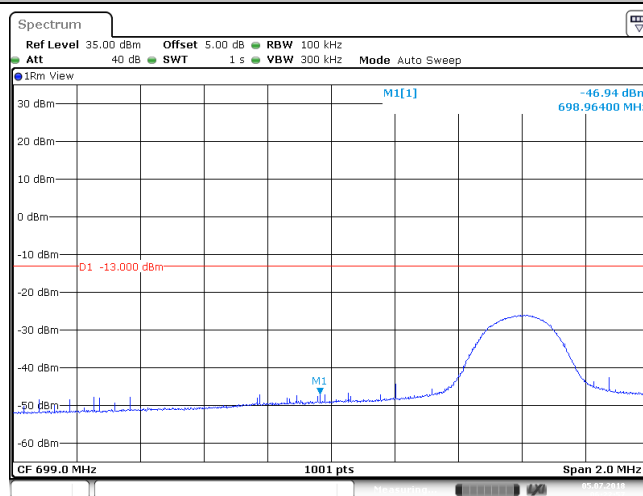
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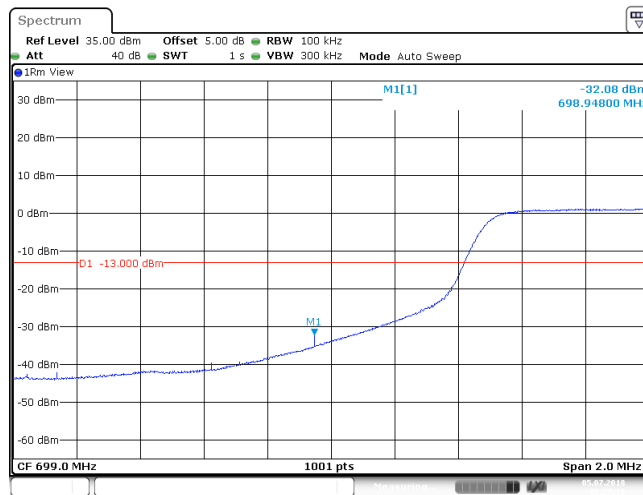
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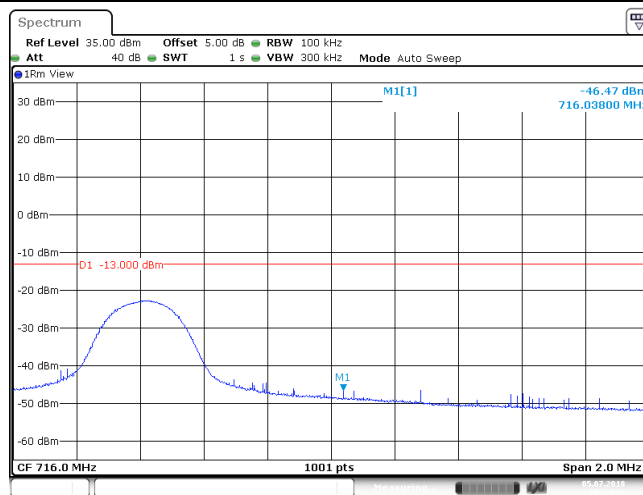
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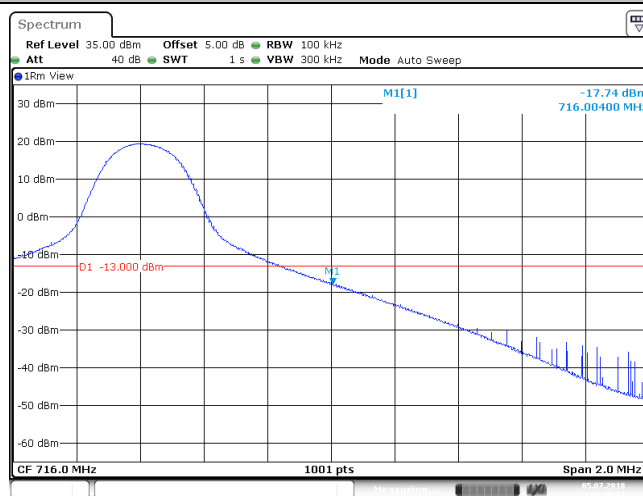
Page: 38 of 48



BAND12_10MHz_16QAM_23130_1RB#0



BAND12_10MHz_16QAM_23130_1RB#49



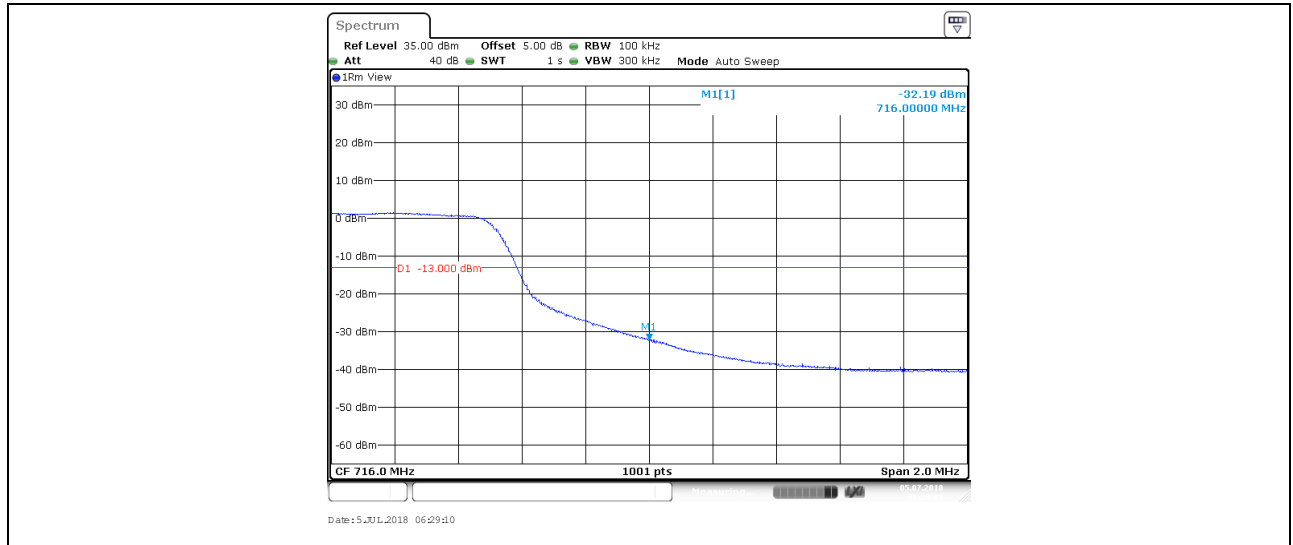
BAND12_10MHz_16QAM_23130_50RB#0



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

Report No.: SZEM180500457101

Page: 39 of 48

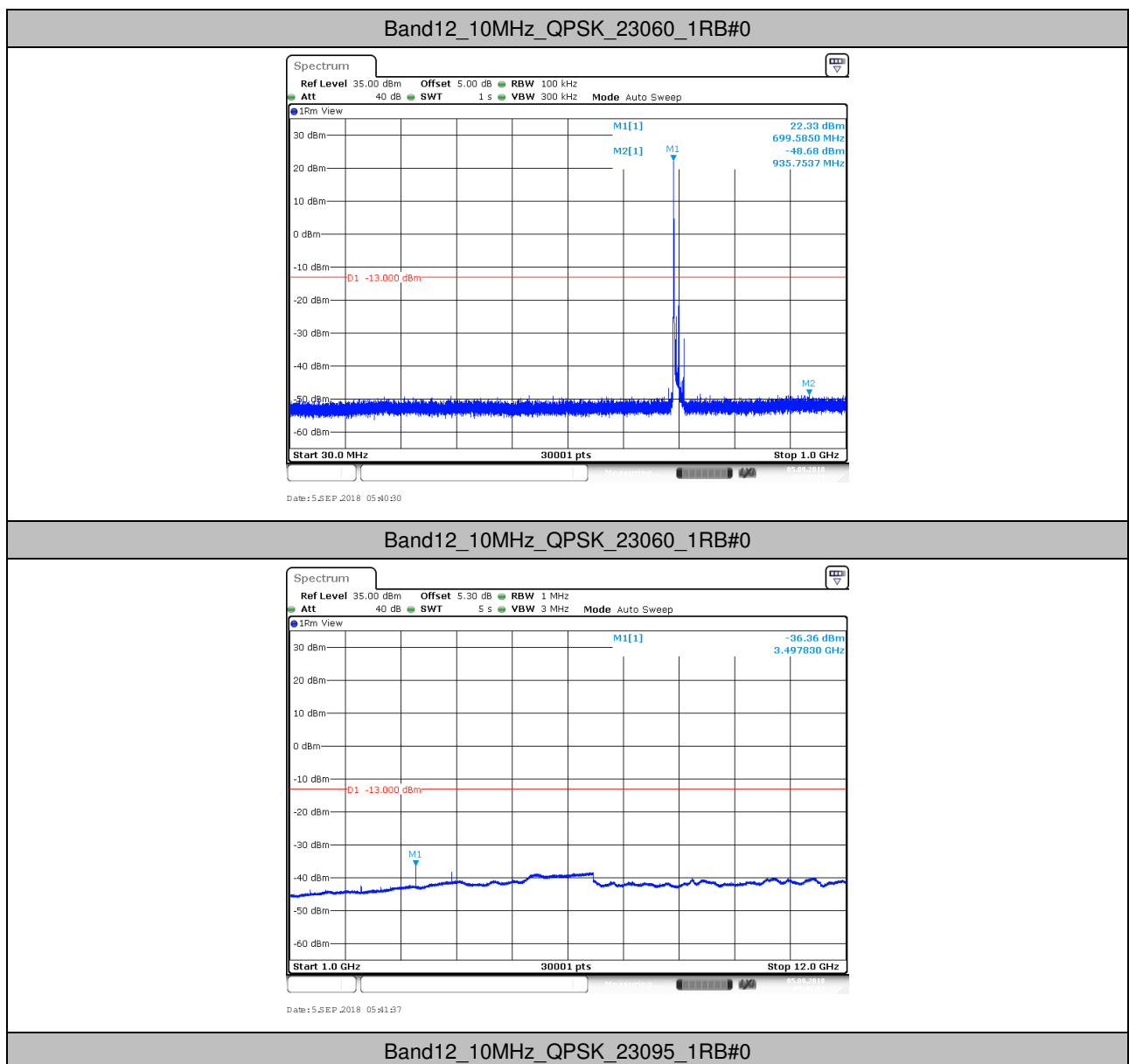




6. Spurious Emission at Antenna Terminal

NOTE: 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 = $k \cdot (\text{Span} / \text{RBW})$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

6.1. Test Plots

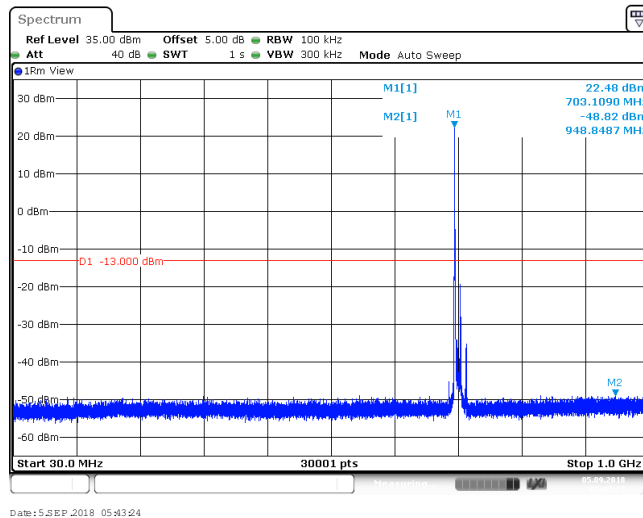




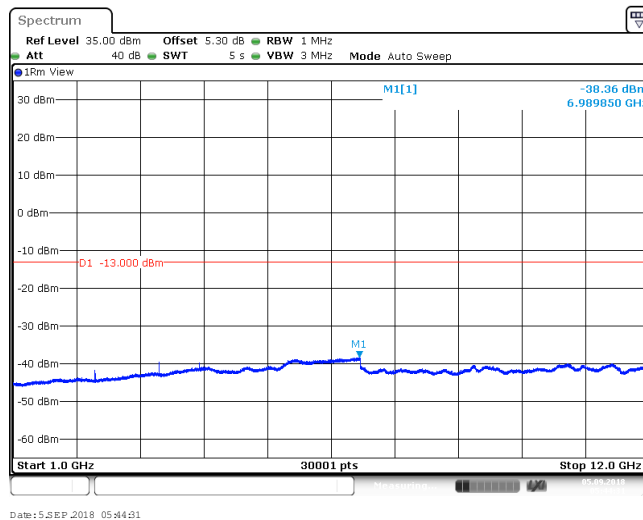
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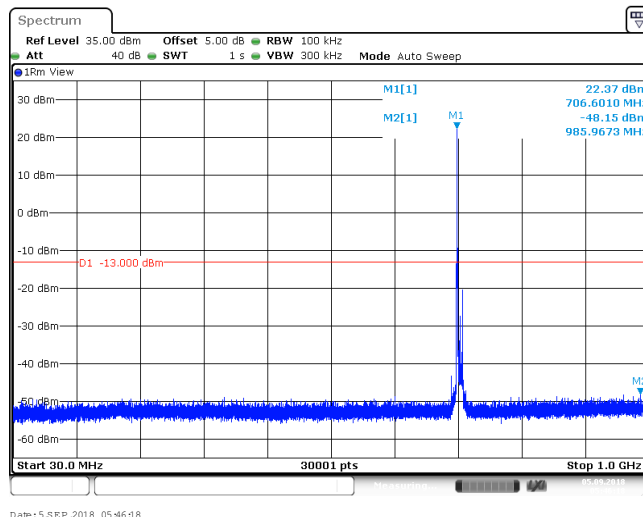
Page: 41 of 48



Band12_10MHz_QPSK_23095_1RB#0



Band12_10MHz_QPSK_23130_1RB#0



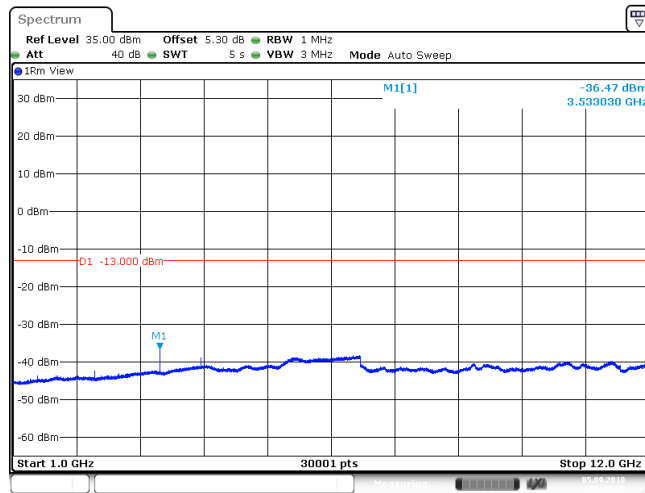
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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

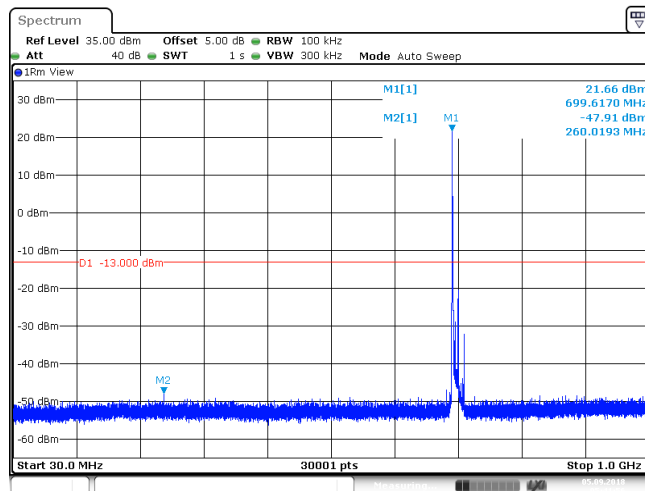
Report No.: SZEM180500457101

Page: 42 of 48



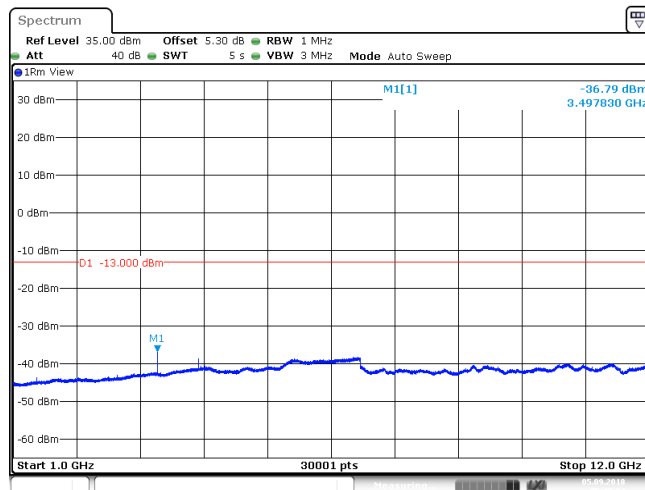
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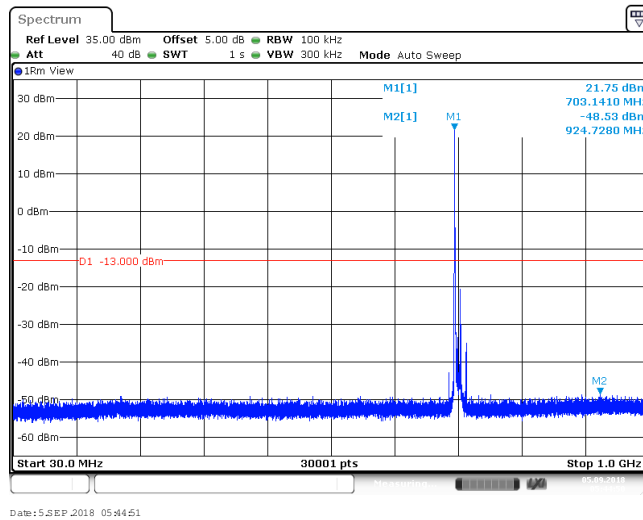
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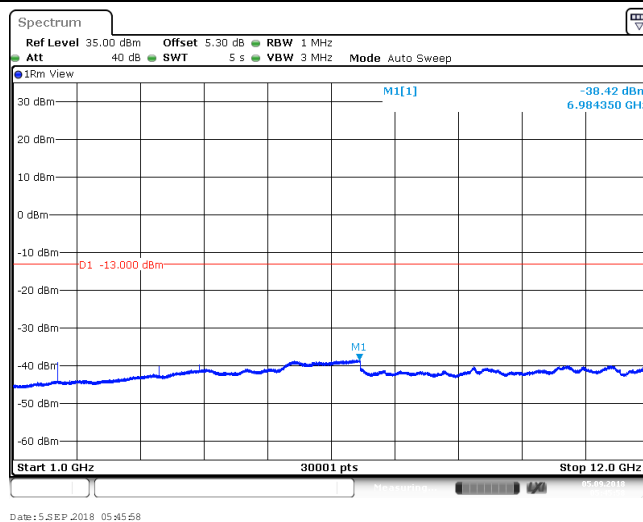
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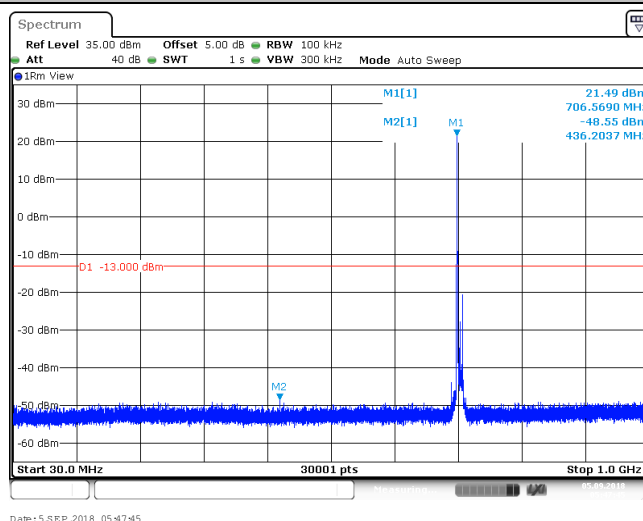
Page: 43 of 48



Band12_10MHz_16QAM_23095_1RB#0



Band12_10MHz_16QAM_23130_1RB#0



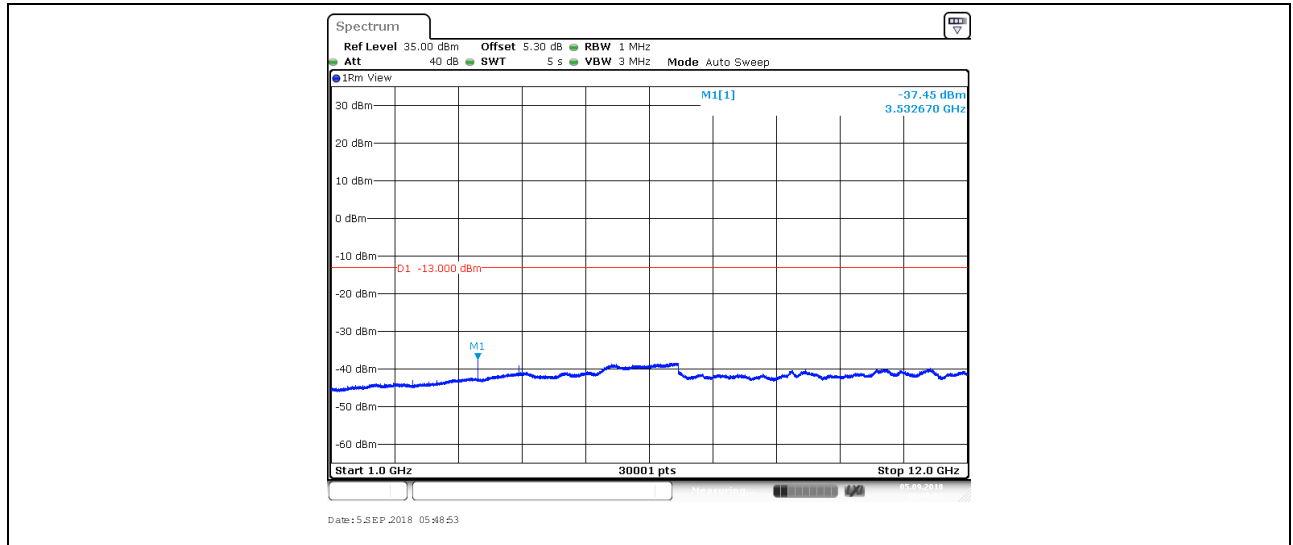
Band12_10MHz_16QAM_23130_1RB#0



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Report No.: SZEM180500457101

Page: 44 of 48





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
64.253333	-81.51	-13.00	68.51	Vertical
340.613333	-85.94	-13.00	72.94	Vertical
1399.000000	-58.19	-13.00	45.19	Vertical
2798.500000	-56.68	-13.00	43.68	Vertical
3540.050000	-59.70	-13.00	46.70	Vertical
4897.000000	-65.51	-13.00	52.51	Vertical
64.253333	-81.51	-13.00	68.51	Horizontal
340.613333	-85.94	-13.00	72.94	Horizontal
1399.000000	-58.19	-13.00	45.19	Horizontal
2798.500000	-56.68	-13.00	43.68	Horizontal
3540.050000	-59.70	-13.00	46.70	Horizontal
4897.000000	-65.51	-13.00	52.51	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
65.000000	-82.08	-13.00	69.08	Vertical
124.966667	-85.68	-13.00	72.68	Vertical
313.640000	-84.15	-13.00	71.15	Vertical
1406.000000	-66.97	-13.00	53.97	Vertical
3515.200000	-62.20	-13.00	49.20	Vertical
4218.700000	-64.26	-13.00	51.26	Vertical
63.040000	-77.72	-13.00	64.72	Horizontal
266.740000	-87.69	-13.00	74.69	Horizontal
476.766667	-81.73	-13.00	68.73	Horizontal
1406.000000	-65.75	-13.00	52.75	Horizontal
3515.200000	-64.39	-13.00	51.39	Horizontal



4218.350000	-63.23	-13.00	50.23	Horizontal
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7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.253333	-81.52	-13.00	68.52	Vertical
124.966667	-86.09	-13.00	73.09	Vertical
339.120000	-85.95	-13.00	72.95	Vertical
3532.700000	-67.29	-13.00	54.29	Vertical
4239.350000	-61.45	-13.00	48.45	Vertical
6159.100000	-65.48	-13.00	52.48	Vertical
62.573333	-77.85	-13.00	64.85	Horizontal
89.966667	-83.64	-13.00	70.64	Horizontal
621.325000	-79.24	-13.00	66.24	Horizontal
1413.000000	-67.21	-13.00	54.21	Horizontal
3540.050000	-63.11	-13.00	50.11	Horizontal
6051.650000	-65.38	-13.00	52.38	Horizontal

NOTE:

- 1) All modes are tested, but the data presented above is the worst case. the disturbance below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



8. Frequency Stability

9.1. 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	-1.60	-0.002273	±2.5	PASS
BAND12	10MHz	QPSK	23060	50RB#0	VN	NT	-11.30	-0.016051	±2.5	PASS
BAND12	10MHz	QPSK	23060	50RB#0	VH	NT	-9.00	-0.012784	±2.5	PASS
BAND12	10MHz	QPSK	23095	50RB#0	VL	NT	-3.60	-0.005088	±2.5	PASS
BAND12	10MHz	QPSK	23095	50RB#0	VN	NT	-5.90	-0.008339	±2.5	PASS
BAND12	10MHz	QPSK	23095	50RB#0	VH	NT	-5.50	-0.007774	±2.5	PASS
BAND12	10MHz	QPSK	23130	50RB#0	VL	NT	-8.60	-0.012096	±2.5	PASS
BAND12	10MHz	QPSK	23130	50RB#0	VN	NT	-11.10	-0.015612	±2.5	PASS
BAND12	10MHz	QPSK	23130	50RB#0	VH	NT	-7.20	-0.010127	±2.5	PASS
BAND12	10MHz	16QAM	23060	50RB#0	VL	NT	-5.70	-0.008097	±2.5	PASS
BAND12	10MHz	16QAM	23060	50RB#0	VN	NT	-8.50	-0.012074	±2.5	PASS
BAND12	10MHz	16QAM	23060	50RB#0	VH	NT	-2.90	-0.004119	±2.5	PASS
BAND12	10MHz	16QAM	23095	50RB#0	VL	NT	-7.30	-0.010318	±2.5	PASS
BAND12	10MHz	16QAM	23095	50RB#0	VN	NT	-6.60	-0.009329	±2.5	PASS
BAND12	10MHz	16QAM	23095	50RB#0	VH	NT	-6.40	-0.009046	±2.5	PASS
BAND12	10MHz	16QAM	23130	50RB#0	VL	NT	-5.90	-0.008298	±2.5	PASS
BAND12	10MHz	16QAM	23130	50RB#0	VN	NT	-8.50	-0.011955	±2.5	PASS
BAND12	10MHz	16QAM	23130	50RB#0	VH	NT	-2.20	-0.003094	±2.5	PASS

9.2. 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	-7.00	-0.009943	±2.5	PASS
BAND12	10MHz	QPSK	23060	50RB#0	NV	-20	-9.30	-0.013210	±2.5	PASS
BAND12	10MHz	QPSK	23060	50RB#0	NV	0	-3.70	-0.005256	±2.5	PASS
BAND12	10MHz	QPSK	23060	50RB#0	NV	10	-6.40	-0.009091	±2.5	PASS
BAND12	10MHz	QPSK	23060	50RB#0	NV	20	-10.30	-0.014631	±2.5	PASS
BAND12	10MHz	QPSK	23095	50RB#0	NV	-30	-7.80	-0.011025	±2.5	PASS
BAND12	10MHz	QPSK	23095	50RB#0	NV	-20	-6.60	-0.009329	±2.5	PASS
BAND12	10MHz	QPSK	23095	50RB#0	NV	0	-9.90	-0.013993	±2.5	PASS
BAND12	10MHz	QPSK	23095	50RB#0	NV	10	-4.70	-0.006643	±2.5	PASS
BAND12	10MHz	QPSK	23095	50RB#0	NV	20	-5.90	-0.008339	±2.5	PASS
BAND12	10MHz	QPSK	23130	50RB#0	NV	-30	-3.30	-0.004641	±2.5	PASS
BAND12	10MHz	QPSK	23130	50RB#0	NV	-20	-5.70	-0.008017	±2.5	PASS
BAND12	10MHz	QPSK	23130	50RB#0	NV	0	-7.30	-0.010267	±2.5	PASS
BAND12	10MHz	QPSK	23130	50RB#0	NV	10	-6.00	-0.008439	±2.5	PASS
BAND12	10MHz	QPSK	23130	50RB#0	NV	20	-0.40	-0.000563	±2.5	PASS
BAND12	10MHz	16QAM	23060	50RB#0	NV	-30	-5.20	-0.007386	±2.5	PASS
BAND12	10MHz	16QAM	23060	50RB#0	NV	-20	-8.80	-0.012500	±2.5	PASS
BAND12	10MHz	16QAM	23060	50RB#0	NV	0	-3.90	-0.005540	±2.5	PASS



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch

Report No.: SZEM180500457101

Page: 48 of 48

BAND12	10MHz	16QAM	23060	50RB#0	NV	10	-2.20	-0.003125	±2.5	PASS
BAND12	10MHz	16QAM	23060	50RB#0	NV	20	-5.70	-0.008097	±2.5	PASS
BAND12	10MHz	16QAM	23095	50RB#0	NV	-30	-5.20	-0.007350	±2.5	PASS
BAND12	10MHz	16QAM	23095	50RB#0	NV	-20	-4.90	-0.006926	±2.5	PASS
BAND12	10MHz	16QAM	23095	50RB#0	NV	0	-2.30	-0.003251	±2.5	PASS
BAND12	10MHz	16QAM	23095	50RB#0	NV	10	-0.80	-0.001131	±2.5	PASS
BAND12	10MHz	16QAM	23095	50RB#0	NV	20	-6.30	-0.008905	±2.5	PASS
BAND12	10MHz	16QAM	23130	50RB#0	NV	-30	-7.80	-0.010970	±2.5	PASS
BAND12	10MHz	16QAM	23130	50RB#0	NV	-20	-10.30	-0.014487	±2.5	PASS
BAND12	10MHz	16QAM	23130	50RB#0	NV	0	-1.40	-0.001969	±2.5	PASS
BAND12	10MHz	16QAM	23130	50RB#0	NV	10	-10.30	-0.014487	±2.5	PASS
BAND12	10MHz	16QAM	23130	50RB#0	NV	20	-6.70	-0.009423	±2.5	PASS

The End