Microtest
微测检测

Test Report

FCC ID: 2APBP-CS10

Date of issue: Apr. 10, 2018

Report Number:	MTi180416E040
Sample Description:	Smart POS Payment Terminal
Model(s):	CS10, CS10A, CS10B, CS10C, CS10D, CS10E, CS10F, CS11, CS12, CS13
Applicant:	Ciontek Technology Corp.
Address:	B501, Chanxueyan Building Wuhan University, No.6 Of Yuexing 2nd Road, Nanshan District, Shenzhen
Date of Test:	Mar. 23, 2018 to Apr. 10, 2018

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Test Result Certification

Applicant's name:	Ciontek Technology Corp.
Address:	B501, Chanxueyan Building Wuhan University, No.6 Of Yuexing 2nd Road, Nanshan District, Shenzhen
Manufacture's Name:	Ciontek Technology Corp.
Address:	B501, Chanxueyan Building Wuhan University, No.6 Of Yuexing 2nd Road, Nanshan District, Shenzhen
Product name:	Smart POS Payment Terminal
Trademark:	Ciontek
Model name:	CS10, CS10A, CS10B, CS10C, CS10D, CS10E, CS10F, CS11, CS12, CS13
Standards:	FCC Part 15.247
Test Procedure:	ANSI C63.4-2014 ANSI C63.26 ANSI/TIA-603-E KDB 971168 D01

This device described above has been tested by Shenzhen Microtest Co., Ltd. and the test results show that the equipment under test (EUT) compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Tested by:	Demi Mu	Apr. 10, 2018
Reviewed by:	Blue Zheng	Apr. 10, 2018
Approved by:	Smith Chen	Apr. 10, 2018

1 General information

1.1 Feature of equipment under test (EUT)

Product name:	Smart POS Payment Terminal
Model name:	CS10, CS10A, CS10B, CS10C, CS10D, CS10E, CS10F, CS11, CS12, CS13
Model Difference:	All the models above are identical in interior structure, electrical circuits and components; just the color. fingerprint module and scanner module is different. The model CS10 has been tested for the worst case.
Operating frequency range:	LTE FDD Band 2: 1850.7 - 1909.3 MHz LTE FDD Band 4: 1710.7 - 1754.3MHz LTE FDD Band 5: 824.7 - 848.3 MHz LTE FDD Band 12: 698 - 716 MHz LTE FDD Band 17: 706.5 - 713.5 MHz
Modulation type:	QPSK,16QAM
Antenna type:	Integral Antenna
Antenna gain:	LTE FDD Band 2: -1.42 LTE FDD Band 4: -2.16 LTE FDD Band 5: -2.17 LTE FDD Band 12: -2.32 LTE FDD Band 17: -2.30
Power Supply:	DC 5V From adapter
Battery:	DC 7.4V/2600mA
Adapter information:	Model:GKYPG0200050 US2 Input: 100-240V 50/60Hz 0.5A Output: 5V 2A
Hardware Version	CS10_V3.0
Software Version	A26_V3.17_171103US

1.2 Test frequency channel

LTE Band	Channel	Channel Bandwidth (MHz)	Channel No.	Frequency (MHz)
LTE Band 2	Low	1.4	18607	1850.7
		3	18615	1851.5
		5	18625	1852.5
		10	18650	1855
		15	18675	1857.5
		20	18700	1860
	Middle	1.4/3/5/10/15/20	18900	1880
	High	1.4	19193	1909.3
		3	19185	1908.5
		5	19175	1907.5

LTE Band	Channel	Channel Bandwidth (MHz)	Channel No.	Frequency (MHz)
		10	19150	1905
		15	19125	1902.5
		20	19100	1900
LTE Band 4	Low	1.4	19957	1710.7
		3	19965	1711.5
		5	19975	1712.5
		10	20000	1715
		15	20025	1717.5
		20	20050	1720
	Middle	1.4/3/5/10/15/20	20175	1732.5
	High	1.4	20393	1754.3
		3	20385	1753.5
		5	20375	1752.5
		10	20350	1750
		15	20325	1747.5
		20	20300	1745

LTE Band 5	Low	1.4	20247	824.7
		3	20425	826.5
		5	20425	826.5
		10	20450	829.0
	Middle	1.4/3/5/10	20525	836.5
	High	1.4	20643	848.3
		3	20635	847.5
		5	20625	846.5
		10	20600	844.0

LTE Band 12	Low	1.4	23017	699.7
		3	23025	700.5
		5	23035	701.5
		10	23060	704.0
	Middle	1.4/3/5/10	20395	707.5
	High	1.4	23713	715.3
		3	23165	714.5
		5	23155	713.5
		10	23130	711.0

LTE Band 17	Low	5	23755	706.50
		10	23780	709.00
	Middle	1.4/3/5/10	23790	710.00
	High	5	23825	713.50
		10	23800	711.00

1.3 EUT operation mode

LTE band 2	Keep the EUT in data communicating mode on LTE band 2. (LTE band2(1.4MHz), LTE band2(3MHz), LTE band2(5MHz), LTE band2(10MHz), LTE band2(15MHz), LTE band2(20MHz))
LTE band 4	Keep the EUT in data communicating mode on LTE band 4. (LTE band 4(1.4MHz), LTE band 4(3MHz), LTE band 4(5MHz), LTE band 4(10MHz), LTE band 4(15MHz), LTE band 4(20MHz))
LTE band 5	Keep the EUT in data communicating mode on LTE band 5. (LTE band 5(1.4MHz), LTE band 5(3MHz),LTE band5(5MHz), LTE band 5(10MHz)
LTE band 12	Keep the EUT in data communicating mode on LTE band17. (LTE band 12(1.4MHz), LTE band 12(3MHz),LTE band12(5MHz), LTE band12(10MHz))
LTE band 17	Keep the EUT in data communicating mode on LTE band 17. (LTE band17(5MHz), LTE band17(10MHz))
Note: Only the worst case data were shown in the report.	

1.4 Ancillary equipment list

Equipment	Model	S/N	Manufacturer	Certificate type
/	/	/	/	/

2 Summary of test results

Item	FCC Part No.	Description of Test	Result
1	part2.1046 Part 24.232 (c) Part 27.50 (c)(10) Part 27.50 (d)(4) Part 27.50 (h)(2)	RF Output Power	Pass
2	part 22.913(a)(2) part 24.232(c.2) part 27.50(h)(2) part 27.50(b)(10) part 27.50(c)(10) part 27.50(d)(4) part 27.50(a)(3)	Radiated Power (ERP/EIRP)	Pass
3	Part 24.232 (d) Part 27.50(d)(5)	Peak-to-Average Ratio	Pass
4	Part 2.1049 Part 24.238(b) Part 27.53(g) Part 27.53(h) Part 27.53(m)	99% and -26 dB Occupied Bandwidth	Pass
5	part 2.1051 part 22.917(a) part 24.238(a) part 24.50(d) part 27.53 (g)(h)	Spurious emissions at antenna terminals	Pass
6	part 2.1051 part 22.917(a) part 24.238(a) part 27.53(c)(2)(4) part 27.53(g) part 27.53(h)	Band edge at antenna terminals	Pass
7	Part 2.1053 Part 24.238 (a) Part 27.53 (g) Part 27.53 (h) Part 27.53(m)	Field strength of spurious radiation measurement	Pass
8	Part 24.235 Part 27.54 Part 2.1055(a)(1)(b) Part 2.1055(d)(2)	Frequency Stability for Temperature &Voltage	Pass

3 Test facilities and accreditations

3.1 TEST LABORATORY

Test Laboratory	Shenzhen Microtest Co., Ltd
Location	No.102A & 302A, East Block, Hengfang Industrial Park, Xingye Road, Xixiang, Bao'an District, Shenzhen, Guangdong, China
FCC Registration No.:	448573

3.2 ENVIRONMENTAL CONDITIONS

Temperature:	20ºC~30ºC
Humidity	30%~70%
Atmospheric pressure	98kPa~101kPa

3.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty for a Level of Confidence of 95 %, U=2xUc(y)

RF frequency	1 x 10-7
RF power, conducted	± 1 dB
Conducted emission(150kHz~30MHz)	± 2.5 dB
Radiated emission(30MHz~1GHz)	± 4.2 dB
Radiated emission (above 1GHz)	± 4.3 dB
Temperature	±1 degree
Humidity	± 5 %

3.4 TEST SOFTWARE

Software Name	Manufacturer	Model	Version
RF Test System	Farad	LZ-RF	Lz_Rf 3A3

4 LIST OF TEST EQUIPMENT

Equipment No.	Equipment Name	Manufacturer	Model	Serial No.	Calibration date	Due date
MTI-E001	Spectrum Analyzer	Agilent	E4407B	MY41441082	2017/09/18	2018/09/17
MTI-E002	CMU 200 universal radio communication tester	Rohde&schwarz	CMU 200	114587	2017/09/18	2018/09/17
MTI-E004	EMI Test Receiver	Rohde&schwarz	ESPI	1000314	2017/09/18	2018/09/17
MTI-E006	Broadband antenna	schwarabeck	VULB9163	872	2017/09/18	2018/09/17
MTI-E007	Horn antenna	schwarabeck	BBHA9120D	1201	2017/09/18	2018/09/17
MTI-E014	amplifier	America	8447D	3113A06150	2017/09/18	2018/09/17
MTI-E015	Conduction Immunity Signal Generator	Schloder	CDG6000	126A1343/2015	2017/09/18	2018/09/17
MTI-E016	Coupled decoupling network	Schloder	CDA M2/M3	A2210332/2015	2017/09/18	2018/09/17
MTI-E032	Comprehensive test instrument	Rohde&schwarz	CMW500	124192	2017/04/13	2018/09/12
MTI-E034	amplifier	Agilent	8449B	3008A02400	2017/08/22	2018/08/21
MTI-E040	Spectrum analyzer	Agilent	N9020A	MY49100060	2017/03/04	2018/09/04
MTI-E041	Signal generator	Agilent	N5182A	MY49060455	2017/02/22	2018/09/22
MTI-E042	Analog signal generator	Agilent	E4421B	GB40051240	2017/02/22	2018/09/22
MTI-E043	Power probe	Dare Instruments	RPR3006W	16I00054SNO16	2017/02/28	2018/09/28
MTI-E047	10dB attenuator	Mini-Circuits	UNAT-10+	15542	2017/05/23	2018/09/23
MTI-E049	spectrum analyzer	Rohde&schwarz	FSP-38	100019	2017/09/18	2018/09/17
MTI-E050	PSG Signal generator	Agilent	E8257D	MY46520873	2017/04/24	2018/09/23
MTI-E051	Active Loop Antenna 9kHz - 30MHz	Schwarzbeek	FMZB 1519 B	00044	2017//2/26	2018/09/25
MTI-E052	18-40GHz amplifier	Chengdu step Micro Technology	ZLNA-18-40G-21	1608001	2017/09/18	2018/09/17
MTI-E053	15-40G Antenna	Schwarzbeek	BBHA9170	BBHA9170582	2017/09/18	2018/09/17

Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

5 Test result

5.1 RF output power

5.1.1 Limit

For FCC Part 22.913(a)(2):
The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

For FCC Part 24.232(c):
The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 2 Watts.

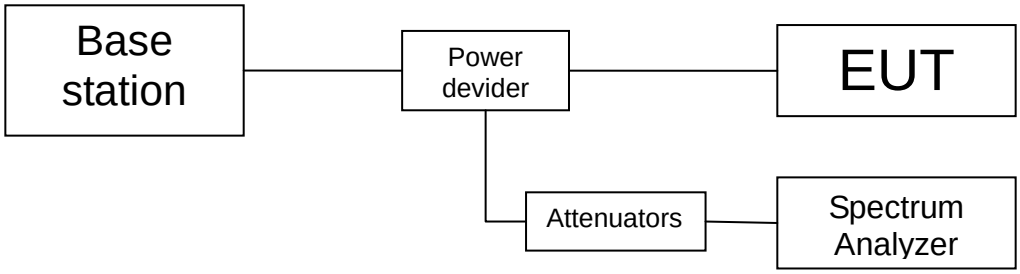
For FCC Part 27.50(d):
The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 1 Watt.

For FCC Part 27.50(c):
The ERP of mobile transmitters and auxiliary test transmitters must not exceed 3 Watts.

5.1.2 Test procedure

1) The EUT's RF output port was connected to base station.
2) A call is set up by the SS according to the generic call set up procedure.
3) Set EUT at maximum power level through base station by power level command.
4) Measure the maximum output power of EUT at each frequency band and mode by base station.
5) The EUT was set up for the max output power with pseudo random data modulation.
6) These measurements were done at 3 frequencies (bottom, middle and top of operational frequency range) for each bandwidth.

5.1.3 Test setup



5.1.4 Test results

The following table shows the conducted power measured:

LTE Band 2:

5.1.4.1 Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	23.53	PASS
		1	3	23.59	PASS
		1	5	23.56	PASS
		3	0	22.64	PASS
		3	2	22.64	PASS
		3	3	22.63	PASS
		6	0	22.44	PASS
	MCH	1	0	23.69	PASS
		1	3	23.68	PASS
		1	5	23.65	PASS
		3	0	22.79	PASS
		3	2	22.70	PASS
		3	3	22.77	PASS
		6	0	22.72	PASS
	HCH	1	0	22.84	PASS
		1	3	22.61	PASS
		1	5	22.66	PASS
		3	0	22.84	PASS
		3	2	22.70	PASS
		3	3	22.66	PASS
		6	0	22.24	PASS
16QAM	LCH	1	0	22.62	PASS
		1	3	22.72	PASS
		1	5	22.64	PASS
		3	0	22.45	PASS
		3	2	22.45	PASS
		3	3	22.47	PASS
		6	0	21.70	PASS
	MCH	1	0	22.65	PASS
		1	3	22.74	PASS
		1	5	22.64	PASS
		3	0	22.58	PASS
		3	2	22.52	PASS
		3	3	22.55	PASS
		6	0	21.56	PASS
	HCH	1	0	22.34	PASS
		1	3	22.22	PASS
		1	5	22.15	PASS
		3	0	22.08	PASS
		3	2	22.02	PASS
		3	3	21.98	PASS
		6	0	21.47	PASS

5.1.4.2 Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	23.50	PASS
		1	7	23.51	PASS
		1	14	23.53	PASS
		8	0	22.67	PASS
		8	4	22.68	PASS
		8	7	22.68	PASS
		15	0	22.61	PASS
	MCH	1	0	23.54	PASS
		1	7	23.58	PASS
		1	14	23.47	PASS
		8	0	22.68	PASS
		8	4	22.69	PASS
		8	7	22.67	PASS
		15	0	22.60	PASS
	HCH	1	0	22.62	PASS
		1	7	22.60	PASS
		1	14	22.34	PASS
		8	0	22.06	PASS
		8	4	22.11	PASS
		8	7	22.12	PASS
		15	0	22.11	PASS
16QAM	LCH	1	0	22.64	PASS
		1	7	22.74	PASS
		1	14	22.63	PASS
		8	0	21.61	PASS
		8	4	21.61	PASS
		8	7	21.59	PASS
		15	0	21.47	PASS
	MCH	1	0	22.67	PASS
		1	7	22.71	PASS
		1	14	22.66	PASS
		8	0	21.61	PASS
		8	4	21.61	PASS
		8	7	21.59	PASS
		15	0	21.45	PASS
	HCH	1	0	21.97	PASS
		1	7	22.05	PASS
		1	14	21.96	PASS
		8	0	21.17	PASS
		8	4	21.26	PASS
		8	7	21.36	PASS
		15	0	21.27	PASS

5.1.4.3 Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	23.29	PASS
		1	12	23.13	PASS
		1	24	23.58	PASS
		12	0	22.63	PASS
		12	6	22.62	PASS
		12	13	22.68	PASS
		25	0	22.62	PASS
	MCH	1	0	23.71	PASS
		1	12	23.33	PASS
		1	24	23.55	PASS
		12	0	22.71	PASS
		12	6	22.68	PASS
		12	13	22.65	PASS
		25	0	22.61	PASS
	HCH	1	0	22.78	PASS
		1	12	22.77	PASS
		1	24	22.81	PASS
		12	0	21.84	PASS
		12	6	21.81	PASS
		12	13	21.91	PASS
		25	0	21.83	PASS
16QAM	LCH	1	0	22.81	PASS
		1	12	22.62	PASS
		1	24	22.76	PASS
		12	0	21.67	PASS
		12	6	21.65	PASS
		12	13	21.65	PASS
		25	0	21.54	PASS
	MCH	1	0	22.86	PASS
		1	12	22.80	PASS
		1	24	22.76	PASS
		12	0	21.70	PASS
		12	6	21.69	PASS
		12	13	21.68	PASS
		25	0	21.55	PASS
	HCH	1	0	21.27	PASS
		1	12	21.21	PASS
		1	24	21.65	PASS
		12	0	20.51	PASS
		12	6	20.56	PASS
		12	13	20.87	PASS
		25	0	20.67	PASS

5.1.4.4 Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	22.89	PASS
		1	24	23.24	PASS
		1	49	23.38	PASS
		25	0	22.58	PASS
		25	12	22.60	PASS
		25	25	22.63	PASS
		50	0	22.60	PASS
	MCH	1	0	23.33	PASS
		1	24	23.25	PASS
		1	49	23.07	PASS
		25	0	22.66	PASS
		25	12	22.62	PASS
		25	25	22.53	PASS
		50	0	22.60	PASS
	HCH	1	0	22.64	PASS
		1	24	22.77	PASS
		1	49	22.02	PASS
		25	0	21.79	PASS
		25	12	21.73	PASS
		25	25	21.90	PASS
		50	0	21.77	PASS
16QAM	LCH	1	0	22.37	PASS
		1	24	22.69	PASS
		1	49	22.73	PASS
		25	0	21.54	PASS
		25	12	21.51	PASS
		25	25	21.50	PASS
		50	0	21.51	PASS
	MCH	1	0	22.78	PASS
		1	24	22.69	PASS
		1	49	22.46	PASS
		25	0	21.55	PASS
		25	12	21.54	PASS
		25	25	21.52	PASS
		50	0	21.53	PASS
	HCH	1	0	21.16	PASS
		1	24	21.26	PASS
		1	49	21.55	PASS
		25	0	20.41	PASS
		25	12	20.43	PASS
		25	25	20.57	PASS
		50	0	20.49	PASS

5.1.4.5 Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	23.08	PASS
		1	37	23.47	PASS
		1	74	23.65	PASS
		37	0	22.71	PASS
		37	18	22.81	PASS
		37	38	22.77	PASS
		75	0	22.70	PASS
	MCH	1	0	23.55	PASS
		1	37	23.22	PASS
		1	74	23.29	PASS
		37	0	22.80	PASS
		37	18	22.58	PASS
		37	38	22.53	PASS
		75	0	22.66	PASS
	HCH	1	0	22.47	PASS
		1	37	22.41	PASS
		1	74	22.27	PASS
		37	0	21.51	PASS
		37	18	21.24	PASS
		37	38	21.31	PASS
		75	0	21.41	PASS
16QAM	LCH	1	0	22.55	PASS
		1	37	22.78	PASS
		1	74	22.73	PASS
		37	0	21.67	PASS
		37	18	21.66	PASS
		37	38	21.62	PASS
		75	0	21.65	PASS
	MCH	1	0	22.82	PASS
		1	37	22.65	PASS
		1	74	22.67	PASS
		37	0	21.70	PASS
		37	18	21.64	PASS
		37	38	21.58	PASS
		75	0	21.64	PASS
	HCH	1	0	21.97	PASS
		1	37	21.14	PASS
		1	74	21.69	PASS
		37	0	21.24	PASS
		37	18	20.99	PASS
		37	38	21.03	PASS
		75	0	21.15	PASS

5.1.4.6 Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	23.29	PASS
		1	49	23.71	PASS
		1	99	23.72	PASS
		50	0	22.63	PASS
		50	25	22.58	PASS
		50	50	22.61	PASS
		100	0	22.60	PASS
	MCH	1	0	23.73	PASS
		1	49	23.32	PASS
		1	99	23.45	PASS
		50	0	22.85	PASS
		50	25	22.58	PASS
		50	50	22.55	PASS
		100	0	22.71	PASS
	HCH	1	0	23.37	PASS
		1	49	22.79	PASS
		1	99	22.37	PASS
		50	0	22.08	PASS
		50	25	21.47	PASS
		50	50	21.30	PASS
		100	0	21.79	PASS
16QAM	LCH	1	0	22.65	PASS
		1	49	22.76	PASS
		1	99	22.85	PASS
		50	0	21.50	PASS
		50	25	21.47	PASS
		50	50	21.46	PASS
		100	0	21.50	PASS
	MCH	1	0	22.87	PASS
		1	49	22.64	PASS
		1	99	22.67	PASS
		50	0	21.54	PASS
		50	25	21.50	PASS
		50	50	21.45	PASS
		100	0	21.51	PASS
	HCH	1	0	22.77	PASS
		1	49	21.29	PASS
		1	99	21.82	PASS
		50	0	21.36	PASS
		50	25	20.77	PASS
		50	50	20.55	PASS
		100	0	21.05	PASS

LTE Band 4:

5.1.4.7 Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.38	PASS
		1	3	24.39	PASS
		1	5	24.35	PASS
		3	0	23.65	PASS
		3	2	23.64	PASS
		3	3	23.62	PASS
		6	0	23.41	PASS
	MCH	1	0	24.11	PASS
		1	3	24.13	PASS
		1	5	24.11	PASS
		3	0	23.66	PASS
		3	2	23.60	PASS
		3	3	23.64	PASS
		6	0	23.15	PASS
	HCH	1	0	24.22	PASS
		1	3	24.25	PASS
		1	5	24.24	PASS
		3	0	23.78	PASS
		3	2	23.76	PASS
		3	3	23.78	PASS
		6	0	23.31	PASS
16QAM	LCH	1	0	23.44	PASS
		1	3	23.52	PASS
		1	5	23.42	PASS
		3	0	23.41	PASS
		3	2	23.35	PASS
		3	3	23.37	PASS
		6	0	22.30	PASS
	MCH	1	0	23.31	PASS
		1	3	23.39	PASS
		1	5	23.36	PASS
		3	0	23.06	PASS
		3	2	23.04	PASS
		3	3	23.08	PASS
		6	0	22.07	PASS
	HCH	1	0	23.36	PASS
		1	3	23.49	PASS
		1	5	23.40	PASS
		3	0	23.29	PASS
		3	2	23.24	PASS
		3	3	23.27	PASS
		6	0	22.33	PASS

5.1.4.8 Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.25	PASS
		1	7	24.28	PASS
		1	14	24.19	PASS
		8	0	23.31	PASS
		8	4	23.38	PASS
		8	7	23.38	PASS
		15	0	23.36	PASS
	MCH	1	0	24.02	PASS
		1	7	24.06	PASS
		1	14	24.02	PASS
		8	0	23.19	PASS
		8	4	23.19	PASS
		8	7	23.19	PASS
		15	0	23.15	PASS
	HCH	1	0	24.21	PASS
		1	7	24.29	PASS
		1	14	24.23	PASS
		8	0	23.32	PASS
		8	4	23.29	PASS
		8	7	23.31	PASS
		15	0	23.22	PASS
16QAM	LCH	1	0	23.44	PASS
		1	7	23.51	PASS
		1	14	23.39	PASS
		8	0	22.39	PASS
		8	4	22.39	PASS
		8	7	22.38	PASS
		15	0	22.31	PASS
	MCH	1	0	23.20	PASS
		1	7	23.29	PASS
		1	14	23.17	PASS
		8	0	22.20	PASS
		8	4	22.20	PASS
		8	7	22.17	PASS
		15	0	22.09	PASS
	HCH	1	0	23.47	PASS
		1	7	23.53	PASS
		1	14	23.45	PASS
		8	0	22.25	PASS
		8	4	22.24	PASS
		8	7	22.23	PASS
		15	0	22.21	PASS

5.1.4.9 Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.38	PASS
		1	12	24.38	PASS
		1	24	24.31	PASS
		12	0	23.36	PASS
		12	6	23.33	PASS
		12	13	23.32	PASS
		25	0	23.35	PASS
	MCH	1	0	24.17	PASS
		1	12	23.96	PASS
		1	24	24.10	PASS
		12	0	23.24	PASS
		12	6	23.21	PASS
		12	13	23.23	PASS
		25	0	23.15	PASS
	HCH	1	0	24.33	PASS
		1	12	24.41	PASS
		1	24	24.35	PASS
		12	0	23.29	PASS
		12	6	23.29	PASS
		12	13	23.32	PASS
		25	0	23.27	PASS
16QAM	LCH	1	0	23.61	PASS
		1	12	23.65	PASS
		1	24	23.56	PASS
		12	0	22.53	PASS
		12	6	22.50	PASS
		12	13	22.53	PASS
		25	0	22.38	PASS
	MCH	1	0	23.42	PASS
		1	12	23.41	PASS
		1	24	23.35	PASS
		12	0	22.30	PASS
		12	6	22.30	PASS
		12	13	22.30	PASS
		25	0	22.15	PASS
	HCH	1	0	23.23	PASS
		1	12	23.27	PASS
		1	24	23.20	PASS
		12	0	22.31	PASS
		12	6	22.29	PASS
		12	13	22.29	PASS
		25	0	22.29	PASS

5.1.4.10 Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.33	PASS
		1	24	24.28	PASS
		1	49	24.22	PASS
		25	0	23.36	PASS
		25	12	23.36	PASS
		25	25	23.34	PASS
		50	0	23.35	PASS
	MCH	1	0	24.17	PASS
		1	24	23.88	PASS
		1	49	23.67	PASS
		25	0	23.20	PASS
		25	12	23.18	PASS
		25	25	23.17	PASS
		50	0	23.18	PASS
	HCH	1	0	24.23	PASS
		1	24	24.24	PASS
		1	49	24.29	PASS
		25	0	23.25	PASS
		25	12	23.24	PASS
		25	25	23.27	PASS
		50	0	23.26	PASS
16QAM	LCH	1	0	23.54	PASS
		1	24	23.50	PASS
		1	49	23.43	PASS
		25	0	22.36	PASS
		25	12	22.34	PASS
		25	25	22.31	PASS
		50	0	22.35	PASS
	MCH	1	0	23.38	PASS
		1	24	23.30	PASS
		1	49	23.11	PASS
		25	0	22.19	PASS
		25	12	22.16	PASS
		25	25	22.18	PASS
		50	0	22.17	PASS
	HCH	1	0	23.55	PASS
		1	24	23.54	PASS
		1	49	23.57	PASS
		25	0	22.26	PASS
		25	12	22.26	PASS
		25	25	22.27	PASS
		50	0	22.30	PASS

5.1.4.11 Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.34	PASS
		1	37	24.28	PASS
		1	74	24.23	PASS
		37	0	23.39	PASS
		37	18	23.34	PASS
		37	38	23.32	PASS
		75	0	23.40	PASS
	MCH	1	0	24.20	PASS
		1	37	23.82	PASS
		1	74	24.08	PASS
		37	0	23.36	PASS
		37	18	23.22	PASS
		37	38	23.17	PASS
		75	0	23.33	PASS
	HCH	1	0	24.23	PASS
		1	37	24.30	PASS
		1	74	24.35	PASS
		37	0	23.33	PASS
		37	18	23.34	PASS
		37	38	23.37	PASS
		75	0	23.36	PASS
16QAM	LCH	1	0	23.53	PASS
		1	37	23.53	PASS
		1	74	23.43	PASS
		37	0	22.40	PASS
		37	18	22.37	PASS
		37	38	22.34	PASS
		75	0	22.39	PASS
	MCH	1	0	23.39	PASS
		1	37	23.25	PASS
		1	74	23.32	PASS
		37	0	22.27	PASS
		37	18	22.23	PASS
		37	38	22.22	PASS
		75	0	22.25	PASS
	HCH	1	0	23.42	PASS
		1	37	23.48	PASS
		1	74	23.49	PASS
		37	0	22.31	PASS
		37	18	22.31	PASS
		37	38	22.32	PASS
		75	0	22.30	PASS

5.1.4.12 Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.49	PASS
		1	49	24.38	PASS
		1	99	24.26	PASS
		50	0	23.78	PASS
		50	25	23.33	PASS
		50	50	23.28	PASS
		100	0	23.40	PASS
	MCH	1	0	24.40	PASS
		1	49	24.01	PASS
		1	99	24.27	PASS
		50	0	23.23	PASS
		50	25	23.18	PASS
		50	50	23.18	PASS
		100	0	23.22	PASS
	HCH	1	0	24.12	PASS
		1	49	24.30	PASS
		1	99	24.44	PASS
		50	0	23.22	PASS
		50	25	23.23	PASS
		50	50	23.29	PASS
		100	0	23.27	PASS
16QAM	LCH	1	0	23.58	PASS
		1	49	23.48	PASS
		1	99	23.41	PASS
		50	0	22.33	PASS
		50	25	22.27	PASS
		50	50	22.23	PASS
		100	0	22.28	PASS
	MCH	1	0	23.48	PASS
		1	49	23.31	PASS
		1	99	23.38	PASS
		50	0	22.21	PASS
		50	25	22.13	PASS
		50	50	22.16	PASS
		100	0	22.20	PASS
	HCH	1	0	23.49	PASS
		1	49	23.54	PASS
		1	99	23.68	PASS
		50	0	22.26	PASS
		50	25	22.27	PASS
		50	50	22.32	PASS
		100	0	22.25	PASS

LTE Band 5:

5.1.4.13 Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	23.95	PASS
		1	3	23.98	PASS
		1	5	23.94	PASS
		3	0	23.36	PASS
		3	2	23.20	PASS
		3	3	23.26	PASS
		6	0	23.08	PASS
	MCH	1	0	23.86	PASS
		1	3	23.90	PASS
		1	5	23.91	PASS
		3	0	23.35	PASS
		3	2	23.26	PASS
		3	3	23.24	PASS
		6	0	22.96	PASS
	HCH	1	0	23.90	PASS
		1	3	23.71	PASS
		1	5	23.52	PASS
		3	0	22.71	PASS
		3	2	22.78	PASS
		3	3	22.78	PASS
		6	0	23.10	PASS
16QAM	LCH	1	0	22.72	PASS
		1	3	22.83	PASS
		1	5	22.72	PASS
		3	0	22.57	PASS
		3	2	22.58	PASS
		3	3	22.56	PASS
		6	0	21.75	PASS
	MCH	1	0	22.81	PASS
		1	3	22.85	PASS
		1	5	22.78	PASS
		3	0	22.45	PASS
		3	2	22.33	PASS
		3	3	22.42	PASS
		6	0	21.62	PASS
	HCH	1	0	23.21	PASS
		1	3	23.20	PASS
		1	5	23.07	PASS
		3	0	23.22	PASS
		3	2	23.10	PASS
		3	3	23.09	PASS
		6	0	22.05	PASS

5.1.4.14 Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	23.79	PASS
		1	7	23.68	PASS
		1	14	23.61	PASS
		8	0	22.93	PASS
		8	4	22.78	PASS
		8	7	22.78	PASS
		15	0	22.75	PASS
	MCH	1	0	23.68	PASS
		1	7	23.81	PASS
		1	14	23.86	PASS
		8	0	22.77	PASS
		8	4	22.89	PASS
		8	7	22.90	PASS
		15	0	22.73	PASS
	HCH	1	0	24.00	PASS
		1	7	24.00	PASS
		1	14	23.99	PASS
		8	0	23.08	PASS
		8	4	23.05	PASS
		8	7	23.07	PASS
		15	0	23.08	PASS
16QAM	LCH	1	0	22.60	PASS
		1	7	22.67	PASS
		1	14	22.70	PASS
		8	0	21.76	PASS
		8	4	21.76	PASS
		8	7	21.71	PASS
		15	0	21.63	PASS
	MCH	1	0	22.69	PASS
		1	7	22.71	PASS
		1	14	22.76	PASS
		8	0	21.74	PASS
		8	4	21.74	PASS
		8	7	21.72	PASS
		15	0	21.61	PASS
	HCH	1	0	23.32	PASS
		1	7	23.28	PASS
		1	14	23.08	PASS
		8	0	22.17	PASS
		8	4	22.16	PASS
		8	7	22.14	PASS
		15	0	22.13	PASS

5.1.4.15 Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	23.93	PASS
		1	12	23.69	PASS
		1	24	23.65	PASS
		12	0	22.70	PASS
		12	6	22.63	PASS
		12	13	22.55	PASS
		25	0	22.83	PASS
	MCH	1	0	23.93	PASS
		1	12	23.83	PASS
		1	24	23.80	PASS
		12	0	22.77	PASS
		12	6	22.79	PASS
		12	13	22.81	PASS
		25	0	22.68	PASS
	HCH	1	0	24.07	PASS
		1	12	24.10	PASS
		1	24	24.06	PASS
		12	0	23.17	PASS
		12	6	23.17	PASS
		12	13	23.13	PASS
		25	0	23.08	PASS
16QAM	LCH	1	0	22.83	PASS
		1	12	22.82	PASS
		1	24	23.06	PASS
		12	0	21.90	PASS
		12	6	21.81	PASS
		12	13	21.98	PASS
		25	0	21.70	PASS
	MCH	1	0	22.96	PASS
		1	12	22.82	PASS
		1	24	22.82	PASS
		12	0	21.88	PASS
		12	6	21.78	PASS
		12	13	21.74	PASS
		25	0	21.66	PASS
	HCH	1	0	23.43	PASS
		1	12	23.33	PASS
		1	24	23.26	PASS
		12	0	22.34	PASS
		12	6	22.37	PASS
		12	13	22.35	PASS
		25	0	22.20	PASS

5.1.4.16 Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.03	PASS
		1	24	24.04	PASS
		1	49	24.14	PASS
		25	0	23.33	PASS
		25	12	23.08	PASS
		25	25	23.06	PASS
		50	0	23.03	PASS
	MCH	1	0	23.70	PASS
		1	24	23.88	PASS
		1	49	23.93	PASS
		25	0	22.75	PASS
		25	12	22.73	PASS
		25	25	22.77	PASS
		50	0	22.73	PASS
	HCH	1	0	23.90	PASS
		1	24	23.97	PASS
		1	49	23.97	PASS
		25	0	22.94	PASS
		25	12	23.01	PASS
		25	25	23.09	PASS
		50	0	22.97	PASS
16QAM	LCH	1	0	22.86	PASS
		1	24	23.04	PASS
		1	49	22.90	PASS
		25	0	21.70	PASS
		25	12	21.77	PASS
		25	25	21.73	PASS
		50	0	21.80	PASS
	MCH	1	0	23.10	PASS
		1	24	22.84	PASS
		1	49	22.90	PASS
		25	0	21.86	PASS
		25	12	21.68	PASS
		25	25	21.61	PASS
		50	0	21.76	PASS
	HCH	1	0	23.00	PASS
		1	24	23.22	PASS
		1	49	23.16	PASS
		25	0	21.87	PASS
		25	12	22.02	PASS
		25	25	22.08	PASS
		50	0	21.76	PASS

LTE Band 12:

5.1.4.17 Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.58	PASS
		1	3	24.66	PASS
		1	5	24.58	PASS
		3	0	24.13	PASS
		3	2	24.10	PASS
		3	3	24.10	PASS
		6	0	23.14	PASS
	MCH	1	0	24.67	PASS
		1	3	24.56	PASS
		1	5	24.44	PASS
		3	0	24.24	PASS
		3	2	24.20	PASS
		3	3	24.23	PASS
		6	0	23.71	PASS
	HCH	1	0	24.67	PASS
		1	3	24.65	PASS
		1	5	24.70	PASS
		3	0	24.30	PASS
		3	2	24.27	PASS
		3	3	24.20	PASS
		6	0	23.67	PASS
16QAM	LCH	1	0	24.22	PASS
		1	3	24.32	PASS
		1	5	24.19	PASS
		3	0	24.13	PASS
		3	2	24.08	PASS
		3	3	24.11	PASS
		6	0	23.22	PASS
	MCH	1	0	24.01	PASS
		1	3	24.15	PASS
		1	5	24.01	PASS
		3	0	24.02	PASS
		3	2	23.93	PASS
		3	3	23.98	PASS
		6	0	22.80	PASS
	HCH	1	0	23.85	PASS
		1	3	23.97	PASS
		1	5	23.98	PASS
		3	0	23.68	PASS
		3	2	23.71	PASS
		3	3	23.76	PASS
		6	0	22.65	PASS

5.1.4.18 Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.96	PASS
		1	7	24.92	PASS
		1	14	24.85	PASS
		8	0	24.04	PASS
		8	4	24.00	PASS
		8	7	23.98	PASS
		15	0	23.98	PASS
	MCH	1	0	24.60	PASS
		1	7	24.66	PASS
		1	14	24.55	PASS
		8	0	23.75	PASS
		8	4	23.71	PASS
		8	7	23.69	PASS
		15	0	23.73	PASS
	HCH	1	0	24.63	PASS
		1	7	24.62	PASS
		1	14	24.67	PASS
		8	0	23.68	PASS
		8	4	23.66	PASS
		8	7	23.68	PASS
		15	0	23.69	PASS
16QAM	LCH	1	0	24.18	PASS
		1	7	24.10	PASS
		1	14	24.03	PASS
		8	0	23.05	PASS
		8	4	23.02	PASS
		8	7	22.99	PASS
		15	0	22.93	PASS
	MCH	1	0	23.94	PASS
		1	7	24.01	PASS
		1	14	23.89	PASS
		8	0	22.91	PASS
		8	4	22.87	PASS
		8	7	22.83	PASS
		15	0	22.84	PASS
	HCH	1	0	23.80	PASS
		1	7	23.79	PASS
		1	14	23.95	PASS
		8	0	22.64	PASS
		8	4	22.64	PASS
		8	7	22.70	PASS
		15	0	22.67	PASS

5.1.4.19 Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	25.10	PASS
		1	12	24.98	PASS
		1	24	24.85	PASS
		12	0	24.09	PASS
		12	6	24.05	PASS
		12	13	24.00	PASS
		25	0	23.97	PASS
	MCH	1	0	24.81	PASS
		1	12	24.71	PASS
		1	24	24.59	PASS
		12	0	23.90	PASS
		12	6	23.82	PASS
		12	13	23.74	PASS
		25	0	23.72	PASS
	HCH	1	0	24.79	PASS
		1	12	24.78	PASS
		1	24	24.75	PASS
		12	0	23.73	PASS
		12	6	23.68	PASS
		12	13	23.71	PASS
		25	0	23.66	PASS
16QAM	LCH	1	0	24.37	PASS
		1	12	24.23	PASS
		1	24	24.12	PASS
		12	0	23.18	PASS
		12	6	23.17	PASS
		12	13	23.18	PASS
		25	0	23.05	PASS
	MCH	1	0	24.15	PASS
		1	12	24.18	PASS
		1	24	23.97	PASS
		12	0	23.15	PASS
		12	6	23.12	PASS
		12	13	23.01	PASS
		25	0	22.85	PASS
	HCH	1	0	23.68	PASS
		1	12	23.60	PASS
		1	24	23.61	PASS
		12	0	22.81	PASS
		12	6	22.78	PASS
		12	13	22.79	PASS
		25	0	22.75	PASS

5.1.4.20 Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	25.18	PASS
		1	24	24.84	PASS
		1	49	24.63	PASS
		25	0	24.33	PASS
		25	12	23.95	PASS
		25	25	23.87	PASS
		50	0	23.99	PASS
	MCH	1	0	24.90	PASS
		1	24	24.69	PASS
		1	49	24.56	PASS
		25	0	23.92	PASS
		25	12	23.79	PASS
		25	25	23.67	PASS
		50	0	23.73	PASS
	HCH	1	0	24.96	PASS
		1	24	24.62	PASS
		1	49	24.57	PASS
		25	0	23.76	PASS
		25	12	23.67	PASS
		25	25	23.61	PASS
		50	0	23.76	PASS
16QAM	LCH	1	0	24.30	PASS
		1	24	24.05	PASS
		1	49	24.00	PASS
		25	0	23.08	PASS
		25	12	23.03	PASS
		25	25	22.96	PASS
		50	0	23.04	PASS
	MCH	1	0	24.11	PASS
		1	24	24.03	PASS
		1	49	23.72	PASS
		25	0	23.02	PASS
		25	12	22.88	PASS
		25	25	22.72	PASS
		50	0	22.84	PASS
	HCH	1	0	24.22	PASS
		1	24	23.93	PASS
		1	49	23.91	PASS
		25	0	22.84	PASS
		25	12	22.75	PASS
		25	25	22.70	PASS
		50	0	22.86	PASS

LTE Band 17:

5.1.4.21 Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.82	PASS
		1	12	24.78	PASS
		1	24	24.68	PASS
		12	0	23.94	PASS
		12	6	23.91	PASS
		12	13	23.81	PASS
		25	0	23.81	PASS
	MCH	1	0	24.73	PASS
		1	12	24.75	PASS
		1	24	24.70	PASS
		12	0	23.78	PASS
		12	6	23.72	PASS
		12	13	23.67	PASS
		25	0	23.72	PASS
	HCH	1	0	24.60	PASS
		1	12	24.60	PASS
		1	24	24.62	PASS
		12	0	23.67	PASS
		12	6	23.64	PASS
		12	13	23.70	PASS
		25	0	23.57	PASS
16QAM	LCH	1	0	23.17	PASS
		1	12	23.29	PASS
		1	24	23.11	PASS
		12	0	22.16	PASS
		12	6	22.16	PASS
		12	13	22.11	PASS
		25	0	22.96	PASS
	MCH	1	0	23.85	PASS
		1	12	23.76	PASS
		1	24	23.56	PASS
		12	0	22.88	PASS
		12	6	22.80	PASS
		12	13	22.74	PASS
		25	0	22.78	PASS
	HCH	1	0	23.69	PASS
		1	12	23.61	PASS
		1	24	23.73	PASS
		12	0	22.70	PASS
		12	6	22.73	PASS
		12	13	22.79	PASS
		25	0	22.70	PASS

5.1.4.22 Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Results
		Size	Offset		
QPSK	LCH	1	0	24.82	PASS
		1	24	24.62	PASS
		1	49	24.52	PASS
		25	0	23.90	PASS
		25	12	23.76	PASS
		25	25	23.65	PASS
		50	0	23.75	PASS
	MCH	1	0	24.77	PASS
		1	24	24.64	PASS
		1	49	24.54	PASS
		25	0	23.81	PASS
		25	12	23.70	PASS
		25	25	23.61	PASS
		50	0	23.76	PASS
	HCH	1	0	24.79	PASS
		1	24	24.61	PASS
		1	49	24.58	PASS
		25	0	23.76	PASS
		25	12	23.67	PASS
		25	25	23.58	PASS
		50	0	23.73	PASS
16QAM	LCH	1	0	23.76	PASS
		1	24	23.68	PASS
		1	49	23.69	PASS
		25	0	22.98	PASS
		25	12	22.81	PASS
		25	25	22.74	PASS
		50	0	22.84	PASS
	MCH	1	0	23.77	PASS
		1	24	23.63	PASS
		1	49	23.70	PASS
		25	0	22.89	PASS
		25	12	22.75	PASS
		25	25	22.68	PASS
		50	0	22.84	PASS
	HCH	1	0	23.93	PASS
		1	24	23.90	PASS
		1	49	23.91	PASS
		25	0	22.85	PASS
		25	12	22.75	PASS
		25	25	22.68	PASS
		50	0	22.82	PASS

5.2 Radiated Power (ERP/EIRP)

5.2.1 Limit

1) 22.913(a) - The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.
2) 27.50 (c) (10) the following power and antenna height requirements apply to stations transmitting in the 698–746 MHz band, the portable stations (hand-held devices) are limited to 3 watts ERP.
3) 27.50 (b)(10) Portable stations (hand-held devices) transmitting in the 746–757 MHz, 758–763 MHz, 776–793 MHz, and 805–806 MHz bands are limited to 3 watts ERP.
4) 27.50 (d)(4) The following power and antenna height requirements apply to stations transmitting in the 1710–1755 MHz and 2110–2155 MHz bands: Fixed, mobile, and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP.
5) 27.50(h) The following power limits shall apply in the BRS and EBS:

   (2) Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

5.2.2 Test procedure

6) The EUT was placed on an non-conductive turntable using a nonconductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
7) During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.
8) ERP in frequency band below 1GHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:

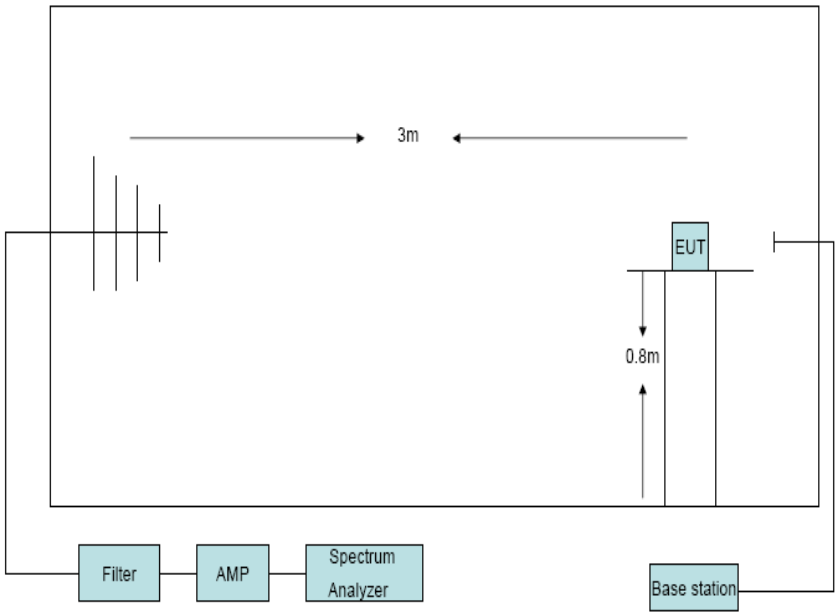
   ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable Loss (dB)

9) EIRP in frequency band above 1GHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:

   EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable Loss (dB)

10) The worse case was relating to the conducted output power.

5.2.3 Test setup



5.2.4 Test results

Radiated Spurious Measurement:

LTE Band 2

BW(MHz)	Modulation	Frequency (MHz)	Ant. Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)
1.4	QPSK	Low	H	10.15	2.42	10.48	18.21
			V	9.51	2.25	10.32	17.58
		Middle	H	10.14	2.43	10.49	18.20
			V	9.51	2.23	10.35	17.63
		High	H	10.13	2.46	10.46	18.13
			V	9.52	2.26	10.36	17.62
	16-QAM	Low	H	10.21	2.42	10.48	18.27
			V	9.73	2.25	10.32	17.80
		Middle	H	10.35	2.43	10.49	18.41
			V	9.75	2.23	10.35	17.87
		High	H	10.31	2.46	10.46	18.31
			V	9.75	2.26	10.36	17.85
3	QPSK	Low	H	10.10	2.42	10.48	18.16
			V	9.55	2.25	10.32	17.62
		Middle	H	10.15	2.43	10.49	18.21
			V	9.53	2.23	10.35	17.65
		High	H	10.12	2.46	10.46	18.12
			V	9.54	2.26	10.36	17.64
	16-QAM	Low	H	10.22	2.42	10.48	18.28
			V	9.74	2.25	10.32	17.81
		Middle	H	10.34	2.43	10.49	18.40
			V	9.70	2.23	10.35	17.82
		High	H	10.31	2.46	10.46	18.31
			V	9.71	2.26	10.36	17.81
5	QPSK	Low	H	10.12	2.42	10.48	18.18
			V	9.51	2.25	10.32	17.58
		Middle	H	10.15	2.43	10.49	18.21
			V	9.53	2.23	10.35	17.65
		High	H	10.12	2.46	10.46	18.12
			V	9.51	2.26	10.36	17.61
	16-QAM	Low	H	10.23	2.42	10.48	18.29
			V	9.74	2.25	10.32	17.81
		Middle	H	10.33	2.43	10.49	18.39
			V	9.73	2.23	10.35	17.85
		High	H	10.31	2.46	10.46	18.31
			V	9.73	2.26	10.36	17.83
10	QPSK	Low	H	10.13	2.42	10.48	18.19
			V	9.51	2.25	10.32	17.58
		Middle	H	10.14	2.43	10.49	18.20
			V	9.51	2.23	10.35	17.63
		High	H	10.11	2.46	10.46	18.11

			V	9.55	2.26	10.36	17.65
	16-QAM	Low	H	10.24	2.42	10.48	18.30
			V	9.70	2.25	10.32	17.77
		Middle	H	10.32	2.43	10.49	18.38
			V	9.71	2.23	10.35	17.83
		High	H	10.35	2.46	10.46	18.35
			V	9.72	2.26	10.36	17.82
15	QPSK	Low	H	10.11	2.42	10.48	18.17
			V	9.52	2.25	10.32	17.59
		Middle	H	10.12	2.43	10.49	18.18
			V	9.54	2.23	10.35	17.65
		High	H	10.12	2.46	10.46	18.12
			V	9.54	2.26	10.36	17.64
	16-QAM	Low	H	10.24	2.42	10.48	18.30
			V	9.72	2.25	10.32	17.79
		Middle	H	10.33	2.43	10.49	18.39
			V	9.70	2.23	10.35	17.82
		High	H	10.30	2.46	10.46	18.30
			V	9.71	2.26	10.36	17.81
20	QPSK	Low	H	10.53	2.42	10.48	18.59
			V	9.95	2.25	10.32	18.02
		Middle	H	10.53	2.43	10.49	18.59
			V	9.90	2.23	10.35	18.02
		High	H	10.51	2.46	10.46	18.51
			V	9.94	2.26	10.36	18.04
	16-QAM	Low	H	10.74	2.42	10.48	18.80
			V	10.02	2.25	10.32	18.09
		Middle	H	10.70	2.43	10.49	18.76
			V	10.04	2.23	10.35	18.16
		High	H	10.73	2.46	10.46	18.73
			V	10.02	2.26	10.36	18.12

LTE Band 4

BW(MHz)	Modulation	Frequency (MHz)	Ant. Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	EIRP (dBm)
1.4	QPSK	Low	H	11.85	2.41	9.83	19.27
			V	11.22	2.34	9.75	18.63
		Middle	H	11.82	2.32	9.77	19.27
			V	11.24	2.25	9.76	18.75
		High	H	11.82	2.32	9.76	19.26
			V	11.22	2.24	9.76	18.74
	16-QAM	Low	H	11.91	2.41	9.83	19.33
			V	11.41	2.34	9.75	18.82
		Middle	H	12.02	2.32	9.77	19.47
			V	11.43	2.25	9.76	18.94
		High	H	12.03	2.32	9.76	19.47

			V	11.42	2.24	9.76	18.94
3	QPSK	Low	H	11.85	2.41	9.83	19.27
			V	11.25	2.34	9.75	18.66
		Middle	H	11.80	2.32	9.77	19.25
			V	11.21	2.25	9.76	18.72
		High	H	11.84	2.32	9.76	19.28
			V	11.24	2.24	9.76	18.76
	16-QAM	Low	H	11.91	2.41	9.83	19.33
			V	11.41	2.34	9.75	18.82
		Middle	H	12.01	2.32	9.77	19.46
			V	11.45	2.25	9.76	18.96
		High	H	12.04	2.32	9.76	19.48
			V	11.44	2.24	9.76	18.96
5	QPSK	Low	H	11.83	2.41	9.83	19.25
			V	11.21	2.34	9.75	18.62
		Middle	H	11.81	2.32	9.77	19.26
			V	11.24	2.25	9.76	18.75
		High	H	11.83	2.32	9.76	19.27
			V	11.24	2.24	9.76	18.76
	16-QAM	Low	H	11.91	2.41	9.83	19.33
			V	11.42	2.34	9.75	18.83
		Middle	H	12.01	2.32	9.77	19.46
			V	11.45	2.25	9.76	18.96
		High	H	12.04	2.32	9.76	19.48
			V	11.45	2.24	9.76	18.97
10	QPSK	Low	H	11.83	2.41	9.83	19.25
			V	11.21	2.34	9.75	18.62
		Middle	H	11.80	2.32	9.77	19.25
			V	11.23	2.25	9.76	18.74
		High	H	11.80	2.32	9.76	19.24
			V	11.22	2.24	9.76	18.74
	16-QAM	Low	H	11.94	2.41	9.83	19.36
			V	11.42	2.34	9.75	18.83
		Middle	H	12.03	2.32	9.77	19.48
			V	11.42	2.25	9.76	18.93
		High	H	12.03	2.32	9.76	19.47
			V	11.41	2.24	9.76	18.93
15	QPSK	Low	H	11.82	2.41	9.83	19.24
			V	11.24	2.34	9.75	18.65

		Middle	H	11.82	2.32	9.77	19.27
			V	11.24	2.25	9.76	18.75
		High	H	11.81	2.32	9.76	19.25
			V	11.23	2.24	9.76	18.75
	16-QAM	Low	H	11.93	2.41	9.83	19.35
			V	11.44	2.34	9.75	18.85
		Middle	H	12.05	2.32	9.77	19.50
			V	11.41	2.25	9.76	18.92
		High	H	12.05	2.32	9.76	19.49
			V	11.43	2.24	9.76	18.95
20	QPSK	Low	H	12.22	2.41	9.83	19.64
			V	11.65	2.34	9.75	19.06
		Middle	H	12.21	2.32	9.77	19.66
			V	11.61	2.25	9.76	19.12
		High	H	12.22	2.32	9.76	19.66
			V	11.60	2.24	9.76	19.12
	16-QAM	Low	H	12.44	2.41	9.83	19.86
			V	11.73	2.34	9.75	19.14
		Middle	H	12.42	2.32	9.77	19.87
			V	11.72	2.25	9.76	19.23
		High	H	12.43	2.32	9.76	19.87
			V	11.74	2.24	9.76	19.26

LTE Band 5

BW(MHz)	Modulation	Frequency (MHz)	Ant. Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	ERP (dBm)
1.4	QPSK	Low	H	12.89	1.62	7.44	18.71
			V	12.43	1.53	7.31	18.21
		Middle	H	12.84	1.54	7.40	18.70
			V	12.23	1.42	7.34	18.15
		High	H	12.66	1.54	7.42	18.54
			V	12.05	1.46	7.26	17.85
	16-QAM	Low	H	13.06	1.62	7.44	18.88
			V	12.48	1.53	7.31	18.26
		Middle	H	12.91	1.54	7.40	18.77
			V	12.72	1.42	7.34	18.64
		High	H	13.13	1.54	7.42	19.01
			V	12.48	1.46	7.26	18.28

3	QPSK	Low	H	12.85	1.62	7.44	18.67
			V	12.36	1.53	7.31	18.14
		Middle	H	12.81	1.54	7.40	18.67
			V	12.31	1.42	7.34	18.23
		High	H	12.83	1.54	7.42	18.71
			V	12.19	1.46	7.26	17.99
	16-QAM	Low	H	13.07	1.62	7.44	18.89
			V	12.63	1.53	7.31	18.41
		Middle	H	13.01	1.54	7.40	18.87
			V	12.70	1.42	7.34	18.62
		High	H	13.22	1.54	7.42	19.10
			V	12.68	1.46	7.26	18.48
5	QPSK	Low	H	13.08	1.62	7.44	18.90
			V	12.20	1.53	7.31	17.98
		Middle	H	12.69	1.54	7.40	18.55
			V	12.19	1.42	7.34	18.11
		High	H	12.63	1.54	7.42	18.51
			V	12.09	1.46	7.26	17.89
	16-QAM	Low	H	13.07	1.62	7.44	18.89
			V	12.29	1.53	7.31	18.07
		Middle	H	13.28	1.54	7.40	19.14
			V	12.57	1.42	7.34	18.49
		High	H	12.89	1.54	7.42	18.77
			V	12.66	1.46	7.26	18.46
10	QPSK	Low	H	12.63	1.62	7.44	18.45
			V	12.18	1.53	7.31	17.96
		Middle	H	12.95	1.54	7.40	18.81
			V	12.29	1.42	7.34	18.21
		High	H	12.74	1.54	7.42	18.62
			V	12.27	1.46	7.26	18.07
	16-QAM	Low	H	12.79	1.62	7.44	18.61
			V	12.60	1.53	7.31	18.38
		Middle	H	13.14	1.54	7.40	19.00
			V	12.44	1.42	7.34	18.36
		High	H	13.18	1.54	7.42	19.06
			V	12.44	1.46	7.26	18.24

LTE Band 12

BW(MHz)	Modulation	Frequency (MHz)	Ant. Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	ERP (dBm)
1.4	QPSK	Low	H	13.13	1.46	7.34	19.01
			V	12.96	1.41	7.30	18.85
		Middle	H	13.11	1.51	7.37	18.97
			V	12.98	1.43	7.32	18.87
		High	H	13.16	1.42	7.41	19.15
			V	12.93	1.39	7.35	18.89
	16-QAM	Low	H	13.12	1.46	7.34	19.00
			V	12.97	1.41	7.30	18.86
		Middle	H	13.16	1.51	7.37	19.02
			V	12.98	1.43	7.32	18.87
		High	H	13.16	1.42	7.41	19.15
			V	12.96	1.39	7.35	18.92
3	QPSK	Low	H	13.16	1.46	7.34	19.04
			V	12.95	1.41	7.30	18.84
		Middle	H	13.16	1.51	7.37	19.02
			V	12.94	1.43	7.32	18.83
		High	H	13.14	1.42	7.41	19.13
			V	12.94	1.39	7.35	18.90
	16-QAM	Low	H	13.11	1.46	7.34	18.99
			V	12.95	1.41	7.30	18.84
		Middle	H	13.16	1.51	7.37	19.02
			V	12.99	1.43	7.32	18.88
		High	H	13.15	1.42	7.41	19.14
			V	12.99	1.39	7.35	18.95
5	QPSK	Low	H	13.13	1.46	7.34	19.01
			V	12.99	1.41	7.30	18.88
		Middle	H	13.14	1.51	7.37	19.00
			V	12.92	1.43	7.32	18.81
		High	H	13.16	1.42	7.41	19.15
			V	12.97	1.39	7.35	18.93
	16-QAM	Low	H	13.12	1.46	7.34	19.00
			V	12.93	1.41	7.30	18.82
		Middle	H	13.15	1.51	7.37	19.01
			V	12.96	1.43	7.32	18.85
		High	H	13.14	1.42	7.41	19.13

			V	12.95	1.39	7.35	18.91
10	QPSK	Low	H	13.57	1.46	7.34	19.45
			V	13.26	1.41	7.30	19.15
		Middle	H	13.58	1.51	7.37	19.44
			V	13.28	1.43	7.32	19.17
		High	H	13.57	1.42	7.41	19.56
			V	13.26	1.39	7.35	19.22
	16-QAM	Low	H	13.76	1.46	7.34	19.64
			V	13.54	1.41	7.30	19.43
		Middle	H	13.76	1.51	7.37	19.62
			V	13.54	1.43	7.32	19.43
		High	H	13.73	1.42	7.41	19.72
			V	13.54	1.39	7.35	19.50

LTE Band 17

BW(MHz)	Modulation	Frequency (MHz)	Ant. Pol. (H/V)	SG Reading (dBm)	Cable Loss (dB)	Gain (dBi)	ERP (dBm)
5	QPSK	Low	H	13.04	1.35	7.21	18.90
			V	12.12	1.29	7.16	17.99
		Middle	H	12.68	1.41	7.26	18.53
			V	12.13	1.30	7.17	18.00
		High	H	12.59	1.29	7.30	18.61
			V	12.02	1.28	7.24	17.98
	16-QAM	Low	H	12.99	1.35	7.21	18.85
			V	12.26	1.29	7.16	18.13
		Middle	H	13.22	1.41	7.26	19.08
			V	12.51	1.30	7.17	18.38
		High	H	12.83	1.29	7.30	18.85
			V	12.62	1.28	7.24	18.58
10	QPSK	Low	H	12.60	1.35	7.21	18.46
			V	12.15	1.29	7.16	18.02
		Middle	H	12.89	1.41	7.26	18.74
			V	12.21	1.30	7.17	18.07
		High	H	12.72	1.29	7.30	18.74
			V	12.22	1.28	7.24	18.17
	16-QAM	Low	H	12.71	1.35	7.21	18.57
			V	12.52	1.29	7.16	18.39
		Middle	H	13.08	1.41	7.26	18.94

			V	12.39	1.30	7.17	18.25
		High	H	13.09	1.29	7.30	19.11
			V	12.40	1.28	7.24	18.36

5.3 **Peak-to-Average Ratio**

5.3.1 Limit

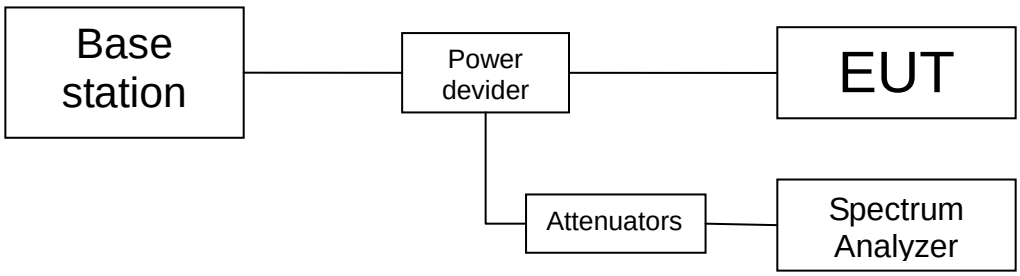
Not exceed 13 dB

5.3.2 Test procedure

FCC: CFR Part 24.232 (d), 27.50(a)
The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.
According to KDB 971168 5.7.1:

a)Refer to instrument’s analyzer instruction manual for details on how to use the power statistics/CCDF function;
b) Set resolution/measurement bandwidth ≥ signal’s occupied bandwidth;
c) Set the number of counts to a value that stabilizes the measured CCDF curve;
d) Set the measurement interval to 1 ms
e)Record the maximum PAPR level associated with a probability of 0.1%

5.3.3 Test setup



5.3.4 Test results

Note: All mode has been tested, only worst data shown in this report.

LTE Band 2, Middle Channel

BW(MHz)	Modulation	RB Size	RB Offset	PAPR
20	QPSK	100	0	4.56
	16QAM	100	0	5.29

LTE Band 4, Middle Channel

BW(MHz)	Modulation	RB Size	RB Offset	PAPR
20	QPSK	100	0	4.81
	16QAM	100	0	5.51

LTE Band 5, Middle Channel

BW(MHz)	Modulation	RB Size	RB Offset	PAPR
10	QPSK	50	0	4.00
	16QAM	50	0	4.79

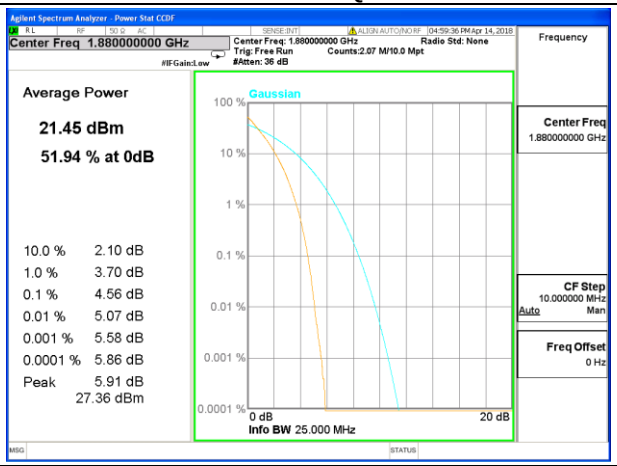
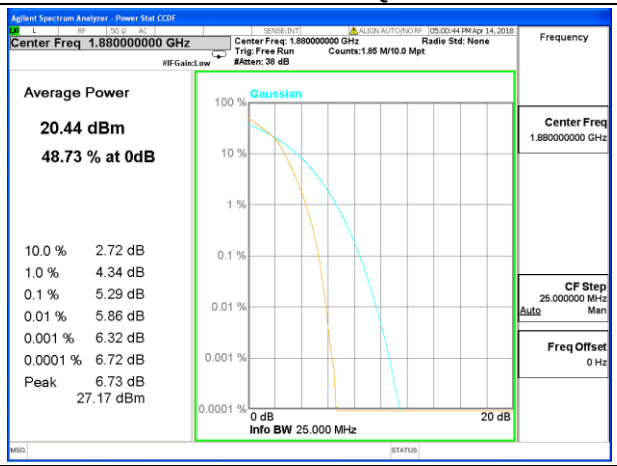
LTE Band 12, Middle Channel

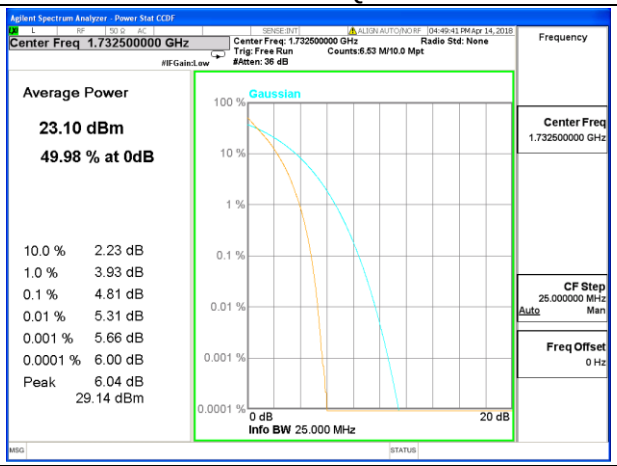
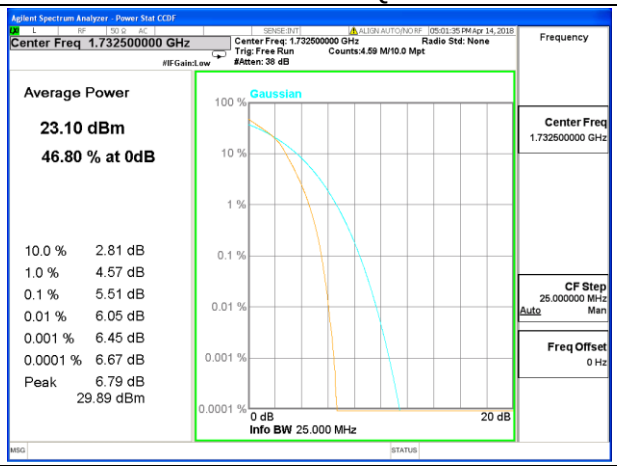
BW(MHz)	Modulation	RB Size	RB Offset	PAPR
10	QPSK	50	0	5.35
	16QAM	50	0	6.10

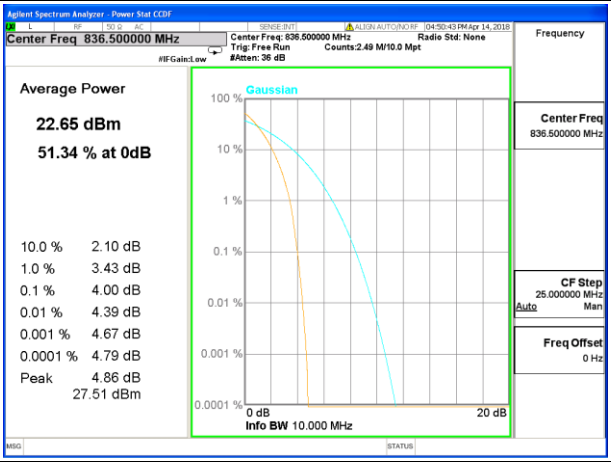
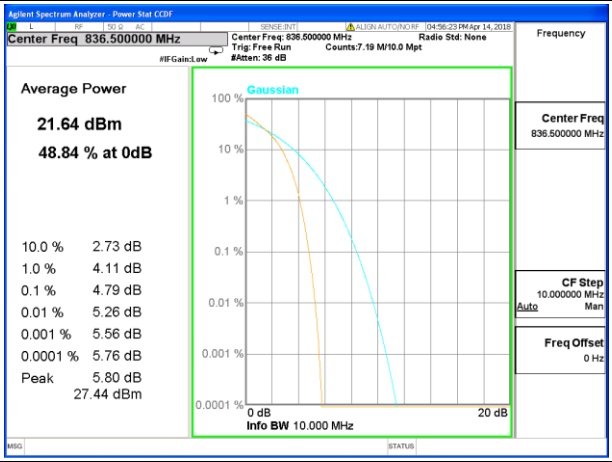
LTE Band 17, Middle Channel

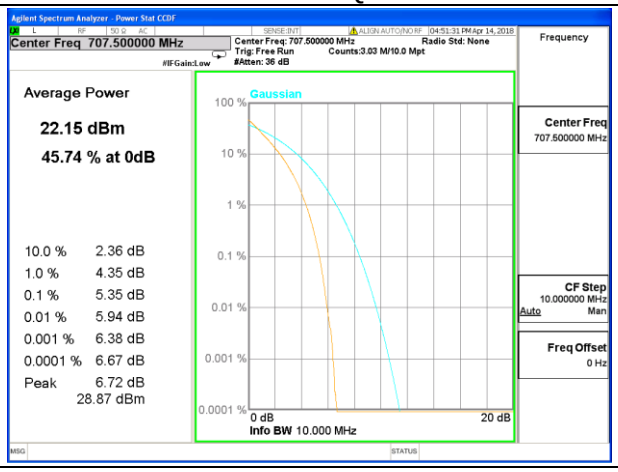
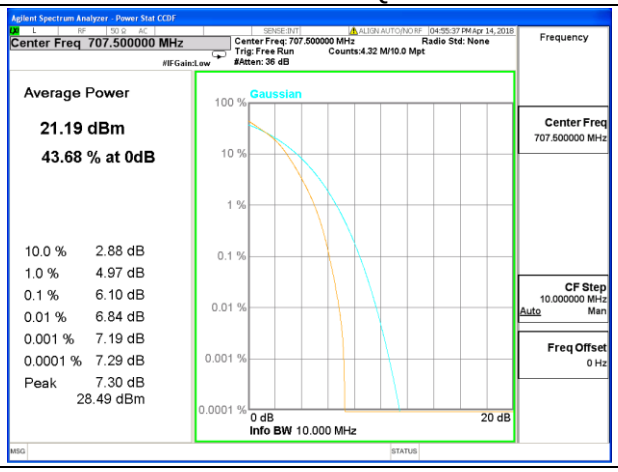
BW(MHz)	Modulation	RB Size	RB Offset	PAPR
10	QPSK	50	0	5.46
	16QAM	50	0	6.17

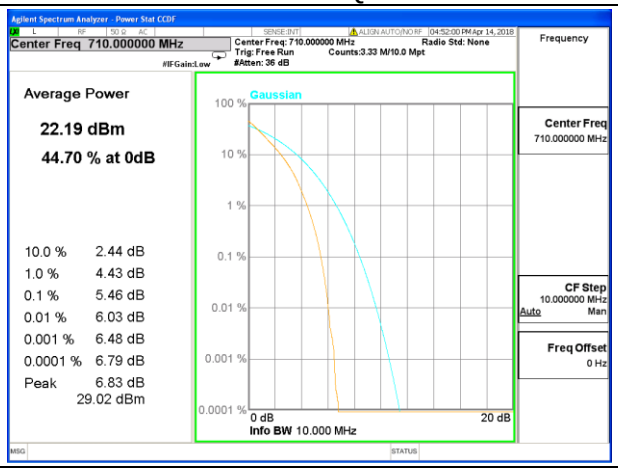
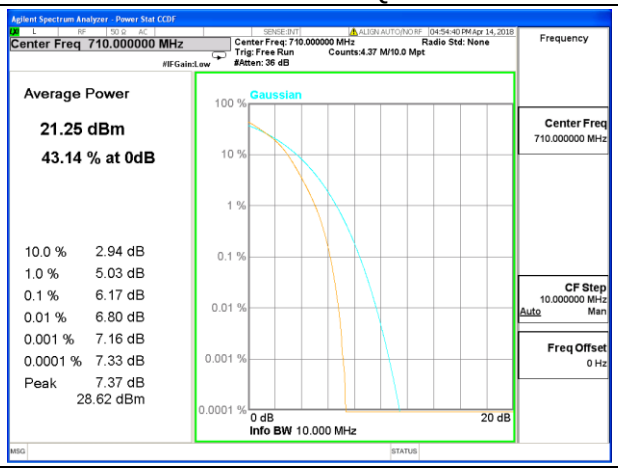
Test plots

LTE Band 2 Middle channel	
Modulation:QPSK	Modulation:16QAM
	

LTE Band 4 Middle channel	
Modulation:QPSK	Modulation:16QAM
	

LTE Band 5 Middle channel	
Modulation:QPSK	Modulation:16QAM
	

LTE Band 12 Middle channel	
Modulation:QPSK	Modulation:16QAM
	

LTE Band 17 Middle channel	
Modulation:QPSK	Modulation:16QAM
	

5.4 **99% and -26 dB Occupied Bandwidth**

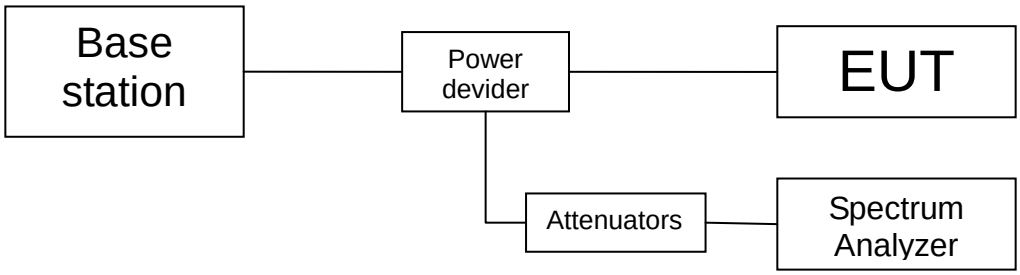
5.4.1 Limit

N/A

5.4.2 Test procedure

1. The EUT' RF output port was connected to Spectrum Analyzer and Base Station via power divider.
2. Spectrum analyzer's occupied bandwidth measure function was used to measure 99% bandwidth and -26dBc bandwidth

5.4.3 Test setup



5.4.4 Test results

Note1: all modes of RB configurations have been tested, and only worst configuration data listed.
LTE Band 2

BW(MHz)	Channel	QPSK		16QAM	
		99% OBW (MHz)	26dB Bandwidth (MHz)	99% OBW (MHz)	26dB Bandwidth (MHz)
1.4	Low	1.097	1.405	1.096	1.462
	Middle	1.098	1.301	1.097	1.301
	High	1.097	1.839	1.096	1.841
3	Low	2.996	2.978	2.701	2.962
	Middle	2.698	2.926	2.697	2.998
	High	2.720	2.968	2.721	2.978
5	Low	4.486	4.999	4.485	4.913
	Middle	4.953	4.929	4.499	4.929
	High	4.501	4.984	4.509	4.974
10	Low	8.974	9.800	8.974	9.893
	Middle	8.952	9.730	8.958	9.689
	High	8.972	9.828	8.970	9.902
15	Low	13.550	16.310	13.558	16.240
	Middle	13.513	16.640	13.562	15.530
	High	13.550	17.350	13.563	17.870
20	Low	17.973	19.620	17.973	19.080
	Middle	17.941	19.460	17.947	19.820
	High	17.953	19.540	17.946	19.300

LTE Band 4

BW(MHz)	Channel	QPSK		16QAM	
		99% OBW (MHz)	26dB Bandwidth (MHz)	99% OBW (MHz)	26dB Bandwidth (MHz)
1.4	Low	1.09	1.26	1.09	1.26
	Middle	1.09	1.28	1.09	1.27
	High	1.08	1.24	1.08	1.24
3	Low	2.68	2.99	2.68	2.93
	Middle	2.68	2.90	2.68	2.90
	High	2.69	2.89	2.69	2.89
5	Low	4.48	5.01	4.47	5.01
	Middle	4.48	4.94	4.88	4.95
	High	4.49	4.99	4.49	4.97
10	Low	8.95	9.72	8.95	9.78
	Middle	8.94	9.63	8.94	9.65
	High	8.95	9.69	8.94	9.69
15	Low	13.48	14.76	13.47	14.76
	Middle	13.43	14.68	13.44	14.75
	High	13.43	14.74	13.43	14.78
20	Low	17.88	19.20	17.88	19.27
	Middle	17.86	19.28	17.86	19.13
	High	17.91	19.26	17.93	19.24

LTE Band 5

BW(MHz)	Channel	QPSK		16QAM	
		99% OBW (MHz)	26dB Bandwidth (MHz)	99% OBW (MHz)	26dB Bandwidth (MHz)
1.4	Low	1.289	1.793	1.126	1.972
	Middle	1.456	1.792	1.335	1.977
	High	1.083	1.242	1.087	1.271
3	Low	2.730	2.927	3.052	3.501
	Middle	3.040	3.218	3.064	3.540
	High	2.683	2.924	2.697	2.979
5	Low	4.536	5.088	4.531	5.698
	Middle	6.086	5.942	6.997	5.898
	High	4.476	4.925	4.480	5.053
10	Low	8.976	11.070	8.997	11.890
	Middle	11.014	16.590	11.530	17.030
	High	9.001	14.880	9.030	15.350

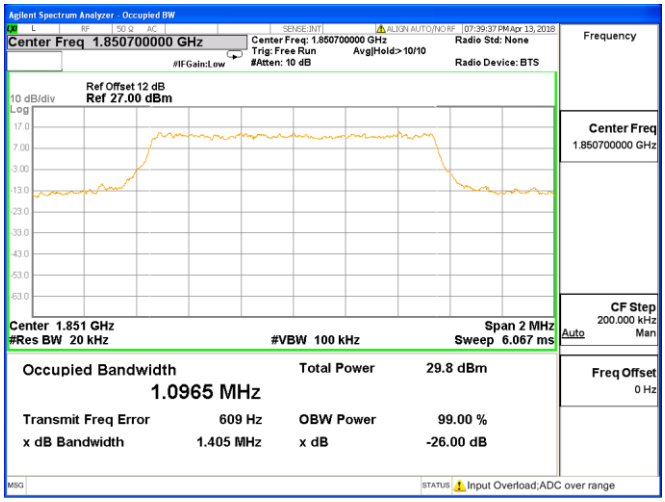
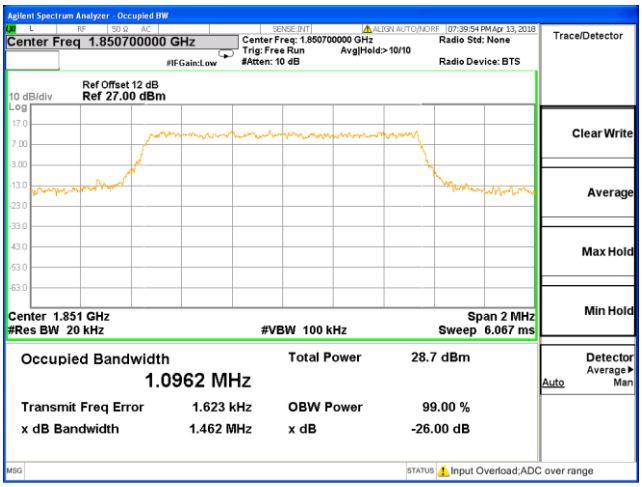
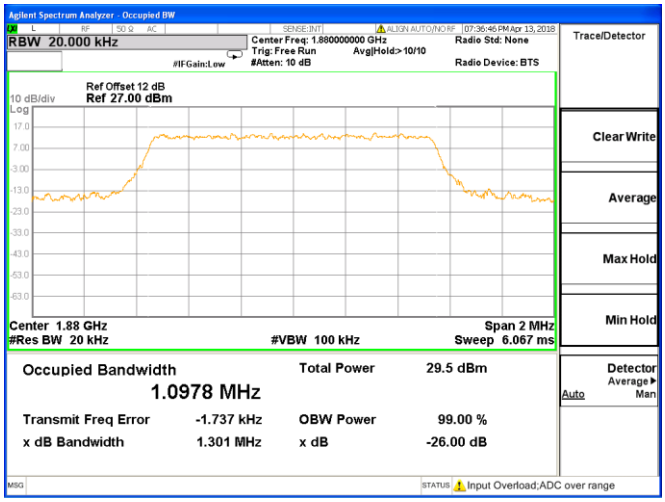
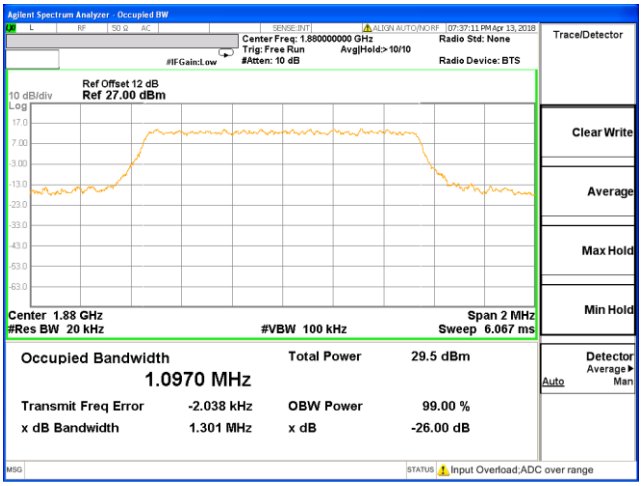
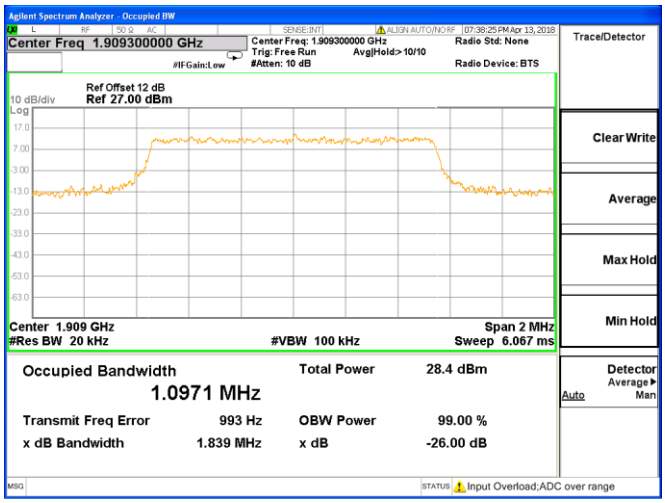
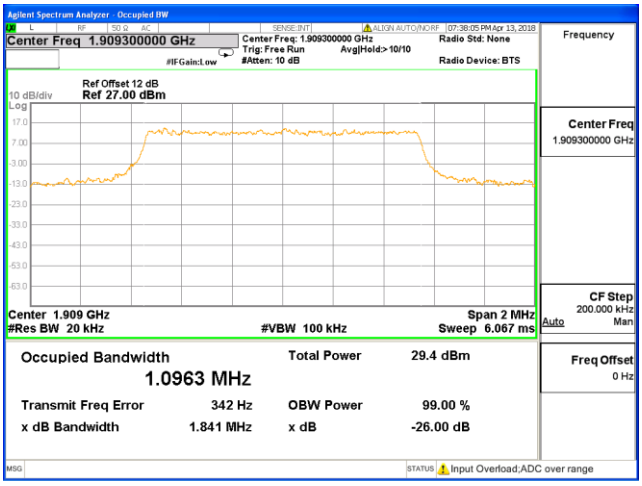
LTE Band 12

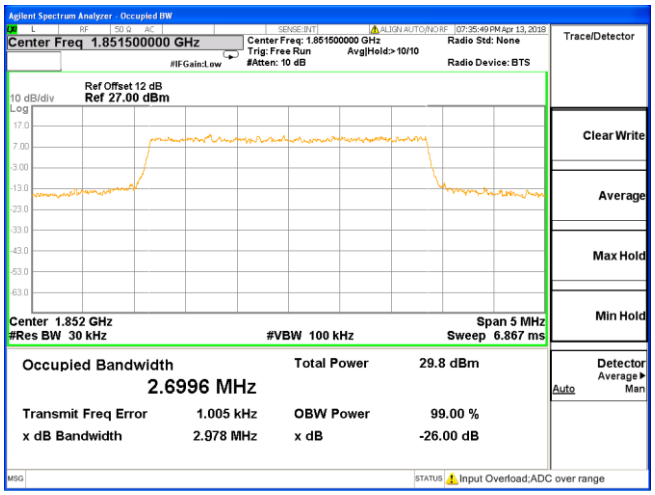
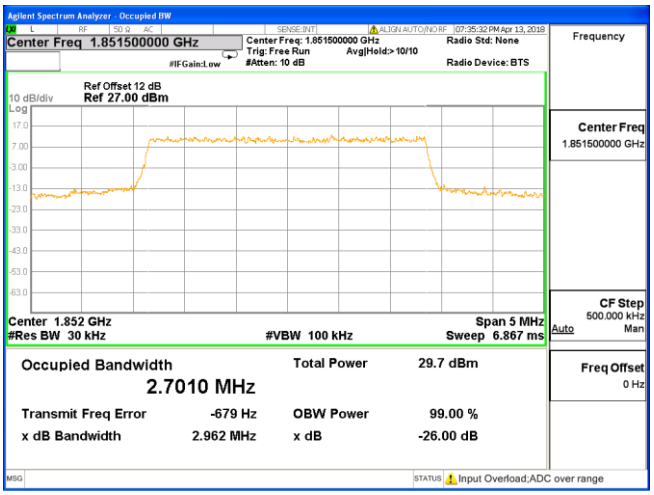
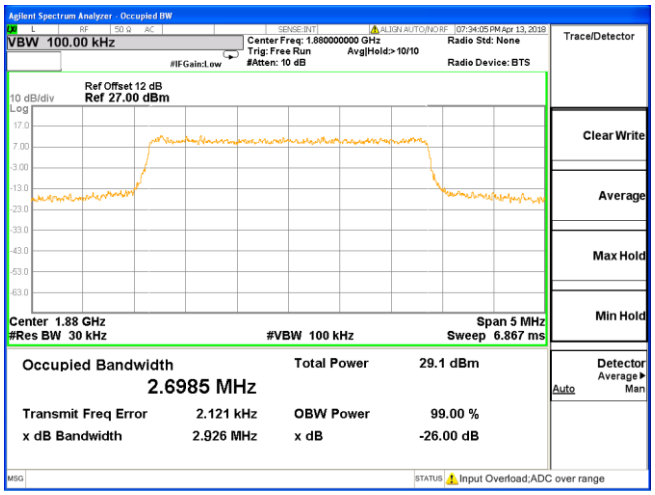
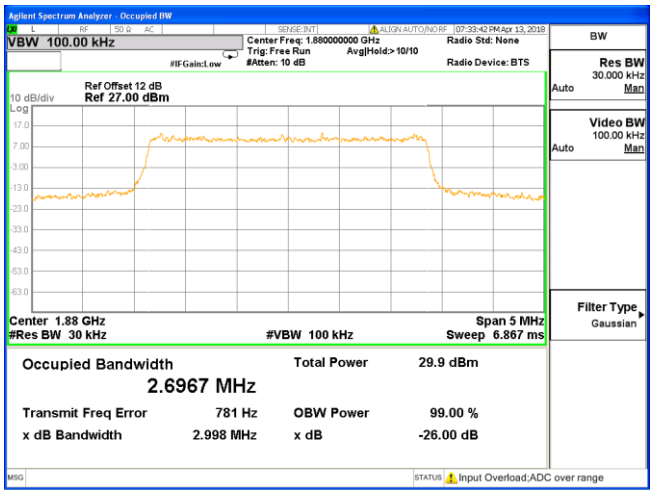
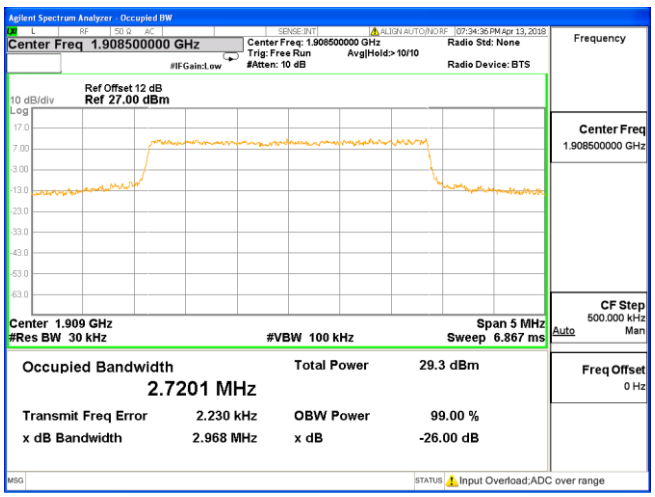
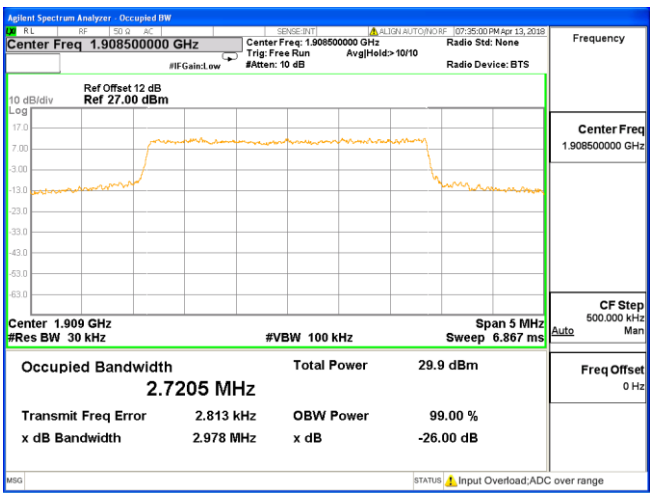
BW(MHz)	Channel	QPSK		16QAM	
		99% OBW (MHz)	26dB Bandwidth (MHz)	99% OBW (MHz)	26dB Bandwidth (MHz)
1.4	Low	1.09	1.24	1.09	1.24
	Middle	1.08	1.25	1.08	1.26
	High	1.08	1.27	1.08	1.27
3	Low	2.68	2.92	2.68	2.91
	Middle	2.68	2.91	2.68	2.90
	High	2.60	2.89	2.68	2.89
5	Low	4.48	4.91	4.47	4.93
	Middle	4.48	4.89	4.48	4.96
	High	4.49	4.92	4.49	4.91
10	Low	8.95	9.74	8.95	9.71
	Middle	8.92	9.65	8.92	9.64
	High	8.98	9.71	8.98	9.74

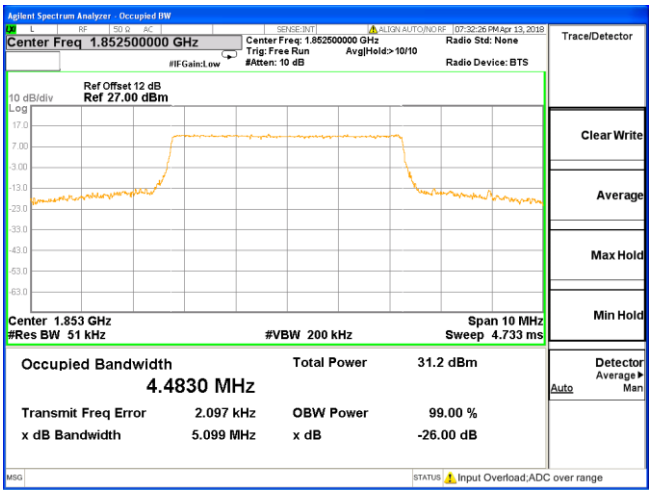
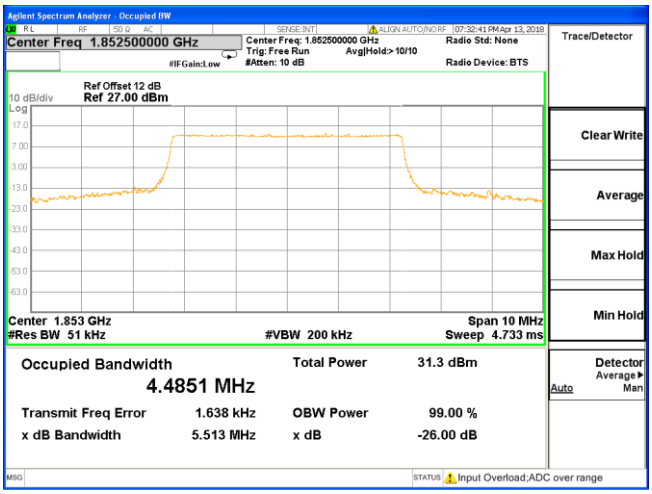
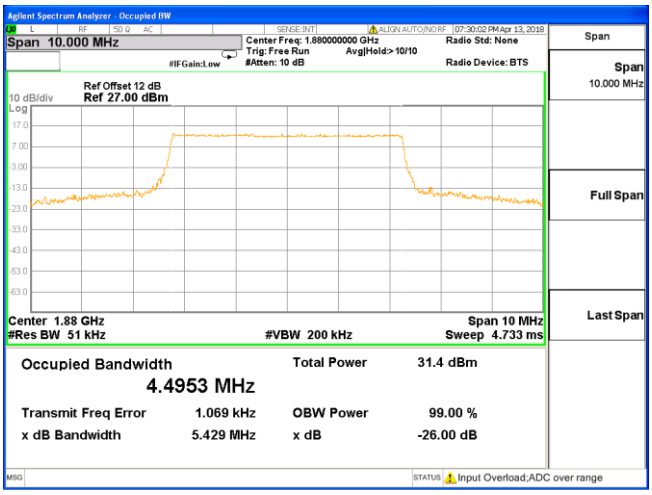
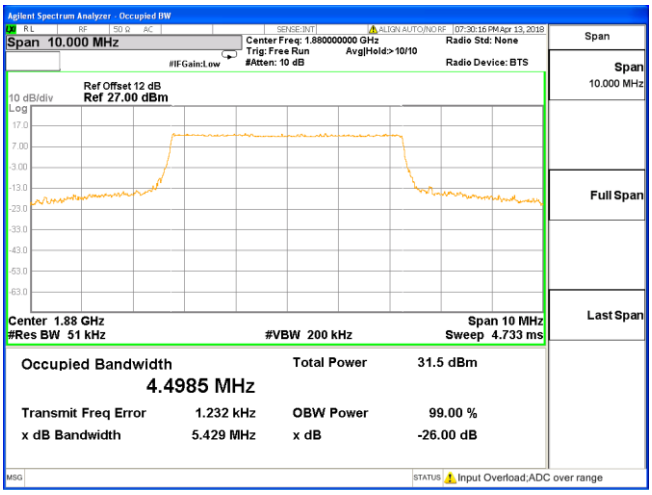
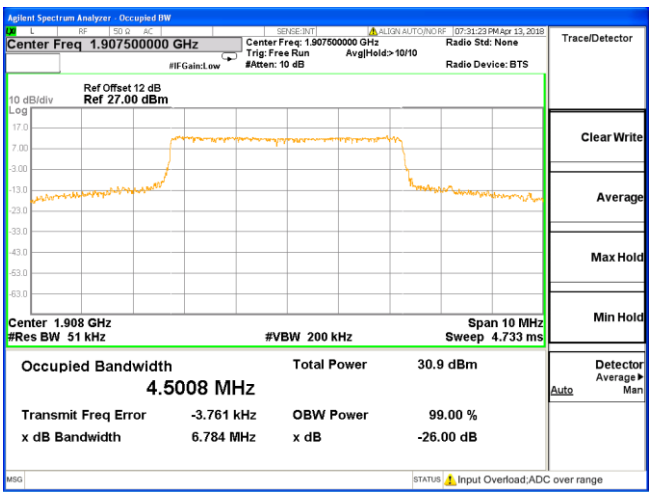
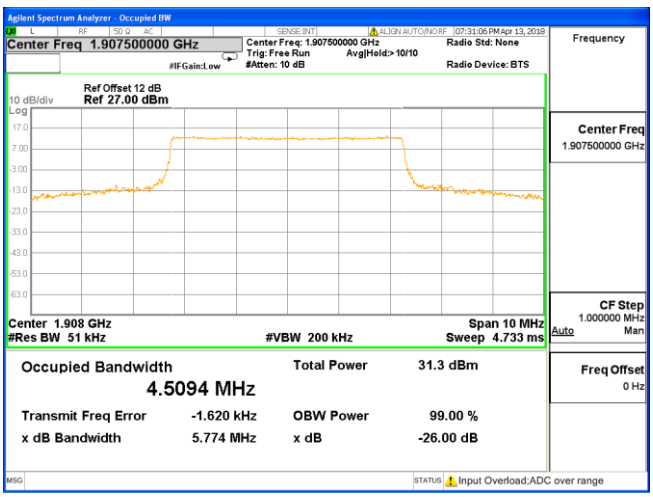
LTE Band 17

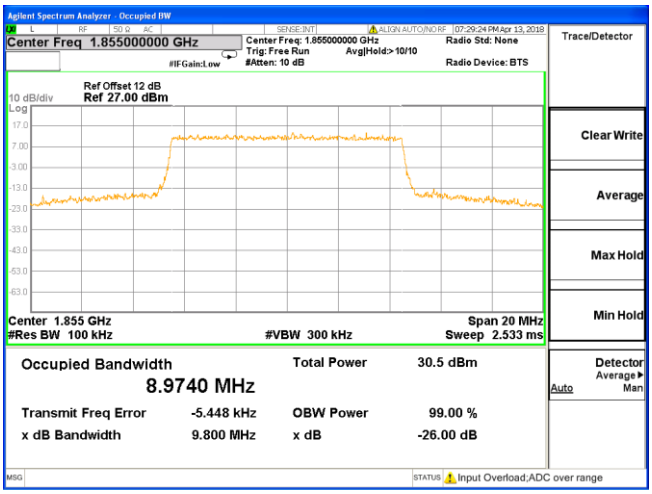
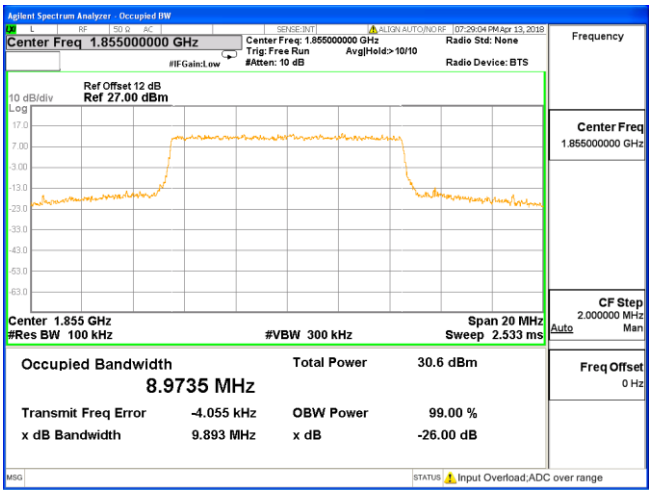
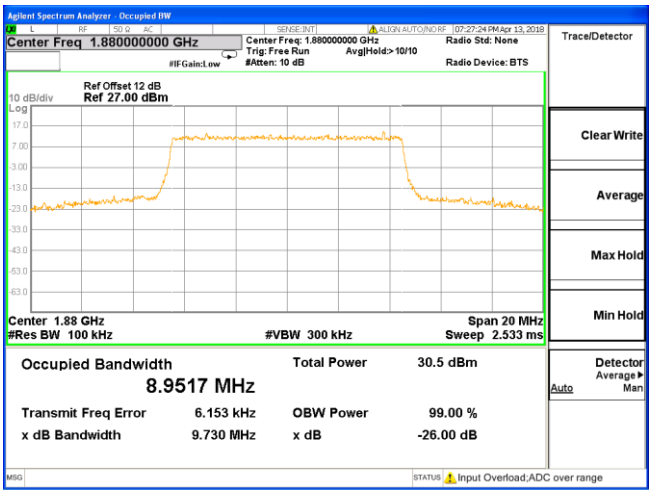
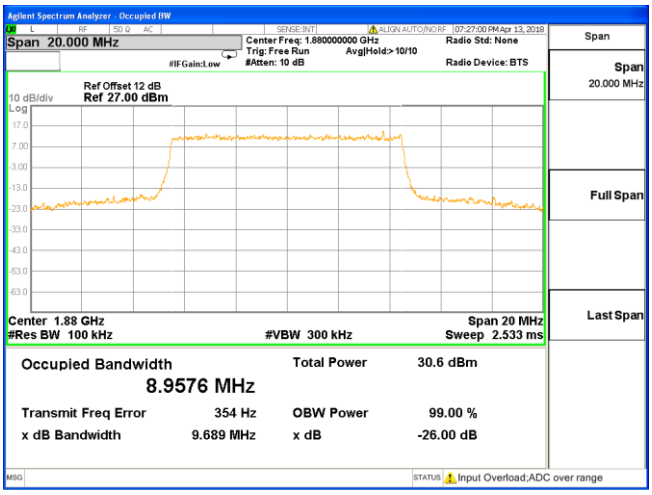
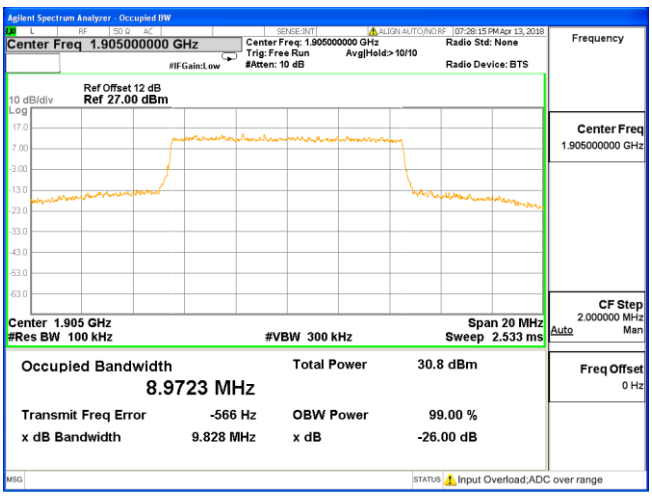
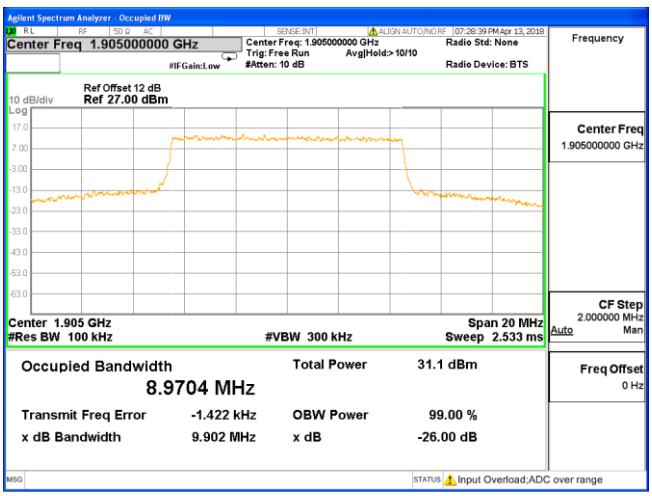
BW(MHz)	Channel	QPSK		16QAM	
		99% OBW (MHz)	26dB Bandwidth (MHz)	99% OBW (MHz)	26dB Bandwidth (MHz)
5	Low	4.468	4.896	4.461	4.894
	Middle	4.481	4.934	4.489	4.956
	High	4.485	4.927	4.475	4.915
10	Low	8.937	9.66.	8.939	9.777
	Middle	8.961	9.703	8.959	9.634
	High	8.982	9.751	8.973	9.758

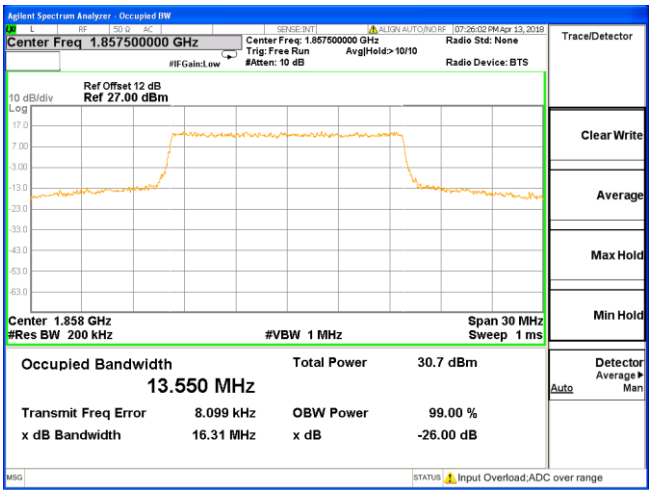
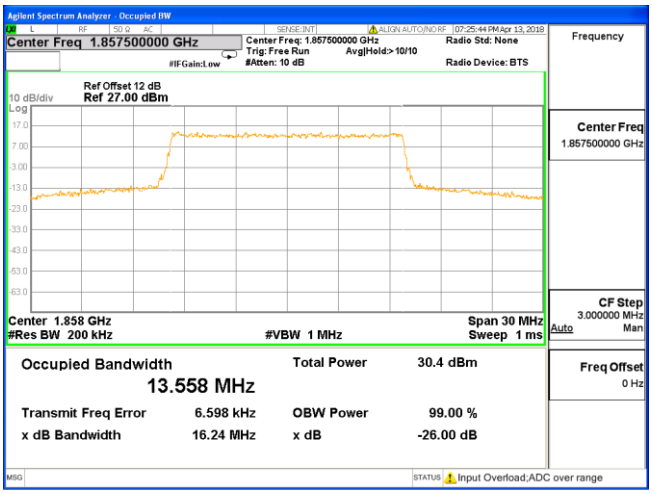
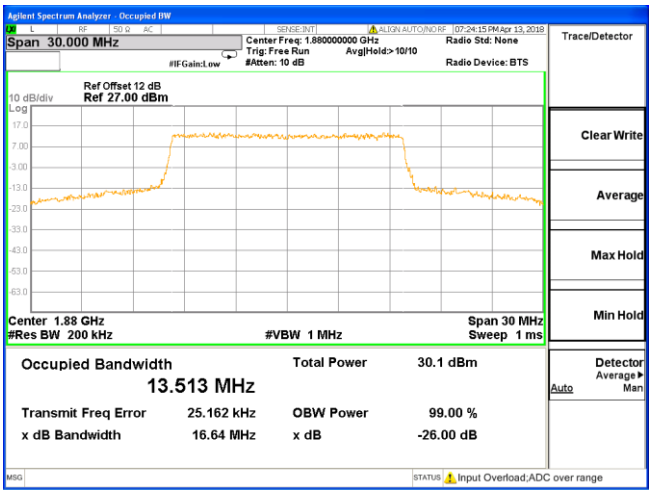
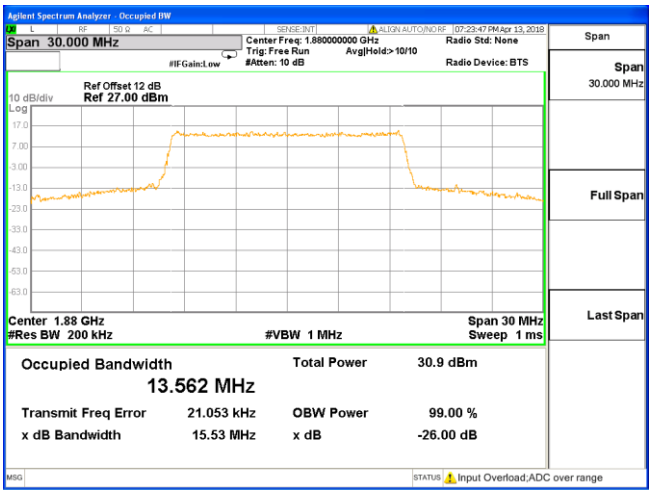
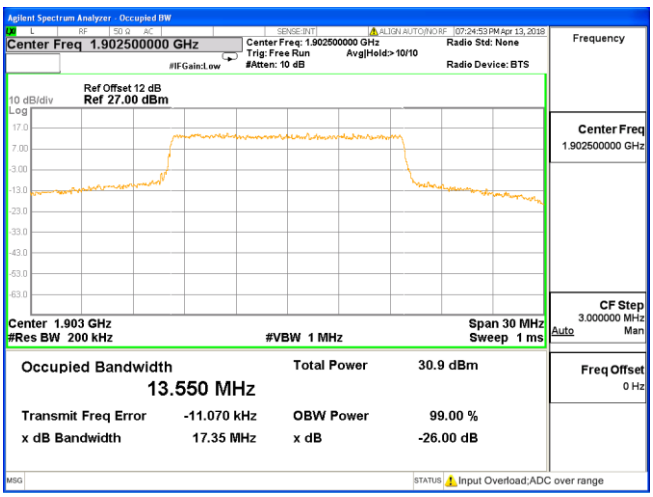
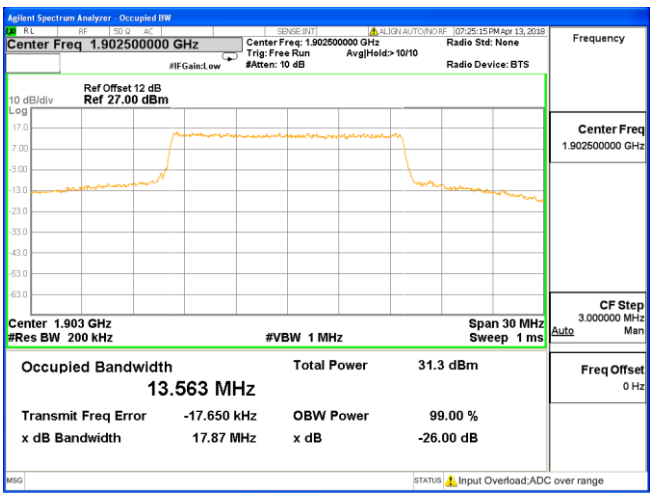
Test plots

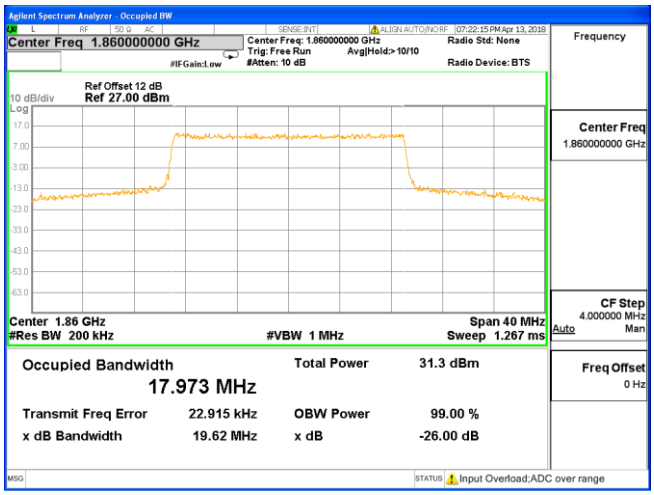
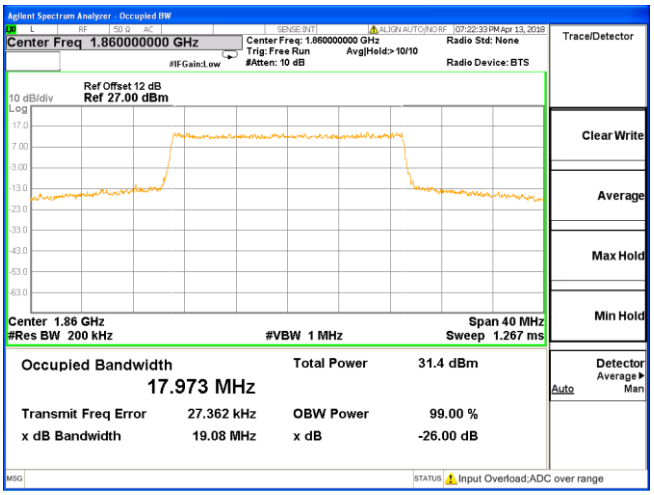
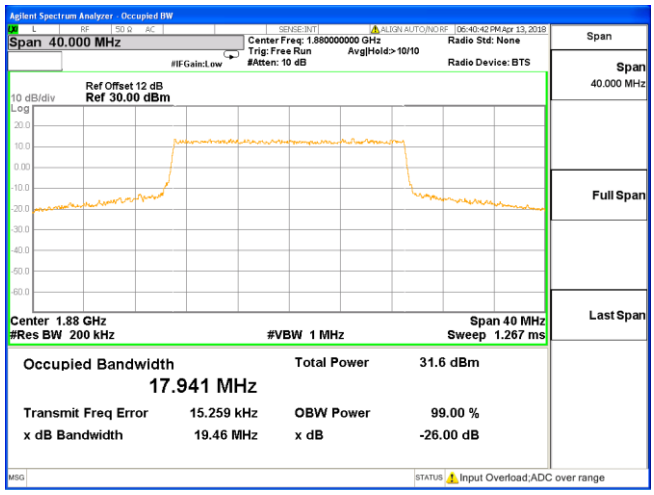
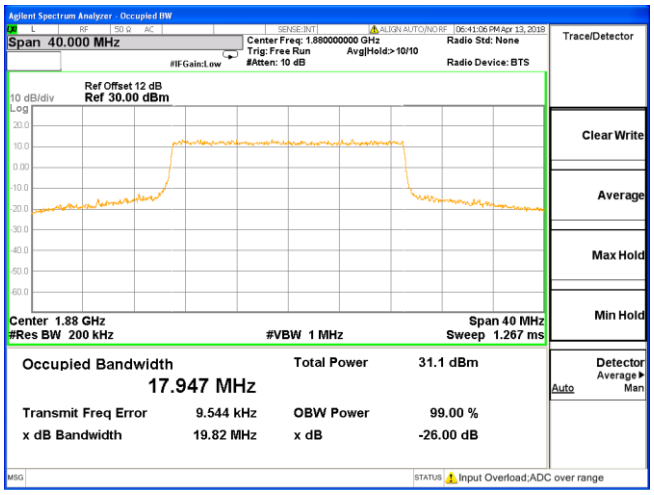
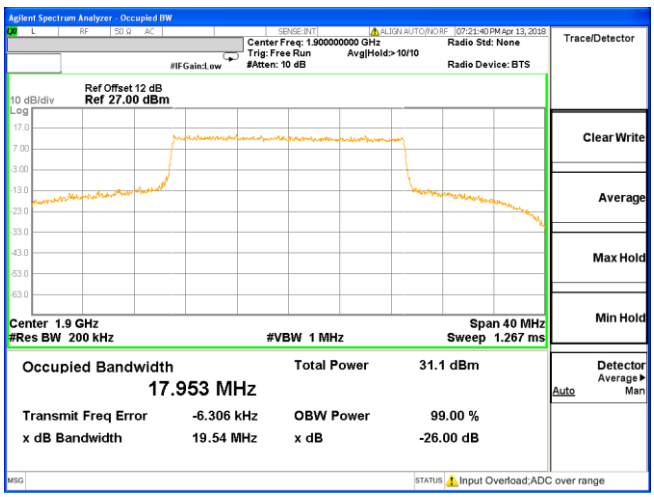
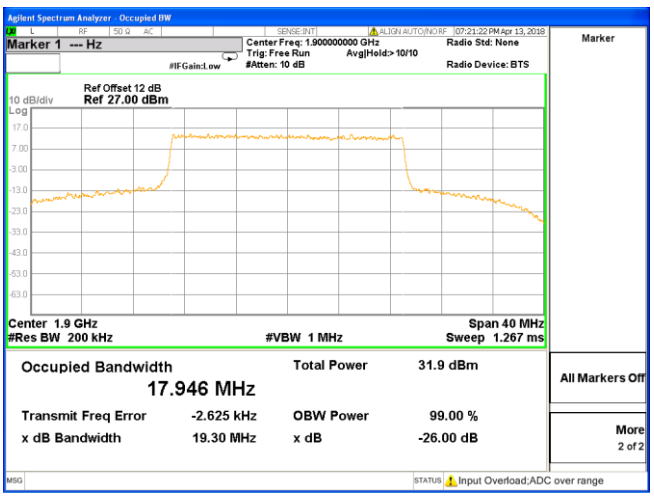
LTE Band 2 (Band Width 1.4MHz,RB Size 1,RB Offset 0)	
QPSK	**16-QAM**
Low Channel	Low Channel
	
Middle Channel	
	
High Channel	
	

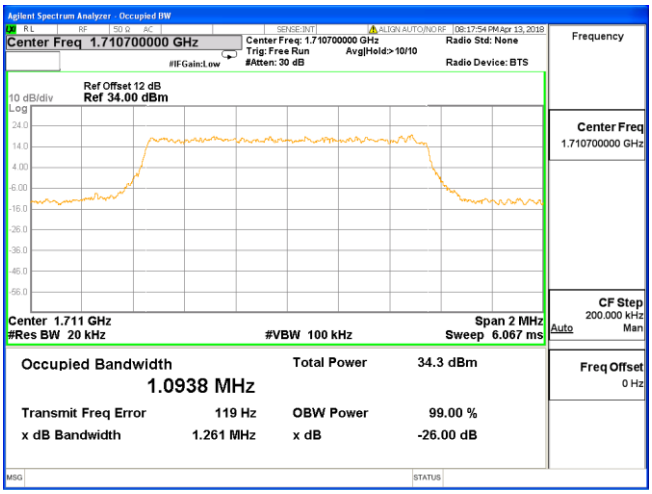
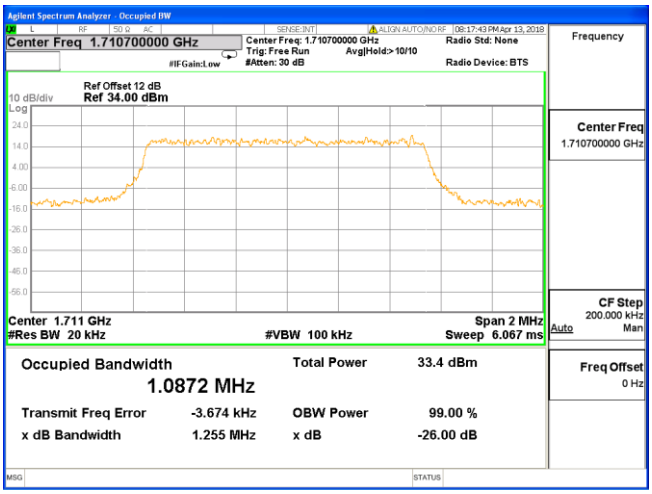
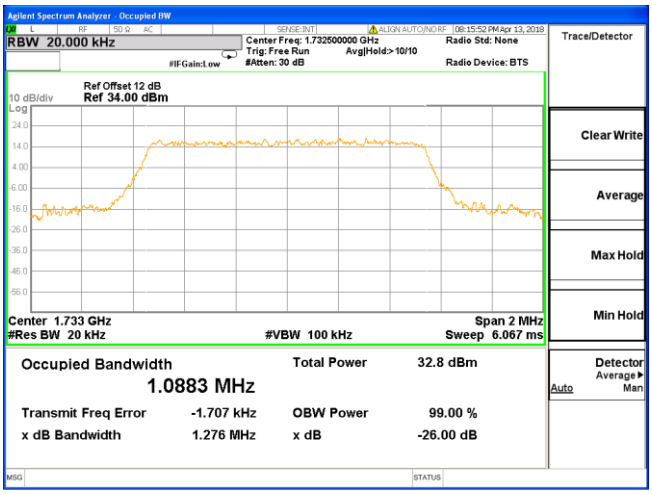
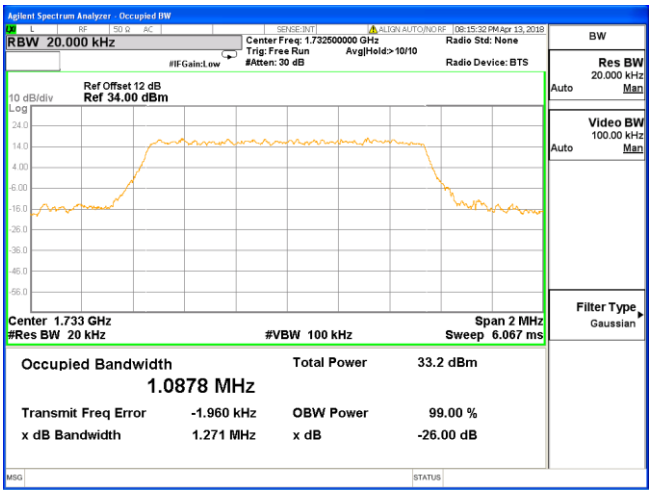
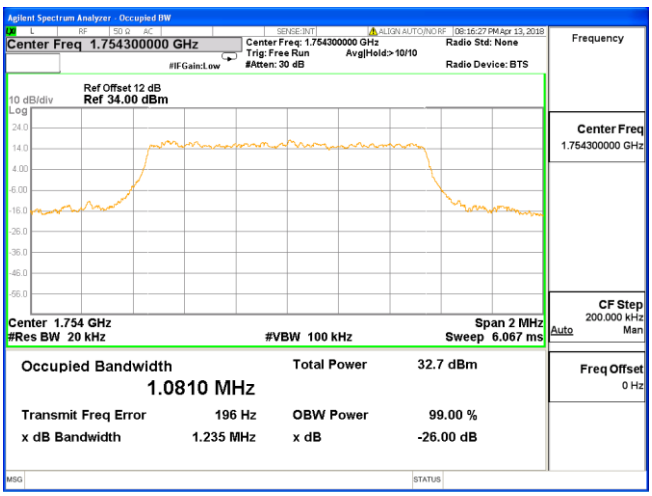
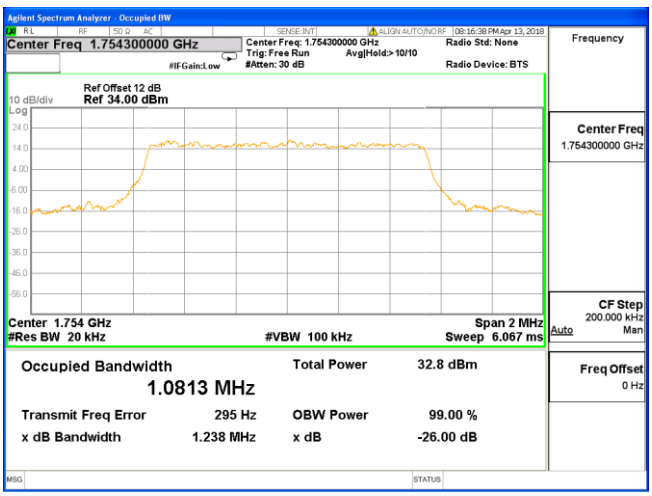
LTE Band 2 (Band Width 3MHz,RB Size 1,RB Offset 0)	
QPSK	**16-QAM**
Low Channel	Low Channel
	
Middle Channel	
	
High Channel	
	

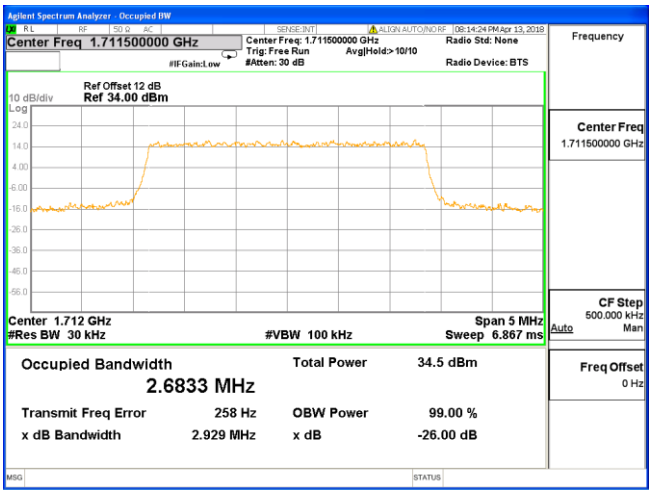
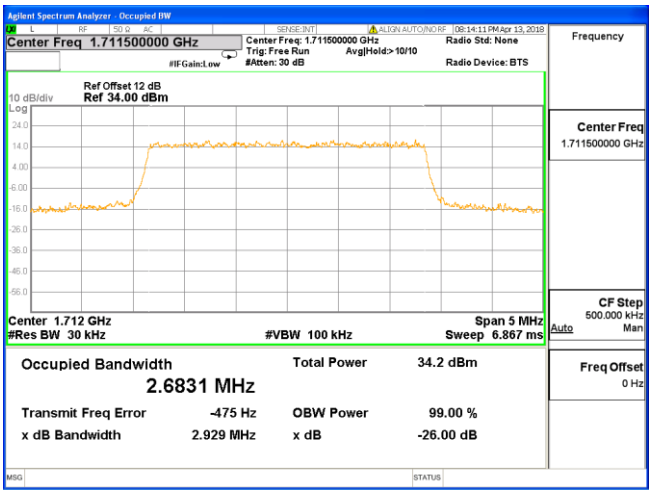
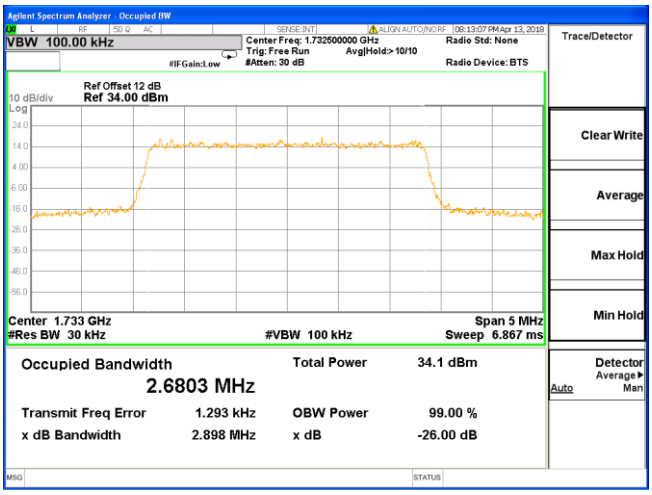
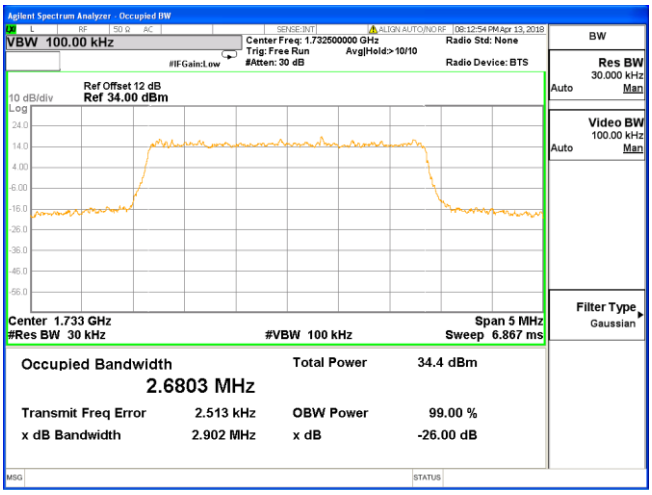
LTE Band 2 (Band Width 5MHz,RB Size 1,RB Offset 0)	
QPSK	**16-QAM**
Low Channel	Low Channel
	
Middle Channel	
	
High Channel	
	

LTE Band 2 (Band Width 10MHz,RB Size 1,RB Offset 0)	
QPSK	**16-QAM**
Low Channel	Low Channel
	
Middle Channel	
	
High Channel	
	

LTE Band 2 (Band Width 15MHz,RB Size 1,RB Offset 0)	
QPSK	**16-QAM**
Low Channel	Low Channel
	
Middle Channel	
	
High Channel	
	

LTE Band 2 (Band Width 20MHz,RB Size 1,RB Offset 0)	
QPSK	**16-QAM**
Low Channel	Low Channel
	
Middle Channel	
	
High Channel	
	

LTE Band 4 (Band Width 1.4MHz,RB Size 1,RB Offset 0)	
QPSK	**16-QAM**
Low Channel	Low Channel
	
Middle Channel	
	
High Channel	
	

LTE Band 4 (Band Width 3MHz,RB Size 1,RB Offset 0)	
QPSK	**16-QAM**
Low Channel	Low Channel
	
Middle Channel	
	
High Channel