FCC RF Test Report

APPLICANT	:	**Sony Mobile Communications Inc.**
EQUIPMENT	:	**GSM/WCDMA/LTE Phone + Bluetooth, DTS/UNII a/b/g/n/ac, and NFC**
BRAND NAME	:	**Sony**
FCC ID	:	**PY7-PM0931**
STANDARD	:	**47 CFR Part 2, 22(H), 24(E), 27**
CLASSIFICATION	:	**PCS Licensed Transmitter Held to Ear (PCE)**

The product was received on Feb. 18, 2016 and completely tested on Mar. 22, 2016. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-D-2010 and the testing has shown the tested sample to be in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory 1190

SPORTON INTERNATIONAL INC.
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APPENDIX A. TEST RESULTS OF CONDUCTED TEST

APPENDIX B. TEST RESULTS OF RADIATED TEST

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG621809B	Rev. 01	Initial issue of report	Apr. 01, 2016
FG621809B	Rev. 02	Remove LTE band 26 Cross-Rule channel test data	Apr. 10, 2016

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 17) (Band 26)	< 43+10log10(P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 41)	§27.53(m)(4)		
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17) (Band 26)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7)(Band 41)	< 55+10log$_{10}$(P[Watts])		

Report Section	FCC Rule	Description	Limit	Result	Remark
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		
4.4	§22.913(a)(2)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt	PASS	-
	§27.50(c)(10)	Effective Radiated Power (Band 12) (Band 17)	ERP < 3 Watt		
	§24.232(c) §27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 7) (Band 41)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt		
4.5	§2.1053 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17) (Band 26)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 24.06 dB at 12828.000 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7)(Band 41)	< 55+10log$_{10}$(P[Watts])		

1 General Description

1.1 Applicant

Sony Mobile Communications Inc.
4-12-3 Higashi-Shinagawa, Shinagawa-ku,Tokyo, 140-0002, Japan

1.2 Manufacturer

Sony Mobile Communications Inc.
4-12-3 Higashi-Shinagawa, Shinagawa-ku,Tokyo, 140-0002, Japan

1.3 Product Feature of Equipment Under Test

GSM/WCDMA/LTE, Bluetooth, DTS/UNII a/b/g/n/ac, GPS, and NFC

Product Specification subjective to this standard	
Antenna Type	Fixed Internal Antenna

EUT Information List				
IMEI	HW Version	SW Version	S/N	Performed Test Item
IMIE 1: 004402455724041 IMIE 2: 004402455724058	A	34.0.A.0.1.25	CB5129YK5F	Conducted Measurement
IMIE 1: 004402455936363 IMIE 2: 004402455936371			CB5129YTTL	Radiated Spurious Emission
IMIE 1: 004402455935886 IMIE 2: 004402455935894			CB5129YTU9	ERP/EIRP Test

Accessory List	
AC Adapter	Model No. : UCH20
	Type No. : AC-0061-US
	S/N : 1515W22500101
Earphone	Model No. : MH410c
	Type No. : AG-1110
USB Cable	Model No. : UCB16
	Type No. : AI-0142
	S/N : 1602A9000002606

Note:

1. Above EUT list and accessory list used are electrically identical per declared by manufacturer.
2. Above the accessories list are used to exercise the EUT during test.
3. For other wireless features of this EUT, test report will be issued separately.

1.4 Modification of EUT

No modifications are made to the EUT during all test items.

1.5 Emission Designator

LTE Band 2	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1M10G7D	-	0.1454	1M10W7D	-	0.1082
3	2M72G7D	-	0.1192	2M73W7D	-	0.0968
5	4M50G7D	-	0.1374	4M49W7D	-	0.1054
10	9M03G7D	0.0071	0.1251	9M05W7D	-	0.0850
15	13M5G7D	-	0.1325	13M4W7D	-	0.1234
20	18M3G7D	-	0.1142	18M5W7D	-	0.0855
LTE Band 4	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1M10G7D	-	0.1917	1M10W7D	-	0.1546
3	2M75G7D	-	0.1933	2M71W7D	-	0.1460
5	4M49G7D	-	0.1594	4M49W7D	-	0.1157
10	8M99G7D	0.0070	0.1600	9M03W7D	-	0.1254
15	13M5G7D	-	0.1943	13M5W7D	-	0.1375
20	18M3G7D	-	0.1793	18M3W7D	-	0.1380
LTE Band 5	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	1M09G7D	-	0.0407	1M10W7D	-	0.0421
3	2M73G7D	-	0.0392	2M71W7D	-	0.0317
5	4M50G7D	-	0.0371	4M49W7D	-	0.0326
10	9M01G7D	0.0080	0.0399	9M05W7D	-	0.0316

LTE Band 7	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	4M50G7D	-	0.1677	4M50W7D	-	0.1348
10	9M11G7D	0.0090	0.1834	8M99W7D	-	0.1405
15	13M4G7D	-	0.1699	13M4W7D	-	0.1475
20	18M3G7D	-	0.1656	18M5W7D	-	0.1319
LTE Band 12	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	1M11G7D	-	0.0137	1M10W7D	-	0.0121
3	2M72G7D	-	0.0132	2M74W7D	-	0.0118
5	4M49G7D	-	0.0138	4M49W7D	-	0.0114
10	9M05G7D	0.0116	0.0141	9M07W7D	-	0.0122
LTE Band 17	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	4M49G7D	-	0.0144	4M48W7D	-	0.0115
10	9M07G7D	0.0092	0.0131	9M05W7D	-	0.0106
LTE Band 26	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	1M09G7D	-	0.0432	1M10W7D	-	0.0390
3	2M73G7D	-	0.0421	2M72W7D	-	0.0398
5	4M50G7D	-	0.0454	4M51W7D	-	0.0377
10	9M07G7D	0.0124	0.0436	9M01W7D	-	0.0411
15	13M5G7D	-	0.0419	13M5W7D	-	0.0377
LTE Band 41	QPSK			16QAM		
BW(MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	4M50G7D	-	0.1166	4M47W7D	-	0.1002
10	9M05G7D	0.0100	0.1223	8M97W7D	-	0.0930
15	13M4G7D	-	0.1204	13M5W7D	-	0.0968
20	18M3G7D	-	0.1271	18M5W7D	-	0.1139

1.6 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	TH05-HY

Test Site	SPORTON INTERNATIONAL INC.
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Test Site No.	**Sporton Site No.**
	03CH11-HY

1.7 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 2, 22(H), 24(E), 27
- ANSI / TIA / EIA-603-D-2010
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

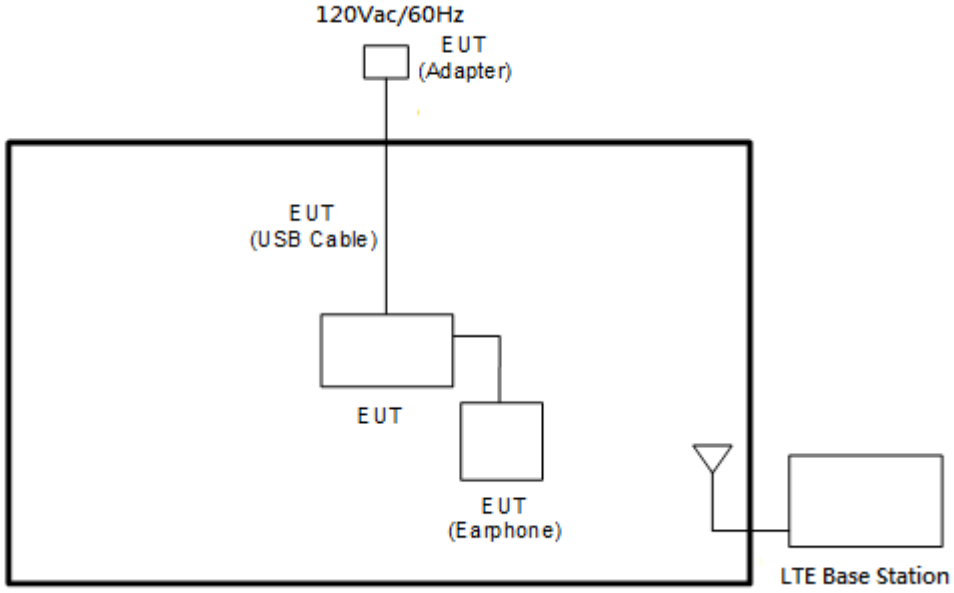
Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	2						v	v	v	v		v	v	v	v
	4						v	v	v	v		v	v	v	v
	5				v	-	-	v	v	v		v	v	v	v
	7	-	-				v	v	v	v		v	v	v	v
	12				v	-	-	v	v	v		v	v	v	v
	17	-	-		v	-	-	v	v	v		v	v	v	v
	26					v	-	v	v	v		v	v	v	v
	41	-	-				v	v	v	v		v	v	v	v
26dB and 99% Bandwidth	2	v	v	v	v	v	v	v	v			v	v	v	v
	4	v	v	v	v	v	v	v	v			v	v	v	v
	5	v	v	v	v	-	-	v	v			v	v	v	v
	7	-	-	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v	-	-	v	v			v	v	v	v
	17	-	-	v	v	-	-	v	v			v	v	v	v
	26	v	v	v	v	v	-	v	v			v	v	v	v
	41	-	-	v	v	v	v	v	v			v	v	v	v

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Conducted Band Edge	2	v	v	v	v	v	v	v	v	v		v	v		v
	4	v	v	v	v	v	v	v	v	v		v	v		v
	5	v	v	v	v	-	-	v	v	v		v	v		v
	7	-	-	v	v	v	v	v	v	v		v	v		v
	12	v	v	v	v	-	-	v	v	v		v	v		v
	17	-	-	v	v	-	-	v	v	v		v	v		v
	26	v	v	v	v	v	-	v	v	v		v	v		v
	41	-	-	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v	-	-	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v
	17	-	-	v	v	-	-	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v			v	v	v
Frequency Stability	2				v			v				v		v	
	4				v			v				v		v	
	5				v	-	-	v				v		v	
	7	-	-		v			v				v		v	
	12				v	-	-	v				v		v	
	17	-	-		v	-	-	v				v		v	
	26				v		-	v				v		v	
	41	-	-		v			v				v		v	
E.R.P./ E.I.R.P.	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v	-	-	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	v	v	v	v	v			v	v	v
	17	-	-	v	v	-	-	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v			v	v	v

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Radiated Spurious Emission	2	v	v	v	v	v	v	v		v			v	v	v
	4	v	v	v	v	v	v	v		v			v	v	v
	5	v	v	v	v	-	-	v		v			v	v	v
	7	-	-	v	v	v	v	v		v			v	v	v
	12	v	v	v	v	-	-	v		v			v	v	v
	17	-	-	v	v	-	-	v		v			v	v	v
	26	v	v	v	v	v	-	v		v			v	v	v
	41	-	-	v	v	v	v	v		v			v	v	v
Note	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.														

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.
Offset = RF cable loss + attenuator factor.
Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Example :
Offset(dB) = RF cable loss(dB) + attenuator factor(dB).
= 4.2 + 10 = 14.2 (dB)

2.5 Frequency List of Low/Middle/High Channels

LTE Band 2 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5
1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3

LTE Band 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3

LTE Band 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

LTE Band 12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23060	23095	23130
	Frequency	704	707.5	711
5	Channel	23035	23095	23155
	Frequency	701.5	707.5	713.5
3	Channel	23025	23095	23165
	Frequency	700.5	707.5	714.5
1.4	Channel	23017	23095	23173
	Frequency	699.7	707.5	715.3

LTE Band 17 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23780	23790	23800
	Frequency	709	710	711
5	Channel	23755	23790	23825
	Frequency	706.5	710	713.5

LTE Band 26 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	26865	26915	26965
	Frequency	831.5	836.5	841.5
10	Channel	26840	26915	26990
	Frequency	829	836.5	844
5	Channel	26815	26915	27015
	Frequency	826.5	836.5	846.5
3	Channel	26805	26915	27025
	Frequency	825.5	836.5	847.5
1.4	Channel	26797	26915	27033
	Frequency	824.7	836.5	848.3

LTE Band 41 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	39750	40620	41490
	Frequency	2506	2593	2680
15	Channel	39725	40620	41515
	Frequency	2503.5	2593	2682.5
10	Channel	39700	40620	41540
	Frequency	2501	2593	2685
5	Channel	39675	40620	41565
	Frequency	2498.5	2593	2687.5

3 Conducted Test Items

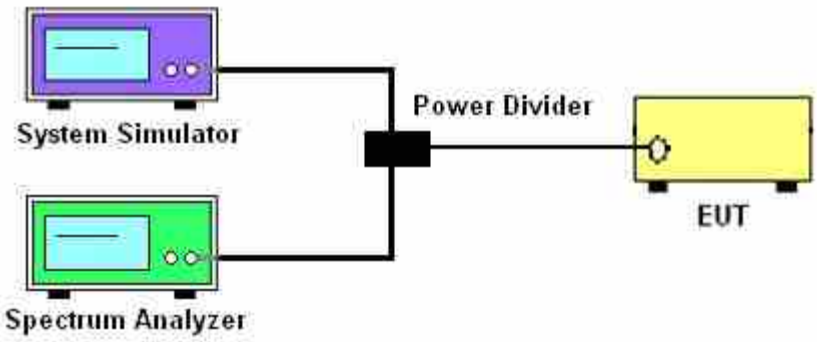
3.1 Measuring Instruments

See list of measuring instruments of this test report.

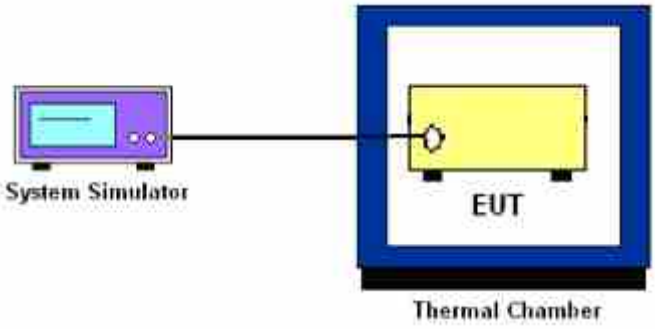
3.2 Test Setup

Conducted Output Power

Peak-to-Average Ratio, Occupied Bandwidth ,Conducted Band-Edge and Conducted Spurious Emission



Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power

3.4.1 Description of the Conducted Output Power Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

3.4.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.5.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.7.1.
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.6.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 4.2.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace. (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “–X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a) for Band 5, 26

For operations in the 824 – 849 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

24.238 (a) for Band 2

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53 (g) for Band 12,17

For operations in the 698 -746 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

27.53 (h) for Band 4

For operations in the 1710 – 1755 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53(m)(4) for FCC Band 7, 41:

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

3.7.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.
   Example:
   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
9. For LTE Band 7, 41, the other 40 dB, and 55 dB have additionally applied same calculation above.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7, 41:

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10^{th} harmonic.

3.8.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
11. For Band 7, 41
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [55+ 10log(P)] (dB)
    = [30+ 10log(P)] (dBm) - [55+ 10log(P)] (dB)
    = -25dBm.

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

3.9.2 Test Procedures for Temperature Variation

1. The testing follows FCC KDB 971168 v02r02 Section 9.0.
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 Test Procedures for Voltage Variation

1. The testing follows FCC KDB 971168 v02r02 Section 9.0.
2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

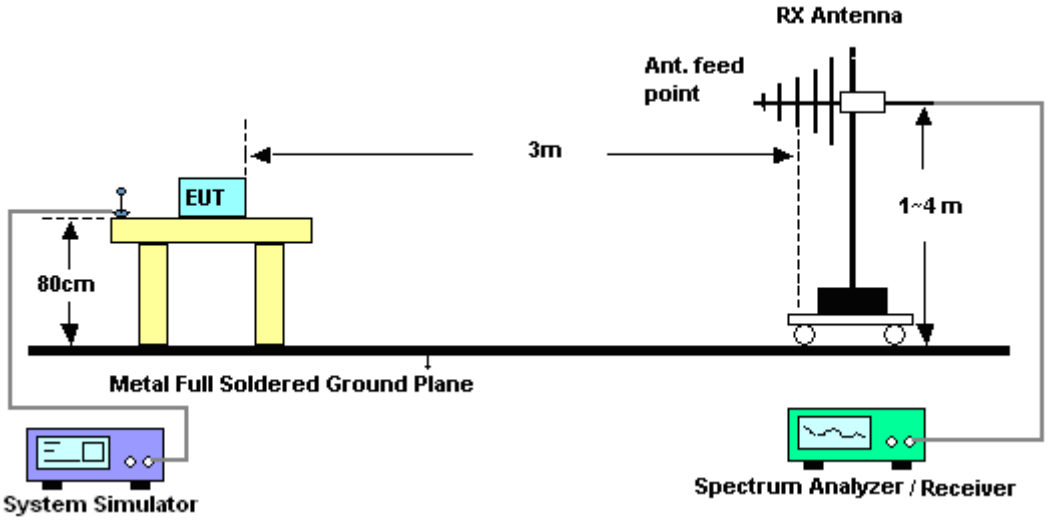
4 Radiated Test Items

4.1 Measuring Instruments

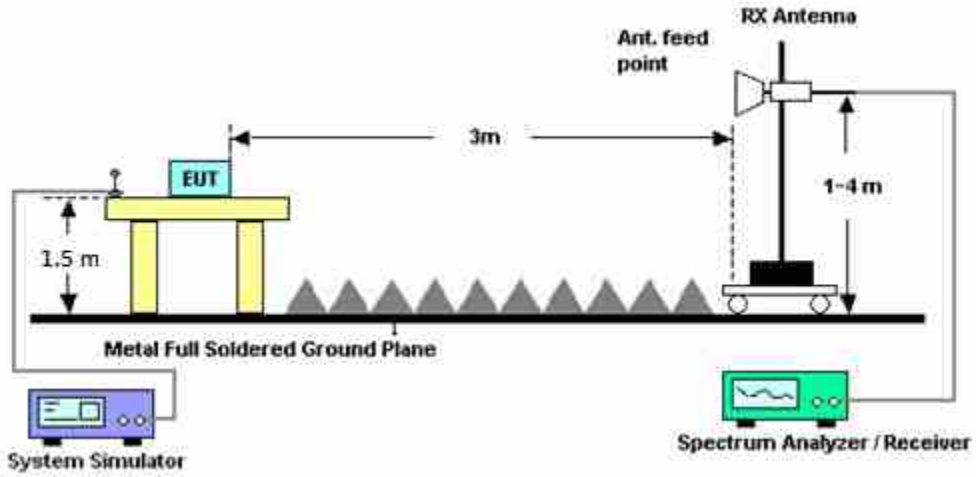
See list of measuring instruments of this test report.

4.2 Test Setup

For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Effective Radiated Power and Effective Isotropic Radiated Power

Description of the ERP/EIRP Measurement

Effective radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-D-2010, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. Mobile and portable (hand-held) stations operating are limited to average ERP of 7 watts with LTE band 5 / 26 and 3 watts with LTE band 12 / 17.

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-D-2010, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 2 / 7 / 41 and 1 watt with LTE band 4.

Test Procedures

1. The EUT was placed on a non-conductive rotating platform (0.8 meters for frequency below 1GHz and 1.5 meter for frequency above 1GHz) in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector per section 5. of KDB 971168 D01.
2. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
3. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-D. The EUT was replaced by the substitution antenna at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor, EIRP = LVL + Correction factor and ERP = EIRP - 2.15. Take the record of the output power at substitution antenna.

	LTE Average					
LTE BW	1.4M	3M	5M	10M	15M	20M
Span	3MHz	6MHz	10MHz	20MHz	30MHz	40MHz
RBW	30kHz	100kHz	100kHz	300kHz	300kHz	300kHz
VBW	100kHz	300kHz	300kHz	1MHz	1MHz	1MHz
Detector	RMS	RMS	RMS	RMS	RMS	RMS
Trace	Average	Average	Average	Average	Average	Average
Average Type	Power	Power	Power	Power	Power	Power
Sweep Count	100	100	100	100	100	100

4.5 Radiated Spurious Emission

Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-D-2010. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7, 41

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

For LTE Band 12, 17

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to −70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and −80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-D-2010 Section 2.2.12.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
12. For Band 7, 41:
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
    EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
    ERP (dBm) = EIRP - 2.15

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LTE Base Station	Anritsu	MT8820C	6201432821	GSM/GPRS /WCDMA/LTE	Oct. 16, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Oct. 15, 2016	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101397	10Hz~40GHz	Sep. 11, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 10 2016	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-30℃~70℃	Sep. 08, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 07, 2016	Conducted (TH05-HY)
Hygrometer	Testo	608-H1	34897199	N/A	May 04, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	May 03, 2016	Conducted (TH05-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 20, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Nov. 19, 2016	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-00 101800-30-1	1902247	1GHz~18GHz	Jul. 01, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Jun. 30, 2016	Radiation (03CH11-HY)
Preamplifier	MITEQ	JS44-18004 000-33-8P	1840917	18GHz ~ 40GHz	Jun. 02, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Jun. 01, 2016	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D	35414	30MHz~1GHz	Nov. 17, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Nov. 16, 2016	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 08, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Oct. 07, 2016	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 02, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Nov. 01, 2016	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTN-303B	TP140325	N/A	Nov. 17, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Nov. 16, 2016	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHZ	Sep. 24, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 23, 2016	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Mar. 12, 2016 ~ Mar. 22, 2016	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-450 0-B	N/A	1~4m	N/A	Mar. 12, 2016 ~ Mar. 22, 2016	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0-360 degree	N/A	Mar. 12, 2016 ~ Mar. 22, 2016	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4 MY28419/4MY	9kHz~40GHz	Sep. 14, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 13, 2016	Radiation (03CH11-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	May 22, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	May 21, 2016	Radiation (03CH11-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Filter	Wainwright	WLKS1200-8SS	SN3	1.2G Low Pass	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)
Filter	Wainwright	WHK1.5/15G-10SS	SN32	1.5G High Pass	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)
Filter	Microwave	H3G018G1	SN477220	3.0G High Pass	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCT/800/960-0.2/40-8	SN11	GSM850	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCG1710/1755-1690/1	SN2	AWS Band	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCT1850/1910-40/8S	SN21	1900	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCGV2400/2483-2390	SN2	N/A	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCT2500/2700-10/20-	SN3	LTE Band41	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCT2500/2570-10/40-	SN1 R	LTE Band7	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)
Notch Filter	Wainwright	WRCT698/798-10/40-8S	SN1	700	Sep. 29, 2015	Mar. 12, 2016 ~ Mar. 22, 2016	Sep. 28, 2016	Radiation (03CH11-HY)

6 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.90**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.84	22.45	22.49
20	1	49		23.24	23.06	23.42
20	1	99		22.35	22.85	22.85
20	50	0		21.99	21.82	21.97
20	50	24		21.94	21.83	21.93
20	50	50		21.84	21.91	22.12
20	100	0		21.89	21.85	22.08
20	1	0	16-QAM	21.74	21.54	21.67
20	1	49		21.64	21.67	21.86
20	1	99		21.27	21.58	21.96
20	50	0		21.13	20.88	20.91
20	50	24		20.91	20.79	20.95
20	50	50		20.70	20.86	21.09
20	100	0		20.85	20.82	20.92
15	1	0	QPSK	22.77	22.54	22.90
15	1	37		23.08	23.04	23.30
15	1	74		22.61	22.93	23.26
15	36	0		22.01	21.89	22.01
15	36	20		21.93	21.83	22.08
15	36	39		21.90	21.81	22.25
15	75	0		21.94	21.82	22.15
15	1	0	16-QAM	21.78	21.60	21.75
15	1	37		21.56	21.65	22.17
15	1	74		21.58	21.68	21.97
15	36	0		20.99	20.84	20.88
15	36	20		20.81	20.90	21.15
15	36	39		20.88	20.83	21.23
15	75	0		20.97	20.89	21.04

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.63	22.51	22.75
10	1	25		22.94	23.13	**23.58**
10	1	49		22.64	22.77	23.02
10	25	0		21.96	21.80	22.12
10	25	12		22.01	21.87	22.19
10	25	25		21.86	21.83	22.24
10	50	0		21.95	21.87	22.16
10	1	0	16-QAM	21.75	21.57	21.72
10	1	25		21.64	21.64	21.93
10	1	49		21.60	21.61	21.98
10	25	0		21.05	20.86	21.06
10	25	12		20.98	20.83	20.97
10	25	25		20.98	20.80	21.21
10	50	0		21.04	20.82	21.05
5	1	0	QPSK	22.54	22.36	22.71
5	1	12		23.07	22.87	23.20
5	1	24		22.60	22.37	22.84
5	12	0		21.94	21.79	22.30
5	12	7		21.96	21.90	22.28
5	12	13		21.98	21.82	22.23
5	25	0		21.92	21.72	22.26
5	1	0	16-QAM	21.66	21.52	21.80
5	1	12		22.03	21.61	22.04
5	1	24		21.54	21.44	21.97
5	12	0		20.98	20.76	20.97
5	12	7		20.74	20.78	21.21
5	12	13		20.96	20.89	21.11
5	25	0		21.15	20.69	21.10

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.73	22.55	22.98
3	1	8		23.05	22.77	23.27
3	1	14		22.66	22.68	23.09
3	8	0		21.86	21.77	22.30
3	8	4		21.90	21.85	22.22
3	8	7		21.90	21.77	22.18
3	15	0		21.95	21.76	22.26
3	1	0	16-QAM	21.69	21.58	22.01
3	1	8		21.68	21.38	22.04
3	1	14		21.70	21.57	22.05
3	8	0		20.76	20.76	20.93
3	8	4		20.73	20.85	21.28
3	8	7		20.67	20.88	20.96
3	15	0		20.89	20.74	21.17
1.4	1	0	QPSK	22.71	22.64	23.13
1.4	1	3		22.81	22.70	23.24
1.4	1	5		22.83	22.69	23.08
1.4	3	0		22.90	22.85	23.26
1.4	3	1		22.99	22.90	23.29
1.4	3	3		22.88	22.76	23.26
1.4	6	0		21.95	21.72	22.22
1.4	1	0	16-QAM	21.94	21.51	22.03
1.4	1	3		21.79	21.51	22.02
1.4	1	5		21.68	21.41	22.03
1.4	3	0		21.85	21.72	22.18
1.4	3	1		21.91	21.65	22.22
1.4	3	3		21.91	22.01	22.30
1.4	6	0		20.87	20.55	21.08

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.59	22.47	22.30
20	1	49		22.68	22.68	22.58
20	1	99		22.43	22.31	22.54
20	50	0		21.97	21.72	21.67
20	50	24		21.88	21.64	21.68
20	50	50		21.73	21.68	21.68
20	100	0		21.86	21.67	21.63
20	1	0	16-QAM	21.49	21.55	21.16
20	1	49		21.62	21.46	21.72
20	1	99		21.39	21.44	21.45
20	50	0		20.89	20.60	20.62
20	50	24		20.77	20.70	20.74
20	50	50		20.67	20.74	20.60
20	100	0		20.83	20.65	20.69
15	1	0	QPSK	22.75	22.50	22.52
15	1	37		23.01	22.90	22.96
15	1	74		22.60	22.46	22.45
15	36	0		21.96	21.66	21.69
15	36	20		21.86	21.74	21.68
15	36	39		21.88	21.65	21.64
15	75	0		21.81	21.62	21.70
15	1	0	16-QAM	21.43	21.52	21.15
15	1	37		21.50	21.45	21.66
15	1	74		21.49	21.34	21.30
15	36	0		20.78	20.59	20.66
15	36	20		20.64	20.69	20.74
15	36	39		20.85	20.59	20.52
15	75	0		20.82	20.68	20.67

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.49	22.36	22.24
10	1	25		22.67	22.86	22.86
10	1	49		22.67	22.37	22.28
10	25	0		21.92	21.68	21.69
10	25	12		21.89	21.65	21.75
10	25	25		21.90	21.70	21.54
10	50	0		21.95	21.64	21.71
10	1	0	16-QAM	21.48	21.43	21.28
10	1	25		21.88	21.38	21.66
10	1	49		21.41	21.30	21.20
10	25	0		20.89	20.74	20.75
10	25	12		20.75	20.62	20.82
10	25	25		20.73	20.66	20.52
10	50	0		20.92	20.71	20.68
5	1	0	QPSK	22.66	22.14	22.29
5	1	12		**23.06**	22.63	22.82
5	1	24		22.57	22.37	22.21
5	12	0		21.96	21.68	21.61
5	12	7		21.96	21.78	21.70
5	12	13		21.93	21.71	21.67
5	25	0		21.89	21.71	21.60
5	1	0	16-QAM	21.76	21.33	21.36
5	1	12		21.53	21.49	21.71
5	1	24		21.64	21.36	21.52
5	12	0		20.88	20.55	20.58
5	12	7		20.61	20.84	20.75
5	12	13		20.68	20.72	20.68
5	25	0		20.88	20.78	20.58

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.67	22.45	22.46
3	1	8		22.72	22.59	22.84
3	1	14		22.69	22.48	22.33
3	8	0		21.85	21.70	21.70
3	8	4		21.99	21.77	21.76
3	8	7		21.87	21.73	21.78
3	15	0		21.90	21.71	21.68
3	1	0	16-QAM	21.43	21.39	21.78
3	1	8		21.87	21.70	21.81
3	1	14		21.60	21.43	21.41
3	8	0		20.51	20.42	20.52
3	8	4		20.80	20.49	20.87
3	8	7		20.74	20.74	20.49
3	15	0		20.95	20.50	20.58
1.4	1	0	QPSK	22.73	22.56	22.61
1.4	1	3		22.85	22.54	22.67
1.4	1	5		22.66	22.58	22.69
1.4	3	0		22.95	22.58	22.73
1.4	3	1		23.02	22.54	22.67
1.4	3	3		23.04	22.55	22.67
1.4	6	0		21.89	21.61	21.68
1.4	1	0	16-QAM	21.38	21.83	21.41
1.4	1	3		21.77	21.82	21.63
1.4	1	5		21.77	21.78	21.43
1.4	3	0		21.89	21.62	21.60
1.4	3	1		21.94	21.72	21.56
1.4	3	3		21.78	21.73	21.55
1.4	6	0		20.63	20.64	20.60

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.98	23.23	23.28
10	1	25		23.43	23.46	23.28
10	1	49		23.40	23.60	23.05
10	25	0		22.27	22.43	22.44
10	25	12		22.38	22.41	22.36
10	25	25		22.48	22.50	22.28
10	50	0		22.43	22.46	22.37
10	1	0	16-QAM	22.08	22.13	22.26
10	1	25		22.45	22.32	22.39
10	1	49		22.20	22.25	22.10
10	25	0		21.27	21.67	21.40
10	25	12		21.57	21.55	21.53
10	25	25		21.50	21.63	21.47
10	50	0		21.45	21.42	21.44
5	1	0	QPSK	22.86	23.31	22.96
5	1	12		23.37	23.47	23.56
5	1	24		22.98	23.12	22.99
5	12	0		22.13	22.37	22.29
5	12	7		22.24	22.44	22.43
5	12	13		22.36	22.41	22.25
5	25	0		22.13	22.36	22.29
5	1	0	16-QAM	21.88	22.02	21.78
5	1	12		22.09	22.21	22.38
5	1	24		21.95	22.05	21.99
5	12	0		21.05	21.41	21.26
5	12	7		21.21	21.29	21.30
5	12	13		21.17	21.45	21.39
5	25	0		21.18	21.42	21.35

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	23.13	23.26	23.05
3	1	8		23.24	23.26	23.22
3	1	14		23.07	23.39	23.24
3	8	0		22.25	22.49	22.22
3	8	4		22.22	22.41	22.26
3	8	7		22.20	22.37	22.28
3	15	0		22.14	22.32	22.25
3	1	0	16-QAM	22.04	22.15	22.14
3	1	8		22.04	22.55	22.08
3	1	14		21.99	22.12	22.16
3	8	0		21.27	21.28	21.34
3	8	4		21.04	21.41	21.51
3	8	7		21.33	21.28	21.24
3	15	0		21.21	21.38	21.42
1.4	1	0	QPSK	23.17	23.32	23.25
1.4	1	3		23.23	23.42	23.37
1.4	1	5		23.20	23.39	23.21
1.4	3	0		23.24	23.49	23.39
1.4	3	1		23.27	**23.65**	23.61
1.4	3	3		23.21	23.62	23.34
1.4	6	0		22.18	22.37	22.23
1.4	1	0	16-QAM	22.00	22.18	22.23
1.4	1	3		22.17	22.40	22.38
1.4	1	5		22.07	22.20	22.22
1.4	3	0		22.19	22.39	22.20
1.4	3	1		22.13	22.35	22.54
1.4	3	3		22.15	22.42	22.22
1.4	6	0		21.05	21.29	21.18

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	23.38	22.88	22.94
20	1	49		23.73	23.72	23.70
20	1	99		23.15	23.64	23.17
20	50	0		22.51	22.35	22.37
20	50	24		22.53	22.49	22.48
20	50	50		22.47	22.48	22.64
20	100	0		22.40	22.44	22.52
20	1	0	16-QAM	22.29	21.80	21.91
20	1	49		22.28	22.11	22.21
20	1	99		22.11	22.13	22.21
20	50	0		21.63	21.47	21.34
20	50	24		21.66	21.54	21.37
20	50	50		21.61	21.46	21.71
20	100	0		21.52	21.48	21.56
15	1	0	QPSK	23.73	23.10	22.99
15	1	37		23.77	23.48	23.56
15	1	74		23.53	23.56	23.41
15	36	0		22.50	22.40	22.48
15	36	20		22.48	22.61	22.47
15	36	39		22.46	22.47	22.61
15	75	0		22.51	22.44	22.47
15	1	0	16-QAM	22.41	21.90	22.08
15	1	37		22.49	22.35	22.30
15	1	74		22.24	22.03	22.17
15	36	0		21.62	21.34	21.43
15	36	20		21.55	21.55	21.51
15	36	39		21.54	21.52	21.51
15	75	0		21.58	21.54	21.57

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.40	22.95	23.02
10	1	25		23.40	23.41	23.64
10	1	49		23.27	23.26	23.21
10	25	0		22.47	22.36	22.49
10	25	12		22.46	22.59	22.62
10	25	25		22.41	22.37	22.52
10	50	0		22.51	22.45	22.58
10	1	0	16-QAM	22.26	22.11	22.00
10	1	25		22.38	22.57	22.44
10	1	49		22.16	21.94	22.07
10	25	0		21.65	21.51	21.40
10	25	12		21.61	21.65	21.61
10	25	25		21.43	21.55	21.63
10	50	0		21.50	21.47	21.66
5	1	0	QPSK	23.41	22.94	23.29
5	1	12		**23.80**	23.65	23.44
5	1	24		23.10	22.93	23.14
5	12	0		22.59	22.41	22.54
5	12	7		22.70	22.48	22.46
5	12	13		22.54	22.43	22.51
5	25	0		22.41	22.45	22.43
5	1	0	16-QAM	22.40	22.22	22.23
5	1	12		22.68	22.10	22.04
5	1	24		22.11	21.92	22.09
5	12	0		21.71	21.56	21.58
5	12	7		21.80	21.63	21.51
5	12	13		21.57	21.70	21.50
5	25	0		21.56	21.57	21.57

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.87	22.77	22.84
10	1	25		23.17	23.57	23.29
10	1	49		23.27	23.12	23.05
10	25	0		22.18	22.12	22.11
10	25	12		22.20	22.16	22.18
10	25	25		22.18	22.15	22.19
10	50	0		22.25	22.13	22.27
10	1	0	16-QAM	21.87	21.76	21.75
10	1	25		21.99	21.94	22.25
10	1	49		21.99	21.93	21.89
10	25	0		21.18	21.28	21.25
10	25	12		21.30	21.06	21.25
10	25	25		21.25	21.21	21.36
10	50	0		21.18	21.20	21.32
5	1	0	QPSK	22.87	22.86	23.07
5	1	12		23.55	23.31	**23.61**
5	1	24		22.86	23.10	22.93
5	12	0		22.23	22.12	22.24
5	12	7		22.26	22.19	22.23
5	12	13		22.18	22.21	22.24
5	25	0		22.17	22.14	22.20
5	1	0	16-QAM	21.89	21.76	21.76
5	1	12		21.75	21.93	21.95
5	1	24		21.70	21.86	21.86
5	12	0		20.97	21.09	20.96
5	12	7		21.31	21.37	21.38
5	12	13		21.35	21.38	21.39
5	25	0		21.22	21.20	21.05

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	23.07	22.93	23.08
3	1	8		22.90	23.13	23.03
3	1	14		23.06	23.26	22.81
3	8	0		22.21	22.23	22.22
3	8	4		22.36	22.20	22.24
3	8	7		22.28	22.31	22.26
3	15	0		22.29	22.21	22.24
3	1	0	16-QAM	21.87	21.98	21.92
3	1	8		21.77	21.97	22.23
3	1	14		21.71	22.03	22.08
3	8	0		21.20	21.23	21.12
3	8	4		21.35	21.29	21.15
3	8	7		21.27	21.34	21.17
3	15	0		20.97	21.39	21.20
1.4	1	0	QPSK	23.24	23.15	23.28
1.4	1	3		23.34	23.23	23.22
1.4	1	5		23.42	23.30	23.28
1.4	3	0		23.36	23.34	23.30
1.4	3	1		23.37	23.18	23.34
1.4	3	3		23.34	23.32	23.25
1.4	6	0		22.19	22.09	22.15
1.4	1	0	16-QAM	21.88	22.01	21.82
1.4	1	3		21.95	22.16	22.26
1.4	1	5		21.78	21.96	22.04
1.4	3	0		22.25	22.01	22.12
1.4	3	1		22.25	22.10	22.34
1.4	3	3		22.38	22.02	22.25
1.4	6	0		21.32	21.16	21.29

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.91	22.91	23.19
10	1	25		23.34	23.50	23.37
10	1	49		23.24	23.49	23.52
10	25	0		22.27	22.30	22.30
10	25	12		22.30	22.35	22.30
10	25	25		22.39	22.35	22.33
10	50	0		22.32	22.37	22.28
10	1	0	16-QAM	21.97	22.01	21.88
10	1	25		22.27	22.04	22.05
10	1	49		21.99	21.95	22.09
10	25	0		21.50	21.27	21.56
10	25	12		21.45	21.59	21.44
10	25	25		21.43	21.49	21.41
10	50	0		21.46	21.38	21.44
5	1	0	QPSK	23.08	23.04	22.92
5	1	12		23.58	**23.61**	23.50
5	1	24		23.21	23.36	23.30
5	12	0		22.28	22.24	22.23
5	12	7		22.41	22.37	22.33
5	12	13		22.31	22.32	22.23
5	25	0		22.34	22.27	22.20
5	1	0	16-QAM	22.02	21.81	21.75
5	1	12		21.98	21.89	22.06
5	1	24		22.06	21.76	22.02
5	12	0		21.15	21.42	21.14
5	12	7		21.58	21.35	21.11
5	12	13		21.44	21.18	21.28
5	25	0		21.31	21.14	21.24

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.44	23.54	23.34
15	1	37		23.78	23.72	23.80
15	1	74		23.41	23.67	23.70
15	36	0		22.61	22.48	22.56
15	36	18		22.59	22.52	22.59
15	36	37		22.57	22.56	22.55
15	75	0		22.60	22.55	22.67
15	1	0	16-QAM	22.46	22.42	22.42
15	1	37		22.68	22.66	22.67
15	1	74		22.43	22.52	22.55
15	36	0		21.68	21.45	21.59
15	36	18		21.62	21.58	21.65
15	36	37		21.65	21.71	21.54
15	75	0		21.64	21.67	21.72
10	1	0	QPSK	23.49	23.25	23.49
10	1	24		23.86	23.67	23.61
10	1	49		23.64	23.42	23.41
10	25	0		22.72	22.49	22.60
10	25	12		22.63	22.59	22.72
10	25	24		22.64	22.66	22.52
10	50	0		22.65	22.55	22.63
10	1	0	16-QAM	22.42	22.28	22.51
10	1	24		22.83	22.71	22.66
10	1	49		22.64	22.49	22.52
10	25	0		21.77	21.55	21.66
10	25	12		21.81	21.71	21.70
10	25	24		21.83	21.72	21.58
10	50	0		21.79	21.51	21.60

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.53	23.24	23.36
5	1	12		**24.01**	23.89	23.95
5	1	24		23.44	23.35	23.36
5	12	0		22.65	22.54	22.65
5	12	6		22.74	22.49	22.58
5	12	11		22.66	22.54	22.58
5	25	0		22.63	22.54	22.61
5	1	0	16-QAM	22.42	22.42	22.52
5	1	12		22.64	22.39	22.52
5	1	24		22.31	22.37	22.46
5	12	0		21.62	21.48	21.62
5	12	6		21.70	21.56	21.48
5	12	11		21.71	21.74	21.56
5	25	0		21.69	21.50	21.78
3	1	0	QPSK	23.57	23.36	23.55
3	1	7		23.73	23.32	23.50
3	1	14		23.77	23.48	23.43
3	8	0		22.77	22.56	22.58
3	8	4		22.68	22.56	22.64
3	8	7		22.67	22.59	22.67
3	15	0		22.54	22.43	22.54
3	1	0	16-QAM	22.41	22.25	22.61
3	1	7		22.56	22.35	22.57
3	1	14		22.38	22.25	22.60
3	8	0		21.68	21.31	21.35
3	8	4		21.68	21.40	21.65
3	8	7		21.77	21.37	21.38
3	15	0		21.41	21.59	21.43

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	23.61	23.39	23.35
1.4	1	2		23.62	23.46	23.66
1.4	1	5		23.65	23.39	23.65
1.4	3	0		23.66	23.53	23.80
1.4	3	1		23.74	23.56	23.75
1.4	3	2		23.95	23.60	23.67
1.4	6	0		22.62	22.48	22.44
1.4	1	0	16-QAM	22.53	22.32	22.78
1.4	1	2		22.89	22.58	22.77
1.4	1	5		22.47	22.35	22.68
1.4	3	0		22.57	22.46	22.48
1.4	3	1		22.63	22.39	22.46
1.4	3	2		22.57	22.39	22.39
1.4	6	0		21.74	21.34	21.44

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	23.06	23.29	23.41
20	1	49		23.43	23.34	23.61
20	1	99		23.22	23.27	23.25
20	50	0		22.21	22.41	22.63
20	50	24		22.33	22.49	22.61
20	50	50		22.30	22.41	22.51
20	100	0		22.27	22.51	22.53
20	1	0	16-QAM	21.74	21.90	22.03
20	1	49		22.01	22.02	22.12
20	1	99		21.69	21.76	21.96
20	50	0		21.23	21.40	21.61
20	50	24		21.14	21.35	21.58
20	50	50		21.31	21.47	21.38
20	100	0		21.22	21.47	21.49
15	1	0	QPSK	23.11	23.31	23.37
15	1	37		23.39	23.61	23.54
15	1	74		23.03	23.20	23.45
15	36	0		22.28	22.42	22.62
15	36	20		22.26	22.53	22.60
15	36	39		22.22	22.48	22.53
15	75	0		22.24	22.54	22.61
15	1	0	16-QAM	22.03	21.85	22.09
15	1	37		21.96	22.17	22.59
15	1	74		21.69	21.83	22.18
15	36	0		21.08	21.28	21.55
15	36	20		21.14	21.35	21.61
15	36	39		21.23	21.41	21.57
15	75	0		21.25	21.53	21.58

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.13	23.09	23.38
10	1	25		23.22	23.45	**23.66**
10	1	49		23.18	23.20	23.17
10	25	0		22.28	22.42	22.58
10	25	12		22.28	22.46	22.63
10	25	25		22.23	22.42	22.49
10	50	0		22.13	22.52	22.54
10	1	0	16-QAM	22.02	21.81	22.02
10	1	25		22.04	22.26	22.19
10	1	49		21.61	22.06	21.88
10	25	0		21.36	21.60	21.77
10	25	12		21.48	21.82	21.90
10	25	25		21.42	21.60	21.86
10	50	0		21.18	21.49	21.61
5	1	0	QPSK	23.09	23.09	23.14
5	1	12		23.23	23.40	23.63
5	1	24		22.79	23.08	23.14
5	12	0		22.18	22.34	22.52
5	12	7		22.23	22.47	22.59
5	12	13		22.14	22.45	22.52
5	25	0		22.12	22.44	22.51
5	1	0	16-QAM	21.96	21.86	21.93
5	1	12		22.01	22.21	22.38
5	1	24		21.53	22.04	22.05
5	12	0		21.09	21.34	21.49
5	12	7		21.08	21.48	21.61
5	12	13		21.14	21.45	21.52
5	25	0		21.07	21.32	21.78

Appendix B. Test Results of Radiated Test

ERP/EIRP

LTE Band 2 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	1	17.00	0.0501	21.63	0.1454
Middle		3	1	15.72	0.0373	20.95	0.1244
Highest		3	1	14.78	0.0301	19.75	0.0944
Lowest	16QAM	3	3	15.75	0.0376	20.34	0.1082
Middle		3	3	14.67	0.0293	19.74	0.0942
Highest		3	3	13.75	0.0237	18.92	0.0780
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	8	16.17	0.0414	20.76	0.1192
Middle		1	8	15.02	0.0318	20.07	0.1016
Highest		1	8	14.40	0.0275	19.52	0.0895
Lowest	16QAM	1	14	15.13	0.0326	19.86	0.0968
Middle		1	14	14.05	0.0254	18.98	0.0791
Highest		1	14	13.26	0.0212	18.36	0.0685
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	16.65	0.0462	21.38	0.1374
Middle		1	12	15.39	0.0346	20.52	0.1126
Highest		1	12	14.53	0.0284	19.70	0.0933
Lowest	16QAM	1	12	15.41	0.0347	20.23	0.1054
Middle		1	12	14.36	0.0273	19.39	0.0870
Highest		1	12	13.59	0.0228	18.73	0.0747
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	16.28	0.0424	20.97	0.1251
Middle		1	25	15.25	0.0335	20.26	0.1062
Highest		1	25	14.27	0.0267	19.73	0.0939
Lowest	16QAM	1	49	14.98	0.0315	19.29	0.0850
Middle		1	49	13.76	0.0238	18.60	0.0725
Highest		1	49	12.97	0.0198	18.00	0.0631
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	16.79	0.0477	21.22	0.1325
Middle		1	37	15.52	0.0357	20.60	0.1147
Highest		1	37	15.19	0.0330	20.64	0.1159
Lowest	16QAM	1	37	16.41	0.0438	20.91	0.1234
Middle		1	37	15.45	0.0351	20.78	0.1197
Highest		1	37	14.87	0.0307	20.49	0.1121
Limit	EIRP < 2W			Result		PASS	

LTE Band 2 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	16.02	0.0400	20.58	0.1142
Middle		1	49	15.25	0.0335	20.34	0.1081
Highest		1	49	15.01	0.0317	20.25	0.1059
Lowest	16QAM	1	99	14.33	0.0271	19.32	0.0855
Middle		1	99	13.50	0.0224	18.89	0.0775
Highest		1	99	13.06	0.0202	18.17	0.0657
Limit	EIRP < 2W			Result		PASS	

LTE Band 4 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	3	3	17.22	0.0527	22.52	0.1786
Middle		3	3	17.03	0.0504	22.50	0.1778
Highest		3	3	17.24	0.0530	22.83	0.1917
Lowest	16QAM	3	1	15.89	0.0388	21.57	0.1434
Middle		3	1	15.94	0.0393	21.45	0.1397
Highest		3	1	16.24	0.0420	21.89	0.1546
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	8	17.08	0.0510	22.30	0.1699
Middle		1	8	16.65	0.0462	22.39	0.1734
Highest		1	8	16.93	0.0493	22.86	0.1933
Lowest	16QAM	1	8	15.56	0.0360	20.71	0.1178
Middle		1	8	15.70	0.0371	21.36	0.1366
Highest		1	8	15.72	0.0373	21.64	0.1460
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	17.50	0.0562	21.73	0.1490
Middle		1	12	17.24	0.0529	21.95	0.1567
Highest		1	12	17.10	0.0513	22.02	0.1594
Lowest	16QAM	1	0	16.30	0.0427	20.61	0.1152
Middle		1	0	15.49	0.0354	20.07	0.1017
Highest		1	0	15.87	0.0386	20.63	0.1157
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	17.46	0.0557	21.77	0.1504
Middle		1	25	17.11	0.0513	21.78	0.1508
Highest		1	25	17.10	0.0513	22.04	0.1600
Lowest	16QAM	1	25	16.38	0.0434	20.98	0.1254
Middle		1	25	15.98	0.0396	20.22	0.1053
Highest		1	25	15.82	0.0382	20.57	0.1140
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	16.98	0.0499	22.46	0.1764
Middle		1	37	16.92	0.0492	22.49	0.1776
Highest		1	37	17.19	0.0524	22.89	0.1943
Lowest	16QAM	1	37	15.82	0.0382	21.12	0.1295
Middle		1	37	15.34	0.0342	20.82	0.1207
Highest		1	37	15.99	0.0397	21.38	0.1375
Limit	EIRP < 1W			Result		PASS	

LTE Band 4 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	17.17	0.0521	22.44	0.1755
Middle		1	49	16.67	0.0465	22.31	0.1704
Highest		1	49	16.79	0.0478	22.54	0.1793
Lowest	16QAM	1	49	16.14	0.0412	21.40	0.1380
Middle		1	49	15.63	0.0366	21.10	0.1289
Highest		1	49	15.39	0.0346	21.13	0.1297
Limit	EIRP < 1W			Result		PASS	

LTE Band 5 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	3	1	6.14	0.0041	15.71	0.0372
Middle		3	1	6.75	0.0047	15.77	0.0378
Highest		3	1	7.48	0.0056	16.10	0.0407
Lowest	16QAM	3	1	5.46	0.0035	15.03	0.0319
Middle		3	1	6.21	0.0042	15.29	0.0338
Highest		3	1	7.58	0.0057	16.25	0.0421
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	14	6.03	0.0040	15.47	0.0352
Middle		1	14	6.59	0.0046	15.80	0.0380
Highest		1	14	7.43	0.0055	15.93	0.0392
Lowest	16QAM	1	8	4.95	0.0031	14.48	0.0280
Middle		1	8	5.77	0.0038	14.82	0.0304
Highest		1	8	6.44	0.0044	15.01	0.0317
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	5.98	0.0040	15.40	0.0346
Middle		1	12	6.63	0.0046	15.70	0.0371
Highest		1	12	7.07	0.0051	15.67	0.0369
Lowest	16QAM	1	12	5.03	0.0032	14.54	0.0284
Middle		1	12	5.83	0.0038	14.84	0.0305
Highest		1	12	6.54	0.0045	15.13	0.0326
Limit	ERP < 7W			Result		PASS	

LTE Band 5 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	49	6.81	0.0048	15.85	0.0384
Middle		1	49	7.34	0.0054	16.01	0.0399
Highest		1	49	7.55	0.0057	16.01	0.0399
Lowest	16QAM	1	25	5.56	0.0036	14.83	0.0304
Middle		1	25	6.17	0.0041	15.00	0.0316
Highest		1	25	6.33	0.0043	14.69	0.0294
Limit	ERP < 7W			Result		PASS	

LTE Band 7 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	20.51	0.1125	21.85	0.1531
Middle		1	12	21.68	0.1471	22.25	0.1677
Highest		1	12	21.37	0.1370	21.77	0.1503
Lowest	16QAM	1	12	19.52	0.0896	20.82	0.1207
Middle		1	12	21.05	0.1274	21.30	0.1348
Highest		1	12	20.51	0.1123	20.65	0.1160
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	22.01	0.1590	22.01	0.1587
Middle		1	25	22.63	0.1834	22.31	0.1700
Highest		1	25	21.46	0.1400	21.13	0.1298
Lowest	16QAM	1	25	20.99	0.1255	21.19	0.1316
Middle		1	25	21.48	0.1405	21.18	0.1313
Highest		1	25	20.80	0.1201	20.54	0.1133
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	21.12	0.1294	22.27	0.1687
Middle		1	37	21.73	0.1488	22.30	0.1699
Highest		1	37	21.64	0.1458	21.93	0.1559
Lowest	16QAM	1	37	20.23	0.1053	21.50	0.1414
Middle		1	37	21.07	0.1280	21.69	0.1475
Highest		1	37	20.92	0.1237	21.05	0.1274
Limit	EIRP < 2W			Result		PASS	

LTE Band 7 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	21.33	0.1359	22.19	0.1656
Middle		1	49	21.62	0.1451	22.01	0.1589
Highest		1	49	21.15	0.1302	20.96	0.1248
Lowest	16QAM	1	0	20.11	0.1026	20.74	0.1186
Middle		1	0	20.99	0.1256	21.20	0.1319
Highest		1	0	21.11	0.1290	21.02	0.1265
Limit	EIRP < 2W			Result		PASS	

LTE Band 12 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	5	-0.18	0.0010	10.75	0.0119
Middle		1	5	0.75	0.0012	11.38	0.0137
Highest		1	5	0.77	0.0012	10.86	0.0122
Lowest	16QAM	3	3	-0.40	0.0009	10.55	0.0113
Middle		3	3	0.16	0.0010	10.83	0.0121
Highest		3	3	0.26	0.0011	10.36	0.0109
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	14	-0.06	0.0010	10.61	0.0115
Middle		1	14	0.66	0.0012	11.22	0.0132
Highest		1	14	0.92	0.0012	11.14	0.0130
Lowest	16QAM	1	8	-0.80	0.0008	10.20	0.0105
Middle		1	8	-0.08	0.0010	10.64	0.0116
Highest		1	8	0.41	0.0011	10.70	0.0118
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	0.03	0.0010	10.86	0.0122
Middle		1	12	0.62	0.0012	11.38	0.0138
Highest		1	12	0.93	0.0012	11.21	0.0132
Lowest	16QAM	1	12	-0.82	0.0008	10.20	0.0105
Middle		1	12	-0.24	0.0009	10.56	0.0114
Highest		1	12	-0.01	0.0010	10.32	0.0108
Limit	ERP < 3W			Result		PASS	

LTE Band 12 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	25	0.33	0.0011	11.15	0.0130
Middle		1	25	0.52	0.0011	11.49	0.0141
Highest		1	25	0.78	0.0012	11.23	0.0133
Lowest	16QAM	1	25	-0.16	0.0010	10.71	0.0118
Middle		1	25	-0.05	0.0010	10.85	0.0122
Highest		1	25	-0.02	0.0010	10.47	0.0111
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	0.57	0.0011	11.14	0.0130
Middle		1	12	1.33	0.0014	11.59	0.0144
Highest		1	12	1.21	0.0013	11.31	0.0135
Lowest	16QAM	1	12	-0.09	0.0010	10.60	0.0115
Middle		1	12	0.11	0.0010	10.45	0.0111
Highest		1	12	0.24	0.0011	10.39	0.0109
Limit	ERP < 3W			Result		PASS	

LTE Band 17 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	49	0.85	0.0012	11.05	0.0127
Middle		1	49	1.01	0.0013	11.19	0.0131
Highest		1	49	0.92	0.0012	11.08	0.0128
Lowest	16QAM	1	25	-0.23	0.0009	10.14	0.0103
Middle		1	25	-0.09	0.0010	10.23	0.0105
Highest		1	25	-0.04	0.0010	10.25	0.0106
Limit	ERP < 3W			Result		PASS	

LTE Band 26 / 1.4MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	3	3	6.88	0.0049	15.71	0.0373
Middle		3	3	7.89	0.0062	16.36	0.0432
Highest		3	3	7.93	0.0062	16.26	0.0423
Lowest	16QAM	1	3	6.70	0.0047	15.29	0.0338
Middle		1	3	7.93	0.0062	15.91	0.0390
Highest		1	3	7.89	0.0061	15.81	0.0381
Limit	ERP < 7W			Result		PASS	

LTE Band 26 / 3MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	14	7.18	0.0052	15.51	0.0356
Middle		1	14	8.10	0.0064	16.24	0.0421
Highest		1	14	8.07	0.0064	16.12	0.0409
Lowest	16QAM	1	0	6.21	0.0042	15.22	0.0333
Middle		1	0	7.55	0.0057	15.95	0.0393
Highest		1	0	7.75	0.0060	16.00	0.0398
Limit	ERP < 7W			Result		PASS	

LTE Band 26 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	12	7.67	0.0058	15.96	0.0394
Middle		1	12	8.33	0.0068	16.57	0.0454
Highest		1	12	8.37	0.0069	16.28	0.0425
Lowest	16QAM	1	12	6.45	0.0044	14.86	0.0306
Middle		1	12	7.61	0.0058	15.76	0.0377
Highest		1	12	7.38	0.0055	15.71	0.0372
Limit	ERP < 7W			Result		PASS	

LTE Band 26 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	25	7.31	0.0054	15.98	0.0396
Middle		1	25	7.82	0.0061	16.38	0.0434
Highest		1	25	8.17	0.0066	16.40	0.0436
Lowest	16QAM	1	25	7.12	0.0052	15.67	0.0369
Middle		1	25	7.60	0.0058	16.13	0.0411
Highest		1	25	7.82	0.0060	16.12	0.0409
Limit	ERP < 7W			Result		PASS	

LTE Band 26 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	ERP(dBm)	ERP(W)	ERP(dBm)	ERP(W)
Lowest	QPSK	1	37	8.14	0.0065	15.97	0.0395
Middle		1	37	8.06	0.0064	16.15	0.0412
Highest		1	37	8.15	0.0065	16.23	0.0419
Lowest	16QAM	1	37	7.52	0.0057	15.72	0.0373
Middle		1	37	7.72	0.0059	15.76	0.0377
Highest		1	37	7.71	0.0059	15.63	0.0366
Limit	ERP < 7W			Result		PASS	

LTE Band 41 / 5MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	12	19.93	0.0983	20.67	0.1166
Middle		1	12	19.93	0.0984	20.17	0.1040
Highest		1	12	17.42	0.0552	17.32	0.0540
Lowest	16QAM	1	12	19.43	0.0878	20.01	0.1002
Middle		1	12	18.83	0.0763	19.20	0.0832
Highest		1	12	15.55	0.0359	16.14	0.0411
Limit	EIRP < 2W			Result		PASS	

LTE Band 41 / 10MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	25	20.12	0.1029	20.88	0.1223
Middle		1	25	19.92	0.0981	19.98	0.0996
Highest		1	25	16.82	0.0481	17.07	0.0510
Lowest	16QAM	1	25	18.99	0.0793	19.68	0.0930
Middle		1	25	18.50	0.0707	18.62	0.0727
Highest		1	25	15.68	0.0370	15.77	0.0378
Limit	EIRP < 2W			Result		PASS	

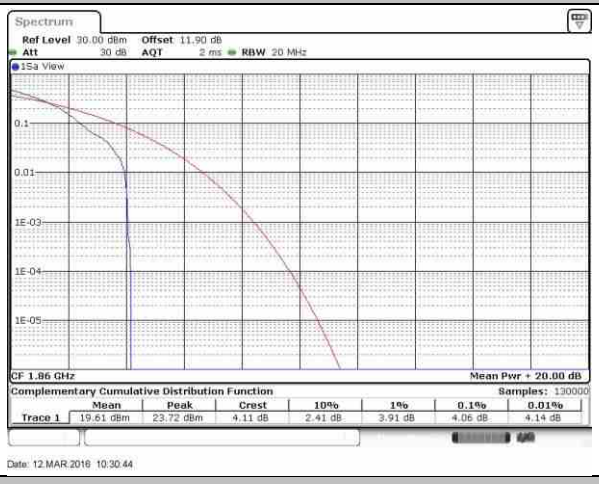
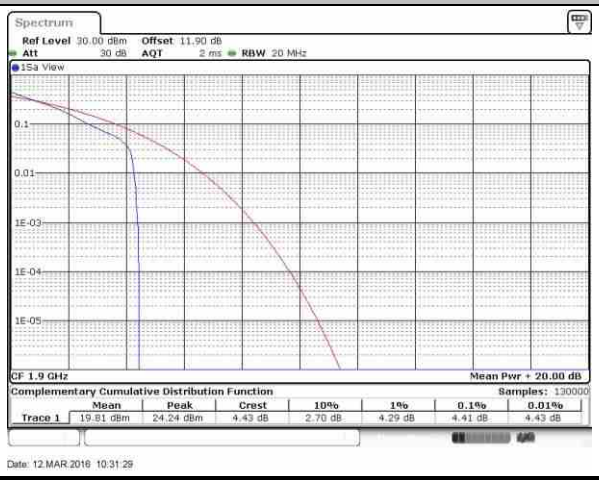
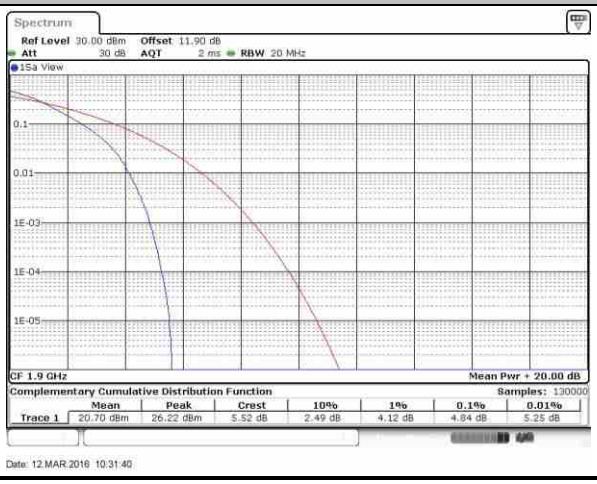
LTE Band 41 / 15MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	37	20.44	0.1107	20.81	0.1204
Middle		1	37	20.29	0.1070	20.35	0.1085
Highest		1	37	16.77	0.0475	17.49	0.0561
Lowest	16QAM	1	37	19.30	0.0852	19.86	0.0968
Middle		1	37	19.18	0.0828	19.51	0.0893
Highest		1	37	15.85	0.0385	16.50	0.0446
Limit	EIRP < 2W			Result		PASS	

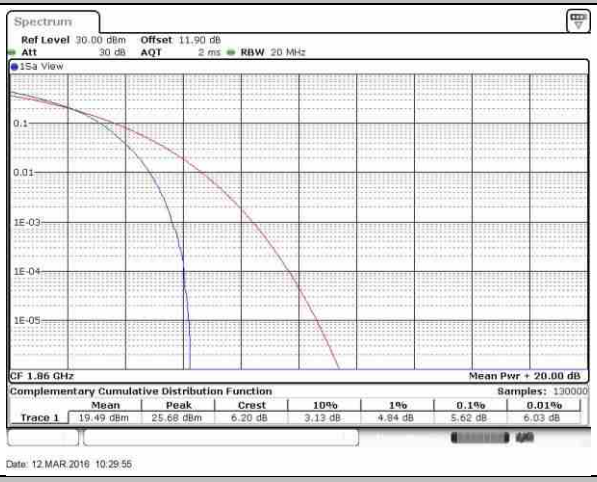
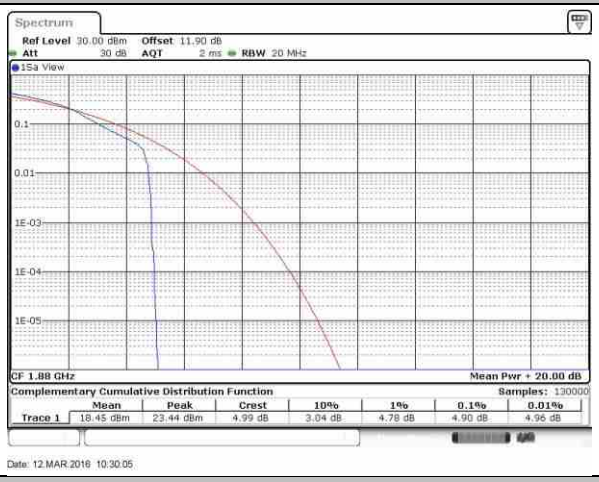
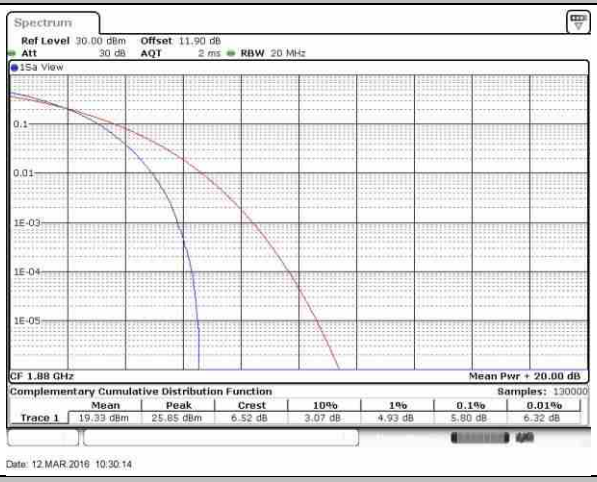
LTE Band 41 / 20MHz (Average)							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	20.27	0.1063	21.04	0.1271
Middle		1	49	20.01	0.1002	20.04	0.1010
Highest		1	49	16.84	0.0483	17.10	0.0513
Lowest	16QAM	1	49	19.53	0.0897	20.56	0.1139
Middle		1	49	19.25	0.0842	19.39	0.0868
Highest		1	49	16.00	0.0398	16.26	0.0423
Limit	EIRP < 2W			Result		PASS	

LTE Band 2

Peak-to-Average Ratio

Mode	LTE Band 2 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.06	4.7	4.61	5.62	PASS
Middle CH	4.38	4.9	4.9	5.8	
Highest CH	4.41	4.84	5.07	5.71	

LTE Band 2 / 20MHz / QPSK	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
Highest Channel / 1RB	**Highest Channel / Full RB**
	

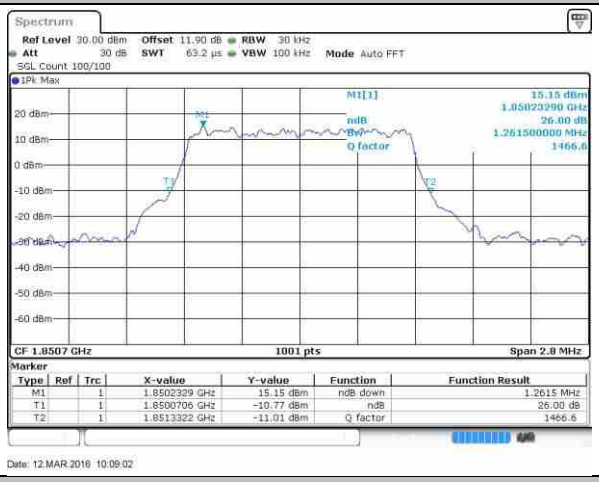
LTE Band 2 / 20MHz / 16QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**

26dB Bandwidth

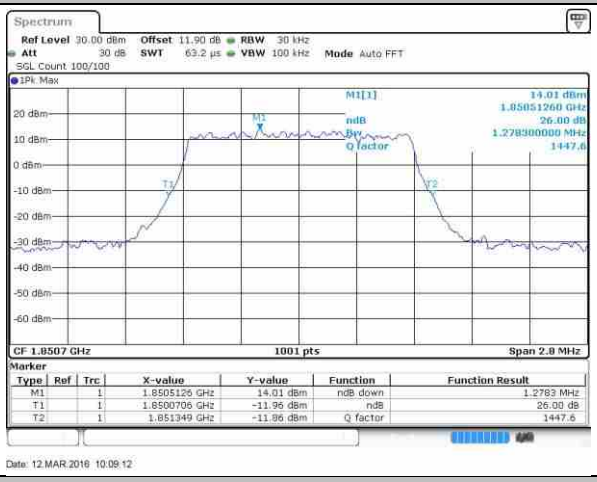
Mode	LTE Band 2 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.26	1.28	3.05	3.02	5.01	4.93	9.89	9.61	14.33	14.48	20.06	20.14
Middle CH	1.25	1.29	2.99	3.06	4.9	4.95	9.71	9.71	14.21	14.18	20.14	20.14
Highest CH	1.27	1.26	2.98	3.03	4.81	4.95	9.87	9.71	14.24	14.24	20.1	20.26

LTE Band 2

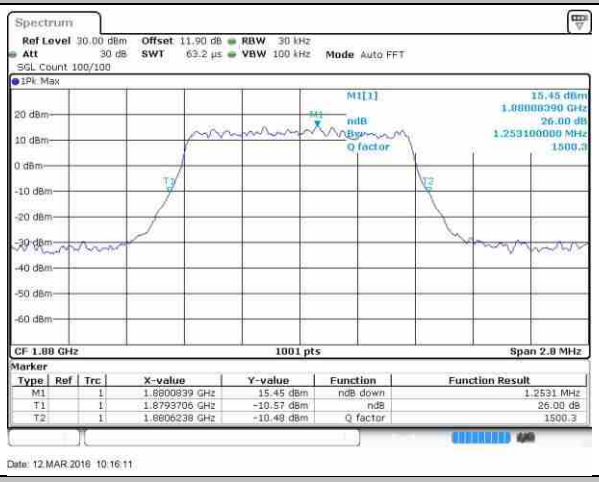
Lowest Channel / 1.4MHz / QPSK



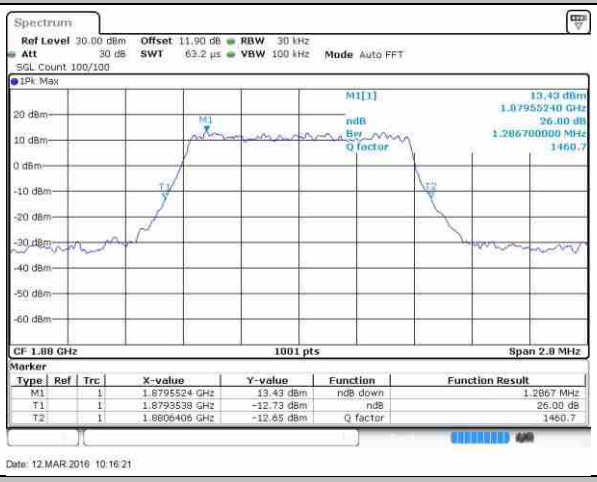
Lowest Channel / 1.4MHz / 16QAM



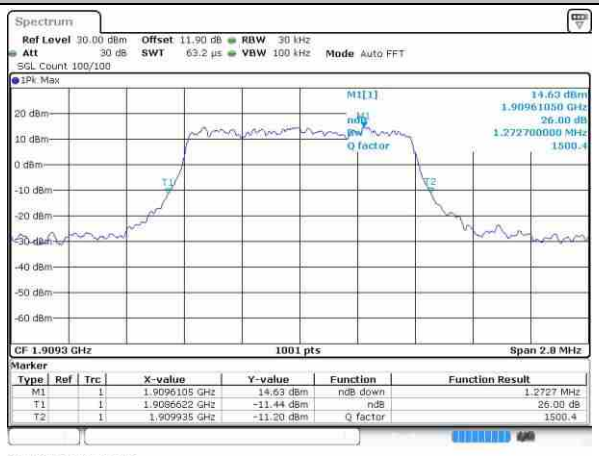
Middle Channel / 1.4MHz / QPSK



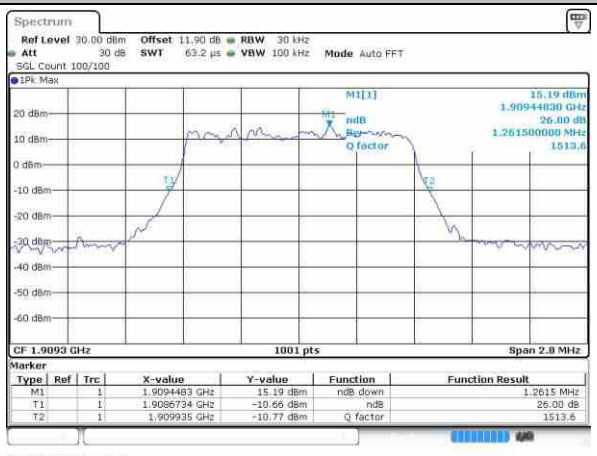
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

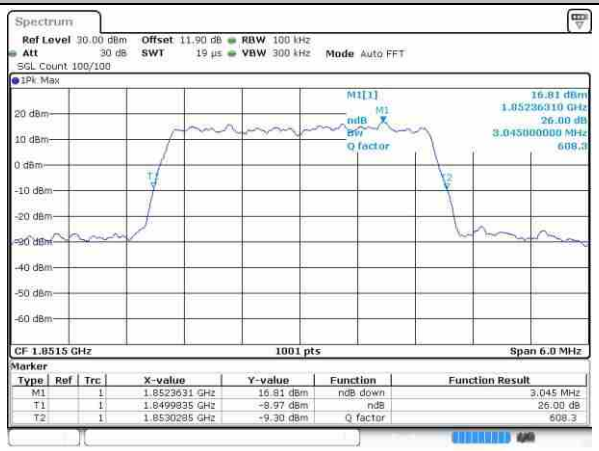


Highest Channel / 1.4MHz / 16QAM

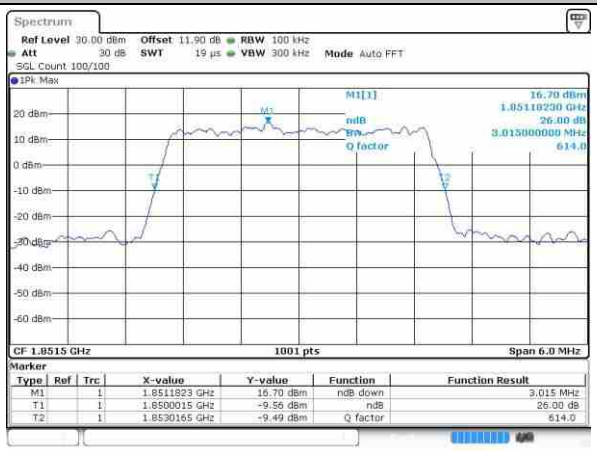


LTE Band 2

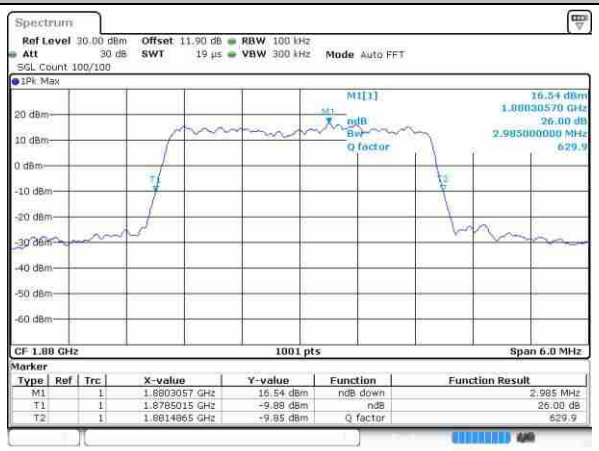
Lowest Channel / 3MHz / QPSK



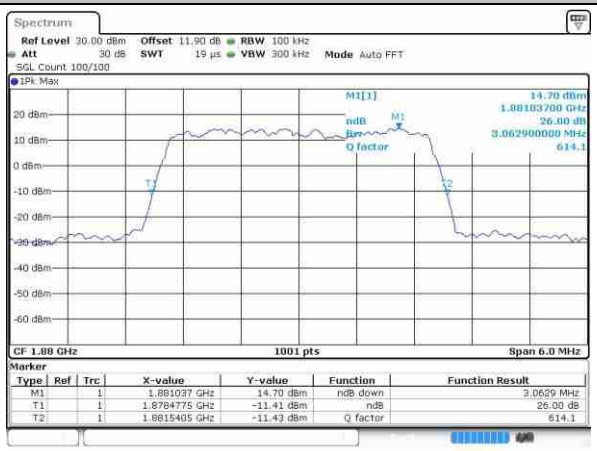
Lowest Channel / 3MHz / 16QAM



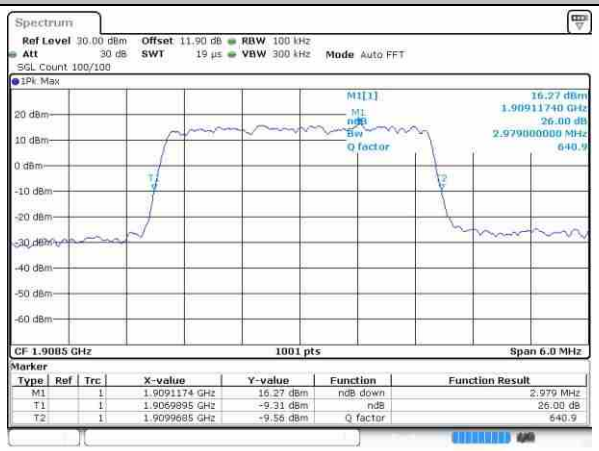
Middle Channel / 3MHz / QPSK



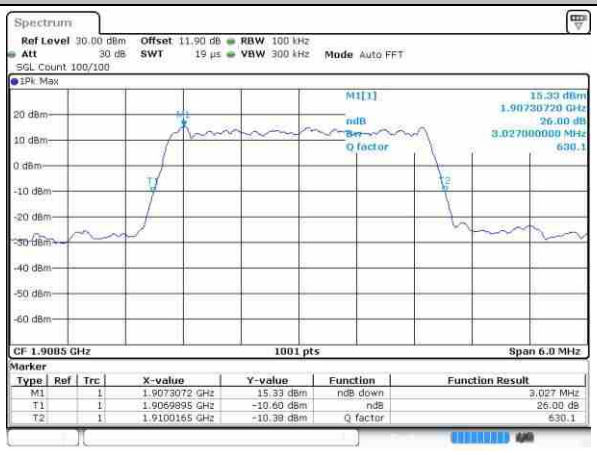
Middle Channel /3MHz / 16QAM



Highest Channel /3MHz / QPSK

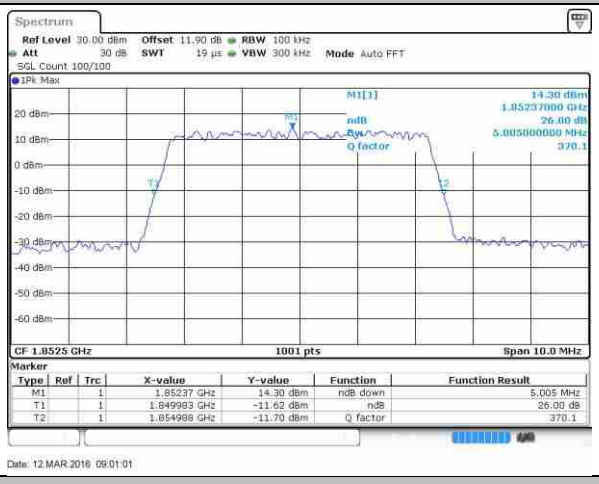


Highest Channel /3MHz / 16QAM

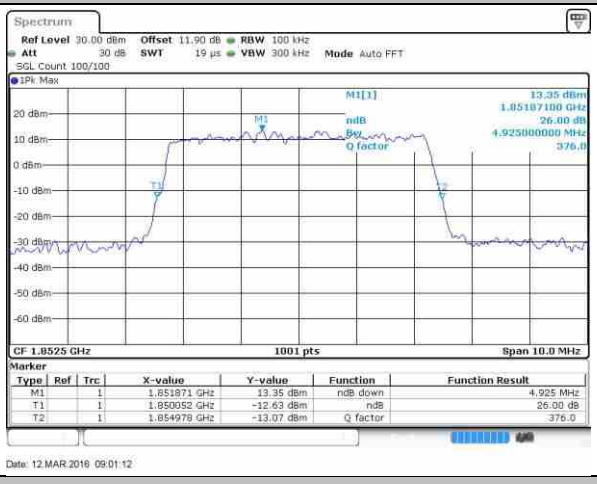


LTE Band 2

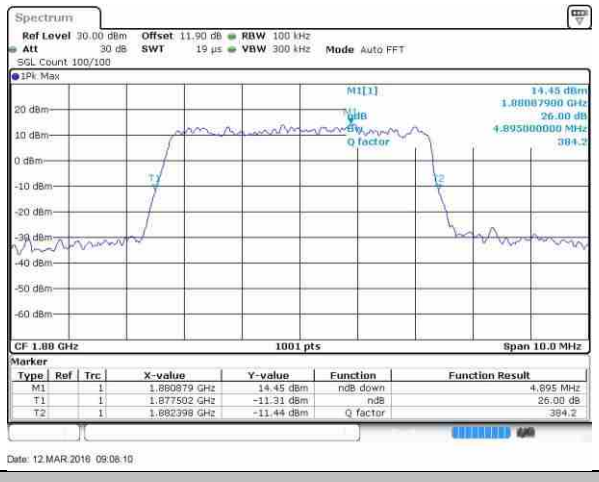
Lowest Channel / 5MHz / QPSK



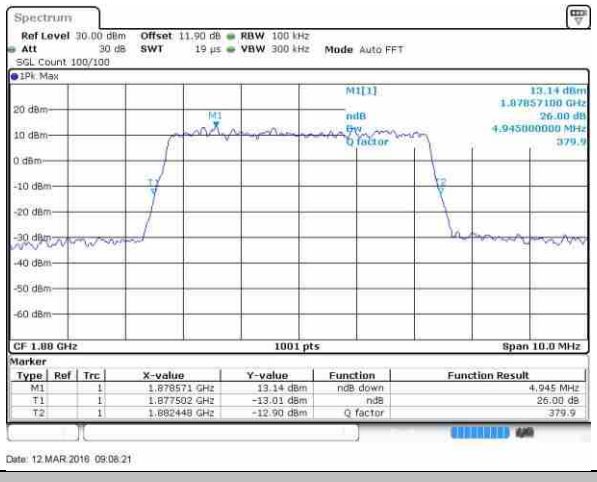
Lowest Channel / 5MHz / 16QAM



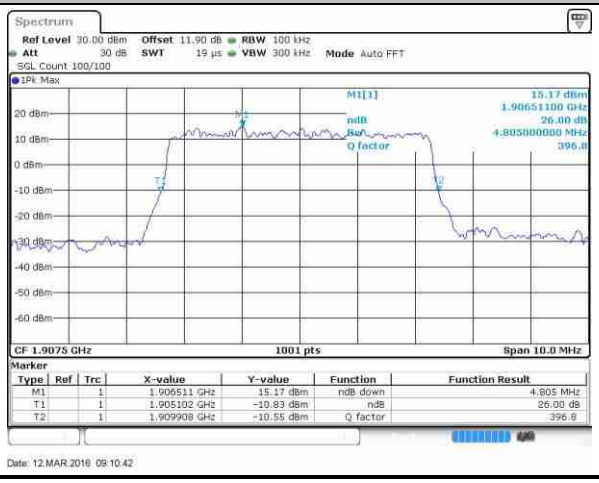
Middle Channel / 5MHz / QPSK



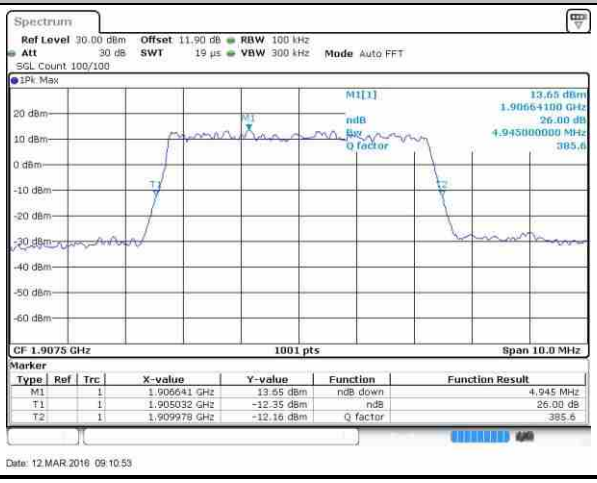
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

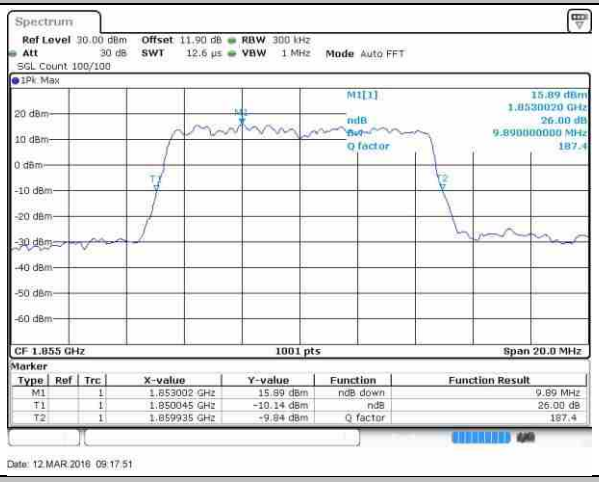


Highest Channel / 5MHz / 16QAM

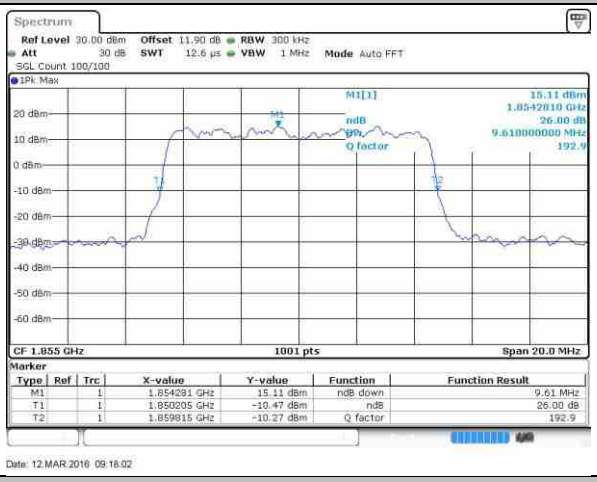


LTE Band 2

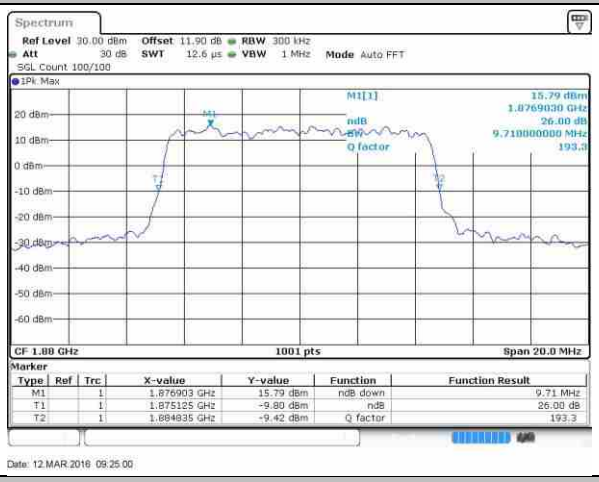
Lowest Channel / 10MHz / QPSK



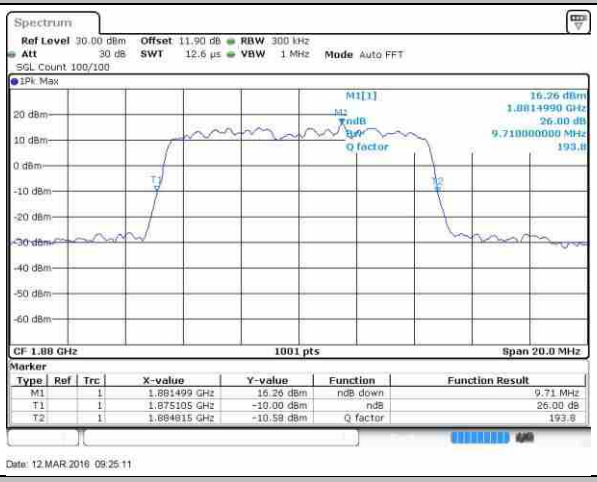
Lowest Channel / 10MHz / 16QAM



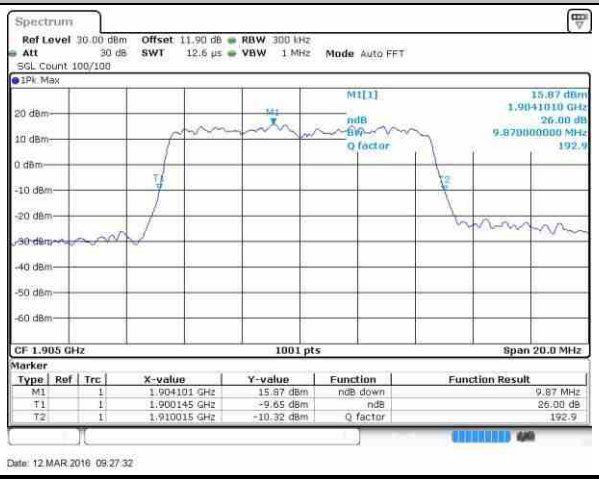
Middle Channel / 10MHz / QPSK



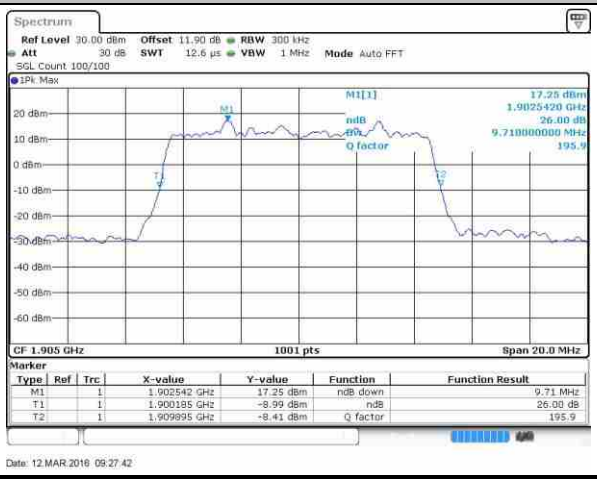
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

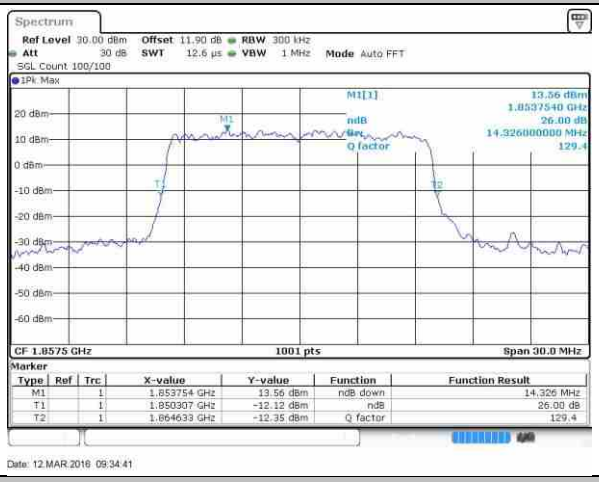


Highest Channel / 10MHz / 16QAM

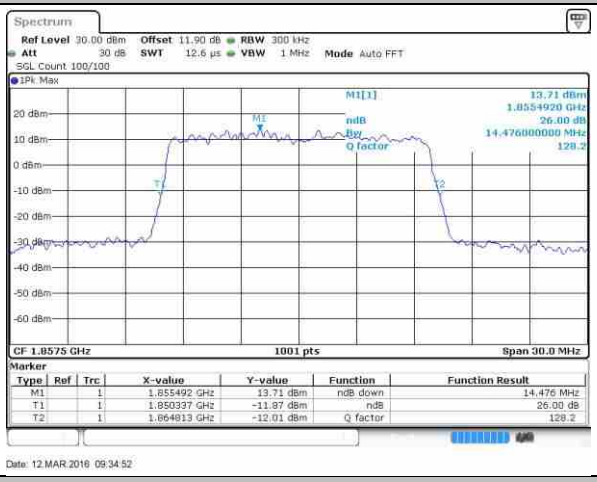


LTE Band 2

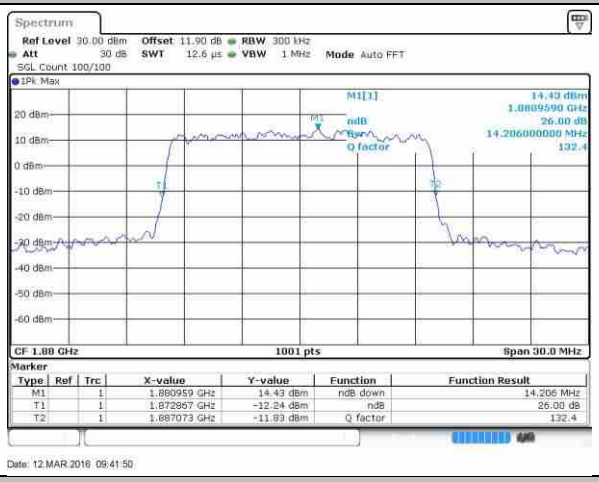
Lowest Channel / 15MHz / QPSK



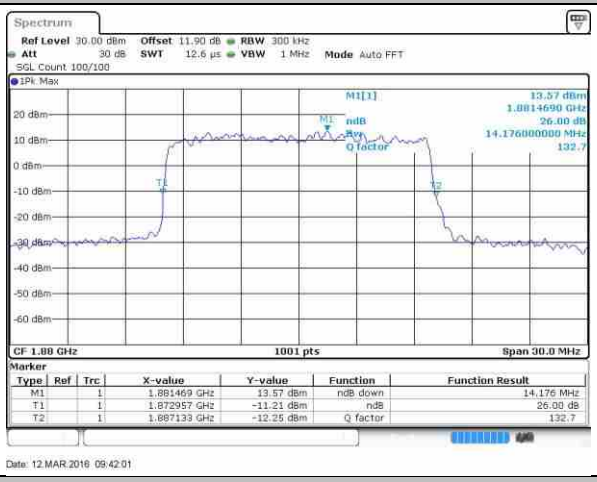
Lowest Channel / 15MHz / 16QAM



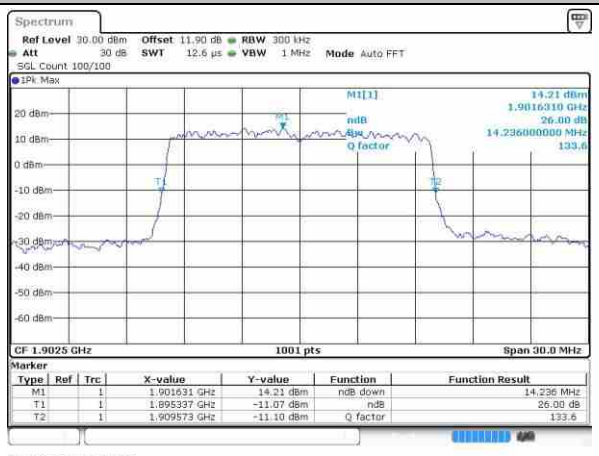
Middle Channel / 15MHz / QPSK



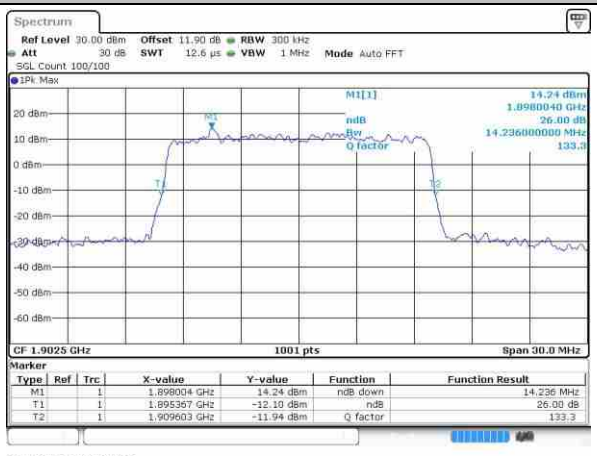
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

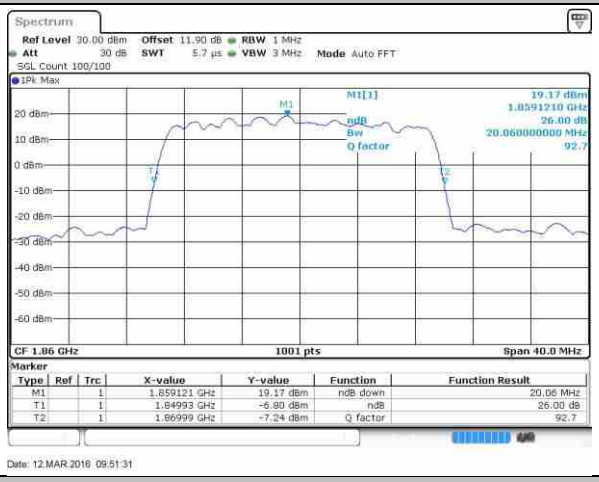


Highest Channel / 15MHz / 16QAM

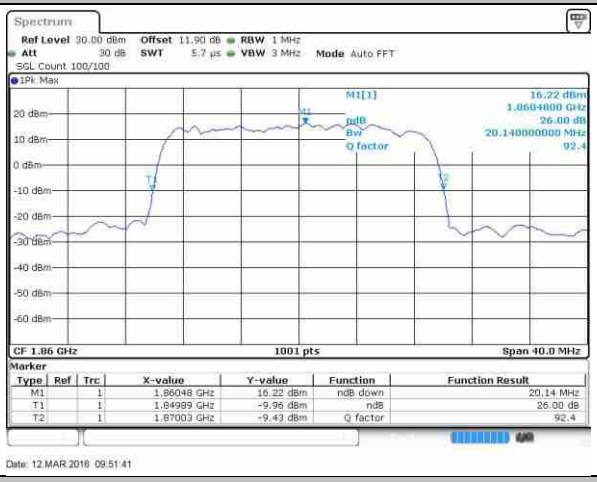


LTE Band 2

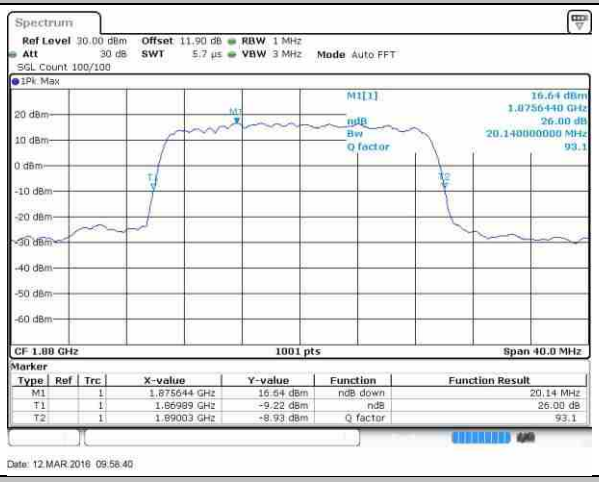
Lowest Channel / 20MHz / QPSK



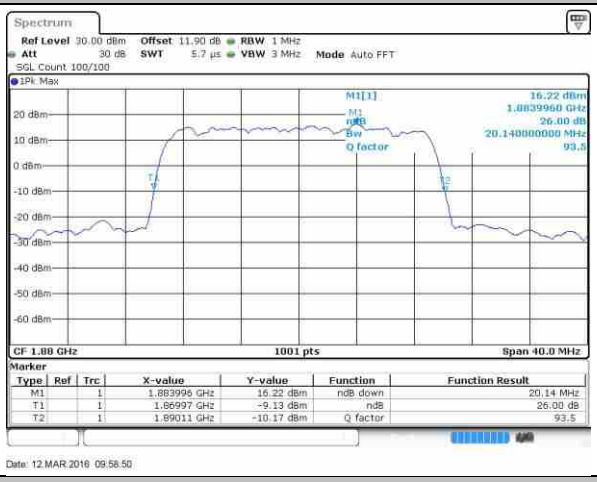
Lowest Channel / 20MHz / 16QAM



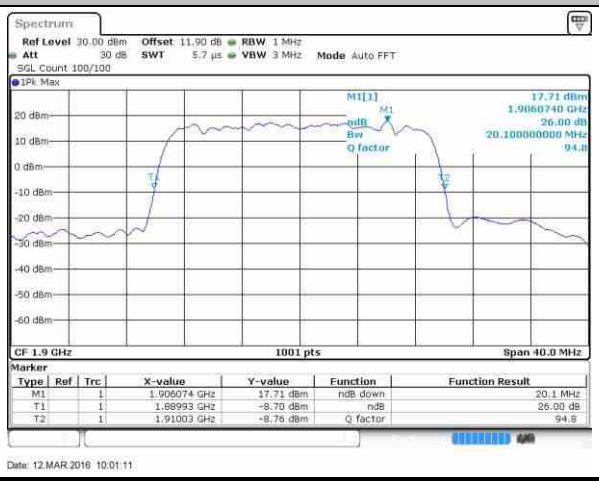
Middle Channel / 20MHz / QPSK



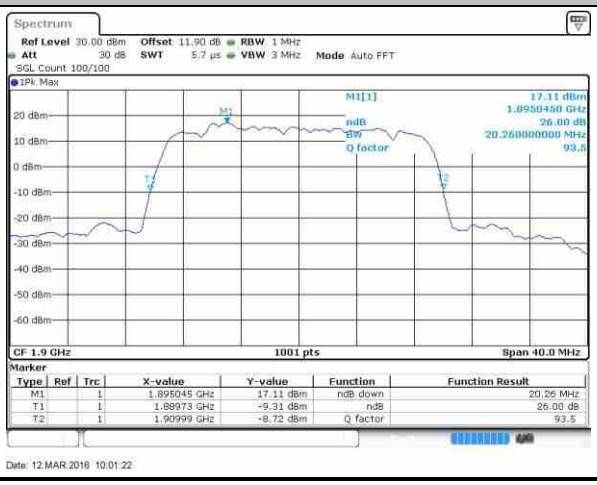
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM

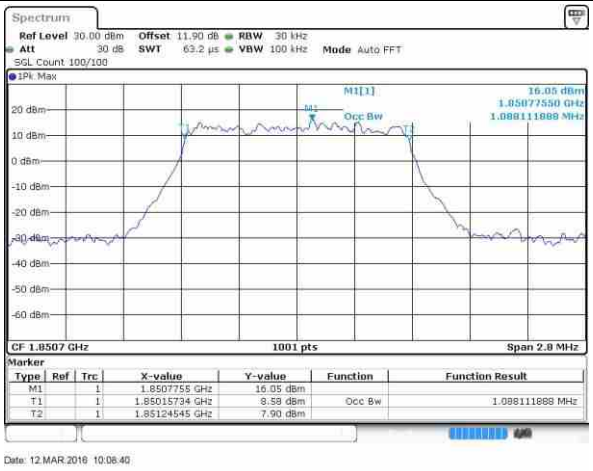


Occupied Bandwidth

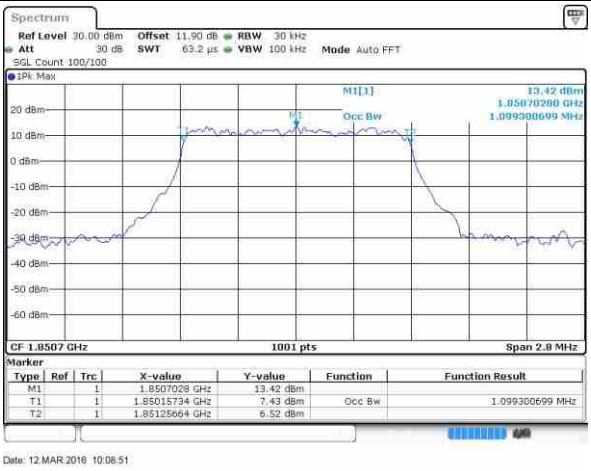
Mode	LTE Band 2 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.1	2.72	2.7	4.5	4.49	9.03	9.05	13.4	13.4	18.34	18.22
Middle CH	1.09	1.1	2.7	2.72	4.5	4.49	8.99	9.03	13.46	13.4	18.26	18.26
Highest CH	1.1	1.09	2.72	2.73	4.5	4.48	8.97	8.97	13.37	13.4	18.34	18.54

LTE Band 2

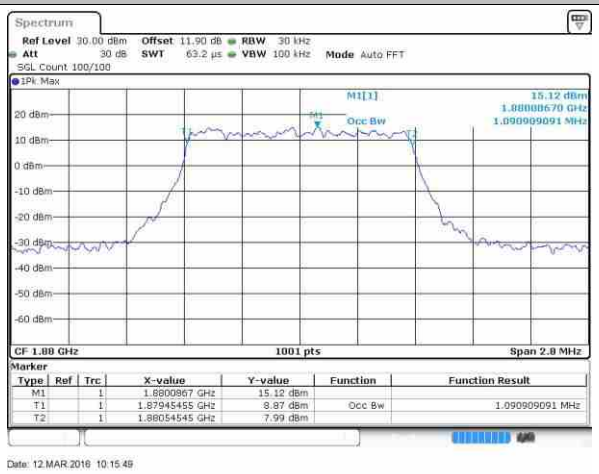
Lowest Channel / 1.4MHz / QPSK



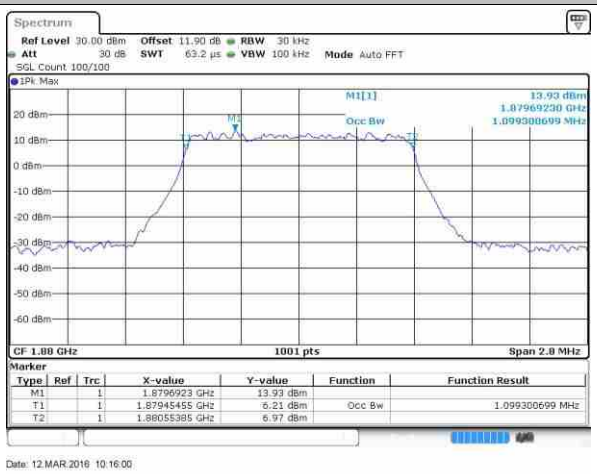
Lowest Channel / 1.4MHz / 16QAM



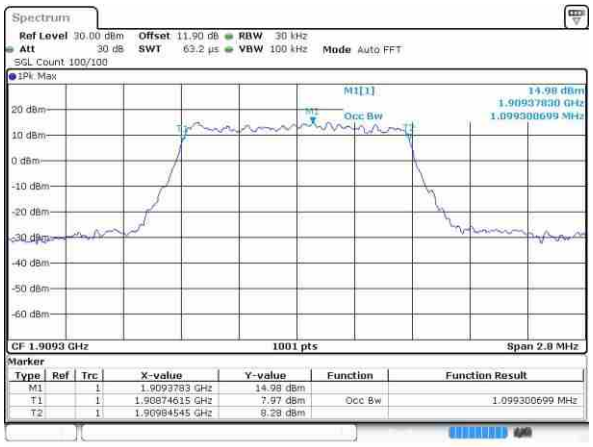
Middle Channel / 1.4MHz / QPSK



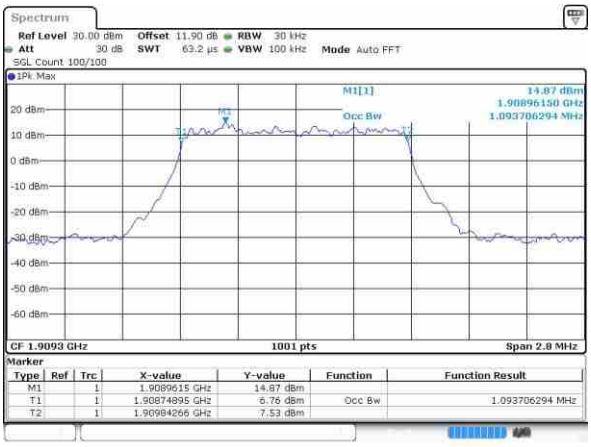
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

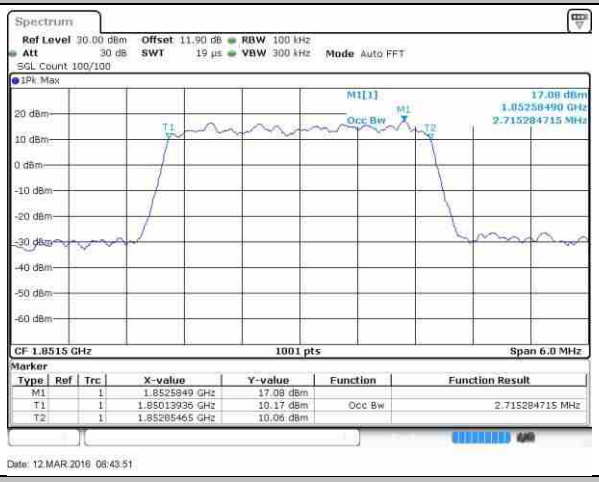


Highest Channel / 1.4MHz / 16QAM

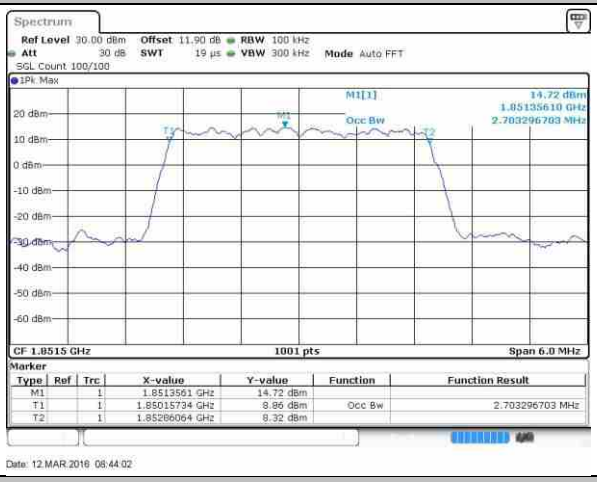


LTE Band 2

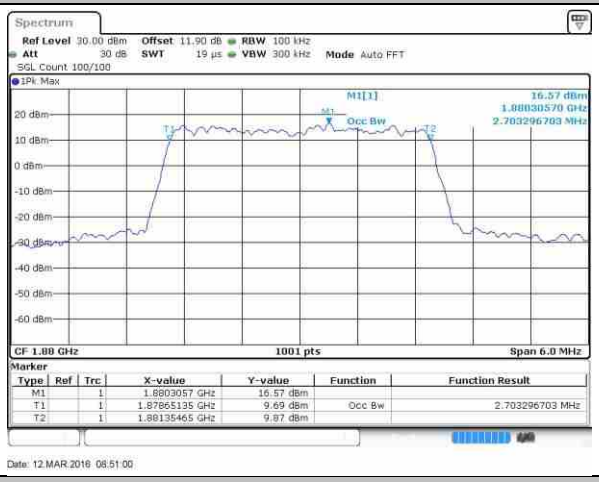
Lowest Channel / 3MHz / QPSK



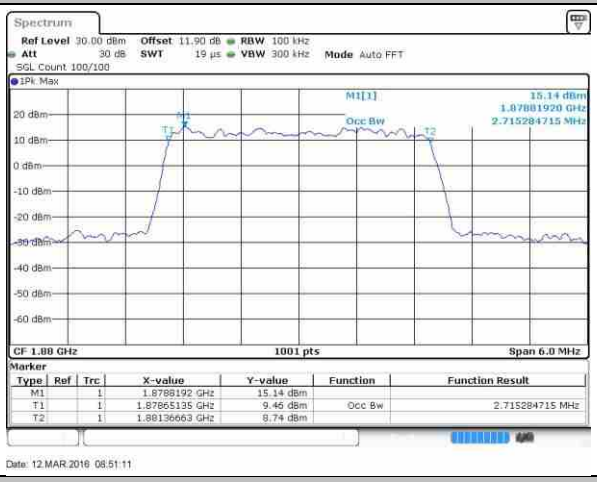
Lowest Channel / 3MHz / 16QAM



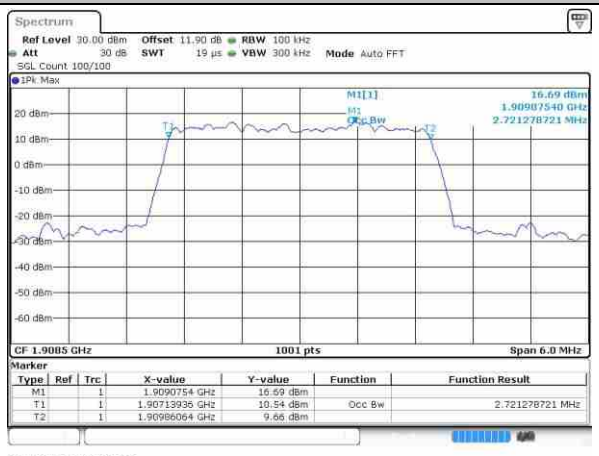
Middle Channel / 3MHz / QPSK



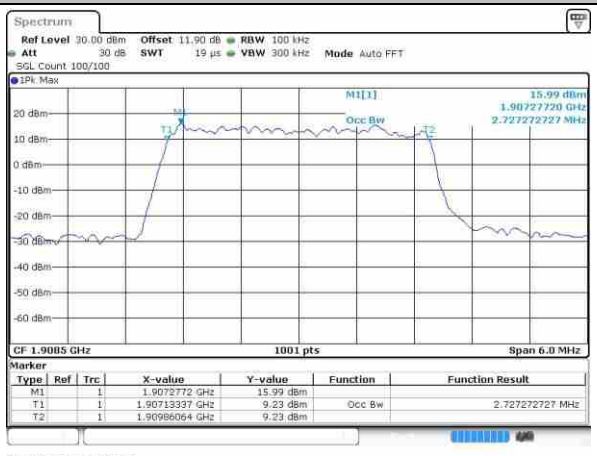
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

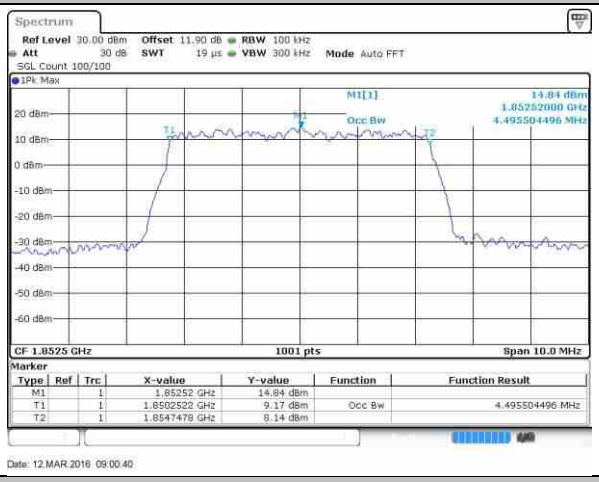


Highest Channel / 3MHz / 16QAM

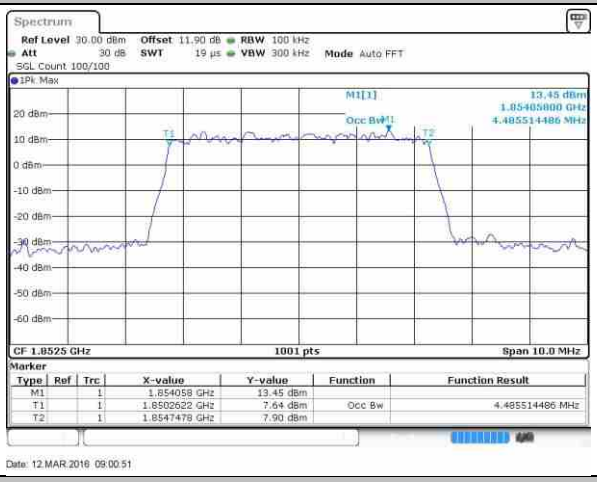


LTE Band 2

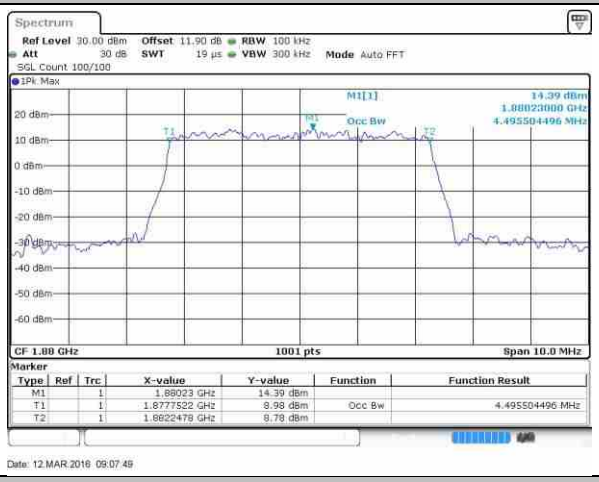
Lowest Channel / 5MHz / QPSK



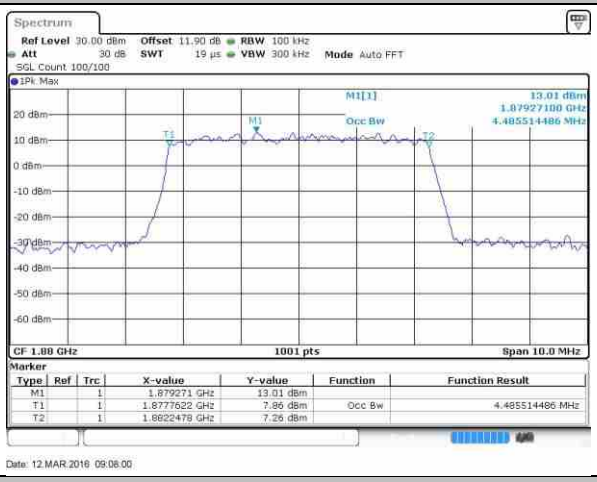
Lowest Channel / 5MHz / 16QAM



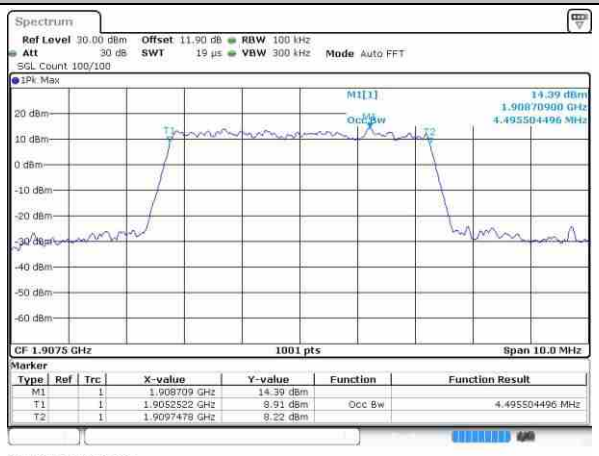
Middle Channel / 5MHz / QPSK



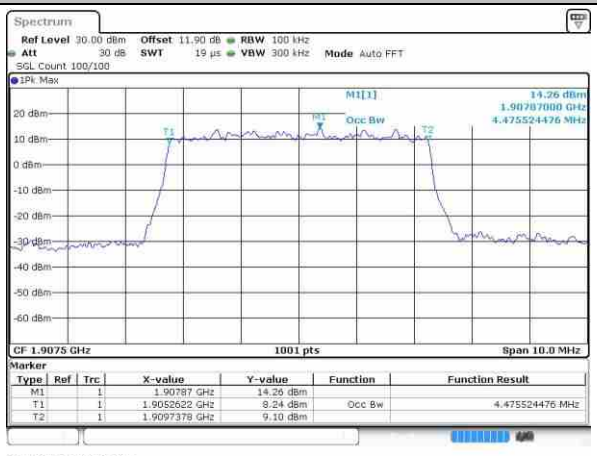
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

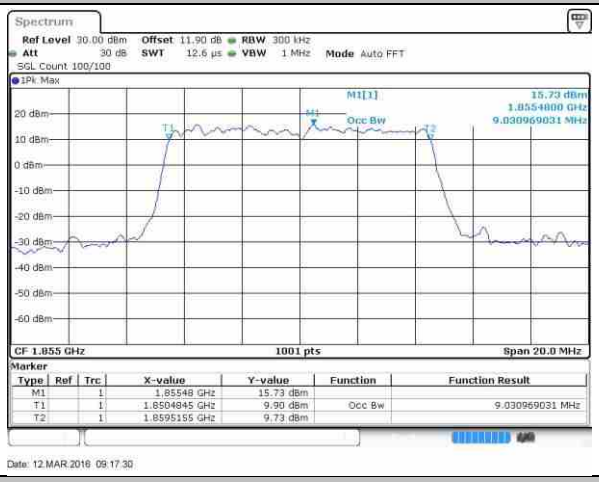


Highest Channel / 5MHz / 16QAM

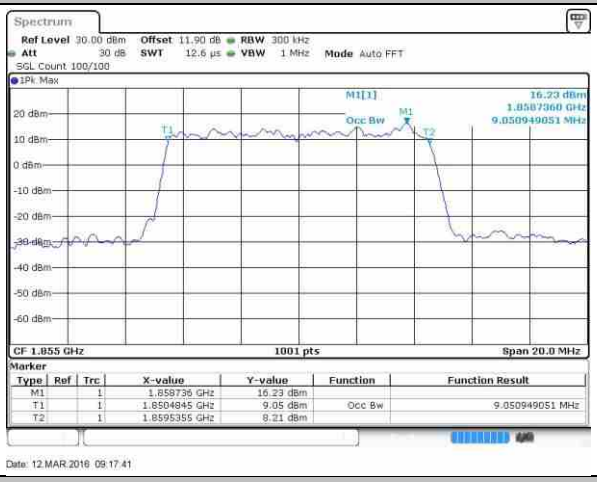


LTE Band 2

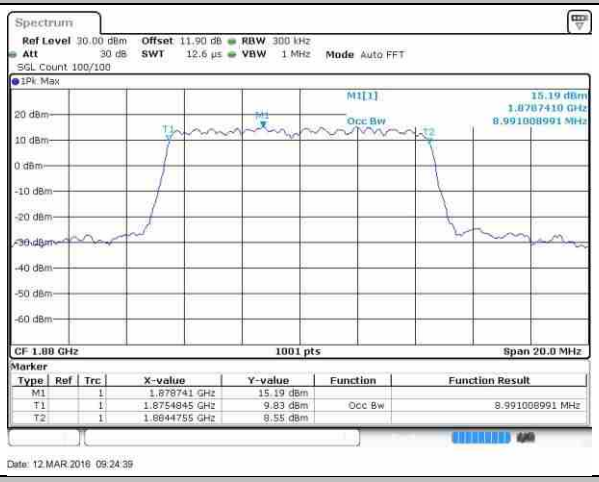
Lowest Channel / 10MHz / QPSK



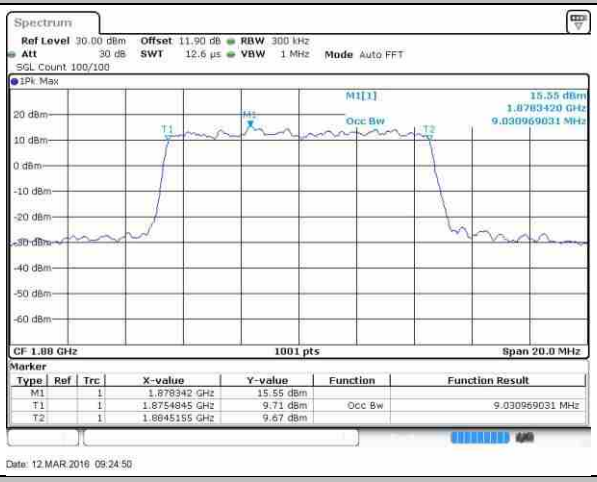
Lowest Channel / 10MHz / 16QAM



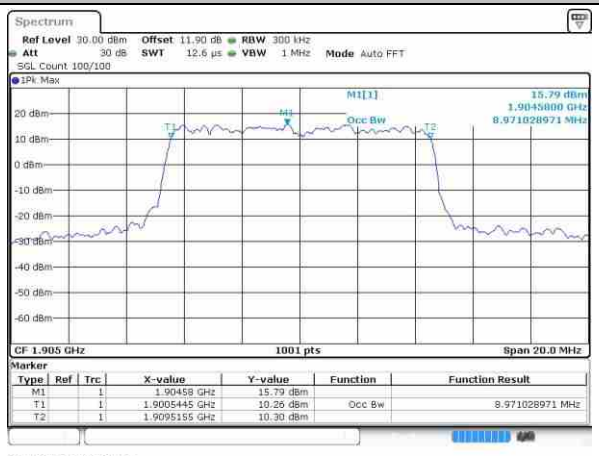
Middle Channel / 10MHz / QPSK



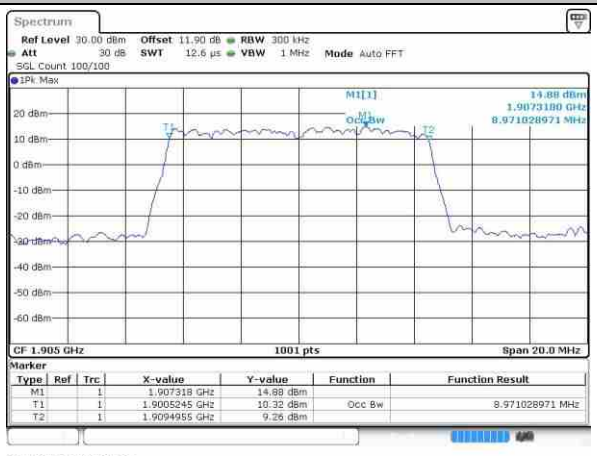
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

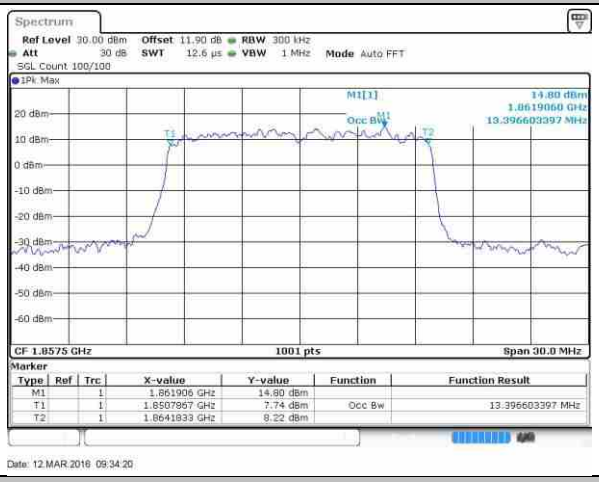


Highest Channel / 10MHz / 16QAM

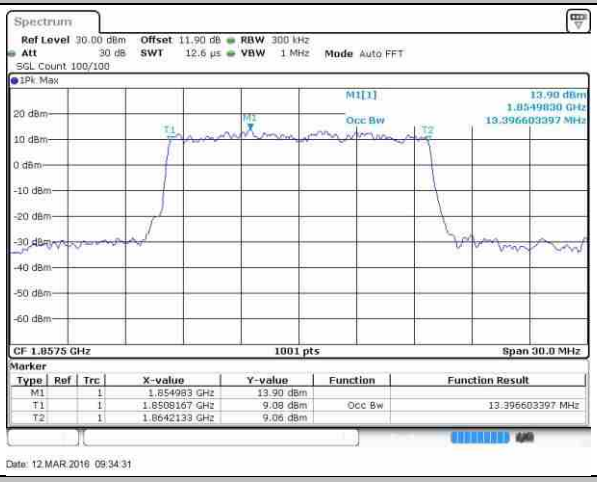


LTE Band 2

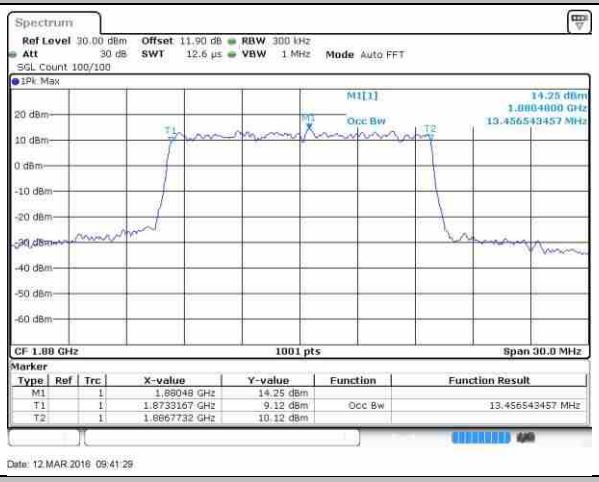
Lowest Channel / 15MHz / QPSK



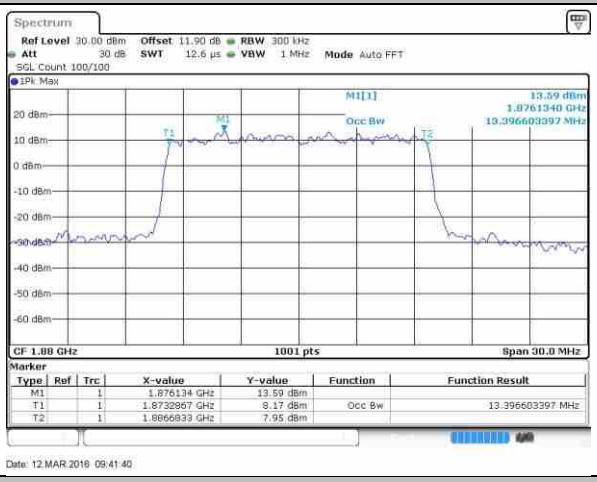
Lowest Channel / 15MHz / 16QAM



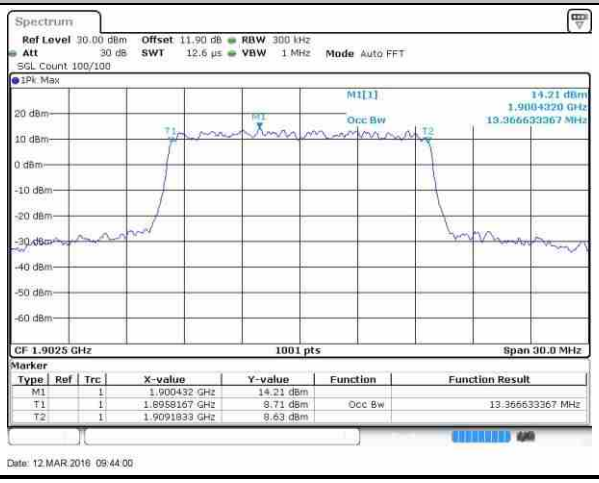
Middle Channel / 15MHz / QPSK



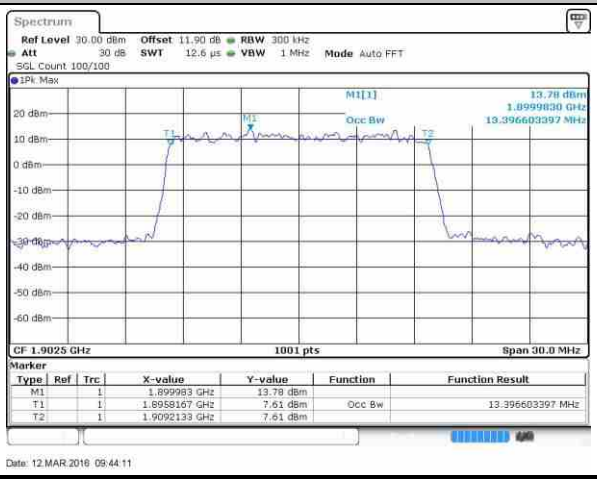
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

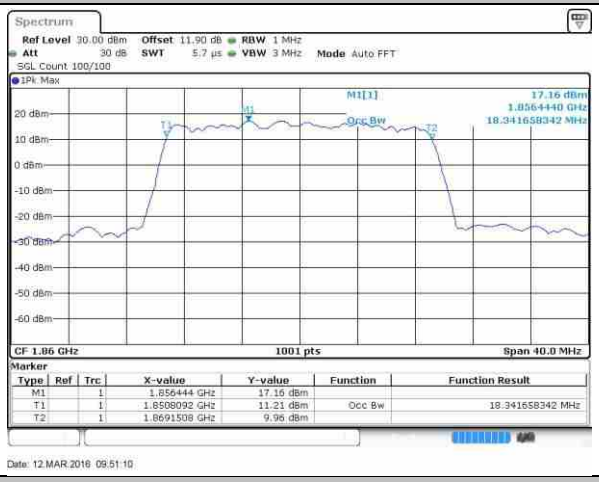


Highest Channel / 15MHz / 16QAM

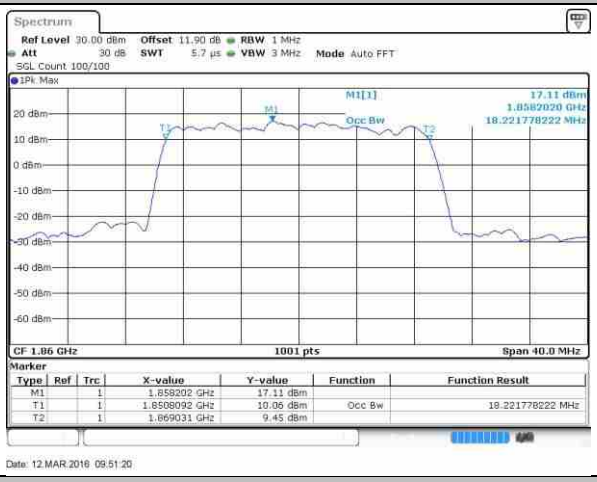


LTE Band 2

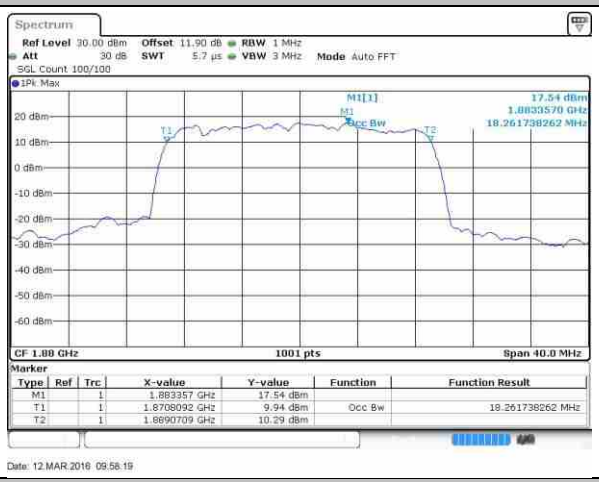
Lowest Channel / 20MHz / QPSK



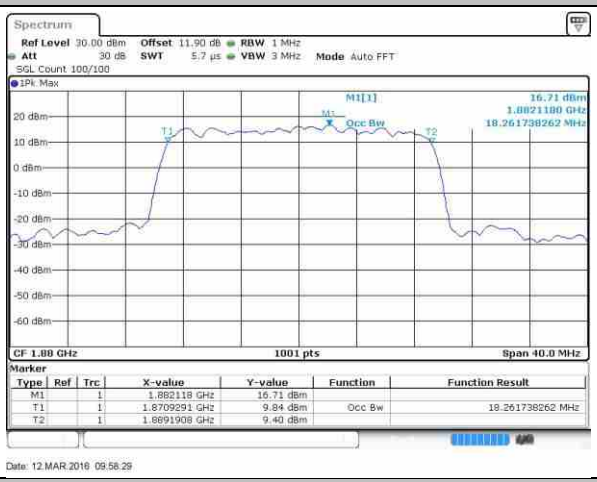
Lowest Channel / 20MHz / 16QAM



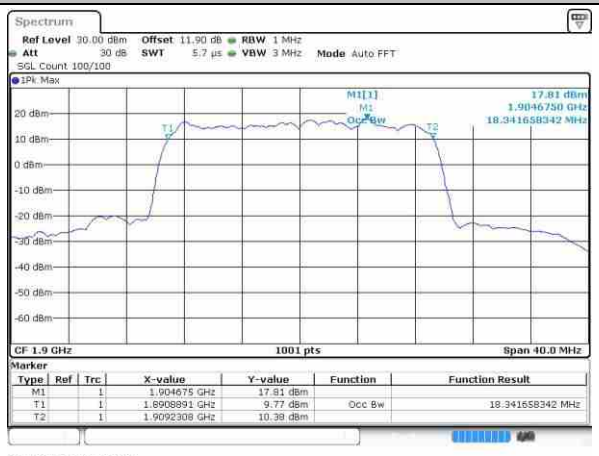
Middle Channel / 20MHz / QPSK



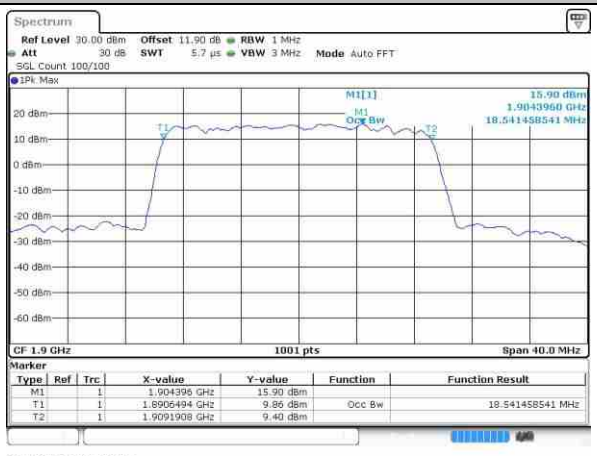
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



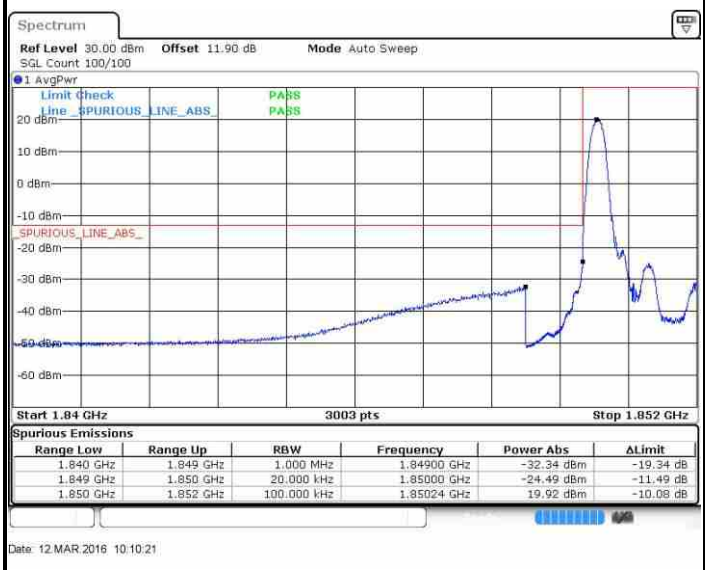
Highest Channel / 20MHz / 16QAM



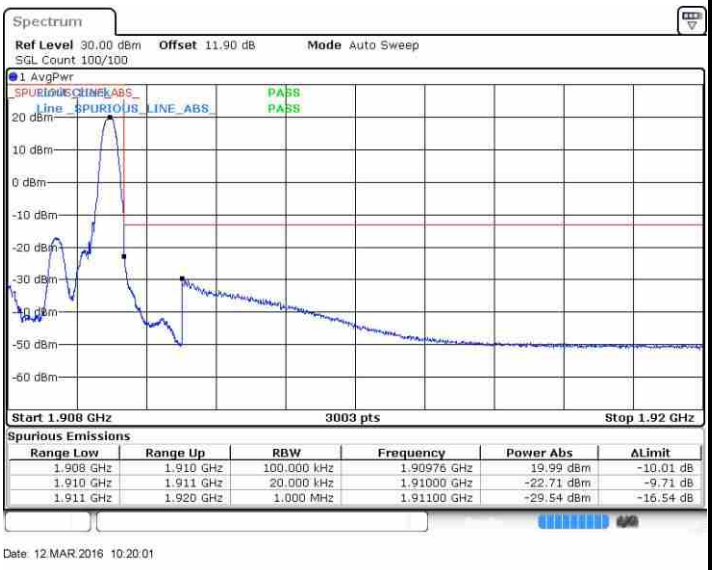
Conducted Band Edge

LTE Band 2 / 1.4MHz / QPSK

Lowest Band Edge / 1RB

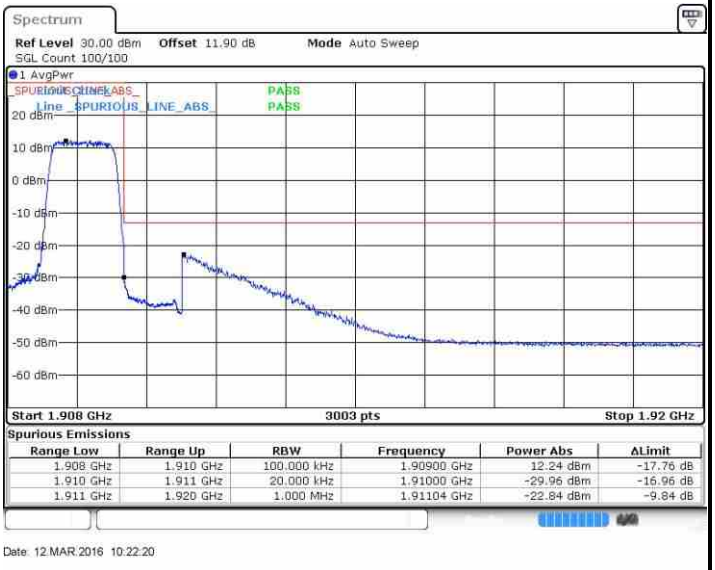


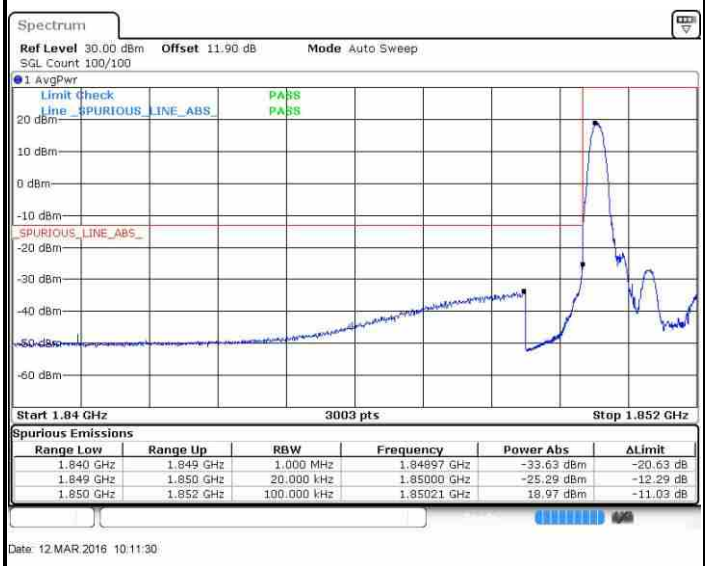
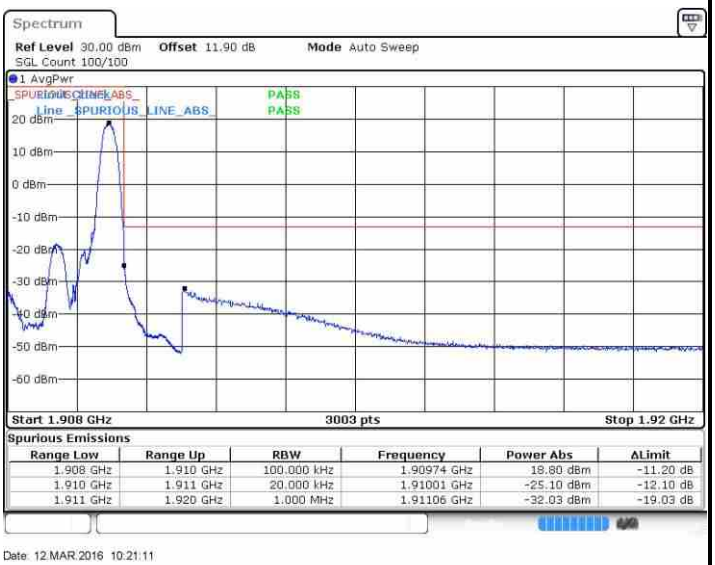
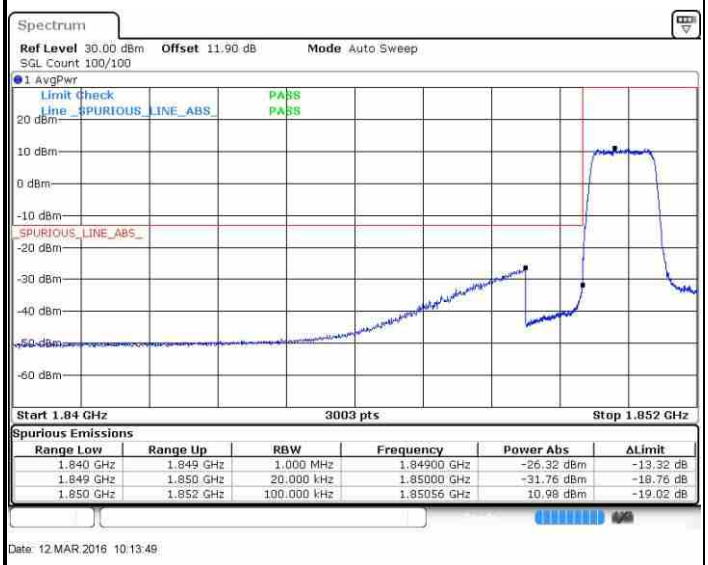
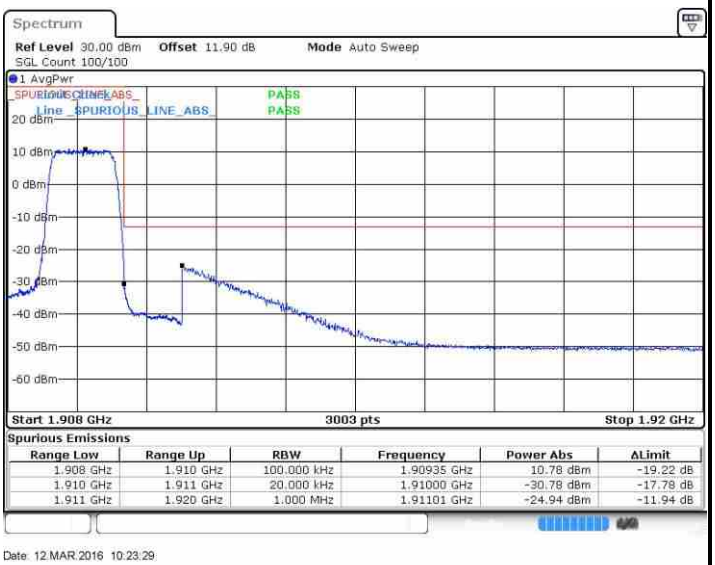
Highest Band Edge / 1RB

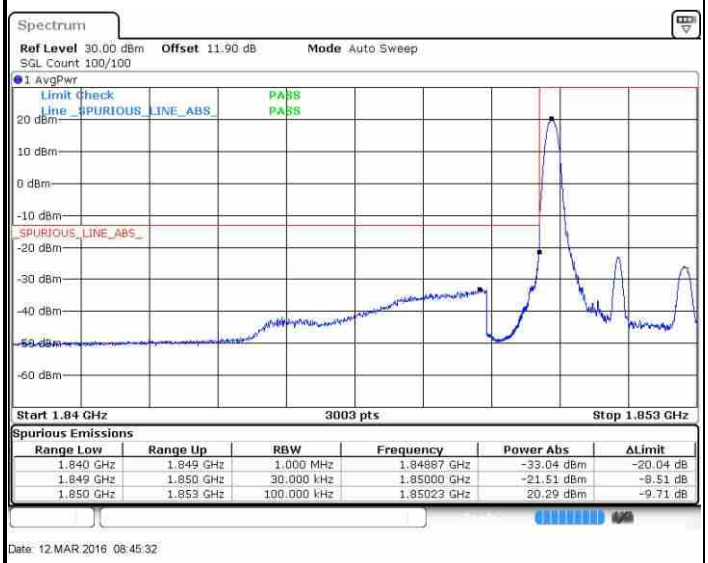
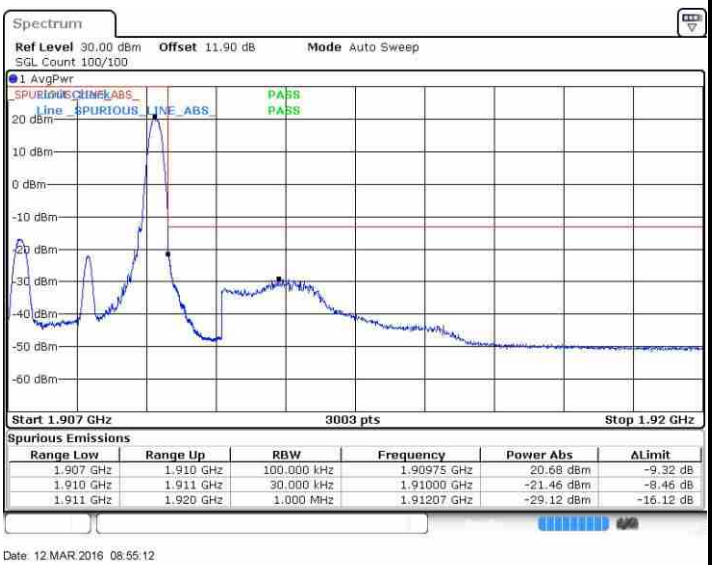
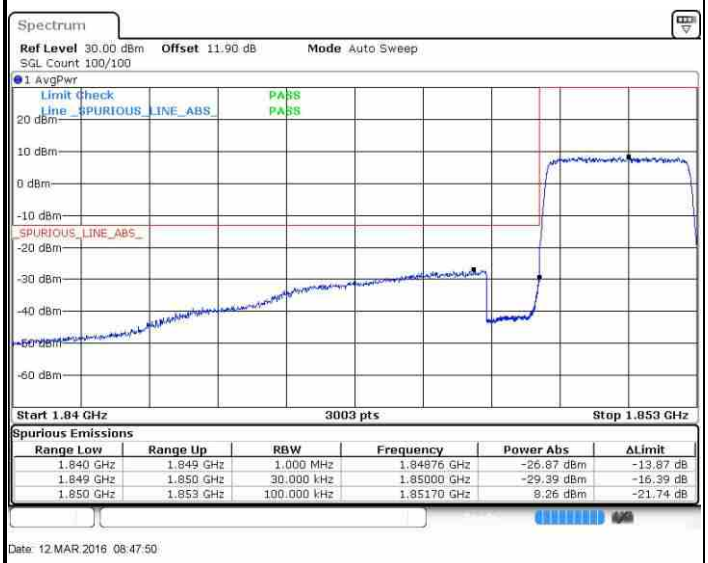
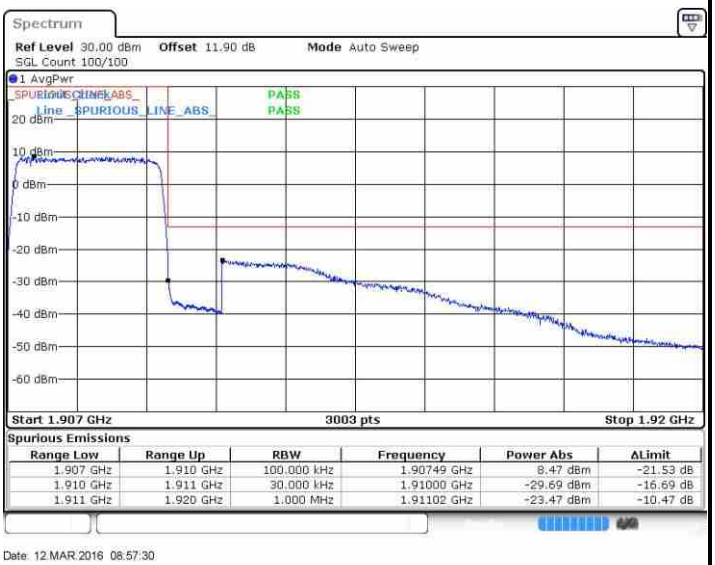


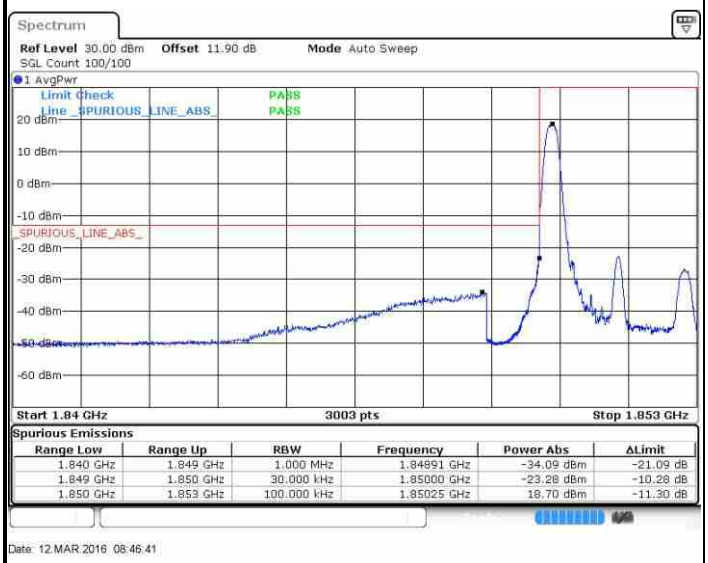
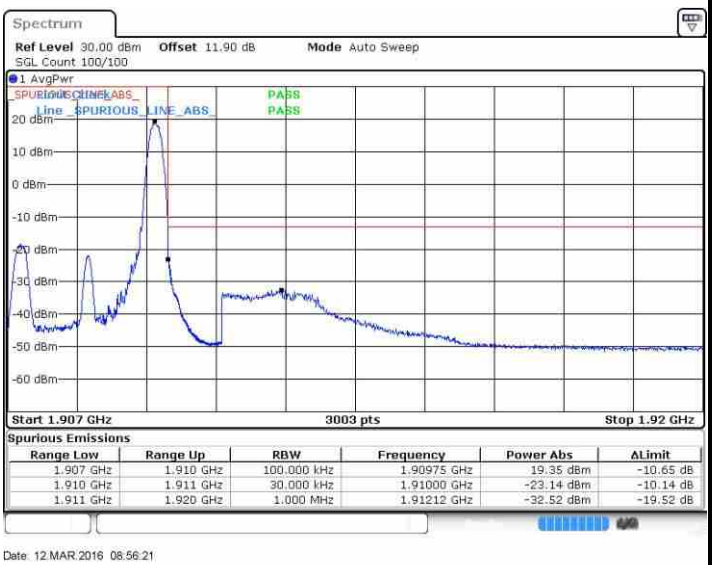
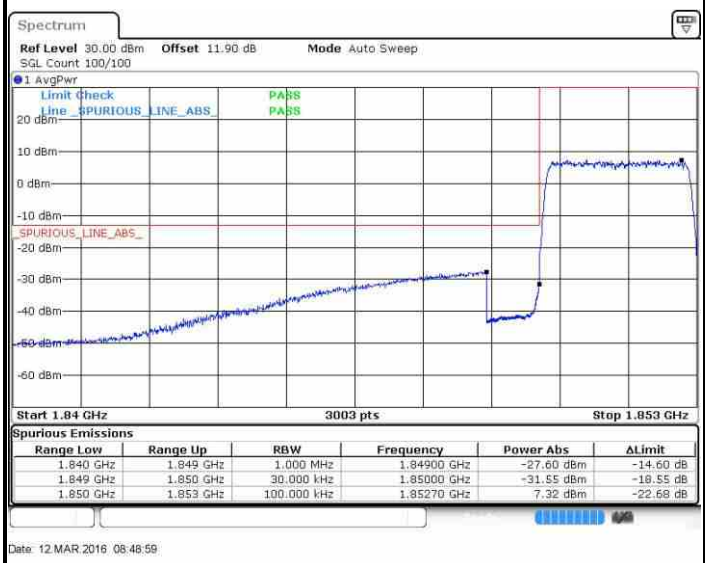
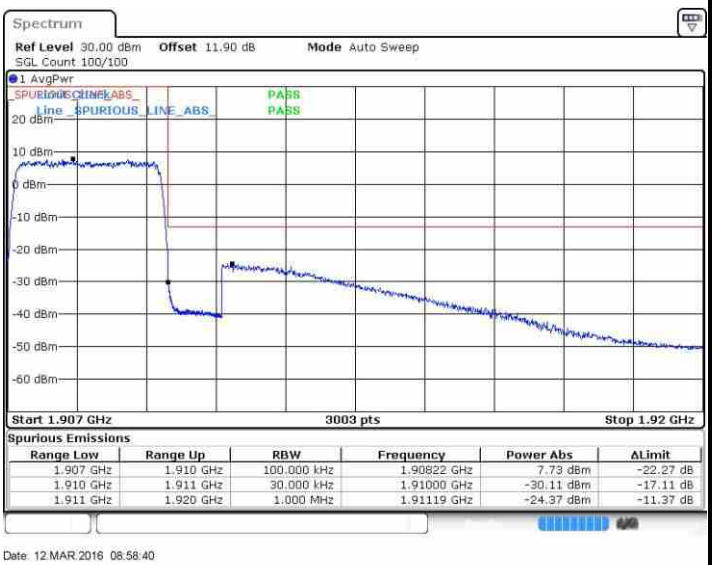
Lowest Band Edge / Full RB

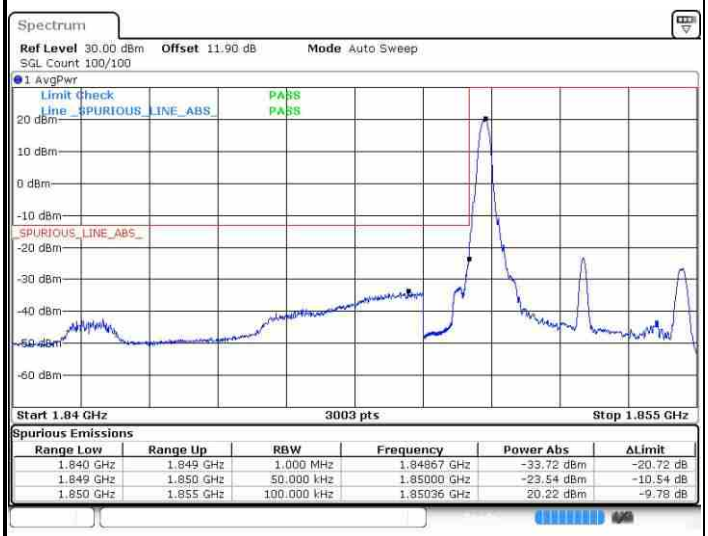
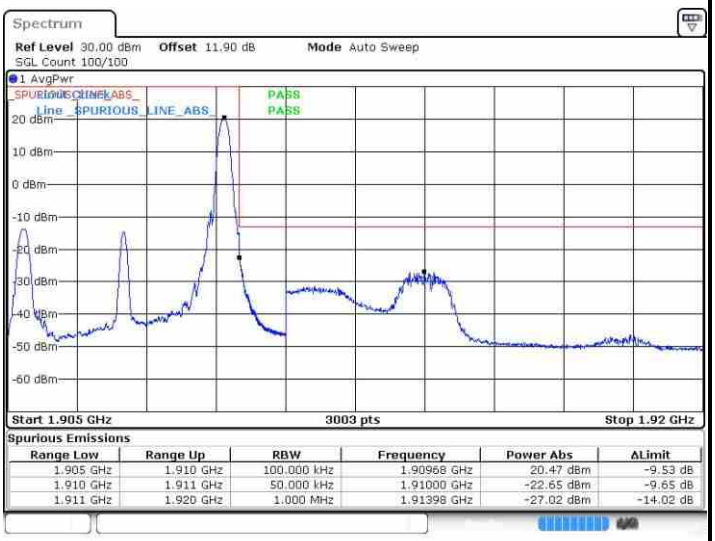
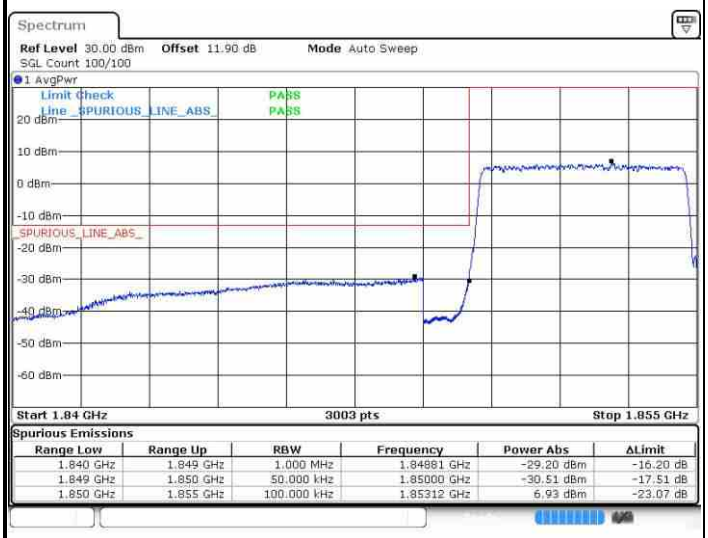
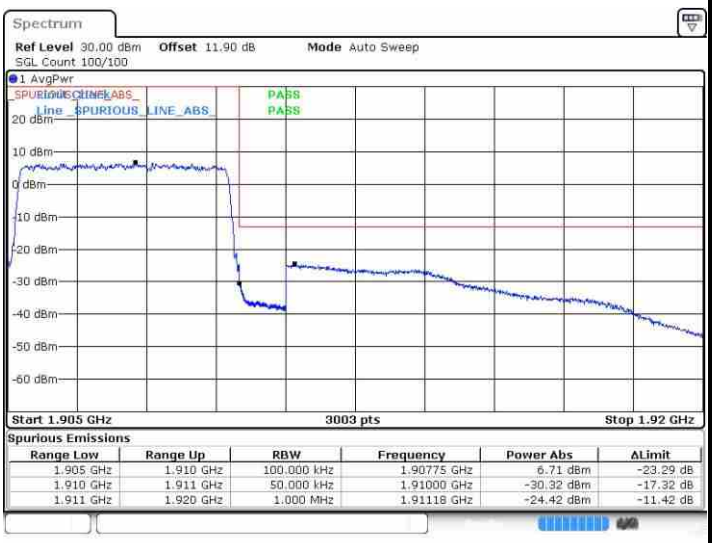
Highest Band Edge / Full RB

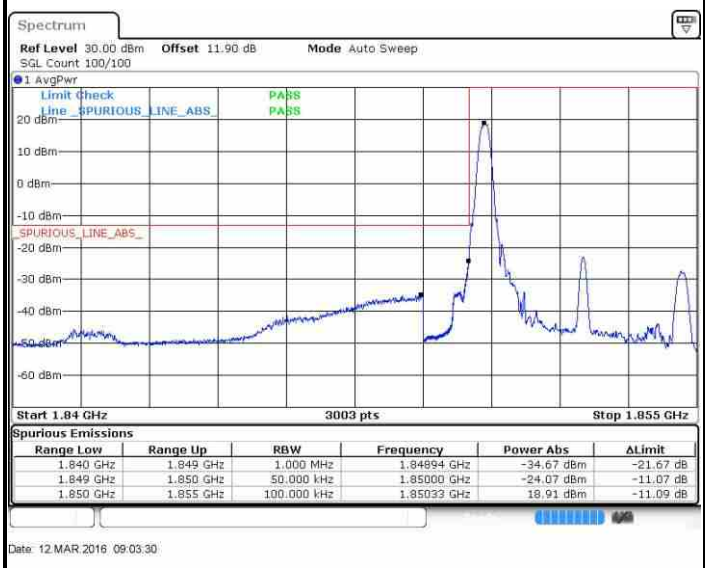
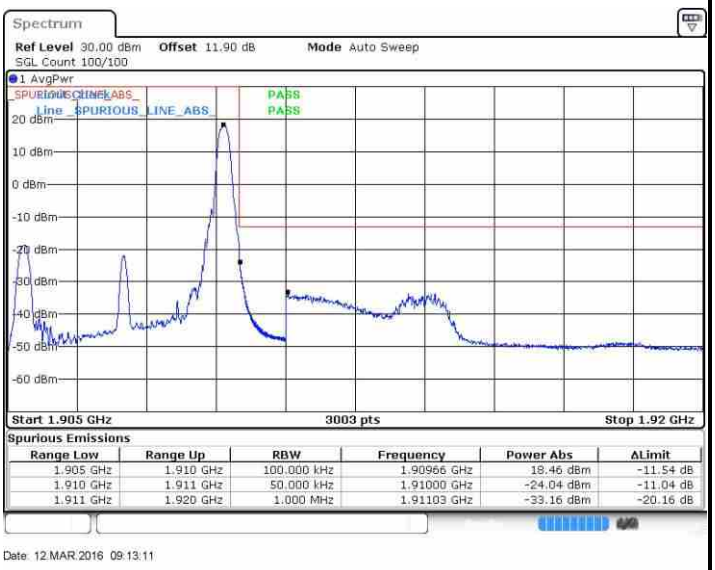
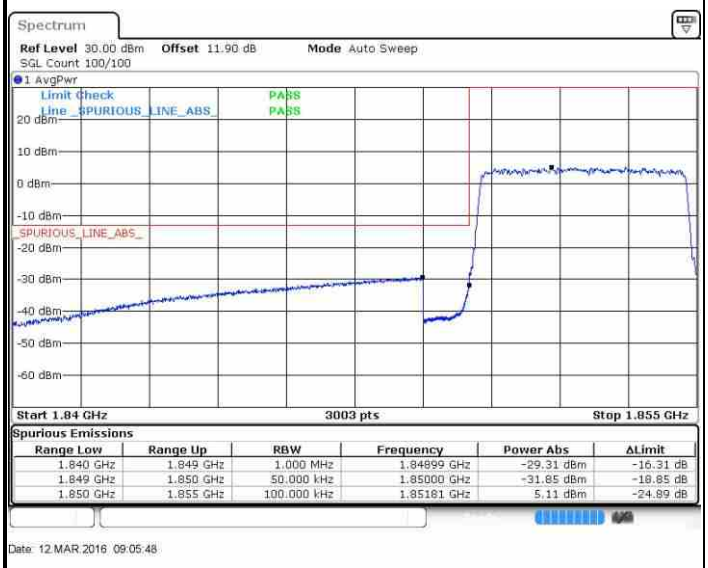
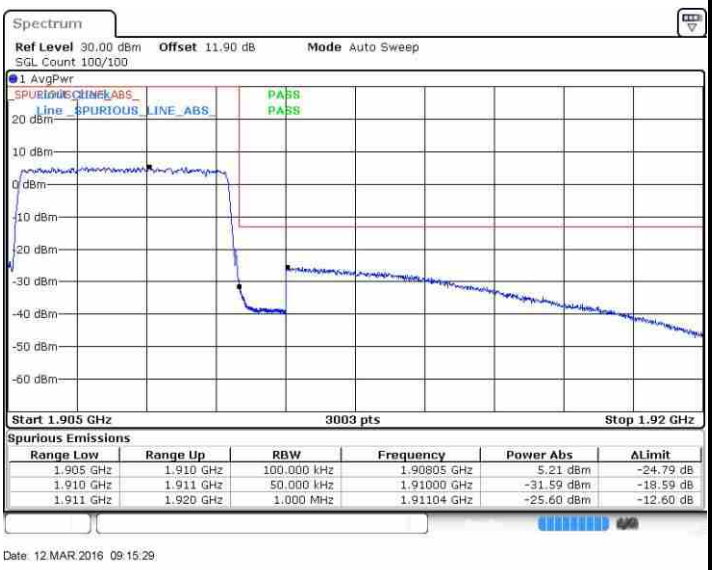


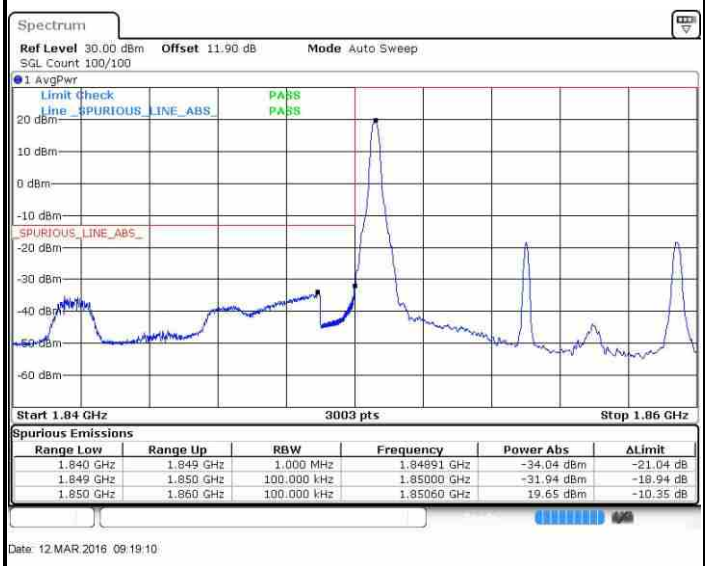
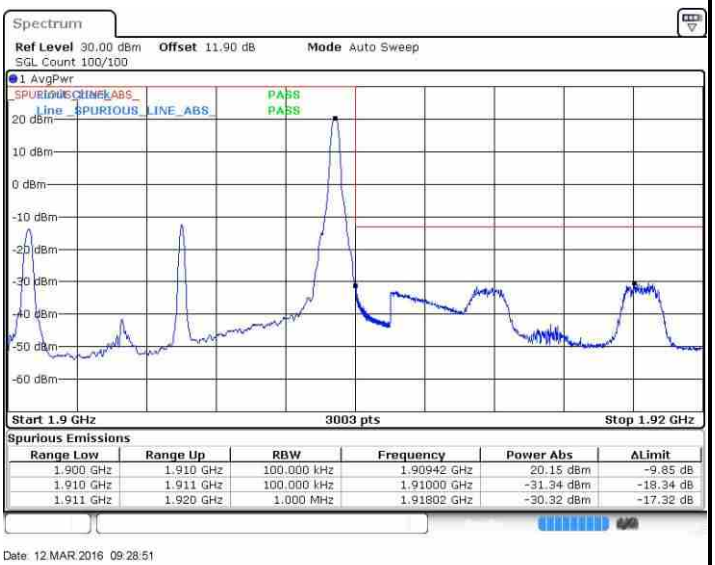
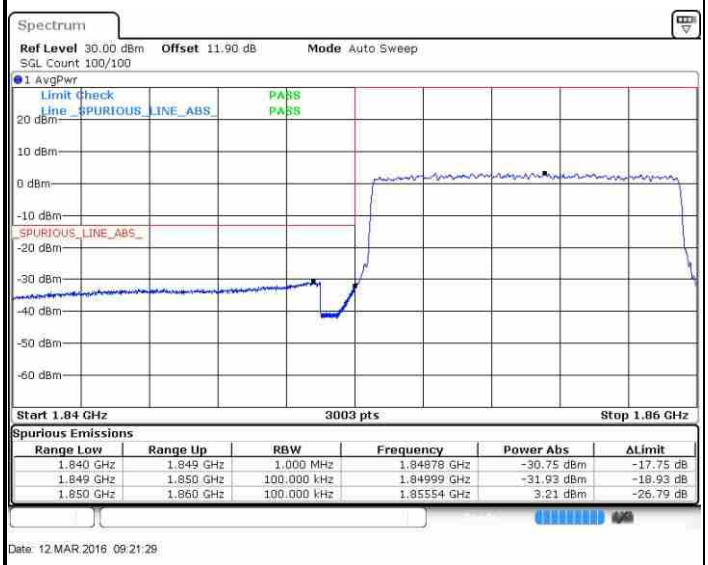
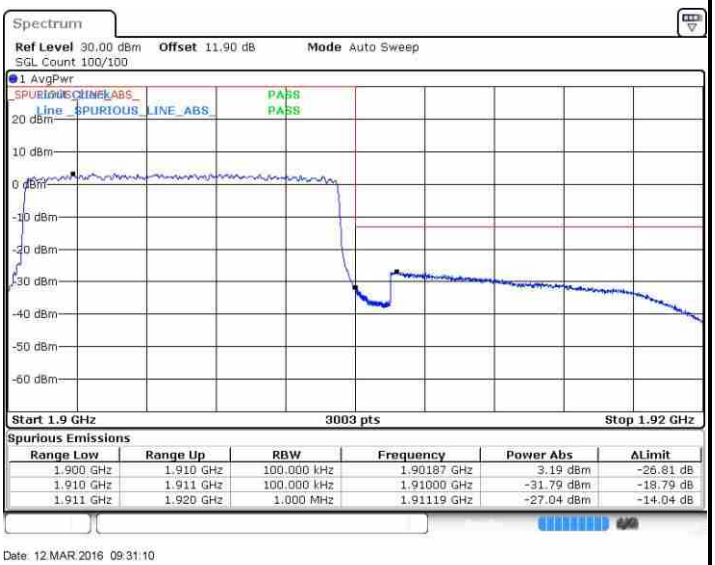
LTE Band 2 / 1.4MHz / 16QAM	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

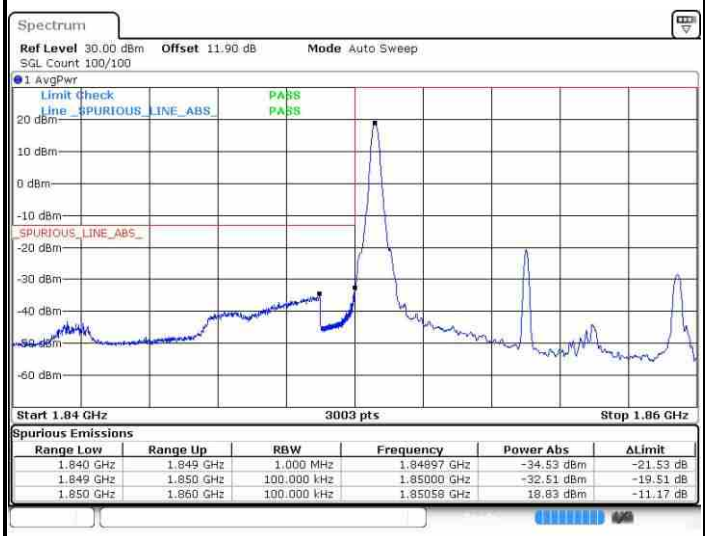
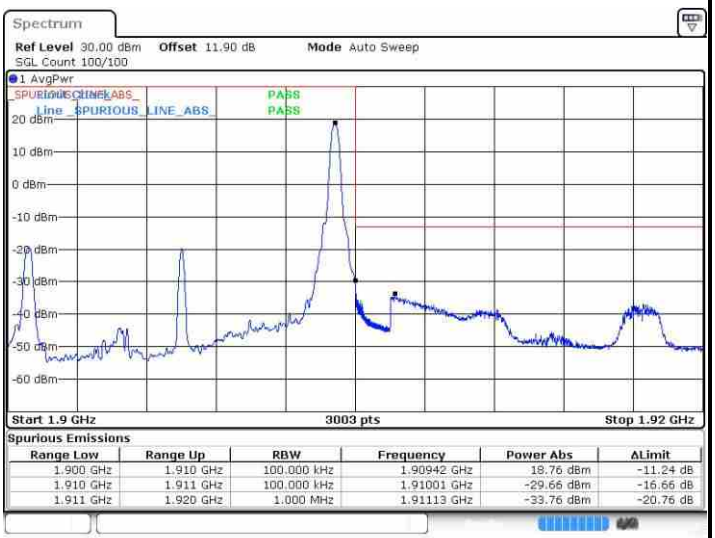
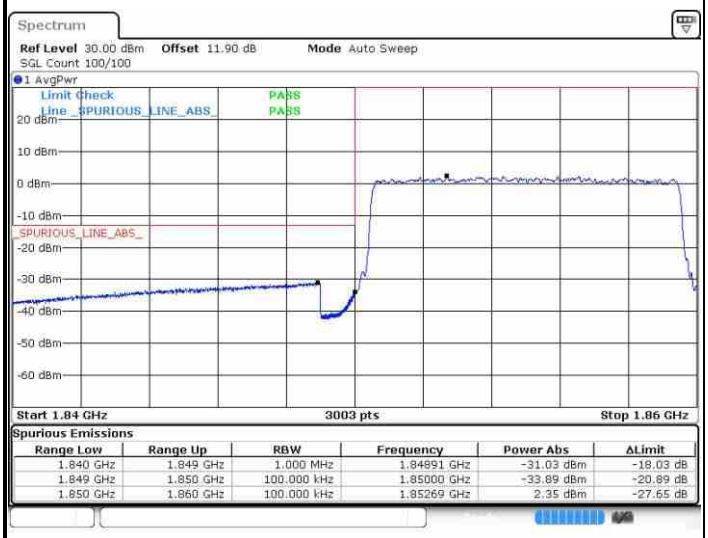
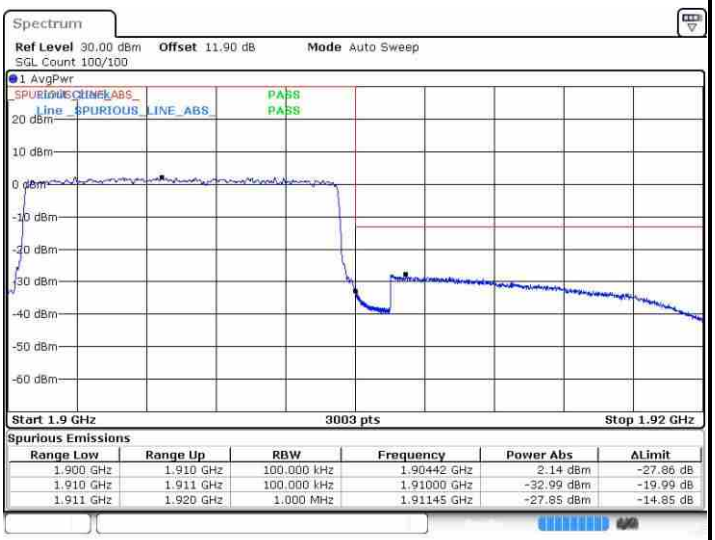
LTE Band 2 / 3MHz / QPSK	
Lowest Band Edge / 1RB	**Highest Band Edge / 1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

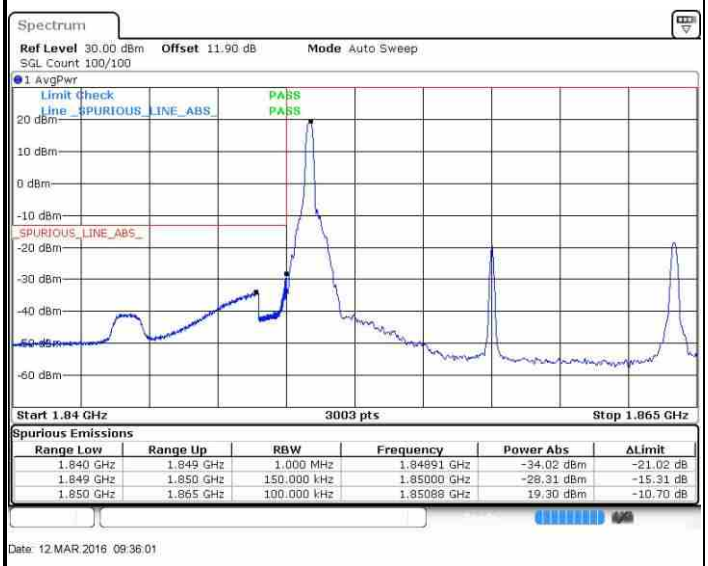
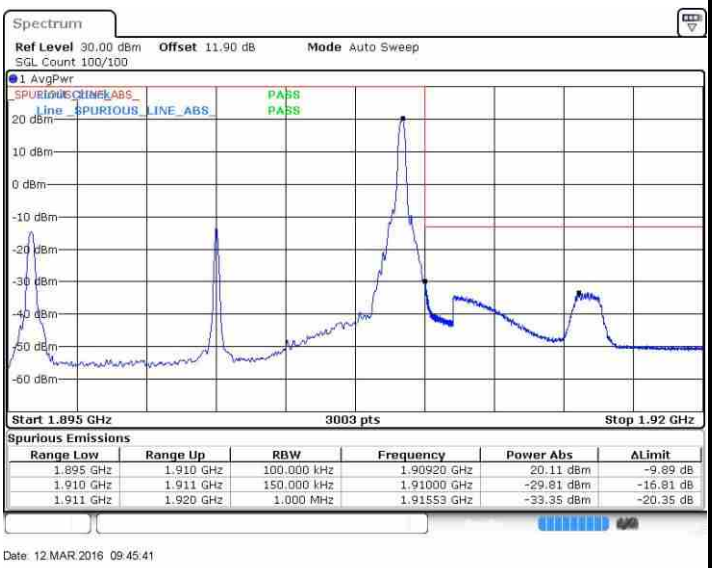
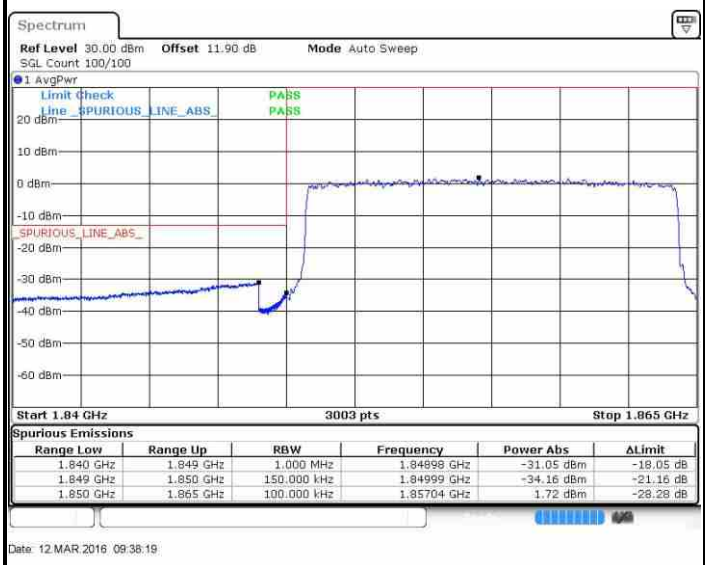
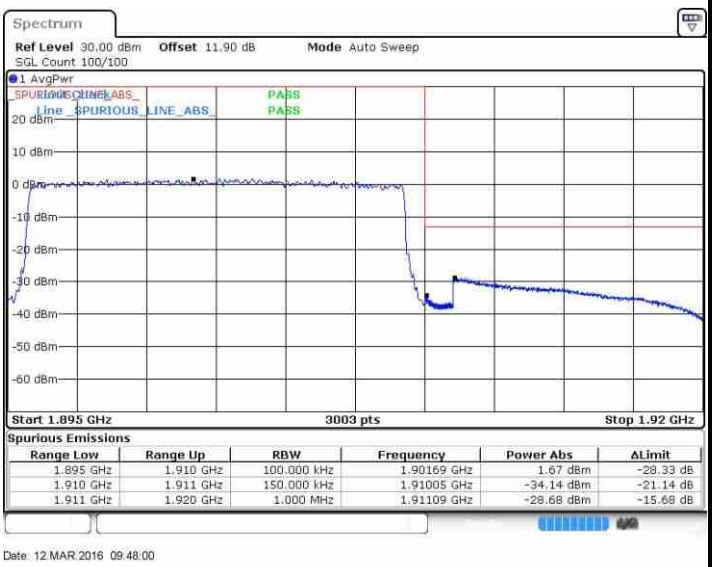
LTE Band 2 / 3MHz / 16QAM	
Lowest Band Edge / 1 RB	**Highest Band Edge /1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

LTE Band 2 / 5MHz / QPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

LTE Band 2 / 5MHz / 16QAM	
Lowest Band Edge / 1RB	**Highest Band Edge / 1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

LTE Band 2 / 10MHz / QPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

LTE Band 2 / 10MHz / 16QAM	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

LTE Band 2 / 15MHz / QPSK	
Lowest Band Edge / 1 RB	**Highest Band Edge / 1 RB**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**