Microtest
微测检测

Test Report

FCC ID: 2AHLZ-HI9AIR

Date of issue: July 25, 2018

Report Number:	MTi180724E140
Sample Description:	Tablet PC
Model(s):	Hi9 Air-CWI546
Applicant:	CHUWI TECHNOLOGY (ShenZhen) CO., LIMITED
Address:	2 Floor Building 3 LiJinCheng Industrial park the east of Gongye road LongHua Shenzhen China
Date of Test:	Apr. 25, 2018 to July 25, 2018

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Test Result Certification

Applicant's name:	CHUWI TECHNOLOGY (ShenZhen) CO., LIMITED
Address:	2 Floor Building 3 LiJinCheng Industrial park the east of Gongye road LongHua Shenzhen China
Manufacture's name:	Shenzhen Sunty Technology Co., Ltd.
Address:	F7-8, Building 7, ZhongYunTai Industry Park, Songbai Road, Shiyan Street, Bao'an District, Shenzhen, China.
Product name:	Tablet PC
Trademark:	CHUWI
Model name:	Hi9 Air-CWI546
Standards:	FCC CFR 47 Part 22H, Part 24E, Part 27
Test Procedure:	ANSI C63.26:2015 ANSI/TIA-603-E-2016 KDB 971168 D01 Power Meas License Digital Systems v03r01

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:	Leo Su	
	Leo Su	July 25, 2018
Reviewed by:	Blue.Zheng	
	Blue Zheng	July 25, 2018
Approved by:	Smith Chen	
	Smith Chen	July 25, 2018

1 General information

1.1 Feature of equipment under test (EUT)

Product name:	Tablet PC
Model name:	Hi9 Air-CWI546
Serial model:	N/A
Difference in series models:	N/A
Operating frequency range:	LTE FDD Band 2: 1850.7 - 1909.3MHz LTE FDD Band 4: 1710.7 - 1754.3MHz LTE FDD Band 5: 824.7 - 848.3MHz LTE FDD Band 17: 706.5 - 713.5MHz LTE FDD Band 40: 2305-2315MHz&2350-2360MHz
Modulation type:	QPSK,16QAM
Antenna type:	Integral Antenna
Antenna gain:	LTE FDD Band 2: -2.0dBi LTE FDD Band 4: -2.0dBi LTE FDD Band 5: -4.0dBi LTE FDD Band 17: -2.0dBi LTE FDD Band 40: -2.0dBi
Power supply:	DC 3.8V from Battery or DC 5V from adapter
Battery:	DC 3.8V 8000mAh
Adapter information:	Model:JHD-AP013U-050200BB-B Input:100-240V~ 50/60Hz 0.35A Output:5V 2A
Hardware Version:	X970-97WCB
Software Version:	V1.0

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
		10	19150	1905

LTE Band	Channel	Channel Bandwidth (MHz)	Channel No.	Frequency (MHz)
		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 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

LTE Band 40 2305-2315MHz	Low	5	38725	2307.5
	High	5	38775	2312.5

LTE Band 40 2350-2360MHz	Low	5	39175	2352.5
	High	5	39225	2357.5

LTE Band 40	2305-2315MHz	10	38750	2310
	2350-2360MHz	10	39200	2355

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 17	Keep the EUT in data communicating mode on LTE band 17. (LTE band17(5MHz), LTE band17(10MHz))
LTE band 40	Keep the EUT in data communicating mode on LTE band 40. (LTE band40(5MHz), LTE band40(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 22.913(a)(2) 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) 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 22.917(b) 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 22.917(a) 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 22.355 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	2017/09/13	2018/09/12
MTI-E034	amplifier	Agilent	8449B	3008A02400	2017/08/22	2018/08/21
MTI-E040	Spectrum analyzer	Agilent	N9020A	MY49100060	2017/09/04	2018/09/03
MTI-E041	Signal generator	Agilent	N5182A	MY49060455	2017/09/22	2018/09/21
MTI-E042	Analog signal generator	Agilent	E4421B	GB40051240	2017/09/22	2018/09/21
MTI-E043	Power probe	Dare Instruments	RPR3006W	16I00054SNO16	2017/09/28	2018/09/27
MTI-E047	10dB attenuator	Mini-Circuits	UNAT-10+	15542	2017/09/23	2018/09/22
MTI-E049	spectrum analyzer	Rohde&schwarz	FSP-38	100019	2017/09/18	2018/09/17
MTI-E050	PSG Signal generator	Agilent	E8257D	MY46520873	2017/09/24	2018/09/23
MTI-E051	Active Loop Antenna 9kHz - 30MHz	Schwarzbeek	FMZB 1519 B	00044	2017/09/26	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.

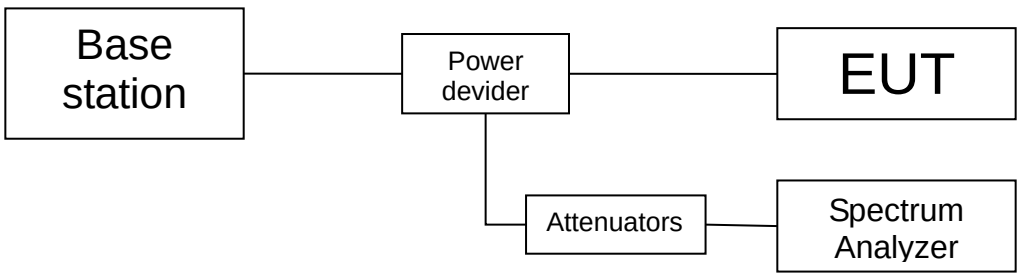
For FCC Part 27.50(d):
The EIRP of mobile transmitters and auxiliary test transmitters must not exceed 1 Watt.

For FCC Part 27.50(c):
The ERP of mobile transmitters and auxiliary test transmitters must not exceed 3 Watts.
For FCC Part 27.50(a)(3):
For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth.

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

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band2	1.4MHz	18607	1850.7	QPSK	1	Low	22.18	27.57
					1	Mid	22.15	27.55
					1	High	22.07	27.36
					3	Low	21.82	27.35
					3	High	21.86	27.24
					6	Low	21.73	27.25
				16QAM	1	Low	21.65	27.22
					1	Mid	21.21	27.25
					1	High	21.15	27.32
					3	Low	20.85	27.17
					3	High	20.78	27.14
					6	Low	20.67	27.16
	1.4MHz	18900	1880.0	QPSK	1	Low	22.12	27.83
					1	Mid	22.11	27.71
					1	High	22.07	27.56
					3	Low	22.05	27.47
					3	High	21.92	27.26
					6	Low	21.84	27.04
				16QAM	1	Low	21.66	27.69
					1	Mid	21.47	27.51
					1	High	21.24	27.34
					3	Low	21.12	27.15
					3	High	20.84	27.02
					6	Low	20.67	27.14
	1.4MHz	19193	1909.3	QPSK	1	Low	22.09	27.78
					1	Mid	22.11	27.65
					1	High	22.13	27.50
					3	Low	21.92	27.31
					3	High	21.71	27.14
					6	Low	21.47	27.96

				16QAM	1	Low	21.51	27.45
					1	Mid	21.37	27.32
					1	High	21.28	27.19
					3	Low	21.15	27.03
					3	High	20.93	27.24
					6	Low	20.82	27.16

5.1.4.2 Channel Bandwidth: 3 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band2	3.0 MHz	18615	1851.5	QPSK	1	Low	22.14	27.39
					1	Mid	22.12	27.30
					1	High	22.09	27.17
					8	Low	21.81	27.87
					8	High	21.75	27.55
					15	Low	21.20	27.47
				16QAM	1	Low	21.17	27.11
					1	Mid	21.06	27.01
					1	High	20.95	27.18
					8	Low	20.77	27.22
					8	High	20.58	27.19
					15	Low	20.14	27.23
	3.0 MHz	18900	1880.0	QPSK	1	Low	22.28	27.64
					1	Mid	22.21	27.54
					1	High	22.13	27.47
					8	Low	22.02	27.31
					8	High	21.86	27.19
					15	Low	21.50	27.74
				16QAM	1	Low	21.38	27.89
					1	Mid	21.27	27.75
					1	High	21.14	27.51
					8	Low	20.93	27.33
					8	High	20.72	27.14
					15	Low	20.48	27.29
	3.0 MHz	19185	1908.5	QPSK	1	Low	22.22	27.58
					1	Mid	22.13	27.47
					1	High	22.04	27.35
					8	Low	21.81	27.12
					8	High	21.68	27.06
					15	Low	21.32	27.81
				16QAM	1	Low	21.04	27.44
					1	Mid	21.00	27.39
					1	High	20.85	27.17
					8	Low	20.66	27.15
					8	High	20.49	27.23
					15	Low	20.18	27.14

5.1.4.3 Channel Bandwidth: 5 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band2	5.0 MHz	18625	1852.5	QPSK	1	Low	22.17	27.48
					1	Mid	22.15	27.39
					1	High	22.08	27.23
					12	Low	21.84	27.05
					12	High	21.66	27.87
					25	Low	21.21	27.54
				16QAM	1	Low	21.13	27.65
					1	Mid	21.07	27.51
					1	High	21.01	27.42
					12	Low	20.85	27.13
					12	High	20.64	27.24
					25	Low	20.15	27.31
	5.0 MHz	18900	1880.0	QPSK	1	Low	22.39	27.62
					1	Mid	22.36	27.49
					1	High	22.15	27.31
					12	Low	22.03	27.14
					12	High	21.87	27.01
					25	Low	21.45	27.87
				16QAM	1	Low	21.40	27.95
					1	Mid	21.28	27.81
					1	High	21.13	27.63
					12	Low	21.05	27.47
					12	High	20.82	27.37
					25	Low	20.44	27.11
	5.0 MHz	19175	1907.5	QPSK	1	Low	22.10	27.48
					1	Mid	22.04	27.39
					1	High	21.87	27.17
					12	Low	21.77	27.09
					12	High	21.59	27.84
					25	Low	21.21	27.51
				16QAM	1	Low	21.14	27.49
					1	Mid	21.06	27.31
					1	High	20.88	27.14
					12	Low	20.79	27.02
					12	High	20.52	27.16
					25	Low	20.09	27.47

5.1.4.4 Channel Bandwidth: 10 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band2	10.0 MHz	18650	1855.0	QPSK	1	Low	22.20	27.60
					1	Mid	22.11	27.51
					1	High	21.99	27.34
					25	Low	21.85	27.25
					25	High	21.57	27.08
					50	Low	21.23	27.84
				16QAM	1	Low	21.32	27.01
					1	Mid	21.26	27.88
					1	High	21.10	27.71
					25	Low	20.96	27.55
					25	High	20.63	27.21
					50	Low	20.21	27.15
	10.0 MHz	18900	1880.0	QPSK	1	Low	22.38	27.79
					1	Mid	22.33	27.67
					1	High	22.21	27.48
					25	Low	22.06	27.17
					25	High	21.86	27.02
					50	Low	21.43	27.78
				16QAM	1	Low	21.26	27.66
					1	Mid	21.15	27.49
					1	High	21.03	27.34
					25	Low	20.88	27.17
					25	High	20.64	27.04
					50	Low	20.39	27.17
	10.0 MHz	19150	1905.0	QPSK	1	Low	22.26	27.55
					1	Mid	22.12	27.41
					1	High	21.97	27.28
					25	Low	21.84	27.14
					25	High	21.58	27.95
					50	Low	21.12	27.73
				16QAM	1	Low	21.25	27.85
					1	Mid	21.22	27.77
					1	High	21.06	27.48
					25	Low	20.86	27.23
					25	High	20.61	27.02
					50	Low	20.28	27.14

5.1.4.5 Channel Bandwidth: 15 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band2	15.0 MHz	18675	1857.5	QPSK	1	Low	22.25	27.61
					1	Mid	22.18	27.52
					1	High	22.06	27.34
					36	Low	21.87	27.13
					36	High	21.65	27.97
					75	Low	21.43	27.75
				16QAM	1	Low	21.33	27.77
					1	Mid	21.21	27.65
					1	High	21.05	27.42
					36	Low	20.88	27.19
					36	High	20.62	27.04
					75	Low	20.32	27.26
	15.0 MHz	18900	1880.0	QPSK	1	Low	22.38	27.83
					1	Mid	22.26	27.71
					1	High	22.13	27.56
					36	Low	22.05	27.47
					36	High	21.82	27.26
					75	Low	21.59	27.04
				16QAM	1	Low	21.24	27.69
					1	Mid	21.11	27.51
					1	High	21.02	27.34
					36	Low	20.89	27.15
					36	High	20.72	27.02
					75	Low	20.51	27.14
	15.0 MHz	19125	1902.5	QPSK	1	Low	22.36	27.78
					1	Mid	22.21	27.65
					1	High	22.03	27.50
					36	Low	21.87	27.31
					36	High	21.63	27.14
					75	Low	21.36	27.96
				16QAM	1	Low	21.45	27.45
					1	Mid	21.37	27.32
					1	High	21.28	27.19
					36	Low	21.02	27.03
					36	High	20.76	27.24
					75	Low	20.24	27.16

5.1.4.6 Channel Bandwidth: 20 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band2	20.0 MHz	18700	1860.0	QPSK	1	Low	22.23	27.59
					1	Mid	22.14	27.47
					1	High	22.01	27.34
					50	Low	21.89	27.11
					50	High	21.63	27.96
					100	Low	21.31	27.62
				16QAM	1	Low	21.27	27.59
					1	Mid	21.14	27.48
					1	High	21.01	27.31
					50	Low	20.84	27.14
					50	High	20.61	27.04
					100	Low	20.29	27.21
	20.0 MHz	18900	1880.0	QPSK	1	Low	22.55	27.92
					1	Mid	22.37	27.68
					1	High	22.12	27.59
					50	Low	21.98	27.55
					50	High	21.71	27.46
					100	Low	21.43	27.33
				16QAM	1	Low	21.41	27.11
					1	Mid	21.36	27.03
					1	High	21.14	27.88
					50	Low	20.96	27.91
					50	High	20.64	27.87
					100	Low	20.39	27.95
	20.0 MHz	19100	1900.0	QPSK	1	Low	22.47	27.61
					1	Mid	22.45	27.54
					1	High	22.36	27.52
					50	Low	21.79	27.39
					50	High	21.56	27.16
					100	Low	21.21	27.03
				16QAM	1	Low	21.47	27.13
					1	Mid	21.34	27.05
					1	High	21.19	27.21
					50	Low	20.89	27.08
					50	High	20.63	27.86
					100	Low	20.15	27.95

LTE Band 4:

5.1.4.7 Channel Bandwidth: 1.4 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band4	1.4MHz	19957	1710.7	QPSK	1	Low	22.12	27.42
					1	Mid	22.08	27.38
					1	High	22.01	27.21
					3	Low	21.84	27.23
					3	High	21.77	27.11
					6	Low	21.65	27.96
				16QAM	1	Low	21.73	27.13
					1	Mid	21.71	27.02
					1	High	21.58	27.98
					3	Low	21.32	27.87
					3	High	21.14	27.84
					6	Low	21.02	27.12
	1.4MHz	20175	1732.5	QPSK	1	Low	22.21	27.51
					1	Mid	22.13	27.34
					1	High	22.03	27.19
					3	Low	21.89	27.06
					3	High	21.71	27.11
					6	Low	21.44	27.04
				16QAM	1	Low	21.37	27.08
					1	Mid	21.34	27.11
					1	High	21.29	27.98
					3	Low	21.11	27.03
					3	High	21.03	27.88
					6	Low	20.86	27.12
	1.4MHz	20393	1754.3	QPSK	1	Low	22.19	27.56
					1	Mid	22.08	27.37
					1	High	22.01	27.16
					3	Low	21.89	27.05
					3	High	21.77	27.11
					6	Low	21.63	27.01
				16QAM	1	Low	21.57	27.95
					1	Mid	21.49	27.88
					1	High	21.31	27.01
					3	Low	21.14	27.85
					3	High	21.06	27.05
					6	Low	20.88	27.12

5.1.4.8 Channel Bandwidth: 3 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band4	3.0 MHz	19965	1711.5	QPSK	1	Low	22.30	27.60
					1	Mid	22.29	27.58
					1	High	22.27	27.59
					8	Low	22.03	27.64
					8	High	21.86	27.62
					15	Low	21.43	27.10
				16QAM	1	Low	21.97	27.62
					1	Mid	21.80	27.55
					1	High	21.74	27.54
					8	Low	21.62	27.58
					8	High	21.52	27.58
					15	Low	20.86	27.67
	3.0 MHz	20175	1732.5	QPSK	1	Low	22.37	27.23
					1	Mid	22.32	27.29
					1	High	22.19	27.18
					8	Low	22.09	27.21
					8	High	21.91	27.22
					15	Low	21.50	27.41
				16QAM	1	Low	22.04	27.23
					1	Mid	22.00	27.32
					1	High	21.86	27.21
					8	Low	21.60	27.20
					8	High	21.51	27.10
					15	Low	20.60	27.44
	3.0 MHz	20385	1753.5	QPSK	1	Low	22.44	27.06
					1	Mid	22.32	27.03
					1	High	22.21	27.00
					8	Low	22.04	27.97
					8	High	21.95	27.97
					15	Low	21.50	27.81
				16QAM	1	Low	21.51	27.05
					1	Mid	21.45	27.02
					1	High	21.33	27.00
					8	Low	21.16	27.93
					8	High	21.97	27.97
					15	Low	20.58	27.14

5.1.4.9 Channel Bandwidth: 5 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band4	5.0 MHz	19975	1712.5	QPSK	1	Low	22.32	27.60
					1	Mid	22.24	27.41
					1	High	22.18	27.66
					12	Low	21.83	27.57
					12	High	21.62	27.71
					25	Low	21.35	27.66
				16QAM	1	Low	21.39	27.53
					1	Mid	21.28	27.40
					1	High	21.15	27.63
					12	Low	21.02	27.65
					12	High	20.82	27.70
					25	Low	20.47	27.24
	5.0 MHz	20175	1732.5	QPSK	1	Low	22.46	27.37
					1	Mid	22.29	27.39
					1	High	22.07	27.32
					12	Low	21.85	27.47
					12	High	21.66	27.34
					25	Low	21.49	27.60
				16QAM	1	Low	21.51	27.38
					1	Mid	21.35	27.42
					1	High	21.21	27.28
					12	Low	21.07	27.41
					12	High	20.97	27.30
					25	Low	20.62	27.44
	5.0 MHz	20375	1752.5	QPSK	1	Low	22.60	27.48
					1	Mid	22.46	27.29
					1	High	22.41	27.34
					12	Low	21.21	27.14
					12	High	21.17	27.21
					25	Low	21.02	27.35
				16QAM	1	Low	21.86	27.43
					1	Mid	21.81	27.23
					1	High	21.76	27.39
					12	Low	21.41	27.15
					12	High	21.20	27.28
					25	Low	20.89	27.76

5.1.4.10 Channel Bandwidth: 10 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band4	10.0 MHz	20000	1715.0	QPSK	1	Low	22.33	27.43
					1	Mid	22.30	27.38
					1	High	22.15	27.71
					25	Low	21.87	27.49
					25	High	21.77	27.68
					50	Low	21.39	27.64
				16QAM	1	Low	22.00	27.34
					1	Mid	21.96	27.36
					1	High	21.80	27.75
					25	Low	21.37	27.46
					25	High	21.27	27.72
					50	Low	20.61	27.76
	10.0 MHz	20175	1732.5	QPSK	1	Low	22.40	27.35
					1	Mid	22.23	27.38
					1	High	22.04	27.28
					25	Low	21.83	27.23
					25	High	21.71	27.14
					50	Low	21.40	27.22
				16QAM	1	Low	22.06	27.31
					1	Mid	22.02	27.39
					1	High	21.87	27.30
					25	Low	21.50	27.18
					25	High	21.32	27.21
					50	Low	20.53	27.09
	10.0 MHz	20350	1750.0	QPSK	1	Low	22.52	27.04
					1	Mid	22.46	27.97
					1	High	22.39	27.91
					25	Low	21.52	27.29
					25	High	21.50	27.50
					50	Low	21.14	27.71
				16QAM	1	Low	22.16	27.98
					1	Mid	22.06	27.88
					1	High	21.85	27.88
					25	Low	21.48	27.33
					25	High	21.29	27.47
					50	Low	20.56	27.66

5.1.4.11 Channel Bandwidth: 15 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band4	15.0 MHz	20025	1717.5	QPSK	1	Low	22.30	27.57
					1	Mid	22.19	27.65
					1	High	22.06	27.22
					36	Low	21.72	27.55
					36	High	21.67	27.13
					75	Low	21.38	27.74
				16QAM	1	Low	21.96	27.42
					1	Mid	21.88	27.63
					1	High	21.72	27.21
					36	Low	21.38	27.49
					36	High	21.37	27.10
					75	Low	20.39	27.69
	15.0 MHz	20175	1732.5	QPSK	1	Low	22.39	27.25
					1	Mid	22.24	27.35
					1	High	22.11	27.28
					36	Low	21.83	27.17
					36	High	21.74	27.13
					75	Low	21.52	27.86
				16QAM	1	Low	22.13	27.28
					1	Mid	22.09	27.38
					1	High	21.86	27.25
					36	Low	21.53	27.20
					36	High	21.23	27.11
					75	Low	20.82	27.83
	15.0 MHz	20325	1747.5	QPSK	1	Low	22.53	27.21
					1	Mid	22.52	27.91
					1	High	22.43	27.95
					36	Low	21.84	27.09
					36	High	21.73	27.17
					75	Low	21.55	27.65
				16QAM	1	Low	22.08	27.17
					1	Mid	22.00	27.87
					1	High	21.89	27.97
					36	Low	21.53	27.14
					36	High	21.33	27.17
					75	Low	20.83	27.75

5.1.4.12 Channel Bandwidth: 20 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band4	20.0 MHz	20050	1720.0	QPSK	1	Low	22.34	27.77
					1	Mid	22.28	27.94
					1	High	22.12	27.40
					50	Low	21.95	27.89
					50	High	21.82	27.40
					100	Low	21.38	27.44
				16QAM	1	Low	21.67	27.65
					1	Mid	21.62	27.93
					1	High	21.60	27.40
					50	Low	21.40	27.90
					50	High	21.29	27.44
					100	Low	20.40	27.52
	20.0 MHz	20175	1732.5	QPSK	1	Low	22.52	27.27
					1	Mid	22.42	27.30
					1	High	22.33	27.10
					50	Low	22.15	27.43
					50	High	22.07	27.25
					100	Low	21.48	27.36
				16QAM	1	Low	21.74	27.28
					1	Mid	21.66	27.35
					1	High	21.62	27.10
					50	Low	21.56	27.40
					50	High	21.47	27.22
					100	Low	20.82	27.37
	20.0 MHz	20300	1745.0	QPSK	1	Low	22.49	27.30
					1	Mid	22.43	27.03
					1	High	22.35	27.00
					50	Low	22.26	27.13
					50	High	22.12	27.24
					100	Low	21.52	27.70
				16QAM	1	Low	22.11	27.32
					1	Mid	22.08	27.00
					1	High	21.98	27.01
					50	Low	21.52	27.18
					50	High	21.42	27.15
					100	Low	20.54	27.58

LTE Band 5:

5.1.4.13 Channel Bandwidth: 1.4 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 5	1.4MHz	20407	824.7	QPSK	1	Low	22.51	27.55
					1	Mid	22.36	27.51
					1	High	22.31	27.49
					3	Low	22.11	27.33
					3	High	22.08	27.41
					6	Low	21.69	27.62
				16QAM	1	Low	21.44	27.47
					1	Mid	21.41	27.34
					1	High	21.37	27.36
					3	Low	21.12	27.29
					3	High	21.04	27.24
					6	Low	20.73	27.46
	1.4MHz	20525	836.5	QPSK	1	Low	22.56	27.64
					1	Mid	22.48	27.62
					1	High	22.39	27.54
					3	Low	22.11	27.47
					3	High	22.09	27.39
					6	Low	21.76	27.66
				16QAM	1	Low	21.71	27.37
					1	Mid	21.65	27.28
					1	High	21.57	27.15
					3	Low	21.23	27.03
					3	High	21.19	27.34
					6	Low	20.75	27.41
	1.4MHz	20643	848.3	QPSK	1	Low	22.40	27.75
					1	Mid	22.34	27.62
					1	High	22.30	27.48
					3	Low	22.03	27.31
					3	High	21.96	27.10
					6	Low	21.63	27.53
				16QAM	1	Low	21.35	27.32
					1	Mid	21.23	27.29
					1	High	21.18	27.33
					3	Low	21.04	27.19
					3	High	21.01	27.21
					6	Low	20.70	27.43

5.1.4.14 Channel Bandwidth: 3 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 5	3.0 MHz	20415	825.5	QPSK	1	Low	22.61	27.64
					1	Mid	22.57	27.53
					1	High	22.49	27.55
					8	Low	22.25	27.42
					8	High	22.17	27.31
					15	Low	21.82	27.44
				16QAM	1	Low	21.76	27.24
					1	Mid	21.72	27.18
					1	High	21.69	27.12
					8	Low	21.32	27.09
					8	High	21.28	27.11
					15	Low	20.88	27.36
	3.0 MHz	20525	836.5	QPSK	1	Low	22.74	27.85
					1	Mid	22.70	27.74
					1	High	22.63	27.67
					8	Low	22.44	27.53
					8	High	22.32	27.47
					15	Low	21.79	27.56
				16QAM	1	Low	21.56	27.44
					1	Mid	21.52	27.39
					1	High	21.43	27.41
					8	Low	21.29	27.27
					8	High	21.17	27.24
					15	Low	20.76	27.33
	3.0 MHz	20635	847.5	QPSK	1	Low	22.58	27.84
					1	Mid	22.42	27.75
					1	High	22.40	27.80
					8	Low	22.11	27.68
					8	High	20.97	27.62
					15	Low	21.63	27.51
				16QAM	1	Low	21.61	27.63
					1	Mid	21.55	27.64
					1	High	21.48	27.51
					8	Low	21.15	27.38
					8	High	21.03	27.31
					15	Low	20.58	27.42

5.1.4.15 Channel Bandwidth: 5 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 5	5.0 MHz	20425	826.5	QPSK	1	Low	22.70	27.67
					1	Mid	22.62	27.64
					1	High	22.57	27.72
					12	Low	22.21	27.51
					12	High	22.07	27.54
					25	Low	21.75	27.55
				16QAM	1	Low	21.69	27.53
					1	Mid	21.63	27.47
					1	High	21.60	27.47
					12	Low	21.42	27.48
					12	High	21.37	27.41
					25	Low	20.79	27.39
	5.0 MHz	20525	836.5	QPSK	1	Low	22.75	27.87
					1	Mid	22.72	27.82
					1	High	22.64	27.77
					12	Low	22.46	27.59
					12	High	22.31	27.53
					25	Low	21.74	27.61
				16QAM	1	Low	21.80	27.41
					1	Mid	21.67	27.33
					1	High	21.62	27.42
					12	Low	21.49	27.28
					12	High	21.32	27.21
					25	Low	20.82	27.45
	5.0 MHz	20625	846.5	QPSK	1	Low	22.62	27.88
					1	Mid	22.48	27.81
					1	High	22.41	27.83
					12	Low	22.12	27.72
					12	High	22.03	27.69
					25	Low	21.58	27.64
				16QAM	1	Low	21.71	27.73
					1	Mid	21.58	27.63
					1	High	21.51	27.36
					12	Low	21.23	27.42
					12	High	21.14	27.51
					25	Low	20.60	27.54

5.1.4.16 Channel Bandwidth: 10 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 5	10.0 MHz	20450	829	QPSK	1	Low	22.72	27.89
					1	Mid	22.67	27.81
					1	High	22.61	27.83
					25	Low	22.45	27.64
					25	High	22.41	27.61
					50	Low	21.75	27.66
				16QAM	1	Low	21.90	27.56
					1	Mid	21.84	27.51
					1	High	21.76	27.57
					25	Low	21.43	27.48
					25	High	21.39	27.41
					50	Low	20.79	27.53
	10.0 MHz	20525	836.5	QPSK	1	Low	22.84	27.91
					1	Mid	22.81	27.86
					1	High	22.75	27.80
					25	Low	22.51	27.65
					25	High	22.46	27.61
					50	Low	21.71	27.33
				16QAM	1	Low	21.71	27.54
					1	Mid	21.64	27.56
					1	High	21.59	27.51
					25	Low	21.41	27.39
					25	High	21.36	27.34
					50	Low	20.75	27.46
	10.0 MHz	20600	844	QPSK	1	Low	22.79	27.62
					1	Mid	22.72	27.67
					1	High	22.66	27.61
					25	Low	22.58	27.53
					25	High	22.51	27.51
					50	Low	21.65	27.46
				16QAM	1	Low	21.89	27.43
					1	Mid	21.82	27.41
					1	High	21.75	27.47
					25	Low	21.60	27.39
					25	High	21.48	27.31
					50	Low	20.69	27.44

LTE Band 17:

5.1.4.17 Channel Bandwidth: 5 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 17	5.0 MHz	23755	706.5	QPSK	1	Low	22.62	27.66
					1	Mid	22.58	27.61
					1	High	22.43	27.67
					12	Low	22.22	27.53
					12	High	22.16	27.51
					25	Low	21.83	27.48
				16QAM	1	Low	21.72	27.73
					1	Mid	21.70	27.71
					1	High	21.64	27.81
					12	Low	21.47	27.64
					12	High	21.36	27.58
					25	Low	20.86	27.62
	5.0 MHz	23790	710	QPSK	1	Low	22.68	27.72
					1	Mid	22.63	27.68
					1	High	22.58	27.73
					12	Low	22.22	27.58
					12	High	22.14	27.51
					25	Low	21.75	27.64
				16QAM	1	Low	21.85	27.81
					1	Mid	21.81	27.72
					1	High	21.77	27.63
					12	Low	21.46	27.42
					12	High	21.38	27.34
					25	Low	20.83	27.45
	5.0 MHz	23825	713.5	QPSK	1	Low	22.61	27.79
					1	Mid	22.59	27.71
					1	High	22.51	27.76
					12	Low	22.13	27.53
					12	High	22.04	27.50
					25	Low	21.67	27.55
				16QAM	1	Low	21.83	27.66
					1	Mid	21.78	27.61
					1	High	21.71	27.63
					12	Low	21.46	27.57
					12	High	21.37	27.51
					25	Low	20.70	27.58

5.1.4.18 Channel Bandwidth: 10 MHz

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 17	10.0 MHz	23780	709	QPSK	1	Low	22.63	27.77
					1	Mid	22.57	27.72
					1	High	22.52	27.75
					25	Low	22.14	27.51
					25	High	22.01	27.52
					50	Low	21.69	27.56
				16QAM	1	Low	21.85	27.65
					1	Mid	21.77	27.62
					1	High	21.73	27.64
					25	Low	21.48	27.58
					25	High	21.35	27.53
					50	Low	20.72	27.56
	10.0 MHz	23790	710	QPSK	1	Low	22.60	27.67
					1	Mid	22.56	27.62
					1	High	22.45	27.66
					25	Low	22.24	27.54
					25	High	22.18	27.52
					50	Low	21.85	27.47
				16QAM	1	Low	21.74	27.74
					1	Mid	21.72	27.72
					1	High	21.66	27.80
					25	Low	21.49	27.65
					25	High	21.32	27.56
					50	Low	20.84	27.60
	10.0 MHz	23800	711	QPSK	1	Low	22.66	27.70
					1	Mid	22.61	27.66
					1	High	22.55	27.75
					25	Low	22.20	27.59
					25	High	22.12	27.52
					50	Low	21.77	27.63
				16QAM	1	Low	21.87	27.80
					1	Mid	21.83	27.73
					1	High	21.75	27.64
					25	Low	21.44	27.43
					25	High	21.36	27.35
					50	Low	20.81	27.41

LTE Band 40:

5.1.4.19 Channel Bandwidth: 5 MHz (2305-2315MHz)

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 40	5.0 MHz	38725	2307.5	QPSK	1	Low	22.51	27.61
					1	Mid	22.46	27.63
					1	High	22.41	27.66
					12	Low	22.32	27.47
					12	High	22.29	27.49
					25	Low	22.60	27.72
				16QAM	1	Low	21.49	27.57
					1	Mid	21.43	27.51
					1	High	21.38	27.53
					12	Low	21.27	27.47
					12	High	21.21	27.43
					25	Low	21.57	27.66
	5.0 MHz	38775	2312.5	QPSK	1	Low	22.19	27.53
					1	Mid	22.11	27.51
					1	High	22.03	27.55
					12	Low	21.96	27.45
					12	High	21.94	27.41
					25	Low	22.20	27.61
				16QAM	1	Low	21.19	27.54
					1	Mid	21.16	27.51
					1	High	21.09	27.57
					12	Low	20.97	27.44
					12	High	20.91	27.41
					25	Low	21.11	27.63

5.1.4.20 Channel Bandwidth: 5 MHz (2350-2360MHz)

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 40	5.0 MHz	39175	2352.5	QPSK	1	Low	22.58	27.77
					1	Mid	22.57	27.72
					1	High	22.52	27.75
					12	Low	22.14	27.51
					12	High	22.01	27.52
					25	Low	21.69	27.56
				16QAM	1	Low	21.85	27.65
					1	Mid	21.77	27.62
					1	High	21.73	27.64
					12	Low	21.48	27.58
					12	High	21.35	27.53
					25	Low	20.72	27.56
	5.0 MHz	39225	2357.5	QPSK	1	Low	22.60	27.67
					1	Mid	22.56	27.62
					1	High	22.45	27.66
					12	Low	22.24	27.54
					12	High	22.18	27.52
					25	Low	21.85	27.47
				16QAM	1	Low	21.74	27.74
					1	Mid	21.72	27.72
					1	High	21.66	27.80
					12	Low	21.49	27.65
					12	High	21.32	27.56
					25	Low	20.84	27.60

5.1.4.21 Channel Bandwidth: 10 MHz (2305-2315MHz)

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 40	10.0 MHz	38750	2310	QPSK	1	Low	22.64	27.75
					1	Mid	22.61	27.71
					1	High	22.59	27.76
					25	Low	22.43	27.61
					25	High	22.41	27.63
					50	Low	22.62	27.77
				16QAM	1	Low	21.54	27.65
					1	Mid	21.51	27.61
					1	High	21.43	27.66
					25	Low	21.29	27.51
					25	High	21.24	27.54
					50	Low	21.66	27.71

5.1.4.22 Channel Bandwidth: 10 MHz (2350-2360MHz)

Band	Band Width	Channel	Frequency (MHz)	Modulation	RB Configuration		Average Power(dBm)	Peak Power(dBm)
					RB Size	RB Offset		
Band 40	10.0 MHz	39200	2355	QPSK	1	Low	22.31	27.86
					1	Mid	22.30	27.81
					1	High	22.24	27.82
					25	Low	22.10	27.71
					25	High	22.05	27.69
					50	Low	22.22	27.75
				16QAM	1	Low	21.36	27.47
					1	Mid	21.31	27.43
					1	High	21.24	27.49
					25	Low	21.11	27.26
					25	High	21.04	27.18
					50	Low	21.20	27.33

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.
6) 27.50(a)(3):For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, except that for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth.

5.2.2 Test procedure

7) 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.
8) 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.
9) 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)

10) 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)

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

5.2.3 Test setup

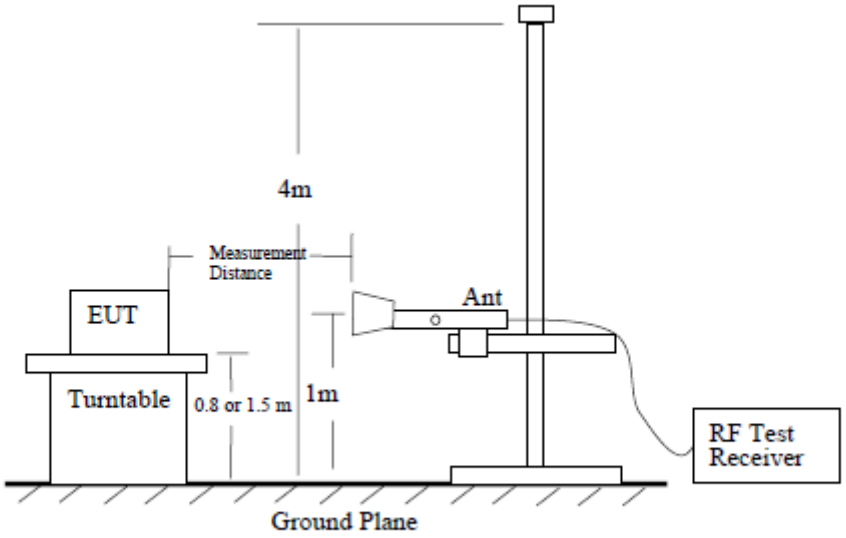


Figure 6—Test site-up for radiated ERP and/or EIRP measurements

5.2.4 Test results

Radiated Spurious Measurement:

LTE Band 2

Radiated Power (EIRP) for Band 2									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	
1.4MHz Band QPSK	6/0	1850.7	-2.56	3.76	28.24	21.92	155.461	Horizontal	Pass
		1880	-2.45	3.91	28.22	21.86	153.384	Horizontal	Pass
		1909.3	-2.15	3.93	28.2	22.12	162.893	Horizontal	Pass
1.4MHz Band 16 QAM	6/0	1850.7	-2.37	3.76	28.24	22.11	162.458	Horizontal	Pass
		1880	-2.19	3.91	28.22	22.12	162.744	Horizontal	Pass
		1909.3	-2.87	3.93	28.2	21.40	138.190	Horizontal	Pass
3.0MHz Band QPSK	15/0	1851.5	-2.37	3.77	28.23	22.09	161.874	Horizontal	Pass
		1880	-2.94	3.91	28.24	21.39	137.591	Horizontal	Pass
		1908.5	-2.25	3.94	28.25	22.06	160.809	Horizontal	Pass
3.0MHz Band 16 QAM	15/0	1851.5	-2.49	3.77	28.23	21.97	157.520	Horizontal	Pass
		1880	-2.76	3.91	28.24	21.57	143.546	Horizontal	Pass
		1908.5	-2.63	3.94	28.25	21.68	147.268	Horizontal	Pass
5.0MHz Band QPSK	25/0	1852.5	-2.11	3.77	28.31	22.43	175.117	Horizontal	Pass
		1880	-2.53	3.91	28.22	21.78	150.811	Horizontal	Pass
		1907.5	-2.03	3.94	28.2	22.23	167.235	Horizontal	Pass
5.0MHz Band 16 QAM	25/0	1852.5	-2.81	3.77	28.31	21.73	148.852	Horizontal	Pass
		1880	-2.33	3.91	28.22	21.98	157.727	Horizontal	Pass
		1907.5	-2.23	3.94	28.2	22.03	159.543	Horizontal	Pass
10.0MHz Band QPSK	50/0	1855	-2.06	3.79	28.33	22.48	176.927	Horizontal	Pass
		1880	-2.19	3.95	28.22	22.08	161.358	Horizontal	Pass
		1905	-2.21	3.97	28.19	22.01	158.936	Horizontal	Pass
10.0MHz Band 16 QAM	50/0	1855	-2.68	3.79	28.33	21.86	153.595	Horizontal	Pass
		1880	-2.84	3.95	28.22	21.43	138.903	Horizontal	Pass
		1905	-2.97	3.97	28.19	21.25	133.203	Horizontal	Pass
15.0MHz Band QPSK	75/0	1857.5	-2.98	3.79	28.34	21.57	143.637	Horizontal	Pass
		1880	-2.94	3.95	28.22	21.33	135.921	Horizontal	Pass
		1902.5	-2.35	3.97	28.18	21.86	153.335	Horizontal	Pass
15.0MHz	75/0	1857.5	-2.30	3.79	28.34	22.25	167.834	Horizontal	Pass

Band 16 QAM		1880	-2.01	3.95	28.22	22.26	168.167	Horizontal	Pass
		1902.5	-2.30	3.97	28.18	21.91	155.361	Horizontal	Pass
20.0MHz Band QPSK	100/0	1860	-2.28	3.81	28.35	22.26	168.408	Horizontal	Pass
		1880	-2.77	3.96	28.22	21.49	141.068	Horizontal	Pass
		1900	-2.24	4	28.16	21.92	155.732	Horizontal	Pass
20.0MHz Band 16 QAM	100/0	1860	-2.68	3.81	28.35	21.86	153.417	Horizontal	Pass
		1880	-2.40	3.96	28.22	21.86	153.415	Horizontal	Pass
		1900	-2.10	4	28.16	22.06	160.688	Horizontal	Pass

Radiated Power (EIRP) for Band 2									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	
1.4MHz Band QPSK	6/0	1850.7	-2.58	3.76	28.24	21.90	154.926	Vertical	Pass
		1880	-2.48	3.91	28.22	21.83	152.334	Vertical	Pass
		1909.3	-2.21	3.93	28.2	22.06	160.800	Vertical	Pass
1.4MHz Band 16 QAM	6/0	1850.7	-2.01	3.76	28.24	22.47	176.672	Vertical	Pass
		1880	-2.34	3.91	28.22	21.97	157.523	Vertical	Pass
		1909.3	-2.90	3.93	28.2	21.37	137.236	Vertical	Pass
3.0MHz Band QPSK	15/0	1851.5	-2.91	3.77	28.23	21.55	142.955	Vertical	Pass
		1880	-2.30	3.91	28.24	22.03	159.724	Vertical	Pass
		1908.5	-2.81	3.94	28.25	21.50	141.400	Vertical	Pass
3.0MHz Band 16 QAM	15/0	1851.5	-2.79	3.77	28.23	21.67	146.791	Vertical	Pass
		1880	-2.70	3.91	28.24	21.63	145.598	Vertical	Pass
		1908.5	-2.92	3.94	28.25	21.39	137.755	Vertical	Pass
5.0MHz Band QPSK	25/0	1852.5	-2.12	3.77	28.31	22.42	174.687	Vertical	Pass
		1880	-2.42	3.91	28.22	21.89	154.632	Vertical	Pass
		1907.5	-2.26	3.94	28.2	22.00	158.470	Vertical	Pass
5.0MHz Band 16 QAM	25/0	1852.5	-2.92	3.77	28.31	21.62	145.192	Vertical	Pass
		1880	-2.78	3.91	28.22	21.53	142.182	Vertical	Pass
		1907.5	-2.30	3.94	28.2	21.96	156.931	Vertical	Pass
10.0MHz Band QPSK	50/0	1855	-2.27	3.79	28.33	22.27	168.494	Vertical	Pass
		1880	-2.03	3.95	28.22	22.24	167.454	Vertical	Pass
		1905	-2.94	3.97	28.19	21.28	134.167	Vertical	Pass
10.0MHz Band 16 QAM	50/0	1855	-2.70	3.79	28.33	21.84	152.673	Vertical	Pass
		1880	-2.88	3.95	28.22	21.39	137.631	Vertical	Pass
		1905	-2.93	3.97	28.19	21.29	134.541	Vertical	Pass

15.0MHz Band QPSK	75/0	1857.5	-2.30	3.79	28.34	22.25	167.784	Vertical	Pass
		1880	-2.72	3.95	28.22	21.55	142.886	Vertical	Pass
		1902.5	-2.87	3.97	28.18	21.34	136.071	Vertical	Pass
15.0MHz Band 16 QAM	75/0	1857.5	-2.24	3.79	28.34	22.31	170.085	Vertical	Pass
		1880	-2.72	3.95	28.22	21.55	143.028	Vertical	Pass
		1902.5	-2.00	3.97	28.18	22.21	166.230	Vertical	Pass
20.0MHz Band QPSK	100/0	1860	-2.61	3.81	28.35	21.93	155.784	Vertical	Pass
		1880	-2.71	3.96	28.22	21.55	142.972	Vertical	Pass
		1900	-2.45	4	28.16	21.71	148.367	Vertical	Pass
20.0MHz Band 16 QAM	100/0	1860	-2.49	3.81	28.35	22.05	160.369	Vertical	Pass
		1880	-2.98	3.96	28.22	21.28	134.341	Vertical	Pass
		1900	-2.69	4	28.16	21.47	140.185	Vertical	Pass

LTE Band 4

Radiated Power (EIRP) for Band 4									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	
1.4MHz Band QPSK	6/0	1710.7	-2.05	3.12	27.58	22.41	174.129	Horizontal	Pass
		1732.5	-2.49	3.27	27.61	21.85	153.162	Horizontal	Pass
		1754.3	-2.31	3.29	27.63	22.03	159.489	Horizontal	Pass
1.4MHz Band 16 QAM	6/0	1710.7	-2.72	3.12	27.58	21.74	149.156	Horizontal	Pass
		1732.5	-2.12	3.27	27.61	22.22	166.610	Horizontal	Pass
		1754.3	-2.69	3.29	27.63	21.65	146.211	Horizontal	Pass
3.0MHz Band QPSK	15/0	1711.5	-2.97	3.13	27.61	21.51	141.615	Horizontal	Pass
		1732.5	-2.75	3.27	27.61	21.59	144.073	Horizontal	Pass
		1753.5	-2.76	3.3	27.62	21.56	143.121	Horizontal	Pass
3.0MHz Band 16 QAM	15/0	1711.5	-2.99	3.13	27.61	21.49	141.037	Horizontal	Pass
		1732.5	-2.85	3.27	27.61	21.49	140.956	Horizontal	Pass
		1753.5	-2.94	3.3	27.62	21.38	137.489	Horizontal	Pass
5.0MHz Band QPSK	25/0	1712.5	-2.13	3.13	27.63	22.37	172.536	Horizontal	Pass
		1732.5	-2.33	3.27	27.61	22.01	159.027	Horizontal	Pass
		1752.5	-2.12	3.3	27.6	22.18	165.343	Horizontal	Pass
5.0MHz Band 16 QAM	25/0	1712.5	-2.13	3.13	27.63	22.37	172.646	Horizontal	Pass
		1732.5	-2.90	3.27	27.61	21.44	139.425	Horizontal	Pass
		1752.5	-2.49	3.3	27.6	21.81	151.552	Horizontal	Pass

10.0MHz Band QPSK	50/0	1715	-2.56	3.15	27.64	21.93	156.079	Horizontal	Pass
		1732.5	-2.93	3.31	27.61	21.37	137.055	Horizontal	Pass
		1750	-2.68	3.33	27.59	21.58	143.916	Horizontal	Pass
10.0MHz Band 16 QAM	50/0	1715	-2.78	3.15	27.64	21.71	148.185	Horizontal	Pass
		1732.5	-2.39	3.31	27.61	21.91	155.239	Horizontal	Pass
		1750	-2.72	3.33	27.59	21.54	142.540	Horizontal	Pass
15.0MHz Band QPSK	75/0	1717.5	-2.69	3.15	27.65	21.81	151.864	Horizontal	Pass
		1732.5	-2.49	3.31	27.61	21.81	151.722	Horizontal	Pass
		1747.5	-2.91	3.33	27.57	21.33	135.716	Horizontal	Pass
15.0MHz Band 16 QAM	75/0	1717.5	-2.01	3.15	27.65	22.49	177.341	Horizontal	Pass
		1732.5	-2.01	3.31	27.61	22.29	169.410	Horizontal	Pass
		1747.5	-2.00	3.33	27.57	22.24	167.437	Horizontal	Pass
20.0MHz Band QPSK	100/0	1720	-2.90	3.17	27.66	21.59	144.235	Horizontal	Pass
		1732.5	-2.87	3.32	27.61	21.42	138.739	Horizontal	Pass
		1745	-2.11	3.36	27.56	22.09	161.627	Horizontal	Pass
20.0MHz Band 16 QAM	100/0	1720	-2.12	3.17	27.66	22.37	172.609	Horizontal	Pass
		1732.5	-2.02	3.32	27.61	22.27	168.705	Horizontal	Pass
		1745	-2.22	3.36	27.56	21.98	157.864	Horizontal	Pass

Radiated Power (EIRP) for Band 4									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	
1.4MHz Band QPSK	6/0	1710.7	-2.69	3.12	27.58	21.77	150.406	Vertical	Pass
		1732.5	-2.06	3.27	27.61	22.28	168.906	Vertical	Pass
		1754.3	-2.22	3.29	27.63	22.12	162.952	Vertical	Pass
1.4MHz Band 16 QAM	6/0	1710.7	-2.08	3.12	27.58	22.38	172.891	Vertical	Pass
		1732.5	-2.23	3.27	27.61	22.11	162.688	Vertical	Pass
		1754.3	-2.96	3.29	27.63	21.38	137.482	Vertical	Pass
3.0MHz Band QPSK	15/0	1711.5	-2.33	3.13	27.61	22.15	163.990	Vertical	Pass
		1732.5	-2.59	3.27	27.61	21.75	149.521	Vertical	Pass
		1753.5	-2.14	3.3	27.62	22.18	165.165	Vertical	Pass
3.0MHz Band 16 QAM	15/0	1711.5	-2.18	3.13	27.61	22.30	169.758	Vertical	Pass
		1732.5	-2.56	3.27	27.61	21.78	150.559	Vertical	Pass
		1753.5	-2.27	3.3	27.62	22.05	160.143	Vertical	Pass
5.0MHz Band	25/0	1712.5	-2.93	3.13	27.63	21.57	143.453	Vertical	Pass
		1732.5	-2.77	3.27	27.61	21.57	143.698	Vertical	Pass

QPSK		1752.5	-2.52	3.3	27.6	21.78	150.578	Vertical	Pass
5.0MHz		1712.5	-2.85	3.13	27.63	21.65	146.228	Vertical	Pass
Band 16	25/0	1732.5	-2.26	3.27	27.61	22.08	161.476	Vertical	Pass
QAM		1752.5	-2.85	3.3	27.6	21.45	139.637	Vertical	Pass
10.0MHz		1715	-2.66	3.15	27.64	21.83	152.446	Vertical	Pass
Band	50/0	1732.5	-2.35	3.31	27.61	21.95	156.778	Vertical	Pass
QPSK		1750	-2.52	3.33	27.59	21.74	149.333	Vertical	Pass
10.0MHz		1715	-2.04	3.15	27.64	22.45	175.760	Vertical	Pass
Band 16	50/0	1732.5	-2.90	3.31	27.61	21.40	138.015	Vertical	Pass
QAM		1750	-2.72	3.33	27.59	21.54	142.572	Vertical	Pass
15.0MHz		1717.5	-2.07	3.15	27.65	22.43	175.135	Vertical	Pass
Band	75/0	1732.5	-2.33	3.31	27.61	21.97	157.433	Vertical	Pass
QPSK		1747.5	-2.29	3.33	27.57	21.95	156.791	Vertical	Pass
15.0MHz		1717.5	-2.44	3.15	27.65	22.06	160.754	Vertical	Pass
Band 16	75/0	1732.5	-2.41	3.31	27.61	21.89	154.528	Vertical	Pass
QAM		1747.5	-2.38	3.33	27.57	21.86	153.410	Vertical	Pass
20.0MHz		1720	-2.35	3.17	27.66	22.14	163.782	Vertical	Pass
Band	100/0	1732.5	-2.26	3.32	27.61	22.03	159.536	Vertical	Pass
QPSK		1745	-2.45	3.36	27.56	21.75	149.575	Vertical	Pass
20.0MHz		1720	-2.38	3.17	27.66	22.11	162.714	Vertical	Pass
Band 16	100/0	1732.5	-2.30	3.32	27.61	21.99	158.185	Vertical	Pass
QAM		1745	-3.00	3.36	27.56	21.20	131.872	Vertical	Pass

LTE Band 5

Radiated Power (ERP) for Band 5										
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Correction (dB)	Max. ERP Average (dBm)	Max. ERP Average (mW)	Polarization Of Max. ERP	
1.4MHz Band QPSK	6/0	824.7	7.34	2.01	19.68	2.15	22.86	193.307	Horizontal	Pass
		836.5	7.81	2.01	19.77	2.15	23.42	219.963	Horizontal	Pass
		848.3	7.64	2.02	19.82	2.15	23.29	213.308	Horizontal	Pass
1.4MHz Band 16 QAM	6/0	824.7	7.79	2.01	19.68	2.15	23.31	214.238	Horizontal	Pass
		836.5	7.77	2.01	19.77	2.15	23.38	217.687	Horizontal	Pass
		848.3	7.36	2.02	19.82	2.15	23.01	199.951	Horizontal	Pass
3.0MHz Band QPSK	15/0	825.5	7.45	2.01	19.7	2.15	22.99	198.961	Horizontal	Pass
		836.5	7.63	2.01	19.77	2.15	23.24	211.060	Horizontal	Pass
		847.5	7.16	2.02	19.81	2.15	22.80	190.458	Horizontal	Pass
3.0MHz Band 16 QAM	15/0	825.5	7.80	2.01	19.7	2.15	23.34	215.980	Horizontal	Pass
		836.5	7.86	2.01	19.77	2.15	23.47	222.102	Horizontal	Pass
		847.5	7.72	2.02	19.81	2.15	23.36	216.708	Horizontal	Pass
5.0MHz Band QPSK	25/0	826.5	7.66	2.01	19.71	2.15	23.21	209.539	Horizontal	Pass
		836.5	7.64	2.01	19.77	2.15	23.25	211.273	Horizontal	Pass
		846.5	7.43	2.02	19.79	2.15	23.05	202.006	Horizontal	Pass
5.0MHz Band 16 QAM	25/0	826.5	7.18	2.01	19.71	2.15	22.73	187.345	Horizontal	Pass
		836.5	7.10	2.01	19.77	2.15	22.71	186.614	Horizontal	Pass
		846.5	7.05	2.02	19.79	2.15	22.67	184.873	Horizontal	Pass
10.0MHz Band QPSK	50/0	829	7.57	2.01	19.73	2.15	23.14	205.917	Horizontal	Pass
		836.5	7.08	2.01	19.77	2.15	22.69	185.973	Horizontal	Pass
		844	7.60	2.02	19.78	2.15	23.21	209.547	Horizontal	Pass
10.0MHz Band 16 QAM	50/0	829	7.33	2.01	19.73	2.15	22.90	195.037	Horizontal	Pass
		836.5	7.49	2.01	19.77	2.15	23.10	204.336	Horizontal	Pass
		844	7.44	2.02	19.78	2.15	23.05	201.901	Horizontal	Pass

Radiated Power (ERP) for Band 5										
Mode	RB/RB SIZE	Frequency	Result							Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Correction (dB)	Max. ERP Average (dBm)	Max. ERP Average (mW)	Polarization Of Max. ERP	
1.4MHz Band QPSK	6/0	824.7	7.25	2.01	19.68	2.15	22.77	189.264	Vertical	Pass
		836.5	8.00	2.01	19.77	2.15	23.61	229.570	Vertical	Pass
		848.3	7.33	2.02	19.82	2.15	22.98	198.739	Vertical	Pass
1.4MHz Band 16 QAM	6/0	824.7	7.19	2.01	19.68	2.15	22.71	186.471	Vertical	Pass
		836.5	7.75	2.01	19.77	2.15	23.36	216.837	Vertical	Pass
		848.3	7.03	2.02	19.82	2.15	22.68	185.375	Vertical	Pass
3.0MHz Band QPSK	15/0	825.5	7.61	2.01	19.7	2.15	23.15	206.618	Vertical	Pass
		836.5	7.32	2.01	19.77	2.15	22.93	196.348	Vertical	Pass
		847.5	7.32	2.02	19.81	2.15	22.96	197.689	Vertical	Pass
3.0MHz Band 16 QAM	15/0	825.5	7.26	2.01	19.7	2.15	22.80	190.617	Vertical	Pass
		836.5	7.72	2.01	19.77	2.15	23.33	215.239	Vertical	Pass
		847.5	7.02	2.02	19.81	2.15	22.66	184.543	Vertical	Pass
5.0MHz Band QPSK	25/0	826.5	7.11	2.01	19.71	2.15	22.66	184.651	Vertical	Pass
		836.5	7.58	2.01	19.77	2.15	23.19	208.280	Vertical	Pass
		846.5	7.55	2.02	19.79	2.15	23.17	207.558	Vertical	Pass
5.0MHz Band 16 QAM	25/0	826.5	7.67	2.01	19.71	2.15	23.22	209.739	Vertical	Pass
		836.5	7.67	2.01	19.77	2.15	23.28	213.039	Vertical	Pass
		846.5	7.93	2.02	19.79	2.15	23.55	226.507	Vertical	Pass
10.0MHz Band QPSK	50/0	829	7.25	2.01	19.73	2.15	22.82	191.446	Vertical	Pass
		836.5	7.81	2.01	19.77	2.15	23.42	219.790	Vertical	Pass
		844	7.68	2.02	19.78	2.15	23.29	213.514	Vertical	Pass
10.0MHz Band 16 QAM	50/0	829	7.29	2.01	19.73	2.15	22.86	193.058	Vertical	Pass
		836.5	7.33	2.01	19.77	2.15	22.94	196.680	Vertical	Pass
		844	7.78	2.02	19.78	2.15	23.39	218.078	Vertical	Pass

LTE Band 17

Radiated Power (EIRP) for Band 17									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. ERP Average (dBm)	Max. ERP Average (mW)	Polarization Of Max. ERP	
5.0MHz Band QPSK	25/0	706.5	-0.51	4.54	27.75	22.70	186.162	Horizontal	Pass
		710	-0.16	4.69	27.72	22.87	193.694	Horizontal	Pass
		713.5	-0.60	4.71	27.71	22.40	173.629	Horizontal	Pass
5.0MHz Band 16 QAM	25/0	706.5	-0.53	4.54	27.75	22.68	185.555	Horizontal	Pass
		710	-0.48	4.69	27.72	22.55	180.064	Horizontal	Pass
		713.5	-0.11	4.71	27.71	22.89	194.350	Horizontal	Pass
10.0MHz Band QPSK	50/0	709	-0.39	4.55	27.76	22.82	191.454	Horizontal	Pass
		710	-0.50	4.69	27.72	22.53	178.994	Horizontal	Pass
		711	-0.47	4.72	27.7	22.51	178.297	Horizontal	Pass
10.0MHz Band 16 QAM	50/0	709	-0.55	4.55	27.76	22.66	184.367	Horizontal	Pass
		710	-0.84	4.69	27.72	22.19	165.690	Horizontal	Pass
		711	-0.50	4.72	27.7	22.48	177.031	Horizontal	Pass

Radiated Power (EIRP) for Band 17									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. ERP Average (dBm)	Max. ERP Average (mW)	Polarization Of Max. ERP	
5.0MHz Band QPSK	25/0	706.5	-0.71	4.54	27.75	22.50	178.005	Vertical	Pass
		710	-0.29	4.69	27.72	22.74	187.722	Vertical	Pass
		713.5	-0.81	4.71	27.71	22.19	165.729	Vertical	Pass
5.0MHz Band 16 QAM	25/0	706.5	-0.55	4.54	27.75	22.66	184.643	Vertical	Pass
		710	-0.68	4.69	27.72	22.35	171.783	Vertical	Pass
		713.5	-0.52	4.71	27.71	22.48	177.031	Vertical	Pass
10.0MHz Band QPSK	50/0	709	-0.78	4.55	27.76	22.43	175.026	Vertical	Pass
		710	-0.13	4.69	27.72	22.90	195.202	Vertical	Pass
		711	-0.12	4.72	27.7	22.86	193.262	Vertical	Pass
10.0MHz Band 16 QAM	50/0	709	-1.00	4.55	27.76	22.21	166.502	Vertical	Pass
		710	-0.67	4.69	27.72	22.36	172.057	Vertical	Pass
		711	-0.05	4.72	27.7	22.93	196.186	Vertical	Pass

LTE Band 40

Radiated Power (EIRP) for Band 40 (2305-2315MHz)									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	
5.0MHz Band QPSK	25/0	2307.5	-0.41	4.54	27.75	22.80	190.460	Horizontal	Pass
5.0MHz Band 16 QAM	25/0	2307.5	-0.26	4.54	27.75	22.95	197.362	Horizontal	Pass
5.0MHz Band QPSK	25/0	2312.5	-0.27	4.54	27.75	22.94	196.642	Horizontal	Pass
5.0MHz Band 16 QAM	25/0	2312.5	-0.47	4.54	27.75	22.74	187.726	Horizontal	Pass
5.0MHz Band QPSK	25/0	2307.5	-0.38	4.54	27.75	22.83	192.022	Vertical	Pass
5.0MHz Band 16 QAM	25/0	2307.5	-0.75	4.54	27.75	22.46	176.312	Vertical	Pass
5.0MHz Band QPSK	25/0	2312.5	-0.77	4.54	27.75	22.44	175.457	Vertical	Pass
5.0MHz Band 16 QAM	25/0	2312.5	-0.93	4.54	27.75	22.28	168.889	Vertical	Pass
10.0MHz Band QPSK	50/0	2310	-0.85	4.55	27.76	22.36	172.373	Horizontal	Pass
10.0MHz Band 16 QAM	50/0	2310	-0.02	4.55	27.76	23.19	208.314	Vertical	Pass

Radiated Power (EIRP) for Band 40 (2350-2360MHz)									
Mode	RB/RB SIZE	Frequency	Result						Conclusion
			SG Level (dBm)	Cable Loss (dBm)	Antenna Gain (dB)	Max. EIRP Average (dBm)	Max. EIRP Average (mW)	Polarization Of Max. ERP	
5.0MHz Band QPSK	25/0	2352.5	-0.57	4.54	27.75	22.64	183.511	Horizontal	Pass
5.0MHz Band 16 QAM	25/0	2352.5	-0.01	4.54	27.75	23.20	208.902	Horizontal	Pass
5.0MHz Band QPSK	25/0	2357.5	-0.35	4.54	27.75	22.86	193.213	Horizontal	Pass
5.0MHz Band 16 QAM	25/0	2357.5	-0.12	4.54	27.75	23.09	203.851	Horizontal	Pass
5.0MHz Band QPSK	25/0	2352.5	-0.90	4.54	27.75	22.31	170.109	Vertical	Pass
5.0MHz Band 16 QAM	25/0	2352.5	-0.54	4.54	27.75	22.67	184.950	Vertical	Pass
5.0MHz Band QPSK	25/0	2357.5	-0.71	4.54	27.75	22.50	177.730	Vertical	Pass
5.0MHz Band 16 QAM	25/0	2357.5	-0.11	4.54	27.75	23.10	204.108	Vertical	Pass
10.0MHz Band QPSK	50/0	2355	-0.33	4.55	27.76	22.88	194.026	Vertical	Pass
10.0MHz Band 16 QAM	50/0	2355	-0.20	4.55	27.76	23.01	199.971	Vertical	Pass

5.3 **Peak-to-Average Ratio**

5.3.1 Limit

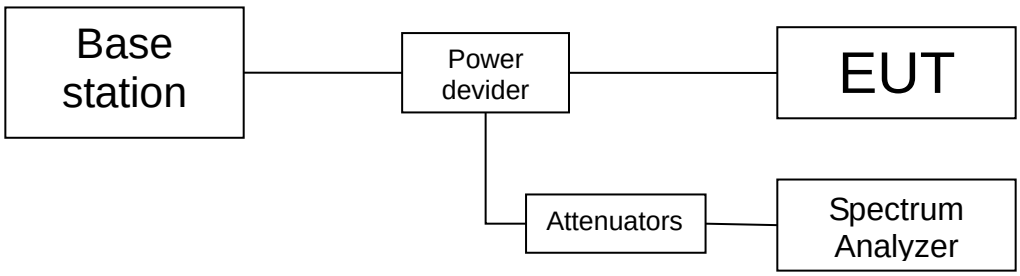
Not exceed 13 dB

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	5.16
	16QAM	100	0	6.02

LTE Band 4, Middle Channel

BW(MHz)	Modulation	RB Size	RB Offset	PAPR
20	QPSK	100	0	6.18
	16QAM	100	0	6.99

LTE Band 5, Middle Channel

BW(MHz)	Modulation	RB Size	RB Offset	PAPR
10	QPSK	50	0	4.97
	16QAM	50	0	5.73

LTE Band 17, Middle Channel

BW(MHz)	Modulation	RB Size	RB Offset	PAPR
10	QPSK	50	0	5.77
	16QAM	50	0	6.59

LTE Band 40, Middle Channel

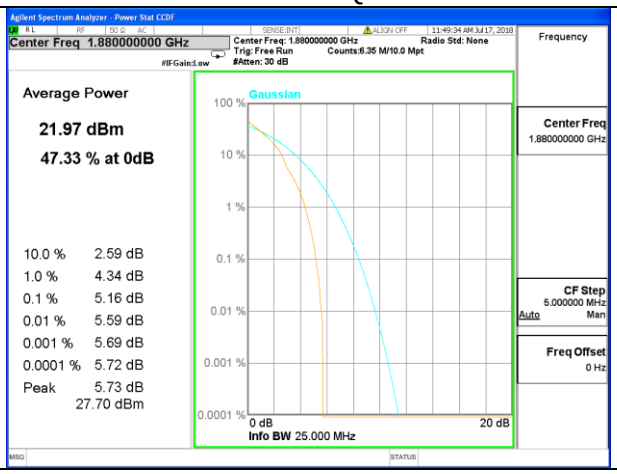
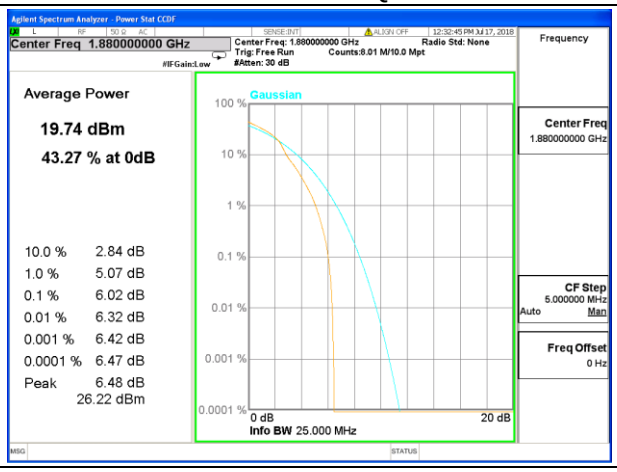
2305-2315MHz

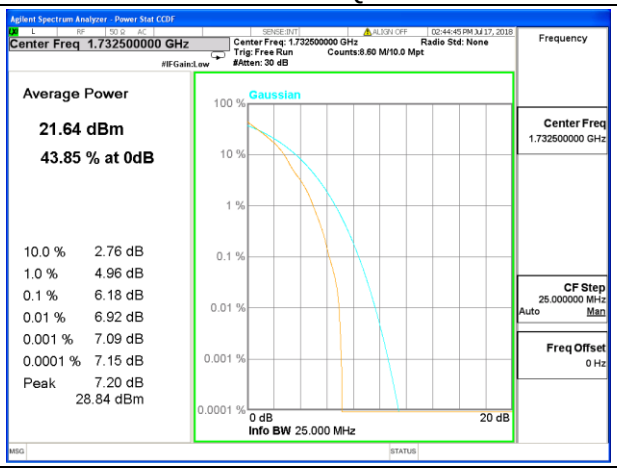
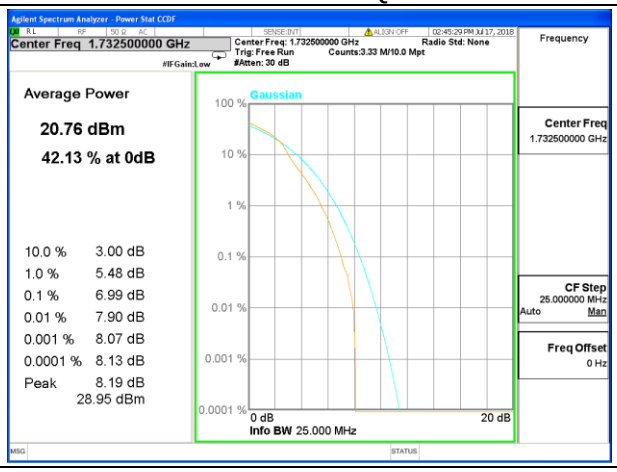
BW(MHz)	Modulation	RB Size	RB Offset	PAPR
5	QPSK	50	0	4.96
	16QAM	50	0	5.71

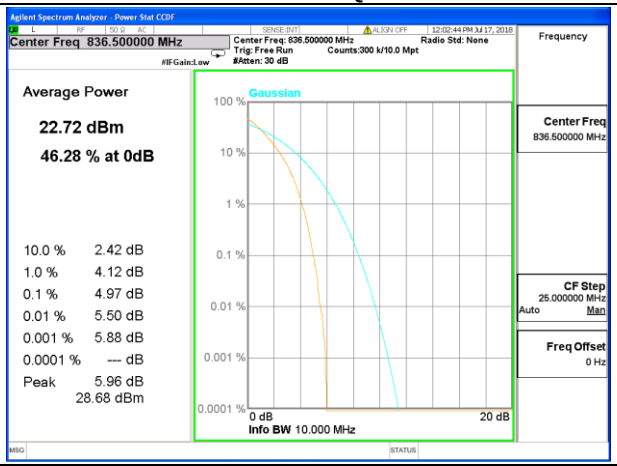
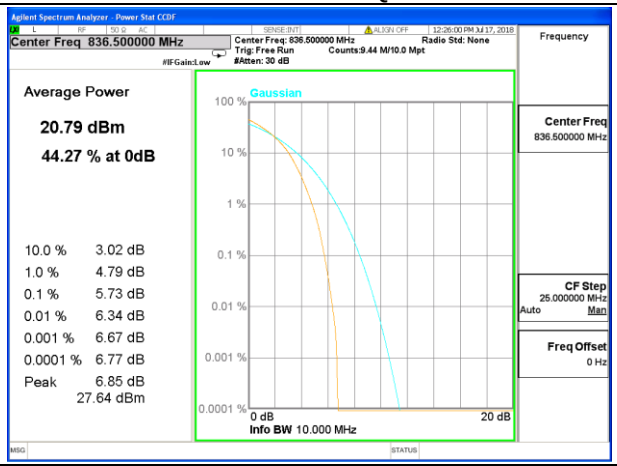
2350-2360MHz

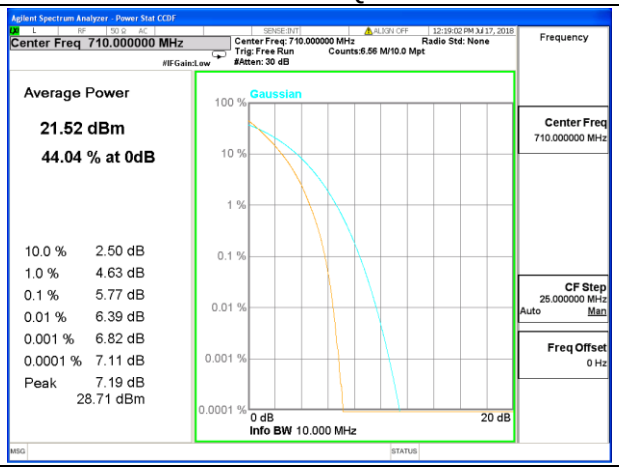
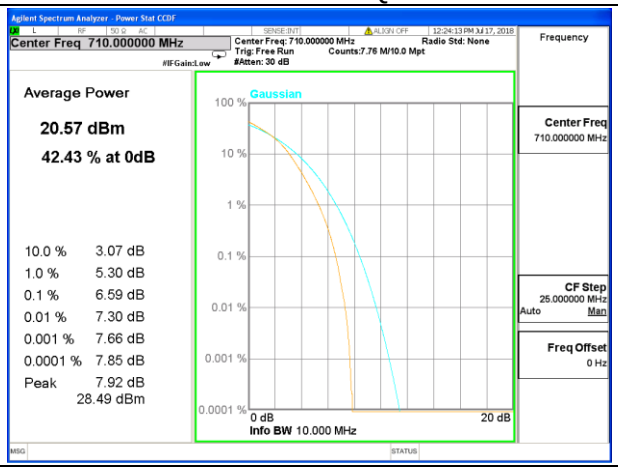
BW(MHz)	Modulation	RB Size	RB Offset	PAPR
10	QPSK	50	0	4.37
	16QAM	50	0	5.22

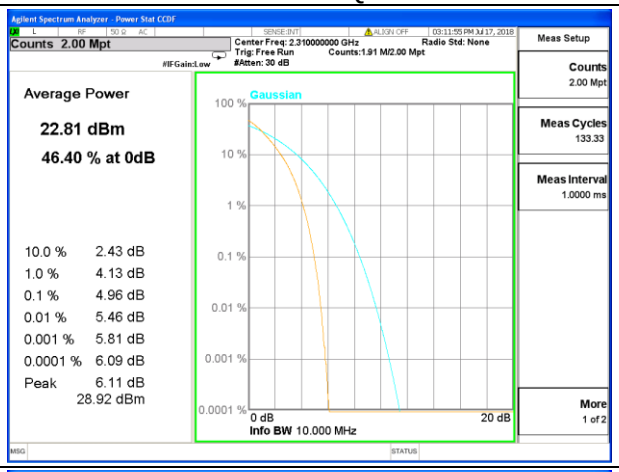
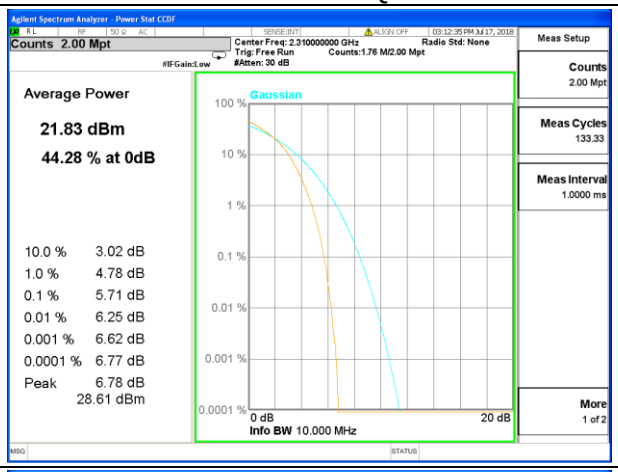
Test plots

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 17 Middle channel	
Modulation:QPSK	Modulation:16QAM
	

LTE Band 40 Middle channel	
Modulation:QPSK	Modulation:16QAM
	
	

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

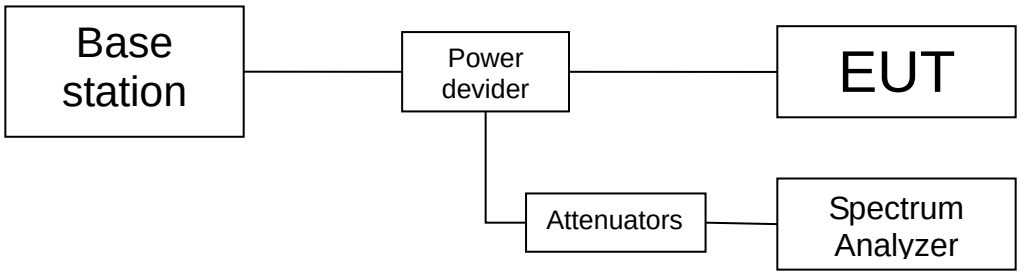
5.4.1 Limit

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	1.0826	1.250	1.0813	1.235
	Middle	1.0900	1.249	1.0838	1.242
	High	1.0825	1.269	1.0869	1.277
3	Low	2.6832	2.923	2.6792	2.929
	Middle	2.6814	2.901	2.6768	2.898
	High	2.6905	2.964	2.6816	2.921
5	Low	4.4844	5.121	4.4800	4.951
	Middle	4.4662	4.974	4.4783	4.983
	High	4.4836	4.980	4.4685	4.929
10	Low	8.9506	9.780	8.9418	9.719
	Middle	8.9524	9.798	8.9425	9.666
	High	8.9436	9.793	8.9310	9.713
15	Low	13.475	14.74	13.467	14.71
	Middle	13.436	14.60	13.415	14.60
	High	13.378	14.73	13.400	14.62
20	Low	17.890	19.25	17.914	19.58
	Middle	17.850	19.16	17.889	19.18
	High	17.884	19.27	17.852	19.18

LTE Band 4

BW(MHz)	Channel	QPSK		16QAM	
		99% OBW (MHz)	26dB Bandwidth (MHz)	99% OBW (MHz)	26dB Bandwidth (MHz)
1.4	Low	1.0863	1.271	1.0819	1.238
	Middle	1.0909	1.246	1.0847	1.264
	High	1.0850	1.272	1.0811	1.240
3	Low	2.6824	2.912	2.6793	2.899
	Middle	2.6864	2.922	2.6808	2.923
	High	2.6828	2.895	2.6797	2.921
5	Low	4.4830	4.940	4.4754	4.901
	Middle	4.4673	4.931	4.4747	4.967
	High	4.4790	4.894	4.4771	4.947
10	Low	8.9547	9.781	8.9483	9.804
	Middle	8.9308	9.676	8.9419	9.676
	High	8.9690	9.759	8.9470	9.666
15	Low	13.351	13.94	13.286	13.97
	Middle	13.432	13.98	13.440	13.96
	High	13.466	14.14	13.496	14.04
20	Low	17.851	18.49	17.865	18.48
	Middle	17.838	18.46	17.874	18.56
	High	17.841	18.49	17.871	18.50

LTE Band 5

BW(MHz)	Channel	QPSK		16QAM	
		99% OBW (MHz)	26dB Bandwidth (MHz)	99% OBW (MHz)	26dB Bandwidth (MHz)
1.4	Low	1.0808	1.235	1.0851	1.268
	Middle	1.0820	1.251	1.0811	1.229
	High	1.0885	1.238	1.0835	1.242
3	Low	2.6836	2.906	2.6809	2.915
	Middle	2.6793	2.914	2.6776	2.899
	High	2.6820	2.902	2.6799	2.913
5	Low	4.4845	4.884	4.4814	4.950
	Middle	4.4648	5.004	4.4690	4.938
	High	4.4827	4.960	4.4709	4.909
10	Low	8.9461	9.771	8.9417	9.679
	Middle	8.9331	9.693	8.9238	9.647
	High	8.9559	9.694	8.9682	9.717

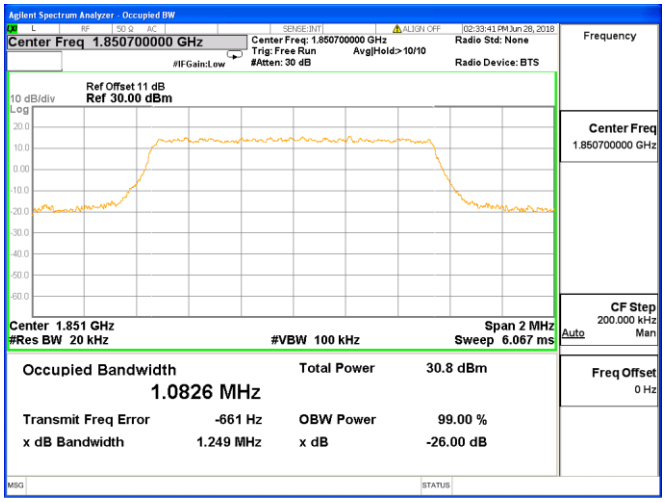
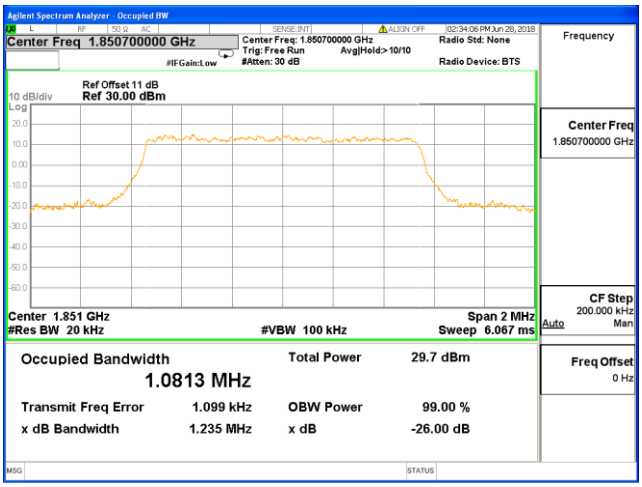
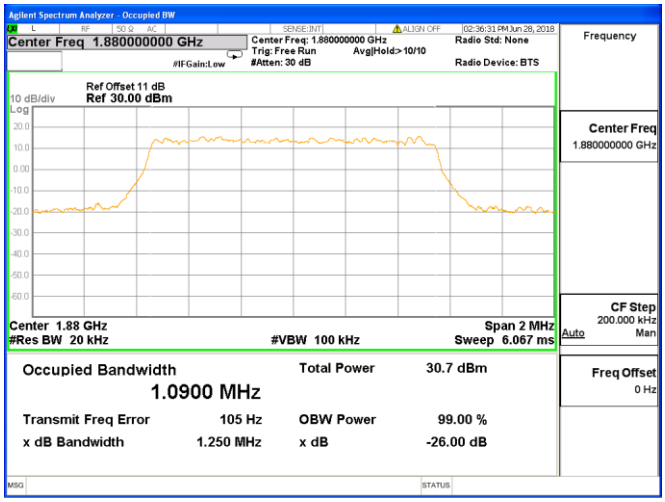
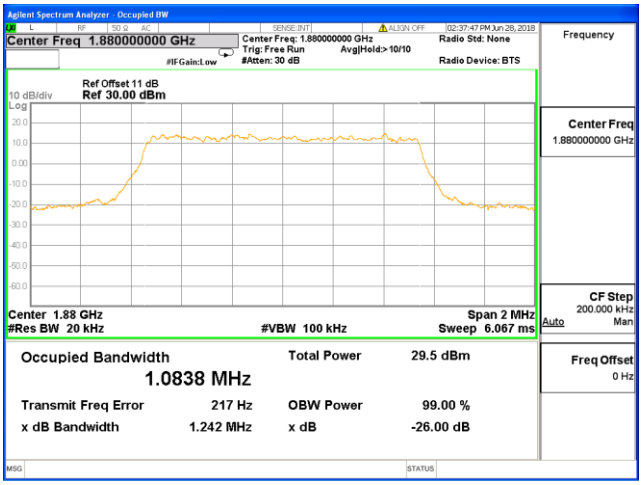
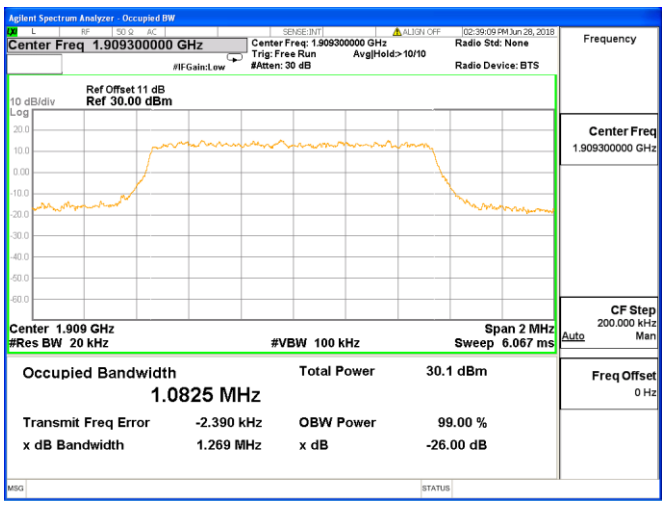
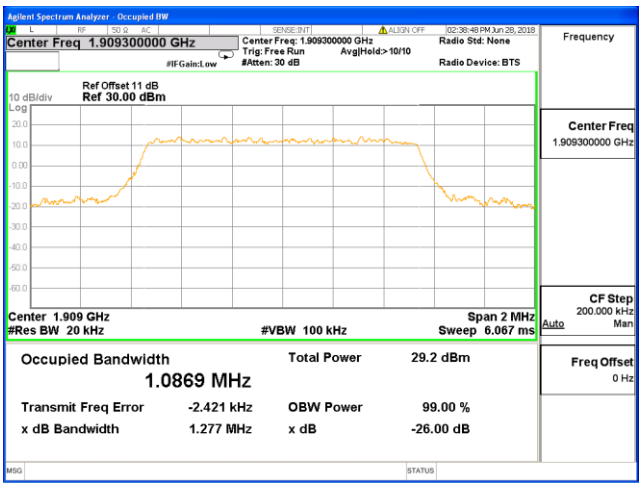
LTE Band 17

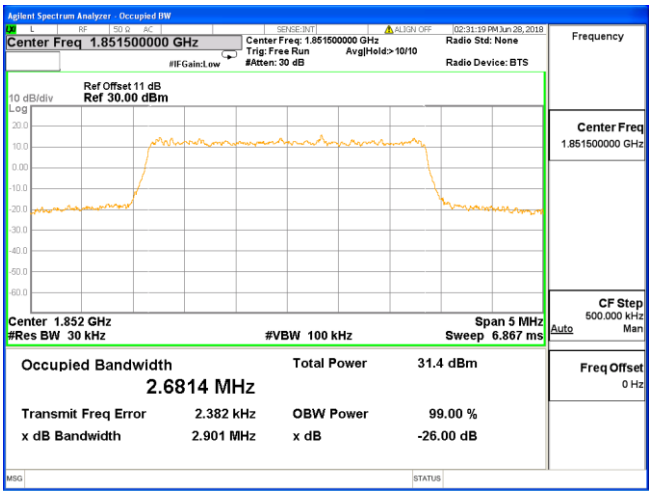
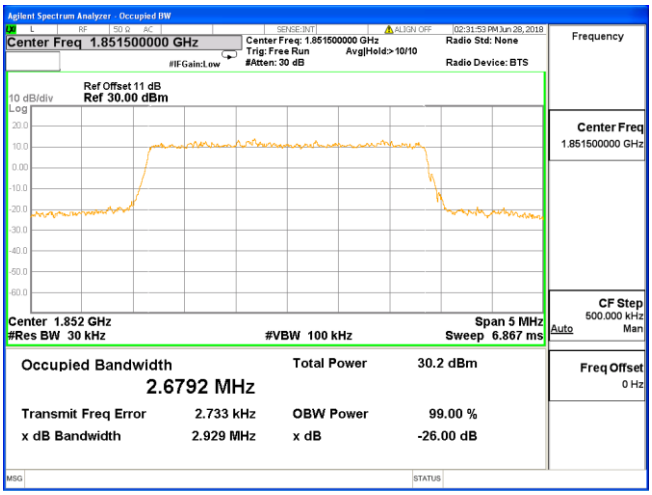
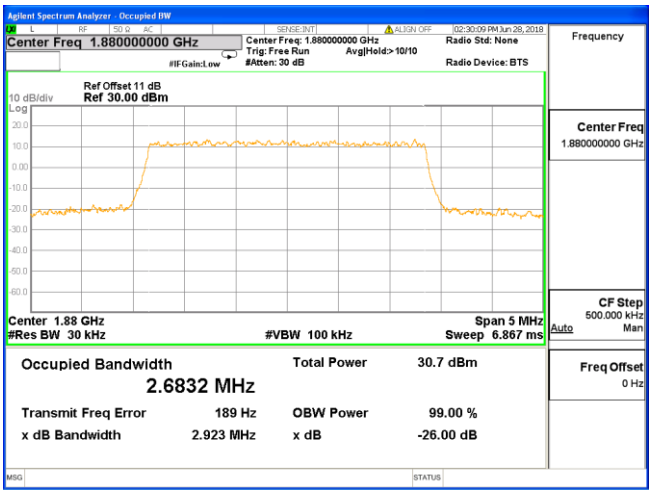
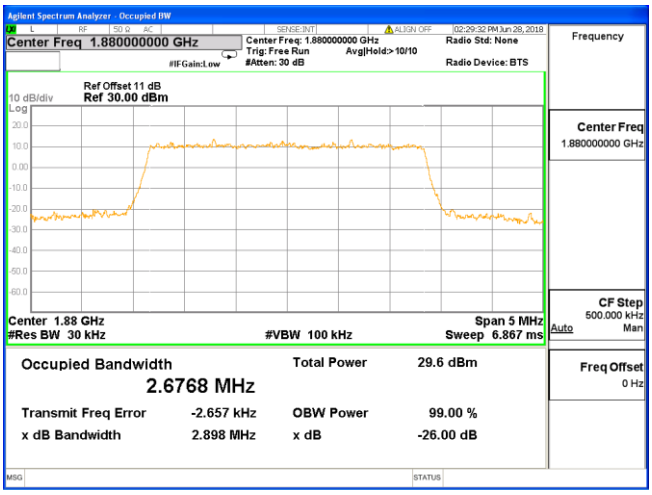
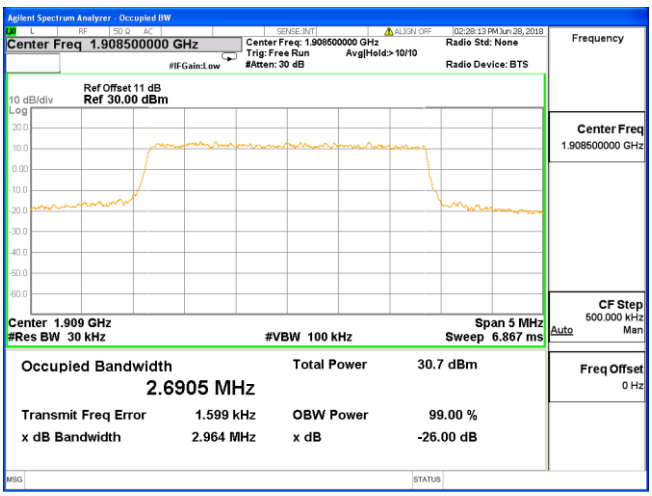
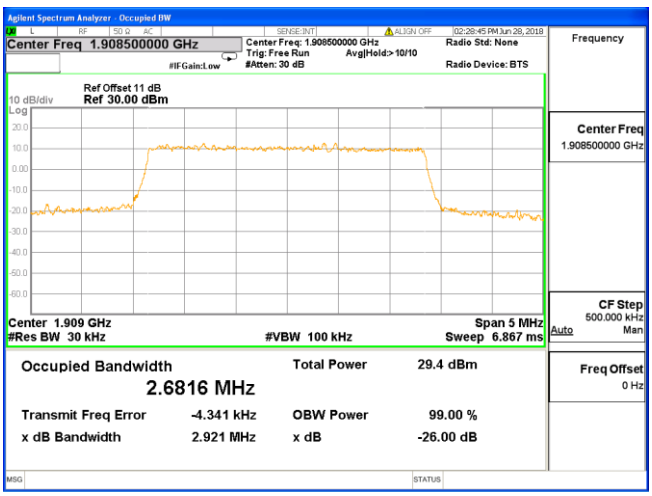
BW(MHz)	Channel	QPSK		16QAM	
		99% OBW (MHz)	26dB Bandwidth (MHz)	99% OBW (MHz)	26dB Bandwidth (MHz)
5	Low	4.4830	4.928	4.4822	4.958
	Middle	4.4609	4.894	4.4700	4.940
	High	4.4815	4.951	4.4795	4.908
10	Low	8.9110	9.659	8.9147	9.625
	Middle	8.9362	9.829	8.9179	9.622
	High	8.9245	9.703	8.9323	9.643

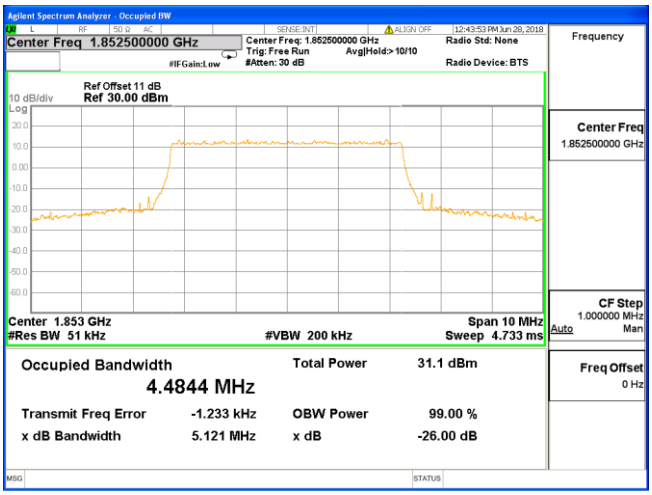
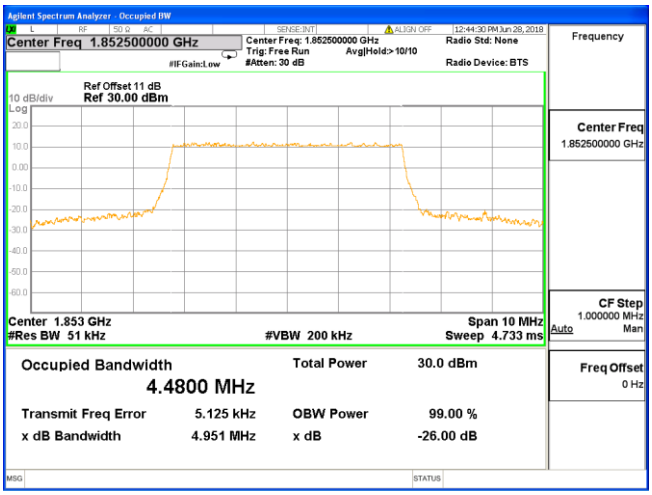
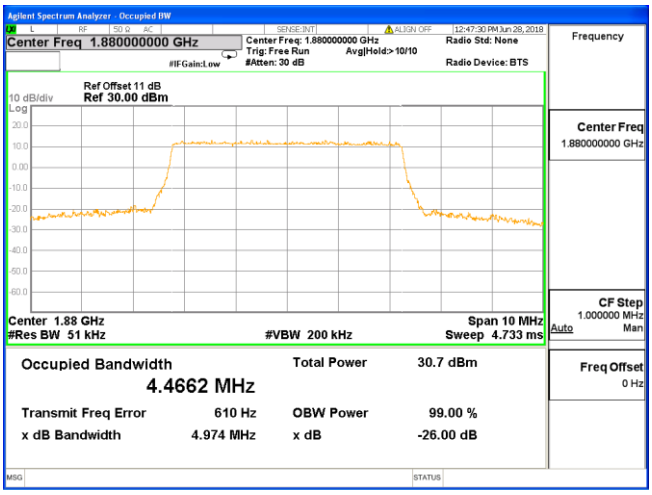
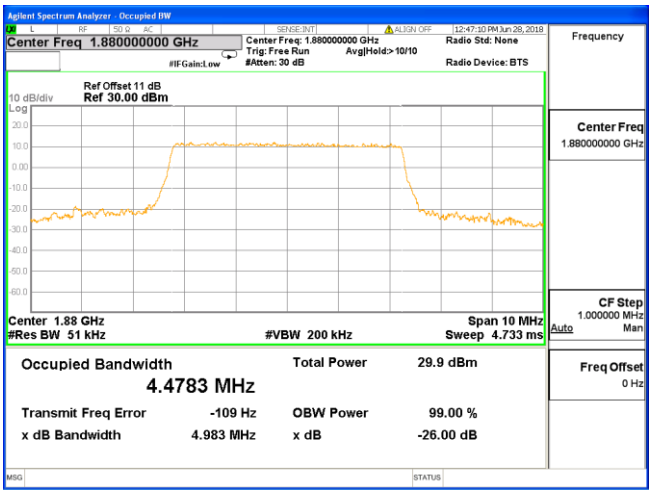
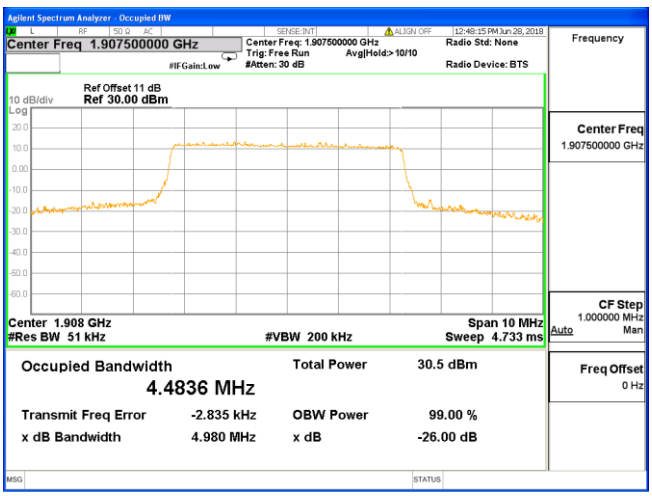
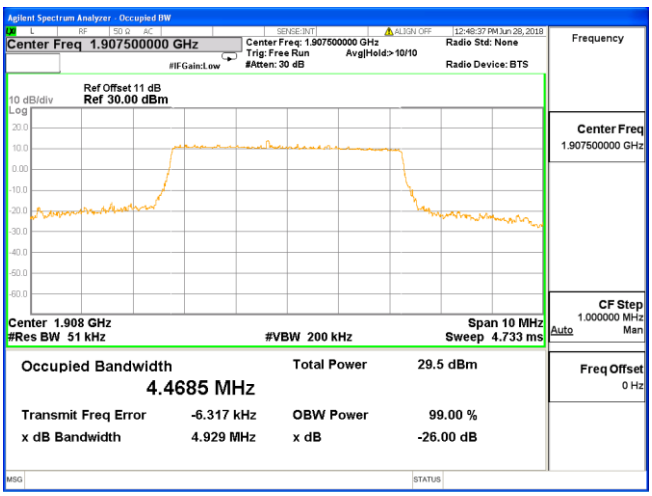
LTE Band 40

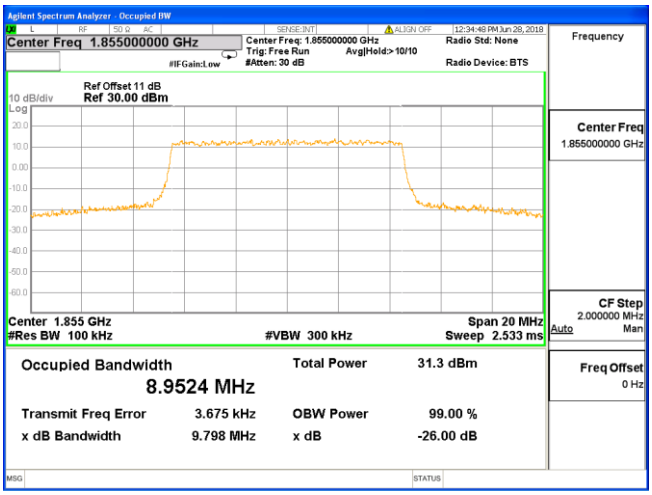
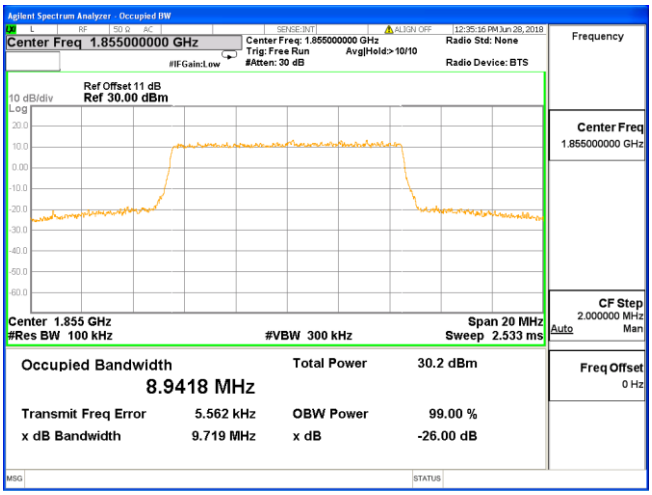
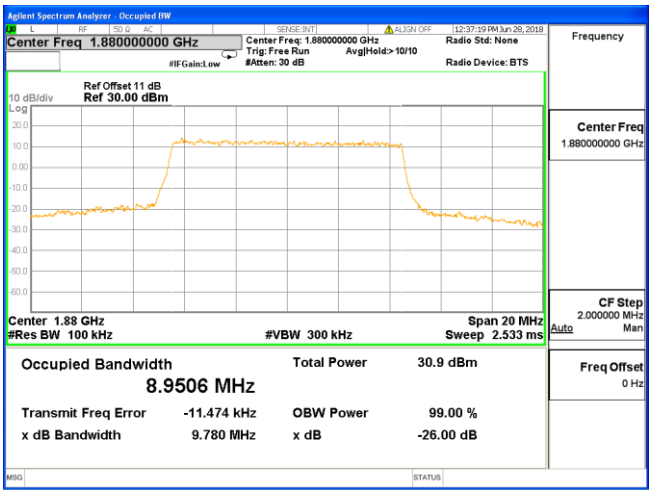
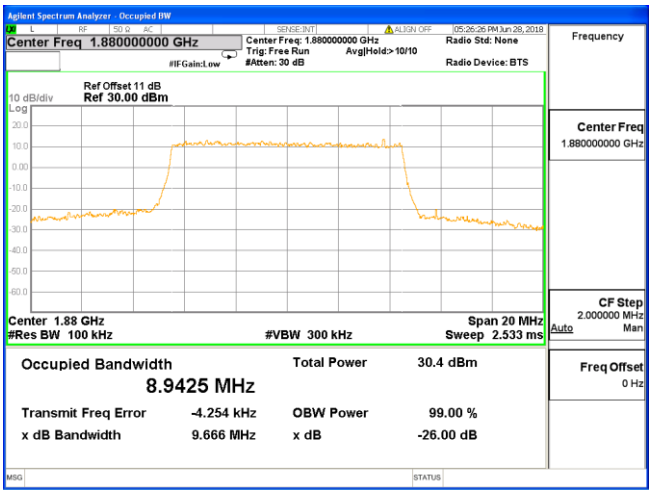
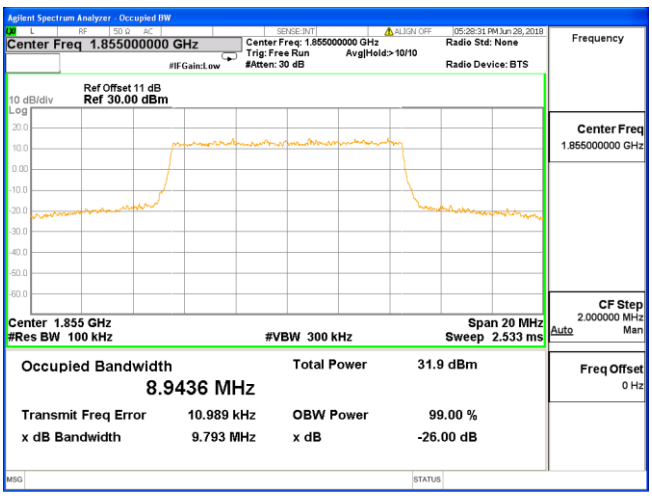
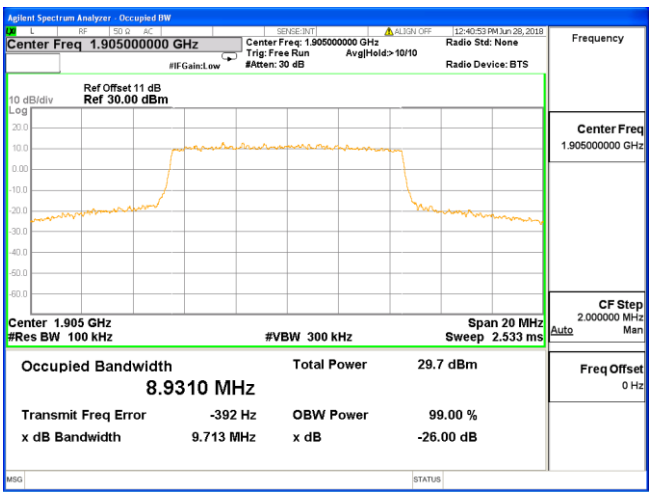
BW(MHz)	Channel	QPSK		16QAM	
		99% OBW (MHz)	26dB Bandwidth (MHz)	99% OBW (MHz)	26dB Bandwidth (MHz)
5	38725	4.4637	4.878	4.4557	4.912
	38775	4.4627	4.919	4.4612	4.881
	39175	4.4592	4.835	4.4627	4.840
	39225	4.4537	4.873	4.4563	4.905
10	38750	8.9396	9.638	8.9356	9.665
	39200	8.9488	9.683	8.9482	9.511

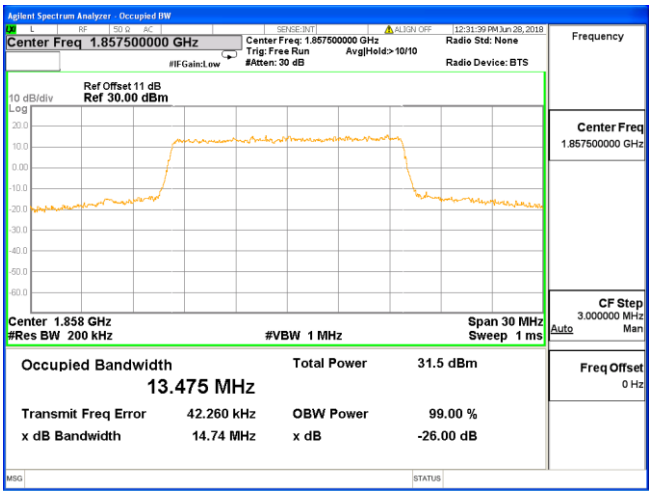
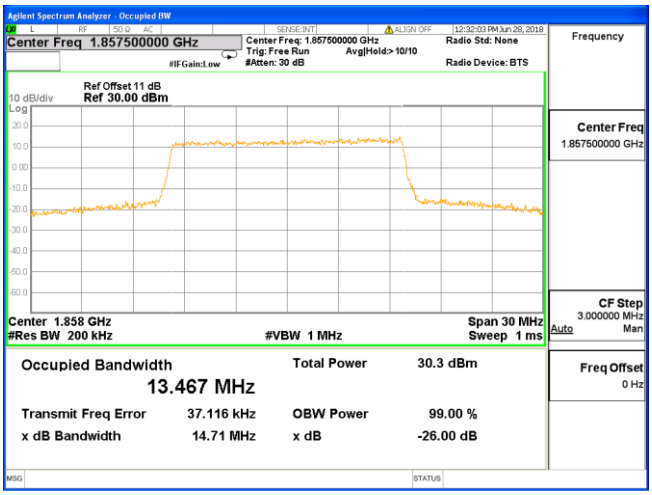
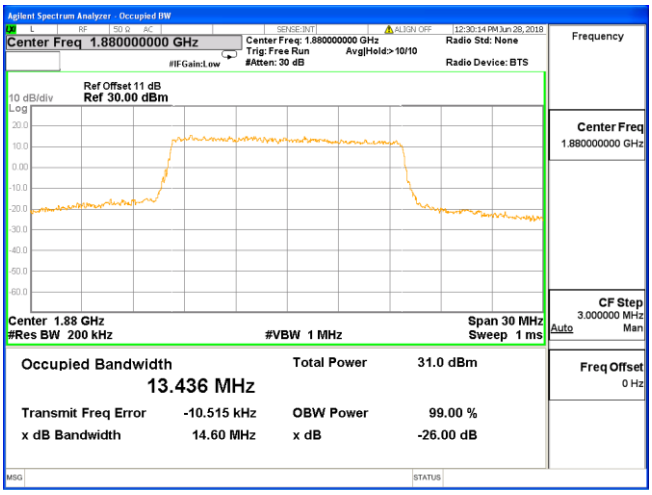
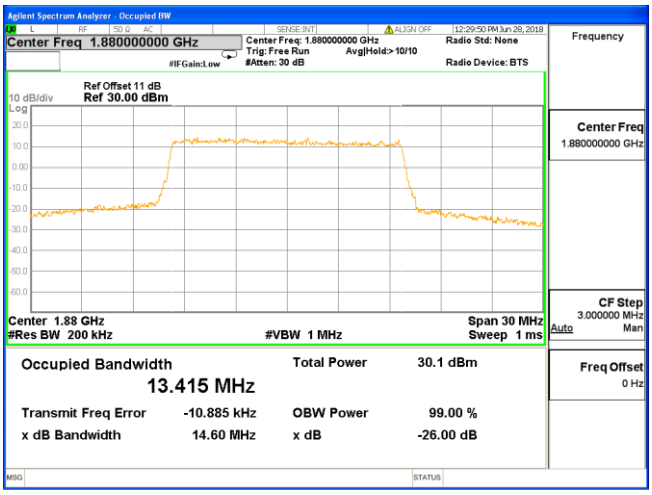
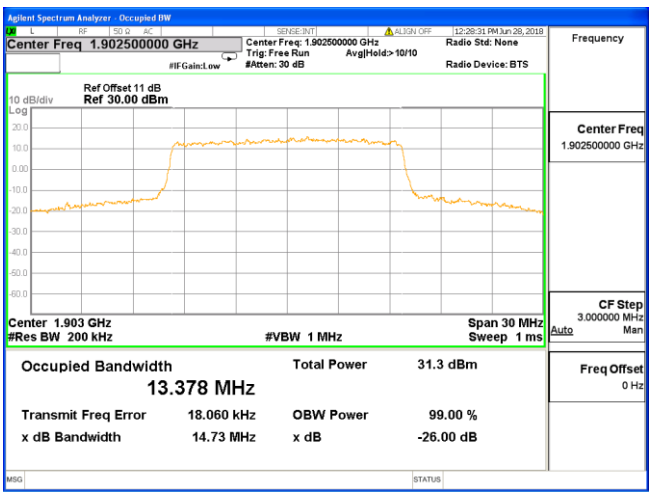
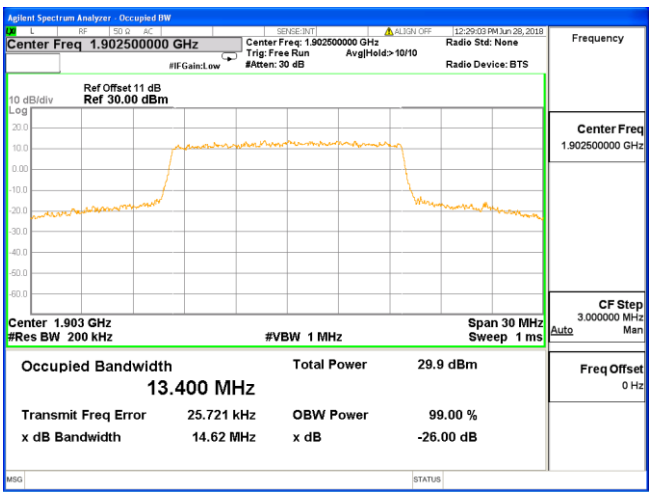
Test plots

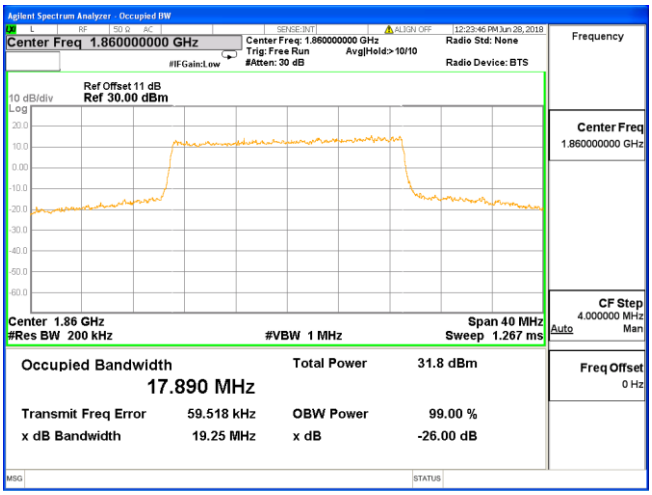
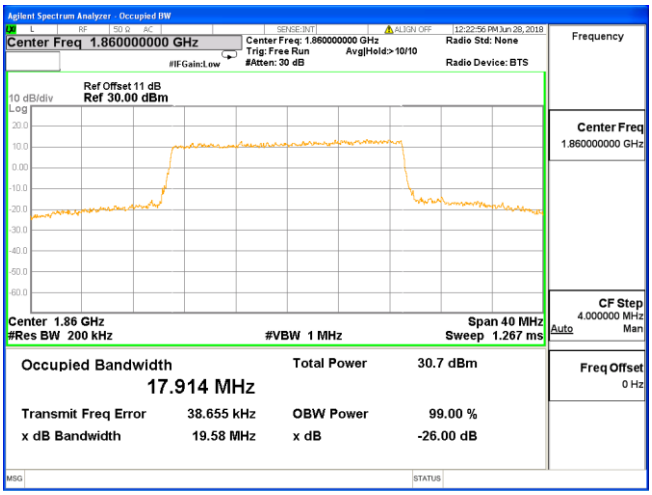
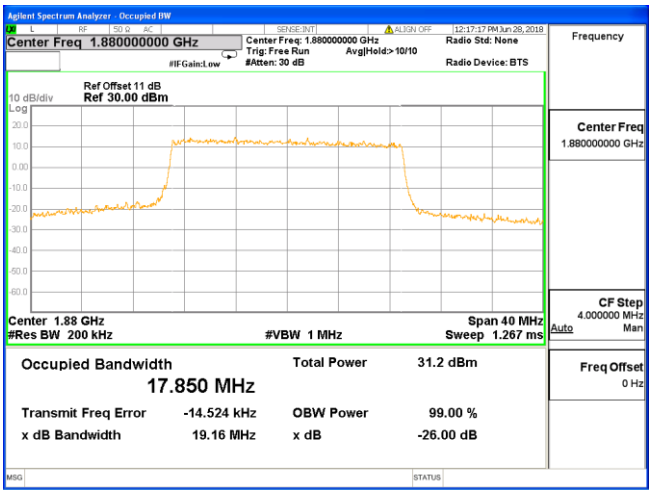
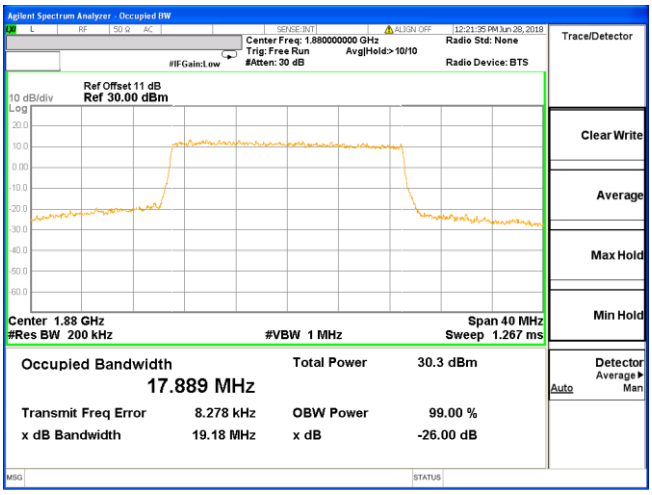
LTE Band 2 (Band Width 1.4MHz,RB Size 1,RB Offset 0)	
QPSK	**16-QAM**
Low Channel	Low Channel
	
Middle Channel	
	
High Channel	
	

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