



Appendix B

E-UTRA BAND 17



CONTENT

1.	EFFECTIVE (ISOTROPIC) RADIATED POWER	4
1.1.	Test Result.....	4
2.	PEAK-TO-AVERAGE RATIO(CCDF)	8
2.1.	Test Result	8
2.2.	Test Plots.....	8
3.	MODULATION CHARACTERISTICS	12
3.1.	Test BAND = LTE BAND17	12
3.1.1.	Test Mode = LTE /TM1 10MHz.....	12
3.1.1.1.	Test Channel = MCH.....	12
3.1.2.	Test Mode = LTE /TM2 10MHz.....	13
3.1.2.1.	Test Channel = MCH.....	13
3.1.3.	Test Mode = LTE /TM3 10MHz.....	14
3.1.3.1.	Test Channel = MCH.....	14
4.	26DB BANDWIDTH AND OCCUPIED BANDWIDTH.....	15
4.1.	Test Result.....	15
4.2.	Test Plots.....	16
5.	BAND EDGE COMPLIANCE	23
5.1.	Test Plots.....	23
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	32
6.1.	Test Plots.....	32
7.	FIELD STRENGTH OF SPURIOUS RADIATION	39
7.1.	Test BAND = LTE BAND 17-Main Antenna	39
7.1.1.	Test Mode =LTE/TM1 10MHz.....	39
7.1.1.1.	Test Channel = LCH-H.....	39
7.1.1.2.	Test Channel = LCH-V.....	40
7.1.1.3.	Test Channel = MCH-H.....	41
7.1.1.4.	Test Channel = MCH-V.....	42
7.1.1.5.	Test Channel = HCH-H.....	43
7.1.1.6.	Test Channel = MCH-V.....	44
7.2.	Test BAND = LTE BAND 17-Second Antenna	45
7.2.1.	Test Mode =LTE/TM1 10MHz.....	45
7.2.1.1.	Test Channel = LCH-H.....	45
7.2.1.2.	Test Channel = LCH-V.....	46
7.2.1.3.	Test Channel = MCH-H.....	47



7.2.1.4.	Test Channel = MCH-V.....	48
7.2.1.5.	Test Channel = HCH-H.....	49
7.2.1.6.	Test Channel = MCH-V.....	50
8.	FREQUENCY STABILITY	51
8.1.	Frequency Vs Voltage	51
8.2.	Frequency Vs Temperature.....	51



1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
BAND17	5MHz	QPSK	23755	1RB#0	24.04	17.52	34.77	PASS
BAND17	5MHz	QPSK	23755	1RB#12	23.38	16.86	34.77	PASS
BAND17	5MHz	QPSK	23755	1RB#24	23.88	17.36	34.77	PASS
BAND17	5MHz	QPSK	23755	12RB#0	22.46	15.94	34.77	PASS
BAND17	5MHz	QPSK	23755	12RB#6	22.40	15.88	34.77	PASS
BAND17	5MHz	QPSK	23755	12RB#13	22.41	15.89	34.77	PASS
BAND17	5MHz	QPSK	23755	25RB#0	22.41	15.89	34.77	PASS
BAND17	5MHz	QPSK	23790	1RB#0	23.96	17.44	34.77	PASS
BAND17	5MHz	QPSK	23790	1RB#12	23.42	16.90	34.77	PASS
BAND17	5MHz	QPSK	23790	1RB#24	23.91	17.39	34.77	PASS
BAND17	5MHz	QPSK	23790	12RB#0	22.53	16.01	34.77	PASS
BAND17	5MHz	QPSK	23790	12RB#6	22.45	15.93	34.77	PASS
BAND17	5MHz	QPSK	23790	12RB#13	22.41	15.89	34.77	PASS
BAND17	5MHz	QPSK	23790	25RB#0	22.46	15.94	34.77	PASS
BAND17	5MHz	QPSK	23825	1RB#0	23.95	17.43	34.77	PASS
BAND17	5MHz	QPSK	23825	1RB#12	23.40	16.88	34.77	PASS
BAND17	5MHz	QPSK	23825	1RB#24	24.01	17.49	34.77	PASS
BAND17	5MHz	QPSK	23825	12RB#0	22.46	15.94	34.77	PASS
BAND17	5MHz	QPSK	23825	12RB#6	22.45	15.93	34.77	PASS
BAND17	5MHz	QPSK	23825	12RB#13	22.49	15.97	34.77	PASS
BAND17	5MHz	QPSK	23825	25RB#0	22.40	15.88	34.77	PASS
BAND17	5MHz	64QAM	23755	1RB#0	22.19	15.67	34.77	PASS
BAND17	5MHz	64QAM	23755	1RB#12	21.54	15.02	34.77	PASS
BAND17	5MHz	64QAM	23755	1RB#24	22.10	15.58	34.77	PASS
BAND17	5MHz	64QAM	23755	12RB#0	21.01	14.49	34.77	PASS
BAND17	5MHz	64QAM	23755	12RB#6	20.95	14.43	34.77	PASS
BAND17	5MHz	64QAM	23755	12RB#13	21.01	14.49	34.77	PASS
BAND17	5MHz	64QAM	23755	25RB#0	20.93	14.41	34.77	PASS
BAND17	5MHz	64QAM	23790	1RB#0	22.19	15.67	34.77	PASS
BAND17	5MHz	64QAM	23790	1RB#12	21.59	15.07	34.77	PASS
BAND17	5MHz	64QAM	23790	1RB#24	22.14	15.62	34.77	PASS
BAND17	5MHz	64QAM	23790	12RB#0	21.14	14.62	34.77	PASS
BAND17	5MHz	64QAM	23790	12RB#6	20.94	14.42	34.77	PASS
BAND17	5MHz	64QAM	23790	12RB#13	21.13	14.61	34.77	PASS



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

Report No.: SZEM180700654901

Page: 5 of 52

BAND17	5MHz	64QAM	23790	25RB#0	20.97	14.45	34.77	PASS
BAND17	5MHz	64QAM	23825	1RB#0	22.11	15.59	34.77	PASS
BAND17	5MHz	64QAM	23825	1RB#12	21.73	15.21	34.77	PASS
BAND17	5MHz	64QAM	23825	1RB#24	22.28	15.76	34.77	PASS
BAND17	5MHz	64QAM	23825	12RB#0	21.01	14.49	34.77	PASS
BAND17	5MHz	64QAM	23825	12RB#6	21.01	14.49	34.77	PASS
BAND17	5MHz	64QAM	23825	12RB#13	21.09	14.57	34.77	PASS
BAND17	5MHz	64QAM	23825	25RB#0	20.96	14.44	34.77	PASS
BAND17	5MHz	16QAM	23755	1RB#0	23.12	16.60	34.77	PASS
BAND17	5MHz	16QAM	23755	1RB#12	22.50	15.98	34.77	PASS
BAND17	5MHz	16QAM	23755	1RB#24	23.01	16.49	34.77	PASS
BAND17	5MHz	16QAM	23755	12RB#0	21.89	15.37	34.77	PASS
BAND17	5MHz	16QAM	23755	12RB#6	21.83	15.31	34.77	PASS
BAND17	5MHz	16QAM	23755	12RB#13	21.83	15.31	34.77	PASS
BAND17	5MHz	16QAM	23755	25RB#0	21.82	15.30	34.77	PASS
BAND17	5MHz	16QAM	23790	1RB#0	23.02	16.50	34.77	PASS
BAND17	5MHz	16QAM	23790	1RB#12	22.65	16.13	34.77	PASS
BAND17	5MHz	16QAM	23790	1RB#24	23.00	16.48	34.77	PASS
BAND17	5MHz	16QAM	23790	12RB#0	22.04	15.52	34.77	PASS
BAND17	5MHz	16QAM	23790	12RB#6	21.91	15.39	34.77	PASS
BAND17	5MHz	16QAM	23790	12RB#13	21.84	15.32	34.77	PASS
BAND17	5MHz	16QAM	23790	25RB#0	21.93	15.41	34.77	PASS
BAND17	5MHz	16QAM	23825	1RB#0	23.14	16.62	34.77	PASS
BAND17	5MHz	16QAM	23825	1RB#12	22.53	16.01	34.77	PASS
BAND17	5MHz	16QAM	23825	1RB#24	23.16	16.64	34.77	PASS
BAND17	5MHz	16QAM	23825	12RB#0	21.87	15.35	34.77	PASS
BAND17	5MHz	16QAM	23825	12RB#6	21.88	15.36	34.77	PASS
BAND17	5MHz	16QAM	23825	12RB#13	21.95	15.43	34.77	PASS
BAND17	5MHz	16QAM	23825	25RB#0	21.83	15.31	34.77	PASS
BAND17	10MHz	QPSK	23780	1RB#0	24.04	17.52	34.77	PASS
BAND17	10MHz	QPSK	23780	1RB#24	23.82	17.30	34.77	PASS
BAND17	10MHz	QPSK	23780	1RB#49	23.89	17.37	34.77	PASS
BAND17	10MHz	QPSK	23780	25RB#0	22.45	15.93	34.77	PASS
BAND17	10MHz	QPSK	23780	25RB#12	22.52	16.00	34.77	PASS
BAND17	10MHz	QPSK	23780	25RB#25	22.36	15.84	34.77	PASS
BAND17	10MHz	QPSK	23780	50RB#0	22.44	15.92	34.77	PASS
BAND17	10MHz	QPSK	23790	1RB#0	23.91	17.39	34.77	PASS
BAND17	10MHz	QPSK	23790	1RB#24	23.79	17.27	34.77	PASS
BAND17	10MHz	QPSK	23790	1RB#49	23.93	17.41	34.77	PASS
BAND17	10MHz	QPSK	23790	25RB#0	22.57	16.05	34.77	PASS
BAND17	10MHz	QPSK	23790	25RB#12	22.42	15.90	34.77	PASS

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



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

Report No.: SZEM180700654901

Page: 6 of 52

BAND17	10MHz	QPSK	23790	25RB#25	22.38	15.86	34.77	PASS
BAND17	10MHz	QPSK	23790	50RB#0	22.41	15.89	34.77	PASS
BAND17	10MHz	QPSK	23800	1RB#0	23.92	17.40	34.77	PASS
BAND17	10MHz	QPSK	23800	1RB#24	23.75	17.23	34.77	PASS
BAND17	10MHz	QPSK	23800	1RB#49	23.92	17.40	34.77	PASS
BAND17	10MHz	QPSK	23800	25RB#0	22.53	16.01	34.77	PASS
BAND17	10MHz	QPSK	23800	25RB#12	22.41	15.89	34.77	PASS
BAND17	10MHz	QPSK	23800	25RB#25	22.40	15.88	34.77	PASS
BAND17	10MHz	QPSK	23800	50RB#0	22.42	15.90	34.77	PASS
BAND17	10MHz	64QAM	23780	1RB#0	22.21	15.69	34.77	PASS
BAND17	10MHz	64QAM	23780	1RB#24	21.93	15.41	34.77	PASS
BAND17	10MHz	64QAM	23780	1RB#49	22.09	15.57	34.77	PASS
BAND17	10MHz	64QAM	23780	25RB#0	21.00	14.48	34.77	PASS
BAND17	10MHz	64QAM	23780	25RB#12	20.95	14.43	34.77	PASS
BAND17	10MHz	64QAM	23780	25RB#25	21.07	14.55	34.77	PASS
BAND17	10MHz	64QAM	23780	50RB#0	20.92	14.40	34.77	PASS
BAND17	10MHz	64QAM	23790	1RB#0	22.34	15.82	34.77	PASS
BAND17	10MHz	64QAM	23790	1RB#24	21.87	15.35	34.77	PASS
BAND17	10MHz	64QAM	23790	1RB#49	22.18	15.66	34.77	PASS
BAND17	10MHz	64QAM	23790	25RB#0	21.08	14.56	34.77	PASS
BAND17	10MHz	64QAM	23790	25RB#12	21.01	14.49	34.77	PASS
BAND17	10MHz	64QAM	23790	25RB#25	21.07	14.55	34.77	PASS
BAND17	10MHz	64QAM	23790	50RB#0	20.98	14.46	34.77	PASS
BAND17	10MHz	64QAM	23800	1RB#0	22.26	15.74	34.77	PASS
BAND17	10MHz	64QAM	23800	1RB#24	21.79	15.27	34.77	PASS
BAND17	10MHz	64QAM	23800	1RB#49	22.15	15.63	34.77	PASS
BAND17	10MHz	64QAM	23800	25RB#0	20.95	14.43	34.77	PASS
BAND17	10MHz	64QAM	23800	25RB#12	20.94	14.42	34.77	PASS
BAND17	10MHz	64QAM	23800	25RB#25	20.96	14.44	34.77	PASS
BAND17	10MHz	64QAM	23800	50RB#0	20.97	14.45	34.77	PASS
BAND17	10MHz	16QAM	23780	1RB#0	23.18	16.66	34.77	PASS
BAND17	10MHz	16QAM	23780	1RB#24	22.83	16.31	34.77	PASS
BAND17	10MHz	16QAM	23780	1RB#49	23.04	16.52	34.77	PASS
BAND17	10MHz	16QAM	23780	25RB#0	21.88	15.36	34.77	PASS
BAND17	10MHz	16QAM	23780	25RB#12	21.96	15.44	34.77	PASS
BAND17	10MHz	16QAM	23780	25RB#25	21.81	15.29	34.77	PASS
BAND17	10MHz	16QAM	23780	50RB#0	21.89	15.37	34.77	PASS
BAND17	10MHz	16QAM	23790	1RB#0	23.07	16.55	34.77	PASS
BAND17	10MHz	16QAM	23790	1RB#24	22.84	16.32	34.77	PASS
BAND17	10MHz	16QAM	23790	1RB#49	23.05	16.53	34.77	PASS
BAND17	10MHz	16QAM	23790	25RB#0	21.90	15.38	34.77	PASS

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



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

Report No.: SZEM180700654901

Page: 7 of 52

BAND17	10MHz	16QAM	23790	25RB#12	21.84	15.32	34.77	PASS
BAND17	10MHz	16QAM	23790	25RB#25	21.82	15.30	34.77	PASS
BAND17	10MHz	16QAM	23790	50RB#0	21.83	15.31	34.77	PASS
BAND17	10MHz	16QAM	23800	1RB#0	23.24	16.72	34.77	PASS
BAND17	10MHz	16QAM	23800	1RB#24	22.83	16.31	34.77	PASS
BAND17	10MHz	16QAM	23800	1RB#49	23.16	16.64	34.77	PASS
BAND17	10MHz	16QAM	23800	25RB#0	21.97	15.45	34.77	PASS
BAND17	10MHz	16QAM	23800	25RB#12	21.86	15.34	34.77	PASS
BAND17	10MHz	16QAM	23800	25RB#25	21.83	15.31	34.77	PASS
BAND17	10MHz	16QAM	23800	50RB#0	21.84	15.32	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,

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

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

b: SGP=Signal Generator Level

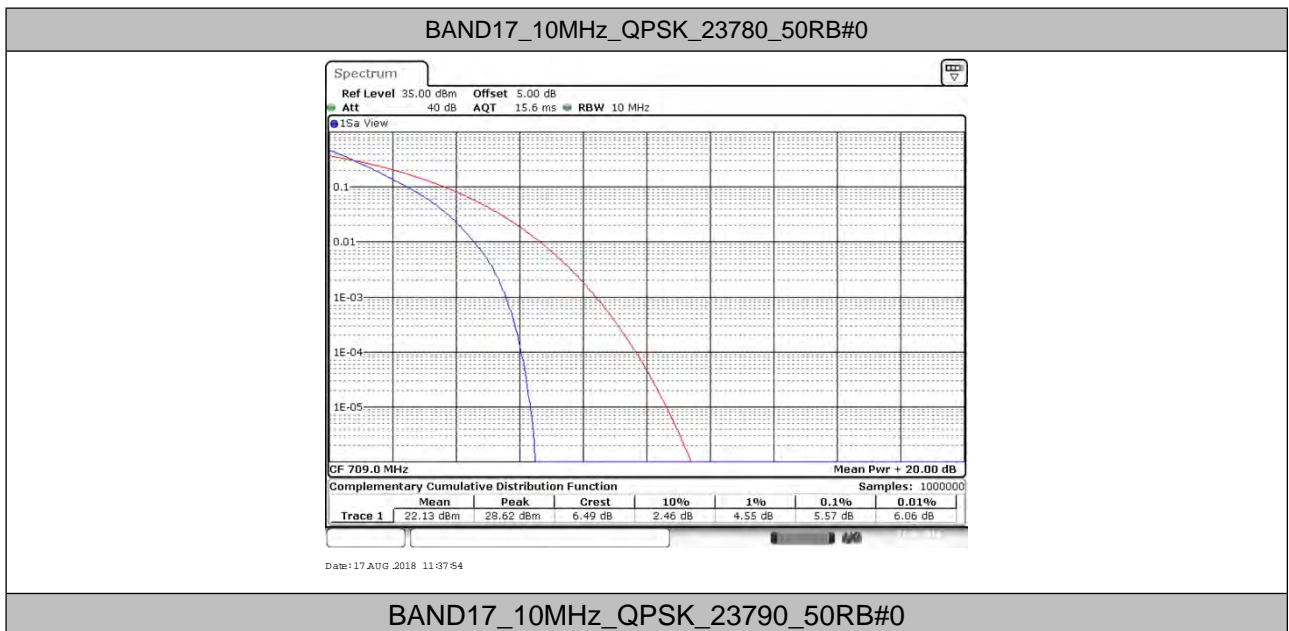


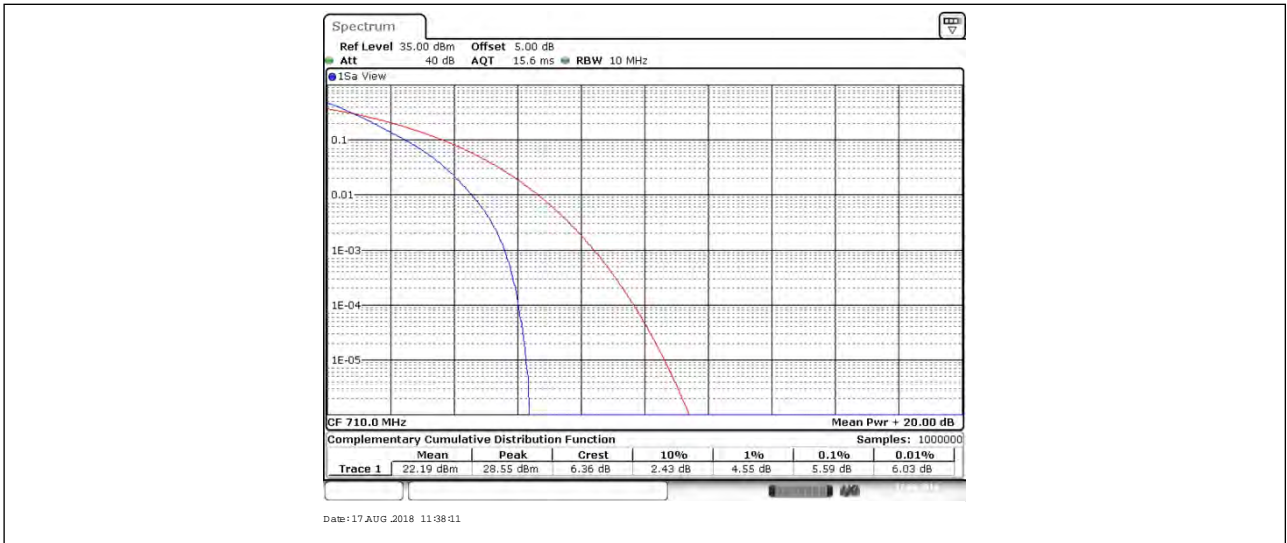
2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
BAND17	10MHz	QPSK	23780	50RB#0	5.57	13	PASS
BAND17	10MHz	QPSK	23790	50RB#0	5.59	13	PASS
BAND17	10MHz	QPSK	23800	50RB#0	5.33	13	PASS
BAND17	10MHz	64QAM	23780	50RB#0	6.49	13	PASS
BAND17	10MHz	64QAM	23790	50RB#0	6.58	13	PASS
BAND17	10MHz	64QAM	23800	50RB#0	6.38	13	PASS
BAND17	10MHz	16QAM	23780	50RB#0	6.14	13	PASS
BAND17	10MHz	16QAM	23790	50RB#0	6.20	13	PASS
BAND17	10MHz	16QAM	23800	50RB#0	6.14	13	PASS

2.2. Test Plots

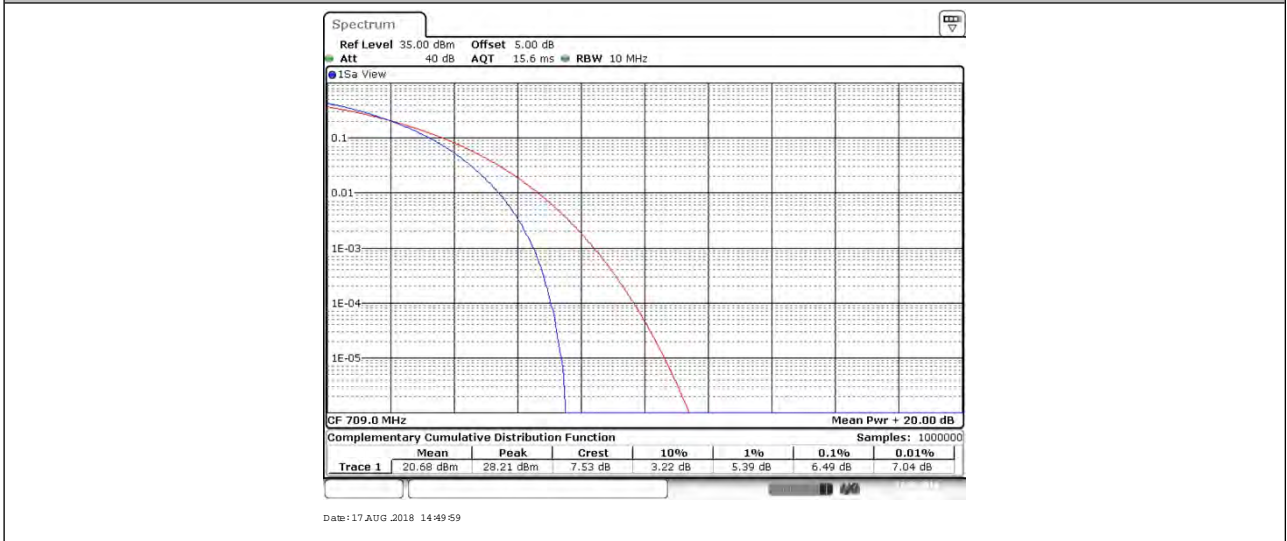




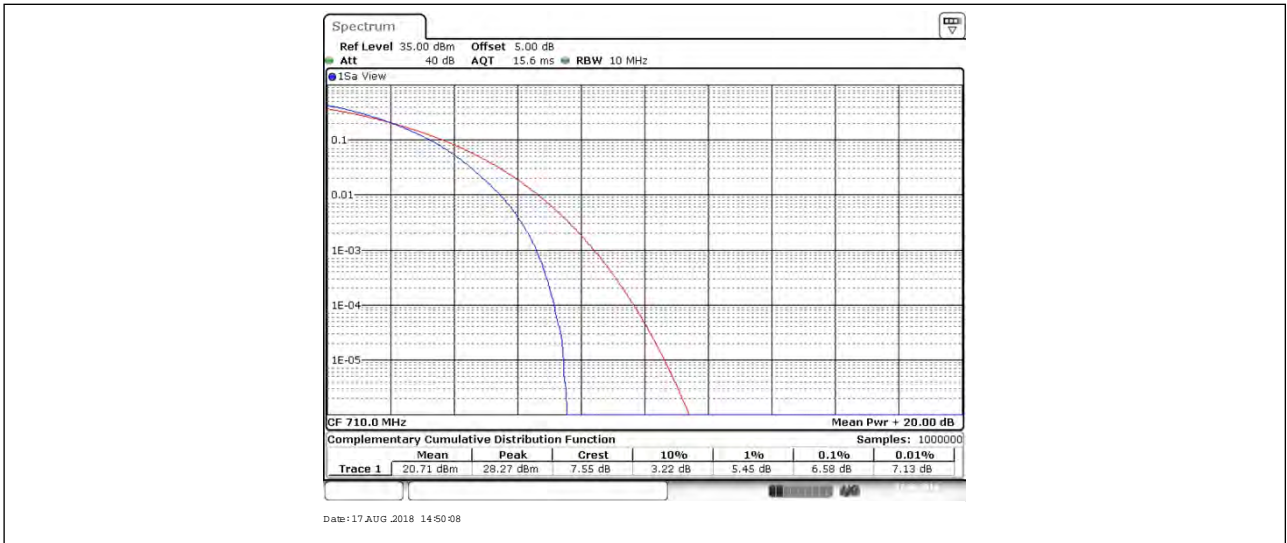
BAND17_10MHz_QPSK_23800_50RB#0



BAND17_10MHz_64QAM_23780_50RB#0



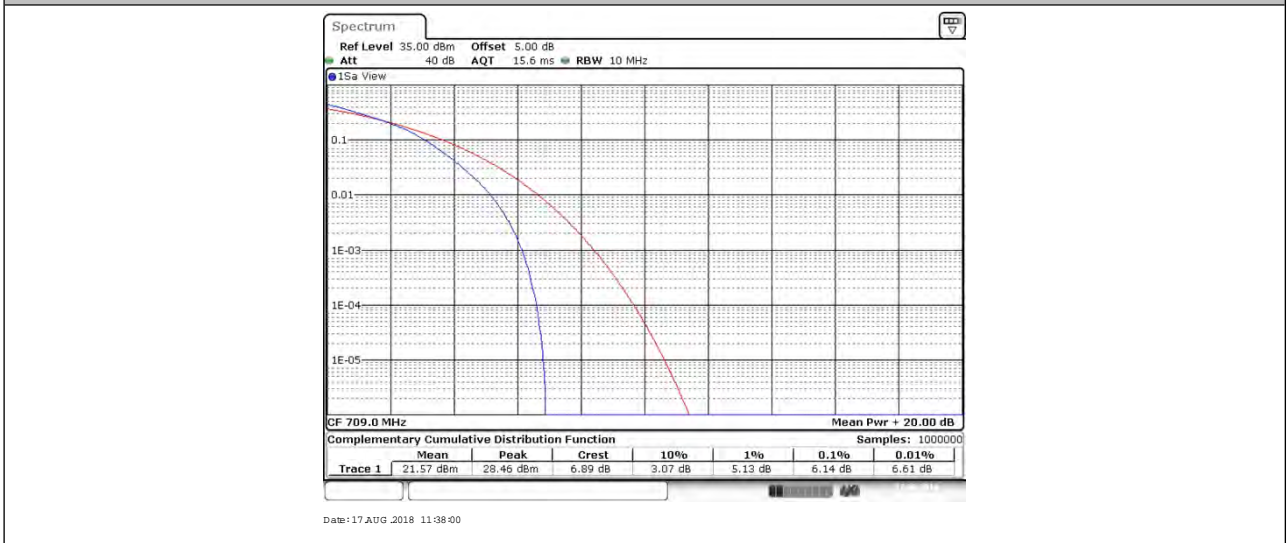
BAND17_10MHz_64QAM_23790_50RB#0



BAND17_10MHz_64QAM_23800_50RB#0



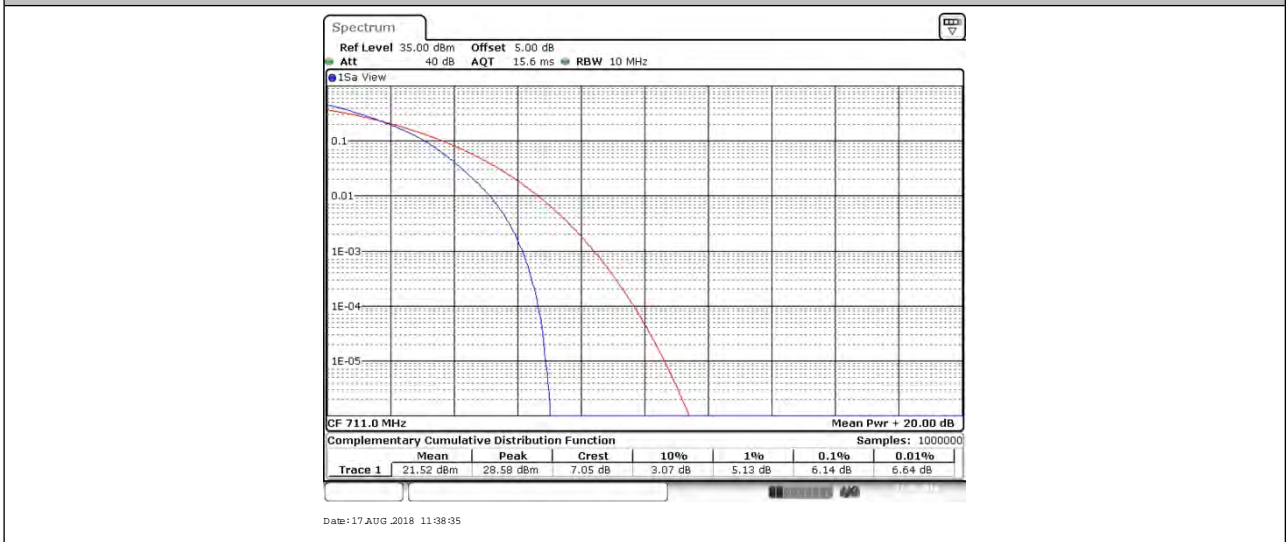
BAND17_10MHz_16QAM_23780_50RB#0



BAND17_10MHz_16QAM_23790_50RB#0



BAND17_10MHz_16QAM_23800_50RB#0

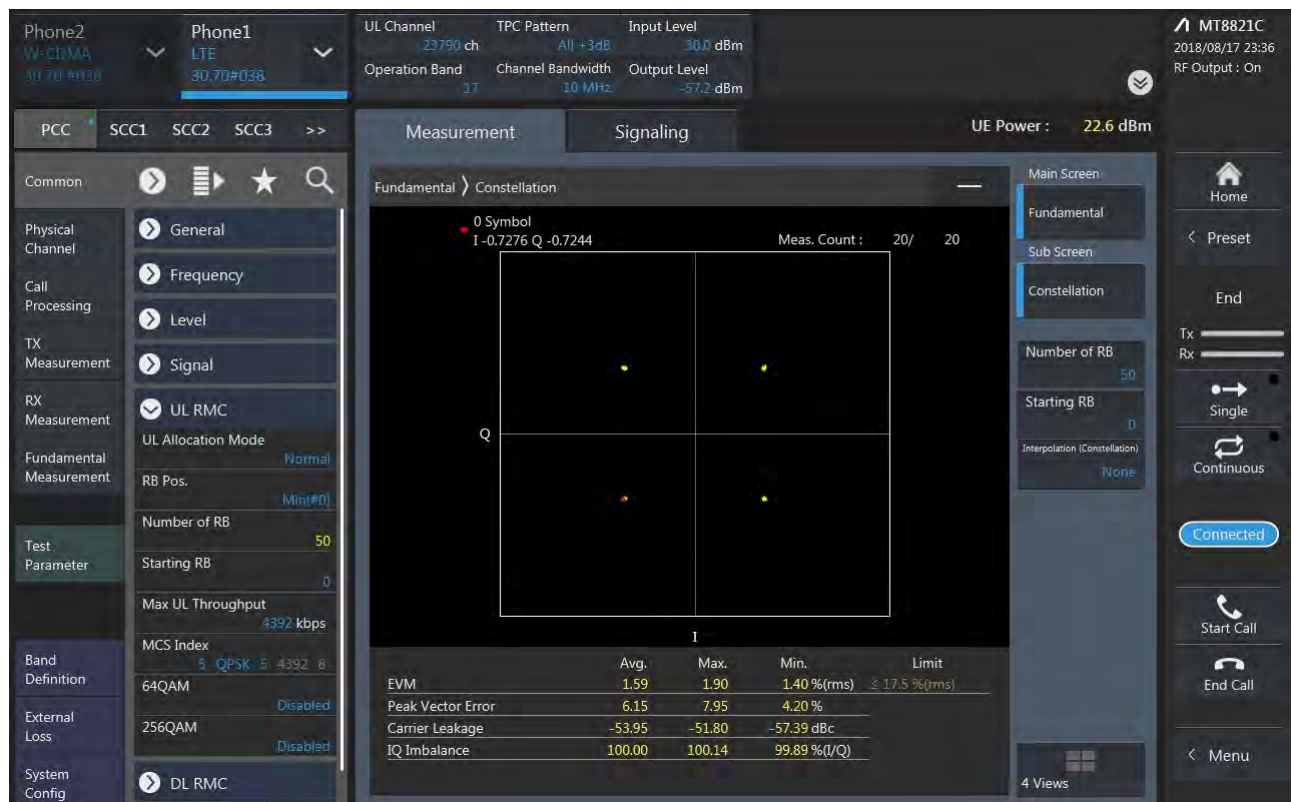


3. Modulation Characteristics

3.1. Test BAND = LTE BAND17

3.1.1. Test Mode = LTE /TM1 10MHz

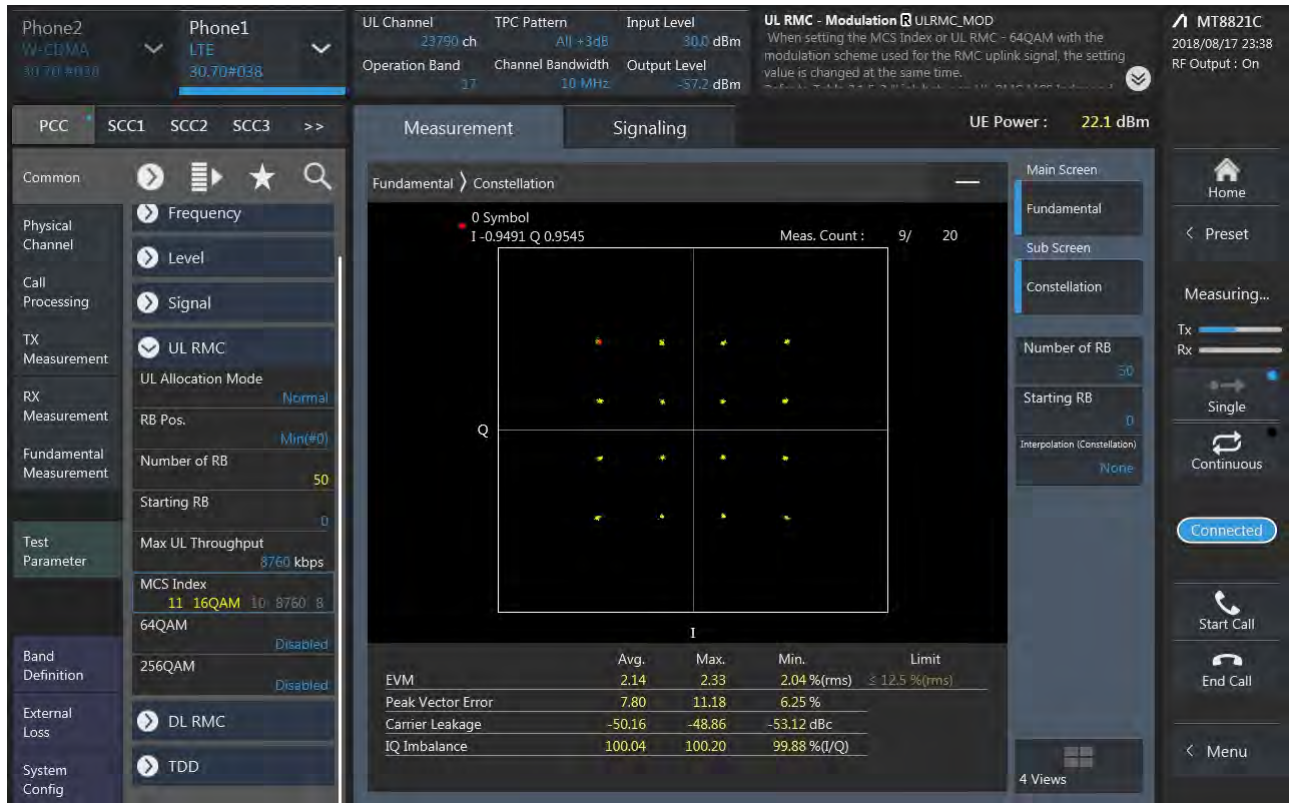
3.1.1.1. Test Channel = MCH





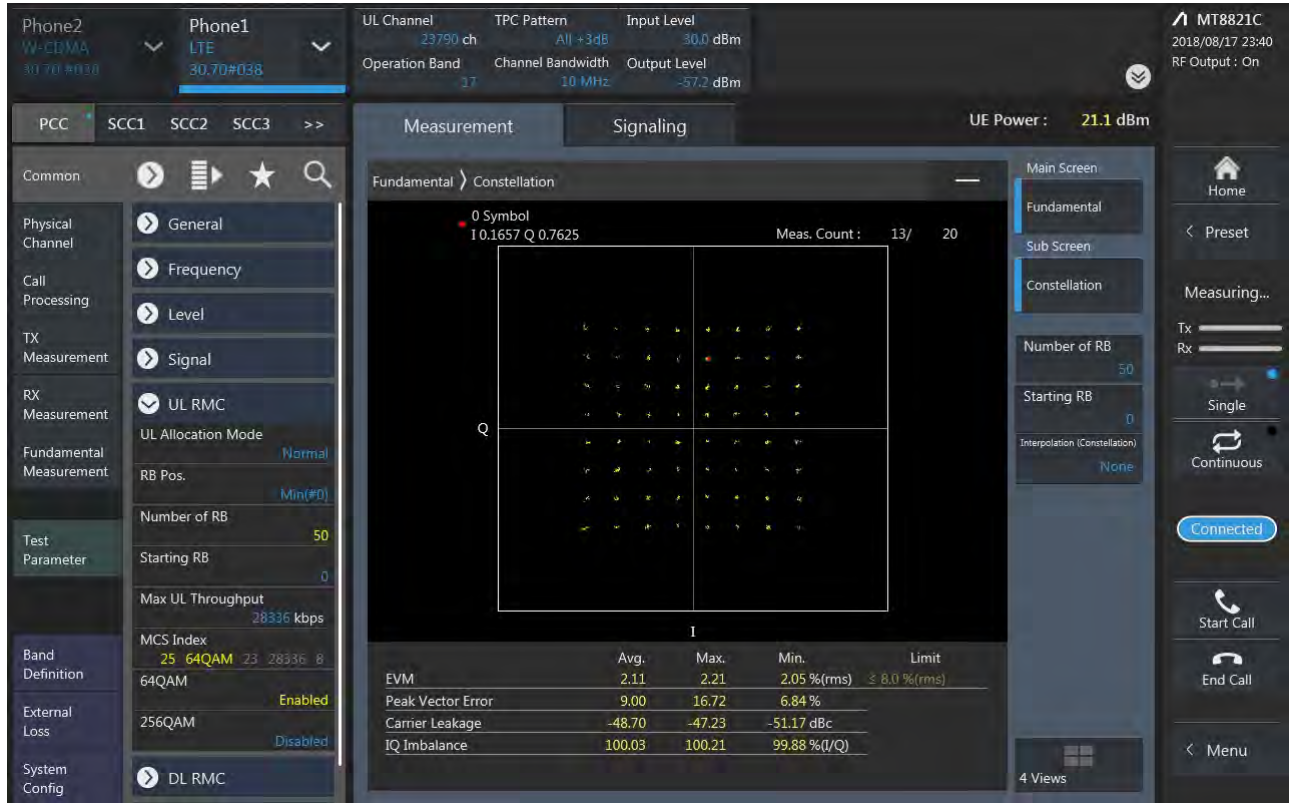
3.1.2. Test Mode = LTE /TM2 10MHz

3.1.2.1. Test Channel = MCH



3.1.1. Test Mode = LTE /TM3 10MHz

3.1.1.1. Test Channel = MCH





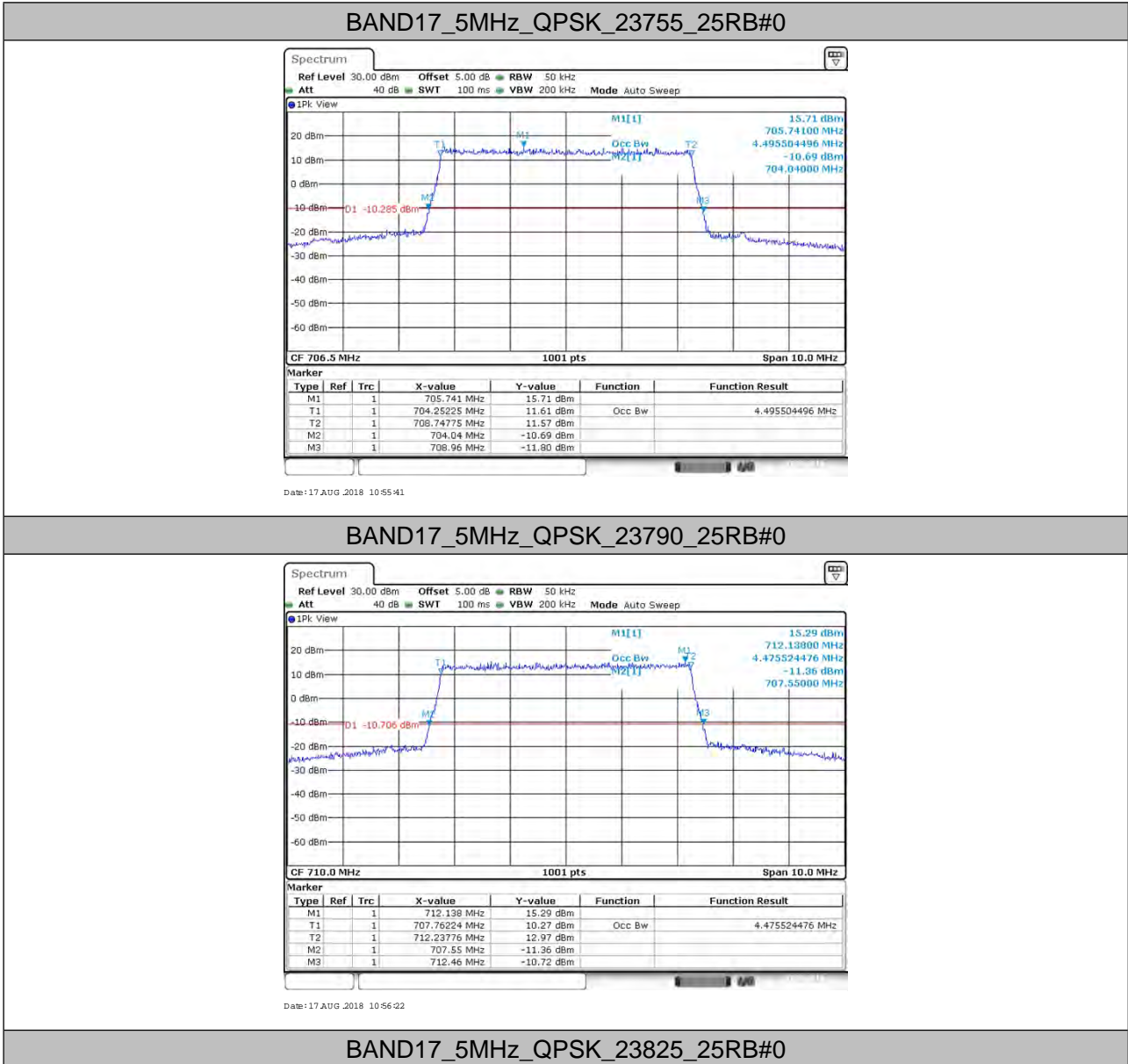
4. 26dB Bandwidth and Occupied Bandwidth

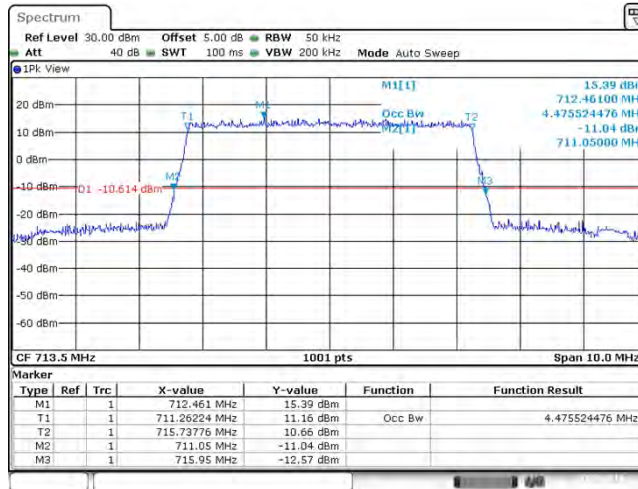
4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
BAND17	5MHz	QPSK	23755	25RB#0	4.496	4.920	PASS
BAND17	5MHz	QPSK	23790	25RB#0	4.476	4.910	PASS
BAND17	5MHz	QPSK	23825	25RB#0	4.476	4.900	PASS
BAND17	5MHz	64QAM	23755	25RB#0	4.476	4.910	PASS
BAND17	5MHz	64QAM	23790	25RB#0	4.476	4.900	PASS
BAND17	5MHz	64QAM	23825	25RB#0	4.466	4.870	PASS
BAND17	5MHz	16QAM	23755	25RB#0	4.476	4.920	PASS
BAND17	5MHz	16QAM	23790	25RB#0	4.486	4.930	PASS
BAND17	5MHz	16QAM	23825	25RB#0	4.476	4.910	PASS
BAND17	10MHz	QPSK	23780	50RB#0	8.951	9.760	PASS
BAND17	10MHz	QPSK	23790	50RB#0	8.931	9.740	PASS
BAND17	10MHz	QPSK	23800	50RB#0	8.931	9.780	PASS
BAND17	10MHz	64QAM	23780	50RB#0	8.931	9.800	PASS
BAND17	10MHz	64QAM	23790	50RB#0	8.931	9.780	PASS
BAND17	10MHz	64QAM	23800	50RB#0	8.931	9.740	PASS
BAND17	10MHz	16QAM	23780	50RB#0	8.951	9.780	PASS
BAND17	10MHz	16QAM	23790	50RB#0	8.951	9.740	PASS
BAND17	10MHz	16QAM	23800	50RB#0	8.931	9.760	PASS



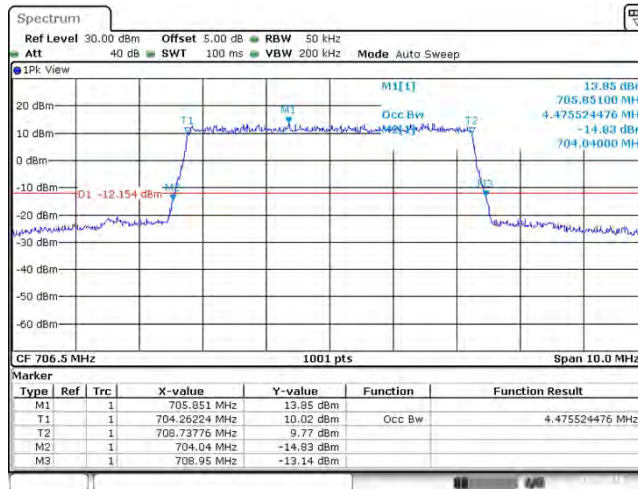
4.2. Test Plots





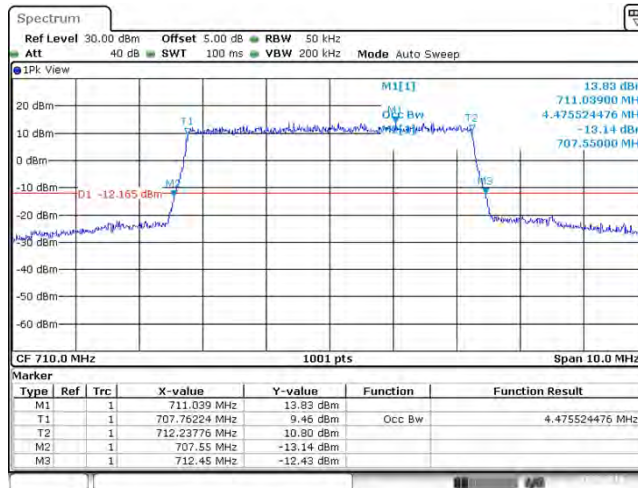
Date: 17 AUG 2018 10:57:04

BAND17_5MHz_64QAM_23755_25RB#0



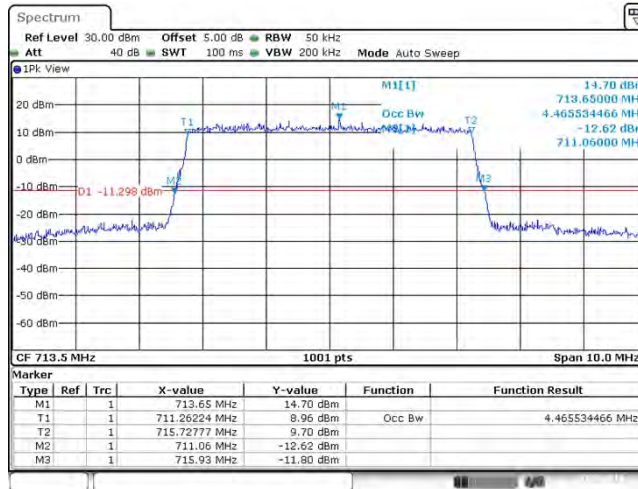
Date: 17 AUG 2018 14:23:20

BAND17_5MHz_64QAM_23790_25RB#0



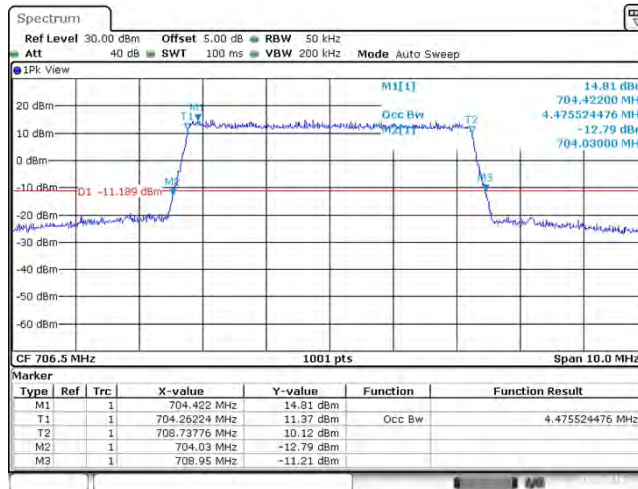
Date: 17 AUG 2018 14:23:40

BAND17_5MHz_64QAM_23825_25RB#0



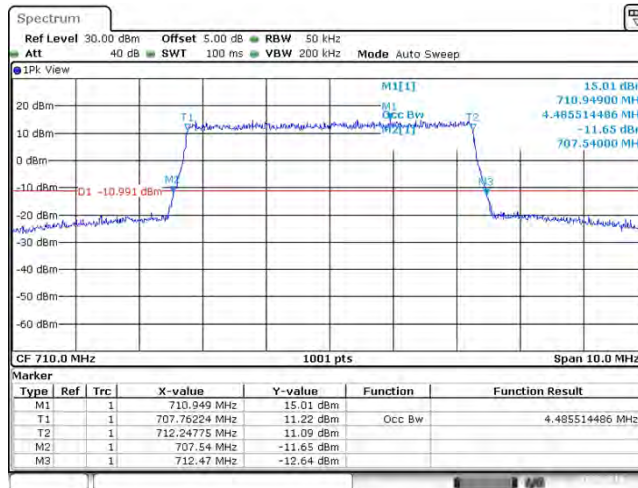
Date: 17 AUG 2018 14:24:00

BAND17_5MHz_16QAM_23755_25RB#0



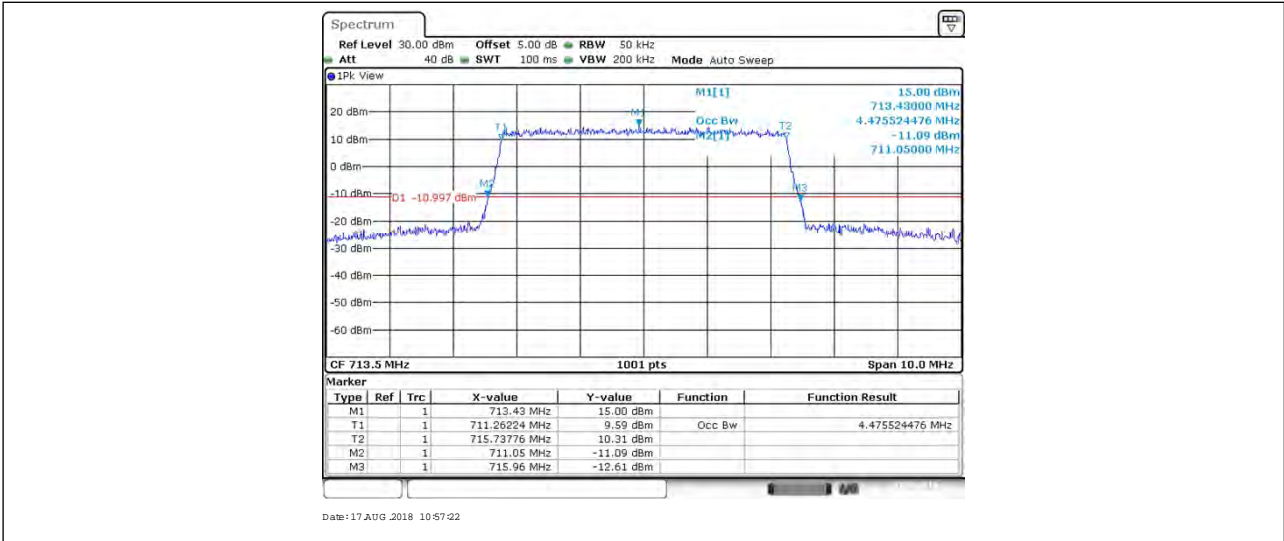
Date: 17 AUG 2018 10:55:59

BAND17_5MHz_16QAM_23790_25RB#0

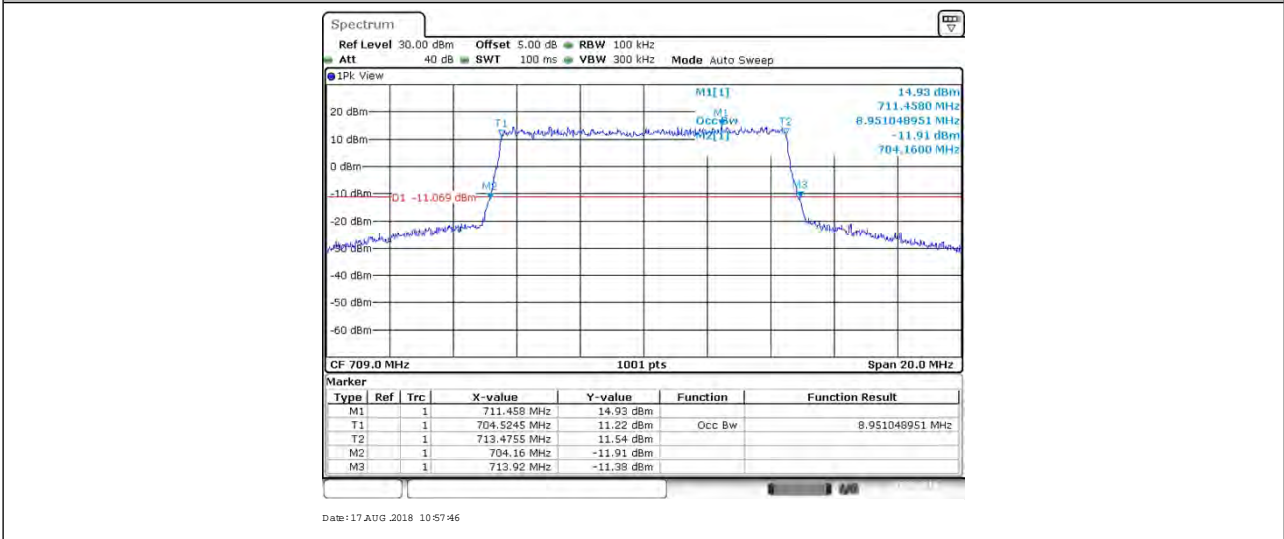


Date: 17 AUG 2018 10:56:40

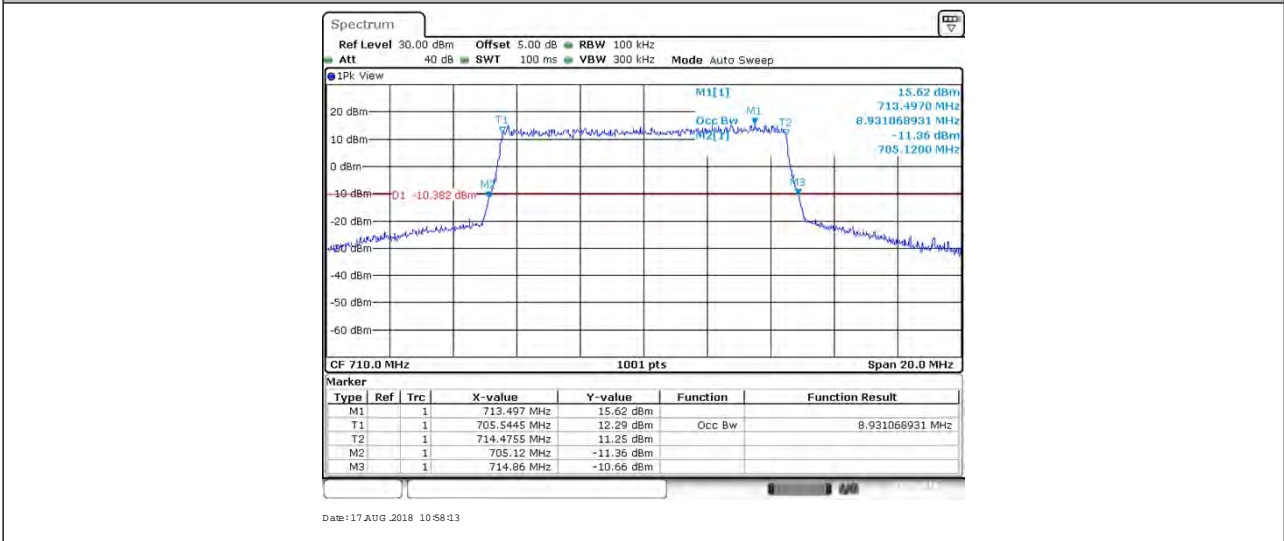
BAND17_5MHz_16QAM_23825_25RB#0



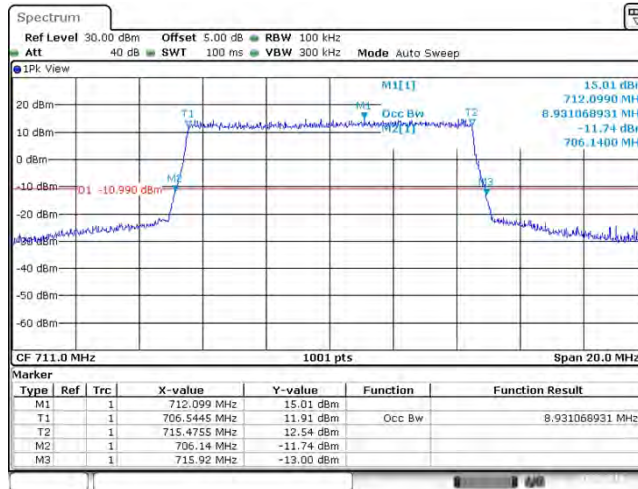
BAND17_10MHz_QPSK_23780_50RB#0



BAND17_10MHz_QPSK_23790_50RB#0

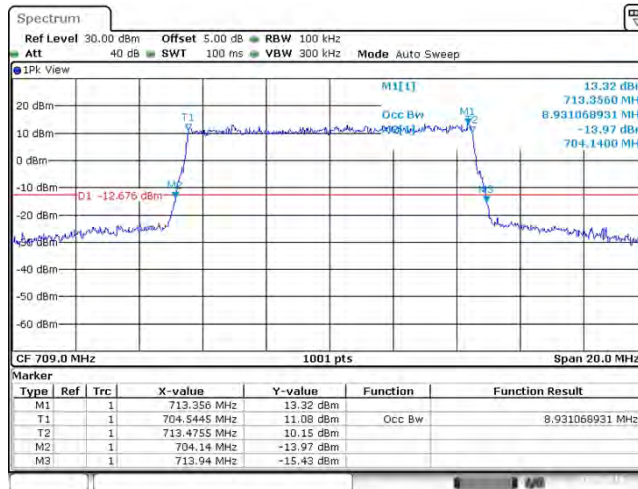


BAND17_10MHz_QPSK_23800_50RB#0



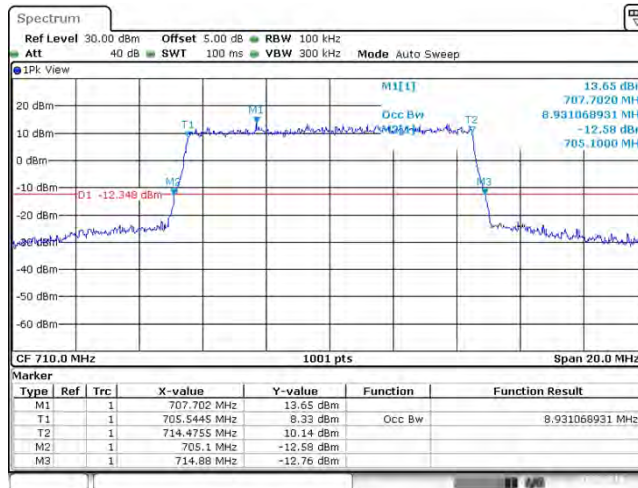
Date: 17 AUG 2018 10:58:41

BAND17_10MHz_64QAM_23780_50RB#0



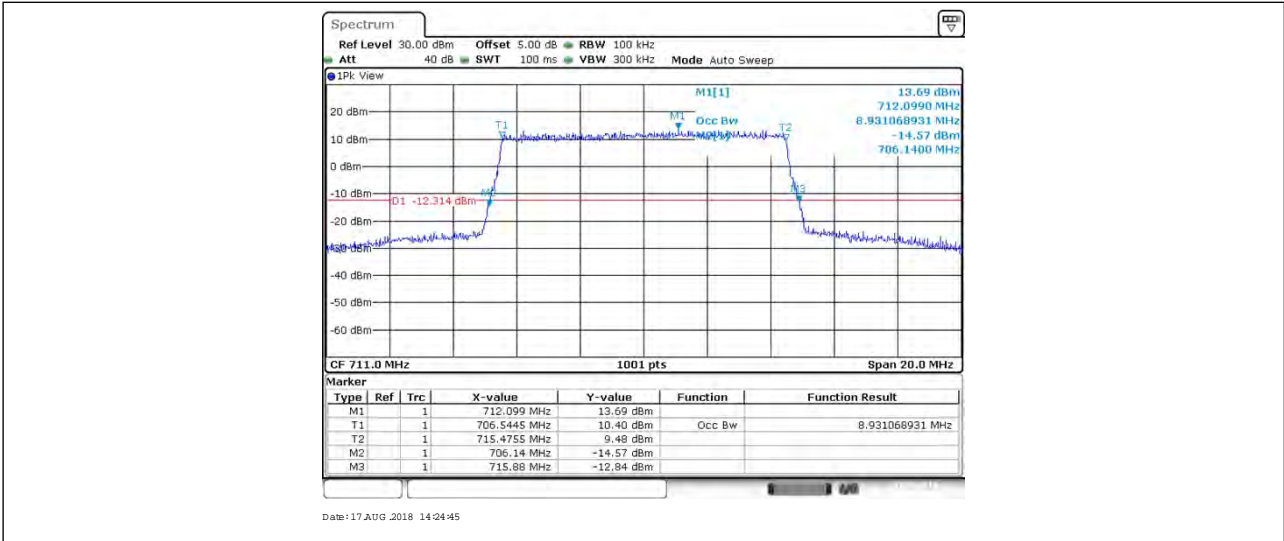
Date: 17 AUG 2018 14:24:19

BAND17_10MHz_64QAM_23790_50RB#0

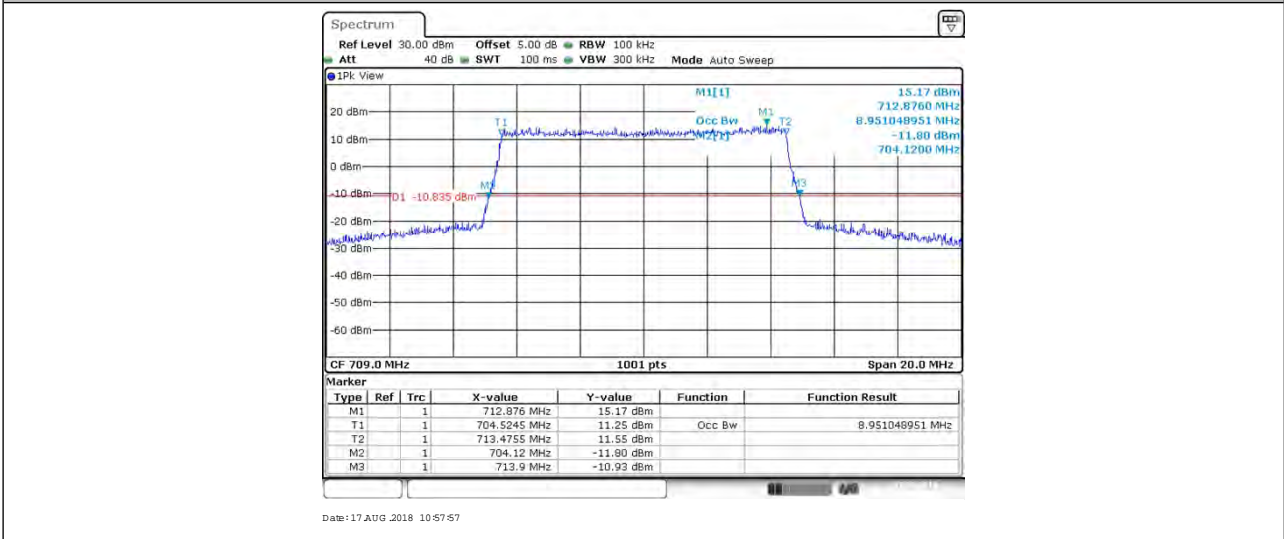


Date: 17 AUG 2018 14:24:32

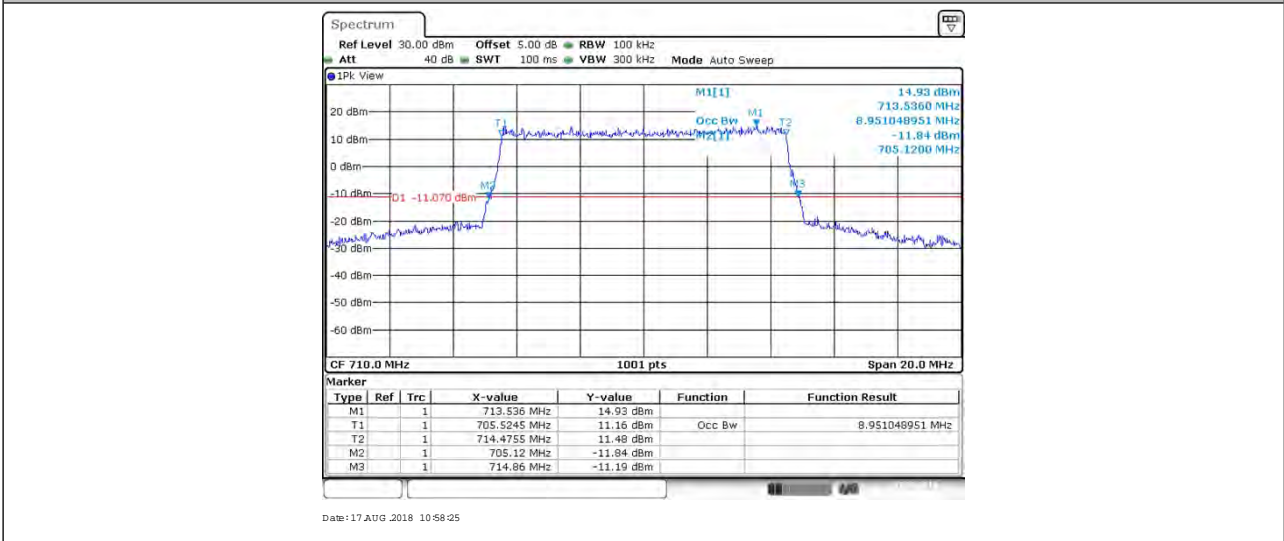
BAND17_10MHz_64QAM_23800_50RB#0



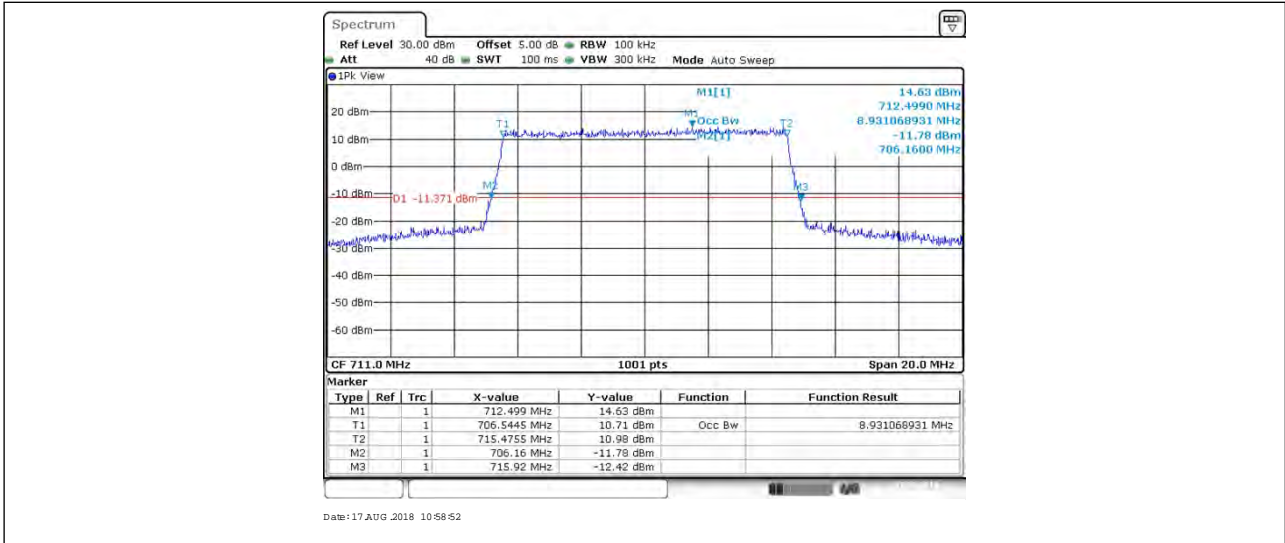
BAND17_10MHz_16QAM_23780_50RB#0



BAND17_10MHz_16QAM_23790_50RB#0



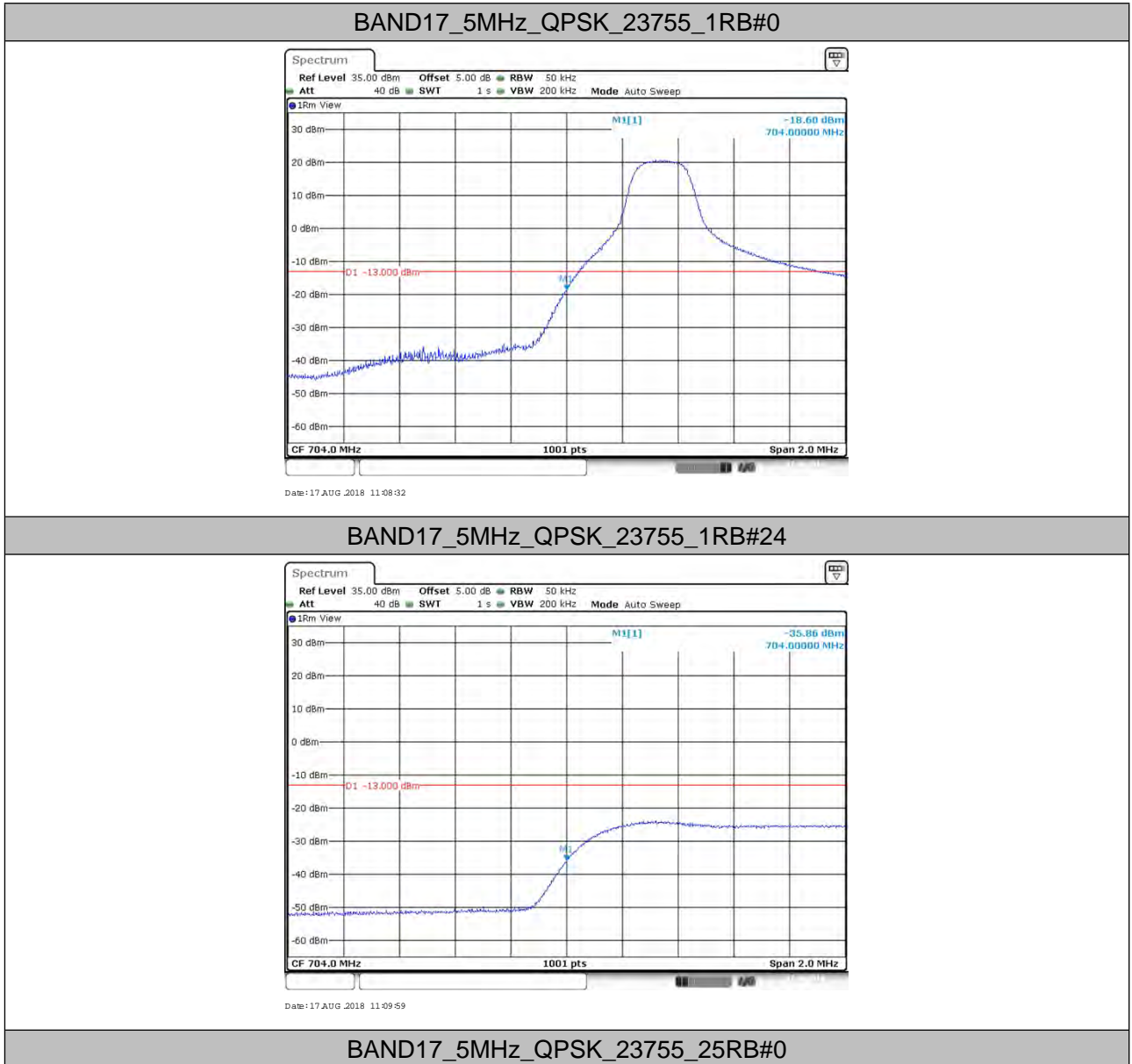
BAND17_10MHz_16QAM_23800_50RB#0

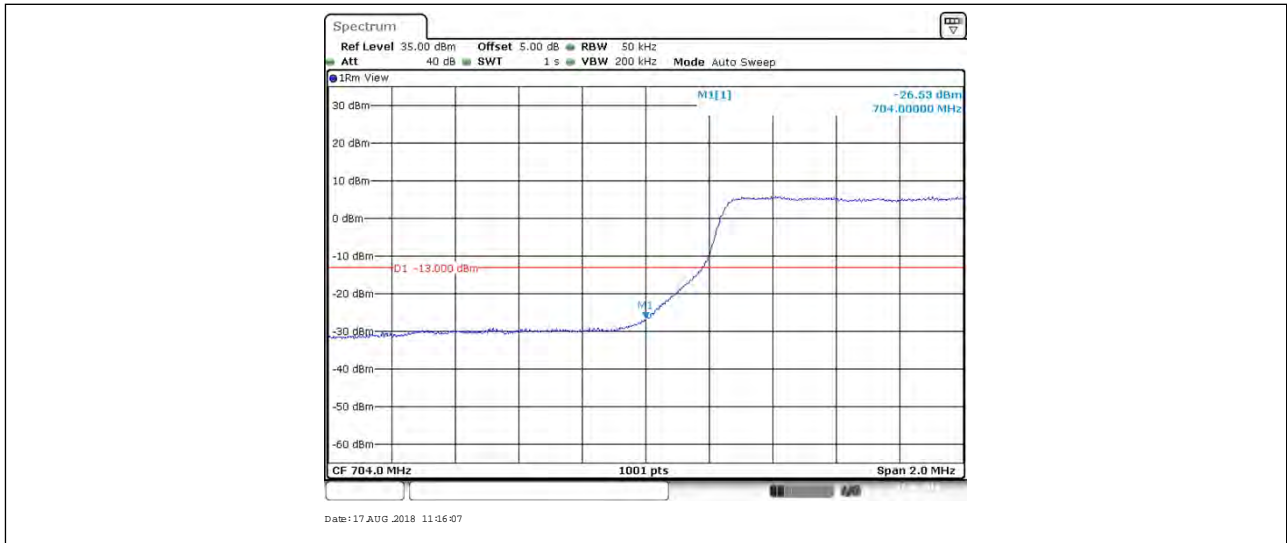




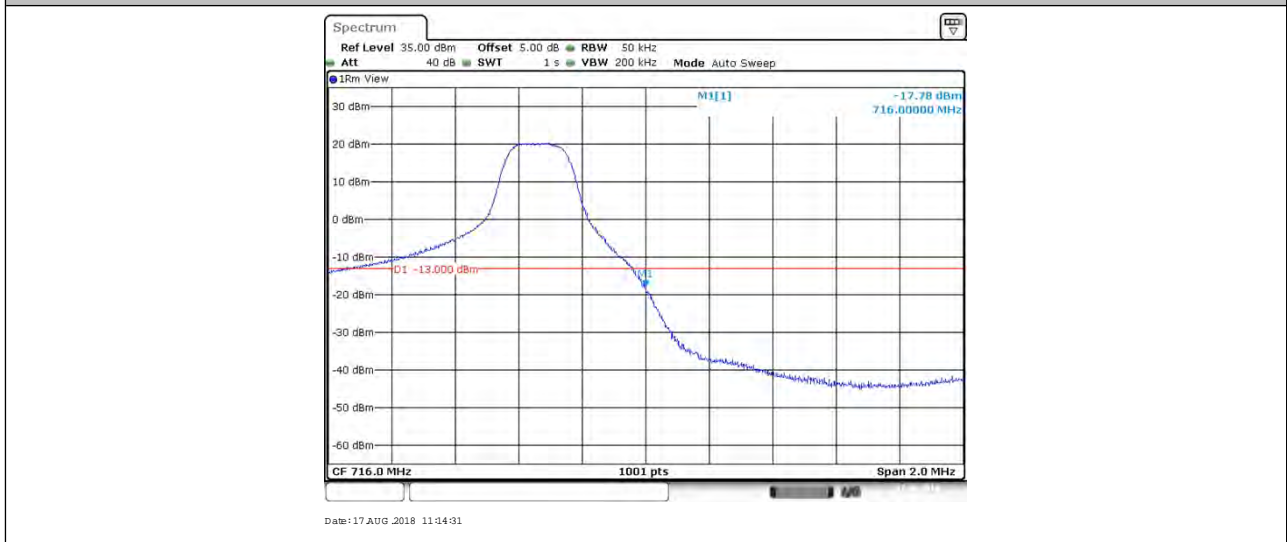
5. Band Edge Compliance

5.1. Test Plots

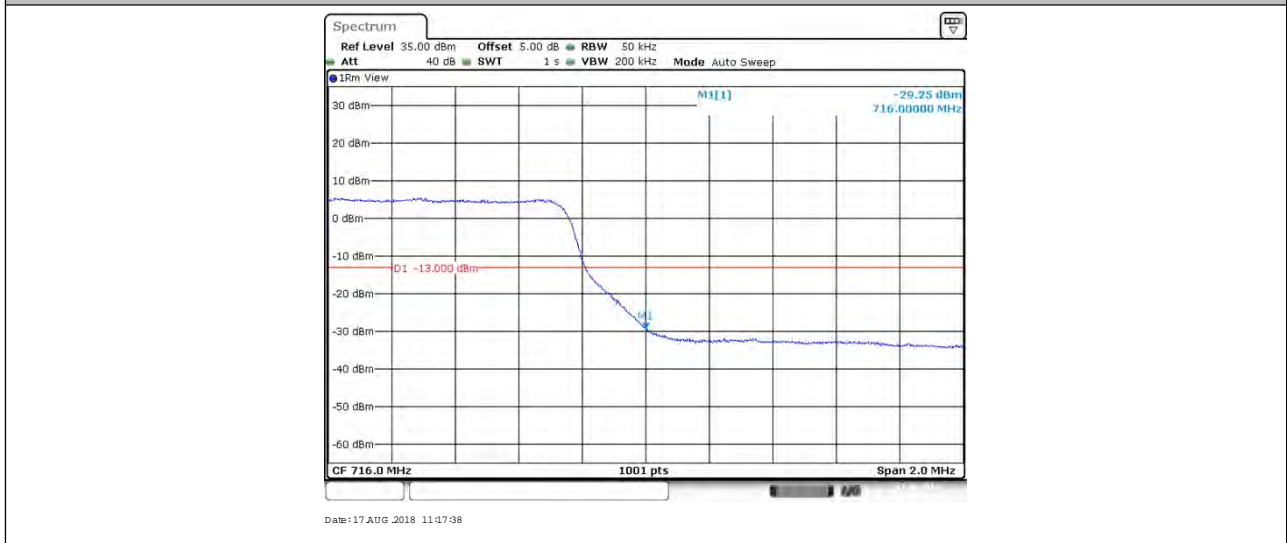




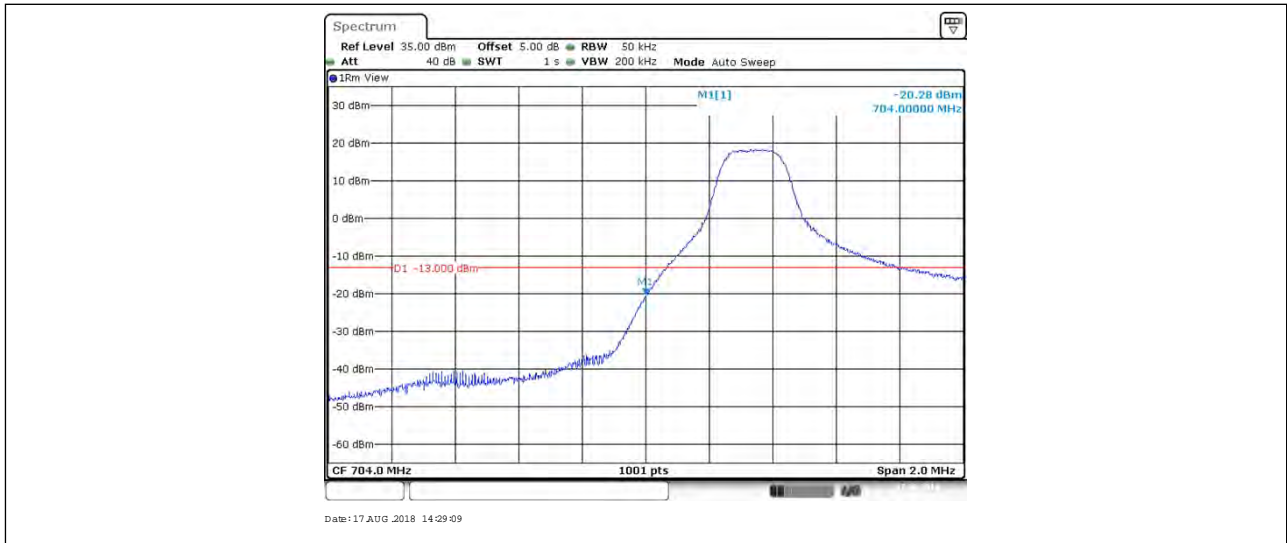
BAND17_5MHz_QPSK_23825_1RB#24



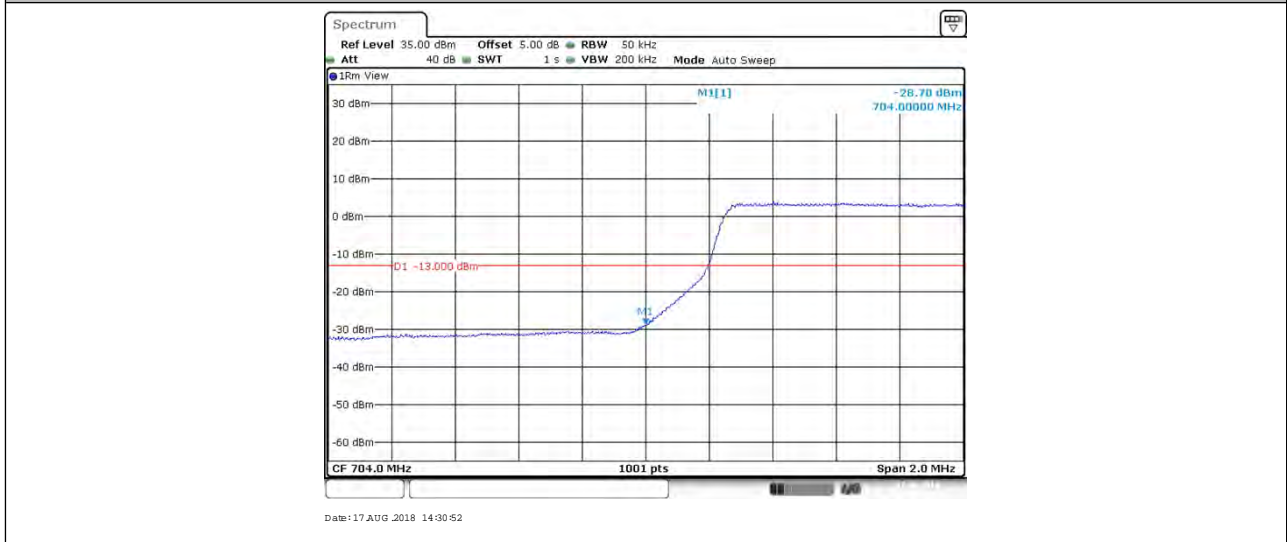
BAND17_5MHz_QPSK_23825_25RB#0



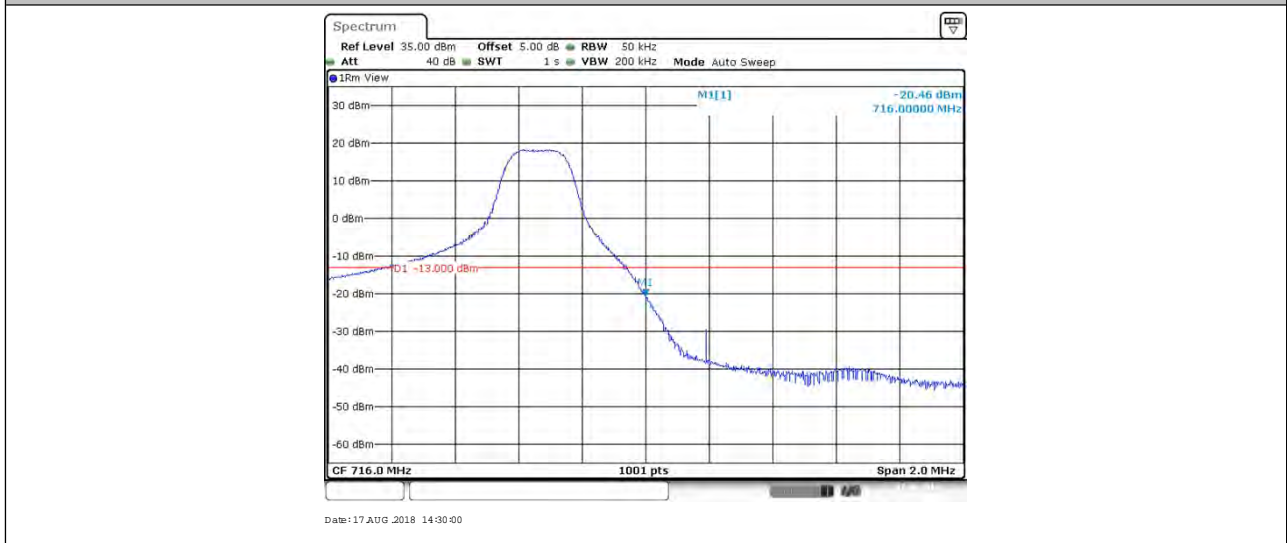
BAND17_5MHz_64QAM_23755_1RB#0



BAND17_5MHz_64QAM_23755_25RB#0



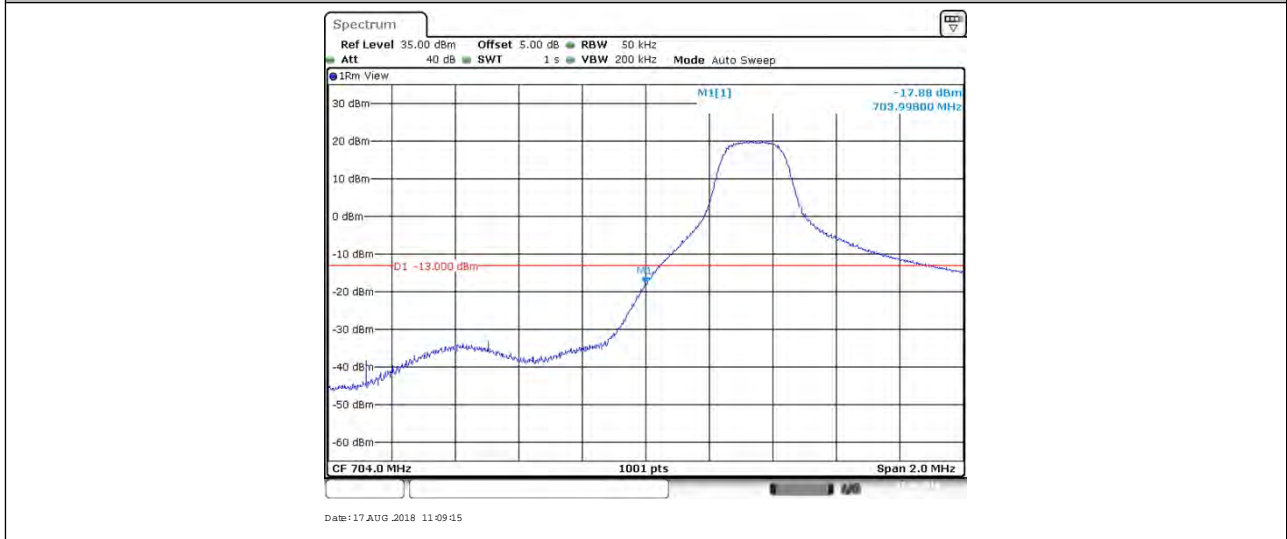
BAND17_5MHz_64QAM_23825_1RB#24



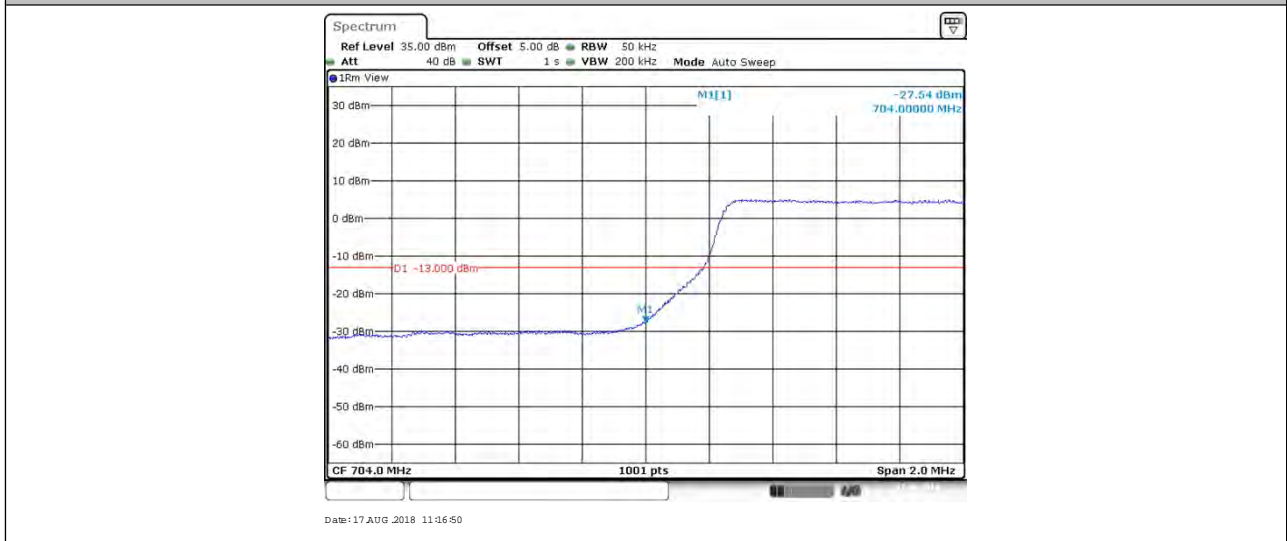
BAND17_5MHz_64QAM_23825_25RB#0



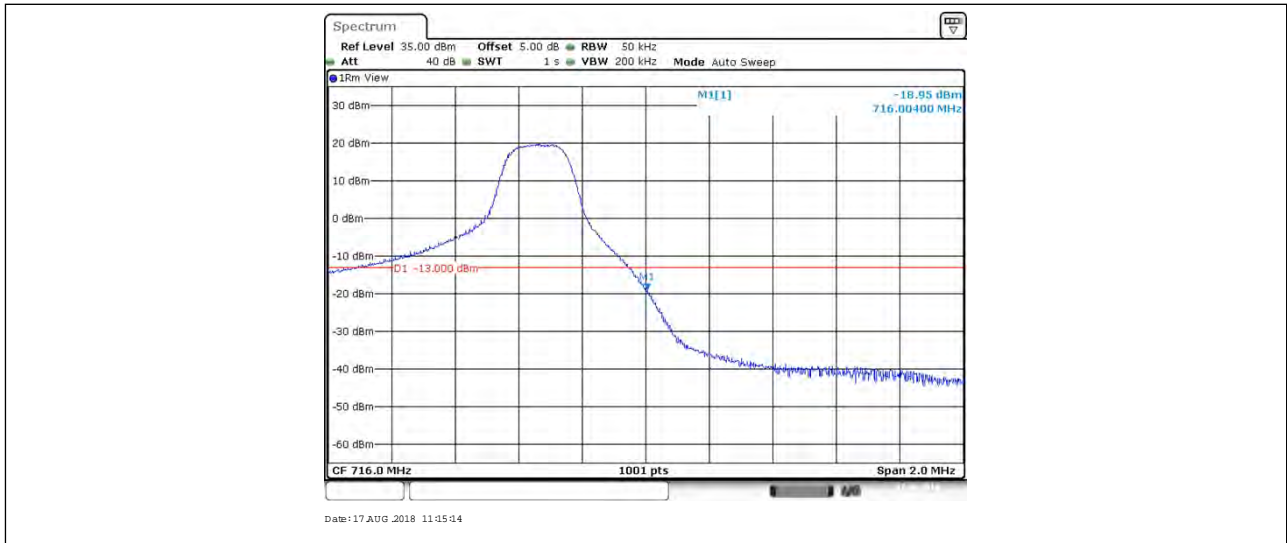
BAND17_5MHz_16QAM_23755_1RB#0



BAND17_5MHz_16QAM_23755_25RB#0



BAND17_5MHz_16QAM_23825_1RB#24



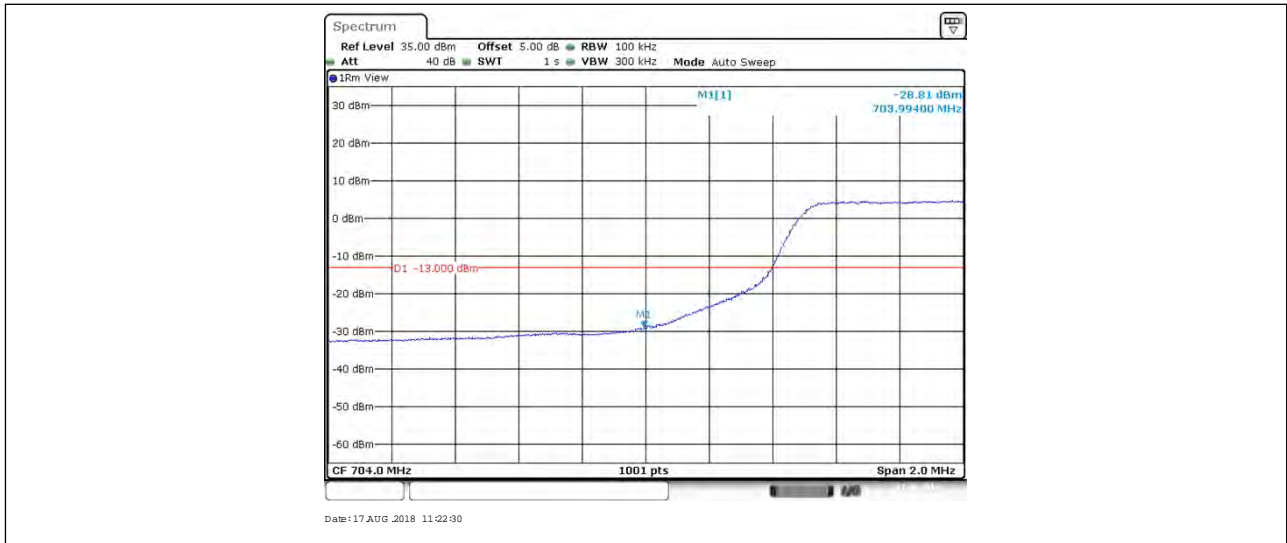
BAND17_5MHz_16QAM_23825_25RB#0



BAND17_10MHz_QPSK_23780_1RB#0



BAND17_10MHz_QPSK_23780_50RB#0



BAND17_10MHz_QPSK_23800_1RB#49



BAND17_10MHz_QPSK_23800_50RB#0



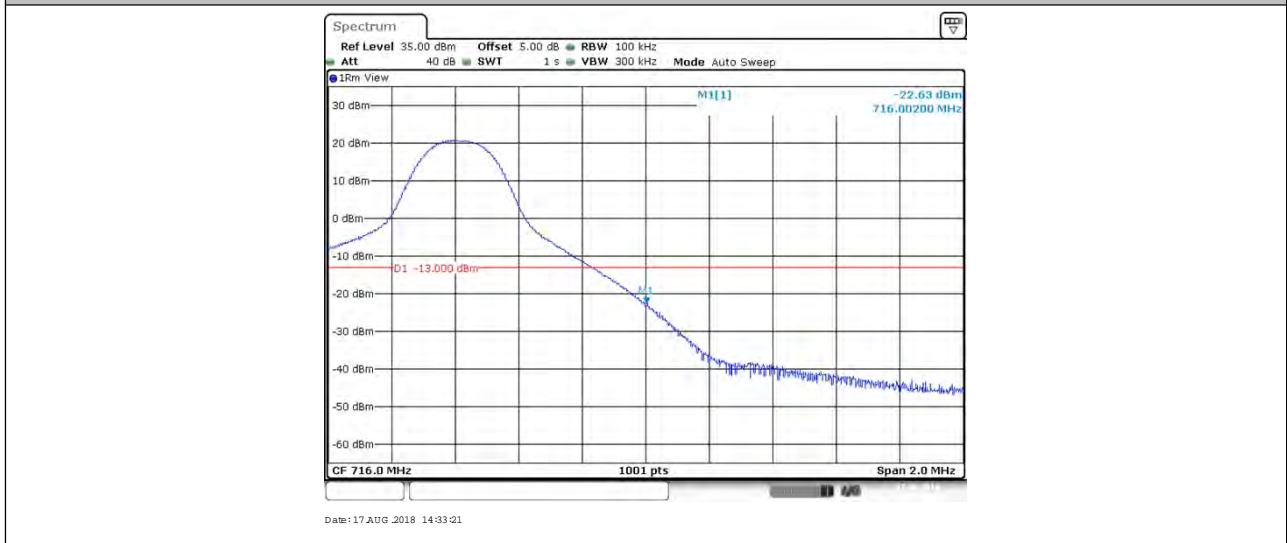
BAND17_10MHz_64QAM_23780_1RB#0



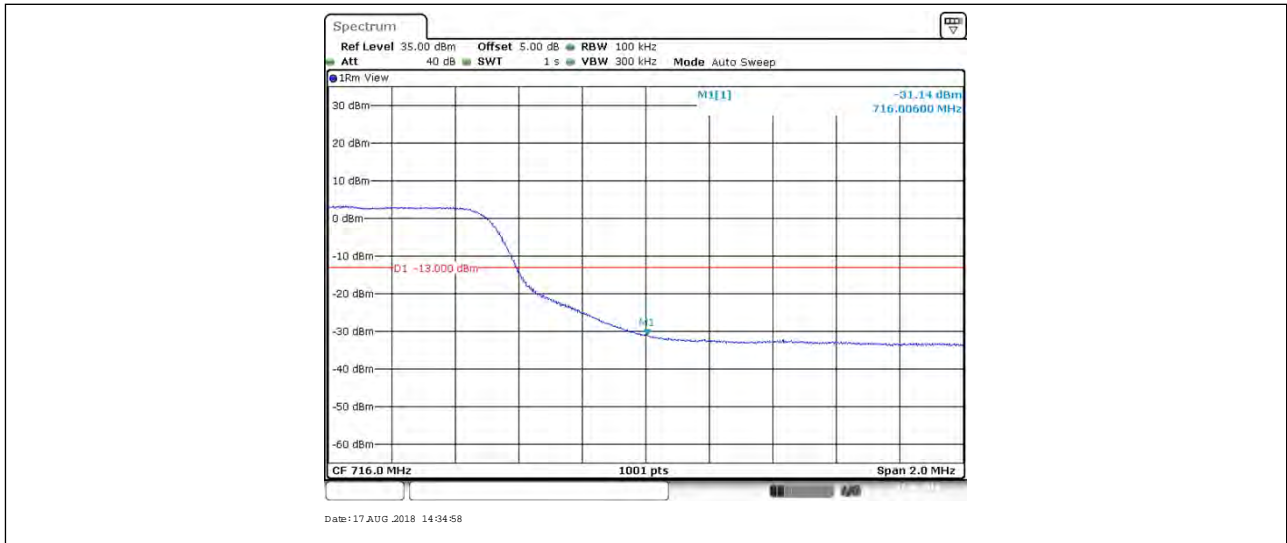
BAND17_10MHz_64QAM_23780_50RB#0



BAND17_10MHz_64QAM_23800_1RB#49



BAND17_10MHz_64QAM_23800_50RB#0



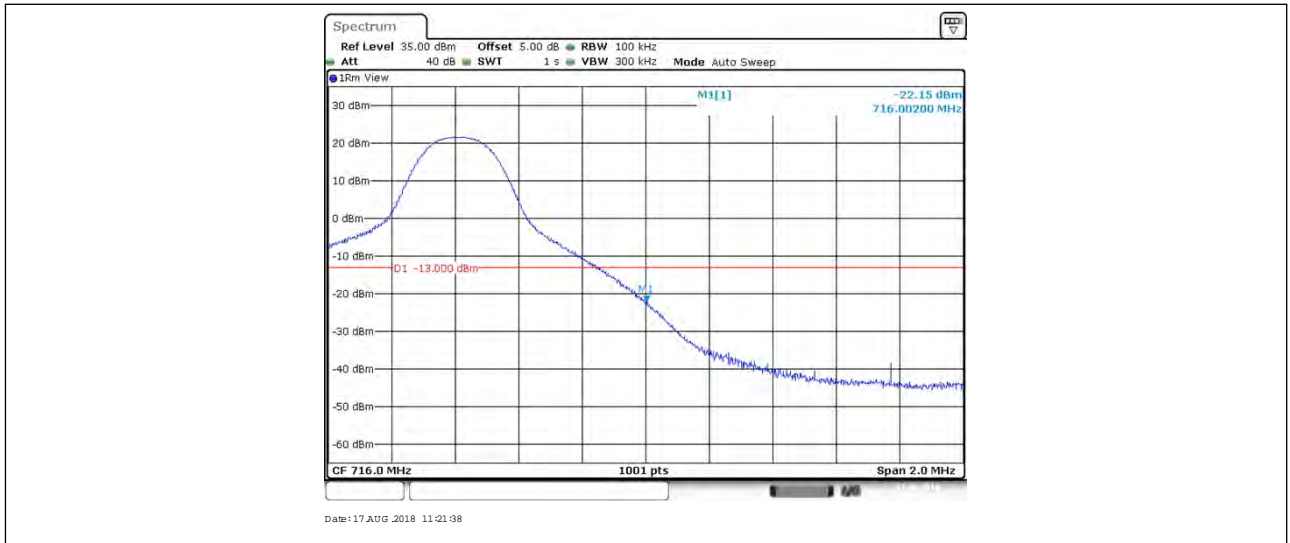
BAND17_10MHz_16QAM_23780_1RB#0



BAND17_10MHz_16QAM_23780_50RB#0



BAND17_10MHz_16QAM_23800_1RB#49



BAND17_10MHz_16QAM_23800_50RB#0



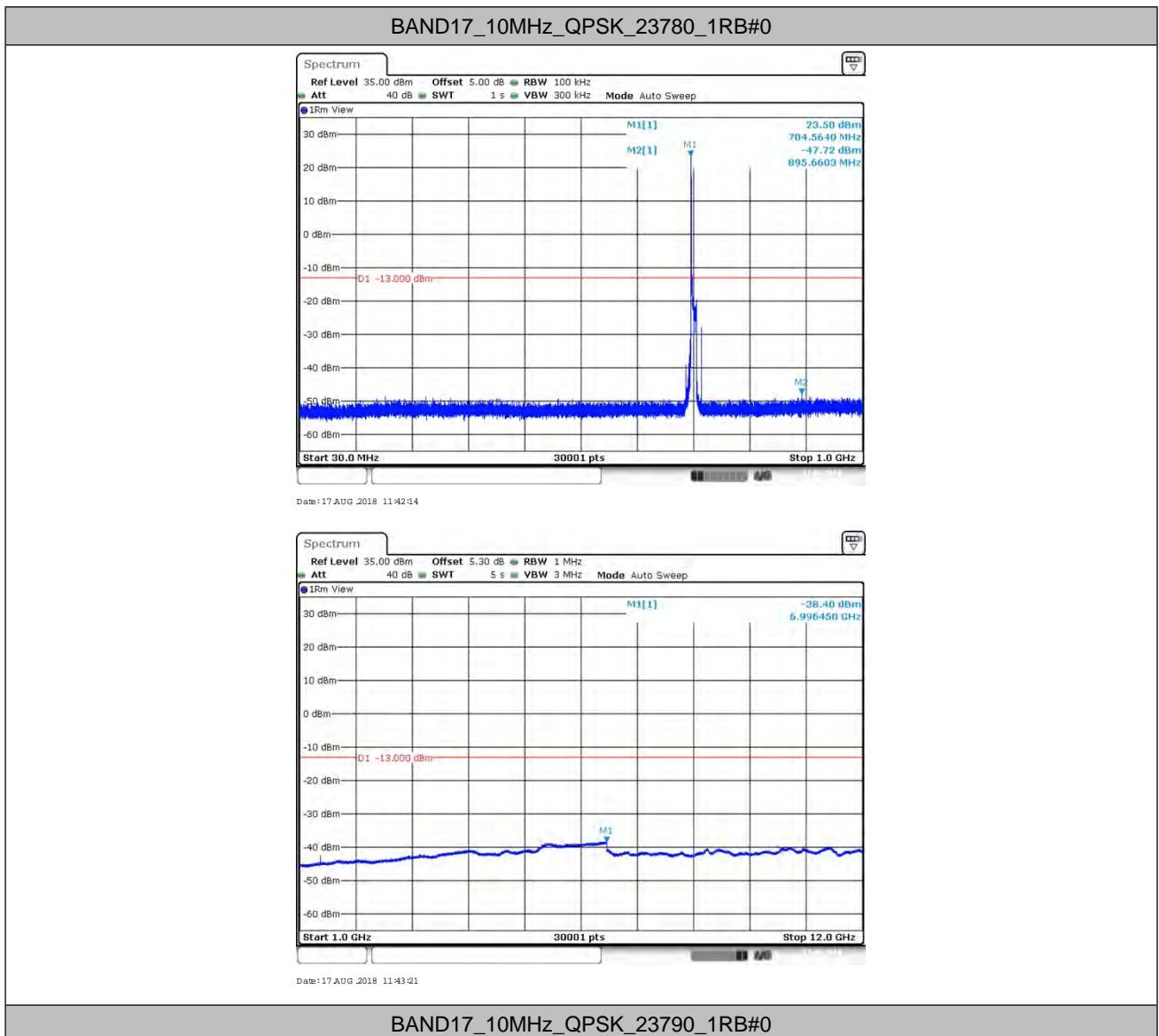


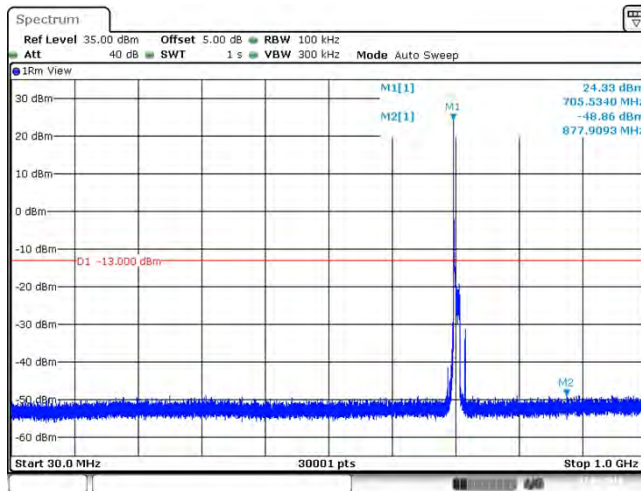
6. Spurious Emission at Antenna Terminal

NOTE1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

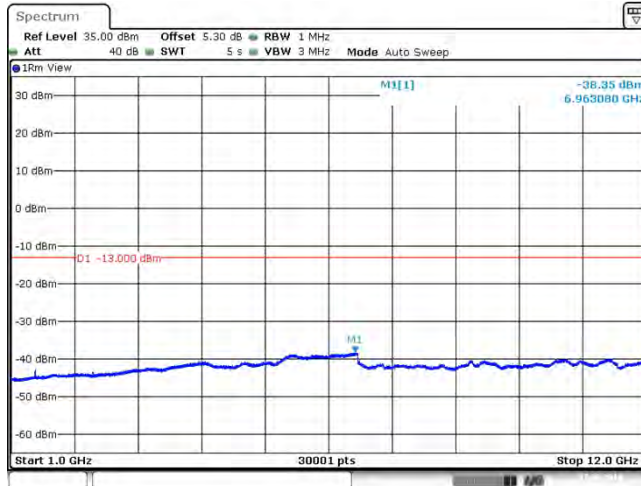
NOTE2: only the worst case data displayed in this report.

6.1. Test Plots



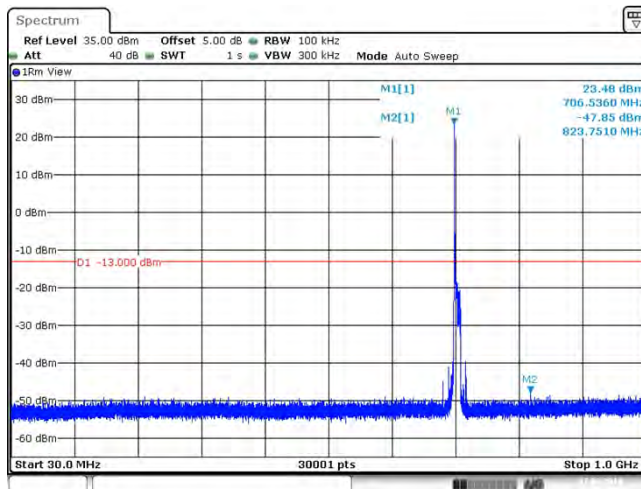


Date: 17 AUG 2018 11:45:09

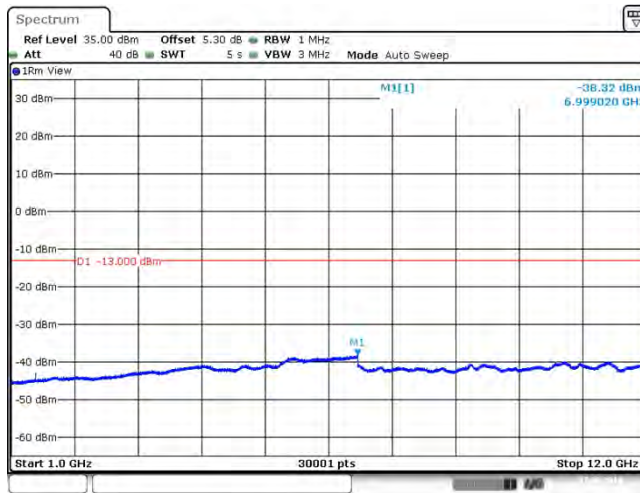


Date: 17 AUG 2018 11:46:17

BAND17_10MHz_QPSK_23800_1RB#0

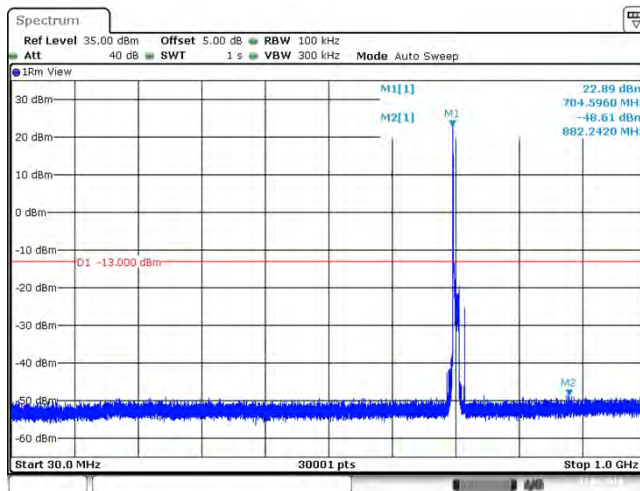


Date: 17 AUG 2018 11:48:04

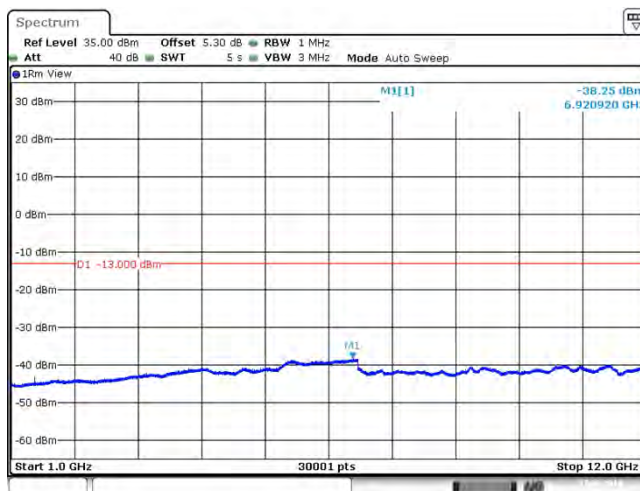


Date: 17 AUG 2018 11:49:12

BAND17_10MHz_64QAM_23780_1RB#0

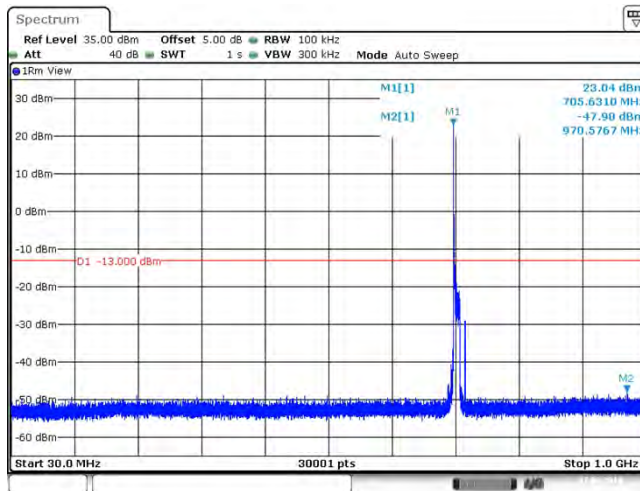


Date: 17 AUG 2018 14:52:19

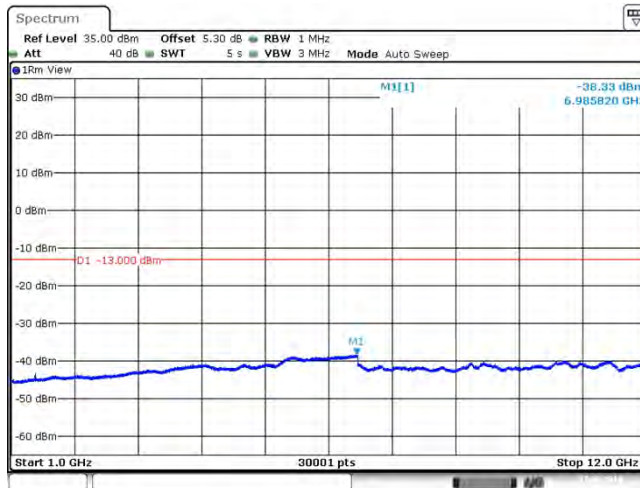


Date: 17 AUG 2018 14:53:26

BAND17_10MHz_64QAM_23790_1RB#0

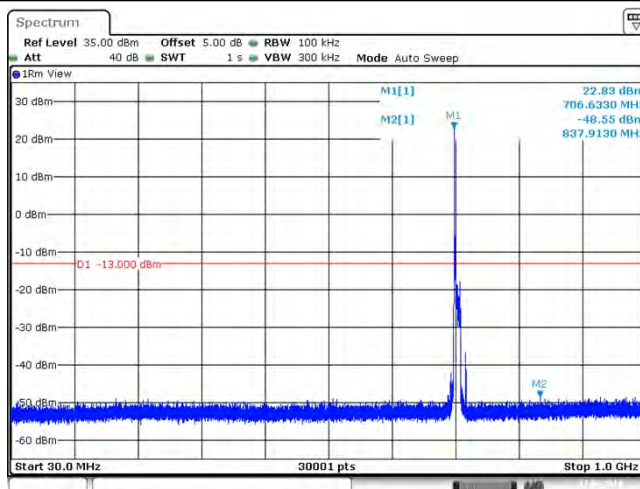


Date: 17 AUG 2018 14:53:46

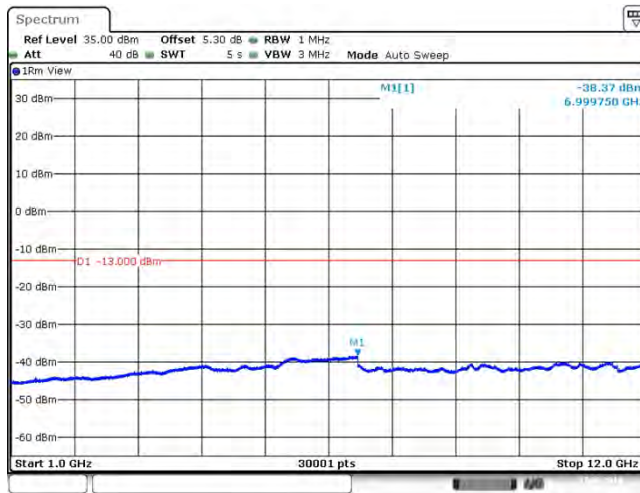


Date: 17 AUG 2018 14:54:53

BAND17_10MHz_64QAM_23800_1RB#0

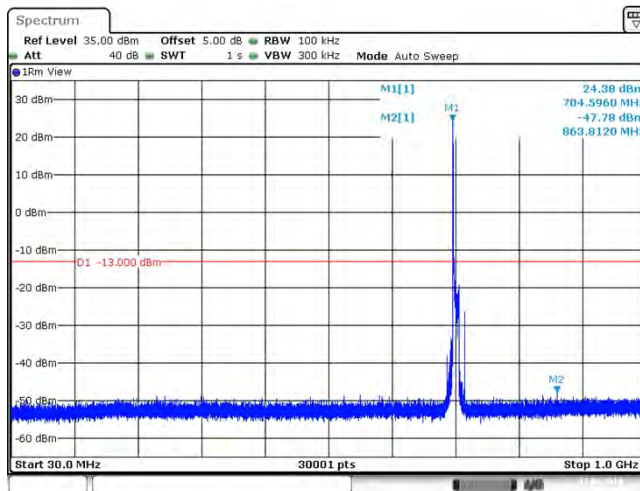


Date: 17 AUG 2018 14:55:13

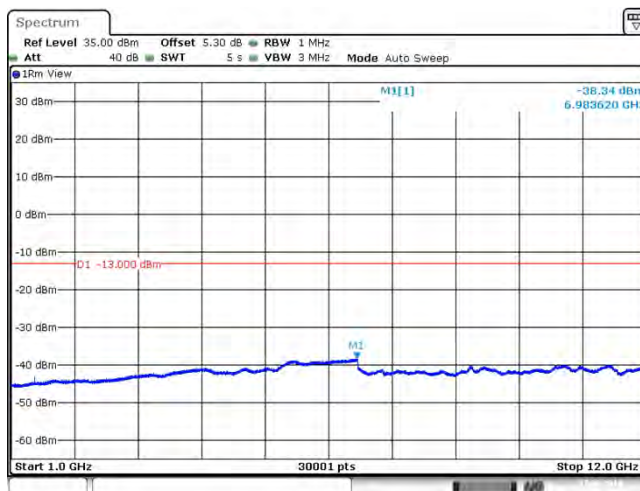


Date: 17 AUG 2018 14:56:20

BAND17_10MHz_16QAM_23780_1RB#0

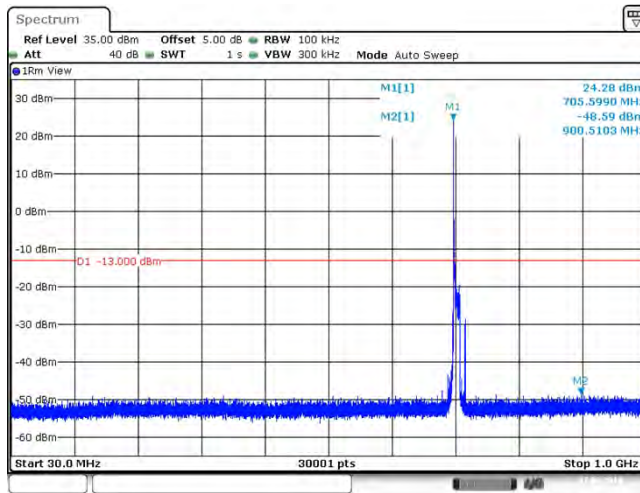


Date: 17 AUG 2018 11:43:39

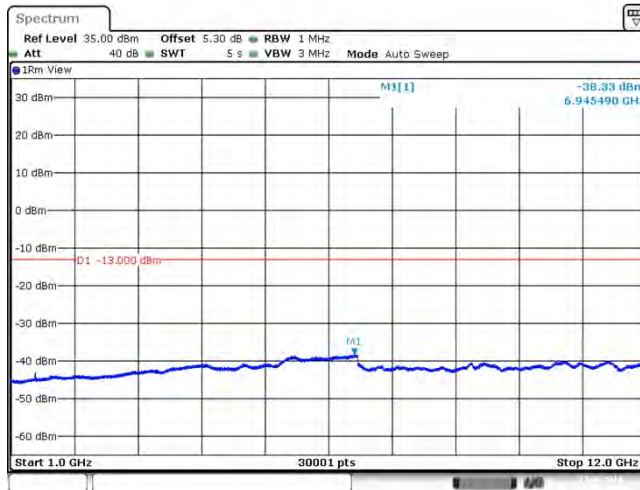


Date: 17 AUG 2018 11:44:47

BAND17_10MHz_16QAM_23790_1RB#0

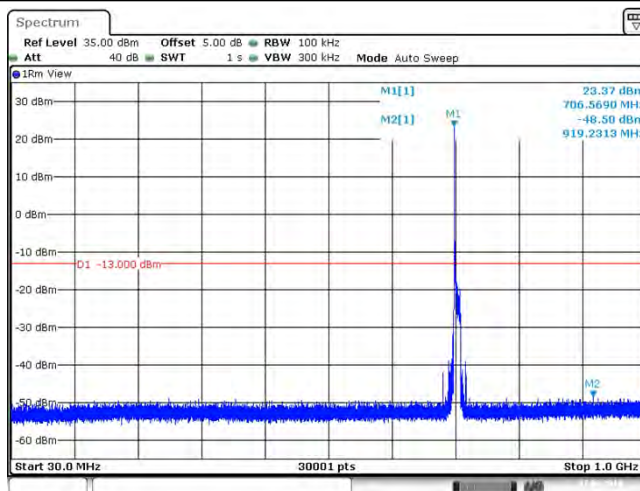


Date: 17 AUG 2018 11:46:34



Date: 17 AUG 2018 11:47:42

BAND17_10MHz_16QAM_23800_1RB#0



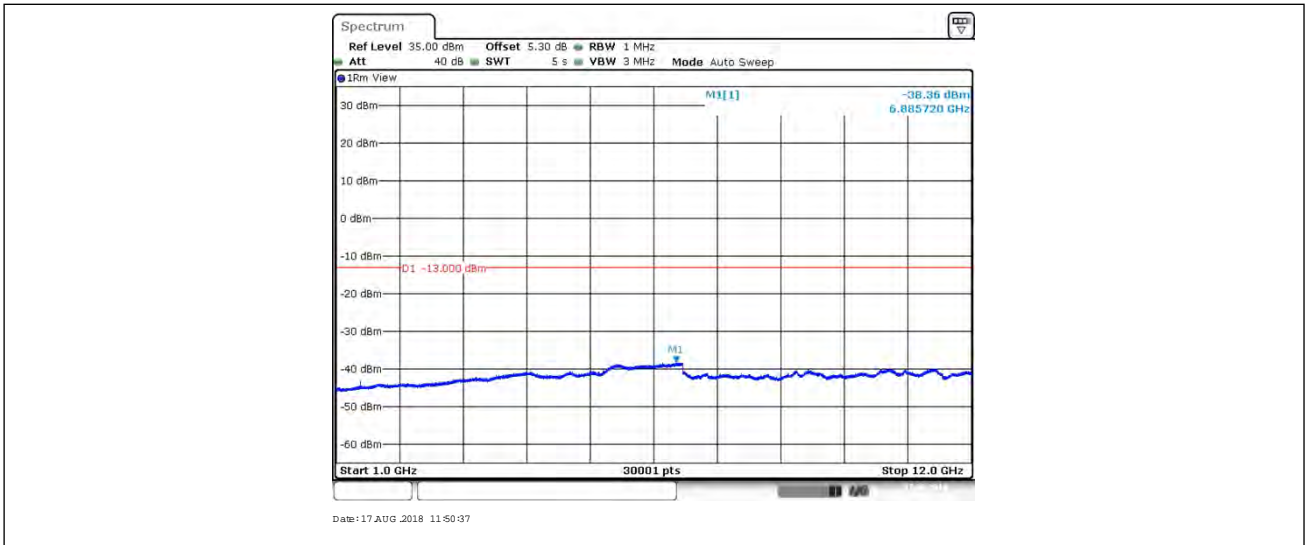
Date: 17 AUG 2018 11:49:30



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

Report No.: SZEM180700654901

Page: 38 of 52



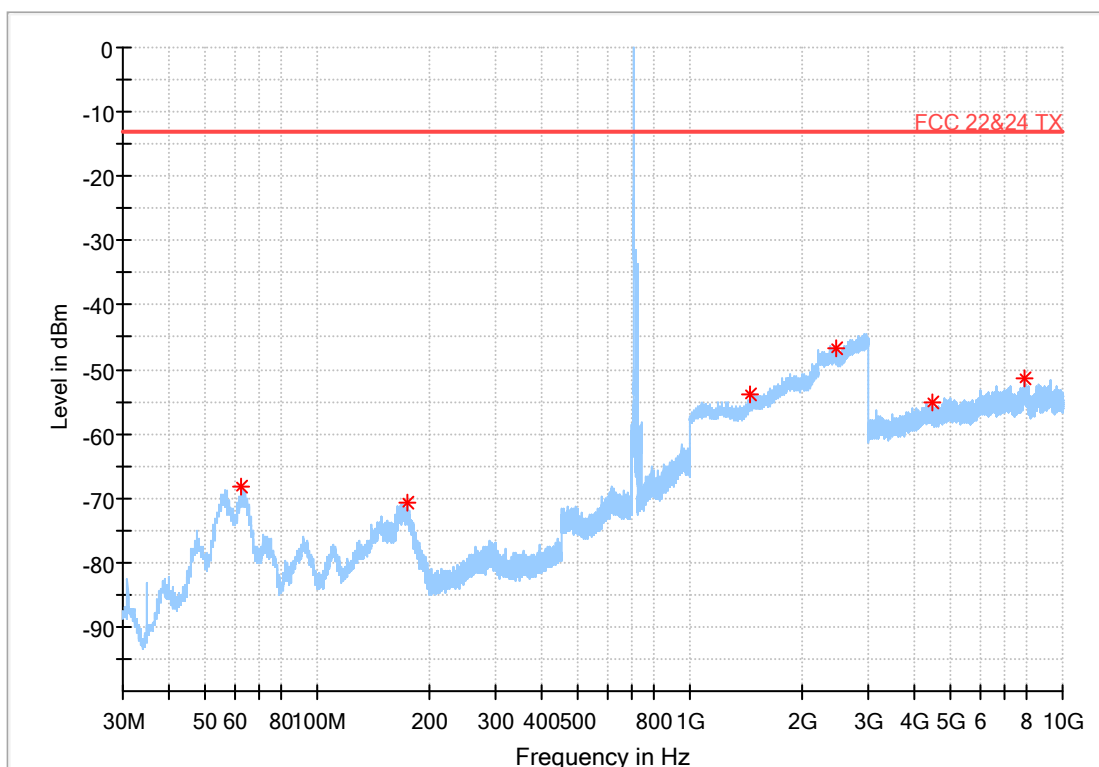
7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE BAND 17-Main Antenna

7.1.1. Test Mode =LTE/TM1 10MHz

7.1.1.1. Test Channel = LCH-H

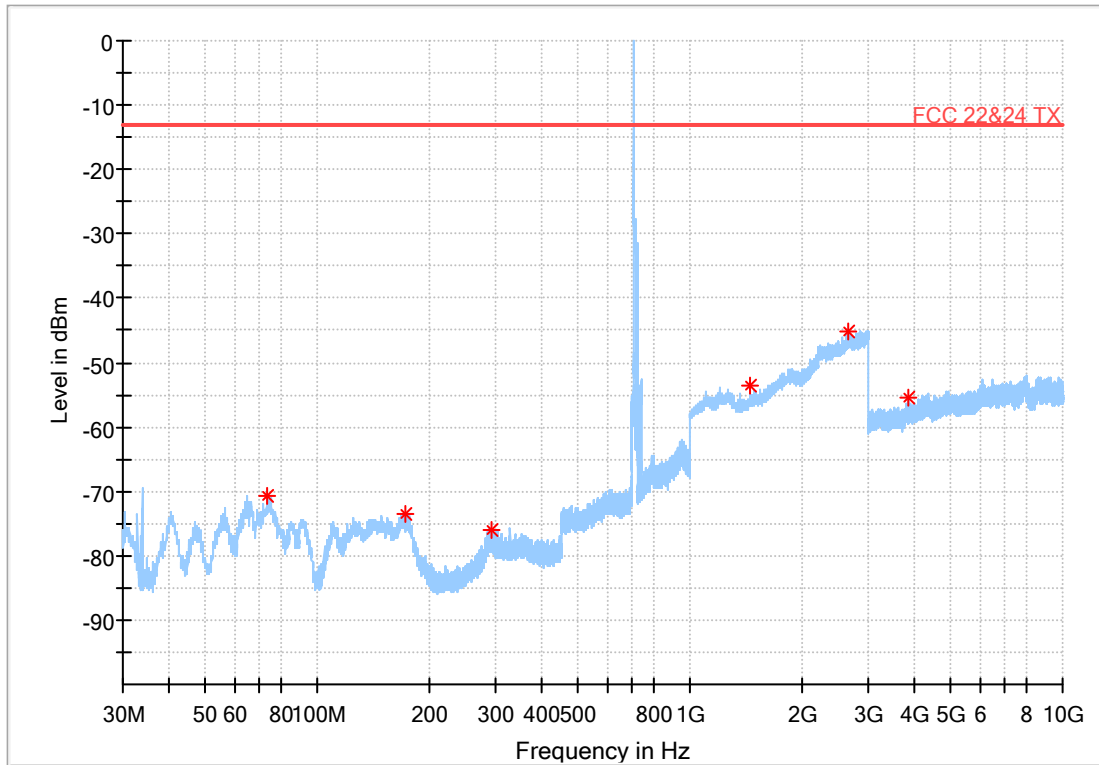
Full Spectrum





7.1.1.2. Test Channel = LCH-V

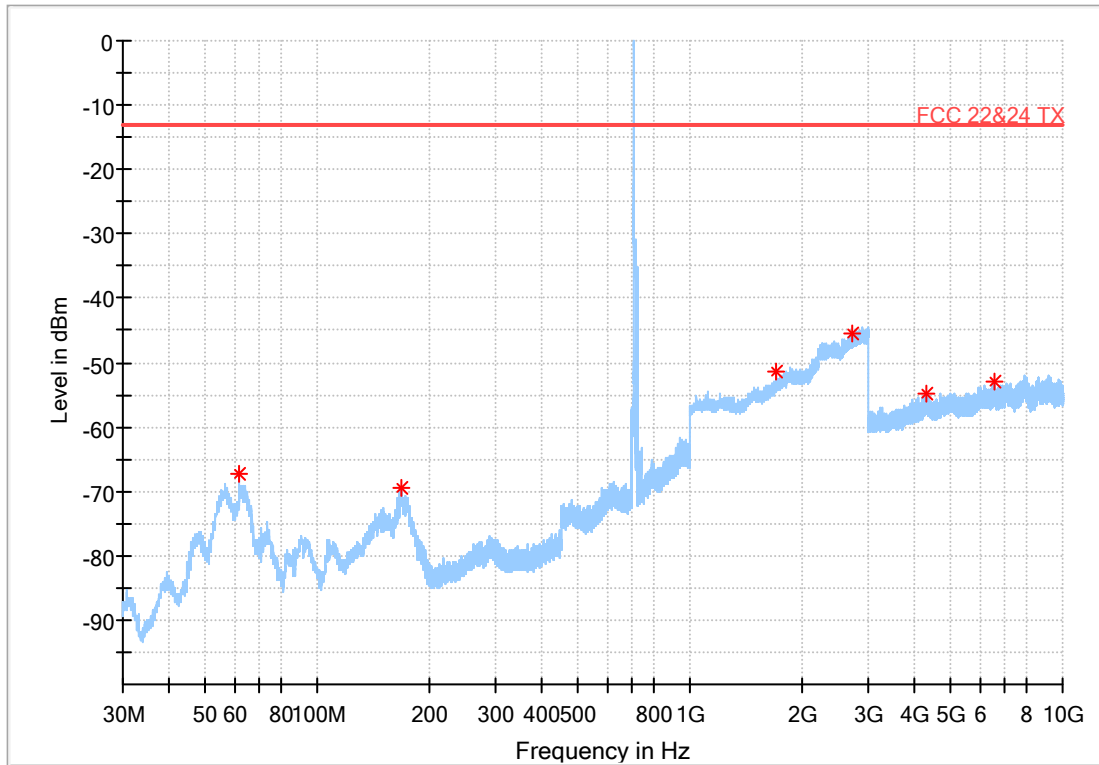
Full Spectrum





7.1.1.3. Test Channel = MCH-H

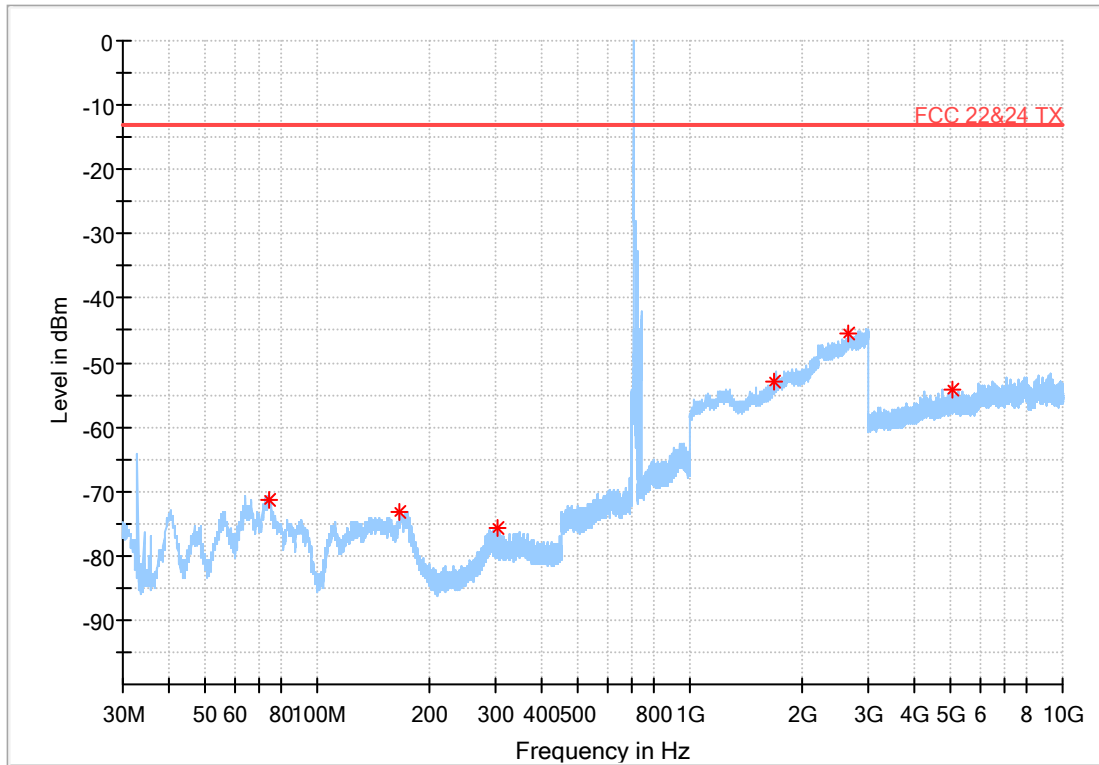
Full Spectrum





7.1.1.4. Test Channel = MCH-V

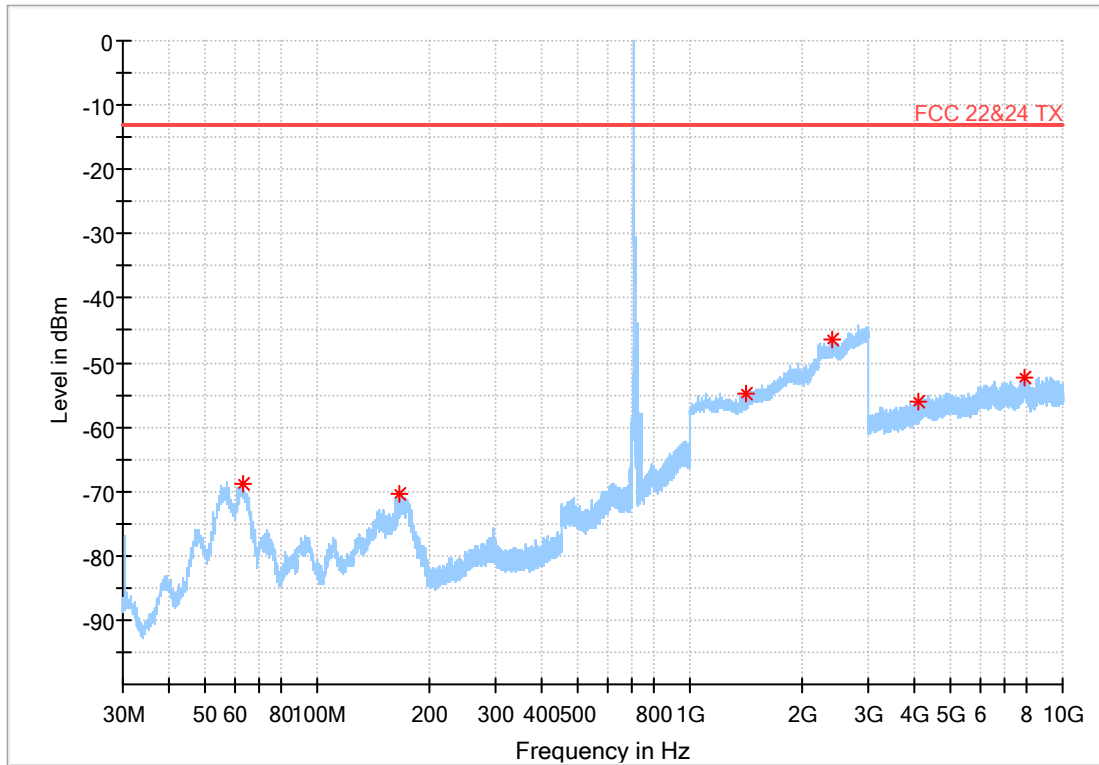
Full Spectrum





7.1.1.5. Test Channel = HCH-H

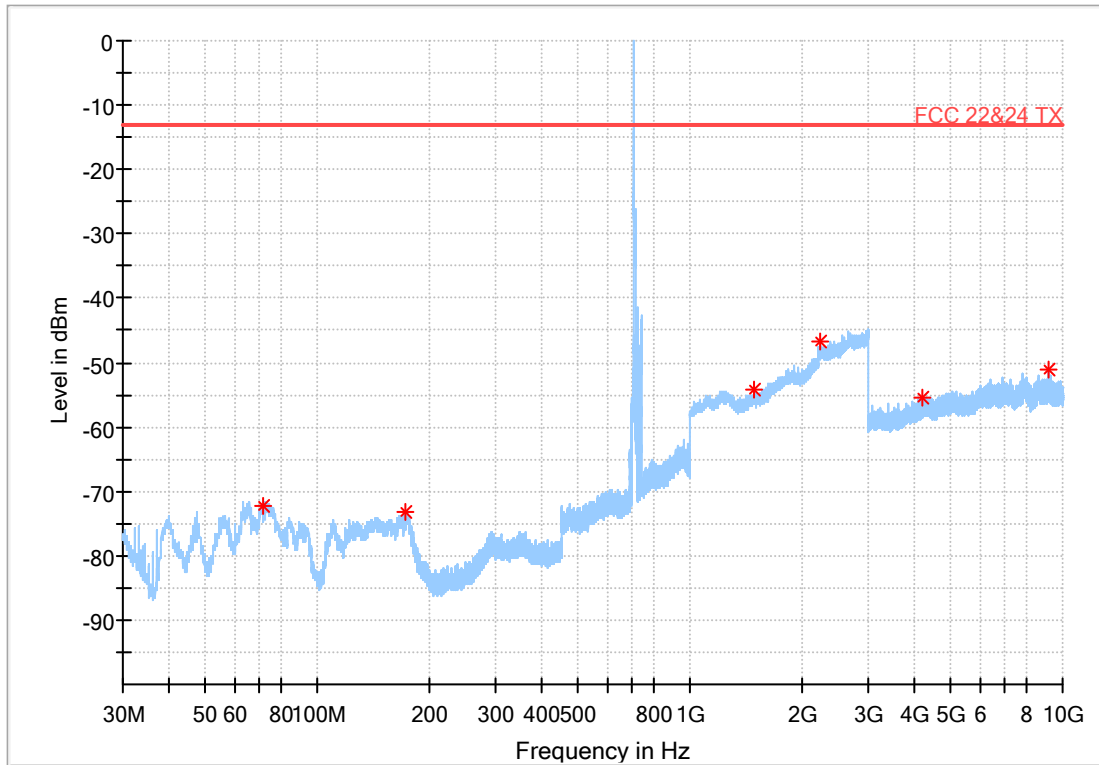
Full Spectrum





7.1.1.6. Test Channel = MCH-V

Full Spectrum

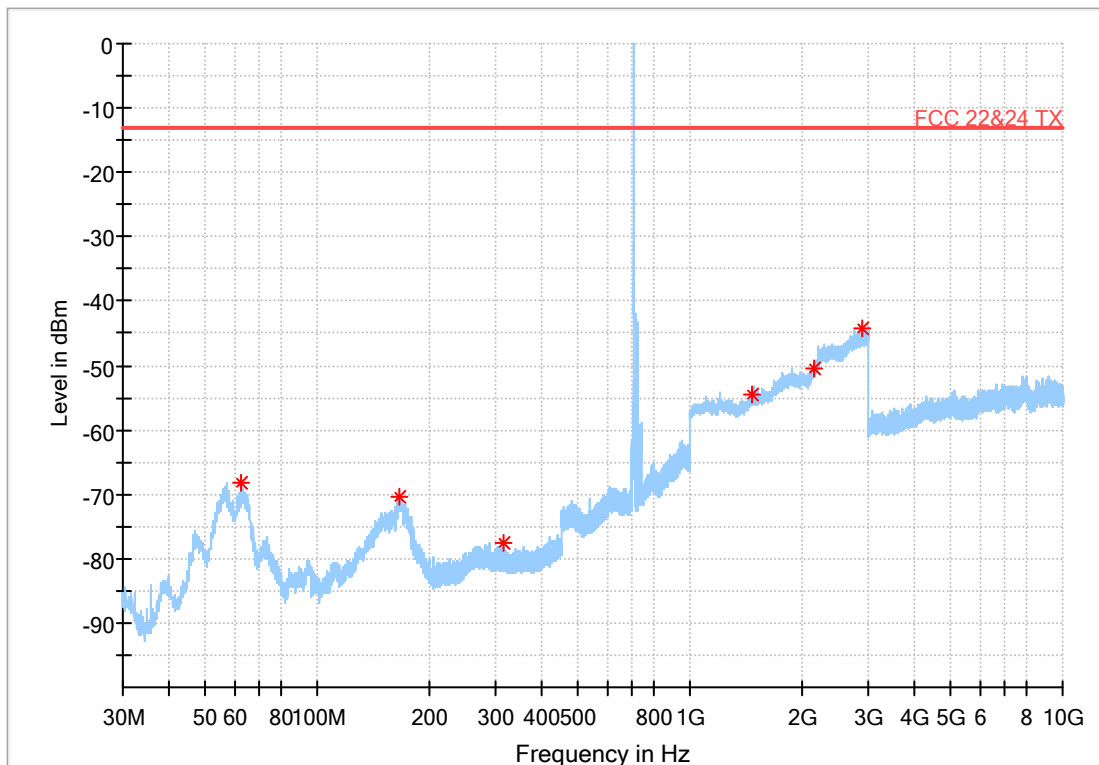


7.2. Test BAND = LTE BAND 17-Second Antenna

7.2.1. Test Mode =LTE/TM1 10MHz

7.2.1.1. Test Channel = LCH-H

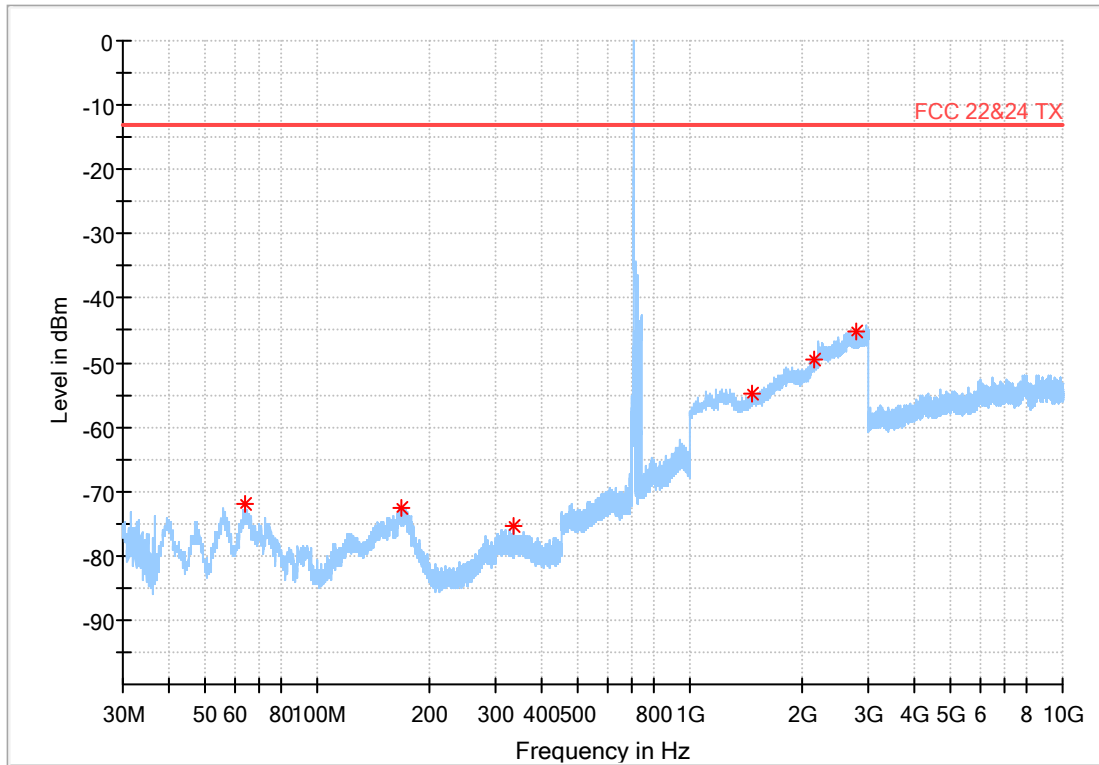
Full Spectrum





7.2.1.2. Test Channel = LCH-V

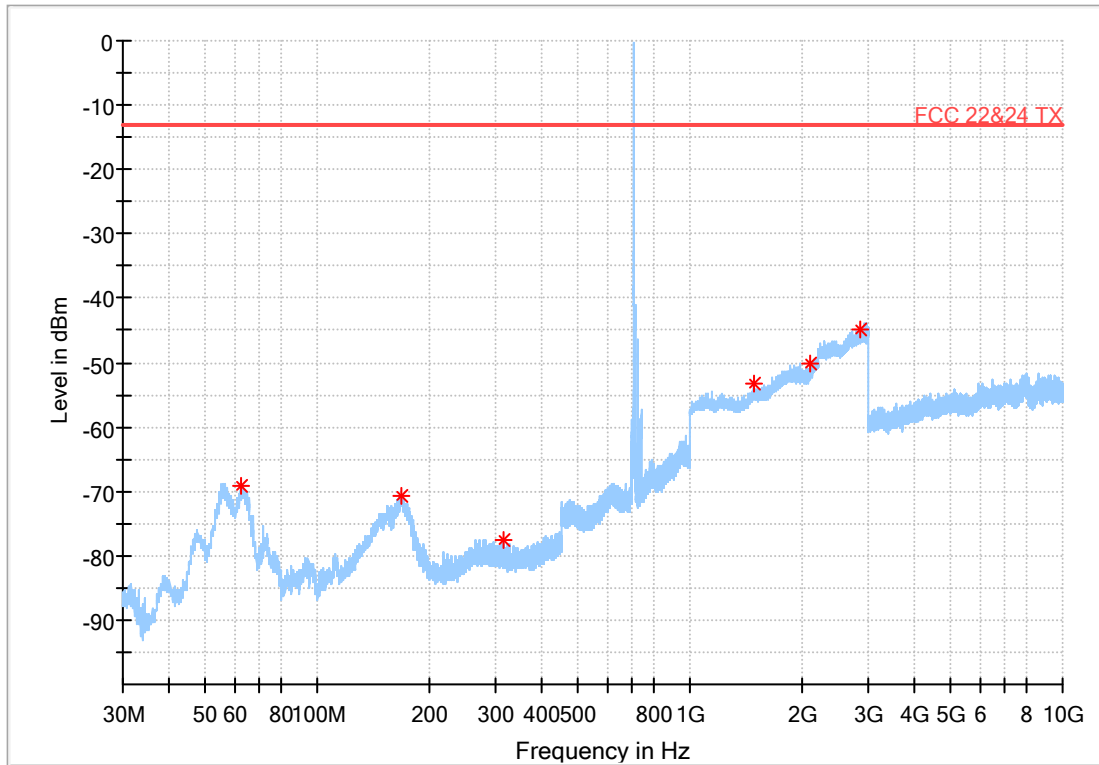
Full Spectrum





7.2.1.3. Test Channel = MCH-H

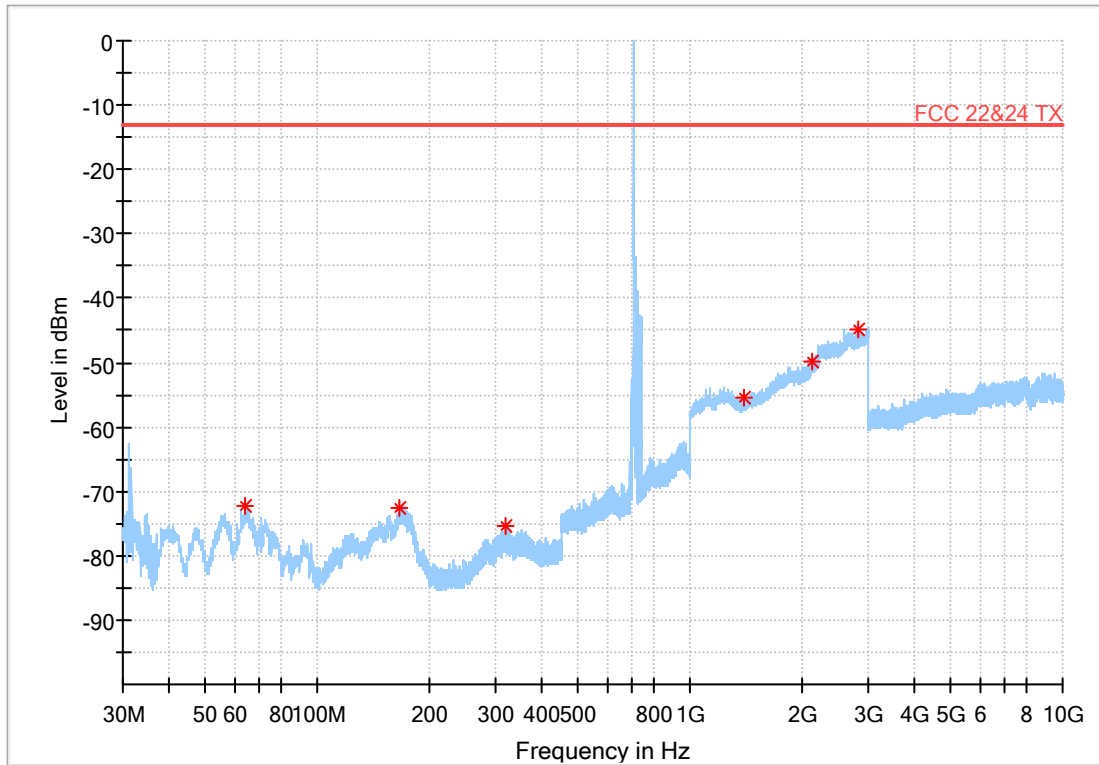
Full Spectrum





7.2.1.4. Test Channel = MCH-V

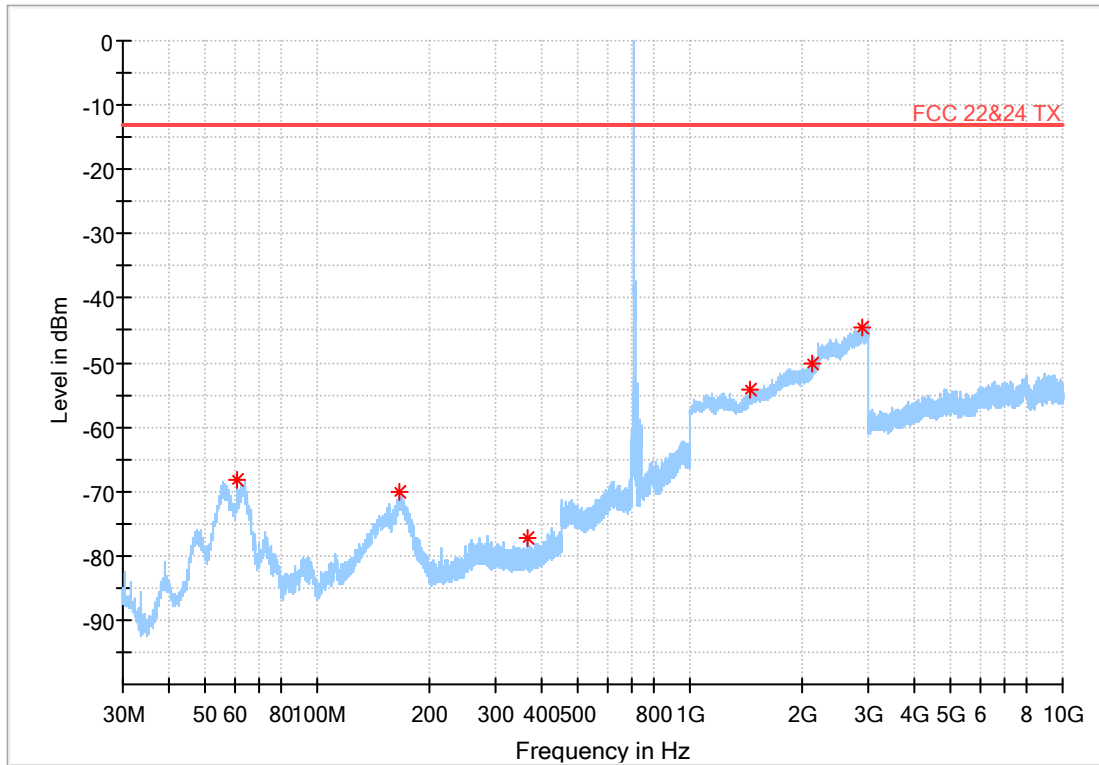
Full Spectrum





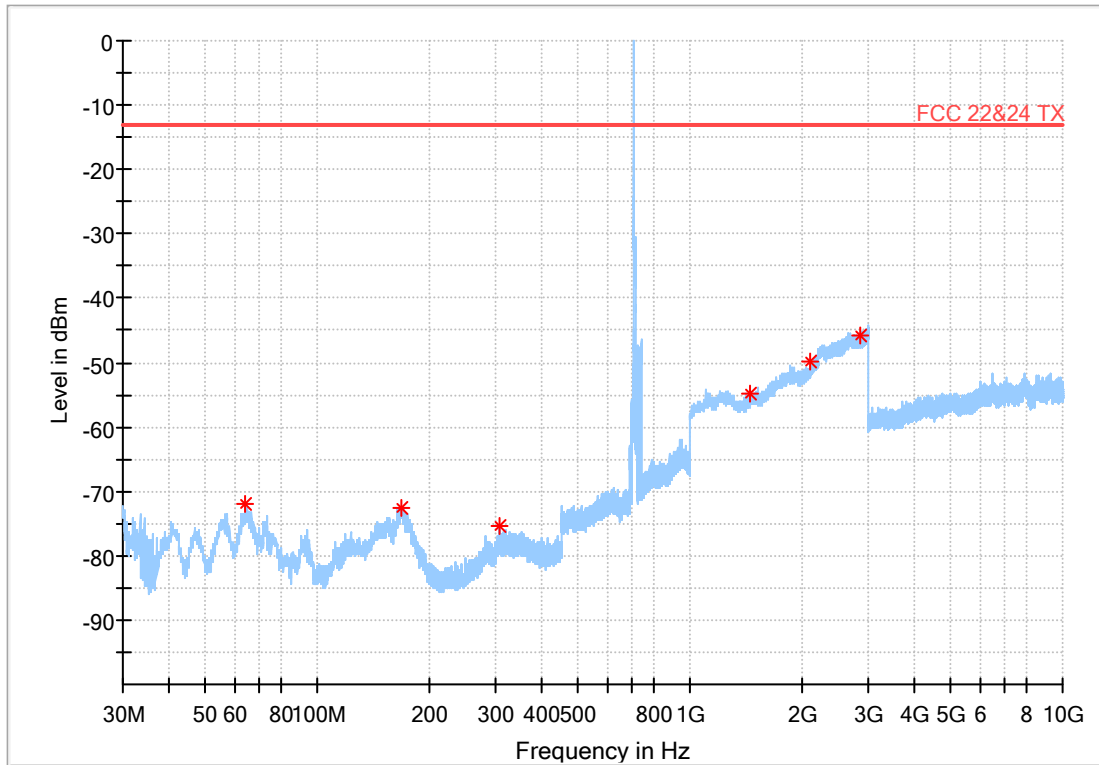
7.2.1.5. Test Channel = HCH-H

Full Spectrum



7.2.1.6. Test Channel = MCH-V

Full Spectrum



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 worse case 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

8.1. Frequency Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
BAND17	10MHz	QPSK	23780	50RB#0	VL	NT	-2.76	-0.003893	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	VN	NT	3.88	0.005472	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	VH	NT	2.66	0.003752	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	VL	NT	-2.83	-0.003986	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	VN	NT	-3.59	-0.005056	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	VH	NT	-3.62	-0.005099	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	VL	NT	-3.19	-0.004487	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	VN	NT	4.99	0.007018	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	VH	NT	-2.60	-0.003657	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	VL	NT	0.30	0.000423	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	VN	NT	0.00	0.000000	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	VH	NT	0.20	0.000282	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	VL	NT	0.50	0.000704	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	VN	NT	-0.10	-0.000141	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	VH	NT	-0.50	-0.000704	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	VL	NT	-0.20	-0.000281	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	VN	NT	-0.10	-0.000141	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	VH	NT	-0.60	-0.000844	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	VL	NT	2.23	0.003145	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	VN	NT	3.58	0.005049	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	VH	NT	2.69	0.003794	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	VL	NT	3.10	0.004366	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	VN	NT	-2.70	-0.003803	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	VH	NT	3.26	0.004592	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	VL	NT	-2.90	-0.004079	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	VN	NT	2.55	0.003586	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	VH	NT	3.00	0.004219	±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
BAND17	10MHz	QPSK	23780	50RB#0	NV	-30	2.99	0.004217	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	-20	-2.98	-0.004203	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	0	2.49	0.003512	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	10	3.69	0.005205	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	20	3.18	0.004485	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	-30	-3.20	-0.004507	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	-20	-3.50	-0.004930	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	0	4.61	0.006493	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	10	-3.71	-0.005225	±2.5	PASS

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



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

Report No.: SZEM180700654901

Page: 52 of 52

BAND17	10MHz	QPSK	23790	50RB#0	NV	20	-3.48	-0.004901	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	-30	-2.88	-0.004051	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	-20	-2.25	-0.003165	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	0	2.47	0.003474	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	10	-2.73	-0.003840	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	20	-2.79	-0.003924	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	-30	0.10	0.000141	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	-20	0.30	0.000423	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	0	0.30	0.000423	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	10	0.20	0.000282	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	20	0.20	0.000282	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	-30	-0.20	-0.000282	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	-20	-0.10	-0.000141	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	0	-0.20	-0.000282	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	10	0.20	0.000282	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	20	0.30	0.000423	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	-30	-0.50	-0.000703	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	-20	0.00	0.000000	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	0	0.40	0.000563	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	10	-0.10	-0.000141	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	20	-0.30	-0.000422	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	-30	-2.80	-0.003949	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	-20	3.33	0.004697	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	0	3.45	0.004866	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	10	2.80	0.003949	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	20	2.59	0.003653	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	-30	-2.49	-0.003507	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	-20	-4.15	-0.005845	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	0	3.25	0.004577	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	10	3.62	0.005099	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	20	1.95	0.002746	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	-30	-2.93	-0.004121	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	-20	-3.30	-0.004641	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	0	-3.05	-0.004290	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	10	-2.80	-0.003938	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	20	-2.89	-0.004065	±2.5	PASS

The End