FCC RF Test Report

APPLICANT	:	**Sonim Technologies, Inc.**
EQUIPMENT	:	**LTE Phone**
BRAND NAME	:	**Sonim**
MODEL NAME	:	**XP5800(PC2111)**
FCC ID	:	**WYPPC2100**
STANDARD	:	**47 CFR Part 2, 22(H), 24(E), 27(L), 27(M), 27(F), 27(H)**
CLASSIFICATION	:	**PCS Licensed Transmitter Held to Ear (PCE)**

The product was received on Sep. 21, 2017 and completely tested on Oct. 11, 2017. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI/TIA-603-E and the testing has shown the tested sample to be in compliance with the applicable technical standards.
This report contains data that were produced under subcontract by Laboratory SPORTON INTERNATIONAL INC.
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

Approved by: James Huang / Manager

TESTING
NVLAP LAB CODE 600155-0

Sporton International (Kunshan) Inc.
No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG792101B	Rev. 01	Initial issue of report	Dec. 04, 2017

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)(2)	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)	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 25) (Band 26) (Band 66)	< 43+10log10(P[Watts])	PASS	-
	§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 25) (Band 26) (Band 66)	< 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 22H	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 25) (Band 26) (Band 66)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 15.77 dB at 1560.00 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

Sonim Technologies, Inc.
1825 S. Grant St., Suite 200., San Mateo, CA, 94402

1.2 Manufacturer

Sonim Technologies (Shenzhen) Limited
2nd Floor, No. 2 Building Phase B, Daqian Industrial park, Longchang Road, 67 District, Baoan, Shenzhen, P. R. China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	LTE Phone
Brand Name	Sonim
Model Name	XP5800(PC2111)
FCC ID	WYPPC2100
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/HSPA/ DC-HSDPA/HSPA+(16QAM uplink is not supported)/LTE WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 Bluetooth v3.0 + EDR/Bluetooth v4.0 LE /Bluetooth v4.2 LE
IMEI Code	Conducted: 001080001908509/001080001908509 for B2/5/7/12/25/38/66 001080001908624/001080001908624 for B4/13 001080001908558/001080001908558 for B26/41 Radiation: 001080001911198/001080001911206 for B7/41/38 001080001912451/001080001912444 for B2/4/5/12/13/25/26/66
HW Version	A
SW Version	5SA.0.0-00-7.1.2-00.25.01
EUT Stage	Identical Prototype

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 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
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 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
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 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
Maximum Output Power to Antenna	LTE Band 2 : 22.80 dBm LTE Band 4 : 22.50 dBm LTE Band 5 : 22.43 dBm LTE Band 7 : 23.39 dBm LTE Band 13 : 22.78 dBm LTE Band 12 : 22.69 dBm LTE Band 25 : 23.13 dBm LTE Band 26 : 22.72 dBm LTE Band 38 : 23.52 dBm LTE Band 41 : 23.48 dBm LTE Band 66 : 23.21 dBm

Antenna Gain	LTE Band 2 : -1.00 dBi LTE Band 4 : -1.00 dBi LTE Band 5 : -1.00 dBi LTE Band 7 : -1.00 dBi LTE Band 12 : -3.00 dBi LTE Band 13 : -3.00 dBi LTE Band 25 : -1.00 dBi LTE Band 26 : -1.00 dBi LTE Band 38 : -1.00 dBi LTE Band 41 : -1.00 dBi LTE Band 66 : -1.00 dBi
Type of Modulation	QPSK / 16QAM

1.5 Modification of EUT

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

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

LTE Band 2		QPSK			16QAM		
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)
1.4	1850.7 ~ 1909.3	1M09G7D	-	0.1442	1M10W7D	-	0.1205
3	1851.5 ~ 1908.5	2M73G7D	-	0.1426	2M73W7D	-	0.1242
5	1852.5 ~ 1907.5	4M52G7D	-	0.1459	4M50W7D	-	0.1242
10	1855.0 ~ 1905.0	9M07G7D	0.0022	0.1486	9M01W7D	-	0.1306
15	1857.5 ~ 1902.5	13M5G7D	-	0.1510	13M5W7D	-	0.1352
20	1860.0 ~ 1900.0	18M5G7D	-	0.1514	18M6W7D	-	0.1309
LTE Band 25		**QPSK**			**16QAM**		
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)**
1.4	1850.7 ~ 1914.3	1M10G7D	-	0.1589	1M09W7D	-	0.1276
3	1851.5 ~ 1913.5	2M72G7D	-	0.1524	2M73W7D	-	0.1346
5	1852.5 ~ 1912.5	4M50G7D	-	0.1517	4M50W7D	-	0.1297
10	1855.0 ~ 1910.0	9M11G7D	0.0016	0.1542	9M07W7D	-	0.1288
15	1857.5 ~ 1907.5	13M5G7D	-	0.1528	13M5W7D	-	0.1346
20	1860.0 ~ 1905.0	18M4G7D	-	0.1633	18M5W7D	-	0.1413
LTE Band 4		**QPSK**			**16QAM**		
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)**
1.4	1710.7 ~ 1754.3	1M10G7D	-	0.1396	1M09W7D	-	0.1172
3	1711.5 ~ 1753.5	2M73G7D	-	0.1396	2M72W7D	-	0.1227
5	1712.5 ~ 1752.5	4M49G7D	-	0.1409	4M49W7D	-	0.1202
10	1715.0 ~ 1750.0	9M03G7D	0.0028	0.1262	9M05W7D	-	0.1033
15	1717.5 ~ 1747.5	13M5G7D	-	0.1390	13M6W7D	-	0.1259
20	1720.0 ~ 1745.0	18M5G7D	-	0.1413	18M5W7D	-	0.1191

LTE Band 5		QPSK			16QAM		
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)
1.4	824.7 ~ 848.3	1M10G7D	-	0.0791	1M10W7D	-	0.0687
3	825.5 ~ 847.5	2M75G7D	-	0.0785	2M73W7D	-	0.0698
5	826.5 ~ 846.5	4M52G7D	-	0.0805	4M50W7D	-	0.0678
10	829.0 ~ 844.0	9M07G7D	0.0060	0.0847	9M03W7D	-	0.0716
LTE Band 7		**QPSK**			**16QAM**		
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)**
5	2502.5 ~ 2567.5	4M51G7D	-	0.1663	4M50W7D	-	0.1374
10	2505.0 ~ 2565.0	9M07G7D	0.0035	0.1706	9M03W7D	-	0.1406
15	2507.5 ~ 2562.5	13M4G7D	-	0.1611	13M5W7D	-	0.1349
20	2510.0 ~ 2560.0	18M5G7D	-	0.1734	18M4W7D	-	0.1396
LTE Band 12		**QPSK**			**16QAM**		
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)**
1.4	699.7 ~ 715.3	1M10G7D	-	0.0520	1M10W7D	-	0.0473
3	700.5 ~ 714.5	2M73G7D	-	0.0502	2M74W7D	-	0.0470
5	701.5 ~ 713.5	4M51G7D	-	0.0519	4M51W7D	-	0.0433
10	704.0 ~ 711.0	9M07G7D	0.0040	0.0568	9M07W7D	-	0.0468
LTE Band 13		**QPSK**			**16QAM**		
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)**
5	779.5 ~ 784.5	4M50G7D	-	0.0543	4M51W7D	-	0.0478
10	782.0	8M99G7D	0.0090	0.0579	9M01W7D	-	0.0446

LTE Band 26		QPSK			16QAM		
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)
1.4	824.7 ~ 848.3	1M10G7D	-	0.0832	1M10W7D	-	0.0710
3	825.5 ~ 847.5	2M73G7D	-	0.0818	2M74W7D	-	0.0695
5	826.5 ~ 846.5	4M53G7D	-	0.0813	4M49W7D	-	0.0710
10	829.0 ~ 844.0	9M07G7D	0.0117	0.0865	9M05W7D	-	0.0735
15	831.5 ~ 841.5	13M5G7D	-	0.0906	13M5W7D	-	0.0817
CH26765	821.5	13M4G7D	-	0.0962	13M4W7D	-	0.0838
LTE Band 38		**QPSK**			**16QAM**		
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)**
5	2572.5 ~ 2617.5	4M50G7D	-	0.1637	4M50W7D	-	0.1340
10	2575.0 ~ 2615.0	9M07G7D	0.0018	0.1782	9M07W7D	-	0.1377
15	2577.5 ~ 2612.5	13M6G7D	-	0.1690	13M5W7D	-	0.1429
20	2580.0 ~ 2610.0	18M4G7D	-	0.1786	18M4W7D	-	0.1371
LTE Band 41		**QPSK**			**16QAM**		
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)**
5	2498.5 ~ 2687.5	4M54G7D	-	0.1714	4M49W7D	-	0.1355
10	2501.0 ~ 2685.0	9M03G7D	0.0022	0.1770	9M07W7D	-	0.1507
15	2503.5 ~ 2682.5	13M4G7D	-	0.1770	13M5W7D	-	0.1528
20	2506.0 ~ 2680.0	18M4G7D	-	0.1762	18M4W7D	-	0.1469
LTE Band 66		**QPSK**			**16QAM**		
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)**
1.4	1710.7 ~ 1779.3	1M10G7D	-	0.1462	1M10W7D	-	0.1276
3	1711.5 ~ 1778.5	2M73G7D	-	0.1419	2M72W7D	-	0.1276
5	1712.5 ~ 1777.5	4M53G7D	-	0.1426	4M50W7D	-	0.1245
10	1715.0 ~ 1775.0	9M07G7D	0.0035	0.1560	9M01W7D	-	0.1368
15	1717.5 ~ 1772.5	13M4G7D	-	0.1574	13M4W7D	-	0.1352
20	1720.0 ~ 1770.0	18M5G7D	-	0.1663	18M5W7D	-	0.1361

1.7 Testing Location

Sporton Lab is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No. is CN5013.

Test Site	Sporton International (Kunshan) Inc.	
Test Site Location	No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China TEL : +86-512-57900158 FAX : +86-512-57900958	
Test Site No.	**Sporton Site No.**	**FCC Test Firm Registration No.**
	TH01-KS	630927

Sporton Lab is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600156-0) and the FCC designation No. is CN5019.

Test Site	Sporton International (Shenzhen) Inc.	
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan District Shenzhen City Guangdong Province 518055 China TEL: +86-755-3320-2398	
Test Site No.	**Sporton Site No.**	**FCC Test Firm Registration No.**
	03CH01-SZ 03CH04-SZ	577730

SPORTON INTERNATIONAL INC. is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW0007 under the FCC-recognized accredited testing laboratories by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	03CH15-HY
FCC Test Firm Registration No.	214511

Note:Test data subcontracted: radiated spurious emissions for Band2/4/5/12/13/17/25/66 only in section 4.4 of this report.

1.8 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(L), 27(M), 27(F), 27(H)
- ANSI/TIA-603-E
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03
- 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 v03 with maximum output power.

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

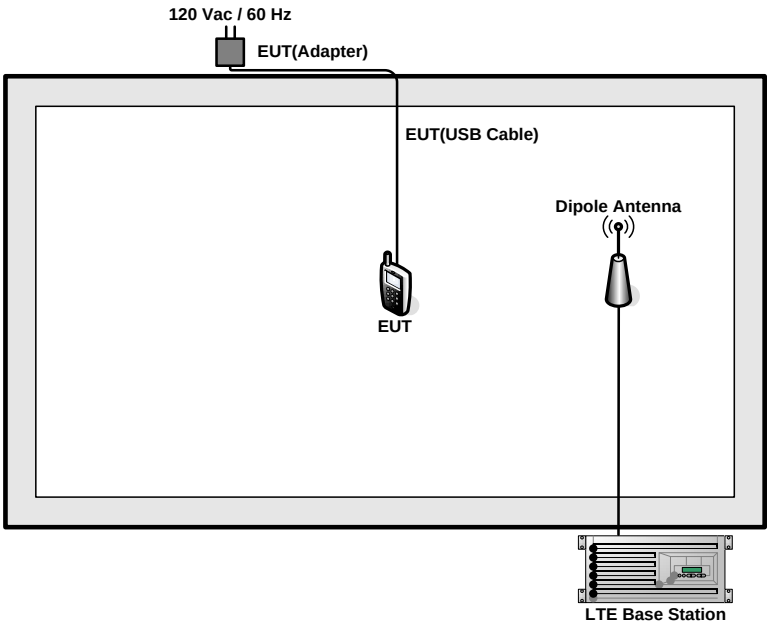
Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v
	38	-	-	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v
	13	-	-	v		-	-	v	v	v	v	v	v	v	v
	13	-	-		v	-	-	v	v	v	v	v		v	
	25	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
	41	-	-	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
Peak-to-Average Ratio	2						v	v	v	v		v	v	v	v
	4						v	v	v	v		v	v	v	v
	5				v	-	-	v	v	v		v	v	v	v
	7	-	-				v	v	v	v		v	v	v	v
	38	-	-				v	v	v	v		v	v	v	v
	12				v	-	-	v	v	v		v	v	v	v
	13	-	-		v	-	-	v	v	v		v		v	
	25						v	v	v	v		v	v	v	v
	26					v	-	v	v	v		v	v	v	v
	41	-	-				v	v	v	v		v	v	v	v
	66						v	v	v	v		v	v	v	v

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
26dB and 99% Bandwidth	2	v	v	v	v	v	v	v	v			v	v	v	v
	4	v	v	v	v	v	v	v	v			v	v	v	v
	5	v	v	v	v	-	-	v	v			v	v	v	v
	7	-	-	v	v	v	v	v	v			v	v	v	v
	38	-	-	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v	-	-	v	v			v	v	v	v
	13	-	-	v		-	-	v	v			v	v	v	v
	13	-	-		v	-	-	v	v			v		v	
	25	v	v	v	v	v	v	v	v			v	v	v	v
	26	v	v	v	v	v	-	v	v			v	v	v	v
	41	-	-	v	v	v	v	v	v			v	v	v	v
	66	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	2	v	v	v	v	v	v	v	v	v		v	v		v
	4	v	v	v	v	v	v	v	v	v		v	v		v
	5	v	v	v	v	-	-	v	v	v		v	v		v
	7	-	-	v	v	v	v	v	v	v		v	v		v
	38	-	-	v	v	v	v	v	v	v		v	v		v
	12	v	v	v	v	-	-	v	v	v		v	v		v
	13	-	-	v		-	-	v	v	v		v	v		v
	13	-	-		v	-	-	v	v	v		v		v	
	25	v	v	v	v	v	v	v	v	v		v	v		v
	26	v	v	v	v	v	-	v	v	v		v	v		v
	41	-	-	v	v	v	v	v	v	v		v	v		v
	66	v	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	1	Half	Full	L	M	H
Conducted Spurious Emission	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v	-	-	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	38	-	-	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v
	13	-	-	v		-	-	v	v	v			v	v	v
	13	-	-		v	-	-	v	v	v				v	
	25	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v			v	v	v
Frequency Stability	2				v			v				v		v	
	4				v			v				v		v	
	5				v	-	-	v				v		v	
	7	-	-		v			v				v		v	
	38	-	-		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	

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
E.R.P./ E.I.R.P.	2	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v	-	-	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	38	-	-	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v
	13	-	-	v		-	-	v	v	v			v	v	v
	13	-	-		v	-	-	v	v	v				v	
	25	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	2	v	v	v	v	v	v	v		v			v	v	v
	4	v	v	v	v	v	v	v		v			v	v	v
	5	v	v	v	v	-	-	v		v			v	v	v
	7	-	-	v	v	v	v	v		v			v	v	v
	38	-	-	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
	13				v			v		v				v	
	25	v	v	v	v	v	v	v		v			v	v	v
	26	v	v	v	v	v	-	v		v			v	v	v
	41	-	-	v	v	v	v	v		v			v	v	v
	66	v	v	v	v	v	v	v		v			v	v	v
Note	1. The mark "v " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.														

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GW	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss 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.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 5.2 dB.

Example :

Offset(dB) = RF cable loss(dB).

= 5.2 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

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

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

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

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

LTE Band 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 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

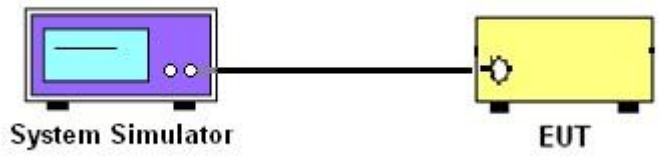
3 Conducted Test Items

3.1 Measuring Instruments

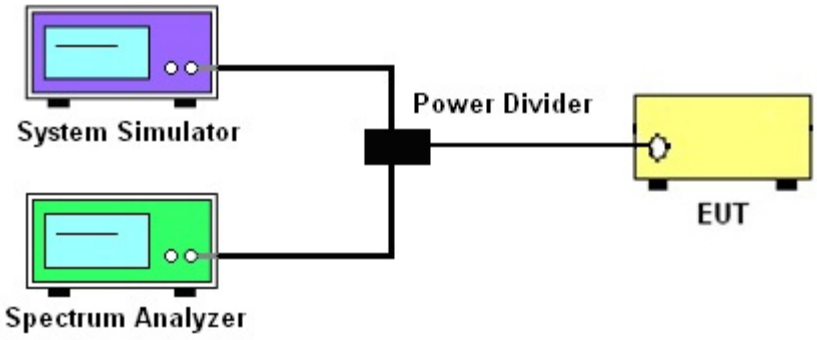
See list of measuring instruments of this test report.

3.2 Test Setup

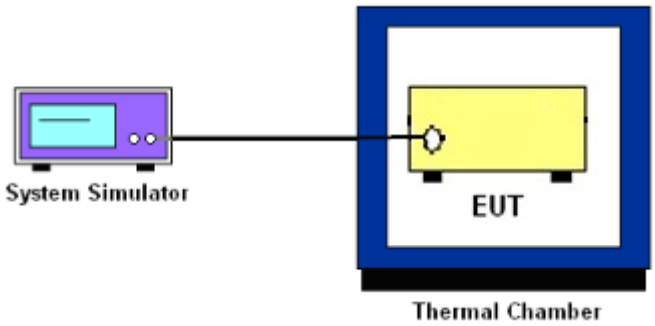
3.2.1 Conducted Output Power



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, and Band 26.

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

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

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

1. The testing follows FCC KDB 971168 v03 Section 5.7.1.
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

1. The testing follows FCC KDB 971168 v03 Section 4.1 and 4.2.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace.
   (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “–X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

For 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 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 and 1710 – 1780 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 FCC KDB 971168 v03 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. Offset has included the duty factor for LTE Band 38/41. Duty factor =10 log (1/x), where x is the measured duty cycle.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. 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.
10. 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 10th harmonic.

3.8.2 Test Procedures

1. The testing follows FCC KDB 971168 v03 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Offset has included the duty factor for LTE Band 38/41. Duty factor =10 log (1/x), where x is the measured duty cycle.
8. Set spectrum analyzer with RMS detector.
9. Taking the record of maximum spurious emission.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
11. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
12. For Band 7, 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

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

3.9.2 Test Procedures for Temperature Variation

1. The testing follows FCC KDB 971168 v03 Section 9.0.
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 Test Procedures for Voltage Variation

1. The testing follows FCC KDB 971168 v03 Section 9.0.
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 measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

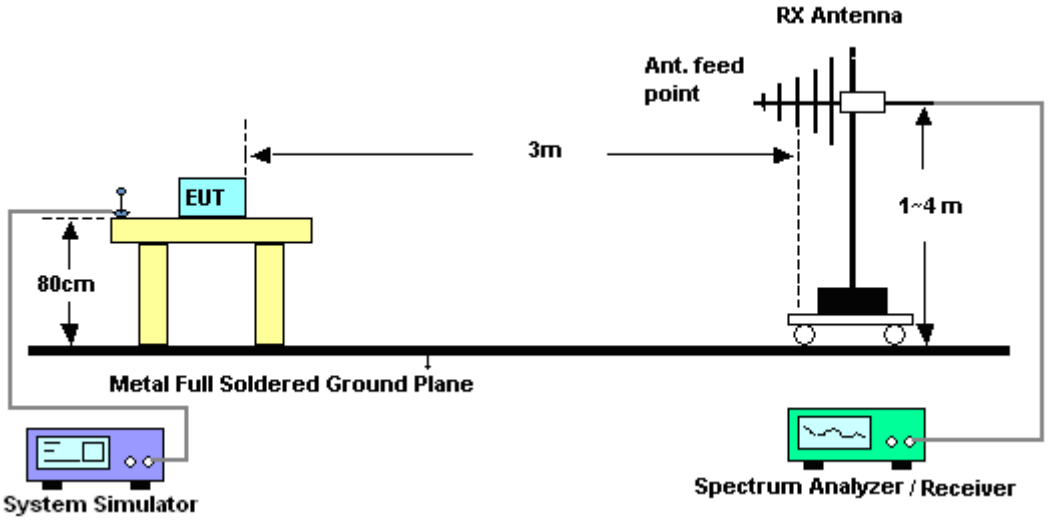
4 Radiated Test Items

4.1 Measuring Instruments

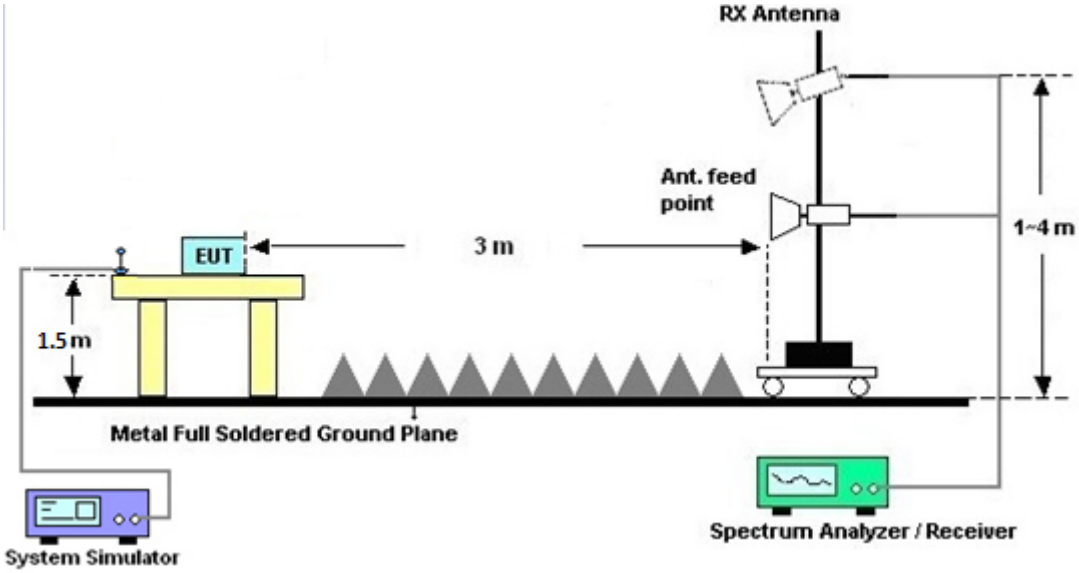
See list of measuring instruments of this test report.

4.2 Test Setup

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/TIA-603-E. 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 12,13

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 FCC KDB 971168 v03 Section 5.8 and ANSI/TIA-603-E Section 2.2.12.
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)
    EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
    ERP (dBm) = EIRP - 2.15

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Aug. 08, 2017	Aug. 16, 2017~ Sep. 05, 2017	Aug. 07, 2018	Conducted (TH01-KS)
Thermal Chamber	Hongzhan	LP-150U	HZ014011440	-40~+150°C 20%~95%RH	Apr. 18, 2017	Aug. 16, 2017~ Sep. 05, 2017	Apr. 17, 2018	Conducted (TH01-KS)
Radio communication	Anritsu	MT8820C	6201300652	2G/3G/LTE Band	Jan. 19, 2017	Aug. 16, 2017~ Sep. 05, 2017	Jan. 18, 2018	Conducted (TH01-KS)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Apr. 20, 2017	Oct. 02, 2017~ Oct. 03, 2017	Apr. 19, 2018	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz-2GHz	Apr. 25, 2017	Oct. 02, 2017~ Oct. 03, 2017	Apr. 24, 2018	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	119436	1GHz~18GHz	Jul. 28, 2017	Oct. 02, 2017~ Oct. 03, 2017	Jul. 27, 2018	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Jun. 16, 2017	Oct. 02, 2017~ Oct. 03, 2017	Jun. 15, 2018	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 20, 2017	Oct. 02, 2017~ Oct. 03, 2017	Apr. 19, 2018	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1	1707137	1GHz~18GHz	Oct. 19, 2016	Oct. 02, 2017~ Oct. 03, 2017	Oct. 18, 2017	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 21, 2017	Oct. 02, 2017~ Oct. 03, 2017	Jul. 20, 2018	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Oct. 02, 2017~ Oct. 03, 2017	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Oct. 02, 2017~ Oct. 03, 2017	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Oct. 02, 2017~ Oct. 03, 2017	NCR	Radiation (03CH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Apr. 20, 2017	Oct. 02, 2017~ Oct. 03, 2017	Apr. 19, 2018	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	May 16, 2017	Oct. 02, 2017~ Oct. 03, 2017	May 15, 2018	Radiation (03CH04-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1474	1GHz~18GHz	Jan. 12, 2017	Oct. 02, 2017~ Oct. 03, 2017	Jan. 11, 2018	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	May 17, 2017	Oct. 02, 2017~ Oct. 03, 2017	May 16, 2018	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 19, 2016	Oct. 02, 2017~ Oct. 03, 2017	Oct. 18, 2017	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1	1989346	1GHz~18GHz	Jul. 27, 2017	Oct. 02, 2017~ Oct. 03, 2017	Jul. 26, 2018	Radiation (03CH04-SZ)
Amplifier	Agilent Technologies	83017A	MY53270156	500MHz~26.5GHz	Apr. 20, 2017	Oct. 02, 2017~ Oct. 03, 2017	Apr. 19, 2018	Radiation (03CH04-SZ)
AC Power Source	Chroma	61601	N/A	N/A	NCR	Oct. 02, 2017~ Oct. 03, 2017	NCR	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Oct. 02, 2017~ Oct. 03, 2017	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Oct. 02, 2017~ Oct. 03, 2017	NCR	Radiation (03CH04-SZ)
Bilog Antenna	TESEQ	CBL6111D& 00800N1D0	41912&05	30MHz to 1GHz	Jan. 07, 2017	Oct. 02, 2017~ Oct. 11, 2017	Jan. 06, 2018	Radiation (03CH15-HY)

Horn Antenna	SCHWARZBECK	BBHA 9120D	BBHA 9120 D 1212	1G~18GHz	Mar. 17, 2017	Oct. 02, 2017~ Oct. 11, 2017	Mar. 16, 2018	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 08, 2016	Oct. 02, 2017~ Oct. 11, 2017	Nov. 07, 2017	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Nov. 09, 2016	Oct. 02, 2017~ Oct. 11, 2017	Nov. 08, 2017	Radiation (03CH15-HY)
Preamplifier	MITEQ	AMF-7D-00 101800	2025787	1GHZ~18GHZ	Feb. 13, 2017	Oct. 02, 2017~ Oct. 11, 2017	Feb. 12, 2018	Radiation (03CH15-HY)
Preamplifier	MITEQ	TTA 1840-35-HG	1887435	18GHz ~ 40GHz	Oct. 13, 2016	Oct. 02, 2017~ Oct. 11, 2017	Oct. 12, 2017	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 21, 2017	Oct. 02, 2017~ Oct. 11, 2017	Aug. 20, 2018	Radiation (03CH15-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Mar. 23, 2017	Oct. 02, 2017~ Oct. 11, 2017	Mar. 22, 2018	Radiation (03CH15-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	NCR	Oct. 02, 2017~ Oct. 11, 2017	NCR	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	NCR	Oct. 02, 2017~ Oct. 11, 2017	NCR	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	NCR	Oct. 02, 2017~ Oct. 11, 2017	NCR	Radiation (03CH15-HY)

NCR: No Calibration Required

6 Uncertainty of Evaluation

For 03CH01-SZ

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.5dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.5dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.0dB

For 03CH04-SZ

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.8dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.1dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.9dB

For 03CH15-HY

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.4dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.7dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.0dB

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.55	22.8	22.65
20	1	49		22.07	22.45	22.08
20	1	99		22.21	22.31	22.46
20	50	0		21.46	21.7	21.67
20	50	24		21.45	21.63	21.6
20	50	50		21.34	21.47	21.63
20	100	0		21.49	21.67	21.66
20	1	0	16-QAM	21.79	22.17	22.06
20	1	49		21.29	21.7	21.74
20	1	99		21.7	21.74	21.98
20	50	0		20.41	20.57	20.65
20	50	24		20.45	20.56	20.57
20	50	50		20.3	20.45	20.64
20	100	0		20.44	20.49	20.54
15	1	0	QPSK	22.53	22.68	22.77
15	1	37		22.13	22.42	22.6
15	1	74		22.51	22.74	22.79
15	36	0		21.35	21.52	21.58
15	36	20		21.22	21.49	21.67
15	36	39		21.43	21.6	21.65
15	75	0		21.31	21.61	21.63
15	1	0	16-QAM	21.86	21.97	22.31
15	1	37		21.32	21.69	22.13
15	1	74		21.93	21.89	21.99
15	36	0		20.34	20.48	20.62
15	36	20		20.27	20.51	20.58
15	36	39		20.39	20.59	20.68
15	75	0		20.35	20.58	20.82

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.4	22.61	22.67
10	1	25		22.28	22.44	22.41
10	1	49		22.39	22.72	22.57
10	25	0		21.28	21.49	21.66
10	25	12		21.24	21.55	21.56
10	25	25		21.35	21.63	21.68
10	50	0		21.31	21.55	21.64
10	1	0	16-QAM	21.62	22.02	22.16
10	1	25		21.44	21.64	21.76
10	1	49		21.61	21.83	21.94
10	25	0		20.25	20.51	20.6
10	25	12		20.19	20.39	20.62
10	25	25		20.23	20.32	20.43
10	50	0		20.27	20.5	20.45
5	1	0	QPSK	22.28	22.6	22.64
5	1	12		22.17	22.42	22.54
5	1	24		22.16	22.48	22.57
5	12	0		21.33	21.54	21.68
5	12	7		21.27	21.58	21.67
5	12	13		21.26	21.5	21.68
5	25	0		21.28	21.62	21.65
5	1	0	16-QAM	21.55	21.86	21.82
5	1	12		21.47	21.7	21.94
5	1	24		21.41	21.69	21.82
5	12	0		20.4	20.61	20.66
5	12	7		20.34	20.52	20.63
5	12	13		20.26	20.49	20.67
5	25	0		20.33	20.49	20.68

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.21	22.44	22.54
3	1	8		22.3	22.54	22.54
3	1	14		22.17	22.36	22.51
3	8	0		21.3	21.52	21.62
3	8	4		21.27	21.5	21.61
3	8	7		21.28	21.5	21.56
3	15	0		21.24	21.52	21.56
3	1	0	16-QAM	21.45	21.68	21.83
3	1	8		21.5	21.64	21.94
3	1	14		21.39	21.63	21.73
3	8	0		20.35	20.55	20.65
3	8	4		20.37	20.57	20.71
3	8	7		20.28	20.52	20.57
3	15	0		20.37	20.5	20.63
1.4	1	0	QPSK	22.18	22.37	22.59
1.4	1	3		22.12	22.45	22.49
1.4	1	5		22.12	22.39	22.4
1.4	3	0		22.17	22.42	22.53
1.4	3	1		22.15	22.4	22.53
1.4	3	3		22.23	22.44	22.5
1.4	6	0		21.25	21.46	21.67
1.4	1	0	16-QAM	21.4	21.72	21.81
1.4	1	3		21.49	21.73	21.79
1.4	1	5		21.45	21.67	21.7
1.4	3	0		21.26	21.52	21.63
1.4	3	1		21.27	21.43	21.71
1.4	3	3		21.28	21.45	21.6
1.4	6	0		20.25	20.44	20.58

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.35	22.5	22.37
20	1	49		22.3	22.3	22.31
20	1	99		22.33	22.41	22.35
20	50	0		21.34	21.44	21.36
20	50	24		21.32	21.38	21.36
20	50	50		21.27	21.36	21.26
20	100	0		21.35	21.51	21.32
20	1	0	16-QAM	21.66	21.76	21.68
20	1	49		21.54	21.6	21.63
20	1	99		21.66	21.69	21.65
20	50	0		20.35	20.45	20.39
20	50	24		20.32	20.42	20.37
20	50	50		20.35	20.35	20.31
20	100	0		20.33	20.5	20.23
15	1	0	QPSK	22.43	22.39	22.39
15	1	37		22.09	22.24	22.13
15	1	74		22.37	22.35	22.31
15	36	0		21.31	21.55	21.4
15	36	20		21.29	21.38	21.25
15	36	39		21.32	21.27	21.22
15	75	0		21.3	21.36	21.31
15	1	0	16-QAM	21.77	21.95	21.82
15	1	37		21.56	22	21.45
15	1	74		21.59	21.73	21.59
15	36	0		20.32	20.47	20.38
15	36	20		20.23	20.43	20.33
15	36	39		20.35	20.4	20.21
15	75	0		20.31	20.46	20.38

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.24	22.08	22.12
10	1	25		22.08	22.09	22.02
10	1	49		22.21	22.35	22.31
10	25	0		21.06	21.06	21.06
10	25	12		21	21.01	21.08
10	25	25		21.08	21.06	21
10	50	0		21.08	21.04	21.02
10	1	0	16-QAM	21.56	21.49	21.55
10	1	25		21.27	21.19	21.03
10	1	49		21.63	21.63	21.64
10	25	0		20.08	20.04	20.05
10	25	12		20.02	20.08	20.08
10	25	25		20.05	20.02	20.09
10	50	0		20.04	20.09	20.06
5	1	0	QPSK	22.49	22.49	22.33
5	1	12		22.39	22.4	22.2
5	1	24		22.47	22.3	22.26
5	12	0		21.56	21.38	21.46
5	12	7		21.49	21.42	21.4
5	12	13		21.42	21.43	21.35
5	25	0		21.42	21.42	21.39
5	1	0	16-QAM	21.78	21.8	21.7
5	1	12		21.63	21.62	21.66
5	1	24		21.74	21.58	21.62
5	12	0		20.58	20.5	20.52
5	12	7		20.43	20.4	20.45
5	12	13		20.46	20.42	20.33
5	25	0		20.44	20.46	20.33

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.37	22.24	22.25
3	1	8		22.45	22.33	22.26
3	1	14		22.33	22.35	22.2
3	8	0		21.49	21.45	21.36
3	8	4		21.44	21.45	21.4
3	8	7		21.42	21.39	21.3
3	15	0		21.45	21.42	21.33
3	1	0	16-QAM	21.89	21.77	21.69
3	1	8		21.85	21.75	21.39
3	1	14		21.63	21.79	21.75
3	8	0		20.51	20.47	20.48
3	8	4		20.58	20.47	20.4
3	8	7		20.47	20.41	20.33
3	15	0		20.52	20.41	20.42
1.4	1	0	QPSK	22.31	22.16	22.2
1.4	1	3		22.44	22.33	22.28
1.4	1	5		22.39	22.29	22.19
1.4	3	0		22.38	22.32	22.25
1.4	3	1		22.45	22.34	22.31
1.4	3	3		22.43	22.37	22.3
1.4	6	0		21.37	21.36	21.23
1.4	1	0	16-QAM	21.59	21.61	21.42
1.4	1	3		21.69	21.67	21.53
1.4	1	5		21.66	21.65	21.41
1.4	3	0		21.42	21.4	21.41
1.4	3	1		21.46	21.5	21.36
1.4	3	3		21.45	21.48	21.32
1.4	6	0		20.48	20.4	20.33

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.42	22.43	22.3
10	1	25		22.08	22.15	22.07
10	1	49		22.42	22.33	22.29
10	25	0		21.35	21.3	21.21
10	25	12		21.13	21.19	21.19
10	25	25		21.3	21.27	21.1
10	50	0		21.25	21.29	21.26
10	1	0	16-QAM	21.55	21.58	21.52
10	1	25		21.28	21.36	21.32
10	1	49		21.69	21.43	21.7
10	25	0		20.24	20.31	20.2
10	25	12		20.13	20.26	20.11
10	25	25		20.37	20.26	20.17
10	50	0		20.29	20.25	20.27
5	1	0	QPSK	22.09	22.21	22.05
5	1	12		22.18	22.1	22.02
5	1	24		22.17	22.14	22.05
5	12	0		21.14	21.22	21.15
5	12	7		21.12	21.2	21.19
5	12	13		21.21	21.22	21.08
5	25	0		21.21	21.18	21.14
5	1	0	16-QAM	21.24	21.46	21.3
5	1	12		21.12	21.45	21.14
5	1	24		21.26	21.21	21.28
5	12	0		20.09	20.23	20.16
5	12	7		20.24	20.16	20.15
5	12	13		20.19	20.16	20.12
5	25	0		20.18	20.11	20.17

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.1	22.1	22
3	1	8		22.08	22.07	22.08
3	1	14		22.1	22.03	22
3	8	0		21.15	21.17	21.13
3	8	4		21.17	21.19	21.17
3	8	7		21.2	21.2	21.14
3	15	0		21.25	21.17	21.2
3	1	0	16-QAM	21.22	21.32	21.33
3	1	8		21.59	21.21	21.52
3	1	14		21.14	21.25	21.39
3	8	0		20.12	20.27	20.1
3	8	4		20.22	20.19	20.25
3	8	7		20.23	20.25	20.18
3	15	0		20.2	20.12	20.14
1.4	1	0	QPSK	22.05	22.03	22.08
1.4	1	3		22.11	22.09	22.02
1.4	1	5		21.92	21.91	22.02
1.4	3	0		22.07	22.08	22.01
1.4	3	1		22.07	22.13	22.08
1.4	3	3		22.08	22.05	22.06
1.4	6	0		21.12	21.16	21.1
1.4	1	0	16-QAM	21.23	21.34	21.41
1.4	1	3		21.52	21.36	21.41
1.4	1	5		21.26	21.23	21.33
1.4	3	0		21.05	21.1	21.02
1.4	3	1		21.06	21.18	21.05
1.4	3	3		21.11	21.08	21.08
1.4	6	0		20.21	20.19	20.18

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.84	22.95	23.1
20	1	49		23.27	23.35	22.93
20	1	99		23.27	23.39	23.36
20	50	0		22.26	22.29	22.18
20	50	24		22.14	22.13	22.18
20	50	50		22.25	22.11	22.11
20	100	0		22.23	22.33	22.31
20	1	0	16-QAM	22.45	22.29	22.31
20	1	49		22.24	21.85	22.2
20	1	99		22.3	22.13	22.27
20	50	0		21.2	21.21	21.23
20	50	24		21.13	21.24	21.22
20	50	50		21.17	21.09	21.23
20	100	0		21.23	21.19	21.25
15	1	0	QPSK	22.82	23.06	22.92
15	1	37		23.07	22.98	22.92
15	1	74		23.01	23.03	23.07
15	36	0		22.12	22.27	22.21
15	36	20		22.14	22.21	22.16
15	36	39		22.23	22.17	22.2
15	75	0		22.21	22.23	22.17
15	1	0	16-QAM	22.27	22.26	22.27
15	1	37		22.25	22.12	22.12
15	1	74		22.3	22.24	22.29
15	36	0		21.1	21.16	21.27
15	36	20		21.2	21.25	21.24
15	36	39		21.2	21.25	21.12
15	75	0		21.17	21.2	21.17

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.23	23.32	23.19
10	1	25		23.14	23.15	23.06
10	1	49		23.2	23.27	23.27
10	25	0		22.11	22.17	22.17
10	25	12		22.03	22.12	22.09
10	25	25		22.07	22.14	22.16
10	50	0		22.16	22.14	22.14
10	1	0	16-QAM	22.48	22.43	22.44
10	1	25		22.18	22.19	22.01
10	1	49		22.38	22.41	22.26
10	25	0		21.14	21.18	21.21
10	25	12		21.08	21.14	21.14
10	25	25		21.09	21.03	21.17
10	50	0		21.16	21.14	21.19
5	1	0	QPSK	22.99	23.08	23.11
5	1	12		23.12	23	23.08
5	1	24		23.01	23.21	23.09
5	12	0		22.07	22.1	22.07
5	12	7		22.11	22.1	22.11
5	12	13		22.13	22.06	22.22
5	25	0		22.09	22.16	22.02
5	1	0	16-QAM	22.34	22.28	22.25
5	1	12		22.28	22.36	22.38
5	1	24		22.25	22.23	22.13
5	12	0		21.1	21.11	21.15
5	12	7		21.07	21.17	21.13
5	12	13		21.13	21.14	21.11
5	25	0		21.11	21.13	21.2

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.49	22.69	22.61
10	1	25		22.41	22.23	22.33
10	1	49		22.43	22.43	22.34
10	25	0		21.34	21.35	21.34
10	25	12		21.21	21.21	21.27
10	25	25		21.27	21.22	21.25
10	50	0		21.36	21.29	21.22
10	1	0	16-QAM	21.67	21.57	21.85
10	1	25		21.34	21.58	21.42
10	1	49		21.67	21.47	21.5
10	25	0		20.32	20.28	20.34
10	25	12		20.21	20.25	20.26
10	25	25		20.33	20.25	20.27
10	50	0		20.37	20.24	20.36
5	1	0	QPSK	22.25	22.1	22.22
5	1	12		22.25	22.18	22.16
5	1	24		22.3	22.24	22.04
5	12	0		21.04	21.24	21.24
5	12	7		21.18	21.25	21.04
5	12	13		21.15	21.22	21.17
5	25	0		21.17	21.15	21.2
5	1	0	16-QAM	21.33	21.38	21.38
5	1	12		21.28	21.48	21.26
5	1	24		21.33	21.51	21.23
5	12	0		20.05	20.25	20.2
5	12	7		20.16	20.18	20.1
5	12	13		20.02	20.18	20.13
5	25	0		20.09	20.3	20.26

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.06	22.16	22.15
3	1	8		22.07	22.05	22.06
3	1	14		22.1	22.1	22.04
3	8	0		21.06	21.19	21.05
3	8	4		21.05	21.2	21.07
3	8	7		21.1	21.15	21.14
3	15	0		21.07	21.17	21.09
3	1	0	16-QAM	21.48	21.49	21.87
3	1	8		21.43	21.49	21.21
3	1	14		21.2	21.43	21.16
3	8	0		20.07	20.25	20.12
3	8	4		20.07	20.22	20.12
3	8	7		20	20.19	20.17
3	15	0		20.05	20.17	20.08
1.4	1	0	QPSK	22	22.21	22.05
1.4	1	3		22.06	22.17	22.05
1.4	1	5		22.31	22.1	22.01
1.4	3	0		22	22.13	22.02
1.4	3	1		22.04	22.19	22.18
1.4	3	3		22.07	22.22	22.11
1.4	6	0		21.01	21.12	21.09
1.4	1	0	16-QAM	21.21	21.67	21.1
1.4	1	3		21.27	21.57	21.61
1.4	1	5		21.39	21.43	21.9
1.4	3	0		21.02	21.15	21.07
1.4	3	1		21.03	21.18	21.08
1.4	3	3		21.05	21.15	21.18
1.4	6	0		20.08	20.23	20.17

LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	-	22.78	-
10	1	25			22.47	
10	1	49			22.54	
10	25	0			21.34	
10	25	12			21.2	
10	25	25			21.17	
10	50	0			21.32	
10	1	0	16-QAM		21.63	
10	1	25			21.45	
10	1	49			21.64	
10	25	0			20.33	
10	25	12			20.23	
10	25	25			20.27	
10	50	0			20.58	
5	1	0	QPSK	22.24	22.26	22.45
5	1	12		22.28	22.5	22.12
5	1	24		22.4	22.31	22.2
5	12	0		21.45	21.3	21.27
5	12	7		21.45	21.3	21.17
5	12	13		21.28	21.28	21.19
5	25	0		21.44	21.29	21.26
5	1	0	16-QAM	21.94	21.47	21.8
5	1	12		21.44	21.28	21.45
5	1	24		21.44	21.36	21.58
5	12	0		20.24	20.34	20.23
5	12	7		20.4	20.27	20.15
5	12	13		20.39	20.26	20.17
5	25	0		20.41	20.28	20.24

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.65	22.88	23.13
20	1	49		22.48	22.67	22.4
20	1	99		22.22	22.7	22.63
20	50	0		21.46	21.6	21.81
20	50	24		21.39	21.58	21.75
20	50	50		21.45	21.57	21.77
20	100	0		21.49	21.7	21.75
20	1	0	16-QAM	21.75	21.82	22.5
20	1	49		21.55	21.59	21.76
20	1	99		21.58	21.88	21.81
20	50	0		20.49	20.7	20.77
20	50	24		20.45	20.74	20.58
20	50	50		20.56	20.71	20.86
20	100	0		20.5	20.65	20.68
15	1	0	QPSK	22.37	22.73	22.72
15	1	37		22.08	22.28	22.06
15	1	74		22.55	22.63	22.84
15	36	0		21.45	21.66	21.68
15	36	20		21.45	21.71	21.61
15	36	39		21.53	21.73	21.91
15	75	0		21.48	21.67	21.82
15	1	0	16-QAM	21.7	21.9	22.29
15	1	37		21.56	21.47	21.8
15	1	74		21.88	21.88	21.96
15	36	0		20.49	20.7	20.74
15	36	20		20.44	20.69	20.78
15	36	39		20.65	20.87	20.91
15	75	0		20.53	20.73	20.89

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.54	22.73	22.84
10	1	25		22.39	22.52	22.59
10	1	49		22.67	22.67	22.88
10	25	0		21.35	21.46	21.61
10	25	12		21.39	21.53	21.61
10	25	25		21.49	21.49	21.77
10	50	0		21.41	21.53	21.69
10	1	0	16-QAM	21.81	21.83	22.1
10	1	25		21.52	21.58	22.04
10	1	49		21.81	21.9	22.08
10	25	0		20.41	20.47	20.59
10	25	12		20.43	20.54	20.64
10	25	25		20.43	20.47	20.67
10	50	0		20.34	20.52	20.59
5	1	0	QPSK	22.35	22.63	22.81
5	1	12		22.3	22.43	22.56
5	1	24		22.35	22.45	22.65
5	12	0		21.34	21.49	21.68
5	12	7		21.32	21.44	21.65
5	12	13		21.26	21.37	21.65
5	25	0		21.36	21.48	21.68
5	1	0	16-QAM	21.67	21.93	22.13
5	1	12		21.52	21.64	22.02
5	1	24		21.59	21.69	21.97
5	12	0		20.44	20.55	20.64
5	12	7		20.4	20.53	20.71
5	12	13		20.4	20.45	20.67
5	25	0		20.37	20.55	20.66

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.28	22.6	22.74
3	1	8		22.5	22.61	22.83
3	1	14		22.34	22.42	22.77
3	8	0		21.27	21.47	21.66
3	8	4		21.32	21.42	21.65
3	8	7		21.25	21.39	21.66
3	15	0		21.29	21.4	21.69
3	1	0	16-QAM	21.67	21.75	22
3	1	8		21.62	21.62	21.62
3	1	14		21.66	21.6	22.29
3	8	0		20.39	20.57	20.84
3	8	4		20.45	20.59	20.69
3	8	7		20.32	20.52	20.72
3	15	0		20.35	20.58	20.79
1.4	1	0	QPSK	22.22	22.49	22.59
1.4	1	3		22.44	22.48	23.01
1.4	1	5		22.29	22.39	22.5
1.4	3	0		22.31	22.38	22.64
1.4	3	1		22.34	22.49	22.71
1.4	3	3		22.35	22.46	22.69
1.4	6	0		21.27	21.42	21.65
1.4	1	0	16-QAM	21.45	21.63	21.81
1.4	1	3		21.56	21.71	22
1.4	1	5		21.48	21.7	22.06
1.4	3	0		21.3	21.41	21.65
1.4	3	1		21.35	21.45	21.69
1.4	3	3		21.29	21.37	21.69
1.4	6	0		20.32	20.48	20.61

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.4	22.37	22.42
15	1	37		22.03	22	22.17
15	1	74		22.72	22.69	22.57
15	36	0		21.62	21.59	21.48
15	36	20		21.34	21.31	21.35
15	36	39		21.17	21.14	21.22
15	75	0		21.39	21.36	21.33
15	1	0	16-QAM	21.85	21.82	21.89
15	1	37		21.63	21.6	21.39
15	1	74		21.87	21.94	21.98
15	36	0		20.6	20.57	20.49
15	36	20		20.35	20.32	20.28
15	36	39		20.11	20.08	20.16
15	75	0		20.33	20.3	20.29

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.34	22.34	22.45
10	1	25		22	22.03	22.02
10	1	49		22.37	22.52	22.37
10	25	0		21.16	21.24	21.39
10	25	12		21.24	21.2	21.38
10	25	25		21.26	21.34	21.45
10	50	0		21.26	21.29	21.32
10	1	0	16-QAM	21.59	21.69	21.77
10	1	25		21.36	21.43	21.59
10	1	49		21.65	21.76	21.81
10	25	0		20.24	20.29	20.28
10	25	12		20.24	20.27	20.26
10	25	25		20.28	20.31	20.33
10	50	0		20.22	20.25	20.36
5	1	0	QPSK	22.19	22.14	22.16
5	1	12		21.97	22.06	22.07
5	1	24		22.1	22.02	22.25
5	12	0		21.23	21.23	21.35
5	12	7		21.07	21.2	21.24
5	12	13		21.16	21.28	21.33
5	25	0		21.21	21.18	21.31
5	1	0	16-QAM	21.43	21.49	21.58
5	1	12		21.48	21.51	21.63
5	1	24		21.52	21.65	21.66
5	12	0		20.27	20.29	20.37
5	12	7		20.21	20.19	20.21
5	12	13		20.25	20.25	20.29
5	25	0		20.13	20.17	20.2

LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.01	22.19	22.07
3	1	8		22.17	22.15	22.28
3	1	14		22.11	22.12	22.12
3	8	0		21.18	21.24	21.25
3	8	4		21.2	21.27	21.27
3	8	7		21.1	21.24	21.25
3	15	0		21.15	21.16	21.3
3	1	0	16-QAM	21.34	21.57	21.17
3	1	8		21.4	21.34	21.4
3	1	14		21.24	21.56	21.32
3	8	0		20.22	20.29	20.45
3	8	4		20.33	20.44	20.34
3	8	7		20.23	20.29	20.34
3	15	0		20.19	20.16	20.21
1.4	1	0	QPSK	22.18	22.04	22.35
1.4	1	3		22.07	22.03	22.05
1.4	1	5		22.15	22	22.3
1.4	3	0		22.06	22.09	22.23
1.4	3	1		22.13	22.16	22.23
1.4	3	3		22.1	22.22	22.19
1.4	6	0		21.15	21.14	21.29
1.4	1	0	16-QAM	21.32	21.11	21.19
1.4	1	3		21.25	21.51	21.65
1.4	1	5		21.21	21.54	21.66
1.4	3	0		21.17	21.27	21.3
1.4	3	1		21.21	21.24	21.25
1.4	3	3		21.24	21.28	21.3
1.4	6	0		20.15	20.21	20.22

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	23.09	22.87	23.02
20	1	49		22.97	22.81	22.84
20	1	99		23.21	23.52	23.14
20	50	0		22.09	22.1	22.07
20	50	24		21.98	21.91	22.06
20	50	50		22.07	21.99	22.06
20	100	0		21.88	21.95	21.9
20	1	0	16-QAM	22.07	22.15	22.07
20	1	49		22.37	22.07	21.96
20	1	99		22.36	22.1	22.25
20	50	0		20.95	20.95	21.02
20	50	24		21.18	20.99	20.75
20	50	50		21	21.08	21.13
20	100	0		21.06	20.96	20.93
15	1	0	QPSK	22.97	22.89	22.88
15	1	37		23.08	22.92	22.95
15	1	74		23.15	23.07	23.28
15	36	0		22.12	21.95	21.96
15	36	20		22.2	21.68	22.01
15	36	39		22.2	21.99	22.08
15	75	0		22.12	21.9	22.04
15	1	0	16-QAM	22.49	22.03	21.85
15	1	37		22.24	22.17	22.21
15	1	74		22.55	21.9	22.49
15	36	0		21.11	20.9	20.89
15	36	20		21.16	20.82	21
15	36	39		21.17	21.07	21.09
15	75	0		21.22	20.72	21.06

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.17	23.01	23.15
10	1	25		23.1	23	23.13
10	1	49		23.45	23.51	23.38
10	25	0		22.12	22.1	22.08
10	25	12		22.1	21.87	21.93
10	25	25		22.13	22.08	22.06
10	50	0		22.09	21.91	22.11
10	1	0	16-QAM	22.28	22.2	22.2
10	1	25		22.17	21.91	21.96
10	1	49		22.39	22.29	22.3
10	25	0		20.83	21	21.06
10	25	12		21.07	20.93	21.07
10	25	25		21.12	21.09	21.02
10	50	0		21.16	20.7	20.95
5	1	0	QPSK	23.02	23.06	23.07
5	1	12		22.96	22.86	23.01
5	1	24		22.78	22.9	23.14
5	12	0		22.09	22.08	22.11
5	12	7		22.09	21.78	22.09
5	12	13		21.9	21.88	21.98
5	25	0		21.97	21.94	22.14
5	1	0	16-QAM	22.13	22.08	22.11
5	1	12		21.91	21.81	22.23
5	1	24		22.11	22.02	22.27
5	12	0		21.08	21.02	21.09
5	12	7		21.05	20.91	21.1
5	12	13		21	20.93	20.99
5	25	0		21.08	21.02	21.1

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.9	23.11	23.33
20	1	49		22.92	23.12	23.05
20	1	99		22.95	23.35	23.46
20	50	0		22.12	22.14	22.24
20	50	24		22.01	22.11	22.19
20	50	50		22.11	21.99	22.21
20	100	0		22.07	22.24	22.28
20	1	0	16-QAM	21.92	22.01	22.64
20	1	49		21.89	22.14	22.2
20	1	99		22.51	22.38	22.67
20	50	0		21.02	21.22	21.35
20	50	24		20.99	21.19	21.17
20	50	50		21.17	21.28	21.06
20	100	0		21.14	21.29	21.31
15	1	0	QPSK	23.2	23.22	23.48
15	1	37		22.97	23.2	22.46
15	1	74		23.17	23.3	23.38
15	36	0		22.04	22.18	22.27
15	36	20		21.91	21.86	22.14
15	36	39		22.05	22.05	22.13
15	75	0		22.03	22.21	22.22
15	1	0	16-QAM	22.17	22.41	22.84
15	1	37		21.8	22.11	21.89
15	1	74		22.31	22.46	22.38
15	36	0		21.03	21.17	21.18
15	36	20		20.87	21.09	21.09
15	36	39		21	20.94	21.17
15	75	0		21.09	21.27	21.26

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.11	23.26	23.28
10	1	25		23.18	23.23	23.08
10	1	49		23.48	23.47	23.32
10	25	0		22.24	22.16	21.98
10	25	12		22.18	22.16	22.23
10	25	25		22.11	21.98	22.22
10	50	0		22.15	22.14	22.05
10	1	0	16-QAM	22.71	22.46	22.47
10	1	25		22.4	22.3	22.29
10	1	49		22.78	22.51	22.5
10	25	0		21.1	21.21	21.25
10	25	12		21.1	21.2	21.16
10	25	25		21.1	21.26	21.2
10	50	0		21.26	21.23	21.12
5	1	0	QPSK	23.04	23.21	23.15
5	1	12		23.02	23.34	23.03
5	1	24		23.09	23.17	23.02
5	12	0		22.16	22.23	22.1
5	12	7		22.13	22.25	22.13
5	12	13		22.1	22.34	21.82
5	25	0		22.18	22.26	21.98
5	1	0	16-QAM	22.24	22.32	22.25
5	1	12		22.02	22.26	22.27
5	1	24		22.41	22.26	22.15
5	12	0		21.08	21.22	21.23
5	12	7		21.05	21.02	21.09
5	12	13		21.11	21.24	21.05
5	25	0		21.22	21.18	21.12

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.38	22.66	22.38
20	1	49		22.56	22.63	22.24
20	1	99		22.83	23.21	22.82
20	50	0		21.43	21.5	21.46
20	50	24		21.4	21.46	21.43
20	50	50		21.42	21.44	21.43
20	100	0		21.36	21.53	21.51
20	1	0	16-QAM	21.89	22.05	22.07
20	1	49		21.73	21.86	21.74
20	1	99		22.34	22.34	22.24
20	50	0		20.44	20.48	20.54
20	50	24		20.4	20.5	20.53
20	50	50		20.38	20.45	20.39
20	100	0		20.41	20.39	20.6
15	1	0	QPSK	22.76	22.97	22.83
15	1	37		22.19	22.57	22.17
15	1	74		22.59	22.71	22.81
15	36	0		21.44	21.47	21.51
15	36	20		21.35	21.39	21.26
15	36	39		21.29	21.4	21.38
15	75	0		21.35	21.38	21.43
15	1	0	16-QAM	22.1	22.31	22.02
15	1	37		21.86	22.03	22.08
15	1	74		22.16	22.27	22.06
15	36	0		20.52	20.58	20.53
15	36	20		20.4	20.48	20.39
15	36	39		20.41	20.4	20.35
15	75	0		20.41	20.46	20.53

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.01	22.06	22.05
10	1	25		22.36	22.34	22.44
10	1	49		22.91	22.89	22.93
10	25	0		21.42	21.39	21.48
10	25	12		21.47	21.55	21.57
10	25	25		21.47	21.61	21.66
10	50	0		21.46	21.51	21.55
10	1	0	16-QAM	21.29	21.32	21.42
10	1	25		21.75	21.82	21.92
10	1	49		22.24	22.28	22.36
10	25	0		20.49	20.57	20.47
10	25	12		20.45	20.49	20.51
10	25	25		20.54	20.57	20.73
10	50	0		20.33	20.59	20.43
5	1	0	QPSK	22.54	22.5	22.53
5	1	12		22.38	22.38	22.36
5	1	24		22.36	22.43	22.53
5	12	0		21.48	21.56	21.54
5	12	7		21.44	21.5	21.49
5	12	13		21.48	21.47	21.54
5	25	0		21.45	21.51	21.49
5	1	0	16-QAM	21.9	21.8	21.9
5	1	12		21.63	21.65	21.95
5	1	24		21.81	21.62	21.65
5	12	0		20.51	20.57	20.56
5	12	7		20.49	20.6	20.55
5	12	13		20.54	20.58	20.51
5	25	0		20.45	20.46	20.55

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.32	22.39	22.43
3	1	8		22.44	22.52	22.47
3	1	14		22.35	22.4	22.42
3	8	0		21.41	21.5	21.5
3	8	4		21.46	21.47	21.48
3	8	7		21.41	21.44	21.49
3	15	0		21.41	21.47	21.51
3	1	0	16-QAM	21.73	21.84	21.8
3	1	8		21.51	21.79	22.06
3	1	14		21.71	21.51	21.76
3	8	0		20.5	20.63	20.59
3	8	4		20.44	20.58	20.56
3	8	7		20.48	20.41	20.56
3	15	0		20.38	20.54	20.53
1.4	1	0	QPSK	22.33	22.33	22.18
1.4	1	3		22.48	22.65	22.61
1.4	1	5		22.47	22.32	22.44
1.4	3	0		22.34	22.39	22.51
1.4	3	1		22.42	22.45	22.46
1.4	3	3		22.41	22.42	22.5
1.4	6	0		21.34	21.35	21.45
1.4	1	0	16-QAM	22.06	21.58	21.73
1.4	1	3		21.81	21.84	21.58
1.4	1	5		21.61	21.68	21.4
1.4	3	0		21.44	21.43	21.4
1.4	3	1		21.5	21.68	21.53
1.4	3	3		21.4	21.52	21.56
1.4	6	0		20.66	20.55	20.59

ERP/EIRP

LTE Band 2 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	22.18	22.37	22.59	22.30	22.54	22.54	22.28	22.60	22.64
Conducted Power (Watts)	0.1652	0.1726	0.1816	0.1698	0.1795	0.1795	0.1690	0.1820	0.1837
EIRP(dBm)	21.18	21.37	21.59	21.30	21.54	21.54	21.28	21.60	21.64
EIRP(Watts)	0.1312	0.1371	0.1442	0.1349	0.1426	0.1426	0.1343	0.1445	0.1459

LTE Band 2 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	22.39	22.72	22.57	22.51	22.74	22.79	22.55	22.80	22.65
Conducted Power (Watts)	0.1734	0.1871	0.1807	0.1782	0.1879	0.1901	0.1799	0.1905	0.1841
EIRP(dBm)	21.39	21.72	21.57	21.51	21.74	21.79	21.55	21.80	21.65
EIRP(Watts)	0.1377	0.1486	0.1435	0.1416	0.1493	0.1510	0.1429	0.1514	0.1462

LTE Band 2 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	21.40	21.72	21.81	21.50	21.64	21.94	21.47	21.70	21.94
Conducted Power (Watts)	0.1380	0.1486	0.1517	0.1413	0.1459	0.1563	0.1403	0.1479	0.1563
EIRP(dBm)	20.40	20.72	20.81	20.50	20.64	20.94	20.47	20.70	20.94
EIRP(Watts)	0.1096	0.1180	0.1205	0.1122	0.1159	0.1242	0.1114	0.1175	0.1242

LTE Band 2 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	21.62	22.02	22.16	21.86	21.97	22.31	21.79	22.17	22.06
Conducted Power (Watts)	0.1452	0.1592	0.1644	0.1535	0.1574	0.1702	0.1510	0.1648	0.1607
EIRP(dBm)	20.62	21.02	21.16	20.86	20.97	21.31	20.79	21.17	21.06
EIRP(Watts)	0.1153	0.1265	0.1306	0.1219	0.1250	0.1352	0.1199	0.1309	0.1276

LTE Band 4 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	22.45	22.34	22.31	22.45	22.33	22.26	22.49	22.49	22.33
Conducted Power (Watts)	0.1758	0.1714	0.1702	0.1758	0.1710	0.1683	0.1774	0.1774	0.1710
EIRP(dBm)	21.45	21.34	21.31	21.45	21.33	21.26	21.49	21.49	21.33
EIRP(Watts)	0.1396	0.1361	0.1352	0.1396	0.1358	0.1337	0.1409	0.1409	0.1358

LTE Band 4 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	22.01	21.85	21.81	22.43	22.39	22.39	22.35	22.50	22.37
Conducted Power (Watts)	0.1589	0.1531	0.1517	0.1750	0.1734	0.1734	0.1718	0.1778	0.1726
EIRP(dBm)	21.01	20.85	20.81	21.43	21.39	21.39	21.35	21.50	21.37
EIRP(Watts)	0.1262	0.1216	0.1205	0.1390	0.1377	0.1377	0.1365	0.1413	0.1371

LTE Band 4 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	21.69	21.67	21.53	21.89	21.77	21.69	21.78	21.80	21.70
Conducted Power (Watts)	0.1476	0.1469	0.1422	0.1545	0.1503	0.1476	0.1507	0.1514	0.1479
EIRP(dBm)	20.69	20.67	20.53	20.89	20.77	20.69	20.78	20.80	20.70
EIRP(Watts)	0.1172	0.1167	0.1130	0.1227	0.1194	0.1172	0.1197	0.1202	0.1175

LTE Band 4 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	21.13	21.13	21.14	21.56	22.00	21.45	21.66	21.76	21.68
Conducted Power (Watts)	0.1297	0.1297	0.1300	0.1432	0.1585	0.1396	0.1466	0.1500	0.1472
EIRP(dBm)	20.13	20.13	20.14	20.56	21.00	20.45	20.66	20.76	20.68
EIRP(Watts)	0.1030	0.1030	0.1033	0.1138	0.1259	0.1109	0.1164	0.1191	0.1169

LTE Band 5 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.07	22.13	22.08	22.10	22.10	22.00	22.09	22.21	22.05
Conducted Power (Watts)	0.1611	0.1633	0.1614	0.1622	0.1622	0.1585	0.1618	0.1663	0.1603
ERP(dBm)	18.92	18.98	18.93	18.95	18.95	18.85	18.94	19.06	18.90
ERP(Watts)	0.0780	0.0791	0.0782	0.0785	0.0785	0.0767	0.0783	0.0805	0.0776

LTE Band 5 (G_T - L_C = -1.0 dB) QPSK			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	22.42	22.43	22.30
Conducted Power (Watts)	0.1746	0.1750	0.1698
ERP(dBm)	19.27	19.28	19.15
ERP(Watts)	0.0845	0.0847	0.0822

LTE Band 5 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	21.52	21.36	21.41	21.59	21.21	21.52	21.24	21.46	21.30
Conducted Power (Watts)	0.1419	0.1368	0.1384	0.1442	0.1321	0.1419	0.1330	0.1400	0.1349
ERP(dBm)	18.37	18.21	18.26	18.44	18.06	18.37	18.09	18.31	18.15
ERP(Watts)	0.0687	0.0662	0.0670	0.0698	0.0640	0.0687	0.0644	0.0678	0.0653

LTE Band 5 (G_T - L_C = -1.0 dB) 16QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	21.69	21.43	21.70
Conducted Power (Watts)	0.1476	0.1390	0.1479
ERP(dBm)	18.54	18.28	18.55
ERP(Watts)	0.0714	0.0673	0.0716

LTE Band 7 (G_T - L_C = -1.0 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	23.01	23.21	23.09
Conducted Power (Watts)	0.2000	0.2094	0.2037
EIRP(dBm)	22.01	22.21	22.09
EIRP(Watts)	0.1589	0.1663	0.1618

LTE Band 7 (G_T - L_C =-1.0 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	23.23	23.32	23.19	23.01	23.03	23.07	23.27	23.39	23.36
Conducted Power (Watts)	0.2104	0.2148	0.2084	0.2000	0.2009	0.2028	0.2123	0.2183	0.2168
EIRP(dBm)	22.23	22.32	22.19	22.01	22.03	22.07	22.27	22.39	22.36
EIRP(Watts)	0.1671	0.1706	0.1656	0.1589	0.1596	0.1611	0.1687	0.1734	0.1722

LTE Band 7 (G_T - L_C =-1.0 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	22.28	22.36	22.38
Conducted Power (Watts)	0.1690	0.1722	0.1730
EIRP(dBm)	21.28	21.36	21.38
EIRP(Watts)	0.1343	0.1368	0.1374

LTE Band 7 (G_T - L_C =-1.0 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	22.48	22.43	22.44	22.30	22.24	22.29	22.45	22.29	22.31
Conducted Power (Watts)	0.1770	0.1750	0.1754	0.1698	0.1675	0.1694	0.1758	0.1694	0.1702
EIRP(dBm)	21.48	21.43	21.44	21.30	21.24	21.29	21.45	21.29	21.31
EIRP(Watts)	0.1406	0.1390	0.1393	0.1349	0.1330	0.1346	0.1396	0.1346	0.1352

LTE Band 12 (G_T - L_C = -3.0 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	22.31	22.10	22.01	22.06	22.16	22.15	22.30	22.24	22.04
Conducted Power (Watts)	0.1702	0.1622	0.1589	0.1607	0.1644	0.1641	0.1698	0.1675	0.1600
ERP(dBm)	17.16	16.95	16.86	16.91	17.01	17.00	17.15	17.09	16.89
ERP(Watts)	0.0520	0.0495	0.0485	0.0491	0.0502	0.0501	0.0519	0.0512	0.0489

LTE Band 12 (G_T - L_C = -3.0 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.49	22.69	22.61
Conducted Power (Watts)	0.1774	0.1858	0.1824
ERP(dBm)	17.34	17.54	17.46
ERP(Watts)	0.0542	0.0568	0.0557

LTE Band 12 (G_T - L_C = -3.0 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	21.39	21.43	21.90	21.48	21.49	21.87	21.33	21.51	21.23
Conducted Power (Watts)	0.1377	0.1390	0.1549	0.1406	0.1409	0.1538	0.1358	0.1416	0.1327
ERP(dBm)	16.24	16.28	16.75	16.33	16.34	16.72	16.18	16.36	16.08
ERP(Watts)	0.0421	0.0425	0.0473	0.0430	0.0431	0.0470	0.0415	0.0433	0.0406

LTE Band 12 (G_T - L_C = -3.0 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	21.67	21.57	21.85
Conducted Power (Watts)	0.1469	0.1435	0.1531
ERP(dBm)	16.52	16.42	16.70
ERP(Watts)	0.0449	0.0439	0.0468

LTE Band 13 (G_T - L_C = -3.0 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)	22.28	22.50	22.12	-	22.78	-
Conducted Power (Watts)	0.1690	0.1778	0.1629	-	0.1897	-
ERP(dBm)	17.13	17.35	16.97	-	17.63	-
ERP(Watts)	0.0516	0.0543	0.0498	-	0.0579	-

LTE Band 13 (G_T - L_C =-3.0 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)	21.94	21.47	21.80	-	21.64	-
Conducted Power (Watts)	0.1563	0.1403	0.1514	-	0.1459	-
ERP(dBm)	16.79	16.32	16.65	-	16.49	-
ERP(Watts)	0.0478	0.0429	0.0462	-	0.0446	-

LTE Band 25 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
Conducted Power (dBm)	22.44	22.48	23.01	22.50	22.61	22.83	22.35	22.63	22.81
Conducted Power (Watts)	0.1754	0.1770	0.2000	0.1778	0.1824	0.1919	0.1718	0.1832	0.1910
EIRP(dBm)	21.44	21.48	22.01	21.50	21.61	21.83	21.35	21.63	21.81
EIRP(Watts)	0.1393	0.1406	0.1589	0.1413	0.1449	0.1524	0.1365	0.1455	0.1517

LTE Band 25 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
Conducted Power (dBm)	22.67	22.67	22.88	22.55	22.63	22.84	22.65	22.88	23.13
Conducted Power (Watts)	0.1849	0.1849	0.1941	0.1799	0.1832	0.1923	0.1841	0.1941	0.2056
EIRP(dBm)	21.67	21.67	21.88	21.55	21.63	21.84	21.65	21.88	22.13
EIRP(Watts)	0.1469	0.1469	0.1542	0.1429	0.1455	0.1528	0.1462	0.1542	0.1633

LTE Band 25 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
Conducted Power (dBm)	21.48	21.70	22.06	21.66	21.60	22.29	21.67	21.93	21.93
Conducted Power (Watts)	0.1406	0.1479	0.1607	0.1466	0.1445	0.1694	0.1469	0.1560	0.1560
EIRP(dBm)	20.48	20.70	21.06	20.66	20.60	21.29	20.67	20.93	21.13
EIRP(Watts)	0.1117	0.1175	0.1276	0.1164	0.1148	0.1346	0.1167	0.1239	0.1297

LTE Band 25 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
Conducted Power (dBm)	21.81	21.83	22.10	21.70	21.90	22.29	21.75	21.82	22.50
Conducted Power (Watts)	0.1517	0.1524	0.1622	0.1479	0.1549	0.1694	0.1496	0.1521	0.1778
EIRP(dBm)	20.81	20.83	21.10	20.70	20.90	21.29	20.75	20.82	21.50
EIRP(Watts)	0.1205	0.1211	0.1288	0.1175	0.1230	0.1346	0.1189	0.1208	0.1413

LTE Band 26 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.18	22.04	22.35	22.17	22.15	22.28	22.10	22.02	22.25
Conducted Power (Watts)	0.1652	0.1600	0.1718	0.1648	0.1641	0.1690	0.1622	0.1592	0.1679
ERP(dBm)	19.03	18.89	19.20	19.02	19.00	19.13	18.95	18.87	19.10
ERP(Watts)	0.0800	0.0774	0.0832	0.0798	0.0794	0.0818	0.0785	0.0771	0.0813

LTE Band 26 (G_T - L_C = -1.0 dB) QPSK							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	22.37	22.52	22.37	22.72	22.69	22.57	22.98
Conducted Power (Watts)	0.1726	0.1786	0.1726	0.1871	0.1858	0.1807	0.1986
ERP(dBm)	19.22	19.37	19.22	19.57	19.54	19.42	19.83
ERP(Watts)	0.0836	0.0865	0.0836	0.0906	0.0899	0.0875	0.0962

LTE Band 26 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	21.21	21.54	21.66	21.34	21.57	21.17	21.52	21.65	21.66
Conducted Power (Watts)	0.1321	0.1426	0.1466	0.1361	0.1435	0.1309	0.1419	0.1462	0.1466
ERP(dBm)	18.06	18.39	18.51	18.19	18.42	18.02	18.37	18.50	18.51
ERP(Watts)	0.0640	0.0690	0.0710	0.0659	0.0695	0.0634	0.0687	0.0708	0.0710

LTE Band 26 (G_T - L_C = -1.0 dB) 16QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	21.65	21.76	21.81	22.27	22.24	21.98	22.38
Conducted Power (Watts)	0.1462	0.1500	0.1517	0.1687	0.1675	0.1578	0.1730
ERP(dBm)	18.50	18.61	18.66	19.12	19.09	18.83	19.23
ERP(Watts)	0.0708	0.0726	0.0735	0.0817	0.0811	0.0764	0.0838

LTE Band 38 (G_T - L_C = -1.0 dB) QPSK			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency (MHz)	2572.5	2595	2617.5
Conducted Power (dBm)	22.78	22.90	23.14
Conducted Power (Watts)	0.1897	0.1950	0.2061
EIRP(dBm)	21.78	21.90	22.14
EIRP(Watts)	0.1507	0.1549	0.1637

LTE Band 38 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
Conducted Power (dBm)	23.45	23.51	23.38	23.15	23.07	23.28	23.21	23.52	23.14
Conducted Power (Watts)	0.2213	0.2244	0.2178	0.2065	0.2028	0.2128	0.2094	0.2249	0.2061
EIRP(dBm)	22.45	22.51	22.38	22.15	22.07	22.28	22.21	22.52	22.14
EIRP(Watts)	0.1758	0.1782	0.1730	0.1641	0.1611	0.1690	0.1663	0.1786	0.1637

LTE Band 38 (G_T - L_C = -1.0 dB) 16QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency (MHz)	2572.5	2595	2617.5
Conducted Power (dBm)	22.11	22.02	22.27
Conducted Power (Watts)	0.1626	0.1592	0.1687
EIRP(dBm)	21.11	21.02	21.27
EIRP(Watts)	0.1291	0.1265	0.1340

LTE Band 38 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
Conducted Power (dBm)	22.39	22.29	22.30	22.55	21.90	22.49	22.37	22.07	21.96
Conducted Power (Watts)	0.1734	0.1694	0.1698	0.1799	0.1549	0.1774	0.1726	0.1611	0.1570
EIRP(dBm)	21.39	21.29	21.30	21.55	20.90	21.49	21.37	21.07	20.96
EIRP(Watts)	0.1377	0.1346	0.1349	0.1429	0.1230	0.1409	0.1371	0.1279	0.1247

LTE Band 41 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	23.02	23.34	23.03	23.48	23.47	23.32	23.20	23.22	23.48
Conducted Power (Watts)	0.2004	0.2158	0.2009	0.2228	0.2223	0.2148	0.2089	0.2099	0.2228
EIRP(dBm)	22.02	22.34	22.03	22.48	22.47	22.32	22.20	22.22	22.48
EIRP(Watts)	0.1592	0.1714	0.1596	0.1770	0.1766	0.1706	0.1660	0.1667	0.1770

LTE Band 41 (G_T - L_C = -1.0 dB) QPSK			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	22.95	23.35	23.46
Conducted Power (Watts)	0.1972	0.2163	0.2218
EIRP(dBm)	21.95	22.35	22.46
EIRP(Watts)	0.1567	0.1718	0.1762

LTE Band 41 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	22.24	22.32	22.25	22.78	22.51	22.50	22.17	22.41	22.84
Conducted Power (Watts)	0.1675	0.1706	0.1679	0.1897	0.1782	0.1778	0.1648	0.1742	0.1923
EIRP(dBm)	21.24	21.32	21.25	21.78	21.51	21.50	21.17	21.41	21.84
EIRP(Watts)	0.1330	0.1355	0.1334	0.1507	0.1416	0.1413	0.1309	0.1384	0.1528

LTE Band 41 (G_T - L_C = -1.0 dB) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	22.51	22.38	22.67
Conducted Power (Watts)	0.1782	0.1730	0.1849
EIRP(dBm)	21.51	21.38	21.67
EIRP(Watts)	0.1416	0.1374	0.1469

LTE Band 66 (G_T - L_C = -1.0 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	22.48	22.65	22.61	22.44	22.52	22.47	22.54	22.50	22.53
Conducted Power (Watts)	0.1770	0.1841	0.1824	0.1754	0.1786	0.1766	0.1795	0.1778	0.1791
EIRP(dBm)	21.48	21.65	21.61	21.44	21.52	21.47	21.54	21.50	21.53
EIRP(Watts)	0.1406	0.1462	0.1449	0.1393	0.1419	0.1403	0.1426	0.1413	0.1422

LTE Band 66 (G_T - L_C = -1.0 dB)) QPSK									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	22.91	22.89	22.93	22.76	22.97	22.83	22.83	23.21	22.82
Conducted Power (Watts)	0.1954	0.1945	0.1963	0.1888	0.1982	0.1919	0.1919	0.2094	0.1914
EIRP(dBm)	21.91	21.89	21.93	21.76	21.97	21.83	21.83	22.21	21.82
EIRP(Watts)	0.1552	0.1545	0.1560	0.1500	0.1574	0.1524	0.1524	0.1663	0.1521

LTE Band 66 (G_T - L_C = -1.0 dB)) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	22.06	21.58	21.73	21.51	21.79	22.06	21.63	21.65	21.95
Conducted Power (Watts)	0.1607	0.1439	0.1489	0.1416	0.1510	0.1607	0.1455	0.1462	0.1567
EIRP(dBm)	21.06	20.58	20.73	20.51	20.79	21.06	20.63	20.65	20.95
EIRP(Watts)	0.1276	0.1143	0.1183	0.1125	0.1199	0.1276	0.1156	0.1161	0.1245

LTE Band 66 (G_T - L_C = -1.0 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	22.24	22.28	22.36	22.10	22.31	22.02	22.34	22.34	22.24
Conducted Power (Watts)	0.1675	0.1690	0.1722	0.1622	0.1702	0.1592	0.1714	0.1714	0.1675
EIRP(dBm)	21.24	21.28	21.36	21.10	21.31	21.02	21.34	21.34	21.24
EIRP(Watts)	0.1330	0.1343	0.1368	0.1288	0.1352	0.1265	0.1361	0.1361	0.1330

Peak-to-Average Ratio

Mode	LTE Band 2 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.39	5.07	4.61	6.17	PASS
Middle CH	3.88	5.13	4.78	6.14	
Highest CH	3.97	5.19	4.64	6.35	

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.09	4.75	4.99	5.77	PASS
Middle CH	4.43	4.70	5.04	5.74	
Highest CH	4.20	4.72	5.28	5.77	

Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.51	4.93	4.03	5.68	PASS
Middle CH	3.68	5.04	4.20	5.83	
Highest CH	3.57	5.13	4.32	5.97	

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.62	4.87	4.2	5.8	PASS
Middle CH	3.25	4.84	3.86	5.71	
Highest CH	3.65	4.46	4.41	5.54	

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.48	4.7	4.09	5.65	PASS
Middle CH	3.51	4.61	4.03	5.59	
Highest CH	3.86	4.49	4.99	5.42	

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.1	4.29	4	5.28	
Highest CH	-	-	-	-	

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.97	4.84	4.93	5.83	PASS
Middle CH	4.52	4.9	5.57	5.83	
Highest CH	4.58	5.1	5.74	6.03	

Mode	LTE Band 26 / 15MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.59	5.42	4.64	6.23	PASS
Middle CH	3.71	5.28	4.41	6.29	
Highest CH	3.97	5.57	4.81	6.38	

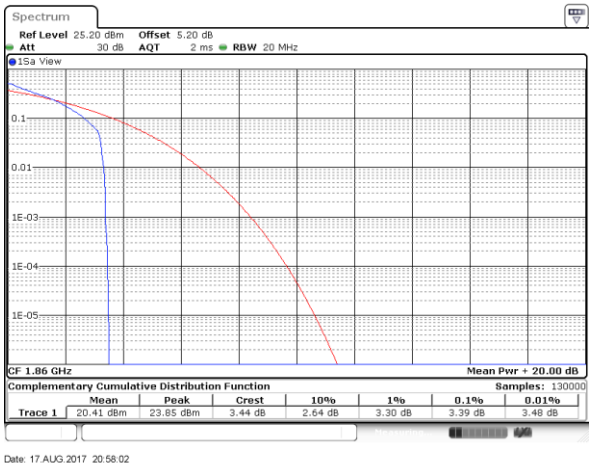
Mode	LTE Band 38 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.58	5.97	5.51	6.09	PASS
Middle CH	5.33	6.14	5.77	6.03	
Highest CH	4.75	5.1	5.65	5.97	

Mode	LTE Band 41 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	6.78	5.33	5.71	6.46	PASS
Middle CH	5.62	5.45	6.52	6.75	
Highest CH	5.83	6.00	6.14	6.96	

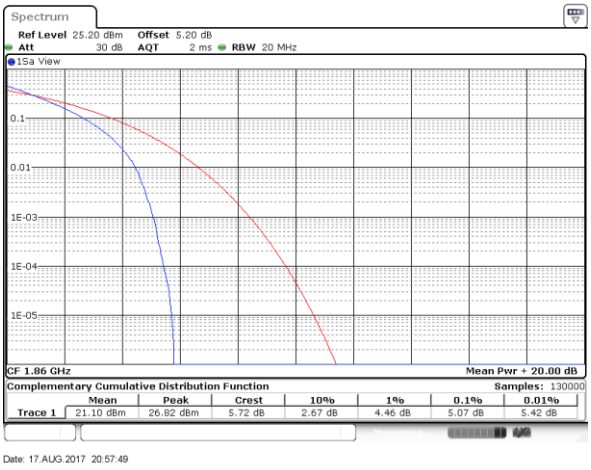
Mode	LTE Band 66 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.67	5.04	5.68	6.12	PASS
Middle CH	4.84	5.16	5.30	6.20	
Highest CH	4.87	5.16	5.39	6.17	

LTE Band 2 / 20MHz / QPSK

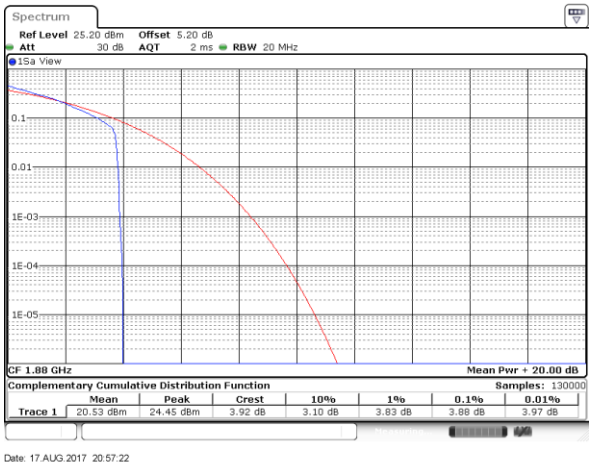
Lowest Channel / 1RB



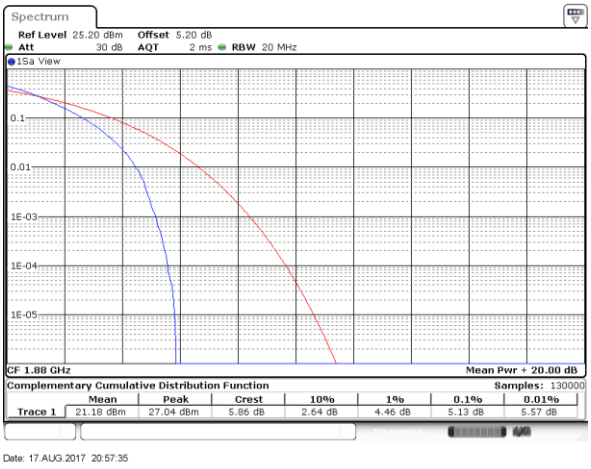
Lowest Channel / Full RB



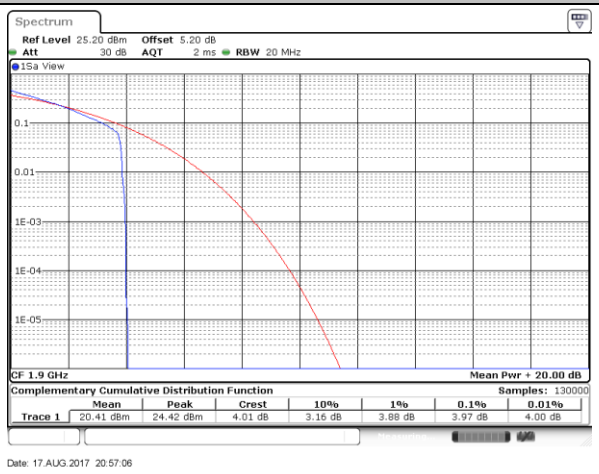
Middle Channel / 1RB



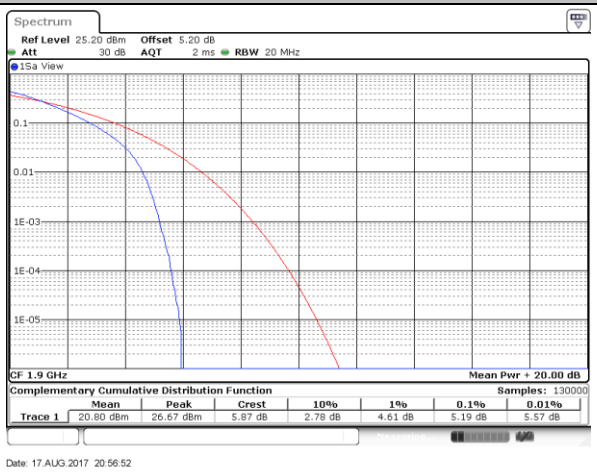
Middle Channel / Full RB



Highest Channel / 1RB

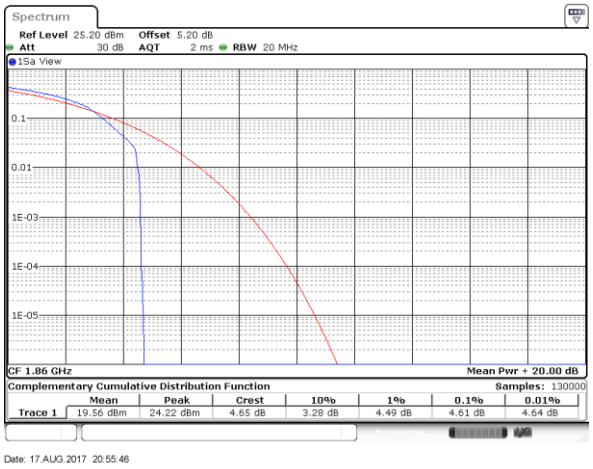


Highest Channel / Full RB

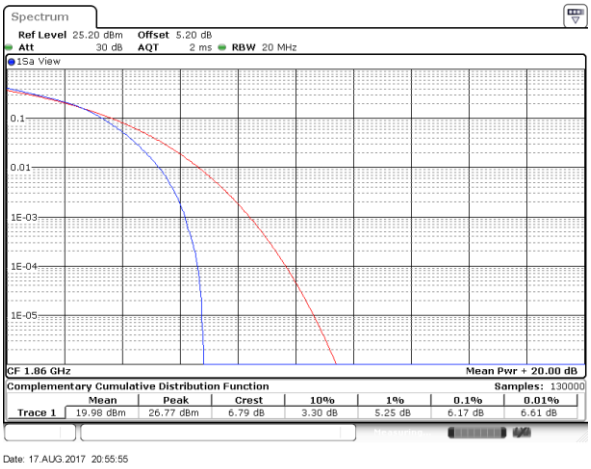


LTE Band 2 / 20MHz / 16QAM

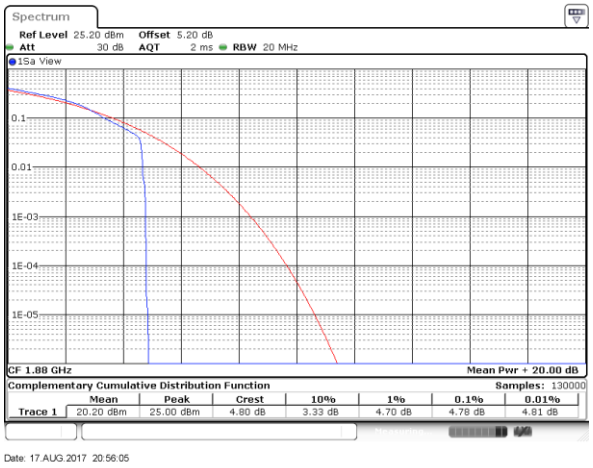
Lowest Channel / 1RB



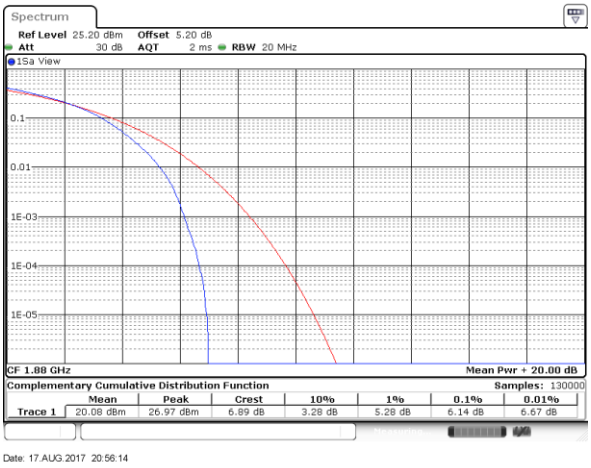
Lowest Channel / Full RB



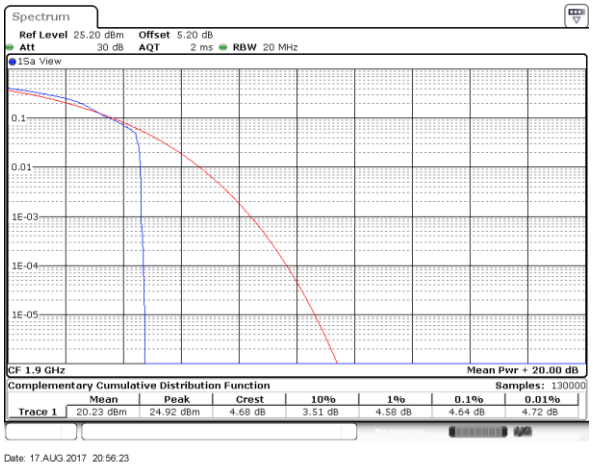
Middle Channel / 1RB



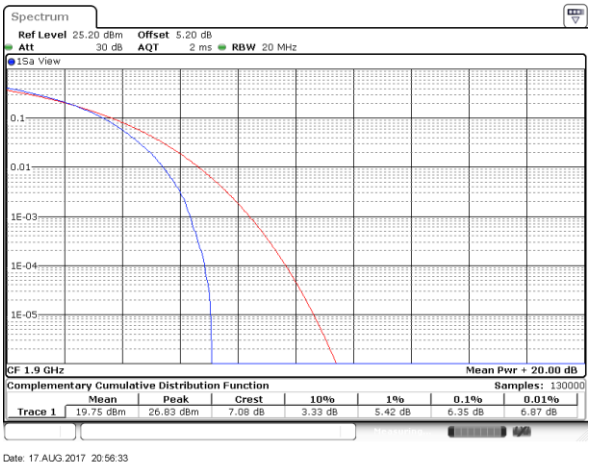
Middle Channel / Full RB



Highest Channel / 1RB

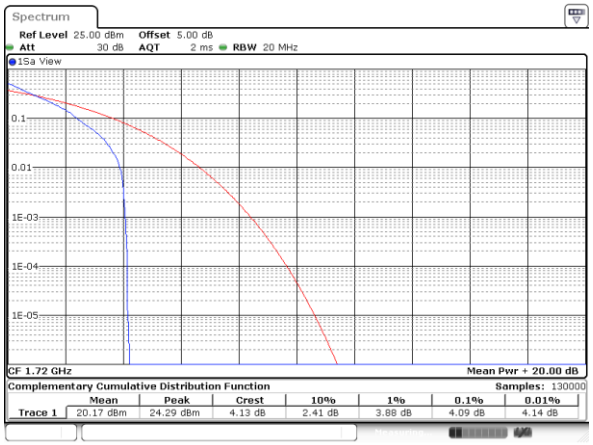


Highest Channel / Full RB

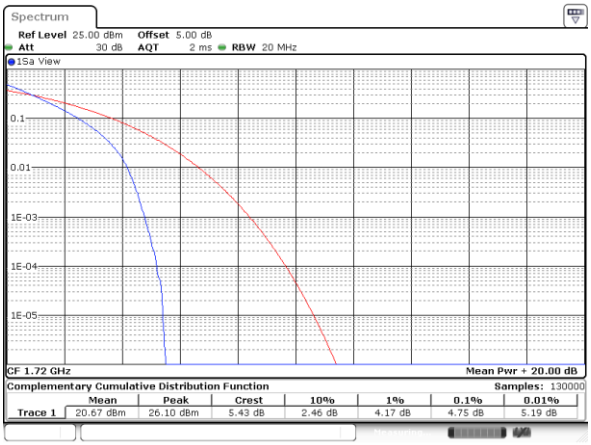


LTE Band 4 / 20MHz / QPSK

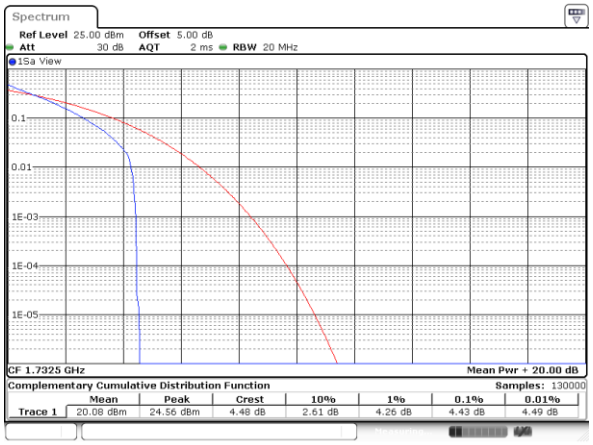
Lowest Channel / 1RB



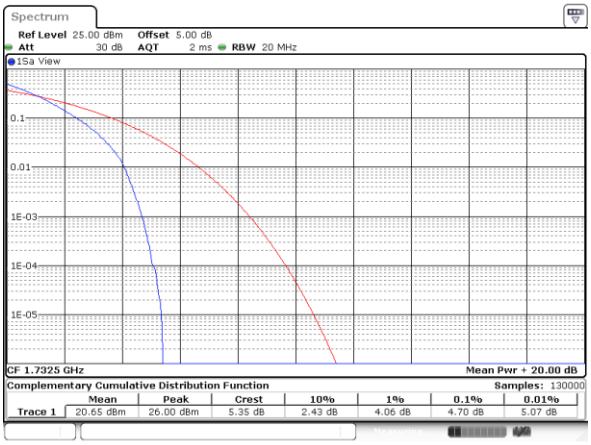
Lowest Channel / Full RB



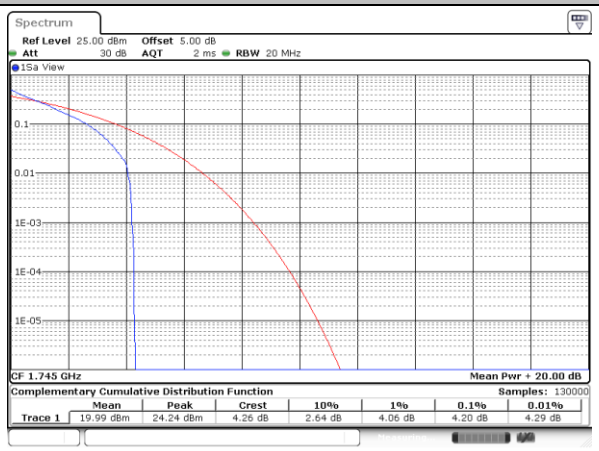
Middle Channel / 1RB



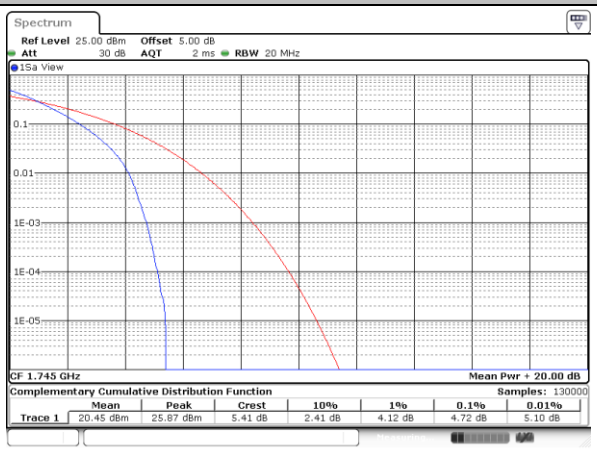
Middle Channel / Full RB



Highest Channel / 1RB

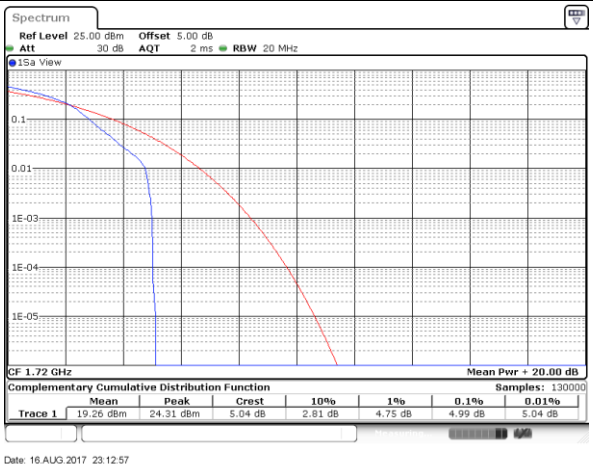


Highest Channel / Full RB

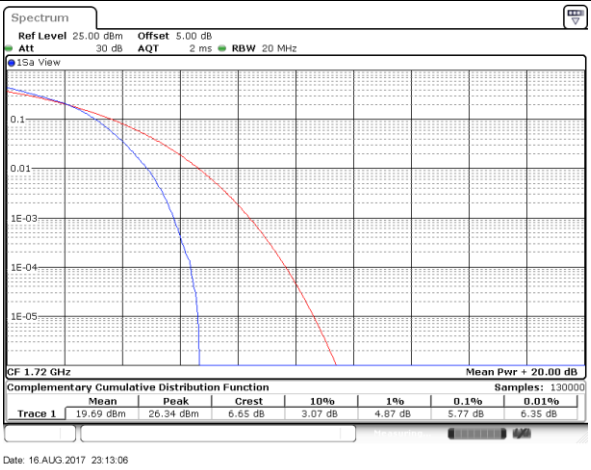


LTE Band 4 / 20MHz / 16QAM

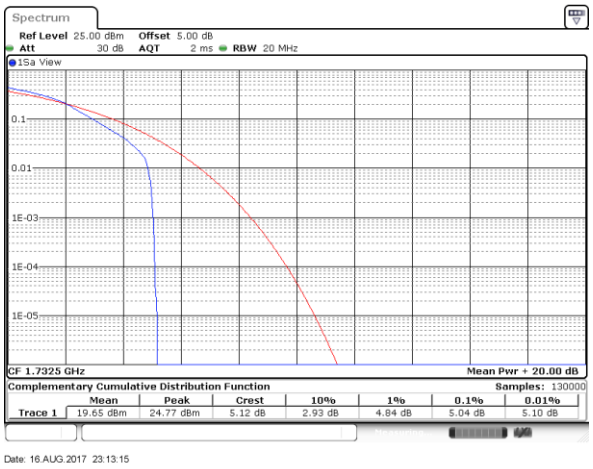
Lowest Channel / 1RB



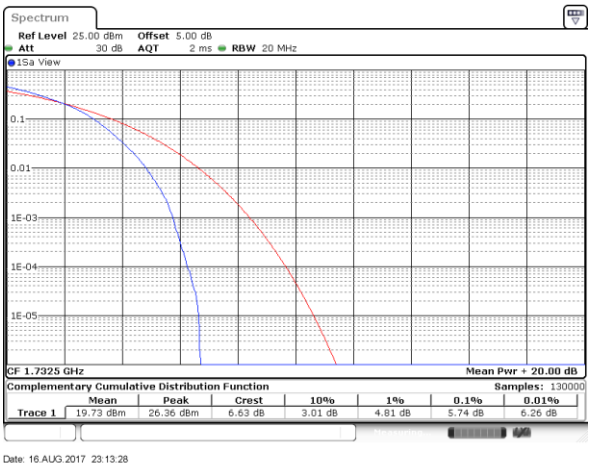
Lowest Channel / Full RB



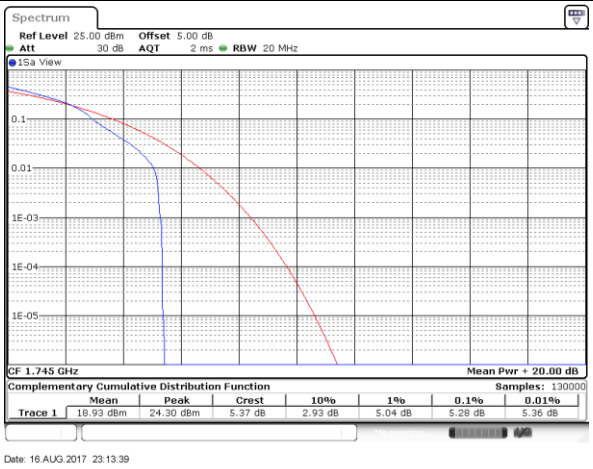
Middle Channel / 1RB



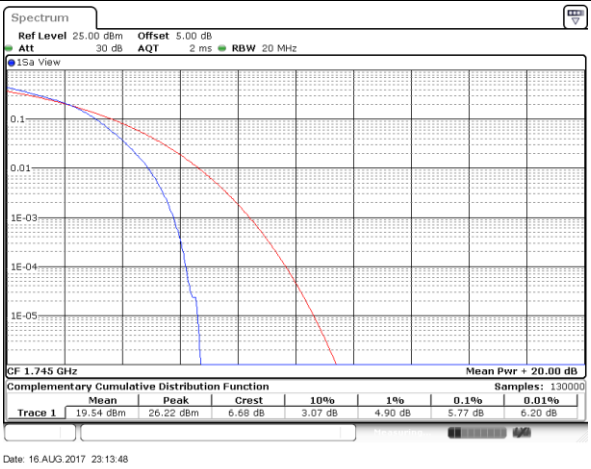
Middle Channel / Full RB



Highest Channel / 1RB

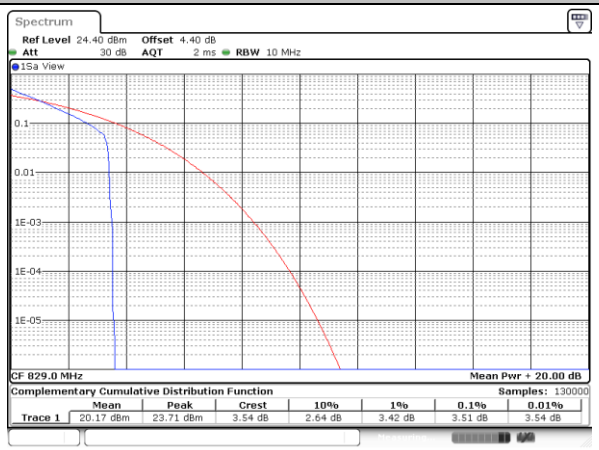


Highest Channel / Full RB

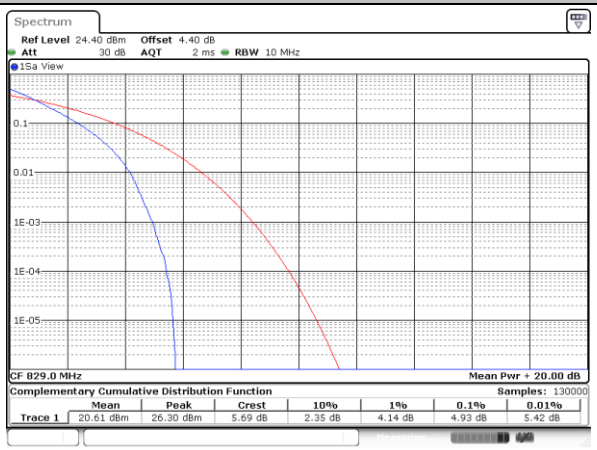


LTE Band 5 / 10MHz / QPSK

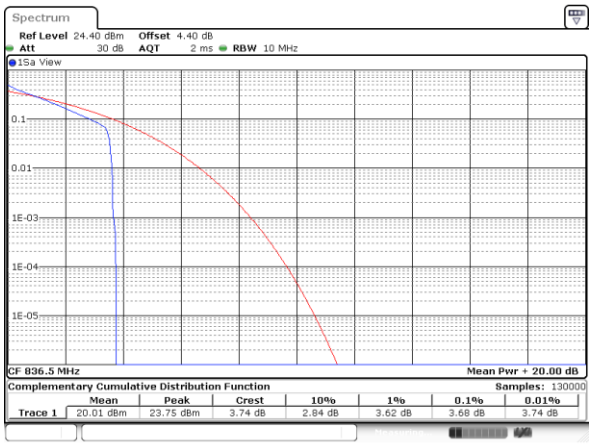
Lowest Channel / 1RB



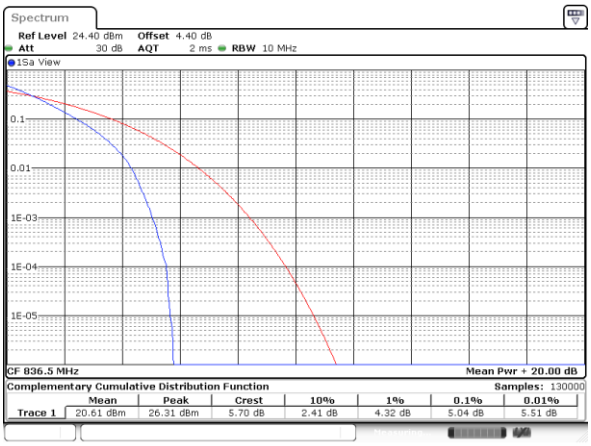
Lowest Channel / Full RB



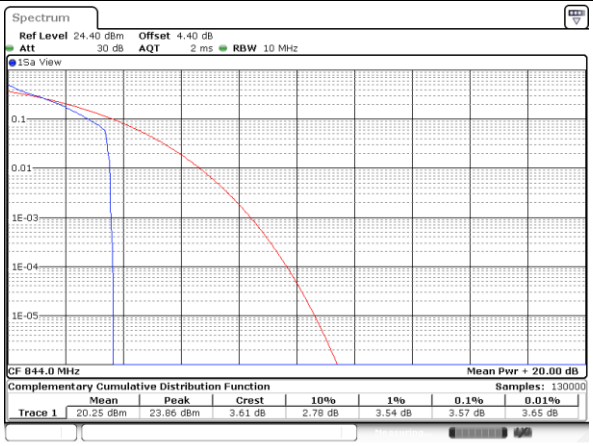
Middle Channel / 1RB



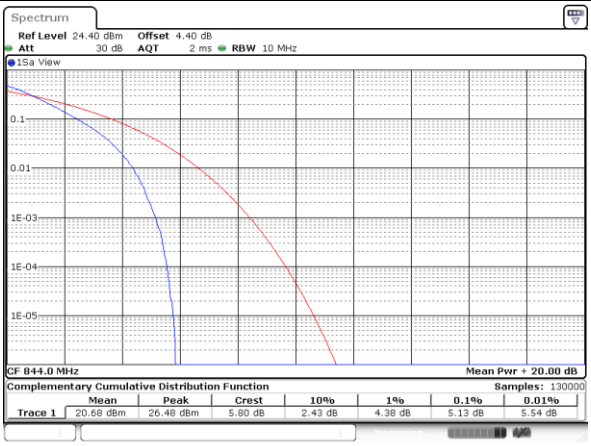
Middle Channel / Full RB



Highest Channel / 1RB

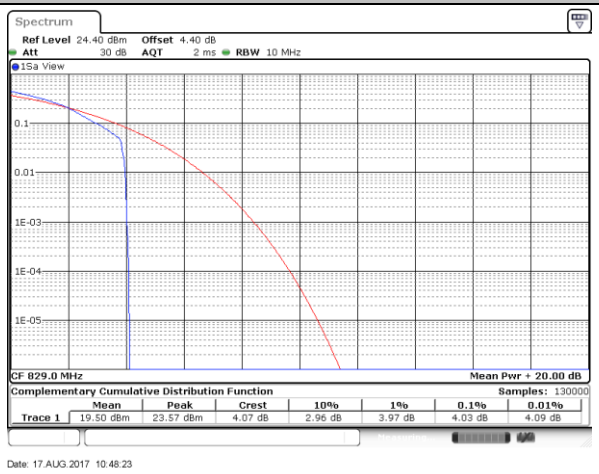


Highest Channel / Full RB

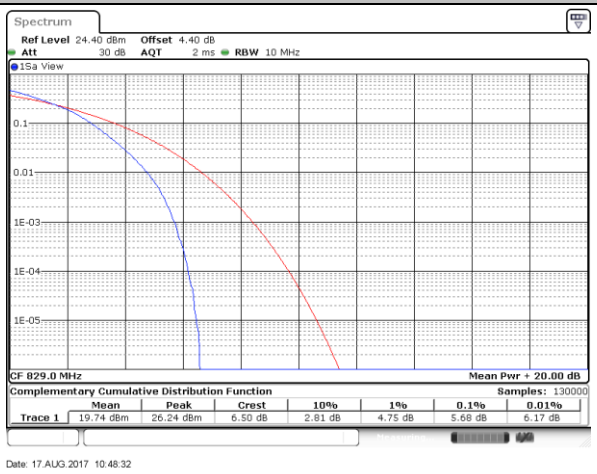


LTE Band 5 / 10MHz / 16QAM

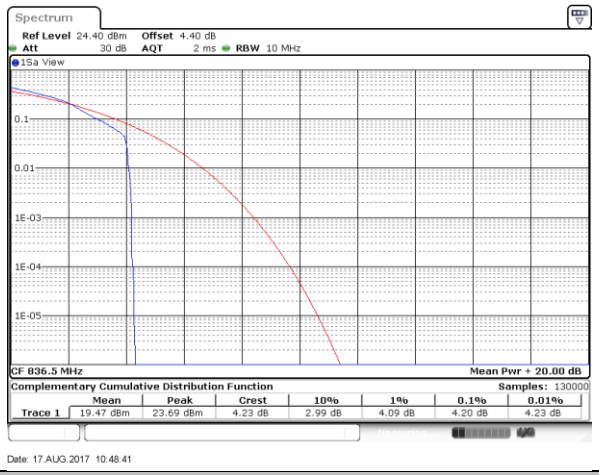
Lowest Channel / 1RB



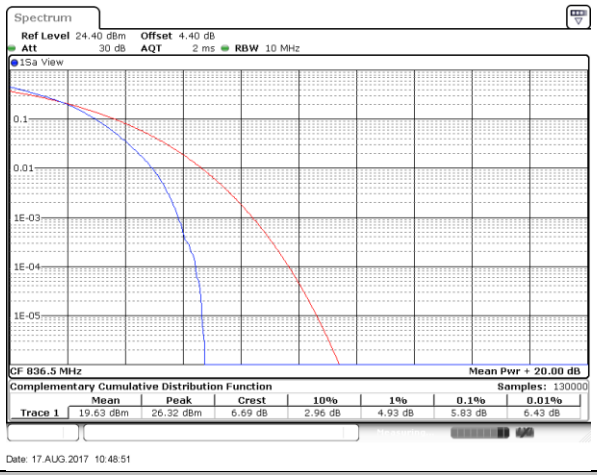
Lowest Channel / Full RB



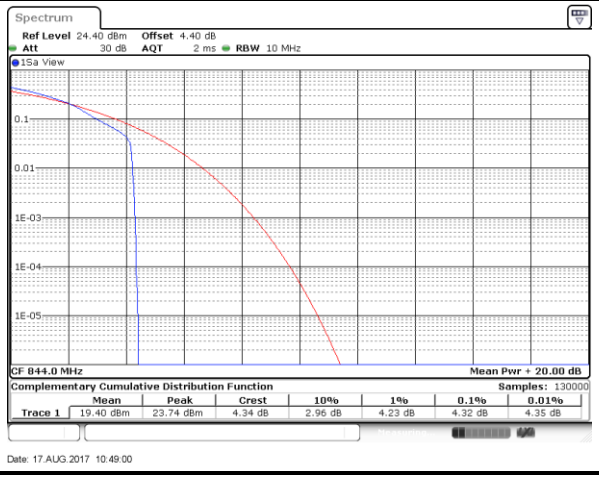
Middle Channel / 1RB



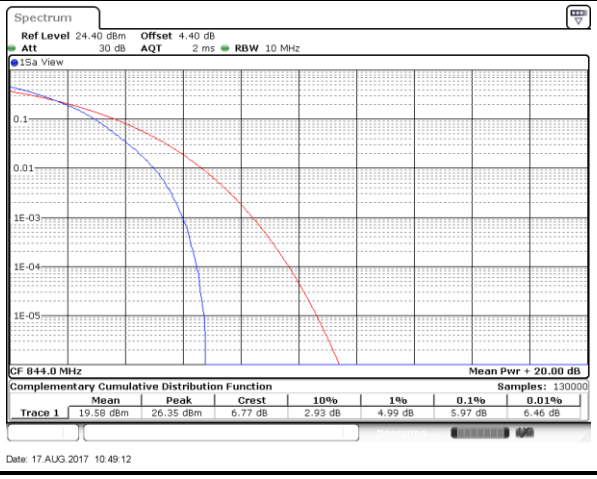
Middle Channel / Full RB



Highest Channel / 1RB

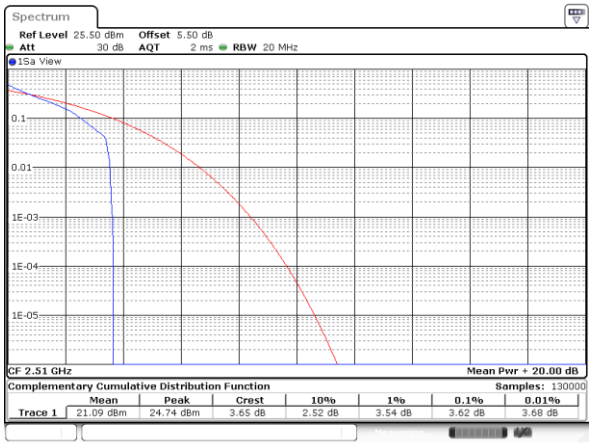


Highest Channel / Full RB

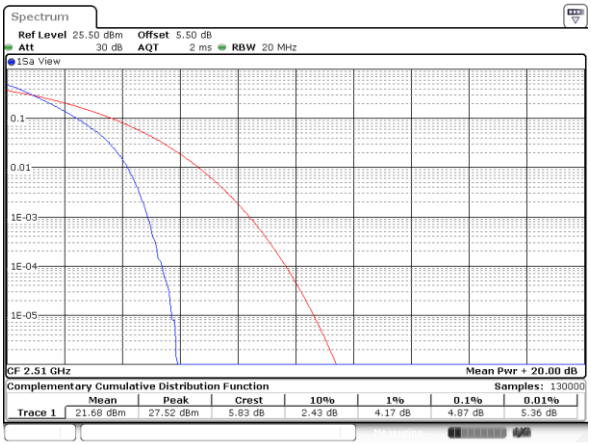


LTE Band 7 / 20MHz / QPSK

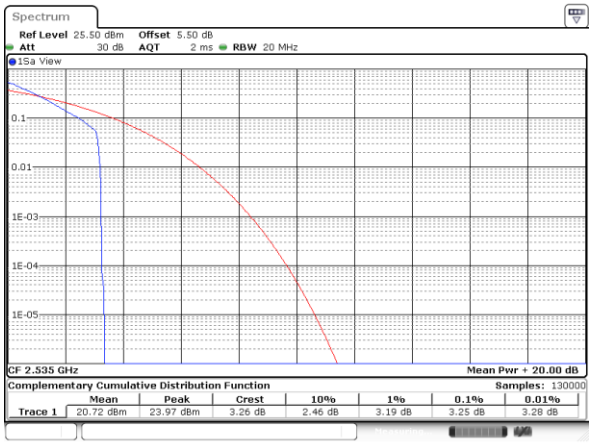
Lowest Channel / 1RB



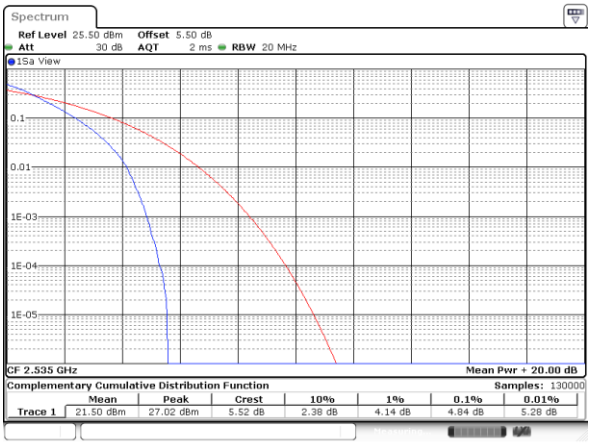
Lowest Channel / Full RB



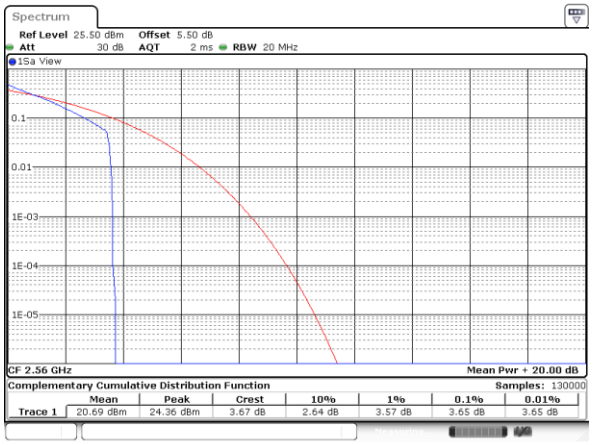
Middle Channel / 1RB



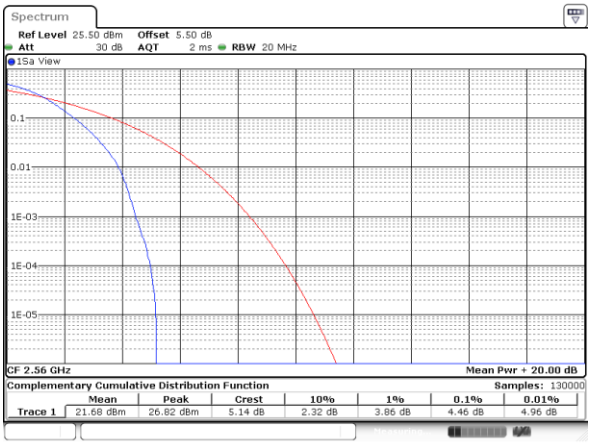
Middle Channel / Full RB



Highest Channel / 1RB

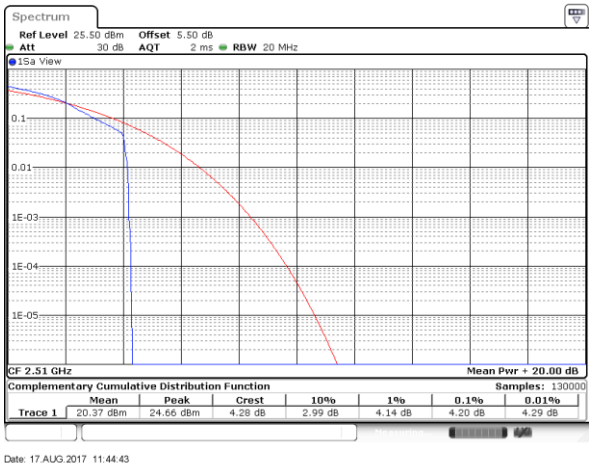


Highest Channel / Full RB

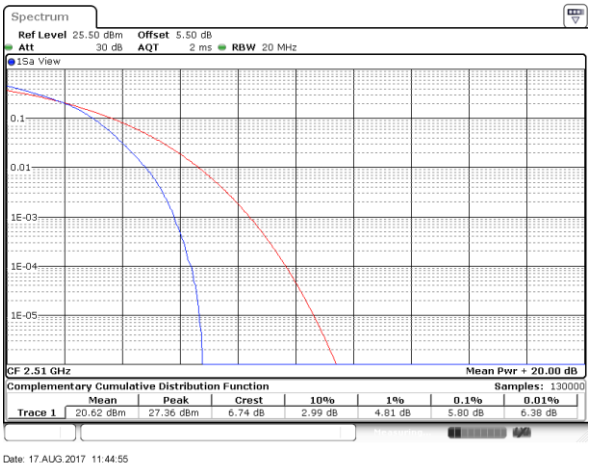


LTE Band 7 / 20MHz / 16QAM

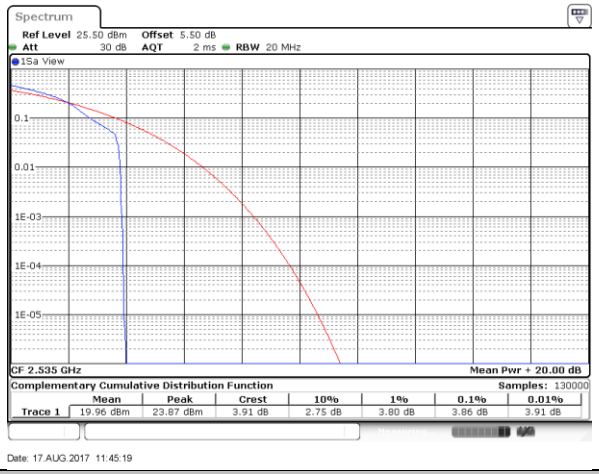
Lowest Channel / 1RB



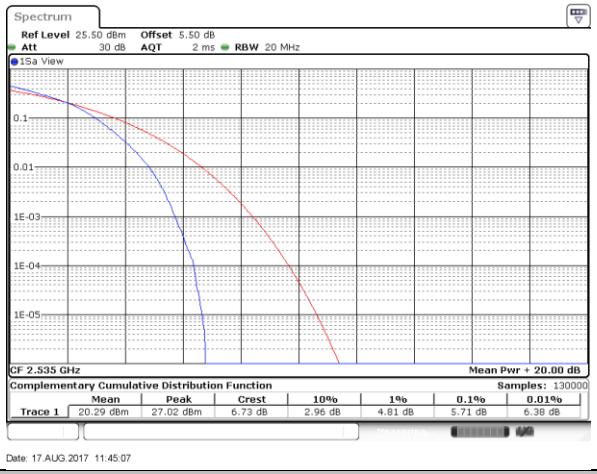
Lowest Channel / Full RB



Middle Channel / 1RB

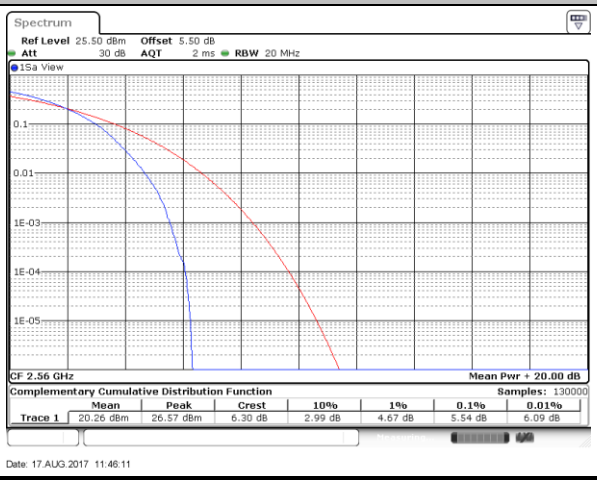


Middle Channel / Full RB



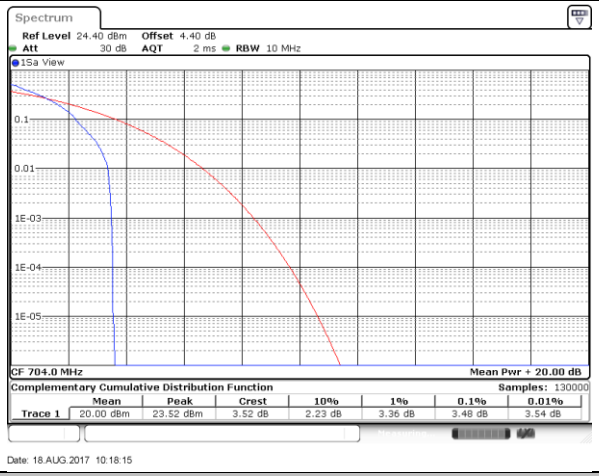
Highest Channel / 1RB

Highest Channel / Full RB

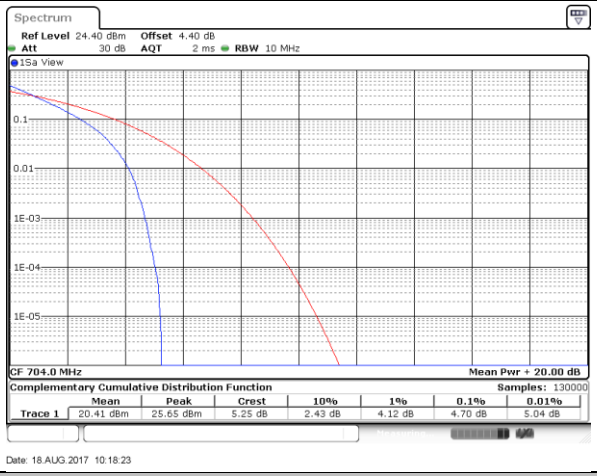


LTE Band 12 / 10MHz / QPSK

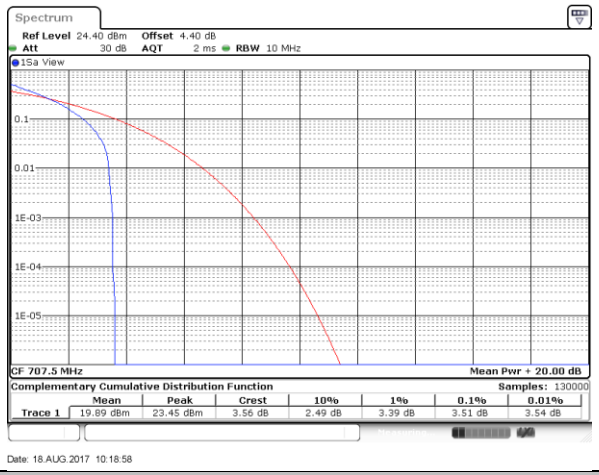
Lowest Channel / 1RB



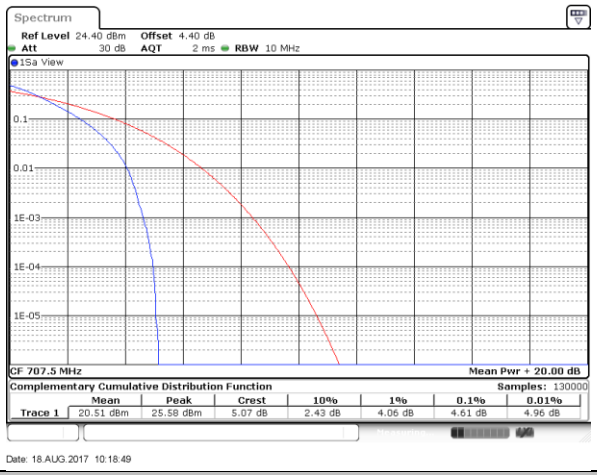
Lowest Channel / Full RB



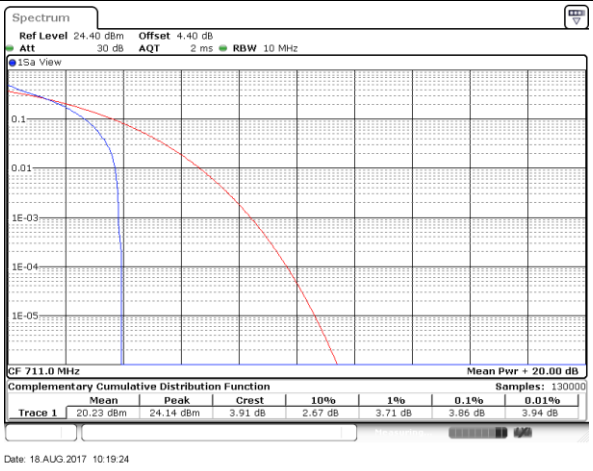
Middle Channel / 1RB



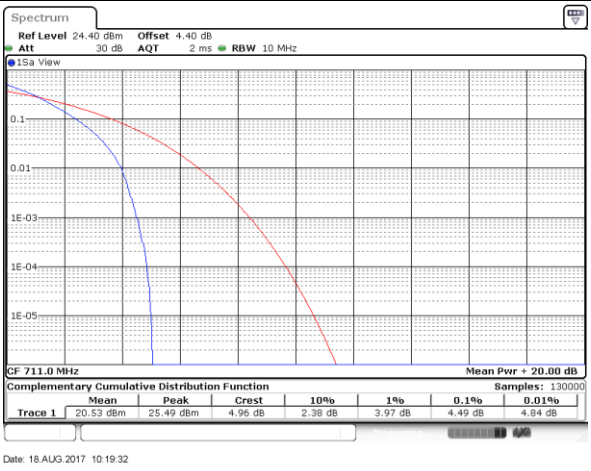
Middle Channel / Full RB



Highest Channel / 1RB

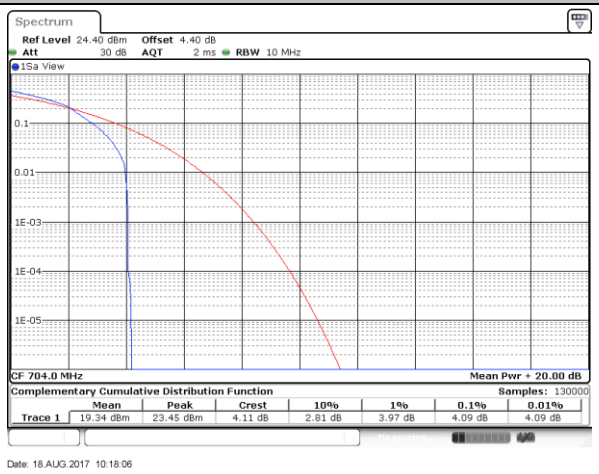


Highest Channel / Full RB

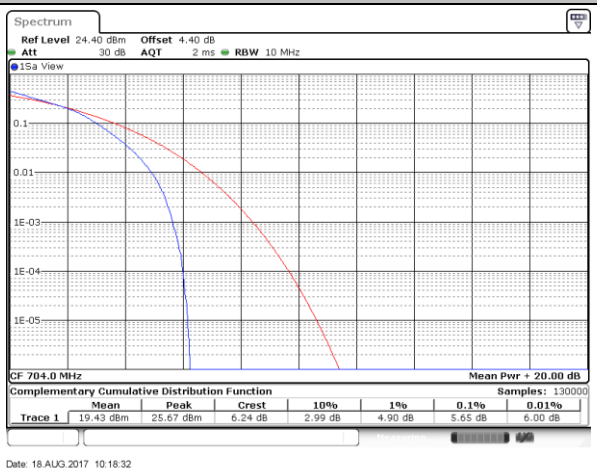


LTE Band 12 / 10MHz / 16QAM

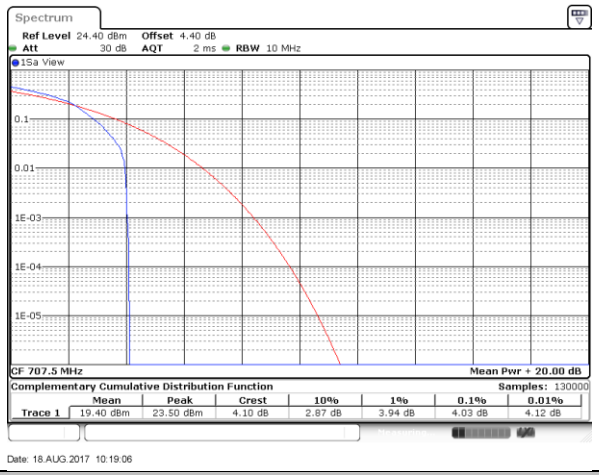
Lowest Channel / 1RB



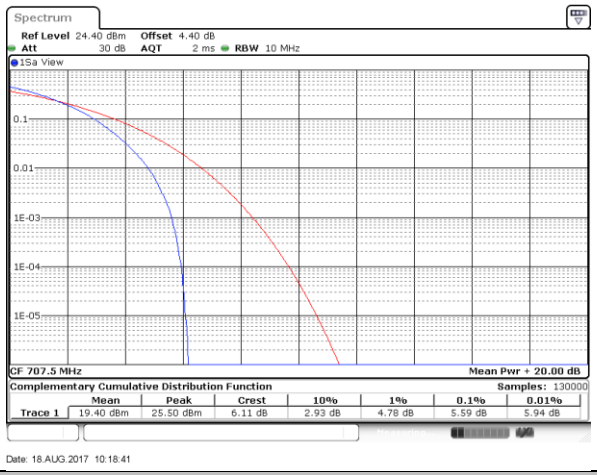
Lowest Channel / Full RB



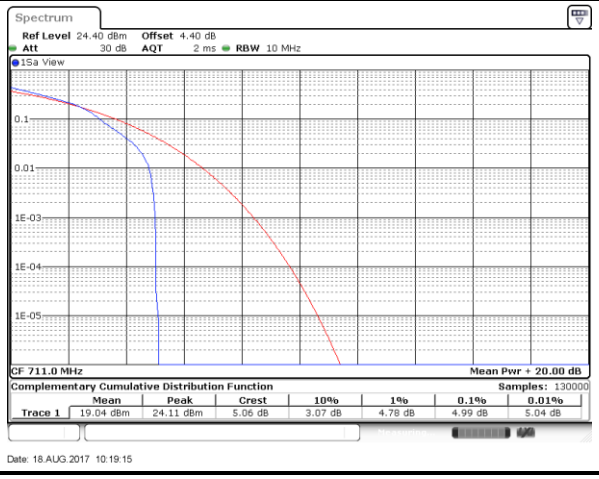
Middle Channel / 1RB



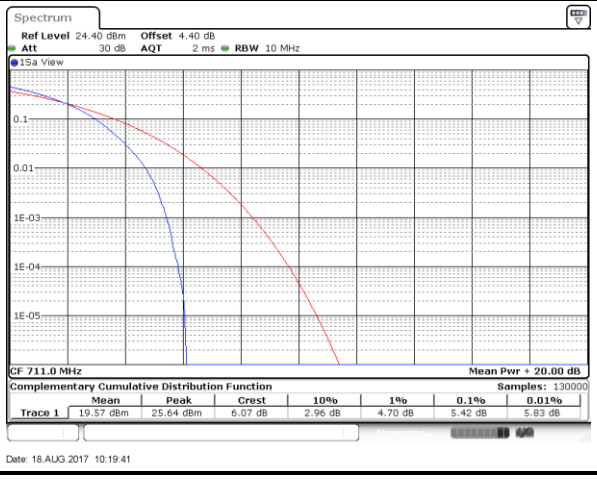
Middle Channel / Full RB

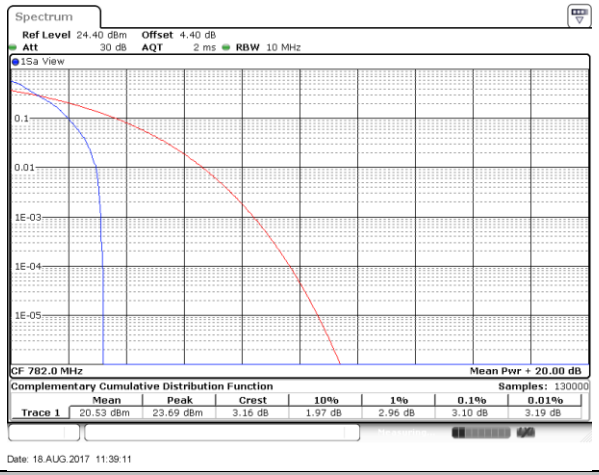
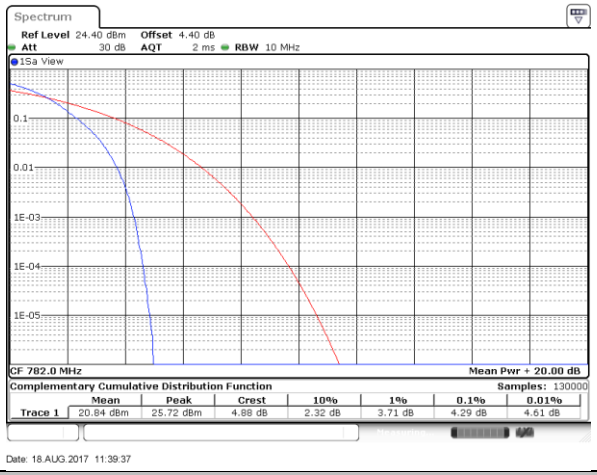


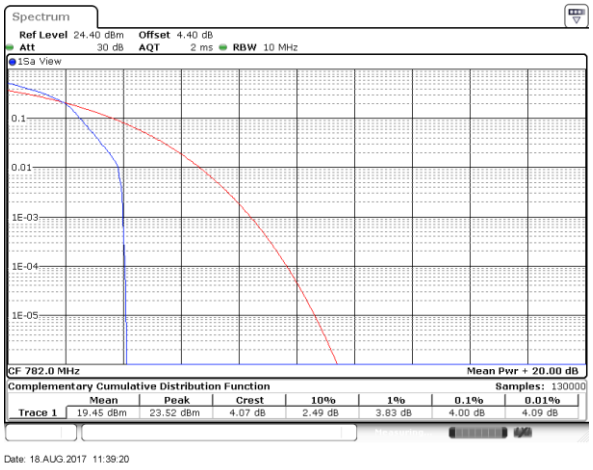
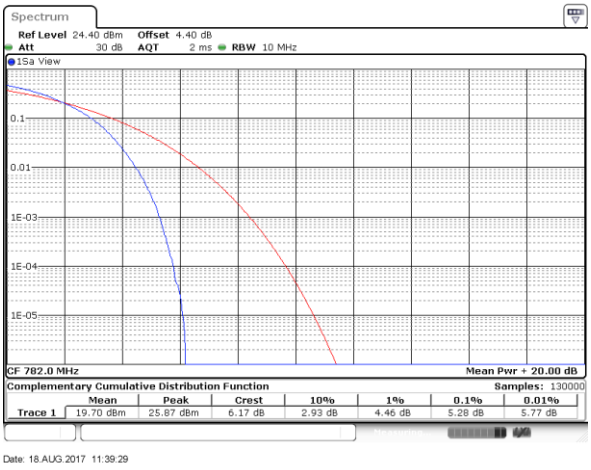
Highest Channel / 1RB



Highest Channel / Full RB

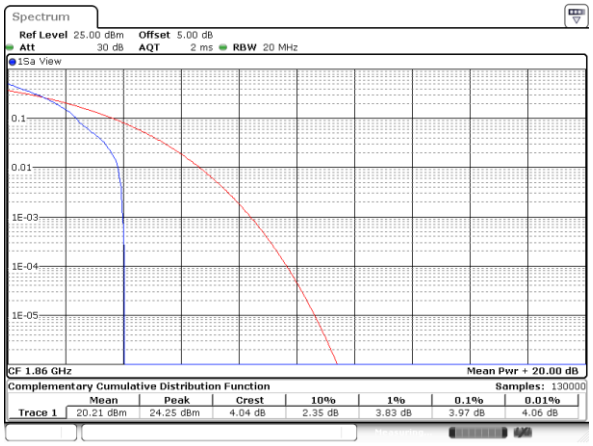


LTE Band 13 / 10MHz / QPSK	
Middle Channel/ 1RB	**Middle Channel / Full RB**
	

LTE Band 13 / 10MHz / 16QAM	
Middle Channel/ 1RB	**Middle Channel / Full RB**
	

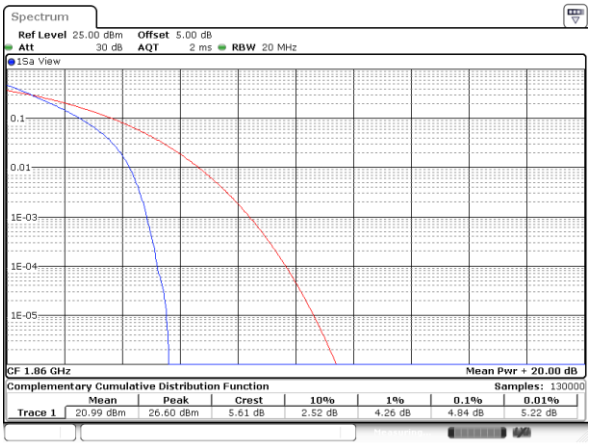
LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



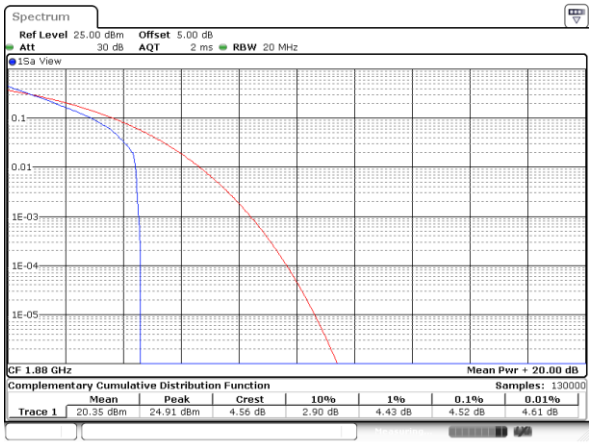
Date: 17.AUG.2017 22:28:04

Lowest Channel / Full RB



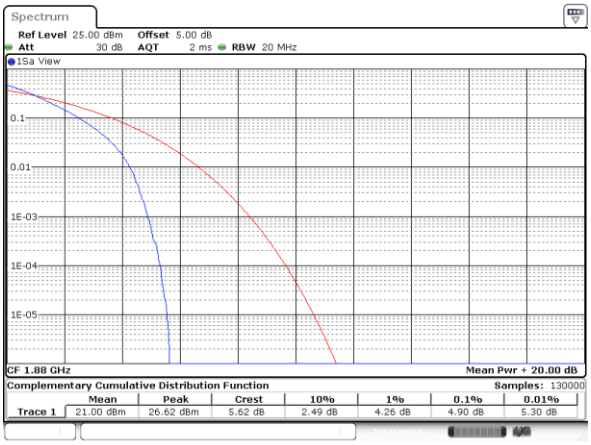
Date: 17.AUG.2017 22:29:40

Middle Channel / 1RB



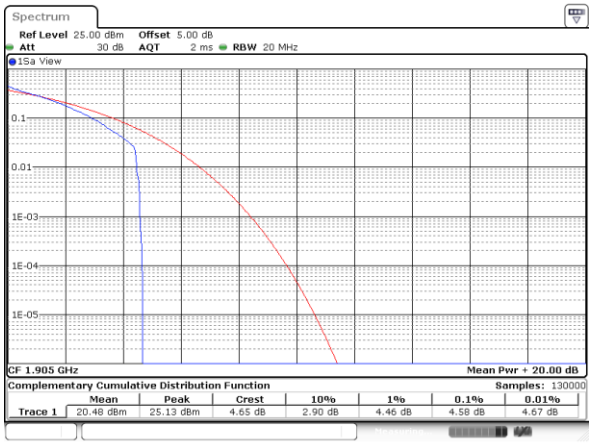
Date: 17.AUG.2017 22:31:17

Middle Channel / Full RB



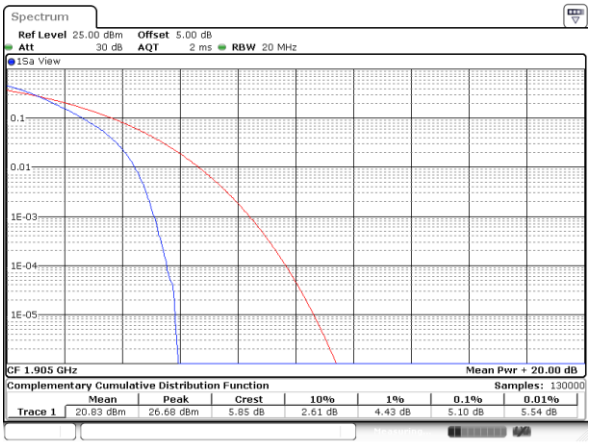
Date: 17.AUG.2017 22:29:54

Highest Channel / 1RB



Date: 17.AUG.2017 22:31:31

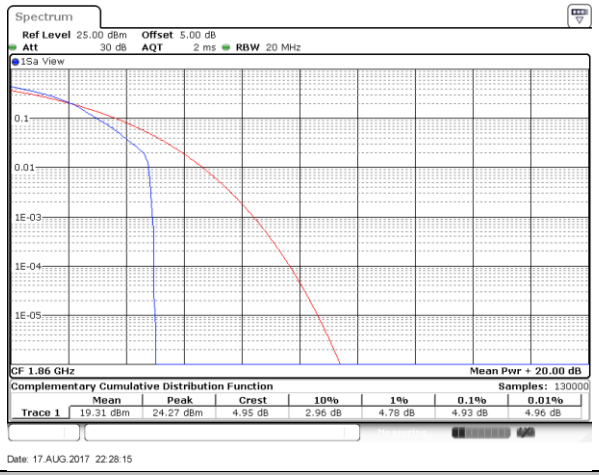
Highest Channel / Full RB



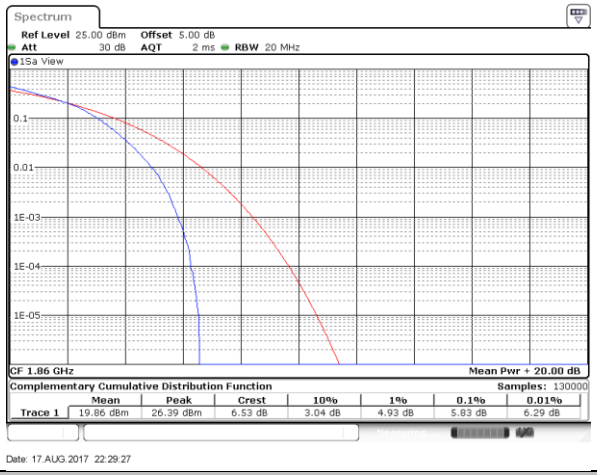
Date: 17.AUG.2017 22:32:32

LTE Band 25 / 20MHz / 16QAM

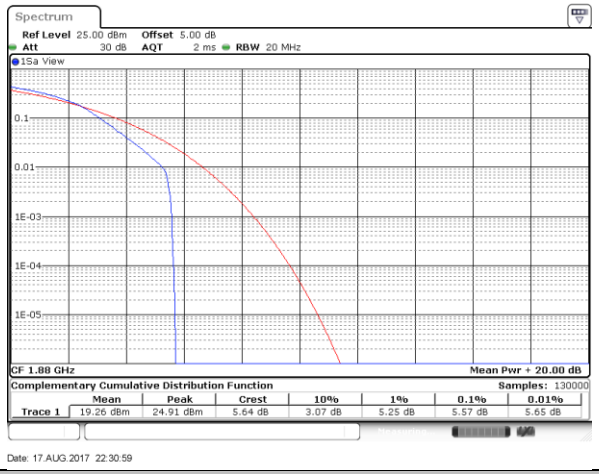
Lowest Channel / 1RB



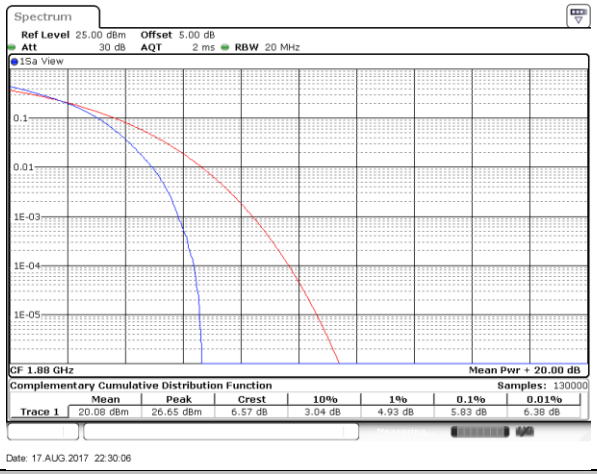
Lowest Channel / Full RB



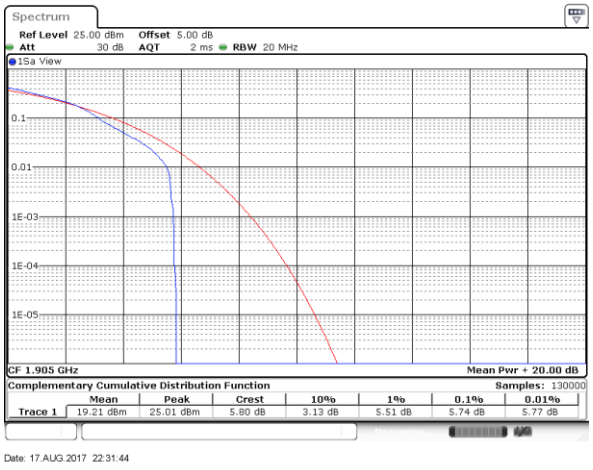
Middle Channel / 1RB



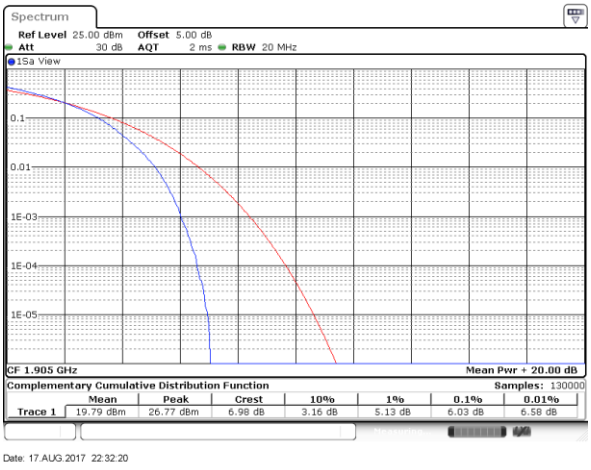
Middle Channel / Full RB



Highest Channel / 1RB

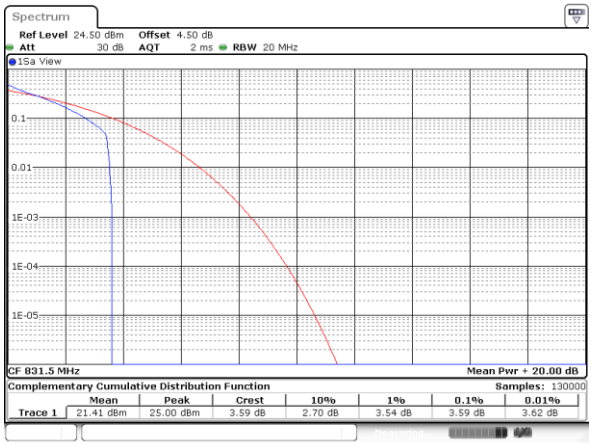


Highest Channel / Full RB

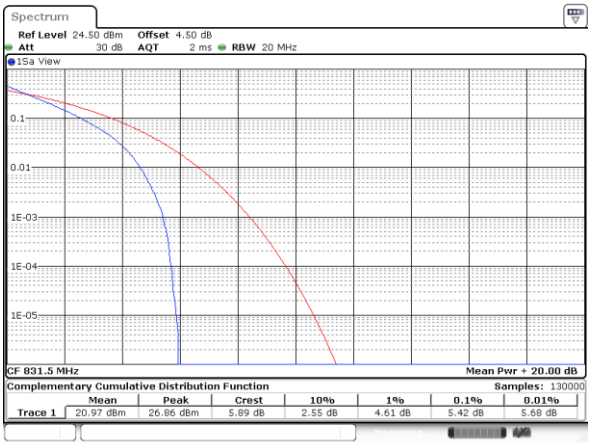


LTE Band 26 / 15MHz / QPSK

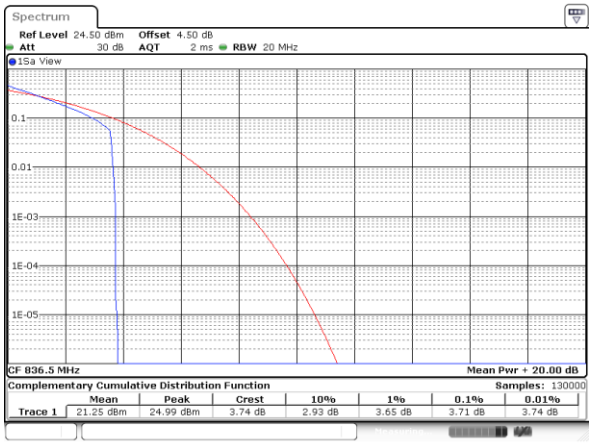
Lowest Channel / 1RB



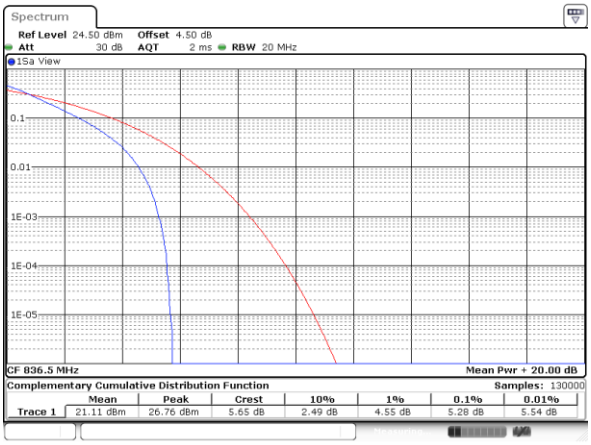
Lowest Channel / Full RB



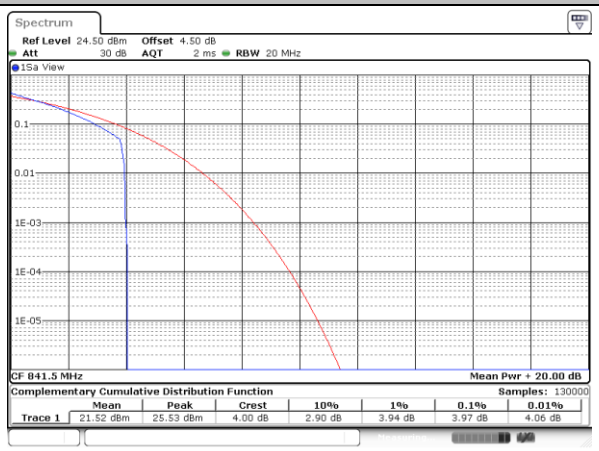
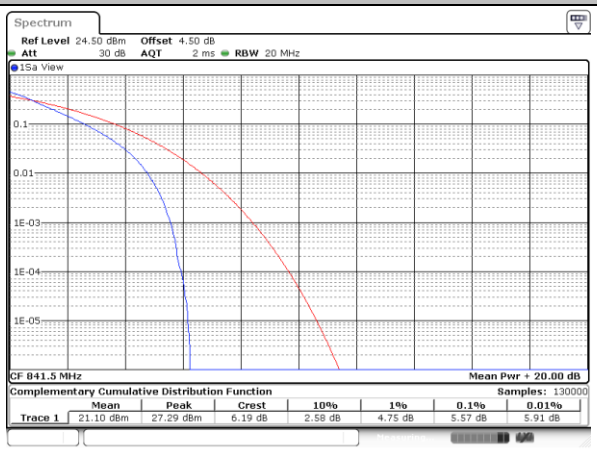
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB