FCC RF Test Report

APPLICANT	:	**Xiaomi Communications Co., Ltd.**
EQUIPMENT	:	**Mobile Phone**
BRAND NAME	:	**MI**
MODEL NAME	:	**M1803E1A**
FCC ID	:	**2AFZZ-XME1A**
STANDARD	:	**47 CFR Part 2, 22(H), 24(E), 27(L), 27(H), 27(M)**
CLASSIFICATION	:	**PCS Licensed Transmitter Held to Ear (PCE)**

The product was received on Apr. 20, 2018 and completely tested on Jun. 05, 2018. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

This report contains data that were produced under subcontract by Laboratory Sporton International (Shenzhen) 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

TESTING
NVLAP LAB CODE 600155-0

Approved by: James Huang / Manager

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
FG842002B	Rev. 01	Initial issue of report	Jun. 11, 2018

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§27.50(c)(10)	Effective Radiated Power (Band 12) (Band 17)	ERP < 3 Watt	PASS	-
	§24.232(c) §27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 7) (Band 38) (Band 41)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	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(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 17)	< 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(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17)	< 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		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 17.67 dB at 10371.000 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log$_{10}$(P[Watts])		

1 General Description

1.1 Applicant

Xiaomi Communications Co., Ltd.
The Rainbow City of China Resources, NO.68, Qinghe Middle Street, Haidian District, Beijing, China

1.2 Manufacturer

Xiaomi Communications Co., Ltd.
The Rainbow City of China Resources, NO.68, Qinghe Middle Street, Haidian District, Beijing, China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	MI
Model Name	M1803E1A
FCC ID	2AFZZ-XME1A
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/HSPA/ DC-HSDPA/HSPA+(16QAM uplink is not supported)/LTE/NFC WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0 + EDR/Bluetooth v4.0 LE/ Bluetooth v4.2 LE/ Bluetooth v5.0 LE
IMEI Code	Conducted: 867252030140452/867252030140460 Radiation: 867252030137797/867252030137805
HW Version	P2
SW Version	MIUI 9
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. There are two types of EUT, the difference between two samples is for memory, the sample 1 is 6+64GB capacity and the sample 2 is 6+128GB capacity. According to the difference, we only choose sample 1 to perform full test.

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 17 : 706.5 MHz ~ 713.5 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2537.5 MHz ~ 2652.5 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 17 : 736.5 MHz ~ 743.5 MHz LTE Band 38 : 2572.5 MHz ~ 2617.5 MHz LTE Band 41 : 2537.5 MHz ~ 2652.5 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 17 : 5MHz / 10MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 2 : 22.44 dBm LTE Band 4 : 22.31 dBm LTE Band 5 : 22.97 dBm LTE Band 7 : 22.17 dBm LTE Band 12 : 23.96 dBm LTE Band 17 : 23.90 dBm LTE Band 38 : 23.66 dBm/LTE Band 38_CA : 23.95 dBm LTE Band 41 : 23.27 dBm/LTE Band 41_CA : 23.86 dBm
Antenna Gain	LTE Band 2 : -0.60 dBi LTE Band 4 : 0.20 dBi LTE Band 5 : 0.90 dBi LTE Band 7 : 1.10 dBi LTE Band 12 : -4.60 dBi LTE Band 17 : -4.60 dBi LTE Band 38 : 0.70 dBi LTE Band 41 : 1.10 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

1.5 Modification of EUT

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

1.6 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	-	0.1489	1M10W7D	-	0.1202
3	1851.5 ~ 1908.5	2M72G7D	-	0.1524	2M72W7D	-	0.1262
5	1852.5 ~ 1907.5	4M51G7D	-	0.1455	4M51W7D	-	0.1274
10	1855.0 ~ 1905.0	9M07G7D	0.0034	0.1469	9M05W7D	-	0.1253
15	1857.5 ~ 1902.5	13M5G7D	-	0.1496	13M5W7D	-	0.1300
20	1860.0 ~ 1900.0	18M4G7D	-	0.1528	18M4W7D	-	0.1334

LTE Band 2		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1850.7 ~ 1909.3	1M09W7D	-	0.0957
3	1851.5 ~ 1908.5	2M73W7D	-	0.1030
5	1852.5 ~ 1907.5	4M50W7D	-	0.1172
10	1855.0 ~ 1905.0	9M03W7D	-	0.1202
15	1857.5 ~ 1902.5	13M4W7D	-	0.1230
20	1860.0 ~ 1900.0	18M5W7D	-	0.1227

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	1M09G7D	-	0.1687	1M10W7D	-	0.1493
3	1711.5 ~ 1753.5	2M72G7D	-	0.1660	2M72W7D	-	0.1452
5	1712.5 ~ 1752.5	4M51G7D	-	0.1694	4M50W7D	-	0.1531
10	1715.0 ~ 1750.0	9M05G7D	0.0028	0.1774	9M05W7D	-	0.1455
15	1717.5 ~ 1747.5	13M5G7D	-	0.1778	13M5W7D	-	0.1563
20	1720.0 ~ 1745.0	18M4G7D	-	0.1782	18M4W7D	-	0.1592

LTE Band 4		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1710.7 ~ 1754.3	1M09W7D	-	0.1164
3	1711.5 ~ 1753.5	2M73W7D	-	0.1127
5	1712.5 ~ 1752.5	4M51W7D	-	0.1197
10	1715.0 ~ 1750.0	9M05W7D	-	0.1194
15	1717.5 ~ 1747.5	13M4W7D	-	0.1268
20	1720.0 ~ 1745.0	18M5W7D	-	0.1247

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	-	0.1476	1M09W7D	-	0.1262
3	825.5 ~ 847.5	2M73G7D	-	0.1483	2M73W7D	-	0.1315
5	826.5 ~ 846.5	4M49G7D	-	0.1472	4M51W7D	-	0.1294
10	829.0 ~ 844.0	9M11G7D	0.0066	0.1486	9M01W7D	-	0.1265

LTE Band 5		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	824.7 ~ 848.3	1M09W7D	-	0.0979
3	825.5 ~ 847.5	2M73W7D	-	0.1023
5	826.5 ~ 846.5	4M50W7D	-	0.1007
10	829.0 ~ 844.0	9M07W7D	-	0.0989

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	4M49G7D	-	0.2070	4M50W7D	-	0.1656
10	2505.0 ~ 2565.0	9M05G7D	0.0016	0.2099	9M05W7D	-	0.1820
15	2507.5 ~ 2562.5	13M5G7D	-	0.2080	13M4W7D	-	0.1820
20	2510.0 ~ 2560.0	18M4G7D	-	0.2123	18M5W7D	-	0.1706

LTE Band 7		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2502.5 ~ 2567.5	4M50W7D	-	0.1368
10	2505.0 ~ 2565.0	9M01W7D	-	0.1422
15	2507.5 ~ 2562.5	13M5W7D	-	0.1439
20	2510.0 ~ 2560.0	18M3W7D	-	0.1445

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	-	0.0511	1M09W7D	-	0.0438
3	700.5 ~ 714.5	2M71G7D	-	0.0522	2M73W7D	-	0.0450
5	701.5 ~ 713.5	4M49G7D	-	0.0514	4M49W7D	-	0.0442
10	704.0 ~ 711.0	9M07G7D	0.0081	0.0526	9M09W7D	-	0.0441

LTE Band 12		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	699.7 ~ 715.3	1M09W7D	-	0.0340
3	700.5 ~ 714.5	2M73W7D	-	0.0348
5	701.5 ~ 713.5	4M48W7D	-	0.0348
10	704.0 ~ 711.0	9M05W7D	-	0.0349

LTE Band 17		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	706.5 ~ 713.5	-	-	0.0518	-	-	0.0446
10	709.0 ~ 711.0	-	-	0.0519	-	-	0.0444

LTE Band 17		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	706.5 ~ 713.5	-	-	0.0351
10	709.0 ~ 711.0	-	-	0.0349

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	-	-	0.2649	-	-	0.2158
10	2575.0 ~ 2615.0	-	-	0.2655	-	-	0.2291
15	2577.5 ~ 2612.5	-	-	0.2723	-	-	0.2158
20	2580.0 ~ 2610.0	-	-	0.2729	-	-	0.2168

LTE Band 38		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2572.5 ~ 2617.5	-	-	0.1603
10	2575.0 ~ 2615.0	-	-	0.1626
15	2577.5 ~ 2612.5	-	-	0.1592
20	2580.0 ~ 2610.0	-	-	0.1626

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	2537.5 ~ 2652.5	4M50G7D	-	0.2630	4M52W7D	-	0.2028
10	2540.0 ~ 2650.0	9M01G7D	0.0024	0.2729	9M07W7D	-	0.2218
15	2542.5 ~ 2647.5	13M5G7D	-	0.2667	13M5W7D	-	0.2138
20	2545.0 ~ 2645.0	18M4G7D	-	0.2735	18M3W7D	-	0.2198

LTE Band 41		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2537.5 ~ 2652.5	4M50W7D	-	0.1542
10	2540.0 ~ 2650.0	9M01W7D	-	0.1660
15	2542.5 ~ 2647.5	13M5W7D	-	0.1600
20	2545.0 ~ 2645.0	18M3W7D	-	0.1663

LTE Band 38 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
15MHz+15MHz	-	-	0.2793	-	-	0.2158
20MHz+20MHz	-	-	0.2917	-	-	0.2495

LTE Band 38 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
15MHz+15MHz	-	-	0.1469
20MHz+20MHz	-	-	0.1795

LTE Band 41 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5MHz+20MHz	23M3G7D	-	0.2944	23M3W7D	-	0.2312
10MHz+20MHz	28M1G7D	-	0.2767	28M1W7D	-	0.2296
10MHz+15MHz	23M6G7D	-	0.2812	23M5W7D	-	0.2323
15MHz+15MHz	28M6G7D	-	0.2661	28M7W7D	-	0.2344
15MHz+20MHz	32M9G7D	-	0.2858	32M9W7D	-	0.2371
15MHz+10MHz	23M6G7D	-	0.2825	23M6W7D	-	0.2371
20MHz+5MHz	23M4G7D	-	0.2838	23M4W7D	-	0.2360
20MHz+10MHz	28M2G7D	-	0.2767	28M1W7D	-	0.2286
20MHz+15MHz	32M9G7D	-	0.2877	33M0W7D	-	0.2312
20MHz+20MHz	37M7G7D	-	0.3133	37M8W7D	-	0.2506

LTE Band 41 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5MHz+20MHz	23M3W7D	-	0.1607
10MHz+20MHz	28M1W7D	-	0.1581
10MHz+15MHz	23M5W7D	-	0.1514
15MHz+15MHz	28M7W7D	-	0.1483
15MHz+20MHz	32M8W7D	-	0.1552
15MHz+10MHz	23M4W7D	-	0.1556
20MHz+5MHz	23M3W7D	-	0.1489
20MHz+10MHz	28M0W7D	-	0.1549
20MHz+15MHz	32M8W7D	-	0.1611
20MHz+20MHz	37M8W7D	-	0.2023

Note:

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

1.7 Testing Location

Sporton International (Kunshan) Inc. 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 International (Shenzhen) Inc. 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.**
	03CH03-SZ 03CH04-SZ	577730

Note:

1. The test site complies with ANSI C63.4 2014 requirement.
2. Test data subcontracted: radiated spurious emissions 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(H), 27(M)
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

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

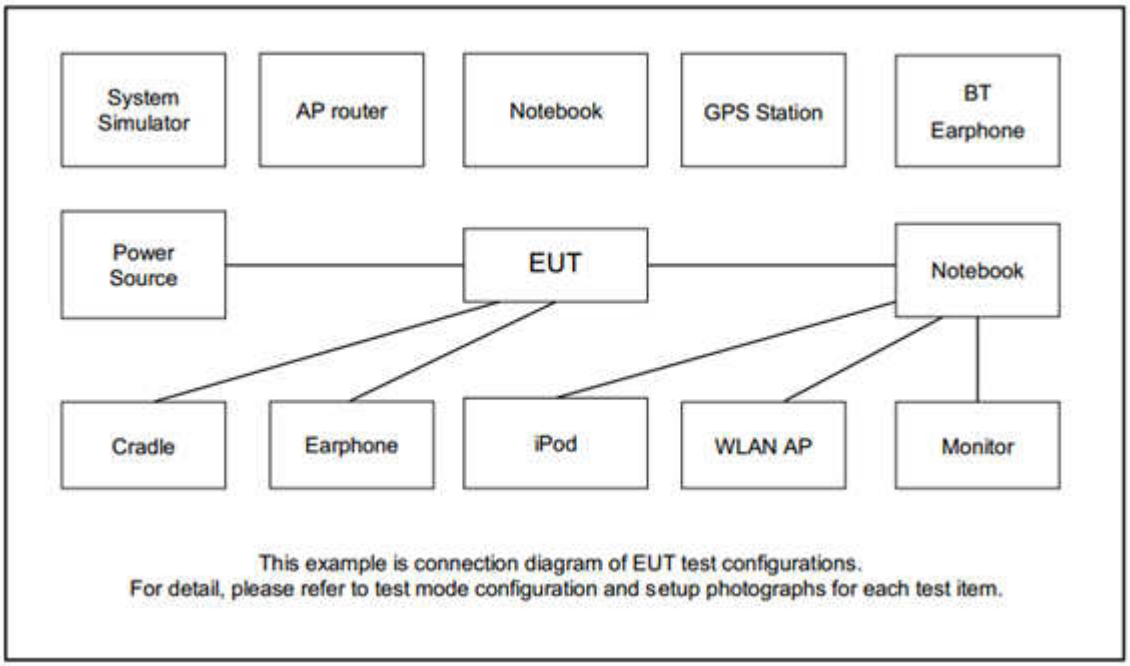
Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	38	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	2						v	v	v	v	v		v	v	v	v
	4						v	v	v	v	v		v	v	v	v
	5				v	-	-	v	v	v	v		v	v	v	v
	7	-	-				v	v	v	v	v		v	v	v	v
	12				v	-	-	v	v	v	v		v	v	v	v
	41	-	-				v	v	v	v	v		v	v	v	v

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
26dB and 99% Bandwidth	2	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
	5	v	v	v	v	-	-	v	v	v			v	v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v	v
	41	-	-	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		v
	4	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
	7	-	-	v	v	v	v	v	v	v	v		v	v		v
	12	v	v	v	v	-	-	v	v	v	v		v	v		v
	41	-	-	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	2	v	v	v	v	v	v	v	v	v	v			v	v	v
	4	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
	7	-	-	v	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v	v			v	v	v
	41	-	-	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	
	12				v	-	-	v					v		v	
	41	-	-		v			v					v		v	

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
E.R.P / E.I.R.P	2	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
	5	v	v	v	v	-	-	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v	v			v	v	v
	17	-	-	v	v	-	-	v	v	v	v			v	v	v
	38	-	-	v	v	v	v	v	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	2	v	v	v	v	v	v	v			v				v	
	4	v	v	v	v	v	v	v			v				v	
	5	v	v	v	v	-	-	v			v				v	
	7	-	-	v	v	v	v	v			v				v	
	12	v	v	v	v	-	-	v			v				v	
	17	-	-	v	v	-	-	v			v				v	
	38	-	-	v	v	v	v	v			v				v	
	41	-	-	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.															

Test Items	Band	Bandwidth (MHz)										Modulation			RB #			Test Channel		
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	38_CA	v	-	-	-	-	-	-	v	-	-	v	v	v	v	v	v	v	v	v
	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
E.I.R.P.	38_CA	v	-	-	-	-	-	-	v	-	-	v	v	v	v			v	v	v
	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	38_CA	v							v			v			v				v	
	41_CA	v	v	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.	DC 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
3.	Earphone	Lenovo	SH100	N/A	Unshielded, 1.0 m	N/A

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 5.1 dB.

Example :

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

= 5.1 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

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

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

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

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

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

LTE Band 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	40140	40640	41140
	Frequency	2545	2595	2645
15	Channel	40115	40640	41165
	Frequency	2542.5	2595	2647.5
10	Channel	40090	40640	41190
	Frequency	2540	2595	2650
5	Channel	40065	40640	41215
	Frequency	2537.5	2595	2652.5

LTE Band 38 Channel and Frequency List_CA					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	37850	37901	37952
		Frequency	2580.0	2585.1	2590.2
	SCC	Channel	38048	38099	38150
		Frequency	2599.8	2604.9	2610.0
15+ 15	PCC	Channel	37825	37925	38025
		Frequency	2577.5	2587.5	2597.5
	SCC	Channel	37975	38075	38175
		Frequency	2592.5	2602.5	2612.5

LTE Band 41 Channel and Frequency List_CA					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	40140	40541	40942
		Frequency	2545	2585.1	2625.2
	SCC	Channel	40338	40739	41140
		Frequency	2564.8	2604.9	2645
20 + 15	PCC	Channel	40140	40566	40991
		Frequency	2545	2587.6	2630.1
	SCC	Channel	40311	40737	41162
		Frequency	2562.1	2604.7	2647.2
15 + 20	PCC	Channel	40118	40544	40969
		Frequency	2542.8	2585.4	2627.9
	SCC	Channel	40289	40715	41140
		Frequency	2559.9	2602.5	2645
20 + 10	PCC	Channel	40140	40591	41041
		Frequency	2545	2590.1	2635.1
	SCC	Channel	40284	40735	41185
		Frequency	2559.4	2604.5	2649.5
10 + 20	PCC	Channel	40095	40546	40996
		Frequency	2540.5	2585.6	2630.6
	SCC	Channel	40239	40690	41140
		Frequency	2554.9	2600.0	2645

LTE Band 41 Channel and Frequency List_CA					
BW [MHz]	**Channel/Frequency(MHz)**		**Lowest**	**Middle**	**Highest**
20 + 5	PCC	Channel	40140	40615	41090
		Frequency	2545	2592.5	2640
	SCC	Channel	40257	40732	41207
		Frequency	2556.7	2604.2	2651.7
5 + 20	PCC	Channel	40073	40548	41023
		Frequency	2538.3	2585.8	2633.3
	SCC	Channel	40190	40665	41140
		Frequency	2550	2597.5	2645
15 + 15	PCC	Channel	40115	40565	41015
		Frequency	2542.5	2587.5	2632.5
	SCC	Channel	40265	40715	41165
		Frequency	2557.5	2602.5	2647.5
10 + 15	PCC	Channel	40093	40569	41045
		Frequency	2540.3	2587.9	2635.5
	SCC	Channel	40213	40689	41165
		Frequency	2552.3	2599.9	2647.5
15 + 10	PCC	Channel	40115	40591	41067
		Frequency	2542.5	2590.1	2637.7
	SCC	Channel	40235	40711	41187
		Frequency	2554.5	2602.1	2649.7

3 Conducted Test Items

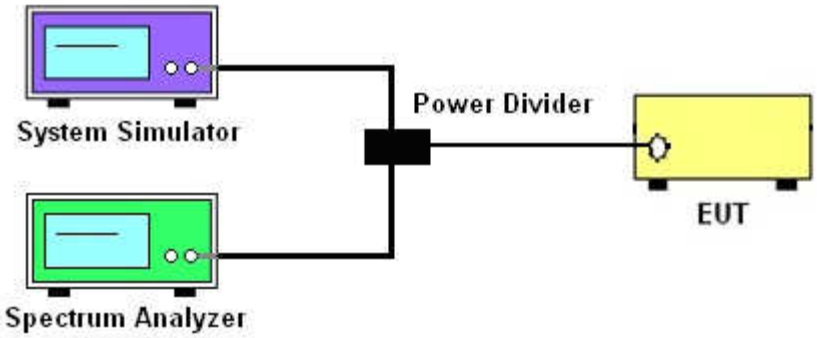
3.1 Measuring Instruments

See list of measuring instruments of this test report.

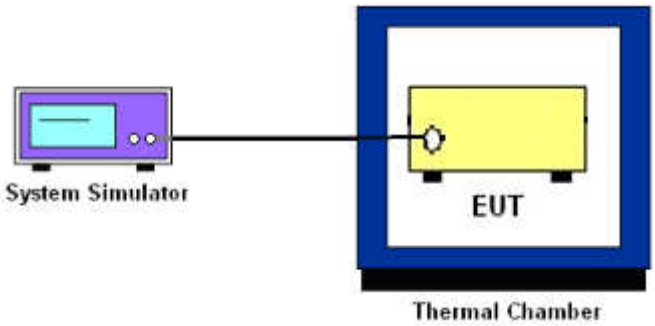
3.2 Test Setup

3.2.1 Conducted Output Power

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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

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

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

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

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

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

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

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

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

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.4
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace. (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “–X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

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

24.238 (a)

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

27.53 (g)

For operations in the 600MHz band and 698 -746 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

27.53 (h)

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

27.53(m)(4)

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

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
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 10^{th} harmonic.

3.8.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. 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 ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 Test Procedures for Voltage Variation

1. The testing follows ANSI C63.26 section 5.6.5
2. The EUT was placed in a temperature chamber at 20±5°C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

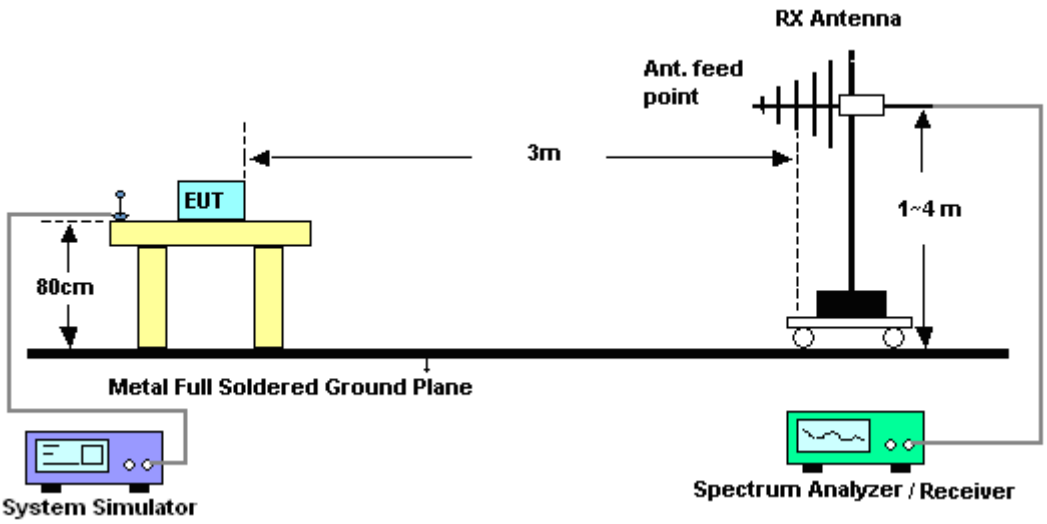
4 Radiated Test Items

4.1 Measuring Instruments

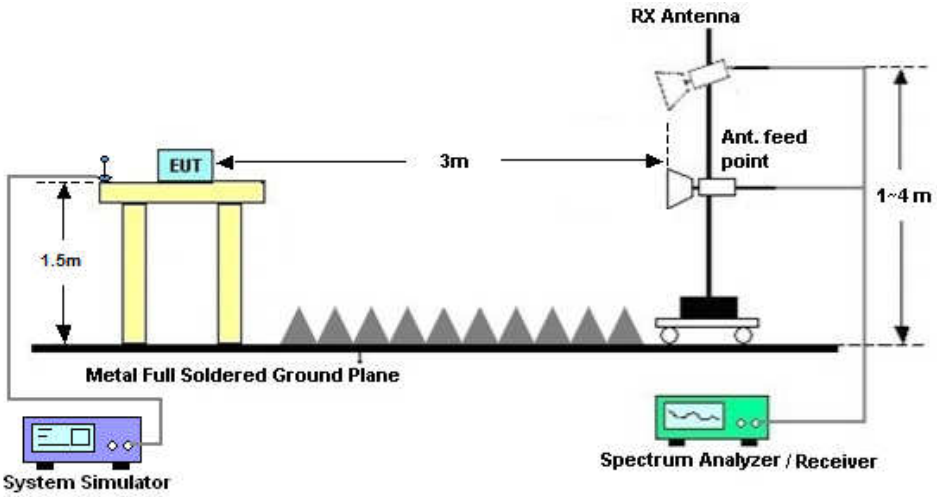
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7, 38, 41

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

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

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
13. For Band 7, 38, 41:
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Aug. 08, 2017	May 10, 2018~ Jun. 05, 2018	Aug. 07, 2018	Conducted (TH01-KS)
Radio communication analyzer	Anritsu	MT8820C	6201300652	2G/3G/LTE_ full band	Aug. 08, 2017	May 10, 2018~ Jun. 05, 2018	Aug. 07, 2018	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Oct. 12, 2017	May 10, 2018~ Jun. 05, 2018	Oct. 11, 2018	Conducted (TH01-KS)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Apr. 19, 2018	May 25, 2018~ May 26, 2018	Apr. 18, 2019	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Aug. 29, 2017	May 25, 2018~ May 26, 2018	Aug 28, 2018	Radiation (03CH04-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1285	1GHz~18GHz	Dec. 13, 2017	May 25, 2018~ May 26, 2018	Dec. 12, 2018	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	Apr. 20 2018	May 25, 2018~ May 26, 2018	Apr. 19, 2019	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 19, 2017	May 25, 2018~ May 26, 2018	Oct. 18, 2018	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1	1989346	1GHz~18GHz	Jul. 27, 2017	May 25, 2018~ May 26, 2018	Jul. 26, 2018	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1988315	18GHz~40GHz	Jul. 27, 2017	May 25, 2018~ May 26, 2018	Jul. 26, 2018	Radiation (03CH04-SZ)
Amplifier	Agilent Technologies	83017A	MY53270156	500MHz~26.5GHz	Apr. 19, 2018	May 25, 2018~ May 26, 2018	Apr. 18, 2019	Radiation (03CH04-SZ)
AC Power Source	Chroma	61601	N/A	N/A	NCR	May 25, 2018~ May 26, 2018	NCR	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	May 25, 2018~ May 26, 2018	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	May 25, 2018~ May 26, 2018	NCR	Radiation (03CH04-SZ)
EXA Spectrum Anaiyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 19, 2018	May 29, 2018	Apr. 18, 2019	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	Apr. 19, 2018	May 29, 2018	Apr. 18, 2019	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Jul. 09, 2017	May 29, 2018	Jul. 08, 2018	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102210	0.01Hz ~3000MHz	Oct. 19, 2017	May 29, 2018	Oct. 18, 2018	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 18, 2017	May 29, 2018	Jul. 17, 2018	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Jun.16, 2017	May 29, 2018	Jun. 15, 2018	Radiation (03CH03-SZ)

Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 27, 2017	May 29, 2018	Dec. 26, 2018	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	May 29, 2018	NCR	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	May 29, 2018	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	May 29, 2018	NCR	Radiation (03CH03-SZ)

NCR: No Calibration Required

6 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz) for 03CH04-SZ

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

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz) for 03CH04-SZ

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

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz) for 03CH04-SZ

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

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz) for 03CH03-SZ

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.0dB**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz) for 03CH03-SZ

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.6dB**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz) for 03CH03-SZ

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.8dB**

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	22.22	22.44	22.43
20	1	49		21.80	21.86	22.30
20	1	99		21.85	21.99	22.38
20	50	0		21.05	21.37	21.35
20	50	24		20.97	21.10	21.30
20	50	50		20.85	21.30	21.21
20	100	0		20.96	21.30	21.28
20	1	0	16-QAM	21.53	21.65	21.85
20	1	49		21.19	21.22	21.72
20	1	99		21.43	21.42	21.67
20	50	0		20.10	20.24	20.32
20	50	24		20.09	20.15	20.42
20	50	50		20.05	20.17	20.44
20	100	0		20.07	20.23	20.44
20	1	0	64QAM	21.47	21.44	21.40
20	1	49		20.83	20.90	21.49
20	1	99		21.05	21.05	21.49
20	50	0		20.12	20.27	20.35
20	50	24		20.04	20.11	20.48
20	50	50		19.95	20.10	20.40
20	100	0		20.03	20.21	20.47
15	1	0	QPSK	22.04	22.18	22.35
15	1	37		21.89	21.89	22.29
15	1	74		21.86	21.96	22.27
15	36	0		20.96	21.15	21.42
15	36	20		20.95	21.08	21.39
15	36	39		20.93	21.06	21.34
15	75	0		20.96	21.02	21.29
15	1	0	16-QAM	21.63	21.74	21.58

15	1	37		21.40	21.54	21.48
15	1	74		21.45	21.06	21.40
15	36	0		20.01	20.26	20.48
15	36	20		20.05	20.14	20.49
15	36	39		20.01	20.16	20.37
15	75	0		20.02	20.13	20.36
15	1	0	64QAM	21.45	21.39	21.45
15	1	37		21.44	21.14	21.50
15	1	74		21.36	21.10	21.49
15	36	0		20.10	20.22	20.43
15	36	20		20.10	20.21	20.46
15	36	39		20.02	20.13	20.46
15	75	0		20.02	20.13	20.37

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.24	22.27	22.27
10	1	25		21.92	22.00	22.17
10	1	49		22.03	22.08	22.17
10	25	0		20.97	21.06	21.33
10	25	12		20.98	21.01	21.30
10	25	25		20.91	21.02	21.26
10	50	0		20.95	21.04	21.33
10	1	0	16-QAM	21.26	21.38	21.58
10	1	25		21.01	21.12	21.53
10	1	49		21.26	21.22	21.43
10	25	0		20.06	20.25	20.38
10	25	12		20.03	20.13	20.37
10	25	25		19.98	20.09	20.35
10	50	0		19.90	20.10	20.42
10	1	0	64QAM	21.40	21.31	21.24
10	1	25		21.11	20.92	21.32
10	1	49		21.28	21.00	21.34
10	25	0		20.02	20.09	20.43
10	25	12		19.99	20.06	20.29
10	25	25		20.01	20.02	20.36
10	50	0		20.00	20.07	20.39
5	1	0	QPSK	21.92	22.01	22.23
5	1	12		21.78	21.99	22.19
5	1	24		21.77	21.88	22.22
5	12	0		20.91	21.06	21.35
5	12	7		20.87	21.07	21.30
5	12	13		20.91	21.04	21.30
5	25	0		20.88	21.00	21.32
5	1	0	16-QAM	21.25	21.36	21.65
5	1	12		21.14	21.19	21.51
5	1	24		21.15	21.25	21.55
5	12	0		20.06	20.10	20.37
5	12	7		20.01	19.95	20.27

5	12	13		20.02	19.98	20.30
5	25	0		19.97	20.06	20.40
5	1	0		21.07	20.96	21.29
5	1	12		20.97	20.91	21.23
5	1	24		20.98	20.94	21.23
5	12	0	64QAM	19.99	20.26	20.44
5	12	7		19.88	20.21	20.43
5	12	13		19.88	20.13	20.46
5	25	0		19.91	20.10	20.41

LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	21.86	22.02	22.34
3	1	8		21.97	22.15	22.43
3	1	14		21.77	22.03	22.28
3	8	0		20.86	21.00	21.30
3	8	4		20.86	21.02	21.27
3	8	7		20.86	20.96	21.26
3	15	0		20.79	20.95	21.28
3	1	0	16-QAM	21.44	21.53	21.46
3	1	8		21.43	21.61	21.56
3	1	14		21.30	21.47	21.53
3	8	0		20.00	20.13	20.55
3	8	4		20.06	20.19	20.54
3	8	7		20.01	20.21	20.53
3	15	0		19.92	20.13	20.42
3	1	0	64QAM	20.04	20.28	20.59
3	1	8		20.14	20.29	20.73
3	1	14		20.00	20.20	20.60
3	8	0		19.23	19.12	19.59
3	8	4		19.08	19.26	19.55
3	8	7		19.18	19.06	19.56
3	15	0		19.10	19.07	19.33
1.4	1	0	QPSK	21.75	21.94	22.22
1.4	1	3		21.80	21.99	22.29
1.4	1	5		21.69	21.87	22.13
1.4	3	0		21.69	21.92	22.22
1.4	3	1		21.71	21.94	22.23
1.4	3	3		21.79	21.90	22.33
1.4	6	0		20.74	20.98	21.20
1.4	1	0	16-QAM	20.77	20.85	21.26
1.4	1	3		20.88	20.90	21.40
1.4	1	5		20.70	21.02	21.29
1.4	3	0		20.93	21.08	21.23
1.4	3	1		21.07	20.96	21.19

1.4	3	3		20.97	21.12	21.22
1.4	6	0		19.85	20.06	20.24
1.4	1	0		20.14	20.05	20.25
1.4	1	3		20.19	20.01	20.37
1.4	1	5		20.13	20.12	20.29
1.4	3	0	64QAM	20.14	20.05	20.35
1.4	3	1		20.17	20.13	20.41
1.4	3	3		20.17	20.09	20.38
1.4	6	0		19.15	19.02	19.26

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.31	22.09	22.21
20	1	49		22.06	21.95	21.88
20	1	99		21.90	21.78	21.66
20	50	0		21.30	21.12	21.09
20	50	24		21.27	21.14	21.06
20	50	50		21.06	21.00	20.85
20	100	0		21.15	21.10	21.00
20	1	0	16-QAM	21.62	21.74	21.82
20	1	49		21.28	21.51	21.48
20	1	99		21.24	21.35	21.15
20	50	0		20.35	20.10	20.12
20	50	24		20.24	20.17	20.05
20	50	50		20.18	20.14	19.83
20	100	0		20.26	20.15	20.05
20	1	0	64QAM	20.76	20.63	20.61
20	1	49		20.42	20.25	20.23
20	1	99		20.39	20.17	20.15
20	50	0		19.38	19.12	19.15
20	50	24		19.23	19.23	19.08
20	50	50		19.20	19.09	18.87
20	100	0		19.27	19.13	19.18
15	1	0	QPSK	22.30	22.13	22.16
15	1	37		22.12	21.93	21.80
15	1	74		22.05	21.93	21.64
15	36	0		21.24	21.02	21.01
15	36	20		21.21	21.11	21.01
15	36	39		21.08	21.01	20.85
15	75	0		21.12	21.08	20.98
15	1	0	16-QAM	21.74	21.74	21.64
15	1	37		21.49	21.59	21.39
15	1	74		21.48	21.49	21.22
15	36	0		20.32	20.15	20.16
15	36	20		20.25	20.15	20.10

15	36	39		20.24	20.13	19.91
15	75	0		20.27	20.17	20.03
15	1	0		20.83	20.40	20.44
15	1	37		20.45	20.27	20.15
15	1	74		20.13	20.10	19.86
15	36	0	64QAM	19.32	19.10	19.16
15	36	20		19.33	19.19	19.04
15	36	39		19.29	19.13	18.94
15	75	0		19.24	19.15	19.00

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.29	21.97	21.97
10	1	25		22.18	21.85	21.82
10	1	49		22.15	21.85	21.64
10	25	0		21.22	21.03	20.99
10	25	12		21.19	21.04	20.89
10	25	25		21.10	21.02	20.76
10	50	0		21.09	21.05	20.89
10	1	0	16-QAM	21.43	20.96	20.96
10	1	25		21.33	20.94	20.75
10	1	49		21.26	20.89	20.57
10	25	0		20.35	20.01	20.09
10	25	12		20.34	20.10	19.92
10	25	25		20.20	20.09	19.91
10	50	0		20.19	20.18	19.91
10	1	0	64QAM	20.57	20.47	20.09
10	1	25		20.55	20.27	19.97
10	1	49		20.44	20.20	19.82
10	25	0		19.15	19.03	19.07
10	25	12		19.14	19.09	18.98
10	25	25		19.15	19.05	18.86
10	50	0		19.30	19.13	18.93
5	1	0	QPSK	22.09	21.96	21.85
5	1	12		21.90	21.94	21.64
5	1	24		22.03	21.95	21.67
5	12	0		21.02	20.94	20.85
5	12	7		21.07	21.03	20.70
5	12	13		21.07	21.03	20.72
5	25	0		21.07	21.05	20.79
5	1	0	16-QAM	21.65	21.55	21.41
5	1	12		21.63	21.58	21.29
5	1	24		21.63	21.51	21.19
5	12	0		20.26	20.04	19.85
5	12	7		20.23	20.17	19.80

5	12	13		20.18	20.08	19.79
5	25	0		20.15	20.04	19.93
5	1	0		20.53	20.38	19.81
5	1	12		20.58	20.05	19.63
5	1	24		20.45	19.86	19.59
5	12	0	64QAM	19.26	19.08	18.93
5	12	7		19.17	19.23	18.90
5	12	13		19.18	19.14	18.86
5	25	0		19.16	19.10	18.95

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.00	21.89	21.52
3	1	8		22.00	21.98	21.64
3	1	14		21.99	21.92	21.55
3	8	0		21.07	21.04	20.76
3	8	4		21.09	21.02	20.78
3	8	7		21.07	20.98	20.68
3	15	0		21.02	20.98	20.64
3	1	0	16-QAM	21.42	21.17	20.96
3	1	8		21.41	21.38	21.07
3	1	14		21.26	21.15	20.97
3	8	0		20.20	20.15	19.72
3	8	4		20.18	20.13	19.88
3	8	7		20.22	20.08	19.67
3	15	0		20.11	20.07	19.77
3	1	0	64QAM	20.24	20.03	19.78
3	1	8		20.32	20.22	19.88
3	1	14		20.25	20.07	19.83
3	8	0		19.17	19.03	18.82
3	8	4		19.16	19.12	18.85
3	8	7		19.13	19.04	18.76
3	15	0		19.24	19.07	18.70
1.4	1	0	QPSK	21.94	21.77	21.58
1.4	1	3		22.04	21.94	21.62
1.4	1	5		22.01	21.85	21.54
1.4	3	0		21.92	21.77	21.66
1.4	3	1		21.96	21.94	21.64
1.4	3	3		22.03	22.07	21.64
1.4	6	0		21.06	20.97	20.54
1.4	1	0	16-QAM	21.36	21.20	21.13
1.4	1	3		21.54	21.30	21.14
1.4	1	5		21.38	21.27	21.13
1.4	3	0		21.05	20.87	20.72
1.4	3	1		21.16	21.02	20.73

1.4	3	3		21.08	21.01	20.73
1.4	6	0		20.19	20.25	19.78
1.4	1	0		20.39	20.21	19.86
1.4	1	3		20.46	20.33	19.85
1.4	1	5		20.40	20.31	19.81
1.4	3	0	64QAM	20.33	20.08	19.91
1.4	3	1		20.27	20.23	19.99
1.4	3	3		20.29	20.28	19.89
1.4	6	0		19.05	18.98	18.69

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.93	22.97	22.88
10	1	25		22.85	22.77	22.79
10	1	49		22.64	22.66	22.70
10	25	0		21.86	21.91	21.81
10	25	12		21.89	21.83	21.77
10	25	25		21.83	21.79	21.81
10	50	0		21.78	21.87	21.74
10	1	0	16-QAM	22.27	22.08	22.20
10	1	25		22.18	22.10	22.12
10	1	49		21.99	22.02	22.03
10	25	0		21.07	20.92	20.87
10	25	12		21.04	20.90	20.83
10	25	25		20.95	20.90	20.88
10	50	0		21.01	20.93	20.85
10	1	0	64QAM	21.20	20.96	21.18
10	1	25		21.15	21.01	21.10
10	1	49		20.93	20.94	21.00
10	25	0		20.05	19.96	19.86
10	25	12		20.05	19.91	19.87
10	25	25		20.00	19.88	19.89
10	50	0		20.00	19.90	19.84
5	1	0	QPSK	22.93	22.69	22.82
5	1	12		22.79	22.74	22.76
5	1	24		22.86	22.71	22.75
5	12	0		21.96	21.82	21.81
5	12	7		22.07	21.80	21.81
5	12	13		21.92	21.77	21.80
5	25	0		21.93	21.78	21.81
5	1	0	16-QAM	22.27	22.04	22.18
5	1	12		22.37	22.13	22.14
5	1	24		22.25	22.09	22.09
5	12	0		21.04	20.94	20.91
5	12	7		21.14	20.90	20.90

5	12	13		21.00	20.89	20.90
5	25	0		21.05	20.89	20.91
5	1	0		21.17	20.95	21.09
5	1	12		21.28	21.00	21.00
5	1	24		21.14	20.99	20.95
5	12	0	64QAM	20.09	19.96	19.96
5	12	7		20.19	19.94	19.98
5	12	13		20.05	19.92	19.92
5	25	0		20.05	19.88	19.88

LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.92	22.73	22.77
3	1	8		22.82	22.81	22.84
3	1	14		22.96	22.71	22.71
3	8	0		21.95	21.77	21.77
3	8	4		22.05	21.77	21.78
3	8	7		22.02	21.73	21.75
3	15	0		21.93	21.78	21.76
3	1	0	16-QAM	22.24	22.08	22.13
3	1	8		22.44	22.18	22.21
3	1	14		22.28	22.04	22.07
3	8	0		21.07	20.93	20.93
3	8	4		21.17	20.93	20.93
3	8	7		21.11	20.87	20.90
3	15	0		21.03	20.89	20.89
3	1	0	64QAM	21.17	21.02	21.06
3	1	8		21.35	21.09	21.13
3	1	14		21.25	20.98	21.00
3	8	0		20.08	19.91	19.91
3	8	4		20.17	19.91	19.93
3	8	7		20.14	19.91	19.90
3	15	0		20.05	19.88	19.88
1.4	1	0	QPSK	22.81	22.64	22.67
1.4	1	3		22.90	22.72	22.50
1.4	1	5		22.94	22.65	22.61
1.4	3	0		22.86	22.66	22.70
1.4	3	1		22.90	22.72	22.72
1.4	3	3		22.89	22.71	22.71
1.4	6	0		21.85	21.70	21.74
1.4	1	0	16-QAM	22.15	22.00	22.03
1.4	1	3		22.25	22.09	22.12
1.4	1	5		22.26	22.02	22.02
1.4	3	0		21.95	21.78	21.76
1.4	3	1		21.99	21.83	21.82

1.4	3	3		22.00	21.80	21.83
1.4	6	0		21.03	20.87	20.88
1.4	1	0		21.11	20.92	20.96
1.4	1	3		21.16	20.97	20.99
1.4	1	5		21.16	20.92	20.93
1.4	3	0	64QAM	21.11	20.93	20.92
1.4	3	1		21.11	20.97	20.94
1.4	3	3		21.08	20.93	20.93
1.4	6	0		19.98	19.78	19.78

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.05	22.17	22.16
20	1	49		21.86	21.93	22.02
20	1	99		21.90	21.94	21.91
20	50	0		21.02	21.10	21.05
20	50	24		21.00	20.98	21.02
20	50	50		20.88	20.95	20.95
20	100	0		20.96	21.03	21.00
20	1	0	16-QAM	21.07	21.12	21.22
20	1	49		20.85	20.96	21.13
20	1	99		20.90	20.95	21.09
20	50	0		20.05	20.17	20.10
20	50	24		20.11	20.18	20.03
20	50	50		20.07	20.08	20.03
20	100	0		19.97	20.06	20.09
20	1	0	64QAM	20.46	20.50	20.14
20	1	49		20.19	20.06	20.13
20	1	99		20.30	20.32	20.04
20	50	0		19.07	19.10	19.13
20	50	24		18.99	19.18	19.10
20	50	50		19.06	19.05	19.12
20	100	0		19.10	19.08	19.12
15	1	0	QPSK	22.08	22.03	22.00
15	1	37		21.77	21.97	22.03
15	1	74		21.94	21.92	21.95
15	36	0		20.98	21.10	21.08
15	36	20		20.99	21.06	21.06
15	36	39		20.97	21.02	21.04
15	75	0		20.93	21.01	21.01
15	1	0	16-QAM	21.22	21.49	21.45
15	1	37		21.08	21.50	21.43
15	1	74		21.07	21.50	21.46
15	36	0		20.05	20.05	20.11
15	36	20		20.04	20.03	20.13

15	36	39		19.95	19.97	20.03
15	75	0		20.02	20.10	20.12
15	1	0		20.39	20.48	20.27
15	1	37		20.03	20.29	20.34
15	1	74		20.23	20.28	20.23
15	36	0	**64QAM**	19.07	19.16	19.12
15	36	20		19.01	19.17	19.11
15	36	39		18.97	19.01	19.11
15	75	0		19.01	19.08	19.12

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	21.98	22.06	22.12
10	1	25		21.91	21.99	22.01
10	1	49		21.76	21.97	21.96
10	25	0		20.91	21.03	21.02
10	25	12		20.92	21.01	21.03
10	25	25		20.88	20.98	21.00
10	50	0		20.96	20.91	20.90
10	1	0	16-QAM	21.50	21.27	21.04
10	1	25		21.46	21.16	21.20
10	1	49		20.95	21.16	21.15
10	25	0		19.97	20.16	20.13
10	25	12		20.11	20.13	20.06
10	25	25		19.94	20.03	20.02
10	50	0		19.96	20.07	20.05
10	1	0	64QAM	20.30	20.37	20.43
10	1	25		20.29	20.25	20.36
10	1	49		20.08	20.27	20.34
10	25	0		19.08	19.08	19.05
10	25	12		19.00	19.14	19.05
10	25	25		18.94	19.09	19.00
10	50	0		18.97	19.09	19.07
5	1	0	QPSK	21.97	22.02	21.96
5	1	12		21.94	22.06	21.99
5	1	24		21.90	21.96	21.93
5	12	0		20.99	20.90	20.93
5	12	7		20.98	20.99	21.03
5	12	13		20.87	20.97	20.96
5	25	0		20.95	20.94	21.00
5	1	0	16-QAM	20.87	21.06	21.09
5	1	12		20.93	21.07	21.03
5	1	24		20.95	21.02	21.03
5	12	0		20.05	20.04	20.04
5	12	7		19.95	20.01	20.15

5	12	13		19.99	20.08	20.07
5	25	0		19.96	19.99	19.95
5	1	0		19.99	20.09	20.26
5	1	12		19.93	20.02	20.24
5	1	24		19.90	20.01	20.26
5	12	0	64QAM	18.94	19.08	19.20
5	12	7		19.01	19.04	19.20
5	12	13		19.02	19.02	19.13
5	25	0		19.07	19.04	19.03

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.80	23.96	23.85
10	1	25		23.78	23.87	23.83
10	1	49		23.83	23.81	23.68
10	25	0		22.84	22.93	22.86
10	25	12		22.91	22.92	22.87
10	25	25		22.87	22.84	22.81
10	50	0		22.88	22.89	22.84
10	1	0	16-QAM	23.14	23.09	23.19
10	1	25		23.10	23.17	23.19
10	1	49		23.19	23.14	22.98
10	25	0		21.94	21.99	21.95
10	25	12		22.03	22.00	21.97
10	25	25		21.98	21.94	21.89
10	50	0		22.02	21.96	21.95
10	1	0	64QAM	22.14	22.05	22.08
10	1	25		22.03	22.16	22.09
10	1	49		22.18	22.12	21.96
10	25	0		20.95	21.00	20.96
10	25	12		21.05	21.00	20.98
10	25	25		21.01	20.96	20.95
10	50	0		21.06	21.00	20.97
5	1	0	QPSK	23.81	23.86	23.78
5	1	12		23.80	23.82	23.84
5	1	24		23.80	23.84	23.60
5	12	0		22.83	22.84	22.80
5	12	7		22.88	22.89	22.92
5	12	13		22.84	22.87	22.90
5	25	0		22.84	22.87	22.78
5	1	0	16-QAM	23.17	23.19	23.13
5	1	12		23.09	23.16	23.19
5	1	24		23.10	23.20	22.78
5	12	0		21.93	21.94	21.87
5	12	7		21.96	21.97	21.99

5	12	13		21.93	21.95	21.97
5	25	0		21.92	21.93	21.84
5	1	0		22.11	22.16	22.08
5	1	12		22.04	22.14	22.10
5	1	24		22.06	22.13	21.79
5	12	0	64QAM	21.00	21.02	20.95
5	12	7		21.01	21.04	21.08
5	12	13		20.98	21.00	21.05
5	25	0		20.93	20.95	20.88

LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	23.81	23.85	23.83
3	1	8		23.85	23.93	23.93
3	1	14		23.51	23.82	23.64
3	8	0		22.84	22.83	22.88
3	8	4		22.83	22.85	22.90
3	8	7		22.79	22.84	22.83
3	15	0		22.80	22.83	22.87
3	1	0	16-QAM	23.10	23.17	23.17
3	1	8		23.22	23.28	23.23
3	1	14		23.09	23.17	22.69
3	8	0		21.94	21.97	21.98
3	8	4		21.95	22.00	22.03
3	8	7		21.92	21.95	21.99
3	15	0		21.90	21.95	21.95
3	1	0	64QAM	22.04	22.09	22.08
3	1	8		22.10	22.16	22.14
3	1	14		22.02	22.09	21.70
3	8	0		20.93	20.97	21.00
3	8	4		20.97	21.00	21.03
3	8	7		20.94	20.98	21.00
3	15	0		20.93	20.93	20.99
1.4	1	0	QPSK	23.72	23.75	23.73
1.4	1	3		23.69	23.83	23.74
1.4	1	5		23.69	23.75	23.50
1.4	3	0		23.78	23.81	23.72
1.4	3	1		23.79	23.83	23.64
1.4	3	3		23.79	23.82	23.59
1.4	6	0		22.77	22.77	22.62
1.4	1	0	16-QAM	23.05	23.07	23.01
1.4	1	3		23.10	23.16	23.01
1.4	1	5		23.03	23.12	22.57
1.4	3	0		22.86	22.88	22.74
1.4	3	1		22.89	22.90	22.77

1.4	3	3		22.88	22.90	22.73
1.4	6	0		21.91	21.95	21.80
1.4	1	0		21.99	22.02	22.02
1.4	1	3		22.04	22.06	21.97
1.4	1	5		22.01	22.01	21.64
1.4	3	0	**64QAM**	21.99	22.02	21.97
1.4	3	1		22.03	22.04	21.93
1.4	3	3		22.04	22.03	21.84
1.4	6	0		20.87	20.88	20.86

LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.72	23.90	23.81
10	1	25		23.86	23.81	23.88
10	1	49		23.84	23.87	23.58
10	25	0		22.81	22.94	22.93
10	25	12		22.92	22.93	22.93
10	25	25		22.86	22.88	22.87
10	50	0		22.90	22.92	22.91
10	1	0	16-QAM	23.02	23.11	23.11
10	1	25		23.21	23.22	23.22
10	1	49		23.17	23.12	22.90
10	25	0		21.93	22.01	22.00
10	25	12		22.02	22.02	21.99
10	25	25		21.96	21.94	21.96
10	50	0		21.97	22.00	21.99
10	1	0	64QAM	21.97	22.09	22.06
10	1	25		22.16	22.18	22.15
10	1	49		22.11	22.11	21.91
10	25	0		20.93	21.02	21.03
10	25	12		21.05	21.03	21.06
10	25	25		21.01	21.01	21.02
10	50	0		21.05	21.01	21.00
5	1	0	QPSK	23.75	23.78	23.85
5	1	12		23.80	23.85	23.84
5	1	24		23.89	23.85	23.70
5	12	0		22.87	22.89	22.87
5	12	7		22.89	22.93	22.87
5	12	13		22.85	22.88	22.85
5	25	0		22.84	22.90	22.87
5	1	0	16-QAM	23.03	23.12	23.19
5	1	12		23.13	23.22	23.17
5	1	24		23.24	23.21	22.72
5	12	0		21.97	22.01	21.96
5	12	7		21.95	22.01	21.97

5	12	13		21.94	21.97	21.93
5	25	0		21.92	21.96	21.92
5	1	0		22.02	22.07	22.16
5	1	12		22.11	22.18	22.08
5	1	24		22.20	22.16	21.72
5	12	0	64QAM	21.01	21.04	21.02
5	12	7		21.01	21.07	21.01
5	12	13		21.01	21.05	21.00
5	25	0		20.94	20.99	20.96

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	23.66	23.40	23.48
20	1	49		23.32	23.23	23.32
20	1	99		23.37	23.26	23.22
20	50	0		22.53	22.37	22.40
20	50	24		22.51	22.43	22.27
20	50	50		22.34	22.37	22.42
20	100	0		22.52	22.46	22.40
20	1	0	16-QAM	22.66	22.60	22.53
20	1	49		22.43	22.26	22.44
20	1	99		22.39	22.36	22.31
20	50	0		21.60	21.44	21.46
20	50	24		21.39	21.60	21.48
20	50	50		21.60	21.44	21.47
20	100	0		21.69	21.54	21.37
20	1	0	64QAM	21.41	21.26	21.26
20	1	49		21.17	21.00	21.25
20	1	99		21.25	21.11	21.05
20	50	0		20.77	20.62	20.42
20	50	24		20.45	20.57	20.43
20	50	50		20.57	20.42	20.37
20	100	0		20.56	20.42	20.43
15	1	0	QPSK	23.65	23.32	23.39
15	1	37		23.30	23.33	23.32
15	1	74		23.27	23.20	23.25
15	36	0		22.58	22.35	22.44
15	36	20		22.42	22.45	22.44
15	36	39		22.40	22.43	22.40
15	75	0		22.57	22.34	22.34
15	1	0	16-QAM	22.64	22.50	22.47
15	1	37		22.50	22.35	22.36
15	1	74		22.30	22.31	22.39
15	36	0		21.51	21.47	21.45
15	36	20		21.46	21.48	21.50

15	36	39		21.44	21.36	21.40
15	75	0		21.66	21.42	21.35
15	1	0		21.32	21.26	21.31
15	1	37		21.17	21.19	21.11
15	1	74		21.05	21.15	21.03
15	36	0	64QAM	20.63	20.58	20.41
15	36	20		20.46	20.49	20.49
15	36	39		20.45	20.46	20.40
15	75	0		20.55	20.39	20.32

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.54	23.49	23.41
10	1	25		23.31	23.25	23.30
10	1	49		23.25	23.34	23.36
10	25	0		22.50	22.41	22.46
10	25	12		22.42	22.37	22.39
10	25	25		22.33	22.34	22.29
10	50	0		22.52	22.48	22.42
10	1	0	16-QAM	22.63	22.90	22.61
10	1	25		22.34	22.29	22.41
10	1	49		22.35	22.25	22.38
10	25	0		21.60	21.60	21.44
10	25	12		21.42	21.46	21.56
10	25	25		21.33	21.52	21.36
10	50	0		21.52	21.47	21.37
10	1	0	64QAM	21.41	21.27	21.27
10	1	25		21.19	21.23	21.24
10	1	49		21.12	21.10	21.04
10	25	0		20.61	20.52	20.63
10	25	12		20.54	20.48	20.47
10	25	25		20.45	20.44	20.46
10	50	0		20.60	20.45	20.54
5	1	0	QPSK	23.53	23.37	23.49
5	1	12		23.30	23.33	23.40
5	1	24		23.24	23.24	23.31
5	12	0		22.49	22.49	22.45
5	12	7		22.33	22.36	22.38
5	12	13		22.33	22.33	22.38
5	25	0		22.42	22.47	22.46
5	1	0	16-QAM	22.64	22.49	22.60
5	1	12		22.34	22.28	22.40
5	1	24		22.34	22.42	22.37
5	12	0		21.59	21.49	21.52
5	12	7		21.42	21.45	21.46

5	12	13		21.42	21.51	21.35
5	25	0		21.70	21.46	21.36
5	1	0		21.30	21.35	21.26
5	1	12		21.18	21.02	21.14
5	1	24		21.11	21.18	21.13
5	12	0	64QAM	20.61	20.51	20.62
5	12	7		20.53	20.56	20.46
5	12	13		20.54	20.43	20.45
5	25	0		20.49	20.44	20.52

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.93	22.65	23.27
20	1	49		22.80	22.71	22.60
20	1	99		22.70	22.78	22.83
20	50	0		21.89	22.53	21.99
20	50	24		21.86	22.61	21.66
20	50	50		21.93	22.71	21.60
20	100	0		21.86	22.68	21.92
20	1	0	16-QAM	22.18	22.01	22.32
20	1	49		21.89	21.68	21.60
20	1	99		21.82	21.68	21.90
20	50	0		21.12	20.82	20.83
20	50	24		21.09	20.71	20.60
20	50	50		20.90	20.58	20.72
20	100	0		20.91	20.79	20.73
20	1	0	64QAM	20.98	20.81	21.11
20	1	49		20.70	20.71	20.63
20	1	99		20.65	20.52	20.72
20	50	0		20.07	19.83	19.81
20	50	24		20.04	19.81	19.66
20	50	50		19.98	19.75	19.61
20	100	0		19.97	19.65	19.71
15	1	0	QPSK	23.16	22.78	22.86
15	1	37		22.90	22.79	22.64
15	1	74		22.82	22.65	22.60
15	36	0		22.14	21.95	21.73
15	36	20		22.00	21.75	21.72
15	36	39		21.85	21.89	21.60
15	75	0		22.02	22.01	21.76
15	1	0	16-QAM	22.20	22.08	21.91
15	1	37		22.01	21.78	21.60
15	1	74		21.97	21.78	21.60
15	36	0		21.06	21.08	20.72
15	36	20		20.93	20.91	20.72

15	36	39		20.91	20.85	20.65
15	75	0		21.14	20.95	20.72
15	1	0		20.94	20.85	20.65
15	1	37		20.85	20.76	20.61
15	1	74		20.73	20.63	20.63
15	36	0	**64QAM**	20.06	20.01	19.83
15	36	20		20.12	19.82	19.72
15	36	39		20.03	19.87	19.65
15	75	0		20.10	19.83	19.80

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.89	22.69	23.26
10	1	25		22.85	22.71	22.62
10	1	49		22.77	22.78	23.10
10	25	0		21.92	21.91	21.76
10	25	12		21.92	21.78	21.77
10	25	25		21.80	21.75	21.74
10	50	0		21.83	21.78	21.86
10	1	0	16-QAM	21.99	21.68	22.36
10	1	25		21.87	21.78	21.72
10	1	49		21.92	21.61	22.13
10	25	0		21.09	20.88	20.82
10	25	12		21.08	20.81	20.83
10	25	25		20.87	20.78	20.70
10	50	0		21.00	20.89	20.91
10	1	0	64QAM	20.80	20.68	21.10
10	1	25		20.69	20.65	20.62
10	1	49		20.65	20.68	20.89
10	25	0		20.09	19.71	19.93
10	25	12		20.08	19.78	19.84
10	25	25		20.07	19.65	19.81
10	50	0		20.04	19.86	19.89
5	1	0	QPSK	22.74	22.61	23.10
5	1	12		22.78	22.68	22.60
5	1	24		22.69	22.71	22.60
5	12	0		21.94	21.68	21.61
5	12	7		21.86	21.65	21.65
5	12	13		21.87	21.98	21.63
5	25	0		21.87	21.78	21.61
5	1	0	16-QAM	21.87	21.81	21.60
5	1	12		21.97	21.62	21.60
5	1	24		21.93	21.68	21.62
5	12	0		20.93	21.35	20.65
5	12	7		20.94	20.74	21.20

5	12	13		20.96	20.80	20.65
5	25	0		20.93	20.71	20.64
5	1	0		20.78	20.58	20.63
5	1	12		20.68	20.73	20.65
5	1	24		20.66	20.76	20.65
5	12	0	64QAM	19.92	20.01	19.64
5	12	7		19.93	20.05	19.72
5	12	13		19.96	19.96	19.73
5	25	0		19.91	19.94	19.65

CA Power

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	0	0	1	99	1	23.6
			1	0	0	0	1	23.95
			100	0	0	0	100	23.04
			100	0	100	0	200	21.85
			1	0	1	99	2	15.46
			1	0	1	0	2	19.48
			1	99	1	0	2	23.77
			100	0	1	99	101	20.44
		16QAM	0	0	1	99	1	22.55
			1	0	0	0	1	23.27
			100	0	0	0	100	22.19
			100	0	100	0	200	21.02
			1	0	1	99	2	15.64
			1	0	1	0	2	19.53
			1	99	1	0	2	22.59
			100	0	1	99	101	20.41
		64QAM	0	0	1	99	1	21.29
			1	0	0	0	1	21.84
			100	0	0	0	100	21.08
			100	0	100	0	200	20.88
			1	0	1	99	2	15.17
			1	0	1	0	2	19.13
			1	99	1	0	2	20.32
			100	0	1	99	101	20.22

37901	38099	QPSK	0	0	1	99	1	23.55
			1	0	0	0	1	23.78
			100	0	0	0	100	22.98
			100	0	100	0	200	21.86
			1	0	1	99	2	15.49
			1	0	1	0	2	19.52
			1	99	1	0	2	23.79
			100	0	1	99	101	20.32
		16QAM	0	0	1	99	1	22.46
			1	0	0	0	1	23.21
			100	0	0	0	100	22.32
			100	0	100	0	200	21.12
			1	0	1	99	2	15.13
			1	0	1	0	2	19.42
			1	99	1	0	2	22.39
			100	0	1	99	101	20.51
		64QAM	0	0	1	99	1	21.23
			1	0	0	0	1	21.65
			100	0	0	0	100	21.15
			100	0	100	0	200	20.69
			1	0	1	99	2	15.13
			1	0	1	0	2	19.23
			1	99	1	0	2	20.23
			100	0	1	99	101	20.29

37952	38150	QPSK	0	0	1	99	1	23.67
			1	0	0	0	1	23.86
			100	0	0	0	100	23.08
			100	0	100	0	200	21.95
			1	0	1	99	2	15.56
			1	0	1	0	2	19.61
			1	99	1	0	2	23.69
			100	0	1	99	101	20.29
		16QAM	0	0	1	99	1	22.32
			1	0	0	0	1	23.05
			100	0	0	0	100	22.23
			100	0	100	0	200	21.09
			1	0	1	99	2	15.1
			1	0	1	0	2	19.36
			1	99	1	0	2	22.32
			100	0	1	99	101	20.56
		64QAM	0	0	1	99	1	21.13
			1	0	0	0	1	21.36
			100	0	0	0	100	21.06
			100	0	100	0	200	20.56
			1	0	1	99	2	15.16
			1	0	1	0	2	19.32
			1	99	1	0	2	20.34
			100	0	1	99	101	20.39

CA_38C								
Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
37825	37975	QPSK	75	0	75	0	150	21.88
		QPSK	1	0	1	74	2	15.38
		QPSK	1	74	1	0	2	23.62
		16QAM	75	0	75	0	150	20.92
		16QAM	1	0	1	74	2	15.58
		16QAM	1	74	1	0	2	22.64
		64QAM	75	0	75	0	150	20.97
		64QAM	1	0	1	74	2	15.18
		64QAM	1	74	1	0	2	20.37
37925	38075	QPSK	75	0	75	0	150	21.9
		QPSK	1	0	1	74	2	15.41
		QPSK	1	74	1	0	2	23.71
		16QAM	75	0	75	0	150	20.93
		16QAM	1	0	1	74	2	15.46
		16QAM	1	74	1	0	2	22.64
		64QAM	75	0	75	0	150	20.85
		64QAM	1	0	1	74	2	15.17
		64QAM	1	74	1	0	2	20.42
38025	38175	QPSK	75	0	75	0	150	21.81
		QPSK	1	0	1	74	2	15.32
		QPSK	1	74	1	0	2	23.76
		16QAM	75	0	75	0	150	20.82
		16QAM	1	0	1	74	2	15.36
		16QAM	1	74	1	0	2	22.52
		64QAM	75	0	75	0	150	20.72
		64QAM	1	0	1	74	2	15.21
		64QAM	1	74	1	0	2	20.52

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
40140	40338	QPSK	0	0	1	99	1	23.45
			1	0	0	0	1	23.85
			100	0	0	0	100	22.80
			100	0	100	0	200	21.65
			1	0	1	99	2	15.31
			1	0	1	0	2	19.33
			1	99	1	0	2	23.54
			100	0	1	99	101	20.09
		16QAM	0	0	1	99	1	22.42
			1	0	0	0	1	22.85
			100	0	0	0	100	21.87
			100	0	100	0	200	20.72
			1	0	1	99	2	15.34
			1	0	1	0	2	19.36
			1	99	1	0	2	22.50
			100	0	1	99	101	20.17
		64QAM	0	0	1	99	1	21.94
			1	0	0	0	1	21.72
			100	0	0	0	100	20.79
			100	0	100	0	200	20.75
			1	0	1	99	2	15.05
			1	0	1	0	2	19.07
			1	99	1	0	2	20.85
			100	0	1	99	101	20.06

40541	40739	QPSK	0	0	1	99	1	23.49
			1	0	0	0	1	23.86
			100	0	0	0	100	22.62
			100	0	100	0	200	21.75
			1	0	1	99	2	15.34
			1	0	1	0	2	19.48
			1	99	1	0	2	23.63
			100	0	1	99	101	20.16
		16QAM	0	0	1	99	1	22.53
			1	0	0	0	1	22.85
			100	0	0	0	100	21.75
			100	0	100	0	200	20.63
			1	0	1	99	2	15.43
			1	0	1	0	2	19.48
			1	99	1	0	2	22.36
			100	0	1	99	101	20.26
		64QAM	0	0	1	99	1	21.28
			1	0	0	0	1	21.96
			100	0	0	0	100	20.95
			100	0	100	0	200	20.38
			1	0	1	99	2	15.23
			1	0	1	0	2	19.01
			1	99	1	0	2	20.85
			100	0	1	99	101	20.15

40942	41140	QPSK	0	0	1	99	1	23.46
			1	0	0	0	1	23.83
			100	0	0	0	100	22.72
			100	0	100	0	200	21.36
			1	0	1	99	2	15.42
			1	0	1	0	2	19.45
			1	99	1	0	2	23.46
			100	0	1	99	101	20.16
		16QAM	0	0	1	99	1	22.66
			1	0	0	0	1	22.89
			100	0	0	0	100	21.63
			100	0	100	0	200	20.96
			1	0	1	99	2	15.49
			1	0	1	0	2	19.41
			1	99	1	0	2	22.42
			100	0	1	99	101	20.32
		64QAM	0	0	1	99	1	21.91
			1	0	0	0	1	21.96
			100	0	0	0	100	20.98
			100	0	100	0	200	20.47
			1	0	1	99	2	15.32
			1	0	1	0	2	19.14
			1	99	1	0	2	20.89
			100	0	1	99	101	20.46

CA_41C								
Combination 20MHz+15MHz (100RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
40140	40311	QPSK	100	0	75	0	175	21.64
		QPSK	1	0	1	74	2	15.20
		QPSK	1	99	1	0	2	23.49
		16QAM	100	0	75	0	175	20.73
		16QAM	1	0	1	74	2	15.33
		16QAM	1	99	1	0	2	22.54
		64QAM	100	0	75	0	175	20.74
		64QAM	1	0	1	74	2	15.20
		64QAM	1	99	1	0	2	20.48
40566	40737	QPSK	100	0	75	0	175	21.73
		QPSK	1	0	1	74	2	15.16
		QPSK	1	99	1	0	2	23.45
		16QAM	100	0	75	0	175	20.80
		16QAM	1	0	1	74	2	15.22
		16QAM	1	99	1	0	2	22.40
		64QAM	100	0	75	0	175	20.82
		64QAM	1	0	1	74	2	14.93
		64QAM	1	99	1	0	2	20.83
40991	41162	QPSK	100	0	75	0	175	21.78
		QPSK	1	0	1	74	2	15.46
		QPSK	1	99	1	0	2	23.29
		16QAM	100	0	75	0	175	20.97
		16QAM	1	0	1	74	2	15.25
		16QAM	1	99	1	0	2	22.52
		64QAM	100	0	75	0	175	20.97
		64QAM	1	0	1	74	2	14.56
		64QAM	1	99	1	0	2	20.89

Combination 15MHz+20MHz (75RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
40118	40289	QPSK	75	0	100	0	175	21.85
		QPSK	1	0	1	99	2	15.32
		QPSK	1	74	1	0	2	23.42
		16QAM	75	0	100	0	175	20.62
		16QAM	1	0	1	99	2	15.42
		16QAM	1	74	1	0	2	22.46
		64QAM	75	0	100	0	175	20.51
		64QAM	1	0	1	99	2	15.49
		64QAM	1	74	1	0	2	20.56
40544	40715	QPSK	75	0	100	0	175	21.84
		QPSK	1	0	1	99	2	15.32
		QPSK	1	74	1	0	2	23.46
		16QAM	75	0	100	0	175	20.71
		16QAM	1	0	1	99	2	15.36
		16QAM	1	74	1	0	2	22.65
		64QAM	75	0	100	0	175	20.71
		64QAM	1	0	1	99	2	14.82
		64QAM	1	74	1	0	2	20.36
40969	41140	QPSK	75	0	100	0	175	21.62
		QPSK	1	0	1	99	2	15.46
		QPSK	1	74	1	0	2	23.13
		16QAM	75	0	100	0	175	20.81
		16QAM	1	0	1	99	2	15.41
		16QAM	1	74	1	0	2	22.36
		64QAM	75	0	100	0	175	20.81
		64QAM	1	0	1	99	2	15.40
		64QAM	1	74	1	0	2	20.03

Combination 20MHz+10MHz (100RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
40140	40284	QPSK	100	0	50	0	150	21.69
		QPSK	1	0	1	49	2	15.31
		QPSK	1	99	1	0	2	23.32
		16QAM	100	0	50	0	150	20.46
		16QAM	1	0	1	49	2	15.26
		16QAM	1	99	1	0	2	22.25
		64QAM	100	0	50	0	150	20.62
		64QAM	1	0	1	49	2	15.47
		64QAM	1	99	1	0	2	20.56
40591	40735	QPSK	100	0	50	0	150	21.68
		QPSK	1	0	1	49	2	15.42
		QPSK	1	99	1	0	2	23.23
		16QAM	100	0	50	0	150	20.55
		16QAM	1	0	1	49	2	15.20
		16QAM	1	99	1	0	2	22.49
		64QAM	100	0	50	0	150	20.55
		64QAM	1	0	1	49	2	14.66
		64QAM	1	99	1	0	2	20.80
41041	41185	QPSK	100	0	50	0	150	21.74
		QPSK	1	0	1	49	2	14.72
		QPSK	1	99	1	0	2	23.25
		16QAM	100	0	50	0	150	20.93
		16QAM	1	0	1	49	2	15.43
		16QAM	1	99	1	0	2	22.48
		64QAM	100	0	50	0	150	20.79
		64QAM	1	0	1	49	2	15.31
		64QAM	1	99	1	0	2	20.23

Combination 10MHz+20MHz (50RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
40095	40239	QPSK	50	0	100	0	150	21.76
		QPSK	1	0	1	99	2	15.19
		QPSK	1	49	1	0	2	23.23
		16QAM	50	0	100	0	150	20.43
		16QAM	1	0	1	99	2	15.25
		16QAM	1	49	1	0	2	22.37
		64QAM	50	0	100	0	150	20.37
		64QAM	1	0	1	99	2	15.43
		64QAM	1	49	1	0	2	20.49
40546	40690	QPSK	50	0	100	0	150	21.73
		QPSK	1	0	1	99	2	15.16
		QPSK	1	49	1	0	2	23.32
		16QAM	50	0	100	0	150	20.52
		16QAM	1	0	1	99	2	15.24
		16QAM	1	49	1	0	2	22.51
		64QAM	50	0	100	0	150	20.59
		64QAM	1	0	1	99	2	14.63
		64QAM	1	49	1	0	2	20.22
40996	41140	QPSK	50	0	100	0	150	21.41
		QPSK	1	0	1	99	2	15.46
		QPSK	1	49	1	0	2	22.92
		16QAM	50	0	100	0	150	20.67
		16QAM	1	0	1	99	2	15.43
		16QAM	1	49	1	0	2	22.22
		64QAM	50	0	100	0	150	20.67
		64QAM	1	0	1	99	2	15.26
		64QAM	1	49	1	0	2	20.89

Combination 20MHz+5MHz (100RB+25RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
40140	40257	QPSK	100	0	25	0	125	21.42
		QPSK	1	0	1	24	2	15.46
		QPSK	1	99	1	0	2	23.43
		16QAM	100	0	25	0	125	20.65
		16QAM	1	0	1	24	2	15.43
		16QAM	1	99	1	0	2	22.23
		64QAM	100	0	25	0	125	20.43
		64QAM	1	0	1	24	2	15.42
		64QAM	1	99	1	0	2	20.56
40615	40732	QPSK	100	0	25	0	125	21.46
		QPSK	1	0	1	24	2	15.36
		QPSK	1	99	1	0	2	23.39
		16QAM	100	0	25	0	125	20.65
		16QAM	1	0	1	24	2	15.34
		16QAM	1	99	1	0	2	22.63
		64QAM	100	0	25	0	125	20.53
		64QAM	1	0	1	24	2	15.45
		64QAM	1	99	1	0	2	20.63
41090	41207	QPSK	100	0	25	0	125	21.46
		QPSK	1	0	1	24	2	14.96
		QPSK	1	99	1	0	2	23.32
		16QAM	100	0	25	0	125	20.35
		16QAM	1	0	1	24	2	15.46
		16QAM	1	99	1	0	2	22.49
		64QAM	100	0	25	0	125	20.46
		64QAM	1	0	1	24	2	15.35
		64QAM	1	99	1	0	2	20.36

Combination 5MHz+20MHz (25RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
40073	40190	QPSK	25	0	100	0	125	21.53
		QPSK	1	0	1	99	2	15.39
		QPSK	1	24	1	0	2	23.29
		16QAM	25	0	100	0	125	20.42
		16QAM	1	0	1	99	2	15.45
		16QAM	1	24	1	0	2	22.49
		64QAM	25	0	100	0	125	20.88
		64QAM	1	0	1	99	2	15.34
		64QAM	1	24	1	0	2	20.63
40548	40665	QPSK	25	0	100	0	125	21.87
		QPSK	1	0	1	99	2	15.30
		QPSK	1	24	1	0	2	23.59
		16QAM	25	0	100	0	125	20.94
		16QAM	1	0	1	99	2	15.36
		16QAM	1	24	1	0	2	22.54
		64QAM	25	0	100	0	125	20.96
		64QAM	1	0	1	99	2	15.07
		64QAM	1	24	1	0	2	20.37
41023	41140	QPSK	25	0	100	0	125	21.65
		QPSK	1	0	1	99	2	15.33
		QPSK	1	24	1	0	2	23.16
		16QAM	25	0	100	0	125	20.84
		16QAM	1	0	1	99	2	14.25
		16QAM	1	24	1	0	2	22.39
		64QAM	25	0	100	0	125	20.84
		64QAM	1	0	1	99	2	15.43
		64QAM	1	24	1	0	2	20.03

Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
40115	40265	QPSK	75	0	75	0	150	21.14
		QPSK	1	0	1	74	2	15.18
		QPSK	1	74	1	0	2	23.15
		16QAM	75	0	75	0	150	20.37
		16QAM	1	0	1	74	2	15.35
		16QAM	1	74	1	0	2	21.95
		64QAM	75	0	75	0	150	20.15
		64QAM	1	0	1	74	2	15.35
		64QAM	1	74	1	0	2	20.28
40565	40715	QPSK	75	0	75	0	150	21.18
		QPSK	1	0	1	74	2	15.08
		QPSK	1	74	1	0	2	23.11
		16QAM	75	0	75	0	150	20.37
		16QAM	1	0	1	74	2	15.06
		16QAM	1	74	1	0	2	22.35
		64QAM	75	0	75	0	150	20.51
		64QAM	1	0	1	74	2	15.45
		64QAM	1	74	1	0	2	20.61
41015	41165	QPSK	75	0	75	0	150	21.57
		QPSK	1	0	1	74	2	15.38
		QPSK	1	74	1	0	2	22.43
		16QAM	75	0	75	0	150	20.46
		16QAM	1	0	1	74	2	15.17
		16QAM	1	74	1	0	2	22.6
		64QAM	75	0	75	0	150	20.57
		64QAM	1	0	1	74	2	15.41
		64QAM	1	74	1	0	2	20.47

Combination 15MHz+10MHz (75RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
40115	40235	QPSK	75	0	50	0	125	21.85
		QPSK	1	0	1	49	2	15.36
		QPSK	1	74	1	0	2	21.36
		16QAM	75	0	50	0	125	20.68
		16QAM	1	0	1	49	2	15.36
		16QAM	1	74	1	0	2	22.65
		64QAM	75	0	50	0	125	20.23
		64QAM	1	0	1	49	2	15.43
		64QAM	1	74	1	0	2	20.58
40591	40711	QPSK	75	0	50	0	125	21.86
		QPSK	1	0	1	49	2	15.35
		QPSK	1	74	1	0	2	23.41
		16QAM	75	0	50	0	125	20.23
		16QAM	1	0	1	49	2	15.36
		16QAM	1	74	1	0	2	22.49
		64QAM	75	0	50	0	125	20.46
		64QAM	1	0	1	49	2	15.21
		64QAM	1	74	1	0	2	20.35
41067	41187	QPSK	75	0	50	0	125	21.56
		QPSK	1	0	1	49	2	15.32
		QPSK	1	74	1	0	2	23.07
		16QAM	75	0	50	0	125	20.82
		16QAM	1	0	1	49	2	15.42
		16QAM	1	74	1	0	2	22.37
		64QAM	75	0	50	0	125	20.82
		64QAM	1	0	1	49	2	15.41
		64QAM	1	74	1	0	2	20.04

Combination 10MHz+15MHz (50RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
40093	40213	QPSK	50	0	75	0	125	21.23
		QPSK	1	49	1	0	2	15.27
		QPSK	1	0	1	74	2	23.24
		16QAM	50	0	75	0	125	20.46
		16QAM	1	49	1	0	2	15.44
		16QAM	1	0	1	74	2	22.04
		64QAM	50	0	75	0	125	20.24
		64QAM	1	49	1	0	2	15.44
		64QAM	1	0	1	74	2	20.37
40569	40689	QPSK	50	0	75	0	125	21.27
		QPSK	1	49	1	0	2	15.17
		QPSK	1	0	1	74	2	23.20
		16QAM	50	0	75	0	125	20.46
		16QAM	1	49	1	0	2	15.15
		16QAM	1	0	1	74	2	22.44
		64QAM	50	0	75	0	125	20.60
		64QAM	1	49	1	0	2	15.42
		64QAM	1	0	1	74	2	20.70
41045	41165	QPSK	50	0	75	0	125	21.53
		QPSK	1	49	1	0	2	15.43
		QPSK	1	0	1	74	2	23.39
		16QAM	50	0	75	0	125	20.42
		16QAM	1	49	1	0	2	15.42
		16QAM	1	0	1	74	2	22.56
		64QAM	50	0	75	0	125	20.53
		64QAM	1	49	1	0	2	15.18
		64QAM	1	0	1	74	2	20.43

ERP/EIRP

LTE Band 2 (G_T - L_C = -0.60 dBi) 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)	21.79	21.90	22.33	21.97	22.15	22.43	21.92	22.01	22.23
Conducted Power (Watts)	0.1510	0.1549	0.1710	0.1574	0.1641	0.1750	0.1556	0.1589	0.1671
EIRP(dBm)	21.19	21.30	21.73	21.37	21.55	21.83	21.32	21.41	21.63
EIRP(Watts)	0.1315	0.1349	0.1489	0.1371	0.1429	0.1524	0.1355	0.1384	0.1455

LTE Band 2 (G_T - L_C = -0.60 dBi) 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)	22.24	22.27	22.27	22.04	22.18	22.35	22.22	22.44	22.43
Conducted Power (Watts)	0.1675	0.1687	0.1687	0.1600	0.1652	0.1718	0.1667	0.1754	0.1750
EIRP(dBm)	21.64	21.67	21.67	21.44	21.58	21.75	21.62	21.84	21.83
EIRP(Watts)	0.1459	0.1469	0.1469	0.1393	0.1439	0.1496	0.1452	0.1528	0.1524

LTE Band 2 (G_T - L_C = -0.60 dBi) 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)	20.88	20.90	21.40	21.43	21.61	21.56	21.25	21.36	21.65
Conducted Power (Watts)	0.1225	0.1230	0.1380	0.1390	0.1449	0.1432	0.1334	0.1368	0.1462
EIRP(dBm)	20.28	20.30	20.80	20.83	21.01	20.96	20.65	20.76	21.05
EIRP(Watts)	0.1067	0.1072	0.1202	0.1211	0.1262	0.1247	0.1161	0.1191	0.1274

LTE Band 2 (G_T - L_C = -0.60 dBi) 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)	21.26	21.38	21.58	21.63	21.74	21.58	21.53	21.65	21.85
Conducted Power (Watts)	0.1337	0.1374	0.1439	0.1455	0.1493	0.1439	0.1422	0.1462	0.1531
EIRP(dBm)	20.66	20.78	20.98	21.03	21.14	20.98	20.93	21.05	21.25
EIRP(Watts)	0.1164	0.1197	0.1253	0.1268	0.1300	0.1253	0.1239	0.1274	0.1334

LTE Band 2 (G_T - L_C = -0.60 dBi) 64QAM									
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)	20.17	20.13	20.41	20.14	20.29	20.73	21.07	20.96	21.29
Conducted Power (Watts)	0.1040	0.1030	0.1099	0.1033	0.1069	0.1183	0.1279	0.1247	0.1346
EIRP(dBm)	19.57	19.53	19.81	19.54	19.69	20.13	20.47	20.36	20.69
EIRP(Watts)	0.0906	0.0897	0.0957	0.0899	0.0931	0.1030	0.1114	0.1086	0.1172

LTE Band 2 (G_T - L_C = -0.60 dBi) 64QAM									
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)	21.40	21.31	21.24	21.44	21.14	21.50	20.83	20.90	21.49
Conducted Power (Watts)	0.1380	0.1352	0.1330	0.1393	0.1300	0.1413	0.1211	0.1230	0.1409
EIRP(dBm)	20.80	20.71	20.64	20.84	20.54	20.90	20.23	20.30	20.89
EIRP(Watts)	0.1202	0.1178	0.1159	0.1213	0.1132	0.1230	0.1054	0.1072	0.1227

LTE Band 4 (G_T - L_C = 0.20 dBi) 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)	22.03	22.07	21.64	22.00	21.98	21.64	22.09	21.96	21.85
Conducted Power (Watts)	0.1596	0.1611	0.1459	0.1585	0.1578	0.1459	0.1618	0.1570	0.1531
EIRP(dBm)	22.23	22.27	21.84	22.20	22.18	21.84	22.29	22.16	22.05
EIRP(Watts)	0.1671	0.1687	0.1528	0.1660	0.1652	0.1528	0.1694	0.1644	0.1603

LTE Band 4 (G_T - L_C = 0.20 dBi) 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)	22.29	21.97	21.97	22.30	22.13	22.16	22.31	22.09	22.21
Conducted Power (Watts)	0.1694	0.1574	0.1574	0.1698	0.1633	0.1644	0.1702	0.1618	0.1663
EIRP(dBm)	22.49	22.17	22.17	22.50	22.33	22.36	22.51	22.29	22.41
EIRP(Watts)	0.1774	0.1648	0.1648	0.1778	0.1710	0.1722	0.1782	0.1694	0.1742

LTE Band 4 (G_T - L_C = 0.20 dBi) 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)	21.54	21.30	21.14	21.42	21.17	20.96	21.65	21.55	21.41
Conducted Power (Watts)	0.1426	0.1349	0.1300	0.1387	0.1309	0.1247	0.1462	0.1429	0.1384
EIRP(dBm)	21.74	21.50	21.34	21.62	21.37	21.16	21.85	21.75	21.61
EIRP(Watts)	0.1493	0.1413	0.1361	0.1452	0.1371	0.1306	0.1531	0.1496	0.1449

LTE Band 4 (G_T - L_C = 0.20 dBi) 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)	21.43	20.96	20.96	21.74	21.74	21.64	21.62	21.74	21.82
Conducted Power (Watts)	0.1390	0.1247	0.1247	0.1493	0.1493	0.1459	0.1452	0.1493	0.1521
EIRP(dBm)	21.63	21.16	21.16	21.94	21.94	21.84	21.82	21.94	22.02
EIRP(Watts)	0.1455	0.1306	0.1306	0.1563	0.1563	0.1528	0.1521	0.1563	0.1592

LTE Band 4 (G_T - L_C = 0.20 dBi) 64QAM									
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)	20.46	20.33	19.85	20.32	20.22	19.88	20.58	20.05	19.63
Conducted Power (Watts)	0.1112	0.1079	0.0966	0.1076	0.1052	0.0973	0.1143	0.1012	0.0918
EIRP(dBm)	20.66	20.53	20.05	20.52	20.42	20.08	20.78	20.25	19.83
EIRP(Watts)	0.1164	0.1130	0.1012	0.1127	0.1102	0.1019	0.1197	0.1059	0.0962

LTE Band 4 (G_T - L_C = 0.20 dBi) 64QAM									
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)	20.57	20.47	20.09	20.83	20.40	20.44	20.76	20.63	20.61
Conducted Power (Watts)	0.1140	0.1114	0.1021	0.1211	0.1096	0.1107	0.1191	0.1156	0.1151
EIRP(dBm)	20.77	20.67	20.29	21.03	20.60	20.64	20.96	20.83	20.81
EIRP(Watts)	0.1194	0.1167	0.1069	0.1268	0.1148	0.1159	0.1247	0.1211	0.1205

LTE Band 5 (G_T - L_C = 0.90 dBi) 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)	22.94	22.65	22.61	22.96	22.71	22.71	22.93	22.69	22.82
Conducted Power (Watts)	0.1968	0.1841	0.1824	0.1977	0.1866	0.1866	0.1963	0.1858	0.1914
ERP(dBm)	21.69	21.40	21.36	21.71	21.46	21.46	21.68	21.44	21.57
ERP(Watts)	0.1476	0.1380	0.1368	0.1483	0.1400	0.1400	0.1472	0.1393	0.1435

LTE Band 5 (G_T - L_C = 0.90 dBi) QPSK			
Bandwidth	**10M**		
Channel	**20450**	**20525**	**20600**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**829**	**836.5**	**844**
Conducted Power (dBm)	22.93	22.97	22.88
Conducted Power (Watts)	0.1963	0.1982	0.1941
ERP(dBm)	21.68	21.72	21.63
ERP(Watts)	0.1472	0.1486	0.1455

LTE Band 5 (G_T - L_C = 0.90 dBi) 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)	22.26	22.02	22.02	22.44	22.18	22.21	22.37	22.13	22.14
Conducted Power (Watts)	0.1683	0.1592	0.1592	0.1754	0.1652	0.1663	0.1726	0.1633	0.1637
ERP(dBm)	21.01	20.77	20.77	21.19	20.93	20.96	21.12	20.88	20.89
ERP(Watts)	0.1262	0.1194	0.1194	0.1315	0.1239	0.1247	0.1294	0.1225	0.1227

LTE Band 5 (G_T - L_C = 0.90 dBi) 16QAM			
Bandwidth	**10M**		
Channel	**20450**	**20525**	**20600**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**829**	**836.5**	**844**
Conducted Power (dBm)	22.27	22.08	22.20
Conducted Power (Watts)	0.1687	0.1614	0.1660
ERP(dBm)	21.02	20.83	20.95
ERP(Watts)	0.1265	0.1211	0.1245

LTE Band 5 (G_T - L_C = 0.90 dBi) 64QAM									
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)	21.16	20.97	20.99	21.35	21.09	21.13	21.28	21.00	21.00
Conducted Power (Watts)	0.1306	0.1250	0.1256	0.1365	0.1285	0.1297	0.1343	0.1259	0.1259
ERP(dBm)	19.91	19.72	19.74	20.10	19.84	19.88	20.03	19.75	19.75
ERP(Watts)	0.0979	0.0938	0.0942	0.1023	0.0964	0.0973	0.1007	0.0944	0.0944

LTE Band 5 (G_T - L_C = 0.90 dBi) 64QAM			
Bandwidth	**10M**		
Channel	**20450**	**20525**	**20600**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**829**	**836.5**	**844**
Conducted Power (dBm)	21.20	20.96	21.18
Conducted Power (Watts)	0.1318	0.1247	0.1312
ERP(dBm)	19.95	19.71	19.93
ERP(Watts)	0.0989	0.0935	0.0984

LTE Band 7 (G_T - L_C = 1.10 dBi) QPSK			
Bandwidth	**5M**		
Channel	**20775**	**21100**	**21425**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2502.5**	**2535**	**2567.5**
Conducted Power (dBm)	21.94	22.06	21.99
Conducted Power (Watts)	0.1563	0.1607	0.1581
EIRP(dBm)	23.04	23.16	23.09
EIRP(Watts)	0.2014	0.2070	0.2037

LTE Band 7 (G_T - L_C = 1.10 dBi) 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)	21.98	22.06	22.12	22.08	22.03	22.00	22.05	22.17	22.16
Conducted Power (Watts)	0.1578	0.1607	0.1629	0.1614	0.1596	0.1585	0.1603	0.1648	0.1644
EIRP(dBm)	23.08	23.16	23.22	23.18	23.13	23.10	23.15	23.27	23.26
EIRP(Watts)	0.2032	0.2070	0.2099	0.2080	0.2056	0.2042	0.2065	0.2123	0.2118

LTE Band 7 (G_T - L_C = 1.10 dBi) 16QAM			
Bandwidth	**5M**		
Channel	**20775**	**21100**	**21425**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2502.5**	**2535**	**2567.5**
Conducted Power (dBm)	20.87	21.06	21.09
Conducted Power (Watts)	0.1222	0.1276	0.1285
EIRP(dBm)	21.97	22.16	22.19
EIRP(Watts)	0.1574	0.1644	0.1656

LTE Band 7 (G_T - L_C = 1.10 dBi) 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)	21.50	21.27	21.04	21.07	21.50	21.46	21.07	21.12	21.22
Conducted Power (Watts)	0.1413	0.1340	0.1271	0.1279	0.1413	0.1400	0.1279	0.1294	0.1324
EIRP(dBm)	22.60	22.37	22.14	22.17	22.60	22.56	22.17	22.22	22.32
EIRP(Watts)	0.1820	0.1726	0.1637	0.1648	0.1820	0.1803	0.1648	0.1667	0.1706

LTE Band 7 (G_T - L_C = 1.10 dBi) 64QAM			
Bandwidth	**5M**		
Channel	**20775**	**21100**	**21425**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2502.5**	**2535**	**2567.5**
Conducted Power (dBm)	19.99	20.09	20.26
Conducted Power (Watts)	0.0998	0.1021	0.1062
EIRP(dBm)	21.09	21.19	21.36
EIRP(Watts)	0.1285	0.1315	0.1368

LTE Band 7 (G_T - L_C = 1.10 dBi) 64QAM									
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)	20.30	20.37	20.43	20.39	20.48	20.27	20.46	20.50	20.14
Conducted Power (Watts)	0.1072	0.1089	0.1104	0.1094	0.1117	0.1064	0.1112	0.1122	0.1033
EIRP(dBm)	21.40	21.47	21.53	21.49	21.58	21.37	21.56	21.60	21.24
EIRP(Watts)	0.1380	0.1403	0.1422	0.1409	0.1439	0.1371	0.1432	0.1445	0.1330

LTE Band 12 (G_T - L_C = -4.60 dBi) 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)	23.79	23.83	23.64	23.85	23.93	23.93	23.81	23.86	23.78
Conducted Power (Watts)	0.2393	0.2415	0.2312	0.2427	0.2472	0.2472	0.2404	0.2432	0.2388
ERP(dBm)	17.04	17.08	16.89	17.10	17.18	17.18	17.06	17.11	17.03
ERP(Watts)	0.0506	0.0511	0.0489	0.0513	0.0522	0.0522	0.0508	0.0514	0.0505

LTE Band 12 (G_T - L_C = -4.60 dBi) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	23.80	23.96	23.85
Conducted Power (Watts)	0.2399	0.2489	0.2427
ERP(dBm)	17.05	17.21	17.10
ERP(Watts)	0.0507	0.0526	0.0513

LTE Band 12 (G_T - L_C = -4.60 dBi) 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)	23.10	23.16	23.01	23.22	23.28	23.23	23.10	23.20	22.78
Conducted Power (Watts)	0.2042	0.2070	0.2000	0.2099	0.2128	0.2104	0.2042	0.2089	0.1897
ERP(dBm)	16.35	16.41	16.26	16.47	16.53	16.48	16.35	16.45	16.03
ERP(Watts)	0.0432	0.0438	0.0423	0.0444	0.0450	0.0445	0.0432	0.0442	0.0401

LTE Band 12 (G_T - L_C = -4.60 dBi) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	23.10	23.17	23.19
Conducted Power (Watts)	0.2042	0.2075	0.2084
ERP(dBm)	16.35	16.42	16.44
ERP(Watts)	0.0432	0.0439	0.0441

LTE Band 12 (G_T - L_C = -4.60 dBi) 64QAM									
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)	22.04	22.06	21.97	22.10	22.16	22.14	22.11	22.16	22.08
Conducted Power (Watts)	0.1600	0.1607	0.1574	0.1622	0.1644	0.1637	0.1626	0.1644	0.1614
ERP(dBm)	15.29	15.31	15.22	15.35	15.41	15.39	15.36	15.41	15.33
ERP(Watts)	0.0338	0.0340	0.0333	0.0343	0.0348	0.0346	0.0344	0.0348	0.0341

LTE Band 12 (G_T - L_C = -4.60 dBi) 64QAM			
Bandwidth	**10M**		
Channel	**23060**	**23095**	**23130**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**704**	**707.5**	**711**
Conducted Power (dBm)	22.18	22.12	21.96
Conducted Power (Watts)	0.1652	0.1629	0.1570
ERP(dBm)	15.43	15.37	15.21
ERP(Watts)	0.0349	0.0344	0.0332

LTE Band 17 (G_T - L_C = -4.60 dBi) QPSK						
Bandwidth	5M			10M		
Channel	23755	23790	23825	23780	23790	23800
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	706.5	710	713.5	709	710	711
Conducted Power (dBm)	23.89	23.85	23.70	23.72	23.90	23.81
Conducted Power (Watts)	0.2449	0.2427	0.2344	0.2355	0.2455	0.2404
ERP(dBm)	17.14	17.10	16.95	16.97	17.15	17.06
ERP(Watts)	0.0518	0.0513	0.0495	0.0498	0.0519	0.0508

LTE Band 17 (G_T - L_C = -4.60 dBi) 16QAM						
Bandwidth	5M			10M		
Channel	23755	23790	23825	23780	23790	23800
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	706.5	710	713.5	709	710	711
Conducted Power (dBm)	23.24	23.21	22.72	23.21	23.22	23.22
Conducted Power (Watts)	0.2109	0.2094	0.1871	0.2094	0.2099	0.2099
ERP(dBm)	16.49	16.46	15.97	16.46	16.47	16.47
ERP(Watts)	0.0446	0.0443	0.0395	0.0443	0.0444	0.0444

LTE Band 17 (G_T - L_C = -4.60 dBi) 64QAM						
Bandwidth	5M			10M		
Channel	23755	23790	23825	23780	23790	23800
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	706.5	710	713.5	709	710	711
Conducted Power (dBm)	22.20	22.16	21.72	22.16	22.18	22.15
Conducted Power (Watts)	0.1660	0.1644	0.1486	0.1644	0.1652	0.1641
ERP(dBm)	15.45	15.41	14.97	15.41	15.43	15.40
ERP(Watts)	0.0351	0.0348	0.0314	0.0348	0.0349	0.0347

LTE Band 38 (G_T - L_C = 0.70 dBi) QPSK			
Bandwidth	**5M**		
Channel	**37775**	**38000**	**38225**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2572.5**	**2595**	**2617.5**
Conducted Power (dBm)	23.53	23.37	23.49
Conducted Power (Watts)	0.2254	0.2173	0.2234
EIRP(dBm)	24.23	24.07	24.19
EIRP(Watts)	0.2649	0.2553	0.2624

LTE Band 38 (G_T - L_C = 0.70 dBi) 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)	23.54	23.49	23.41	23.65	23.32	23.39	23.66	23.40	23.48
Conducted Power (Watts)	0.2259	0.2234	0.2193	0.2317	0.2148	0.2183	0.2323	0.2188	0.2228
EIRP(dBm)	24.24	24.19	24.11	24.35	24.02	24.09	24.36	24.10	24.18
EIRP(Watts)	0.2655	0.2624	0.2576	0.2723	0.2523	0.2564	0.2729	0.2570	0.2618

LTE Band 38 (G_T - L_C = 0.70 dBi) 16QAM			
Bandwidth	**5M**		
Channel	**37775**	**38000**	**38225**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2572.5**	**2595**	**2617.5**
Conducted Power (dBm)	22.64	22.49	22.60
Conducted Power (Watts)	0.1837	0.1774	0.1820
EIRP(dBm)	23.34	23.19	23.30
EIRP(Watts)	0.2158	0.2084	0.2138

LTE Band 38 (G_T - L_C = 0.70 dBi) 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)	22.63	22.90	22.61	22.64	22.50	22.47	22.66	22.60	22.53
Conducted Power (Watts)	0.1832	0.1950	0.1824	0.1837	0.1778	0.1766	0.1845	0.1820	0.1791
EIRP(dBm)	23.33	23.60	23.31	23.34	23.20	23.17	23.36	23.30	23.23
EIRP(Watts)	0.2153	0.2291	0.2143	0.2158	0.2089	0.2075	0.2168	0.2138	0.2104

LTE Band 38 (G_T - L_C = 0.70 dBi) 64QAM			
Bandwidth	**5M**		
Channel	**37775**	**38000**	**38225**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2572.5**	**2595**	**2617.5**
Conducted Power (dBm)	21.30	21.35	21.26
Conducted Power (Watts)	0.1349	0.1365	0.1337
EIRP(dBm)	22.00	22.05	21.96
EIRP(Watts)	0.1585	0.1603	0.1570

LTE Band 38 (G_T - L_C = 0.70 dBi) 64QAM									
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)	21.41	21.27	21.27	21.32	21.26	21.31	21.41	21.26	21.26
Conducted Power (Watts)	0.1384	0.1340	0.1340	0.1355	0.1337	0.1352	0.1384	0.1337	0.1337
EIRP(dBm)	22.11	21.97	21.97	22.02	21.96	22.01	22.11	21.96	21.96
EIRP(Watts)	0.1626	0.1574	0.1574	0.1592	0.1570	0.1589	0.1626	0.1570	0.1570

LTE Band 41 (G_T - L_C = 1.10 dBi) QPSK									
Bandwidth	**5M**			**10M**			**15M**		
Channel	**40065**	**40640**	**41215**	**40090**	**40640**	**41190**	**40115**	**40640**	**41165**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**2537.5**	**2595**	**2652.5**	**2540**	**2595**	**2650**	**2542.5**	**2595**	**2647.5**
Conducted Power (dBm)	22.74	22.61	23.10	22.89	22.69	23.26	23.16	22.78	22.86
Conducted Power (Watts)	0.1879	0.1824	0.2042	0.1945	0.1858	0.2118	0.2070	0.1897	0.1932
EIRP(dBm)	23.84	23.71	24.20	23.99	23.79	24.36	24.26	23.88	23.96
EIRP(Watts)	0.2421	0.2350	0.2630	0.2506	0.2393	0.2729	0.2667	0.2443	0.2489

LTE Band 41 (G_T - L_C = 1.10 dBi) QPSK			
Bandwidth	**20M**		
Channel	**40140**	**40640**	**41140**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2545**	**2595**	**2645**
Conducted Power (dBm)	22.93	22.65	23.27
Conducted Power (Watts)	0.1963	0.1841	0.2123
EIRP(dBm)	24.03	23.75	24.37
EIRP(Watts)	0.2529	0.2371	0.2735

LTE Band 41 (G_T - L_C = 1.10 dBi) 16QAM									
Bandwidth	**5M**			**10M**			**15M**		
Channel	**40065**	**40640**	**41215**	**40090**	**40640**	**41190**	**40115**	**40640**	**41165**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**2537.5**	**2595**	**2652.5**	**2540**	**2595**	**2650**	**2542.5**	**2595**	**2647.5**
Conducted Power (dBm)	21.97	21.62	21.60	21.99	21.68	22.36	22.20	22.08	21.91
Conducted Power (Watts)	0.1574	0.1452	0.1445	0.1581	0.1472	0.1722	0.1660	0.1614	0.1552
EIRP(dBm)	23.07	22.72	22.70	23.09	22.78	23.46	23.30	23.18	23.01
EIRP(Watts)	0.2028	0.1871	0.1862	0.2037	0.1897	0.2218	0.2138	0.2080	0.2000

LTE Band 41 (G_T - L_C = 1.10 dBi) 16QAM			
Bandwidth	**20M**		
Channel	**40140**	**40640**	**41140**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2545**	**2595**	**2645**
Conducted Power (dBm)	22.18	22.01	22.32
Conducted Power (Watts)	0.1652	0.1589	0.1706
EIRP(dBm)	23.28	23.11	23.42
EIRP(Watts)	0.2128	0.2046	0.2198

LTE Band 41 (G_T - L_C = 1.10 dBi) 64QAM									
Bandwidth	**5M**			**10M**			**15M**		
Channel	**40065**	**40640**	**41215**	**40090**	**40640**	**41190**	**40115**	**40640**	**41165**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**2537.5**	**2595**	**2652.5**	**2540**	**2595**	**2650**	**2542.5**	**2595**	**2647.5**
Conducted Power (dBm)	20.78	20.58	20.63	20.80	20.68	21.10	20.94	20.85	20.65
Conducted Power (Watts)	0.1197	0.1143	0.1156	0.1202	0.1169	0.1288	0.1242	0.1216	0.1161
EIRP(dBm)	21.88	21.68	21.73	21.90	21.78	22.20	22.04	21.95	21.75
EIRP(Watts)	0.1542	0.1472	0.1489	0.1549	0.1507	0.1660	0.1600	0.1567	0.1496

LTE Band 41 (G_T - L_C = 1.10 dBi) 64QAM			
Bandwidth	**20M**		
Channel	**40140**	**40640**	**41140**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2545**	**2595**	**2645**
Conducted Power (dBm)	20.98	20.81	21.11
Conducted Power (Watts)	0.1253	0.1205	0.1291
EIRP(dBm)	22.08	21.91	22.21
EIRP(Watts)	0.1614	0.1552	0.1663

CA EIRP

LTE Band 38 CA (GT - LC = 0.70 dBi) QPSK						
Bandwidth	15M + 15M			20M+20M		
Channel PCC	37825	37925	38025	37850	37901	37952
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	37975	38075	38175	38048	38099	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.62	23.71	23.76	23.95	23.79	23.86
Conducted Power (Watts)	0.2301	0.2350	0.2377	0.2483	0.2393	0.2432
EIRP(dBm)	24.32	24.41	24.46	24.65	24.49	24.56
EIRP(Watts)	0.2704	0.2761	0.2793	0.2917	0.2812	0.2858

LTE Band 38 CA (GT - LC = 0.70 dBi) 16QAM						
Bandwidth	15M + 15M			20M+20M		
Channel PCC	37825	37925	38025	37850	37901	37952
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	37975	38075	38175	38048	38099	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.64	22.64	22.52	23.27	23.21	23.05
Conducted Power (Watts)	0.1837	0.1837	0.1786	0.2123	0.2094	0.2018
EIRP(dBm)	23.34	23.34	23.22	23.97	23.91	23.75
EIRP(Watts)	0.2158	0.2158	0.2099	0.2495	0.2460	0.2371

LTE Band 38 CA (GT - LC = 0.70 dBi) 64QAM						
Bandwidth	**15M + 15M**			**20M+20M**		
Channel PCC	**37825**	**37925**	**38025**	**37850**	**37901**	**37952**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Channel SCC	**37975**	**38075**	**38175**	**38048**	**38099**	**38150**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Conducted Power (dBm)	20.97	20.85	20.72	21.84	21.65	21.36
Conducted Power (Watts)	0.1250	0.1216	0.1180	0.1528	0.1462	0.1368
EIRP(dBm)	21.67	21.55	21.42	22.54	22.35	22.06
EIRP(Watts)	0.1469	0.1429	0.1387	0.1795	0.1718	0.1607

LTE Band 41 CA (GT - LC = 1.10 dBi) QPSK									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	40115	40565	41015	40073	40548	41023	40140	40615	41090
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40265	40715	41165	40190	40665	41140	40257	40732	41207
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.15	23.11	22.43	23.29	23.59	23.16	23.43	23.39	23.32
Conducted Power (Watts)	0.2065	0.2046	0.1750	0.2133	0.2286	0.2070	0.2203	0.2183	0.2148
EIRP(dBm)	24.25	24.21	23.53	24.39	24.69	24.26	24.53	24.49	24.42
EIRP(Watts)	0.2661	0.2636	0.2254	0.2748	0.2944	0.2667	0.2838	0.2812	0.2767

LTE Band 41 CA (GT - LC = 1.10 dBi) QPSK									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	40095	40546	40996	40140	40591	41041	40118	40544	40969
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40239	40690	41140	40284	40735	41185	40289	40715	41140
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.23	23.32	22.92	23.32	23.23	23.25	23.42	23.46	23.13
Conducted Power (Watts)	0.2104	0.2148	0.1959	0.2148	0.2104	0.2113	0.2198	0.2218	0.2056
EIRP(dBm)	24.33	24.42	24.02	24.42	24.33	24.35	24.52	24.56	24.23
EIRP(Watts)	0.2710	0.2767	0.2523	0.2767	0.2710	0.2723	0.2831	0.2858	0.2649

LTE Band 41 CA (GT - LC = 1.10 dBi) QPSK						
Bandwidth	20M+15M			20M+20M		
Channel PCC	40140	40566	40991	40140	40541	40942
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40311	40737	41162	40338	40739	41140
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.49	23.45	23.29	23.85	23.86	23.83
Conducted Power (Watts)	0.2234	0.2213	0.2133	0.2427	0.2432	0.2415
EIRP(dBm)	24.59	24.55	24.39	24.95	24.96	24.93
EIRP(Watts)	0.2877	0.2851	0.2748	0.3126	0.3133	0.3112

LTE Band 41 CA (GT - LC = 1.10 dBi) QPSK						
Bandwidth	15M+10M			10M+15M		
Channel PCC	40115	40591	41067	40093	40569	41045
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40235	40711	41187	40213	40689	41165
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.85	23.41	23.07	23.24	23.20	23.39
Conducted Power (Watts)	0.1531	0.2193	0.2028	0.2109	0.2089	0.2183
EIRP(dBm)	22.95	24.51	24.17	24.34	24.30	24.49
EIRP(Watts)	0.1972	0.2825	0.2612	0.2716	0.2692	0.2812

LTE Band 41 CA (GT - LC = 1.10 dBi) 16QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	40115	40565	41015	40073	40548	41023	40140	40615	41090
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40265	40715	41165	40190	40665	41140	40257	40732	41207
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.95	22.35	22.60	22.49	22.54	22.39	22.23	22.63	22.49
Conducted Power (Watts)	0.1567	0.1718	0.1820	0.1774	0.1795	0.1734	0.1671	0.1832	0.1774
EIRP(dBm)	23.05	23.45	23.70	23.59	23.64	23.49	23.33	23.73	23.59
EIRP(Watts)	0.2018	0.2213	0.2344	0.2286	0.2312	0.2234	0.2153	0.2360	0.2286

LTE Band 41 CA (GT - LC = 1.10 dBi) 16QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	40095	40546	40996	40140	40591	41041	40118	40544	40969
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40239	40690	41140	40284	40735	41185	40289	40715	41140
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.37	22.51	22.22	22.25	22.49	22.48	22.46	22.65	22.36
Conducted Power (Watts)	0.1726	0.1782	0.1667	0.1679	0.1774	0.1770	0.1762	0.1841	0.1722
EIRP(dBm)	23.47	23.61	23.32	23.35	23.59	23.58	23.56	23.75	23.46
EIRP(Watts)	0.2223	0.2296	0.2148	0.2163	0.2286	0.2280	0.2270	0.2371	0.2218

LTE Band 41 CA (GT - LC = 1.10 dBi) 16QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	40140	40566	40991	40140	40541	40942
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40311	40737	41162	40338	40739	41140
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.54	22.40	22.52	22.85	22.85	22.89
Conducted Power (Watts)	0.1795	0.1738	0.1786	0.1928	0.1928	0.1945
EIRP(dBm)	23.64	23.50	23.62	23.95	23.95	23.99
EIRP(Watts)	0.2312	0.2239	0.2301	0.2483	0.2483	0.2506

LTE Band 41 CA (GT - LC = 1.10 dBi) 16QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	40115	40591	41067	40093	40569	41045
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40235	40711	41187	40213	40689	41165
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.65	22.49	22.37	22.04	22.44	22.56
Conducted Power (Watts)	0.1841	0.1774	0.1726	0.1600	0.1754	0.1803
EIRP(dBm)	23.75	23.59	23.47	23.14	23.54	23.66
EIRP(Watts)	0.2371	0.2286	0.2223	0.2061	0.2259	0.2323

LTE Band 41 CA (GT - LC = 1.10 dBi) 64QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	40115	40565	41015	40073	40548	41023	40140	40615	41090
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40265	40715	41165	40190	40665	41140	40257	40732	41207
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.28	20.61	20.57	20.88	20.96	20.84	20.56	20.63	20.46
Conducted Power (Watts)	0.1067	0.1151	0.1140	0.1225	0.1247	0.1213	0.1138	0.1156	0.1112
EIRP(dBm)	21.38	21.71	21.67	21.98	22.06	21.94	21.66	21.73	21.56
EIRP(Watts)	0.1374	0.1483	0.1469	0.1578	0.1607	0.1563	0.1466	0.1489	0.1432

LTE Band 41 CA (GT - LC = 1.10 dBi) 64QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	40095	40546	40996	40140	40591	41041	40118	40544	40969
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40239	40690	41140	40284	40735	41185	40289	40715	41140
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.49	20.59	20.89	20.62	20.8	20.79	20.56	20.71	20.81
Conducted Power (Watts)	0.1119	0.1146	0.1227	0.1153	0.1202	0.1199	0.1138	0.1178	0.1205
EIRP(dBm)	21.59	21.69	21.99	21.72	21.90	21.89	21.66	21.81	21.91
EIRP(Watts)	0.1442	0.1476	0.1581	0.1486	0.1549	0.1545	0.1466	0.1517	0.1552

LTE Band 41 CA (GT - LC = 1.10 dBi) 64QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	40140	40566	40991	40140	40541	40942
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40311	40737	41162	40338	40739	41140
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.74	20.83	20.97	21.94	21.96	21.96
Conducted Power (Watts)	0.1186	0.1211	0.1250	0.1563	0.1570	0.1570
EIRP(dBm)	21.84	21.93	22.07	23.04	23.06	23.06
EIRP(Watts)	0.1528	0.1560	0.1611	0.2014	0.2023	0.2023

LTE Band 41 CA (GT - LC = 1.10 dBi) 64QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	40115	40591	41067	40093	40569	41045
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	40235	40711	41187	40213	40689	41165
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.58	20.46	20.82	20.37	20.70	20.53
Conducted Power (Watts)	0.1143	0.1112	0.1208	0.1089	0.1175	0.1130
EIRP(dBm)	21.68	21.56	21.92	21.47	21.80	21.63
EIRP(Watts)	0.1472	0.1432	0.1556	0.1403	0.1514	0.1455

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	3.54	4.55	5.45	5.91	PASS
Middle CH	3.51	4.55	4.64	5.91	
Highest CH	3.54	4.41	4.70	5.86	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	6.43	6.49	PASS		
Middle CH	5.51	6.41			
Highest CH	5.59	6.41			

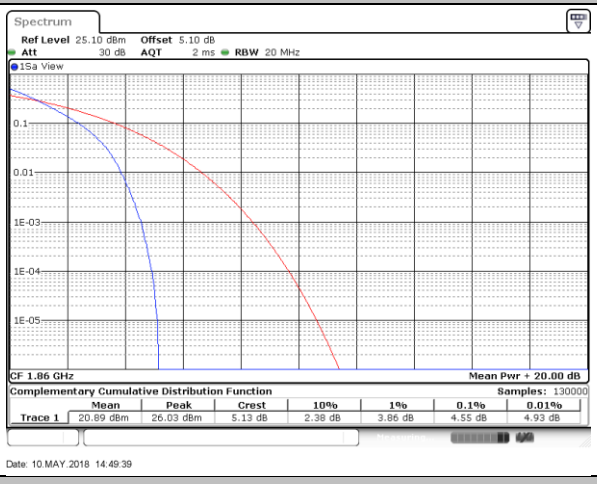
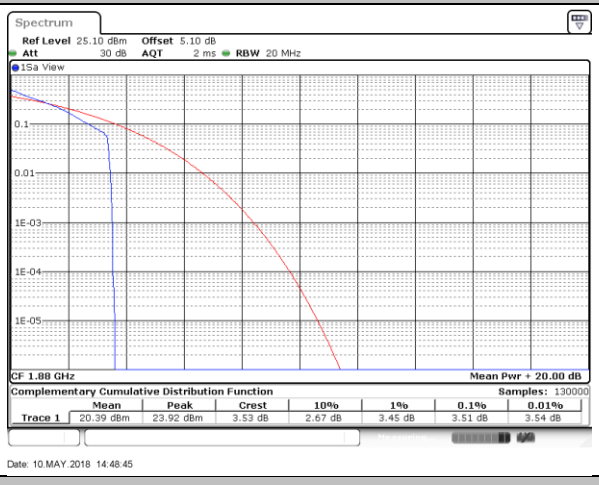
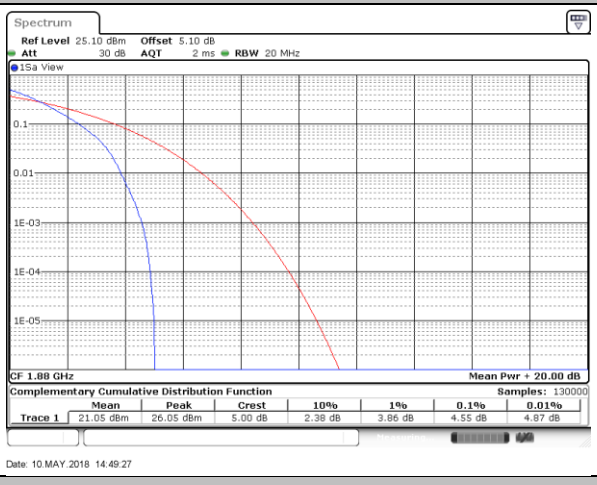
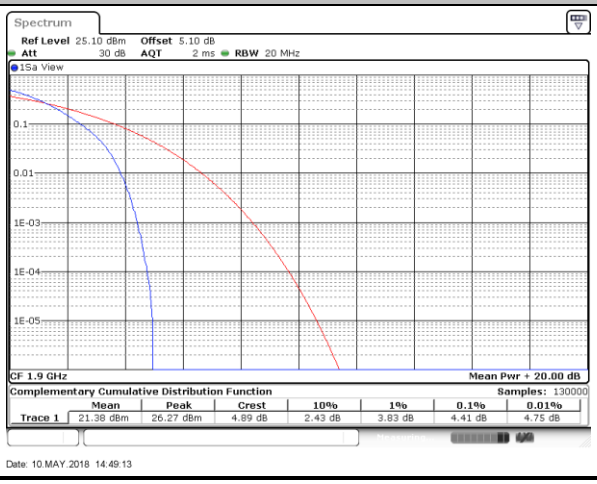
Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.57	4.46	5.04	5.80	PASS
Middle CH	3.57	4.46	5.54	5.88	
Highest CH	3.57	4.46	5.57	5.86	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	6.00	6.29	PASS		
Middle CH	6.52	6.41			
Highest CH	6.70	6.43			

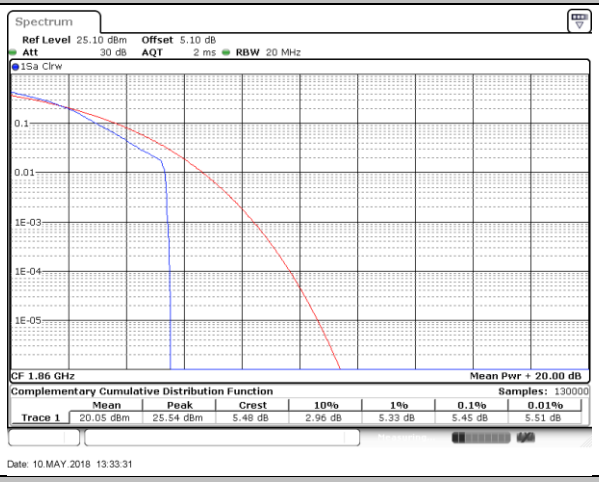
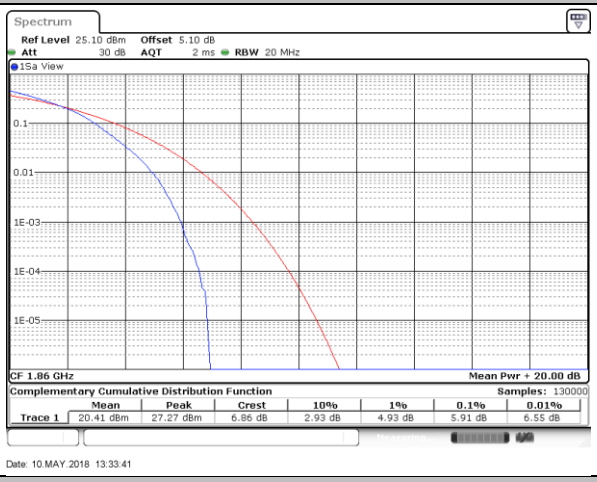
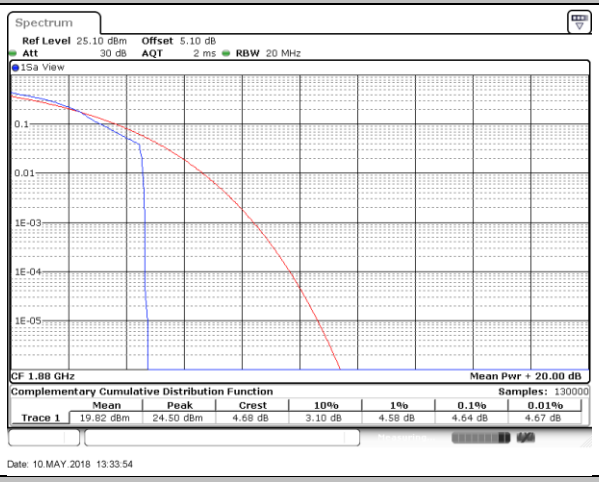
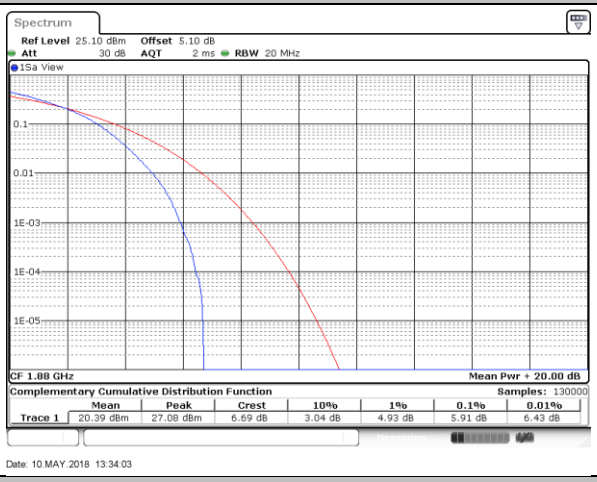
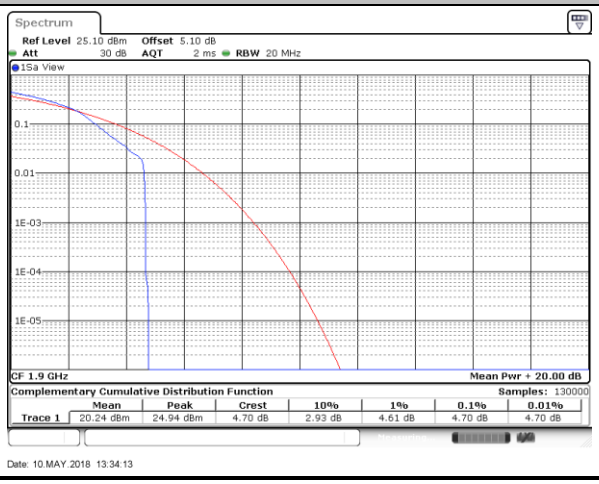
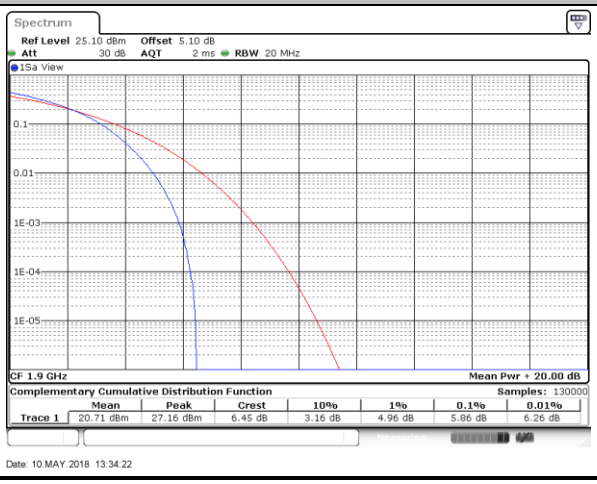
Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.62	4.58	4.64	6.00	PASS
Middle CH	3.62	4.67	5.19	5.91	
Highest CH	3.65	4.64	5.57	5.91	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	5.86	6.43	PASS		
Middle CH	6.81	6.43			
Highest CH	6.75	6.46			

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.51	4.49	4.55	5.65	PASS
Middle CH	3.54	4.49	4.87	5.80	
Highest CH	3.48	4.41	4.35	5.74	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	4.52	5.71	PASS		
Middle CH	4.84	5.80			
Highest CH	4.26	5.74			

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.62	4.46	5.36	5.65	PASS
Middle CH	3.59	4.67	4.78	5.83	
Highest CH	3.54	4.55	4.49	5.86	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	6.17	6.35	PASS		
Middle CH	5.54	6.41			
Highest CH	5.28	6.49			

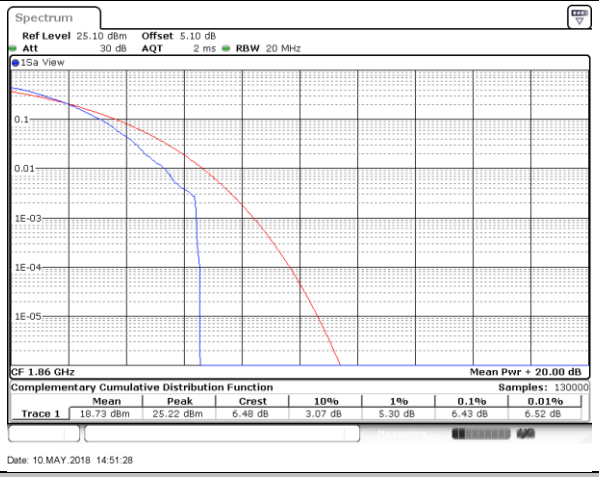
Mode	LTE Band 41 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.77	5.13	5.16	5.71	PASS
Middle CH	3.28	5.65	5.62	5.65	
Highest CH	3.91	4.52	5.94	5.77	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH	5.10	5.71	PASS		
Middle CH	5.59	5.65			
Highest CH	4.75	5.36			

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**
	

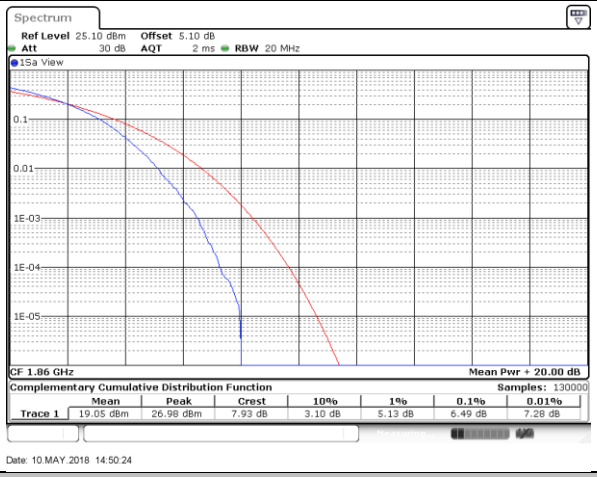
LTE Band 2 / 20MHz / 16QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

LTE Band 2 / 20MHz / 64QAM

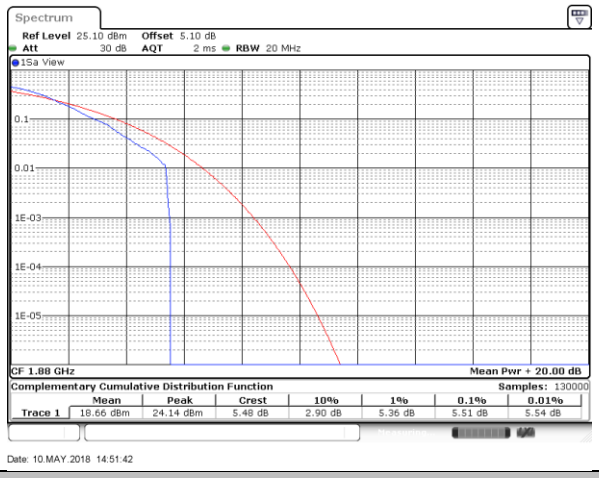
Lowest Channel / 1RB



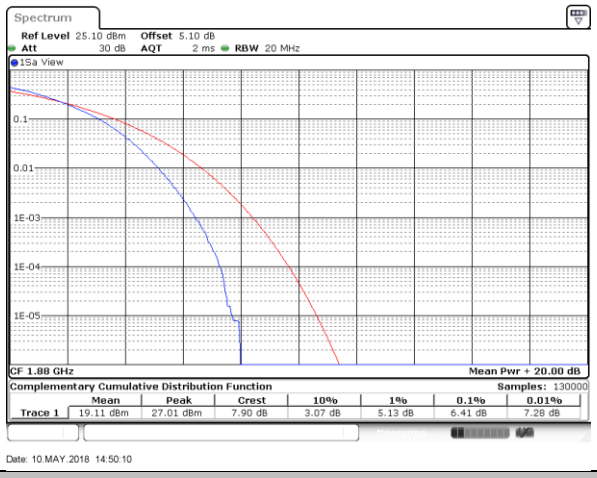
Lowest Channel / Full RB



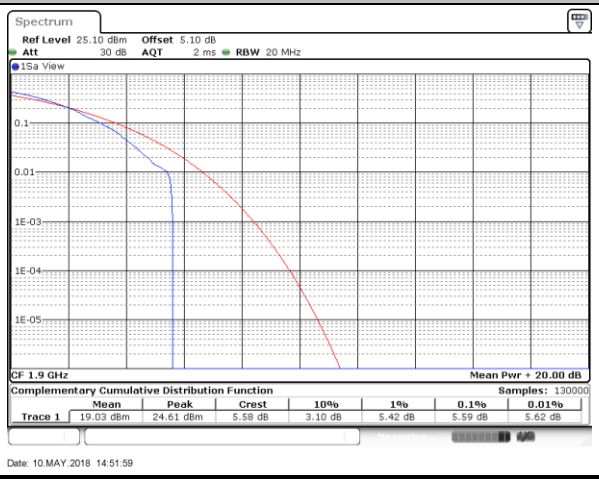
Middle Channel / 1RB



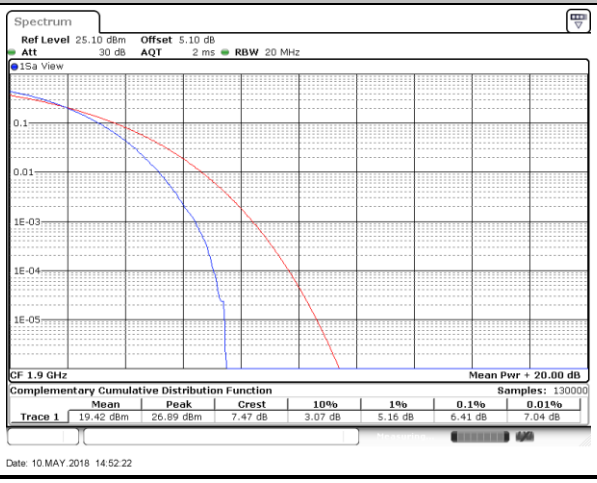
Middle Channel / Full RB

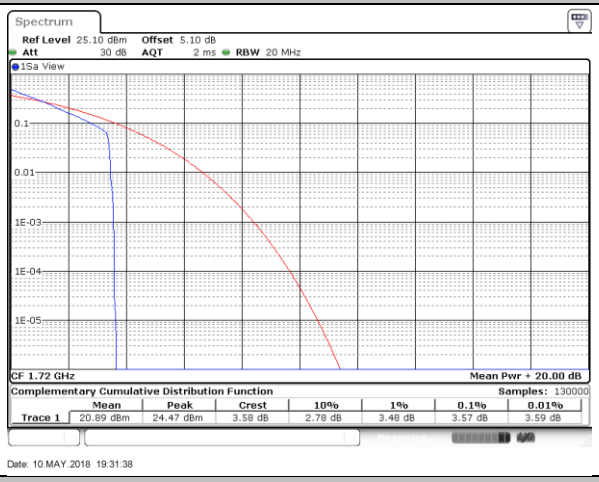
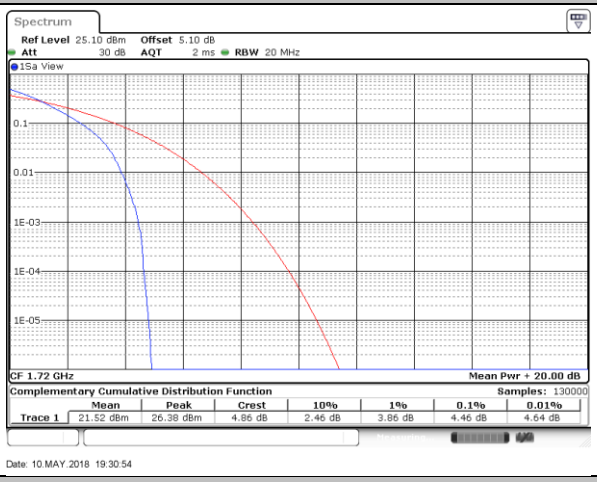
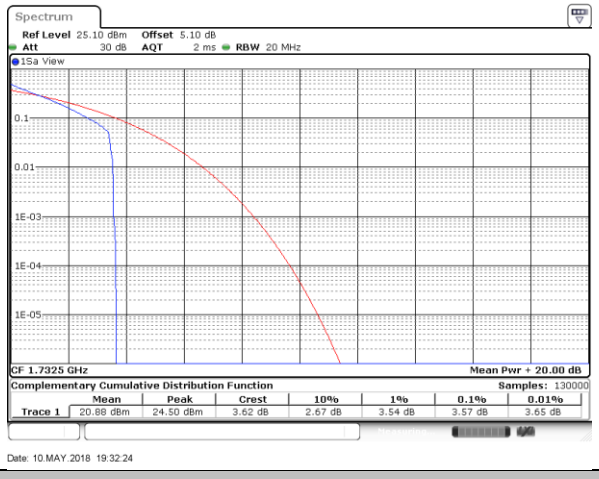
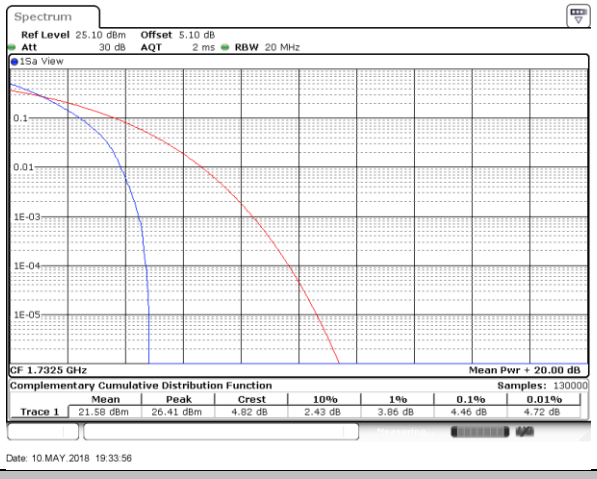
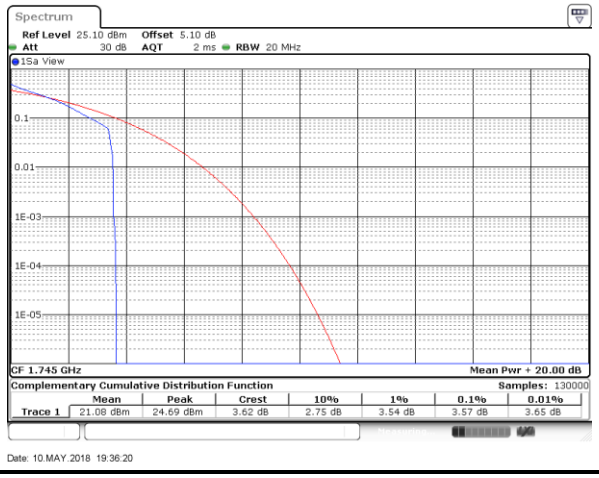
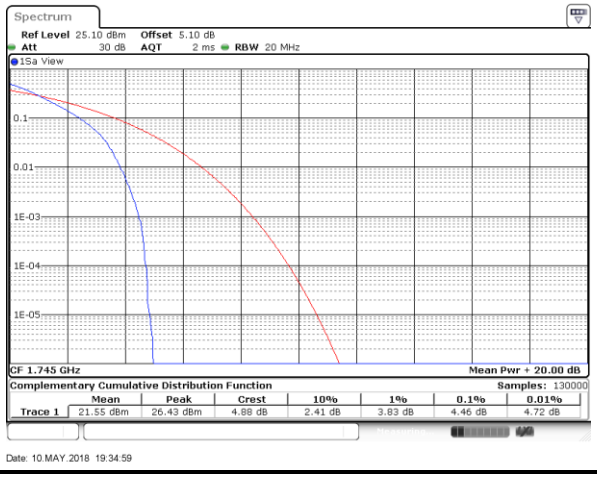


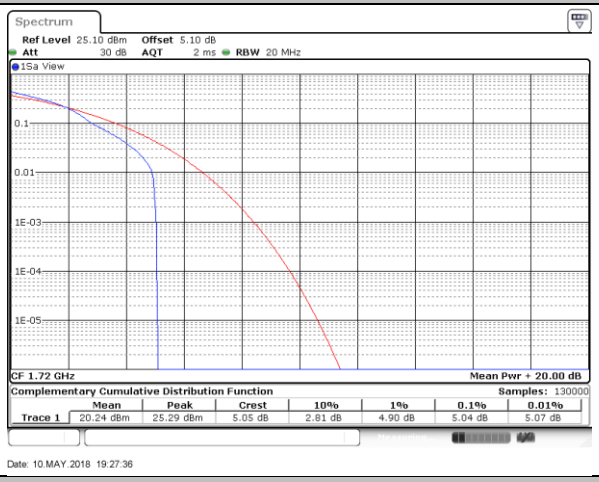
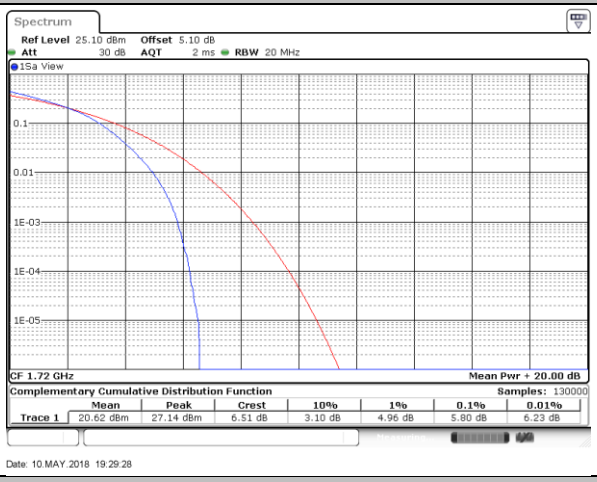
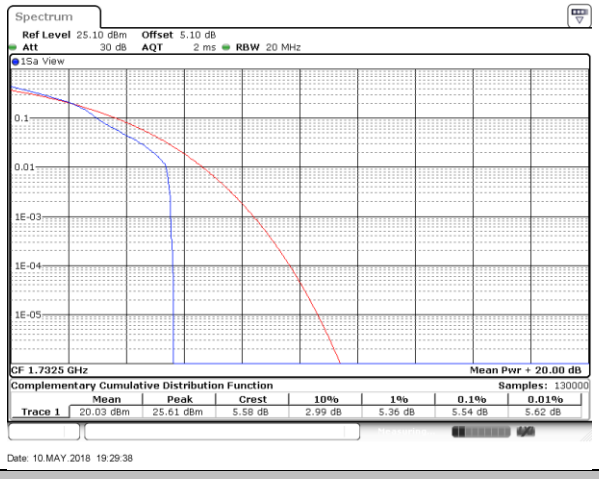
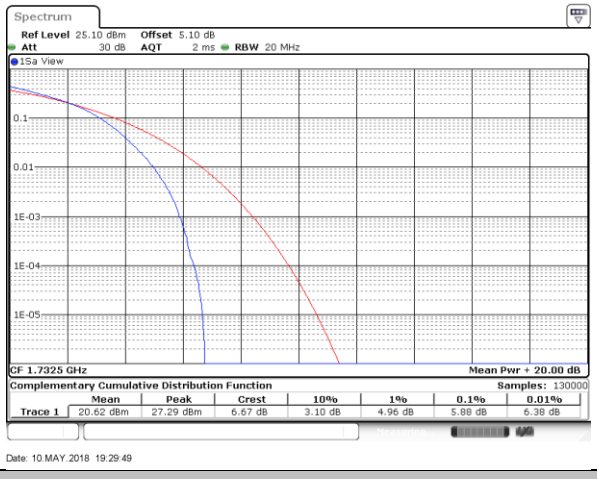
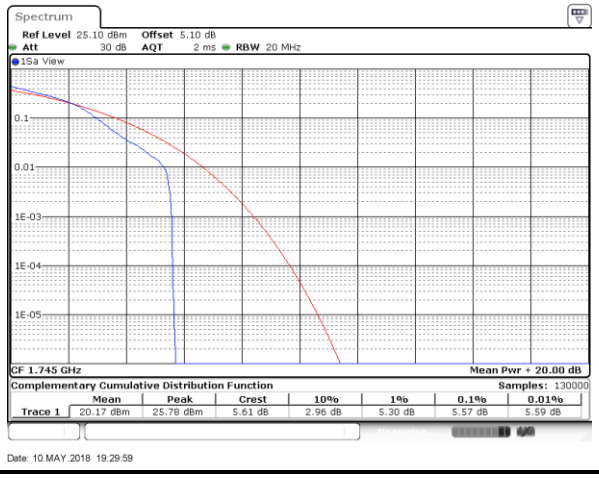
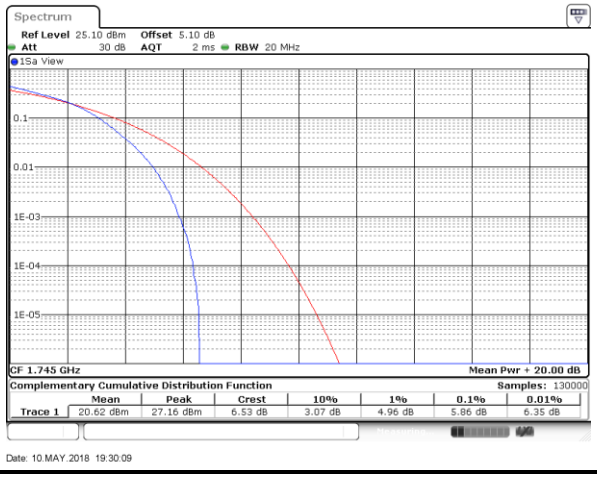
Highest Channel / 1RB

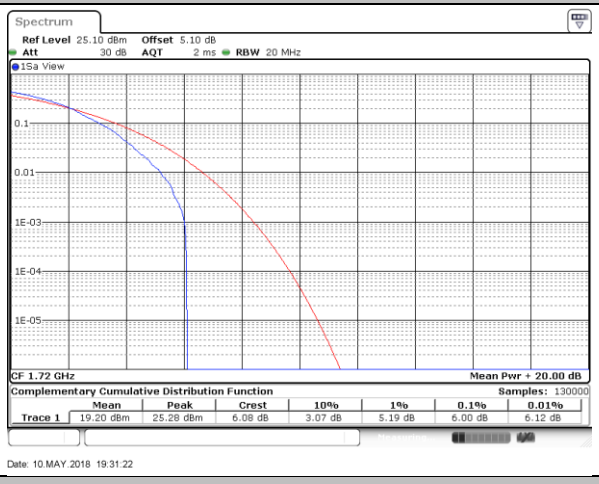
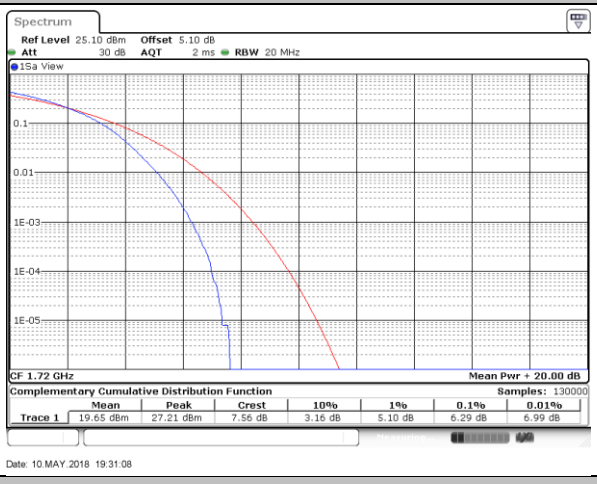
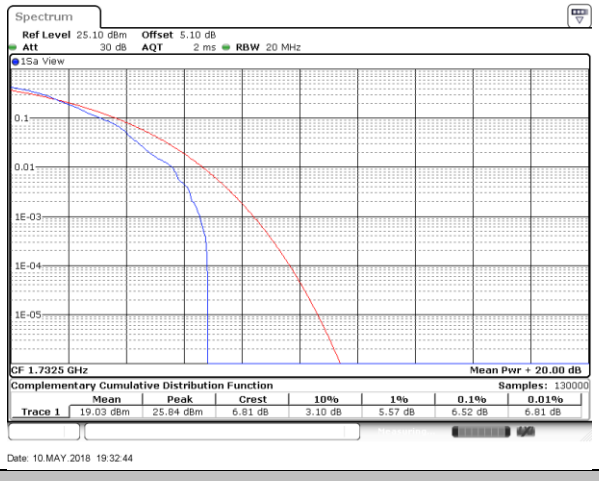
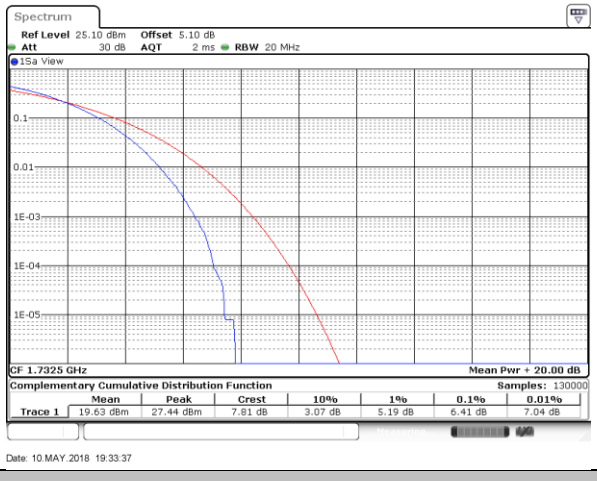
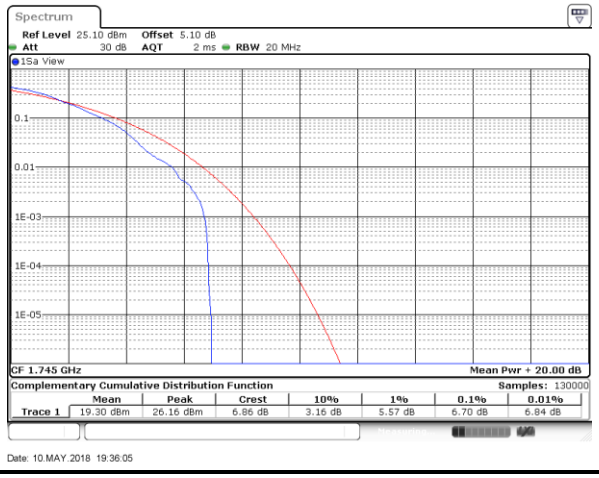
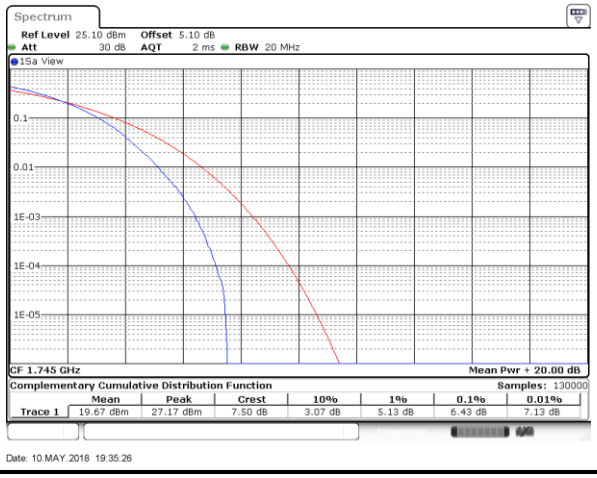


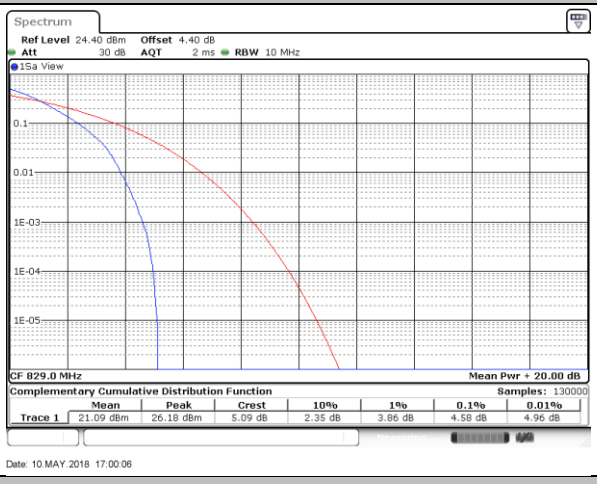
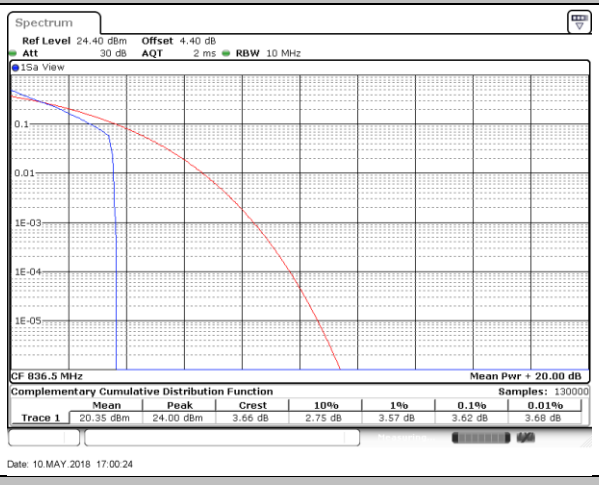
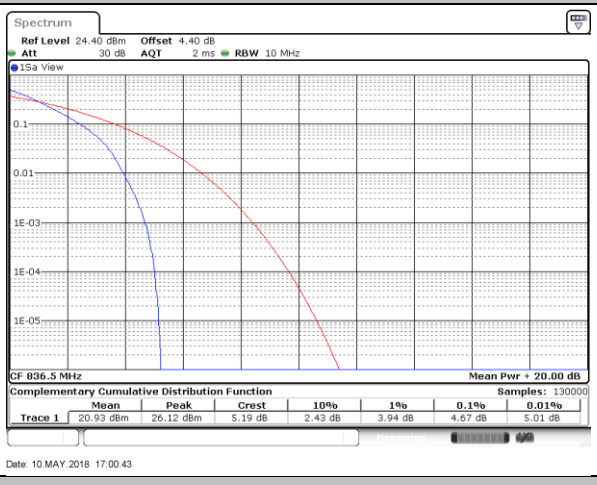
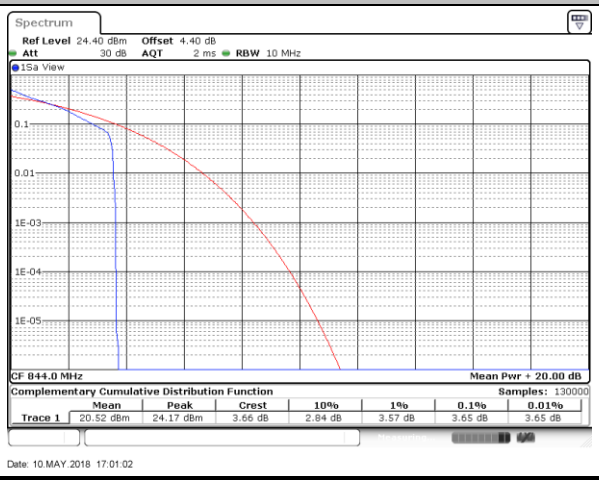
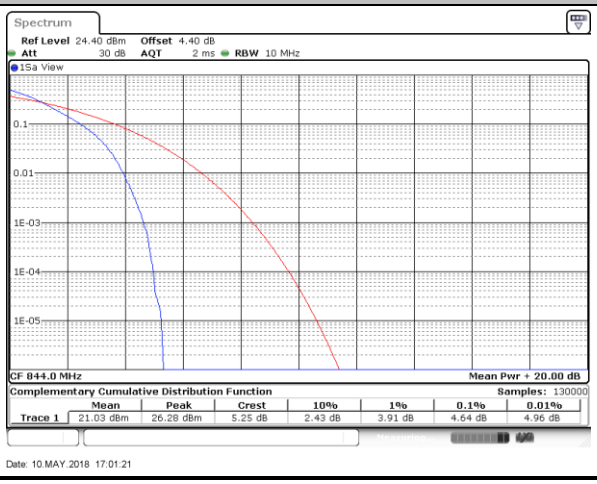
Highest Channel / Full RB

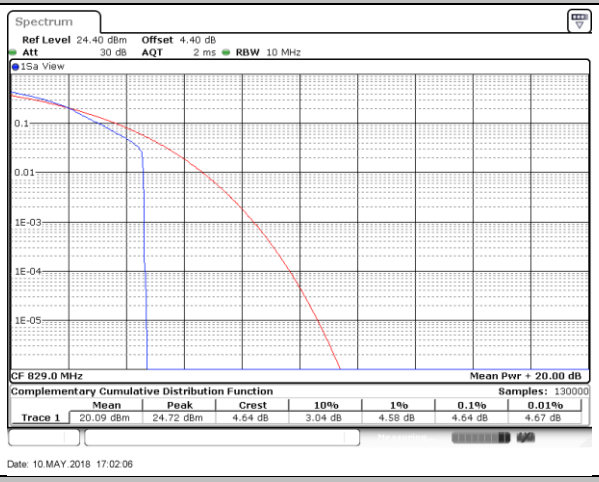
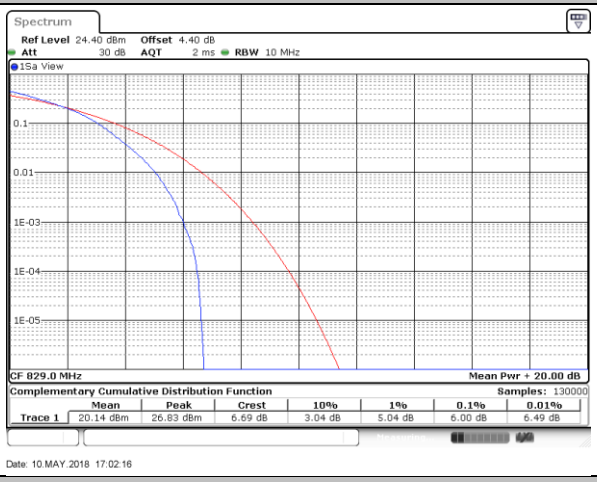
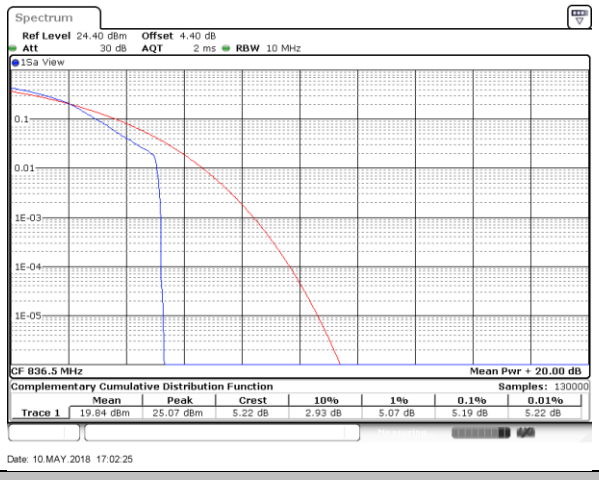
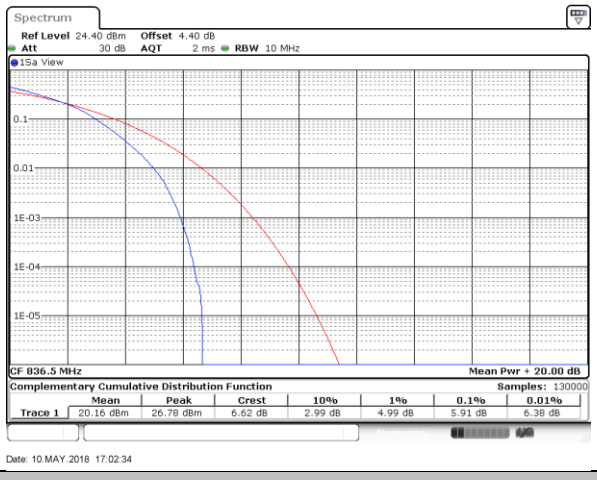
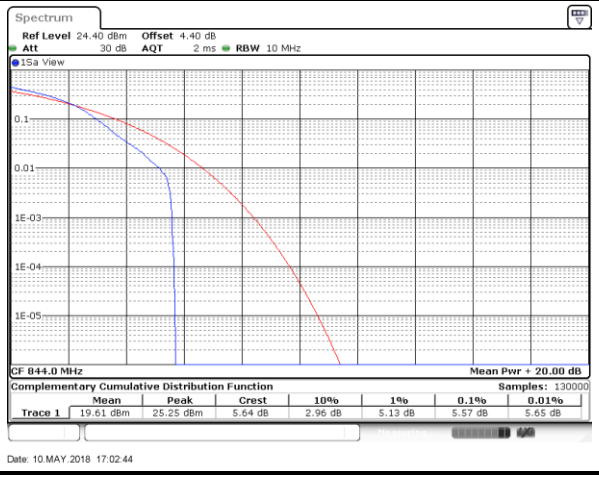
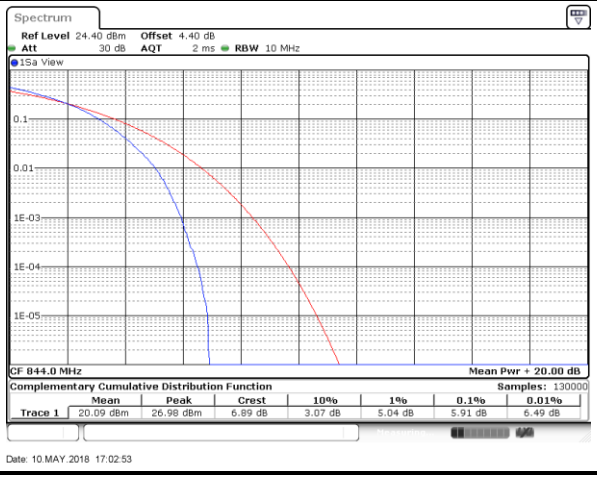


LTE Band 4 / 20MHz / QPSK	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

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**
	

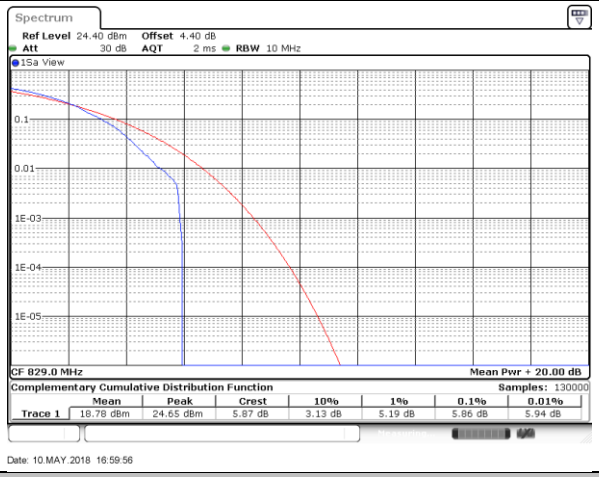
LTE Band 4 / 20MHz / 64QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

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**
	

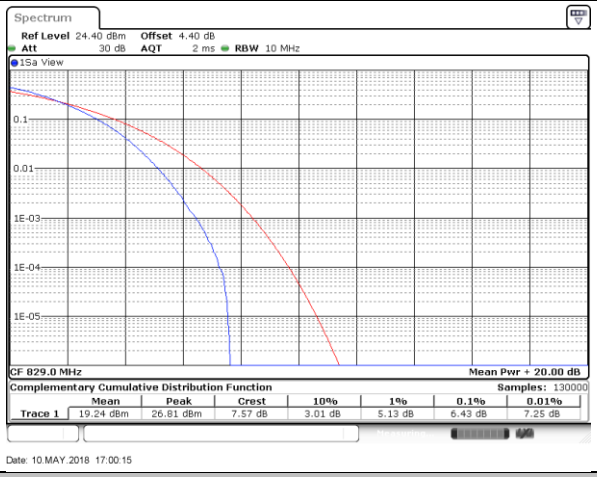
LTE Band 5 / 10MHz / 16QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

LTE Band 5 / 10MHz / 64QAM

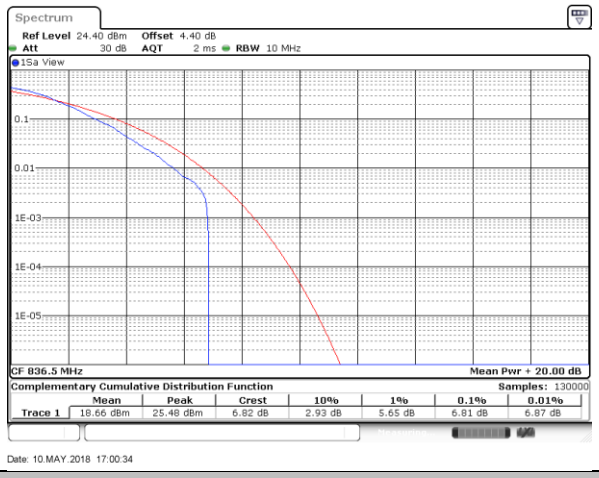
Lowest Channel / 1RB



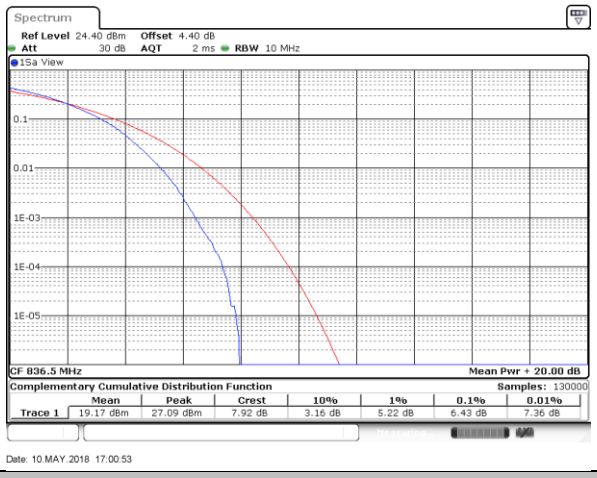
Lowest Channel / Full RB



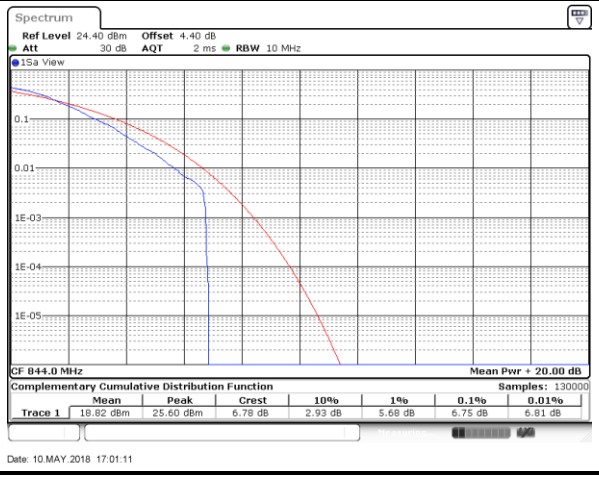
Middle Channel / 1RB



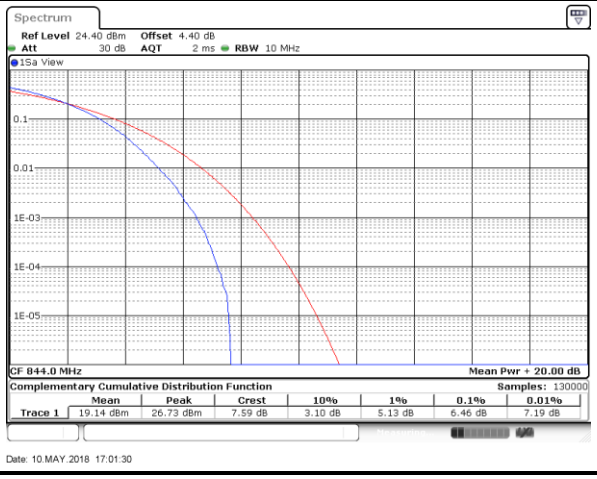
Middle Channel / Full RB

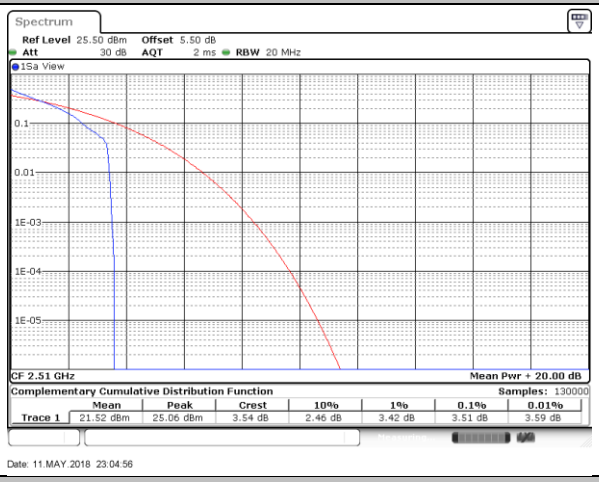
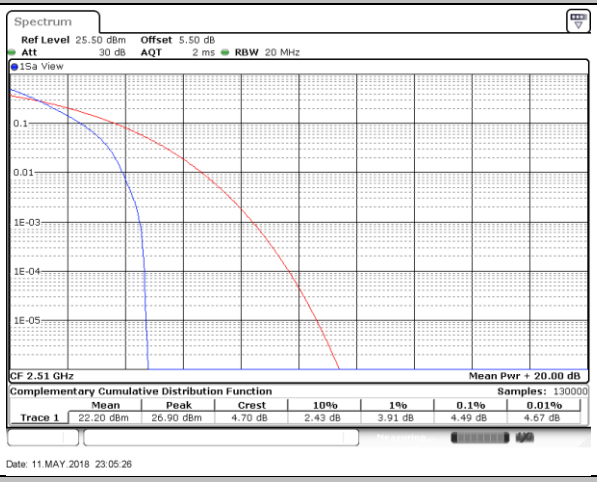
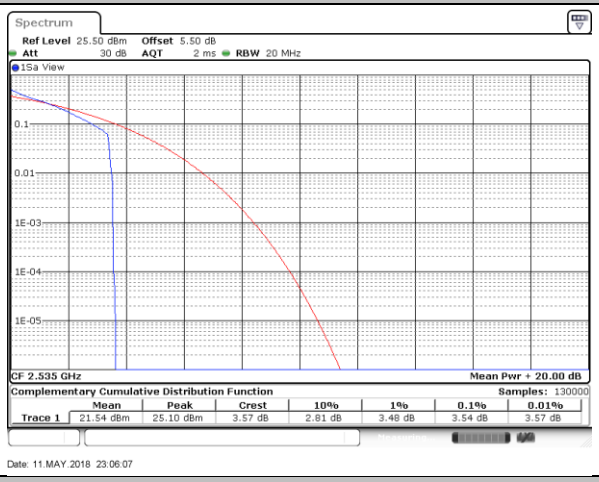
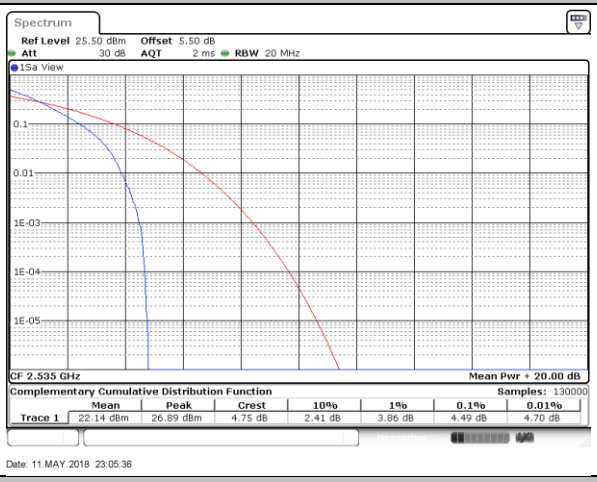
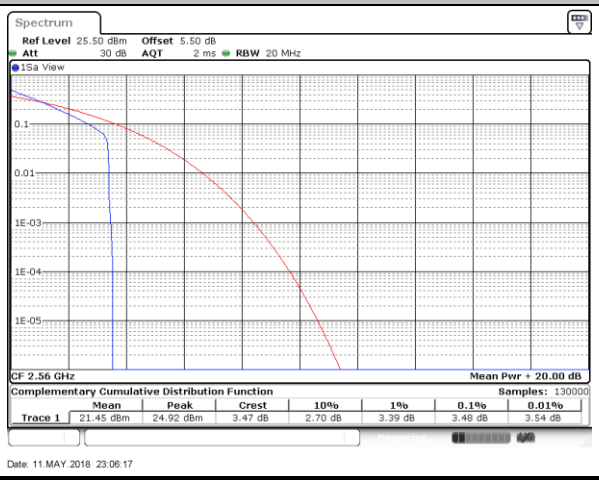
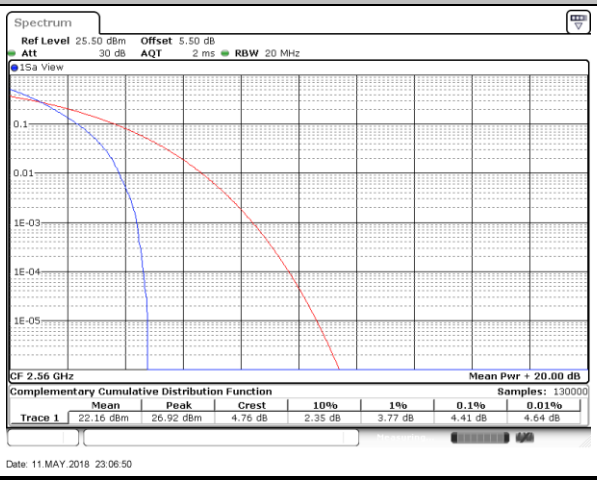


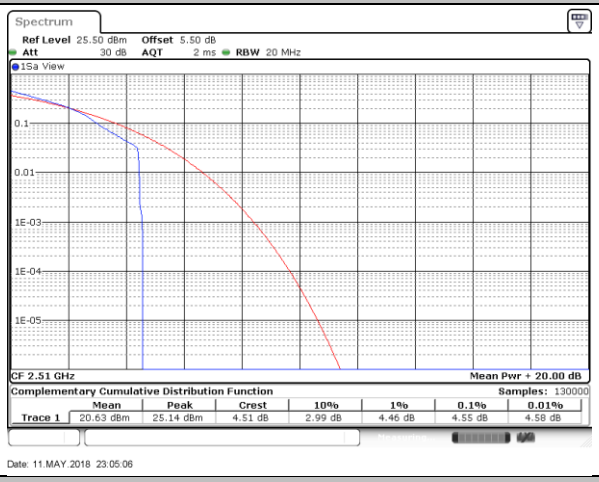
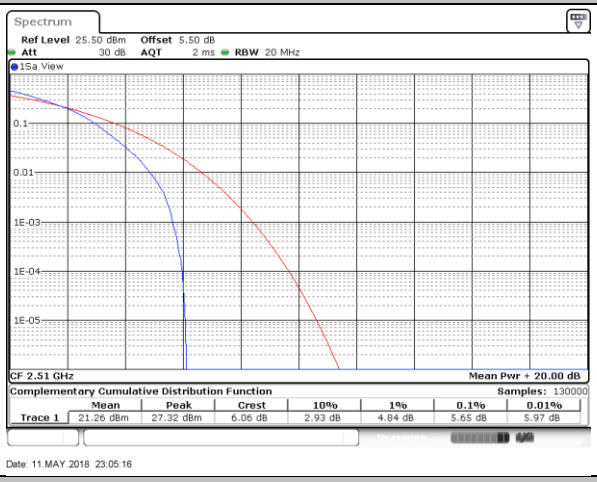
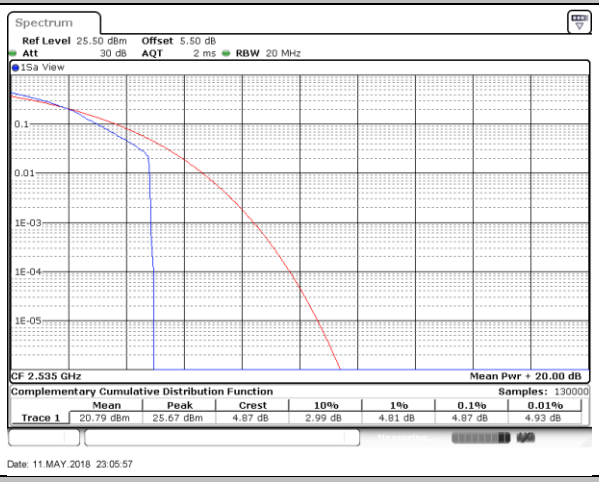
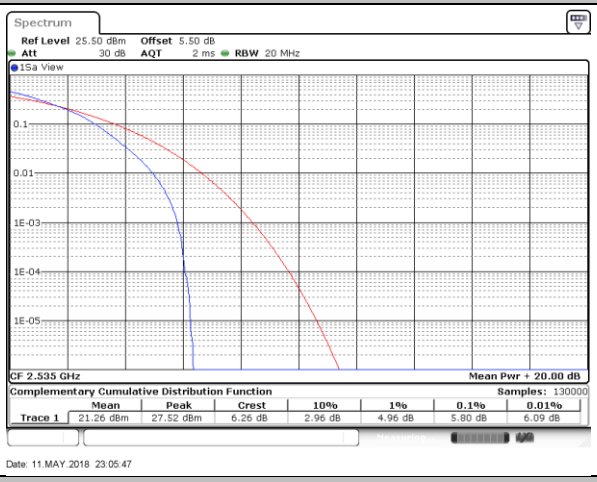
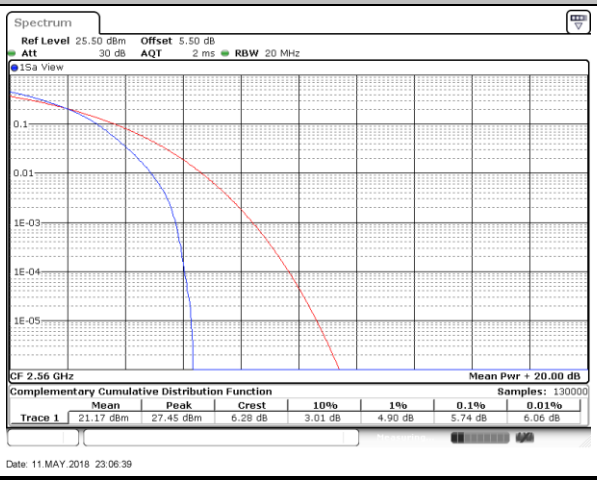
Highest Channel / 1RB



Highest Channel / Full RB

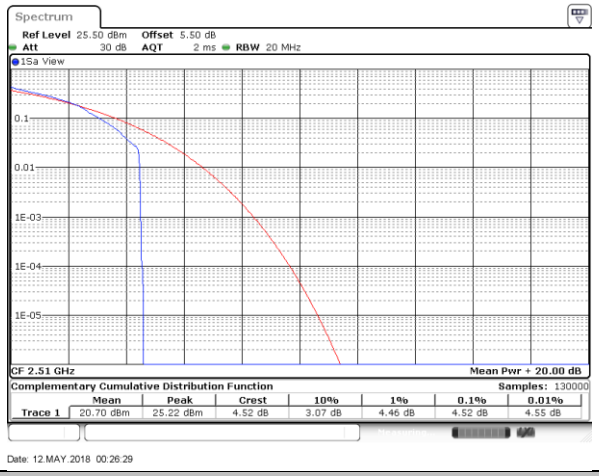


LTE Band 7 / 20MHz / QPSK	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

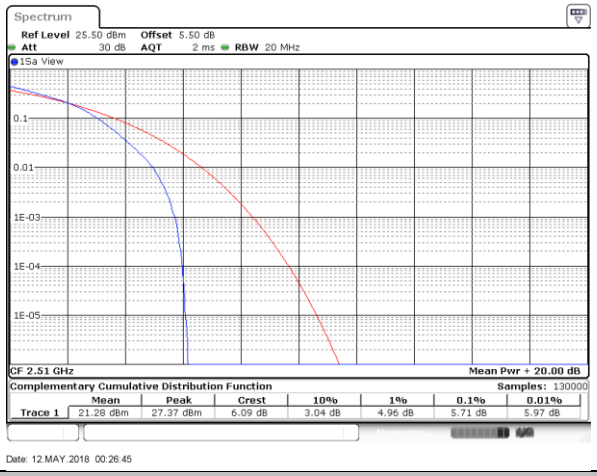
LTE Band 7 / 20MHz / 16QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

LTE Band 7 / 20MHz / 64QAM

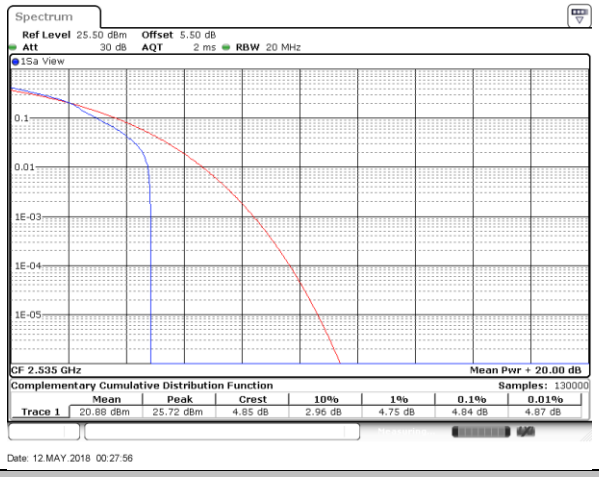
Lowest Channel / 1RB



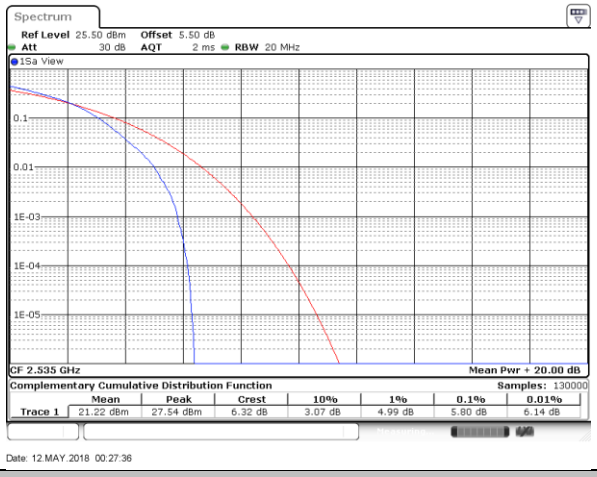
Lowest Channel / Full RB



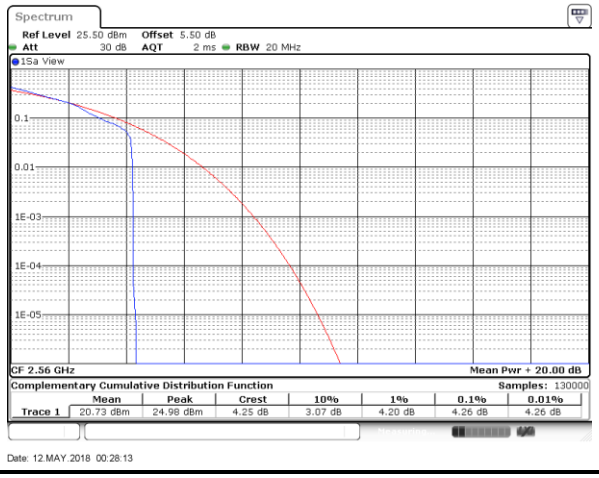
Middle Channel / 1RB



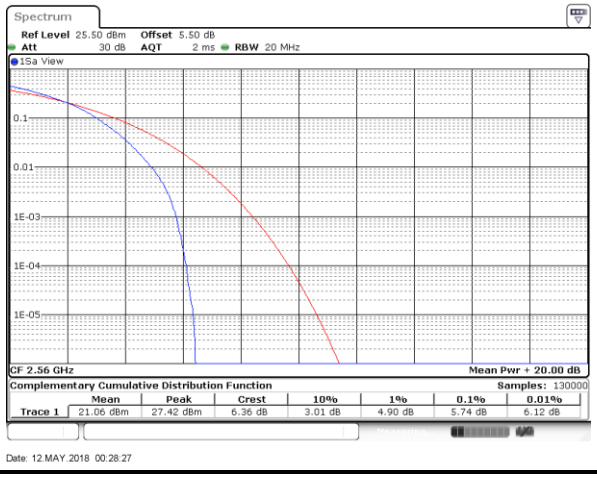
Middle Channel / Full RB

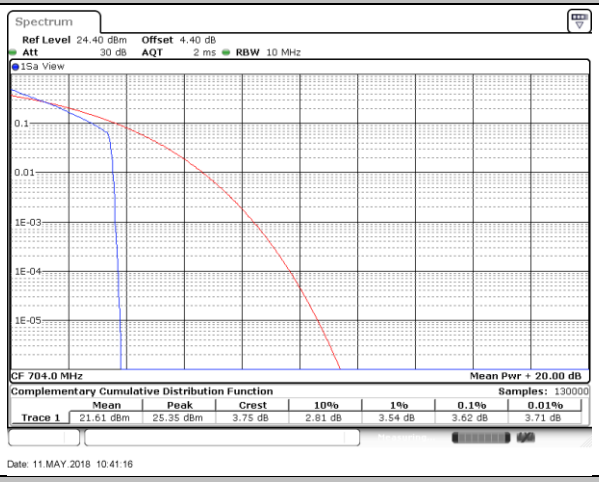
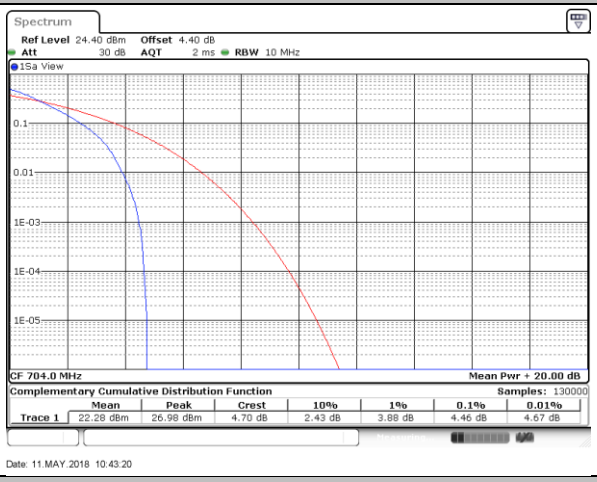
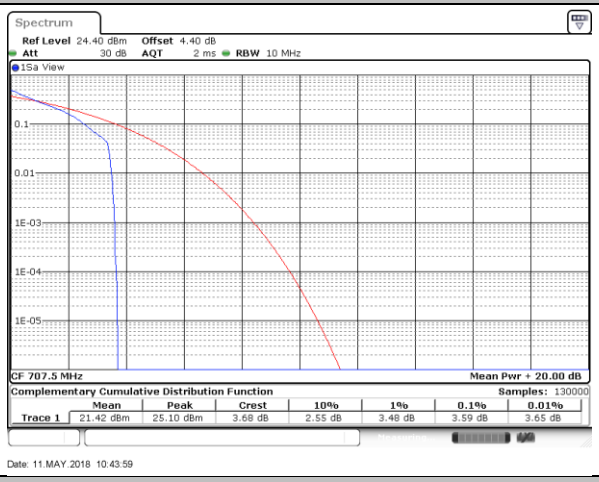
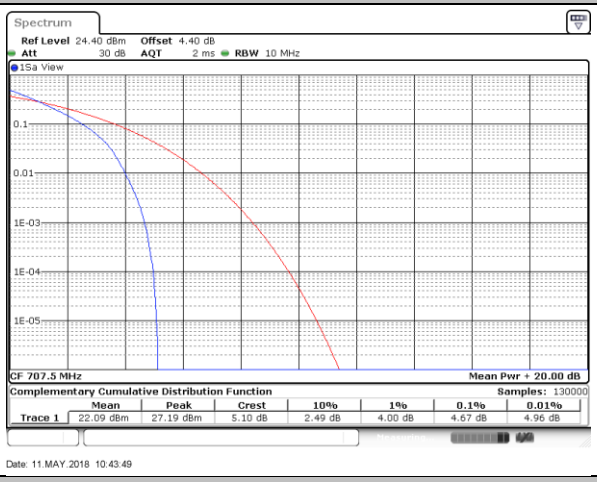
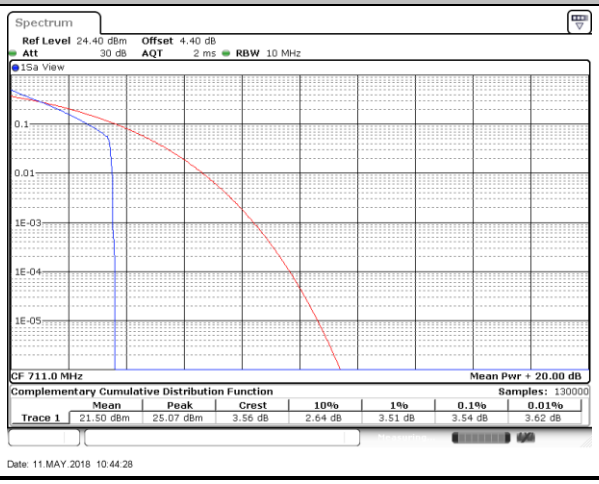
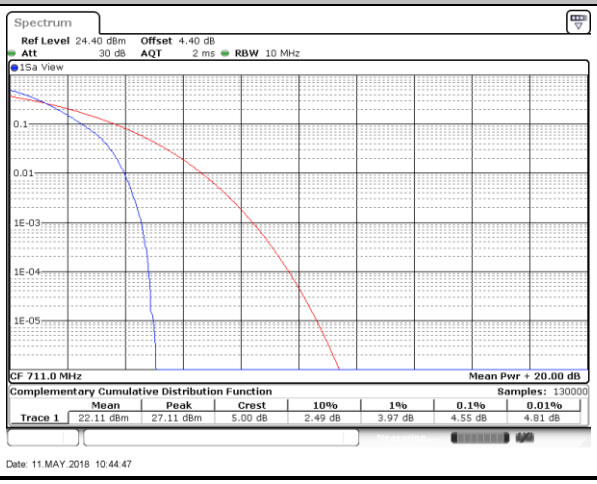


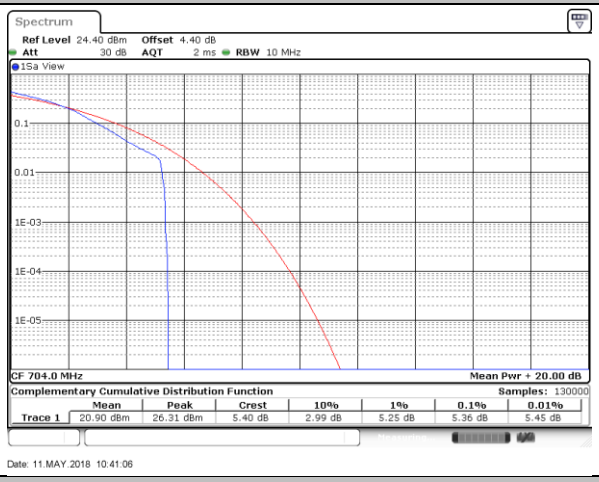
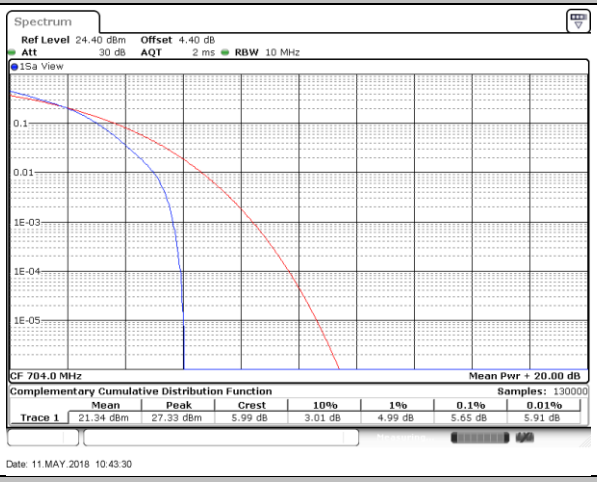
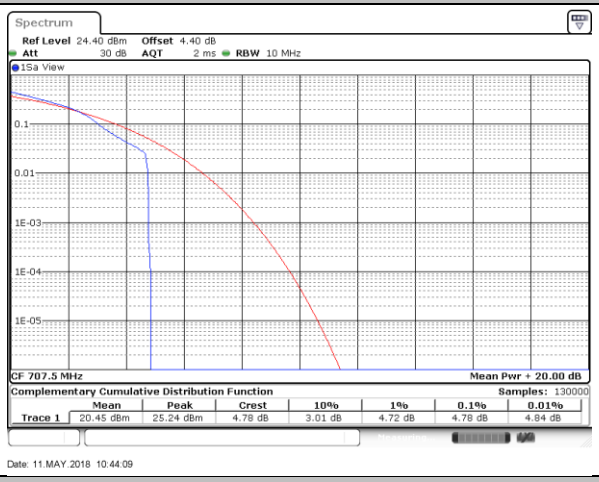
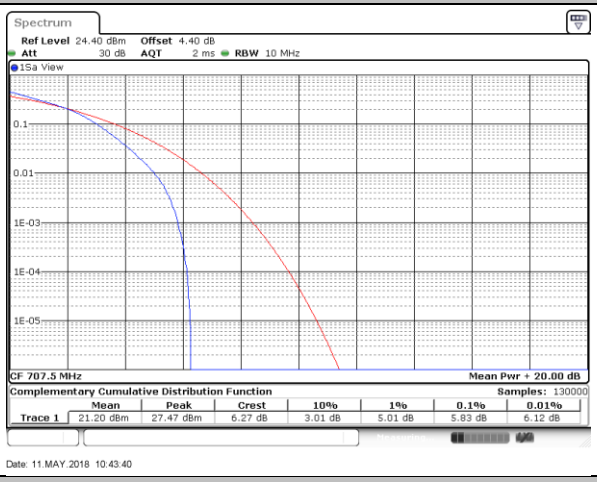
Highest Channel / 1RB



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**