FCC RF Test Report

APPLICANT	:	**Guangdong OPPO Mobile Telecommunications Corp., Ltd.**
EQUIPMENT	:	**Mobile Phone**
BRAND NAME	:	**OPPO**
MODEL NAME	:	**CPH2135**
FCC ID	:	**R9C-CPH2135**
STANDARD	:	**47 CFR Part 2, 22(H), 24(E), 27(L), 27(H), 27(M)**
CLASSIFICATION	:	**PCS Licensed Transmitter Held to Ear (PCE)**

The product was received on Jun. 12, 2020 and completely tested on Jul. 03, 2020. We, Sporton International (ShenZhen) 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 (ShenZhen) Inc., the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager

ACCREDITED Cert #5145.01

Sporton International (ShenZhen) Inc.

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG061210B	Rev. 01	Initial issue of report	Aug. 10, 2020

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt	PASS	
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12)(Band 17)	ERP < 3 Watt	PASS	
	§24.232(c) §27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 7) (Band 38) (Band 41)	EIRP < 2Watt	PASS	
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt	PASS	
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12)(Band 17) (Band 26)	< 43+10log10(P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)	§27.53(m)(4)		
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17) (Band 26)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log$_{10}$(P[Watts])		
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		

Report Section	FCC Rule	Description	Limit	Result	Remark
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17) (Band 26)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 24.86 dB at 7752.270 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< $55+10\log_{10}$(P[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

Guangdong OPPO Mobile Telecommunications Corp., Ltd.
NO.18 HaiBin Road, Wusha Village, Chang An Town, DongGuan City,GuangDong,China

1.2 Manufacturer

Guangdong OPPO Mobile Telecommunications Corp., Ltd.
NO.18 HaiBin Road, Wusha Village, Chang An Town, DongGuan City,GuangDong,China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	OPPO
Model Name	CPH2135
FCC ID	R9C-CPH2135
EUT supports Radios application	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 / GNSS
IMEI Code	Conducted : 867522050019491/867522050019483 Radiation : 867522050019558/867522050019541
HW Version	11
SW Version	ColorOS V7.2
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 17 : 706.5 MHz ~ 713.5 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
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz LTE Band 26 : 869.7MHz ~ 893.3MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 2 : 24.10 dBm LTE Band 4 : 23.82 dBm LTE Band 5 : 23.93 dBm LTE Band 7 : 24.02 dBm ; Band 7C_CA : 23.93 dBm LTE Band 12 : 23.68 dBm LTE Band 17 : 23.43 dBm LTE Band 26 : 23.81 dBm LTE Band 38 : 23.73 dBm; Band 38C_CA : 23.62 dBm LTE Band 41 : 23.75 dBm; Band 41C_CA : 23.72 dBm
Antenna Gain	Top Antenna : LTE Band 2 : -1.59 dBi LTE Band 4 : -3.95 dBi LTE Band 5 : -4.50 dBi LTE Band 7 : 1.80 dBi LTE Band 12 : -5.07 dBi LTE Band 17 : -5.07 dBi LTE Band 26 : -4.30 dBi LTE Band 38 : 1.20 dBi LTE Band 41 : 1.23 dBi Bottom Antenna : LTE Band 2 : -1.77 dBi LTE Band 4 : -2.00 dBi LTE Band 5 : -4.55 dBi

	LTE Band 7 : 0.35 dBi LTE Band 12 : -4.68 dBi LTE Band 17 : -4.68 dBi LTE Band 26 : -3.78 dBi LTE Band 38 : -0.13 dBi LTE Band 41 : 0.23 dBi
Type of Modulation	QPSK / 16QAM / 64QAM / 256QAM (Downlink only)

1.5 Modification of EUT

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

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

LTE Band 2		QPSK			16QAM		
BW (MHz)	**Frequency Range (MHz)**	**Emission Designator (99%OBW)**	**Frequency Tolerance (ppm)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**	**Frequency Tolerance (ppm)**	**Maximum EIRP(W)**
1.4	1850.7 ~ 1909.3	1M09G7D	-	0.1687	1M09W7D	-	0.1413
3	1851.5 ~ 1908.5	2M71G7D	-	0.1702	2M74W7D	-	0.1419
5	1852.5 ~ 1907.5	4M50G7D	-	0.1778	4M51W7D	-	0.1493
10	1855.0 ~ 1905.0	9M05G7D	0.0007	0.1758	9M03W7D	-	0.1479
15	1857.5 ~ 1902.5	13M5G7D	-	0.1774	13M4W7D	-	0.1578
20	1860.0 ~ 1900.0	17M9G7D	-	0.1782	17M9W7D	-	0.1552

LTE Band 2		64QAM		
BW (MHz)	**Frequency Range (MHz)**	**Emission Designator (99%OBW)**	**Frequency Tolerance (ppm)**	**Maximum EIRP(W)**
1.4	1850.7 ~ 1909.3	1M09W7D	-	0.1125
3	1851.5 ~ 1908.5	2M72W7D	-	0.1130
5	1852.5 ~ 1907.5	4M50W7D	-	0.1127
10	1855.0 ~ 1905.0	9M03W7D	-	0.1167
15	1857.5 ~ 1902.5	13M4W7D	-	0.1183
20	1860.0 ~ 1900.0	17M9W7D	-	0.1161

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	-	0.1452	1M10W7D	-	0.1175
3	1711.5 ~ 1753.5	2M73G7D	-	0.1507	2M75W7D	-	0.1262

5	1712.5 ~ 1752.5	4M51G7D	-	0.1483	4M50W7D	-	0.1343
10	1715.0 ~ 1750.0	9M03G7D	0.0008	0.1507	9M09W7D	-	0.1306
15	1717.5 ~ 1747.5	13M5G7D	-	0.1510	13M5W7D	-	0.1297
20	1720.0 ~ 1745.0	18M0G7D	-	0.1521	17M9W7D	-	0.1285

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	-	0.0964
3	1711.5 ~ 1753.5	2M73W7D	-	0.0993
5	1712.5 ~ 1752.5	4M50W7D	-	0.1002
10	1715.0 ~ 1750.0	9M03W7D	-	0.1021
15	1717.5 ~ 1747.5	13M5W7D	-	0.1014
20	1720.0 ~ 1745.0	18M0W7D	-	0.1014

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	1M09G7D	-	0.0491	1M10W7D	-	0.0447
3	825.5 ~ 847.5	2M72G7D	-	0.0507	2M73W7D	-	0.0447
5	826.5 ~ 846.5	4M52G7D	-	0.0509	4M51W7D	-	0.0429
10	829.0 ~ 844.0	9M07G7D	0.0013	0.0535	9M03W7D	-	0.0457

LTE Band 5		**64QAM**		
BW (MHz)	**Frequency Range (MHz)**	**Emission Designator (99%OBW)**	**Frequency Tolerance (ppm)**	**Maximum EIRP(W)**
1.4	824.7 ~ 848.3	1M10W7D	-	0.0333
3	825.5 ~ 847.5	2M74W7D	-	0.0342
5	826.5 ~ 846.5	4M50W7D	-	0.0339
10	829.0 ~ 844.0	9M09W7D	-	0.0372

LTE Band 7		**QPSK**			**16QAM**		
BW (MHz)	**Frequency Range (MHz)**	**Emission Designator (99%OBW)**	**Frequency Tolerance (ppm)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**	**Frequency Tolerance (ppm)**	**Maximum EIRP(W)**
5	2502.5 ~ 2567.5	4M51G7D	-	0.3802	4M49W7D	-	0.3365
10	2505.0 ~ 2565.0	9M05G7D	0.0056	0.3811	9M05W7D	-	0.3381
15	2507.5 ~ 2562.5	13M5G7D	-	0.3802	13M4W7D	-	0.3199
20	2510.0 ~ 2560.0	17M9G7D	-	0.3819	17M9W7D	-	0.3296

LTE Band 7		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2502.5 ~ 2567.5	4M50W7D	-	0.2466
10	2505.0 ~ 2565.0	9M07W7D	-	0.2630
15	2507.5 ~ 2562.5	13M5W7D	-	0.2559
20	2510.0 ~ 2560.0	17M9W7D	-	0.2541

LTE Band 12		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	699.7 ~ 715.3	1M10G7D	-	0.0444	1M10W7D	-	0.0384
3	700.5 ~ 714.5	2M73G7D	-	0.0441	2M72W7D	-	0.0397
5	701.5 ~ 713.5	4M50G7D	-	0.0438	4M50W7D	-	0.0399
10	704.0 ~ 711.0	9M03G7D	0.0029	0.0484	9M05W7D	-	0.0400

LTE Band 12		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	699.7 ~ 715.3	1M10W7D	-	0.0293
3	700.5 ~ 714.5	2M73W7D	-	0.0294
5	701.5 ~ 713.5	4M49W7D	-	0..0299
10	704.0 ~ 711.0	9M07W7D	-	0.0329

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	4M50G7D	-	0.0438	4M50W7D	-	0.0399
10	709.0 ~ 711.0	9M03G7D	0.0029	0.0484	9M05W7D	-	0.0400

LTE Band 17		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	706.5 ~ 713.5	4M49W7D	-	0..0299
10	709.0 ~ 711.0	9M07W7D	-	0.0329

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	-	0.0603	1M10W7D	-	0.0546
3	825.5 ~ 847.5	2M73G7D	-	0.0603	2M72W7D	-	0.0568
5	826.5 ~ 846.5	4M51G7D	-	0.0601	4M49W7D	-	0.0561
10	829.0 ~ 844.0	9M03G7D	0.0039	0.0597	9M01W7D	-	0.0577
15	831.5 ~ 841.5	13M5G7D	-	0.0614	13M5W7D	-	0.0497
CH26765	821.5	13M5G7D	-	0.0607	13M4W7D	-	0.0497

LTE Band 26		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	824.7 ~ 848.3	1M10W7D	-	0.0437
3	825.5 ~ 847.5	2M72W7D	-	0.0441
5	826.5 ~ 846.5	4M51W7D	-	0.0433
10	829.0 ~ 844.0	9M03W7D	-	0.0454
15	831.5 ~ 841.5	13M5W7D	-	0.0406
CH26765	821.5	13M5W7D	-	0.0401

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	4M51G7D	-	0.3027	4M51W7D	-	0.2529
10	2575.0 ~ 2615.0	9M05G7D	0.0019	0.3112	9M03W7D	-	0.2642
15	2577.5 ~ 2612.5	13M5G7D	-	0.2723	13M5W7D	-	0.2399
20	2580.0 ~ 2610.0	17M9G7D	-	0.3148	17M9W7D	-	0.2624

LTE Band 38		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2572.5 ~ 2617.5	4M49W7D	-	0.1845
10	2575.0 ~ 2615.0	9M03W7D	-	0.2000
15	2577.5 ~ 2612.5	13M5W7D	-	0.1683
20	2580.0 ~ 2610.0	17M9W7D	-	0.1849

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	4M51G7D	-	0.3027	4M51W7D	-	0.2529
10	2501.0 ~ 2685.0	9M05G7D	0.0019	0.3112	9M03W7D	-	0.2642
15	2503.5 ~ 2682.5	13M5G7D	-	0.2723	13M5W7D	-	0.2399
20	2506.0 ~ 2680.0	17M9G7D	-	0.3148	17M9W7D	-	0.2624

LTE Band 41		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2498.5 ~ 2687.5	4M49W7D	-	0.1845
10	2501.0 ~ 2685.0	9M03W7D	-	0.2000
15	2503.5 ~ 2682.5	13M5W7D	-	0.1683
20	2506.0 ~ 2680.0	17M9W7D	-	0.1849

LTE Band 7 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
10MHz+20MHz	30M2G7D	-	0.3733	29M9W7D	-	0.2838
15MHz+15MHz	30M9G7D	-	0.3724	30M6W7D	-	0.2897
15MHz+20MHz	34M8G7D	-	0.3698	35M0W7D	-	0.2931
15MHz+10MHz	26M3G7D	-	0.3724	25M5W7D	-	0.2972
20MHz+10MHz	30M2G7D	-	0.3707	30M1W7D	-	0.2844
20MHz+15MHz	35M0G7D	-	0.3724	35M0W7D	-	0.3006
20MHz+20MHz	40M0G7D	-	0.3741	39M9W7D	-	0.2958

LTE Band 7 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
10MHz+20MHz	30M0W7D	-	0.2118
15MHz+15MHz	30M6W7D	-	0.2113
15MHz+20MHz	34M8W7D	-	0.2065
15MHz+10MHz	25M5W7D	-	0.2113
20MHz+10MHz	30M2W7D	-	0.2046
20MHz+15MHz	35M0W7D	-	0.2138
20MHz+20MHz	39M9W7D	-	0.2104

LTE Band 38 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
15MHz+15MHz	30M5G7D	-	0.3013	30M5W7D	-	0.2118
20MHz+20MHz	39M8G7D	-	0.3126	39M7W7D	-	0.2477

LTE Band 38 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
15MHz+15MHz	30M3W7D	-	0.2138
20MHz+20MHz	39M6W7D	-	0.2449

LTE Band 41 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5MHz+20MHz	24M9G7D	-	0.2624	24M7W7D	-	0.2000
10MHz+20MHz	29M9G7D	-	0.2710	29M7W7D	-	0.1888
10MHz+15MHz	25M3G7D	-	0.2877	25M2W7D	-	0.2228
15MHz+15MHz	30M5G7D	-	0.3013	30M5W7D	-	0.2118
15MHz+20MHz	34M8G7D	-	0.3119	34M8W7D	-	0.2323
15MHz+10MHz	25M4G7D	-	0.2649	25M3W7D	-	0.1950
20MHz+5MHz	25M1G7D	-	0.3006	25M2W7D	-	0.2148
20MHz+10MHz	30M1G7D	-	0.2723	29M9W7D	-	0.2051
20MHz+15MHz	34M9G7D	-	0.3097	34M8W7D	-	0.2333
20MHz+20MHz	39M8G7D	-	0.3126	39M7W7D	-	0.2477

LTE Band 41 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5MHz+20MHz	24M7W7D	-	0.1982
10MHz+20MHz	29M7W7D	-	0.1932
10MHz+15MHz	25M2W7D	-	0.2178
15MHz+15MHz	30M3W7D	-	0.2138
15MHz+20MHz	34M6W7D	-	0.2421
15MHz+10MHz	25M2W7D	-	0.2037
20MHz+5MHz	25M1W7D	-	0.2173
20MHz+10MHz	30M1W7D	-	0.2133
20MHz+15MHz	34M8W7D	-	0.2333
20MHz+20MHz	39M6W7D	-	0.2449

Note:

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

1.7 Testing Location

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan Shenzhen, 518055 People's Republic of China TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH04-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH04-SZ	AUDIX	E3	6.2009-8-24

1.9 Applicable Standards

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

- 47 CFR Part 2, 22(H), 24(E), 27(L), 27(H), 27(M)
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

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

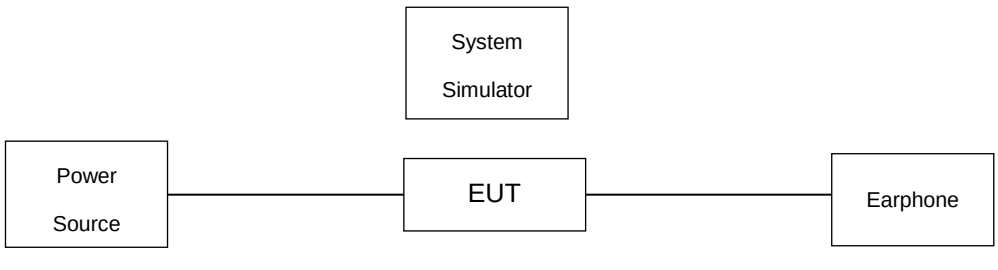
Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	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
Peak-to-Average Ratio	2						v	v	v	v	v		v	v	v	v
	4						v	v	v	v	v		v	v	v	v
	5				v	-	-	v	v	v	v		v	v	v	v
	7	-	-				v	v	v	v	v		v	v	v	v
	12				v	-	-	v	v	v	v		v	v	v	v
	26				v		-	v	v	v	v		v	v	v	v
	41	-	-				v	v	v	v	v		v	v	v	v
26dB and 99% Bandwidth	2	v	v	v	v	v	v	v	v	v			v	v	v	v
	4	v	v	v	v	v	v	v	v	v			v	v	v	v
	5	v	v	v	v	-	-	v	v	v			v	v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v	v
	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

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

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
E.R.P / E.I.R.P	2	v	v	v	v	v	v	v	v	v	v			v	v	v
	4	v	v	v	v	v	v	v	v	v	v			v	v	v
	5	v	v	v	v	-	-	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v	v			v	v	v
	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
Radiated Spurious Emission	2	Worst Case													v	
	4	Worst Case													v	
	5	Worst Case													v	
	7	Worst Case													v	
	12	Worst Case													v	
	26	Worst Case													v	
	41	Worst Case													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 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. 5. LTE Band 41 overlaps the entire frequency range of LTE Band 38. Therefore, the test results provided in this report covers Band 41 as well as Band 38.															

Test Items	Band	Bandwidth (MHz)										Modulation			RB #			Test Channel		
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v	v	v	v
	38C_CA	v	-	-	-	-	-	-	v	-	-	v	v	v	v	v	v	v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v			v	v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v		v	v		v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v			v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
E.I.R.P.	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v			v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	7C_CA	Worst Case																v	v	v
	41C_CA	Worst Case																v	v	v
Note	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.																			

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

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

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4 dB and 10dB attenuator.

Example :

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

= 4 + 10 = 14 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

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

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

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

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

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

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

LTE Band 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 7C_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	20850	21001	21152
		Frequency	2510.0	2525.1	2540.2
	SCC	Channel	21048	21199	21350
		Frequency	2529.8	2544.9	2560.0
20 + 15	PCC	Channel	20850	21026	21201
		Frequency	2510.0	2527.6	2545.1
	SCC	Channel	21021	21197	21372
		Frequency	2527.1	2544.7	2562.2
15 + 20	PCC	Channel	20828	21003	21179
		Frequency	2507.8	2525.3	2542.9
	SCC	Channel	20999	21174	21350
		Frequency	2524.9	2542.4	2560.0
20 + 10	PCC	Channel	20850	21051	21251
		Frequency	2510.0	2530.1	2550.1
	SCC	Channel	20994	21195	21395
		Frequency	2524.4	2544.5	2564.5
10 + 20	PCC	Channel	20805	21006	21206
		Frequency	2505.5	2525.6	2545.6
	SCC	Channel	20949	21150	21350
		Frequency	2519.9	2540.0	2560.0
15 + 15	PCC	Channel	20825	21025	21225
		Frequency	2507.5	2527.5	2547.5
	SCC	Channel	20975	21175	21375
		Frequency	2522.5	2542.5	2562.5
15 + 10	PCC	Channel	20825	21051	21277
		Frequency	2507.5	2530.1	2552.7
	SCC	Channel	20945	21171	21397
		Frequency	2519.5	2542.1	2564.7

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

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

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

3 Conducted Test Items

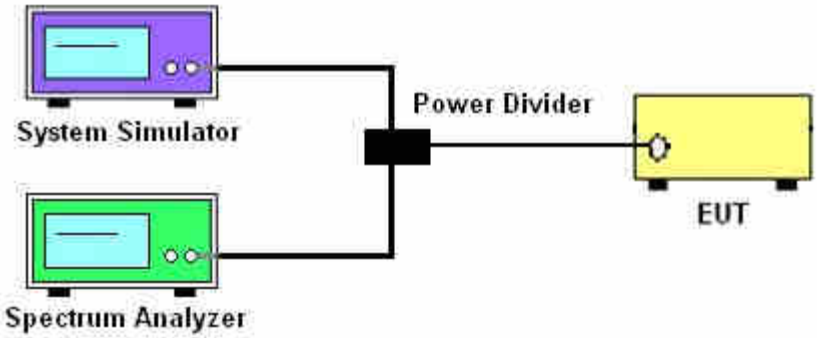
3.1 Measuring Instruments

See list of measuring instruments of this test report.

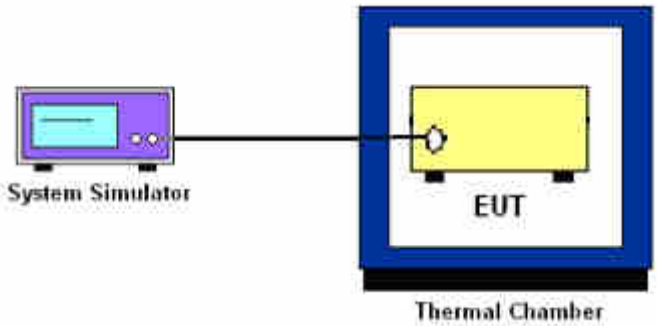
3.2 Test Setup

3.2.1 Conducted Output Power

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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

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

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

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

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

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

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

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

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

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

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

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

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

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

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

24.238 (a)

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

27.53 (g)

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

27.53 (h)

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

27.53(m)(4)

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

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.
   Example:
   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
9. For LTE Band 7, 38, 41, the other 40 dB, and 55 dB have additionally applied same calculation above.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

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

For Band 7,38,41:

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

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

3.8.2 Test Procedures

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

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

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

3.9.2 Test Procedures for Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
4. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 Test Procedures for Voltage Variation

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

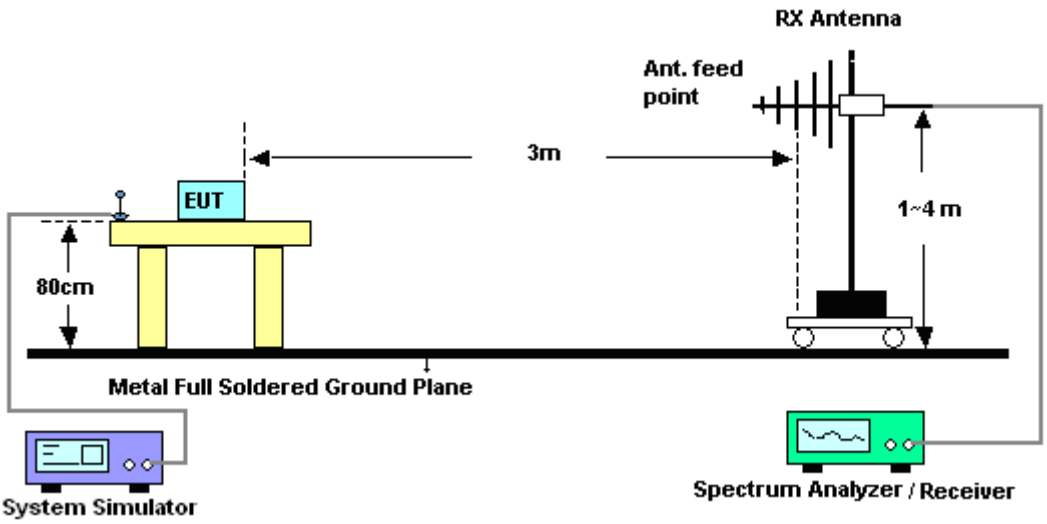
4 Radiated Test Items

4.1 Measuring Instruments

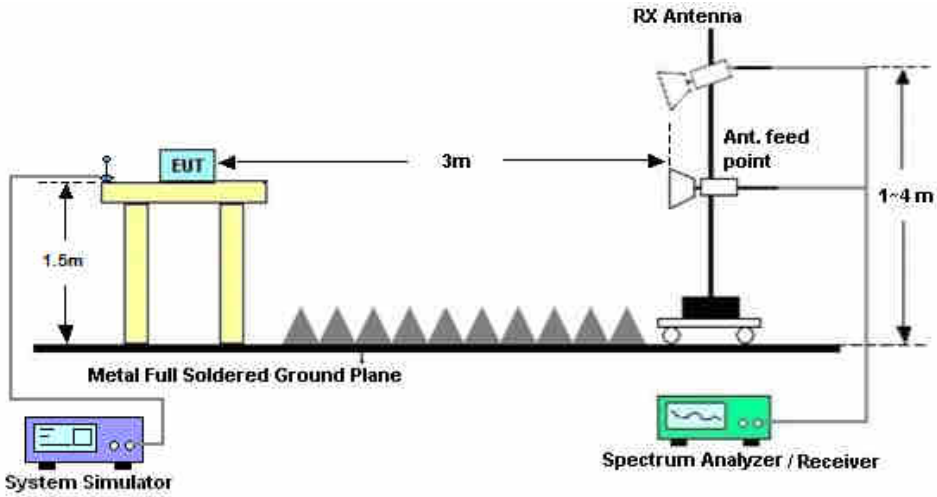
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

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

For Band 7, 38, 41

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

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

4.4.2 Test Procedures

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

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 16, 2020	Jun. 22, 2020~ Jul. 03, 2020	Apr. 15, 2021	Conducted (TH01-SZ)
DC Power Supply	GWINSTEK	AnritsuGPS-3030D	EM882636	Max 30V	Apr. 16, 2020	Jun. 22, 2020~ Jul. 03, 2020	Apr. 15, 2021	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Dec. 26, 2019	Jun. 22, 2020~ Jul. 03, 2020	Dec. 25, 2020	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz	Apr. 17, 2020	Jun. 21, 2020	Apr. 16, 2021	Radiation (03CH04-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Apr. 17, 2020	Jun. 21, 2020	Apr. 16, 2021	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Aug. 27, 2019	Jun. 21, 2020	Aug. 26, 2020	Radiation (03CH04-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1474	1GHz~18GHz	Apr. 01, 2020	Jun. 21, 2020	Mar. 31, 2021	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	Apr. 17, 2020	Jun. 21, 2020	Apr. 16, 2021	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 18, 2019	Jun. 21, 2020	Oct. 17, 2020	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1943528	1GHz~18GHz	Oct. 18, 2019	Jun. 21, 2020	Oct. 17, 2020	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 22, 2019	Jun. 21, 2020	Jul. 21, 2020	Radiation (03CH04-SZ)
Amplifier	Agilent Technologies	83017A	MY53270156	500MHz~26.5GHz	Aug. 26 2019	Jun. 21, 2020	Aug. 25, 2020	Radiation (03CH04-SZ)
AC Power Source	Chroma	61601	N/A	N/A	NCR	Jun. 21, 2020	NCR	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jun. 21, 2020	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jun. 21, 2020	NCR	Radiation (03CH04-SZ)

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))	2.8dB

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

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

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

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

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	23.84	24.03	24.02
20	QPSK	1	49	23.89	24.10	23.83
20	QPSK	1	99	23.88	23.70	23.84
20	QPSK	50	0	22.99	23.11	23.10
20	QPSK	50	24	22.96	22.95	23.01
20	QPSK	50	50	22.83	22.77	23.10
20	QPSK	100	0	22.97	23.03	23.02
20	16QAM	1	0	23.32	23.35	23.50
20	16QAM	1	49	23.33	23.38	23.40
20	16QAM	1	99	22.98	22.85	23.20
20	16QAM	50	0	22.01	21.95	22.04
20	16QAM	50	24	21.90	22.09	22.13
20	16QAM	50	50	21.79	21.87	21.93
20	16QAM	100	0	21.79	22.11	22.18
20	64QAM	1	0	22.04	22.24	22.20
20	64QAM	1	49	22.06	21.98	22.11
20	64QAM	1	99	22.02	21.99	22.04
20	64QAM	50	0	20.93	21.06	21.16
20	64QAM	50	24	20.92	20.94	21.00
20	64QAM	50	50	20.77	20.79	20.92
20	64QAM	100	0	20.79	21.06	21.07

Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	23.87	24.03	24.08
15	QPSK	1	37	23.85	23.72	23.72
15	QPSK	1	74	23.86	24.03	24.04
15	QPSK	36	0	22.98	22.82	23.06
15	QPSK	36	20	22.89	22.94	22.94
15	QPSK	36	39	22.86	22.89	23.06
15	QPSK	75	0	22.82	22.88	23.09
15	16QAM	1	0	23.48	23.53	23.57
15	16QAM	1	37	22.95	23.28	23.32
15	16QAM	1	74	23.49	22.92	23.07
15	16QAM	36	0	22.10	22.15	22.09
15	16QAM	36	20	21.95	21.94	22.03
15	16QAM	36	39	21.82	21.86	22.04
15	16QAM	75	0	21.91	21.95	22.12
15	64QAM	1	0	22.25	21.86	22.32
15	64QAM	1	37	21.94	21.99	22.21
15	64QAM	1	74	22.09	22.08	21.91
15	64QAM	36	0	21.06	20.91	21.06
15	64QAM	36	20	20.91	20.93	21.05
15	64QAM	36	39	20.86	20.83	20.91
15	64QAM	75	0	20.94	20.90	21.01

Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	23.70	23.95	24.02
10	QPSK	1	25	23.77	23.79	23.82
10	QPSK	1	49	23.98	24.02	24.04
10	QPSK	25	0	22.76	22.82	23.06
10	QPSK	25	12	22.84	22.73	22.95
10	QPSK	25	25	22.65	22.76	23.00
10	QPSK	50	0	22.76	22.81	23.14
10	16QAM	1	0	23.25	23.24	23.29
10	16QAM	1	25	22.97	23.22	23.20
10	16QAM	1	49	23.21	23.25	23.22
10	16QAM	25	0	21.75	21.81	22.07
10	16QAM	25	12	21.97	21.84	22.15
10	16QAM	25	25	21.73	21.68	21.93
10	16QAM	50	0	21.85	21.86	22.04
10	64QAM	1	0	22.16	21.79	22.26
10	64QAM	1	25	22.04	21.92	21.65
10	64QAM	1	49	22.25	22.06	22.26
10	64QAM	25	0	20.83	20.90	21.03
10	64QAM	25	12	20.79	20.81	21.19
10	64QAM	25	25	20.79	20.64	20.96
10	64QAM	50	0	20.75	20.88	21.14

Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	23.81	23.90	23.98
5	QPSK	1	12	23.60	23.73	23.79
5	QPSK	1	24	23.75	23.88	24.09
5	QPSK	12	0	22.78	22.85	22.95
5	QPSK	12	7	22.71	22.78	22.99
5	QPSK	12	13	22.91	22.79	23.00
5	QPSK	25	0	22.80	22.83	22.93
5	16QAM	1	0	23.06	23.20	23.33
5	16QAM	1	12	22.85	22.90	23.31
5	16QAM	1	24	22.69	23.08	23.22
5	16QAM	12	0	21.96	21.88	22.01
5	16QAM	12	7	21.69	21.87	21.99
5	16QAM	12	13	21.81	21.84	22.08
5	16QAM	25	0	21.94	21.75	21.99
5	64QAM	1	0	22.04	22.00	22.06
5	64QAM	1	12	22.11	21.57	22.11
5	64QAM	1	24	22.04	21.91	22.04
5	64QAM	12	0	20.87	20.94	21.07
5	64QAM	12	7	20.80	20.94	20.97
5	64QAM	12	13	20.89	20.96	20.93
5	64QAM	25	0	20.87	20.88	21.00

Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	23.60	23.85	23.79
3	QPSK	1	8	23.61	23.76	23.90
3	QPSK	1	14	23.82	23.61	23.77
3	QPSK	8	0	22.82	22.82	22.99
3	QPSK	8	4	22.88	22.79	22.92
3	QPSK	8	7	22.67	22.81	23.04
3	QPSK	15	0	22.71	22.71	22.97
3	16QAM	1	0	23.02	23.11	23.07
3	16QAM	1	8	22.80	23.03	22.95
3	16QAM	1	14	23.04	23.01	23.03
3	16QAM	8	0	21.73	22.11	21.96
3	16QAM	8	4	21.77	22.05	22.00
3	16QAM	8	7	21.76	21.93	21.92
3	16QAM	15	0	21.83	21.71	22.05
3	64QAM	1	0	21.94	21.79	22.02
3	64QAM	1	8	21.79	21.77	21.99
3	64QAM	1	14	22.12	22.01	21.93
3	64QAM	8	0	20.85	21.10	21.01
3	64QAM	8	4	20.87	20.83	21.13
3	64QAM	8	7	20.73	20.80	20.94
3	64QAM	15	0	20.72	20.81	20.91

Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	23.61	23.56	23.75
1.4	QPSK	1	3	23.68	23.79	23.68
1.4	QPSK	1	5	23.59	23.77	23.86
1.4	QPSK	3	0	23.68	23.81	23.86
1.4	QPSK	3	1	23.70	23.73	23.64
1.4	QPSK	3	3	23.60	23.72	23.65
1.4	QPSK	6	0	22.64	22.64	22.74
1.4	16QAM	1	0	22.98	22.76	23.09
1.4	16QAM	1	3	22.71	23.02	23.05
1.4	16QAM	1	5	22.94	23.09	22.76
1.4	16QAM	3	0	22.76	22.90	22.86
1.4	16QAM	3	1	22.64	22.89	22.89
1.4	16QAM	3	3	22.72	22.79	22.65
1.4	16QAM	6	0	21.77	21.68	21.72
1.4	64QAM	1	0	21.96	22.02	22.04
1.4	64QAM	1	3	21.80	21.65	22.10
1.4	64QAM	1	5	21.83	21.83	21.88
1.4	64QAM	3	0	21.82	21.89	21.82
1.4	64QAM	3	1	21.90	21.54	21.88
1.4	64QAM	3	3	21.53	21.96	22.00
1.4	64QAM	6	0	20.62	20.67	20.78

LTE Band 4

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	23.54	23.70	23.72
20	QPSK	1	49	23.72	23.66	23.59
20	QPSK	1	99	23.76	23.82	23.58
20	QPSK	50	0	22.62	22.82	22.74
20	QPSK	50	24	22.56	22.61	22.66
20	QPSK	50	50	22.66	22.63	22.72
20	QPSK	100	0	22.59	22.72	22.70
20	16QAM	1	0	22.95	22.95	22.83
20	16QAM	1	49	22.60	22.84	22.93
20	16QAM	1	99	22.86	23.09	22.92
20	16QAM	50	0	21.59	21.98	21.52
20	16QAM	50	24	21.15	21.57	21.68
20	16QAM	50	50	21.72	21.60	21.84
20	16QAM	100	0	21.70	21.77	21.76
20	64QAM	1	0	21.56	22.02	21.97
20	64QAM	1	49	21.63	21.45	22.01
20	64QAM	1	99	22.06	22.00	21.85
20	64QAM	50	0	20.86	20.94	20.74
20	64QAM	50	24	20.86	20.63	20.74
20	64QAM	50	50	20.59	20.64	20.72
20	64QAM	100	0	20.65	20.77	20.64

Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	23.44	23.79	23.79
15	QPSK	1	37	23.26	23.46	23.57
15	QPSK	1	74	23.72	23.72	23.70
15	QPSK	36	0	22.52	22.51	22.60
15	QPSK	36	20	22.51	22.55	22.53
15	QPSK	36	39	22.33	22.60	22.63
15	QPSK	75	0	22.62	22.65	22.53
15	16QAM	1	0	23.03	23.08	23.07
15	16QAM	1	37	23.03	23.01	23.03
15	16QAM	1	74	23.08	23.05	23.13
15	16QAM	36	0	21.58	21.70	21.48
15	16QAM	36	20	21.29	21.43	21.59
15	16QAM	36	39	21.51	21.77	21.60
15	16QAM	75	0	21.33	21.66	21.55
15	64QAM	1	0	21.94	21.93	21.56
15	64QAM	1	37	21.98	21.61	21.71
15	64QAM	1	74	22.06	21.90	21.91
15	64QAM	36	0	20.69	20.82	20.68
15	64QAM	36	20	20.89	20.53	20.52
15	64QAM	36	39	20.81	20.78	20.59
15	64QAM	75	0	20.88	20.65	20.44

Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	23.49	23.76	23.69
10	QPSK	1	25	23.65	23.56	23.72
10	QPSK	1	49	23.76	23.78	23.73
10	QPSK	25	0	22.33	22.58	22.32
10	QPSK	25	12	22.30	22.60	22.69
10	QPSK	25	25	22.48	22.61	22.79
10	QPSK	50	0	22.25	22.48	22.76
10	16QAM	1	0	23.16	22.83	23.08
10	16QAM	1	25	22.64	22.73	23.11
10	16QAM	1	49	23.14	23.02	23.10
10	16QAM	25	0	21.47	21.65	21.67
10	16QAM	25	12	21.49	21.56	21.67
10	16QAM	25	25	21.59	21.55	21.79
10	16QAM	50	0	21.27	21.64	21.83
10	64QAM	1	0	21.98	21.77	21.95
10	64QAM	1	25	21.39	21.52	21.71
10	64QAM	1	49	22.09	21.96	21.92
10	64QAM	25	0	20.46	20.63	20.52
10	64QAM	25	12	20.41	20.68	20.80
10	64QAM	25	25	20.55	20.61	20.73
10	64QAM	50	0	20.13	20.48	20.68

Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	23.20	23.70	23.71
5	QPSK	1	12	23.39	23.52	23.50
5	QPSK	1	24	23.22	23.41	23.61
5	QPSK	12	0	22.42	22.48	22.64
5	QPSK	12	7	22.34	22.58	22.67
5	QPSK	12	13	22.36	22.46	22.59
5	QPSK	25	0	22.43	22.56	22.68
5	16QAM	1	0	22.59	23.28	23.20
5	16QAM	1	12	22.41	22.65	22.75
5	16QAM	1	24	22.67	22.59	23.01
5	16QAM	12	0	21.49	21.74	21.64
5	16QAM	12	7	21.40	21.55	21.83
5	16QAM	12	13	21.40	21.52	21.66
5	16QAM	25	0	21.54	21.57	21.64
5	64QAM	1	0	21.68	21.78	21.56
5	64QAM	1	12	21.35	21.78	21.90
5	64QAM	1	24	21.22	21.83	22.01
5	64QAM	12	0	20.47	20.73	20.69
5	64QAM	12	7	20.42	20.70	20.71
5	64QAM	12	13	20.34	20.50	20.64
5	64QAM	25	0	20.55	20.64	20.67

Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	23.35	23.58	23.64
3	QPSK	1	8	23.30	23.57	23.69
3	QPSK	1	14	23.01	23.75	23.78
3	QPSK	8	0	22.31	22.75	22.78
3	QPSK	8	4	22.24	22.66	22.63
3	QPSK	8	7	22.41	22.56	22.71
3	QPSK	15	0	22.47	22.59	22.67
3	16QAM	1	0	22.73	22.78	22.73
3	16QAM	1	8	23.01	22.79	22.41
3	16QAM	1	14	22.94	22.70	22.54
3	16QAM	8	0	21.25	21.62	21.74
3	16QAM	8	4	21.19	21.63	21.58
3	16QAM	8	7	21.44	21.62	21.69
3	16QAM	15	0	21.39	21.62	21.63
3	64QAM	1	0	21.56	21.90	21.89
3	64QAM	1	8	21.20	21.53	21.97
3	64QAM	1	14	21.36	21.74	21.40
3	64QAM	8	0	20.65	20.67	20.86
3	64QAM	8	4	20.13	20.55	20.66
3	64QAM	8	7	20.36	20.62	20.56
3	64QAM	15	0	20.44	20.55	20.64

Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	23.04	23.31	23.06
1.4	QPSK	1	3	23.60	23.59	23.61
1.4	QPSK	1	5	23.24	23.50	23.16
1.4	QPSK	3	0	23.27	23.55	23.42
1.4	QPSK	3	1	23.34	23.41	23.62
1.4	QPSK	3	3	23.14	23.39	23.53
1.4	QPSK	6	0	22.18	22.37	22.47
1.4	16QAM	1	0	22.34	22.70	22.57
1.4	16QAM	1	3	22.32	22.53	22.55
1.4	16QAM	1	5	22.35	22.50	22.66
1.4	16QAM	3	0	22.14	22.46	22.52
1.4	16QAM	3	1	22.32	22.43	22.53
1.4	16QAM	3	3	22.22	22.64	22.50
1.4	16QAM	6	0	21.58	21.58	21.68
1.4	64QAM	1	0	21.39	21.62	21.84
1.4	64QAM	1	3	21.64	21.71	21.80
1.4	64QAM	1	5	21.26	21.62	21.82
1.4	64QAM	3	0	21.45	21.62	21.72
1.4	64QAM	3	1	21.33	21.65	21.61
1.4	64QAM	3	3	21.40	21.57	21.74
1.4	64QAM	6	0	20.21	20.44	20.61

LTE Band 5

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	23.54	23.51	23.54
10	QPSK	1	25	23.37	23.41	23.56
10	QPSK	1	49	23.93	23.92	23.90
10	QPSK	25	0	23.02	22.78	22.98
10	QPSK	25	12	22.63	22.65	22.95
10	QPSK	25	25	22.59	22.77	22.95
10	QPSK	50	0	22.86	22.70	22.82
10	16QAM	1	0	22.47	23.11	23.10
10	16QAM	1	25	22.62	22.78	22.97
10	16QAM	1	49	23.25	22.94	23.25
10	16QAM	25	0	21.59	21.64	22.06
10	16QAM	25	12	21.60	21.73	22.01
10	16QAM	25	25	21.58	21.78	22.03
10	16QAM	50	0	21.52	21.67	21.89
10	64QAM	1	0	21.83	21.77	22.35
10	64QAM	1	25	21.68	21.93	21.95
10	64QAM	1	49	21.63	21.98	22.29
10	64QAM	25	0	20.41	20.70	21.00
10	64QAM	25	12	20.48	20.71	21.04
10	64QAM	25	25	20.51	20.78	20.91
10	64QAM	50	0	20.58	20.69	20.96

Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	23.46	23.50	23.48
5	QPSK	1	12	23.26	23.38	23.37
5	QPSK	1	24	23.41	23.59	23.72
5	QPSK	12	0	22.39	22.71	22.71
5	QPSK	12	7	22.37	22.64	22.69
5	QPSK	12	13	22.28	22.64	22.72
5	QPSK	25	0	22.45	22.62	22.70
5	16QAM	1	0	22.97	22.78	22.67
5	16QAM	1	12	22.27	22.78	22.84
5	16QAM	1	24	22.93	22.85	22.88
5	16QAM	12	0	21.39	21.74	21.70
5	16QAM	12	7	21.40	21.73	21.66
5	16QAM	12	13	21.40	21.71	21.81
5	16QAM	25	0	21.42	21.62	21.71
5	64QAM	1	0	21.44	21.71	21.91
5	64QAM	1	12	21.50	21.71	21.90
5	64QAM	1	24	21.69	21.75	21.95
5	64QAM	12	0	20.41	20.72	20.79
5	64QAM	12	7	20.35	20.68	20.66
5	64QAM	12	13	20.34	20.77	20.70
5	64QAM	25	0	20.39	20.54	20.69

Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	23.30	23.43	23.44
3	QPSK	1	8	23.29	23.39	23.51
3	QPSK	1	14	23.32	23.70	23.64
3	QPSK	8	0	22.44	22.70	22.72
3	QPSK	8	4	22.33	22.65	22.65
3	QPSK	8	7	22.33	22.63	22.71
3	QPSK	15	0	22.36	22.66	22.72
3	16QAM	1	0	22.62	22.91	23.00
3	16QAM	1	8	22.80	23.05	23.07
3	16QAM	1	14	22.42	23.15	23.09
3	16QAM	8	0	21.23	21.69	21.68
3	16QAM	8	4	21.37	21.71	21.72
3	16QAM	8	7	21.45	21.73	21.78
3	16QAM	15	0	21.30	21.70	21.61
3	64QAM	1	0	21.59	21.80	21.93
3	64QAM	1	8	21.58	21.91	21.92
3	64QAM	1	14	21.27	21.95	21.99
3	64QAM	8	0	20.25	20.63	20.66
3	64QAM	8	4	20.30	20.61	20.76
3	64QAM	8	7	20.48	20.61	20.79
3	64QAM	15	0	20.22	20.54	20.64

Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	23.31	23.38	23.34
1.4	QPSK	1	3	23.31	23.37	23.44
1.4	QPSK	1	5	23.22	23.44	23.55
1.4	QPSK	3	0	23.28	23.53	23.50
1.4	QPSK	3	1	23.37	23.55	23.52
1.4	QPSK	3	3	23.36	23.50	23.56
1.4	QPSK	6	0	22.23	22.54	22.60
1.4	16QAM	1	0	22.65	22.49	22.71
1.4	16QAM	1	3	22.61	22.75	22.71
1.4	16QAM	1	5	22.93	23.15	22.53
1.4	16QAM	3	0	22.34	22.50	22.75
1.4	16QAM	3	1	22.38	22.65	22.66
1.4	16QAM	3	3	22.34	22.62	22.69
1.4	16QAM	6	0	21.24	21.64	21.77
1.4	64QAM	1	0	21.56	21.75	21.55
1.4	64QAM	1	3	21.56	21.85	21.43
1.4	64QAM	1	5	21.59	21.87	21.62
1.4	64QAM	3	0	21.46	21.62	21.78
1.4	64QAM	3	1	21.12	21.71	21.81
1.4	64QAM	3	3	21.08	21.62	21.80
1.4	64QAM	6	0	20.29	20.48	20.63

LTE Band 7

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	24.00	24.02	23.99
20	QPSK	1	49	23.47	23.72	23.98
20	QPSK	1	99	23.87	23.94	23.69
20	QPSK	50	0	22.96	23.04	23.02
20	QPSK	50	24	22.95	22.95	23.01
20	QPSK	50	50	22.94	22.93	22.98
20	QPSK	100	0	22.99	23.03	23.01
20	16QAM	1	0	22.80	23.38	23.19
20	16QAM	1	49	23.05	22.96	23.17
20	16QAM	1	99	22.77	23.03	23.10
20	16QAM	50	0	21.73	21.94	22.00
20	16QAM	50	24	21.98	21.94	22.09
20	16QAM	50	50	22.02	22.03	22.13
20	16QAM	100	0	21.95	22.07	22.15
20	64QAM	1	0	22.19	21.89	22.25
20	64QAM	1	49	21.52	21.88	21.82
20	64QAM	1	99	22.01	22.12	22.07
20	64QAM	50	0	20.81	20.95	21.07
20	64QAM	50	24	20.86	20.89	20.93
20	64QAM	50	50	20.96	21.01	21.01
20	64QAM	100	0	20.89	21.03	21.16

Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	23.49	23.82	23.98
15	QPSK	1	37	23.76	23.63	24.00
15	QPSK	1	74	23.98	23.81	23.64
15	QPSK	36	0	22.89	22.86	23.20
15	QPSK	36	20	22.74	22.88	23.15
15	QPSK	36	39	22.85	22.91	23.11
15	QPSK	75	0	22.92	22.91	23.17
15	16QAM	1	0	22.49	23.19	22.86
15	16QAM	1	37	22.85	23.14	22.86
15	16QAM	1	74	23.25	23.01	22.79
15	16QAM	36	0	21.85	21.91	22.17
15	16QAM	36	20	21.83	21.93	22.13
15	16QAM	36	39	21.85	21.94	22.08
15	16QAM	75	0	21.93	21.96	22.19
15	64QAM	1	0	22.00	22.16	22.02
15	64QAM	1	37	21.53	21.79	21.93
15	64QAM	1	74	22.02	22.28	22.10
15	64QAM	36	0	20.92	20.96	21.19
15	64QAM	36	20	20.94	20.90	21.18
15	64QAM	36	39	20.81	20.91	20.77
15	64QAM	75	0	20.85	20.91	21.09

Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	23.65	23.93	24.01
10	QPSK	1	25	23.76	24.00	24.00
10	QPSK	1	49	24.01	24.00	23.27
10	QPSK	25	0	22.74	22.89	22.96
10	QPSK	25	12	22.80	22.79	23.15
10	QPSK	25	25	22.75	23.03	22.99
10	QPSK	50	0	22.83	22.92	22.67
10	16QAM	1	0	23.48	22.96	23.31
10	16QAM	1	25	23.11	23.19	23.49
10	16QAM	1	49	23.01	23.37	22.28
10	16QAM	25	0	21.84	21.99	22.00
10	16QAM	25	12	21.57	21.85	21.87
10	16QAM	25	25	21.72	22.00	22.07
10	16QAM	50	0	21.78	21.85	22.34
10	64QAM	1	0	21.91	22.19	22.16
10	64QAM	1	25	21.98	22.03	22.40
10	64QAM	1	49	22.04	22.23	21.79
10	64QAM	25	0	20.67	20.86	20.99
10	64QAM	25	12	20.74	20.74	20.95
10	64QAM	25	25	20.72	20.92	21.00
10	64QAM	50	0	20.94	20.85	20.97

Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	23.47	23.81	23.70
5	QPSK	1	12	23.67	23.64	24.00
5	QPSK	1	24	23.60	23.77	23.47
5	QPSK	12	0	22.75	22.87	22.96
5	QPSK	12	7	22.78	22.80	22.98
5	QPSK	12	13	22.61	22.87	22.63
5	QPSK	25	0	22.69	22.83	22.93
5	16QAM	1	0	23.03	23.30	23.47
5	16QAM	1	12	23.22	23.26	23.35
5	16QAM	1	24	22.92	23.19	22.67
5	16QAM	12	0	21.64	21.94	22.02
5	16QAM	12	7	21.72	21.88	21.96
5	16QAM	12	13	21.55	21.90	21.99
5	16QAM	25	0	21.73	21.88	22.00
5	64QAM	1	0	21.88	21.94	22.12
5	64QAM	1	12	21.68	21.78	22.02
5	64QAM	1	24	21.85	22.10	21.97
5	64QAM	12	0	20.68	20.88	20.98
5	64QAM	12	7	20.86	20.90	21.00
5	64QAM	12	13	20.65	20.90	20.95
5	64QAM	25	0	20.69	20.82	20.94

LTE Band 12

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	23.31	23.31	23.32
10	QPSK	1	25	23.34	23.57	23.43
10	QPSK	1	49	23.38	23.68	23.56
10	QPSK	25	0	22.18	22.37	22.27
10	QPSK	25	12	22.26	22.26	22.30
10	QPSK	25	25	22.26	22.24	22.25
10	QPSK	50	0	22.29	22.35	22.32
10	16QAM	1	0	22.79	22.65	22.31
10	16QAM	1	25	22.29	22.64	22.60
10	16QAM	1	49	22.60	22.85	22.60
10	16QAM	25	0	21.29	21.30	21.31
10	16QAM	25	12	21.22	21.27	21.39
10	16QAM	25	25	21.24	21.28	21.34
10	16QAM	50	0	21.32	21.27	21.44
10	64QAM	1	0	21.61	21.46	21.58
10	64QAM	1	25	22.00	21.50	21.39
10	64QAM	1	49	21.54	21.78	21.82
10	64QAM	25	0	20.29	20.25	20.25
10	64QAM	25	12	20.31	20.29	20.32
10	64QAM	25	25	20.29	20.26	20.29
10	64QAM	50	0	20.29	20.26	20.29

Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	23.07	23.24	23.11
5	QPSK	1	12	23.15	23.15	23.13
5	QPSK	1	24	23.19	23.23	23.24
5	QPSK	12	0	22.20	22.22	22.21
5	QPSK	12	7	22.15	22.16	22.20
5	QPSK	12	13	22.17	22.18	22.32
5	QPSK	25	0	22.17	22.15	22.24
5	16QAM	1	0	22.36	22.77	22.84
5	16QAM	1	12	22.22	22.70	22.31
5	16QAM	1	24	22.38	22.41	22.40
5	16QAM	12	0	21.28	21.19	21.39
5	16QAM	12	7	21.24	21.12	21.25
5	16QAM	12	13	21.23	21.22	21.26
5	16QAM	25	0	21.31	21.16	21.24
5	64QAM	1	0	21.27	21.48	21.49
5	64QAM	1	12	21.13	21.49	21.59
5	64QAM	1	24	21.56	21.51	21.02
5	64QAM	12	0	20.25	20.18	20.34
5	64QAM	12	7	20.29	20.35	20.25
5	64QAM	12	13	20.25	20.13	20.27
5	64QAM	25	0	20.21	20.27	20.24

Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	23.09	23.17	23.09
3	QPSK	1	8	23.15	23.27	23.17
3	QPSK	1	14	23.11	23.20	23.22
3	QPSK	8	0	22.14	22.23	22.18
3	QPSK	8	4	22.16	22.30	22.28
3	QPSK	8	7	22.20	22.24	22.19
3	QPSK	15	0	22.18	22.15	22.23
3	16QAM	1	0	22.29	22.33	22.75
3	16QAM	1	8	22.37	22.68	22.82
3	16QAM	1	14	22.57	22.68	22.61
3	16QAM	8	0	21.24	21.25	21.16
3	16QAM	8	4	21.28	21.35	21.27
3	16QAM	8	7	21.24	21.35	21.33
3	16QAM	15	0	21.17	21.13	21.42
3	64QAM	1	0	21.20	21.16	21.35
3	64QAM	1	8	21.51	21.29	21.50
3	64QAM	1	14	21.35	21.43	21.04
3	64QAM	8	0	20.20	20.29	20.18
3	64QAM	8	4	20.23	20.31	20.29
3	64QAM	8	7	20.35	20.22	20.37
3	64QAM	15	0	20.18	20.11	20.16

Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.93	23.00	22.98
1.4	QPSK	1	3	23.26	23.12	23.29
1.4	QPSK	1	5	23.09	23.21	23.06
1.4	QPSK	3	0	23.11	23.04	23.04
1.4	QPSK	3	1	23.07	23.06	23.09
1.4	QPSK	3	3	23.15	23.30	23.09
1.4	QPSK	6	0	22.00	22.02	22.05
1.4	16QAM	1	0	22.55	22.67	22.54
1.4	16QAM	1	3	22.57	22.49	22.08
1.4	16QAM	1	5	22.17	22.26	22.15
1.4	16QAM	3	0	22.13	21.97	22.13
1.4	16QAM	3	1	22.18	22.09	22.17
1.4	16QAM	3	3	21.93	22.23	22.09
1.4	16QAM	6	0	21.23	21.18	21.22
1.4	64QAM	1	0	21.31	20.91	21.47
1.4	64QAM	1	3	21.36	21.29	21.50
1.4	64QAM	1	5	21.36	21.12	21.34
1.4	64QAM	3	0	21.35	21.27	21.28
1.4	64QAM	3	1	20.96	21.28	21.42
1.4	64QAM	3	3	21.33	21.20	21.13
1.4	64QAM	6	0	20.05	20.01	20.06

LTE Band 17

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	23.21	23.07	23.27
10	QPSK	1	25	23.05	23.32	23.18
10	QPSK	1	49	23.39	23.43	23.31
10	QPSK	25	0	22.10	22.12	22.12
10	QPSK	25	12	22.12	22.05	22.08
10	QPSK	25	25	22.15	22.16	22.11
10	QPSK	50	0	22.14	22.16	22.12
10	16QAM	1	0	22.41	22.32	22.27
10	16QAM	1	25	22.44	22.05	22.20
10	16QAM	1	49	22.49	22.47	22.90
10	16QAM	25	0	21.17	21.07	21.15
10	16QAM	25	12	21.11	21.08	21.08
10	16QAM	25	25	21.16	21.21	21.03
10	16QAM	50	0	21.07	21.13	21.19
10	64QAM	1	0	21.61	21.47	21.60
10	64QAM	1	25	21.26	21.35	20.91
10	64QAM	1	49	21.57	21.60	21.39
10	64QAM	25	0	20.09	20.12	20.16
10	64QAM	25	12	20.15	20.16	20.14
10	64QAM	25	25	20.19	20.09	20.12
10	64QAM	50	0	20.15	20.06	20.11

Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	22.98	23.05	23.06
5	QPSK	1	12	23.03	22.94	23.00
5	QPSK	1	24	23.02	23.15	23.02
5	QPSK	12	0	21.95	22.02	22.03
5	QPSK	12	7	22.06	22.11	22.03
5	QPSK	12	13	22.07	22.04	22.14
5	QPSK	25	0	22.04	22.15	22.07
5	16QAM	1	0	22.57	22.42	22.28
5	16QAM	1	12	22.45	22.62	22.26
5	16QAM	1	24	22.60	22.55	22.64
5	16QAM	12	0	20.92	21.06	21.13
5	16QAM	12	7	21.13	21.19	21.12
5	16QAM	12	13	21.14	21.12	21.20
5	16QAM	25	0	20.99	20.99	20.98
5	64QAM	1	0	21.41	21.37	21.29
5	64QAM	1	12	21.31	21.21	21.08
5	64QAM	1	24	21.14	20.91	21.20
5	64QAM	12	0	20.04	20.06	20.16
5	64QAM	12	7	20.18	20.10	20.13
5	64QAM	12	13	20.22	20.10	20.14
5	64QAM	25	0	19.97	20.10	19.90

LTE Band 26

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				26865	26915	26965
Frequency (MHz)				831.5	836.5	841.5
15	QPSK	1	0	23.76	23.81	23.62
15	QPSK	1	37	23.47	23.40	23.48
15	QPSK	1	74	23.70	23.49	23.32
15	QPSK	36	0	22.62	22.68	22.49
15	QPSK	36	20	22.52	22.90	22.53
15	QPSK	36	39	22.53	22.70	22.57
15	QPSK	75	0	22.51	22.82	22.79
15	16QAM	1	0	22.76	22.72	22.63
15	16QAM	1	37	22.89	22.76	22.70
15	16QAM	1	74	22.84	22.77	22.54
15	16QAM	36	0	21.56	21.69	21.53
15	16QAM	36	20	21.45	21.37	21.56
15	16QAM	36	39	21.48	21.70	21.67
15	16QAM	75	0	21.48	21.77	21.56
15	16QAM	1	0	21.52	21.84	21.98
15	16QAM	1	37	21.96	22.02	21.85
15	16QAM	1	74	21.82	21.83	21.79
15	16QAM	36	0	20.54	20.77	20.63
15	16QAM	36	20	20.44	20.70	20.62
15	16QAM	36	39	20.54	20.80	20.66
15	16QAM	75	0	20.48	20.78	20.58

Channel				26840	26915	26990
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	23.61	23.69	23.40
10	QPSK	1	25	23.45	23.46	23.61
10	QPSK	1	49	23.49	23.52	23.51
10	QPSK	25	0	22.60	23.32	23.22
10	QPSK	25	12	22.48	22.89	23.27
10	QPSK	25	25	22.55	22.78	23.26
10	QPSK	50	0	22.64	23.23	23.21
10	16QAM	1	0	22.78	23.45	23.33
10	16QAM	1	25	22.66	23.19	23.34
10	16QAM	1	49	22.91	23.47	23.54
10	16QAM	25	0	21.63	21.80	22.40
10	16QAM	25	12	21.56	21.82	22.13
10	16QAM	25	25	21.66	21.84	22.24
10	16QAM	50	0	21.63	21.95	22.32
10	16QAM	1	0	21.55	22.24	22.27
10	16QAM	1	25	21.64	22.05	22.19
10	16QAM	1	49	21.90	21.95	22.50
10	16QAM	25	0	20.61	20.73	21.10
10	16QAM	25	12	20.54	20.84	21.18
10	16QAM	25	25	20.64	20.86	21.28
10	16QAM	50	0	20.56	20.90	21.24

Channel				26815	26915	27015
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	23.47	23.56	23.60
5	QPSK	1	12	23.49	23.66	23.54
5	QPSK	1	24	23.54	23.72	23.55
5	QPSK	12	0	22.55	22.78	23.22
5	QPSK	12	7	22.56	22.77	23.27
5	QPSK	12	13	22.57	22.80	23.23
5	QPSK	25	0	22.56	22.80	23.16
5	16QAM	1	0	23.11	23.08	23.39
5	16QAM	1	12	23.02	23.11	23.42
5	16QAM	1	24	23.23	22.90	23.33
5	16QAM	12	0	21.68	21.85	22.30
5	16QAM	12	7	21.75	21.79	22.18
5	16QAM	12	13	21.76	21.88	22.20
5	16QAM	25	0	21.61	21.76	22.25
5	16QAM	1	0	21.93	22.29	22.03
5	16QAM	1	12	21.83	22.11	22.06
5	16QAM	1	24	21.40	22.02	22.09
5	16QAM	12	0	20.65	20.78	21.30
5	16QAM	12	7	20.73	20.79	21.19
5	16QAM	12	13	20.75	20.88	21.27
5	16QAM	25	0	20.66	20.69	21.23

Channel				26805	26915	27025
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	23.44	23.55	23.68
3	QPSK	1	8	23.50	23.55	23.73
3	QPSK	1	14	23.51	23.47	23.58
3	QPSK	8	0	22.70	22.76	23.16
3	QPSK	8	4	22.60	22.69	23.21
3	QPSK	8	7	22.49	22.76	23.30
3	QPSK	15	0	22.56	22.77	23.18
3	16QAM	1	0	23.20	23.47	23.26
3	16QAM	1	8	22.87	23.09	23.31
3	16QAM	1	14	22.99	23.13	23.31
3	16QAM	8	0	21.76	21.78	22.27
3	16QAM	8	4	21.71	21.82	22.31
3	16QAM	8	7	21.61	21.79	22.27
3	16QAM	15	0	21.72	21.68	22.37
3	16QAM	1	0	21.72	22.08	22.35
3	16QAM	1	8	21.97	22.09	22.23
3	16QAM	1	14	21.60	21.87	22.37
3	16QAM	8	0	20.70	20.73	21.26
3	16QAM	8	4	20.70	20.76	21.30
3	16QAM	8	7	20.77	20.73	21.16
3	16QAM	15	0	20.61	20.85	21.24

Channel				26797	26915	27033
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	23.35	23.38	23.64
1.4	QPSK	1	3	23.66	23.69	23.68
1.4	QPSK	1	5	23.62	23.62	23.52
1.4	QPSK	3	0	23.49	23.73	23.51
1.4	QPSK	3	1	23.56	23.57	23.53
1.4	QPSK	3	3	23.69	23.62	23.50
1.4	QPSK	6	0	22.47	22.59	23.10
1.4	16QAM	1	0	23.02	23.09	23.30
1.4	16QAM	1	3	22.80	23.03	23.25
1.4	16QAM	1	5	22.73	23.15	23.30
1.4	16QAM	3	0	22.53	22.68	23.14
1.4	16QAM	3	1	22.70	22.54	23.13
1.4	16QAM	3	3	22.45	22.70	23.10
1.4	16QAM	6	0	21.73	21.78	22.10
1.4	16QAM	1	0	21.74	21.83	22.22
1.4	16QAM	1	3	21.46	21.58	22.12
1.4	16QAM	1	5	21.58	21.99	22.33
1.4	16QAM	3	0	21.44	21.47	22.10
1.4	16QAM	3	1	21.76	21.77	22.19
1.4	16QAM	3	3	21.82	21.78	22.15
1.4	16QAM	6	0	20.60	20.61	21.08

LTE Band 38

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				37850	38000	38150
Frequency (MHz)				2580	2595	2610
20	QPSK	1	0	23.30	23.56	23.63
20	QPSK	1	49	23.24	23.44	23.46
20	QPSK	1	99	23.73	23.64	23.72
20	QPSK	50	0	22.19	22.53	22.52
20	QPSK	50	24	22.24	22.61	22.46
20	QPSK	50	50	22.60	22.69	22.56
20	QPSK	100	0	22.58	22.54	22.55
20	16QAM	1	0	22.47	22.78	22.76
20	16QAM	1	49	22.50	22.58	22.62
20	16QAM	1	99	22.24	22.68	22.67
20	16QAM	50	0	21.19	21.58	21.50
20	16QAM	50	24	21.26	21.57	21.53
20	16QAM	50	50	21.51	21.69	21.60
20	16QAM	100	0	21.28	21.62	21.54
20	64QAM	1	0	21.22	21.51	21.52
20	64QAM	1	49	21.05	21.19	21.26
20	64QAM	1	99	21.04	21.38	21.40
20	64QAM	50	0	20.13	20.63	20.54
20	64QAM	50	24	20.30	20.51	20.48
20	64QAM	50	50	20.34	20.73	20.54
20	64QAM	100	0	20.32	20.66	20.60

Channel				37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5
15	QPSK	1	0	23.39	23.23	23.50
15	QPSK	1	37	23.07	23.39	23.36
15	QPSK	1	74	23.27	23.15	23.70
15	QPSK	36	0	22.14	21.97	22.59
15	QPSK	36	20	22.26	21.95	22.54
15	QPSK	36	39	22.34	22.10	22.70
15	QPSK	75	0	22.28	22.02	22.57
15	16QAM	1	0	22.61	22.42	22.68
15	16QAM	1	37	22.29	22.36	22.79
15	16QAM	1	74	22.23	21.99	22.67
15	16QAM	36	0	21.08	20.98	21.53
15	16QAM	36	20	21.13	20.97	21.58
15	16QAM	36	39	21.40	20.95	21.57
15	16QAM	75	0	21.28	21.09	21.65
15	64QAM	1	0	21.38	20.96	21.52
15	64QAM	1	37	20.71	20.69	21.20
15	64QAM	1	74	21.03	20.69	21.58
15	64QAM	36	0	20.07	20.13	20.71
15	64QAM	36	20	20.28	19.96	20.57
15	64QAM	36	39	20.28	20.10	20.73
15	64QAM	75	0	20.22	19.96	20.59

Channel				37800	38000	38200
Frequency (MHz)				2575	2595	2615
10	QPSK	1	0	23.70	23.67	23.70
10	QPSK	1	25	23.27	23.49	23.72
10	QPSK	1	49	23.63	23.58	23.70
10	QPSK	25	0	22.37	22.50	22.80
10	QPSK	25	12	22.34	22.43	22.73
10	QPSK	25	25	22.38	22.46	22.79
10	QPSK	50	0	22.43	22.50	22.71
10	16QAM	1	0	22.49	22.75	22.74
10	16QAM	1	25	22.51	22.63	22.84
10	16QAM	1	49	22.52	22.54	22.72
10	16QAM	25	0	21.29	21.49	21.81
10	16QAM	25	12	21.36	21.41	21.74
10	16QAM	25	25	21.38	21.44	21.79
10	16QAM	50	0	21.44	21.47	21.80
10	64QAM	1	0	21.42	21.58	21.76
10	64QAM	1	25	21.06	21.44	21.46
10	64QAM	1	49	21.26	21.33	21.53
10	64QAM	25	0	20.26	20.47	20.80
10	64QAM	25	12	20.35	20.48	20.81
10	64QAM	25	25	20.26	20.62	20.87
10	64QAM	50	0	20.38	20.51	20.75

Channel				37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5
5	QPSK	1	0	23.39	23.63	23.70
5	QPSK	1	12	23.34	23.65	23.57
5	QPSK	1	24	23.29	23.41	23.70
5	QPSK	12	0	22.31	22.37	22.70
5	QPSK	12	7	22.30	22.46	22.70
5	QPSK	12	13	22.35	22.42	22.61
5	QPSK	25	0	22.33	22.49	22.75
5	16QAM	1	0	22.53	22.65	22.81
5	16QAM	1	12	22.33	22.60	22.92
5	16QAM	1	24	22.14	22.33	22.83
5	16QAM	12	0	21.36	21.40	21.65
5	16QAM	12	7	21.24	21.49	21.64
5	16QAM	12	13	21.21	21.45	21.64
5	16QAM	25	0	21.24	21.49	21.65
5	64QAM	1	0	21.31	21.39	21.73
5	64QAM	1	12	21.09	21.16	21.56
5	64QAM	1	24	21.26	21.24	21.37
5	64QAM	12	0	20.35	20.39	20.75
5	64QAM	12	7	20.25	20.47	20.63
5	64QAM	12	13	20.33	20.45	20.64
5	64QAM	25	0	20.23	20.55	20.73

LTE Band 41

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40620	41490
Frequency (MHz)				2506	2593	2680
20	QPSK	1	0	23.30	23.47	23.75
20	QPSK	1	49	23.24	23.38	23.38
20	QPSK	1	99	23.17	23.20	23.66
20	QPSK	50	0	22.25	22.27	22.65
20	QPSK	50	24	22.37	22.18	22.51
20	QPSK	50	50	22.41	22.19	22.50
20	QPSK	100	0	22.23	22.25	22.52
20	16QAM	1	0	22.74	22.61	22.96
20	16QAM	1	49	22.37	22.27	22.74
20	16QAM	1	99	22.50	22.40	22.77
20	16QAM	50	0	21.33	21.21	21.70
20	16QAM	50	24	21.27	21.19	21.57
20	16QAM	50	50	21.41	21.23	21.45
20	16QAM	100	0	21.33	21.28	21.57
20	64QAM	1	0	20.95	20.88	21.36
20	64QAM	1	49	21.10	20.91	21.44
20	64QAM	1	99	21.04	20.96	21.41
20	64QAM	50	0	20.31	20.21	20.64
20	64QAM	50	24	20.35	20.21	20.59
20	64QAM	50	50	20.38	20.23	20.46
20	64QAM	100	0	20.22	20.19	20.50

Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	22.84	22.85	23.07
15	QPSK	1	37	22.72	22.98	23.12
15	QPSK	1	74	22.58	22.68	22.82
15	QPSK	36	0	22.22	22.26	22.53
15	QPSK	36	20	22.32	22.19	22.53
15	QPSK	36	39	21.78	21.85	22.29
15	QPSK	75	0	22.08	22.09	22.45
15	16QAM	1	0	22.01	21.88	22.57
15	16QAM	1	37	22.19	21.95	22.51
15	16QAM	1	74	21.59	21.75	21.92
15	16QAM	36	0	21.24	21.24	21.48
15	16QAM	36	20	21.21	21.18	21.55
15	16QAM	36	39	20.78	20.85	21.21
15	16QAM	75	0	21.21	21.02	21.40
15	64QAM	1	0	20.59	20.64	20.96
15	64QAM	1	37	20.69	20.90	21.03
15	64QAM	1	74	20.52	20.60	20.52
15	64QAM	36	0	20.28	20.09	20.49
15	64QAM	36	20	20.17	20.22	20.60
15	64QAM	36	39	19.91	19.79	20.14
15	64QAM	75	0	20.03	20.14	20.32

Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	23.51	23.36	23.57
10	QPSK	1	25	23.49	23.32	23.52
10	QPSK	1	49	23.38	23.43	23.70
10	QPSK	25	0	22.15	22.31	22.70
10	QPSK	25	12	21.99	22.33	22.70
10	QPSK	25	25	22.03	22.35	22.64
10	QPSK	50	0	22.13	22.39	22.68
10	16QAM	1	0	22.71	22.63	22.99
10	16QAM	1	25	22.19	22.42	22.80
10	16QAM	1	49	22.39	22.32	22.81
10	16QAM	25	0	21.21	21.36	21.69
10	16QAM	25	12	21.18	21.28	21.59
10	16QAM	25	25	21.07	21.23	21.62
10	16QAM	50	0	21.09	21.45	21.66
10	64QAM	1	0	21.29	21.21	21.78
10	64QAM	1	25	20.88	21.09	21.57
10	64QAM	1	49	21.06	21.09	21.42
10	64QAM	25	0	20.26	20.30	20.64
10	64QAM	25	12	20.20	20.32	20.53
10	64QAM	25	25	20.23	20.36	20.59
10	64QAM	50	0	20.21	20.34	20.50

Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	23.36	23.42	23.46
5	QPSK	1	12	23.24	23.19	23.29
5	QPSK	1	24	23.09	23.25	23.58
5	QPSK	12	0	22.16	22.24	22.58
5	QPSK	12	7	22.07	22.24	22.62
5	QPSK	12	13	22.10	22.12	22.61
5	QPSK	25	0	22.12	22.27	22.65
5	16QAM	1	0	22.43	22.53	22.65
5	16QAM	1	12	22.63	22.75	22.80
5	16QAM	1	24	22.25	22.50	22.55
5	16QAM	12	0	21.07	21.24	21.62
5	16QAM	12	7	21.09	21.24	21.64
5	16QAM	12	13	21.02	21.23	21.54
5	16QAM	25	0	21.09	21.34	21.63
5	64QAM	1	0	20.94	21.12	21.43
5	64QAM	1	12	20.88	21.07	21.41
5	64QAM	1	24	21.03	21.09	21.35
5	64QAM	12	0	20.25	20.40	20.70
5	64QAM	12	7	19.98	20.40	20.63
5	64QAM	12	13	20.07	20.29	20.42
5	64QAM	25	0	20.15	20.38	20.60

CA Power

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	100	0	100	0	200	21.39
			1	0	1	99	2	13.82
			1	99	1	0	2	23.93
		16QAM	100	0	100	0	200	20.52
			1	0	1	99	2	13.25
			1	99	1	0	2	22.91
		64QAM	100	0	100	0	200	20.61
			1	0	1	99	2	13.11
			1	99	1	0	2	21.43
21001	21199	QPSK	100	0	100	0	200	21.30
			1	0	1	99	2	13.75
			1	99	1	0	2	23.86
		16QAM	100	0	100	0	200	20.49
			1	0	1	99	2	13.21
			1	99	1	0	2	22.83
		64QAM	100	0	100	0	200	20.54
			1	0	1	99	2	13.06
			1	99	1	0	2	21.40
21152	21350	QPSK	100	0	100	0	200	21.31
			1	0	1	99	2	13.80
			1	99	1	0	2	23.86
		16QAM	100	0	100	0	200	20.50
			1	0	1	99	2	13.20
			1	99	1	0	2	22.84
		64QAM	100	0	100	0	200	20.52
			1	0	1	99	2	13.05
			1	99	1	0	2	21.31

CA_7C								
Combination 20MHz+15MHz (100RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21021	QPSK	100	0	75	0	175	21.50
		QPSK	1	0	1	74	2	13.87
		QPSK	1	99	1	0	2	23.91
		16QAM	100	0	75	0	175	20.59
		16QAM	1	0	1	74	2	13.37
		16QAM	1	99	1	0	2	22.98
		64QAM	100	0	75	0	175	20.71
		64QAM	1	0	1	74	2	13.17
		64QAM	1	99	1	0	2	21.50
21026	21197	QPSK	100	0	75	0	175	21.39
		QPSK	1	0	1	74	2	13.88
		QPSK	1	99	1	0	2	23.87
		16QAM	100	0	75	0	175	20.60
		16QAM	1	0	1	74	2	13.27
		16QAM	1	99	1	0	2	22.88
		64QAM	100	0	75	0	175	20.63
		64QAM	1	0	1	74	2	13.19
		64QAM	1	99	1	0	2	21.45
21201	21372	QPSK	100	0	75	0	175	21.43
		QPSK	1	0	1	74	2	13.90
		QPSK	1	99	1	0	2	23.81
		16QAM	100	0	75	0	175	20.57
		16QAM	1	0	1	74	2	13.33
		16QAM	1	99	1	0	2	22.97
		64QAM	100	0	75	0	175	20.69
		64QAM	1	0	1	74	2	13.10
		64QAM	1	99	1	0	2	21.40

Combination 15MHz+20MHz (75RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20828	20999	QPSK	75	0	100	0	175	21.04
		QPSK	1	0	1	99	2	13.56
		QPSK	1	74	1	0	2	23.70
		16QAM	75	0	100	0	175	20.20
		16QAM	1	0	1	99	2	13.15
		16QAM	1	74	1	0	2	22.87
		64QAM	75	0	100	0	175	20.48
		64QAM	1	0	1	99	2	12.69
		64QAM	1	74	1	0	2	21.35
21003	21174	QPSK	75	0	100	0	175	20.97
		QPSK	1	0	1	99	2	13.46
		QPSK	1	74	1	0	2	23.88
		16QAM	75	0	100	0		20.23
		16QAM	1	0	1	99	2	12.82
		16QAM	1	74	1	0	2	22.70
		64QAM	75	0	100	0	175	20.11
		64QAM	1	0	1	99	2	12.77
		64QAM	1	74	1	0	2	20.98
21179	21350	QPSK	75	0	100	0	175	21.27
		QPSK	1	0	1	99	2	13.55
		QPSK	1	74	1	0	2	23.64
		16QAM	75	0	100	0	175	20.07
		16QAM	1	0	1	99	2	13.11
		16QAM	1	74	1	0	2	22.47
		64QAM	75	0	100	0	175	20.58
		64QAM	1	0	1	99	2	12.81
		64QAM	1	74	1	0	2	20.96

Combination 20MHz+10MHz (100RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	20994	QPSK	100	0	50	0	150	21.26
		QPSK	1	0	1	49	2	13.44
		QPSK	1	99	1	0	2	23.89
		16QAM	100	0	50	0	150	20.34
		16QAM	1	0	1	49	2	13.20
		16QAM	1	99	1	0	2	22.74
		64QAM	100	0	50	0	150	20.60
		64QAM	1	0	1	49	2	12.78
		64QAM	1	99	1	0	2	21.17
21051	21195	QPSK	100	0	50	0	150	20.98
		QPSK	1	0	1	49	2	13.47
		QPSK	1	99	1	0	2	23.53
		16QAM	100	0	50	0	150	20.22
		16QAM	1	0	1	49	2	13.15
		16QAM	1	99	1	0	2	22.58
		64QAM	100	0	50	0	150	20.51
		64QAM	1	0	1	49	2	12.92
		64QAM	1	99	1	0	2	21.23
21251	21395	QPSK	100	0	50	0	150	21.14
		QPSK	1	0	1	49	2	13.70
		QPSK	1	99	1	0	2	23.74
		16QAM	100	0	50	0	150	20.51
		16QAM	1	0	1	49	2	13.07
		16QAM	1	99	1	0	2	22.62
		64QAM	100	0	50	0	150	20.46
		64QAM	1	0	1	49	2	12.84
		64QAM	1	99	1	0	2	21.31

Combination 10MHz+20MHz (50RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20805	20949	QPSK	50	0	100	0	150	21.14
		QPSK	1	0	1	99	2	13.62
		QPSK	1	49	1	0	2	23.62
		16QAM	50	0	100	0	150	20.20
		16QAM	1	0	1	99	2	13.11
		16QAM	1	49	1	0	2	22.73
		64QAM	50	0	100	0	150	20.72
		64QAM	1	0	1	99	2	13.05
		64QAM	1	49	1	0	2	21.46
21006	21150	QPSK	50	0	100	0	150	21.03
		QPSK	1	0	1	99	2	13.76
		QPSK	1	49	1	0	2	23.90
		16QAM	50	0	100	0	150	20.59
		16QAM	1	0	1	99	2	12.91
		16QAM	1	49	1	0	2	22.72
		64QAM	50	0	100	0	150	20.53
		64QAM	1	0	1	99	2	12.84
		64QAM	1	49	1	0	2	21.32
21206	21350	QPSK	50	0	100	0	150	21.04
		QPSK	1	0	1	99	2	13.49
		QPSK	1	49	1	0	2	23.92
		16QAM	50	0	100	0	150	20.52
		16QAM	1	0	1	99	2	13.00
		16QAM	1	49	1	0	2	22.94
		64QAM	50	0	100	0	150	20.70
		64QAM	1	0	1	99	2	13.11
		64QAM	1	49	1	0	2	21.38

Combination 15MHz+15MHz (75RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20825	20975	QPSK	75	0	75	0	150	21.34
		QPSK	1	0	1	74	2	13.51
		QPSK	1	74	1	0	2	23.91
		16QAM	75	0	75	0	150	20.34
		16QAM	1	0	1	74	2	13.02
		16QAM	1	74	1	0	2	22.78
		64QAM	75	0	75	0	150	20.73
		64QAM	1	0	1	74	2	12.99
		64QAM	1	74	1	0	2	21.12
21025	21175	QPSK	75	0	75	0	150	21.32
		QPSK	1	0	1	74	2	13.73
		QPSK	1	74	1	0	2	23.64
		16QAM	75	0	75	0	150	20.59
		16QAM	1	0	1	74	2	12.89
		16QAM	1	74	1	0	2	22.46
		64QAM	75	0	75	0	150	20.54
		64QAM	1	0	1	74	2	12.89
		64QAM	1	74	1	0	2	21.45
21225	21375	QPSK	75	0	75	0	150	21.10
		QPSK	1	0	1	74	2	13.60
		QPSK	1	74	1	0	2	23.83
		16QAM	75	0	75	0	150	20.16
		16QAM	1	0	1	74	2	12.92
		16QAM	1	74	1	0	2	22.82
		64QAM	75	0	75	0	150	20.63
		64QAM	1	0	1	74	2	12.85
		64QAM	1	74	1	0	2	21.11

Combination 15MHz+10MHz (75RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20825	20945	QPSK	75	0	50	0	125	21.17
		QPSK	1	0	1	49	2	13.68
		QPSK	1	74	1	0	2	23.91
		16QAM	75	0	50	0	125	20.54
		16QAM	1	0	1	49	2	13.30
		16QAM	1	74	1	0	2	22.73
		64QAM	75	0	50	0	125	20.33
		64QAM	1	0	1	49	2	12.88
		64QAM	1	74	1	0	2	21.27
21051	21171	QPSK	75	0	50	0	125	21.23
		QPSK	1	0	1	49	2	13.53
		QPSK	1	74	1	0	2	23.80
		16QAM	75	0	50	0	125	20.34
		16QAM	1	0	1	49	2	12.86
		16QAM	1	74	1	0	2	22.78
		64QAM	75	0	50	0	125	20.49
		64QAM	1	0	1	49	2	13.12
		64QAM	1	74	1	0	2	20.99
21277	21397	QPSK	75	0	50	0	125	20.97
		QPSK	1	0	1	49	2	13.72
		QPSK	1	74	1	0	2	23.49
		16QAM	75	0	50	0	125	20.12
		16QAM	1	0	1	49	2	13.09
		16QAM	1	74	1	0	2	22.93
		64QAM	75	0	50	0	125	20.43
		64QAM	1	0	1	49	2	12.93
		64QAM	1	74	1	0	2	21.32

CA_38C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37850	38048	QPSK	100	0	100	0	200	22.27
			1	0	1	99	2	15.22
			1	99	1	0	2	23.62
		16QAM	100	0	100	0	200	21.31
			1	0	1	99	2	15.08
			1	99	1	0	2	21.48
		64QAM	100	0	100	0	200	21.16
			1	0	1	99	2	14.89
			1	99	1	0	2	21.56
37901	38099	QPSK	100	0	100	0	200	22.21
			1	0	1	99	2	15.15
			1	99	1	0	2	23.56
		16QAM	100	0	100	0	200	21.24
			1	0	1	99	2	14.99
			1	99	1	0	2	21.42
		64QAM	100	0	100	0	200	21.14
			1	0	1	99	2	14.85
			1	99	1	0	2	21.52
37952	38150	QPSK	100	0	100	0	200	22.17
			1	0	1	99	2	15.14
			1	99	1	0	2	23.51
		16QAM	100	0	100	0	200	21.20
			1	0	1	99	2	14.91
			1	99	1	0	2	21.35
		64QAM	100	0	100	0	200	21.11
			1	0	1	99	2	14.78
			1	99	1	0	2	21.48

CA_38C								
Combination 15MHz+15MHz (75RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
37825	37975	QPSK	75	0	75	0	150	22.05
		QPSK	1	0	1	74	2	15.05
		QPSK	1	74	1	0	2	23.47
		16QAM	75	0	75	0	150	20.91
		16QAM	1	0	1	74	2	15.02
		16QAM	1	74	1	0	2	21.12
		64QAM	75	0	75	0	150	21.06
		64QAM	1	0	1	74	2	14.57
		64QAM	1	74	1	0	2	21.35
37925	38075	QPSK	75	0	75	0	150	21.78
		QPSK	1	0	1	74	2	14.77
		QPSK	1	74	1	0	2	23.22
		16QAM	75	0	75	0	150	20.46
		16QAM	1	0	1	74	2	14.66
		16QAM	1	74	1	0	2	20.78
		64QAM	75	0	75	0	150	20.56
		64QAM	1	0	1	74	2	14.02
		64QAM	1	74	1	0	2	21.19
38025	38175	QPSK	75	0	75	0	150	21.54
		QPSK	1	0	1	74	2	14.58
		QPSK	1	74	1	0	2	23.33
		16QAM	75	0	75	0	150	20.49
		16QAM	1	0	1	74	2	14.87
		16QAM	1	74	1	0	2	20.73
		64QAM	75	0	75	0	150	20.51
		64QAM	1	0	1	74	2	14.23
		64QAM	1	74	1	0	2	20.84

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	100	0	100	0	200	21.59
			1	0	1	99	2	14.95
			1	99	1	0	2	23.58
		16QAM	100	0	100	0	200	20.69
			1	0	1	99	2	14.78
			1	99	1	0	2	22.59
		64QAM	100	0	100	0	200	20.71
			1	0	1	99	2	14.93
			1	99	1	0	2	22.54
40521	40719	QPSK	100	0	100	0	200	21.66
			1	0	1	99	2	14.97
			1	99	1	0	2	23.64
		16QAM	100	0	100	0	200	20.7
			1	0	1	99	2	14.79
			1	99	1	0	2	22.66
		64QAM	100	0	100	0	200	20.73
			1	0	1	99	2	14.98
			1	99	1	0	2	22.61
41292	41490	QPSK	100	0	100	0	200	21.75
			1	0	1	99	2	14.98
			1	99	1	0	2	23.72
		16QAM	100	0	100	0	200	20.75
			1	0	1	99	2	14.84
			1	99	1	0	2	22.71
		64QAM	100	0	100	0	200	20.78
			1	0	1	99	2	15.06
			1	99	1	0	2	22.66

CA_41C								
Combination 20MHz+15MHz (100RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39921	QPSK	100	0	75	0	175	21.46
		QPSK	1	0	1	74	2	14.62
		QPSK	1	99	1	0	2	23.68
		16QAM	100	0	75	0	175	20.56
		16QAM	1	0	1	74	2	14.83
		16QAM	1	99	1	0	2	22.45
		64QAM	100	0	75	0	175	20.54
		64QAM	1	0	1	74	2	14.36
		64QAM	1	99	1	0	2	22.45
40546	40717	QPSK	100	0	75	0	175	21.25
		QPSK	1	0	1	74	2	14.39
		QPSK	1	99	1	0	2	23.52
		16QAM	100	0	75	0	175	20.22
		16QAM	1	0	1	74	2	14.66
		16QAM	1	99	1	0	2	22.09
		64QAM	100	0	75	0	175	20.18
		64QAM	1	0	1	74	2	14.54
		64QAM	1	99	1	0	2	21.94
41341	41512	QPSK	100	0	75	0	175	20.97
		QPSK	1	0	1	74	2	14.37
		QPSK	1	99	1	0	2	23.28
		16QAM	100	0	75	0	175	20.03
		16QAM	1	0	1	74	2	14.28
		16QAM	1	99	1	0	2	21.98
		64QAM	100	0	75	0	175	20.00
		64QAM	1	0	1	74	2	14.70
		64QAM	1	99	1	0	2	22.14

Combination 15MHz+20MHz (75RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39728	39899	QPSK	75	0	100	0	175	21.30
		QPSK	1	0	1	99	2	14.38
		QPSK	1	74	1	0	2	23.71
		16QAM	75	0	100	0	175	20.60
		16QAM	1	0	1	99	2	14.73
		16QAM	1	74	1	0	2	22.43
		64QAM	75	0	100	0	175	20.43
		64QAM	1	0	1	99	2	14.78
		64QAM	1	74	1	0	2	22.61
40523	40694	QPSK	75	0	100	0	175	20.99
		QPSK	1	0	1	99	2	14.23
		QPSK	1	74	1	0	2	23.42
		16QAM	75	0	100	0	175	20.09
		16QAM	1	0	1	99	2	14.60
		16QAM	1	74	1	0	2	22.25
		64QAM	75	0	100	0	175	20.06
		64QAM	1	0	1	99	2	14.68
		64QAM	1	74	1	0	2	21.97
41319	41490	QPSK	75	0	100	0	175	21.11
		QPSK	1	0	1	99	2	14.25
		QPSK	1	74	1	0	2	23.27
		16QAM	75	0	100	0	175	20.10
		16QAM	1	0	1	99	2	14.35
		16QAM	1	74	1	0	2	21.77
		64QAM	75	0	100	0	175	20.08
		64QAM	1	0	1	99	2	14.49
		64QAM	1	74	1	0	2	21.97

Combination 20MHz+10MHz (100RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39894	QPSK	100	0	50	0	150	20.85
		QPSK	1	0	1	49	2	13.99
		QPSK	1	99	1	0	2	23.12
		16QAM	100	0	50	0	150	20.29
		16QAM	1	0	1	49	2	14.28
		16QAM	1	99	1	0	2	21.89
		64QAM	100	0	50	0	150	20.11
		64QAM	1	0	1	49	2	14.37
		64QAM	1	99	1	0	2	22.06
40571	40715	QPSK	100	0	50	0	150	20.82
		QPSK	1	0	1	49	2	13.62
		QPSK	1	99	1	0	2	22.97
		16QAM	100	0	50	0	150	19.49
		16QAM	1	0	1	49	2	14.06
		16QAM	1	99	1	0	2	21.46
		64QAM	100	0	50	0	150	19.54
		64QAM	1	0	1	49	2	13.92
		64QAM	1	99	1	0	2	21.30
41391	41535	QPSK	100	0	50	0	150	20.43
		QPSK	1	0	1	49	2	13.74
		QPSK	1	99	1	0	2	22.72
		16QAM	100	0	50	0	150	19.39
		16QAM	1	0	1	49	2	14.00
		16QAM	1	99	1	0	2	21.32
		64QAM	100	0	50	0	150	19.66
		64QAM	1	0	1	49	2	13.90
		64QAM	1	99	1	0	2	21.52

Combination 10MHz+20MHz (50RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39705	39849	QPSK	50	0	100	0	150	20.38
		QPSK	1	0	1	99	2	13.39
		QPSK	1	49	1	0	2	22.84
		16QAM	50	0	100	0	150	19.92
		16QAM	1	0	1	99	2	13.92
		16QAM	1	49	1	0	2	21.53
		64QAM	50	0	100	0	150	19.5
		64QAM	1	0	1	99	2	14.09
		64QAM	1	49	1	0	2	21.63
40526	40670	QPSK	50	0	100	0	150	20.21
		QPSK	1	0	1	99	2	13.59
		QPSK	1	49	1	0	2	23.10
		16QAM	50	0	100	0	150	20.00
		16QAM	1	0	1	99	2	14.11
		16QAM	1	49	1	0	2	21.14
		64QAM	50	0	100	0	150	18.95
		64QAM	1	0	1	99	2	13.74
		64QAM	1	49	1	0	2	21.44
41346	41490	QPSK	50	0	100	0	150	19.85
		QPSK	1	0	1	99	2	12.93
		QPSK	1	49	1	0	2	22.65
		16QAM	50	0	100	0	150	19.78
		16QAM	1	0	1	99	2	13.65
		16QAM	1	49	1	0	2	21.08
		64QAM	50	0	100	0	150	19.2
		64QAM	1	0	1	99	2	13.78
		64QAM	1	49	1	0	2	21.24

Combination 20MHz+5MHz (100RB+25RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39867	QPSK	100	0	25	0	125	19.86
		QPSK	1	0	1	24	2	13.22
		QPSK	1	99	1	0	2	22.59
		16QAM	100	0	25	0	125	19.59
		16QAM	1	0	1	24	2	13.57
		16QAM	1	99	1	0	2	21.39
		64QAM	100	0	25	0	125	19.33
		64QAM	1	0	1	24	2	13.61
		64QAM	1	99	1	0	2	21.41
40595	40712	QPSK	100	0	25	0	125	19.99
		QPSK	1	0	1	24	2	13.15
		QPSK	1	99	1	0	2	22.67
		16QAM	100	0	25	0	125	19.81
		16QAM	1	0	1	24	2	13.84
		16QAM	1	99	1	0	2	20.88
		64QAM	100	0	25	0	125	18.66
		64QAM	1	0	1	24	2	13.36
		64QAM	1	99	1	0	2	21.09
41440	41557	QPSK	100	0	25	0	125	21.29
		QPSK	1	0	1	24	2	14.44
		QPSK	1	99	1	0	2	23.55
		16QAM	100	0	25	0	125	20.12
		16QAM	1	0	1	24	2	14.62
		16QAM	1	99	1	0	2	22.09
		64QAM	100	0	25	0	125	20.40
		64QAM	1	0	1	24	2	14.47
		64QAM	1	99	1	0	2	22.14

Combination 5MHz+20MHz (25RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39683	39800	QPSK	25	0	100	0	125	20.71
		QPSK	1	0	1	99	2	13.96
		QPSK	1	24	1	0	2	22.87
		16QAM	25	0	100	0	125	19.66
		16QAM	1	0	1	99	2	13.90
		16QAM	1	24	1	0	2	21.50
		64QAM	25	0	100	0	125	19.57
		64QAM	1	0	1	99	2	14.29
		64QAM	1	24	1	0	2	21.71
40528	40645	QPSK	25	0	100	0	125	20.93
		QPSK	1	0	1	99	2	14.05
		QPSK	1	24	1	0	2	22.96
		16QAM	25	0	100	0	125	20.06
		16QAM	1	0	1	99	2	14.41
		16QAM	1	24	1	0	2	21.78
		64QAM	25	0	100	0	125	19.78
		64QAM	1	0	1	99	2	14.22
		64QAM	1	24	1	0	2	21.74
41373	41490	QPSK	25	0	100	0	125	20.66
		QPSK	1	0	1	99	2	14.02
		QPSK	1	24	1	0	2	22.86
		16QAM	25	0	100	0	125	19.65
		16QAM	1	0	1	99	2	13.86
		16QAM	1	24	1	0	2	21.60
		64QAM	25	0	100	0	125	19.58
		64QAM	1	0	1	99	2	14.49
		64QAM	1	24	1	0	2	21.60

Combination 15MHz+10MHz (75RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39725	39845	QPSK	75	0	50	0	125	20.41
		QPSK	1	0	1	49	2	13.65
		QPSK	1	74	1	0	2	22.64
		16QAM	75	0	50	0	125	19.34
		16QAM	1	0	1	49	2	13.65
		16QAM	1	74	1	0	2	20.97
		64QAM	75	0	50	0	125	19.45
		64QAM	1	0	1	49	2	13.59
		64QAM	1	74	1	0	2	21.26
40571	40691	QPSK	75	0	50	0	125	21.04
		QPSK	1	0	1	49	2	14.25
		QPSK	1	74	1	0	2	23.00
		16QAM	75	0	50	0	125	20.01
		16QAM	1	0	1	49	2	14.56
		16QAM	1	74	1	0	2	21.66
		64QAM	75	0	50	0	125	19.69
		64QAM	1	0	1	49	2	14.22
		64QAM	1	74	1	0	2	21.86
41417	41537	QPSK	75	0	50	0	125	20.56
		QPSK	1	0	1	49	2	14.13
		QPSK	1	74	1	0	2	22.95
		16QAM	75	0	50	0	125	19.93
		16QAM	1	0	1	49	2	13.95
		16QAM	1	74	1	0	2	21.67
		64QAM	75	0	50	0	125	19.67
		64QAM	1	0	1	49	2	14.45
		64QAM	1	74	1	0	2	21.75

Combination 10MHz+15MHz (50RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39703	39823	QPSK	50	0	75	0	125	20.67
		QPSK	1	49	1	0	2	13.63
		QPSK	1	0	1	74	2	23.11
		16QAM	50	0	75	0	125	20.26
		16QAM	1	49	1	0	2	14.20
		16QAM	1	0	1	74	2	21.87
		64QAM	50	0	75	0	125	19.86
		64QAM	1	49	1	0	2	14.18
		64QAM	1	0	1	74	2	21.88
40549	40669	QPSK	50	0	75	0	125	21.39
		QPSK	1	49	1	0	2	14.36
		QPSK	1	0	1	74	2	23.36
		16QAM	50	0	75	0	125	20.47
		16QAM	1	49	1	0	2	14.71
		16QAM	1	0	1	74	2	22.25
		64QAM	50	0	75	0	125	20.35
		64QAM	1	49	1	0	2	14.76
		64QAM	1	0	1	74	2	22.15
41395	41515	QPSK	50	0	75	0	125	20.88
		QPSK	1	49	1	0	2	13.96
		QPSK	1	0	1	74	2	23.24
		16QAM	50	0	75	0	125	20.12
		16QAM	1	49	1	0	2	14.46
		16QAM	1	0	1	74	2	21.72
		64QAM	50	0	75	0	125	20.04
		64QAM	1	49	1	0	2	14.07
		64QAM	1	0	1	74	2	21.59

Combination 15MHz+15MHz (75RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39725	39875	QPSK	75	0	75	0	150	21.02
		QPSK	1	0	1	74	2	14.54
		QPSK	1	74	1	0	2	23.56
		16QAM	75	0	75	0	150	20.51
		16QAM	1	0	1	74	2	14.41
		16QAM	1	74	1	0	2	22.03
		64QAM	75	0	75	0	150	20.39
		64QAM	1	0	1	74	2	14.63
		64QAM	1	74	1	0	2	22.07
40545	40695	QPSK	75	0	75	0	150	20.91
		QPSK	1	0	1	74	2	14.19
		QPSK	1	74	1	0	2	22.96
		16QAM	75	0	75	0	150	19.68
		16QAM	1	0	1	74	2	13.91
		16QAM	1	74	1	0	2	21.72
		64QAM	75	0	75	0	150	19.92
		64QAM	1	0	1	74	2	14.48
		64QAM	1	74	1	0	2	21.91
41365	41515	QPSK	75	0	75	0	150	20.86
		QPSK	1	0	1	74	2	14.05
		QPSK	1	74	1	0	2	22.93
		16QAM	75	0	75	0	150	20.25
		16QAM	1	0	1	74	2	14.19
		16QAM	1	74	1	0	2	21.52
		64QAM	75	0	75	0	150	19.84
		64QAM	1	0	1	74	2	14.01
		64QAM	1	74	1	0	2	22.01

ERP/EIRP

Top Antenna

LTE Band 2 (GT - LC = -1.59 dB) QPSK									
Bandwidth	**1.4M**			**3M**			**5M**		
Channel	**18607**	**18900**	**19193**	**18615**	**18900**	**19185**	**18625**	**18900**	**19175**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**1850.7**	**1880**	**1909.3**	**1851.5**	**1880**	**1908.5**	**1852.5**	**1880**	**1907.5**
Conducted Power (dBm)	23.59	23.77	23.86	23.61	23.76	23.90	23.75	23.88	24.09
Conducted Power (Watts)	0.2286	0.2382	0.2432	0.2296	0.2377	0.2455	0.2371	0.2443	0.2564
EIRP(dBm)	22.00	22.18	22.27	22.02	22.17	22.31	22.16	22.29	22.50
EIRP(Watts)	0.1585	0.1652	0.1687	0.1592	0.1648	0.1702	0.1644	0.1694	0.1778

LTE Band 2 (GT - LC = -1.59 dB) QPSK									
Bandwidth	**10M**			**15M**			**20M**		
Channel	**18650**	**18900**	**19150**	**18675**	**18900**	**19125**	**18650**	**18900**	**19100**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**1855**	**1880**	**1905**	**1857.5**	**1880**	**1902.5**	**1860**	**1880**	**1900**
Conducted Power (dBm)	23.98	24.02	24.04	23.87	24.03	24.08	23.89	24.10	23.83
Conducted Power (Watts)	0.2500	0.2523	0.2535	0.2438	0.2529	0.2559	0.2449	0.2570	0.2415
EIRP(dBm)	22.39	22.43	22.45	22.28	22.44	22.49	22.30	22.51	22.24
EIRP(Watts)	0.1734	0.1750	0.1758	0.1690	0.1754	0.1774	0.1698	0.1782	0.1675

LTE Band 2 (GT - LC = -1.59 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	22.98	22.76	23.09	23.02	23.11	23.07	23.06	23.20	23.33
Conducted Power (Watts)	0.1986	0.1888	0.2037	0.2004	0.2046	0.2028	0.2023	0.2089	0.2153
EIRP(dBm)	21.39	21.17	21.50	21.43	21.52	21.48	21.47	21.61	21.74
EIRP(Watts)	0.1377	0.1309	0.1413	0.1390	0.1419	0.1406	0.1403	0.1449	0.1493

LTE Band 2 (GT - LC = -1.59 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	23.25	23.24	23.29	23.48	23.53	23.57	23.32	23.35	23.50
Conducted Power (Watts)	0.2113	0.2109	0.2133	0.2228	0.2254	0.2275	0.2148	0.2163	0.2239
EIRP(dBm)	21.66	21.65	21.70	21.89	21.94	21.98	21.73	21.76	21.91
EIRP(Watts)	0.1466	0.1462	0.1479	0.1545	0.1563	0.1578	0.1489	0.1500	0.1552

LTE Band 2 (GT - LC = -1.59 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	22.98	22.76	23.09	22.12	22.01	21.93	22.11	21.57	22.11
Conducted Power (Watts)	0.1986	0.1888	0.2037	0.1629	0.1589	0.1560	0.1626	0.1435	0.1626
EIRP(dBm)	21.39	21.17	21.50	20.53	20.42	20.34	20.52	19.98	20.52
EIRP(Watts)	0.1377	0.1309	0.1413	0.1130	0.1102	0.1081	0.1127	0.0995	0.1127

LTE Band 2 (GT - LC = -1.59 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	22.16	21.79	22.26	22.25	21.86	22.32	22.04	22.24	22.20
Conducted Power (Watts)	0.1644	0.1510	0.1683	0.1679	0.1535	0.1706	0.1600	0.1675	0.1660
EIRP(dBm)	20.57	20.20	20.67	20.66	20.27	20.73	20.45	20.65	20.61
EIRP(Watts)	0.1140	0.1047	0.1167	0.1164	0.1064	0.1183	0.1109	0.1161	0.1151

LTE Band 5 (GT - LC = -4.50 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	23.36	23.50	23.56	23.32	23.70	23.64	23.41	23.59	23.72
Conducted Power (Watts)	0.2168	0.2239	0.2270	0.2148	0.2344	0.2312	0.2193	0.2286	0.2355
ERP(dBm)	16.71	16.85	16.91	16.67	17.05	16.99	16.76	16.94	17.07
ERP(Watts)	0.0469	0.0484	0.0491	0.0465	0.0507	0.0500	0.0474	0.0494	0.0509

LTE Band 5 (GT - LC = -4.50 dB) QPSK			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	23.93	23.92	23.90
Conducted Power (Watts)	0.2472	0.2466	0.2455
ERP(dBm)	17.28	17.27	17.25
ERP(Watts)	0.0535	0.0533	0.0531

LTE Band 5 (GT - LC = -4.50 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.93	23.15	22.53	22.42	23.15	23.09	22.97	22.78	22.67
Conducted Power (Watts)	0.1963	0.2065	0.1791	0.1746	0.2065	0.2037	0.1982	0.1897	0.1849
ERP(dBm)	16.28	16.50	15.88	15.77	16.50	16.44	16.32	16.13	16.02
ERP(Watts)	0.0425	0.0447	0.0387	0.0378	0.0447	0.0441	0.0429	0.0410	0.0400

LTE Band 5 (GT - LC = -4.50 dB) 16QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	23.25	22.94	23.25
Conducted Power (Watts)	0.2113	0.1968	0.2113
ERP(dBm)	16.60	16.29	16.60
ERP(Watts)	0.0457	0.0426	0.0457

LTE Band 5 (GT - LC = -4.50 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	21.59	21.87	21.62	21.27	21.95	21.99	21.69	21.75	21.95
Conducted Power (Watts)	0.1442	0.1538	0.1452	0.1340	0.1567	0.1581	0.1476	0.1496	0.1567
ERP(dBm)	14.94	15.22	14.97	14.62	15.30	15.34	15.04	15.10	15.30
ERP(Watts)	0.0312	0.0333	0.0314	0.0290	0.0339	0.0342	0.0319	0.0324	0.0339

LTE Band 5 (GT - LC = -4.50 dB) 64QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	21.83	21.77	22.35
Conducted Power (Watts)	0.1524	0.1503	0.1718
ERP(dBm)	15.18	15.12	15.70
ERP(Watts)	0.0330	0.0325	0.0372

LTE Band 7 (GT - LC = 1.80 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	23.67	23.64	24.00
Conducted Power (Watts)	0.2328	0.2312	0.2512
EIRP(dBm)	25.47	25.44	25.80
EIRP(Watts)	0.3524	0.3499	0.3802

LTE Band 7 (GT - LC = 1.80 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	23.65	23.93	24.01	23.76	23.63	24.00	24.00	24.02	23.99
Conducted Power (Watts)	0.2317	0.2472	0.2518	0.2377	0.2307	0.2512	0.2512	0.2523	0.2506
EIRP(dBm)	25.45	25.73	25.81	25.56	25.43	25.80	25.80	25.82	25.79
EIRP(Watts)	0.3508	0.3741	0.3811	0.3597	0.3491	0.3802	0.3802	0.3819	0.3793

LTE Band 7 (GT - LC =1.80 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	23.03	23.30	23.47
Conducted Power (Watts)	0.2009	0.2138	0.2223
EIRP(dBm)	24.83	25.10	25.27
EIRP(Watts)	0.3041	0.3236	0.3365

LTE Band 7 (GT - LC = 1.80 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	23.11	23.19	23.49	23.25	23.01	22.79	22.80	23.38	23.19
Conducted Power (Watts)	0.2046	0.2084	0.2234	0.2113	0.2000	0.1901	0.1905	0.2178	0.2084
EIRP(dBm)	24.91	24.99	25.29	25.05	24.81	24.59	24.60	25.18	24.99
EIRP(Watts)	0.3097	0.3155	0.3381	0.3199	0.3027	0.2877	0.2884	0.3296	0.3155

LTE Band 7 (GT - LC =1.80 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	21.88	21.94	22.12
Conducted Power (Watts)	0.1542	0.1563	0.1629
EIRP(dBm)	23.68	23.74	23.92
EIRP(Watts)	0.2333	0.2366	0.2466

LTE Band 7 (GT - LC = 1.80 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	21.98	22.03	22.40	22.02	22.28	22.10	22.19	21.89	22.25
Conducted Power (Watts)	0.1578	0.1596	0.1738	0.1592	0.1690	0.1622	0.1656	0.1545	0.1679
EIRP(dBm)	23.78	23.83	24.20	23.82	24.08	23.90	23.99	23.69	24.05
EIRP(Watts)	0.2388	0.2415	0.2630	0.2410	0.2559	0.2455	0.2506	0.2339	0.2541

LTE Band 41 (G_T - L_C = 1.23dB) QPSK									
Bandwidth	**5M**			**10M**			**15M**		
Channel	**39675**	**40620**	**41565**	**39700**	**40620**	**41540**	**39725**	**40620**	**41515**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**2498.5**	**2593**	**2687.5**	**2501**	**2593**	**2685**	**2503.5**	**2593**	**2682.5**
Conducted Power (dBm)	23.09	23.25	23.58	23.38	23.43	23.70	22.72	22.98	23.12
Conducted Power (Watts)	0.2037	0.2113	0.2280	0.2178	0.2203	0.2344	0.1871	0.1986	0.2051
EIRP(dBm)	24.32	24.48	24.81	24.61	24.66	24.93	23.95	24.21	24.35
EIRP(Watts)	0.2704	0.2805	0.3027	0.2891	0.2924	0.3112	0.2483	0.2636	0.2723

LTE Band 41 (G_T - L_C = 1.23dB) QPSK			
Bandwidth	**20M**		
Channel	**39750**	**40620**	**41490**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2506**	**2593**	**2680**
Conducted Power (dBm)	23.30	23.47	23.75
Conducted Power (Watts)	0.2138	0.2223	0.2371
EIRP(dBm)	24.53	24.70	24.98
EIRP(Watts)	0.2838	0.2951	0.3148

LTE Band 41 (G_T - L_C = 1.23dB) 16QAM									
Bandwidth	**5M**			**10M**			**15M**		
Channel	**39675**	**40620**	**41565**	**39700**	**40620**	**41540**	**39725**	**40620**	**41515**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**2498.5**	**2593**	**2687.5**	**2501**	**2593**	**2685**	**2503.5**	**2593**	**2682.5**
Conducted Power (dBm)	22.63	22.75	22.80	22.71	22.63	22.99	22.01	21.88	22.57
Conducted Power (Watts)	0.1832	0.1884	0.1905	0.1866	0.1832	0.1991	0.1589	0.1542	0.1807
EIRP(dBm)	23.86	23.98	24.03	23.94	23.86	24.22	23.24	23.11	23.80
EIRP(Watts)	0.2432	0.2500	0.2529	0.2477	0.2432	0.2642	0.2109	0.2046	0.2399

LTE Band 41 (G_T - L_C = 1.23dB) 16QAM			
Bandwidth	**20M**		
Channel	**39750**	**40620**	**41490**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2506**	**2593**	**2680**
Conducted Power (dBm)	22.74	22.61	22.96
Conducted Power (Watts)	0.1879	0.1824	0.1977
EIRP(dBm)	23.97	23.84	24.19
EIRP(Watts)	0.2495	0.2421	0.2624

LTE Band 41 (G_T - L_C = 1.23dB) 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 (MHz)	**2498.5**	**2593**	**2687.5**	**2501**	**2593**	**2685**	**2503.5**	**2593**	**2682.5**
Conducted Power (dBm)	20.94	21.12	21.43	21.29	21.21	21.78	20.69	20.90	21.03
Conducted Power (Watts)	0.1242	0.1294	0.1390	0.1346	0.1321	0.1507	0.1172	0.1230	0.1268
EIRP(dBm)	22.17	22.35	22.66	22.52	22.44	23.01	21.92	22.13	22.26
EIRP(Watts)	0.1648	0.1718	0.1845	0.1786	0.1754	0.2000	0.1556	0.1633	0.1683

LTE Band 41 (G_T - L_C = 1.23dB) 64QAM			
Bandwidth	**20M**		
Channel	**39750**	**40620**	**41490**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2506**	**2593**	**2680**
Conducted Power (dBm)	21.10	20.91	21.44
Conducted Power (Watts)	0.1288	0.1233	0.1393
EIRP(dBm)	22.33	22.14	22.67
EIRP(Watts)	0.1710	0.1637	0.1849

Bottom Antenna

LTE Band 4 (GT - LC = -2.00 dB) QPSK									
Bandwidth	**1.4M**			**3M**			**5M**		
Channel	**19957**	**20175**	**20393**	**19965**	**20175**	**20385**	**19975**	**20175**	**20375**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**1710.7**	**1732.5**	**1754.3**	**1711.5**	**1732.5**	**1753.5**	**1712.5**	**1732.5**	**1752.5**
Conducted Power (dBm)	23.34	23.41	23.62	23.01	23.75	23.78	23.20	23.70	23.71
Conducted Power (Watts)	0.2158	0.2193	0.2301	0.2000	0.2371	0.2388	0.2089	0.2344	0.2350
EIRP(dBm)	21.34	21.41	21.62	21.01	21.75	21.78	21.20	21.70	21.71
EIRP(Watts)	0.1361	0.1384	0.1452	0.1262	0.1496	0.1507	0.1318	0.1479	0.1483

LTE Band 4 (GT - LC = -2.00 dB) QPSK									
Bandwidth	**10M**			**15M**			**20M**		
Channel	**20000**	**20175**	**20350**	**20025**	**20175**	**20325**	**20050**	**20175**	**20300**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**1715**	**1732.5**	**1750**	**1717.5**	**1732.5**	**1747.5**	**1720**	**1732.5**	**1745**
Conducted Power (dBm)	23.76	23.78	23.73	23.44	23.79	23.79	23.76	23.82	23.58
Conducted Power (Watts)	0.2377	0.2388	0.2360	0.2208	0.2393	0.2393	0.2377	0.2410	0.2280
EIRP(dBm)	21.76	21.78	21.73	21.44	21.79	21.79	21.76	21.82	21.58
EIRP(Watts)	0.1500	0.1507	0.1489	0.1393	0.1510	0.1510	0.1500	0.1521	0.1439

LTE Band 4 (GT - LC = -2.00 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	22.34	22.70	22.57	23.01	22.79	22.41	22.59	23.28	23.20
Conducted Power (Watts)	0.1714	0.1862	0.1807	0.2000	0.1901	0.1742	0.1816	0.2128	0.2089
EIRP(dBm)	20.34	20.70	20.57	21.01	20.79	20.41	20.59	21.28	21.20
EIRP(Watts)	0.1081	0.1175	0.1140	0.1262	0.1199	0.1099	0.1146	0.1343	0.1318

LTE Band 4 (GT - LC = -2.00 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	23.16	22.83	23.08	23.08	23.05	23.13	22.86	23.09	22.92
Conducted Power (Watts)	0.2070	0.1919	0.2032	0.2032	0.2018	0.2056	0.1932	0.2037	0.1959
EIRP(dBm)	21.16	20.83	21.08	21.08	21.05	21.13	20.86	21.09	20.92
EIRP(Watts)	0.1306	0.1211	0.1282	0.1282	0.1274	0.1297	0.1219	0.1285	0.1236

LTE Band 4 (GT - LC = -2.00 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	21.39	21.62	21.84	21.20	21.53	21.97	21.22	21.83	22.01
Conducted Power (Watts)	0.1377	0.1452	0.1528	0.1318	0.1422	0.1574	0.1324	0.1524	0.1589
EIRP(dBm)	19.39	19.62	19.84	19.20	19.53	19.97	19.22	19.83	20.01
EIRP(Watts)	0.0869	0.0916	0.0964	0.0832	0.0897	0.0993	0.0836	0.0962	0.1002

LTE Band 4 (GT - LC = -2.00 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	22.09	21.96	21.92	22.06	21.90	21.91	22.06	22.00	21.85
Conducted Power (Watts)	0.1618	0.1570	0.1556	0.1607	0.1549	0.1552	0.1607	0.1585	0.1531
EIRP(dBm)	20.09	19.96	19.92	20.06	19.90	19.91	20.06	20.00	19.85
EIRP(Watts)	0.1021	0.0991	0.0982	0.1014	0.0977	0.0979	0.1014	0.1000	0.0966

LTE Band 12 (GT - LC = -4.68 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	23.15	23.30	23.09	23.15	23.27	23.17	23.07	23.24	23.11
Conducted Power (Watts)	0.2065	0.2138	0.2037	0.2065	0.2123	0.2075	0.2028	0.2109	0.2046
ERP(dBm)	16.32	16.47	16.26	16.32	16.44	16.34	16.24	16.41	16.28
ERP(Watts)	0.0429	0.0444	0.0423	0.0429	0.0441	0.0431	0.0421	0.0438	0.0425

LTE Band 12 (GT - LC = -4.68 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	23.38	23.68	23.56
Conducted Power (Watts)	0.2178	0.2333	0.2270
ERP(dBm)	16.55	16.85	16.73
ERP(Watts)	0.0452	0.0484	0.0471

LTE Band 12 (GT - LC = -4.68 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	22.55	22.67	22.54	22.37	22.68	22.82	22.36	22.77	22.84
Conducted Power (Watts)	0.1799	0.1849	0.1795	0.1726	0.1854	0.1914	0.1722	0.1892	0.1923
ERP(dBm)	15.72	15.84	15.71	15.54	15.85	15.99	15.53	15.94	16.01
ERP(Watts)	0.0373	0.0384	0.0372	0.0358	0.0385	0.0397	0.0357	0.0393	0.0399

LTE Band 12 (GT - LC = -4.68 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.60	22.85	22.60
Conducted Power (Watts)	0.1820	0.1928	0.1820
ERP(dBm)	15.77	16.02	15.77
ERP(Watts)	0.0378	0.0400	0.0378

LTE Band 12 (GT - LC = -4.68 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 (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	21.36	21.29	21.50	21.51	21.29	21.50	21.13	21.49	21.59
Conducted Power (Watts)	0.1368	0.1346	0.1413	0.1416	0.1346	0.1413	0.1297	0.1409	0.1442
ERP(dBm)	14.53	14.46	14.67	14.68	14.46	14.67	14.30	14.66	14.76
ERP(Watts)	0.0284	0.0279	0.0293	0.0294	0.0279	0.0293	0.0269	0.0292	0.0299

LTE Band 12 (GT - LC = -4.68 dB) 64QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.00	21.50	21.39
Conducted Power (Watts)	0.1585	0.1413	0.1377
ERP(dBm)	15.17	14.67	14.56
ERP(Watts)	0.0329	0.0293	0.0286

LTE Band 26 (GT - LC = -3.78 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	23.49	23.73	23.51	23.50	23.55	23.73	23.54	23.72	23.55
Conducted Power (Watts)	0.2234	0.2360	0.2244	0.2239	0.2265	0.2360	0.2259	0.2355	0.2265
ERP(dBm)	17.56	17.80	17.58	17.57	17.62	17.80	17.61	17.79	17.62
ERP(Watts)	0.0570	0.0603	0.0573	0.0571	0.0578	0.0603	0.0577	0.0601	0.0578

LTE Band 26 (GT - LC = -3.78 dB) QPSK							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	23.61	23.69	23.40	23.76	23.81	23.62	23.76
Conducted Power (Watts)	0.2296	0.2339	0.2188	0.2377	0.2404	0.2301	0.2377
ERP(dBm)	17.68	17.76	17.47	17.83	17.88	17.69	17.83
ERP(Watts)	0.0586	0.0597	0.0558	0.0607	0.0614	0.0587	0.0607

LTE Band 26 (GT - LC = -3.78 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	23.02	23.09	23.30	23.20	23.47	23.26	23.02	23.11	23.42
Conducted Power (Watts)	0.2004	0.2037	0.2138	0.2089	0.2223	0.2118	0.2004	0.2046	0.2198
ERP(dBm)	17.09	17.16	17.37	17.27	17.54	17.33	17.09	17.18	17.49
ERP(Watts)	0.0512	0.0520	0.0546	0.0533	0.0568	0.0541	0.0512	0.0522	0.0561

LTE Band 26 (GT - LC = -3.78 dB) 16QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	22.91	23.47	23.54	22.89	22.76	22.70	22.89
Conducted Power (Watts)	0.1954	0.2223	0.2259	0.1945	0.1888	0.1862	0.1945
ERP(dBm)	16.98	17.54	17.61	16.96	16.83	16.77	16.96
ERP(Watts)	0.0499	0.0568	0.0577	0.0497	0.0482	0.0475	0.0497

LTE Band 26 (GT - LC = -3.78 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 (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	21.58	21.99	22.33	21.60	21.87	22.37	21.93	22.29	22.03
Conducted Power (Watts)	0.1439	0.1581	0.1710	0.1445	0.1538	0.1726	0.1560	0.1694	0.1596
ERP(dBm)	15.65	16.06	16.40	15.67	15.94	16.44	16.00	16.36	16.10
ERP(Watts)	0.0367	0.0404	0.0437	0.0369	0.0393	0.0441	0.0398	0.0433	0.0407

LTE Band 26 (GT - LC = -3.78 dB) 64QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	21.90	21.95	22.50	21.96	22.02	21.85	21.96
Conducted Power (Watts)	0.1549	0.1567	0.1778	0.1570	0.1592	0.1531	0.1570
ERP(dBm)	15.97	16.02	16.57	16.03	16.09	15.92	16.03
ERP(Watts)	0.0395	0.0400	0.0454	0.0401	0.0406	0.0391	0.0401

CA EIRP

Top Antenna

LTE Band 7 CA (GT - LC = 1.80 dB) QPSK									
Bandwidth	**15M + 15M**			**10M + 20M**			**20M+10M**		
Channel PCC	**20825**	**21025**	**21225**	**20805**	**21006**	**21206**	**20850**	**21051**	**21251**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Channel SCC	**20975**	**21175**	**21375**	**20949**	**21150**	**21350**	**20994**	**21195**	**21395**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Conducted Power (dBm)	23.91	23.64	23.83	23.62	23.90	23.92	23.89	23.53	23.74
Conducted Power (Watts)	0.2460	0.2312	0.2415	0.2301	0.2455	0.2466	0.2449	0.2254	0.2366
EIRP(dBm)	25.71	25.44	25.63	25.42	25.70	25.72	25.69	25.33	25.54
EIRP(Watts)	0.3724	0.3499	0.3656	0.3483	0.3715	0.3733	0.3707	0.3412	0.3581

LTE Band 7 CA (GT - LC = 1.80 dB) QPSK									
Bandwidth	**15M+20M**			**20M+15M**			**20M + 20M**		
Channel PCC	**20828**	**21003**	**21179**	**20850**	**21026**	**21201**	**20850**	**21001**	**21152**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Channel SCC	**20999**	**21174**	**21350**	**21021**	**21197**	**21372**	**21048**	**21199**	**21350**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Conducted Power (dBm)	23.70	23.88	23.64	23.91	23.87	23.81	23.93	23.86	23.86
Conducted Power (Watts)	0.2344	0.2443	0.2312	0.2460	0.2438	0.2404	0.2472	0.2432	0.2432
EIRP(dBm)	25.50	25.68	25.44	25.71	25.67	25.61	25.73	25.66	25.66
EIRP(Watts)	0.3548	0.3698	0.3499	0.3724	0.3690	0.3639	0.3741	0.3681	0.3681

LTE Band 7 CA (GT - LC = 1.80 dB) 16QAM									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.78	22.46	22.82	22.73	22.72	22.94	22.74	22.58	22.62
Conducted Power (Watts)	0.1897	0.1762	0.1914	0.1875	0.1871	0.1968	0.1879	0.1811	0.1828
EIRP(dBm)	24.58	24.26	24.62	24.53	24.52	24.74	24.54	24.38	24.42
EIRP(Watts)	0.2871	0.2667	0.2897	0.2838	0.2831	0.2979	0.2844	0.2742	0.2767

LTE Band 7 CA (GT - LC = 1.80 dB) 16QAM									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.87	22.70	22.47	22.98	22.88	22.97	22.91	22.83	22.84
Conducted Power (Watts)	0.19	0.19	0.18	0.1986	0.1941	0.1982	0.1954	0.1919	0.1923
EIRP(dBm)	24.67	24.50	24.27	24.78	24.68	24.77	24.71	24.63	24.64
EIRP(Watts)	0.29	0.28	0.27	0.3006	0.2938	0.2999	0.2958	0.2904	0.2911

LTE Band 7 CA (GT - LC = 1.80 dB) 64QAM									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.12	21.45	21.11	21.46	21.32	21.38	21.17	21.23	21.31
Conducted Power (Watts)	0.1294	0.1396	0.1291	0.1400	0.1355	0.1374	0.1309	0.1327	0.1352
EIRP(dBm)	22.92	23.25	22.91	23.26	23.12	23.18	22.97	23.03	23.11
EIRP(Watts)	0.1959	0.2113	0.1954	0.2118	0.2051	0.2080	0.1982	0.2009	0.2046

LTE Band 7 CA (GT - LC = 1.80 dB) 64QAM									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.35	20.98	20.96	21.50	21.45	21.40	21.43	21.40	21.31
Conducted Power (Watts)	0.1365	0.1253	0.1247	0.1413	0.1396	0.1380	0.1390	0.1380	0.1352
EIRP(dBm)	23.15	22.78	22.76	23.30	23.25	23.20	23.23	23.20	23.11
EIRP(Watts)	0.2065	0.1897	0.1888	0.2138	0.2113	0.2089	0.2104	0.2089	0.2046

LTE Band 7 CA (GT - LC = 1.80 dB) QPSK			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.91	23.80	23.49
Conducted Power (Watts)	0.2460	0.2399	0.2234
EIRP(dBm)	25.71	25.60	25.29
EIRP(Watts)	0.3724	0.3631	0.3381

LTE Band 7 CA (GT - LC = 1.80 dB) 16QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.73	22.78	22.93
Conducted Power (Watts)	0.1875	0.1897	0.1963
EIRP(dBm)	24.53	24.58	24.73
EIRP(Watts)	0.2838	0.2871	0.2972

LTE Band 7 CA (GT - LC = 1.80 dB) 64QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.27	21.45	21.11
Conducted Power (Watts)	0.1340	0.1396	0.1291
EIRP(dBm)	23.07	23.25	22.91
EIRP(Watts)	0.2028	0.2113	0.1954

LTE Band 41 CA (GT - LC = 1.23 dB) QPSK									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.56	22.96	22.93	22.87	22.96	22.86	22.59	22.67	23.55
Conducted Power (Watts)	0.2270	0.1977	0.1963	0.1936	0.1977	0.1932	0.1816	0.1849	0.2265
EIRP(dBm)	24.79	24.19	24.16	24.10	24.19	24.09	23.82	23.90	24.78
EIRP(Watts)	0.3013	0.2624	0.2606	0.2570	0.2624	0.2564	0.2410	0.2455	0.3006

LTE Band 41 CA (GT - LC = 1.23 dB) QPSK									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.84	23.10	22.65	23.12	22.97	22.72	23.71	23.42	23.27
Conducted Power (Watts)	0.1923	0.2042	0.1841	0.2051	0.1982	0.1871	0.2350	0.2198	0.2123
EIRP(dBm)	24.07	24.33	23.88	24.35	24.20	23.95	24.94	24.65	24.50
EIRP(Watts)	0.2553	0.2710	0.2443	0.2723	0.2630	0.2483	0.3119	0.2917	0.2818

LTE Band 41 CA (GT - LC = 1.23 dB) QPSK						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.68	23.52	23.28	23.58	23.64	23.72
Conducted Power (Watts)	0.2333	0.2249	0.2128	0.2280	0.2312	0.2355
EIRP(dBm)	24.91	24.75	24.51	24.81	24.87	24.95
EIRP(Watts)	0.3097	0.2985	0.2825	0.3027	0.3069	0.3126

LTE Band 41 CA (GT - LC = 1.23 dB) QPSK						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.64	23.00	22.95	23.11	23.36	23.24
Conducted Power (Watts)	0.1837	0.1995	0.1972	0.2046	0.2168	0.2109
EIRP(dBm)	23.87	24.23	24.18	24.34	24.59	24.47
EIRP(Watts)	0.2438	0.2649	0.2618	0.2716	0.2877	0.2799

LTE Band 41 CA (GT - LC = 1.23 dB) 16QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.03	21.72	21.52	21.50	21.78	21.60	21.39	20.88	22.09
Conducted Power (Watts)	0.1596	0.1486	0.1419	0.1413	0.1507	0.1445	0.1377	0.1225	0.1618
EIRP(dBm)	23.26	22.95	22.75	22.73	23.01	22.83	22.62	22.11	23.32
EIRP(Watts)	0.2118	0.1972	0.1884	0.1875	0.2000	0.1919	0.1828	0.1626	0.2148

LTE Band 41 CA (GT - LC = 1.23 dB) 16QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.53	21.14	21.08	21.89	21.46	21.32	22.43	22.25	21.77
Conducted Power (Watts)	0.1422	0.1300	0.1282	0.1545	0.1400	0.1355	0.1750	0.1679	0.1503
EIRP(dBm)	22.76	22.37	22.31	23.12	22.69	22.55	23.66	23.48	23.00
EIRP(Watts)	0.1888	0.1726	0.1702	0.2051	0.1858	0.1799	0.2323	0.2228	0.1995

LTE Band 41 CA (GT - LC = 1.23 dB) 16QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.45	22.09	21.98	22.59	22.66	22.71
Conducted Power (Watts)	0.1758	0.1618	0.1578	0.1816	0.1845	0.1866
EIRP(dBm)	23.68	23.32	23.21	23.82	23.89	23.94
EIRP(Watts)	0.2333	0.2148	0.2094	0.2410	0.2449	0.2477

LTE Band 41 CA (GT - LC = 1.23 dB) 16QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.97	21.66	21.67	21.87	22.25	21.72
Conducted Power (Watts)	0.1250	0.1466	0.1469	0.1538	0.1679	0.1486
EIRP(dBm)	22.20	22.89	22.90	23.10	23.48	22.95
EIRP(Watts)	0.1660	0.1945	0.1950	0.2042	0.2228	0.1972

LTE Band 41 CA (GT - LC = 1.23 dB) 64QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.07	21.91	22.01	21.71	21.74	21.60	21.41	21.09	22.14
Conducted Power (Watts)	0.1611	0.1552	0.1589	0.1483	0.1493	0.1445	0.1384	0.1285	0.1637
EIRP(dBm)	23.30	23.14	23.24	22.94	22.97	22.83	22.64	22.32	23.37
EIRP(Watts)	0.2138	0.2061	0.2109	0.1968	0.1982	0.1919	0.1837	0.1706	0.2173

LTE Band 41 CA (GT - LC = 1.23 dB) 64QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.63	21.44	21.24	22.06	21.30	21.52	22.61	21.11	21.97
Conducted Power (Watts)	0.1455	0.1393	0.1330	0.1607	0.1349	0.1419	0.1824	0.1291	0.1574
EIRP(dBm)	22.86	22.67	22.47	23.29	22.53	22.75	23.84	22.34	23.20
EIRP(Watts)	0.1932	0.1849	0.1766	0.2133	0.1791	0.1884	0.2421	0.1714	0.2089

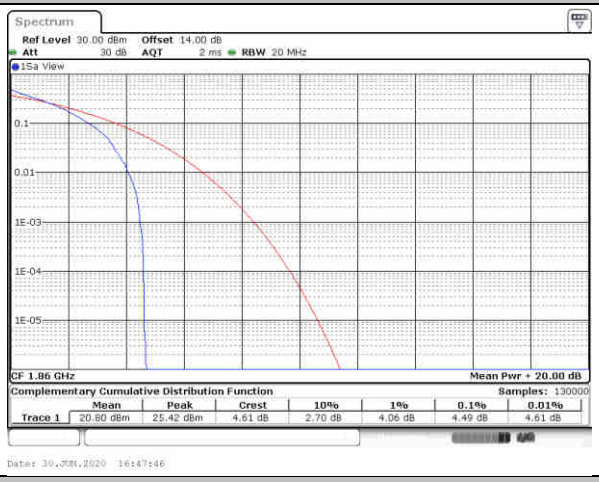
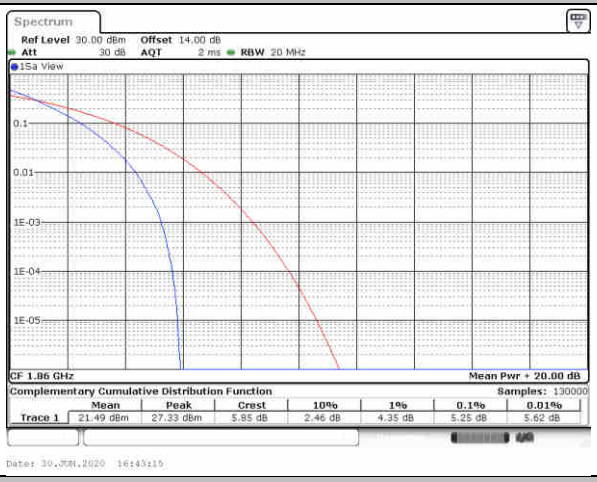
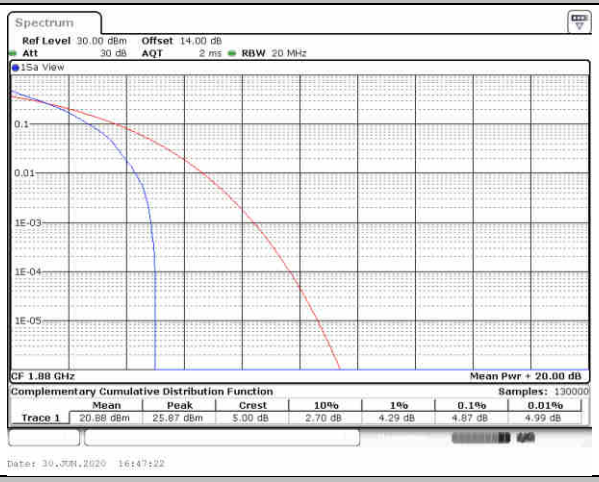
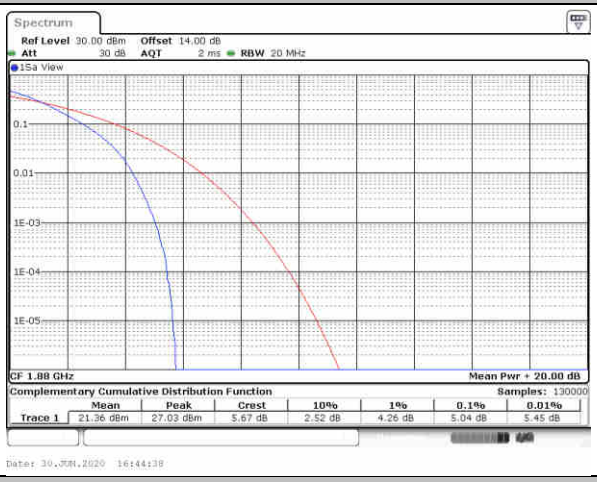
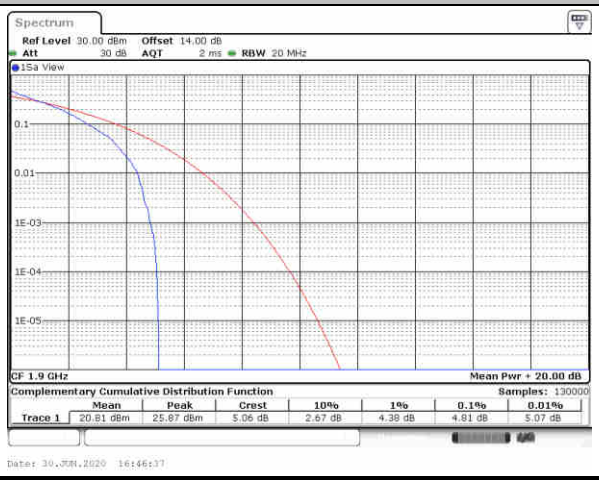
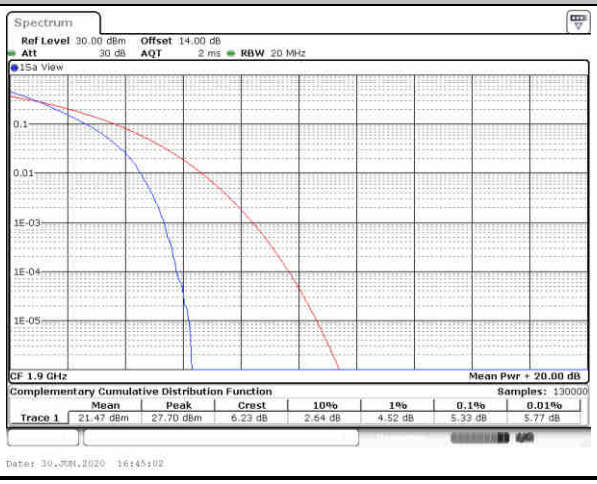
LTE Band 41 CA (GT - LC = 1.23 dB) 64QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.45	21.94	22.14	22.54	22.61	22.66
Conducted Power (Watts)	0.1758	0.1563	0.1637	0.1795	0.1824	0.1845
EIRP(dBm)	23.68	23.17	23.37	23.77	23.84	23.89
EIRP(Watts)	0.2333	0.2075	0.2173	0.2382	0.2421	0.2449

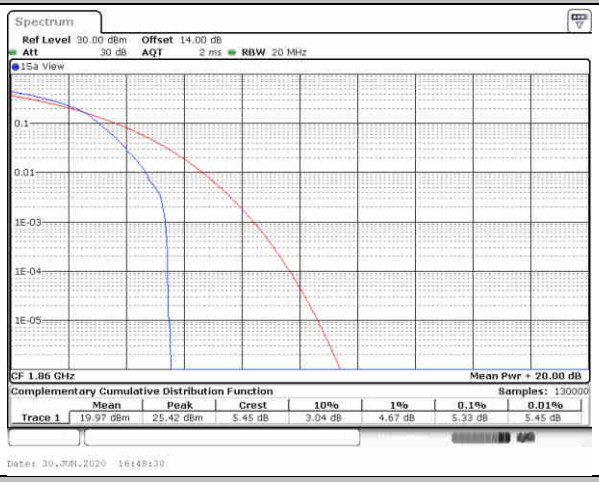
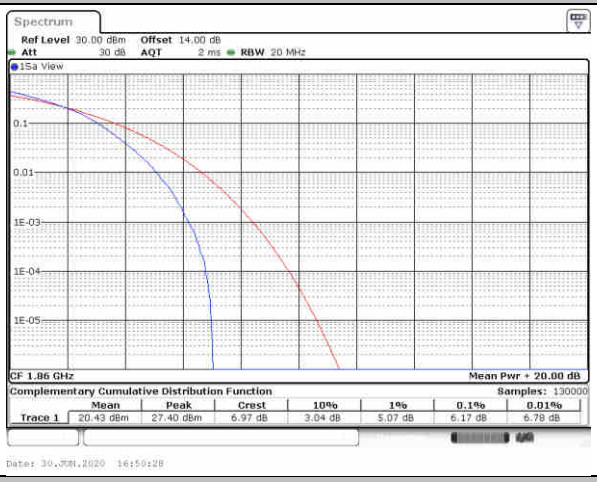
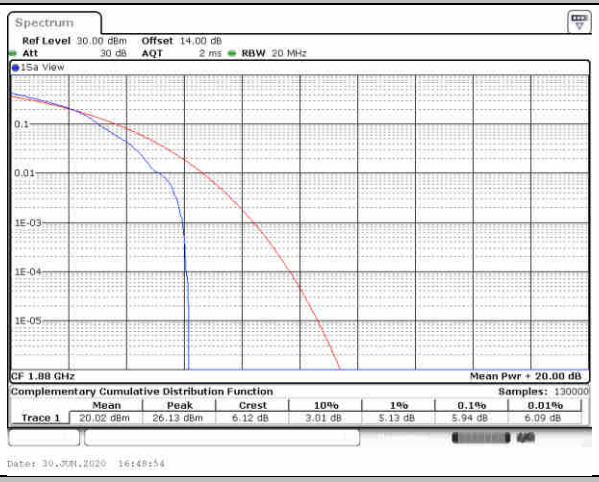
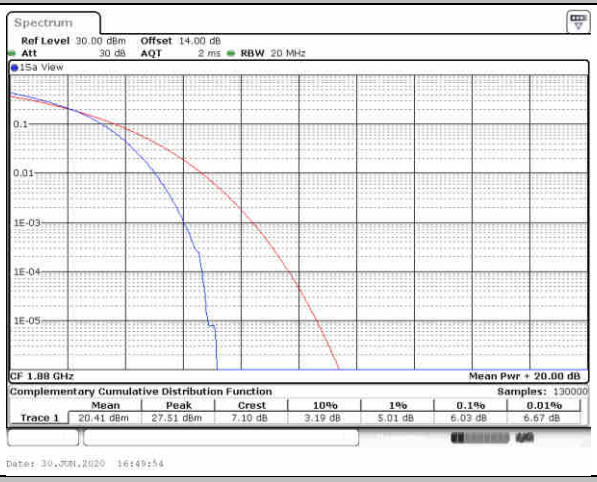
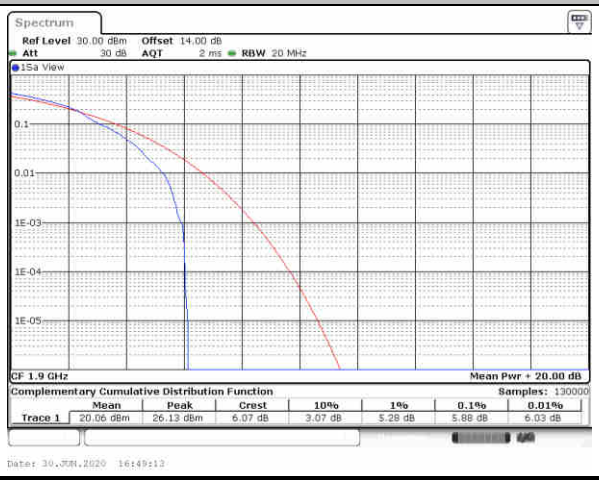
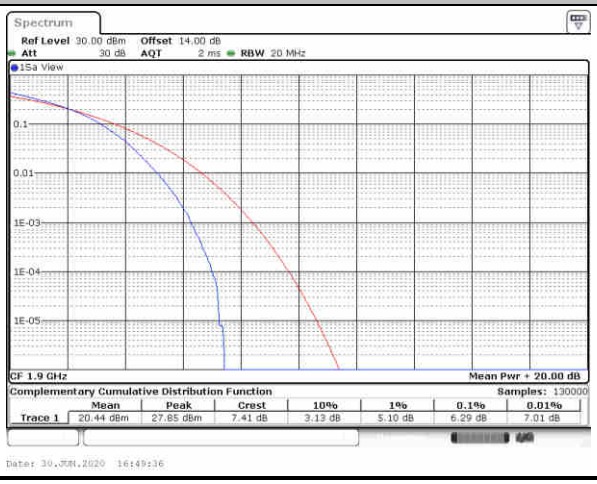
LTE Band 41 CA (GT - LC = 1.23 dB) 64QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.26	21.86	21.75	21.88	22.15	21.59
Conducted Power (Watts)	0.1337	0.1535	0.1496	0.1542	0.1641	0.1442
EIRP(dBm)	22.49	23.09	22.98	23.11	23.38	22.82
EIRP(Watts)	0.1774	0.2037	0.1986	0.2046	0.2178	0.1914

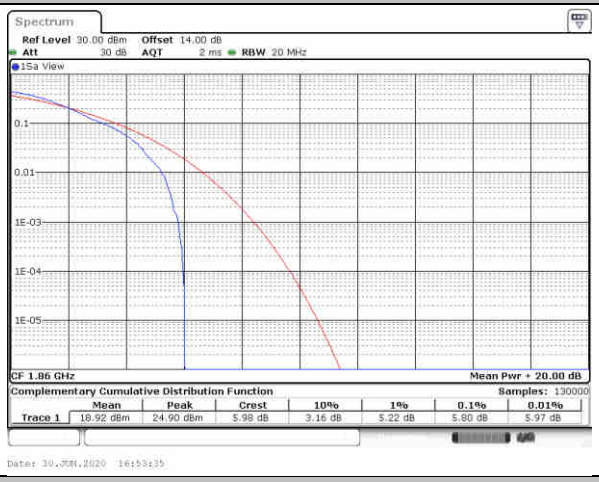
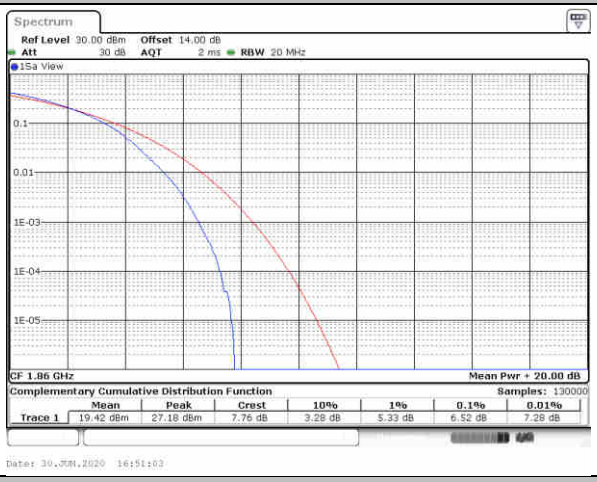
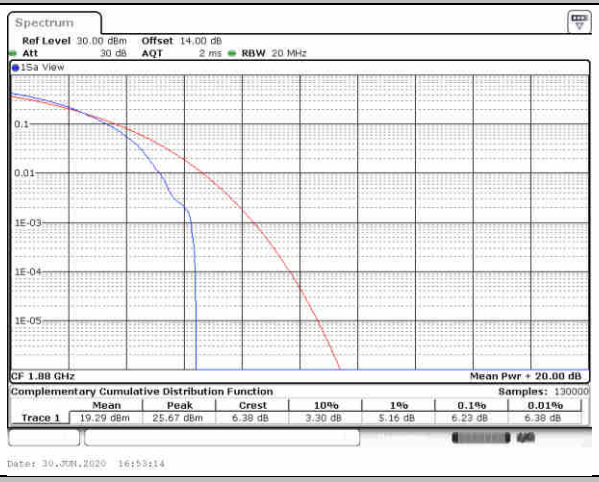
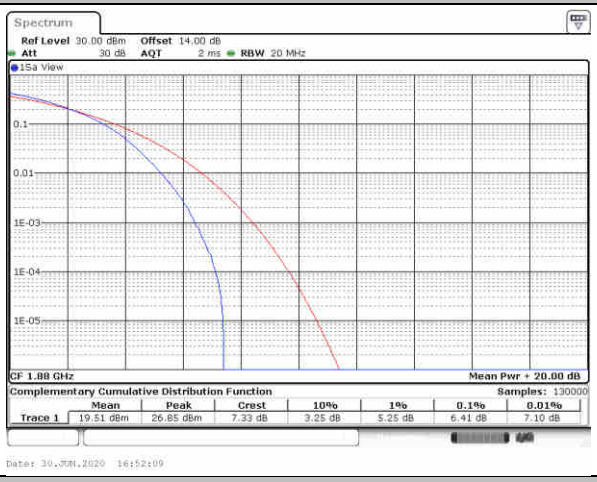
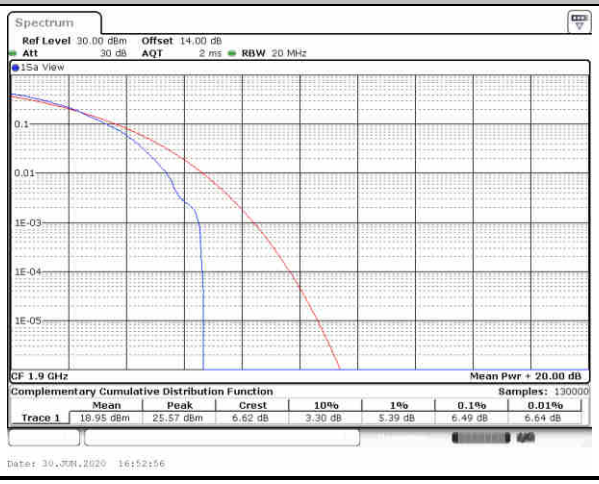
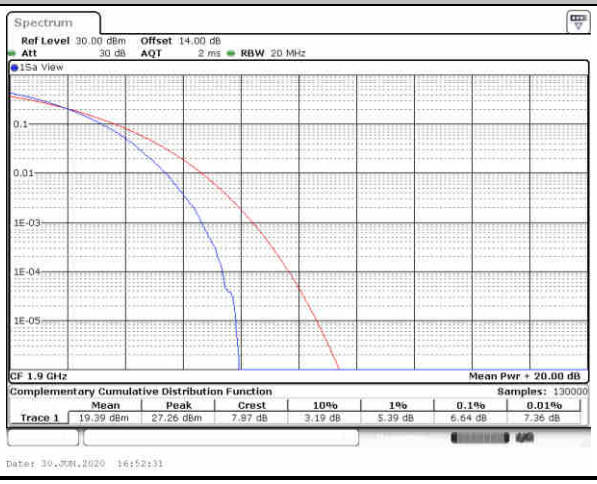
LTE Band 2

Peak-to-Average Ratio

Mode	LTE Band 2 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.49	5.25	5.33	6.17	PASS
Middle CH	4.87	5.04	5.94	6.03	
Highest CH	4.81	5.33	5.88	6.29	
Mode	LTE Band 2 / 20MHz				
Mod.	64QAM		N/A		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	5.80	6.52	-	-	PASS
Middle CH	6.23	6.41	-	-	
Highest CH	6.49	6.64	-	-	

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

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

LTE Band 2 / 20MHz / 64QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

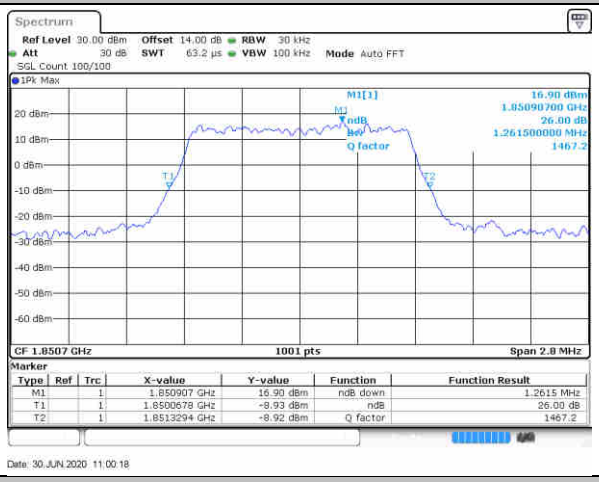
26dB Bandwidth

Mode	LTE Band 2 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.26	1.28	3.02	2.99	4.91	4.88	9.95	9.77	14.42	14.36	19.02	18.94
Middle CH	1.27	1.26	2.99	3.01	4.87	4.92	9.77	9.69	14.30	14.27	18.78	18.98
Highest CH	1.27	1.28	2.99	3.00	5.03	4.95	9.79	9.77	14.63	14.51	18.98	19.10

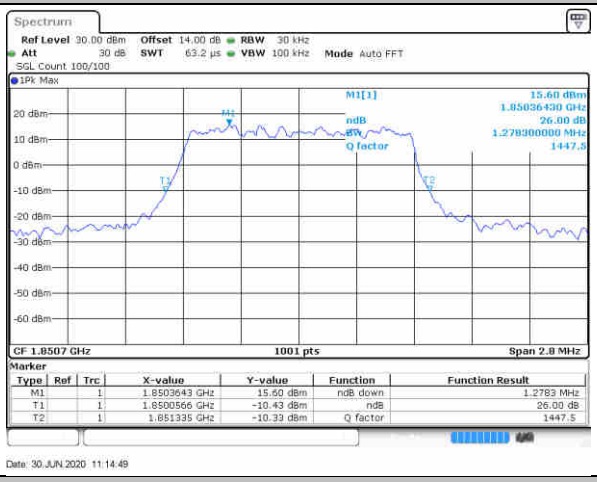
Mode	LTE Band 2 : 26dB BW(MHz)					
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	1.26	3.01	4.91	9.97	14.48	18.98
Middle CH	1.30	3.01	4.91	9.71	14.51	19.02
Highest CH	1.26	3.01	4.89	9.79	14.33	18.78

LTE Band 2

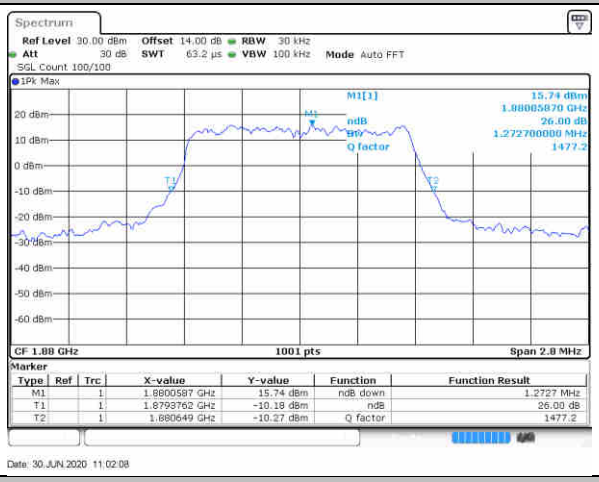
Lowest Channel / 1.4MHz / QPSK



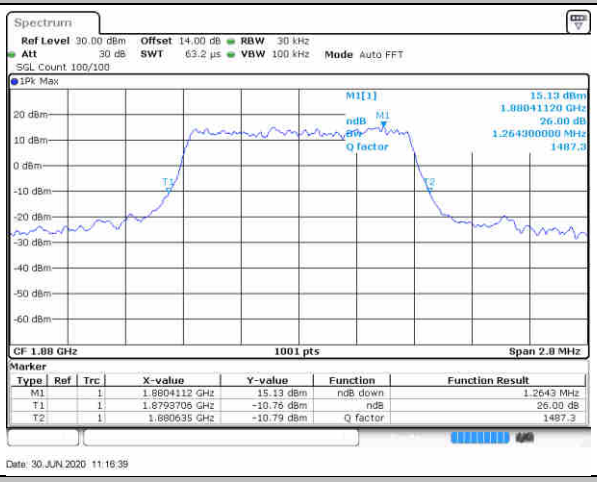
Lowest Channel / 1.4MHz / 16QAM



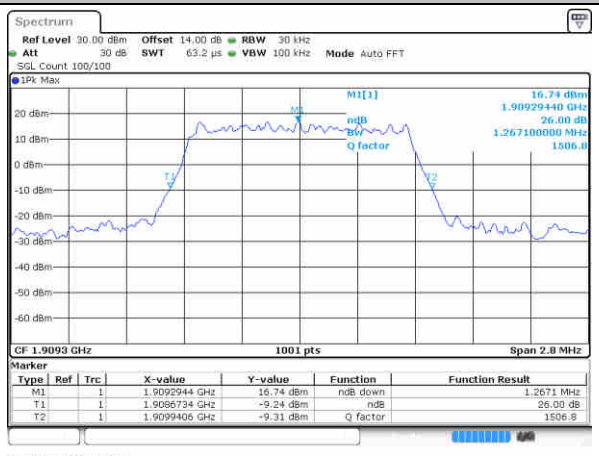
Middle Channel / 1.4MHz / QPSK



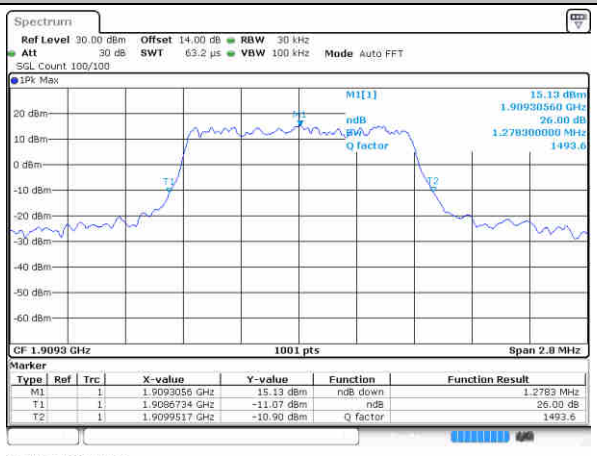
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

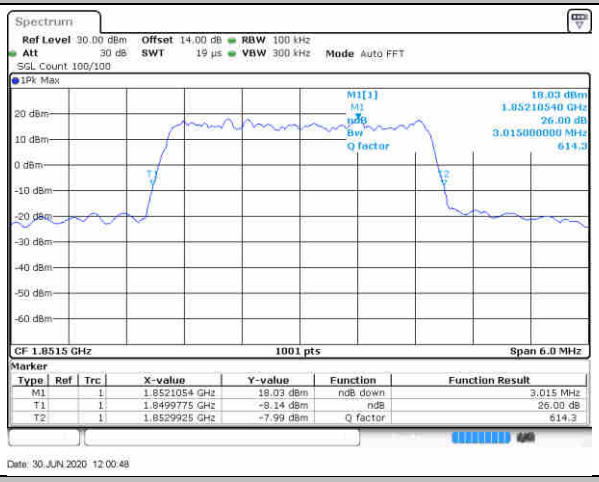


Highest Channel / 1.4MHz / 16QAM

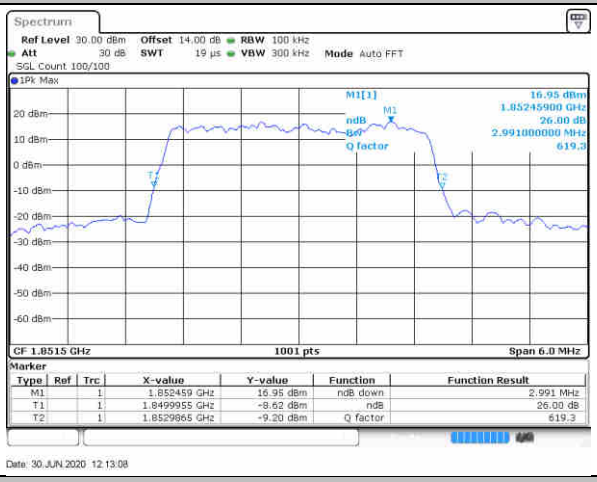


LTE Band 2

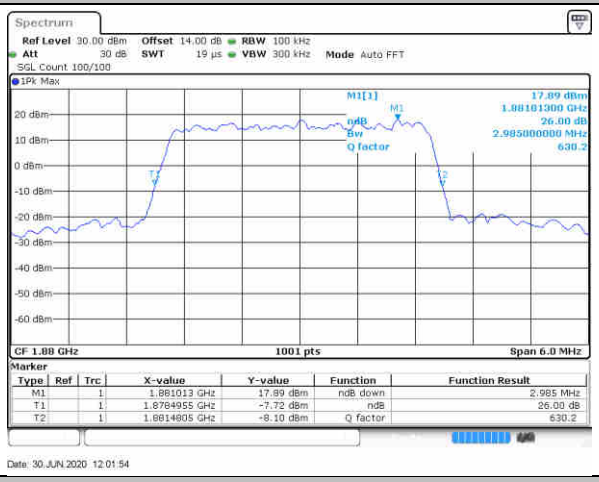
Lowest Channel / 3MHz / QPSK



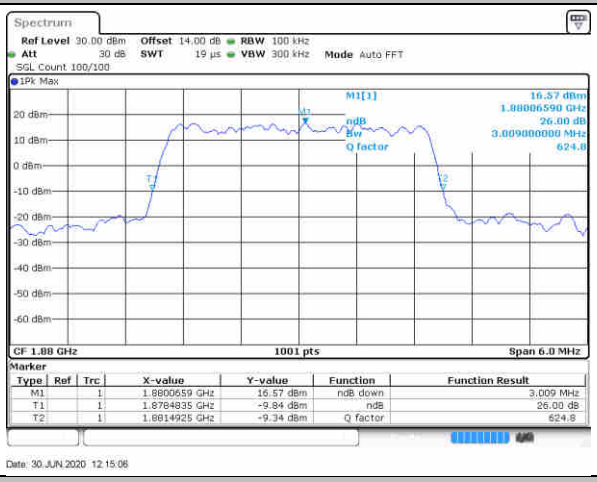
Lowest Channel / 3MHz / 16QAM



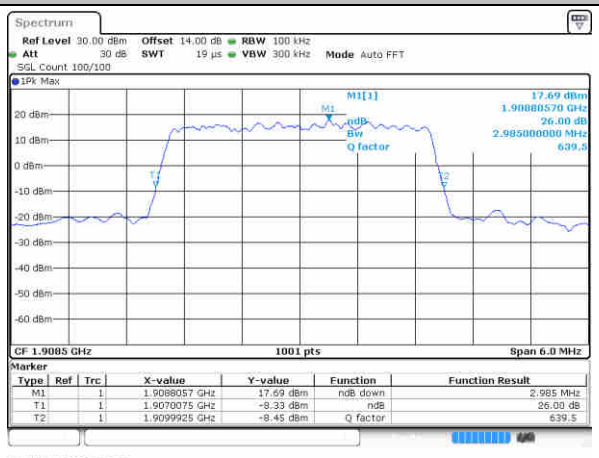
Middle Channel / 3MHz / QPSK



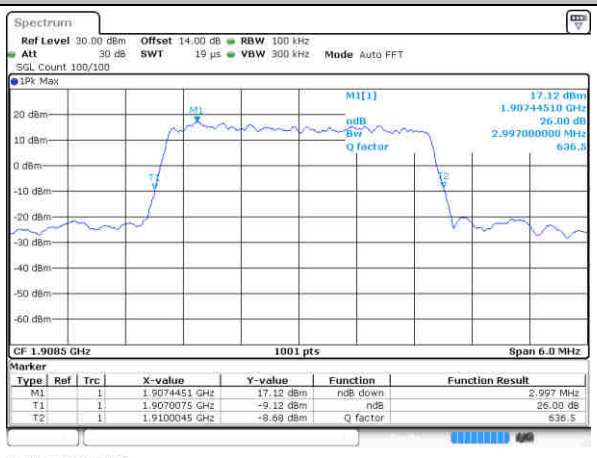
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

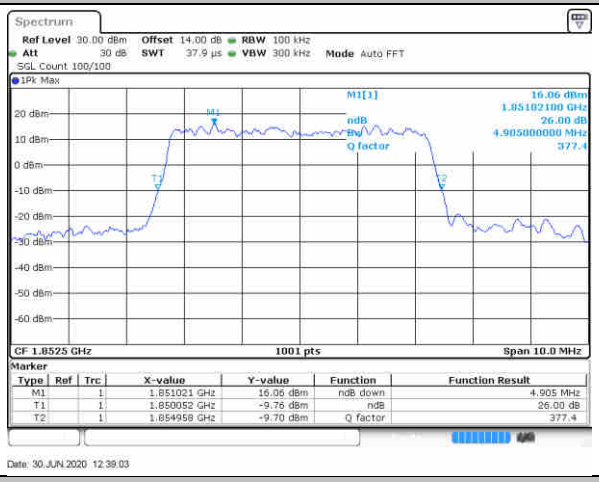


Highest Channel / 3MHz / 16QAM

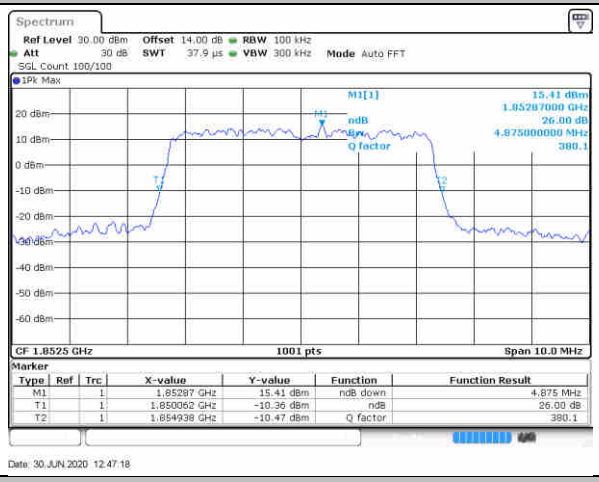


LTE Band 2

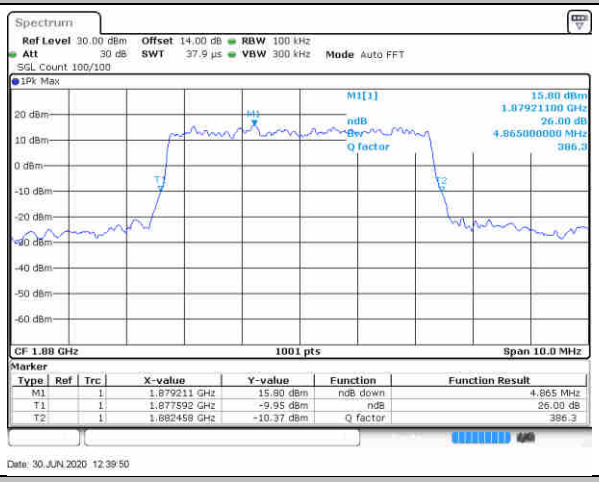
Lowest Channel / 5MHz / QPSK



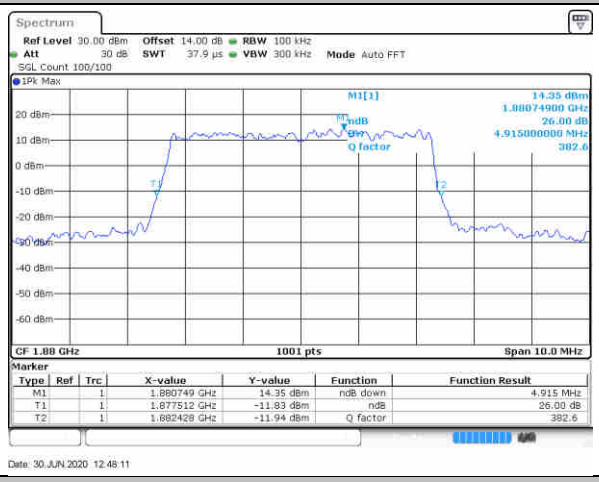
Lowest Channel / 5MHz / 16QAM



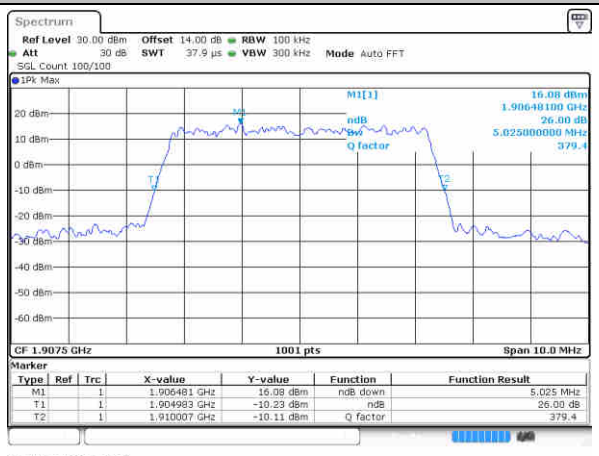
Middle Channel / 5MHz / QPSK



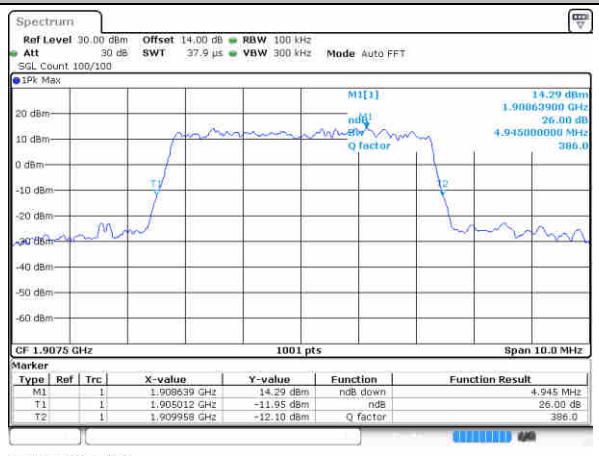
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

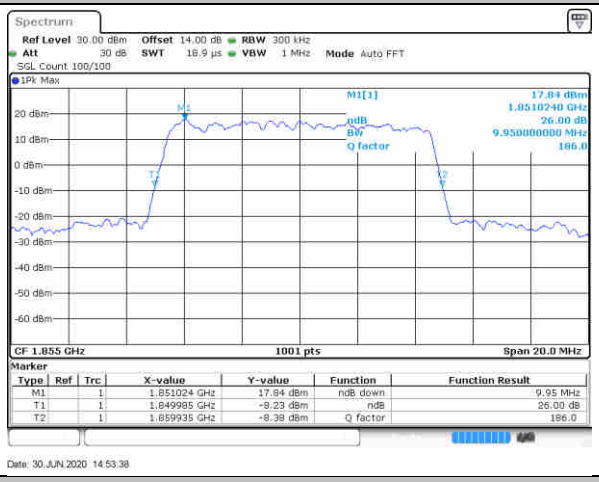


Highest Channel / 5MHz / 16QAM

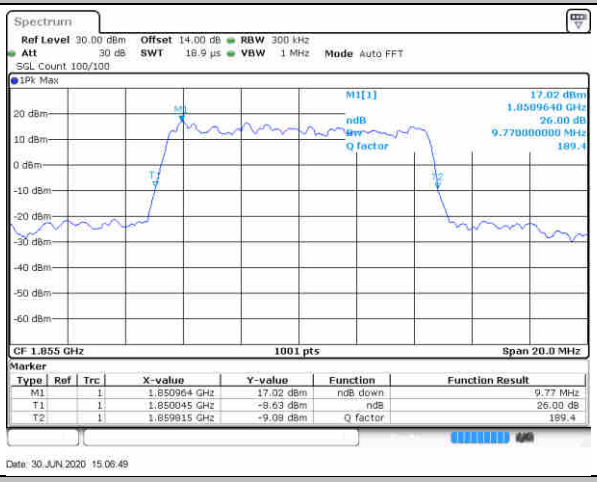


LTE Band 2

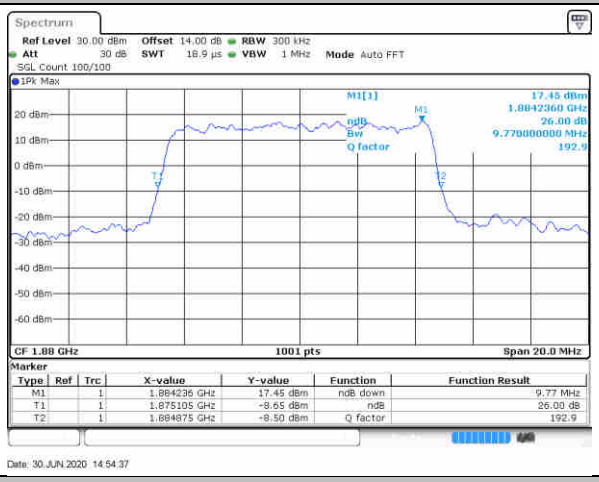
Lowest Channel / 10MHz / QPSK



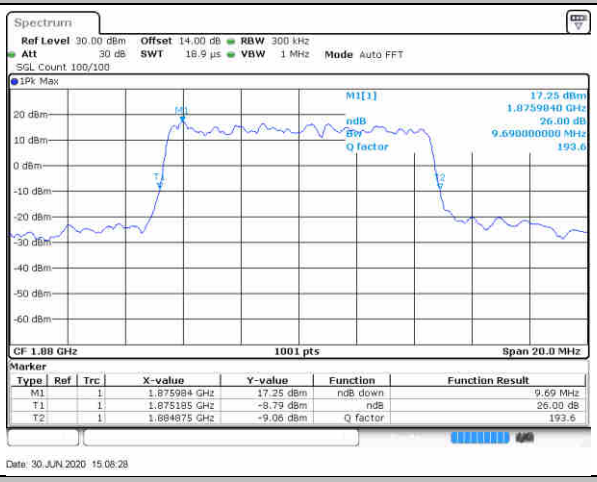
Lowest Channel / 10MHz / 16QAM



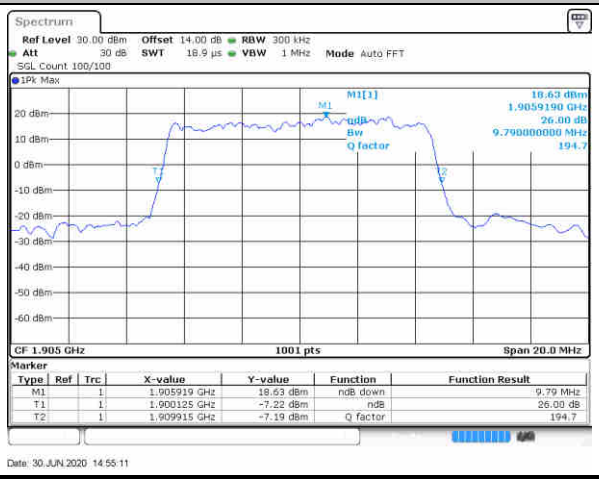
Middle Channel / 10MHz / QPSK



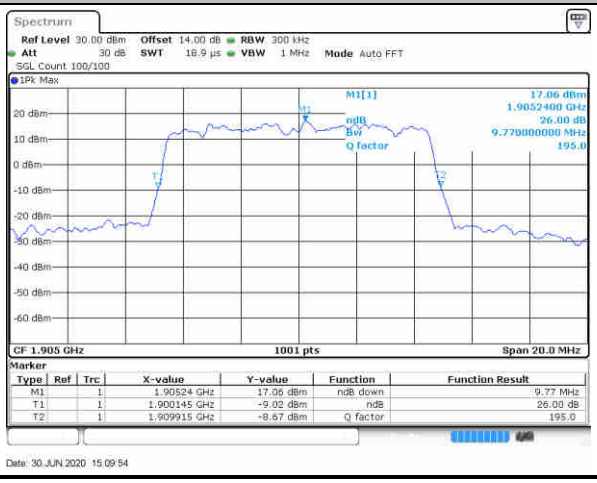
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

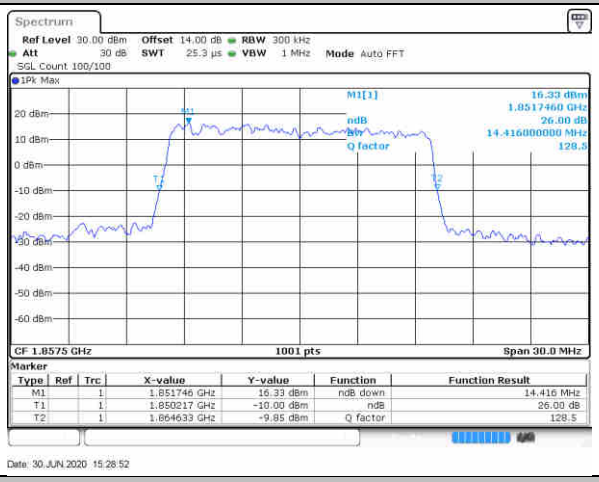


Highest Channel / 10MHz / 16QAM

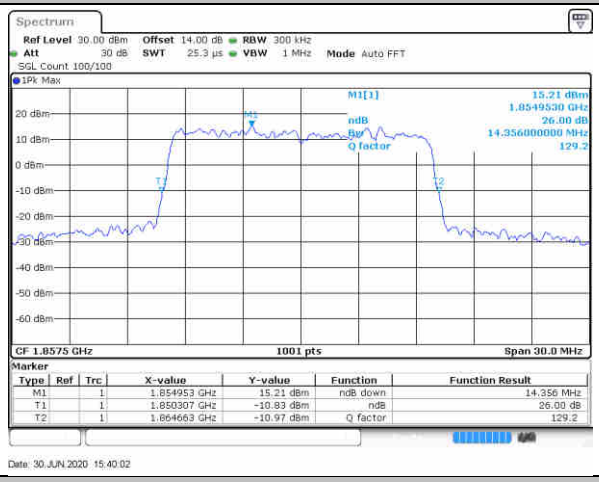


LTE Band 2

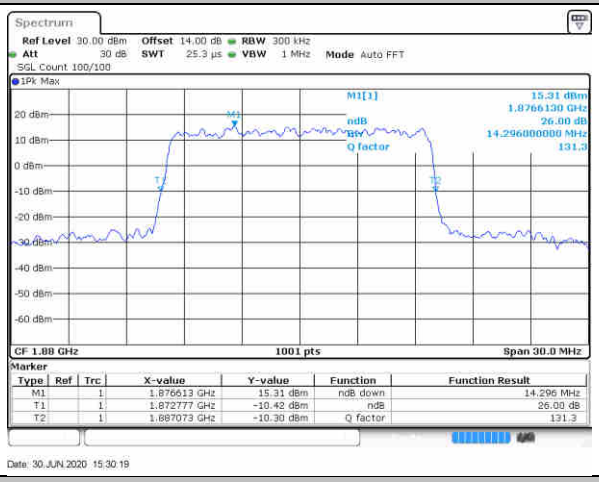
Lowest Channel / 15MHz / QPSK



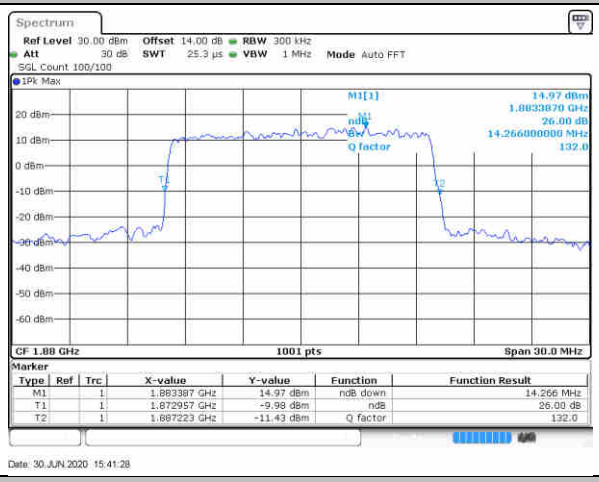
Lowest Channel / 15MHz / 16QAM



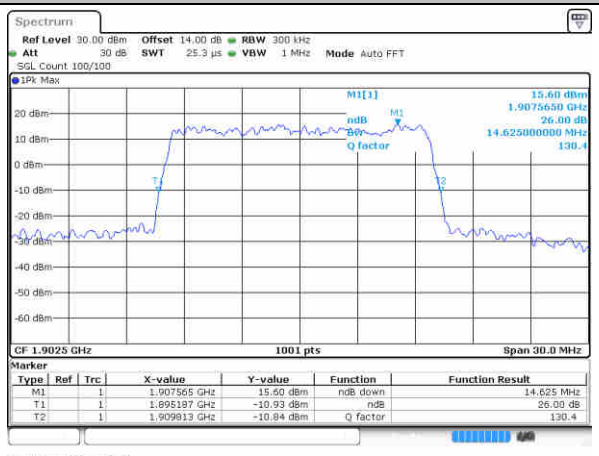
Middle Channel / 15MHz / QPSK



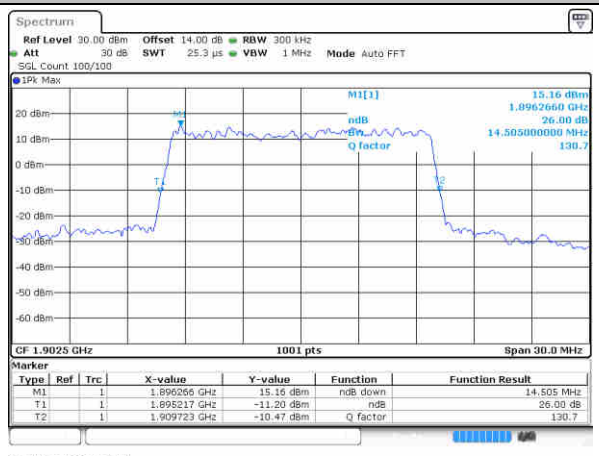
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

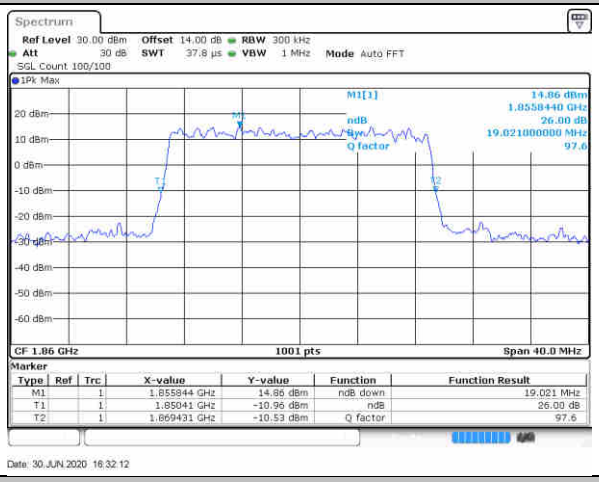


Highest Channel / 15MHz / 16QAM

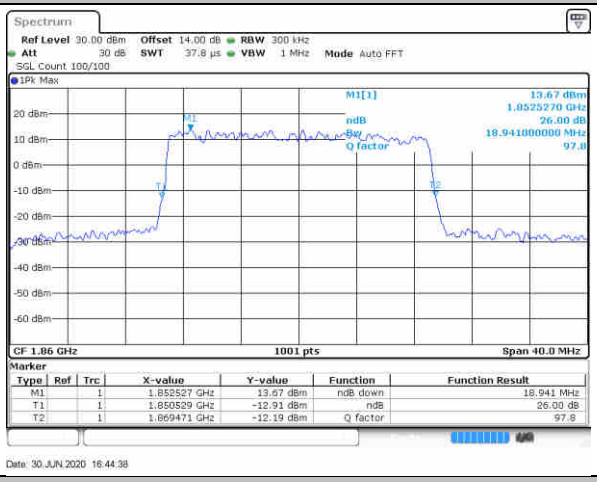


LTE Band 2

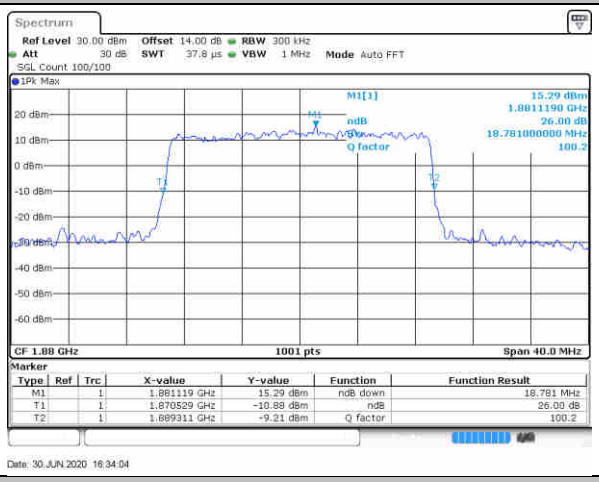
Lowest Channel / 20MHz / QPSK



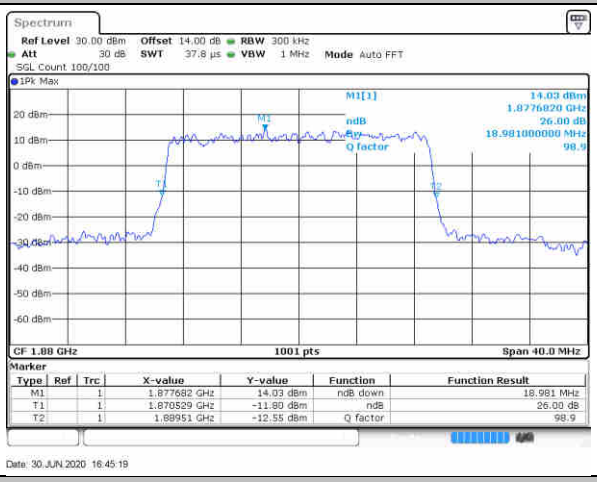
Lowest Channel / 20MHz / 16QAM



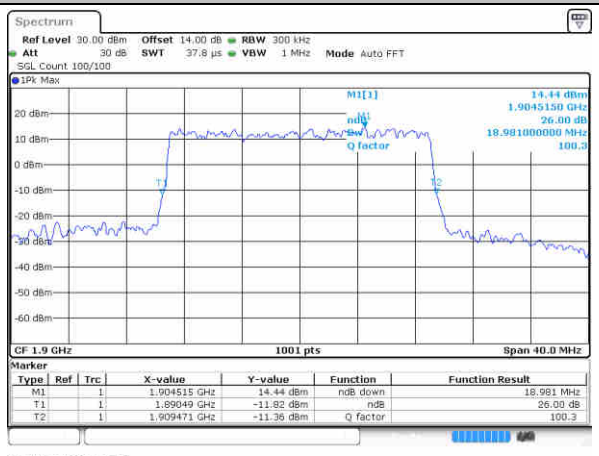
Middle Channel / 20MHz / QPSK



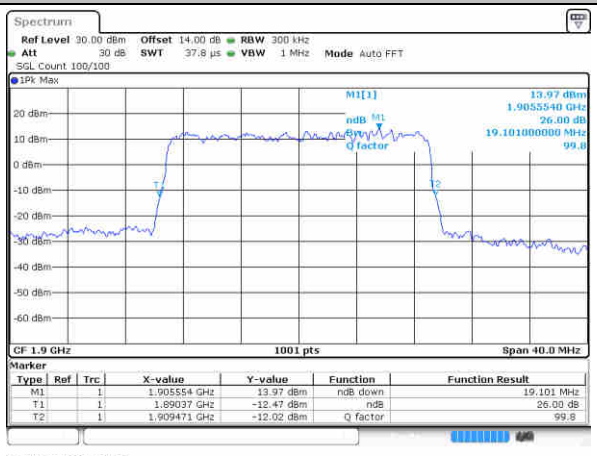
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

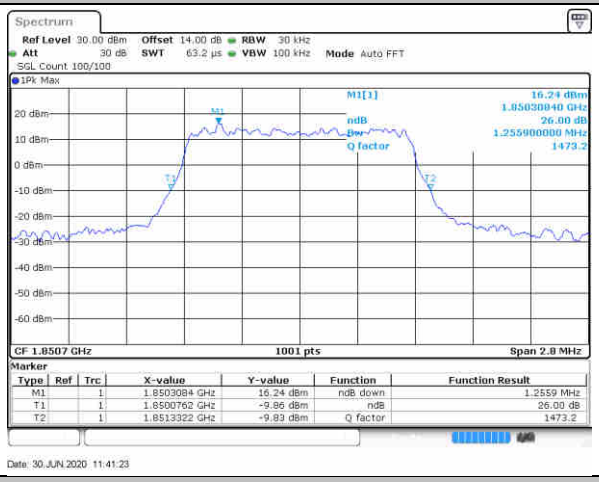


Highest Channel / 20MHz / 16QAM

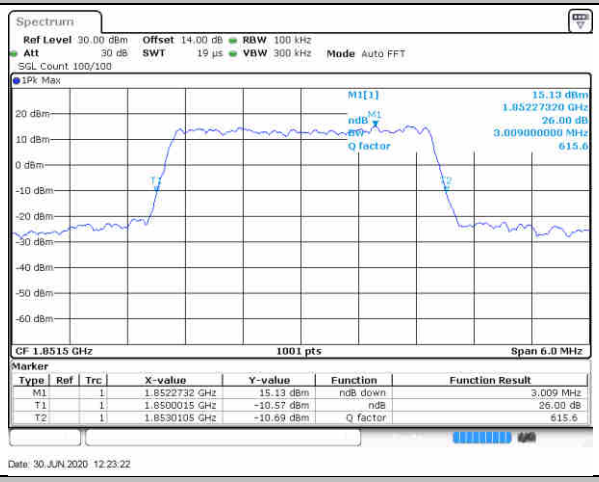


LTE Band 2

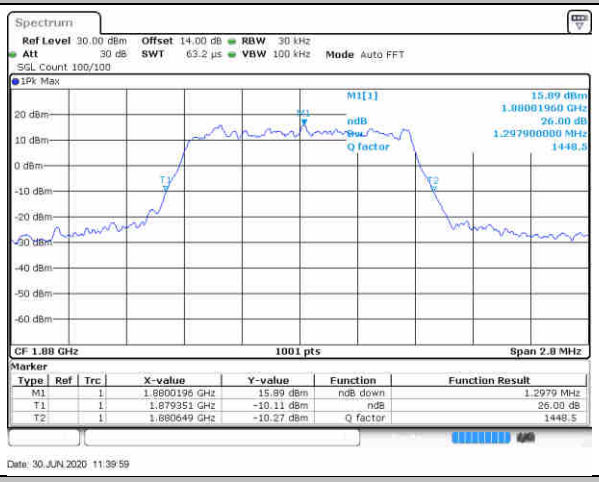
Lowest Channel / 1.4MHz / 64QAM



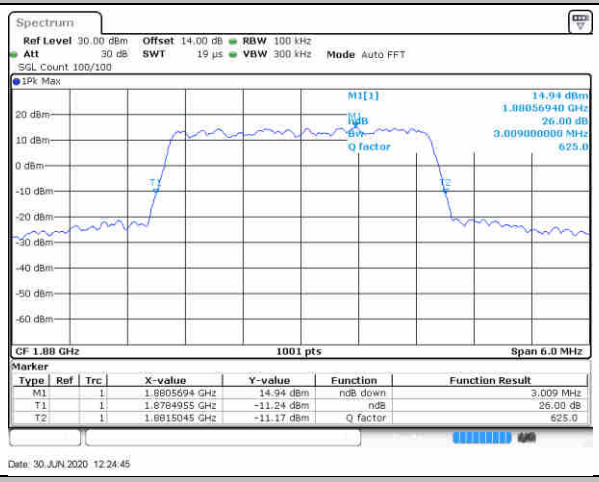
Lowest Channel / 3MHz / 64QAM



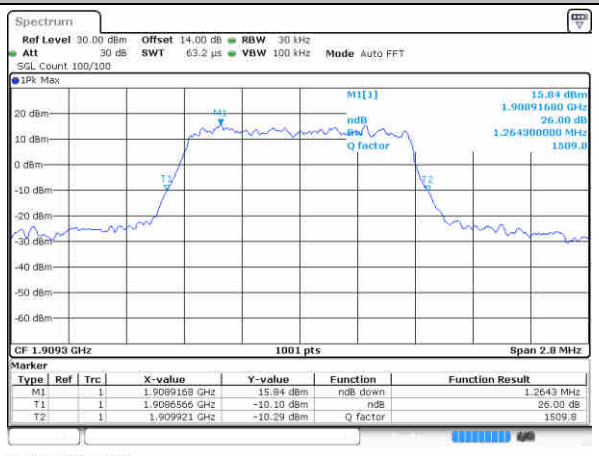
Middle Channel / 1.4MHz / 64QAM



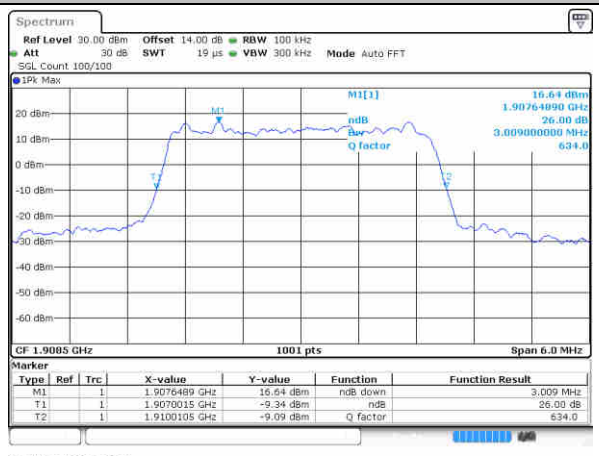
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM

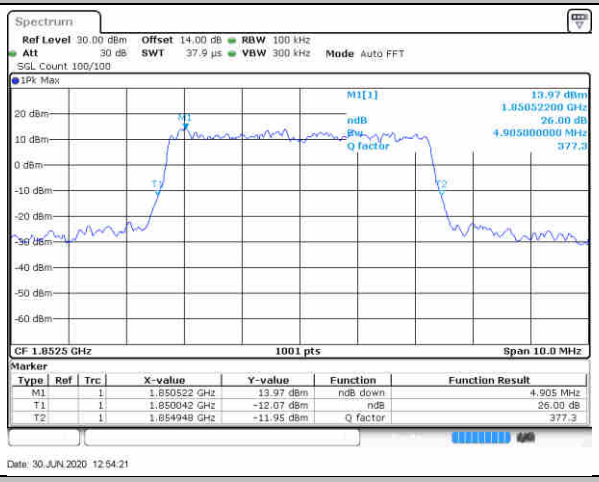


Highest Channel / 3MHz / 64QAM

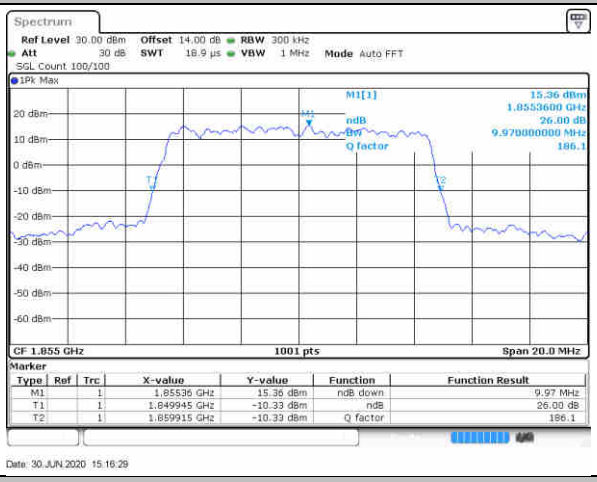


LTE Band 2

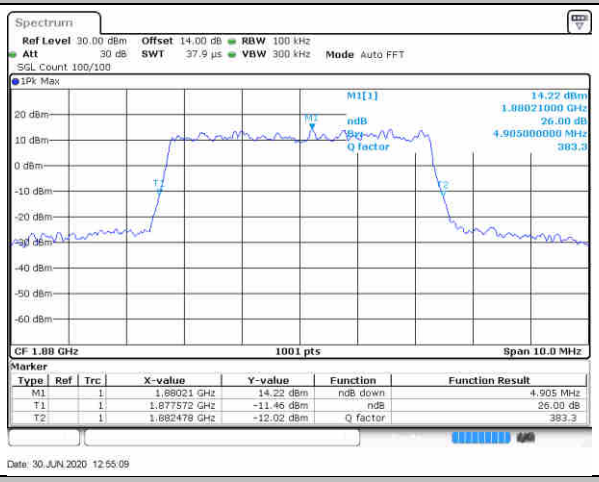
Lowest Channel / 5MHz / 64QAM



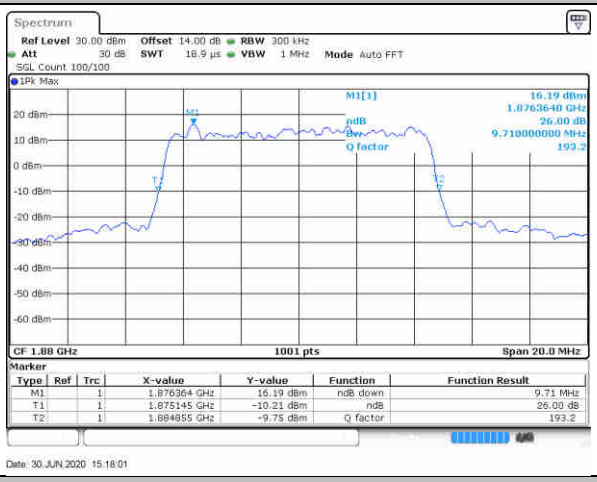
Lowest Channel / 10MHz / 64QAM



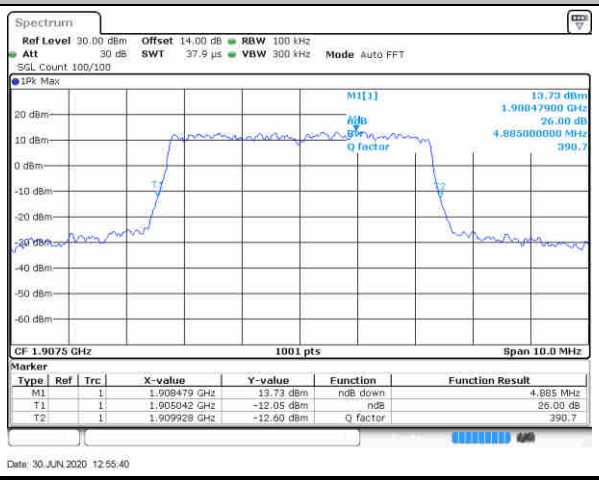
Middle Channel / 5MHz / 64QAM



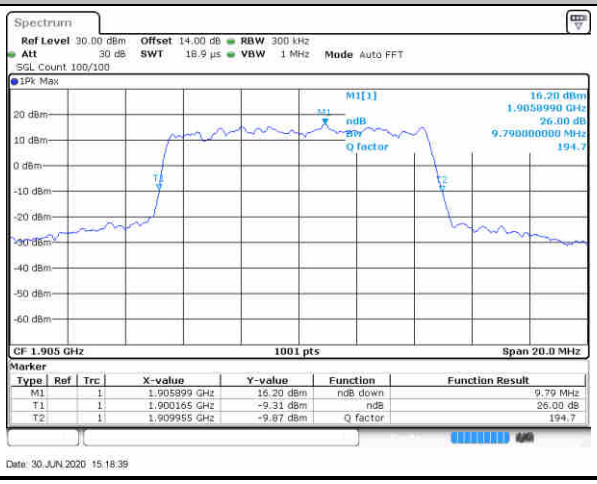
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

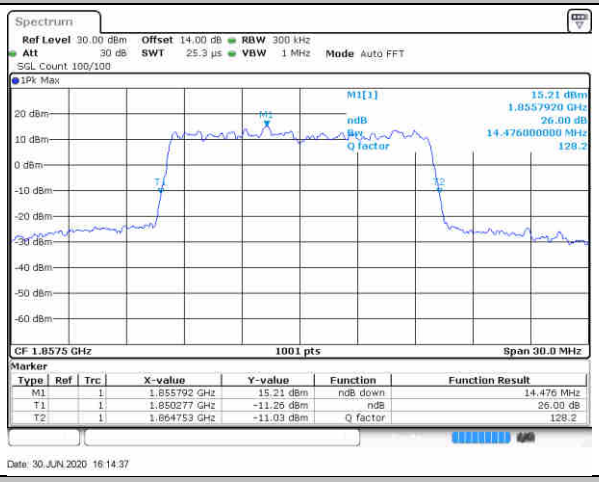


Highest Channel / 10MHz / 64QAM

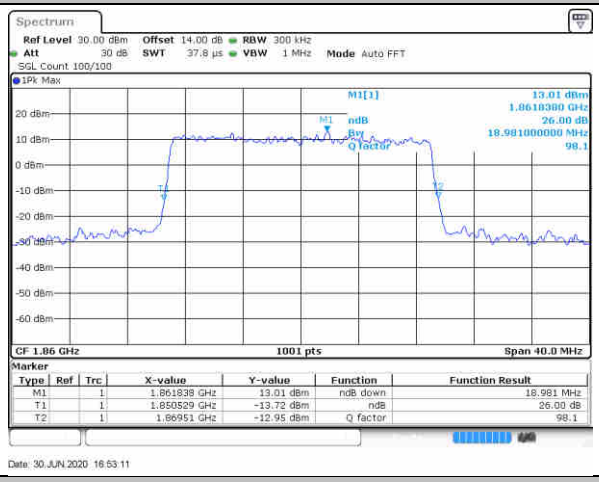


LTE Band 2

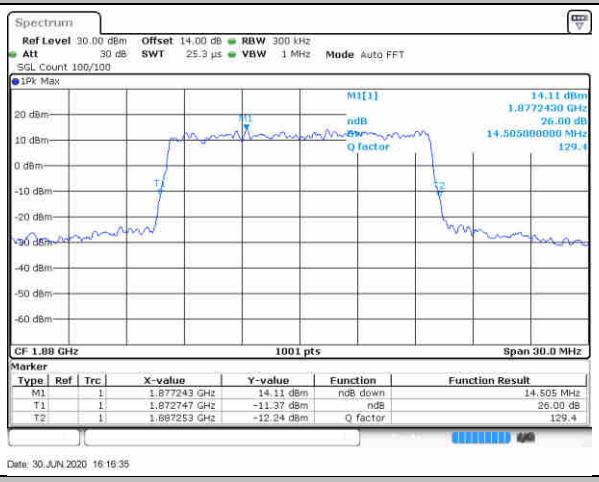
Lowest Channel / 15MHz / 64QAM



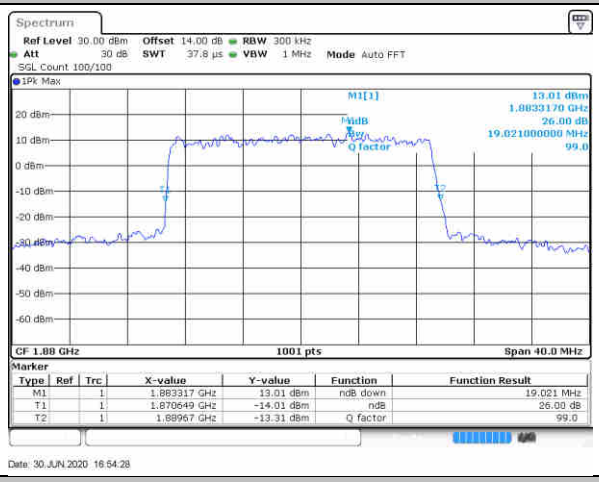
Lowest Channel / 20MHz / 64QAM



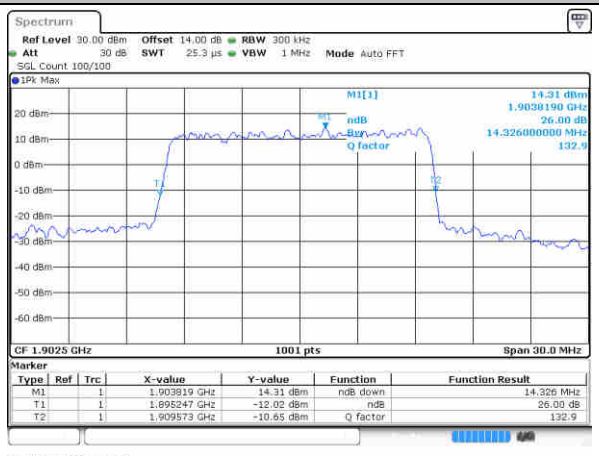
Middle Channel / 15MHz / 64QAM



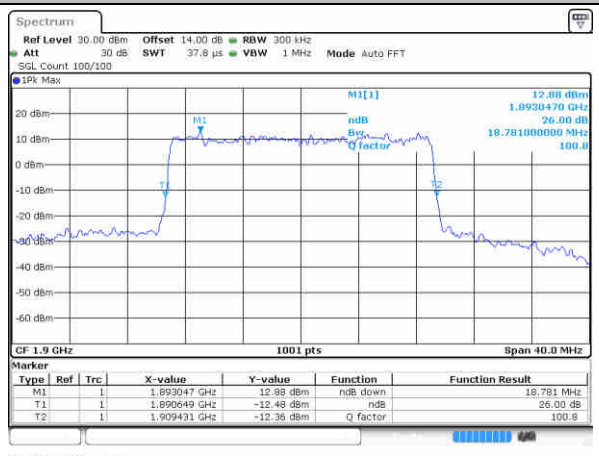
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM



Highest Channel / 20MHz / 64QAM

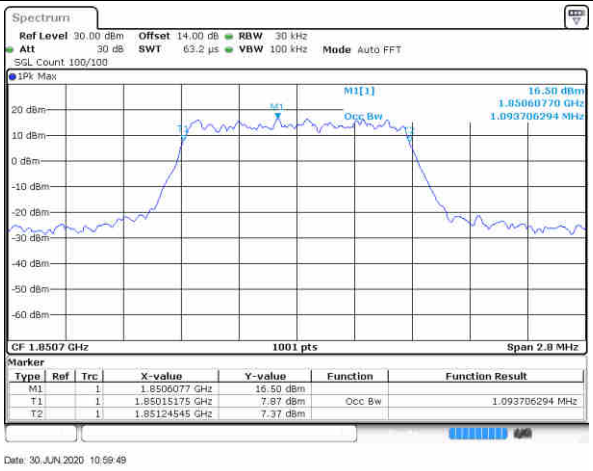


Occupied Bandwidth

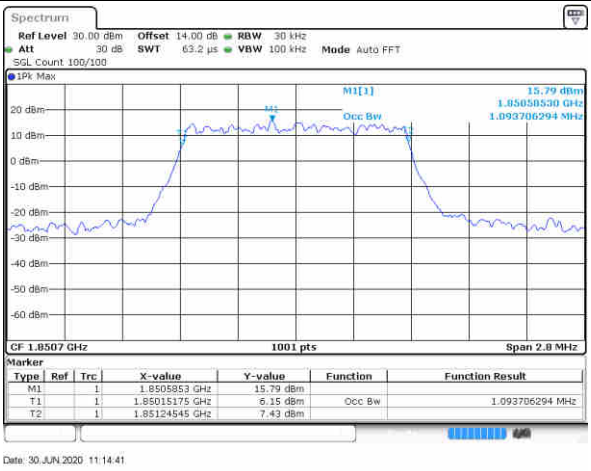
Mode	LTE Band 2 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.71	2.73	4.50	4.48	9.03	9.01	13.46	13.40	17.94	17.86
Middle CH	1.09	1.09	2.70	2.70	4.49	4.51	9.03	9.03	13.43	13.43	17.82	17.82
Highest CH	1.09	1.09	2.71	2.74	4.48	4.47	9.05	9.03	13.46	13.43	17.90	17.90
Mode	LTE Band 2 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.71	-	4.50	-	9.01	-	13.43	-	17.90	-
Middle CH	1.09	-	2.72	-	4.48	-	9.03	-	13.43	-	17.78	-
Highest CH	1.09	-	2.71	-	4.48	-	9.03	-	13.40	-	17.94	-

LTE Band 2

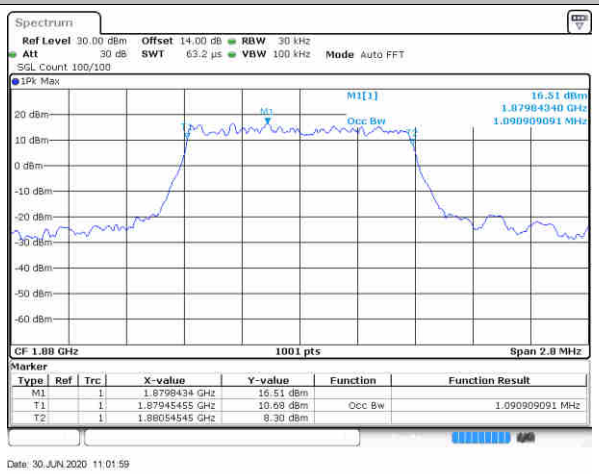
Lowest Channel / 1.4MHz / QPSK



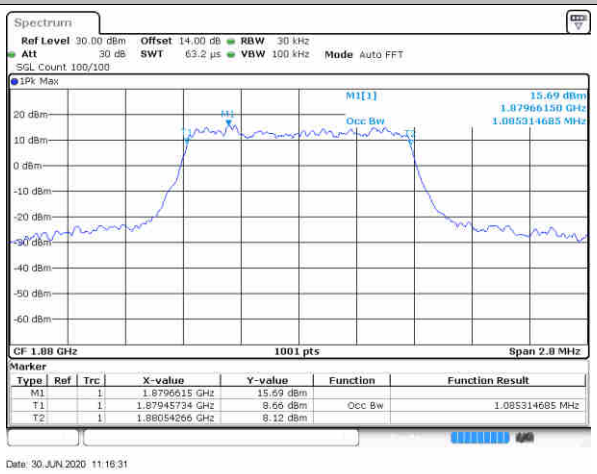
Lowest Channel / 1.4MHz / 16QAM



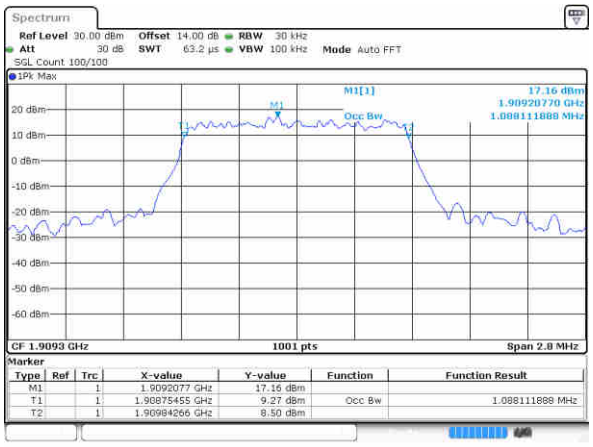
Middle Channel / 1.4MHz / QPSK



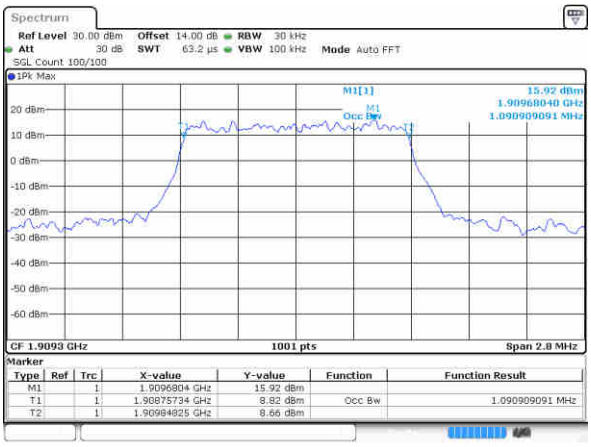
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

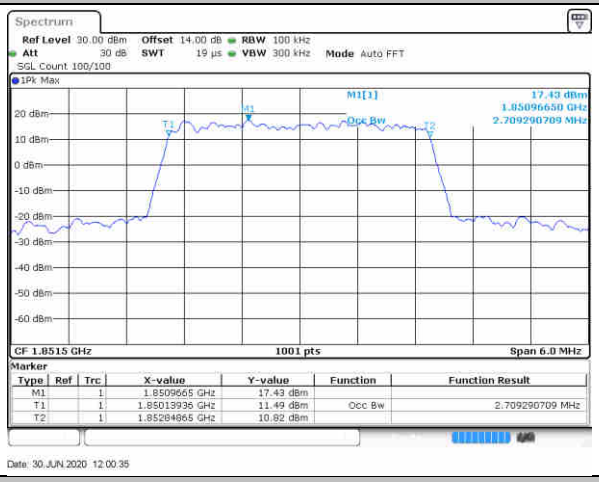


Highest Channel / 1.4MHz / 16QAM

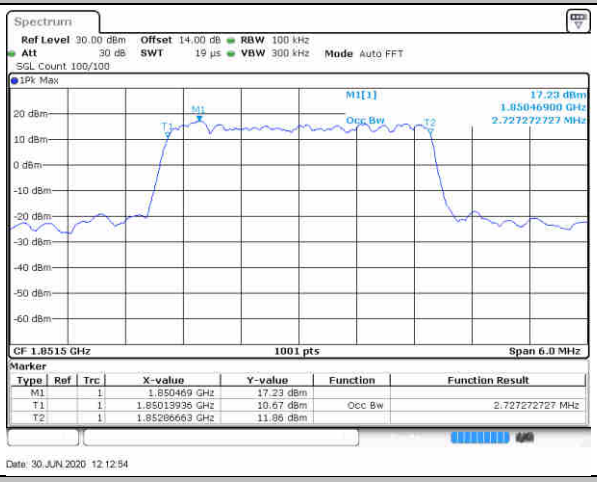


LTE Band 2

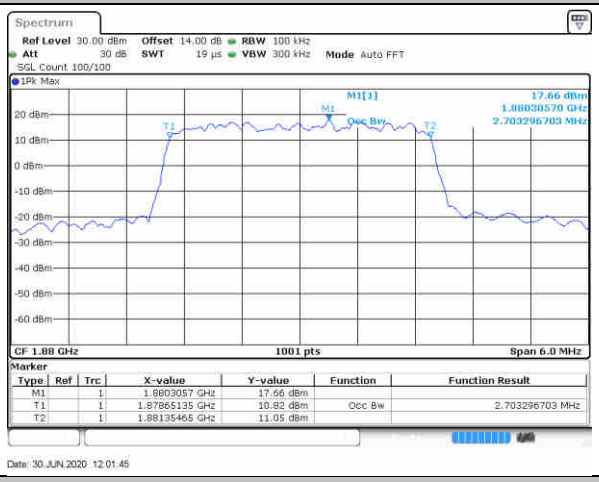
Lowest Channel / 3MHz / QPSK



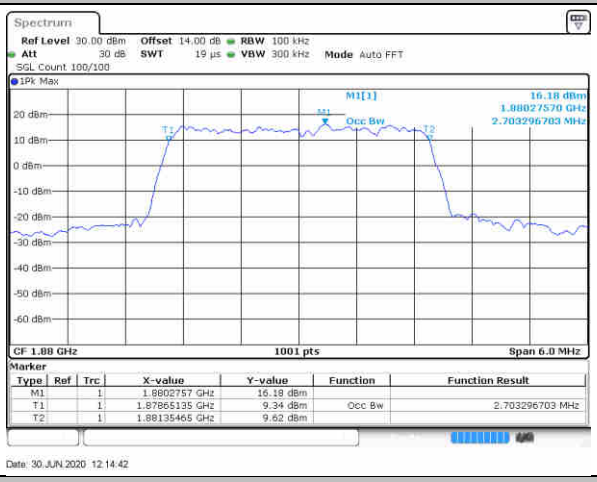
Lowest Channel / 3MHz / 16QAM



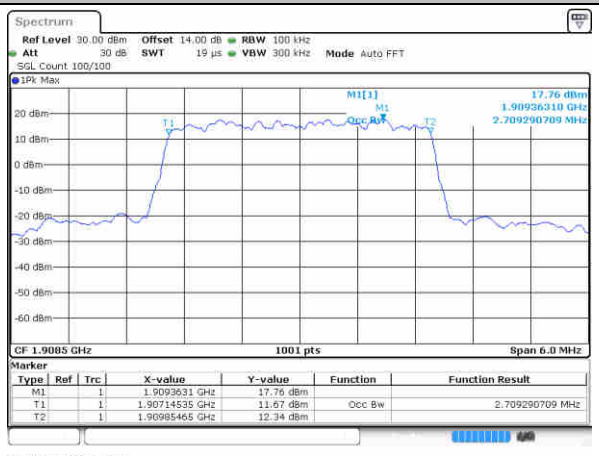
Middle Channel / 3MHz / QPSK



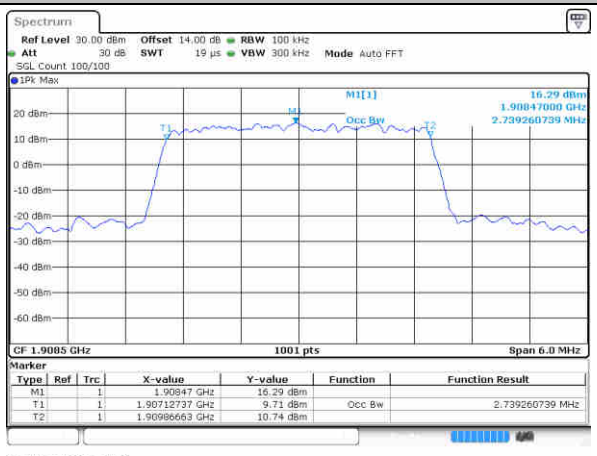
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

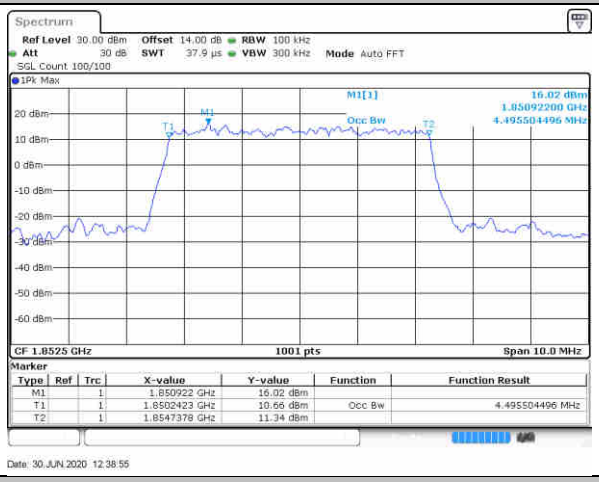


Highest Channel / 3MHz / 16QAM

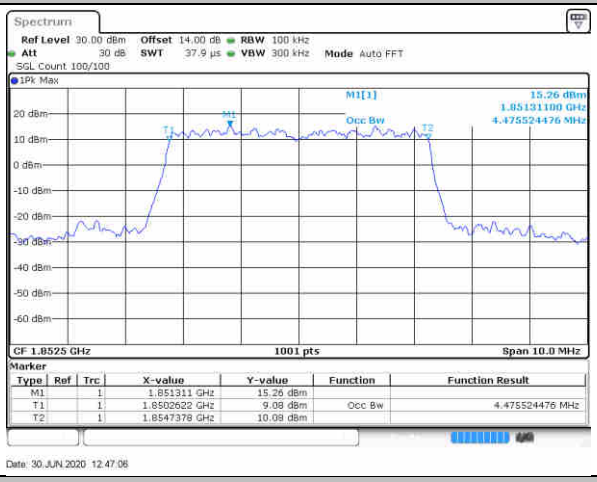


LTE Band 2

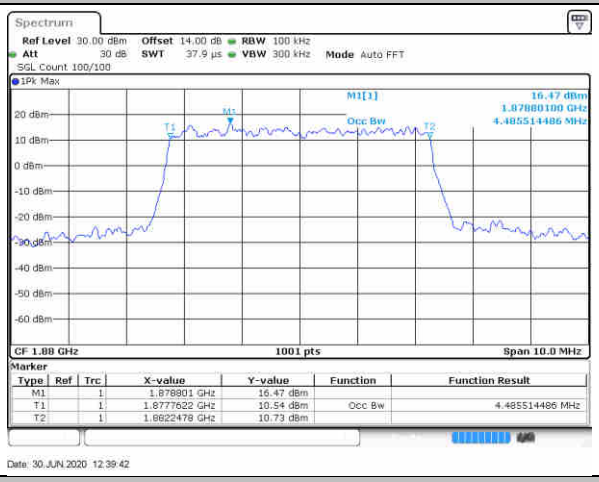
Lowest Channel / 5MHz / QPSK



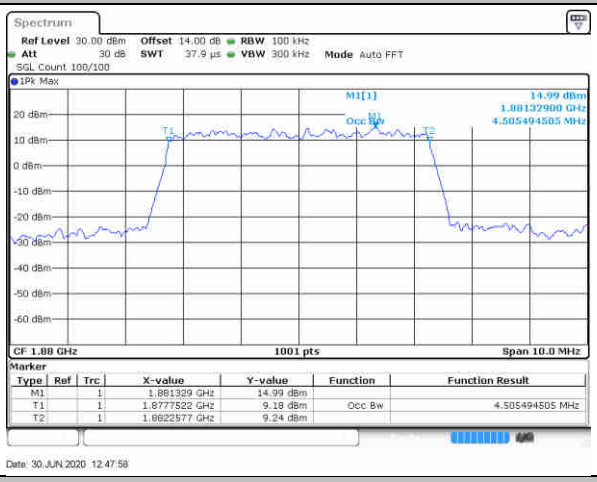
Lowest Channel / 5MHz / 16QAM



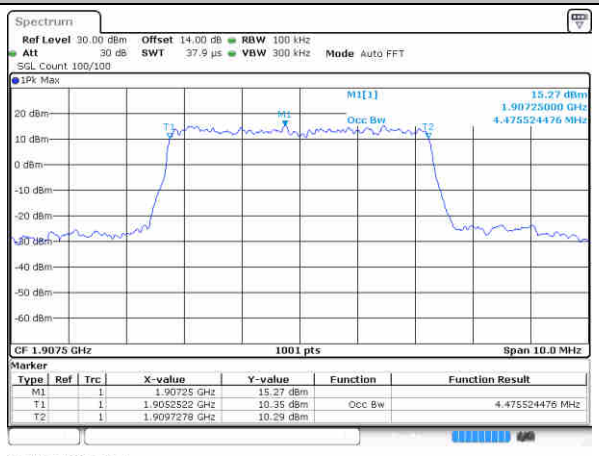
Middle Channel / 5MHz / QPSK



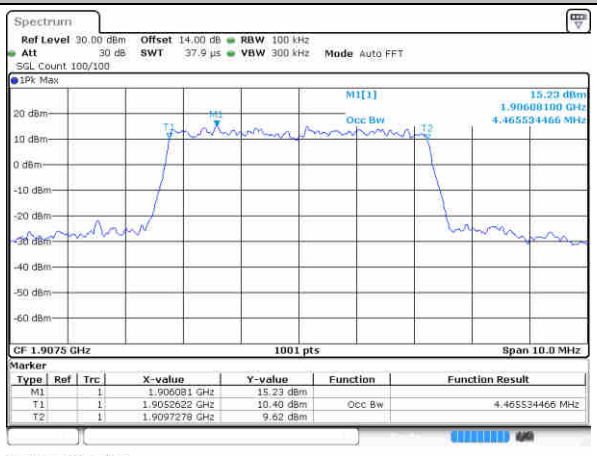
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

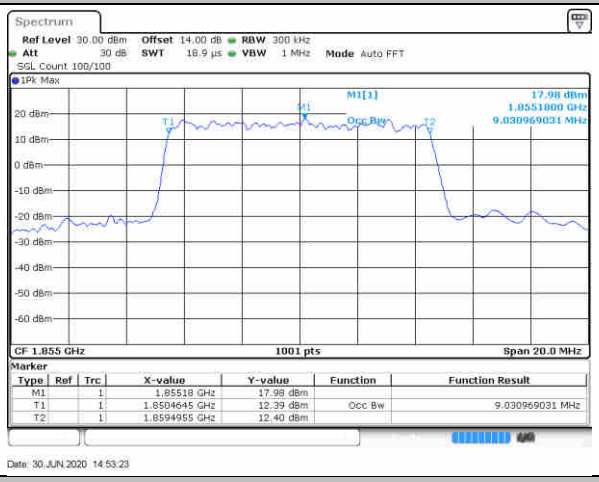


Highest Channel / 5MHz / 16QAM

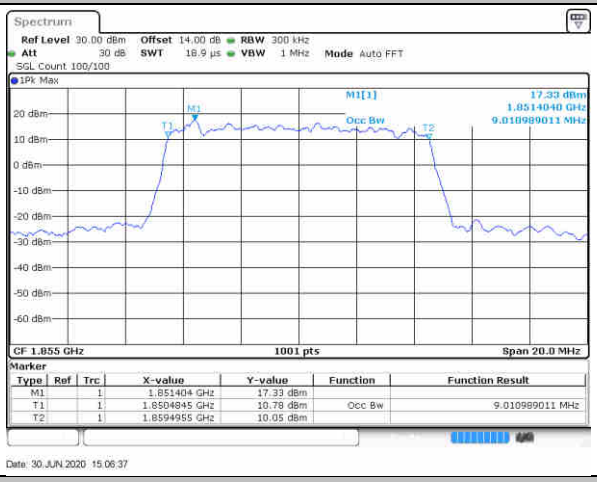


LTE Band 2

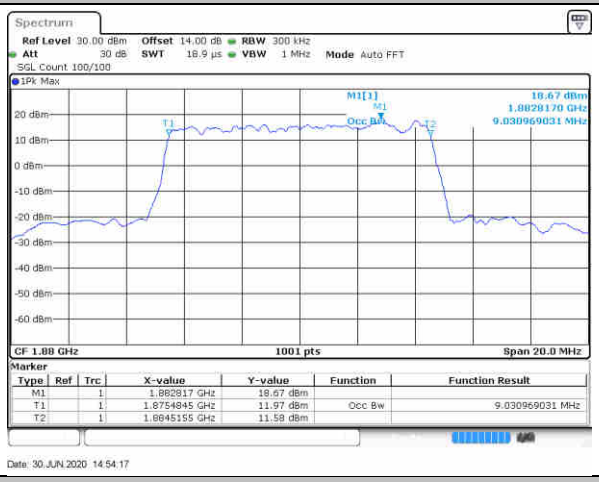
Lowest Channel / 10MHz / QPSK



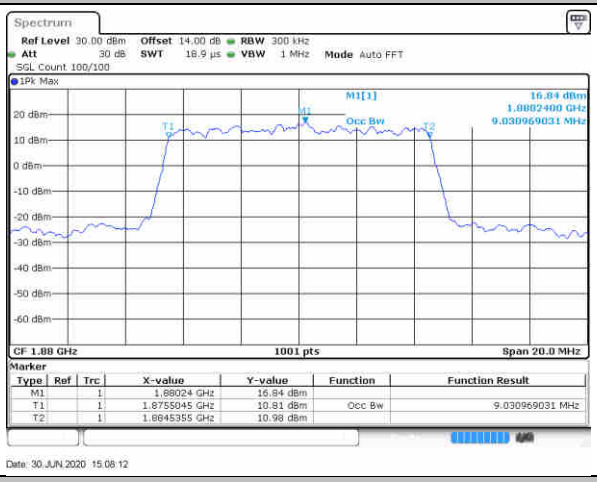
Lowest Channel / 10MHz / 16QAM



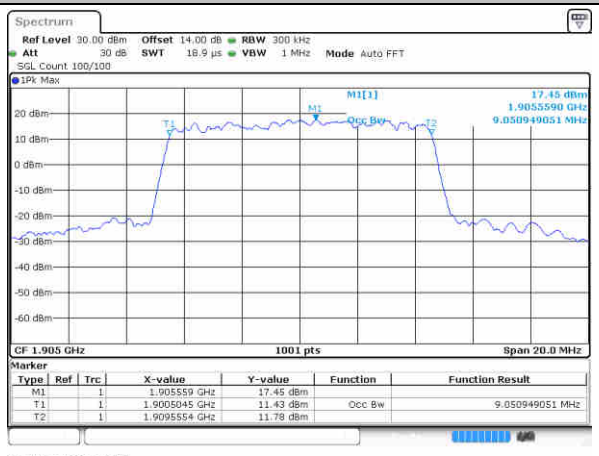
Middle Channel / 10MHz / QPSK



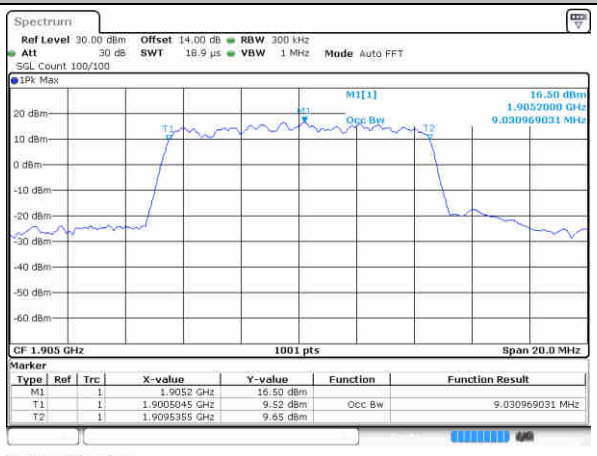
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

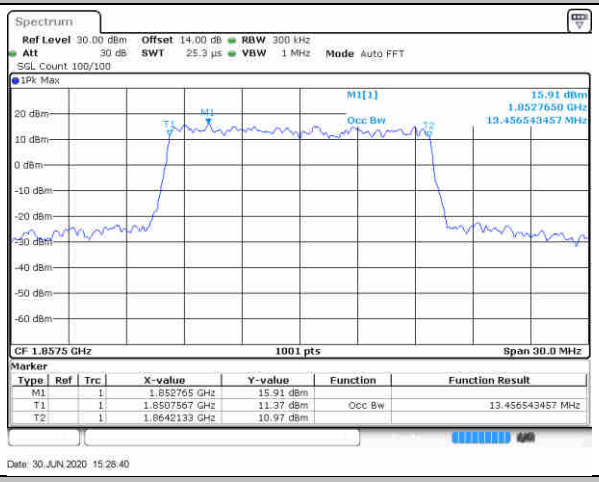


Highest Channel / 10MHz / 16QAM

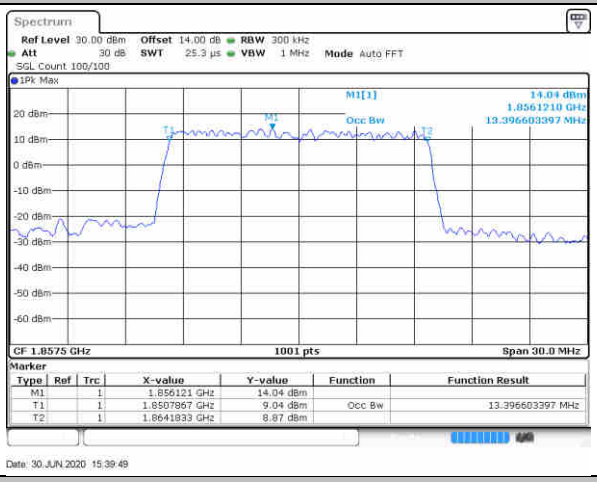


LTE Band 2

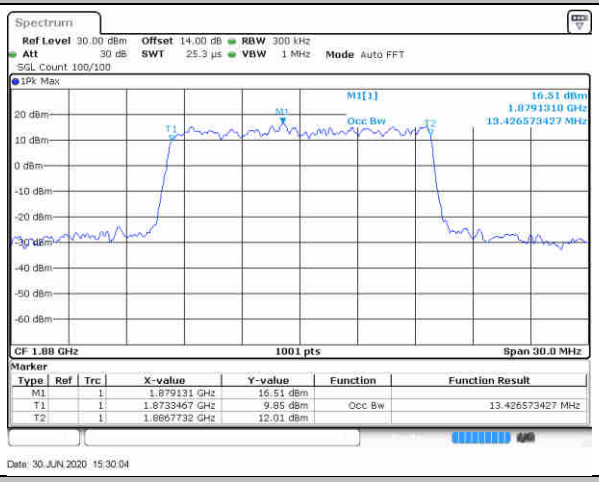
Lowest Channel / 15MHz / QPSK



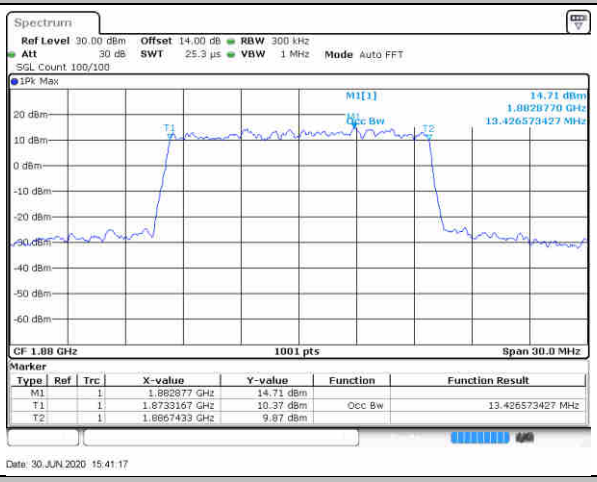
Lowest Channel / 15MHz / 16QAM



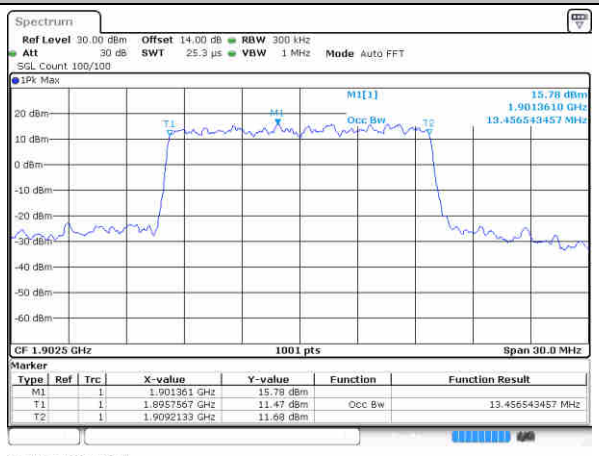
Middle Channel / 15MHz / QPSK



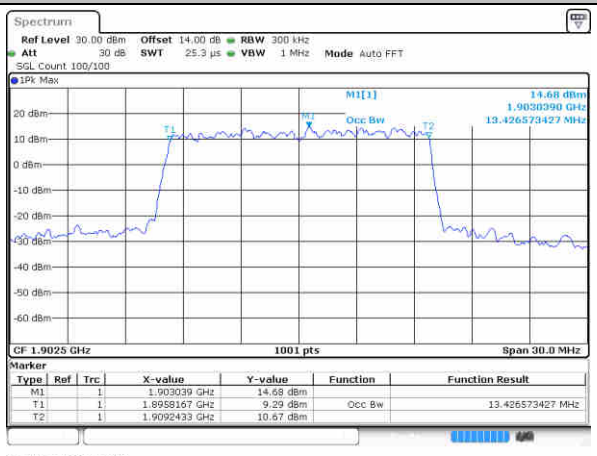
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

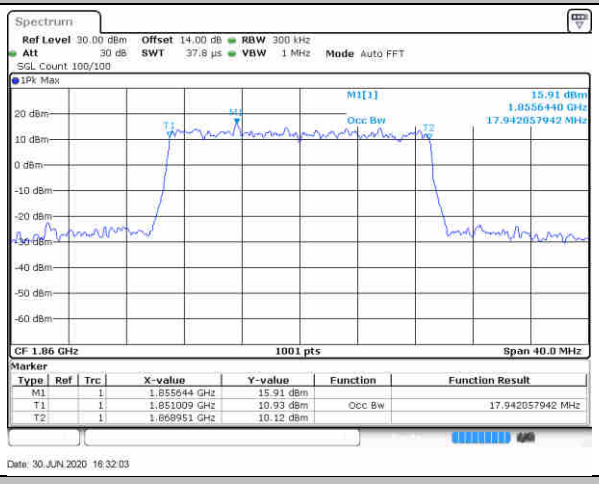


Highest Channel / 15MHz / 16QAM

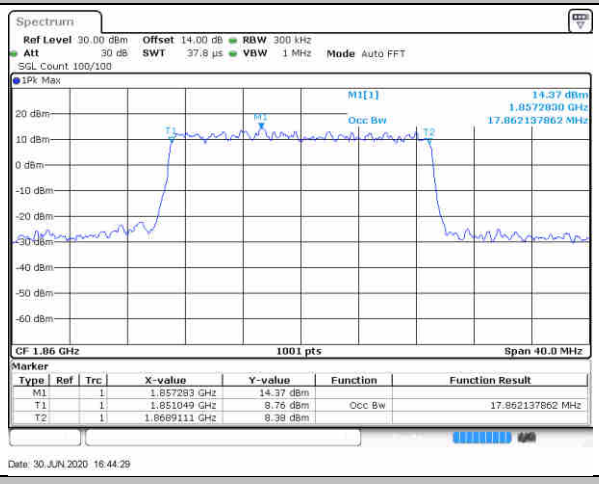


LTE Band 2

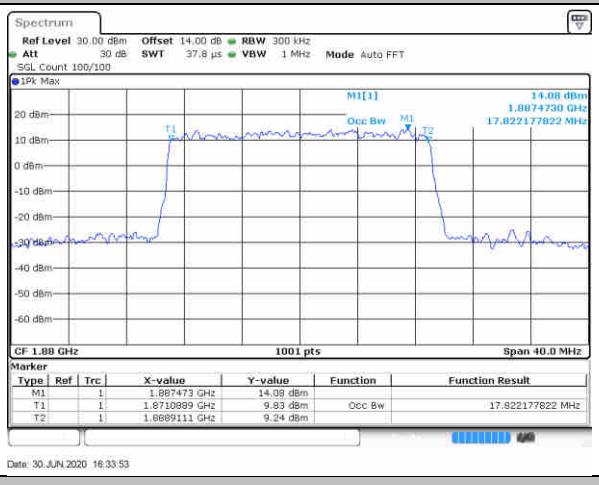
Lowest Channel / 20MHz / QPSK



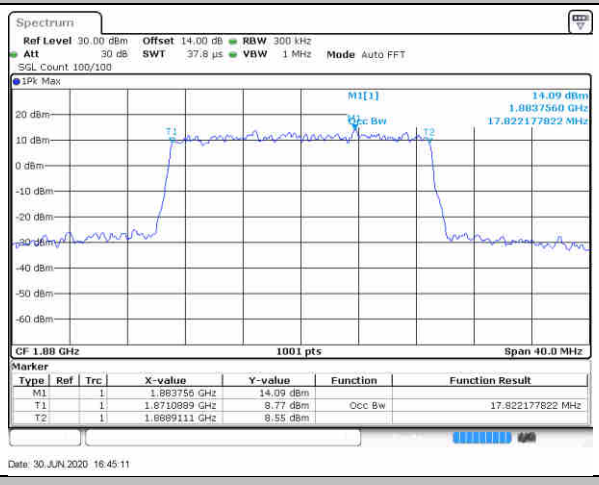
Lowest Channel / 20MHz / 16QAM



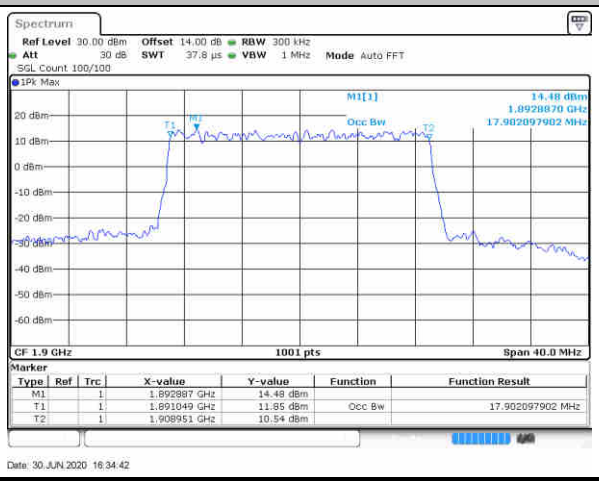
Middle Channel / 20MHz / QPSK



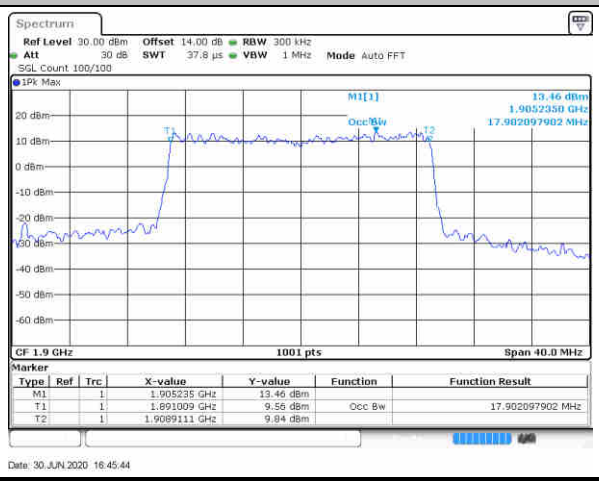
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

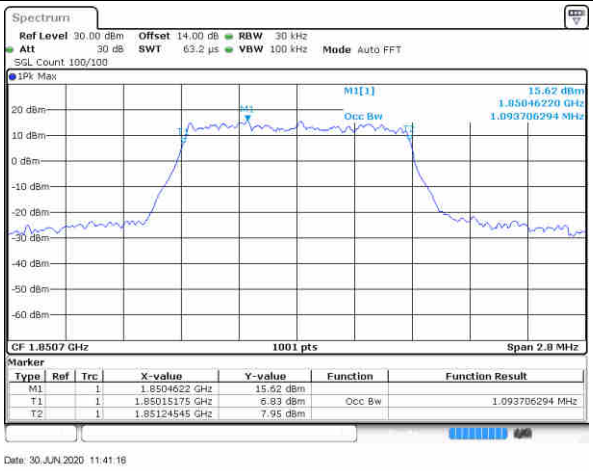


Highest Channel / 20MHz / 16QAM

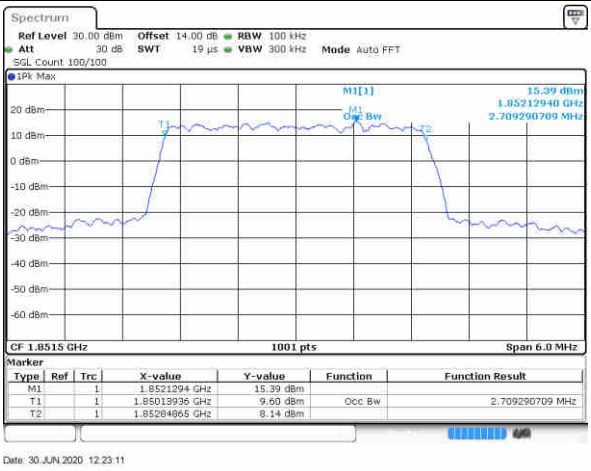


LTE Band 2

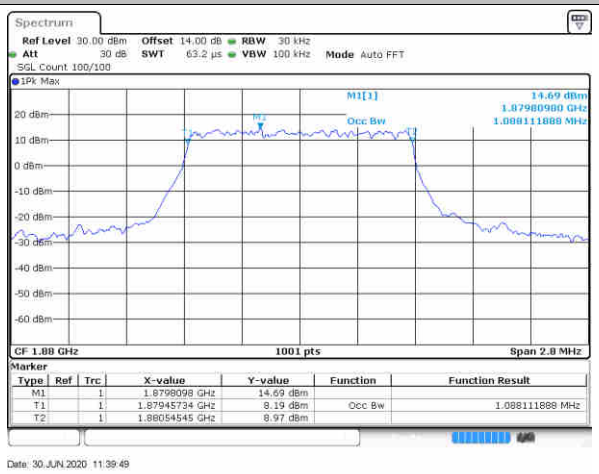
Lowest Channel / 1.4MHz / 64QAM



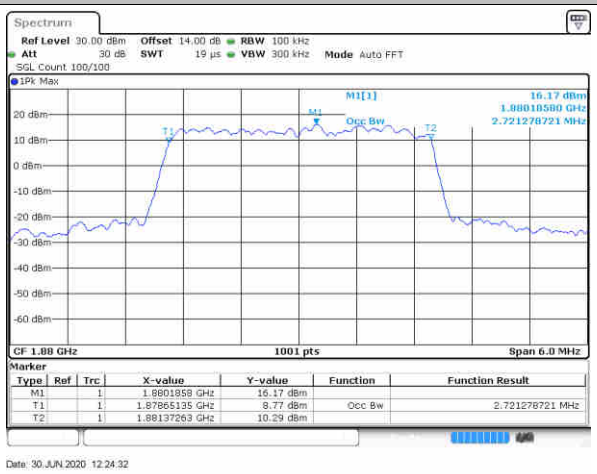
Lowest Channel / 3MHz / 64QAM



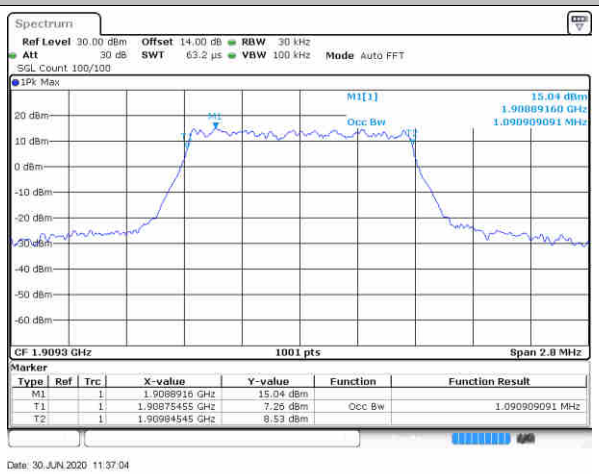
Middle Channel / 1.4MHz / 64QAM



Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



Highest Channel / 3MHz / 64QAM