



Appendix B

E-UTRA BAND 17



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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
BAND17	5MHz	QPSK	23755	1RB#0	22.56	24.41	34.77	PASS
BAND17	5MHz	QPSK	23755	1RB#12	22.53	24.38	34.77	PASS
BAND17	5MHz	QPSK	23755	1RB#24	22.53	24.38	34.77	PASS
BAND17	5MHz	QPSK	23755	12RB#0	21.63	23.48	34.77	PASS
BAND17	5MHz	QPSK	23755	12RB#6	21.6	23.45	34.77	PASS
BAND17	5MHz	QPSK	23755	12RB#13	21.58	23.43	34.77	PASS
BAND17	5MHz	QPSK	23755	25RB#0	21.6	23.45	34.77	PASS
BAND17	5MHz	QPSK	23790	1RB#0	22.54	24.39	34.77	PASS
BAND17	5MHz	QPSK	23790	1RB#12	22.48	24.33	34.77	PASS
BAND17	5MHz	QPSK	23790	1RB#24	22.45	24.3	34.77	PASS
BAND17	5MHz	QPSK	23790	12RB#0	21.58	23.43	34.77	PASS
BAND17	5MHz	QPSK	23790	12RB#6	21.55	23.4	34.77	PASS
BAND17	5MHz	QPSK	23790	12RB#13	21.46	23.31	34.77	PASS
BAND17	5MHz	QPSK	23790	25RB#0	21.54	23.39	34.77	PASS
BAND17	5MHz	QPSK	23825	1RB#0	22.42	24.27	34.77	PASS
BAND17	5MHz	QPSK	23825	1RB#12	22.42	24.27	34.77	PASS
BAND17	5MHz	QPSK	23825	1RB#24	22.36	24.21	34.77	PASS
BAND17	5MHz	QPSK	23825	12RB#0	21.53	23.38	34.77	PASS
BAND17	5MHz	QPSK	23825	12RB#6	21.5	23.35	34.77	PASS
BAND17	5MHz	QPSK	23825	12RB#13	21.42	23.27	34.77	PASS
BAND17	5MHz	QPSK	23825	25RB#0	21.49	23.34	34.77	PASS
BAND17	5MHz	64QAM	23755	1RB#0	20.61	22.46	34.77	PASS
BAND17	5MHz	64QAM	23755	1RB#12	20.6	22.45	34.77	PASS
BAND17	5MHz	64QAM	23755	1RB#24	20.61	22.46	34.77	PASS
BAND17	5MHz	64QAM	23755	12RB#0	19.58	21.43	34.77	PASS
BAND17	5MHz	64QAM	23755	12RB#6	19.55	21.4	34.77	PASS
BAND17	5MHz	64QAM	23755	12RB#13	19.51	21.36	34.77	PASS
BAND17	5MHz	64QAM	23755	25RB#0	19.53	21.38	34.77	PASS
BAND17	5MHz	64QAM	23790	1RB#0	20.6	22.45	34.77	PASS
BAND17	5MHz	64QAM	23790	1RB#12	20.55	22.4	34.77	PASS
BAND17	5MHz	64QAM	23790	1RB#24	20.48	22.33	34.77	PASS
BAND17	5MHz	64QAM	23790	12RB#0	19.53	21.38	34.77	PASS
BAND17	5MHz	64QAM	23790	12RB#6	19.47	21.32	34.77	PASS
BAND17	5MHz	64QAM	23790	12RB#13	19.37	21.22	34.77	PASS



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BAND17	5MHz	64QAM	23790	25RB#0	19.51	21.36	34.77	PASS
BAND17	5MHz	64QAM	23825	1RB#0	20.45	22.3	34.77	PASS
BAND17	5MHz	64QAM	23825	1RB#12	20.48	22.33	34.77	PASS
BAND17	5MHz	64QAM	23825	1RB#24	20.49	22.34	34.77	PASS
BAND17	5MHz	64QAM	23825	12RB#0	19.43	21.28	34.77	PASS
BAND17	5MHz	64QAM	23825	12RB#6	19.35	21.2	34.77	PASS
BAND17	5MHz	64QAM	23825	12RB#13	19.32	21.17	34.77	PASS
BAND17	5MHz	64QAM	23825	25RB#0	19.43	21.28	34.77	PASS
BAND17	5MHz	16QAM	23755	1RB#0	21.78	23.63	34.77	PASS
BAND17	5MHz	16QAM	23755	1RB#12	21.71	23.56	34.77	PASS
BAND17	5MHz	16QAM	23755	1RB#24	21.66	23.51	34.77	PASS
BAND17	5MHz	16QAM	23755	12RB#0	20.67	22.52	34.77	PASS
BAND17	5MHz	16QAM	23755	12RB#6	20.69	22.54	34.77	PASS
BAND17	5MHz	16QAM	23755	12RB#13	20.67	22.52	34.77	PASS
BAND17	5MHz	16QAM	23755	25RB#0	20.66	22.51	34.77	PASS
BAND17	5MHz	16QAM	23790	1RB#0	21.66	23.51	34.77	PASS
BAND17	5MHz	16QAM	23790	1RB#12	21.65	23.5	34.77	PASS
BAND17	5MHz	16QAM	23790	1RB#24	21.51	23.36	34.77	PASS
BAND17	5MHz	16QAM	23790	12RB#0	20.67	22.52	34.77	PASS
BAND17	5MHz	16QAM	23790	12RB#6	20.64	22.49	34.77	PASS
BAND17	5MHz	16QAM	23790	12RB#13	20.58	22.43	34.77	PASS
BAND17	5MHz	16QAM	23790	25RB#0	20.59	22.44	34.77	PASS
BAND17	5MHz	16QAM	23825	1RB#0	21.48	23.33	34.77	PASS
BAND17	5MHz	16QAM	23825	1RB#12	21.52	23.37	34.77	PASS
BAND17	5MHz	16QAM	23825	1RB#24	21.47	23.32	34.77	PASS
BAND17	5MHz	16QAM	23825	12RB#0	20.61	22.46	34.77	PASS
BAND17	5MHz	16QAM	23825	12RB#6	20.57	22.42	34.77	PASS
BAND17	5MHz	16QAM	23825	12RB#13	20.47	22.32	34.77	PASS
BAND17	5MHz	16QAM	23825	25RB#0	20.55	22.4	34.77	PASS
BAND17	10MHz	QPSK	23780	1RB#0	22.63	24.48	34.77	PASS
BAND17	10MHz	QPSK	23780	1RB#24	22.55	24.4	34.77	PASS
BAND17	10MHz	QPSK	23780	1RB#49	22.5	24.35	34.77	PASS
BAND17	10MHz	QPSK	23780	25RB#0	21.59	23.44	34.77	PASS
BAND17	10MHz	QPSK	23780	25RB#12	21.54	23.39	34.77	PASS
BAND17	10MHz	QPSK	23780	25RB#25	21.43	23.28	34.77	PASS
BAND17	10MHz	QPSK	23780	50RB#0	21.54	23.39	34.77	PASS
BAND17	10MHz	QPSK	23790	1RB#0	22.64	24.49	34.77	PASS
BAND17	10MHz	QPSK	23790	1RB#24	22.54	24.39	34.77	PASS
BAND17	10MHz	QPSK	23790	1RB#49	22.43	24.28	34.77	PASS
BAND17	10MHz	QPSK	23790	25RB#0	21.59	23.44	34.77	PASS
BAND17	10MHz	QPSK	23790	25RB#12	21.53	23.38	34.77	PASS

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BAND17	10MHz	QPSK	23790	25RB#25	21.51	23.36	34.77	PASS
BAND17	10MHz	QPSK	23790	50RB#0	21.54	23.39	34.77	PASS
BAND17	10MHz	QPSK	23800	1RB#0	22.65	24.5	34.77	PASS
BAND17	10MHz	QPSK	23800	1RB#24	22.54	24.39	34.77	PASS
BAND17	10MHz	QPSK	23800	1RB#49	22.41	24.26	34.77	PASS
BAND17	10MHz	QPSK	23800	25RB#0	21.58	23.43	34.77	PASS
BAND17	10MHz	QPSK	23800	25RB#12	21.53	23.38	34.77	PASS
BAND17	10MHz	QPSK	23800	25RB#25	21.49	23.34	34.77	PASS
BAND17	10MHz	QPSK	23800	50RB#0	21.45	23.3	34.77	PASS
BAND17	10MHz	64QAM	23780	1RB#0	20.79	22.64	34.77	PASS
BAND17	10MHz	64QAM	23780	1RB#24	20.63	22.48	34.77	PASS
BAND17	10MHz	64QAM	23780	1RB#49	20.63	22.48	34.77	PASS
BAND17	10MHz	64QAM	23780	25RB#0	19.6	21.45	34.77	PASS
BAND17	10MHz	64QAM	23780	25RB#12	19.58	21.43	34.77	PASS
BAND17	10MHz	64QAM	23780	25RB#25	19.45	21.3	34.77	PASS
BAND17	10MHz	64QAM	23780	50RB#0	19.51	21.36	34.77	PASS
BAND17	10MHz	64QAM	23790	1RB#0	20.73	22.58	34.77	PASS
BAND17	10MHz	64QAM	23790	1RB#24	20.72	22.57	34.77	PASS
BAND17	10MHz	64QAM	23790	1RB#49	20.57	22.42	34.77	PASS
BAND17	10MHz	64QAM	23790	25RB#0	19.61	21.46	34.77	PASS
BAND17	10MHz	64QAM	23790	25RB#12	19.57	21.42	34.77	PASS
BAND17	10MHz	64QAM	23790	25RB#25	19.54	21.39	34.77	PASS
BAND17	10MHz	64QAM	23790	50RB#0	19.49	21.34	34.77	PASS
BAND17	10MHz	64QAM	23800	1RB#0	20.78	22.63	34.77	PASS
BAND17	10MHz	64QAM	23800	1RB#24	20.69	22.54	34.77	PASS
BAND17	10MHz	64QAM	23800	1RB#49	20.54	22.39	34.77	PASS
BAND17	10MHz	64QAM	23800	25RB#0	19.58	21.43	34.77	PASS
BAND17	10MHz	64QAM	23800	25RB#12	19.56	21.41	34.77	PASS
BAND17	10MHz	64QAM	23800	25RB#25	19.51	21.36	34.77	PASS
BAND17	10MHz	64QAM	23800	50RB#0	19.44	21.29	34.77	PASS
BAND17	10MHz	16QAM	23780	1RB#0	21.76	23.61	34.77	PASS
BAND17	10MHz	16QAM	23780	1RB#24	21.64	23.49	34.77	PASS
BAND17	10MHz	16QAM	23780	1RB#49	21.69	23.54	34.77	PASS
BAND17	10MHz	16QAM	23780	25RB#0	20.66	22.51	34.77	PASS
BAND17	10MHz	16QAM	23780	25RB#12	20.6	22.45	34.77	PASS
BAND17	10MHz	16QAM	23780	25RB#25	20.49	22.34	34.77	PASS
BAND17	10MHz	16QAM	23780	50RB#0	20.57	22.42	34.77	PASS
BAND17	10MHz	16QAM	23790	1RB#0	21.86	23.71	34.77	PASS
BAND17	10MHz	16QAM	23790	1RB#24	21.75	23.6	34.77	PASS
BAND17	10MHz	16QAM	23790	1RB#49	21.58	23.43	34.77	PASS
BAND17	10MHz	16QAM	23790	25RB#0	20.67	22.52	34.77	PASS

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BAND17	10MHz	16QAM	23790	25RB#12	20.62	22.47	34.77	PASS
BAND17	10MHz	16QAM	23790	25RB#25	20.61	22.46	34.77	PASS
BAND17	10MHz	16QAM	23790	50RB#0	20.58	22.43	34.77	PASS
BAND17	10MHz	16QAM	23800	1RB#0	21.86	23.71	34.77	PASS
BAND17	10MHz	16QAM	23800	1RB#24	21.75	23.6	34.77	PASS
BAND17	10MHz	16QAM	23800	1RB#49	21.63	23.48	34.77	PASS
BAND17	10MHz	16QAM	23800	25RB#0	20.65	22.5	34.77	PASS
BAND17	10MHz	16QAM	23800	25RB#12	20.62	22.47	34.77	PASS
BAND17	10MHz	16QAM	23800	25RB#25	20.6	22.45	34.77	PASS
BAND17	10MHz	16QAM	23800	50RB#0	20.49	22.34	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

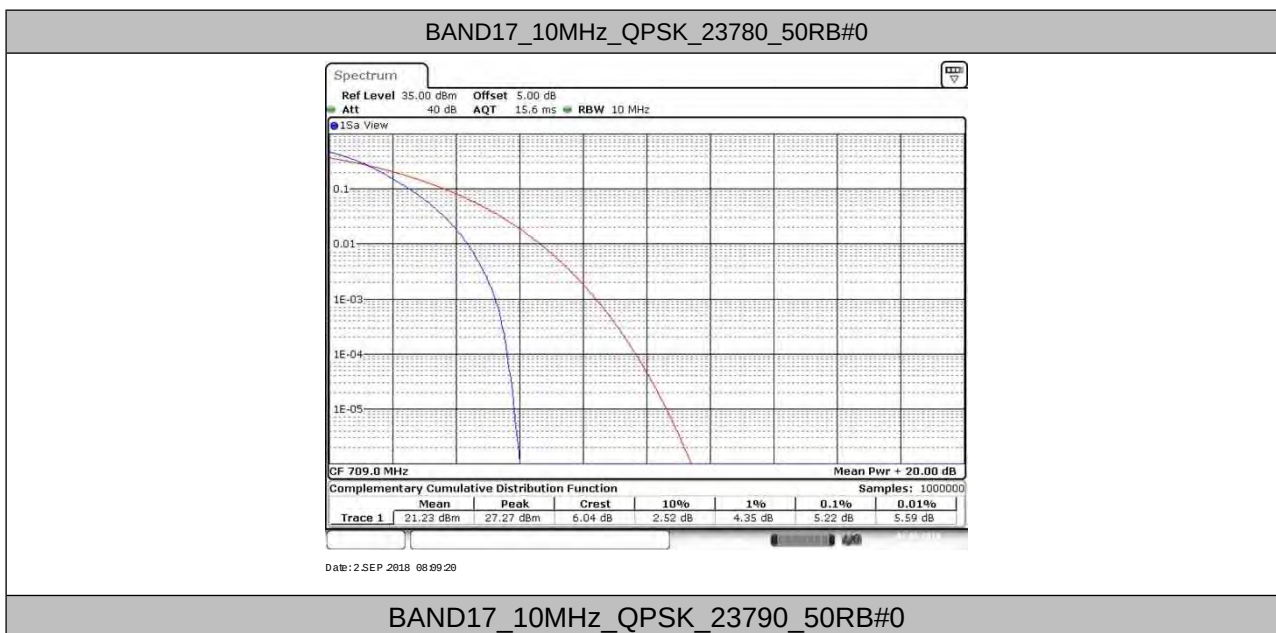


2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
BAND17	10MHz	QPSK	23780	50RB#0	5.22	13	PASS
BAND17	10MHz	QPSK	23790	50RB#0	5.04	13	PASS
BAND17	10MHz	QPSK	23800	50RB#0	4.93	13	PASS
BAND17	10MHz	64QAM	23780	50RB#0	5.88	13	PASS
BAND17	10MHz	64QAM	23790	50RB#0	5.80	13	PASS
BAND17	10MHz	64QAM	23800	50RB#0	5.77	13	PASS
BAND17	10MHz	16QAM	23780	50RB#0	5.97	13	PASS
BAND17	10MHz	16QAM	23790	50RB#0	5.86	13	PASS
BAND17	10MHz	16QAM	23800	50RB#0	5.74	13	PASS

2.2. Test Plots

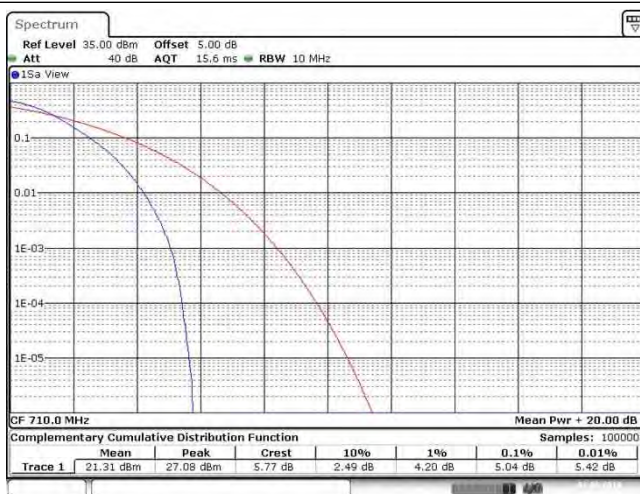




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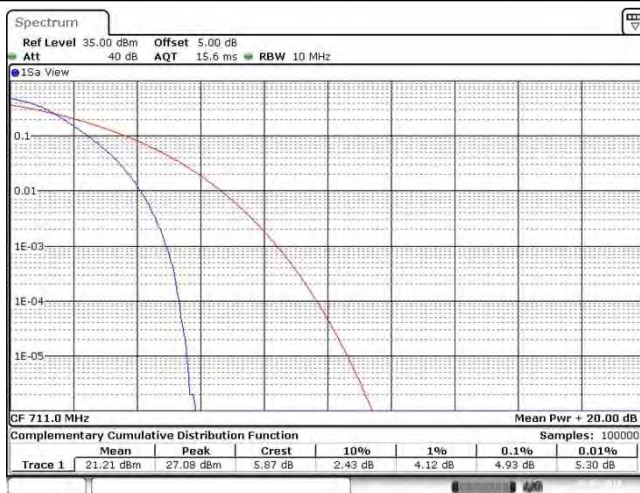
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Date: 2 SEP 2018 08:59:37

BAND17_10MHz_QPSK_23800_50RB#0



Date: 2 SEP 2018 08:59:54

BAND17_10MHz_64QAM_23780_50RB#0



Date: 2 SEP 2018 08:29:42

BAND17_10MHz_64QAM_23790_50RB#0



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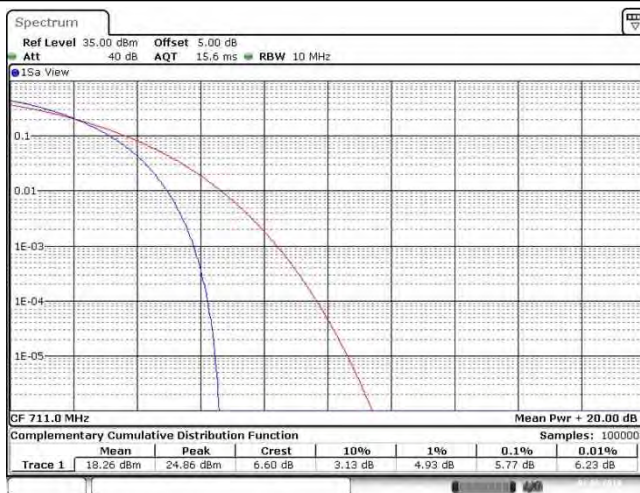
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Date: 2 SEP 2018 08:29:51

BAND17_10MHz_64QAM_23800_50RB#0



Date: 2 SEP 2018 08:21:30

BAND17_10MHz_16QAM_23780_50RB#0



Date: 2 SEP 2018 08:09:29

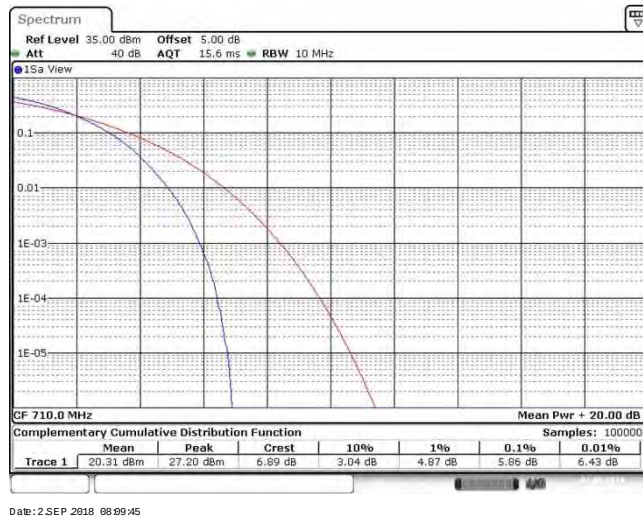
BAND17_10MHz_16QAM_23790_50RB#0



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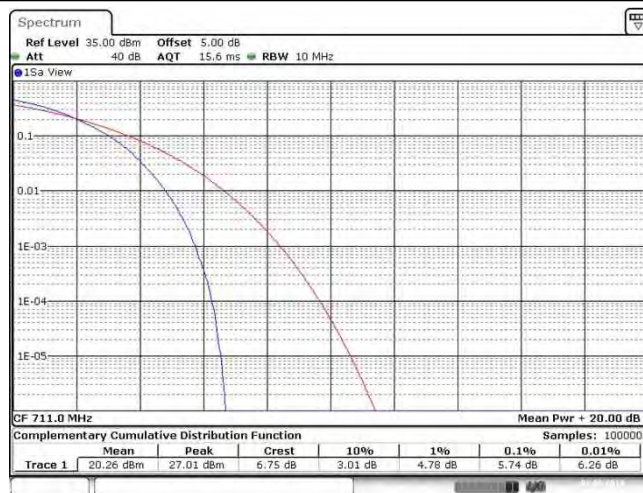
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Date: 2 SEP 2018 08:09:45

BAND17_10MHz_16QAM_23800_50RB#0



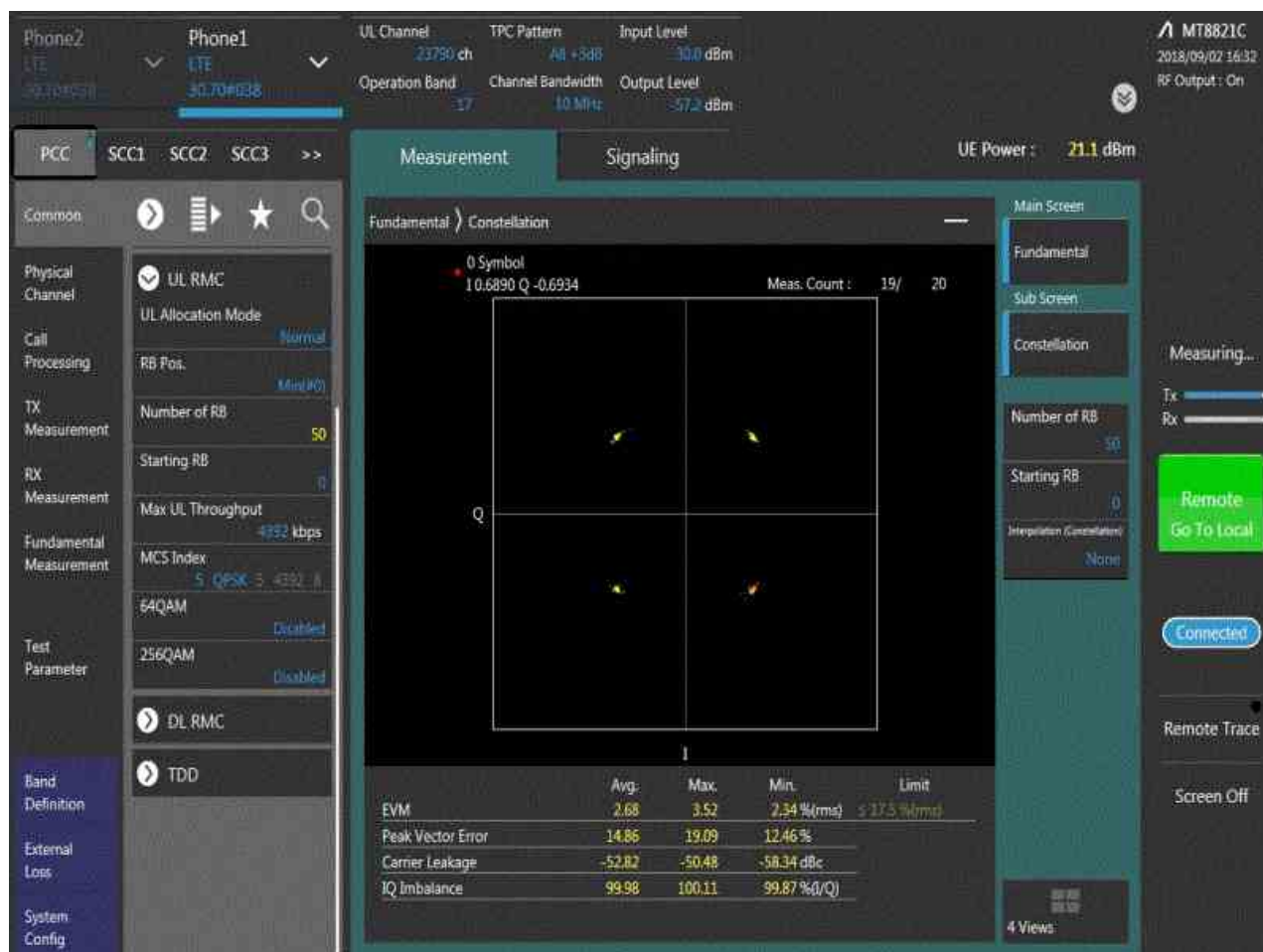
Date: 2 SEP 2018 08:10:02

3. Modulation Characteristics

3.1. Test BAND = LTE BAND17

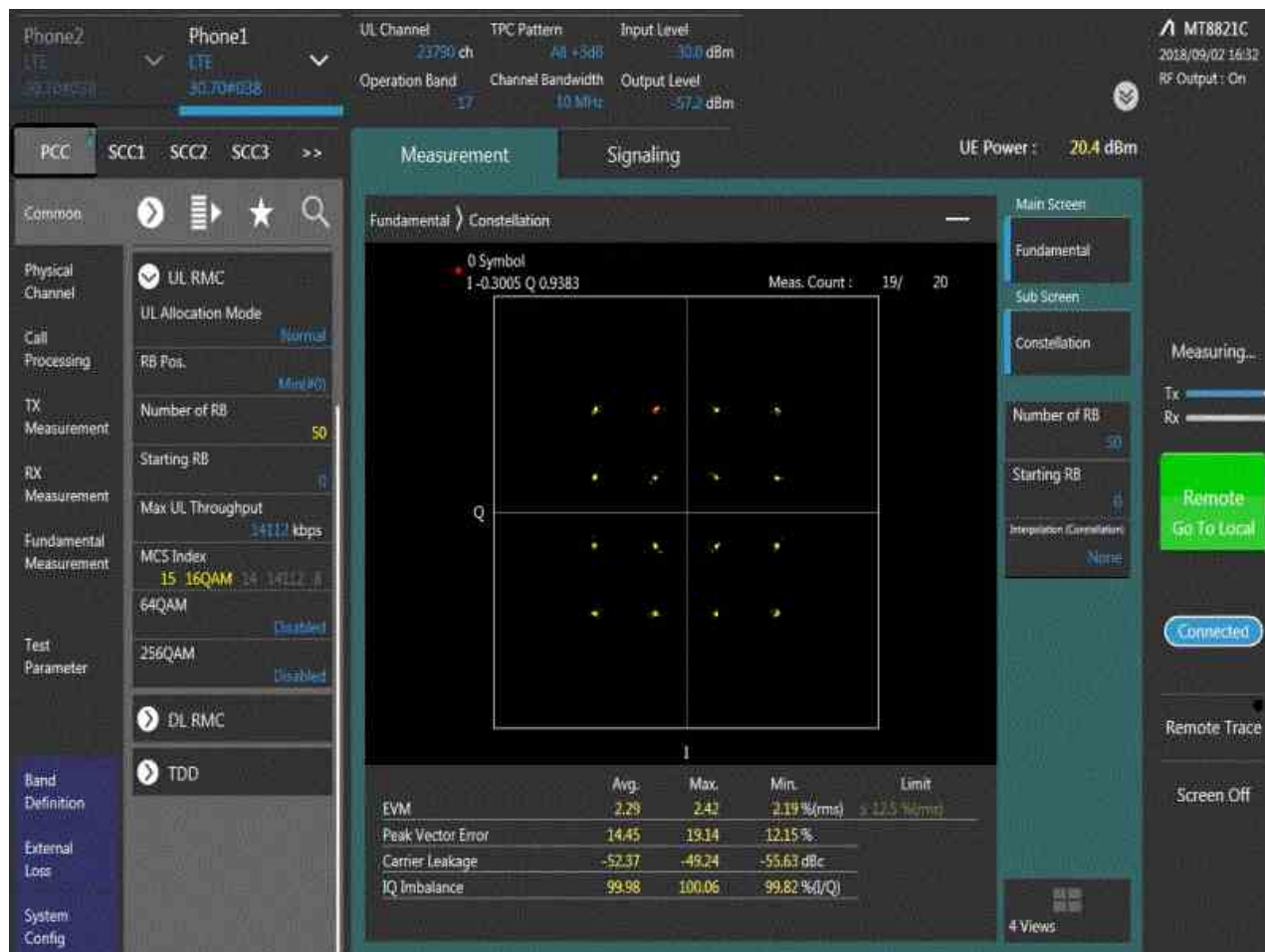
3.1.1. Test Mode = LTE /TM1 10MHz

3.1.1.1. Test Channel = MCH



3.1.2. Test Mode = LTE /TM2 10MHz

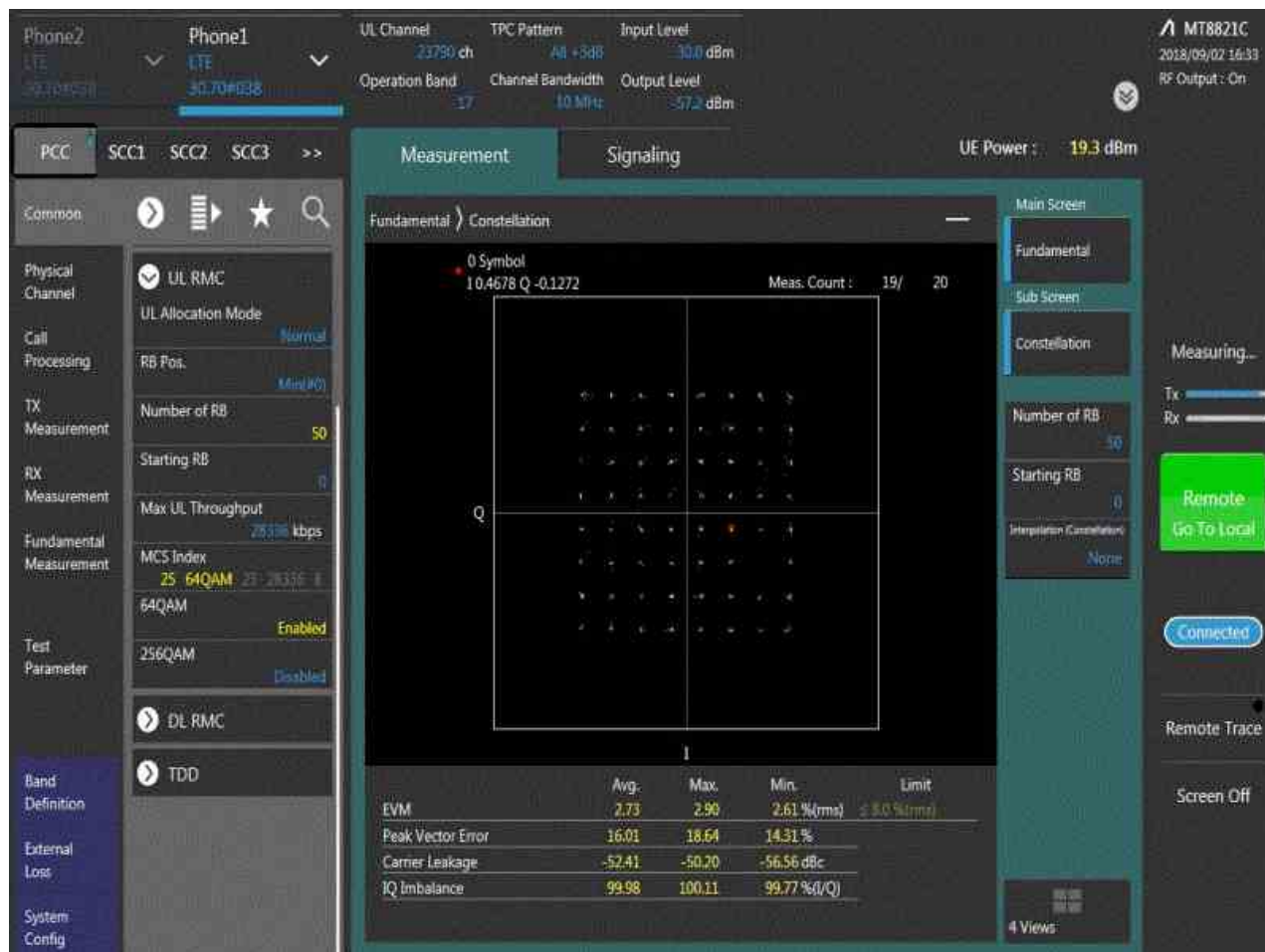
3.1.2.1. Test Channel = MCH





3.1.1. Test Mode = LTE /TM3 20MHz

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	4.466	4.870	PASS
BAND17	5MHz	QPSK	23790	25RB#0	4.456	4.830	PASS
BAND17	5MHz	QPSK	23825	25RB#0	4.446	4.830	PASS
BAND17	5MHz	64QAM	23755	25RB#0	4.476	4.870	PASS
BAND17	5MHz	64QAM	23790	25RB#0	4.456	4.840	PASS
BAND17	5MHz	64QAM	23825	25RB#0	4.456	4.870	PASS
BAND17	5MHz	16QAM	23755	25RB#0	4.466	4.850	PASS
BAND17	5MHz	16QAM	23790	25RB#0	4.456	4.840	PASS
BAND17	5MHz	16QAM	23825	25RB#0	4.456	4.840	PASS
BAND17	10MHz	QPSK	23780	50RB#0	8.931	9.960	PASS
BAND17	10MHz	QPSK	23790	50RB#0	8.911	9.920	PASS
BAND17	10MHz	QPSK	23800	50RB#0	8.891	9.860	PASS
BAND17	10MHz	64QAM	23780	50RB#0	8.931	9.980	PASS
BAND17	10MHz	64QAM	23790	50RB#0	8.911	9.960	PASS
BAND17	10MHz	64QAM	23800	50RB#0	8.891	10.000	PASS
BAND17	10MHz	16QAM	23780	50RB#0	8.931	10.000	PASS
BAND17	10MHz	16QAM	23790	50RB#0	8.891	9.940	PASS
BAND17	10MHz	16QAM	23800	50RB#0	8.891	10.020	PASS



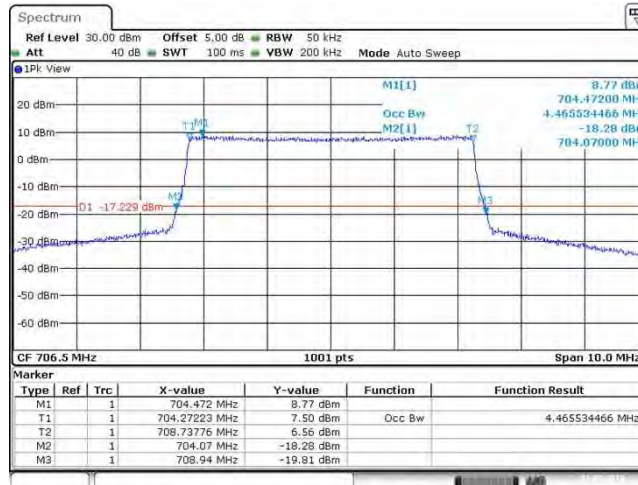
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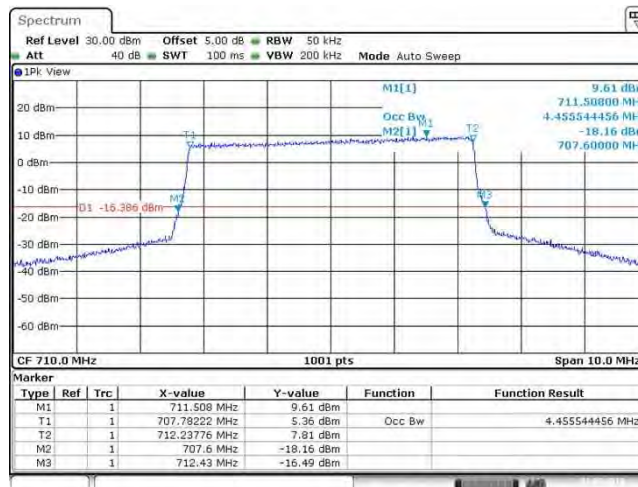
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4.2. Test Plots

BAND17_5MHz_QPSK_23755_25RB#0



BAND17_5MHz_QPSK_23790_25RB#0



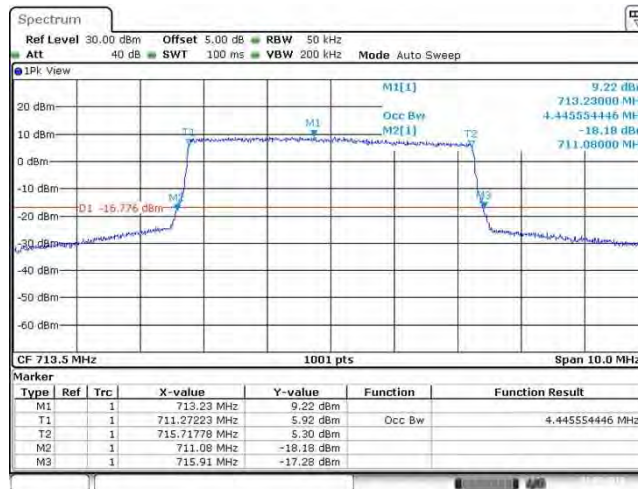
BAND17_5MHz_QPSK_23825_25RB#0



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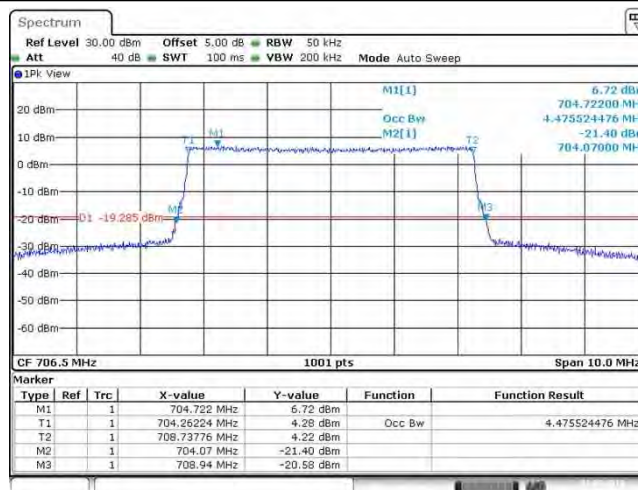
Report No.: SZEM180500437001

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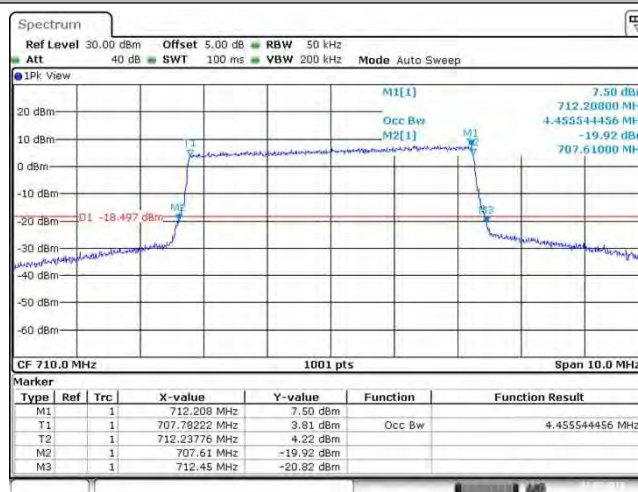
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Date: 31 AUG 2018 16:44:13

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Date: 31 AUG 2018 16:45:13

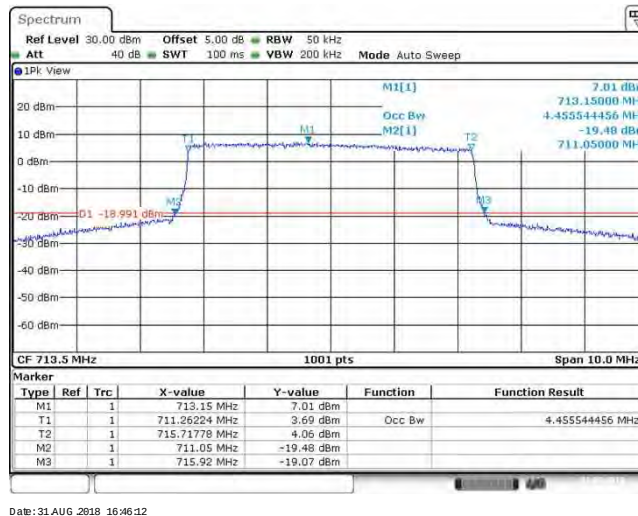
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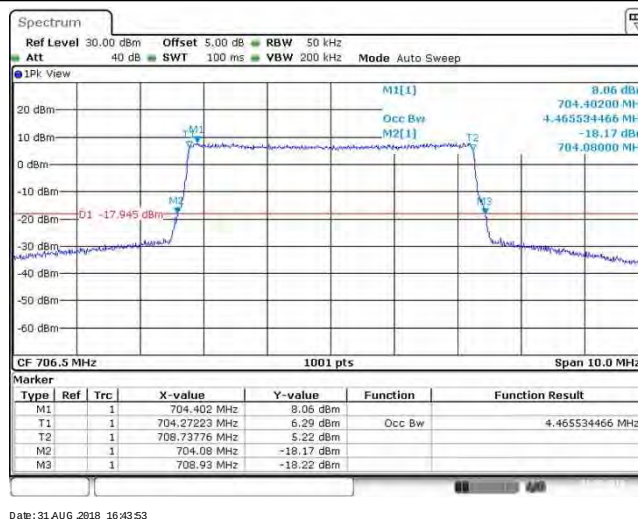
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM180500437001

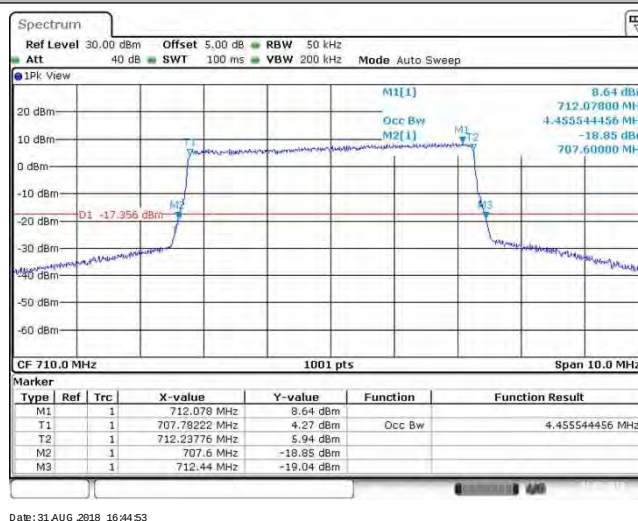
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BAND17_5MHz_16QAM_23755_25RB#0



BAND17_5MHz_16QAM_23790_25RB#0



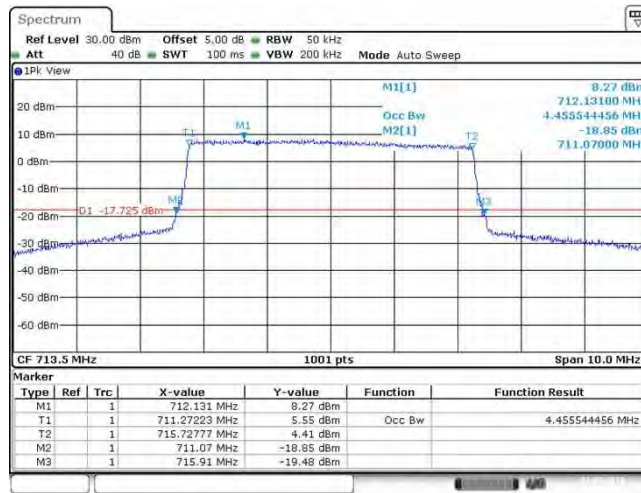
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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

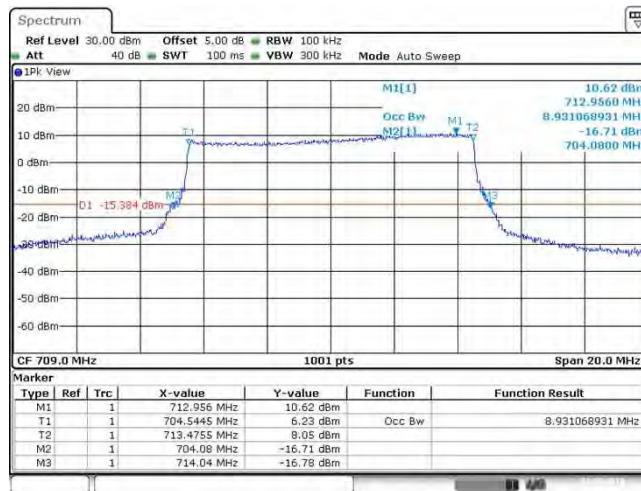
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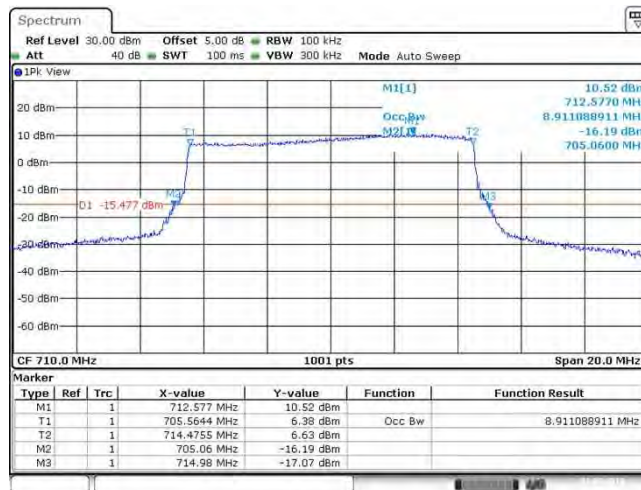
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Date: 31 AUG 2018 16:47:10

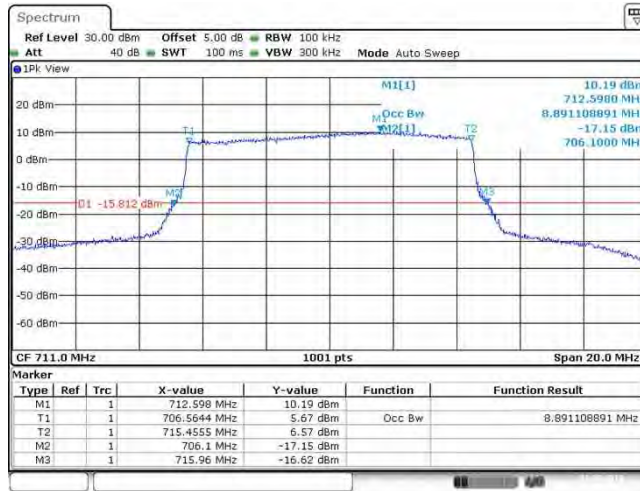
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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

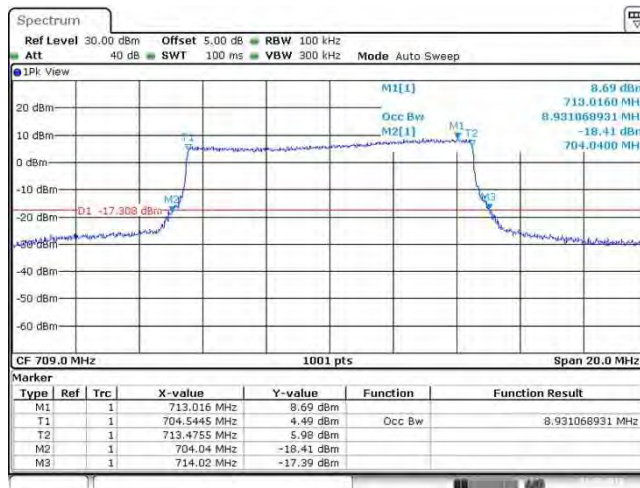
Report No.: SZEM180500437001

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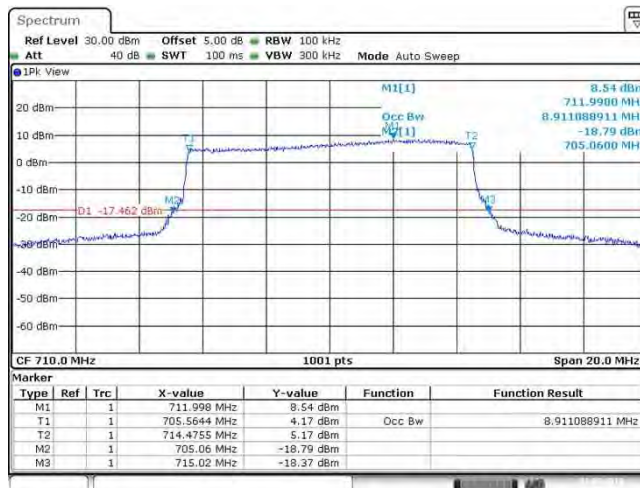
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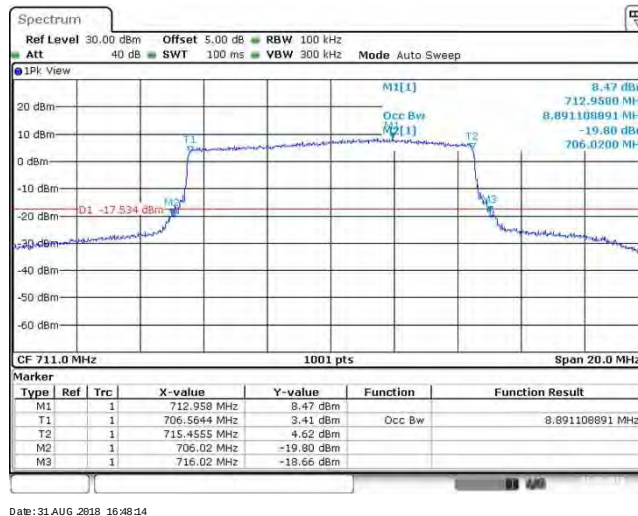
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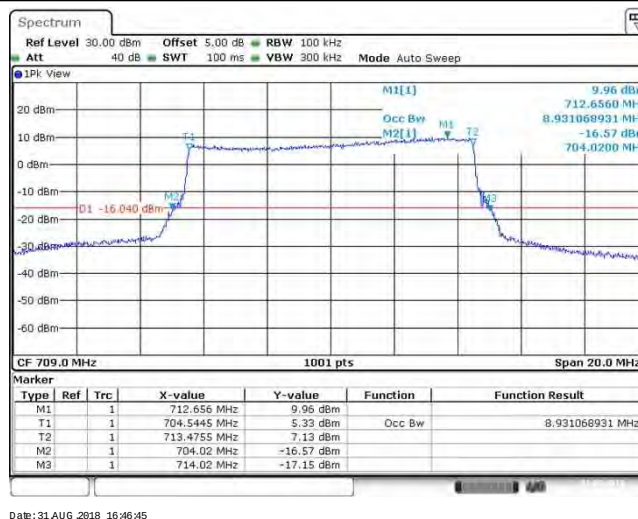
SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

Report No.: SZEM180500437001

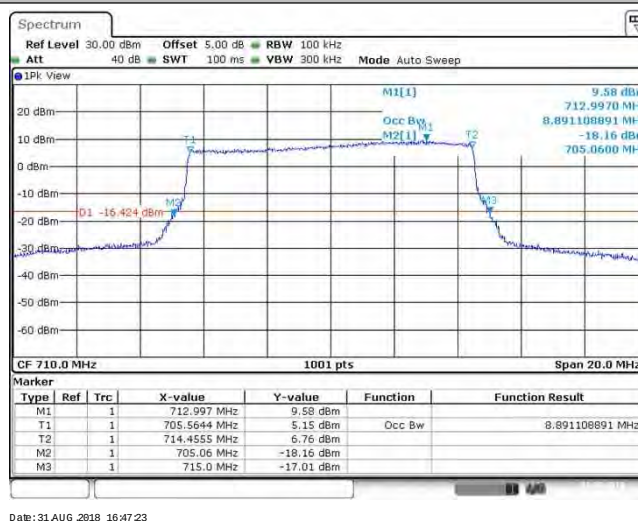
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BAND17_10MHz_16QAM_23780_50RB#0



BAND17_10MHz_16QAM_23790_50RB#0



BAND17_10MHz_16QAM_23800_50RB#0

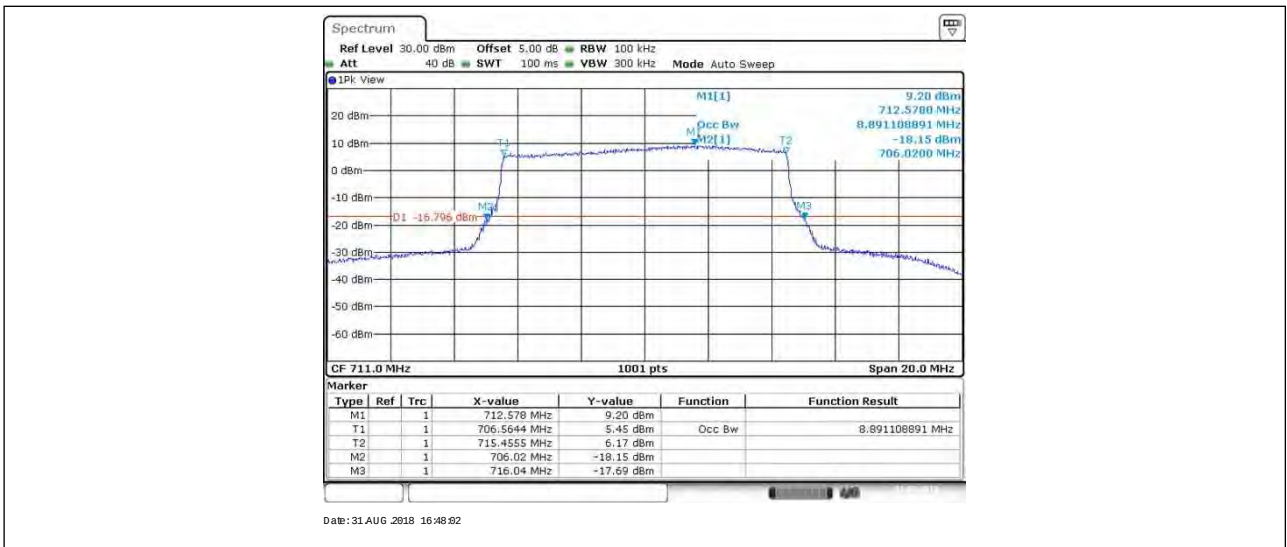
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5. Band Edge Compliance

5.1. Test Plots

BAND17_5MHz_QPSK_23755_1RB#0



BAND17_5MHz_QPSK_23755_25RB#0



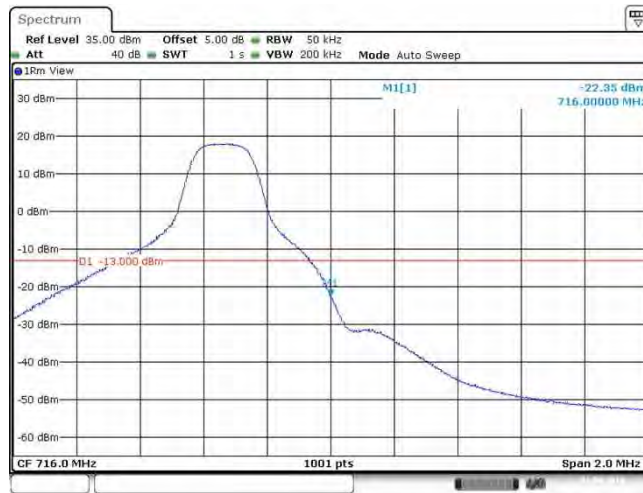
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Date: 31 AUG 2018 15:59:18

BAND17_5MHz_64QAM_23755_1RB#0



Date: 31 AUG 2018 15:58:19

BAND17_5MHz_64QAM_23755_25RB#0



Date: 31 AUG 2018 15:13:55

BAND17_5MHz_64QAM_23825_1RB#24



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Date: 31 AUG 2018 15:18:42

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Date: 31 AUG 2018 15:12:20

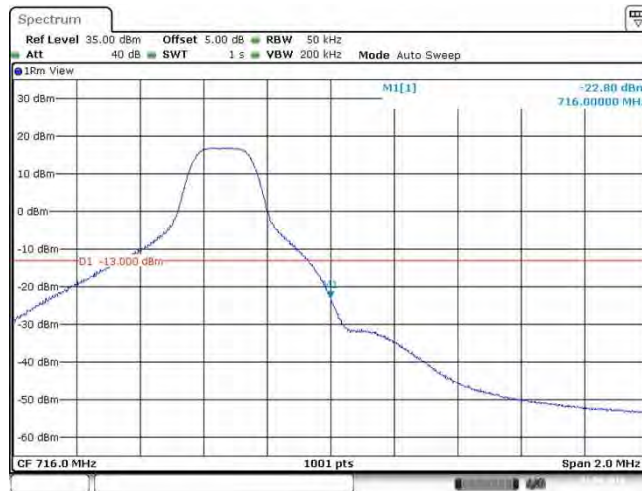
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SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

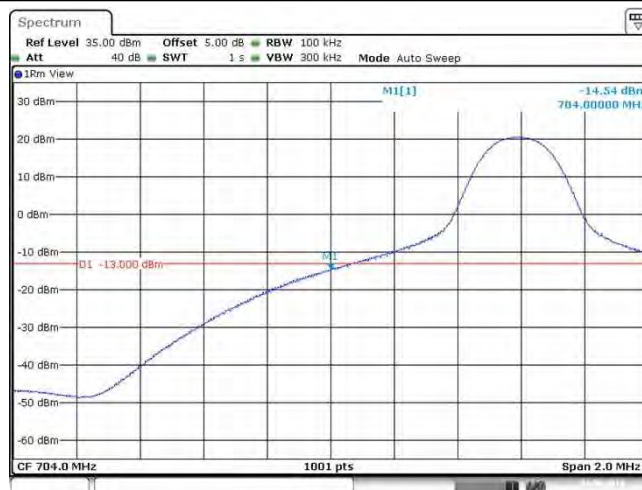
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Date: 31 AUG 2018 16:11:45

BAND17_10MHz_QPSK_23780_50RB#0



Date: 31 AUG 2018 16:16:38

BAND17_10MHz_QPSK_23800_1RB#49



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

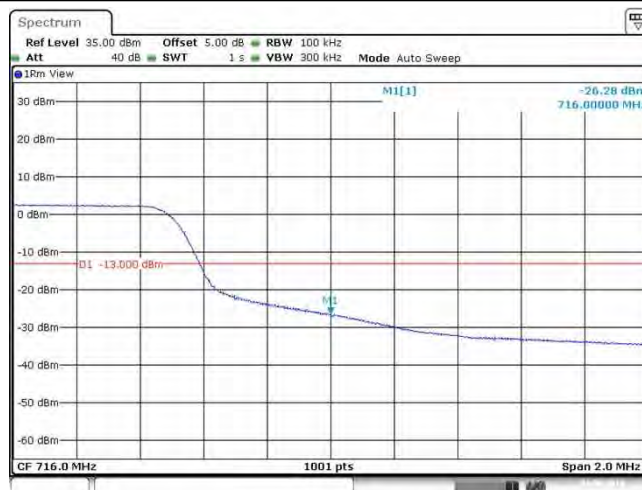
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Date: 31 AUG 2018 16:18:48

BAND17_10MHz_64QAM_23780_1RB#0



Date: 31 AUG 2018 16:13:17

BAND17_10MHz_64QAM_23780_50RB#0



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Date: 31 AUG 2018 16:18:02

BAND17_10MHz_64QAM_23800_1RB#49



Date: 31 AUG 2018 16:15:39

BAND17_10MHz_64QAM_23800_50RB#0



Date: 31 AUG 2018 16:20:19

BAND17_10MHz_16QAM_23780_1RB#0



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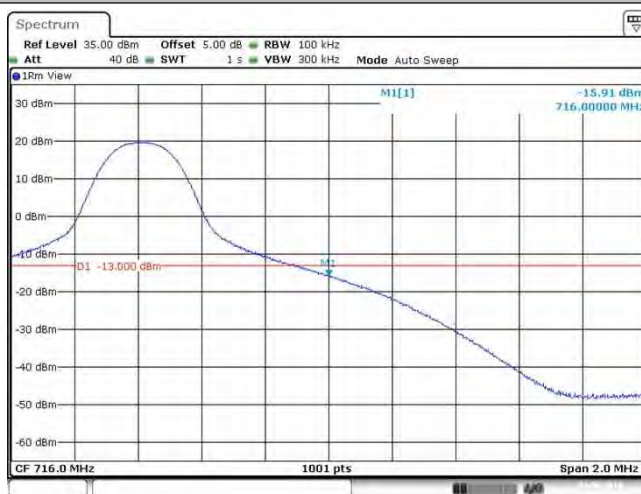
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BAND17_10MHz_16QAM_23780_50RB#0



Date: 31 AUG 2018 16:17:16

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BAND17_10MHz_16QAM_23800_50RB#0



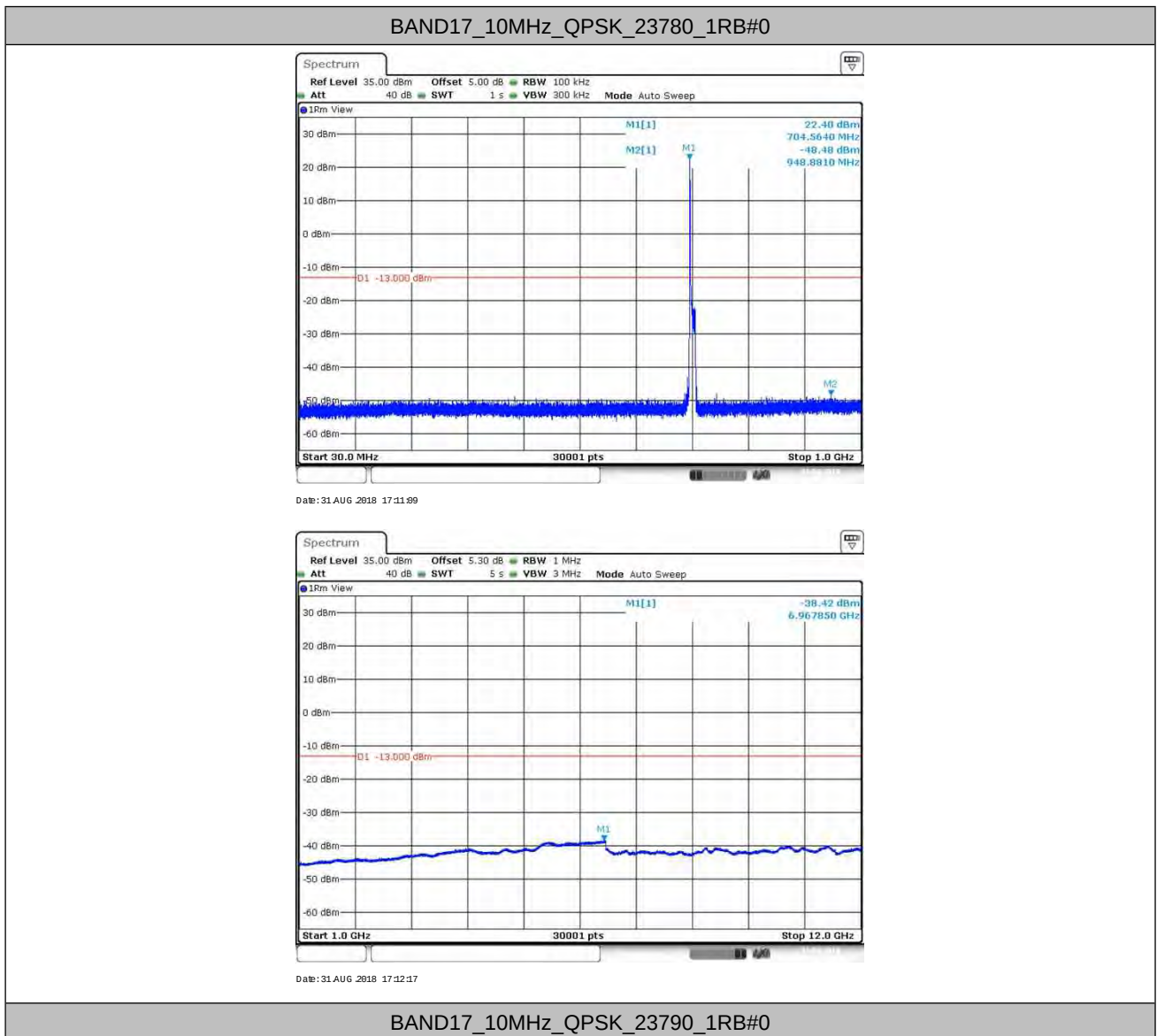


6. Spurious Emission at Antenna Terminal

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

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

6.1. Test Plots

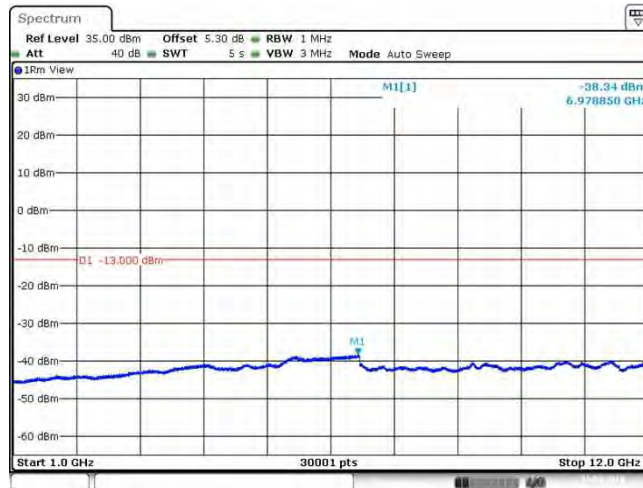
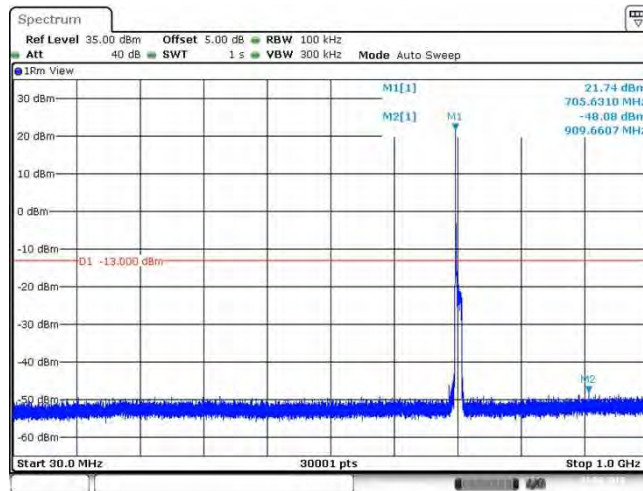




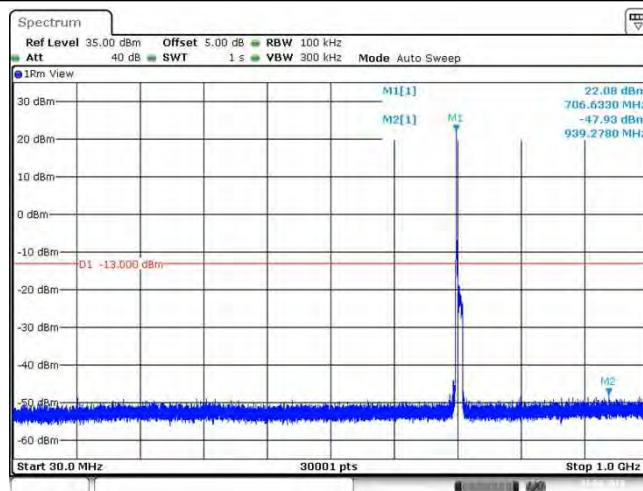
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BAND17_10MHz_QPSK_23800_1RB#0

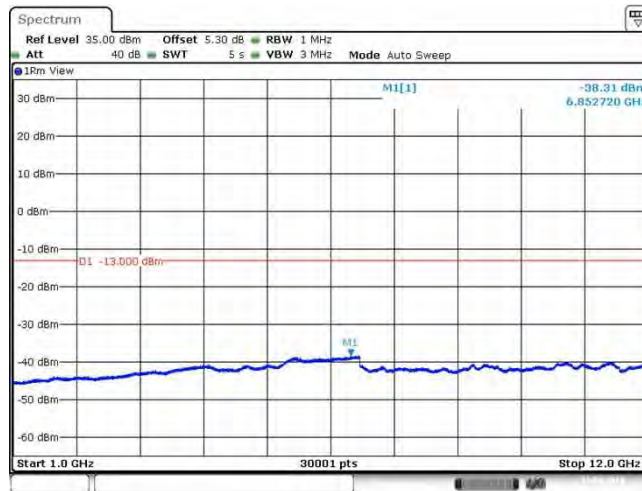




SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

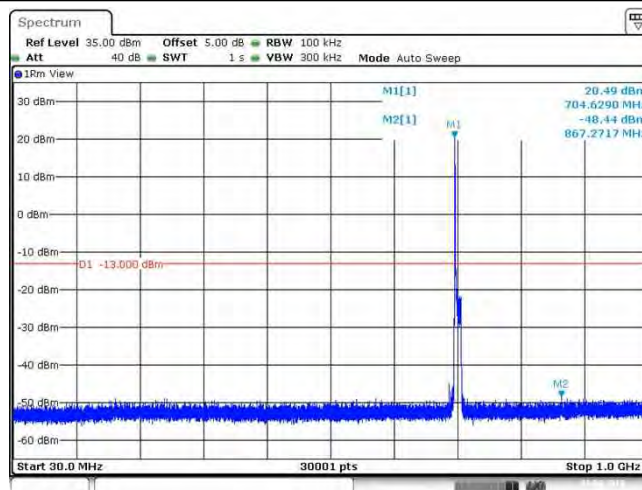
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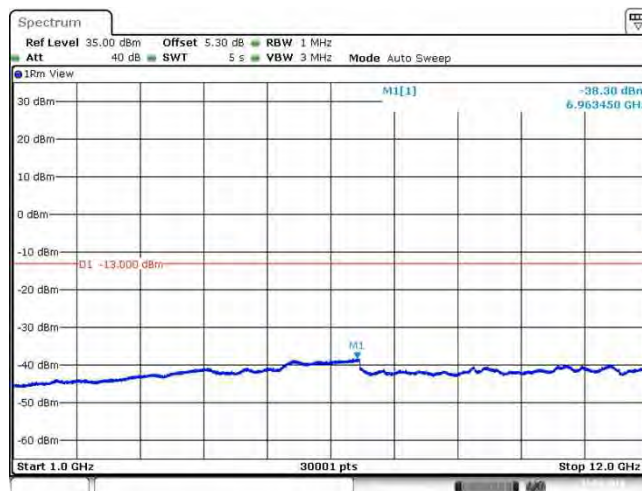


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Date: 31 AUG 2018 17:15:11

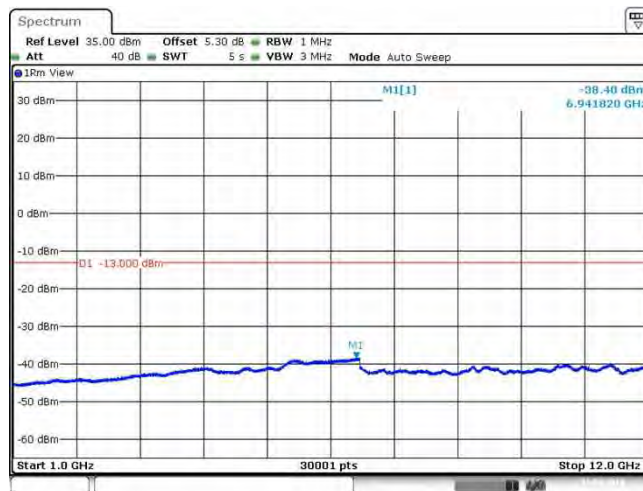
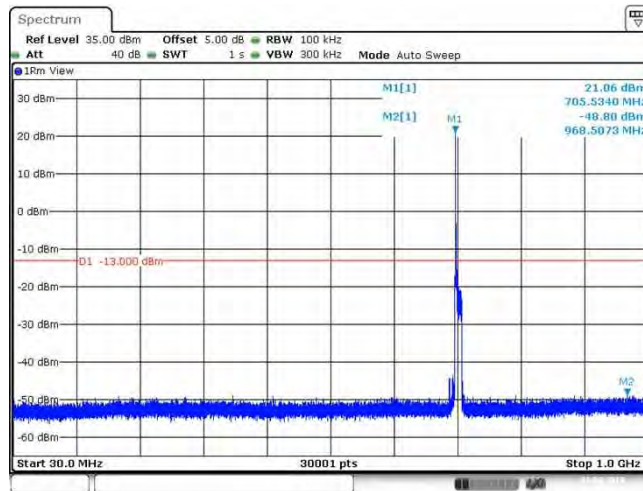
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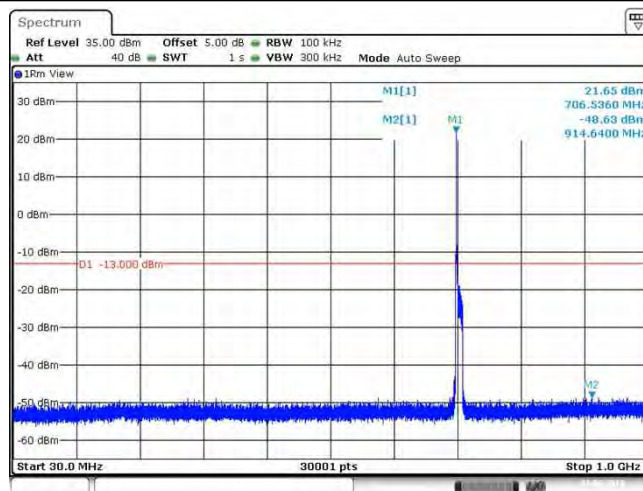
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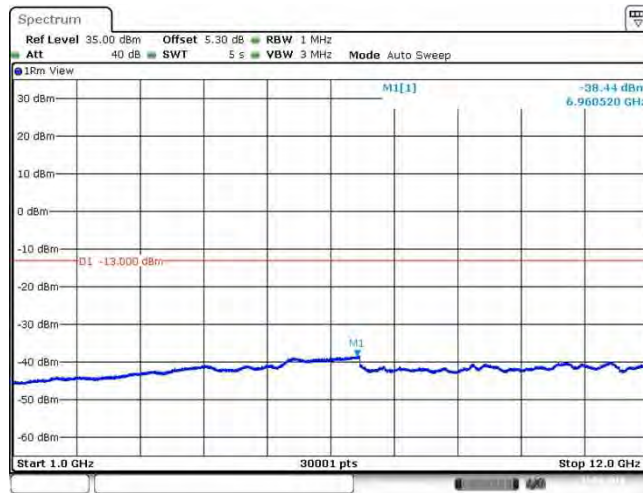




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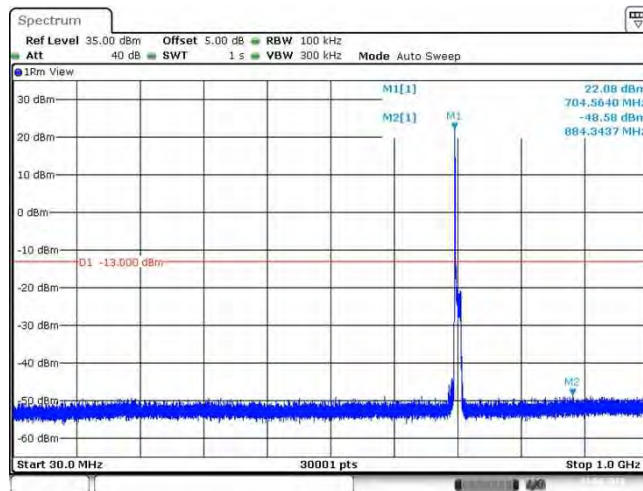
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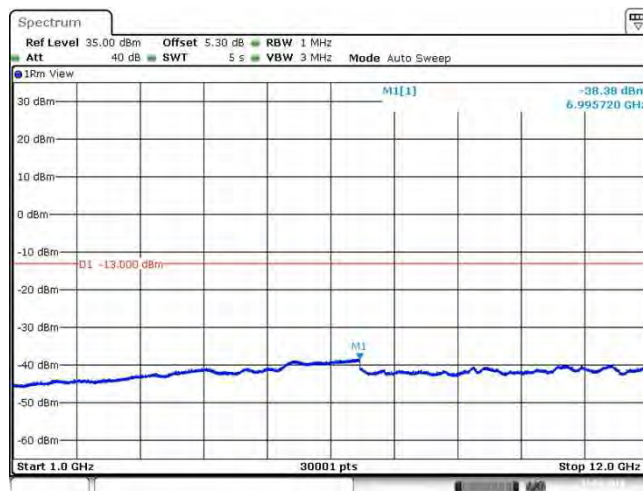


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Date: 31 AUG 2018 17:12:36



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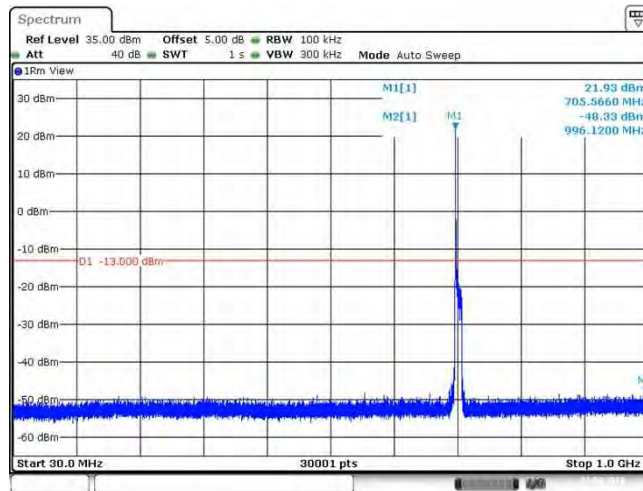
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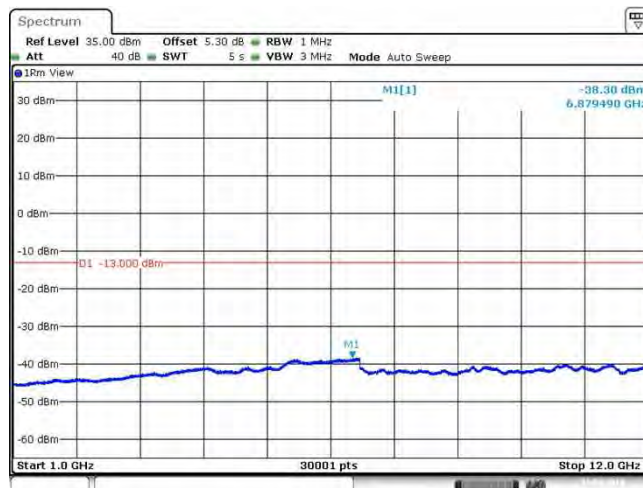
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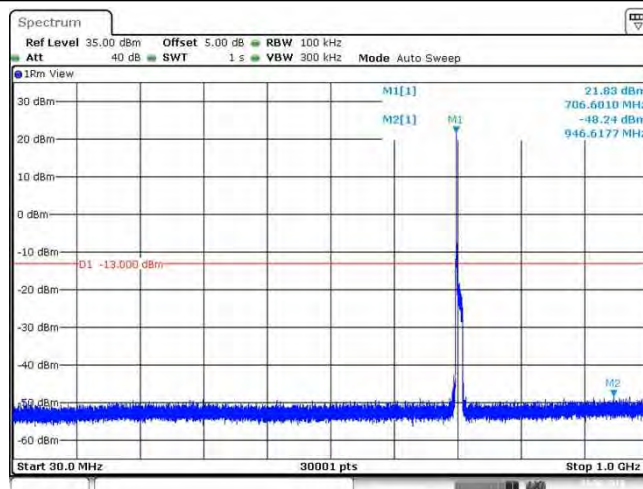


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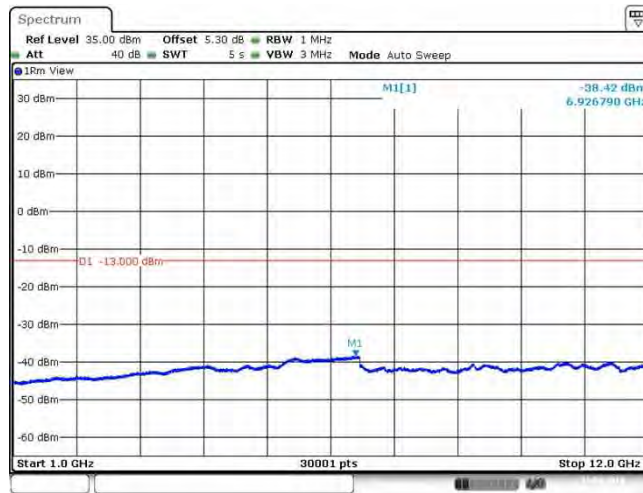
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Date: 31 AUG 2018 17:22:26



7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE BAND 17

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
64.393333	-79.53	-13.00	66.53	Vertical
533.279167	-78.72	-13.00	65.72	Vertical
1409.000000	-65.24	-13.00	52.24	Vertical
4298.700000	-66.88	-13.00	53.88	Vertical
6059.062500	-65.09	-13.00	52.09	Vertical
9248.775000	-63.47	-13.00	50.47	Vertical
63.786667	-76.57	-13.00	63.57	Horizontal
553.950000	-76.62	-13.00	63.62	Horizontal
1409.500000	-66.81	-13.00	53.81	Horizontal
2682.000000	-57.79	-13.00	44.79	Horizontal
4314.787500	-66.70	-13.00	53.70	Horizontal
7933.987500	-63.74	-13.00	50.74	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
62.293333	-73.87	-13.00	60.87	Vertical
344.253333	-65.62	-13.00	52.62	Vertical
1411.000000	-65.01	-13.00	52.01	Vertical
2651.500000	-57.76	-13.00	44.76	Vertical
4276.275000	-66.95	-13.00	53.95	Vertical
7934.962500	-63.71	-13.00	50.71	Vertical
62.433333	-78.00	-13.00	65.00	Horizontal
438.986667	-67.38	-13.00	54.38	Horizontal
1411.000000	-66.59	-13.00	53.59	Horizontal
2710.500000	-57.76	-13.00	44.76	Horizontal



4295.775000	-66.63	-13.00	53.63	Horizontal
7964.212500	-63.49	-13.00	50.49	Horizontal

7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.346667	-81.78	-13.00	68.78	Vertical
589.562500	-76.91	-13.00	63.91	Vertical
1413.000000	-65.26	-13.00	52.26	Vertical
4272.862500	-66.93	-13.00	53.93	Vertical
6041.512500	-65.08	-13.00	52.08	Vertical
7934.962500	-63.68	-13.00	50.68	Vertical
62.620000	-77.67	-13.00	64.67	Horizontal
486.895833	-66.35	-13.00	53.35	Horizontal
978.641667	-60.86	-13.00	47.86	Horizontal
1413.000000	-65.97	-13.00	52.97	Horizontal
5078.700000	-66.43	-13.00	53.43	Horizontal
7863.300000	-63.62	-13.00	50.62	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.



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	1.90	0.002680	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	VN	NT	3.20	0.004513	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	VH	NT	3.40	0.004795	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	VL	NT	1.30	0.001831	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	VN	NT	0.50	0.000704	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	VH	NT	0.30	0.000423	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	VL	NT	2.30	0.003235	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	VN	NT	2.40	0.003376	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	VH	NT	3.80	0.005345	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	VL	NT	2.90	0.004090	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	VN	NT	1.10	0.001551	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	VH	NT	2.20	0.003103	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	VL	NT	3.80	0.005352	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	VN	NT	0.70	0.000986	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	VH	NT	2.80	0.003944	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	VL	NT	2.60	0.003657	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	VN	NT	3.70	0.005204	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	VH	NT	1.50	0.002110	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	VL	NT	1.70	0.002398	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	VN	NT	4.30	0.006065	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	VH	NT	0.80	0.001128	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	VL	NT	1.30	0.001831	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	VN	NT	4.60	0.006479	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	VH	NT	2.90	0.004085	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	VL	NT	1.20	0.001688	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	VN	NT	2.90	0.004079	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	VH	NT	3.60	0.005063	±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	2.50	0.003526	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	-20	0.40	0.000564	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	-10	1.90	0.002680	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	0	2.70	0.003808	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	10	2.80	0.003949	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	20	2.10	0.002962	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	30	2.30	0.003244	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	40	2.10	0.002962	±2.5	PASS
BAND17	10MHz	QPSK	23780	50RB#0	NV	50	2.10	0.002962	±2.5	PASS

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BAND17	10MHz	QPSK	23790	50RB#0	NV	-30	2.30	0.003239	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	-20	1.80	0.002535	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	-10	0.70	0.000986	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	0	0.40	0.000563	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	10	3.90	0.005493	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	20	1.70	0.002394	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	30	1.00	0.001408	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	40	2.30	0.003239	±2.5	PASS
BAND17	10MHz	QPSK	23790	50RB#0	NV	50	1.70	0.002394	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	-30	3.30	0.004641	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	-20	2.80	0.003938	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	-10	1.30	0.001828	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	0	1.70	0.002391	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	10	2.50	0.003516	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	20	3.10	0.004360	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	30	2.00	0.002813	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	40	2.20	0.003094	±2.5	PASS
BAND17	10MHz	QPSK	23800	50RB#0	NV	50	2.40	0.003376	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	-30	1.60	0.002257	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	-20	2.40	0.003385	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	-10	0.40	0.000564	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	0	1.60	0.002257	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	10	1.20	0.001693	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	20	3.10	0.004372	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	30	2.50	0.003526	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	40	3.10	0.004372	±2.5	PASS
BAND17	10MHz	64QAM	23780	50RB#0	NV	50	1.20	0.001693	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	-30	3.10	0.004366	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	-20	1.30	0.001831	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	-10	2.20	0.003099	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	0	3.30	0.004648	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	10	1.80	0.002535	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	20	1.80	0.002535	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	30	2.00	0.002817	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	40	2.10	0.002958	±2.5	PASS
BAND17	10MHz	64QAM	23790	50RB#0	NV	50	3.20	0.004507	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	-30	-0.10	-0.000141	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	-20	1.90	0.002672	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	-10	1.60	0.002250	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	0	2.20	0.003094	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	10	2.60	0.003657	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	20	1.30	0.001828	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	30	1.90	0.002672	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	40	1.10	0.001547	±2.5	PASS
BAND17	10MHz	64QAM	23800	50RB#0	NV	50	3.00	0.004219	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	-30	1.90	0.002680	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	-20	3.50	0.004937	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	-10	3.20	0.004513	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	0	3.50	0.004937	±2.5	PASS



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BAND17	10MHz	16QAM	23780	50RB#0	NV	10	4.30	0.006065	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	20	1.30	0.001834	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	30	3.10	0.004372	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	40	1.30	0.001834	±2.5	PASS
BAND17	10MHz	16QAM	23780	50RB#0	NV	50	2.00	0.002821	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	-30	3.10	0.004366	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	-20	0.90	0.001268	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	-10	2.40	0.003380	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	0	1.30	0.001831	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	10	0.20	0.000282	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	20	1.50	0.002113	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	30	2.40	0.003380	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	40	2.60	0.003662	±2.5	PASS
BAND17	10MHz	16QAM	23790	50RB#0	NV	50	2.50	0.003521	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	-30	1.50	0.002110	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	-20	3.20	0.004501	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	-10	1.70	0.002391	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	0	1.70	0.002391	±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	1.30	0.001828	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	30	1.10	0.001547	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	40	1.50	0.002110	±2.5	PASS
BAND17	10MHz	16QAM	23800	50RB#0	NV	50	1.90	0.002672	±2.5	PASS

The End