



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2013-4
FCC ID : IHDT56YD3
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L), 27(F), 27(H), 27(M)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Jul. 24, 2019 and completely tested on Aug. 27, 2019. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

Jason Jia

Reviewed by: Jason Jia / Supervisor

James Huang

Approved by: James Huang / Manager



Sporton International (Kunshan) Inc.

***No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China***



TABLE OF CONTENTS

REVISION HISTORY	3
SUMMARY OF TEST RESULT	4
1 GENERAL DESCRIPTION	6
1.1 Applicant	6
1.2 Manufacturer	6
1.3 Product Feature of Equipment Under Test	6
1.4 Product Specification of Equipment Under Test	7
1.5 Specification of Accessory	8
1.6 Modification of EUT	8
1.7 Re-use of Measured Data	9
1.8 Maximum ERP/EIRP, Frequency Tolerance, and Emission Designator	10
1.9 Testing Location	16
1.10 Applicable Standards	16
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	17
2.1 Test Mode	17
2.2 Connection Diagram of Test System	20
2.3 Support Unit used in test configuration and system	20
2.4 Measurement Results Explanation Example	20
2.5 Frequency List of Low/Middle/High Channels	21
3 CONDUCTED TEST ITEMS	27
3.1 Measuring Instruments	27
3.2 Test Setup	27
3.3 Test Result of Conducted Test	27
3.4 Conducted Output Power and ERP/EIRP	28
3.5 Peak-to-Average Ratio	29
3.6 Occupied Bandwidth	30
3.7 Conducted Band Edge	31
3.8 Conducted Spurious Emission	33
3.9 Frequency Stability	34
4 RADIATED TEST ITEMS	35
4.1 Measuring Instruments	35
4.2 Test Setup	35
4.3 Test Result of Radiated Test	35
4.4 Radiated Spurious Emission	36
5 LIST OF MEASURING EQUIPMENT	37
6 UNCERTAINTY OF EVALUATION	38
APPENDIX A. TEST RESULTS OF CONDUCTED TEST	
APPENDIX B. TEST RESULTS OF RADIATED TEST	
APPENDIX C. TEST SETUP PHOTOGRAPHS	
APPENDIX D. REFERENCE REPORT	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG932901-02B	Rev. 01	Initial issue of report	Sep. 05, 2019

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt		
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17)	ERP < 3 Watt		
	§24.232(c) §27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 25) (Band 7) (Band 38) (Band 41)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt		
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(c)(2)(4) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66)	< 43+10log ₁₀ (P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)	§27.53(m)(4)		
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66)	< 43+10log ₁₀ (P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log ₁₀ (P[Watts])		
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		



Report Section	FCC Rule	Description	Limit	Result	Remark
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(f) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	$< 43 + 10\log_{10}(P[\text{Watts}])$	PASS	Under limit 21.17 dB at 1560.000 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	$< 55 + 10\log_{10}(P[\text{Watts}])$		

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



1 General Description

1.1 Applicant

Motorola Mobility LLC

222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC

222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2013-4
FCC ID	IHDT56YD3
EUT supports Radios application	CDMA/GSM/WCDMA/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 BR / EDR / LE FM Receiver and GNSS
IMEI Code	Conducted: 357235100010413/357235100010403 Radiation: 357235100011015
HW Version	DVT2
SW Version	PPI29.80
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12 : 699.7 MHz ~ 715.3 MHz LTE Band 13 : 779.5 MHz ~ 784.5 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz LTE Band 25 : 1850.7MHz ~ 1914.3 MHz LTE Band 26 : 824.7MHz ~ 848.3 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 1710.7 MHz ~ 1779.3 MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz LTE Band 25 : 1930.7MHz ~ 1994.3 MHz LTE Band 26 : 869.7MHz ~ 893.3MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 2110.7 MHz~ 2199.3 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 25 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 2 : 22.67 dBm LTE Band 4 : 22.52 dBm LTE Band 5 : 22.85 dBm LTE Band 7 : 22.33 dBm LTE Band 12 : 22.61 dBm LTE Band 13 : 22.42 dBm LTE Band 17 : 22.52 dBm LTE Band 25 : 22.74 dBm LTE Band 26 : 22.86 dBm LTE Band 38 : 22.76 dBm LTE Band 41 : 22.76 dBm LTE Band 66 : 22.58 dBm
Antenna Gain	LTE Band 2 : -0.23 dBi LTE Band 4 : 0.56 dBi

	LTE Band 5 : -1.50 dBi LTE Band 7 : -1.32 dBi LTE Band 12 : -1.58 dBi LTE Band 13 : -1.58 dBi LTE Band 17 : -1.58 dBi LTE Band 25 : -0.23 dBi LTE Band 26 : -1.45 dBi LTE Band 38 : -1.32 dBi LTE Band 41 : -1.32 dBi LTE Band 66 : 0.64 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

1.5 Specification of Accessory

Specification of Accessory				
AC Adapter 1	Brand Name	Motorola (Salom)	Model Name	SC-41
	Power Rating	I/P: 100-240 Vac, 300mA ,50/60HZ O/P: 5Vdc 2000mA		
AC Adapter 2	Brand Name	Motorola (Acbel)	Model Name	SC-41
	Power Rating	I/P: 100-240 Vac, 300mA ,50/60HZ O/P: 5Vdc 2000mA		
Battery	Brand Name	Motorola (ATL)	Model Name	KR40
	Power Rating	3.8Vdc, 3500mAh (Typ)	Type	Li-ion, Polymer
USB Cable 1	Brand Name	Motorola (LiQi)	Model Name	L32B-053000100/ L32B-053000100L
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		
USB Cable 2	Brand Name	Motorola (SaiBao)	Model Name	S32B-053000100/ S32B-053000100L
	Signal Line Type	1.0 meter, shielded cable, without ferrite core		

1.6 Modification of EUT

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



1.7 Re-use of Measured Data

1.6.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: XT2013-4, FCC ID: IHDT56YD3) is electrically identical to the reference device (Model: XT2013-1, FCC ID: IHDT56YD1) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 484596 D01

1.6.2 Difference Section

For details concerning the similarity with respect to component placement, mechanical/electrical design etc., please refer to the Product Equality Declaration.

The re-used RF data includes the following bands provided in Appendix D (Sporton RF Report No. FG932901B for the reference device Model: XT2013-1, FCC ID: IHDT56YD1).

1.6.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
PCE (LTE)	IHDT56YD1	Part 22(H).24(E).27(L). 27(F).27(H).27(M). (FG932901B)	All sections applicable for LTE Band 7; Conducted sections applicable for LTE Band 12, 17; Other test item for full test

1.6.4 Spot Check Verification Data Section

In order to confirm hardware similarity of the subject device with the reference device, spot check measurements were performed on the subject device for the conducted power and Radiated Spurious Emission the test result were consistent with FCC ID: IHDT56YD1.

Assertions concerning the similarity of these devices are based on representations by the applicant. The applicant accepts full responsibility for the validity of the similarity claim, and for the determination that verification test data are sufficient to support it.

Test Item	Mode	IHDT56YD1 Worst Result	IHDT56YD3 Worst Result	Difference (dB)
Average Conducted Power (dBm)	LTE Band 7	22.99	22.33	-0.66
	LTE Band 12	23.89	22.61	-1.28
	LTE Band 17	23.72	22.52	-1.20
Radiated Spurious Emission (dBm)	LTE Band 7	-50.29	-48.87	1.42



1.8 Maximum ERP/EIRP, 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	1M10G7D	-	0.1754	1M11W7D	-	0.1390
3	1851.5 ~ 1908.5	2M75G7D	-	0.1754	2M73W7D	-	0.1374
5	1852.5 ~ 1907.5	4M51G7D	-	0.1742	4M53W7D	-	0.1365
10	1855.0 ~ 1905.0	9M05G7D	0.0032	0.1742	9M05W7D	-	0.1393
15	1857.5 ~ 1902.5	13M5G7D	-	0.1730	13M5W7D	-	0.1371
20	1860.0 ~ 1900.0	18M4G7D	-	0.1782	18M5W7D	-	0.1782
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	1M11W7D		-		0.1104	
3	1851.5 ~ 1908.5	2M72W7D		-		0.1119	
5	1852.5 ~ 1907.5	4M53W7D		-		0.1132	
10	1855.0 ~ 1905.0	9M07W7D		-		0.1089	
15	1857.5 ~ 1902.5	13M5W7D		-		0.1119	
20	1860.0 ~ 1900.0	18M3W7D		-		0.1156	
LTE Band 25		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1850.7 ~ 1914.3	1M10G7D	-	0.1754	1M11W7D	-	0.1390
3	1851.5 ~ 1913.5	2M75G7D	-	0.1754	2M73W7D	-	0.1374
5	1852.5 ~ 1912.5	4M51G7D	-	0.1742	4M53W7D	-	0.1365
10	1855.0 ~ 1910.0	9M05G7D	0.0032	0.1742	9M05W7D	-	0.1393
15	1857.5 ~ 1907.5	13M5G7D	-	0.1730	13M5W7D	-	0.1371
20	1860.0 ~ 1905.0	18M4G7D	-	0.1782	18M5W7D	-	0.1782
LTE Band 25		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum EIRP(W)	
1.4	1850.7 ~ 1914.3	1M11W7D		-		0.1104	
3	1851.5 ~ 1913.5	2M72W7D		-		0.1119	
5	1852.5 ~ 1912.5	4M53W7D		-		0.1132	
10	1855.0 ~ 1910.0	9M07W7D		-		0.1089	



15	1857.5 ~ 1907.5	13M5W7D	-		0.1119		
20	1860.0 ~ 1905.0	18M3W7D	-		0.1156		
LTE Band 4		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1710.7 ~ 1754.3	1M10G7D	-	0.2089	1M10W7D	-	0.1702
3	1711.5 ~ 1753.5	2M77G7D	-	0.2056	2M73W7D	-	0.1770
5	1712.5 ~ 1752.5	4M52G7D	-	0.2056	4M53W7D	-	0.1675
10	1715.0 ~ 1750.0	9M11G7D	0.0056	0.2084	9M03W7D	-	0.1730
15	1717.5 ~ 1747.5	13M5G7D	-	0.2051	13M5W7D	-	0.1671
20	1720.0 ~ 1745.0	18M5G7D	-	0.2099	18M7W7D	-	0.1762
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	1M10W7D		-		0.1346	
3	1711.5 ~ 1753.5	2M73W7D		-		0.1312	
5	1712.5 ~ 1752.5	4M53W7D		-		0.1346	
10	1715.0 ~ 1750.0	9M07W7D		-		0.1374	
15	1717.5 ~ 1747.5	13M5W7D		-		0.1449	
20	1720.0 ~ 1745.0	18M3W7D		-		0.1406	
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	-	0.0802	1M10W7D	-	0.0621
3	825.5 ~ 847.5	2M74G7D	-	0.0822	2M73W7D	-	0.0641
5	826.5 ~ 846.5	4M54G7D	-	0.0826	4M63W7D	-	0.0658
10	829.0 ~ 844.0	9M05G7D	0.0091	0.0822	9M11W7D	-	0.0649
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	1M10W7D		-		0.0617	
3	825.5 ~ 847.5	2M95W7D		-		0.0553	
5	826.5 ~ 846.5	4M52W7D		-		0.0527	
10	829.0 ~ 844.0	9M07W7D		-		0.0516	



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	4M58G7D	-	0.1419	4M53W7D	-	0.1132
10	2505.0 ~ 2565.0	9M05G7D	0.0037	0.1422	9M01W7D	-	0.1122
15	2507.5 ~ 2562.5	13M6G7D	-	0.1400	13M5W7D	-	0.1117
20	2510.0 ~ 2560.0	18M5G7D	-	0.1429	18M5W7D	-	0.1169
LTE Band 7		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum EIRP(W)	
5	2502.5 ~ 2567.5	4M52W7D		-		0.0881	
10	2505.0 ~ 2565.0	9M09W7D		-		0.0891	
15	2507.5 ~ 2562.5	13M5W7D		-		0.0895	
20	2510.0 ~ 2560.0	18M3W7D		-		0.0891	
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	-	-	0.0759	-	-	0.0598
3	700.5 ~ 714.5	-	-	0.0760	-	-	0.0593
5	701.5 ~ 713.5	-	-	0.0771	-	-	0.0589
10	704.0 ~ 711.0	-	-	0.0773	-	-	0.0593
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	-		-		0.0491	
3	700.5 ~ 714.5	-		-		0.0474	
5	701.5 ~ 713.5	-		-		0.0468	
10	704.0 ~ 711.0	-		-		0.0474	
LTE Band 13		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
5	779.5 ~ 784.5	4M51G7D	-	0.0738	4M53W7D	-	0.0556
10	782.0	8M97G7D	0.0042	0.0740	8M97W7D	-	0.0555



LTE Band 13		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum ERP(W)	
5	779.5 ~ 784.5	4M49W7D		-		0.0457	
10	782.0	9M03W7D		-		0.0456	
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	-	-	0.0771	-	-	0.0589
10	709.0 ~ 711.0	-	-	0.0773	-	-	0.0593
LTE Band 17		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum ERP(W)	
5	706.5 ~ 713.5	-		-		0.0468	
10	709.0 ~ 711.0	-		-		0.0474	
LTE Band 26		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	824.7 ~ 848.3	1M10G7D	-	0.0802	1M10W7D	-	0.0621
3	825.5 ~ 847.5	2M74G7D	-	0.0822	2M73W7D	-	0.0641
5	826.5 ~ 846.5	4M54G7D	-	0.0826	4M63W7D	-	0.0658
10	829.0 ~ 844.0	9M05G7D	0.0091	0.0822	9M11W7D	-	0.0649
15	831.5 ~ 841.5	13M5G7D	-	0.0834	13M5W7D	-	0.0649
CH26765	821.5	13M4G7D	-	0.0830	13M4W7D	-	0.0643
LTE Band 26		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum ERP(W)	
1.4	824.7 ~ 848.3	1M10W7D		-		0.0617	
3	825.5 ~ 847.5	2M95W7D		-		0.0553	
5	826.5 ~ 846.5	4M52W7D		-		0.0527	
10	829.0 ~ 844.0	9M07W7D		-		0.0516	
15	831.5 ~ 841.5	13M5W7D		-		0.0522	
CH26765	821.5	13M4W7D		-		0.0508	



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	4M56G7D	-	0.1368	4M52W7D	-	0.1076
10	2575.0 ~ 2615.0	9M03G7D	0.0020	0.1384	9M05W7D	-	0.1096
15	2577.5 ~ 2612.5	13M6G7D	-	0.1387	13M5W7D	-	0.1094
20	2580.0 ~ 2610.0	18M3G7D	-	0.1393	18M5W7D	-	0.1109
LTE Band 38		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum EIRP(W)	
5	2572.5 ~ 2617.5	4M54W7D		-		0.0993	
10	2575.0 ~ 2615.0	9M01W7D		-		0.1012	
15	2577.5 ~ 2612.5	13M5W7D		-		0.1026	
20	2580.0 ~ 2610.0	18M5W7D		-		0.1038	
LTE Band 41		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2498.5 ~ 2687.5	4M56G7D	-	0.1368	4M52W7D	-	0.1076
10	2501.0 ~ 2685.0	9M03G7D	0.0020	0.1384	9M05W7D	-	0.1096
15	2503.5 ~ 2682.5	13M6G7D	-	0.1387	13M5W7D	-	0.1094
20	2506.0 ~ 2680.0	18M3G7D	-	0.1393	18M5W7D	-	0.1109
LTE Band 41		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum EIRP(W)	
5	2498.5 ~ 2687.5	4M54W7D		-		0.0993	
10	2501.0 ~ 2685.0	9M01W7D		-		0.1012	
15	2503.5 ~ 2682.5	13M5W7D		-		0.1026	
20	2506.0 ~ 2680.0	18M5W7D		-		0.1038	
LTE Band 66		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1710.7 ~ 1779.3	1M10G7D	-	0.2089	1M10W7D	-	0.1702
3	1711.5 ~ 1778.5	2M77G7D	-	0.2056	2M73W7D	-	0.1770
5	1712.5 ~ 1777.5	4M52G7D	-	0.2056	4M53W7D	-	0.1675



10	1715.0 ~ 1775.0	9M11G7D	0.0056	0.2084	9M03W7D	-	0.1730
15	1717.5 ~ 1772.5	13M5G7D	-	0.2051	13M5W7D	-	0.1671
20	1720.0 ~ 1770.0	18M5G7D	-	0.2099	18M7W7D	-	0.1762
LTE Band 66		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)		Maximum EIRP(W)		
1.4	1710.7 ~ 1779.3	1M10W7D	-		0.1346		
3	1711.5 ~ 1778.5	2M73W7D	-		0.1312		
5	1712.5 ~ 1777.5	4M53W7D	-		0.1346		
10	1715.0 ~ 1775.0	9M07W7D	-		0.1374		
15	1717.5 ~ 1772.5	13M5W7D	-		0.1449		
20	1720.0 ~ 1770.0	18M3W7D	-		0.1406		

1.9 Testing Location

Sporton International (Kunshan) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International (Kunshan) Inc.		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH06-KS TH01-KS	CN1257	314309

1.10 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(F), 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
	13	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v
	38	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	13	-	-		v	-	-	v	v	v	v		v	v	v	v
	25						v	v	v	v	v		v	v	v	v
	26				v		-	v	v	v	v		v	v	v	v
	41	-	-				v	v	v	v	v		v	v	v	v
	66						v	v	v	v	v		v	v	v	v

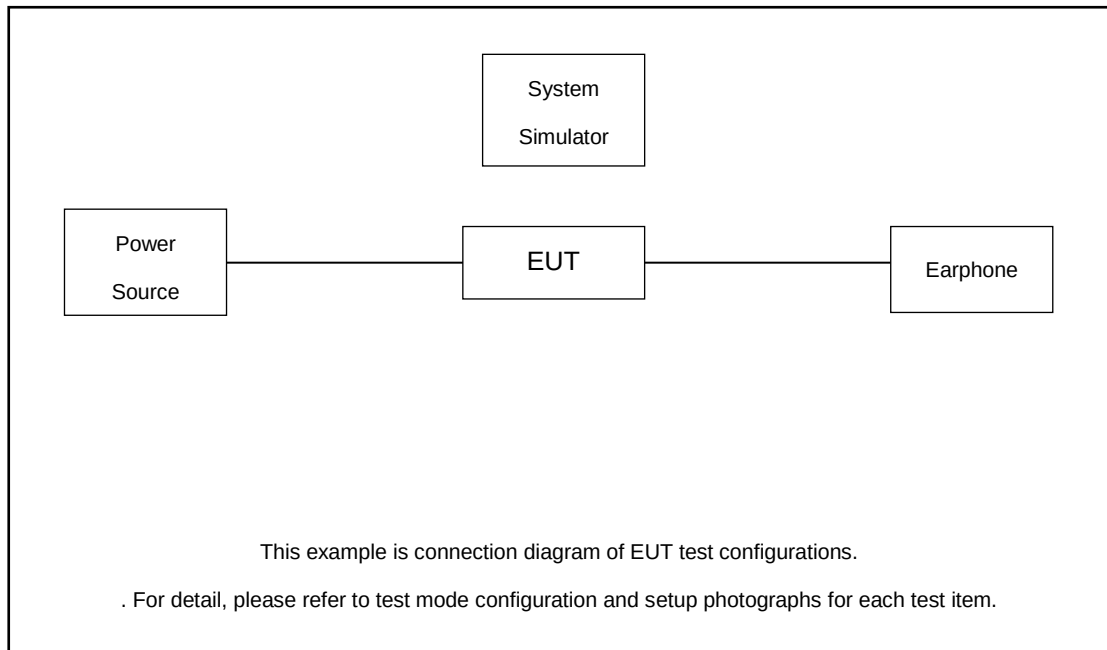


Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Ha lf	Full	L	M	H
26dB and 99% Bandwidth	13	-	-	v	v	-	-	v	v	v			v	v	v	v
	25	v	v	v	v	v	v	v	v	v			v	v	v	v
	26	v	v	v	v	v	-	v	v	v			v	v	v	v
	41	-	-	v	v	v	v	v	v	v			v	v	v	v
	66	v	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	13	-	-	v	v	-	-	v	v	v	v		v	v		v
	25	v	v	v	v	v	v	v	v	v	v		v	v		v
	26	v	v	v	v	v	-	v	v	v	v		v	v		v
	41	-	-	v	v	v	v	v	v	v	v		v	v		v
	66	v	v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	13	-	-	v	v	-	-	v	v	v	v			v	v	v
	25	v	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v	v			v	v	v
Frequency Stability	13	-	-		v	-	-	v					v		v	
	25				v			v					v		v	
	26				v		-	v					v		v	
	41	-	-		v			v					v		v	
	66				v			v					v		v	



Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
E.R.P / E.I.R.P	13	-	-	v	v	-	-	v	v	v	v			v	v	v
	25	v	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	12	Worst Case												v	v	v
	13	Worst Case												v	v	v
	25	Worst Case												v	v	v
	26	Worst Case												v	v	v
	41	Worst Case												v	v	v
	66	Worst Case												v	v	v
Note	1. The mark “v ” means that this configuration is chosen for testing 2. The mark “- ” means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. LTE Band 26 overlaps the entire frequency range of LTE Band 5. Therefore, the test results provided in this report covers Band 5 and the portion of Band 26 subject to Part 22. 5. LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4. 6. LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2. 7. LTE Band 12 overlaps the entire frequency range of LTE Band 17. Therefore, the test results provided in this report covers Band 12 as well as Band 17. 8. LTE Band 41 overlaps the entire frequency range of LTE Band 38. Therefore, the test results provided in this report covers Band 41 as well as Band 38.															

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

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

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 4.6 dB.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)}. \\ &= 4.6 \text{ (dB)} \end{aligned}$$



2.5 Frequency List of Low/Middle/High Channels

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

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



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

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

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

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

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



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

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



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

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



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

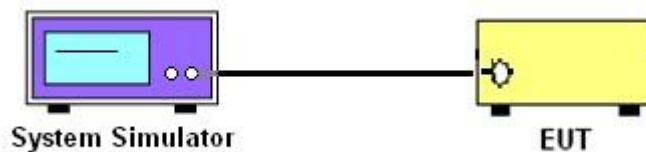
3 Conducted Test Items

3.1 Measuring Instruments

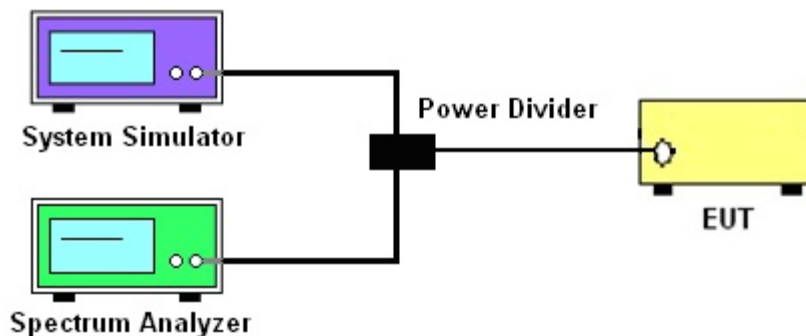
See list of measuring instruments of this test report.

3.2 Test Setup

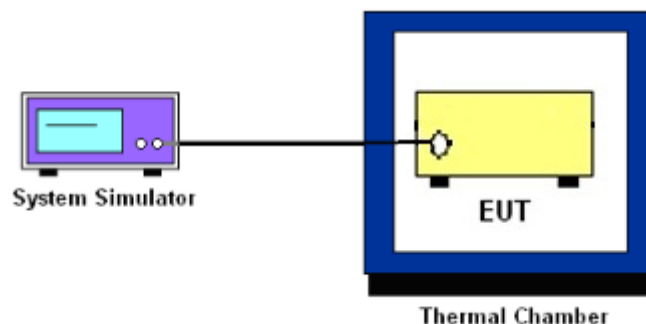
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

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

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

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

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

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

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

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

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

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

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

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

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

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

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

27.53 (c)

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

27.53 (h)

For operations in the 1710 – 1755 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ 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 than $43 + 10 \log (P)$ 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 $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.

Example:

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

$$= P(W) - [43 + 10\log(P)] \text{ (dB)}$$

$$= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)} = -13\text{dBm}.$$

9. For LTE Band7, 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 Band7, 38,41:

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

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

3.8.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13\text{dBm}$.
11. For Band 7, 38, 41
The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [55 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[55 + 10\log(P)]$ (dB)
 $= -25\text{dBm}$.

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 $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) 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 $20\pm 5^{\circ}\text{C}$ and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

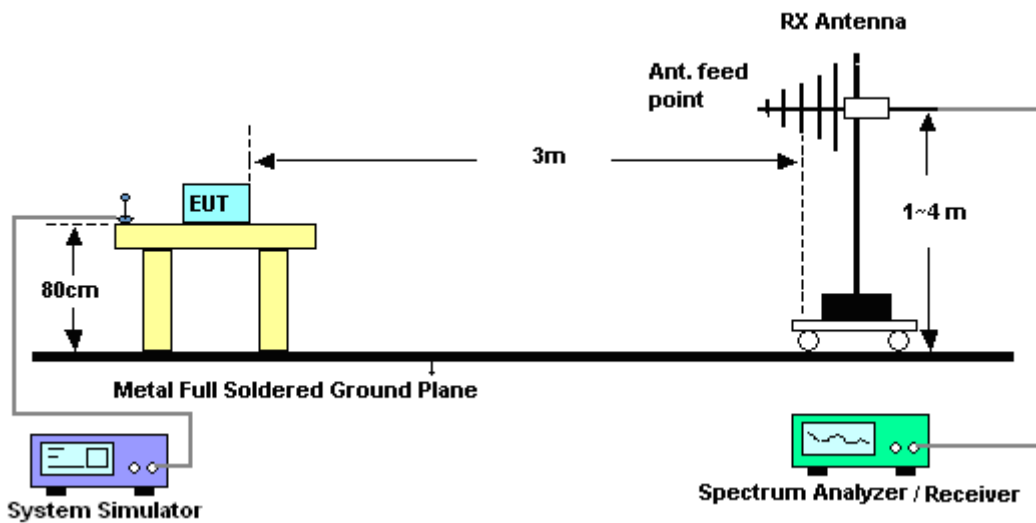
4 Radiated Test Items

4.1 Measuring Instruments

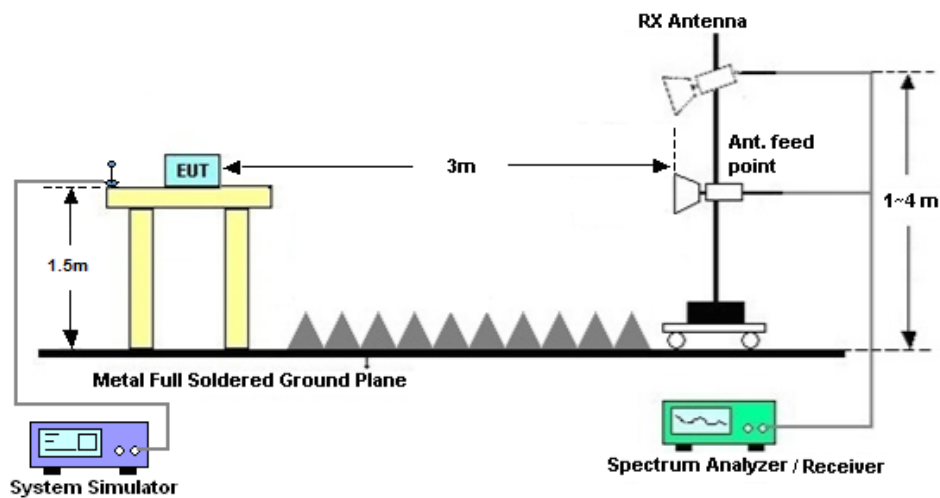
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.



4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

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

For Band 7, 38, 41

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

For LTE Band 13

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

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

4.4.2 Test Procedures

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

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$

13. For Band 7, 38, 41:

The limit line is derived from $55 + 10\log(P)$ 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	FSV30	101338	10Hz~30GHz	Apr. 18, 2019	Aug. 05, 2019~ Aug. 27, 2019	Apr. 17, 2020	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 04, 2019	Aug. 05, 2019~ Aug. 27, 2019	Jul. 03, 2020	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz~44GHz	Apr. 16, 2019	Aug. 05, 2019	Apr. 18, 2020	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz~1GHz	Dec. 28, 2018	Aug. 05, 2019	Dec. 27, 2019	Radiation (03CH06-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 20, 2018	Aug. 05, 2019	Oct. 19, 2019	Radiation (03CH06-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2019	Aug. 05, 2019	Jan. 04, 2020	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	187289	9KHz ~1GHZ	Aug. 06, 2018	Aug. 05, 2019	Aug. 05, 2019	Radiation (03CH06-KS)
Amplifier	MITEQ	TTA1840-35-HG	2014749	18~40GHz	Jan. 14, 2019	Aug. 05, 2019	Jan. 13, 2020	Radiation (03CH06-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1	2025788	1Ghz-18Ghz	Apr. 17, 2019	Aug. 05, 2019	Apr. 16, 2020	Radiation (03CH06-KS)
Amplifier	Keysight	83017A	MY53270203	500MHz~26.5GHz	Apr. 15, 2019	Aug. 05, 2019	Apr. 14, 2020	Radiation (03CH06-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Aug. 05, 2019	NCR	Radiation (03CH06-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Aug. 05, 2019	NCR	Radiation (03CH06-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Aug. 05, 2019	NCR	Radiation (03CH06-KS)

NCR: No Calibration Required



6 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage $K=2$ to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

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

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

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.1dB
---	-------



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	22.58	22.58	22.66
20	1	49		22.62	22.57	22.65
20	1	99		22.53	22.67	22.63
20	50	0		21.62	21.65	21.63
20	50	24		21.56	21.53	21.62
20	50	50		21.55	21.58	21.54
20	100	0		21.60	21.55	21.93
20	1	0	16-QAM	21.54	21.32	21.76
20	1	49		21.45	21.30	21.66
20	1	99		21.46	21.38	21.76
20	50	0		20.56	20.52	20.95
20	50	24		20.57	20.52	20.97
20	50	50		20.54	20.60	20.98
20	100	0		20.57	20.51	20.94
20	1	0	64-QAM	20.28	20.27	20.58
20	1	49		20.38	20.26	20.57
20	1	99		20.33	20.30	20.63
20	50	0		19.61	19.54	19.99
20	50	24		19.59	19.54	19.53
20	50	50		19.53	19.62	19.55
20	100	0		19.51	19.51	19.93
15	1	0	QPSK	22.55	22.60	22.64
15	1	37		22.56	22.59	22.59
15	1	74		22.58	22.64	22.59
15	36	0		21.59	21.49	21.96
15	36	20		21.55	21.55	21.98
15	36	39		21.51	21.59	21.92
15	75	0		21.55	21.56	21.90
15	1	0	16-QAM	21.42	21.27	21.66



15	1	37		21.31	21.39	21.62
15	1	74		21.17	21.43	21.58
15	36	0		20.49	20.40	20.85
15	36	20		20.46	20.45	20.89
15	36	39		20.50	20.40	20.89
15	75	0		20.50	20.55	20.97
15	1	0	64-QAM	20.38	20.33	20.70
15	1	37		20.21	20.24	20.67
15	1	74		20.28	20.36	20.68
15	36	0		19.53	19.45	19.86
15	36	20		19.42	19.47	19.85
15	36	39		19.47	19.44	19.84
15	75	0		19.57	19.51	20.00



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.61	22.56	22.52
10	1	25		22.58	22.52	22.57
10	1	49		22.54	22.57	22.58
10	25	0		21.58	21.53	21.99
10	25	12		21.60	21.53	21.97
10	25	25		21.49	21.56	21.90
10	50	0		21.48	21.48	21.92
10	1	0	16-QAM	21.40	21.26	21.66
10	1	25		21.25	21.31	21.65
10	1	49		21.19	21.29	21.68
10	25	0		20.49	20.46	20.85
10	25	12		20.49	20.44	20.94
10	25	25		20.44	20.49	20.93
10	50	0		20.47	20.52	20.90
10	1	0	64-QAM	20.28	20.33	20.76
10	1	25		20.30	20.39	20.70
10	1	49		20.35	20.49	20.74
10	25	0		19.48	19.49	19.94
10	25	12		19.55	19.45	19.93
10	25	25		19.47	19.45	19.92
10	50	0		19.51	19.53	19.93
5	1	0	QPSK	22.56	22.53	22.55
5	1	12		22.55	22.53	22.57
5	1	24		22.57	22.53	22.53
5	12	0		21.54	21.52	21.99
5	12	7		21.57	21.53	22.01
5	12	13		21.56	21.54	21.95
5	25	0		21.53	21.51	22.01
5	1	0	16-QAM	21.57	21.34	21.70
5	1	12		21.56	21.31	21.70
5	1	24		21.46	21.38	21.77
5	12	0		20.46	20.38	20.83
5	12	7		20.44	20.42	20.85



5	12	13		20.41	20.40	20.83
5	25	0		20.49	20.45	20.92
5	1	0	64-QAM	20.32	20.30	20.78
5	1	12		20.30	20.32	20.76
5	1	24		20.32	20.30	20.77
5	12	0		19.49	19.40	19.78
5	12	7		19.44	19.37	19.72
5	12	13		19.43	19.44	19.81
5	25	0		19.45	19.48	19.94



LTE Band 2 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.54	22.52	22.52
3	1	8		22.52	22.57	22.60
3	1	14		22.60	22.54	22.57
3	8	0		21.53	21.53	21.97
3	8	4		21.56	21.48	21.98
3	8	7		21.51	21.54	21.95
3	15	0		21.51	21.50	21.91
3	1	0	16-QAM	21.45	21.23	21.72
3	1	8		21.26	21.29	21.68
3	1	14		21.35	21.26	21.71
3	8	0		20.43	20.49	20.89
3	8	4		20.46	20.45	20.90
3	8	7		20.42	20.51	20.89
3	15	0		20.46	20.44	20.94
3	1	0	64-QAM	20.33	20.47	20.80
3	1	8		20.38	20.36	20.77
3	1	14		20.42	20.43	20.83
3	8	0		19.47	19.49	19.91
3	8	4		19.47	19.46	19.87
3	8	7		19.43	19.52	19.92
3	15	0		19.44	19.43	19.93
1.4	1	0	QPSK	22.47	22.47	22.57
1.4	1	3		22.57	22.50	22.49
1.4	1	5		22.49	22.48	22.50
1.4	3	0		22.49	22.49	22.42
1.4	3	1		22.49	22.46	22.49
1.4	3	3		22.46	22.42	22.46
1.4	6	0		21.49	21.52	21.91
1.4	1	0	16-QAM	21.43	21.26	21.75
1.4	1	3		21.30	21.29	21.75
1.4	1	5		21.47	21.29	21.72
1.4	3	0		21.36	21.35	21.82
1.4	3	1		21.34	21.41	21.81



1.4	3	3		21.33	21.32	21.77
1.4	6	0		20.42	20.45	20.90
1.4	1	0	64-QAM	20.17	20.16	20.64
1.4	1	3		20.17	20.22	20.53
1.4	1	5		20.18	20.25	20.62
1.4	3	0		20.38	20.41	20.87
1.4	3	1		20.37	20.43	20.87
1.4	3	3		20.44	20.47	20.85
1.4	6	0		19.48	19.50	19.93



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.40	22.35	22.74
20	1	49		22.31	22.41	22.68
20	1	99		22.26	22.44	22.67
20	50	0		21.36	21.35	21.66
20	50	24		21.32	21.38	21.67
20	50	50		21.30	21.42	21.69
20	100	0		21.37	21.41	21.68
20	1	0	16-QAM	21.53	21.43	21.62
20	1	49		21.38	21.40	21.56
20	1	99		21.34	21.39	21.60
20	50	0		20.49	20.62	20.89
20	50	24		20.53	20.41	20.86
20	50	50		20.62	20.44	20.81
20	100	0		20.34	20.42	20.83
20	1	0	64-QAM	20.62	20.62	20.86
20	1	49		20.60	20.69	20.78
20	1	99		20.59	20.73	20.78
20	50	0		19.61	19.73	19.93
20	50	24		19.62	19.64	19.95
20	50	50		19.54	19.61	20.00
20	100	0		19.65	19.64	20.10
15	1	0	QPSK	22.50	22.44	22.61
15	1	37		22.45	22.44	22.61
15	1	74		22.40	22.46	22.57
15	36	0		21.42	21.38	21.66
15	36	20		21.37	21.35	21.66
15	36	39		21.37	21.41	21.61
15	75	0		21.40	21.37	21.68
15	1	0	16-QAM	21.34	21.26	21.54
15	1	37		21.28	21.36	21.55
15	1	74		21.16	21.26	21.60
15	36	0		20.36	20.33	20.65
15	36	20		20.31	20.34	20.63



15	36	39		20.36	20.31	20.57
15	75	0		20.39	20.33	20.77
15	1	0	64-QAM	20.29	20.30	20.70
15	1	37		20.27	20.28	20.72
15	1	74		20.39	20.33	20.66
15	36	0		19.64	19.55	19.63
15	36	20		19.59	19.60	19.67
15	36	39		19.56	19.61	19.69
15	75	0		19.56	19.58	19.71



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.51	22.44	22.64
10	1	25		22.45	22.39	22.63
10	1	49		22.33	22.46	22.51
10	25	0		21.39	21.40	21.63
10	25	12		21.38	21.44	21.68
10	25	25		21.38	21.43	21.68
10	50	0		21.34	21.41	21.66
10	1	0	16-QAM	21.30	21.36	21.67
10	1	25		21.32	21.24	21.64
10	1	49		21.23	21.22	21.66
10	25	0		20.37	20.38	20.61
10	25	12		20.34	20.42	20.63
10	25	25		20.39	20.42	20.56
10	50	0		20.34	20.48	20.56
10	1	0	64-QAM	20.28	20.31	20.60
10	1	25		20.24	20.32	20.58
10	1	49		20.30	20.32	20.52
10	25	0		19.62	19.58	19.66
10	25	12		19.59	19.57	19.61
10	25	25		19.44	19.66	19.65
10	50	0		19.62	19.65	20.11
5	1	0	QPSK	22.49	22.45	22.64
5	1	12		22.48	22.40	22.54
5	1	24		22.46	22.50	22.54
5	12	0		21.44	21.33	21.62
5	12	7		21.45	21.41	21.65
5	12	13		21.48	21.42	21.61
5	25	0		21.48	21.41	21.87
5	1	0	16-QAM	21.25	21.25	21.58
5	1	12		21.19	21.22	21.58
5	1	24		21.16	21.12	21.49
5	12	0		20.37	20.38	20.73
5	12	7		20.40	20.32	20.75



5	12	13		20.32	20.35	20.77
5	25	0		20.41	20.41	20.85
5	1	0	64-QAM	20.35	20.30	20.75
5	1	12		20.38	20.34	20.68
5	1	24		20.47	20.35	20.77
5	12	0		19.53	19.53	19.65
5	12	7		19.52	19.50	19.65
5	12	13		19.45	19.60	19.66
5	25	0		19.62	19.58	20.02



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.51	22.41	22.63
3	1	8		22.47	22.43	22.67
3	1	14		22.44	22.44	22.63
3	8	0		21.52	21.43	21.89
3	8	4		21.44	21.42	21.88
3	8	7		21.46	21.42	21.91
3	15	0		21.44	21.46	21.89
3	1	0	16-QAM	21.19	21.35	21.56
3	1	8		21.24	21.26	21.61
3	1	14		21.18	21.35	21.56
3	8	0		20.38	20.38	20.65
3	8	4		20.31	20.38	20.61
3	8	7		20.35	20.30	20.56
3	15	0		20.35	20.33	20.83
3	1	0	64-QAM	20.43	20.32	20.72
3	1	8		20.34	20.36	20.54
3	1	14		20.44	20.36	20.65
3	8	0		19.63	19.62	20.08
3	8	4		19.63	19.68	20.10
3	8	7		19.65	19.65	20.07
3	15	0		19.63	19.60	20.07
1.4	1	0	QPSK	22.42	22.38	22.63
1.4	1	3		22.41	22.44	22.61
1.4	1	5		22.38	22.49	22.61
1.4	3	0		22.40	22.39	22.56
1.4	3	1		22.38	22.40	22.45
1.4	3	3		22.37	22.37	22.67
1.4	6	0		21.36	21.37	21.85
1.4	1	0	16-QAM	21.25	21.21	21.56
1.4	1	3		21.20	21.23	21.63
1.4	1	5		21.16	21.26	21.61
1.4	3	0		21.39	21.32	21.56
1.4	3	1		21.26	21.24	21.26



1.4	3	3		21.25	21.38	21.66
1.4	6	0		20.44	20.38	20.87
1.4	1	0	64-QAM	20.18	20.13	20.45
1.4	1	3		20.27	20.14	20.54
1.4	1	5		20.27	20.13	20.34
1.4	3	0		20.50	20.53	20.56
1.4	3	1		20.55	20.53	20.51
1.4	3	3		20.52	20.52	20.66
1.4	6	0		19.69	19.71	20.13



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.43	22.52	22.42
20	1	49		22.41	22.31	22.38
20	1	99		22.35	22.29	22.36
20	50	0		21.40	21.42	21.37
20	50	24		21.39	21.29	21.36
20	50	50		21.38	21.30	21.36
20	100	0		21.39	21.32	21.38
20	1	0	16-QAM	21.25	21.01	21.11
20	1	49		21.18	21.03	21.14
20	1	99		21.09	21.03	21.02
20	50	0		20.38	20.38	20.36
20	50	24		20.37	20.32	20.37
20	50	50		20.34	20.27	20.33
20	100	0		20.37	20.30	20.34
20	1	0	64-QAM	20.29	20.26	20.31
20	1	49		20.14	20.22	20.27
20	1	99		20.22	20.18	20.28
20	50	0		19.66	19.54	19.58
20	50	24		19.59	19.58	19.65
20	50	50		19.57	19.56	19.56
20	100	0		19.53	19.51	19.55
15	1	0	QPSK	22.38	22.40	22.37
15	1	37		22.40	22.36	22.37
15	1	74		22.26	22.30	22.36
15	36	0		21.39	21.39	21.34
15	36	20		21.40	21.35	21.40
15	36	39		21.35	21.35	21.44
15	75	0		21.43	21.39	21.41
15	1	0	16-QAM	21.19	21.20	21.23
15	1	37		21.20	21.04	21.18
15	1	74		21.24	21.08	21.25
15	36	0		20.40	20.39	20.33
15	36	20		20.41	20.33	20.40



15	36	39		20.32	20.32	20.39
15	75	0		20.39	20.34	20.45
15	1	0	64-QAM	20.29	20.39	20.51
15	1	37		20.33	20.39	20.48
15	1	74		20.36	20.29	20.36
15	36	0		19.63	19.51	19.61
15	36	20		19.61	19.53	19.64
15	36	39		19.56	19.52	19.60
15	75	0		19.62	19.56	19.66



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.45	22.41	22.45
10	1	25		22.35	22.32	22.48
10	1	49		22.39	22.32	22.46
10	25	0		21.41	21.34	21.40
10	25	12		21.42	21.33	21.37
10	25	25		21.36	21.34	21.44
10	50	0		21.43	21.37	21.42
10	1	0	16-QAM	21.19	21.23	21.21
10	1	25		21.25	21.07	21.20
10	1	49		21.22	21.07	21.26
10	25	0		20.43	20.32	20.42
10	25	12		20.41	20.32	20.40
10	25	25		20.40	20.34	20.49
10	50	0		20.43	20.33	20.44
10	1	0	64-QAM	20.29	20.34	20.36
10	1	25		20.26	20.34	20.33
10	1	49		20.31	20.23	20.35
10	25	0		19.59	19.53	19.59
10	25	12		19.60	19.57	19.61
10	25	25		19.61	19.48	19.60
10	50	0		19.63	19.57	19.69
5	1	0	QPSK	22.40	22.34	22.45
5	1	12		22.39	22.26	22.44
5	1	24		22.35	22.28	22.44
5	12	0		21.38	21.34	21.40
5	12	7		21.34	21.26	21.40
5	12	13		21.39	21.26	21.39
5	25	0		21.32	21.31	21.41
5	1	0	16-QAM	21.23	21.04	21.21
5	1	12		21.10	21.02	21.22
5	1	24		21.09	21.07	21.24
5	12	0		20.26	20.25	20.30
5	12	7		20.24	20.26	20.34



5	12	13		20.30	20.17	20.27
5	25	0		20.32	20.39	20.41
5	1	0	64-QAM	20.38	20.24	20.27
5	1	12		20.42	20.25	20.14
5	1	24		20.27	20.23	20.26
5	12	0		19.47	19.45	19.48
5	12	7		19.42	19.48	19.52
5	12	13		19.46	19.45	19.54
5	25	0		19.51	19.51	19.58



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.39	22.30	22.32
3	1	8		22.33	22.32	22.49
3	1	14		22.35	22.34	22.45
3	8	0		21.33	21.29	21.43
3	8	4		21.34	21.32	21.47
3	8	7		21.33	21.24	21.46
3	15	0		21.34	21.23	21.42
3	1	0	16-QAM	21.29	21.03	21.17
3	1	8		21.25	21.07	21.23
3	1	14		21.27	21.05	21.33
3	8	0		20.29	20.19	20.43
3	8	4		20.30	20.22	20.43
3	8	7		20.26	20.30	20.38
3	15	0		20.35	20.25	20.39
3	1	0	64-QAM	20.25	20.20	20.41
3	1	8		20.27	20.27	20.38
3	1	14		20.21	20.09	20.44
3	8	0		19.58	19.58	19.66
3	8	4		19.56	19.54	19.65
3	8	7		19.53	19.45	19.64
3	15	0		19.52	19.51	19.58
1.4	1	0	QPSK	22.30	22.26	22.38
1.4	1	3		22.36	22.25	22.38
1.4	1	5		22.38	22.27	22.37
1.4	3	0		22.32	22.35	22.32
1.4	3	1		22.34	22.27	22.36
1.4	3	3		22.36	22.33	22.41
1.4	6	0		21.33	21.23	21.42
1.4	1	0	16-QAM	21.20	21.02	21.17
1.4	1	3		21.13	21.06	21.21
1.4	1	5		21.17	21.04	21.17
1.4	3	0		21.17	21.01	21.26
1.4	3	1		21.15	21.17	21.23



1.4	3	3		21.26	21.04	21.33
1.4	6	0		20.29	20.23	20.34
1.4	1	0	64-QAM	20.27	20.16	20.18
1.4	1	3		20.28	20.25	20.26
1.4	1	5		20.15	20.22	20.21
1.4	3	0		20.48	20.40	20.54
1.4	3	1		20.50	20.42	20.52
1.4	3	3		20.53	20.48	20.57
1.4	6	0		19.71	19.60	19.70



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.81	22.85	22.82
10	1	25		22.78	22.75	22.71
10	1	49		22.74	22.81	22.73
10	25	0		21.81	21.93	21.86
10	25	12		21.82	21.89	21.88
10	25	25		21.86	21.85	21.78
10	50	0		21.83	21.85	21.80
10	1	0	16-QAM	21.67	21.65	21.63
10	1	25		21.65	21.60	21.70
10	1	49		21.63	21.74	21.52
10	25	0		20.81	20.89	20.98
10	25	12		20.82	20.90	20.86
10	25	25		20.76	20.85	20.84
10	50	0		20.79	20.92	20.88
10	1	0	64-QAM	20.94	20.93	20.94
10	1	25		21.06	20.80	21.00
10	1	49		20.87	20.83	20.95
10	25	0		19.79	19.86	19.91
10	25	12		19.79	19.97	19.90
10	25	25		19.72	19.86	19.82
10	50	0		19.82	19.94	19.94
5	1	0	QPSK	22.75	22.79	22.75
5	1	12		22.71	22.75	22.79
5	1	24		22.79	22.75	22.75
5	12	0		21.81	21.84	21.88
5	12	7		21.79	21.84	21.89
5	12	13		21.82	21.84	21.90
5	25	0		21.83	21.85	21.90
5	1	0	16-QAM	21.61	21.52	21.73
5	1	12		21.67	21.49	21.63
5	1	24		21.68	21.72	21.56
5	12	0		20.75	20.85	20.83
5	12	7		20.74	20.78	20.81



5	12	13		20.71	20.69	20.80
5	25	0		20.84	20.91	20.88
5	1	0	64-QAM	20.66	20.67	20.81
5	1	12		20.52	20.61	20.59
5	1	24		20.47	20.65	20.70
5	12	0		19.71	19.82	19.87
5	12	7		19.69	19.84	19.80
5	12	13		19.71	19.76	19.73
5	25	0		19.83	19.86	19.88



LTE Band 5 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.84	22.78	22.78
3	1	8		22.78	22.74	22.78
3	1	14		22.74	22.78	22.78
3	8	0		21.82	21.89	21.93
3	8	4		21.79	21.86	21.90
3	8	7		21.85	21.89	21.87
3	15	0		21.85	21.85	21.87
3	1	0	16-QAM	21.63	21.75	21.69
3	1	8		21.69	21.61	21.63
3	1	14		21.61	21.65	21.71
3	8	0		20.85	20.91	20.93
3	8	4		20.82	20.83	20.86
3	8	7		20.76	20.83	20.88
3	15	0		20.76	20.83	20.87
3	1	0	64-QAM	20.67	20.60	20.69
3	1	8		20.52	20.67	20.67
3	1	14		20.67	20.60	20.76
3	8	0		19.73	19.91	19.92
3	8	4		19.80	19.87	19.89
3	8	7		19.81	19.93	19.93
3	15	0		19.80	19.86	19.91
1.4	1	0	QPSK	22.75	22.75	22.75
1.4	1	3		22.78	22.78	22.75
1.4	1	5		22.80	22.75	22.79
1.4	3	0		22.79	22.75	22.79
1.4	3	1		22.77	22.79	22.75
1.4	3	3		22.76	22.78	22.75
1.4	6	0		21.75	21.81	21.89
1.4	1	0	16-QAM	21.66	21.59	21.79
1.4	1	3		21.66	21.63	21.63
1.4	1	5		21.68	21.68	21.55
1.4	3	0		21.64	21.81	21.70
1.4	3	1		21.73	21.71	21.72



1.4	3	3		21.66	21.68	21.74
1.4	6	0		20.74	20.88	20.80
1.4	1	0	64-QAM	20.47	20.49	20.61
1.4	1	3		20.43	20.64	20.52
1.4	1	5		20.41	20.60	20.47
1.4	3	0		20.69	20.78	20.80
1.4	3	1		20.71	20.72	20.85
1.4	3	3		20.68	20.70	20.77
1.4	6	0		19.89	19.99	19.97



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.83	22.86	22.77
15	1	37		22.79	22.78	22.58
15	1	74		22.59	22.68	22.69
15	36	0		21.81	21.93	21.96
15	36	20		21.82	21.89	21.89
15	36	39		21.86	21.85	21.86
15	75	0	16-QAM	21.83	21.85	21.86
15	1	0		21.61	21.52	21.73
15	1	37		21.67	21.49	21.63
15	1	74		21.68	21.72	21.56
15	36	0		20.75	20.85	20.83
15	36	20		20.74	20.78	20.81
15	36	39	64-QAM	20.71	20.69	20.80
15	75	0		20.84	20.91	20.88
15	1	0		20.66	20.67	20.81
15	1	37		20.52	20.61	20.59
15	1	74		20.47	20.65	20.70
15	36	0		19.71	19.82	19.87
15	36	20	QPSK	19.69	19.84	19.80
15	36	39		19.71	19.76	19.73
15	75	0		19.83	19.86	19.88
10	1	0		22.74	22.78	22.78
10	1	25		22.78	22.74	22.78
10	1	49		22.74	22.78	22.78
10	25	0	16-QAM	21.82	21.89	21.93
10	25	12		21.79	21.86	21.90
10	25	25		21.85	21.89	21.87
10	50	0		21.85	21.85	21.87
10	1	0		21.63	21.75	21.69
10	1	25		21.69	21.61	21.63
10	1	49	16-QAM	21.61	21.65	21.71
10	25	0		20.85	20.91	20.93
10	25	12		20.82	20.83	20.86



10	25	25		20.76	20.83	20.88
10	50	0		20.76	20.83	20.87
10	1	0	64-QAM	20.67	20.60	20.69
10	1	25		20.52	20.67	20.67
10	1	49		20.67	20.60	20.76
10	25	0		19.73	19.91	19.92
10	25	12		19.80	19.87	19.89
10	25	25		19.81	19.93	19.93
10	50	0		19.80	19.86	19.91



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	22.75	22.75	22.75
5	1	12		22.78	22.78	22.75
5	1	24		22.80	22.75	22.79
5	12	0		22.79	22.75	22.79
5	12	7		22.77	22.79	22.75
5	12	13		22.76	22.78	22.75
5	25	0	16-QAM	21.75	21.81	21.89
5	1	0		21.66	21.59	21.79
5	1	12		21.66	21.63	21.63
5	1	24		21.68	21.68	21.55
5	12	0		21.64	21.81	21.70
5	12	7		21.73	21.71	21.72
5	12	13	64-QAM	21.66	21.68	21.74
5	25	0		20.74	20.88	20.80
5	1	0		20.47	20.49	20.61
5	1	12		20.43	20.64	20.52
5	1	24		20.41	20.60	20.47
5	12	0		20.69	20.78	20.80
5	12	7	QPSK	20.71	20.72	20.85
5	12	13		20.68	20.70	20.77
5	25	0		19.89	19.99	19.97
3	1	0		22.74	22.74	22.74
3	1	8		22.78	22.75	22.71
3	1	14		22.74	22.74	22.73
3	8	0	16-QAM	21.81	21.93	21.86
3	8	4		21.82	21.89	21.88
3	8	7		21.86	21.85	21.78
3	15	0		21.83	21.85	21.80
3	1	0		21.67	21.65	21.63
3	1	8		21.65	21.56	21.70
3	1	14	16-QAM	21.63	21.46	21.52
3	8	0		20.81	20.89	20.98
3	8	4		20.82	20.90	20.86



3	8	7		20.76	20.85	20.84
3	15	0		20.79	20.92	20.88
3	1	0	64-QAM	20.94	20.93	20.94
3	1	8		21.06	20.80	21.00
3	1	14		20.87	20.83	20.95
3	8	0		19.79	19.86	19.91
3	8	4		19.79	19.97	19.90
3	8	7		19.72	19.86	19.82
3	15	0		19.82	19.94	19.94



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.19	22.17	22.67
1.4	1	3		22.21	22.20	22.55
1.4	1	5		22.19	22.19	22.65
1.4	3	0		22.24	22.19	22.56
1.4	3	1		22.21	22.15	22.57
1.4	3	3		22.22	22.13	22.53
1.4	6	0		21.20	21.10	21.56
1.4	1	0	16-QAM	21.10	21.20	21.56
1.4	1	3		21.16	21.18	21.56
1.4	1	5		21.18	21.16	21.46
1.4	3	0		21.08	21.10	21.46
1.4	3	1		21.09	21.02	21.39
1.4	3	3		21.06	21.26	21.33
1.4	6	0		20.16	20.16	20.56
1.4	1	0	64-QAM	20.85	20.77	20.88
1.4	1	3		20.72	20.81	20.81
1.4	1	5		20.89	20.70	20.99
1.4	3	0		21.26	21.27	21.53
1.4	3	1		21.12	21.15	21.51
1.4	3	3		21.14	21.16	21.51
1.4	6	0		20.24	20.23	20.61



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.15	22.24	22.33
20	1	49		22.18	22.22	22.23
20	1	99		22.06	22.10	22.13
20	50	0		21.22	21.28	21.29
20	50	24		21.22	21.16	21.26
20	50	50		21.21	21.15	21.18
20	100	0		21.20	21.18	21.25
20	1	0	16-QAM	21.14	21.07	21.23
20	1	49		21.18	21.01	21.13
20	1	99		21.05	21.10	21.07
20	50	0		20.20	20.22	20.33
20	50	24		20.22	20.20	20.25
20	50	50		20.22	20.17	20.23
20	100	0		20.23	20.19	20.27
20	1	0	64-QAM	20.25	20.25	20.27
20	1	49		20.13	20.11	20.21
20	1	99		20.22	20.15	20.17
20	50	0		19.49	19.51	19.52
20	50	24		19.41	19.47	19.53
20	50	50		19.41	19.44	19.52
20	100	0		19.41	19.35	19.47
15	1	0	QPSK	22.23	22.25	22.32
15	1	37		22.18	22.29	22.25
15	1	74		22.14	22.27	22.26
15	36	0		21.18	21.21	21.25
15	36	20		21.21	21.21	21.24
15	36	39		21.17	21.19	21.18
15	75	0		21.19	21.18	21.18
15	1	0	16-QAM	21.05	21.04	21.05
15	1	37		21.05	21.08	21.07
15	1	74		21.06	21.01	21.05
15	36	0		20.16	20.20	20.22
15	36	20		20.19	20.14	20.20



15	36	39		20.14	20.15	20.18
15	75	0		20.17	20.23	20.28
15	1	0	64-QAM	20.27	20.11	20.20
15	1	37		20.16	20.11	20.09
15	1	74		20.21	20.15	20.07
15	36	0		19.43	19.49	19.42
15	36	20		19.36	19.41	19.42
15	36	39		19.44	19.38	19.37
15	75	0		19.42	19.38	19.40



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.23	22.29	22.31
10	1	25		22.22	22.24	22.28
10	1	49		22.19	22.20	22.28
10	25	0		21.18	21.18	21.25
10	25	12		21.19	21.19	21.19
10	25	25		21.10	21.21	21.25
10	50	0		21.18	21.19	21.31
10	1	0	16-QAM	21.07	21.07	21.04
10	1	25		21.12	21.01	21.04
10	1	49		21.08	21.02	21.03
10	25	0		20.14	20.21	20.32
10	25	12		20.24	20.20	20.29
10	25	25		20.18	20.22	20.27
10	50	0		20.17	20.22	20.26
10	1	0	64-QAM	20.10	20.27	20.35
10	1	25		20.12	20.26	20.30
10	1	49		20.20	20.12	20.21
10	25	0		19.41	19.41	19.44
10	25	12		19.36	19.36	19.46
10	25	25		19.35	19.37	19.38
10	50	0		19.40	19.46	19.46
5	1	0	QPSK	22.18	22.26	22.32
5	1	12		22.23	22.25	22.28
5	1	24		22.17	22.23	22.28
5	12	0		21.19	21.19	21.22
5	12	7		21.16	21.21	21.22
5	12	13		21.18	21.15	21.24
5	25	0		21.20	21.23	21.30
5	1	0	16-QAM	21.17	21.03	21.04
5	1	12		21.32	21.00	21.10
5	1	24		21.06	21.12	21.07
5	12	0		20.14	20.13	20.23
5	12	7		20.12	20.14	20.22



5	12	13		20.14	20.11	20.20
5	25	0		20.23	20.18	20.27
5	1	0	64-QAM	20.09	20.20	20.11
5	1	12		20.15	20.22	20.20
5	1	24		20.14	20.14	20.18
5	12	0		19.30	19.34	19.45
5	12	7		19.32	19.35	19.45
5	12	13		19.34	19.36	19.36
5	25	0		19.33	19.42	19.48



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.54	22.61	22.59
10	1	25		22.51	22.53	22.43
10	1	49		22.49	22.50	22.45
10	25	0		21.46	21.51	21.49
10	25	12		21.50	21.43	21.44
10	25	25		21.44	21.46	21.42
10	50	0		21.49	21.48	21.47
10	1	0	16-QAM	21.27	21.46	21.10
10	1	25		21.19	21.36	21.15
10	1	49		21.12	21.35	21.13
10	25	0		20.44	20.41	20.31
10	25	12		20.42	20.47	20.38
10	25	25		20.37	20.39	20.29
10	50	0		20.41	20.42	20.39
10	1	0	64-QAM	20.45	20.48	20.32
10	1	25		20.44	20.41	20.42
10	1	49		20.47	20.49	20.29
10	25	0		19.63	19.70	19.52
10	25	12		19.67	19.68	19.46
10	25	25		19.64	19.60	19.49
10	50	0		19.59	19.61	19.61
5	1	0	QPSK	22.60	22.59	22.58
5	1	12		22.50	22.43	22.46
5	1	24		22.53	22.45	22.41
5	12	0		21.48	21.49	21.46
5	12	7		21.49	21.44	21.42
5	12	13		21.49	21.42	21.40
5	25	0		21.48	21.47	21.43
5	1	0	16-QAM	21.43	21.10	21.10
5	1	12		21.26	21.15	21.17
5	1	24		21.23	21.13	21.18
5	12	0		20.34	20.31	20.30
5	12	7		20.38	20.38	20.30



5	12	13		20.38	20.29	20.34
5	25	0		20.42	20.39	20.39
5	1	0	64-QAM	20.32	20.32	20.43
5	1	12		20.29	20.42	20.39
5	1	24		20.38	20.29	20.31
5	12	0		19.62	19.52	19.54
5	12	7		19.56	19.46	19.51
5	12	13		19.53	19.49	19.56
5	25	0		19.67	19.61	19.60



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.52	22.46	22.54
3	1	8		22.53	22.52	22.51
3	1	14		22.50	22.47	22.49
3	8	0		21.48	21.48	21.46
3	8	4		21.43	21.49	21.50
3	8	7		21.46	21.44	21.44
3	15	0		21.48	21.45	21.49
3	1	0	16-QAM	21.46	21.34	21.27
3	1	8		21.36	21.16	21.19
3	1	14		21.35	21.07	21.12
3	8	0		20.41	20.36	20.44
3	8	4		20.47	20.36	20.42
3	8	7		20.39	20.35	20.37
3	15	0		20.42	20.33	20.41
3	1	0	64-QAM	20.48	20.37	20.45
3	1	8		20.41	20.38	20.44
3	1	14		20.49	20.47	20.47
3	8	0		19.70	19.58	19.63
3	8	4		19.68	19.65	19.67
3	8	7		19.60	19.65	19.64
3	15	0		19.61	19.53	19.59
1.4	1	0	QPSK	22.43	22.40	22.39
1.4	1	3		22.49	22.45	22.47
1.4	1	5		22.45	22.49	22.43
1.4	3	0		22.53	22.43	22.47
1.4	3	1		22.46	22.42	22.43
1.4	3	3		22.47	22.41	22.39
1.4	6	0		21.48	21.38	21.40
1.4	1	0	16-QAM	21.50	21.16	21.23
1.4	1	3		21.47	21.24	21.29
1.4	1	5		21.43	21.26	21.36
1.4	3	0		21.38	21.32	21.30
1.4	3	1		21.35	21.23	21.37



1.4	3	3		21.32	21.34	21.28
1.4	6	0		20.46	20.41	20.44
1.4	1	0	64-QAM	20.26	20.47	20.48
1.4	1	3		20.39	20.42	20.39
1.4	1	5		20.39	20.28	20.38
1.4	3	0		20.64	20.51	20.53
1.4	3	1		20.61	20.51	20.54
1.4	3	3		20.55	20.47	20.53
1.4	6	0		19.69	19.64	19.63



LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK		22.42	
10	1	25			22.33	
10	1	49			22.20	
10	25	0			21.31	
10	25	12			21.29	
10	25	25			21.20	
10	50	0			21.28	
10	1	0	16-QAM		21.17	
10	1	25			21.16	
10	1	49			21.12	
10	25	0			20.27	
10	25	12			20.18	
10	25	25			20.18	
10	50	0			20.20	
10	1	0	64-QAM		20.32	
10	1	25			20.22	
10	1	49			20.10	
10	25	0			19.42	
10	25	12			19.42	
10	25	25			19.38	
10	50	0			19.48	
5	1	0	QPSK	22.41	22.34	22.40
5	1	12		22.39	22.23	22.32
5	1	24		22.34	22.27	22.33
5	12	0		21.36	21.24	21.30
5	12	7		21.28	21.23	21.28
5	12	13		21.31	21.19	21.27
5	25	0		21.28	21.23	21.27
5	1	0	16-QAM	21.16	21.11	21.01
5	1	12		21.11	21.16	21.18
5	1	24		21.03	21.12	21.10
5	12	0		20.20	20.20	20.21
5	12	7		20.25	20.12	20.16



5	12	13		20.16	20.08	20.15
5	25	0		20.25	20.19	20.27
5	1	0	64-QAM	20.33	20.32	20.21
5	1	12		20.23	20.17	20.16
5	1	24		20.18	20.12	20.24
5	12	0		19.40	19.33	19.39
5	12	7		19.37	19.36	19.36
5	12	13		19.36	19.29	19.42
5	25	0		19.47	19.38	19.45



LTE Band 17 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.46	22.52	22.45
10	1	25		22.44	22.39	22.31
10	1	49		22.37	22.30	22.29
10	25	0		21.43	21.45	21.41
10	25	12		21.44	21.37	21.39
10	25	25		21.37	21.36	21.34
10	50	0		21.43	21.41	21.38
10	1	0	16-QAM	21.42	21.19	21.18
10	1	25		21.27	21.03	21.13
10	1	49		21.20	21.02	21.00
10	25	0		20.46	20.47	20.40
10	25	12		20.38	20.35	20.39
10	25	25		20.33	20.38	20.26
10	50	0		20.44	20.42	20.33
10	1	0	64-QAM	20.31	20.48	20.34
10	1	25		20.26	20.41	20.34
10	1	49		20.17	20.33	20.35
10	25	0		19.70	19.58	19.56
10	25	12		19.57	19.61	19.55
10	25	25		19.54	19.57	19.48
10	50	0		19.64	19.62	19.58
5	1	0	QPSK	22.51	22.49	22.44
5	1	12		22.37	22.39	22.34
5	1	24		22.38	22.36	22.33
5	12	0		21.39	21.40	21.36
5	12	7		21.39	21.44	21.34
5	12	13		21.31	21.37	21.31
5	25	0		21.39	21.38	21.30
5	1	0	16-QAM	21.23	21.03	21.22
5	1	12		21.12	21.19	21.08
5	1	24		21.18	21.14	21.06
5	12	0		20.35	20.32	20.18
5	12	7		20.25	20.32	20.20



5	12	13		20.23	20.27	20.24
5	25	0		20.38	20.38	20.37
5	1	0	64-QAM	20.21	20.40	20.44
5	1	12		20.26	20.34	20.33
5	1	24		20.31	20.20	20.34
5	12	0		19.54	19.47	19.43
5	12	7		19.50	19.42	19.47
5	12	13		19.48	19.44	19.42
5	25	0		19.52	19.56	19.47



LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.76	22.61	22.61
20	1	49		22.66	22.54	22.57
20	1	99		22.61	22.51	22.48
20	50	0		21.69	21.51	21.53
20	50	24		21.65	21.47	21.50
20	50	50		21.61	21.47	21.45
20	100	0		21.65	21.48	21.49
20	1	0	16-QAM	21.67	21.51	21.54
20	1	49		21.56	21.45	21.46
20	1	99		21.50	21.41	21.37
20	50	0		20.69	20.55	20.55
20	50	24		20.68	20.51	20.52
20	50	50		20.63	20.47	20.46
20	100	0		20.71	20.54	20.56
20	1	0	64-QAM	20.53	20.43	20.32
20	1	49		20.41	20.34	20.27
20	1	99		20.43	20.26	20.16
20	50	0		20.00	19.79	19.85
20	50	24		19.96	19.77	19.81
20	50	50		19.93	19.74	19.78
20	100	0		19.96	19.77	19.79
15	1	0	QPSK	22.71	22.60	22.61
15	1	37		22.62	22.53	22.57
15	1	74		22.62	22.50	22.50
15	36	0		21.65	21.50	21.51
15	36	20		21.59	21.49	21.49
15	36	39		21.58	21.47	21.45
15	75	0		21.62	21.49	21.48
15	1	0	16-QAM	21.46	21.56	21.55
15	1	37		21.40	21.49	21.49
15	1	74		21.38	21.48	21.45
15	36	0		20.63	20.49	20.51
15	36	20		20.58	20.46	20.48



15	36	39		20.56	20.44	20.44
15	75	0		20.66	20.52	20.53
15	1	0	64-QAM	20.56	20.40	20.39
15	1	37		20.52	20.40	20.31
15	1	74		20.47	20.32	20.26
15	36	0		19.91	19.80	19.78
15	36	20		19.86	19.77	19.76
15	36	39		19.83	19.75	19.72
15	75	0		19.87	19.78	19.75



LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.68	22.57	22.61
10	1	25		22.63	22.53	22.59
10	1	49		22.60	22.53	22.54
10	25	0		21.61	21.51	21.53
10	25	12		21.60	21.50	21.50
10	25	25		21.56	21.47	21.47
10	50	0		21.58	21.49	21.48
10	1	0	16-QAM	21.68	21.58	21.53
10	1	25		21.61	21.53	21.47
10	1	49		21.52	21.52	21.42
10	25	0		20.70	20.56	20.63
10	25	12		20.66	20.53	20.61
10	25	25		20.63	20.53	20.58
10	50	0		20.61	20.50	20.52
10	1	0	64-QAM	20.60	20.35	20.32
10	1	25		20.47	20.36	20.30
10	1	49		20.44	20.33	20.19
10	25	0		19.86	19.72	19.75
10	25	12		19.82	19.72	19.73
10	25	25		19.81	19.70	19.71
10	50	0		19.91	19.79	19.80
5	1	0	QPSK	22.69	22.58	22.65
5	1	12		22.66	22.58	22.61
5	1	24		22.62	22.55	22.57
5	12	0		21.62	21.49	21.53
5	12	7		21.61	21.50	21.52
5	12	13		21.59	21.48	21.50
5	25	0		21.62	21.50	21.52
5	1	0	16-QAM	21.54	21.54	21.61
5	1	12		21.53	21.53	21.62
5	1	24		21.49	21.55	21.47
5	12	0		20.63	20.46	20.57
5	12	7		20.59	20.45	20.55



5	12	13		20.57	20.48	20.54
5	25	0		20.69	20.56	20.61
5	1	0	64-QAM	20.56	20.33	20.52
5	1	12		20.59	20.38	20.37
5	1	24		20.44	20.33	20.43
5	12	0		19.80	19.65	19.70
5	12	7		19.76	19.66	19.71
5	12	13		19.76	19.67	19.70
5	25	0		19.83	19.74	19.75



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.37	22.76	22.69
20	1	49		22.34	22.72	22.66
20	1	99		22.34	22.68	22.60
20	50	0		21.34	21.69	21.59
20	50	24		21.33	21.66	21.57
20	50	50		21.33	21.62	21.54
20	100	0		21.33	21.67	21.56
20	1	0	16-QAM	21.30	21.77	21.56
20	1	49		21.28	21.67	21.51
20	1	99		21.29	21.65	21.44
20	50	0		20.34	20.73	20.62
20	50	24		20.35	20.69	20.58
20	50	50		20.34	20.66	20.55
20	100	0		20.38	20.73	20.61
20	1	0	64-QAM	20.59	20.92	20.77
20	1	49		20.54	20.87	20.72
20	1	99		20.50	20.90	20.64
20	50	0		19.86	20.22	20.12
20	50	24		19.83	20.16	20.08
20	50	50		19.84	20.15	20.08
20	100	0		19.85	20.19	20.10
15	1	0	QPSK	22.35	22.74	22.65
15	1	37		22.32	22.69	22.62
15	1	74		22.31	22.64	22.57
15	36	0		21.32	21.69	21.59
15	36	20		21.31	21.66	21.56
15	36	39		21.29	21.63	21.56
15	75	0		21.31	21.66	21.55
15	1	0	16-QAM	21.23	21.71	21.64
15	1	37		21.22	21.67	21.57
15	1	74		21.25	21.63	21.58
15	36	0		20.31	20.69	20.58
15	36	20		20.28	20.66	20.57



15	36	39		20.29	20.64	20.54
15	75	0		20.35	20.71	20.61
15	1	0	64-QAM	20.45	20.87	20.72
15	1	37		20.44	20.82	20.70
15	1	74		20.43	20.83	20.62
15	36	0		19.81	20.20	20.07
15	36	20		19.80	20.17	20.06
15	36	39		19.79	20.15	20.04
15	75	0		19.80	20.18	20.07



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.38	22.73	22.68
10	1	25		22.38	22.73	22.67
10	1	49		22.35	22.73	22.66
10	25	0		21.32	21.66	21.59
10	25	12		21.32	21.66	21.56
10	25	25		21.29	21.64	21.53
10	50	0		21.33	21.67	21.57
10	1	0	16-QAM	21.39	21.72	21.57
10	1	25		21.40	21.69	21.54
10	1	49		21.33	21.60	21.52
10	25	0		20.41	20.76	20.66
10	25	12		20.40	20.74	20.64
10	25	25		20.40	20.72	20.62
10	50	0		20.36	20.70	20.59
10	1	0	64-QAM	20.54	20.80	20.81
10	1	25		20.56	20.78	20.75
10	1	49		20.50	20.74	20.71
10	25	0		19.78	20.13	20.03
10	25	12		19.78	20.10	20.01
10	25	25		19.77	20.12	20.02
10	50	0		19.85	20.20	20.11
5	1	0	QPSK	22.33	22.68	22.66
5	1	12		22.31	22.66	22.64
5	1	24		22.28	22.63	22.61
5	12	0		21.31	21.66	21.57
5	12	7		21.32	21.66	21.56
5	12	13		21.30	21.64	21.54
5	25	0		21.29	21.65	21.56
5	1	0	16-QAM	21.29	21.64	21.62
5	1	12		21.31	21.63	21.61
5	1	24		21.27	21.59	21.58
5	12	0		20.34	20.66	20.62
5	12	7		20.34	20.66	20.62



5	12	13		20.35	20.64	20.60
5	25	0		20.39	20.77	20.65
5	1	0	64-QAM	20.60	20.73	20.71
5	1	12		20.46	20.71	20.69
5	1	24		20.50	20.68	20.68
5	12	0		19.72	20.06	19.99
5	12	7		19.70	20.05	19.99
5	12	13		19.70	20.03	19.99
5	25	0		19.77	20.14	20.02



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.22	22.29	22.33
20	1	49		22.57	22.15	22.12
20	1	99		22.58	22.25	22.26
20	50	0		21.47	21.40	21.43
20	50	24		21.53	21.24	21.21
20	50	50		21.53	21.22	21.25
20	100	0		21.45	21.21	21.18
20	1	0	16-QAM	21.34	21.66	21.60
20	1	49		21.64	21.59	21.52
20	1	99		21.82	21.56	21.56
20	50	0		20.35	20.42	20.46
20	50	24		20.44	20.25	20.25
20	50	50		20.45	20.39	20.41
20	100	0		20.40	20.24	20.23
20	1	0	64-QAM	20.76	20.70	20.79
20	1	49		20.75	20.54	20.60
20	1	99		20.84	20.55	20.76
20	50	0		19.51	19.61	19.69
20	50	24		19.60	19.45	19.49
20	50	50		19.62	19.23	19.19
20	100	0		19.58	19.44	19.48
15	1	0	QPSK	22.15	22.36	22.25
15	1	37		22.42	22.48	22.27
15	1	74		22.36	22.12	22.00
15	36	0		21.31	21.64	21.58
15	36	20		21.37	21.44	21.33
15	36	39		21.35	21.23	21.14
15	75	0		21.29	21.40	21.34
15	1	0	16-QAM	21.21	21.52	21.56
15	1	37		21.59	21.57	21.46
15	1	74		21.56	21.27	21.22
15	36	0		20.21	20.54	20.55
15	36	20		20.30	20.35	20.31



15	36	39		20.28	20.15	20.12
15	75	0		20.24	20.34	20.34
15	1	0	64-QAM	20.69	20.91	20.97
15	1	37		20.61	20.61	20.53
15	1	74		20.74	20.56	20.76
15	36	0		19.83	19.67	19.75
15	36	20		19.89	19.48	19.50
15	36	39		19.64	19.56	19.56
15	75	0		19.49	19.50	19.53



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.12	22.39	22.41
10	1	25		22.55	22.34	22.39
10	1	49		22.25	22.41	22.34
10	25	0		21.34	21.63	21.46
10	25	12		21.47	21.53	21.39
10	25	25		21.41	21.31	21.24
10	50	0		21.36	21.42	21.35
10	1	0	16-QAM	21.59	21.64	21.59
10	1	25		21.74	21.74	21.72
10	1	49		21.40	21.64	21.31
10	25	0		20.25	20.52	20.43
10	25	12		20.38	20.46	20.38
10	25	25		20.34	20.21	20.24
10	50	0		20.29	20.34	20.35
10	1	0	64-QAM	20.69	20.63	20.62
10	1	25		20.61	20.67	20.57
10	1	49		20.74	20.61	20.27
10	25	0		19.83	19.64	19.61
10	25	12		19.89	19.56	19.57
10	25	25		19.64	19.64	19.42
10	50	0		19.49	19.51	19.53
5	1	0	QPSK	22.27	22.27	22.49
5	1	12		22.44	22.22	22.44
5	1	24		22.39	22.27	22.27
5	12	0		21.31	21.31	21.04
5	12	7		21.38	21.24	21.03
5	12	13		21.39	21.13	21.39
5	25	0		21.31	21.21	21.01
5	1	0	16-QAM	21.30	21.46	21.19
5	1	12		21.55	21.47	21.32
5	1	24		21.60	21.23	21.47
5	12	0		20.21	20.29	20.05
5	12	7		20.31	20.26	20.02



5	12	13		20.34	20.18	20.01
5	25	0		20.27	20.23	20.03
5	1	0	64-QAM	20.31	20.58	20.32
5	1	12		20.65	20.44	20.26
5	1	24		20.63	20.27	20.21
5	12	0		19.36	19.45	19.19
5	12	7		19.45	19.44	19.20
5	12	13		19.44	19.34	19.16
5	25	0		19.87	19.41	19.44



LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.49	22.05	22.01
3	1	8		22.22	22.22	22.44
3	1	14		22.27	22.27	22.27
3	8	0		21.50	21.40	21.55
3	8	4		21.54	21.40	21.50
3	8	7		21.55	21.38	21.40
3	15	0		21.50	21.07	21.23
3	1	0	16-QAM	21.64	21.39	21.42
3	1	8		21.70	21.42	21.42
3	1	14		21.84	21.42	21.42
3	8	0		20.47	20.16	20.10
3	8	4		20.51	20.12	20.09
3	8	7		20.57	20.11	20.07
3	15	0		20.47	20.12	20.06
3	1	0	64-QAM	20.54	20.45	20.21
3	1	8		20.45	20.31	20.41
3	1	14		20.45	20.23	20.22
3	8	0		19.59	19.40	19.26
3	8	4		19.66	19.33	19.27
3	8	7		19.66	19.31	19.25
3	15	0		19.62	19.33	19.24
1.4	1	0	QPSK	22.22	22.49	22.27
1.4	1	3		22.56	22.22	22.22
1.4	1	5		22.51	22.27	22.27
1.4	3	0		22.39	22.05	22.01
1.4	3	1		22.39	22.22	22.44
1.4	3	3		22.37	22.27	22.27
1.4	6	0		21.37	21.23	21.10
1.4	1	0	16-QAM	21.67	21.40	21.40
1.4	1	3		21.67	21.23	21.40
1.4	1	5		21.65	21.40	21.23
1.4	3	0		21.41	21.04	21.23
1.4	3	1		21.40	21.02	21.14



1.4	3	3		21.43	21.14	21.10
1.4	6	0		20.35	20.56	20.26
1.4	1	0	64-QAM	20.59	20.28	20.21
1.4	1	3		20.65	20.18	20.28
1.4	1	5		20.56	20.26	20.56
1.4	3	0		20.46	20.19	20.12
1.4	3	1		20.55	20.18	20.10
1.4	3	3		20.52	20.14	20.08
1.4	6	0		19.46	19.19	19.08

ERP/EIRP

LTE Band 12 (GT - LC = -1.58 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
(MHz)									
Conducted Power (dBm)	22.53	22.43	22.47	22.52	22.46	22.54	22.60	22.59	22.58
Conducted Power (Watts)	0.1791	0.1750	0.1766	0.1786	0.1762	0.1795	0.1820	0.1816	0.1811
ERP(dBm)	18.80	18.70	18.74	18.79	18.73	18.81	18.87	18.86	18.85
ERP(Watts)	0.0759	0.0741	0.0748	0.0757	0.0746	0.0760	0.0771	0.0769	0.0767

LTE Band 12 (GT - LC = -1.58 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency	704	707.5	711
(MHz)			
Conducted Power (dBm)	22.54	22.61	22.59
Conducted Power (Watts)	0.1795	0.1824	0.1816
ERP(dBm)	18.81	18.88	18.86
ERP(Watts)	0.0760	0.0773	0.0769



LTE Band 12 (GT - LC = -1.58 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
(MHz)									
Conducted Power (dBm)	21.50	21.16	21.23	21.46	21.34	21.27	21.43	21.10	21.10
Conducted Power (Watts)	0.1413	0.1306	0.1327	0.1400	0.1361	0.1340	0.1390	0.1288	0.1288
ERP(dBm)	17.77	17.43	17.50	17.73	17.61	17.54	17.70	17.37	17.37
ERP(Watts)	0.0598	0.0553	0.0562	0.0593	0.0577	0.0568	0.0589	0.0546	0.0546

LTE Band 12 (GT - LC = -1.58 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency	704	707.5	711
(MHz)			
Conducted Power (dBm)	21.27	21.46	21.10
Conducted Power (Watts)	0.1340	0.1400	0.1288
ERP(dBm)	17.54	17.73	17.37
ERP(Watts)	0.0568	0.0593	0.0546



LTE Band 12 (GT - LC = -1.58 dB) 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	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
(MHz)									
Conducted Power (dBm)	20.64	20.51	20.53	20.49	20.47	20.47	20.32	20.32	20.43
Conducted Power (Watts)	0.1159	0.1125	0.1130	0.1119	0.1114	0.1114	0.1076	0.1076	0.1104
ERP(dBm)	16.91	16.78	16.80	16.76	16.74	16.74	16.59	16.59	16.70
ERP(Watts)	0.0491	0.0476	0.0479	0.0474	0.0472	0.0472	0.0456	0.0456	0.0468

LTE Band 12 (GT - LC = -1.58 dB) 64QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency	704	707.5	711
(MHz)			
Conducted Power (dBm)	20.47	20.49	20.29
Conducted Power (Watts)	0.1114	0.1119	0.1069
ERP(dBm)	16.74	16.76	16.56
ERP(Watts)	0.0472	0.0474	0.0453



LTE Band 13 (GT - LC = -1.58 dB) QPSK						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	22.41	22.34	22.40		22.42	-
Conducted Power (Watts)	0.1742	0.1714	0.1738		0.1746	-
ERP(dBm)	18.68	18.61	18.67		18.69	-
ERP(Watts)	0.0738	0.0726	0.0736		0.0740	-

LTE Band 13 (GT - LC = -1.58dB) 16QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	21.11	21.16	21.18		21.17	-
Conducted Power (Watts)	0.1291	0.1306	0.1312		0.1309	-
ERP(dBm)	17.38	17.43	17.45		17.44	-
ERP(Watts)	0.0547	0.0553	0.0556		0.0555	-

LTE Band 13 (GT - LC = -1.58dB) 64QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	20.33	20.32	20.21		20.32	-
Conducted Power (Watts)	0.1079	0.1076	0.1050		0.1076	-
ERP(dBm)	16.60	16.59	16.48		16.59	-
ERP(Watts)	0.0457	0.0456	0.0445		0.0456	-



LTE Band 25 (GT - LC = -0.23 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
(MHz)									
Conducted Power (dBm)	22.37	22.37	22.67	22.47	22.43	22.67	22.49	22.45	22.64
Conducted Power (Watts)	0.1726	0.1726	0.1849	0.1766	0.1750	0.1849	0.1774	0.1758	0.1837
EIRP(dBm)	22.14	22.14	22.44	22.24	22.20	22.44	22.26	22.22	22.41
EIRP(Watts)	0.1637	0.1637	0.1754	0.1675	0.1660	0.1754	0.1683	0.1667	0.1742

LTE Band 25 (GT - LC = -0.23 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
(MHz)									
Conducted Power (dBm)	22.51	22.44	22.64	22.50	22.44	22.61	22.40	22.35	22.74
Conducted Power (Watts)	0.1782	0.1754	0.1837	0.1778	0.1754	0.1824	0.1738	0.1718	0.1879
EIRP(dBm)	22.28	22.21	22.41	22.27	22.21	22.38	22.17	22.12	22.51
EIRP(Watts)	0.1690	0.1663	0.1742	0.1687	0.1663	0.1730	0.1648	0.1629	0.1782



LTE Band 25 (GT - LC = -0.23 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
(MHz)									
Conducted Power (dBm)	21.25	21.38	21.66	21.24	21.26	21.61	21.25	21.25	21.58
Conducted Power (Watts)	0.1334	0.1374	0.1466	0.1330	0.1337	0.1449	0.1334	0.1334	0.1439
EIRP(dBm)	21.02	21.15	21.43	21.01	21.03	21.38	21.02	21.02	21.35
EIRP(Watts)	0.1265	0.1303	0.1390	0.1262	0.1268	0.1374	0.1265	0.1265	0.1365

LTE Band 25 (GT - LC = -0.23 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
(MHz)									
Conducted Power (dBm)	21.30	21.36	21.67	21.16	21.26	21.60	22.40	22.35	22.74
Conducted Power (Watts)	0.1349	0.1368	0.1469	0.1306	0.1337	0.1445	0.1738	0.1718	0.1879
EIRP(dBm)	21.07	21.13	21.44	20.93	21.03	21.37	22.17	22.12	22.51
EIRP(Watts)	0.1279	0.1297	0.1393	0.1239	0.1268	0.1371	0.1648	0.1629	0.1782



LTE Band 25 (GT - LC = -0.23 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
(MHz)									
Conducted Power (dBm)	20.52	20.52	20.66	20.43	20.32	20.72	20.47	20.35	20.77
Conducted Power (Watts)	0.1127	0.1127	0.1164	0.1104	0.1076	0.1180	0.1114	0.1084	0.1194
EIRP(dBm)	20.29	20.29	20.43	20.20	20.09	20.49	20.24	20.12	20.54
EIRP(Watts)	0.1069	0.1069	0.1104	0.1047	0.1021	0.1119	0.1057	0.1028	0.1132

LTE Band 25 (GT - LC = -0.23 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
(MHz)									
Conducted Power (dBm)	20.28	20.31	20.60	20.27	20.28	20.72	20.62	20.62	20.86
Conducted Power (Watts)	0.1067	0.1074	0.1148	0.1064	0.1067	0.1180	0.1153	0.1153	0.1219
EIRP(dBm)	20.05	20.08	20.37	20.04	20.05	20.49	20.39	20.39	20.63
EIRP(Watts)	0.1012	0.1019	0.1089	0.1009	0.1012	0.1119	0.1094	0.1094	0.1156



LTE Band 26 (GT - LC = -1.45 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	22.16	22.14	22.64	22.75	22.72	22.68	22.77	22.72	22.76
Conducted Power (Watts)	0.1644	0.1637	0.1837	0.1884	0.1871	0.1854	0.1892	0.1871	0.1888
ERP(dBm)	18.56	18.54	19.04	19.15	19.12	19.08	19.17	19.12	19.16
ERP(Watts)	0.0718	0.0714	0.0802	0.0822	0.0817	0.0809	0.0826	0.0817	0.0824

LTE Band 26 (GT - LC = -1.45 dB) QPSK							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency	829	836.5	844	831.5	836.5	841.5	821.5
(MHz)							
Conducted Power (dBm)	22.71	22.75	22.75	22.81	22.78	22.65	22.79
Conducted Power (Watts)	0.1866	0.1884	0.1884	0.1910	0.1897	0.1841	0.1901
ERP(dBm)	19.11	19.15	19.15	19.21	19.18	19.05	19.19
ERP(Watts)	0.0815	0.0822	0.0822	0.0834	0.0828	0.0804	0.0830



LTE Band 26 (GT - LC = -1.45 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	21.07	21.17	21.53	21.62	21.53	21.67	21.61	21.78	21.67
Conducted Power (Watts)	0.1279	0.1309	0.1422	0.1452	0.1422	0.1469	0.1449	0.1507	0.1469
ERP(dBm)	17.47	17.57	17.93	18.02	17.93	18.07	18.01	18.18	18.07
ERP(Watts)	0.0558	0.0571	0.0621	0.0634	0.0621	0.0641	0.0632	0.0658	0.0641

LTE Band 26 (GT - LC = -1.45 dB) 16QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency	829	836.5	844	831.5	836.5	841.5	821.5
(MHz)							
Conducted Power (dBm)	21.60	21.72	21.66	21.72	21.69	21.53	21.68
Conducted Power (Watts)	0.1445	0.1486	0.1466	0.1486	0.1476	0.1422	0.1472
ERP(dBm)	18.00	18.12	18.06	18.12	18.09	17.93	18.08
ERP(Watts)	0.0631	0.0649	0.0640	0.0649	0.0644	0.0621	0.0643



LTE Band 26 (GT - LC = -1.45 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	21.23	21.24	21.50	21.03	20.77	20.97	20.68	20.69	20.82
Conducted Power (Watts)	0.1327	0.1330	0.1413	0.1268	0.1194	0.1250	0.1169	0.1172	0.1208
ERP(dBm)	17.63	17.64	17.90	17.43	17.17	17.37	17.08	17.09	17.22
ERP(Watts)	0.0579	0.0581	0.0617	0.0553	0.0521	0.0546	0.0511	0.0512	0.0527

LTE Band 26 (GT - LC = -1.45 dB) 64QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency	829	836.5	844	831.5	836.5	841.5	821.5
(MHz)							
Conducted Power (dBm)	20.64	20.57	20.73	20.67	20.64	20.78	20.66
Conducted Power (Watts)	0.1159	0.1140	0.1183	0.1167	0.1159	0.1197	0.1164
ERP(dBm)	17.04	16.97	17.13	17.07	17.04	17.18	17.06
ERP(Watts)	0.0506	0.0498	0.0516	0.0509	0.0506	0.0522	0.0508

LTE Band 41 ($G_T - L_C = -1.32\text{dB}$) QPSK									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	22.33	22.68	22.66	22.38	22.73	22.68	22.35	22.74	22.65
Conducted Power (Watts)	0.1710	0.1854	0.1845	0.1730	0.1875	0.1854	0.1718	0.1879	0.1841
EIRP(dBm)	21.01	21.36	21.34	21.06	21.41	21.36	21.03	21.42	21.33
EIRP(Watts)	0.1262	0.1368	0.1361	0.1276	0.1384	0.1368	0.1268	0.1387	0.1358

LTE Band 41 ($G_T - L_C = -1.32\text{dB}$) QPSK			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	22.37	22.76	22.69
Conducted Power (Watts)	0.1726	0.1888	0.1858
EIRP(dBm)	21.05	21.44	21.37
EIRP(Watts)	0.1274	0.1393	0.1371

LTE Band 41 ($G_T - L_C = -1.32\text{dB}$) 16QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	21.29	21.64	21.62	21.39	21.72	21.57	21.23	21.71	21.64
Conducted Power (Watts)	0.1346	0.1459	0.1452	0.1377	0.1486	0.1435	0.1327	0.1483	0.1459
EIRP(dBm)	19.97	20.32	20.30	20.07	20.40	20.25	19.91	20.39	20.32
EIRP(Watts)	0.0993	0.1076	0.1072	0.1016	0.1096	0.1059	0.0979	0.1094	0.1076

LTE Band 41 ($G_T - L_C = -1.32\text{dB}$) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	21.30	21.77	21.56
Conducted Power (Watts)	0.1349	0.1503	0.1432
EIRP(dBm)	19.98	20.45	20.24
EIRP(Watts)	0.0995	0.1109	0.1057

LTE Band 41 ($G_T - L_C = -1.32\text{dB}$) 64QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	21.16	21.29	21.27	21.10	21.36	21.37	21.01	21.43	21.28
Conducted Power (Watts)	0.1306	0.1346	0.1340	0.1288	0.1368	0.1371	0.1262	0.1390	0.1343
EIRP(dBm)	19.84	19.97	19.95	19.78	20.04	20.05	19.69	20.11	19.96
EIRP(Watts)	0.0964	0.0993	0.0989	0.0951	0.1009	0.1012	0.0931	0.1026	0.0991

LTE Band 41 ($G_T - L_C = -1.32\text{dB}$) 64QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	21.15	21.48	21.33
Conducted Power (Watts)	0.1303	0.1406	0.1358
EIRP(dBm)	19.83	20.16	20.01
EIRP(Watts)	0.0962	0.1038	0.1002



LTE Band 66 (GT - LC = 0.64 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
(MHz)									
Conducted Power (dBm)	22.56	22.22	22.22	22.49	22.05	22.01	22.27	22.27	22.49
Conducted Power (Watts)	0.1803	0.1667	0.1667	0.1774	0.1603	0.1589	0.1687	0.1687	0.1774
EIRP(dBm)	23.20	22.86	22.86	23.13	22.69	22.65	22.91	22.91	23.13
EIRP(Watts)	0.2089	0.1932	0.1932	0.2056	0.1858	0.1841	0.1954	0.1954	0.2056

LTE Band 66 (GT - LC = 0.64 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
(MHz)									
Conducted Power (dBm)	22.55	22.34	22.39	22.42	22.48	22.27	22.58	22.25	22.26
Conducted Power (Watts)	0.1799	0.1714	0.1734	0.1746	0.1770	0.1687	0.1811	0.1679	0.1683
EIRP(dBm)	23.19	22.98	23.03	23.06	23.12	22.91	23.22	22.89	22.90
EIRP(Watts)	0.2084	0.1986	0.2009	0.2023	0.2051	0.1954	0.2099	0.1945	0.1950

LTE Band 66 (GT - LC = 0.64 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
(MHz)									
Conducted Power (dBm)	21.67	21.23	21.40	21.84	21.42	21.42	21.60	21.23	21.47
Conducted Power (Watts)	0.1469	0.1327	0.1380	0.1528	0.1387	0.1387	0.1445	0.1327	0.1403
EIRP(dBm)	22.31	21.87	22.04	22.48	22.06	22.06	22.24	21.87	22.11
EIRP(Watts)	0.1702	0.1538	0.1600	0.1770	0.1607	0.1607	0.1675	0.1538	0.1626

LTE Band 66 (GT - LC = 0.64 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
(MHz)									
Conducted Power (dBm)	21.74	21.74	21.72	21.59	21.57	21.46	21.82	21.56	21.56
Conducted Power (Watts)	0.1493	0.1493	0.1486	0.1442	0.1435	0.1400	0.1521	0.1432	0.1432
EIRP(dBm)	22.38	22.38	22.36	22.23	22.21	22.10	22.46	22.20	22.20
EIRP(Watts)	0.1730	0.1730	0.1722	0.1671	0.1663	0.1622	0.1762	0.1660	0.1660



LTE Band 66 (GT - LC = 0.64 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
(MHz)									
Conducted Power (dBm)	20.65	20.18	20.28	20.54	20.45	20.21	20.65	20.44	20.26
Conducted Power (Watts)	0.1161	0.1042	0.1067	0.1132	0.1109	0.1050	0.1161	0.1107	0.1062
EIRP(dBm)	21.29	20.82	20.92	21.18	21.09	20.85	21.29	21.08	20.90
EIRP(Watts)	0.1346	0.1208	0.1236	0.1312	0.1285	0.1216	0.1346	0.1282	0.1230

LTE Band 66 (GT - LC = 0.64 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
(MHz)									
Conducted Power (dBm)	20.74	20.61	20.27	20.69	20.91	20.97	20.84	20.55	20.76
Conducted Power (Watts)	0.1186	0.1151	0.1064	0.1172	0.1233	0.1250	0.1213	0.1135	0.1191
EIRP(dBm)	21.38	21.25	20.91	21.33	21.55	21.61	21.48	21.19	21.40
EIRP(Watts)	0.1374	0.1334	0.1233	0.1358	0.1429	0.1449	0.1406	0.1315	0.1380

Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.23	5.42	5.22	6.12	
Highest CH	-	-	-	-	
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-			PASS
Middle CH	5.57	6.41			
Highest CH	-	-			

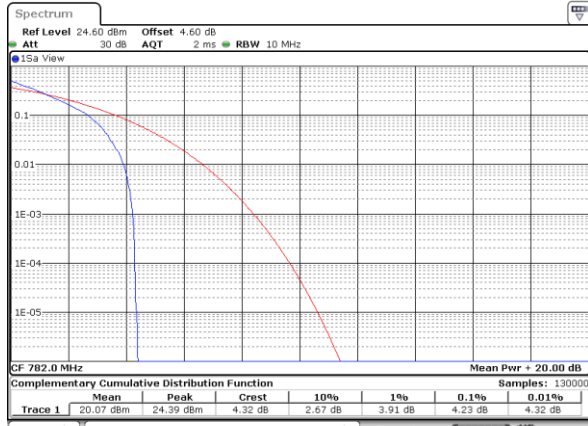
Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.20	5.22	5.71	6.20	PASS
Middle CH	4.67	5.48	6.67	6.35	
Highest CH	4.81	5.25	5.80	6.26	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.57	6.20			PASS
Middle CH	6.12	6.32			
Highest CH	6.12	6.23			



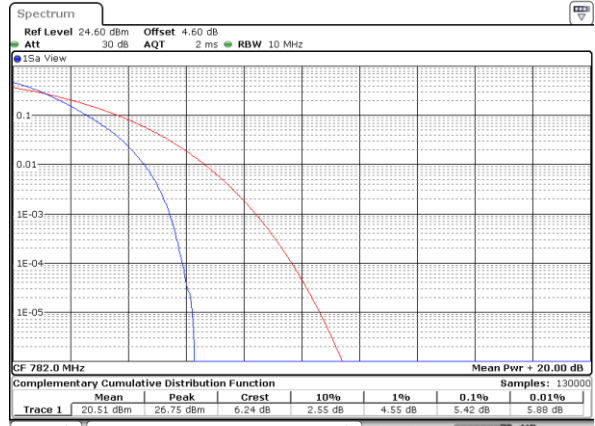
Mode	LTE Band 26 / 15MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.45	4.75	4.67	5.65	PASS
Middle CH	3.80	4.81	4.67	5.80	
Highest CH	4.26	4.75	5.28	5.68	
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.33	6.29			PASS
Middle CH	5.74	6.35			
Highest CH	6.09	6.14			

Mode	LTE Band 41 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	6.20	5.65	6.17	6.87	PASS
Middle CH	6.72	5.86	7.10	6.69	
Highest CH	6.78	6.41	7.71	7.10	
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.64	6.32			PASS
Middle CH	6.61	6.75			
Highest CH	6.84	7.22			

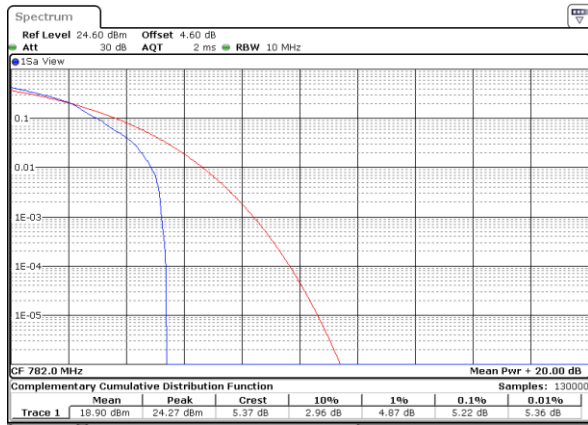
Mode	LTE Band 66 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.36	5.74	6.14	6.58	PASS
Middle CH	5.13	5.39	6.20	6.26	
Highest CH	5.54	5.36	6.64	6.35	
Mode	LTE Band 66 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.41	6.78			PASS
Middle CH	6.43	6.49			
Highest CH	6.32	6.58			

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


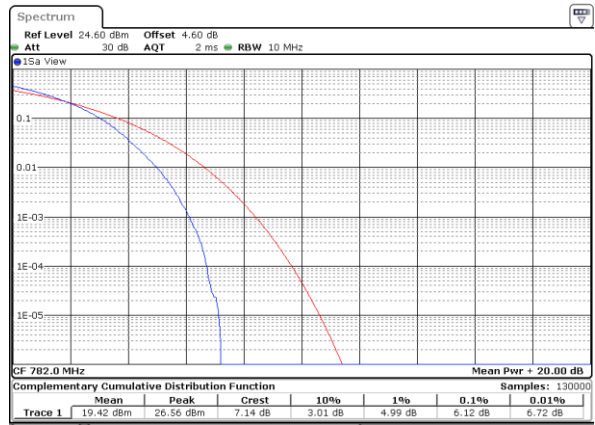
Date: 7 AUG 2019 14:27:21

Middle Channel / Full RB


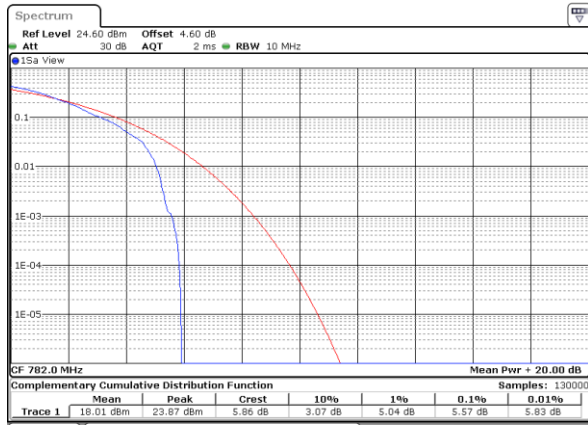
Date: 7 AUG 2019 14:27:48

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


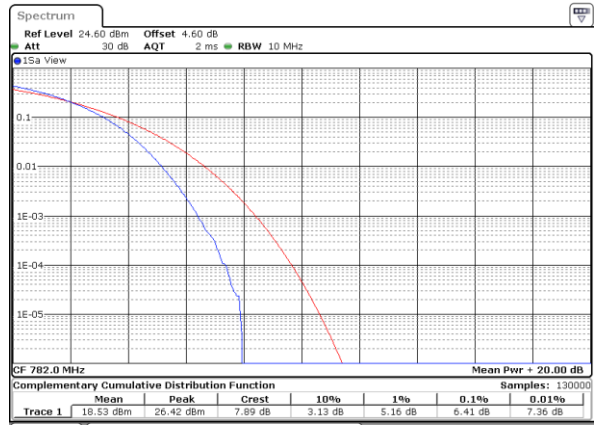
Date: 7 AUG 2019 14:27:30

Middle Channel / Full RB


Date: 7 AUG 2019 14:28:08

LTE Band 13 / 10MHz / 64QAM
Middle Channel / 1RB


Date: 7 AUG 2019 14:27:39

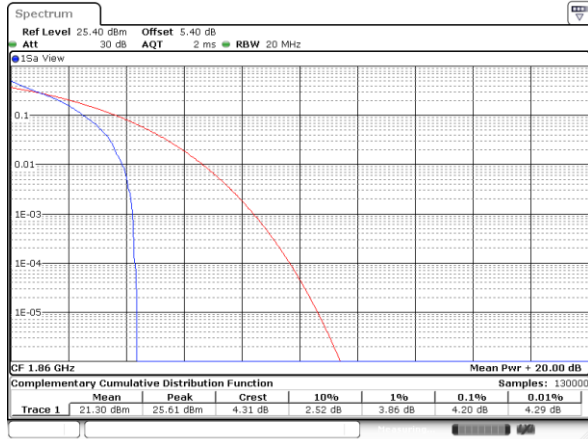
Middle Channel / Full RB


Date: 7 AUG 2019 14:28:17

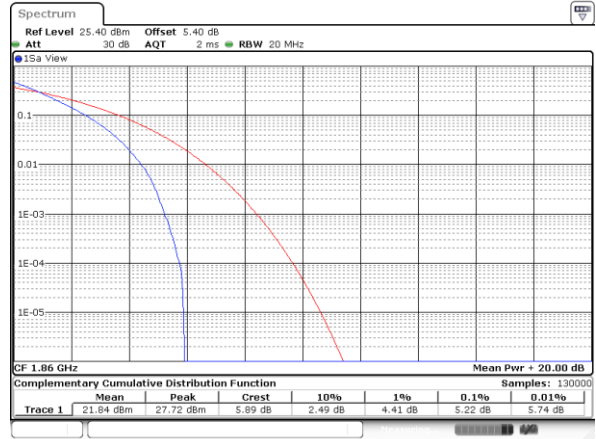


LTE Band 25 / 20MHz / QPSK

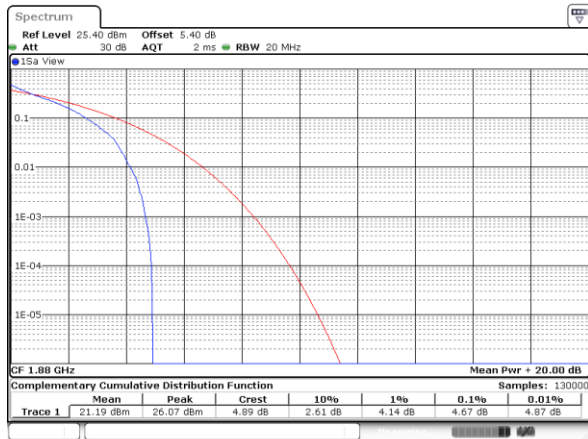
Lowest Channel / 1RB



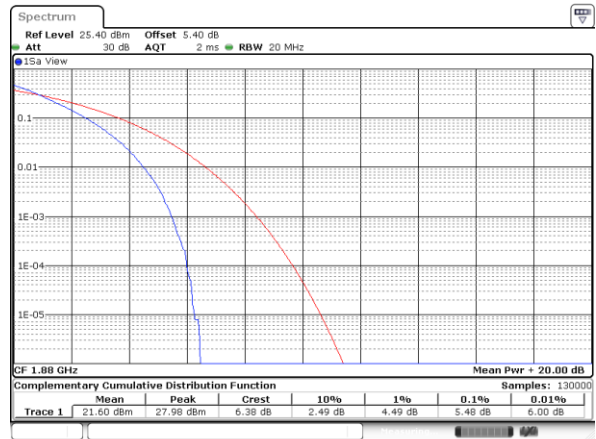
Lowest Channel / Full RB



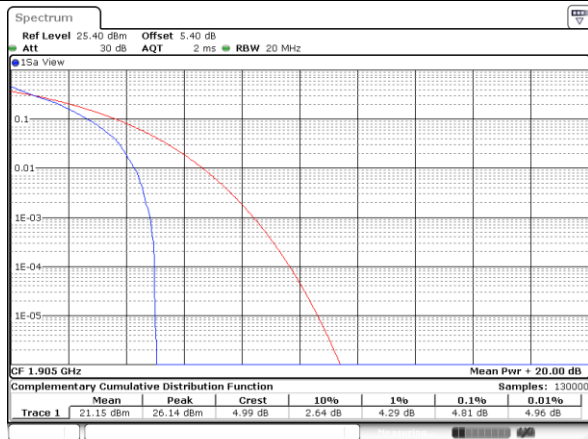
Middle Channel / 1RB



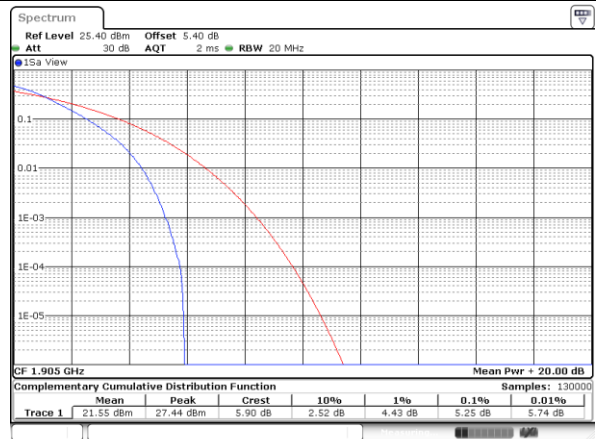
Middle Channel / Full RB



Highest Channel / 1RB



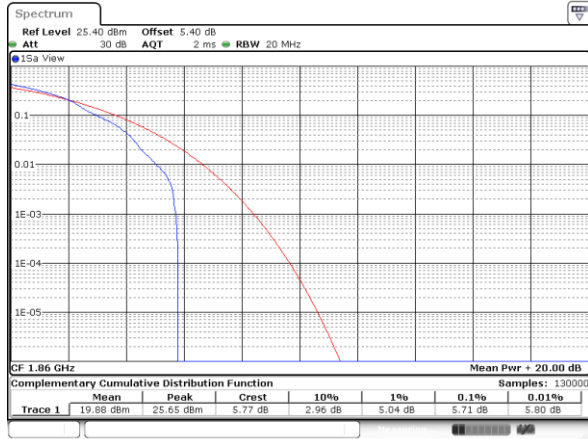
Highest Channel / Full RB



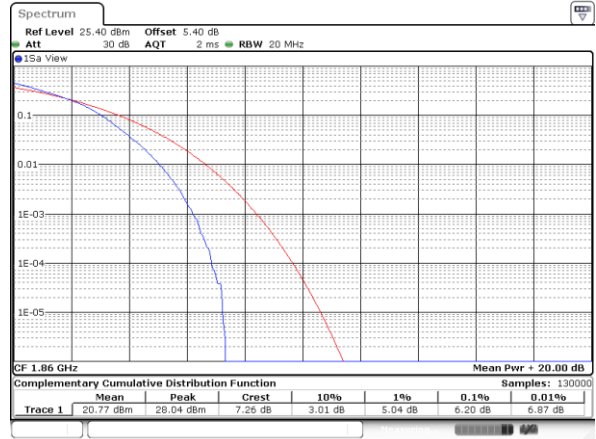


LTE Band 25 / 20MHz / 16QAM

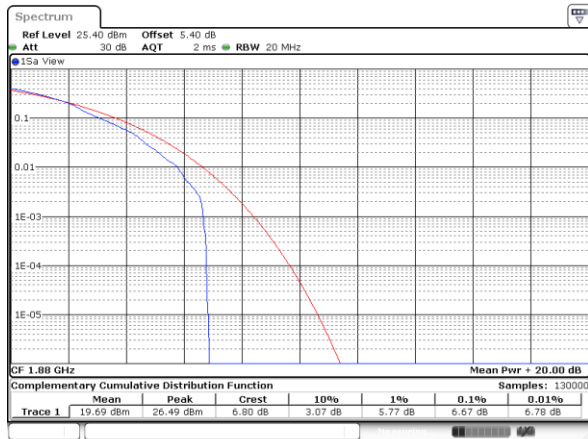
Lowest Channel / 1RB



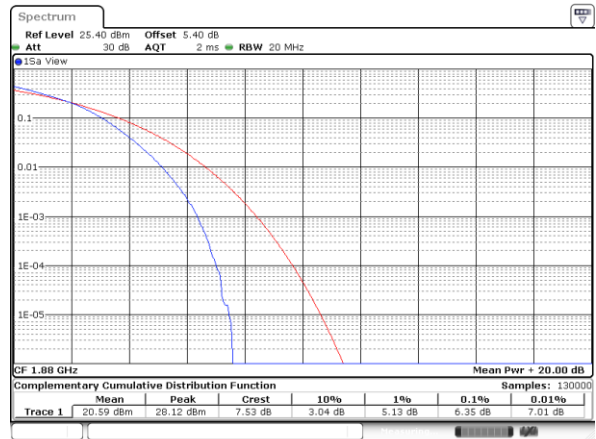
Lowest Channel / Full RB



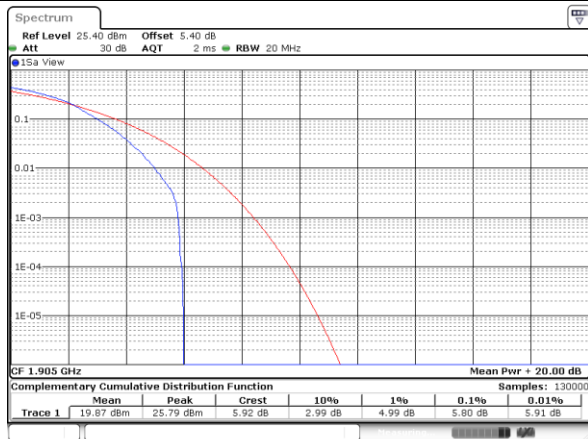
Middle Channel / 1RB



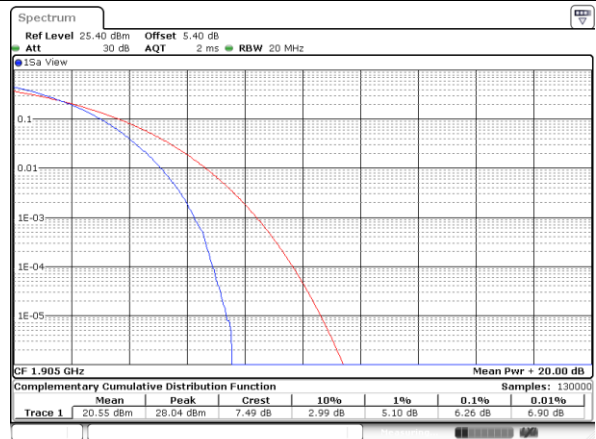
Middle Channel / Full RB



Highest Channel / 1RB



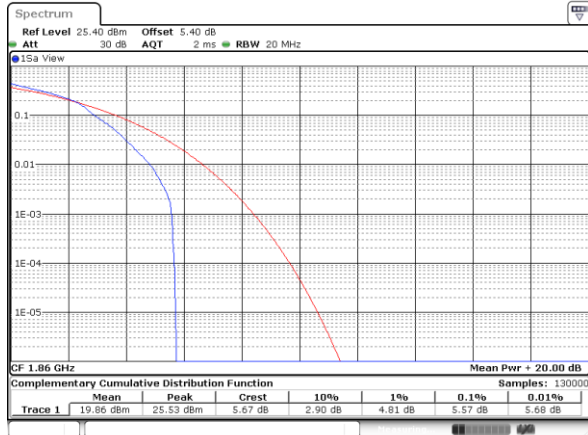
Highest Channel / Full RB



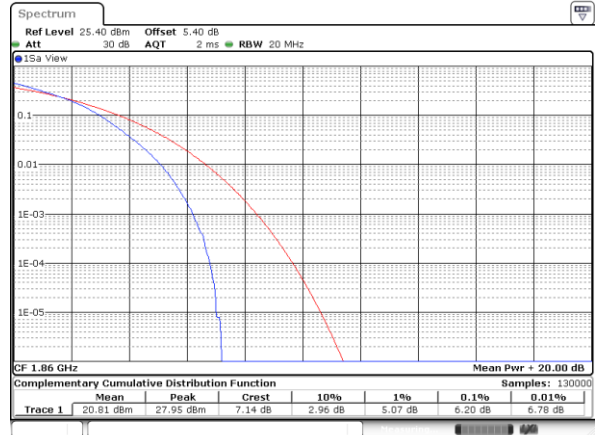


LTE Band 25 / 20MHz / 64QAM

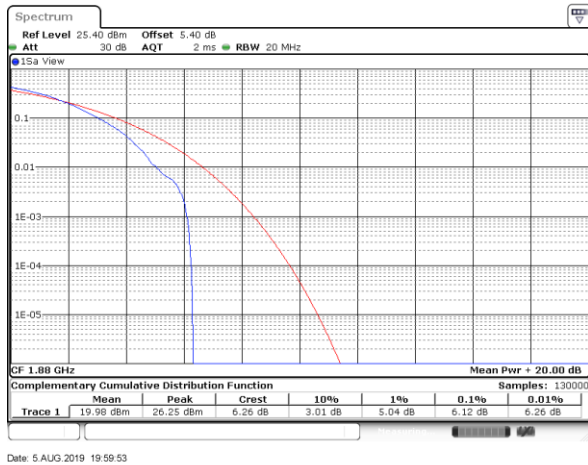
Lowest Channel / 1RB



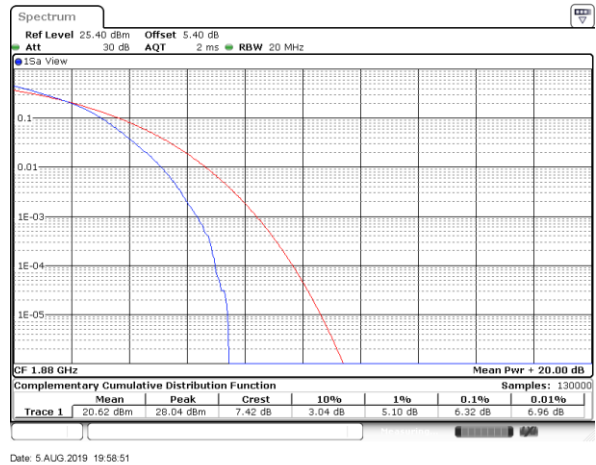
Lowest Channel / Full RB



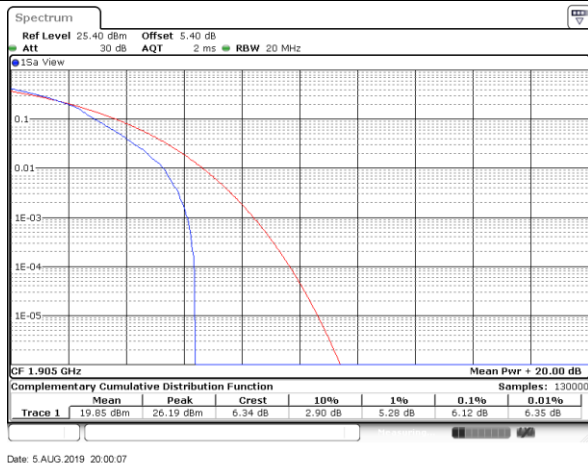
Middle Channel / 1RB



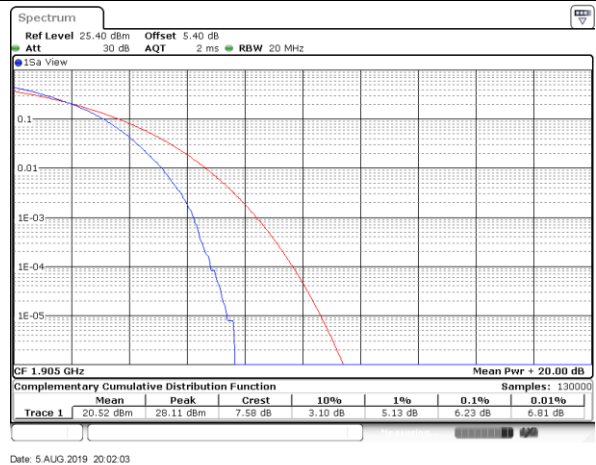
Middle Channel / Full RB

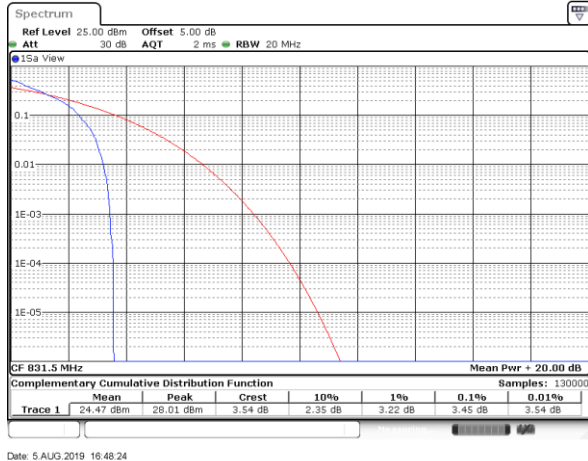
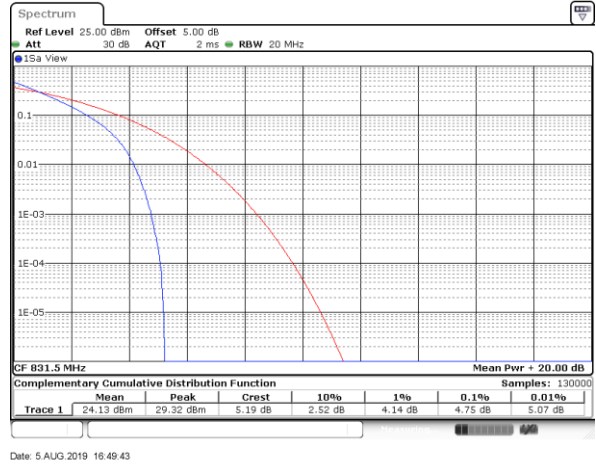
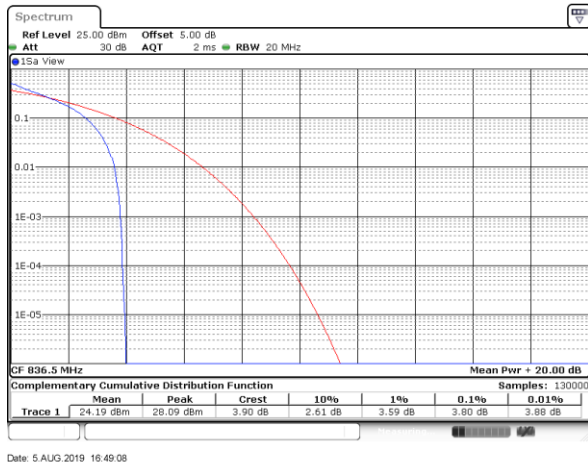
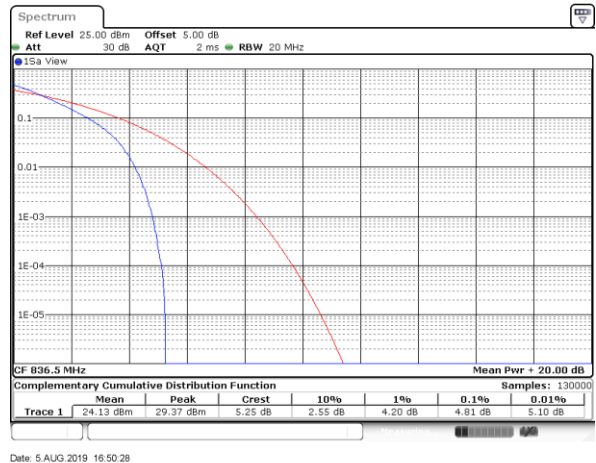
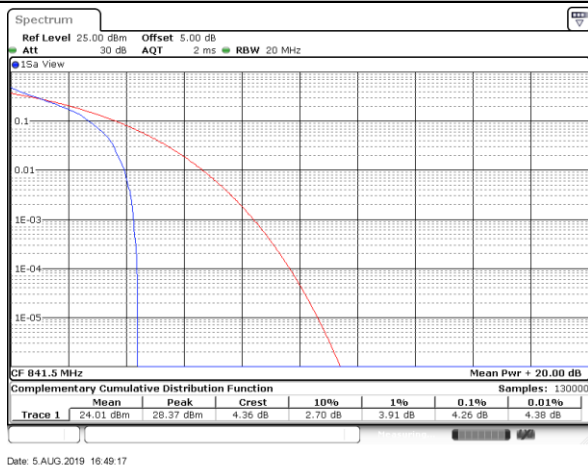
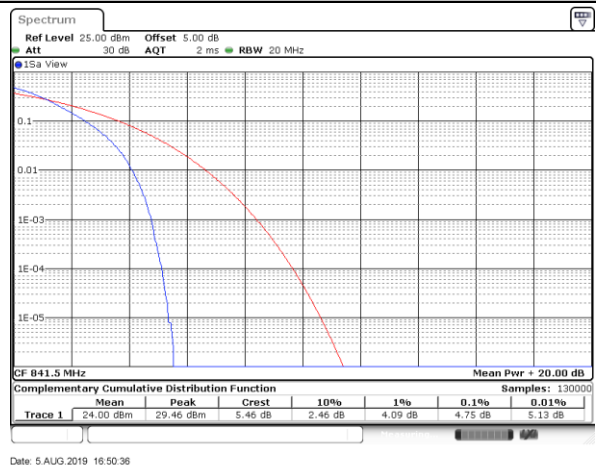


Highest Channel / 1RB



Highest Channel / Full RB

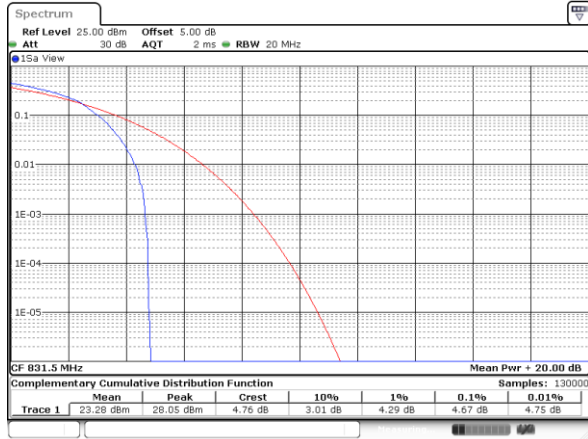


LTE Band 26 / 15MHz / QPSK
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel / 1RB

Middle Channel / Full RB

Highest Channel / 1RB

Highest Channel / Full RB


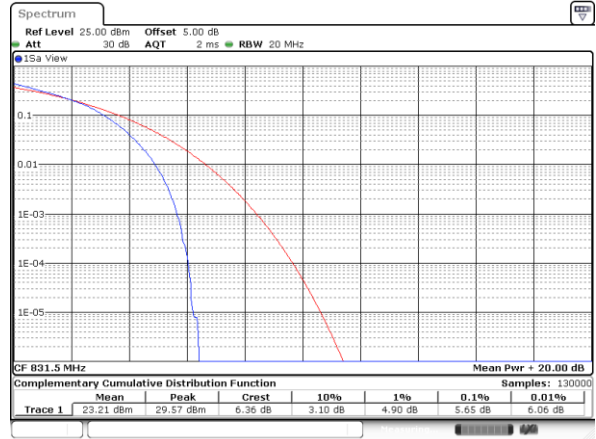


LTE Band 26 / 15MHz / 16QAM

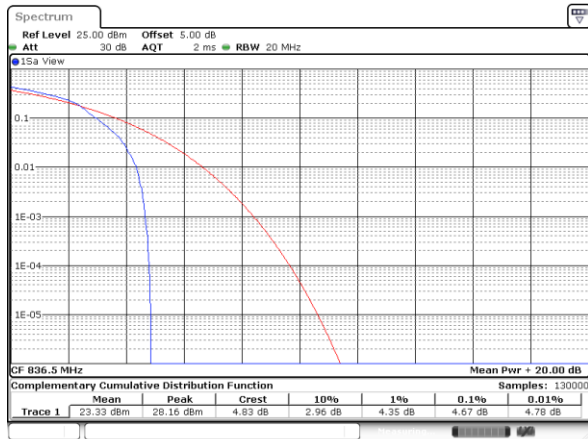
Lowest Channel / 1RB



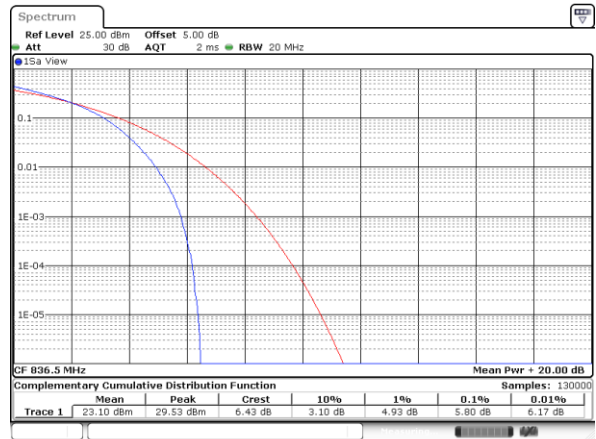
Lowest Channel / Full RB



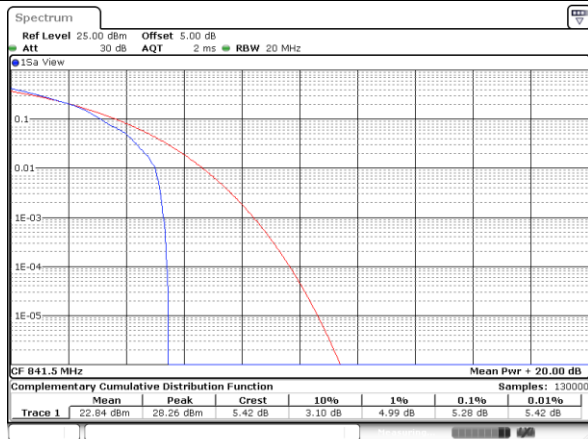
Middle Channel / 1RB



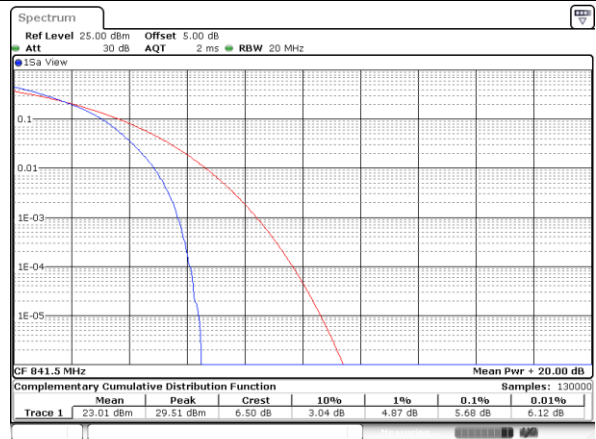
Middle Channel / Full RB



Highest Channel / 1RB



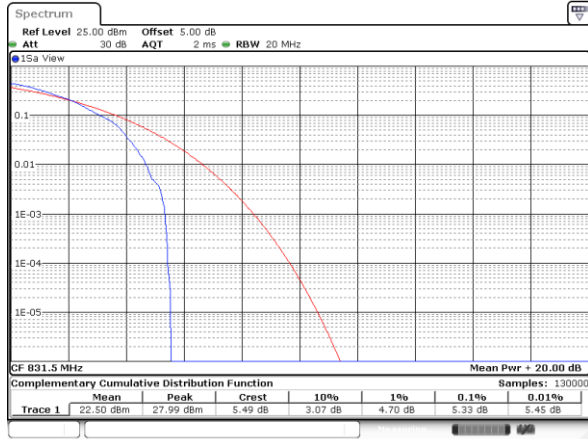
Highest Channel / Full RB



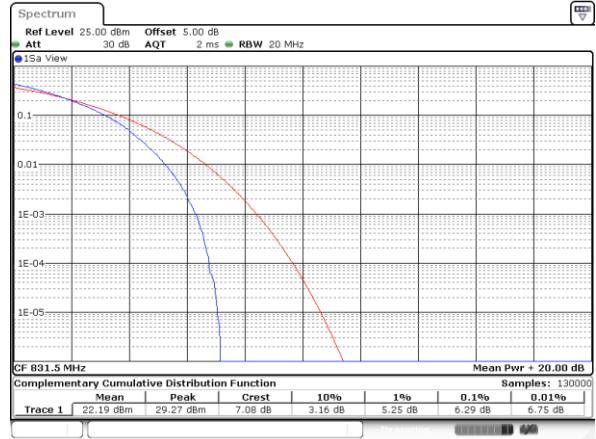


LTE Band 26 / 15MHz / 64QAM

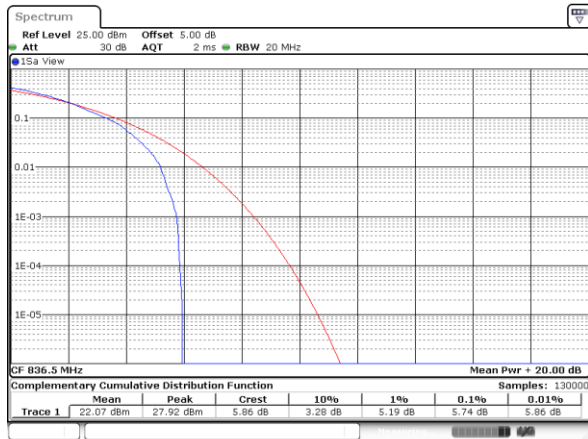
Lowest Channel / 1RB



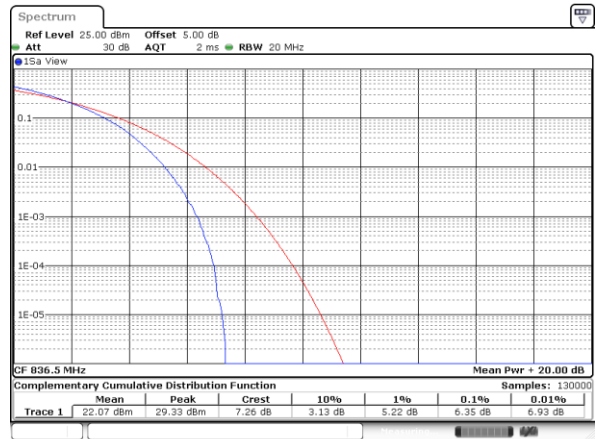
Lowest Channel / Full RB



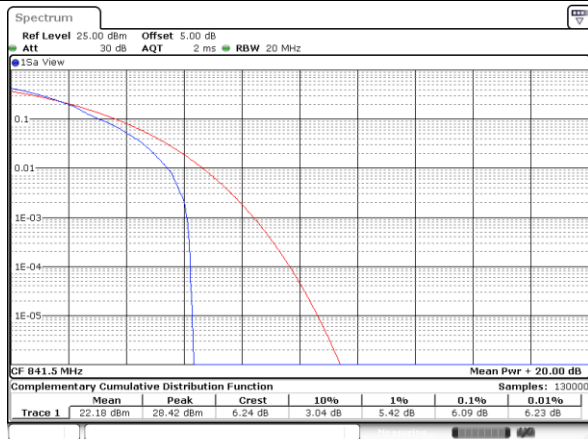
Middle Channel / 1RB



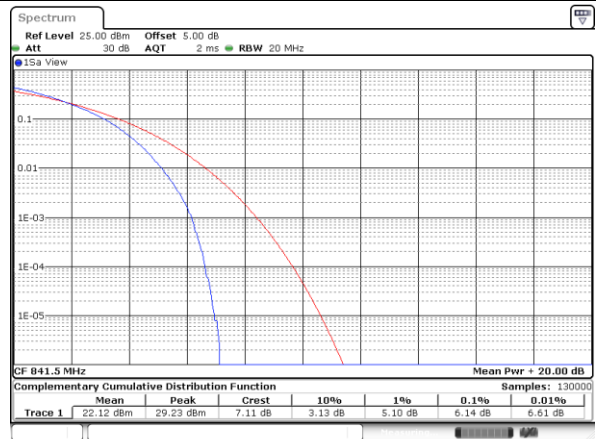
Middle Channel / Full RB



Highest Channel / 1RB



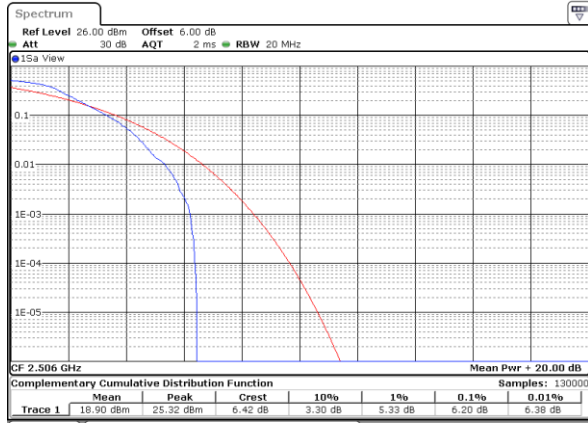
Highest Channel / Full RB



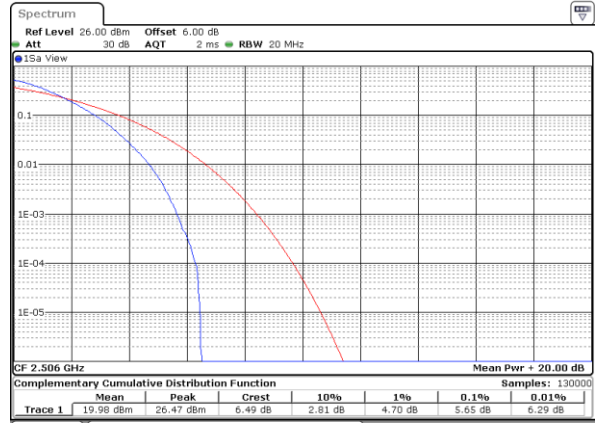


LTE Band 41 / 20MHz / QPSK

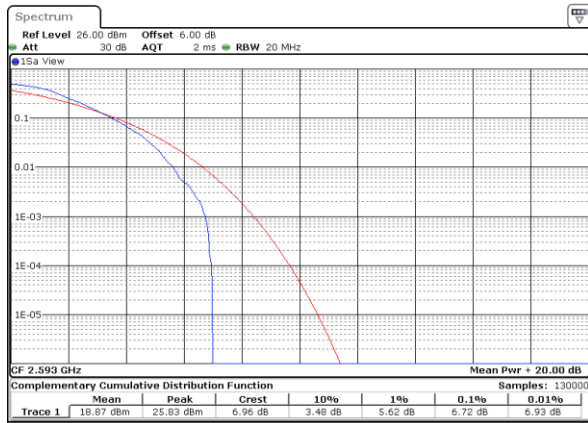
Lowest Channel / 1RB



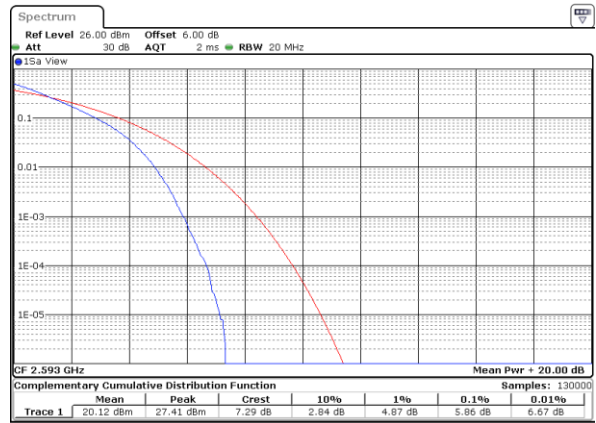
Lowest Channel / Full RB



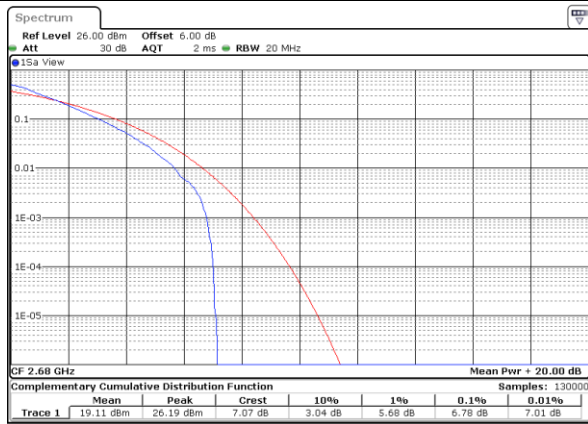
Middle Channel / 1RB



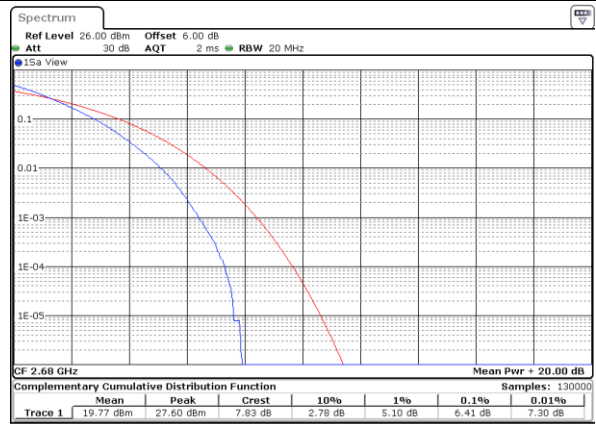
Middle Channel / Full RB



Highest Channel / 1RB



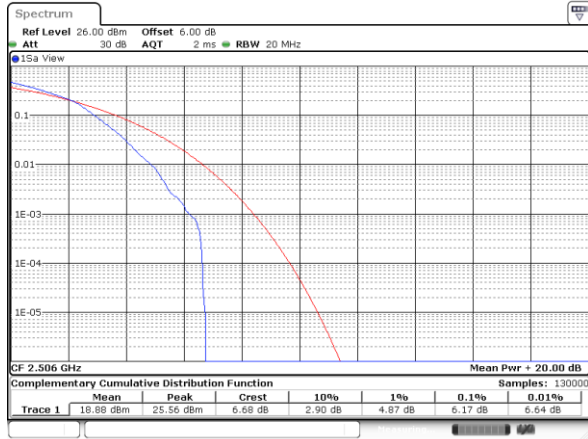
Highest Channel / Full RB



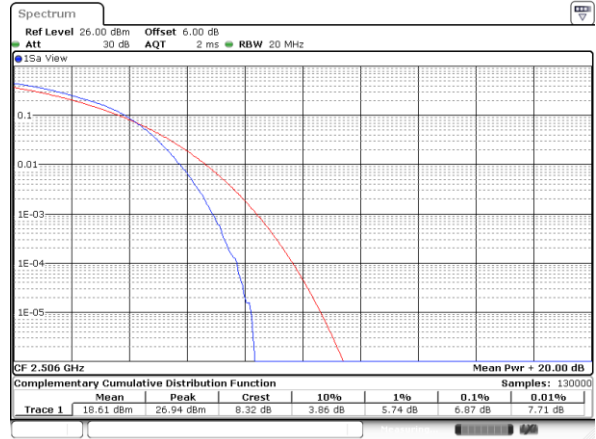


LTE Band 41 / 20MHz / 16QAM

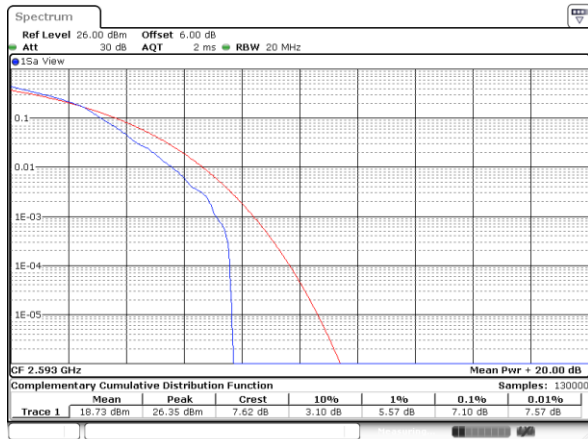
Lowest Channel / 1RB



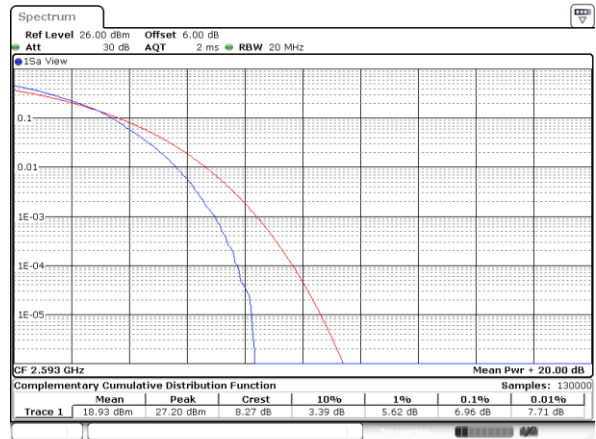
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



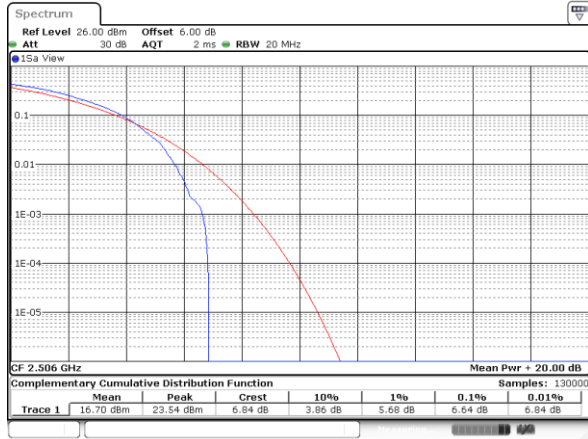
Highest Channel / Full RB



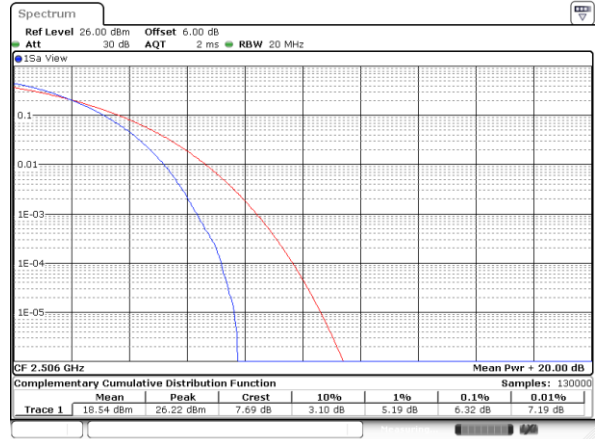


LTE Band 41 / 20MHz / 64QAM

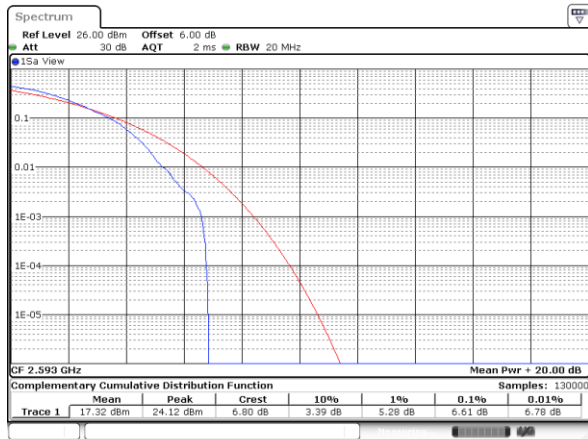
Lowest Channel / 1RB



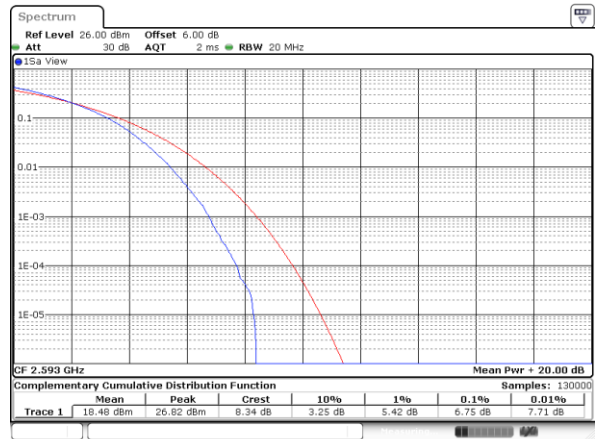
Lowest Channel / Full RB



Middle Channel / 1RB



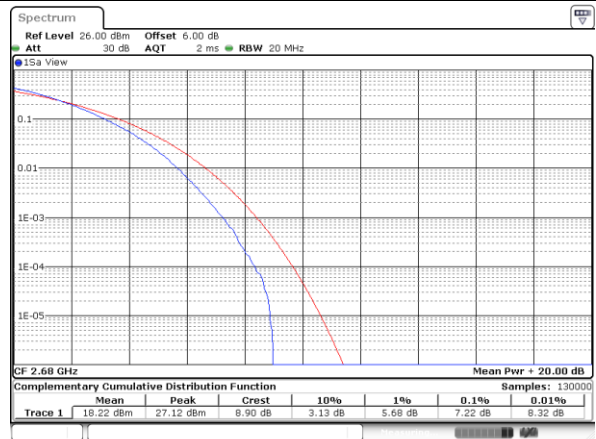
Middle Channel / Full RB



Highest Channel / 1RB



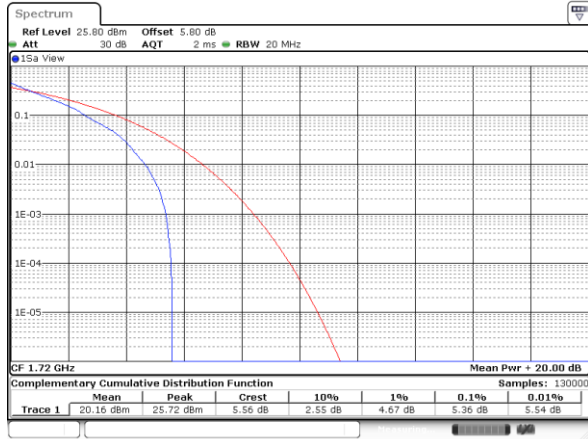
Highest Channel / Full RB





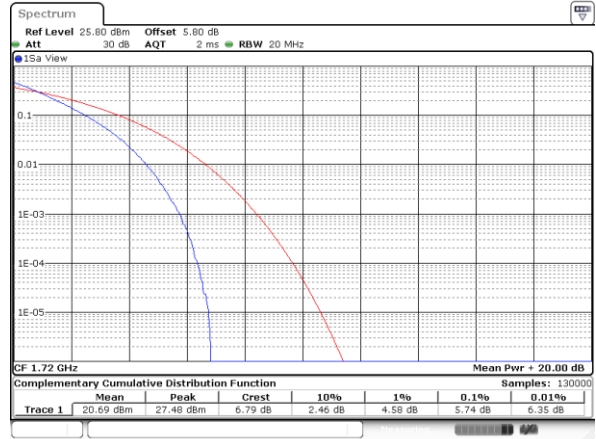
LTE Band 66 / 20MHz / QPSK

Lowest Channel / 1RB



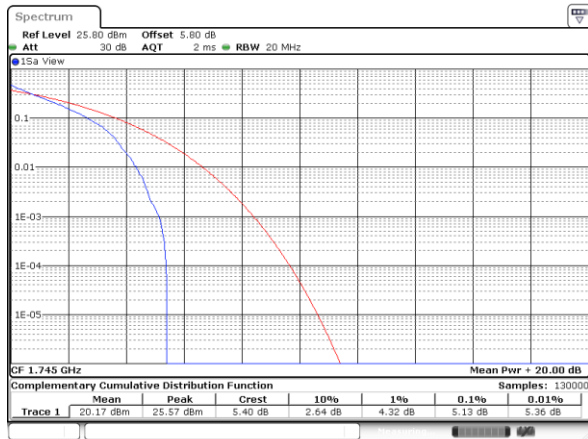
Date: 7 AUG 2019 13:21:49

Lowest Channel / Full RB



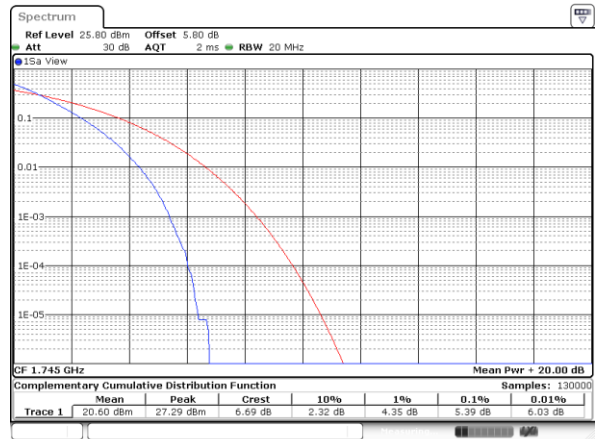
Date: 7 AUG 2019 13:23:21

Middle Channel / 1RB



Date: 7 AUG 2019 13:21:07

Middle Channel / Full RB



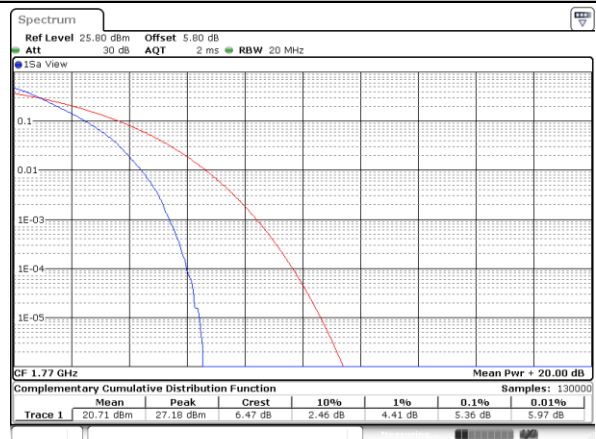
Date: 7 AUG 2019 13:19:28

Highest Channel / 1RB



Date: 7 AUG 2019 13:15:29

Highest Channel / Full RB

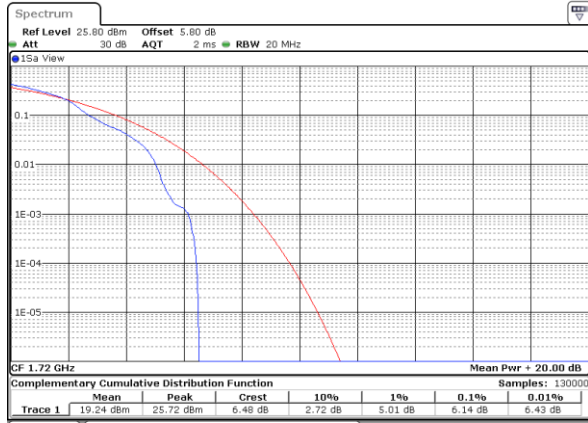


Date: 7 AUG 2019 13:17:10

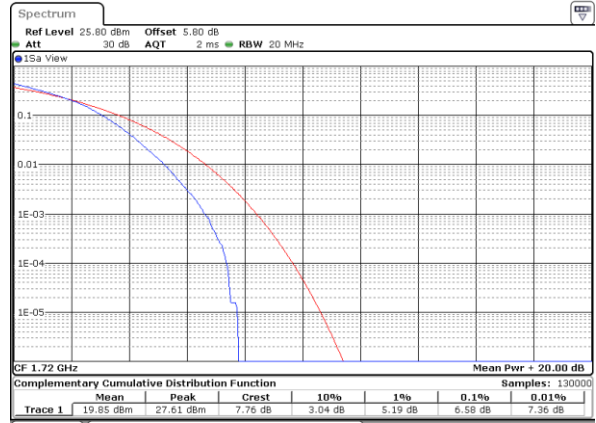


LTE Band 66 / 20MHz / 16QAM

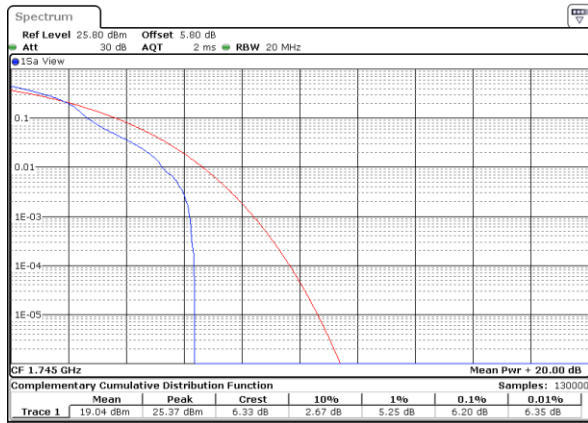
Lowest Channel / 1RB



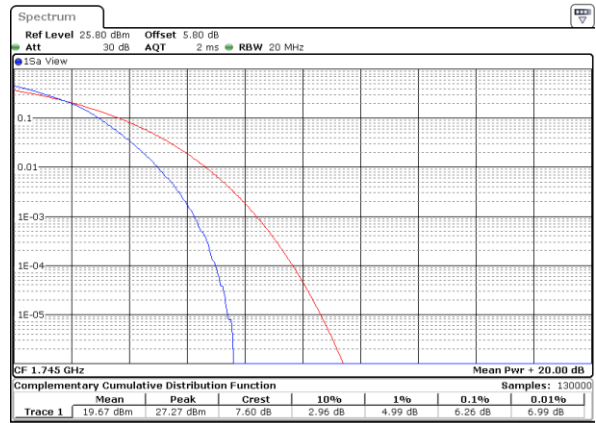
Lowest Channel / Full RB



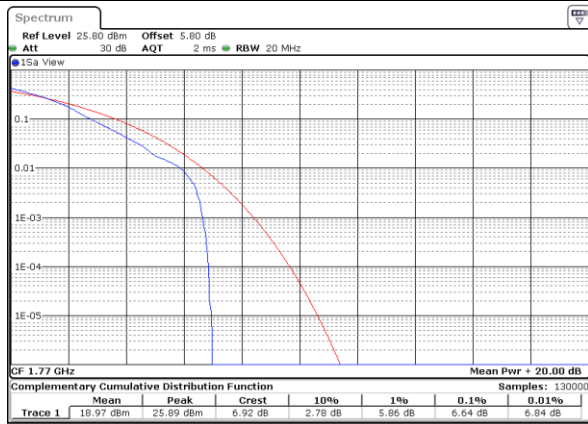
Middle Channel / 1RB



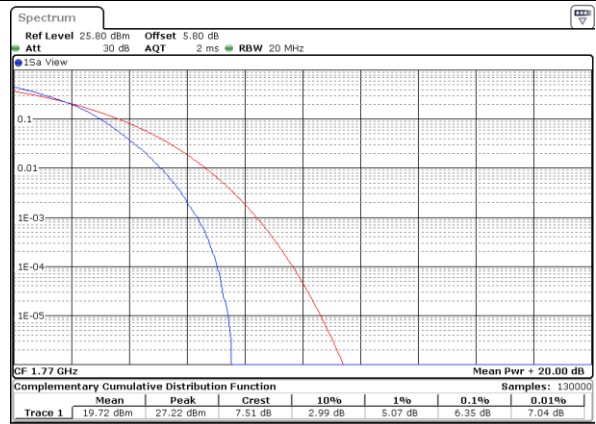
Middle Channel / Full RB



Highest Channel / 1RB



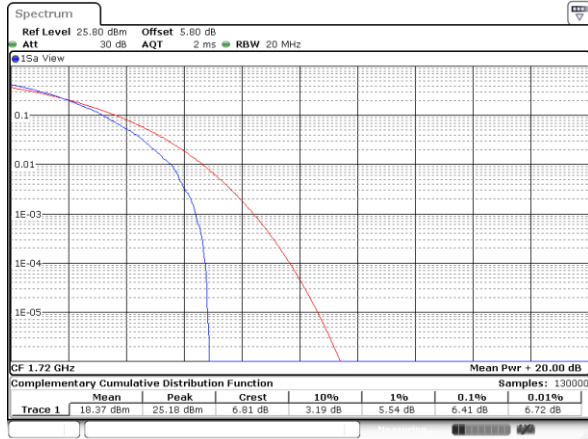
Highest Channel / Full RB



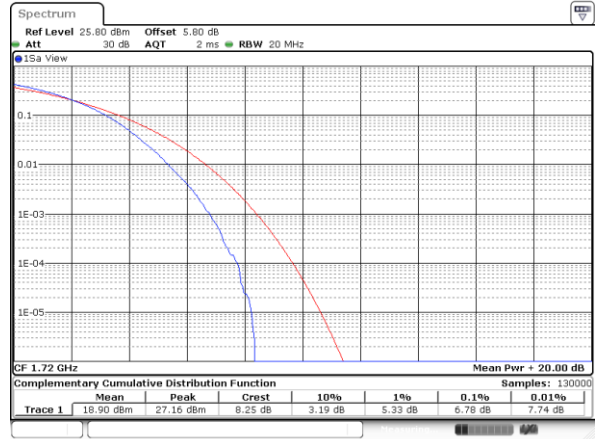


LTE Band 66 / 20MHz / 64QAM

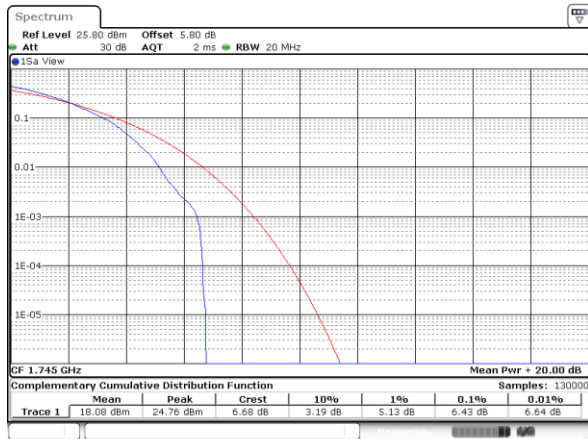
Lowest Channel / 1RB



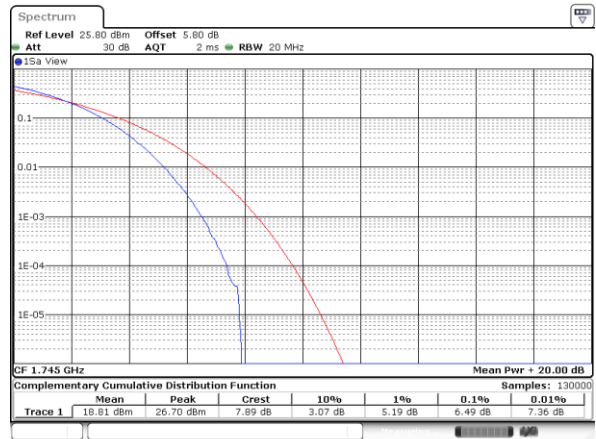
Lowest Channel / Full RB



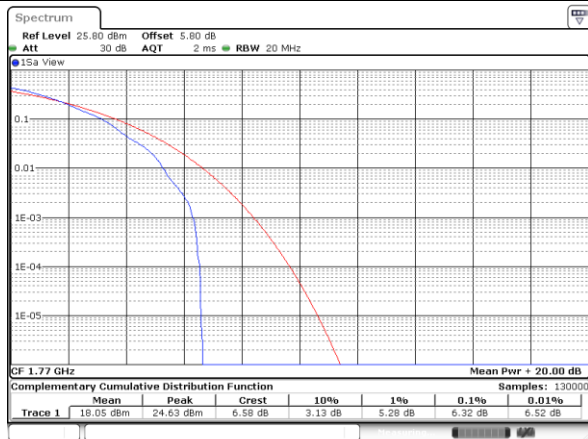
Middle Channel / 1RB



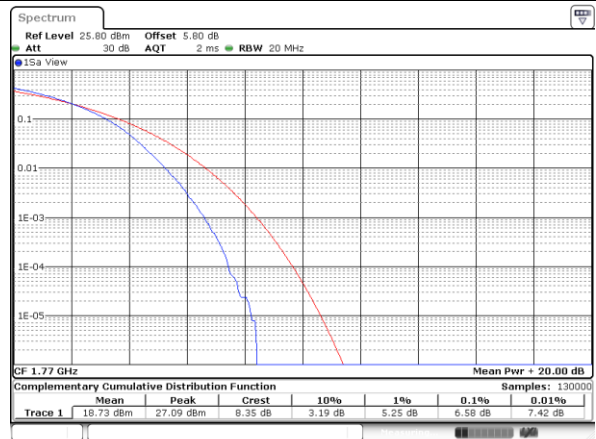
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)					
BW	5MHz		10MHz		5MHz	10MHz
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM
Lowest CH	5.09	5.04			5.00	
Middle CH	5.29	5.10	9.97	10.05	5.13	10.03
Highest CH	5.03	5.24			5.24	

Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.273	1.295	3.105	3.111	5.395	5.095	10.01	9.75	14.146	15.165	20.18	20.14
Middle CH	1.264	1.298	3.201	3.159	5.015	5.105	10.03	10.17	14.895	14.565	20.34	20.50
Highest CH	1.287	1.340	3.093	3.129	5.225	5.095	10.03	10.11	15.135	14.116	20.02	20.06
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.329		3.069		5.145		9.89		14.805		20.14	
Middle CH	1.284		3.081		5.265		10.15		14.446		20.30	
Highest CH	1.250		2.949		5.315		9.81		14.595		20.06	

Mode	LTE Band 26 : 26dB BW(MHz)									
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.30	1.31	3.12	3.10	5.05	5.14	10.03	10.21	15.11	14.81
Middle CH	1.28	1.29	3.16	2.96	5.27	5.24	10.13	9.67	15.23	14.27
Highest CH	1.31	1.33	3.03	3.15	5.03	5.03	9.73	10.09	14.42	14.48
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.30		2.99		5.26		10.39		14.54	
Middle CH	1.31		3.13		5.26		10.19		14.48	
Highest CH	1.30		3.02		5.19		10.01		14.63	



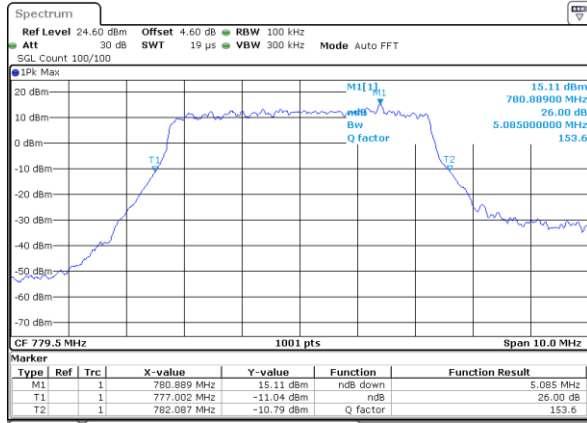
Mode	LTE Band 41 : 26dB BW(MHz)											
BW	5MHz		10MHz		15MHz		20MHz		5MHz	10MHz	15MHz	20MHz
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	4.91	5.01	10.55	10.25	14.60	14.42	20.22	20.02	5.37	9.89	15.25	20.06
Middle CH	4.99	4.80	10.17	9.89	14.24	14.54	20.10	20.26	5.08	9.75	14.12	20.26
Highest CH	5.05	4.93	10.17	9.85	14.48	14.36	20.30	19.94	5.12	9.63	14.60	20.38

Mode	LTE Band 66 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.29	1.32	3.10	3.16	5.20	5.22	10.07	10.21	14.27	14.93	20.10	20.58
Middle CH	1.29	1.31	3.05	3.09	5.12	5.02	10.55	9.85	14.93	14.99	20.42	20.30
Highest CH	1.26	1.34	3.05	3.03	5.22	5.16	9.97	10.15	14.63	15.20	20.10	20.22
Mode	LTE Band 66 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.31		3.10		5.17		10.43		14.75		20.14	
Middle CH	1.31		3.12		5.06		9.81		14.66		20.62	
Highest CH	1.31		3.18		5.15		10.11		14.96		20.14	

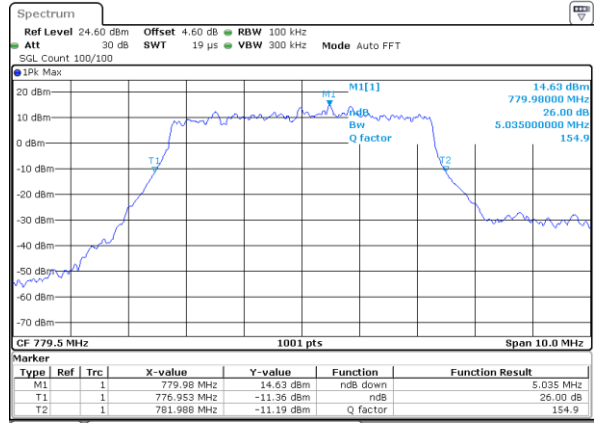


LTE Band 13

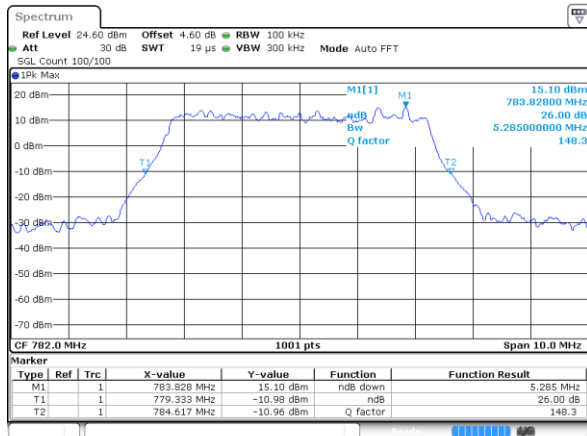
Lowest Channel / 5MHz / QPSK



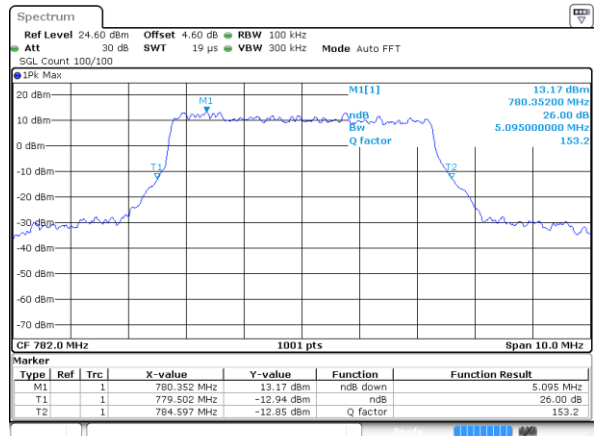
Lowest Channel / 5MHz / 16QAM



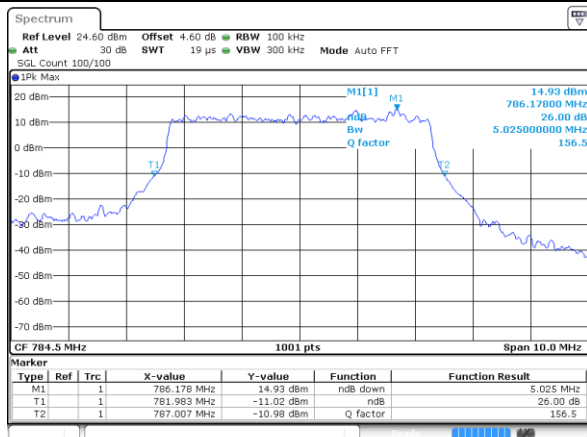
Middle Channel / 5MHz / QPSK



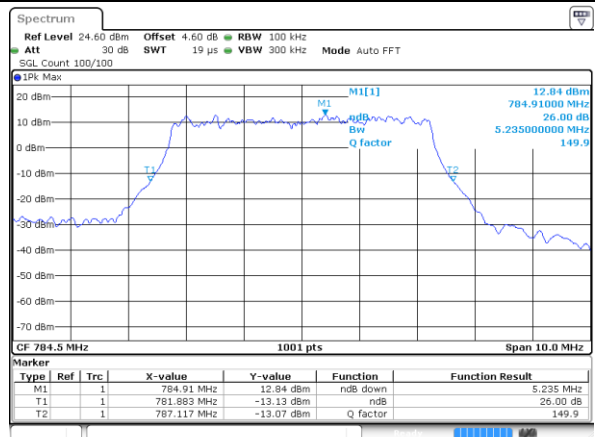
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



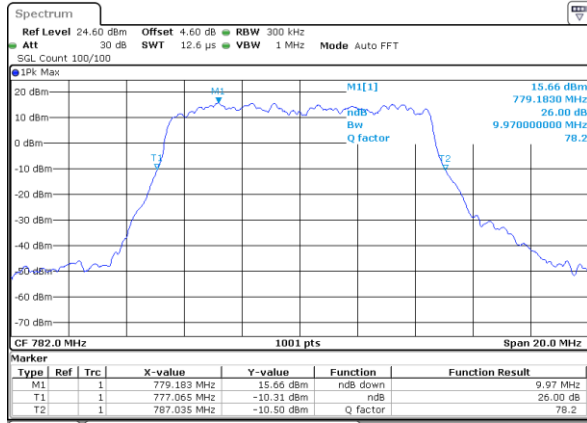
Highest Channel / 5MHz / 16QAM





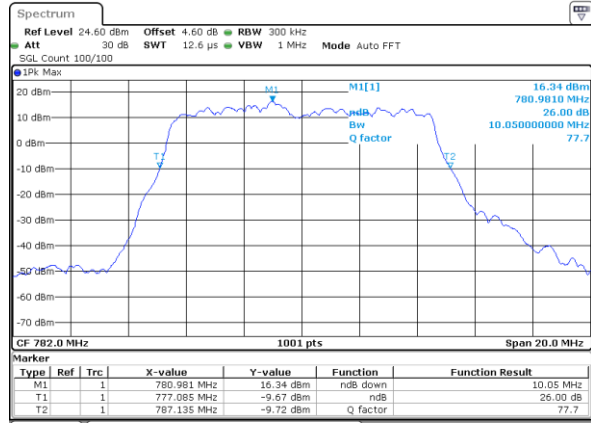
LTE Band 13

Middle Channel / 10MHz / QPSK



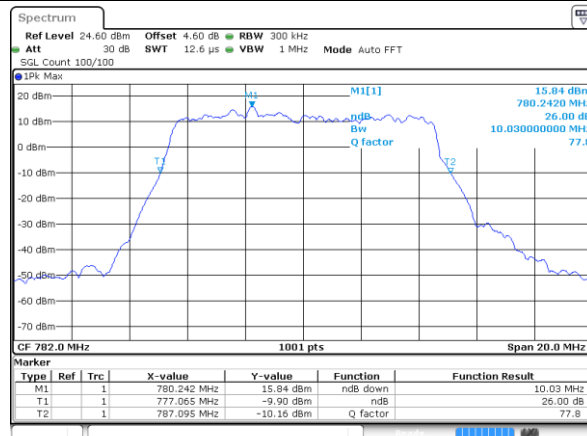
Date: 7 AUG 2019 14:08:47

Middle Channel / 10MHz / 16QAM



Date: 7 AUG 2019 14:10:45

Middle Channel / 10MHz / 64QAM



Date: 7 AUG 2019 14:12:43