FCC RF Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT1952-3;XT1952-4;XT1952DL
FCC ID	:	IHDT56XR1
STANDARD	:	47 CFR Part 2, 22(H), 24(E), 27
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Sep. 21, 2018 and completely tested on Dec. 18, 2018. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown 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 (Kunshan) Inc., the test report shall not be reproduced except in full.

James Huang

TESTING
NVLAP LAB CODE 600155-0

Approved by: James Huang / Manager

Sporton International (Kunshan) Inc.
No. 1098, Pengxi North Road, Kunshan Economic Development Zone, Jiangsu Province 215335 China

TABLE OF CONTENTS

REVISION HISTORY....3

SUMMARY OF TEST RESULT....4

1 GENERAL DESCRIPTION....6

1.1 Applicant....6
1.2 Manufacturer....6
1.3 Product Feature of Equipment Under Test....6
1.4 Product Specification of Equipment Under Test....7
1.5 Modification of EUT....8
1.6 Specification of Accessory....9
1.7 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator....10
1.8 Testing Location....13
1.9 Applicable Standards....13

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST....14

2.1 Test Mode....14
2.2 Connection Diagram of Test System....19
2.3 Support Unit used in test configuration and system....19
2.4 Measurement Results Explanation Example....19
2.5 Frequency List of Low/Middle/High Channels....20

3 CONDUCTED TEST ITEMS....28

3.1 Measuring Instruments....28
3.2 Test Setup....28
3.3 Test Result of Conducted Test....28
3.4 Conducted Output Power and ERP/EIRP....29
3.5 Peak-to-Average Ratio....30
3.6 Occupied Bandwidth....31
3.7 Conducted Band Edge....32
3.8 Conducted Spurious Emission....34
3.9 Frequency Stability....35

4 RADIATED TEST ITEMS....36

4.1 Measuring Instruments....36
4.2 Test Setup....36
4.3 Test Result of Radiated Test....36
4.4 Radiated Spurious Emission....37

5 LIST OF MEASURING EQUIPMENT....38

6 UNCERTAINTY OF EVALUATION....39

APPENDIX A. TEST RESULTS OF CONDUCTED TEST

APPENDIX B. TEST RESULTS OF RADIATED TEST

APPENDIX C. TEST SETUP PHOTOGRAPHS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG892103B	Rev. 01	Initial issue of report	Dec. 20, 2018

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt	PASS	-
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17) (Band 71)	ERP < 3 Watt	PASS	-
	§24.232(c) §27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 25) (Band 7) (Band 38) (Band 41)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt	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(c)(2)(4) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)	§27.53(m)(4)		
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log$_{10}$(P[Watts])		
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		

Report Section	FCC Rule	Description	Limit	Result	Remark
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(f) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 6.74 dB at 9988.000 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log$_{10}$(P[Watts])		

1 General Description

1.1 Applicant

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT1952-3;XT1952-4;XT1952DL
FCC ID	IHDT56XR1
EUT supports Radios application	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/FM/GNSS WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 Bluetooth BR/EDR/LE
IMEI Code	Conducted: 359515090007489/359515090007257 Radiation: 359515090007695/359512095520497
HW Version	DVT 2
SW Version	PPY29.17
EUT Stage	Production Unit

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12 : 699.7 MHz ~ 715.3 MHz LTE Band 13 : 779.5 MHz ~ 784.5 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz LTE Band 25 : 1850.7MHz ~ 1914.3 MHz LTE Band 26 : 824.7MHz ~ 848.3 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz LTE Band 25 : 1930.7MHz ~ 1994.3 MHz LTE Band 26 : 869.7MHz ~ 893.3MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 2110.7 MHz~ 2179.3 MHz LTE Band 71: 619.5 MHz ~ 649.5MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 25 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 71 : 5MHz / 10MHz / 15MHz / 20MHz

Standards-related Product Specification	
Maximum Output Power to Antenna	LTE Band 2 : 23.30 dBm LTE Band 4 : 23.30 dBm LTE Band 5 : 23.45 dBm LTE Band 7 : 23.28 dBm LTE Band 12 : 23.25 dBm LTE Band 13 : 23.23 dBm LTE Band 17 : 23.24 dBm LTE Band 25 : 23.31 dBm LTE Band 26 : 22.55 dBm LTE Band 38 : 23.46 dBm LTE Band 41 : 25.75 dBm LTE Band 66 : 23.30 dBm LTE Band 71 : 23.99 dBm LTE Band 41_CA : 23.67 dBm
Antenna Gain	LTE Band 2 : 1.0 dBi LTE Band 4 : 1.2 dBi LTE Band 5 : -3.5 dBi LTE Band 7 : -0.6 dBi LTE Band 12 : -4.5 dBi LTE Band 13 : -4.2 dBi LTE Band 17 : -4.5 dBi LTE Band 25 : 1.2 dBi LTE Band 26 : -3.5 dBi LTE Band 38 : 0.1 dBi LTE Band 41 : 0.1 dBi LTE Band 66 : 1.2 dBi LTE Band 71 : -5.3 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

1.5 Modification of EUT

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

1.6 Specification of Accessory

Specification of Accessory				
AC Adapter 1	**Brand Name**	Motorola(Salom)	**Model Name**	SC-41
	Power Rating	I/P: 100 - 240 Vac, 0.13A, O/P: 5Vdc 2000mA		
AC Adapter 2	**Brand Name**	Motorola(Acbel)	**Model Name**	SC-41
	Power Rating	I/P: 100 - 240 Vac, 0.13A, O/P: 5Vdc 2000mA		
Battery	**Brand Name**	Motorola(SCUD)	**Model Name**	JE40
	Power Rating	3.8Vdc, 3000mAh	**Type**	Li-ion
USB Cable 1	**Brand Name**	LiQi	**Model Name**	L32B-053000100/ L32B-053000100L
	Signal Line	1.0 meter, shielded cable, without ferrite core		
USB Cable 2	**Brand Name**	SaiBao	**Model Name**	S32B-053000100/ S32B-053000100L
	Signal Line	1.0 meter, shielded cable, without ferrite core		

1.7 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

LTE Band 25 (Band 2)		QPSK			16QAM			64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1850.7 ~ 1914.3	1M09G7D	-	0.2630	1M10W7D	-	0.2489	1M10W7D	-	0.1734
3	1851.5 ~ 1913.5	2M72G7D	-	0.2685	2M73W7D	-	0.2254	2M73W7D	-	0.1746
5	1852.5 ~ 1912.5	4M50G7D	-	0.2735	4M50W7D	-	0.2270	4M51W7D	-	0.1766
10	1855.0 ~ 1910.0	9M11G7D	0.0020	0.2818	9M03W7D	-	0.2307	9M03W7D	-	0.1807
15	1857.5 ~ 1907.5	13M5G7D	-	0.2716	13M4W7D	-	0.2323	13M4W7D	-	0.1816
20	1860.0 ~ 1905.0	18M4G7D	-	0.2825	18M3W7D	-	0.2317	18M3W7D	-	0.1803

LTE Band 5		QPSK			16QAM			64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	824.7 ~ 848.3	1M09G7D	-	0.0555	1M10W7D	-	0.0482	1M10W7D	-	0.0347
3	825.5 ~ 847.5	2M73G7D	-	0.0531	2M73W7D	-	0.0485	2M73W7D	-	0.0353
5	826.5 ~ 846.5	4M51G7D	-	0.0551	4M51W7D	-	0.0468	4M50W7D	-	0.0356
10	829.0 ~ 844.0	9M09G7D	0.0065	0.0603	9M03W7D	-	0.0475	9M07W7D	-	0.0374

LTE Band 7		QPSK			16QAM			64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2502.5 ~ 2567.5	4M52G7D	-	0.1849	4M50W7D	-	0.1607	4M51W7D	-	0.1205
10	2505.0 ~ 2565.0	8M99G7D	0.0026	0.1816	9M03W7D	-	0.1648	9M07W7D	-	0.1262
15	2507.5 ~ 2562.5	13M5G7D	-	0.1799	13M5W7D	-	0.1585	13M5W7D	-	0.1199
20	2510.0 ~ 2560.0	18M5G7D	-	0.1854	18M4W7D	-	0.1596	18M3W7D	-	0.1242

LTE Band 12 (Band 17)		QPSK			16QAM			64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	699.7 ~ 715.3	1M10G7D	-	0.0443	1M10W7D	-	0.0394	1M10W7D	-	0.0283
3	700.5 ~ 714.5	2M73G7D	-	0.0430	2M73W7D	-	0.0383	2M72W7D	-	0.0286
5	701.5 ~ 713.5	4M51G7D	-	0.0438	4M51W7D	-	0.0375	4M52W7D	-	0.0284
10	704.0 ~ 711.0	9M03G7D	0.0076	0.0457	9M01W7D	-	0.0383	9M05W7D	-	0.0302

LTE Band 13		QPSK			16QAM			64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	779.5 ~ 784.5	4M49G7D	-	0.0456	4M51W7D	-	0.0401	4M50W7D	-	0.0304
10	782.0	9M01G7D	0.0081	0.0488	9M01W7D	-	0.0396	8M99W7D	-	0.0319

LTE Band 26		QPSK			16QAM			64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	824.7 ~ 848.3	1M09G7D	-	0.0482	1M10W7D	-	0.0429	1M10W7D	-	0.0321
3	825.5 ~ 847.5	2M73G7D	-	0.0485	2M72W7D	-	0.0404	2M73W7D	-	0.0318
5	826.5 ~ 846.5	4M51G7D	-	0.0466	4M51W7D	-	0.0393	4M51W7D	-	0.0316
10	829.0 ~ 844.0	9M07G7D	0.0094	0.0471	9M05W7D	-	0.0381	9M03W7D	-	0.0314
15	831.5 ~ 841.5	13M5G7D	-	0.0490	13M6W7D	-	0.0406	13M5W7D	-	0.0330
LTE Band 41 (Band 38)		QPSK			16QAM			64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2498.5 ~ 2687.5	4M48G7D	-	0.3767	4M50W7D	-	0.2547	4M54W7D	-	0.2000
10	2501.0 ~ 2685.0	9M01G7D	0.0063	0.3846	9M05W7D	-	0.2512	9M07W7D	-	0.2000
15	2503.5 ~ 2682.5	13M5G7D	-	0.3690	13M5W7D	-	0.2500	13M5W7D	-	0.1995
20	2506.0 ~ 2680.0	18M3G7D	-	0.3614	18M4W7D	-	0.2582	18M4W7D	-	0.2014
LTE Band 66 (Band 4)		QPSK			16QAM			64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1710.7 ~ 1779.3	1M10G7D	-	0.2642	1M10W7D	-	0.2208	1M10W7D	-	0.1730
3	1711.5 ~ 1778.5	2M71G7D	-	0.2661	2M74W7D	-	0.2249	2M72W7D	-	0.1770
5	1712.5 ~ 1777.5	4M52G7D	-	0.2679	4M50W7D	-	0.2270	4M55W7D	-	0.1778
10	1715.0 ~ 1775.0	9M07G7D	0.0034	0.2754	9M01W7D	-	0.2333	9M01W7D	-	0.1820
15	1717.5 ~ 1772.5	13M5G7D	-	0.2812	13M5W7D	-	0.2466	13M5W7D	-	0.1884
20	1720.0 ~ 1770.0	18M4G7D	-	0.2818	18M5W7D	-	0.2393	18M4W7D	-	0.1795
LTE Band 71		QPSK			16QAM			64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	665.5 ~ 695.5	4M48G7D	-	0.0449	4M51W7D	-	0.0331	4M51W7D	-	0.0284
10	668.0 ~ 693.0	9M05G7D	0.0050	0.0450	9M09W7D	-	0.0353	9M05W7D	-	0.0307
15	670.5 ~ 690.5	13M4G7D	-	0.0446	13M5W7D	-	0.0351	13M5W7D	-	0.0284
20	673.0 ~ 688.0	18M4G7D		0.0451	18M5W7D		0.0344	18M4W7D		0.0283

LTE Band 41 CA	QPSK			16QAM			64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5MHz+20MHz	23M3G7D	-	0.2128	23M2W7D	-	0.1845	23M2W7D	-	0.1117
10MHz+20MHz	28M0G7D	-	0.2109	28M1W7D	-	0.1832	27M9W7D	-	0.1180
10MHz+15MHz	23M4G7D	-	0.1259	23M5W7D	-	0.1256	23M4W7D	-	0.1256
15MHz+15MHz	28M5G7D	-	0.1194	28M5W7D	-	0.1057	28M7W7D	-	0.0798
15MHz+20MHz	32M7G7D	-	0.2123	32M8W7D	-	0.1875	32M7W7D	-	0.1225
15MHz+10MHz	23M6G7D	-	0.1256	23M5W7D	-	0.1245	23M6W7D	-	0.1250
20MHz+5MHz	23M3G7D	-	0.2234	23M4W7D	-	0.1905	23M2W7D	-	0.1127
20MHz+10MHz	28M2G7D	-	0.2254	27M9W7D	-	0.1963	28M1W7D	-	0.1161
20MHz+15MHz	32M7G7D	-	0.2065	32M8W7D	-	0.1698	32M7W7D	-	0.1104
20MHz+20MHz	37M4G7D	0.02	0.2382	37M4W7D	-	0.1667	37M4W7D	-	0.2046

Note:

1. LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4.
2. LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2.
3. LTE Band 12 overlaps the entire frequency range of LTE Band 17. Therefore, the test results provided in this report covers Band 12 as well as Band 17.
4. LTE Band 41 overlaps the entire frequency range of LTE Band 38. Therefore, the test results provided in this report covers Band 41 as well as Band 38.

1.8 Testing Location

Sporton Lab is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0).

<table>
<tr><td>Test Site</td><td colspan="3">Sporton International (Kunshan) Inc.</td></tr>
<tr><td>Test Site Location</td><td colspan="3">No. 1098, Pengxi North Road, Kunshan Economic Development Zone,
Jiangsu Province 215335, China
TEL : 86-512-57900158
FAX : 86-512-57900958</td></tr>
<tr><td rowspan="2">Test Site No.</td><td>Sporton Site No.</td><td>FCC designation No.</td><td>FCC Test Firm Registration No.</td></tr>
<tr><td>TH01-KS
03CH06-KS</td><td>CN5013</td><td>630927</td></tr>
</table>

1.9 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 C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

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 v03r01 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	64QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	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	v
	5	v	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	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	13	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v
	38	-	-	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	v
	66	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	71	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	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
	13	-	-		v	-	-	v	v	v	v		v	v	v	v
	25						v	v	v	v	v		v	v	v	v
	26				v		-	v	v	v	v		v	v	v	v
	41	-	-				v	v	v	v	v		v	v	v	v
	66						v	v	v	v	v		v	v	v	v
	71	-	-				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	64QAM	1	Half	Full	L	M	H
26dB and 99% Bandwidth	5	v	v	v	v	-	-	v	v	v			v	v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v	v
	13	-	-	v	v	-	-	v	v	v			v	v	v	v
	25	v	v	v	v	v	v	v	v	v			v	v	v	v
	26	v	v	v	v	v	-	v	v	v			v	v	v	v
	41	-	-	v	v	v	v	v	v	v			v	v	v	v
	66	v	v	v	v	v	v	v	v	v			v	v	v	v
	71	-	-	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	5	v	v	v	v	-	-	v	v	v	v		v	v		v
	7	-	-	v	v	v	v	v	v	v	v		v	v		v
	12	v	v	v	v	-	-	v	v	v	v		v	v		v
	13	-	-	v	v	-	-	v	v	v	v		v	v		v
	25	v	v	v	v	v	v	v	v	v	v		v	v		v
	26	v	v	v	v	v	-	v	v	v	v		v	v		v
	41	-	-	v	v	v	v	v	v	v	v		v	v		v
	66	v	v	v	v	v	v	v	v	v	v		v	v		v
	71	-	-	v	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	64QAM	1	Half	Full	L	M	H
Conducted Spurious Emission	5	v	v	v	v	-	-	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v	v			v	v	v
	13	-	-	v	v	-	-	v	v	v	v			v	v	v
	25	v	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v	v			v	v	v
	71	-	-	v	v	v	v	v	v	v	v			v	v	v
Frequency Stability	5				v	-	-	v					v		v	
	7	-	-		v			v					v		v	
	12				v	-	-	v					v		v	
	13	-	-		v	-	-	v					v		v	
	25				v			v					v		v	
	26				v		-	v					v		v	
	41	-	-		v			v					v		v	
	66				v			v					v		v	
	71	-	-		v			v					v		v	

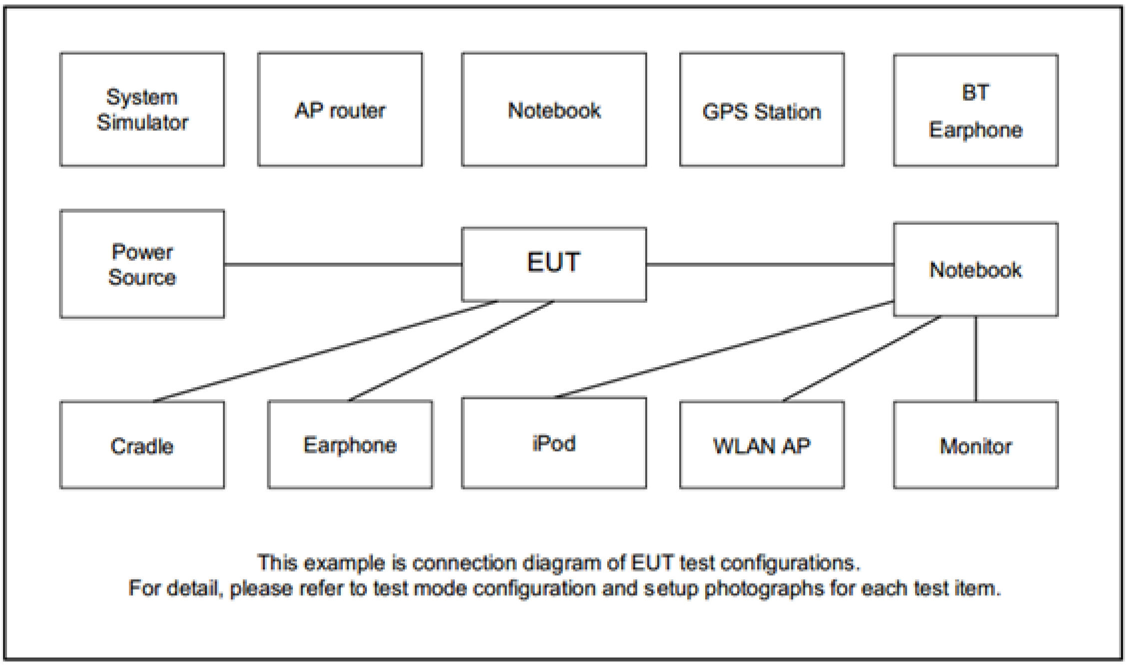
Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
E.R.P / E.I.R.P	5	v	v	v	v	-	-	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v	v			v	v	v
	13	-	-	v	v	-	-	v	v	v	v			v	v	v
	25	v	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v	v			v	v	v
	71	-	-	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	5	Worst Case												v	v	v
	7	Worst Case												v	v	v
	12	Worst Case												v	v	v
	13	Worst Case												v	v	v
	25	Worst Case												v	v	v
	26	Worst Case												v	v	v
	41	Worst Case												v	v	v
	66	Worst Case												v	v	v
	71	Worst Case												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.
4. All the radiated test cases were performed with Adapter 1 and USB Cable 1.
5. LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4.
6. LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2.
7. LTE Band 12 overlaps the entire frequency range of LTE Band 17. Therefore, the test results provided in this report covers Band 12 as well as Band 17.
8. LTE Band 41 overlaps the entire frequency range of LTE Band 38. Therefore, the test results provided in this report covers Band 41 as well as Band 38.

Test Items	Band	Bandwidth (MHz)										Modulation			RB #			Test Channel		
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
E.I.R.P.	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	41_CA	Worst Case																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. 4. All the radiated test cases were performed with Adapter 1 and USB Cable 1.																			

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.	DC Power Supply	GWINSTEK	GPD-2303S	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
4.	Earphone	Lianyun	LYM500-036-002	N/A	N/A	Unshielded, 1.2 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 4.5 dB.

Example :

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.5 (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 13 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	23230	-
	Frequency	-	782	-
5	Channel	23205	23230	23255
	Frequency	779.5	782	784.5

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 25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	26140	26340	26590
	Frequency	1860	1880	1905
15	Channel	26115	26340	26615
	Frequency	1857.5	1880	1907.5
10	Channel	26090	26340	26640
	Frequency	1855	1880	1910
5	Channel	26065	26340	26665
	Frequency	1852.5	1880	1912.5
3	Channel	26055	26340	26675
	Frequency	1851.5	1880	1913.5
1.4	Channel	26047	26340	26683
	Frequency	1850.7	1880	1914.3

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 38 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	37850	38000	38150
	Frequency	2580	2595	2610
15	Channel	37825	38000	38175
	Frequency	2577.5	2595	2612.5
10	Channel	37800	38000	38200
	Frequency	2575	2595	2615
5	Channel	37775	38000	38225
	Frequency	2572.5	2595	2617.5

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

LTE Band 66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	132072	132322	132572
	Frequency	1720	1745	1770
15	Channel	132047	132322	132597
	Frequency	1717.5	1745	1772.5
10	Channel	132022	132322	132622
	Frequency	1715	1745	1775
5	Channel	131997	132322	132647
	Frequency	1712.5	1745	1777.5
3	Channel	131987	132322	132657
	Frequency	1711.5	1745	1778.5
1.4	Channel	131979	132322	132665
	Frequency	1710.7	1745	1779.3

LTE Band 71 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	133372	133297	133447
	Frequency	665.5	680.5	695.5
15	Channel	133622	133297	133422
	Frequency	668.0	680.5	693.0
10	Channel	133872	133297	133397
	Frequency	670.5	680.5	690.5
5	Channel	134122	133297	133372
	Frequency	673.0	680.5	688.0

LTE Band 41 Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	39750	40521	41292
		Frequency	2506.0	2583.1	2660.2
	SCC	Channel	39948	40719	41490
		Frequency	2525.8	2602.9	2680.0
20 + 15	PCC	Channel	39750	40546	41341
		Frequency	2506.0	2585.6	2665.1
	SCC	Channel	39921	40717	41512
		Frequency	2523.1	2602.7	2682.2
15 + 20	PCC	Channel	39728	40523	41319
		Frequency	2503.8	2593.3	2662.9
	SCC	Channel	39899	40694	41490
		Frequency	2520.9	2600.4	2680.0
20 + 10	PCC	Channel	39750	40571	41391
		Frequency	2506.0	2588.1	2670.1
	SCC	Channel	39894	40715	41535
		Frequency	2520.4	2602.5	2684.5
10 + 20	PCC	Channel	39705	40526	41346
		Frequency	2501.5	2583.6	2665.6
	SCC	Channel	39849	40670	41490
		Frequency	2515.9	2598.0	2680.0

LTE Band 41 Channel and Frequency List					
20 + 5	PCC	Channel	39750	40595	41440
		Frequency	2506.0	2590.5	2675.0
	SCC	Channel	39867	40712	41557
		Frequency	2517.7	2602.2	2686.7
5 + 20	PCC	Channel	39683	40528	41373
		Frequency	2499.3	2583.8	2668.3
	SCC	Channel	39800	40645	41490
		Frequency	2511.0	2595.5	2680.0
15 + 15	PCC	Channel	39725	40545	41365
		Frequency	2503.5	2585.5	2667.5
	SCC	Channel	39875	40695	41515
		Frequency	2518.5	2600.5	2682.5
10 + 15	PCC	Channel	39703	40549	41395
		Frequency	2501.3	2585.9	2670.5
	SCC	Channel	39823	40669	41515
		Frequency	2513.3	2597.9	2682.5
15 + 10	PCC	Channel	39725	40571	41417
		Frequency	2503.5	2588.1	2672.7
	SCC	Channel	39845	40691	41537
		Frequency	2515.5	2600.1	2684.7

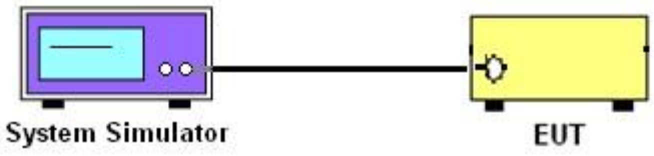
3 Conducted Test Items

3.1 Measuring Instruments

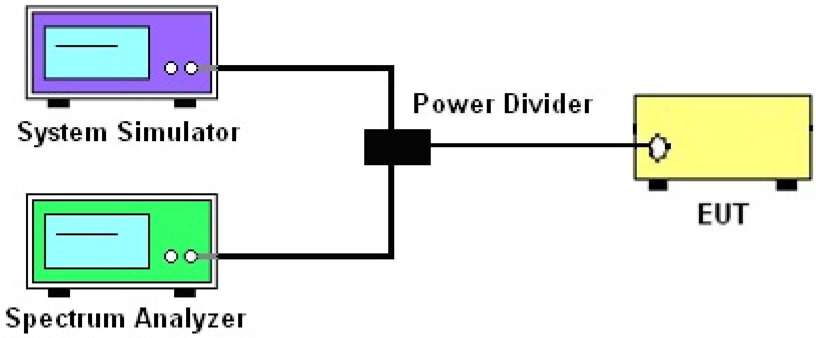
See list of measuring instruments of this test report.

3.2 Test Setup

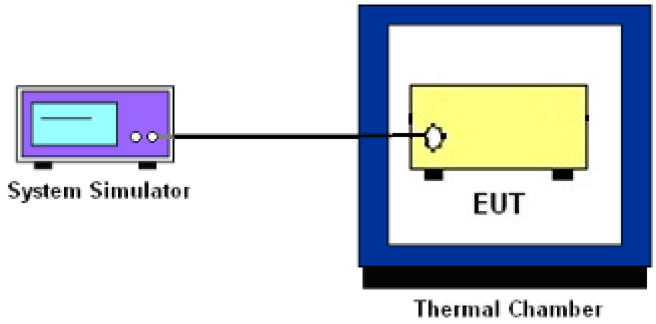
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/EIRP 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.

The ERP of mobile transmitters must not exceed 7 Watts for LTE Band 5, Band 26.

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12, Band 13 and Band 17 and Band 71.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 and Band 25 and Band 7 and Band 38 and Band 41.

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4 and Band 66.

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T - L_C$, ERP = EIRP -2.15, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. 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 ANSI C63.26 Section 5.2.3.4 (CCDF).
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 ANSI C63.26 Section 5.4
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 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 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 (c)

For operations in the 776-788 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed. In addition, the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least 65 + 10 log10 p(watts), dB, for mobile and portable equipment.

27.53 (g)

For operations in the 600MHz band and 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 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 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 ANSI C63.26 section 5.7
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 or a narrower RBW was used and the measured power was integrated over the full required measurement bandwidth of 1 MHz.
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, 38, 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 7,38,41:

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 ANSI C63.26 section 5.7
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, 38, 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

22.355

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.

24.235 & 27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

3.9.2 Test Procedures for Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
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 ANSI C63.26 section 5.6.5
2. The EUT was placed in a temperature chamber at 20±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 for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

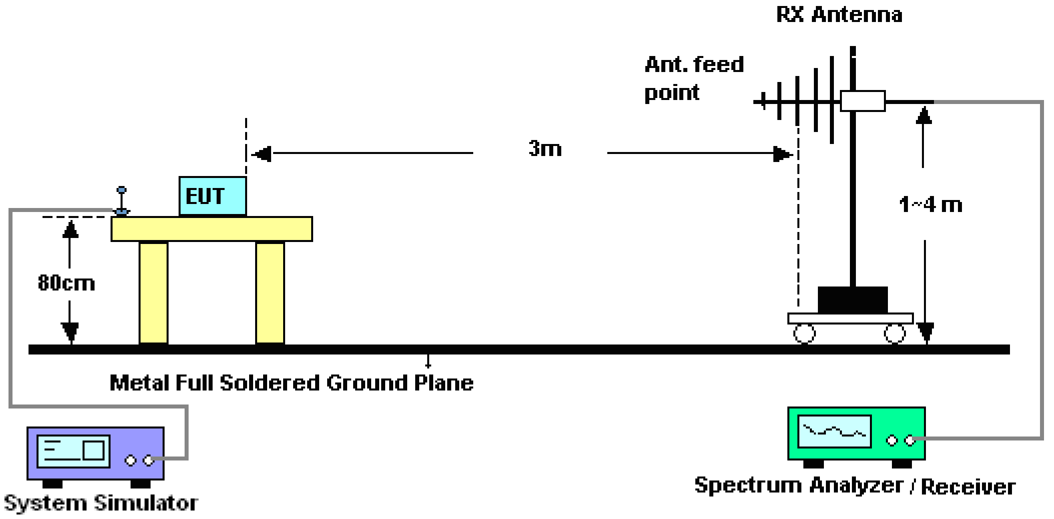
4 Radiated Test Items

4.1 Measuring Instruments

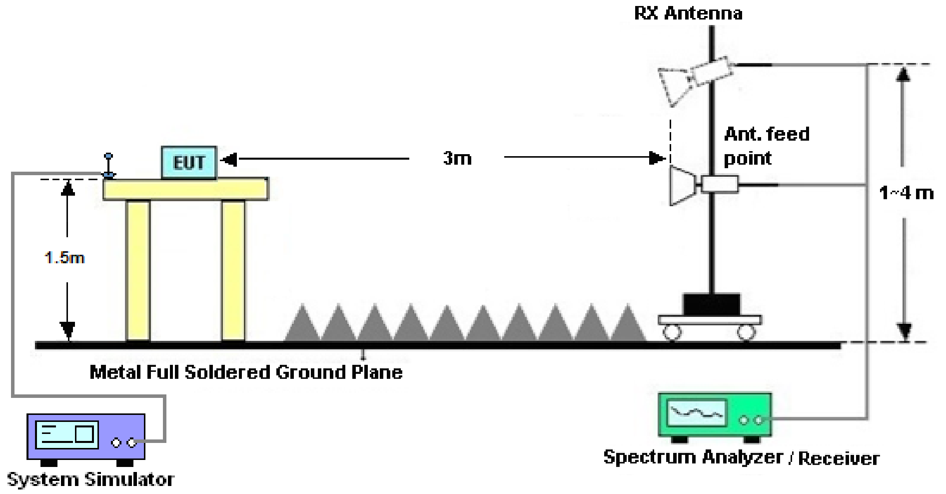
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. 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, 38, 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 13

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.

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna 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 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. 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.
13. For Band 7, 38, 41:

    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Aug. 07, 2018	Sep. 29, 2018 ~ Dec. 18, 2018	Aug. 06, 2019	Conducted (TH01-KS)
Thermal Chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jun.27, 2018	Sep. 29, 2018 ~ Dec. 18, 2018	Jun. 26, 2019	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471084	10Hz-44GHz	Jun. 25, 2018	Oct. 14, 2018 ~ Dec. 07, 2018	Jun. 24, 2019	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz-1GHz	Jan. 29, 2018	Oct. 14, 2018 ~ Dec. 07, 2018	Jan. 28, 2019	Radiation (03CH06-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75959	1GHz~18GHz	Jan. 21, 2018	Oct. 14, 2018 ~ Dec. 07, 2018	Jan. 20, 2019	Radiation (03CH06-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 07, 2018	Oct. 14, 2018 ~ Dec. 07, 2018	Feb. 06, 2019	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	187289	9KHz ~1GHZ	Aug. 06, 2018	Oct. 14, 2018 ~ Dec. 07, 2018	Aug. 05, 2019	Radiation (03CH06-KS)
Amplifier	MITEQ	TTA1840-35 -HG	2014749	18~40GHz	Feb. 08, 2018	Oct. 14, 2018 ~ Dec. 07, 2018	Feb. 07, 2019	Radiation (03CH06-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1	2025788	1Ghz-18Ghz	Apr. 17, 2018	Oct. 14, 2018 ~ Dec. 07, 2018	Apr. 16, 2019	Radiation (03CH06-KS)
Amplifier	Keysight	83017A	MY53270203	500MHz~26.5GHz	Dec. 16, 2017	Oct. 14, 2018 ~ Dec. 07, 2018	Dec. 15, 2018	Radiation (03CH06-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Oct. 14, 2018 ~ Dec. 07, 2018	NCR	Radiation (03CH06-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Oct. 14, 2018 ~ Dec. 07, 2018	NCR	Radiation (03CH06-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Oct. 14, 2018 ~ Dec. 07, 2018	NCR	Radiation (03CH06-KS)

NCR: No Calibration Required

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))	2.5 dB

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.0 dB

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.0 dB

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	23.04	23.09	23.15
20	1	49		22.94	22.94	23.10
20	1	99		22.90	22.96	23.20
20	50	0		21.86	21.82	21.92
20	50	24		21.80	21.84	21.96
20	50	50		21.82	21.79	22.04
20	100	0		21.91	21.88	22.11
20	1	0	16-QAM	22.23	22.25	22.48
20	1	49		22.15	22.07	22.32
20	1	99		22.05	22.18	22.47
20	50	0		20.86	20.81	20.94
20	50	24		20.83	20.81	20.95
20	50	50		20.86	20.76	21.06
20	100	0		20.81	20.84	20.98
20	1	0	64-QAM	21.23	21.16	21.37
20	1	49		21.06	21.09	21.25
20	1	99		21.08	21.08	21.37
20	50	0		19.88	19.87	19.93
20	50	24		19.87	19.87	19.94
20	50	50		19.87	19.84	20.07
20	100	0		19.79	19.83	19.99

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.06	23.17	23.17
15	1	37		22.87	22.87	22.94
15	1	74		23.06	23.12	23.25
15	36	0		21.85	21.80	21.95
15	36	20		21.87	21.81	21.98
15	36	39		21.89	21.85	22.10
15	75	0		21.85	21.84	22.06
15	1	0	16-QAM	22.32	22.39	22.59
15	1	37		21.93	21.90	22.08
15	1	74		22.36	22.37	22.60
15	36	0		20.85	20.83	20.95
15	36	20		20.86	20.84	20.99
15	36	39		20.90	20.81	21.06
15	75	0		20.90	20.88	21.10
15	1	0	64-QAM	21.40	21.37	21.49
15	1	37		21.11	21.10	21.30
15	1	74		21.28	21.32	21.58
15	36	0		19.87	19.82	19.97
15	36	20		19.87	19.83	19.99
15	36	39		19.90	19.82	20.00
15	75	0		19.90	19.84	20.04

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.98	23.02	23.08
10	1	25		22.67	22.73	22.99
10	1	49		22.88	23.03	23.30
10	25	0		21.75	21.81	22.09
10	25	12		21.70	21.84	22.11
10	25	25		21.65	21.79	22.22
10	50	0		21.76	21.84	22.15
10	1	0	16-QAM	22.13	22.26	22.60
10	1	25		21.87	21.99	22.39
10	1	49		22.08	22.15	22.56
10	25	0		20.70	20.74	21.04
10	25	12		20.63	20.82	21.10
10	25	25		20.62	20.73	21.19
10	50	0		20.75	20.79	21.14
10	1	0	64-QAM	21.11	21.21	21.52
10	1	25		20.82	20.94	21.23
10	1	49		21.02	21.15	21.48
10	25	0		19.73	19.81	20.01
10	25	12		19.70	19.84	20.10
10	25	25		19.71	19.83	20.21
10	50	0		19.83	19.83	20.16

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.80	22.85	23.02
5	1	12		22.63	22.73	22.98
5	1	24		22.65	22.65	23.06
5	12	0		21.71	21.86	22.12
5	12	7		21.67	21.77	22.05
5	12	13		21.64	21.72	22.07
5	25	0		21.73	21.78	22.12
5	1	0	16-QAM	22.05	22.12	22.42
5	1	12		21.77	21.92	22.21
5	1	24		21.89	21.89	22.32
5	12	0		20.76	20.92	21.11
5	12	7		20.69	20.84	21.12
5	12	13		20.70	20.79	21.13
5	25	0		20.64	20.71	21.05
5	1	0	64-QAM	20.99	21.04	21.35
5	1	12		20.86	21.01	21.26
5	1	24		20.81	20.82	21.18
5	12	0		19.80	19.95	20.13
5	12	7		19.75	19.89	20.15
5	12	13		19.77	19.82	20.13
5	25	0		19.73	19.80	20.14

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.72	22.84	22.97
3	1	8		22.73	22.92	23.12
3	1	14		22.62	22.65	22.99
3	8	0		21.71	21.82	22.11
3	8	4		21.71	21.83	22.12
3	8	7		21.65	21.78	22.06
3	15	0		21.66	21.81	22.10
3	1	0	16-QAM	21.95	22.12	22.37
3	1	8		22.08	21.93	22.23
3	1	14		21.85	21.96	22.34
3	8	0		20.78	20.81	21.20
3	8	4		20.75	20.86	21.13
3	8	7		20.70	20.85	21.17
3	15	0		20.68	20.82	21.07
3	1	0	64-QAM	20.94	21.14	21.31
3	1	8		20.98	21.12	21.31
3	1	14		20.91	21.00	21.21
3	8	0		19.80	19.93	20.18
3	8	4		19.77	19.89	20.13
3	8	7		19.71	19.82	20.11
3	15	0		19.69	19.82	20.09

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.68	22.74	22.90
1.4	1	3		22.68	22.85	23.03
1.4	1	5		22.63	22.69	22.98
1.4	3	0		22.70	22.76	22.99
1.4	3	1		22.72	22.79	23.06
1.4	3	3		22.71	22.87	23.03
1.4	6	0		21.65	21.74	22.04
1.4	1	0	16-QAM	21.95	22.03	22.31
1.4	1	3		22.05	22.13	22.40
1.4	1	5		21.94	21.93	22.34
1.4	3	0		21.72	21.83	22.09
1.4	3	1		21.77	21.90	22.17
1.4	3	3		21.74	21.87	22.13
1.4	6	0		20.73	20.80	21.07
1.4	1	0	64-QAM	20.95	21.03	21.24
1.4	1	3		20.92	21.02	21.28
1.4	1	5		20.86	21.00	21.16
1.4	3	0		20.78	20.88	21.15
1.4	3	1		20.86	20.94	21.14
1.4	3	3		20.88	20.97	21.19
1.4	6	0		19.68	19.72	20.04

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.92	23.13	23.17
20	1	49		22.90	23.06	23.31
20	1	99		22.51	22.70	22.66
20	50	0		21.81	21.94	22.08
20	50	24		21.85	21.96	22.08
20	50	50		21.82	21.95	22.09
20	100	0		21.92	21.99	22.20
20	1	0	16-QAM	22.12	22.39	22.45
20	1	49		22.11	22.19	22.44
20	1	99		21.77	21.92	21.84
20	50	0		20.81	20.98	21.06
20	50	24		20.87	21.03	21.08
20	50	50		20.85	20.94	21.12
20	100	0		20.79	20.95	21.09
20	1	0	64-QAM	21.22	21.28	21.36
20	1	49		20.98	21.16	21.35
20	1	99		20.65	20.80	20.84
20	50	0		19.84	19.97	20.07
20	50	24		19.89	20.03	20.08
20	50	50		19.81	19.96	20.12
20	100	0		19.80	19.90	20.02

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.88	23.04	23.13
15	1	37		22.95	23.03	23.14
15	1	74		22.85	23.04	22.71
15	36	0		21.91	22.01	22.17
15	36	20		21.96	22.10	22.20
15	36	39		21.93	22.17	22.20
15	75	0		21.93	22.07	22.22
15	1	0	16-QAM	22.17	22.35	22.46
15	1	37		21.98	22.12	22.27
15	1	74		22.14	22.32	21.99
15	36	0		20.88	21.01	21.18
15	36	20		20.95	21.09	21.22
15	36	39		20.92	21.18	21.30
15	75	0		21.00	21.12	21.32
15	1	0	64-QAM	21.20	21.35	21.39
15	1	37		21.11	21.24	21.30
15	1	74		21.14	21.29	20.75
15	36	0		19.92	20.01	20.17
15	36	20		19.98	20.11	20.21
15	36	39		19.94	20.12	20.20
15	75	0		19.98	20.07	20.24

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.01	23.06	23.30
10	1	25		22.71	22.81	22.88
10	1	49		22.94	23.00	23.07
10	25	0		21.80	21.88	22.00
10	25	12		21.77	21.81	21.99
10	25	25		21.85	21.89	22.05
10	50	0		21.73	21.78	22.02
10	1	0	16-QAM	22.21	22.17	22.43
10	1	25		21.94	22.01	22.19
10	1	49		22.13	22.22	21.66
10	25	0		20.78	20.85	20.95
10	25	12		20.70	20.77	20.93
10	25	25		20.76	20.86	20.99
10	50	0		20.71	20.85	20.96
10	1	0	64-QAM	21.19	21.14	21.37
10	1	25		20.89	20.96	21.11
10	1	49		21.08	21.14	20.55
10	25	0		19.80	19.87	19.99
10	25	12		19.79	19.86	20.04
10	25	25		19.87	19.91	20.10
10	50	0		19.79	19.87	20.01

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.91	23.09	23.17
5	1	12		22.74	22.76	22.91
5	1	24		22.75	22.83	22.75
5	12	0		21.81	21.90	22.03
5	12	7		21.74	21.83	21.97
5	12	13		21.73	21.79	21.93
5	25	0		21.77	21.86	22.04
5	1	0	16-QAM	22.15	22.22	22.36
5	1	12		21.88	21.83	22.12
5	1	24		21.93	22.12	21.96
5	12	0		20.86	20.89	21.06
5	12	7		20.79	20.88	21.04
5	12	13		20.79	20.84	21.03
5	25	0		20.72	20.77	21.04
5	1	0	64-QAM	21.11	21.20	21.27
5	1	12		20.98	20.98	21.16
5	1	24		20.84	21.05	20.79
5	12	0		19.91	19.93	20.08
5	12	7		19.84	19.91	20.07
5	12	13		19.83	19.86	20.08
5	25	0		19.82	19.87	20.07

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	**RB Size**	**RB Offset**	**Mod**	**Lowest**	**Middle**	**Highest**
3	1	0	QPSK	22.80	22.96	23.09
3	1	8		22.86	22.91	22.97
3	1	14		22.68	22.72	22.84
3	8	0		21.81	21.80	21.98
3	8	4		21.75	21.82	22.00
3	8	7		21.77	21.77	21.97
3	15	0		21.72	21.79	21.92
3	1	0	16-QAM	22.05	22.08	22.33
3	1	8		21.89	21.90	22.15
3	1	14		21.96	22.01	22.19
3	8	0		20.84	20.91	21.08
3	8	4		20.86	20.92	21.04
3	8	7		20.79	20.90	21.07
3	15	0		20.80	20.81	20.94
3	1	0	64-QAM	21.03	21.07	21.17
3	1	8		21.02	21.03	21.22
3	1	14		20.94	20.96	21.06
3	8	0		19.93	19.92	20.01
3	8	4		19.88	19.94	19.98
3	8	7		19.84	19.87	19.98
3	15	0		19.79	19.84	19.99

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.77	22.83	23.00
1.4	1	3		22.82	22.87	22.88
1.4	1	5		22.73	22.74	22.88
1.4	3	0		22.75	22.77	22.86
1.4	3	1		22.79	22.81	22.91
1.4	3	3		22.77	22.81	22.90
1.4	6	0		21.71	21.87	21.94
1.4	1	0	16-QAM	22.01	22.76	22.22
1.4	1	3		22.07	22.08	22.27
1.4	1	5		22.04	21.99	22.21
1.4	3	0		21.80	21.81	22.07
1.4	3	1		21.87	21.82	22.10
1.4	3	3		21.84	21.82	22.13
1.4	6	0		20.80	20.81	20.94
1.4	1	0	64-QAM	20.99	20.94	21.17
1.4	1	3		20.99	20.96	21.19
1.4	1	5		20.99	20.89	21.13
1.4	3	0		20.86	20.95	21.03
1.4	3	1		20.89	21.00	21.00
1.4	3	3		20.89	21.01	21.09
1.4	6	0		19.79	19.74	19.93

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.78	22.92	22.88
20	1	49		22.95	23.03	23.07
20	1	99		22.61	22.65	22.89
20	50	0		21.89	21.85	21.97
20	50	24		21.86	21.86	22.06
20	50	50		21.75	21.84	21.98
20	100	0		21.74	21.90	22.06
20	1	0	16-QAM	22.02	22.20	22.14
20	1	49		22.23	22.17	22.22
20	1	99		21.89	21.91	22.20
20	50	0		20.83	20.83	20.99
20	50	24		20.87	20.89	21.07
20	50	50		20.71	20.93	20.99
20	100	0		20.83	20.86	20.97
20	1	0	64-QAM	20.94	21.07	21.07
20	1	49		21.12	21.17	21.23
20	1	99		20.80	20.89	21.00
20	50	0		19.84	19.88	19.99
20	50	24		19.90	19.90	20.09
20	50	50		19.77	19.89	20.00
20	100	0		19.81	19.79	19.96

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.94	22.85	23.06
15	1	37		22.86	22.87	23.01
15	1	74		22.68	22.71	22.78
15	36	0		21.94	21.86	22.02
15	36	20		21.91	21.89	21.91
15	36	39		21.87	21.87	21.85
15	75	0		21.85	21.86	21.94
15	1	0	16-QAM	22.20	22.33	22.18
15	1	37		22.03	21.98	22.17
15	1	74		22.04	21.97	22.14
15	36	0		20.96	20.93	21.00
15	36	20		20.91	20.94	20.95
15	36	39		20.86	20.90	20.90
15	75	0		20.84	20.90	20.98
15	1	0	64-QAM	21.17	21.21	21.21
15	1	37		21.20	21.17	21.21
15	1	74		20.98	20.96	21.03
15	36	0		19.98	19.91	20.04
15	36	20		19.93	19.92	19.97
15	36	39		19.87	19.90	19.89
15	75	0		19.85	19.88	19.98

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.18	23.06	23.29
10	1	25		22.87	22.72	22.88
10	1	49		23.30	23.23	23.17
10	25	0		21.95	21.75	22.06
10	25	12		21.93	21.78	22.00
10	25	25		21.95	21.88	21.99
10	50	0		21.95	21.78	21.98
10	1	0	16-QAM	22.42	22.43	22.45
10	1	25		22.09	22.00	22.16
10	1	49		22.51	22.35	22.46
10	25	0		20.94	20.71	20.99
10	25	12		20.89	20.74	20.90
10	25	25		20.90	20.85	20.98
10	50	0		20.97	20.79	20.99
10	1	0	64-QAM	21.47	21.33	21.48
10	1	25		20.99	21.03	21.12
10	1	49		21.48	21.32	21.36
10	25	0		19.95	19.76	20.05
10	25	12		19.97	19.81	19.97
10	25	25		19.97	19.93	20.03
10	50	0		20.04	19.87	20.04

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.94	22.84	23.07
5	1	12		22.86	22.69	22.78
5	1	24		22.92	22.76	22.79
5	12	0		21.96	21.77	21.94
5	12	7		21.87	21.72	21.88
5	12	13		21.84	21.70	21.87
5	25	0		21.96	21.77	21.93
5	1	0	16-QAM	22.30	22.15	22.27
5	1	12		22.05	21.82	22.00
5	1	24		22.15	22.02	22.03
5	12	0		21.00	20.88	20.97
5	12	7		20.96	20.85	20.93
5	12	13		20.91	20.83	20.94
5	25	0		20.91	20.77	20.85
5	1	0	64-QAM	21.21	21.06	21.25
5	1	12		21.09	21.00	21.07
5	1	24		21.06	20.89	20.96
5	12	0		20.05	19.86	19.98
5	12	7		20.00	19.85	19.97
5	12	13		20.02	19.87	19.96
5	25	0		19.94	19.82	19.95

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.79	22.76	22.87
3	1	8		23.00	22.82	22.83
3	1	14		22.85	22.71	22.73
3	8	0		21.96	21.73	21.89
3	8	4		21.93	21.75	21.81
3	8	7		21.86	21.72	21.76
3	15	0		21.89	21.71	21.77
3	1	0	16-QAM	22.32	22.02	22.12
3	1	8		22.10	21.84	21.92
3	1	14		22.19	22.07	21.98
3	8	0		20.95	20.91	21.01
3	8	4		20.93	20.89	20.88
3	8	7		20.96	20.87	20.90
3	15	0		20.89	20.77	20.79
3	1	0	64-QAM	21.12	21.02	21.18
3	1	8		21.12	21.06	21.07
3	1	14		21.02	20.97	21.00
3	8	0		20.04	19.88	19.99
3	8	4		20.01	19.85	19.86
3	8	7		19.94	19.87	19.87
3	15	0		19.96	19.78	19.80

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.73	22.65	22.71
1.4	1	3		22.94	22.77	22.73
1.4	1	5		22.83	22.64	22.71
1.4	3	0		22.83	22.68	22.75
1.4	3	1		22.92	22.72	22.78
1.4	3	3		22.91	22.72	22.82
1.4	6	0		21.80	21.68	21.74
1.4	1	0	16-QAM	22.19	22.05	21.98
1.4	1	3		22.30	22.06	22.02
1.4	1	5		22.23	22.04	21.98
1.4	3	0		21.89	21.82	21.88
1.4	3	1		21.88	21.85	21.91
1.4	3	3		21.91	21.81	21.89
1.4	6	0		20.89	20.74	20.81
1.4	1	0	64-QAM	21.06	20.95	21.04
1.4	1	3		21.12	21.02	21.05
1.4	1	5		21.02	20.91	21.04
1.4	3	0		20.95	20.84	20.86
1.4	3	1		20.97	20.88	20.90
1.4	3	3		21.05	20.89	20.90
1.4	6	0		19.84	19.74	19.81

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.16	22.94	22.95
10	1	25		22.95	23.01	23.23
10	1	49		23.20	23.36	23.45
10	25	0		21.86	21.96	22.20
10	25	12		21.86	22.03	22.12
10	25	25		21.86	21.96	22.10
10	50	0		21.89	21.95	22.18
10	1	0	16-QAM	22.20	22.27	22.42
10	1	25		21.93	22.03	22.14
10	1	49		22.28	22.38	22.39
10	25	0		20.82	20.95	21.17
10	25	12		20.85	20.95	21.10
10	25	25		20.84	20.89	21.06
10	50	0		20.88	21.00	21.21
10	1	0	64-QAM	21.24	21.31	21.38
10	1	25		20.97	20.99	21.24
10	1	49		21.20	21.35	21.38
10	25	0		19.87	19.99	20.24
10	25	12		19.92	20.06	20.18
10	25	25		19.84	20.04	20.23
10	50	0		19.95	20.03	20.24

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.93	22.79	22.74
5	1	12		23.00	22.89	23.06
5	1	24		22.82	22.90	23.00
5	12	0		21.89	21.99	21.93
5	12	7		21.78	21.87	21.86
5	12	13		21.85	21.95	21.86
5	25	0		21.83	22.00	21.98
5	1	0	16-QAM	22.20	22.31	22.35
5	1	12		22.02	22.08	22.11
5	1	24		22.12	22.15	22.25
5	12	0		20.93	21.03	20.99
5	12	7		20.83	20.93	20.92
5	12	13		20.84	20.94	20.88
5	25	0		20.83	20.95	20.93
5	1	0	64-QAM	20.98	21.16	21.17
5	1	12		21.00	21.05	21.01
5	1	24		20.90	21.00	21.04
5	12	0		19.98	20.09	20.05
5	12	7		19.88	19.99	20.05
5	12	13		19.93	20.00	20.00
5	25	0		19.92	19.98	20.10

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	**RB Size**	**RB Offset**	**Mod**	**Lowest**	**Middle**	**Highest**
3	1	0	QPSK	22.82	22.78	22.69
3	1	8		22.80	22.90	22.85
3	1	14		22.76	22.78	22.81
3	8	0		21.74	22.00	21.84
3	8	4		21.77	21.86	21.87
3	8	7		21.74	21.93	21.84
3	15	0		21.75	21.93	21.79
3	1	0	16-QAM	22.27	22.41	22.51
3	1	8		22.15	22.11	22.23
3	1	14		22.26	22.26	22.26
3	8	0		20.77	21.09	20.82
3	8	4		20.79	20.96	20.85
3	8	7		20.72	20.95	20.78
3	15	0		20.85	20.99	20.89
3	1	0	64-QAM	20.88	21.13	20.99
3	1	8		20.92	21.07	20.98
3	1	14		20.88	21.03	20.90
3	8	0		19.85	20.12	19.89
3	8	4		19.85	19.98	19.85
3	8	7		19.76	19.99	19.84
3	15	0		19.82	20.00	19.97

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.86	22.70	22.80
1.4	1	3		22.98	22.89	23.09
1.4	1	5		22.86	22.85	22.95
1.4	3	0		22.85	22.85	22.70
1.4	3	1		22.86	22.85	22.74
1.4	3	3		22.84	22.85	22.75
1.4	6	0		21.85	21.81	21.78
1.4	1	0	16-QAM	22.33	22.34	22.48
1.4	1	3		22.38	22.28	22.45
1.4	1	5		22.28	22.24	22.34
1.4	3	0		21.82	21.91	21.71
1.4	3	1		21.86	21.89	21.74
1.4	3	3		21.80	21.87	21.75
1.4	6	0		20.87	20.82	20.85
1.4	1	0	64-QAM	20.92	21.02	20.88
1.4	1	3		20.99	21.05	20.87
1.4	1	5		20.87	20.98	20.84
1.4	3	0		20.96	21.02	20.87
1.4	3	1		21.00	20.99	20.93
1.4	3	3		20.97	20.96	20.95
1.4	6	0		19.85	19.86	19.75

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.18	22.21	22.32
15	1	37		22.16	22.18	22.52
15	1	74		22.50	22.55	22.39
15	36	0		21.45	21.48	21.47
15	36	20		21.19	21.28	21.17
15	36	39		21.00	21.08	21.09
15	75	0		21.24	21.29	21.24
15	1	0	16-QAM	21.54	21.58	21.66
15	1	37		21.17	21.26	21.29
15	1	74		21.72	21.73	21.73
15	36	0		20.37	20.46	20.40
15	36	20		20.20	20.25	20.14
15	36	39		20.07	20.04	20.18
15	75	0		20.33	20.26	20.23
15	1	0	64-QAM	20.61	20.82	20.76
15	1	37		20.35	20.44	20.41
15	1	74		20.79	20.84	20.67
15	36	0		19.54	19.69	19.56
15	36	20		19.35	19.50	19.31
15	36	39		19.15	19.25	19.14
15	75	0		19.54	19.50	19.40

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.08	22.17	22.26
10	1	25		22.04	22.07	22.12
10	1	49		22.28	22.37	22.41
10	25	0		21.09	21.08	21.08
10	25	12		21.04	21.04	21.06
10	25	25		21.08	21.06	21.05
10	50	0		21.18	21.06	21.06
10	1	0	16-QAM	21.42	21.46	21.45
10	1	25		21.10	21.12	21.11
10	1	49		21.42	21.49	21.39
10	25	0		20.08	20.05	20.06
10	25	12		20.18	20.04	20.20
10	25	25		20.29	20.06	20.20
10	50	0		20.07	20.13	20.07
10	1	0	64-QAM	20.49	20.60	20.53
10	1	25		20.22	20.32	20.26
10	1	49		20.54	20.65	20.49
10	25	0		19.27	19.30	19.17
10	25	12		19.20	19.27	19.17
10	25	25		19.23	19.28	19.17
10	50	0		19.24	19.30	19.21

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.26	22.35	22.20
5	1	12		22.32	22.29	22.36
5	1	24		22.21	22.30	22.33
5	12	0		21.15	21.20	21.30
5	12	7		21.17	21.26	21.28
5	12	13		21.21	21.20	21.26
5	25	0		21.29	21.31	21.35
5	1	0	16-QAM	21.54	21.59	21.62
5	1	12		21.42	21.44	21.44
5	1	24		21.51	21.53	21.56
5	12	0		20.20	20.19	20.29
5	12	7		20.16	20.27	20.26
5	12	13		20.26	20.20	20.29
5	25	0		20.21	20.24	20.32
5	1	0	64-QAM	20.58	20.65	20.67
5	1	12		20.46	20.51	20.43
5	1	24		20.60	20.62	20.67
5	12	0		19.39	19.45	19.44
5	12	7		19.35	19.53	19.45
5	12	13		19.42	19.40	19.46
5	25	0		19.44	19.50	19.50

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.47	22.50	22.54
3	1	8		22.54	22.46	22.48
3	1	14		22.37	22.33	22.30
3	8	0		21.40	21.42	21.47
3	8	4		21.42	21.41	21.46
3	8	7		21.36	21.31	21.43
3	15	0		21.38	21.32	21.43
3	1	0	16-QAM	21.71	21.67	21.74
3	1	8		21.55	21.40	21.69
3	1	14		21.64	21.52	21.63
3	8	0		20.50	20.51	20.54
3	8	4		20.51	20.47	20.52
3	8	7		20.45	20.40	20.54
3	15	0		20.44	20.38	20.42
3	1	0	64-QAM	20.69	20.67	20.68
3	1	8		20.69	20.64	20.70
3	1	14		20.60	20.55	20.51
3	8	0		19.56	19.52	19.50
3	8	4		19.57	19.50	19.46
3	8	7		19.53	19.46	19.48
3	15	0		19.44	19.37	19.46

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.27	22.36	22.25
1.4	1	3		22.46	22.48	22.37
1.4	1	5		22.35	22.51	22.20
1.4	3	0		22.33	22.45	22.03
1.4	3	1		22.39	22.48	22.15
1.4	3	3		22.36	22.44	22.09
1.4	6	0		21.36	21.48	21.13
1.4	1	0	16-QAM	21.95	22.00	21.77
1.4	1	3		21.89	21.96	21.68
1.4	1	5		21.93	22.00	21.62
1.4	3	0		21.35	21.49	21.12
1.4	3	1		21.37	21.54	21.08
1.4	3	3		21.32	21.47	21.12
1.4	6	0		20.48	20.58	20.14
1.4	1	0	64-QAM	20.53	20.57	20.13
1.4	1	3		20.56	20.71	20.20
1.4	1	5		20.55	20.63	20.21
1.4	3	0		20.55	20.60	20.19
1.4	3	1		20.51	20.70	20.25
1.4	3	3		20.63	20.74	20.29
1.4	6	0		19.40	19.49	19.07

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.64	23.06	23.15
20	1	49		22.83	22.91	23.28
20	1	99		22.98	22.96	22.88
20	50	0		22.04	22.13	22.11
20	50	24		22.06	22.14	22.18
20	50	50		22.06	22.13	22.02
20	100	0		21.97	22.13	22.10
20	1	0	16-QAM	22.34	22.58	22.58
20	1	49		21.89	22.28	22.25
20	1	99		22.19	22.63	22.36
20	50	0		20.93	21.26	20.99
20	50	24		21.03	21.38	21.12
20	50	50		21.01	21.16	21.01
20	100	0		21.10	21.16	21.06
20	1	0	64-QAM	21.22	21.32	21.22
20	1	49		20.91	21.32	21.54
20	1	99		21.50	21.04	20.98
20	50	0		20.03	20.20	20.07
20	50	24		20.06	20.12	20.16
20	50	50		20.06	20.07	20.12
20	100	0		20.06	19.99	20.11

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.91	23.15	23.07
15	1	37		22.96	23.02	23.07
15	1	74		23.02	23.14	23.07
15	36	0		22.23	22.17	22.21
15	36	20		22.12	22.29	22.20
15	36	39		22.15	22.29	22.08
15	75	0		22.15	22.16	22.11
15	1	0	16-QAM	22.35	22.36	22.27
15	1	37		22.43	22.39	22.02
15	1	74		22.45	22.60	21.87
15	36	0		21.18	21.21	21.18
15	36	20		21.06	21.33	21.08
15	36	39		21.03	21.23	21.10
15	75	0		21.09	21.15	21.24
15	1	0	64-QAM	21.39	21.21	21.02
15	1	37		20.74	21.33	21.24
15	1	74		21.36	21.30	21.35
15	36	0		20.24	20.18	20.20
15	36	20		20.10	20.33	20.07
15	36	39		20.24	20.23	20.14
15	75	0		20.14	20.22	20.08

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	**RB Size**	**RB Offset**	**Mod**	**Lowest**	**Middle**	**Highest**
10	1	0	QPSK	23.01	23.19	23.18
10	1	25		22.99	23.11	23.06
10	1	49		23.13	23.13	23.09
10	25	0		22.00	22.01	22.00
10	25	12		21.97	22.07	21.97
10	25	25		21.93	21.99	21.99
10	50	0		21.98	22.10	21.99
10	1	0	16-QAM	22.71	22.77	22.72
10	1	25		22.14	21.96	21.91
10	1	49		22.21	22.29	22.26
10	25	0		21.10	21.00	21.04
10	25	12		21.01	21.03	20.94
10	25	25		20.97	20.90	21.01
10	50	0		21.11	21.18	21.05
10	1	0	64-QAM	21.36	21.50	21.61
10	1	25		21.28	21.32	21.08
10	1	49		21.19	21.46	20.91
10	25	0		20.00	20.13	20.16
10	25	12		19.99	20.08	19.98
10	25	25		20.05	19.96	20.00
10	50	0		20.10	20.06	20.03

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.98	23.27	23.15
5	1	12		22.88	22.98	23.04
5	1	24		22.90	23.02	23.04
5	12	0		22.10	22.08	22.08
5	12	7		22.00	22.11	22.00
5	12	13		21.99	21.99	21.96
5	25	0		21.96	22.07	22.03
5	1	0	16-QAM	22.66	22.52	22.35
5	1	12		22.16	22.50	22.30
5	1	24		22.10	22.47	22.47
5	12	0		21.07	21.07	21.11
5	12	7		20.94	21.08	21.02
5	12	13		20.94	21.08	20.98
5	25	0		21.01	21.01	21.04
5	1	0	64-QAM	21.18	21.23	21.41
5	1	12		20.92	21.21	21.04
5	1	24		21.01	21.30	21.23
5	12	0		20.21	20.07	20.19
5	12	7		20.00	20.10	20.16
5	12	13		20.11	20.16	20.03
5	25	0		19.92	20.15	20.13

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.25	23.09	23.08
10	1	25		22.94	22.99	23.00
10	1	49		23.24	23.17	23.24
10	25	0		22.02	21.99	21.97
10	25	12		21.98	21.96	22.01
10	25	25		21.97	21.97	22.00
10	50	0		21.95	21.94	21.92
10	1	0	16-QAM	22.48	22.32	22.33
10	1	25		22.10	21.93	22.04
10	1	49		22.31	22.31	22.28
10	25	0		20.99	20.96	20.90
10	25	12		20.92	20.92	20.99
10	25	25		20.96	20.95	20.99
10	50	0		21.00	20.95	20.99
10	1	0	64-QAM	21.45	21.35	21.27
10	1	25		21.16	21.26	21.09
10	1	49		21.25	21.23	21.32
10	25	0		19.98	19.99	19.97
10	25	12		19.95	19.98	20.02
10	25	25		20.05	19.97	20.01
10	50	0		20.06	20.00	19.96

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.78	22.72	22.79
5	1	12		22.82	22.88	22.86
5	1	24		22.81	22.96	23.06
5	12	0		21.88	21.84	22.00
5	12	7		21.86	21.80	21.98
5	12	13		21.88	21.94	21.86
5	25	0		21.86	21.86	22.00
5	1	0	16-QAM	22.21	22.17	22.30
5	1	12		22.00	22.14	22.02
5	1	24		22.10	22.29	22.39
5	12	0		20.94	20.89	21.06
5	12	7		20.90	20.83	21.04
5	12	13		20.92	20.92	20.91
5	25	0		20.90	20.86	20.99
5	1	0	64-QAM	21.08	21.02	21.14
5	1	12		21.16	21.11	21.10
5	1	24		21.02	20.94	21.18
5	12	0		19.96	19.96	20.09
5	12	7		19.93	19.87	20.07
5	12	13		19.94	19.99	19.98
5	25	0		19.90	19.95	20.02

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.75	22.78	22.66
3	1	8		22.81	22.98	22.92
3	1	14		22.72	22.72	22.97
3	8	0		21.84	21.83	21.90
3	8	4		21.80	21.91	21.94
3	8	7		21.75	21.83	21.92
3	15	0		21.78	21.87	21.94
3	1	0	16-QAM	22.23	22.34	22.22
3	1	8		21.94	22.21	21.80
3	1	14		22.09	22.40	22.48
3	8	0		20.91	20.88	21.01
3	8	4		20.90	20.95	21.01
3	8	7		20.88	20.85	20.94
3	15	0		20.87	20.93	21.02
3	1	0	64-QAM	20.95	21.18	21.15
3	1	8		21.03	21.22	21.14
3	1	14		20.97	21.02	21.22
3	8	0		19.96	19.93	20.05
3	8	4		19.90	19.96	20.04
3	8	7		19.87	19.90	19.96
3	15	0		19.84	19.90	20.02

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.68	22.87	22.59
1.4	1	3		22.92	22.98	23.11
1.4	1	5		22.78	22.76	22.98
1.4	3	0		22.70	22.79	22.72
1.4	3	1		22.83	22.93	22.91
1.4	3	3		22.85	22.86	22.91
1.4	6	0		21.84	21.80	21.86
1.4	1	0	16-QAM	22.17	22.32	22.38
1.4	1	3		22.23	22.28	22.48
1.4	1	5		22.20	22.41	22.61
1.4	3	0		21.79	21.87	21.94
1.4	3	1		21.95	21.98	22.07
1.4	3	3		21.88	22.00	21.99
1.4	6	0		20.90	20.82	20.83
1.4	1	0	64-QAM	20.97	21.06	21.10
1.4	1	3		21.06	21.04	21.15
1.4	1	5		21.02	21.17	21.14
1.4	3	0		20.89	20.87	20.93
1.4	3	1		21.01	20.92	21.09
1.4	3	3		20.96	21.12	21.10
1.4	6	0		19.85	19.76	19.79

LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK		23.23	
10	1	25			23.17	
10	1	49			23.14	
10	25	0			21.97	
10	25	12			21.81	
10	25	25			21.96	
10	50	0			22.01	
10	1	0	16-QAM		22.33	
10	1	25			22.06	
10	1	49			22.24	
10	25	0			20.79	
10	25	12			20.99	
10	25	25			20.89	
10	50	0			21.12	
10	1	0	64-QAM		21.39	
10	1	25			21.09	
10	1	49			21.21	
10	25	0			19.97	
10	25	12			19.94	
10	25	25			19.98	
10	50	0			20.15	

LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	**RB Size**	**RB Offset**	**Mod**	**Lowest**	**Middle**	**Highest**
5	1	0	QPSK	22.86	22.83	22.81
5	1	12		22.70	22.86	22.86
5	1	24		22.77	22.82	22.94
5	12	0		21.89	21.89	22.04
5	12	7		21.93	21.92	22.10
5	12	13		21.80	21.91	21.99
5	25	0		21.87	21.84	22.02
5	1	0	16-QAM	22.19	22.20	22.38
5	1	12		21.95	22.04	22.10
5	1	24		22.14	22.09	22.23
5	12	0		20.90	20.96	21.09
5	12	7		20.91	20.98	21.08
5	12	13		20.83	20.91	20.99
5	25	0		20.71	20.84	20.95
5	1	0	64-QAM	20.99	21.10	21.18
5	1	12		20.86	20.91	21.08
5	1	24		20.90	21.01	21.10
5	12	0		19.88	20.03	20.08
5	12	7		19.94	20.08	20.15
5	12	13		19.92	20.01	20.04
5	25	0		19.83	19.96	20.00

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.24	23.17	23.19
10	1	25		22.95	22.94	22.88
10	1	49		23.11	23.16	23.22
10	25	0		21.95	21.93	21.89
10	25	12		21.89	21.88	21.94
10	25	25		21.93	21.83	21.88
10	50	0		21.93	21.87	21.83
10	1	0	16-QAM	22.32	22.28	22.21
10	1	25		21.94	22.00	21.92
10	1	49		22.23	22.29	22.25
10	25	0		20.92	20.90	20.88
10	25	12		20.84	20.87	20.97
10	25	25		20.91	20.82	20.89
10	50	0		20.99	20.93	20.89
10	1	0	64-QAM	21.31	21.31	21.31
10	1	25		21.03	21.05	21.05
10	1	49		21.24	21.28	21.25
10	25	0		19.97	19.95	19.95
10	25	12		19.96	20.00	20.01
10	25	25		20.01	19.93	19.97
10	50	0		20.04	19.99	19.92

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.84	22.78	22.83
5	1	12		22.92	22.85	22.81
5	1	24		22.92	22.84	22.93
5	12	0		21.87	21.79	21.87
5	12	7		21.86	21.81	21.78
5	12	13		21.82	21.75	21.86
5	25	0		21.91	21.87	21.84
5	1	0	16-QAM	22.28	22.24	22.18
5	1	12		21.95	21.98	21.91
5	1	24		22.19	22.17	22.20
5	12	0		20.94	20.89	20.99
5	12	7		20.93	20.92	20.94
5	12	13		20.89	20.86	20.94
5	25	0		20.86	20.89	20.82
5	1	0	64-QAM	21.10	21.01	21.08
5	1	12		21.00	21.00	20.98
5	1	24		21.05	21.01	21.01
5	12	0		19.97	19.91	20.01
5	12	7		19.98	19.95	19.97
5	12	13		19.96	19.94	19.98
5	25	0		19.95	19.91	19.92

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.99	22.98	22.87
20	1	49		23.22	23.13	22.66
20	1	99		23.46	23.18	22.77
20	50	0		22.20	22.04	21.84
20	50	24		22.27	22.09	21.73
20	50	50		22.26	22.08	21.65
20	100	0		22.37	22.03	21.91
20	1	0	16-QAM	22.37	21.94	21.72
20	1	49		22.40	22.28	21.67
20	1	99		22.35	22.15	21.82
20	50	0		21.25	21.03	20.92
20	50	24		21.34	21.08	20.75
20	50	50		21.31	21.08	20.74
20	100	0		21.26	21.13	21.01
20	1	0	64-QAM	21.01	20.74	20.53
20	1	49		21.07	20.81	20.45
20	1	99		21.29	20.88	20.43
20	50	0		20.13	20.08	19.98
20	50	24		20.22	20.03	19.70
20	50	50		20.36	20.13	19.78
20	100	0		20.31	20.09	20.05

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.16	23.15	22.80
15	1	37		23.21	22.92	22.47
15	1	74		22.45	23.05	22.65
15	36	0		22.18	22.03	21.73
15	36	20		22.24	22.09	21.76
15	36	39		21.97	21.78	21.34
15	75	0		22.04	21.91	21.57
15	1	0	16-QAM	22.41	22.04	21.67
15	1	37		22.33	22.12	21.59
15	1	74		22.15	22.40	21.91
15	36	0		21.22	21.05	20.67
15	36	20		21.28	21.01	20.78
15	36	39		20.93	20.67	20.39
15	75	0		21.02	20.89	20.64
15	1	0	64-QAM	20.94	20.86	20.33
15	1	37		21.02	20.84	20.51
15	1	74		20.43	21.15	20.79
15	36	0		20.14	20.00	19.82
15	36	20		20.22	19.99	19.85
15	36	39		19.91	19.72	19.35
15	75	0		20.05	19.94	19.59

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.11	23.19	22.86
10	1	25		23.06	23.12	22.68
10	1	49		23.23	23.17	22.75
10	25	0		22.14	22.13	21.77
10	25	12		22.11	22.14	21.85
10	25	25		22.02	22.04	21.71
10	50	0		22.13	22.14	21.76
10	1	0	16-QAM	22.39	22.33	21.91
10	1	25		22.18	22.18	21.81
10	1	49		22.16	22.29	21.96
10	25	0		21.04	21.03	20.77
10	25	12		21.12	21.03	20.75
10	25	25		21.03	21.06	20.80
10	50	0		21.13	21.12	20.72
10	1	0	64-QAM	21.04	21.01	20.71
10	1	25		20.80	21.08	20.49
10	1	49		20.99	20.85	20.61
10	25	0		20.13	20.11	19.82
10	25	12		20.20	20.14	19.81
10	25	25		20.11	20.04	19.74
10	50	0		20.08	20.08	19.75

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.13	23.12	22.74
5	1	12		22.99	22.98	22.50
5	1	24		22.98	23.06	22.60
5	12	0		22.06	22.07	21.72
5	12	7		22.10	22.06	21.58
5	12	13		22.05	21.93	21.53
5	25	0		22.12	22.09	21.61
5	1	0	16-QAM	22.14	22.34	21.75
5	1	12		22.27	22.23	21.53
5	1	24		22.08	21.97	21.59
5	12	0		21.01	21.05	20.68
5	12	7		21.04	21.01	20.62
5	12	13		21.00	20.89	20.58
5	25	0		21.05	21.00	20.61
5	1	0	64-QAM	20.98	20.88	20.67
5	1	12		20.82	20.76	20.33
5	1	24		20.91	20.71	20.41
5	12	0		20.11	20.04	19.76
5	12	7		20.15	20.00	19.60
5	12	13		20.10	19.99	19.66
5	25	0		20.11	20.09	19.68

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	25.01	25.38	24.76
20	1	49		24.72	25.48	24.89
20	1	99		24.74	25.22	25.11
20	50	0		23.44	23.72	23.71
20	50	24		23.53	23.81	23.65
20	50	50		23.18	23.39	23.62
20	100	0		23.59	23.82	23.80
20	1	0	16-QAM	23.66	23.65	23.10
20	1	49		23.57	24.02	23.89
20	1	99		23.14	23.45	23.49
20	50	0		22.50	22.75	22.54
20	50	24		22.58	22.71	22.88
20	50	50		22.51	22.71	22.85
20	100	0		22.55	22.66	22.86
20	1	0	64-QAM	22.01	22.73	22.25
20	1	49		22.67	22.88	22.94
20	1	99		22.23	22.41	22.34
20	50	0		21.37	21.75	21.58
20	50	24		21.25	21.81	21.82
20	50	50		21.39	21.71	21.69
20	100	0		21.52	21.92	21.80

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	25.40	25.52	24.70
15	1	37		25.27	25.57	24.97
15	1	74		24.81	25.14	25.06
15	36	0		23.50	23.62	23.73
15	36	20		23.53	23.65	23.83
15	36	39		23.53	23.86	23.90
15	75	0		23.58	23.74	23.77
15	1	0	16-QAM	23.34	23.12	23.35
15	1	37		23.39	23.39	23.88
15	1	74		23.02	23.31	23.00
15	36	0		22.53	22.65	22.68
15	36	20		22.51	22.70	22.75
15	36	39		22.63	22.93	22.87
15	75	0		22.61	22.76	22.85
15	1	0	64-QAM	22.40	22.13	22.43
15	1	37		22.61	22.73	22.90
15	1	74		22.10	22.33	22.16
15	36	0		21.41	21.72	21.61
15	36	20		21.43	21.80	21.67
15	36	39		21.59	21.95	21.83
15	75	0		21.53	21.84	21.71

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	24.82	25.06	25.01
10	1	25		25.32	25.66	25.75
10	1	49		25.33	25.62	25.59
10	25	0		23.53	23.77	23.76
10	25	12		23.45	23.82	23.83
10	25	25		23.43	23.79	23.71
10	50	0		23.39	23.78	23.83
10	1	0	16-QAM	23.50	23.81	23.85
10	1	25		23.44	23.86	23.90
10	1	49		23.54	23.87	23.00
10	25	0		22.56	22.87	22.84
10	25	12		22.54	22.86	22.91
10	25	25		22.54	22.91	22.87
10	50	0		22.50	22.78	22.87
10	1	0	64-QAM	22.02	22.80	22.78
10	1	25		22.65	22.81	22.80
10	1	49		22.58	22.91	22.05
10	25	0		21.40	21.83	21.64
10	25	12		21.41	21.81	21.78
10	25	25		21.37	21.91	21.64
10	50	0		21.32	21.81	21.72

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	24.83	25.00	25.16
5	1	12		25.28	25.37	25.66
5	1	24		25.24	25.47	25.64
5	12	0		23.01	23.62	23.83
5	12	7		23.05	23.59	23.00
5	12	13		23.44	23.67	23.01
5	25	0		23.46	23.63	23.88
5	1	0	16-QAM	23.09	23.83	23.96
5	1	12		23.20	23.68	23.06
5	1	24		23.55	23.75	23.10
5	12	0		22.01	22.66	22.89
5	12	7		22.00	22.68	22.10
5	12	13		22.55	22.69	22.05
5	25	0		22.56	22.69	22.92
5	1	0	64-QAM	22.01	22.83	22.91
5	1	12		22.02	22.66	22.09
5	1	24		22.59	22.77	22.01
5	12	0		21.05	21.68	21.70
5	12	7		21.09	21.72	21.02
5	12	13		21.43	21.71	21.10
5	25	0		21.44	21.67	21.76

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	**RB Size**	**RB Offset**	**Mod**	**Lowest**	**Middle**	**Highest**
20	1	0	QPSK	23.01	23.09	23.09
20	1	49		23.14	22.93	23.11
20	1	99		23.30	23.24	23.06
20	50	0		21.85	21.85	21.98
20	50	24		21.99	21.95	22.03
20	50	50		21.95	21.92	21.93
20	100	0		22.09	21.99	21.96
20	1	0	16-QAM	22.09	22.13	22.39
20	1	49		22.40	22.23	22.35
20	1	99		22.59	22.43	22.31
20	50	0		20.86	20.92	20.99
20	50	24		20.91	20.98	21.10
20	50	50		20.90	20.97	20.97
20	100	0		20.92	20.90	20.99
20	1	0	64-QAM	20.96	21.07	21.21
20	1	49		21.25	21.08	21.23
20	1	99		21.34	21.22	21.12
20	50	0		19.85	19.86	19.99
20	50	24		19.96	19.94	20.07
20	50	50		19.92	19.96	19.92
20	100	0		19.88	19.86	19.90

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	23.13	23.23	23.29
15	1	37		22.84	22.90	22.94
15	1	74		22.93	22.99	22.90
15	36	0		21.96	22.00	22.02
15	36	20		21.88	21.92	22.00
15	36	39		21.79	21.83	21.94
15	75	0		21.85	21.97	21.98
15	1	0	16-QAM	22.50	22.52	22.72
15	1	37		22.13	22.18	22.11
15	1	74		22.37	22.36	22.19
15	36	0		20.93	20.99	21.00
15	36	20		20.89	20.99	21.01
15	36	39		20.77	20.81	20.94
15	75	0		20.86	20.99	21.02
15	1	0	64-QAM	21.43	21.55	21.53
15	1	37		21.21	21.17	21.19
15	1	74		21.27	21.20	21.09
15	36	0		19.96	19.97	20.01
15	36	20		19.87	19.98	20.00
15	36	39		19.75	19.84	19.95
15	75	0		19.81	19.92	19.98

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.20	23.12	23.01
10	1	25		22.75	22.93	22.77
10	1	49		23.15	23.14	23.01
10	25	0		21.76	21.89	21.88
10	25	12		21.90	22.03	21.91
10	25	25		21.91	22.03	21.96
10	50	0		21.87	21.98	21.85
10	1	0	16-QAM	21.55	21.70	21.66
10	1	25		22.18	22.26	22.09
10	1	49		22.42	22.48	22.28
10	25	0		20.73	20.89	20.84
10	25	12		20.82	21.00	20.89
10	25	25		20.83	20.98	20.91
10	50	0		20.83	21.01	20.80
10	1	0	64-QAM	20.44	20.59	20.54
10	1	25		21.02	21.13	20.96
10	1	49		21.33	21.40	21.16
10	25	0		19.73	19.88	19.85
10	25	12		19.90	20.04	19.91
10	25	25		19.88	20.07	19.99
10	50	0		19.88	20.01	19.91

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.94	22.97	23.08
5	1	12		22.77	22.92	22.78
5	1	24		22.84	22.94	22.84
5	12	0		21.93	22.05	22.00
5	12	7		21.92	21.96	21.90
5	12	13		21.76	21.96	21.85
5	25	0		21.92	22.02	21.94
5	1	0	16-QAM	22.32	22.33	22.36
5	1	12		22.03	22.15	22.06
5	1	24		22.06	22.22	22.13
5	12	0		20.97	21.14	21.03
5	12	7		20.95	21.07	20.96
5	12	13		20.84	21.03	20.91
5	25	0		20.85	21.02	20.89
5	1	0	64-QAM	21.14	21.25	21.30
5	1	12		21.09	21.15	21.12
5	1	24		20.97	21.09	21.02
5	12	0		19.96	20.14	20.04
5	12	7		19.96	20.09	19.97
5	12	13		19.85	20.03	19.92
5	25	0		19.90	20.03	19.95

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.82	22.96	22.90
3	1	8		22.96	23.05	22.94
3	1	14		22.69	22.92	22.78
3	8	0		21.85	21.99	21.91
3	8	4		21.85	22.02	21.92
3	8	7		21.86	21.95	21.87
3	15	0		21.80	22.00	21.90
3	1	0	16-QAM	22.17	22.32	22.21
3	1	8		21.98	22.21	22.06
3	1	14		22.02	22.23	22.05
3	8	0		20.93	21.16	21.04
3	8	4		20.93	21.10	21.00
3	8	7		20.94	21.09	20.99
3	15	0		20.84	21.00	20.86
3	1	0	64-QAM	21.10	21.28	21.19
3	1	8		21.10	21.26	21.15
3	1	14		21.00	21.14	21.14
3	8	0		19.93	20.12	19.99
3	8	4		19.91	20.08	19.94
3	8	7		19.90	20.03	19.94
3	15	0		19.90	20.03	19.90

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.70	22.79	22.75
1.4	1	3		22.79	22.97	22.76
1.4	1	5		22.72	22.85	22.69
1.4	3	0		22.74	22.92	22.78
1.4	3	1		22.79	23.02	22.89
1.4	3	3		22.81	23.01	22.86
1.4	6	0		21.78	21.92	21.83
1.4	1	0	16-QAM	22.08	22.18	22.11
1.4	1	3		22.08	22.24	22.13
1.4	1	5		22.09	22.20	22.04
1.4	3	0		21.86	22.07	21.98
1.4	3	1		21.92	22.08	22.03
1.4	3	3		21.91	22.07	22.00
1.4	6	0		20.78	20.98	20.83
1.4	1	0	64-QAM	21.04	21.16	21.08
1.4	1	3		21.02	21.18	21.11
1.4	1	5		20.98	21.13	21.03
1.4	3	0		20.89	21.07	20.90
1.4	3	1		20.94	21.11	20.94
1.4	3	3		20.97	21.11	20.92
1.4	6	0		19.76	19.98	19.82

LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	**RB Size**	**RB Offset**	**Mod**	**Lowest**	**Middle**	**Highest**
20	1	0	QPSK	23.86	23.99	23.70
20	1	49		23.89	23.86	23.60
20	1	99		23.78	23.81	23.61
20	50	0		22.90	22.99	22.86
20	50	24		22.88	22.96	22.98
20	50	50		22.98	22.95	22.95
20	100	0		22.97	22.99	22.97
20	1	0	16-QAM	22.35	22.63	22.33
20	1	49		22.65	22.27	22.82
20	1	99		22.52	22.38	22.38
20	50	0		21.99	21.86	21.94
20	50	24		21.71	21.89	21.98
20	50	50		21.98	21.96	21.99
20	100	0		21.96	21.87	21.94
20	1	0	64-QAM	21.59	21.46	21.69
20	1	49		21.63	21.89	21.80
20	1	99		21.80	21.77	21.97
20	50	0		20.73	20.79	20.95
20	50	24		20.78	20.93	20.95
20	50	50		20.93	20.87	20.97
20	100	0		20.84	20.90	20.95

LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	**RB Size**	**RB Offset**	**Mod**	**Lowest**	**Middle**	**Highest**
15	1	0	QPSK	23.86	23.45	23.89
15	1	37		23.60	23.94	23.88
15	1	74		23.52	23.92	23.67
15	36	0		22.95	22.97	22.65
15	36	20		22.82	22.89	22.98
15	36	39		22.87	22.87	22.82
15	75	0		22.92	22.99	22.92
15	1	0	16-QAM	22.75	22.27	22.65
15	1	37		22.58	22.45	22.90
15	1	74		22.64	22.17	22.39
15	36	0		21.86	21.65	21.56
15	36	20		21.67	21.75	21.87
15	36	39		21.61	21.62	21.61
15	75	0		21.87	21.80	21.77
15	1	0	64-QAM	21.78	21.52	21.85
15	1	37		21.94	21.97	21.98
15	1	74		21.55	21.77	21.15
15	36	0		20.88	20.85	20.95
15	36	20		20.81	20.97	20.78
15	36	39		20.76	20.55	20.73
15	75	0		20.78	20.76	20.80

LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.93	23.79	23.98
10	1	25		23.96	23.94	23.93
10	1	49		23.96	23.97	23.64
10	25	0		22.76	22.95	22.79
10	25	12		22.97	22.98	23.00
10	25	25		22.93	22.97	22.83
10	50	0		22.99	22.91	22.93
10	1	0	16-QAM	22.93	22.89	22.76
10	1	25		22.75	22.54	22.74
10	1	49		22.50	22.56	22.43
10	25	0		22.00	21.99	21.94
10	25	12		21.56	21.82	21.90
10	25	25		21.87	21.92	21.84
10	50	0		21.90	21.75	21.85
10	1	0	64-QAM	22.32	21.82	21.89
10	1	25		22.07	21.89	22.17
10	1	49		22.28	21.95	21.86
10	25	0		21.03	20.94	21.02
10	25	12		20.97	21.02	20.88
10	25	25		20.92	20.91	20.76
10	50	0		21.08	20.96	20.90

LTE Band 71 Maximum Average Power [dBm]						
BW [MHz]	**RB Size**	**RB Offset**	**Mod**	**Lowest**	**Middle**	**Highest**
5	1	0	QPSK	23.88	23.87	23.92
5	1	12		23.97	23.91	23.82
5	1	24		23.95	23.66	23.71
5	12	0		22.97	22.95	22.94
5	12	7		22.98	22.97	22.95
5	12	13		22.92	22.93	22.89
5	25	0		23.00	22.88	22.90
5	1	0	16-QAM	22.52	22.01	22.65
5	1	12		22.33	22.19	22.65
5	1	24		22.15	22.03	22.19
5	12	0		21.91	21.86	21.84
5	12	7		21.90	21.95	21.78
5	12	13		21.83	21.90	21.79
5	25	0		21.81	21.65	21.87
5	1	0	64-QAM	21.80	21.71	21.89
5	1	12		21.56	21.95	21.97
5	1	24		21.56	21.98	21.65
5	12	0		20.95	20.78	20.80
5	12	7		20.95	20.80	20.95
5	12	13		20.98	20.45	20.56
5	25	0		20.83	20.80	20.81

CA Power

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	0	0	1	99	1	18.13
			1	0	0	0	1	18.06
			100	0	0	0	100	19.68
			100	0	100	0	200	18.47
			1	0	1	99	2	10.32
			1	0	1	0	2	14.76
			1	99	1	0	2	18.29
			100	0	1	99	101	16.23
		16QAM	0	0	1	99	1	17.2
			1	0	0	0	1	18.15
			100	0	0	0	100	18.65
			100	0	100	0	200	17.66
			1	0	1	99	2	10.44
			1	0	1	0	2	14.9
			1	99	1	0	2	18.15
			100	0	1	99	101	16.1
		64QAM	0	0	1	99	1	15.82
			1	0	0	0	1	17.81
			100	0	0	0	100	18.66
			100	0	100	0	200	17.7
			1	0	1	99	2	10.09
			1	0	1	0	2	14.48
			1	99	1	0	2	15.98
			100	0	1	99	101	16.1

40521	40719	QPSK	0	0	1	99	1	23.67
			1	0	0	0	1	22.62
			100	0	0	0	100	22.12
			100	0	100	0	200	21.44
			1	0	1	99	2	17.5
			1	0	1	0	2	19.48
			1	99	1	0	2	21.89
			100	0	1	99	101	20.25
		16QAM	0	0	1	99	1	22.12
			1	0	0	0	1	21.79
			100	0	0	0	100	21.3
			100	0	100	0	200	20.55
			1	0	1	99	2	17.46
			1	0	1	0	2	19.73
			1	99	1	0	2	22.03
			100	0	1	99	101	20.81
		64QAM	0	0	1	99	1	23.01
			1	0	0	0	1	21.43
			100	0	0	0	100	21.31
			100	0	100	0	200	20.54
			1	0	1	99	2	17.04
			1	0	1	0	2	19.3
			1	99	1	0	2	19.81
			100	0	1	99	101	21

41292	41490	QPSK	0	0	1	99	1	22.28
			1	0	0	0	1	22.05
			100	0	0	0	100	22.42
			100	0	100	0	200	21.26
			1	0	1	99	2	17.41
			1	0	1	0	2	19.51
			1	99	1	0	2	21.84
			100	0	1	99	101	20.43
		16QAM	0	0	1	99	1	21.35
			1	0	0	0	1	21.15
			100	0	0	0	100	21.6
			100	0	100	0	200	20.58
			1	0	1	99	2	17.58
			1	0	1	0	2	19.6
			1	99	1	0	2	22.02
			100	0	1	99	101	20.74
		64QAM	0	0	1	99	1	20
			1	0	0	0	1	21.04
			100	0	0	0	100	21.65
			100	0	100	0	200	20.5
			1	0	1	99	2	17
			1	0	1	0	2	19.48
			1	99	1	0	2	19.78
			100	0	1	99	101	20.97

CA_41C								
Combination 20MHz+15MHz (100RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39921	QPSK	100	0	75	0	175	20.8
		QPSK	1	0	1	74	2	14.21
		QPSK	1	99	1	0	2	22.95
		16QAM	100	0	75	0	175	19.81
		16QAM	1	0	1	74	2	14.9
		16QAM	1	99	1	0	2	21.91
		64QAM	100	0	75	0	175	19.89
		64QAM	1	0	1	74	2	13.74
		64QAM	1	99	1	0	2	19.7
40546	40717	QPSK	100	0	75	0	175	21.24
		QPSK	1	0	1	74	2	16.04
		QPSK	1	99	1	0	2	23.05
		16QAM	100	0	75	0	175	20.27
		16QAM	1	0	1	74	2	16.06
		16QAM	1	99	1	0	2	22.2
		64QAM	100	0	75	0	175	20.33
		64QAM	1	0	1	74	2	15.63
		64QAM	1	99	1	0	2	19.81
41341	41512	QPSK	100	0	75	0	175	19.18
		QPSK	1	0	1	74	2	13.32
		QPSK	1	99	1	0	2	19.77
		16QAM	100	0	75	0	175	18.23
		16QAM	1	0	1	74	2	13.89
		16QAM	1	99	1	0	2	19.1
		64QAM	100	0	75	0	175	18.4
		64QAM	1	0	1	74	2	12.87
		64QAM	1	99	1	0	2	16.68

Combination 15MHz+20MHz (75RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39728	39899	QPSK	75	0	100	0	175	20.94
		QPSK	1	0	1	99	2	14.22
		QPSK	1	74	1	0	2	22.83
		16QAM	75	0	100	0	175	20
		16QAM	1	0	1	99	2	14.34
		16QAM	1	74	1	0	2	21.95
		64QAM	75	0	100	0	175	20.03
		64QAM	1	0	1	99	2	14
		64QAM	1	74	1	0	2	19.72
40523	40694	QPSK	75	0	100	0	175	21.28
		QPSK	1	0	1	99	2	15.83
		QPSK	1	74	1	0	2	22.67
		16QAM	75	0	100	0	175	20.25
		16QAM	1	0	1	99	2	16.22
		16QAM	1	74	1	0	2	22.01
		64QAM	75	0	100	0	175	20.27
		64QAM	1	0	1	99	2	15.72
		64QAM	1	74	1	0	2	19.58
41319	41490	QPSK	75	0	100	0	175	21.57
		QPSK	1	0	1	99	2	16.44
		QPSK	1	74	1	0	2	23.17
		16QAM	75	0	100	0	175	20.73
		16QAM	1	0	1	99	2	16.49
		16QAM	1	74	1	0	2	22.63
		64QAM	75	0	100	0	175	20.78
		64QAM	1	0	1	99	2	16.09
		64QAM	1	74	1	0	2	19.67

Combination 20MHz+10MHz (100RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC RB Size	PCC RB offset	SCC RB Size	SCC RB offset	Total RB Size	Measured Power (dBm)
39750	39894	QPSK	100	0	50	0	150	20.94
		QPSK	1	0	1	49	2	13.44
		QPSK	1	99	1	0	2	22
		16QAM	100	0	50	0	150	19.9
		16QAM	1	0	1	49	2	14.47
		16QAM	1	99	1	0	2	22.09
		64QAM	100	0	50	0	150	19.85
		64QAM	1	0	1	49	2	14.43
		64QAM	1	99	1	0	2	20.28
40571	40715	QPSK	100	0	50	0	150	18.86
		QPSK	1	0	1	49	2	11.98
		QPSK	1	99	1	0	2	20.38
		16QAM	100	0	50	0	150	18.21
		16QAM	1	0	1	49	2	13.25
		16QAM	1	99	1	0	2	20.54
		64QAM	100	0	50	0	150	18.06
		64QAM	1	0	1	49	2	13.31
		64QAM	1	99	1	0	2	18.57
41391	41535	QPSK	100	0	50	0	150	21.36
		QPSK	1	0	1	49	2	15.65
		QPSK	1	99	1	0	2	23.43
		16QAM	100	0	50	0	150	20.63
		16QAM	1	0	1	49	2	15.77
		16QAM	1	99	1	0	2	22.83
		64QAM	100	0	50	0	150	20.55
		64QAM	1	0	1	49	2	15.41
		64QAM	1	99	1	0	2	19.91

Combination 10MHz+20MHz (50RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39705	39849	QPSK	50	0	100	0	150	21.3
		QPSK	1	0	1	99	2	14.06
		QPSK	1	49	1	0	2	23.1
		16QAM	50	0	100	0	150	20.632
		16QAM	1	0	1	99	2	14.42
		16QAM	1	49	1	0	2	22.26
		64QAM	50	0	100	0	150	20.62
		64QAM	1	0	1	99	2	14.22
		64QAM	1	49	1	0	2	19.96
40526	40670	QPSK	50	0	100	0	150	21.24
		QPSK	1	0	1	99	2	15.37
		QPSK	1	49	1	0	2	23.14
		16QAM	50	0	100	0	150	20.33
		16QAM	1	0	1	99	2	15.13
		16QAM	1	49	1	0	2	22.48
		64QAM	50	0	100	0	150	20.32
		64QAM	1	0	1	99	2	14.93
		64QAM	1	49	1	0	2	19.77
41346	41490	QPSK	50	0	100	0	150	21.41
		QPSK	1	0	1	99	2	15.67
		QPSK	1	49	1	0	2	22.87
		16QAM	50	0	100	0	150	20.55
		16QAM	1	0	1	99	2	15.39
		16QAM	1	49	1	0	2	22.53
		64QAM	50	0	100	0	150	20.3
		64QAM	1	0	1	99	2	15.26
		64QAM	1	49	1	0	2	19.68

Combination 20MHz+5MHz (100RB+25RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39750	39867	QPSK	100	0	25	0	125	21.36
		QPSK	1	0	1	24	2	14.65
		QPSK	1	99	1	0	2	23.39
		16QAM	100	0	25	0	125	20.11
		16QAM	1	0	1	24	2	14.86
		16QAM	1	99	1	0	2	22.7
		64QAM	100	0	25	0	125	20.42
		64QAM	1	0	1	24	2	14.29
		64QAM	1	99	1	0	2	20.21
40595	40712	QPSK	100	0	25	0	125	19.26
		QPSK	1	0	1	24	2	13.47
		QPSK	1	99	1	0	2	22.27
		16QAM	100	0	25	0	125	18.55
		16QAM	1	0	1	24	2	13.57
		16QAM	1	99	1	0	2	21.15
		64QAM	100	0	25	0	125	18.51
		64QAM	1	0	1	24	2	13.17
		64QAM	1	99	1	0	2	18.42
41440	41557	QPSK	100	0	25	0	125	19.61
		QPSK	1	0	1	24	2	13.67
		QPSK	1	99	1	0	2	22.31
		16QAM	100	0	25	0	125	18.76
		16QAM	1	0	1	24	2	13.94
		16QAM	1	99	1	0	2	21.41
		64QAM	100	0	25	0	125	18.92
		64QAM	1	0	1	24	2	13.29
		64QAM	1	99	1	0	2	18.84

Combination 5MHz+20MHz (25RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC RB Size	PCC RB offset	SCC RB Size	SCC RB offset	Total RB Size	Measured Power (dBm)
39683	39800	QPSK	25	0	100	0	125	21.33
		QPSK	1	0	1	99	2	14.41
		QPSK	1	24	1	0	2	23.18
		16QAM	25	0	100	0	125	20.4
		16QAM	1	0	1	99	2	14.59
		16QAM	1	24	1	0	2	22.56
		64QAM	25	0	100	0	125	20.38
		64QAM	1	0	1	99	2	14.66
		64QAM	1	24	1	0	2	20.04
40528	40645	QPSK	25	0	100	0	125	19.78
		QPSK	1	0	1	99	2	14.75
		QPSK	1	24	1	0	2	20.67
		16QAM	25	0	100	0	125	19.19
		16QAM	1	0	1	99	2	14.83
		16QAM	1	24	1	0	2	20.12
		64QAM	25	0	100	0	125	19.13
		64QAM	1	0	1	99	2	14.68
		64QAM	1	24	1	0	2	18.95
41373	41490	QPSK	25	0	100	0	125	19.98
		QPSK	1	0	1	99	2	15.22
		QPSK	1	24	1	0	2	21
		16QAM	25	0	100	0	125	19.4
		16QAM	1	0	1	99	2	15.13
		16QAM	1	24	1	0	2	20.56
		64QAM	25	0	100	0	125	19.4
		64QAM	1	0	1	99	2	14.51
		64QAM	1	24	1	0	2	19.12

Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39725	39875	QPSK	75	0	75	0	150	19.65
		QPSK	1	0	1	74	2	14.35
		QPSK	1	74	1	0	2	20.67
		16QAM	75	0	75	0	150	18.92
		16QAM	1	0	1	74	2	14.54
		16QAM	1	74	1	0	2	20.14
		64QAM	75	0	75	0	150	18.89
		64QAM	1	0	1	74	2	14.19
		64QAM	1	74	1	0	2	18.86
40545	40695	QPSK	75	0	75	0	150	19.49
		QPSK	1	0	1	74	2	15.44
		QPSK	1	74	1	0	2	20.42
		16QAM	75	0	75	0	150	18.79
		16QAM	1	0	1	74	2	15.4
		16QAM	1	74	1	0	2	19.9
		64QAM	75	0	75	0	150	18.8
		64QAM	1	0	1	74	2	14.89
		64QAM	1	74	1	0	2	18.54
41365	41515	QPSK	75	0	75	0	150	19.66
		QPSK	1	0	1	74	2	15.72
		QPSK	1	74	1	0	2	20.54
		16QAM	75	0	75	0	150	18.95
		16QAM	1	0	1	74	2	15.76
		16QAM	1	74	1	0	2	20.08
		64QAM	75	0	75	0	150	18.92
		64QAM	1	0	1	74	2	15.19
		64QAM	1	74	1	0	2	18.47

Combination 15MHz+10MHz (75RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39725	39845	QPSK	75	0	50	0	125	20.89
		QPSK	1	0	1	49	2	14.53
		QPSK	1	74	1	0	2	20.83
		16QAM	75	0	50	0	125	20.85
		16QAM	1	0	1	49	2	14.72
		16QAM	1	74	1	0	2	20.76
		64QAM	75	0	50	0	125	20.87
		64QAM	1	0	1	49	2	14.25
		64QAM	1	74	1	0	2	20.42
40571	40691	QPSK	75	0	50	0	125	20.61
		QPSK	1	0	1	49	2	14.93
		QPSK	1	74	1	0	2	20.57
		16QAM	75	0	50	0	125	20.65
		16QAM	1	0	1	49	2	14.95
		16QAM	1	74	1	0	2	20.6
		64QAM	75	0	50	0	125	20.62
		64QAM	1	0	1	49	2	14.56
		64QAM	1	74	1	0	2	20.25
41417	41537	QPSK	75	0	50	0	125	20.03
		QPSK	1	0	1	49	2	16.45
		QPSK	1	74	1	0	2	19.23
		16QAM	75	0	50	0	125	20.03
		16QAM	1	0	1	49	2	13.66
		16QAM	1	74	1	0	2	19.21
		64QAM	75	0	50	0	125	20.06
		64QAM	1	0	1	49	2	13.22
		64QAM	1	74	1	0	2	18.63

Combination 10MHz+15MHz (50RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39703	39823	QPSK	50	0	75	0	125	20.9
		QPSK	1	49	1	0	2	20.76
		QPSK	1	0	1	74	2	14.74
		16QAM	50	0	75	0	125	20.89
		16QAM	1	49	1	0	2	20.69
		16QAM	1	0	1	74	2	14.55
		64QAM	50	0	75	0	125	20.89
		64QAM	1	49	1	0	2	20.32
		64QAM	1	0	1	74	2	14.53
40549	40669	QPSK	50	0	75	0	125	20.64
		QPSK	1	49	1	0	2	20.51
		QPSK	1	0	1	74	2	15.12
		16QAM	50	0	75	0	125	20.62
		16QAM	1	49	1	0	2	20.5
		16QAM	1	0	1	74	2	14.98
		64QAM	50	0	75	0	125	20.66
		64QAM	1	49	1	0	2	20.15
		64QAM	1	0	1	74	2	14.61
41395	41515	QPSK	50	0	75	0	125	19.89
		QPSK	1	49	1	0	2	19.27
		QPSK	1	0	1	74	2	13.53
		16QAM	50	0	75	0	125	19.86
		16QAM	1	49	1	0	2	18.89
		16QAM	1	0	1	74	2	13.57
		64QAM	50	0	75	0	125	19.72
		64QAM	1	49	1	0	2	18.6
		64QAM	1	0	1	74	2	13.78

ERP/EIRP

LTE Band 5 (GT - LC = -3.5 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	20407 (Low)	20525 (Mid)	20643 (High)	20415 (Low)	20525 (Mid)	20635 (High)	20425 (Low)	20525 (Mid)	20625 (High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.98	22.89	23.09	22.80	22.90	22.85	23.00	22.89	23.06
Conducted Power (Watts)	0.1986	0.1945	0.2037	0.1905	0.1950	0.1928	0.1995	0.1945	0.2023
ERP(dBm)	17.33	17.24	17.44	17.15	17.25	17.20	17.35	17.24	17.41
ERP(Watts)	0.0541	0.0530	0.0555	0.0519	0.0531	0.0525	0.0543	0.0530	0.0551

LTE Band 5 (GT - LC = -3.5 dB) QPSK			
Bandwidth	10M		
Channel	20450 (Low)	20525 (Mid)	20600 (High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	23.20	23.36	23.45
Conducted Power (Watts)	0.2089	0.2168	0.2213
ERP(dBm)	17.55	17.71	17.80
ERP(Watts)	0.0569	0.0590	0.0603

LTE Band 5 (GT - LC = -3.5 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407 (Low)	20525 (Mid)	20643 (High)	20415 (Low)	20525 (Mid)	20635 (High)	20425 (Low)	20525 (Mid)	20625 (High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.33	22.34	22.48	22.27	22.41	22.51	22.20	22.31	22.35
Conducted Power (Watts)	0.1710	0.1714	0.1770	0.1687	0.1742	0.1782	0.1660	0.1702	0.1718
ERP(dBm)	16.68	16.69	16.83	16.62	16.76	16.86	16.55	16.66	16.70
ERP(Watts)	0.0466	0.0467	0.0482	0.0459	0.0474	0.0485	0.0452	0.0463	0.0468

LTE Band 5 (GT - LC = -3.5 dB) 16QAM			
Bandwidth	10M		
Channel	20450 (Low)	20525 (Mid)	20600 (High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	22.20	22.27	22.42
Conducted Power (Watts)	0.1660	0.1687	0.1746
ERP(dBm)	16.55	16.62	16.77
ERP(Watts)	0.0452	0.0459	0.0475

LTE Band 5 (GT - LC = -3.5 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407 (Low)	20525 (Mid)	20643 (High)	20415 (Low)	20525 (Mid)	20635 (High)	20425 (Low)	20525 (Mid)	20625 (High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	20.99	21.05	20.87	20.88	21.13	20.99	20.98	21.16	21.17
Conducted Power (Watts)	0.1256	0.1274	0.1222	0.1225	0.1297	0.1256	0.1253	0.1306	0.1309
ERP(dBm)	15.34	15.40	15.22	15.23	15.48	15.34	15.33	15.51	15.52
ERP(Watts)	0.0342	0.0347	0.0333	0.0333	0.0353	0.0342	0.0341	0.0356	0.0356

LTE Band 5 (GT - LC = -3.5 dB) 64QAM			
Bandwidth	10M		
Channel	20450 (Low)	20525 (Mid)	20600 (High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	21.24	21.31	21.38
Conducted Power (Watts)	0.1330	0.1352	0.1374
ERP(dBm)	15.59	15.66	15.73
ERP(Watts)	0.0362	0.0368	0.0374

LTE Band 7 (GT - LC = -0.6 dB) QPSK			
Bandwidth	5M		
Channel	20775 (Low)	21100 (Mid)	21425 (High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	22.98	23.27	23.15
Conducted Power (Watts)	0.1986	0.2123	0.2065
EIRP(dBm)	22.38	22.67	22.55
EIRP(Watts)	0.1730	0.1849	0.1799

LTE Band 7 (GT - LC = -0.6 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20800 (Low)	21100 (Mid)	21400 (High)	20825 (Low)	21100 (Mid)	21375 (High)	20850 (Low)	21100 (Mid)	21350 (High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	23.01	23.19	23.18	22.91	23.15	23.07	22.83	22.91	23.28
Conducted Power (Watts)	0.2000	0.2084	0.2080	0.1954	0.2065	0.2028	0.1919	0.1954	0.2128
EIRP(dBm)	22.41	22.59	22.58	22.31	22.55	22.47	22.23	22.31	22.68
EIRP(Watts)	0.1742	0.1816	0.1811	0.1702	0.1799	0.1766	0.1671	0.1702	0.1854

LTE Band 7 (GT - LC = -0.6 dB) 16QAM			
Bandwidth	5M		
Channel	20775 (Low)	21100 (Mid)	21425 (High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	22.66	22.52	22.35
Conducted Power (Watts)	0.1845	0.1786	0.1718
EIRP(dBm)	22.06	21.92	21.75
EIRP(Watts)	0.1607	0.1556	0.1496

LTE Band 7 (GT - LC = -0.6 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20800 (Low)	21100 (Mid)	21400 (High)	20825 (Low)	21100 (Mid)	21375 (High)	20850 (Low)	21100 (Mid)	21350 (High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	22.71	22.77	22.72	22.45	22.60	21.87	22.19	22.63	22.36
Conducted Power (Watts)	0.1866	0.1892	0.1871	0.1758	0.1820	0.1538	0.1656	0.1832	0.1722
EIRP(dBm)	22.11	22.17	22.12	21.85	22.00	21.27	21.59	22.03	21.76
EIRP(Watts)	0.1626	0.1648	0.1629	0.1531	0.1585	0.1340	0.1442	0.1596	0.1500

LTE Band 7 (GT - LC = -0.6 dB) 64QAM			
Bandwidth	5M		
Channel	20775 (Low)	21100 (Mid)	21425 (High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	21.18	21.23	21.41
Conducted Power (Watts)	0.1312	0.1327	0.1384
EIRP(dBm)	20.58	20.63	20.81
EIRP(Watts)	0.1143	0.1156	0.1205

LTE Band 7 (GT - LC = -0.6 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20800 (Low)	21100 (Mid)	21400 (High)	20825 (Low)	21100 (Mid)	21375 (High)	20850 (Low)	21100 (Mid)	21350 (High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	21.36	21.50	21.61	21.39	21.21	21.02	20.91	21.32	21.54
Conducted Power (Watts)	0.1368	0.1413	0.1449	0.1377	0.1321	0.1265	0.1233	0.1355	0.1426
EIRP(dBm)	20.76	20.90	21.01	20.79	20.61	20.42	20.31	20.72	20.94
EIRP(Watts)	0.1191	0.1230	0.1262	0.1199	0.1151	0.1102	0.1074	0.1180	0.1242

LTE Band 12 (GT - LC = -4.5 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	23017 (Low)	23095 (Mid)	23173 (High)	23025 (Low)	23095 (Mid)	23165 (High)	23035 (Low)	23095 (Mid)	23155 (High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	22.92	22.98	23.11	22.81	22.98	22.92	22.81	22.96	23.06
Conducted Power (Watts)	0.1959	0.1986	0.2046	0.1910	0.1986	0.1959	0.1910	0.1977	0.2023
ERP(dBm)	16.27	16.33	16.46	16.16	16.33	16.27	16.16	16.31	16.41
ERP(Watts)	0.0424	0.0430	0.0443	0.0413	0.0430	0.0424	0.0413	0.0428	0.0438

LTE Band 12 (GT - LC = -4.5 dB) QPSK			
Bandwidth	10M		
Channel	23060 (Low)	23095 (Mid)	23130 (High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	23.25	23.09	23.08
Conducted Power (Watts)	0.2113	0.2037	0.2032
ERP(dBm)	16.60	16.44	16.43
ERP(Watts)	0.0457	0.0441	0.0440

LTE Band 12 (GT - LC = -4.5 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017 (Low)	23095 (Mid)	23173 (High)	23025 (Low)	23095 (Mid)	23165 (High)	23035 (Low)	23095 (Mid)	23155 (High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	22.20	22.41	22.61	22.09	22.40	22.48	22.10	22.29	22.39
Conducted Power (Watts)	0.1660	0.1742	0.1824	0.1618	0.1738	0.1770	0.1622	0.1694	0.1734
ERP(dBm)	15.55	15.76	15.96	15.44	15.75	15.83	15.45	15.64	15.74
ERP(Watts)	0.0359	0.0377	0.0394	0.0350	0.0376	0.0383	0.0351	0.0366	0.0375

LTE Band 12 (GT - LC = -4.5 dB) 16QAM			
Bandwidth	10M		
Channel	23060 (Low)	23095 (Mid)	23130 (High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.48	22.32	22.33
Conducted Power (Watts)	0.1770	0.1706	0.1710
ERP(dBm)	15.83	15.67	15.68
ERP(Watts)	0.0383	0.0369	0.0370

LTE Band 12 (GT - LC = -4.5 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017 (Low)	23095 (Mid)	23173 (High)	23025 (Low)	23095 (Mid)	23165 (High)	23035 (Low)	23095 (Mid)	23155 (High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	21.02	21.17	21.14	20.97	21.02	21.22	21.02	20.94	21.18
Conducted Power (Watts)	0.1265	0.1309	0.1300	0.1250	0.1265	0.1324	0.1265	0.1242	0.1312
ERP(dBm)	14.37	14.52	14.49	14.32	14.37	14.57	14.37	14.29	14.53
ERP(Watts)	0.0274	0.0283	0.0281	0.0270	0.0274	0.0286	0.0274	0.0269	0.0284

LTE Band 12 (GT - LC = -4.5 dB) 64QAM			
Bandwidth	10M		
Channel	23060 (Low)	23095 (Mid)	23130 (High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	21.45	21.35	21.27
Conducted Power (Watts)	0.1396	0.1365	0.1340
ERP(dBm)	14.80	14.70	14.62
ERP(Watts)	0.0302	0.0295	0.0290

LTE Band 13 (GT - LC = -4.2 dB) QPSK						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency (MHz)	779.5	782	784.5	-	782	-
Conducted Power (dBm)	22.77	22.82	22.94		23.23	-
Conducted Power (Watts)	0.1892	0.1914	0.1968		0.2104	-
ERP(dBm)	16.42	16.47	16.59		16.88	-
ERP(Watts)	0.0439	0.0444	0.0456		0.0488	-

LTE Band 13 (GT - LC = -4.2 dB) 16QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency (MHz)	779.5	782	784.5	-	782	-
Conducted Power (dBm)	22.19	22.20	22.38	-	22.33	-
Conducted Power (Watts)	0.1656	0.1660	0.1730	-	0.1710	-
ERP(dBm)	15.84	15.85	16.03	-	15.98	-
ERP(Watts)	0.0384	0.0385	0.0401	-	0.0396	-

LTE Band 13 (GT - LC = -4.2 dB) 64QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency (MHz)	779.5	782	784.5	-	782	-
Conducted Power (dBm)	20.99	21.10	21.18	-	21.39	-
Conducted Power (Watts)	0.1256	0.1288	0.1312	-	0.1377	-
ERP(dBm)	14.64	14.75	14.83	-	15.04	-
ERP(Watts)	0.0291	0.0299	0.0304	-	0.0319	-

LTE Band 25 (GT - LC = 1.2 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26407 (Low)	26340 (Mid)	26683 (High)	26055 (Low)	26340 (Mid)	26675 (High)	26065 (Low)	26340 (Mid)	26665 (High)
Frequency (MHz)	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
Conducted Power (dBm)	22.77	22.83	23.00	22.80	22.96	23.09	22.91	23.09	23.17
Conducted Power (Watts)	0.1892	0.1919	0.1995	0.1905	0.1977	0.2037	0.1954	0.2037	0.2075
EIRP(dBm)	23.97	24.03	24.20	24.00	24.16	24.29	24.11	24.29	24.37
EIRP(Watts)	0.2495	0.2529	0.2630	0.2512	0.2606	0.2685	0.2576	0.2685	0.2735

LTE Band 25 (GT - LC = 1.2 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	26090 (Low)	26340 (Mid)	26640 (High)	26115 (Low)	26340 (Mid)	26615 (High)	26140 (Low)	26340 (Mid)	26590 (High)
Frequency (MHz)	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
Conducted Power (dBm)	23.01	23.06	23.30	22.95	23.03	23.14	22.90	23.06	23.31
Conducted Power (Watts)	0.2000	0.2023	0.2138	0.1972	0.2009	0.2061	0.1950	0.2023	0.2143
EIRP(dBm)	24.21	24.26	24.50	24.15	24.23	24.34	24.10	24.26	24.51
EIRP(Watts)	0.2636	0.2667	0.2818	0.2600	0.2649	0.2716	0.2570	0.2667	0.2825

LTE Band 25 (GT - LC = 1.2 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26407 (Low)	26340 (Mid)	26683 (High)	26055 (Low)	26340 (Mid)	26675 (High)	26065 (Low)	26340 (Mid)	26665 (High)
Frequency (MHz)	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
Conducted Power (dBm)	22.01	22.76	22.22	22.05	22.08	22.33	22.15	22.22	22.36
Conducted Power (Watts)	0.1589	0.1888	0.1667	0.1603	0.1614	0.1710	0.1641	0.1667	0.1722
EIRP(dBm)	23.21	23.96	23.42	23.25	23.28	23.53	23.35	23.42	23.56
EIRP(Watts)	0.2094	0.2489	0.2198	0.2113	0.2128	0.2254	0.2163	0.2198	0.2270

LTE Band 25 (GT - LC = 1.2 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	26090 (Low)	26340 (Mid)	26640 (High)	26115 (Low)	26340 (Mid)	26615 (High)	26140 (Low)	26340 (Mid)	26590 (High)
Frequency (MHz)	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
Conducted Power (dBm)	22.21	22.17	22.43	22.17	22.35	22.46	22.12	22.39	22.45
Conducted Power (Watts)	0.1663	0.1648	0.1750	0.1648	0.1718	0.1762	0.1629	0.1734	0.1758
EIRP(dBm)	23.41	23.37	23.63	23.37	23.55	23.66	23.32	23.59	23.65
EIRP(Watts)	0.2193	0.2173	0.2307	0.2173	0.2265	0.2323	0.2148	0.2286	0.2317

LTE Band 25 (GT - LC = 1.2 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	26407 (Low)	26340 (Mid)	26683 (High)	26055 (Low)	26340 (Mid)	26675 (High)	26065 (Low)	26340 (Mid)	26665 (High)
Frequency (MHz)	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
Conducted Power (dBm)	20.99	20.96	21.19	21.02	21.03	21.22	21.11	21.20	21.27
Conducted Power (Watts)	0.1256	0.1247	0.1315	0.1265	0.1268	0.1324	0.1291	0.1318	0.1340
EIRP(dBm)	22.19	22.16	22.39	22.22	22.23	22.42	22.31	22.40	22.47
EIRP(Watts)	0.1656	0.1644	0.1734	0.1667	0.1671	0.1746	0.1702	0.1738	0.1766

LTE Band 25 (GT - LC = 1.2 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	26090 (Low)	26340 (Mid)	26640 (High)	26115 (Low)	26340 (Mid)	26615 (High)	26140 (Low)	26340 (Mid)	26590 (High)
Frequency (MHz)	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
Conducted Power (dBm)	21.19	21.14	21.37	21.20	21.35	21.39	21.22	21.28	21.36
Conducted Power (Watts)	0.1315	0.1300	0.1371	0.1318	0.1365	0.1377	0.1324	0.1343	0.1368
EIRP(dBm)	22.39	22.34	22.57	22.40	22.55	22.59	22.42	22.48	22.56
EIRP(Watts)	0.1734	0.1714	0.1807	0.1738	0.1799	0.1816	0.1746	0.1770	0.1803

LTE Band 26 (GT - LC = -3.5 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26797 (Low)	26915 (Mid)	27033 (High)	26805 (Low)	26915 (Mid)	27025 (High)	26815 (Low)	26915 (Mid)	27015 (High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.32	22.48	22.17	22.44	22.47	22.51	22.29	22.26	22.33
Conducted Power (Watts)	0.1706	0.1770	0.1648	0.1754	0.1766	0.1782	0.1694	0.1683	0.1710
ERP(dBm)	16.67	16.83	16.52	16.79	16.82	16.86	16.64	16.61	16.68
ERP(Watts)	0.0465	0.0482	0.0449	0.0478	0.0481	0.0485	0.0461	0.0458	0.0466

LTE Band 26 (GT - LC = -3.5 dB) QPSK							
Bandwidth	10M			15M			15M
Channel	26840 (Low)	26915 (Mid)	26990 (High)	26865 (Low)	26915 (Mid)	26965 (High)	26765 (Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	22.25	22.34	22.38	22.55	22.52	22.36	22.50
Conducted Power (Watts)	0.1679	0.1714	0.1730	0.1799	0.1786	0.1722	0.1778
ERP(dBm)	16.60	16.69	16.73	16.90	16.87	16.71	16.85
ERP(Watts)	0.0457	0.0467	0.0471	0.0490	0.0486	0.0469	0.0484

LTE Band 26 (GT - LC = -3.5 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797 (Low)	26915 (Mid)	27033 (High)	26805 (Low)	26915 (Mid)	27025 (High)	26815 (Low)	26915 (Mid)	27015 (High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	21.92	21.97	21.74	21.68	21.64	21.71	21.51	21.56	21.59
Conducted Power (Watts)	0.1556	0.1574	0.1493	0.1472	0.1459	0.1483	0.1416	0.1432	0.1442
ERP(dBm)	16.27	16.32	16.09	16.03	15.99	16.06	15.86	15.91	15.94
ERP(Watts)	0.0424	0.0429	0.0406	0.0401	0.0397	0.0404	0.0385	0.0390	0.0393

LTE Band 26 (GT - LC = -3.5 dB) 16QAM							
Bandwidth	10M			15M			15M
Channel	26840 (Low)	26915 (Mid)	26990 (High)	26865 (Low)	26915 (Mid)	26965 (High)	26765 (Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	21.39	21.46	21.36	21.73	21.70	21.70	21.72
Conducted Power (Watts)	0.1377	0.1400	0.1368	0.1489	0.1479	0.1479	0.1486
ERP(dBm)	15.74	15.81	15.71	16.08	16.05	16.05	16.07
ERP(Watts)	0.0375	0.0381	0.0372	0.0406	0.0403	0.0403	0.0405

LTE Band 26 (GT - LC = -3.5 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797 (Low)	26915 (Mid)	27033 (High)	26805 (Low)	26915 (Mid)	27025 (High)	26815 (Low)	26915 (Mid)	27015 (High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	20.60	20.71	20.26	20.66	20.61	20.67	20.55	20.62	20.64
Conducted Power (Watts)	0.1148	0.1178	0.1062	0.1164	0.1151	0.1167	0.1135	0.1153	0.1159
ERP(dBm)	14.95	15.06	14.61	15.01	14.96	15.02	14.90	14.97	14.99
ERP(Watts)	0.0313	0.0321	0.0289	0.0317	0.0313	0.0318	0.0309	0.0314	0.0316

LTE Band 26 (GT - LC = -3.5 dB) 64QAM							
Bandwidth	10M			15M			15M
Channel	26840 (Low)	26915 (Mid)	26990 (High)	26865 (Low)	26915 (Mid)	26965 (High)	26765 (Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	20.51	20.62	20.46	20.84	20.81	20.64	20.79
Conducted Power (Watts)	0.1125	0.1153	0.1112	0.1213	0.1205	0.1159	0.1199
ERP(dBm)	14.86	14.97	14.81	15.19	15.16	14.99	15.14
ERP(Watts)	0.0306	0.0314	0.0303	0.0330	0.0328	0.0316	0.0327

LTE Band 41 (GT - LC = 0.1 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	39675 (Low)	40620 (Mid)	41565 (High)	39700 (Low)	40620 (Mid)	41540 (High)	39725 (Low)	40620 (Mid)	41515 (High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	25.28	25.37	25.66	25.32	25.66	25.75	25.27	25.57	24.97
Conducted Power (Watts)	0.3373	0.3443	0.3681	0.3404	0.3681	0.3758	0.3365	0.3606	0.3141
EIRP(dBm)	25.38	25.47	25.76	25.42	25.76	25.85	25.37	25.67	25.07
EIRP(Watts)	0.3451	0.3524	0.3767	0.3483	0.3767	0.3846	0.3443	0.3690	0.3214

LTE Band 41 (GT - LC = 0.1 dB) QPSK			
Bandwidth	20M		
Channel	39750 (Low)	40620 (Mid)	41490 (High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	24.72	25.48	24.89
Conducted Power (Watts)	0.2965	0.3532	0.3083
EIRP(dBm)	24.82	25.58	24.99
EIRP(Watts)	0.3034	0.3614	0.3155

LTE Band 41 (GT - LC = 0.1 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	39675 (Low)	40620 (Mid)	41565 (High)	39700 (Low)	40620 (Mid)	41540 (High)	39725 (Low)	40620 (Mid)	41515 (High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	23.09	23.83	23.96	23.44	23.86	23.90	23.39	23.39	23.88
Conducted Power (Watts)	0.2037	0.2415	0.2489	0.2208	0.2432	0.2455	0.2183	0.2183	0.2443
EIRP(dBm)	23.19	23.93	24.06	23.54	23.96	24.00	23.49	23.49	23.98
EIRP(Watts)	0.2084	0.2472	0.2547	0.2259	0.2489	0.2512	0.2234	0.2234	0.2500

LTE Band 41 (GT - LC = 0.1 dB) 16QAM			
Bandwidth	20M		
Channel	39750 (Low)	40620 (Mid)	41490 (High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	23.57	24.02	23.89
Conducted Power (Watts)	0.2275	0.2523	0.2449
EIRP(dBm)	23.67	24.12	23.99
EIRP(Watts)	0.2328	0.2582	0.2506

LTE Band 41 (GT - LC = 0.1 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	39675 (Low)	40620 (Mid)	41565 (High)	39700 (Low)	40620 (Mid)	41540 (High)	39725 (Low)	40620 (Mid)	41515 (High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	22.01	22.83	22.91	22.58	22.91	22.05	22.35	22.73	22.90
Conducted Power (Watts)	0.1589	0.1919	0.1954	0.1811	0.1954	0.1603	0.1718	0.1875	0.1950
EIRP(dBm)	22.11	22.93	23.01	22.68	23.01	22.15	22.45	22.83	23.00
EIRP(Watts)	0.1626	0.1963	0.2000	0.1854	0.2000	0.1641	0.1758	0.1919	0.1995

LTE Band 41 (GT - LC = 0.1 dB) 64QAM			
Bandwidth	20M		
Channel	39750 (Low)	40620 (Mid)	41490 (High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	22.67	22.88	22.94
Conducted Power (Watts)	0.1849	0.1941	0.1968
EIRP(dBm)	22.77	22.98	23.04
EIRP(Watts)	0.1892	0.1986	0.2014

LTE Band 66 (GT - LC = 1.2 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	131979 (Low)	132322 (Mid)	132665 (High)	131987 (Low)	132322 (Mid)	132657 (High)	131997 (Low)	132322 (Mid)	132647 (High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	22.79	23.02	22.89	22.96	23.05	22.94	22.94	22.97	23.08
Conducted Power (Watts)	0.1901	0.2004	0.1945	0.1977	0.2018	0.1968	0.1968	0.1982	0.2032
EIRP(dBm)	23.99	24.22	24.09	24.16	24.25	24.14	24.14	24.17	24.28
EIRP(Watts)	0.2506	0.2642	0.2564	0.2606	0.2661	0.2594	0.2594	0.2612	0.2679

LTE Band 66 (GT - LC = 1.2 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	132022 (Low)	132322 (Mid)	132622 (High)	132047 (Low)	132322 (Mid)	132597 (High)	132072 (Low)	132322 (Mid)	132572 (Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	23.20	23.12	23.01	23.13	23.23	23.29	23.30	23.24	23.06
Conducted Power (Watts)	0.2089	0.2051	0.2000	0.2056	0.2104	0.2133	0.2138	0.2109	0.2023
EIRP(dBm)	24.40	24.32	24.21	24.33	24.43	24.49	24.50	24.44	24.26
EIRP(Watts)	0.2754	0.2704	0.2636	0.2710	0.2773	0.2812	0.2818	0.2780	0.2667

LTE Band 66 (GT - LC = 1.2 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979 (Low)	132322 (Mid)	132665 (High)	131987 (Low)	132322 (Mid)	132657 (High)	131997 (Low)	132322 (Mid)	132647 (High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	22.08	22.24	22.13	22.17	22.32	22.21	22.32	22.33	22.36
Conducted Power (Watts)	0.1614	0.1675	0.1633	0.1648	0.1706	0.1663	0.1706	0.1710	0.1722
EIRP(dBm)	23.28	23.44	23.33	23.37	23.52	23.41	23.52	23.53	23.56
EIRP(Watts)	0.2128	0.2208	0.2153	0.2173	0.2249	0.2193	0.2249	0.2254	0.2270

LTE Band 66 (GT - LC = 1.2 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	132022 (Low)	132322 (Mid)	132622 (High)	132047 (Low)	132322 (Mid)	132597 (High)	132072 (Low)	132322 (Mid)	132572 (Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	22.42	22.48	22.28	22.50	22.52	22.72	22.59	22.43	22.31
Conducted Power (Watts)	0.1746	0.1770	0.1690	0.1778	0.1786	0.1871	0.1816	0.1750	0.1702
EIRP(dBm)	23.62	23.68	23.48	23.70	23.72	23.92	23.79	23.63	23.51
EIRP(Watts)	0.2301	0.2333	0.2228	0.2344	0.2355	0.2466	0.2393	0.2307	0.2244

LTE Band 66 (GT - LC = 1.2 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979 (Low)	132322 (Mid)	132665 (High)	131987 (Low)	132322 (Mid)	132657 (High)	131997 (Low)	132322 (Mid)	132647 (High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	21.02	21.18	21.11	21.10	21.28	21.19	21.14	21.25	21.30
Conducted Power (Watts)	0.1265	0.1312	0.1291	0.1288	0.1343	0.1315	0.1300	0.1334	0.1349
EIRP(dBm)	22.22	22.38	22.31	22.30	22.48	22.39	22.34	22.45	22.50
EIRP(Watts)	0.1667	0.1730	0.1702	0.1698	0.1770	0.1734	0.1714	0.1758	0.1778

LTE Band 66 (GT - LC = 1.2 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	132022 (Low)	132322 (Mid)	132622 (High)	132047 (Low)	132322 (Mid)	132597 (High)	132072 (Low)	132322 (Mid)	132572 (Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	21.33	21.40	21.16	21.43	21.55	21.53	21.34	21.22	21.12
Conducted Power (Watts)	0.1358	0.1380	0.1306	0.1390	0.1429	0.1422	0.1361	0.1324	0.1294
EIRP(dBm)	22.53	22.60	22.36	22.63	22.75	22.73	22.54	22.42	22.32
EIRP(Watts)	0.1791	0.1820	0.1722	0.1832	0.1884	0.1875	0.1795	0.1746	0.1706

LTE Band 71 (GT - LC = -5.3 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	133147 (Low)	133297 (Mid)	133447 (High)	133172 (Low)	133297 (Mid)	133422 (High)	133197 (Low)	133297 (Mid)	133397 (High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	23.97	23.91	23.82	23.93	23.79	23.98	23.60	23.94	23.88
Conducted Power (Watts)	0.2495	0.2460	0.2410	0.2472	0.2393	0.2500	0.2291	0.2477	0.2443
ERP(dBm)	16.52	16.46	16.37	16.48	16.34	16.53	16.15	16.49	16.43
ERP(Watts)	0.0449	0.0443	0.0434	0.0445	0.0431	0.0450	0.0412	0.0446	0.0440

LTE Band 71 (GT - LC = -5.3 dB) QPSK			
Bandwidth	20M		
Channel	133222 (Low)	133297 (Mid)	133372 (High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	23.86	23.99	23.70
Conducted Power (Watts)	0.2432	0.2506	0.2344
ERP(dBm)	16.41	16.54	16.25
ERP(Watts)	0.0438	0.0451	0.0422

LTE Band 71 (GT - LC = -5.3 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	133147 (Low)	133297 (Mid)	133447 (High)	133172 (Low)	133297 (Mid)	133422 (High)	133197 (Low)	133297 (Mid)	133397 (High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	22.52	22.01	22.65	22.93	22.89	22.76	22.58	22.45	22.90
Conducted Power (Watts)	0.1786	0.1589	0.1841	0.1963	0.1945	0.1888	0.1811	0.1758	0.1950
ERP(dBm)	15.07	14.56	15.20	15.48	15.44	15.31	15.13	15.00	15.45
ERP(Watts)	0.0321	0.0286	0.0331	0.0353	0.0350	0.0340	0.0326	0.0316	0.0351

LTE Band 71 (GT - LC = -5.3 dB) 16QAM			
Bandwidth	20M		
Channel	133222 (Low)	133297 (Mid)	133372 (High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	22.65	22.27	22.82
Conducted Power (Watts)	0.1841	0.1687	0.1914
ERP(dBm)	15.20	14.82	15.37
ERP(Watts)	0.0331	0.0303	0.0344

LTE Band 71 (GT - LC = -5.3 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	133147 (Low)	133297 (Mid)	133447 (High)	133172 (Low)	133297 (Mid)	133422 (High)	133197 (Low)	133297 (Mid)	133397 (High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	21.56	21.98	21.65	22.32	21.82	21.89	21.94	21.97	21.98
Conducted Power (Watts)	0.1432	0.1578	0.1462	0.1706	0.1521	0.1545	0.1563	0.1574	0.1578
ERP(dBm)	14.11	14.53	14.20	14.87	14.37	14.44	14.49	14.52	14.53
ERP(Watts)	0.0258	0.0284	0.0263	0.0307	0.0274	0.0278	0.0281	0.0283	0.0284

LTE Band 71 (GT - LC = -5.3 dB) 64QAM			
Bandwidth	20M		
Channel	133222 (Low)	133297 (Mid)	133372 (High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	21.80	21.77	21.97
Conducted Power (Watts)	0.1514	0.1503	0.1574
ERP(dBm)	14.35	14.32	14.52
ERP(Watts)	0.0272	0.0270	0.0283

CA EIRP

LTE Band 41 CA (GT - LC = 0.1 dB) QPSK									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.67	20.42	20.54	23.18	20.67	21	23.39	22.27	22.31
Conducted Power (Watts)	0.1167	0.1102	0.1132	0.2080	0.1167	0.1259	0.2183	0.1687	0.1702
EIRP(dBm)	20.77	20.52	20.64	23.28	20.77	21.10	23.49	22.37	22.41
EIRP(Watts)	0.1194	0.1127	0.1159	0.2128	0.1194	0.1288	0.2234	0.1726	0.1742

LTE Band 41 CA (GT - LC = 0.1 dB) QPSK									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.10	23.14	22.87	22.00	20.38	23.43	22.83	22.67	23.17
Conducted Power (Watts)	0.2042	0.2061	0.1936	0.1585	0.1091	0.2203	0.1919	0.1849	0.2075
EIRP(dBm)	23.20	23.24	22.97	22.10	20.48	23.53	22.93	22.77	23.27
EIRP(Watts)	0.2089	0.2109	0.1982	0.1622	0.1117	0.2254	0.1963	0.1892	0.2123

LTE Band 41 CA (GT - LC = 0.1 dB) QPSK						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750 (Low)	40546 (Mid)	41341 (High)	39750 (Low)	40521 (Mid)	41292 (High)
Channel SCC	39921 (Low)	40717 (Mid)	41512 (High)	39948 (Low)	40719 (Mid)	41490 (High)
Conducted Power (dBm)	22.95	23.05	19.77	19.68	23.67	22.42
Conducted Power (Watts)	0.1972	0.2018	0.0948	0.0929	0.2328	0.1746
EIRP(dBm)	23.05	23.15	19.87	19.78	23.77	22.52
EIRP(Watts)	0.2018	0.2065	0.0971	0.0951	0.2382	0.1786

LTE Band 41 CA (GT - LC = 0.1 dB) QPSK						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725 (Low)	40571 (Mid)	41417 (High)	39703 (Low)	40549 (Mid)	41395 (High)
Channel SCC	39845 (Low)	40691 (Mid)	41537 (High)	39823 (Low)	40669 (Mid)	41490 (High)
Conducted Power (dBm)	20.89	20.61	20.03	20.90	20.64	19.89
Conducted Power (Watts)	0.1227	0.1151	0.1007	0.1230	0.1159	0.0975
EIRP(dBm)	20.99	20.71	20.13	21.00	20.74	19.99
EIRP(Watts)	0.1256	0.1178	0.1030	0.1259	0.1186	0.0998

LTE Band 41 CA (GT - LC = 0.1 dB) 16QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.14	19.9	20.08	22.56	20.12	20.56	22.70	21.15	21.41
Conducted Power (Watts)	0.1033	0.0977	0.1019	0.1803	0.1028	0.1138	0.1862	0.1303	0.1384
EIRP(dBm)	20.24	20.00	20.18	22.66	20.22	20.66	22.80	21.25	21.51
EIRP(Watts)	0.1057	0.1000	0.1042	0.1845	0.1052	0.1164	0.1905	0.1334	0.1416

LTE Band 41 CA (GT - LC = 0.1 dB) 16QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.26	22.48	22.53	22.09	20.54	22.83	21.95	22.01	22.63
Conducted Power (Watts)	0.1683	0.1770	0.1791	0.1618	0.1132	0.1919	0.1567	0.1589	0.1832
EIRP(dBm)	22.36	22.58	22.63	22.19	20.64	22.93	22.05	22.11	22.73
EIRP(Watts)	0.1722	0.1811	0.1832	0.1656	0.1159	0.1963	0.1603	0.1626	0.1875

LTE Band 41 CA (GT - LC = 0.1 dB) 16QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.91	22.2	19.1	18.65	22.12	22.02
Conducted Power (Watts)	0.1552	0.1660	0.0813	0.0733	0.1629	0.1592
EIRP(dBm)	22.01	22.30	19.20	18.75	22.22	22.12
EIRP(Watts)	0.1589	0.1698	0.0832	0.0750	0.1667	0.1629

LTE Band 41 CA (GT - LC = 0.1 dB) 16QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.85	20.65	20.03	20.89	20.62	19.86
Conducted Power (Watts)	0.1216	0.1161	0.1007	0.1227	0.1153	0.0968
EIRP(dBm)	20.95	20.75	20.13	20.99	20.72	19.96
EIRP(Watts)	0.1245	0.1189	0.1030	0.1256	0.1180	0.0991

LTE Band 41 CA (GT - LC = 0.1 dB) 64QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	18.89	18.8	18.92	20.38	19.13	19.4	20.42	18.51	18.92
Conducted Power (Watts)	0.0774	0.0759	0.0780	0.1091	0.0818	0.0871	0.1102	0.0710	0.0780
EIRP(dBm)	18.99	18.90	19.02	20.48	19.23	19.50	20.52	18.61	19.02
EIRP(Watts)	0.0793	0.0776	0.0798	0.1117	0.0838	0.0891	0.1127	0.0726	0.0798

LTE Band 41 CA (GT - LC = 0.1 dB) 64QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.62	20.32	20.3	20.28	18.57	20.55	20.03	20.27	20.78
Conducted Power (Watts)	0.1153	0.1076	0.1072	0.1067	0.0719	0.1135	0.1007	0.1064	0.1197
EIRP(dBm)	20.72	20.42	20.40	20.38	18.67	20.65	20.13	20.37	20.88
EIRP(Watts)	0.1180	0.1102	0.1096	0.1091	0.0736	0.1161	0.1030	0.1089	0.1225

LTE Band 41 CA (GT - LC = 0.1 dB) 64QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.89	20.33	18.4	18.66	23.01	21.65
Conducted Power (Watts)	0.0975	0.1079	0.0692	0.0735	0.2000	0.1462
EIRP(dBm)	19.99	20.43	18.50	18.76	23.11	21.75
EIRP(Watts)	0.0998	0.1104	0.0708	0.0752	0.2046	0.1496

LTE Band 41 CA (GT - LC = 0.1 dB) 64QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.87	20.62	20.06	20.89	20.66	19.72
Conducted Power (Watts)	0.1222	0.1153	0.1014	0.1227	0.1164	0.0938
EIRP(dBm)	20.97	20.72	20.16	20.99	20.76	19.82
EIRP(Watts)	0.1250	0.1180	0.1038	0.1256	0.1191	0.0959

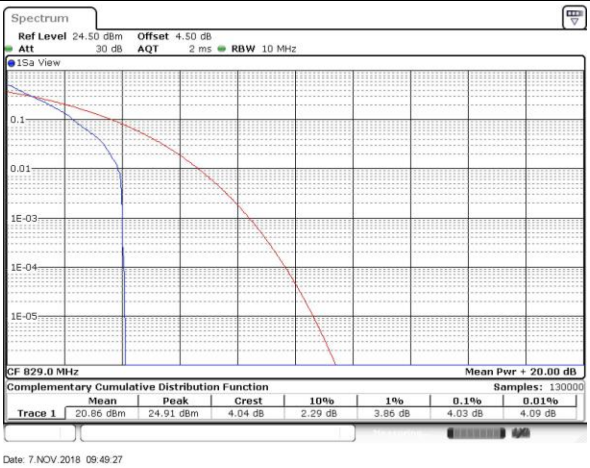
LTE Band 5

Peak-to-Average Ratio

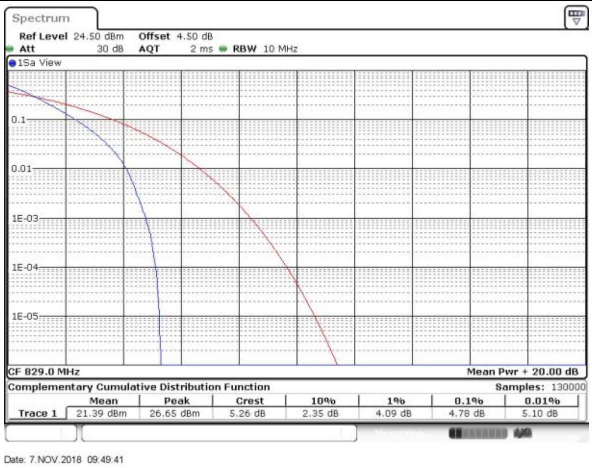
Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.03	4.78	4.81	5.59	PASS
Middle CH	4.32	4.75	5.19	5.71	
Highest CH	4.17	4.7	5.16	5.45	
Mode	LTE Band 5 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.8	6			PASS
Middle CH	5.91	6.03			
Highest CH	5.97	5.86			

LTE Band 5 / 10MHz / QPSK

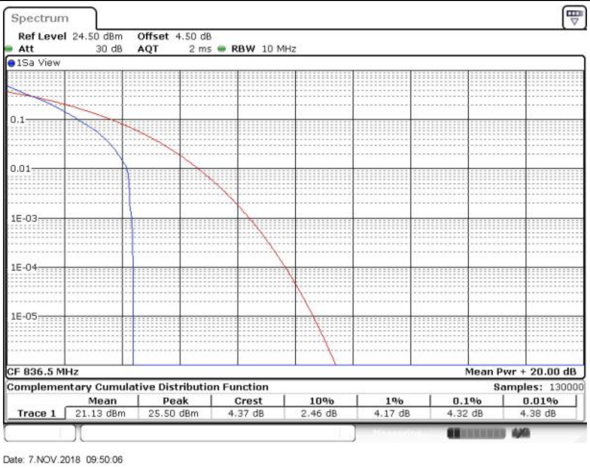
Lowest Channel / 1RB



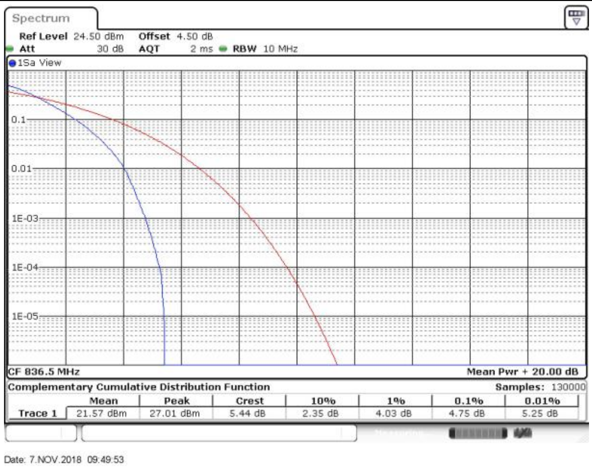
Lowest Channel / Full RB



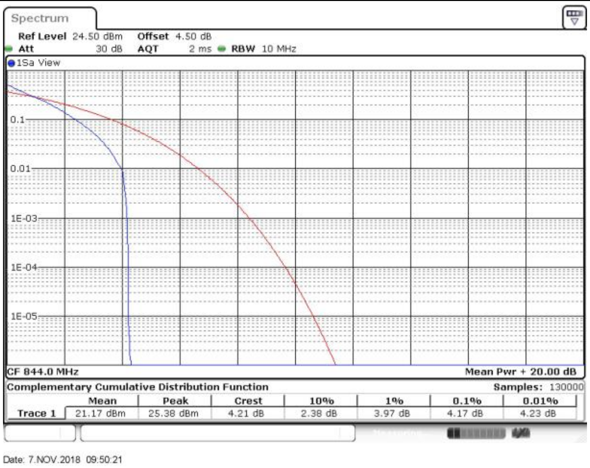
Middle Channel / 1RB



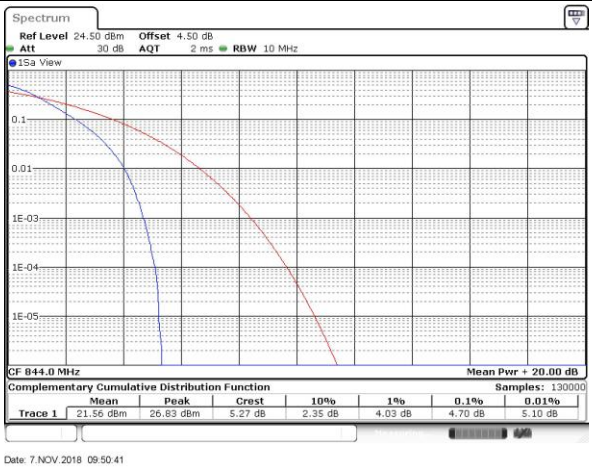
Middle Channel / Full RB



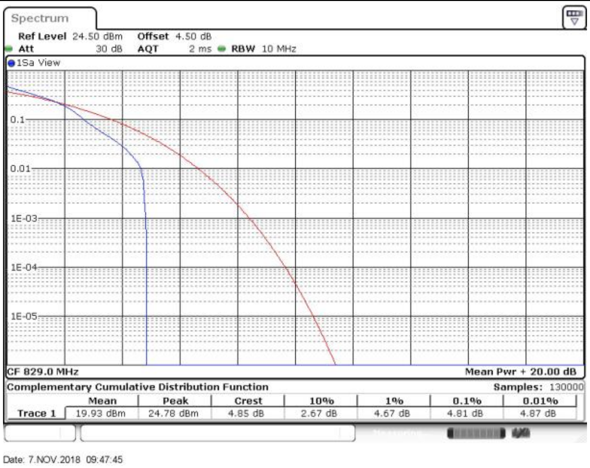
Highest Channel / 1RB

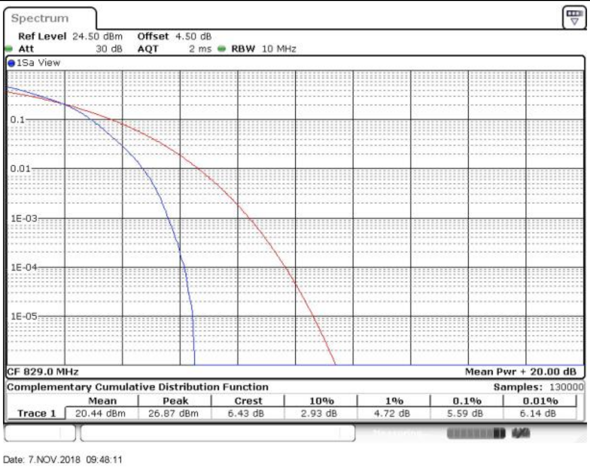


Highest Channel / Full RB

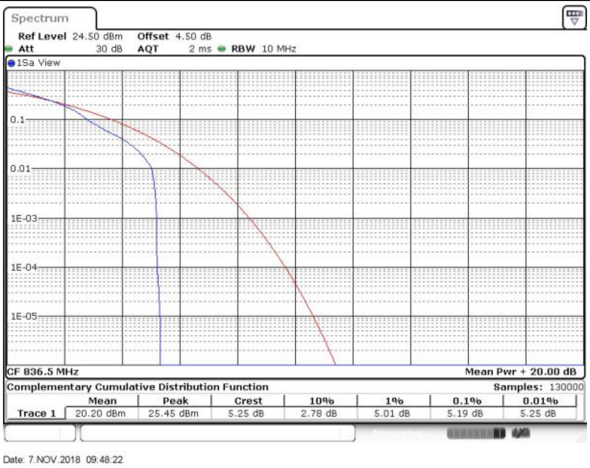


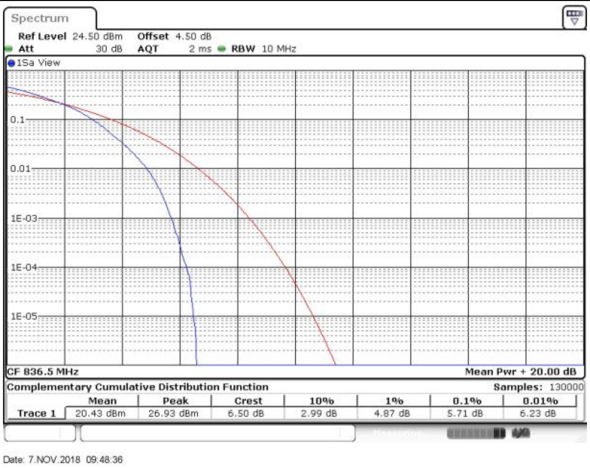
LTE Band 5 / 10MHz / 16QAM	
Lowest Channel / 1RB	Lowest Channel / Full RB



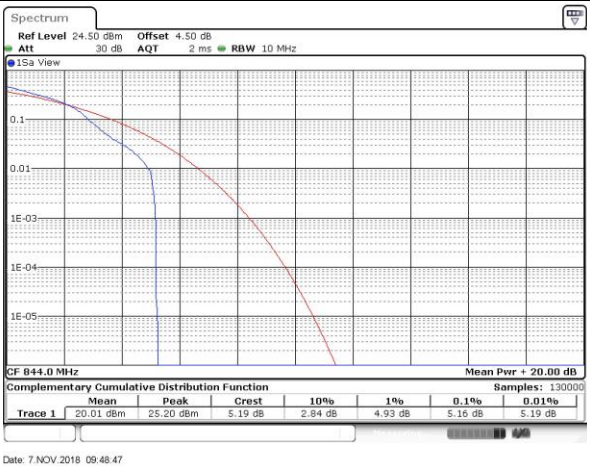


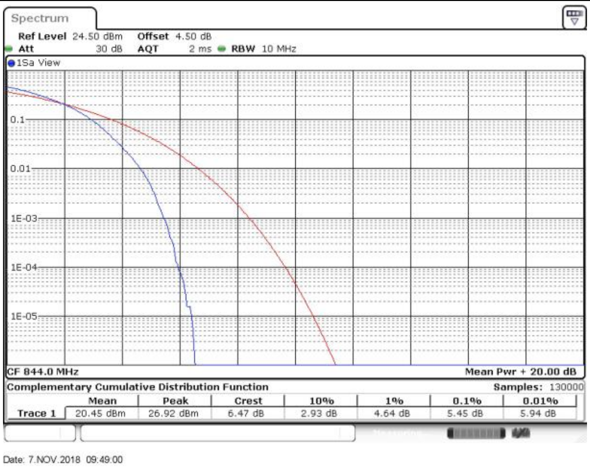
Middle Channel / 1RB	Middle Channel / Full RB





Highest Channel / 1RB	Highest Channel / Full RB

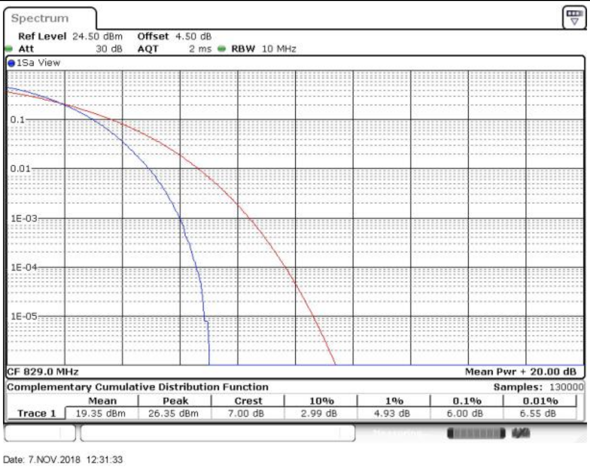




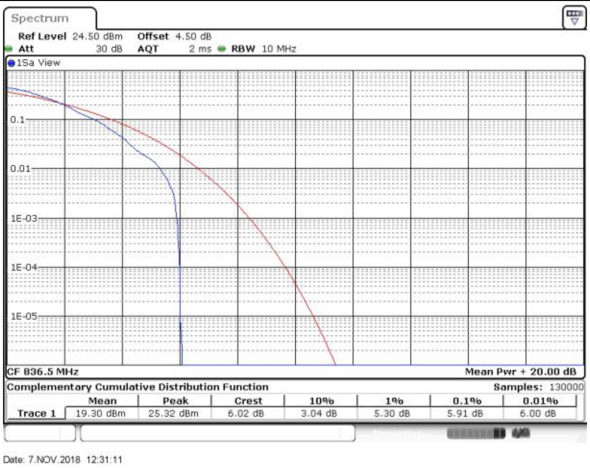
LTE Band 5 / 10MHz / 64QAM

Lowest Channel / 1RB

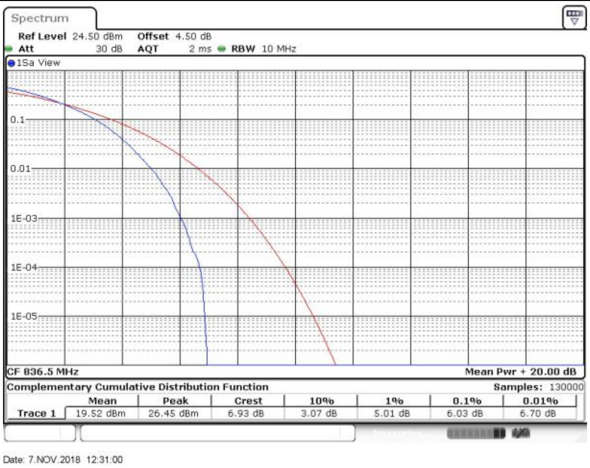
Lowest Channel / Full RB



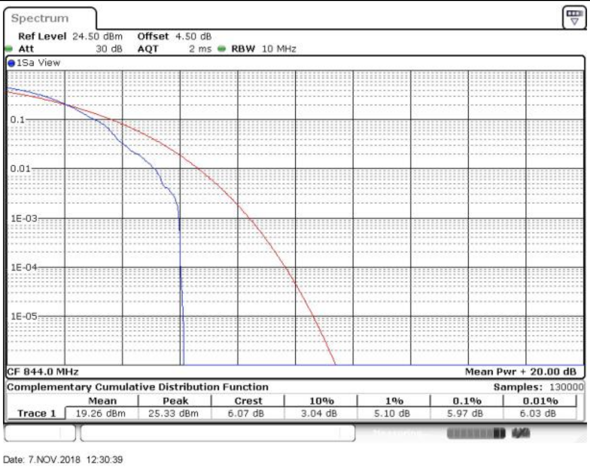
Middle Channel / 1RB



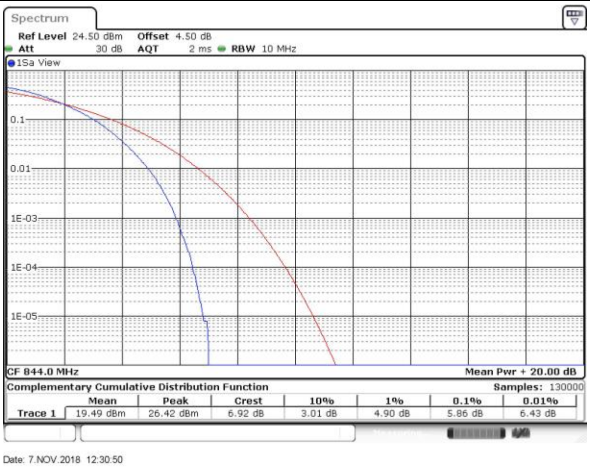
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

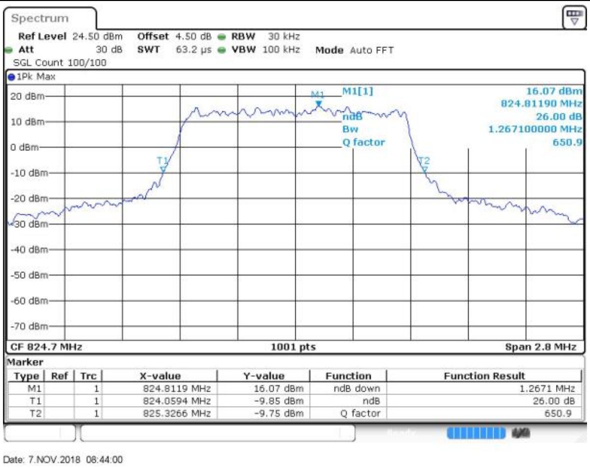


26dB Bandwidth

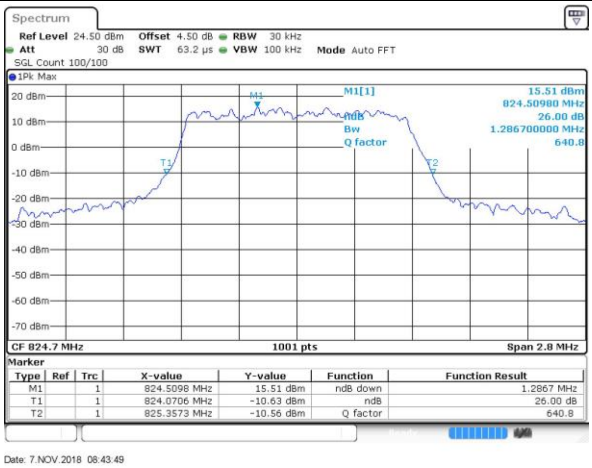
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Lowest CH	1.2671	1.2867	3.045	3.003	5.025	4.905	9.83	9.85				
Middle CH	1.2727	1.2811	2.985	2.997	4.955	4.945	9.89	9.67				
Highest CH	1.2755	1.3007	2.985	2.997	4.955	4.895	9.73	9.85				
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	1.2811		2.997		4.925		9.89					
Middle CH	1.2755		3.027		4.905		10.01					
Highest CH	1.2755		3.021		4.905		9.71					

LTE Band 5

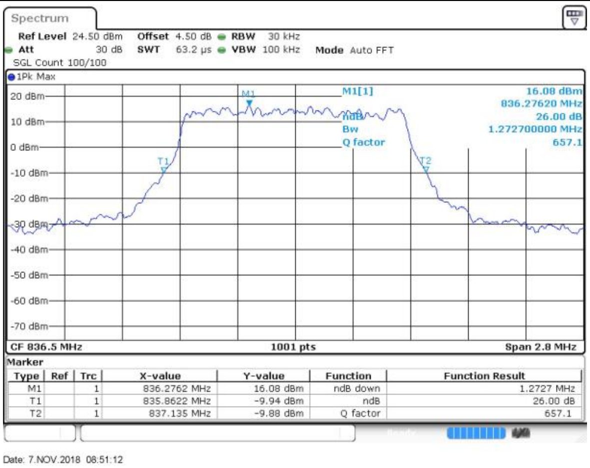
Lowest Channel / 1.4MHz / QPSK



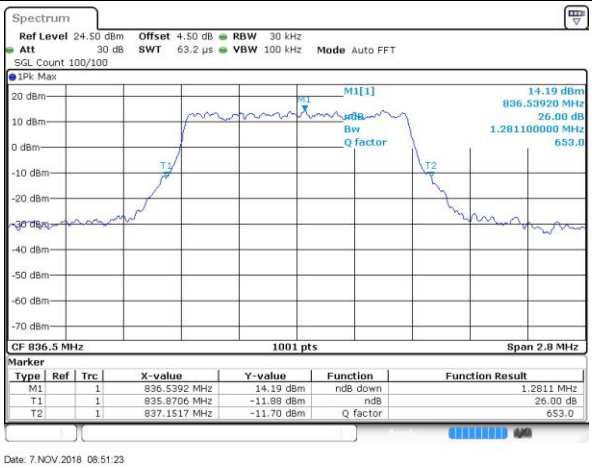
Lowest Channel / 1.4MHz / 16QAM



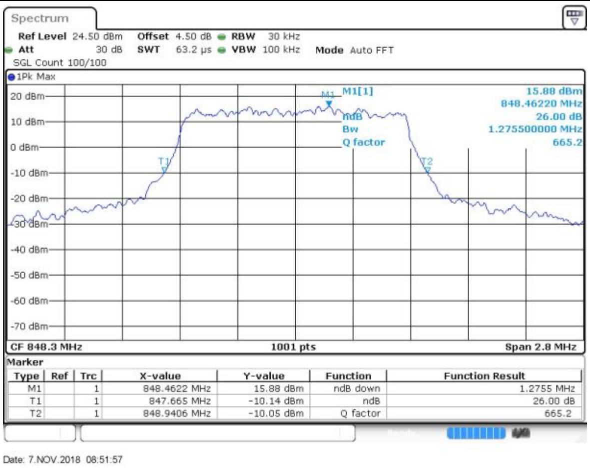
Middle Channel / 1.4MHz / QPSK



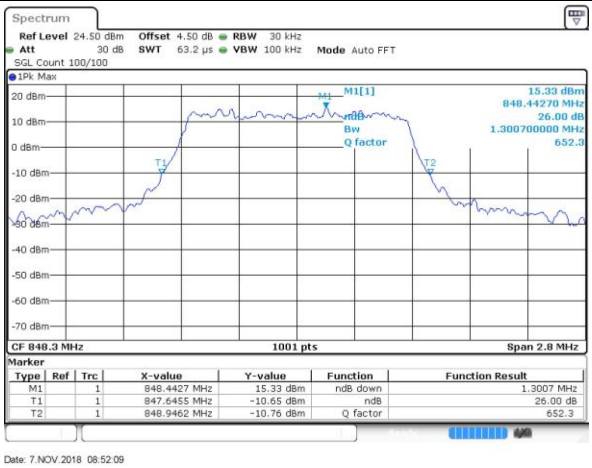
Middle Channel / 1.4MHz / 16QAM

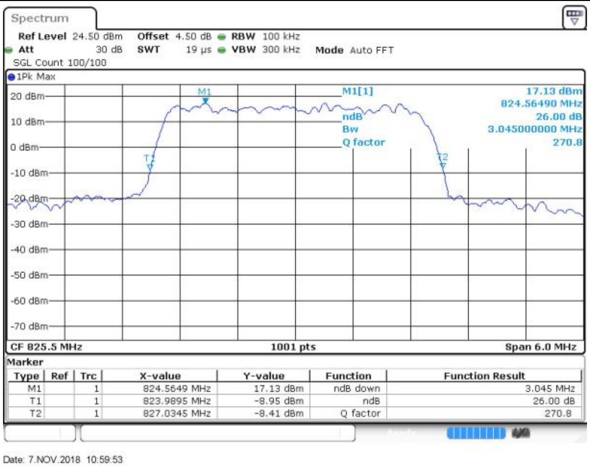
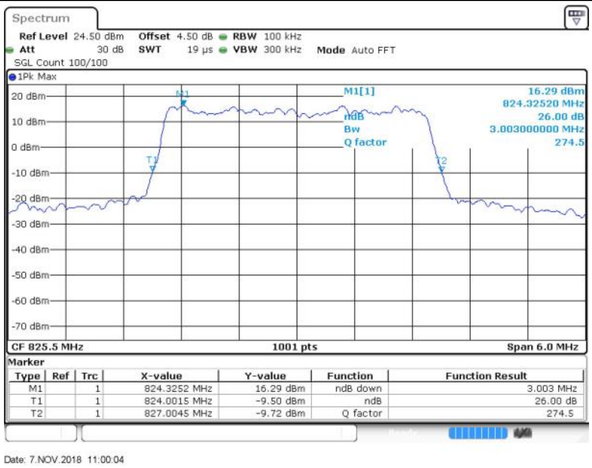
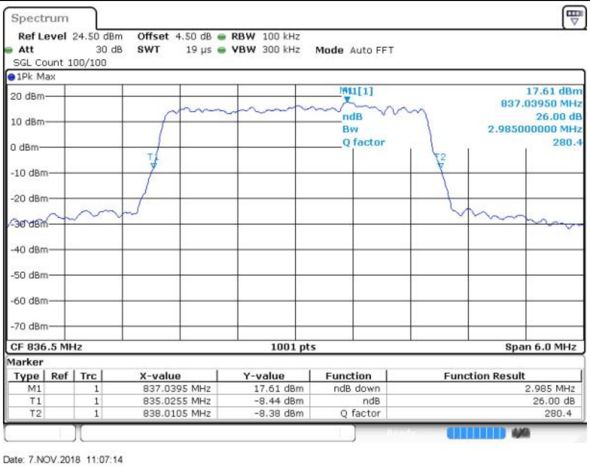
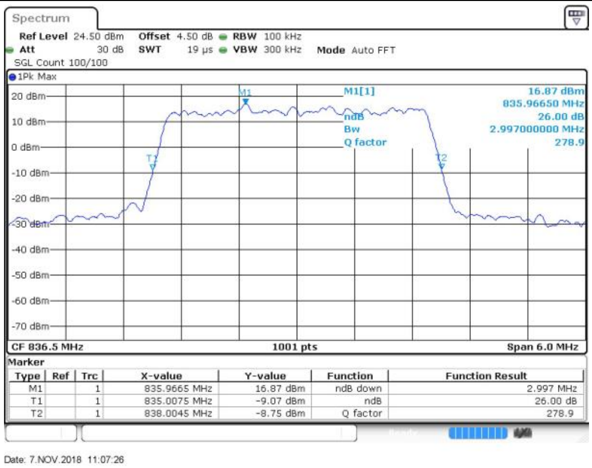
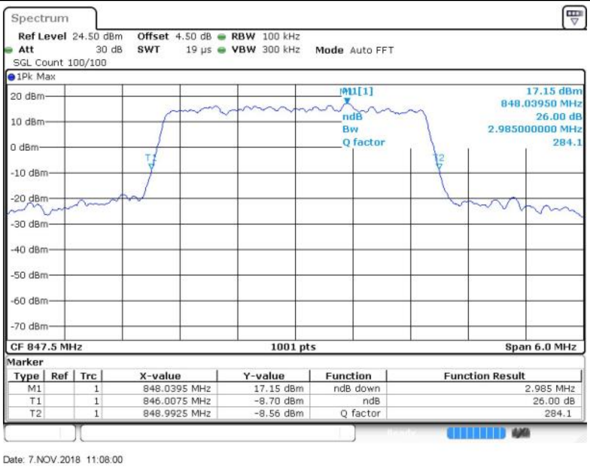
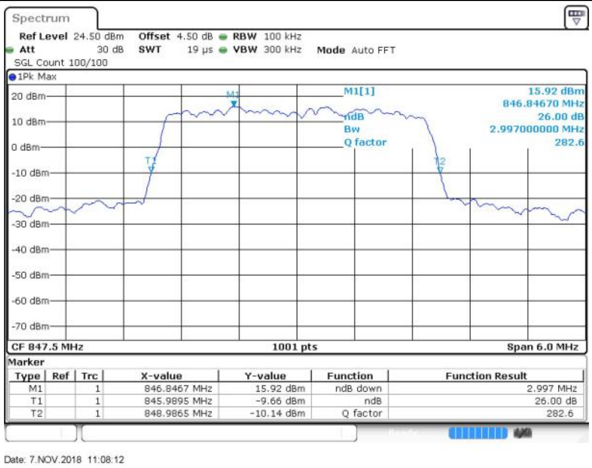


Highest Channel / 1.4MHz / QPSK



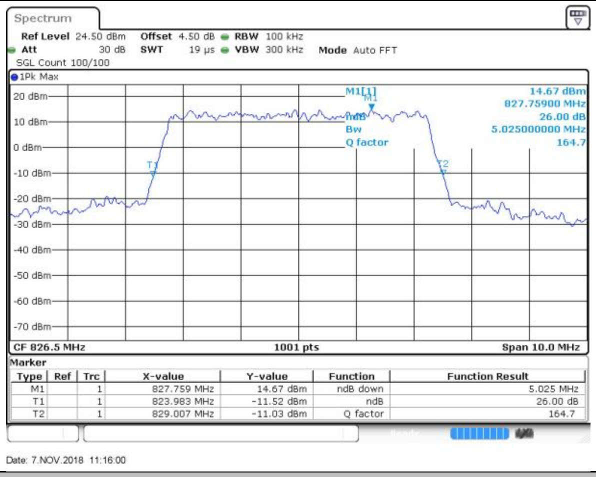
Highest Channel / 1.4MHz / 16QAM



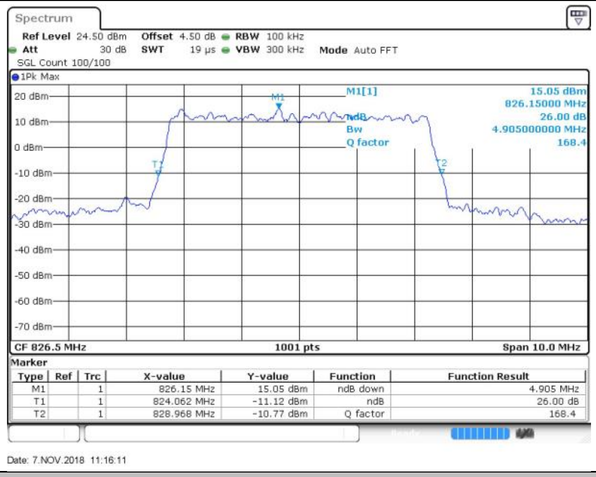
LTE Band 5	
Lowest Channel / 3MHz / QPSK	Lowest Channel / 3MHz / 16QAM
	
Middle Channel / 3MHz / QPSK	Middle Channel / 3MHz / 16QAM
	
Highest Channel / 3MHz / QPSK	Highest Channel / 3MHz / 16QAM
	

LTE Band 5

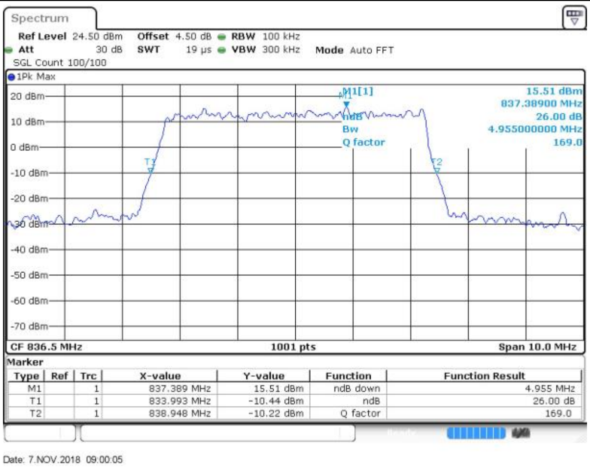
Lowest Channel / 5MHz / QPSK



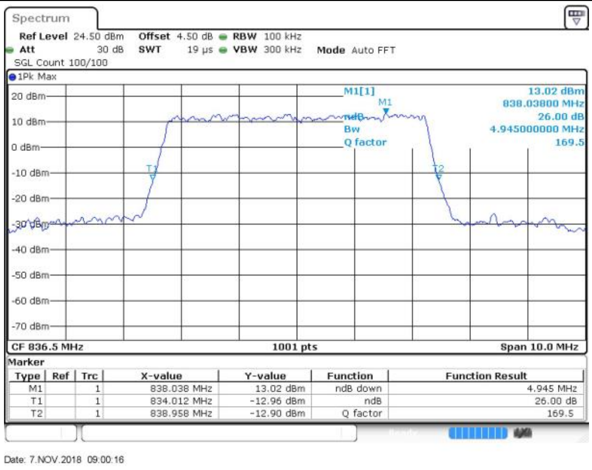
Lowest Channel / 5MHz / 16QAM



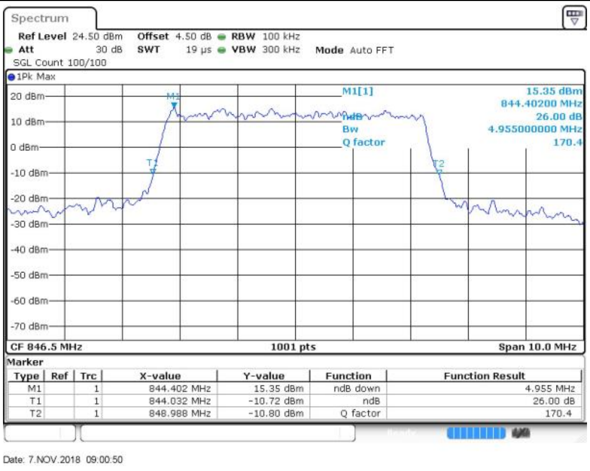
Middle Channel / 5MHz / QPSK



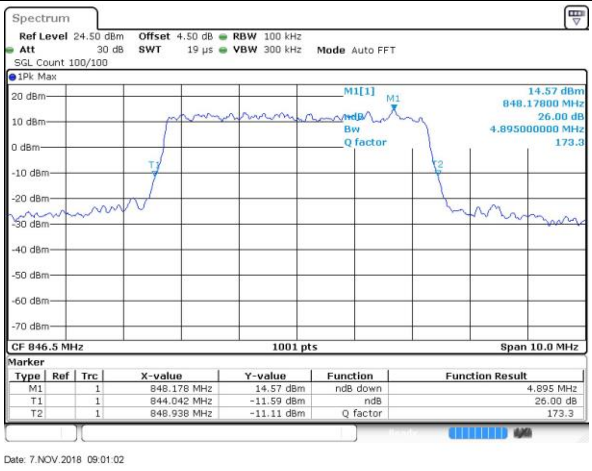
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

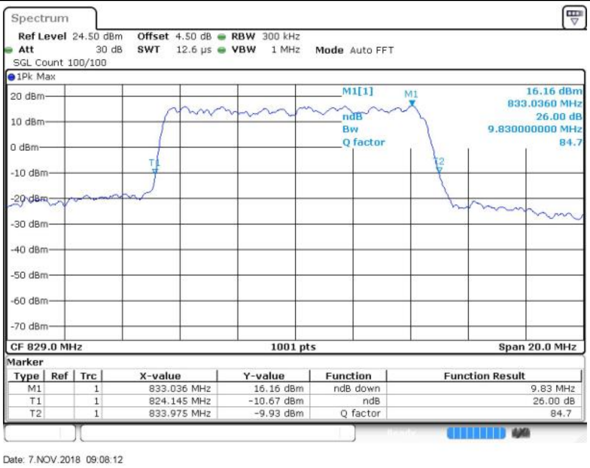


Highest Channel / 5MHz / 16QAM

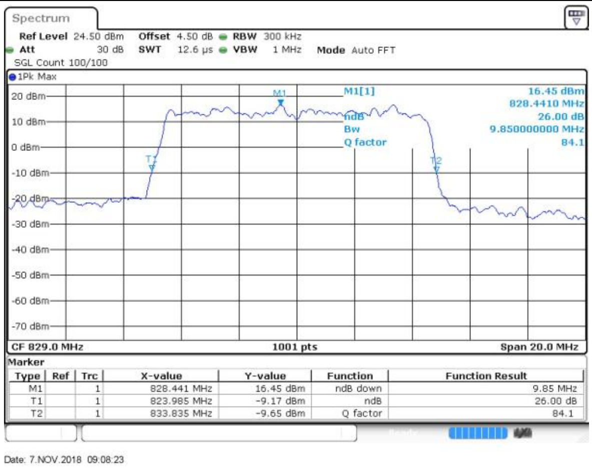


LTE Band 5

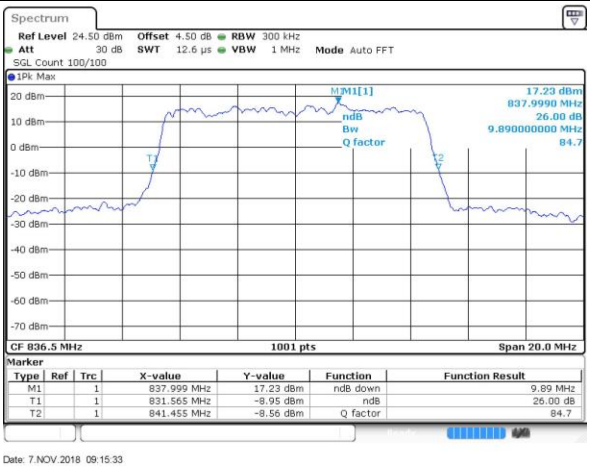
Lowest Channel / 10MHz / QPSK



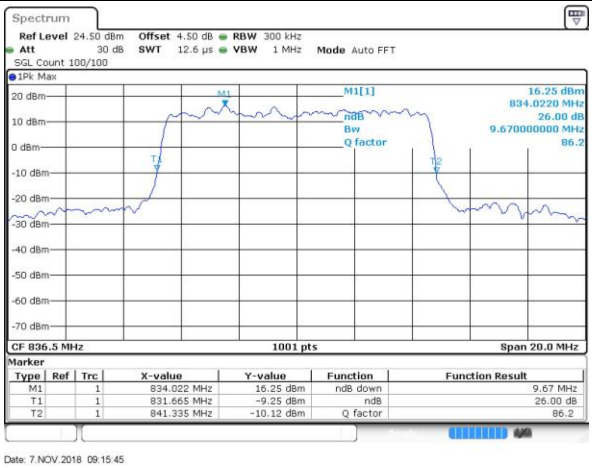
Lowest Channel / 10MHz / 16QAM



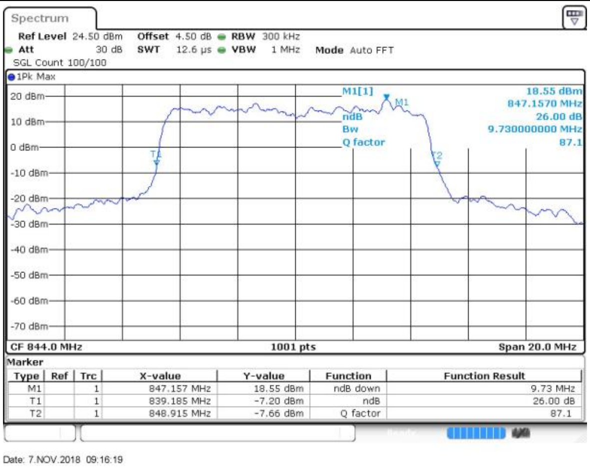
Middle Channel / 10MHz / QPSK



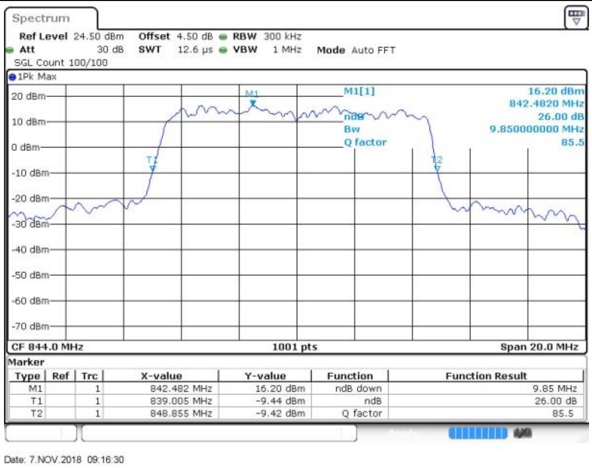
Middle Channel / 10MHz / 16QAM



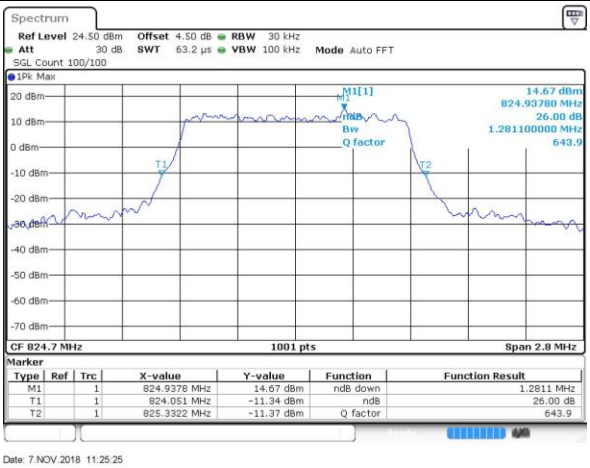
Highest Channel / 10MHz / QPSK

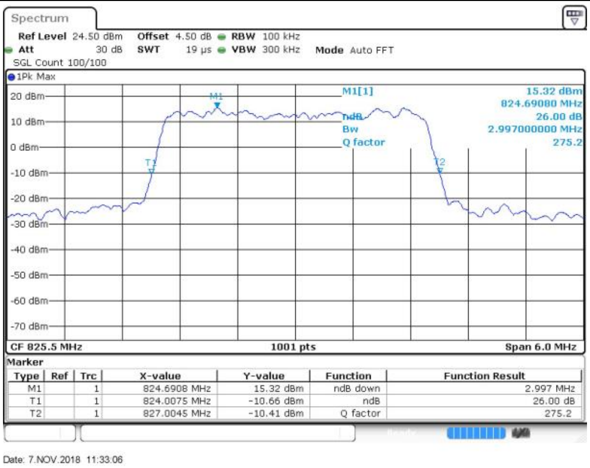


Highest Channel / 10MHz / 16QAM

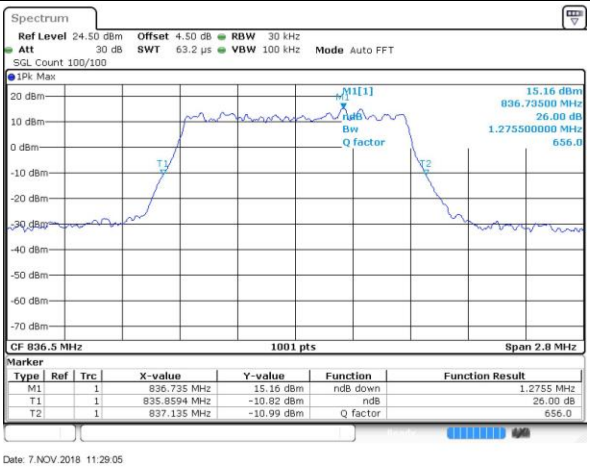


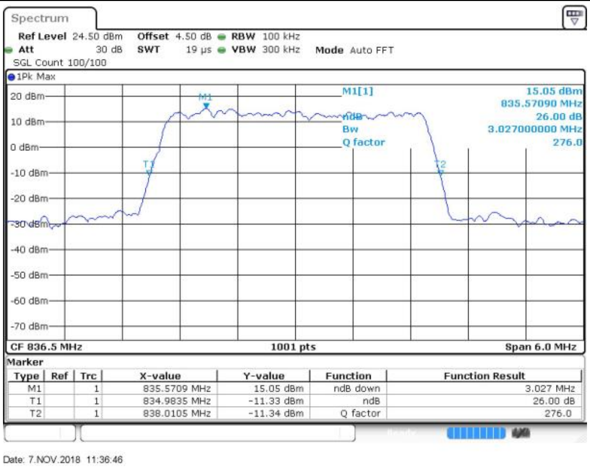
LTE Band 5	
Lowest Channel / 1.4MHz / 64QAM	Lowest Channel / 3MHz / 64QAM



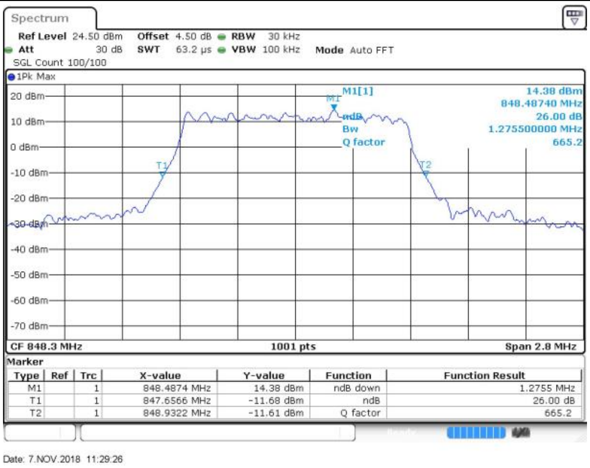


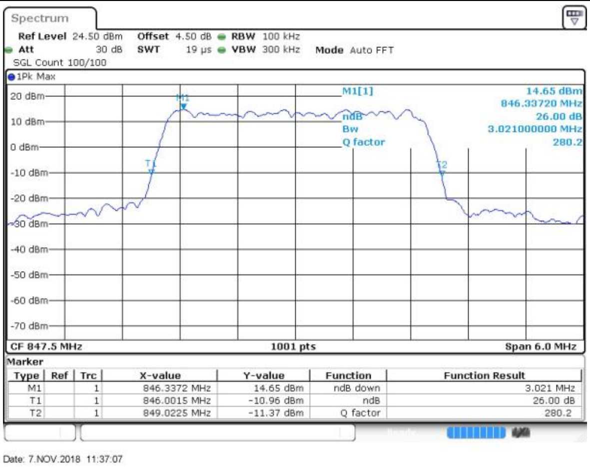
Middle Channel / 1.4MHz / 64QAM	Middle Channel / 3MHz / 64QAM





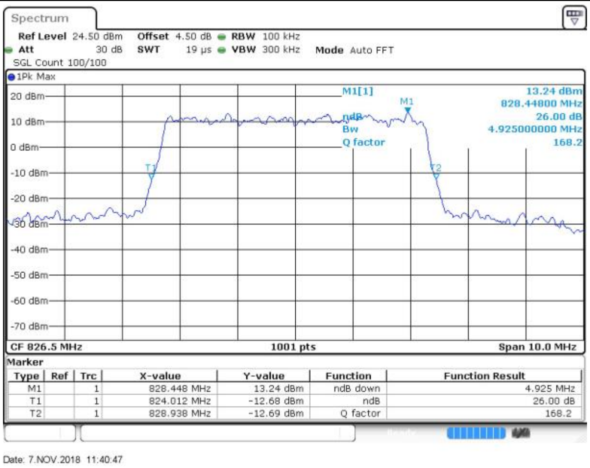
Highest Channel / 1.4MHz / 64QAM	Highest Channel / 3MHz / 64QAM



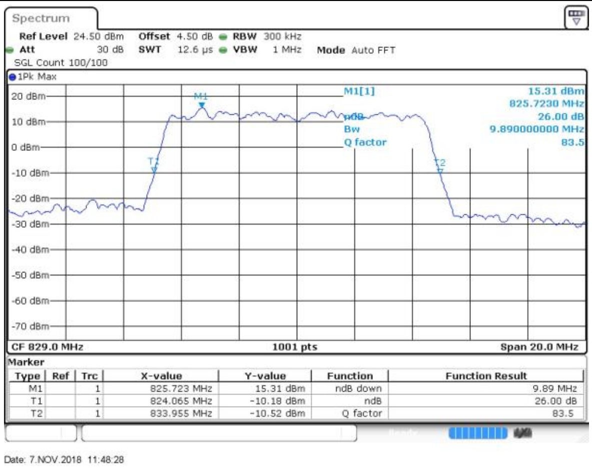


LTE Band 5

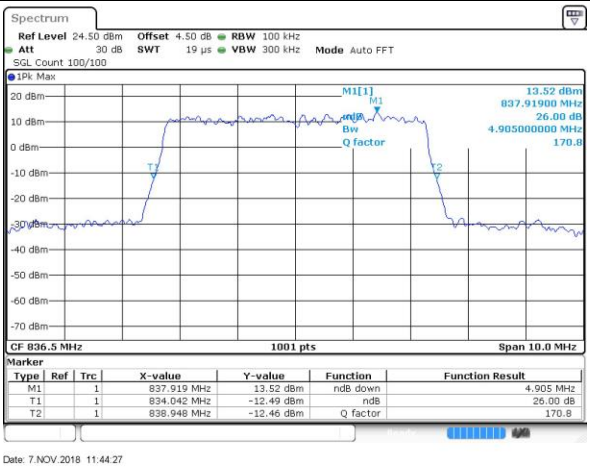
Lowest Channel / 5MHz / 64QAM



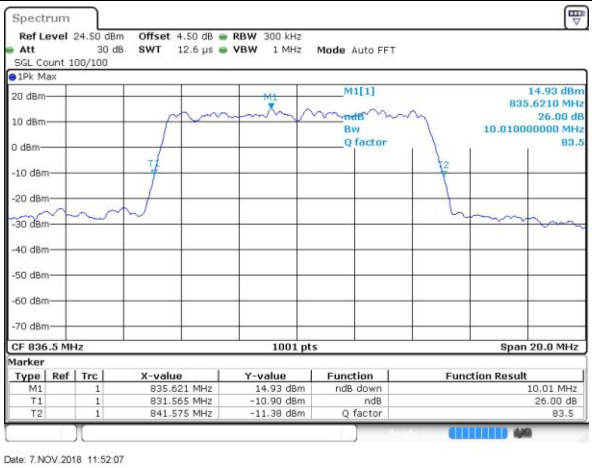
Lowest Channel / 10MHz / 64QAM



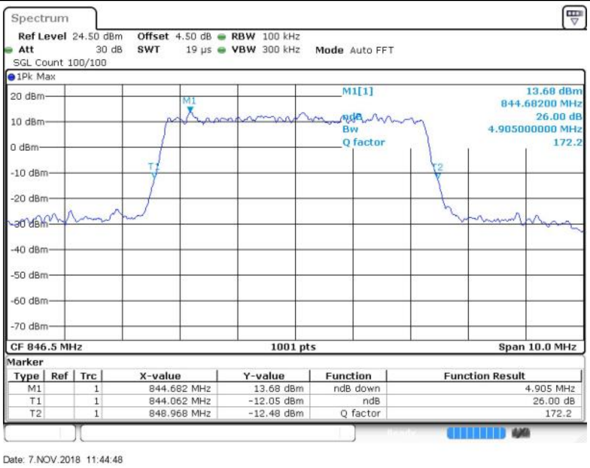
Middle Channel / 5MHz / 64QAM



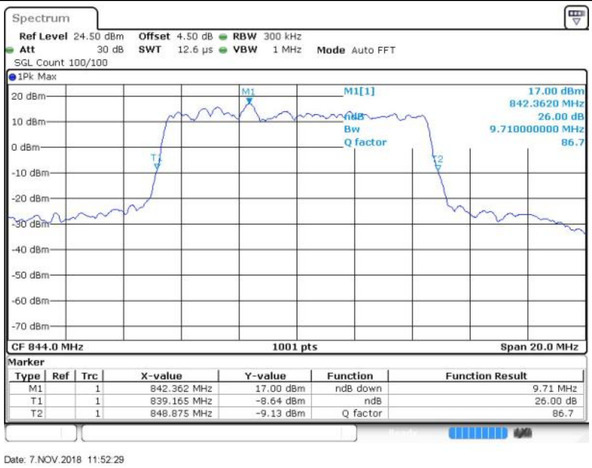
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



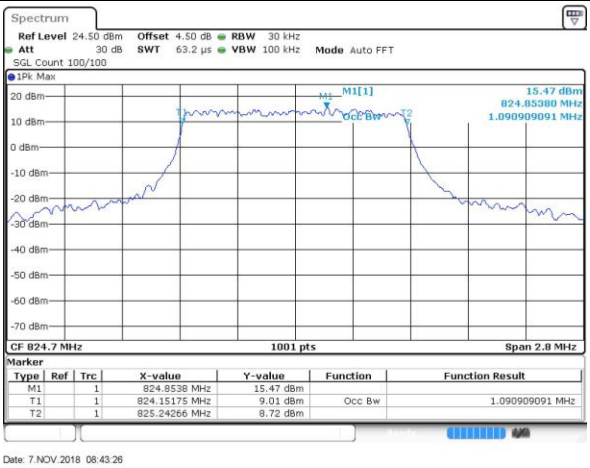
Highest Channel / 10MHz / 64QAM

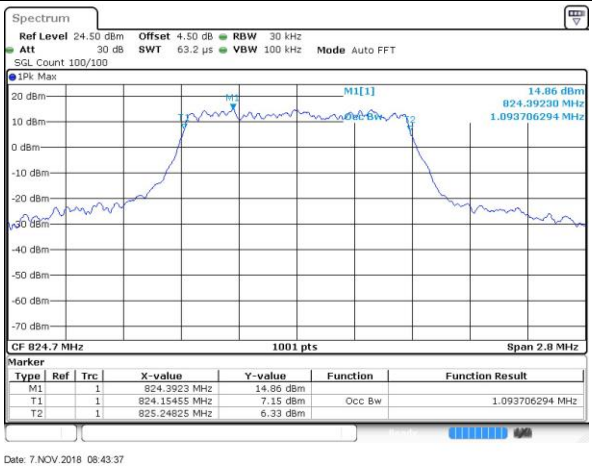


Occupied Bandwidth

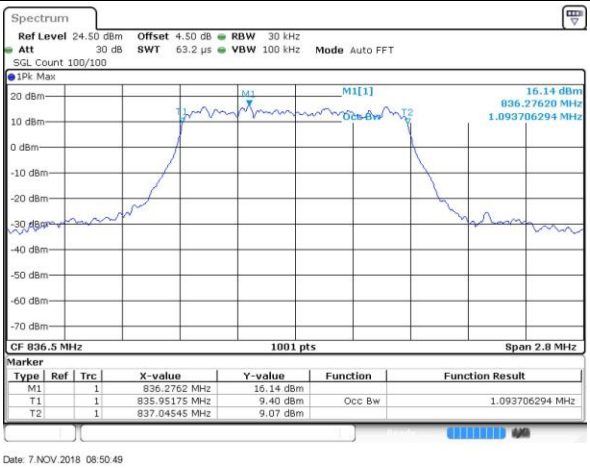
Mode	LTE Band 5 : 99%OBW(MHz)															
BW	1.4MHz		3MHz		5MHz		10MHz									
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM								
Lowest CH	1.09	1.09	2.72	2.73	4.5	4.51	9.03	9.03								
Middle CH	1.09	1.1	2.72	2.72	4.5	4.51	8.99	8.99								
Highest CH	1.09	1.09	2.73	2.71	4.51	4.49	9.09	8.97								
Mode	LTE Band 5 : 99%OBW(MHz)															
BW	1.4MHz		3MHz		5MHz		10MHz									
Mod.	64QAM		64QAM		64QAM		64QAM									
Lowest CH	1.1		2.73		4.49		9.07									
Middle CH	1.09		2.72		4.49		9.05									
Highest CH	1.09		2.72		4.5		9.05									

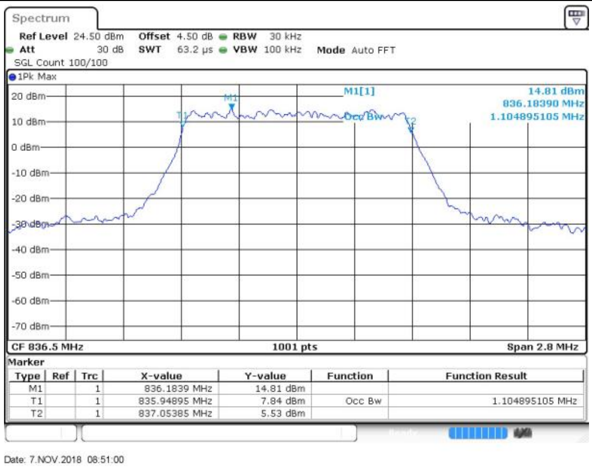
LTE Band 5	
Lowest Channel / 1.4MHz / QPSK	**Lowest Channel / 1.4MHz / 16QAM**



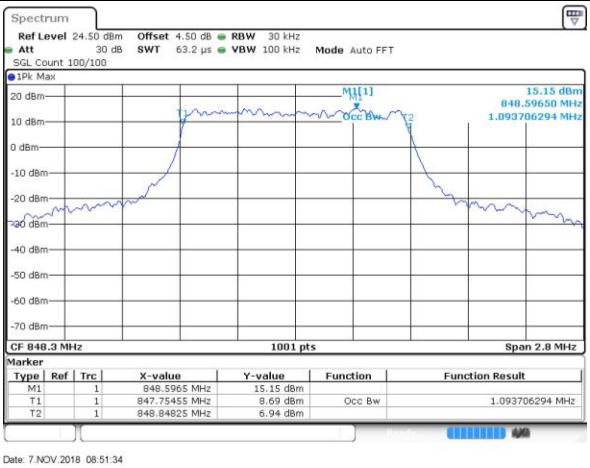


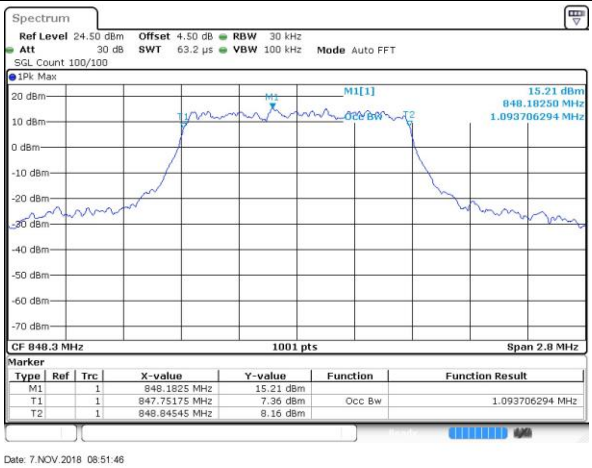
Middle Channel / 1.4MHz / QPSK	**Middle Channel / 1.4MHz / 16QAM**





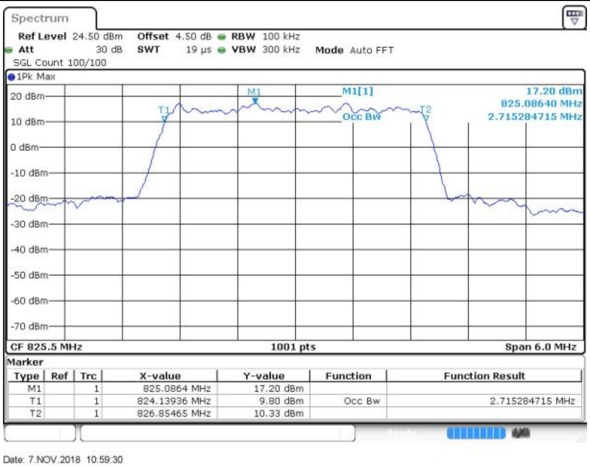
Highest Channel / 1.4MHz / QPSK	**Highest Channel / 1.4MHz / 16QAM**



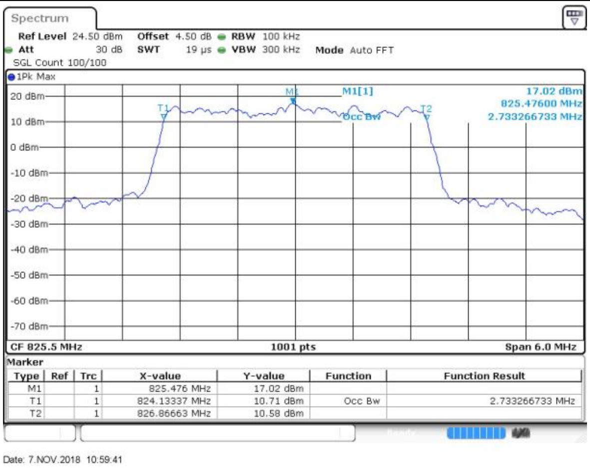


LTE Band 5

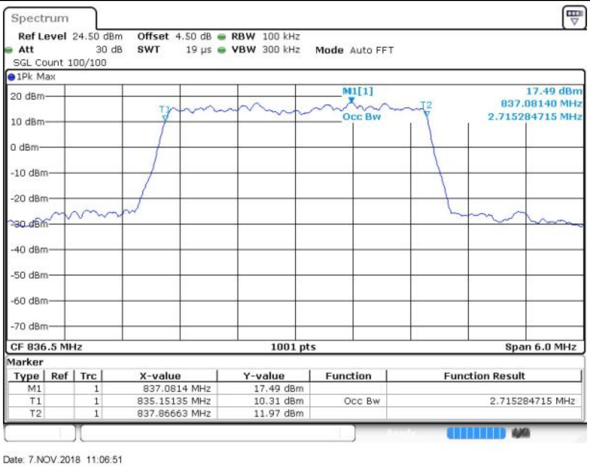
Lowest Channel / 3MHz / QPSK



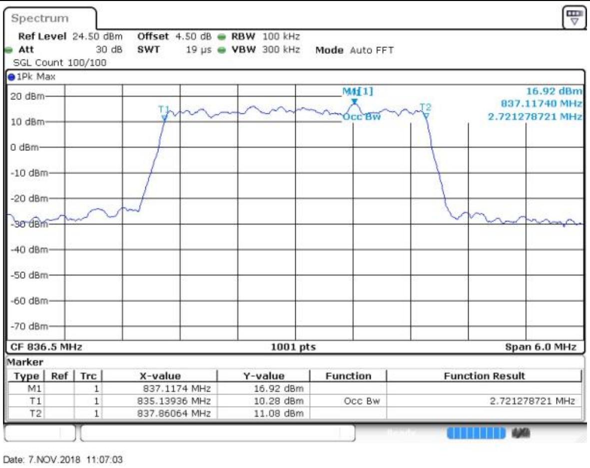
Lowest Channel / 3MHz / 16QAM



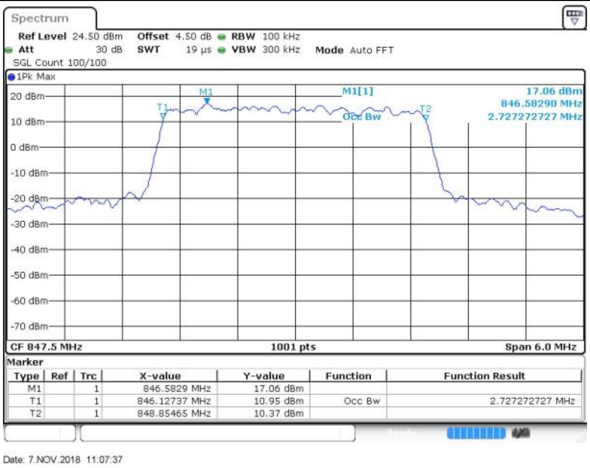
Middle Channel / 3MHz / QPSK



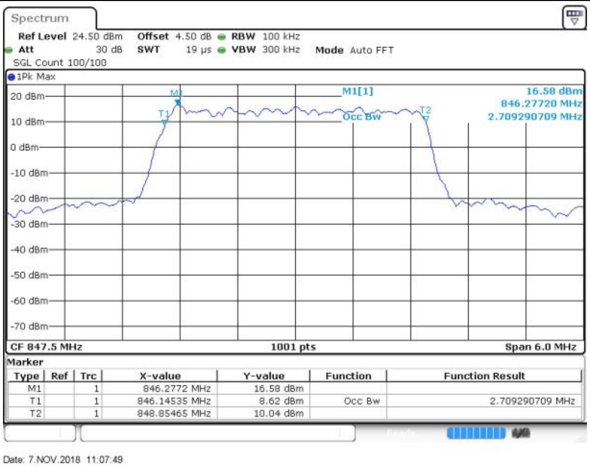
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

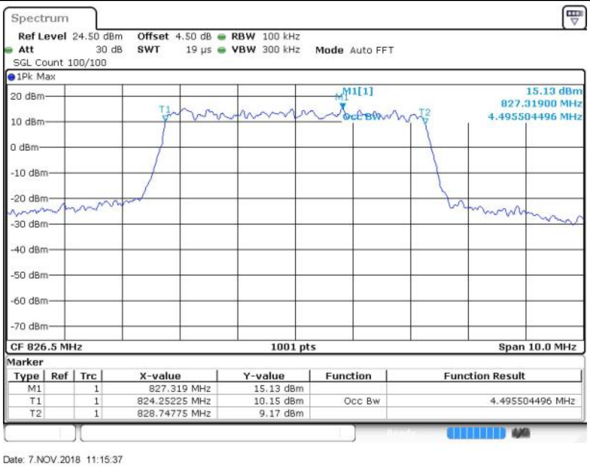


Highest Channel / 3MHz / 16QAM

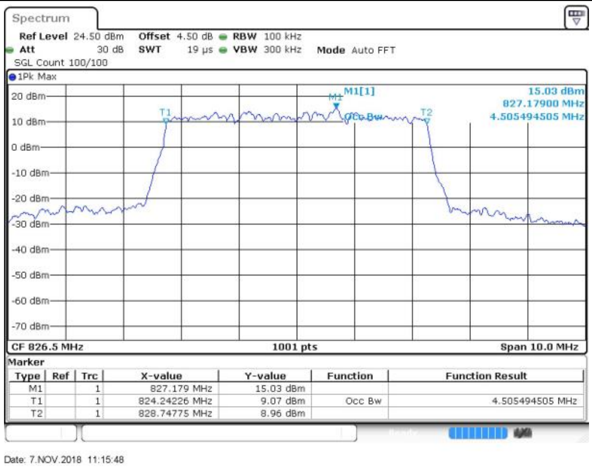


LTE Band 5

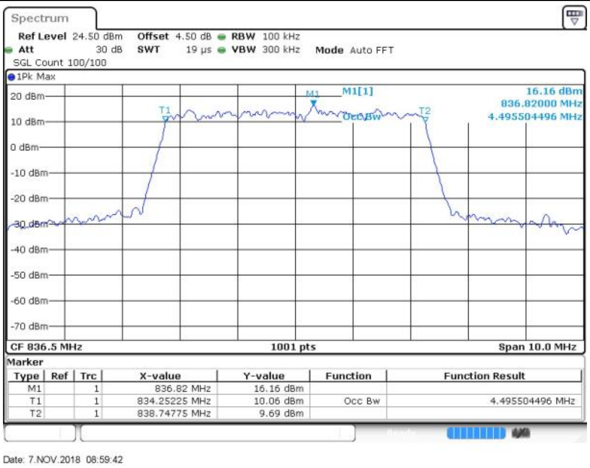
Lowest Channel / 5MHz / QPSK



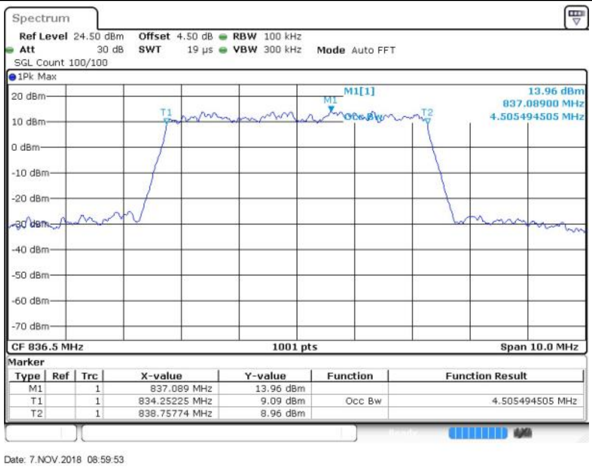
Lowest Channel / 5MHz / 16QAM



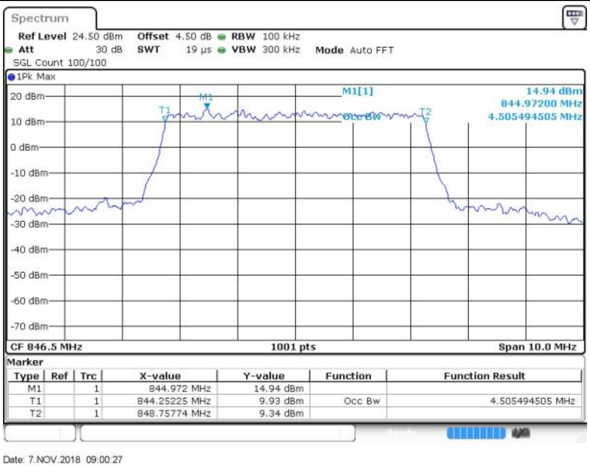
Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



Highest Channel / 5MHz / 16QAM