FCC RF Test Report

APPLICANT	: Fibocom Wireless Inc.
EQUIPMENT	: 5G Module
BRAND NAME	: Fibocom
MODEL NAME	: FM350-GL
FCC ID	: ZMOFM350GL
STANDARD	: 47 CFR Part 2, 27(F), 27(H), 27(M), 27(N)
CLASSIFICATION	: PCS Licensed Transmitter (PCB)

The product was received on May 18, 2020 and completely tested on Jan. 19, 2021. 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

Sporton International (ShenZhen) Inc.

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

People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG051802C	Rev. 01	Initial issue of report	Apr. 02, 2021

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17) (Band 71)	ERP < 3 Watt	PASS	
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 7) (Band 38) (Band 41)	EIRP < 2Watt	PASS	
3.5	N/A	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §27.53(c)(2)(4) §27.53(g)	Conducted Band Edge Measurement (Band 12) (Band 13) (Band 17) (Band 71)	< 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 §27.53(c)(2) §27.53(g)	Conducted Spurious Emission (Band 12) (Band 13) (Band 17) (Band 71)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log$_{10}$(P[Watts])		
3.9	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(c)(2) §27.53(f) §27.53(g)	Radiated Spurious Emission (Band 12) (Band 13) (Band 17) (Band 71)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 22.84 dB at 1564.500 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log$_{10}$(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

Fibocom Wireless Inc.

1101,Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan,Shenzhen, China

1.2 Manufacturer

Fibocom Wireless Inc.

1101,Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan,Shenzhen, China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	5G Module
Brand Name	Fibocom
Model Name	FM350-GL
FCC ID	ZMOFM350GL
EUT supports Radios application	WCDMA/LTE/5G NR/GNSS
IMEI Code	Conducted: 862146050001310 Radiation: 882146050002276
HW Version	V1.0.6
SW Version	81600.0000.00.09.03.03
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 17 : 704 MHz ~ 716 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz LTE Band 71: 663 MHz ~ 698 MHz
Rx Frequency	LTE Band 7 : 2620 MHz ~ 2690 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 13 : 746 MHz ~ 756 MHz LTE Band 17 : 734 MHz ~ 746 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz LTE Band 71: 617 MHz ~ 652 MHz
Bandwidth	LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz

	LTE Band 13 : 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 71 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 7 : 22.58 dBm; LTE Band 7C : 21.74 dBm LTE Band 12 : 24.02 dBm LTE Band 13 : 23.67 dBm LTE Band 17 : 23.86 dBm LTE Band 38 : 22.39 dBm LTE Band 38C : 21.70 dBm LTE Band 41 : 26.40 dBm LTE Band 41C : 21.90 dBm LTE Band 71 : 23.81 dBm
Antenna Gain	LTE Band 7 : 4.00 dBi LTE Band 12 : 3.00 dBi LTE Band 13 : 3.00 dBi LTE Band 17 : 3.00 dBi LTE Band 38 : 4.00 dBi LTE Band 41 : 4.00 dBi LTE Band 71 : 3.00 dBi
Type of Modulation	QPSK / 16QAM / 64QAM / 256QAM

1.5 Modification of EUT

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

1.6 Maximum Conducted Power, Frequency Tolerance, and Emission Designator

LTE Band 7		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	2502.5 ~ 2567.5	4M50G7D	-	0.1782	4M50W7D	-	0.1531
10	2505.0 ~ 2565.0	9M03G7D	0.0015	0.1782	9M07W7D	-	0.1574
15	2507.5 ~ 2562.5	13M5G7D	-	0.1718	13M5W7D	-	0.1552
20	2510.0 ~ 2560.0	17M9G7D	-	0.1811	17M9W7D	-	0.1567

LTE Band 7		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	2502.5 ~ 2567.5	4M51W7D	-	0.1186
10	2505.0 ~ 2565.0	9M05W7D	-	0.1151
15	2507.5 ~ 2562.5	13M5W7D	-	0.1172
20	2510.0 ~ 2560.0	17M9W7D	-	0.1151

LTE Band 12		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
1.4	699.7 ~ 715.3	1M09G7D	-	0.2449	1M10W7D	-	0.2118
3	700.5 ~ 714.5	2M74G7D	-	0.2460	2M73W7D	-	0.2223
5	701.5 ~ 713.5	4M50G7D	-	0.2518	4M49W7D	-	0.2234
10	704.0 ~ 711.0	9M07G7D	0.0071	0.2523	9M05W7D	-	0.2188

LTE Band 12		6QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
1.4	699.7 ~ 715.3	1M10W7D	-	0.1585
3	700.5 ~ 714.5	2M73W7D	-	0.1644
5	701.5 ~ 713.5	4M50W7D	-	0.1652
10	704.0 ~ 711.0	9M03W7D	-	0.1644

LTE Band 13		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	779.5 ~ 784.5	4M51G7D	-	0.2307	4M49W7D	-	0.2046
10	782.0	9M01G7D	0.0237	0.2328	9M01W7D	-	0.1892

LTE Band 13		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	779.5 ~ 784.5	4M51W7D	-	0.1549
10	782.0	9M01W7D	-	0.1479

LTE Band 17		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	706.5 ~ 713.5	4M50G7D	-	0.2518	4M49W7D	-	0.2234
10	709.0 ~ 711.0	9M07G7D	0.0071	0.2523	9M05W7D	-	0.2188

LTE Band 17		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	706.5 ~ 713.5	4M50W7D	-	0.1652
10	709.0 ~ 711.0	9M03W7D	-	0.1644

LTE Band 38		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	2572.5 ~ 2617.5	4M50G7D	-	0.1706	4M51W7D	-	0.1384
10	2575.0 ~ 2615.0	9M05G7D	0.0089	0.1718	9M05W7D	-	0.1374
15	2577.5 ~ 2612.5	13M5G7D	-	0.1675	13M5W7D	-	0.1355
20	2580.0 ~ 2610.0	17M9G7D	-	0.1734	17M9W7D	-	0.1365

LTE Band 38		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	2572.5 ~ 2617.5	4M49W7D	-	0.1084
10	2575.0 ~ 2615.0	9M21W7D	-	0.1079
15	2577.5 ~ 2612.5	13M5W7D	-	0.1089
20	2580.0 ~ 2610.0	18M0W7D	-	0.1050

LTE Band 41		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	2498.5 ~ 2687.5	4M50G7D	-	0.4345	4M51W7D	-	0.3698
10	2501.0 ~ 2685.0	9M05G7D	0.0089	0.4335	9M05W7D	-	0.3698
15	2503.5 ~ 2682.5	13M5G7D	-	0.4345	13M5W7D	-	0.3656
20	2506.0 ~ 2680.0	17M9G7D	-	0.4365	17M9W7D	-	0.3656

LTE Band 41		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	2498.5 ~ 2687.5	4M49W7D	-	0.2864
10	2501.0 ~ 2685.0	9M21W7D	-	0.2844
15	2503.5 ~ 2682.5	13M5W7D	-	0.2831
20	2506.0 ~ 2680.0	18M0W7D	-	0.2825

LTE Band 71		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	665.5 ~ 695.5	4M49G7D	-	0.2198	4M50W7D	-	0.2355
10	668.0 ~ 693.0	9M11G7D	0.0041	0.2218	9M05W7D	-	0.2371
15	670.5 ~ 690.5	13M5G7D	-	0.2183	13M4W7D	-	0.2355
20	673.0 ~ 688.0	18M0G7D	-	0.2404	17M9W7D	-	0.2399

LTE Band 71		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5	665.5 ~ 695.5	4M50W7D	-	0.2280
10	668.0 ~ 693.0	9M03W7D	-	0.2291
15	670.5 ~ 690.5	13M5W7D	-	0.2249
20	673.0 ~ 688.0	17M9W7D	-	0.2265

LTE Band 7 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
10MHz+20MHz	28M1G7D	-	0.1452	27M9W7D	-	0.1309
15MHz+10MHz	23M4G7D	-	0.1459	23M5W7D	-	0.1279
15MHz+15MHz	28M5G7D	-	0.1439	28M8W7D	-	0.1291
15MHz+20MHz	32M8G7D	-	0.1483	32M7W7D	-	0.1276
20MHz+10MHz	28M0G7D	-	0.1493	27M9W7D	-	0.1294
20MHz+15MHz	33M0G7D	-	0.1493	32M6W7D	-	0.1309
20MHz+20MHz	37M8G7D	-	0.1442	38M0W7D	-	0.1343

LTE Band 7 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
10MHz+20MHz	27M9W7D	-	0.0764
15MHz+10MHz	23M4W7D	-	0.0767
15MHz+15MHz	28M5W7D	-	0.0767
15MHz+20MHz	32M5W7D	-	0.0771
20MHz+10MHz	28M0W7D	-	0.0743
20MHz+15MHz	32M8W7D	-	0.0771
20MHz+20MHz	37M6W7D	-	0.0794

LTE Band 38 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
15MHz+15MHz	28M6G7D	-	0.1479	28M7W7D	-	0.1199
20MHz+20MHz	37M7G7D	-	0.1409	37M8W7D	-	0.1119

LTE Band 38 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
15MHz+15MHz	28M7W7D	-	0.0757
20MHz+20MHz	37M8W7D	-	0.0703

LTE Band 41 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5MHz+20MHz	23M4G7D	-	0.1524	23M3W7D	-	0.1222
10MHz+15MHz	23M5G7D	-	0.1521	23M6W7D	-	0.1239
10MHz+20MHz	28M2G7D	-	0.1538	27M8W7D	-	0.1197
15MHz+10MHz	23M6G7D	-	0.1524	23M6W7D	-	0.1208
15MHz+15MHz	28M7G7D	-	0.1476	28M5W7D	-	0.1197
15MHz+20MHz	32M9G7D	-	0.1500	32M9W7D	-	0.1225
20MHz+5MHz	23M4G7D	-	0.1500	23M3W7D	-	0.1199
20MHz+10MHz	28M1G7D	-	0.1500	28M1W7D	-	0.1219
20MHz+15MHz	32M9G7D	-	0.1549	32M8W7D	-	0.1239
20MHz+20MHz	37M7G7D	-	0.1521	37M9W7D	-	0.1205

LTE Band 41 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Conducted Power(W)
5MHz+20MHz	23M4W7D	-	0.0798
10MHz+15MHz	23M5W7D	-	0.0800
10MHz+20MHz	27M9W7D	-	0.0804
15MHz+10MHz	23M4W7D	-	0.0798
15MHz+15MHz	28M8W7D	-	0.0796
15MHz+20MHz	32M9W7D	-	0.0785
20MHz+5MHz	23M3W7D	-	0.0800
20MHz+10MHz	28M1W7D	-	0.0794
20MHz+15MHz	32M8W7D	-	0.0815
20MHz+20MHz	37M6W7D	-	0.0798

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	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH03-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH03-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, 27(F), 27(H), 27(M),27(N)
- 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.

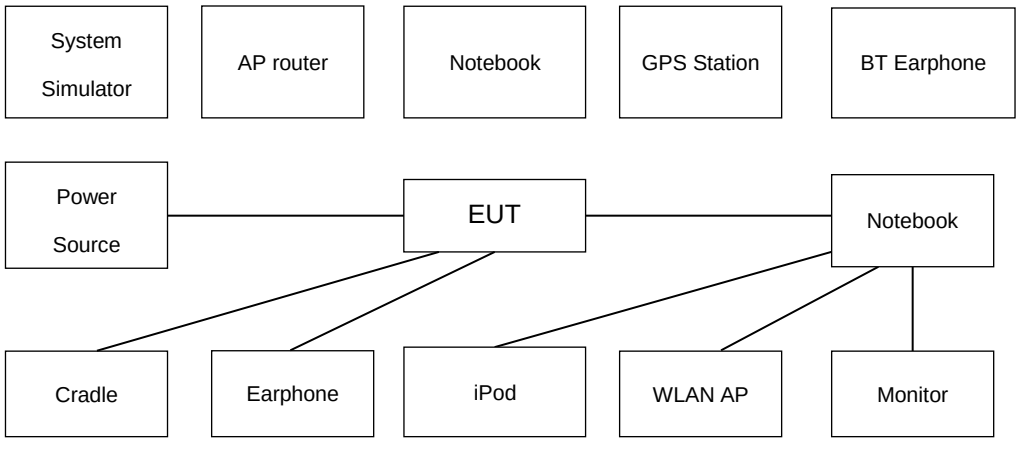
Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	7	-	-	v	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	v
	13	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	17	-	-	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	v
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	71	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	7	-	-				v	v	v	v		v		v	v	v	v
	12				v	-	-	v	v	v		v		v	v	v	v
	13	-	-		v	-	-	v	v	v		v		v	v	v	v
	41	-	-				v	v	v	v		v		v	v	v	v
	71	-	-				v	v	v	v		v		v	v	v	v
26dB and 99% Bandwidth	7	-	-	v	v	v	v	v	v	v				v	v	v	v
	12	v	v	v	v	-	-	v	v	v				v	v	v	v
	13	-	-	v	v	-	-	v	v	v				v	v	v	v
	41	-	-	v	v	v	v	v	v	v				v	v	v	v
	71	-	-	v	v	v	v	v	v	v				v	v	v	v
Conducted Band Edge	7	-	-	v	v	v	v	v	v	v		v		v	v		v
	12	v	v	v	v	-	-	v	v	v		v		v	v		v
	13	-	-	v	v	-	-	v	v	v		v		v	v		v
	41	-	-	v	v	v	v	v	v	v		v		v	v		v
	71	-	-	v	v	v	v	v	v	v		v		v	v		v

Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Conducted Spurious Emission	7	-	-	v	v	v	v	v	v	v		v			v	v	v
	12	v	v	v	v	-	-	v	v	v		v			v	v	v
	13	-	-	v	v	-	-	v	v	v		v			v	v	v
	41	-	-	v	v	v	v	v	v	v		v			v	v	v
	71	-	-	v	v	v	v	v	v	v		v			v	v	v
Frequency Stability	7	-	-		v			v						v		v	
	12				v	-	-	v						v		v	
	13	-	-		v	-	-	v						v		v	
	41	-	-		v			v						v		v	
	71	-	-		v			v						v		v	
E.R.P / E.I.R.P	7	-	-	v	v	v	v	v	v	v		v			v	v	v
	12	v	v	v	v	-	-	v	v	v		v			v	v	v
	13	-	-	v	v	-	-	v	v	v		v			v	v	v
	41	-	-	v	v	v	v	v	v	v		v			v	v	v
	71	-	-	v	v	v	v	v	v	v		v			v	v	v
Radiated Spurious Emission	7	Worst Case													v	v	v
	12	Worst Case													v	v	v
	13	Worst Case													v	v	v
	41	Worst Case													v	v	v
	71	Worst Case													v	v	v
Note	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. 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. 6. For modulation of 256QAM, the maximum power of 256QAM is lower than other modulation (QPSK/16QAM/64QAM), therefore, according to engineering evaluation, we choose higher power (QPSK/16QAM/64QAM) to perform all tests and show in the report. 7. LTE Band 41 support HPUE.																

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	256QAM	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	v
	41C_CA	v	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. 4. LTE Band 41C overlaps the entire frequency range of LTE Band 38C. Therefore, the test results provided in this report covers Band 41C as well as Band 38C. 5. For modulation of 256QAM, the maximum power of 256QAM is lower than other modulation (QPSK/16QAM/64QAM), therefore, according to engineering evaluation, we choose higher power (QPSK/16QAM/64QAM) to perform all tests and show in the report.																				

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 4.0 dB and 10dB attenuator.

Example :

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

= 4.0 + 10 = 14.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

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

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

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

LTE Band 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 71 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	133222	133322	133372
	Frequency	673.0	680.5	688.0
15	Channel	133197	133297	133397
	Frequency	670.5	680.5	690.5
10	Channel	133172	133272	133422
	Frequency	668.0	678.0	693.0
5	Channel	133147	133247	133447
	Frequency	665.5	675.5	695.5

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

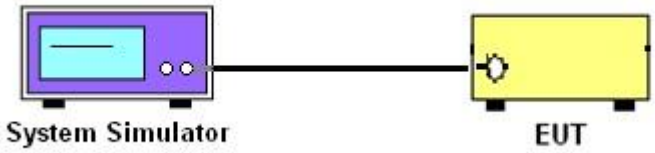
3 Conducted Test Items

3.1 Measuring Instruments

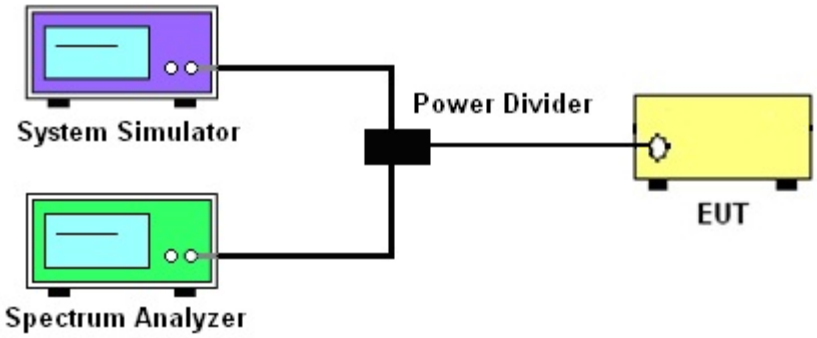
See list of measuring instruments of this test report.

3.2 Test Setup

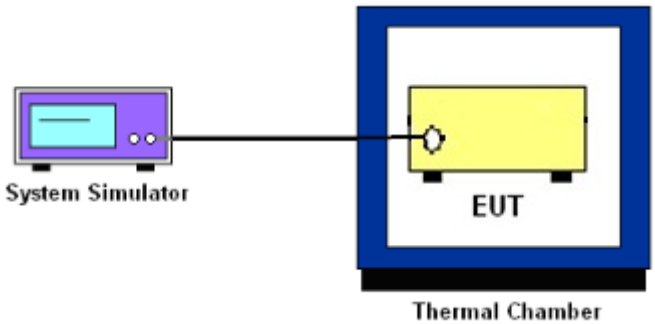
3.2.1 Conducted Output Power



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 3 Watts for LTE Band 12, Band 13 and Band 17 and Band 71.

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

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

27.53 (c)

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

27.53 (g)

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

27.53(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.

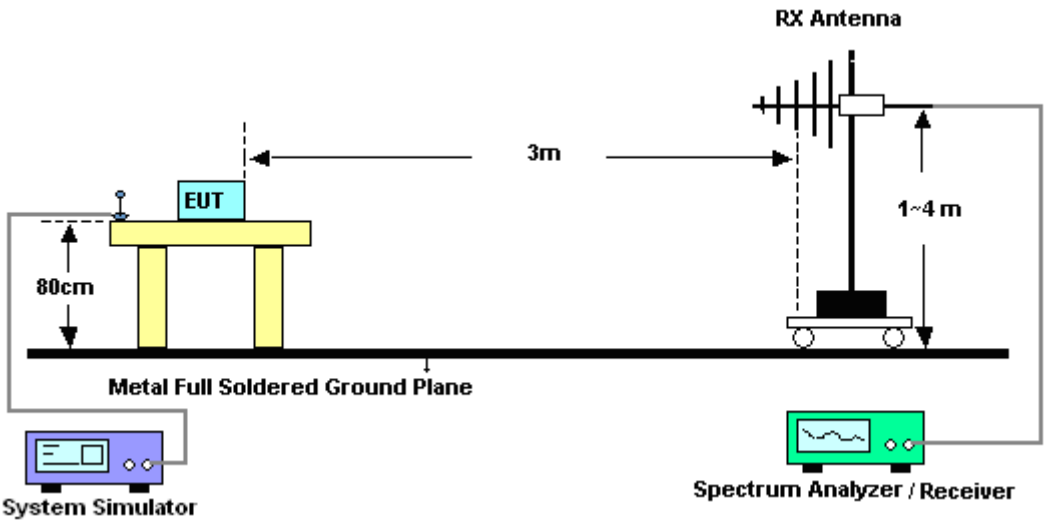
4 Radiated Test Items

4.1 Measuring Instruments

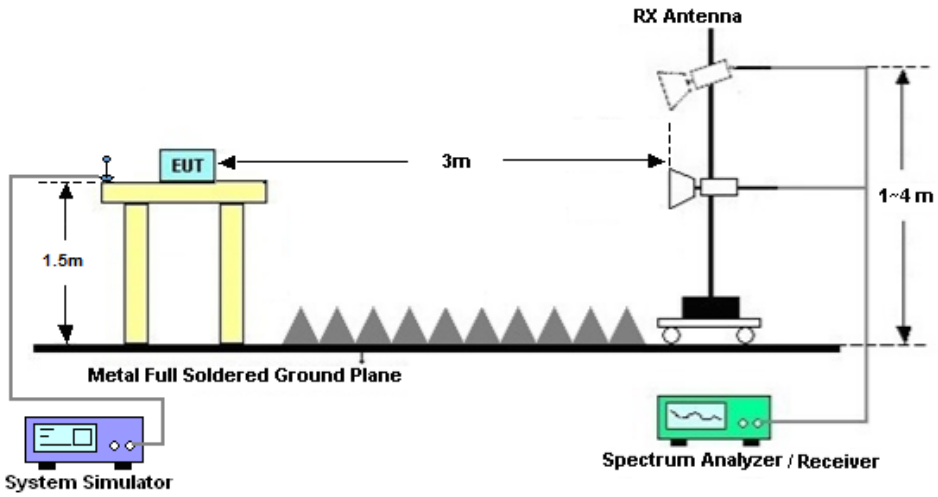
See list of measuring instruments of this test report.

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.

For LTE Band 13

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

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

4.4.2 Test Procedures

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

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 17, 2020	Dec. 18, 2020~ Jan. 04, 2021	Apr. 16, 2021	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 22, 2020	Dec. 18, 2020~ Jan. 04, 2021	Jul. 21, 2021	Conducted (TH01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 17, 2020	Jan. 11, 2021~ Jan. 19, 2021	Apr. 16, 2021	Radiation (03CH03-SZ)
EXA Spectrum Anaiyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 17, 2020	Jan. 11, 2021~ Jan. 19, 2021	Apr. 16, 2021	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	Jun. 22, 2020	Jan. 11, 2021~ Jan. 19, 2021	Jun. 21, 2021	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 30, 2020	Jan. 11, 2021~ Jan. 19, 2021	Apr. 29, 2021	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102210	0.01Hz ~3000MHz	Oct. 17, 2019	Jan. 11, 2021~ Jan. 19, 2021	Oct. 16, 2021	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 21, 2020	Jan. 11, 2021~ Jan. 19, 2021	Jul. 20, 2021	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 23, 2020	Jan. 11, 2021~ Jan. 19, 2021	Apr. 22, 2021	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 25, 2020	Jan. 11, 2021~ Jan. 19, 2021	Dec. 24, 2021	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Jan. 11, 2021~ Jan. 19, 2021	NCR	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jan. 11, 2021~ Jan. 19, 2021	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jan. 11, 2021~ Jan. 19, 2021	NCR	Radiation (03CH03-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))	**3.0dB**

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

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

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

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

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 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	22.39	22.43	22.41
20	QPSK	1	49	22.50	22.58	22.56
20	QPSK	1	99	22.32	22.56	22.55
20	QPSK	50	0	21.58	21.70	21.69
20	QPSK	50	24	21.52	21.69	21.66
20	QPSK	50	50	21.57	21.72	21.67
20	QPSK	100	0	21.52	21.63	21.62
20	16QAM	1	0	21.27	21.37	21.74
20	16QAM	1	49	21.59	21.95	21.91
20	16QAM	1	99	21.34	21.83	21.38
20	16QAM	50	0	20.17	20.41	20.50
20	16QAM	50	24	20.35	20.43	20.46
20	16QAM	50	50	20.31	20.45	20.46
20	16QAM	100	0	20.32	20.37	20.31
20	64QAM	1	0	20.28	20.04	20.51
20	64QAM	1	49	20.61	20.46	20.38
20	64QAM	1	99	20.42	20.45	20.22
20	64QAM	50	0	19.15	19.33	19.44
20	64QAM	50	24	19.29	19.40	19.40
20	64QAM	50	50	19.36	19.38	19.39
20	64QAM	100	0	19.26	19.33	19.37
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.16	22.24	22.19
15	QPSK	1	37	22.24	22.35	22.22
15	QPSK	1	74	22.24	22.33	22.35
15	QPSK	36	0	21.24	21.34	21.39
15	QPSK	36	20	21.28	21.42	21.40
15	QPSK	36	39	21.23	21.39	21.38
15	QPSK	75	0	21.22	21.35	21.44
15	16QAM	1	0	21.50	21.51	21.33
15	16QAM	1	37	21.84	21.56	21.91
15	16QAM	1	74	21.46	21.45	21.59
15	16QAM	36	0	20.24	20.31	20.42
15	16QAM	36	20	20.24	20.47	20.33

15	16QAM	36	39	20.26	20.30	20.42
15	16QAM	75	0	20.20	20.31	20.39
15	64QAM	1	0	20.50	20.36	20.53
15	64QAM	1	37	20.55	20.36	20.65
15	64QAM	1	74	20.46	20.69	20.47
15	64QAM	36	0	19.18	19.44	19.42
15	64QAM	36	20	19.28	19.32	19.43
15	64QAM	36	39	19.23	19.38	19.44
15	64QAM	75	0	19.25	19.39	19.38
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.22	22.37	22.37
10	QPSK	1	25	22.25	22.43	22.51
10	QPSK	1	49	22.22	22.27	22.35
10	QPSK	25	0	21.19	21.38	21.45
10	QPSK	25	12	21.21	21.36	21.39
10	QPSK	25	25	21.34	21.42	21.42
10	QPSK	50	0	21.21	21.40	21.37
10	16QAM	1	0	21.85	21.80	21.37
10	16QAM	1	25	21.47	21.84	21.88
10	16QAM	1	49	21.85	21.97	21.84
10	16QAM	25	0	20.29	20.40	20.42
10	16QAM	25	12	20.18	20.33	20.54
10	16QAM	25	25	20.27	20.42	20.36
10	16QAM	50	0	20.25	20.36	20.43
10	64QAM	1	0	20.31	20.34	20.49
10	64QAM	1	25	20.52	20.46	20.61
10	64QAM	1	49	20.53	20.37	20.61
10	64QAM	25	0	19.30	19.41	19.34
10	64QAM	25	12	19.26	19.38	19.45
10	64QAM	25	25	19.22	19.41	19.35
10	64QAM	50	0	19.29	19.36	19.38
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	22.25	22.38	22.51
5	QPSK	1	12	22.20	22.29	22.29
5	QPSK	1	24	22.16	22.32	22.33
5	QPSK	12	0	21.24	21.42	21.44
5	QPSK	12	7	21.23	21.36	21.43
5	QPSK	12	13	21.18	21.39	21.40
5	QPSK	25	0	21.20	21.37	21.46
5	16QAM	1	0	21.73	21.80	21.46
5	16QAM	1	12	21.76	21.56	21.70
5	16QAM	1	24	21.69	21.85	21.62
5	16QAM	12	0	20.24	20.33	20.40
5	16QAM	12	7	20.14	20.32	20.49
5	16QAM	12	13	20.11	20.37	20.41

5	16QAM	25	0	20.19	20.28	20.45
5	64QAM	1	0	20.44	20.42	20.61
5	64QAM	1	12	20.44	20.50	20.53
5	64QAM	1	24	20.43	20.66	20.74
5	64QAM	12	0	19.22	19.37	19.49
5	64QAM	12	7	19.21	19.37	19.51
5	64QAM	12	13	19.20	19.36	19.50
5	64QAM	25	0	19.21	19.43	19.44

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	23.69	23.80	23.91
10	QPSK	1	25	23.83	23.91	23.89
10	QPSK	1	49	24.02	23.97	23.95
10	QPSK	25	0	22.92	22.87	22.89
10	QPSK	25	12	22.86	22.85	22.84
10	QPSK	25	25	22.87	22.82	22.85
10	QPSK	50	0	22.86	22.81	22.77
10	16QAM	1	0	23.25	23.12	23.09
10	16QAM	1	25	23.13	22.92	23.40
10	16QAM	1	49	23.25	23.34	23.32
10	16QAM	25	0	21.90	21.85	21.79
10	16QAM	25	12	21.86	21.86	21.90
10	16QAM	25	25	22.01	21.91	21.82
10	16QAM	50	0	21.80	21.82	21.77
10	64QAM	1	0	22.00	22.04	22.04
10	64QAM	1	25	22.09	22.10	22.10
10	64QAM	1	49	22.14	22.16	21.78
10	64QAM	25	0	20.80	20.79	20.66
10	64QAM	25	12	20.86	20.81	20.75
10	64QAM	25	25	20.94	20.78	20.80
10	64QAM	50	0	20.88	20.87	20.85
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	23.83	23.95	23.77
5	QPSK	1	12	23.92	23.89	23.84
5	QPSK	1	24	24.01	23.89	23.87
5	QPSK	12	0	22.87	22.88	22.87
5	QPSK	12	7	22.89	22.93	22.83
5	QPSK	12	13	22.82	22.86	22.79
5	QPSK	25	0	22.89	22.85	22.80
5	16QAM	1	0	23.38	23.34	23.35
5	16QAM	1	12	23.34	23.38	23.32

5	16QAM	1	24	23.49	23.33	23.22
5	16QAM	12	0	21.81	21.82	21.78
5	16QAM	12	7	21.80	21.75	21.79
5	16QAM	12	13	21.80	21.81	21.75
5	16QAM	25	0	21.90	21.94	21.84
5	64QAM	1	0	21.81	21.93	21.82
5	64QAM	1	12	22.11	21.66	21.55
5	64QAM	1	24	22.18	21.66	22.07
5	64QAM	12	0	20.94	20.87	20.79
5	64QAM	12	7	20.88	20.91	20.87
5	64QAM	12	13	20.82	20.94	20.77
5	64QAM	25	0	20.87	20.87	20.71
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	23.88	23.86	23.79
3	QPSK	1	8	23.85	23.90	23.80
3	QPSK	1	14	23.76	23.91	23.74
3	QPSK	8	0	22.80	22.85	22.79
3	QPSK	8	4	22.77	22.92	22.73
3	QPSK	8	7	22.82	22.89	22.85
3	QPSK	15	0	22.78	22.82	22.80
3	16QAM	1	0	23.08	23.12	22.86
3	16QAM	1	8	23.02	23.41	22.81
3	16QAM	1	14	23.14	23.47	22.76
3	16QAM	8	0	21.81	21.86	21.89
3	16QAM	8	4	21.89	21.87	21.90
3	16QAM	8	7	21.88	21.86	21.83
3	16QAM	15	0	21.81	21.91	21.77
3	64QAM	1	0	22.09	22.16	21.93
3	64QAM	1	8	22.01	22.10	22.15
3	64QAM	1	14	22.07	21.87	22.11
3	64QAM	8	0	20.77	20.82	20.82
3	64QAM	8	4	20.83	20.82	20.75
3	64QAM	8	7	20.76	20.84	20.70
3	64QAM	15	0	20.85	20.92	20.86
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	23.57	23.66	23.85
1.4	QPSK	1	3	23.52	23.75	23.89
1.4	QPSK	1	5	23.55	23.73	23.82
1.4	QPSK	3	0	23.70	23.67	23.69
1.4	QPSK	3	1	23.66	23.77	23.70
1.4	QPSK	3	3	23.64	23.77	23.75
1.4	QPSK	6	0	22.69	22.74	22.66
1.4	16QAM	1	0	23.10	22.97	23.00
1.4	16QAM	1	3	22.92	22.95	22.71
1.4	16QAM	1	5	23.00	23.26	22.65

1.4	16QAM	3	0	22.69	22.80	22.54
1.4	16QAM	3	1	22.71	22.82	22.51
1.4	16QAM	3	3	22.62	22.80	22.49
1.4	16QAM	6	0	21.71	21.90	21.66
1.4	64QAM	1	0	22.00	21.76	21.88
1.4	64QAM	1	3	21.91	21.71	21.84
1.4	64QAM	1	5	21.90	22.00	21.79
1.4	64QAM	3	0	21.70	21.84	21.66
1.4	64QAM	3	1	21.75	21.89	21.91
1.4	64QAM	3	3	21.70	21.99	21.90
1.4	64QAM	6	0	20.67	20.69	20.57

LTE Band 13

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23230		
Frequency (MHz)				782		
10	QPSK	1	0		23.43	
10	QPSK	1	25		23.67	
10	QPSK	1	49		23.50	
10	QPSK	25	0		22.40	
10	QPSK	25	12		22.51	
10	QPSK	25	25		22.52	
10	QPSK	50	0		22.47	
10	16QAM	1	0		22.58	
10	16QAM	1	25		22.77	
10	16QAM	1	49		22.62	
10	16QAM	25	0		21.37	
10	16QAM	25	12		21.53	
10	16QAM	25	25		21.52	
10	16QAM	50	0		21.57	
10	64QAM	1	0		21.67	
10	64QAM	1	25		21.70	
10	64QAM	1	49		21.66	
10	64QAM	25	0		20.40	
10	64QAM	25	12		20.50	
10	64QAM	25	25		20.47	
10	64QAM	50	0		20.57	
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	23.46	23.45	23.49
5	QPSK	1	12	23.61	23.55	23.57
5	QPSK	1	24	23.63	23.56	23.48
5	QPSK	12	0	22.42	22.57	22.44
5	QPSK	12	7	22.54	22.55	22.49
5	QPSK	12	13	22.51	22.52	22.48

5	QPSK	25	0	22.56	22.56	22.50
5	16QAM	1	0	22.89	23.01	23.11
5	16QAM	1	12	22.68	23.10	23.02
5	16QAM	1	24	22.75	22.70	23.09
5	16QAM	12	0	21.38	21.55	21.46
5	16QAM	12	7	21.54	21.50	21.45
5	16QAM	12	13	21.52	21.47	21.45
5	16QAM	25	0	21.73	21.57	21.43
5	64QAM	1	0	21.75	21.78	21.46
5	64QAM	1	12	21.90	21.81	21.50
5	64QAM	1	24	21.69	21.87	21.53
5	64QAM	12	0	20.37	20.58	20.36
5	64QAM	12	7	20.49	20.62	20.54
5	64QAM	12	13	20.46	20.52	20.52
5	64QAM	25	0	20.64	20.48	20.54

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	23.77	23.85	23.83
10	QPSK	1	25	23.82	23.86	23.84
10	QPSK	1	49	23.78	23.77	23.84
10	QPSK	25	0	22.81	22.83	22.80
10	QPSK	25	12	22.74	22.82	22.73
10	QPSK	25	25	22.73	22.76	22.79
10	QPSK	50	0	22.76	22.84	22.79
10	16QAM	1	0	23.03	23.46	23.45
10	16QAM	1	25	23.31	23.31	23.41
10	16QAM	1	49	23.03	23.35	23.28
10	16QAM	25	0	21.83	21.77	21.73
10	16QAM	25	12	21.82	21.80	21.84
10	16QAM	25	25	21.72	21.67	21.75
10	16QAM	50	0	21.79	21.83	21.75
10	64QAM	1	0	21.81	22.17	21.51
10	64QAM	1	25	21.58	21.93	22.05
10	64QAM	1	49	21.85	21.98	21.62
10	64QAM	25	0	20.71	20.67	20.74
10	64QAM	25	12	20.79	20.81	20.77
10	64QAM	25	25	20.81	20.69	20.75
10	64QAM	50	0	20.72	20.69	20.74
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	23.84	23.73	23.73
5	QPSK	1	12	23.84	23.74	23.68

5	QPSK	1	24	23.76	23.76	23.80
5	QPSK	12	0	22.86	22.80	22.81
5	QPSK	12	7	22.85	22.79	22.75
5	QPSK	12	13	22.84	22.77	22.72
5	QPSK	25	0	22.79	22.79	22.75
5	16QAM	1	0	23.12	22.85	22.77
5	16QAM	1	12	23.04	22.93	23.39
5	16QAM	1	24	23.38	23.34	22.92
5	16QAM	12	0	21.84	21.77	21.81
5	16QAM	12	7	21.76	21.73	21.67
5	16QAM	12	13	21.74	21.70	21.72
5	16QAM	25	0	21.80	21.78	21.78
5	64QAM	1	0	22.19	22.18	21.96
5	64QAM	1	12	21.98	22.03	21.94
5	64QAM	1	24	22.03	22.06	22.03
5	64QAM	12	0	20.82	20.68	20.87
5	64QAM	12	7	20.85	20.82	20.74
5	64QAM	12	13	20.77	20.70	20.68
5	64QAM	25	0	20.78	20.75	20.76

LTE Band 71

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				133222	133322	133372
Frequency (MHz)				673	683	688
20	QPSK	1	0	23.67	23.62	23.71
20	QPSK	1	49	23.78	23.81	23.73
20	QPSK	1	99	23.54	23.57	23.51
20	QPSK	50	0	23.79	23.80	23.76
20	QPSK	50	24	23.74	23.76	23.70
20	QPSK	50	50	23.60	23.76	23.64
20	QPSK	100	0	23.61	23.73	23.72
20	16QAM	1	0	23.52	23.57	23.65
20	16QAM	1	49	23.80	23.57	23.64
20	16QAM	1	99	23.52	23.28	23.40
20	16QAM	50	0	23.34	23.41	23.29
20	16QAM	50	24	23.34	23.33	23.27
20	16QAM	50	50	23.26	23.36	23.20
20	16QAM	100	0	23.22	23.33	23.25
20	64QAM	1	0	23.55	23.44	23.44
20	64QAM	1	49	23.50	23.48	23.49
20	64QAM	1	99	23.26	23.30	23.27
20	64QAM	50	0	23.27	23.35	23.29
20	64QAM	50	24	23.33	23.34	23.32
20	64QAM	50	50	23.25	23.30	23.30
20	64QAM	100	0	23.28	23.32	23.29

Channel				133197	133297	133397
Frequency (MHz)				670.5	680.5	690.5
15	QPSK	1	0	23.31	23.36	23.22
15	QPSK	1	37	23.31	23.30	23.26
15	QPSK	1	74	23.26	23.17	23.16
15	QPSK	36	0	23.31	23.33	23.19
15	QPSK	36	20	23.39	23.30	23.29
15	QPSK	36	39	23.33	23.25	23.24
15	QPSK	75	0	23.34	23.30	23.31
15	16QAM	1	0	23.64	23.68	23.72
15	16QAM	1	37	23.64	23.60	23.59
15	16QAM	1	74	23.47	23.47	23.55
15	16QAM	36	0	23.34	23.32	23.37
15	16QAM	36	20	23.33	23.33	23.33
15	16QAM	36	39	23.37	23.26	23.27
15	16QAM	75	0	23.36	23.31	23.37
15	64QAM	1	0	23.52	23.50	23.45
15	64QAM	1	37	23.47	23.46	23.50
15	64QAM	1	74	23.49	23.28	23.39
15	64QAM	36	0	23.31	23.36	23.25
15	64QAM	36	20	23.40	23.37	23.28
15	64QAM	36	39	23.36	23.31	23.29
15	64QAM	75	0	23.37	23.28	23.30
Channel				133172	133272	133422
Frequency (MHz)				668	678	693
10	QPSK	1	0	23.29	23.39	23.28
10	QPSK	1	25	23.38	23.36	23.30
10	QPSK	1	49	23.32	23.24	23.24
10	QPSK	25	0	23.32	23.46	23.35
10	QPSK	25	12	23.32	23.34	23.30
10	QPSK	25	25	23.37	23.31	23.31
10	QPSK	50	0	23.40	23.34	23.32
10	16QAM	1	0	23.65	23.66	23.61
10	16QAM	1	25	23.75	23.62	23.51
10	16QAM	1	49	23.63	23.60	23.57
10	16QAM	25	0	23.36	23.47	23.34
10	16QAM	25	12	23.36	23.37	23.28
10	16QAM	25	25	23.39	23.33	23.29
10	16QAM	50	0	23.36	23.37	23.28
10	64QAM	1	0	23.49	23.47	23.41
10	64QAM	1	25	23.54	23.60	23.43
10	64QAM	1	49	23.51	23.42	23.42
10	64QAM	25	0	23.40	23.42	23.32
10	64QAM	25	12	23.37	23.36	23.33
10	64QAM	25	25	23.42	23.27	23.29
10	64QAM	50	0	23.42	23.39	23.27
Channel				133147	133247	133447

Frequency (MHz)				665.5	675.5	695.5
5	QPSK	1	0	23.33	23.40	23.27
5	QPSK	1	12	23.37	23.39	23.28
5	QPSK	1	24	23.38	23.39	23.26
5	QPSK	12	0	23.34	23.42	23.33
5	QPSK	12	7	23.35	23.37	23.27
5	QPSK	12	13	23.36	23.33	23.30
5	QPSK	25	0	23.30	23.42	23.30
5	16QAM	1	0	23.58	23.72	23.65
5	16QAM	1	12	23.62	23.69	23.66
5	16QAM	1	24	23.72	23.71	23.50
5	16QAM	12	0	23.35	23.42	23.33
5	16QAM	12	7	23.34	23.39	23.34
5	16QAM	12	13	23.41	23.39	23.31
5	16QAM	25	0	23.40	23.41	23.35
5	64QAM	1	0	23.47	23.58	23.42
5	64QAM	1	12	23.48	23.50	23.46
5	64QAM	1	24	23.48	23.55	23.49
5	64QAM	12	0	23.34	23.36	23.28
5	64QAM	12	7	23.36	23.37	23.32
5	64QAM	12	13	23.35	23.33	23.32
5	64QAM	25	0	23.34	23.39	23.35

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	22.13	22.00	22.07
20	QPSK	1	49	22.39	22.15	22.24
20	QPSK	1	99	22.22	22.11	22.20
20	QPSK	50	0	21.27	21.15	21.30
20	QPSK	50	24	21.36	21.19	21.32
20	QPSK	50	50	21.33	21.17	21.30
20	QPSK	100	0	21.29	21.10	21.20
20	16QAM	1	0	21.20	21.07	21.10
20	16QAM	1	49	21.35	21.23	21.29
20	16QAM	1	99	21.32	21.15	21.29
20	16QAM	50	0	20.29	20.19	20.22
20	16QAM	50	24	20.28	20.18	20.34
20	16QAM	50	50	20.33	20.11	20.27
20	16QAM	100	0	20.29	20.19	20.26
20	64QAM	1	0	20.08	20.03	20.05
20	64QAM	1	49	20.21	20.07	20.05
20	64QAM	1	99	20.18	20.00	20.07
20	64QAM	50	0	19.36	19.30	19.36

20	64QAM	50	24	19.47	19.28	19.48
20	64QAM	50	50	19.47	19.24	19.41
20	64QAM	100	0	19.43	19.24	19.31
Channel				37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5
15	QPSK	1	0	22.17	22.09	22.08
15	QPSK	1	37	22.22	22.13	22.18
15	QPSK	1	74	22.13	22.13	22.24
15	QPSK	36	0	21.28	21.09	21.28
15	QPSK	36	20	21.34	21.09	21.28
15	QPSK	36	39	21.28	21.08	21.24
15	QPSK	75	0	21.33	21.15	21.26
15	16QAM	1	0	21.20	21.17	21.08
15	16QAM	1	37	21.32	21.21	21.18
15	16QAM	1	74	21.32	21.23	21.32
15	16QAM	36	0	20.27	20.13	20.18
15	16QAM	36	20	20.24	20.14	20.22
15	16QAM	36	39	20.28	20.10	20.25
15	16QAM	75	0	20.31	20.16	20.26
15	64QAM	1	0	20.18	20.05	20.14
15	64QAM	1	37	20.37	20.09	20.21
15	64QAM	1	74	20.31	20.11	20.18
15	64QAM	36	0	19.45	19.29	19.31
15	64QAM	36	20	19.42	19.29	19.38
15	64QAM	36	39	19.49	19.29	19.35
15	64QAM	75	0	19.49	19.30	19.33
Channel				37800	38000	38200
Frequency (MHz)				2575	2595	2615
10	QPSK	1	0	22.31	22.10	22.09
10	QPSK	1	25	22.33	22.14	22.10
10	QPSK	1	49	22.35	22.13	22.31
10	QPSK	25	0	21.29	21.16	21.30
10	QPSK	25	12	21.38	21.17	21.27
10	QPSK	25	25	21.32	21.16	21.32
10	QPSK	50	0	21.36	21.20	21.28
10	16QAM	1	0	21.25	21.15	21.24
10	16QAM	1	25	21.38	21.19	21.30
10	16QAM	1	49	21.37	21.20	21.32
10	16QAM	25	0	20.35	20.16	20.29
10	16QAM	25	12	20.38	20.17	20.32
10	16QAM	25	25	20.37	20.15	20.40
10	16QAM	50	0	20.33	20.25	20.34
10	64QAM	1	0	20.27	20.03	20.20
10	64QAM	1	25	20.22	20.05	20.23
10	64QAM	1	49	20.33	20.10	20.25
10	64QAM	25	0	19.48	19.34	19.45
10	64QAM	25	12	19.50	19.31	19.47
10	64QAM	25	25	19.54	19.35	19.50

10	64QAM	50	0	19.46	19.28	19.49
Channel				37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5
5	QPSK	1	0	22.30	22.13	22.11
5	QPSK	1	12	22.32	22.12	22.28
5	QPSK	1	24	22.31	22.16	22.27
5	QPSK	12	0	21.32	21.15	21.36
5	QPSK	12	7	21.34	21.09	21.33
5	QPSK	12	13	21.31	21.15	21.35
5	QPSK	25	0	21.37	21.15	21.31
5	16QAM	1	0	21.39	21.20	21.31
5	16QAM	1	12	21.41	21.24	21.31
5	16QAM	1	24	21.41	21.21	21.31
5	16QAM	12	0	20.32	20.20	20.27
5	16QAM	12	7	20.33	20.06	20.28
5	16QAM	12	13	20.26	20.05	20.32
5	16QAM	25	0	20.41	20.13	20.35
5	64QAM	1	0	20.33	20.14	20.28
5	64QAM	1	12	20.29	20.09	20.27
5	64QAM	1	24	20.35	20.10	20.30
5	64QAM	12	0	19.51	19.28	19.46
5	64QAM	12	7	19.47	19.23	19.43
5	64QAM	12	13	19.45	19.22	19.48
5	64QAM	25	0	19.52	19.38	19.56

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	25.92	26.18	26.31
20	QPSK	1	49	26.12	26.39	26.40
20	QPSK	1	99	26.08	26.28	26.25
20	QPSK	50	0	25.18	25.44	25.46
20	QPSK	50	24	25.19	25.42	25.47
20	QPSK	50	50	25.17	25.46	25.44
20	QPSK	100	0	25.16	25.42	25.43
20	16QAM	1	0	25.14	25.50	25.51
20	16QAM	1	49	25.31	25.63	25.62
20	16QAM	1	99	25.26	25.57	25.52
20	16QAM	50	0	24.17	24.42	24.47
20	16QAM	50	24	24.22	24.45	24.52
20	16QAM	50	50	24.19	24.44	24.46
20	16QAM	100	0	24.19	24.42	24.45
20	64QAM	1	0	24.07	24.35	24.44
20	64QAM	1	49	24.21	24.51	24.51

20	64QAM	1	99	24.14	24.42	24.38
20	64QAM	50	0	23.20	23.40	23.47
20	64QAM	50	24	23.22	23.43	23.48
20	64QAM	50	50	23.16	23.39	23.43
20	64QAM	100	0	23.18	23.42	23.45
Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	26.06	26.35	26.36
15	QPSK	1	37	26.07	26.37	26.35
15	QPSK	1	74	26.13	26.38	26.37
15	QPSK	36	0	25.11	25.38	25.43
15	QPSK	36	20	25.14	25.41	25.43
15	QPSK	36	39	25.16	25.38	25.42
15	QPSK	75	0	25.18	25.37	25.46
15	16QAM	1	0	25.16	25.55	25.48
15	16QAM	1	37	25.26	25.63	25.61
15	16QAM	1	74	25.24	25.59	25.53
15	16QAM	36	0	24.11	24.34	24.45
15	16QAM	36	20	24.14	24.35	24.46
15	16QAM	36	39	24.13	24.38	24.42
15	16QAM	75	0	24.16	24.39	24.46
15	64QAM	1	0	24.12	24.40	24.39
15	64QAM	1	37	24.18	24.52	24.50
15	64QAM	1	74	24.11	24.47	24.42
15	64QAM	36	0	23.15	23.40	23.48
15	64QAM	36	20	23.16	23.41	23.50
15	64QAM	36	39	23.18	23.39	23.46
15	64QAM	75	0	23.15	23.39	23.46
Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	26.04	26.34	26.37
10	QPSK	1	25	26.04	26.35	26.33
10	QPSK	1	49	26.10	26.36	26.37
10	QPSK	25	0	25.19	25.38	25.47
10	QPSK	25	12	25.16	25.41	25.48
10	QPSK	25	25	25.19	25.39	25.52
10	QPSK	50	0	25.22	25.43	25.48
10	16QAM	1	0	25.27	25.64	25.59
10	16QAM	1	25	25.30	25.68	25.62
10	16QAM	1	49	25.29	25.63	25.63
10	16QAM	25	0	24.20	24.46	24.52
10	16QAM	25	12	24.21	24.48	24.54
10	16QAM	25	25	24.23	24.45	24.54
10	16QAM	50	0	24.23	24.44	24.54
10	64QAM	1	0	24.14	24.48	24.51
10	64QAM	1	25	24.21	24.52	24.51
10	64QAM	1	49	24.14	24.48	24.54
10	64QAM	25	0	23.27	23.47	23.57

10	64QAM	25	12	23.26	23.44	23.56
10	64QAM	25	25	23.26	23.45	23.60
10	64QAM	50	0	23.19	23.42	23.55
Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	26.05	26.34	26.38
5	QPSK	1	12	26.02	26.28	26.36
5	QPSK	1	24	26.10	26.37	26.37
5	QPSK	12	0	25.18	25.41	25.51
5	QPSK	12	7	25.18	25.40	25.51
5	QPSK	12	13	25.16	25.37	25.46
5	QPSK	25	0	25.21	25.38	25.52
5	16QAM	1	0	25.27	25.62	25.64
5	16QAM	1	12	25.23	25.65	25.68
5	16QAM	1	24	25.27	25.63	25.61
5	16QAM	12	0	24.18	24.41	24.54
5	16QAM	12	7	24.19	24.42	24.52
5	16QAM	12	13	24.16	24.39	24.50
5	16QAM	25	0	24.24	24.46	24.58
5	64QAM	1	0	24.23	24.53	24.53
5	64QAM	1	12	24.17	24.53	24.57
5	64QAM	1	24	24.18	24.54	24.54
5	64QAM	12	0	23.17	23.43	23.56
5	64QAM	12	7	23.19	23.43	23.55
5	64QAM	12	13	23.16	23.40	23.51
5	64QAM	25	0	23.26	23.43	23.55

CA Power

CA_7C									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20850	21048	QPSK	100	0	100	0	200	≤2	19.61
			1	0	1	99	2	≤8.5	12.6
			1	99	1	0	2	≤0	21.64
		16QAM	100	0	100	0	200	≤3	18.71
			1	0	1	99	2	≤8.5	13.27
			1	99	1	0	2	≤1	21.28
		64QAM	100	0	100	0	200	≤3	18.68
			1	0	1	99	2	≤8.5	12.89
			1	99	1	0	2	≤3	19
21001	21199	QPSK	100	0	100	0	200	≤2	19.86
			1	0	1	99	2	≤8.5	12.56
			1	99	1	0	2	≤0	21.59
		16QAM	100	0	100	0	200	≤3	18.87
			1	0	1	99	2	≤8.5	13.08
			1	99	1	0	2	≤1	21.12
		64QAM	100	0	100	0	200	≤3	18.87
			1	0	1	99	2	≤8.5	12.96
			1	99	1	0	2	≤3	18.93
21152	21350	QPSK	100	0	100	0	200	≤2	19.66
			1	0	1	99	2	≤8.5	12.49
			1	99	1	0	2	≤0	21.51
		16QAM	100	0	100	0	200	≤3	18.63
			1	0	1	99	2	≤8.5	13.15
			1	99	1	0	2	≤1	21.04
		64QAM	100	0	100	0	200	≤3	18.64
			1	0	1	99	2	≤8.5	12.85
			1	99	1	0	2	≤3	18.86

CA_7C									
Combination 20MHz+15MHz (100RB+75RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20850	21021	QPSK	100	0	75	0	175	≤2	19.79
		QPSK	1	0	1	74	2	≤8.5	12.82
		QPSK	1	99	1	0	2	≤0	21.74
		16QAM	100	0	75	0	175	≤3	18.82
		16QAM	1	0	1	74	2	≤8.5	13.26
		16QAM	1	99	1	0	2	≤1	21.17
		64QAM	100	0	75	0	175	≤3	18.82
		64QAM	1	0	1	74	2	≤8.5	13.03
		64QAM	1	99	1	0	2	≤3	18.86
21026	21197	QPSK	100	0	75	0	175	≤2	19.77
		QPSK	1	0	1	74	2	≤8.5	12.7
		QPSK	1	99	1	0	2	≤0	21.61
		16QAM	100	0	75	0	175	≤3	18.84
		16QAM	1	0	1	74	2	≤8.5	13.22
		16QAM	1	99	1	0	2	≤1	21.06
		64QAM	100	0	75	0	175	≤3	18.87
		64QAM	1	0	1	74	2	≤8.5	13.11
		64QAM	1	99	1	0	2	≤3	18.79
21201	21372	QPSK	100	0	75	0	175	≤2	19.64
		QPSK	1	0	1	74	2	≤8.5	12.68
		QPSK	1	99	1	0	2	≤0	21.5
		16QAM	100	0	75	0	175	≤3	18.63
		16QAM	1	0	1	74	2	≤8.5	13.08
		16QAM	1	99	1	0	2	≤1	21.14
		64QAM	100	0	75	0	175	≤3	18.64
		64QAM	1	0	1	74	2	≤8.5	13.08
		64QAM	1	99	1	0	2	≤3	18.71
Combination 15MHz+20MHz (75RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20828	20999	QPSK	75	0	100	0	175	≤2	19.62
		QPSK	1	0	1	99	2	≤8.5	12.8
		QPSK	1	74	1	0	2	≤0	21.71
		16QAM	75	0	100	0	175	≤3	18.69
		16QAM	1	0	1	99	2	≤8.5	13.24
		16QAM	1	74	1	0	2	≤1	21.03
		64QAM	75	0	100	0	175	≤3	18.68

		64QAM	1	0	1	99	2	≤8.5	12.99
		64QAM	1	74	1	0	2	≤3	18.77
21003	21174	QPSK	75	0	100	0	175	≤2	19.58
		QPSK	1	0	1	99	2	≤8.5	12.52
		QPSK	1	74	1	0	2	≤0	21.48
		16QAM	75	0	100	0	175	≤3	18.79
		16QAM	1	0	1	99	2	≤8.5	13.17
		16QAM	1	74	1	0	2	≤1	20.92
		64QAM	75	0	100	0	175	≤3	18.87
		64QAM	1	0	1	99	2	≤8.5	13.01
		64QAM	1	74	1	0	2	≤3	18.76
21179	21350	QPSK	75	0	100	0	175	≤2	19.6
		QPSK	1	0	1	99	2	≤8.5	12.54
		QPSK	1	74	1	0	2	≤0	21.38
		16QAM	75	0	100	0	175	≤3	18.5
		16QAM	1	0	1	99	2	≤8.5	12.96
		16QAM	1	74	1	0	2	≤1	21.06
		64QAM	75	0	100	0	175	≤3	18.48
		64QAM	1	0	1	99	2	≤8.5	13.02
		64QAM	1	74	1	0	2	≤3	18.68

Combination 20MHz+10MHz (100RB+50RB)

PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20850	20994	QPSK	100	0	50	0	150	≤2	19.76
		QPSK	1	0	1	49	2	≤8.5	12.63
		QPSK	1	99	1	0	2	≤0	21.74
		16QAM	100	0	50	0	150	≤3	18.66
		16QAM	1	0	1	49	2	≤8.5	13.21
		16QAM	1	99	1	0	2	≤1	21.12
		64QAM	100	0	50	0	150	≤3	18.69
		64QAM	1	0	1	49	2	≤8.5	12.85
		64QAM	1	99	1	0	2	≤3	18.71
21051	21195	QPSK	100	0	50	0	150	≤2	19.67
		QPSK	1	0	1	49	2	≤8.5	12.5
		QPSK	1	99	1	0	2	≤0	21.53
		16QAM	100	0	50	0	150	≤3	18.78
		16QAM	1	0	1	49	2	≤8.5	13.09
		16QAM	1	99	1	0	2	≤1	21.03
		64QAM	100	0	50	0	150	≤3	18.67
		64QAM	1	0	1	49	2	≤8.5	12.97
		64QAM	1	99	1	0	2	≤3	18.6
21251	21395	QPSK	100	0	50	0	150	≤2	19.46

		QPSK	1	0	1	49	2	≤8.5	12.52
		QPSK	1	99	1	0	2	≤0	21.49
		16QAM	100	0	50	0	150	≤3	18.49
		16QAM	1	0	1	49	2	≤8.5	13.04
		16QAM	1	99	1	0	2	≤1	21.11
		64QAM	100	0	50	0	150	≤3	18.46
		64QAM	1	0	1	49	2	≤8.5	12.99
		64QAM	1	99	1	0	2	≤3	18.67
Combination 10MHz+20MHz (50RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20805	20949	QPSK	50	0	100	0	150	≤2	19.73
		QPSK	1	0	1	99	2	≤8.5	12.75
		QPSK	1	49	1	0	2	≤0	21.62
		16QAM	50	0	100	0	150	≤3	18.67
		16QAM	1	0	1	99	2	≤8.5	13.11
		16QAM	1	49	1	0	2	≤1	21.17
		64QAM	50	0	100	0	150	≤3	18.72
		64QAM	1	0	1	99	2	≤8.5	12.92
		64QAM	1	49	1	0	2	≤3	18.78
21006	21150	QPSK	50	0	100	0	150	≤2	19.67
		QPSK	1	0	1	99	2	≤8.5	12.54
		QPSK	1	49	1	0	2	≤0	21.42
		16QAM	50	0	100	0	150	≤3	18.72
		16QAM	1	0	1	99	2	≤8.5	13.07
		16QAM	1	49	1	0	2	≤1	21.04
		64QAM	50	0	100	0	150	≤3	18.83
		64QAM	1	0	1	99	2	≤8.5	13.08
		64QAM	1	49	1	0	2	≤3	18.68
21206	21350	QPSK	50	0	100	0	150	≤2	19.47
		QPSK	1	0	1	99	2	≤8.5	12.58
		QPSK	1	49	1	0	2	≤0	21.44
		16QAM	50	0	100	0	150	≤3	18.53
		16QAM	1	0	1	99	2	≤8.5	12.94
		16QAM	1	49	1	0	2	≤1	21.05
		64QAM	50	0	100	0	150	≤3	18.55
		64QAM	1	0	1	99	2	≤8.5	12.94
		64QAM	1	49	1	0	2	≤3	18.53
Combination 15MHz+15MHz (75RB+75RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			

20825	20975	QPSK	75	0	75	0	150	≤2	19.74
		QPSK	1	0	1	74	2	≤8.5	12.75
		QPSK	1	74	1	0	2	≤0	21.58
		16QAM	75	0	75	0	150	≤3	18.7
		16QAM	1	0	1	74	2	≤8.5	13.17
		16QAM	1	74	1	0	2	≤1	21.11
		64QAM	75	0	75	0	150	≤3	18.65
		64QAM	1	0	1	74	2	≤8.5	12.84
		64QAM	1	74	1	0	2	≤3	18.67
21025	21175	QPSK	75	0	75	0	150	≤2	19.76
		QPSK	1	0	1	74	2	≤8.5	12.52
		QPSK	1	74	1	0	2	≤0	21.53
		16QAM	75	0	75	0	150	≤3	18.71
		16QAM	1	0	1	74	2	≤8.5	13.08
		16QAM	1	74	1	0	2	≤1	21.04
		64QAM	75	0	75	0	150	≤3	18.85
		64QAM	1	0	1	74	2	≤8.5	13
		64QAM	1	74	1	0	2	≤3	18.69
21225	21375	QPSK	75	0	75	0	150	≤2	19.59
		QPSK	1	0	1	74	2	≤8.5	12.66
		QPSK	1	74	1	0	2	≤0	21.31
		16QAM	75	0	75	0	150	≤3	18.46
		16QAM	1	0	1	74	2	≤8.5	13
		16QAM	1	74	1	0	2	≤1	21
		64QAM	75	0	75	0	150	≤3	18.54
		64QAM	1	0	1	74	2	≤8.5	13.06
		64QAM	1	74	1	0	2	≤3	18.63

Combination 15MHz+10MHz (75RB+50RB)

PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20825	20945	QPSK	75	0	50	0	125	≤2	19.73
		QPSK	1	0	1	49	2	≤8.5	12.76
		QPSK	1	74	1	0	2	≤0	21.64
		16QAM	75	0	50	0	125	≤3	18.76
		16QAM	1	0	1	49	2	≤8.5	13.19
		16QAM	1	74	1	0	2	≤1	21.01
		64QAM	75	0	50	0	125	≤3	18.67
		64QAM	1	0	1	49	2	≤8.5	12.96
		64QAM	1	74	1	0	2	≤3	18.85
21051	21171	QPSK	75	0	50	0	125	≤2	19.66
		QPSK	1	0	1	49	2	≤8.5	12.68

		QPSK	1	74	1	0	2	≤0	21.42
		16QAM	75	0	50	0	125	≤3	18.66
		16QAM	1	0	1	49	2	≤8.5	13.18
		16QAM	1	74	1	0	2	≤1	21.06
		64QAM	75	0	50	0	125	≤3	18.83
		64QAM	1	0	1	49	2	≤8.5	13.04
		64QAM	1	74	1	0	2	≤3	18.68
21277	21397	QPSK	75	0	50	0	125	≤2	19.47
		QPSK	1	0	1	49	2	≤8.5	12.5
		QPSK	1	74	1	0	2	≤0	21.37
		16QAM	75	0	50	0	125	≤3	18.6
		16QAM	1	0	1	49	2	≤8.5	13.06
		16QAM	1	74	1	0	2	≤1	21.07
		64QAM	75	0	50	0	125	≤3	18.47
		64QAM	1	0	1	49	2	≤8.5	13.05
		64QAM	1	74	1	0	2	≤3	18.53

CA_38C									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
37850	38048	QPSK	100	0	100	0	200	≤2	19.43
			1	0	1	99	2	≤8.5	12.45
			1	99	1	0	2	≤0	21.42
		16QAM	100	0	100	0	200	≤3	18.48
			1	0	1	99	2	≤8.5	12.43
			1	99	1	0	2	≤1	20.45
		64QAM	100	0	100	0	200	≤3	18.45
			1	0	1	99	2	≤8.5	12.46
			1	99	1	0	2	≤3	18.38
37901	38099	QPSK	100	0	100	0	200	≤2	19.48
			1	0	1	99	2	≤8.5	12.4
			1	99	1	0	2	≤0	21.49
		16QAM	100	0	100	0	200	≤3	18.52
			1	0	1	99	2	≤8.5	12.39
			1	99	1	0	2	≤1	20.49
		64QAM	100	0	100	0	200	≤3	18.46
			1	0	1	99	2	≤8.5	12.43
			1	99	1	0	2	≤3	18.42
37952	38150	QPSK	100	0	100	0	200	≤2	19.41
			1	0	1	99	2	≤8.5	12.38
			1	99	1	0	2	≤0	21.45
		16QAM	100	0	100	0	200	≤3	18.54
			1	0	1	99	2	≤8.5	12.39
			1	99	1	0	2	≤1	20.45
		64QAM	100	0	100	0	200	≤3	18.47
			1	0	1	99	2	≤8.5	12.44
			1	99	1	0	2	≤3	18.42

CA_38C									
Combination 15MHz+15MHz (75RB+75RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
37825	37975	QPSK	75	0	75	0	150	≤2	19.55
		QPSK	1	0	1	74	2	≤8.5	12.81
		QPSK	1	74	1	0	2	≤0	21.66
		16QAM	75	0	75	0	150	≤3	18.61
		16QAM	1	0	1	74	2	≤8.5	12.91
		16QAM	1	74	1	0	2	≤1	20.74
		64QAM	75	0	75	0	150	≤3	18.61
		64QAM	1	0	1	74	2	≤8.5	12.84
		64QAM	1	74	1	0	2	≤3	18.61
37925	38075	QPSK	75	0	75	0	150	≤2	19.56
		QPSK	1	0	1	74	2	≤8.5	12.82
		QPSK	1	74	1	0	2	≤0	21.7
		16QAM	75	0	75	0	150	≤3	18.62
		16QAM	1	0	1	74	2	≤8.5	12.93
		16QAM	1	74	1	0	2	≤1	20.79
		64QAM	75	0	75	0	150	≤3	18.63
		64QAM	1	0	1	74	2	≤8.5	12.87
		64QAM	1	74	1	0	2	≤3	18.65
38025	38175	QPSK	75	0	75	0	150	≤2	19.47
		QPSK	1	0	1	74	2	≤8.5	12.83
		QPSK	1	74	1	0	2	≤0	21.68
		16QAM	75	0	75	0	150	≤3	18.71
		16QAM	1	0	1	74	2	≤8.5	12.92
		16QAM	1	74	1	0	2	≤1	20.76
		64QAM	75	0	75	0	150	≤3	18.79
		64QAM	1	0	1	74	2	≤8.5	12.87
		64QAM	1	74	1	0	2	≤3	18.59

CA_41C									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
39750	39948	QPSK	100	0	100	0	200	≤2	19.85
			1	0	1	99	2	≤8.5	12.7
			1	99	1	0	2	≤0	21.82
		16QAM	100	0	100	0	200	≤3	19.07
			1	0	1	99	2	≤8.5	12.71
			1	99	1	0	2	≤1	20.81
		64QAM	100	0	100	0	200	≤3	18.99
			1	0	1	99	2	≤8.5	12.73
			1	99	1	0	2	≤3	18.91
40521	40719	QPSK	100	0	100	0	200	≤2	19.65
			1	0	1	99	2	≤8.5	12.49
			1	99	1	0	2	≤0	21.59
		16QAM	100	0	100	0	200	≤3	18.86
			1	0	1	99	2	≤8.5	12.47
			1	99	1	0	2	≤1	20.64
		64QAM	100	0	100	0	200	≤3	18.82
			1	0	1	99	2	≤8.5	12.49
			1	99	1	0	2	≤3	18.76
41292	41490	QPSK	100	0	100	0	200	≤2	19.98
			1	0	1	99	2	≤8.5	12.72
			1	99	1	0	2	≤0	21.73
		16QAM	100	0	100	0	200	≤3	19.07
			1	0	1	99	2	≤8.5	12.76
			1	99	1	0	2	≤1	20.74
		64QAM	100	0	100	0	200	≤3	19.02
			1	0	1	99	2	≤8.5	12.71
			1	99	1	0	2	≤3	18.84

CA_41C									
Combination 20MHz+15MHz (100RB+75RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
39750	39921	QPSK	100	0	75	0	175	≤2	19.89
		QPSK	1	0	1	74	2	≤8.5	12.92
		QPSK	1	99	1	0	2	≤0	21.89
		16QAM	100	0	75	0	175	≤3	19.12
		16QAM	1	0	1	74	2	≤8.5	13
		16QAM	1	99	1	0	2	≤1	20.92
		64QAM	100	0	75	0	175	≤3	19.11
		64QAM	1	0	1	74	2	≤8.5	12.96
		64QAM	1	99	1	0	2	≤3	19.01
40546	40717	QPSK	100	0	75	0	175	≤2	19.67
		QPSK	1	0	1	74	2	≤8.5	12.78
		QPSK	1	99	1	0	2	≤0	21.61
		16QAM	100	0	75	0	175	≤3	18.89
		16QAM	1	0	1	74	2	≤8.5	12.82
		16QAM	1	99	1	0	2	≤1	20.68
		64QAM	100	0	75	0	175	≤3	18.85
		64QAM	1	0	1	74	2	≤8.5	12.81
		64QAM	1	99	1	0	2	≤3	18.81
41341	41512	QPSK	100	0	75	0	175	≤2	19.88
		QPSK	1	0	1	74	2	≤8.5	12.97
		QPSK	1	99	1	0	2	≤0	21.9
		16QAM	100	0	75	0	175	≤3	19.06
		16QAM	1	0	1	74	2	≤8.5	13.01
		16QAM	1	99	1	0	2	≤1	20.93
		64QAM	100	0	75	0	175	≤3	19.05
		64QAM	1	0	1	74	2	≤8.5	13.02
		64QAM	1	99	1	0	2	≤3	19.02
Combination 15MHz+20MHz (75RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
39728	39899	QPSK	75	0	100	0	175	≤2	19.84
		QPSK	1	0	1	99	2	≤8.5	12.78
		QPSK	1	74	1	0	2	≤0	21.76
		16QAM	75	0	100	0	175	≤3	18.96
		16QAM	1	0	1	99	2	≤8.5	12.89
		16QAM	1	74	1	0	2	≤1	20.88

		64QAM	75	0	100	0	175	≤3	18.95
		64QAM	1	0	1	99	2	≤8.5	12.89
		64QAM	1	74	1	0	2	≤3	18.86
		QPSK	75	0	100	0	175	≤2	19.61
		QPSK	1	0	1	99	2	≤8.5	12.77
		QPSK	1	74	1	0	2	≤0	21.56
		16QAM	75	0	100	0	175	≤3	18.77
40523	40694	16QAM	1	0	1	99	2	≤8.5	12.68
		16QAM	1	74	1	0	2	≤1	20.5
		64QAM	75	0	100	0	175	≤3	18.66
		64QAM	1	0	1	99	2	≤8.5	12.68
		64QAM	1	74	1	0	2	≤3	18.63
		QPSK	75	0	100	0	175	≤3	18.89
		QPSK	1	0	1	99	2	≤8.5	12.93
		QPSK	1	74	1	0	2	≤1	20.79
		16QAM	75	0	100	0	175	≤3	18.87
41319	41490	16QAM	1	0	1	99	2	≤8.5	12.86
		16QAM	1	74	1	0	2	≤3	18.83
		64QAM	75	0	100	0	175	≤3	18.87
		64QAM	1	0	1	99	2	≤8.5	12.86
		64QAM	1	74	1	0	2	≤3	18.83

Combination 20MHz+10MHz (100RB+50RB)

PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
		QPSK	100	0	50	0	150	≤2	19.71
		QPSK	1	0	1	49	2	≤8.5	12.87
		QPSK	1	99	1	0	2	≤0	21.76
		16QAM	100	0	50	0	150	≤3	19
39750	39894	16QAM	1	0	1	49	2	≤8.5	12.94
		16QAM	1	99	1	0	2	≤1	20.86
		64QAM	100	0	50	0	150	≤3	19
		64QAM	1	0	1	49	2	≤8.5	12.77
		64QAM	1	99	1	0	2	≤3	18.91
		QPSK	100	0	50	0	150	≤3	18.74
		QPSK	1	0	1	49	2	≤8.5	12.62
		QPSK	1	99	1	0	2	≤1	20.63
		16QAM	100	0	50	0	150	≤3	18.8
40571	40715	16QAM	1	0	1	49	2	≤8.5	12.8
		16QAM	1	99	1	0	2	≤3	18.64
		64QAM	100	0	50	0	150	≤3	18.8
		64QAM	1	0	1	49	2	≤8.5	12.8
		64QAM	1	99	1	0	2	≤3	18.64

41391	41535	QPSK	100	0	50	0	150	≤3	18.9
		QPSK	1	0	1	49	2	≤8.5	12.84
		QPSK	1	99	1	0	2	≤1	20.8
		16QAM	100	0	50	0	150	≤3	18.88
		16QAM	1	0	1	49	2	≤8.5	12.92
		16QAM	1	99	1	0	2	≤3	18.92
		64QAM	100	0	50	0	150	≤3	18.88
		64QAM	1	0	1	49	2	≤8.5	12.92
		64QAM	1	99	1	0	2	≤3	18.92
Combination 10MHz+20MHz (50RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
39705	39849	QPSK	50	0	100	0	150	≤2	19.79
		QPSK	1	0	1	99	2	≤8.5	12.83
		QPSK	1	49	1	0	2	≤0	21.84
		16QAM	50	0	100	0	150	≤3	18.96
		16QAM	1	0	1	99	2	≤8.5	12.94
		16QAM	1	49	1	0	2	≤1	20.77
		64QAM	50	0	100	0	150	≤3	19.05
		64QAM	1	0	1	99	2	≤8.5	12.95
		64QAM	1	49	1	0	2	≤3	18.81
40526	40670	QPSK	50	0	100	0	150	≤2	19.52
		QPSK	1	0	1	99	2	≤8.5	12.64
		QPSK	1	49	1	0	2	≤0	21.49
		16QAM	50	0	100	0	150	≤3	18.84
		16QAM	1	0	1	99	2	≤8.5	12.8
		16QAM	1	49	1	0	2	≤1	20.54
		64QAM	50	0	100	0	150	≤3	18.79
		64QAM	1	0	1	99	2	≤8.5	12.69
		64QAM	1	49	1	0	2	≤3	18.75
41346	41490	QPSK	50	0	100	0	150	≤2	19.88
		QPSK	1	0	1	99	2	≤8.5	12.92
		QPSK	1	49	1	0	2	≤0	21.87
		16QAM	50	0	100	0	150	≤3	18.87
		16QAM	1	0	1	99	2	≤8.5	13
		16QAM	1	49	1	0	2	≤1	20.78
		64QAM	50	0	100	0	150	≤3	19.04
		64QAM	1	0	1	99	2	≤8.5	12.88
		64QAM	1	49	1	0	2	≤3	18.99
Combination 20MHz+5MHz (100RB+25RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			

39750	39867	QPSK	100	0	25	0	125	≤2	19.85
		QPSK	1	0	1	24	2	≤8.5	12.8
		QPSK	1	99	1	0	2	≤0	21.76
		16QAM	100	0	25	0	125	≤3	19.08
		16QAM	1	0	1	24	2	≤8.5	12.96
		16QAM	1	99	1	0	2	≤1	20.73
		64QAM	100	0	25	0	125	≤3	19.03
		64QAM	1	0	1	24	2	≤8.5	12.83
		64QAM	1	99	1	0	2	≤3	18.97
40595	40712	QPSK	100	0	25	0	125	≤2	19.64
		QPSK	1	0	1	24	2	≤8.5	12.64
		QPSK	1	99	1	0	2	≤0	21.6
		16QAM	100	0	25	0	125	≤3	18.89
		16QAM	1	0	1	24	2	≤8.5	12.76
		16QAM	1	99	1	0	2	≤1	20.51
		64QAM	100	0	25	0	125	≤3	18.8
		64QAM	1	0	1	24	2	≤8.5	12.65
		64QAM	1	99	1	0	2	≤3	18.75
41440	41557	QPSK	100	0	25	0	125	≤2	19.85
		QPSK	1	0	1	24	2	≤8.5	12.97
		QPSK	1	99	1	0	2	≤0	21.75
		16QAM	100	0	25	0	125	≤3	18.99
		16QAM	1	0	1	24	2	≤8.5	12.93
		16QAM	1	99	1	0	2	≤1	20.79
		64QAM	100	0	25	0	125	≤3	18.87
		64QAM	1	0	1	24	2	≤8.5	12.9
		64QAM	1	99	1	0	2	≤3	18.84

Combination 5MHz+20MHz (25RB+100RB)

PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
39683	39800	QPSK	25	0	100	0	125	≤2	19.76
		QPSK	1	0	1	99	2	≤8.5	12.9
		QPSK	1	24	1	0	2	≤0	21.73
		16QAM	25	0	100	0	125	≤3	19.02
		16QAM	1	0	1	99	2	≤8.5	12.87
		16QAM	1	24	1	0	2	≤1	20.87
		64QAM	25	0	100	0	125	≤3	18.99
		64QAM	1	0	1	99	2	≤8.5	12.94
		64QAM	1	24	1	0	2	≤3	18.86
40528	40645	QPSK	25	0	100	0	125	≤2	19.67
		QPSK	1	0	1	99	2	≤8.5	12.73
		QPSK	1	24	1	0	2	≤0	21.5

		16QAM	25	0	100	0	125	≤3	18.77
		16QAM	1	0	1	99	2	≤8.5	12.62
		16QAM	1	24	1	0	2	≤1	20.53
		64QAM	25	0	100	0	125	≤3	18.76
		64QAM	1	0	1	99	2	≤8.5	12.7
		64QAM	1	24	1	0	2	≤3	18.79
41373	41490	QPSK	25	0	100	0	125	≤2	19.79
		QPSK	1	0	1	99	2	≤8.5	12.91
		QPSK	1	24	1	0	2	≤0	21.83
		16QAM	25	0	100	0	125	≤3	18.98
		16QAM	1	0	1	99	2	≤8.5	12.94
		16QAM	1	24	1	0	2	≤1	20.78
		64QAM	25	0	100	0	125	≤3	18.96
		64QAM	1	0	1	99	2	≤8.5	12.83
		64QAM	1	24	1	0	2	≤3	19.02
Combination 15MHz+10MHz (75RB+50RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
39725	39845	QPSK	75	0	50	0	125	≤2	19.69
		QPSK	1	0	1	49	2	≤8.5	12.83
		QPSK	1	74	1	0	2	≤0	21.83
		16QAM	75	0	50	0	125	≤3	18.94
		16QAM	1	0	1	49	2	≤8.5	12.85
		16QAM	1	74	1	0	2	≤1	20.78
		64QAM	75	0	50	0	125	≤3	19.02
		64QAM	1	0	1	49	2	≤8.5	12.79
		64QAM	1	74	1	0	2	≤3	18.9
40571	40691	QPSK	75	0	50	0	125	≤2	19.61
		QPSK	1	0	1	49	2	≤8.5	12.61
		QPSK	1	74	1	0	2	≤0	21.5
		16QAM	75	0	50	0	125	≤3	18.87
		16QAM	1	0	1	49	2	≤8.5	12.7
		16QAM	1	74	1	0	2	≤1	20.5
		64QAM	75	0	50	0	125	≤3	18.83
		64QAM	1	0	1	49	2	≤8.5	12.8
		64QAM	1	74	1	0	2	≤3	18.65
41417	41537	QPSK	75	0	50	0	125	≤2	19.79
		QPSK	1	0	1	49	2	≤8.5	12.92
		QPSK	1	74	1	0	2	≤0	21.71
		16QAM	75	0	50	0	125	≤3	18.96
		16QAM	1	0	1	49	2	≤8.5	12.82
		16QAM	1	74	1	0	2	≤1	20.82
		64QAM	75	0	50	0	125	≤3	18.91

		64QAM	1	0	1	49	2	≤8.5	12.86
		64QAM	1	74	1	0	2	≤3	18.9
Combination 10MHz+15MHz (50RB+75RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
39703	39823	QPSK	50	0	75	0	125	≤2	19.7
		QPSK	1	49	1	0	2	≤8.5	12.83
		QPSK	1	0	1	74	2	≤0	21.8
		16QAM	50	0	75	0	125	≤3	19.02
		16QAM	1	49	1	0	2	≤8.5	12.83
		16QAM	1	0	1	74	2	≤1	20.85
		64QAM	50	0	75	0	125	≤3	19.02
		64QAM	1	49	1	0	2	≤8.5	12.91
		64QAM	1	0	1	74	2	≤3	18.88
40549		QPSK	50	0	75	0	125	≤2	19.58
		QPSK	1	49	1	0	2	≤8.5	12.61
		QPSK	1	0	1	74	2	≤0	21.6
		16QAM	50	0	75	0	125	≤3	18.82
		16QAM	1	49	1	0	2	≤8.5	12.7
		16QAM	1	0	1	74	2	≤1	20.49
		64QAM	50	0	75	0	125	≤3	18.73
		64QAM	1	49	1	0	2	≤8.5	12.74
		64QAM	1	0	1	74	2	≤3	18.69
41395		QPSK	50	0	75	0	125	≤2	19.84
		QPSK	1	49	1	0	2	≤8.5	12.96
		QPSK	1	0	1	74	2	≤0	21.82
		16QAM	50	0	75	0	125	≤3	19
		16QAM	1	49	1	0	2	≤8.5	12.92
		16QAM	1	0	1	74	2	≤1	20.93
		64QAM	50	0	75	0	125	≤3	19.03
		64QAM	1	49	1	0	2	≤8.5	12.86
		64QAM	1	0	1	74	2	≤3	18.88
Combination 15MHz+15MHz (75RB+75RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
39725	39875	QPSK	75	0	75	0	150	≤2	19.7
		QPSK	1	0	1	74	2	≤8.5	12.79
		QPSK	1	74	1	0	2	≤0	21.69
		16QAM	75	0	75	0	150	≤3	19.04
		16QAM	1	0	1	74	2	≤8.5	12.98
		16QAM	1	74	1	0	2	≤1	20.78
		64QAM	75	0	75	0	150	≤3	19.01
		64QAM	1	0	1	74	2	≤8.5	12.83

		64QAM	1	74	1	0	2	≤3	18.96
40545	40695	QPSK	75	0	75	0	150	≤3	18.84
		QPSK	1	0	1	74	2	≤8.5	12.77
		QPSK	1	74	1	0	2	≤1	20.49
		16QAM	75	0	75	0	150	≤3	18.84
		16QAM	1	0	1	74	2	≤8.5	12.72
		16QAM	1	74	1	0	2	≤3	18.68
		64QAM	75	0	75	0	150	≤3	18.84
		64QAM	1	0	1	74	2	≤8.5	12.72
		64QAM	1	74	1	0	2	≤3	18.68
41365	41515	QPSK	75	0	75	0	150	≤3	18.86
		QPSK	1	0	1	74	2	≤8.5	12.87
		QPSK	1	74	1	0	2	≤1	20.89
		16QAM	75	0	75	0	150	≤3	18.85
		16QAM	1	0	1	74	2	≤8.5	12.96
		16QAM	1	74	1	0	2	≤3	18.9
		64QAM	75	0	75	0	150	≤3	18.85
		64QAM	1	0	1	74	2	≤8.5	12.96
		64QAM	1	74	1	0	2	≤3	18.9

ERP/EIRP

LTE Band 7 (GT - LC = 4.00 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	22.25	22.38	22.51
Conducted Power (Watts)	0.1679	0.1730	0.1782
EIRP(dBm)	26.25	26.38	26.51
EIRP(Watts)	0.4217	0.4345	0.4477

LTE Band 7 (GT - LC = 4.00 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)	22.25	22.43	22.51	22.24	22.35	22.22	22.50	22.58	22.56
Conducted Power (Watts)	0.1679	0.1750	0.1782	0.1675	0.1718	0.1667	0.1778	0.1811	0.1803
EIRP(dBm)	26.25	26.43	26.51	26.24	26.35	26.22	26.50	26.58	26.56
EIRP(Watts)	0.4217	0.4395	0.4477	0.4207	0.4315	0.4188	0.4467	0.4550	0.4529

LTE Band 7 (GT - LC = 4.00 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	21.69	21.85	21.62
Conducted Power (Watts)	0.1476	0.1531	0.1452
EIRP(dBm)	25.69	25.85	25.62
EIRP(Watts)	0.3707	0.3846	0.3648

LTE Band 7 (GT - LC = 4.00 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)	21.85	21.97	21.84	21.84	21.56	21.91	21.59	21.95	21.91
Conducted Power (Watts)	0.1531	0.1574	0.1528	0.1528	0.1432	0.1552	0.1442	0.1567	0.1552
EIRP(dBm)	25.85	25.97	25.84	25.84	25.56	25.91	25.59	25.95	25.91
EIRP(Watts)	0.3846	0.3954	0.3837	0.3837	0.3597	0.3899	0.3622	0.3936	0.3899

LTE Band 7 (GT - LC = 4.00 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	20.43	20.66	20.74
Conducted Power (Watts)	0.1104	0.1164	0.1186
EIRP(dBm)	24.43	24.66	24.74
EIRP(Watts)	0.2773	0.2924	0.2979

LTE Band 7 (GT - LC = 4.00 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)	20.52	20.46	20.61	20.46	20.69	20.47	20.61	20.46	20.38
Conducted Power (Watts)	0.1127	0.1112	0.1151	0.1112	0.1172	0.1114	0.1151	0.1112	0.1091
EIRP(dBm)	24.52	24.46	24.61	24.46	24.69	24.47	24.61	24.46	24.38
EIRP(Watts)	0.2831	0.2793	0.2891	0.2793	0.2944	0.2799	0.2891	0.2793	0.2742

LTE Band 12 (GT - LC = 3.00 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)	23.52	23.75	23.89	23.76	23.91	23.74	24.01	23.89	23.87
Conducted Power (Watts)	0.2249	0.2371	0.2449	0.2377	0.2460	0.2366	0.2518	0.2449	0.2438
ERP(dBm)	24.37	24.60	24.74	24.61	24.76	24.59	24.86	24.74	24.72
ERP(Watts)	0.2735	0.2884	0.2979	0.2891	0.2992	0.2877	0.3062	0.2979	0.2965

LTE Band 12 (GT - LC = 3.00 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	24.02	23.97	23.95
Conducted Power (Watts)	0.2523	0.2495	0.2483
ERP(dBm)	24.87	24.82	24.80
ERP(Watts)	0.3069	0.3034	0.3020

LTE Band 12 (GT - LC = 3.00 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)	23.00	23.26	22.65	23.14	23.47	22.76	23.49	23.33	23.22
Conducted Power (Watts)	0.1995	0.2118	0.1841	0.2061	0.2223	0.1888	0.2234	0.2153	0.2099
ERP(dBm)	23.85	24.11	23.50	23.99	24.32	23.61	24.34	24.18	24.07
ERP(Watts)	0.2427	0.2576	0.2239	0.2506	0.2704	0.2296	0.2716	0.2618	0.2553

LTE Band 12 (GT - LC = 3.00 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	23.13	22.92	23.40
Conducted Power (Watts)	0.2056	0.1959	0.2188
ERP(dBm)	23.98	23.77	24.25
ERP(Watts)	0.2500	0.2382	0.2661

LTE Band 12 (GT - LC = 3.00 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)	22.00	21.76	21.88	22.09	22.16	21.93	22.18	21.66	22.07
Conducted Power (Watts)	0.1585	0.1500	0.1542	0.1618	0.1644	0.1560	0.1652	0.1466	0.1611
ERP(dBm)	22.85	22.61	22.73	22.94	23.01	22.78	23.03	22.51	22.92
ERP(Watts)	0.1928	0.1824	0.1875	0.1968	0.2000	0.1897	0.2009	0.1782	0.1959

LTE Band 12 (GT - LC = 3.00 dB) 64QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.14	22.16	21.78
Conducted Power (Watts)	0.1637	0.1644	0.1507
ERP(dBm)	22.99	23.01	22.63
ERP(Watts)	0.1991	0.2000	0.1832

LTE Band 13 (GT - LC = 3.00 dB) QPSK						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency (MHz)	779.5	782	784.5	-	782	-
Conducted Power (dBm)	23.63	23.56	23.48		23.67	-
Conducted Power (Watts)	0.2307	0.2270	0.2228		0.2328	-
ERP(dBm)	24.48	24.41	24.33		24.52	-
ERP(Watts)	0.2805	0.2761	0.2710		0.2831	-

LTE Band 13 (GT - LC = 3.00 dB) 16QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency (MHz)	779.5	782	784.5	-	782	-
Conducted Power (dBm)	22.89	23.01	23.11		22.77	-
Conducted Power (Watts)	0.1945	0.2000	0.2046		0.1892	-
ERP(dBm)	23.74	23.86	23.96		23.62	-
ERP(Watts)	0.2366	0.2432	0.2489		0.2301	-

LTE Band 13 (GT - LC = 3.00 dB) 64QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency (MHz)	779.5	782	784.5	-	782	-
Conducted Power (dBm)	21.90	21.81	21.50		21.70	-
Conducted Power (Watts)	0.1549	0.1517	0.1413		0.1479	-
ERP(dBm)	22.75	22.66	22.35		22.55	-
ERP(Watts)	0.1884	0.1845	0.1718		0.1799	-

LTE Band 41 (G_T - L_C = 4.00 dB) QPSK									
Bandwidth	**5M**			**10M**			**15M**		
Channel	**39675**	**40620**	**41565**	**39700**	**40620**	**41540**	**39725**	**40620**	**41515**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**2498.5**	**2593**	**2687.5**	**2501**	**2593**	**2685**	**2503.5**	**2593**	**2682.5**
Conducted Power (dBm)	26.05	26.34	26.38	26.04	26.34	26.37	26.13	26.38	26.37
Conducted Power (Watts)	0.4027	0.4305	0.4345	0.4018	0.4305	0.4335	0.4102	0.4345	0.4335
EIRP(dBm)	30.05	30.34	30.38	30.04	30.34	30.37	30.13	30.38	30.37
EIRP(Watts)	1.0116	1.0814	1.0914	1.0093	1.0814	1.0889	1.0304	1.0914	1.0889

LTE Band 41 (G_T - L_C = 4.00 dB) QPSK			
Bandwidth	**20M**		
Channel	**39750**	**40620**	**41490**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2506**	**2593**	**2680**
Conducted Power (dBm)	26.12	26.39	26.40
Conducted Power (Watts)	0.4093	0.4355	0.4365
EIRP(dBm)	30.12	30.39	30.40
EIRP(Watts)	1.0280	1.0940	1.0965

LTE Band 41 (G_T - L_C = 4.00 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	25.23	25.65	25.68	25.30	25.68	25.62	25.26	25.63	25.61
Conducted Power (Watts)	0.3334	0.3673	0.3698	0.3388	0.3698	0.3648	0.3357	0.3656	0.3639
EIRP(dBm)	29.23	29.65	29.68	29.30	29.68	29.62	29.26	29.63	29.61
EIRP(Watts)	0.8375	0.9226	0.9290	0.8511	0.9290	0.9162	0.8433	0.9183	0.9141

LTE Band 41 (G_T - L_C = 4.00 dB) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	25.31	25.63	25.62
Conducted Power (Watts)	0.3396	0.3656	0.3648
EIRP(dBm)	29.31	29.63	29.62
EIRP(Watts)	0.8531	0.9183	0.9162

LTE Band 41 (G_T - L_C = 4.00 dB) 64QAM									
Bandwidth	**5M**			**10M**			**15M**		
Channel	**39675**	**40620**	**41565**	**39700**	**40620**	**41540**	**39725**	**40620**	**41515**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**
Frequency (MHz)	**2498.5**	**2593**	**2687.5**	**2501**	**2593**	**2685**	**2503.5**	**2593**	**2682.5**
Conducted Power (dBm)	24.17	24.53	24.57	24.14	24.48	24.54	24.18	24.52	24.50
Conducted Power (Watts)	0.2612	0.2838	0.2864	0.2594	0.2805	0.2844	0.2618	0.2831	0.2818
EIRP(dBm)	28.17	28.53	28.57	28.14	28.48	28.54	28.18	28.52	28.50
EIRP(Watts)	0.6561	0.7129	0.7194	0.6516	0.7047	0.7145	0.6577	0.7112	0.7079

LTE Band 41 (G_T - L_C = 4.00 dB) 64QAM			
Bandwidth	**20M**		
Channel	**39750**	**40620**	**41490**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2506**	**2593**	**2680**
Conducted Power (dBm)	24.21	24.51	24.51
Conducted Power (Watts)	0.2636	0.2825	0.2825
EIRP(dBm)	28.21	28.51	28.51
EIRP(Watts)	0.6622	0.7096	0.7096

LTE Band 71 (GT - LC = 3.00 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	23.34	23.42	23.33	23.32	23.46	23.35	23.39	23.30	23.29
Conducted Power (Watts)	0.2158	0.2198	0.2153	0.2148	0.2218	0.2163	0.2183	0.2138	0.2133
ERP(dBm)	24.19	24.27	24.18	24.17	24.31	24.20	24.24	24.15	24.14
ERP(Watts)	0.2624	0.2673	0.2618	0.2612	0.2698	0.2630	0.2655	0.2600	0.2594

LTE Band 71 (GT - LC = 3.00 dB) QPSK			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	23.78	23.81	23.73
Conducted Power (Watts)	0.2388	0.2404	0.2360
ERP(dBm)	24.63	24.66	24.58
ERP(Watts)	0.2904	0.2924	0.2871

LTE Band 71 (GT - LC = 3.00 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	23.72	23.71	23.50	23.75	23.62	23.51	23.64	23.68	23.72
Conducted Power (Watts)	0.2355	0.2350	0.2239	0.2371	0.2301	0.2244	0.2312	0.2333	0.2355
ERP(dBm)	24.57	24.56	24.35	24.60	24.47	24.36	24.49	24.53	24.57
ERP(Watts)	0.2864	0.2858	0.2723	0.2884	0.2799	0.2729	0.2812	0.2838	0.2864

LTE Band 71 (GT - LC = 3.00 dB) 16QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	23.80	23.57	23.64
Conducted Power (Watts)	0.2399	0.2275	0.2312
ERP(dBm)	24.65	24.42	24.49
ERP(Watts)	0.2917	0.2767	0.2812

LTE Band 71 (GT - LC = 3.00 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	23.47	23.58	23.42	23.54	23.60	23.43	23.52	23.50	23.45
Conducted Power (Watts)	0.2223	0.2280	0.2198	0.2259	0.2291	0.2203	0.2249	0.2239	0.2213
ERP(dBm)	24.32	24.43	24.27	24.39	24.45	24.28	24.37	24.35	24.30
ERP(Watts)	0.2704	0.2773	0.2673	0.2748	0.2786	0.2679	0.2735	0.2723	0.2692

LTE Band 71 (GT - LC = 3.00 dB) 64QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	23.55	23.44	23.44
Conducted Power (Watts)	0.2265	0.2208	0.2208
ERP(dBm)	24.40	24.29	24.29
ERP(Watts)	0.2754	0.2685	0.2685

CA EIRP

LTE Band 7 CA (GT - LC = 4.00 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)	21.58	21.53	21.31	18.78	18.83	18.55	21.74	21.53	21.49
Conducted Power (Watts)	0.1439	0.1422	0.1352	0.0755	0.0764	0.0716	0.1493	0.1422	0.1409
EIRP(dBm)	25.58	25.53	25.31	22.78	22.83	22.55	25.74	25.53	25.49
EIRP(Watts)	0.3614	0.3573	0.3396	0.1897	0.1919	0.1799	0.3750	0.3573	0.3540

LTE Band 7 CA (GT - LC = 4.00 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)	21.71	21.48	21.38	21.74	21.61	21.50	21.64	21.59	21.51
Conducted Power (Watts)	0.1483	0.1406	0.1374	0.1493	0.1449	0.1413	0.1459	0.1442	0.1416
EIRP(dBm)	25.71	25.48	25.38	25.74	25.61	25.50	25.64	25.59	25.51
EIRP(Watts)	0.3724	0.3532	0.3451	0.3750	0.3639	0.3548	0.3664	0.3622	0.3556

LTE Band 7 CA (GT - LC = 4.00 dB) QPSK			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.64	21.42	21.37
Conducted Power (Watts)	0.1459	0.1387	0.1371
EIRP(dBm)	25.64	25.42	25.37
EIRP(Watts)	0.3664	0.3483	0.3443

LTE Band 7 CA (GT - LC = 4.00 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)	21.11	21.04	21.00	21.17	21.04	21.05	21.12	21.03	21.11
Conducted Power (Watts)	0.1291	0.1271	0.1259	0.1309	0.1271	0.1274	0.1294	0.1268	0.1291
EIRP(dBm)	25.11	25.04	25.00	25.17	25.04	25.05	25.12	25.03	25.11
EIRP(Watts)	0.3243	0.3192	0.3162	0.3289	0.3192	0.3199	0.3251	0.3184	0.3243

LTE Band 7 CA (GT - LC = 4.00 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)	21.03	20.92	21.06	21.17	21.06	21.14	21.28	21.12	21.04
Conducted Power (Watts)	0.1268	0.1236	0.1276	0.1309	0.1276	0.1300	0.1343	0.1294	0.1271
EIRP(dBm)	25.03	24.92	25.06	25.17	25.06	25.14	25.28	25.12	25.04
EIRP(Watts)	0.3184	0.3105	0.3206	0.3289	0.3206	0.3266	0.3373	0.3251	0.3192

LTE Band 7 CA (GT - LC = 4.00 dB) 16QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.01	21.06	21.07
Conducted Power (Watts)	0.1262	0.1276	0.1279
EIRP(dBm)	25.01	25.06	25.07
EIRP(Watts)	0.3170	0.3206	0.3214

LTE Band 7 CA (GT - LC = 4.00 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)	18.67	18.85	18.63	21.62	21.42	21.44	18.71	18.67	18.67
Conducted Power (Watts)	0.0736	0.0767	0.0729	0.1452	0.1387	0.1393	0.0743	0.0736	0.0736
EIRP(dBm)	22.67	22.85	22.63	25.62	25.42	25.44	22.71	22.67	22.67
EIRP(Watts)	0.1849	0.1928	0.1832	0.3648	0.3483	0.3499	0.1866	0.1849	0.1849

LTE Band 7 CA (GT - LC = 4.00 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)	18.77	18.87	18.68	18.86	18.87	18.71	19.00	18.93	18.86
Conducted Power (Watts)	0.0753	0.0771	0.0738	0.0769	0.0771	0.0743	0.0794	0.0782	0.0769
EIRP(dBm)	22.77	22.87	22.68	22.86	22.87	22.71	23.00	22.93	22.86
EIRP(Watts)	0.1892	0.1936	0.1854	0.1932	0.1936	0.1866	0.1995	0.1963	0.1932

LTE Band 7 CA (GT - LC = 4.00 dB) 64QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	18.85	18.83	18.53
Conducted Power (Watts)	0.0767	0.0764	0.0713
EIRP(dBm)	22.85	22.83	22.53
EIRP(Watts)	0.1928	0.1919	0.1791

LTE Band 41 CA (GT - LC = 4.00 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)	21.69	21.55	21.84	21.73	21.50	21.83	21.76	21.60	21.75
Conducted Power (Watts)	0.1476	0.1429	0.1528	0.1489	0.1413	0.1524	0.1500	0.1445	0.1496
EIRP(dBm)	25.69	25.55	25.84	25.73	25.50	25.83	25.76	25.60	25.75
EIRP(Watts)	0.3707	0.3589	0.3837	0.3741	0.3548	0.3828	0.3767	0.3631	0.3758

LTE Band 41 CA (GT - LC = 4.00 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)	21.84	21.49	21.87	21.76	21.56	21.82	21.76	21.56	21.75
Conducted Power (Watts)	0.1528	0.1409	0.1538	0.1500	0.1432	0.1521	0.1500	0.1432	0.1496
EIRP(dBm)	25.84	25.49	25.87	25.76	25.56	25.82	25.76	25.56	25.75
EIRP(Watts)	0.3837	0.3540	0.3864	0.3767	0.3597	0.3819	0.3767	0.3597	0.3758

LTE Band 41 CA (GT - LC = 4.00 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)	21.89	21.61	21.90	21.82	21.59	21.73
Conducted Power (Watts)	0.1545	0.1449	0.1549	0.1521	0.1442	0.1489
EIRP(dBm)	25.89	25.61	25.90	25.82	25.59	25.73
EIRP(Watts)	0.3882	0.3639	0.3890	0.3819	0.3622	0.3741

LTE Band 41 CA (GT - LC = 4.00 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)	21.83	21.50	21.71	21.80	21.60	21.82
Conducted Power (Watts)	0.1524	0.1413	0.1483	0.1514	0.1445	0.1521
EIRP(dBm)	25.83	25.50	25.71	25.80	25.60	25.82
EIRP(Watts)	0.3828	0.3548	0.3724	0.3802	0.3631	0.3819

LTE Band 41 CA (GT - LC = 4.00 dB) 16QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.78	20.49	20.89	20.87	20.53	20.78	20.73	20.51	20.79
Conducted Power (Watts)	0.1197	0.1119	0.1227	0.1222	0.1130	0.1197	0.1183	0.1125	0.1199
EIRP(dBm)	24.78	24.49	24.89	24.87	24.53	24.78	24.73	24.51	24.79
EIRP(Watts)	0.3006	0.2812	0.3083	0.3069	0.2838	0.3006	0.2972	0.2825	0.3013

LTE Band 41 CA (GT - LC = 4.00 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)	21.83	21.50	21.71	20.86	20.63	20.80	20.88	20.50	20.79
Conducted Power (Watts)	0.1524	0.1413	0.1483	0.1219	0.1156	0.1202	0.1225	0.1122	0.1199
EIRP(dBm)	25.83	25.50	25.71	24.86	24.63	24.80	24.88	24.50	24.79
EIRP(Watts)	0.3828	0.3548	0.3724	0.3062	0.2904	0.3020	0.3076	0.2818	0.3013

LTE Band 41 CA (GT - LC = 4.00 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)	20.92	20.68	20.93	20.81	20.64	20.74
Conducted Power (Watts)	0.1236	0.1169	0.1239	0.1205	0.1159	0.1186
EIRP(dBm)	24.92	24.68	24.93	24.81	24.64	24.74
EIRP(Watts)	0.3105	0.2938	0.3112	0.3027	0.2911	0.2979

LTE Band 41 CA (GT - LC = 4.00 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)	20.78	20.50	20.82	20.85	20.49	20.93
Conducted Power (Watts)	0.1197	0.1122	0.1208	0.1216	0.1119	0.1239
EIRP(dBm)	24.78	24.50	24.82	24.85	24.49	24.93
EIRP(Watts)	0.3006	0.2818	0.3034	0.3055	0.2812	0.3112

LTE Band 41 CA (GT - LC = 4.00 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)	19.01	18.84	18.90	18.99	18.79	19.02	19.03	18.80	18.87
Conducted Power (Watts)	0.0796	0.0766	0.0776	0.0793	0.0757	0.0798	0.0800	0.0759	0.0771
EIRP(dBm)	23.01	22.84	22.90	22.99	22.79	23.02	23.03	22.80	22.87
EIRP(Watts)	0.2000	0.1923	0.1950	0.1991	0.1901	0.2004	0.2009	0.1905	0.1936

LTE Band 41 CA (GT - LC = 4.00 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)	19.05	20.54	18.79	18.91	18.80	18.92	18.95	18.66	18.87
Conducted Power (Watts)	0.0804	0.1132	0.0757	0.0778	0.0759	0.0780	0.0785	0.0735	0.0771
EIRP(dBm)	23.05	24.54	22.79	22.91	22.80	22.92	22.95	22.66	22.87
EIRP(Watts)	0.2018	0.2844	0.1901	0.1954	0.1905	0.1959	0.1972	0.1845	0.1936

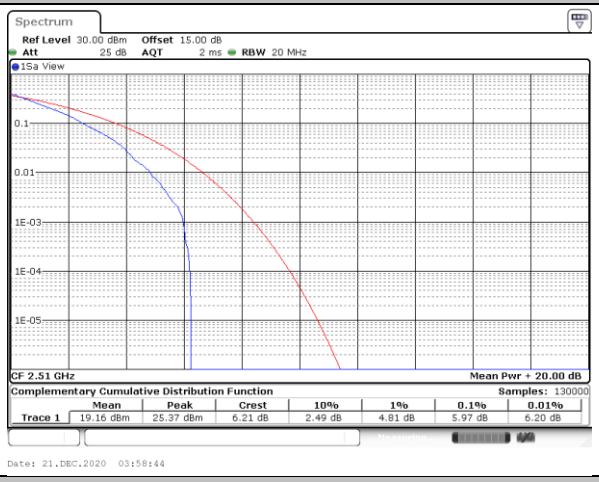
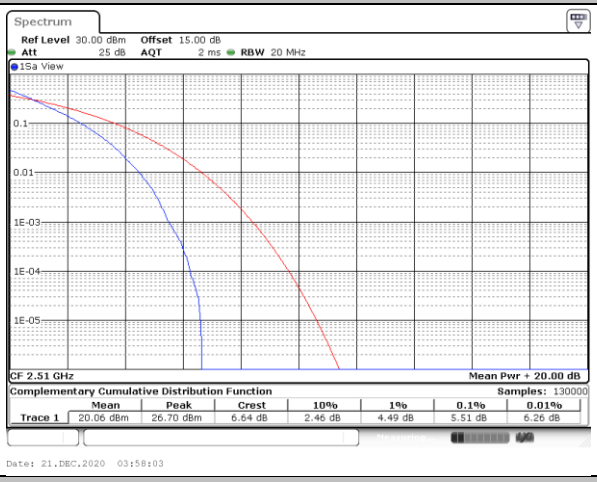
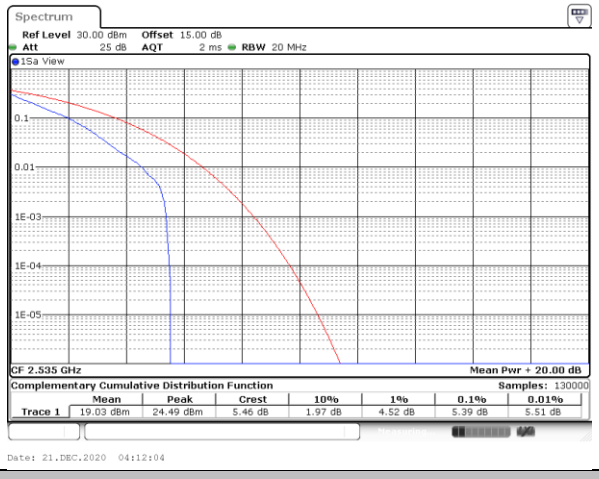
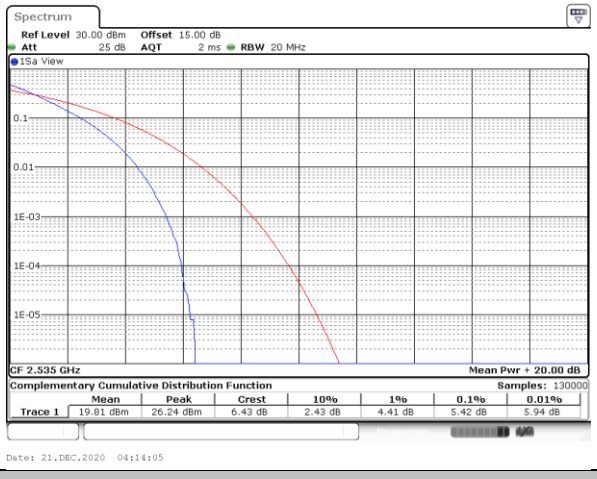
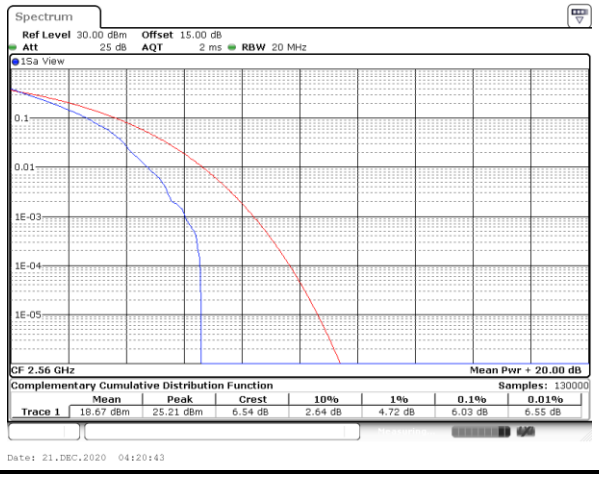
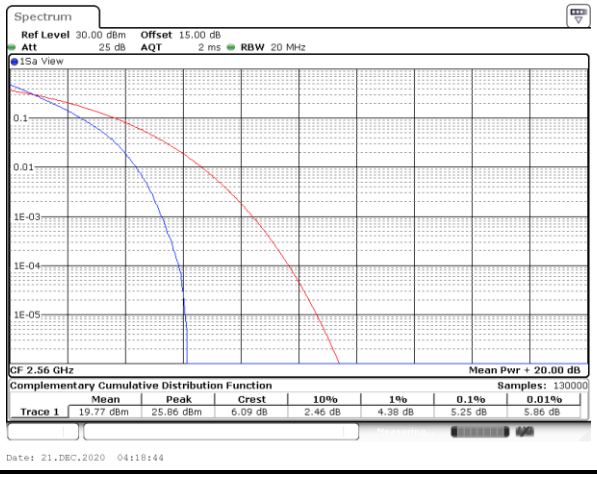
LTE Band 41 CA (GT - LC = 4.00 dB) 64QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.11	18.85	19.05	18.99	18.82	19.02
Conducted Power (Watts)	0.0815	0.0767	0.0804	0.0793	0.0762	0.0798
EIRP(dBm)	23.11	22.85	23.05	22.99	22.82	23.02
EIRP(Watts)	0.2046	0.1928	0.2018	0.1991	0.1914	0.2004

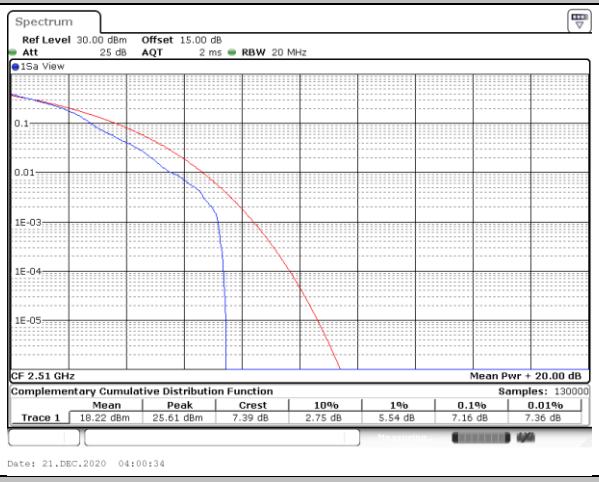
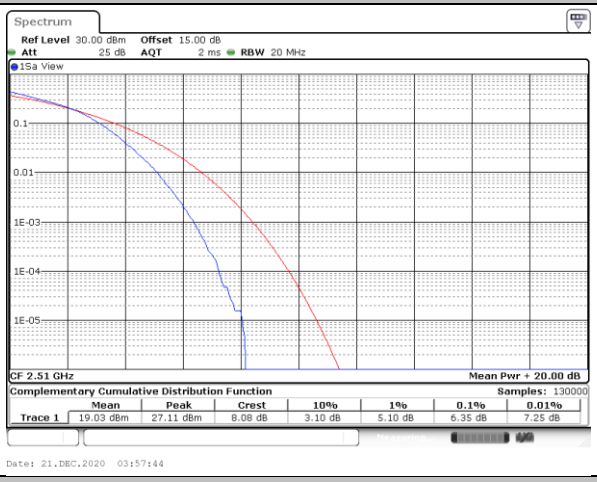
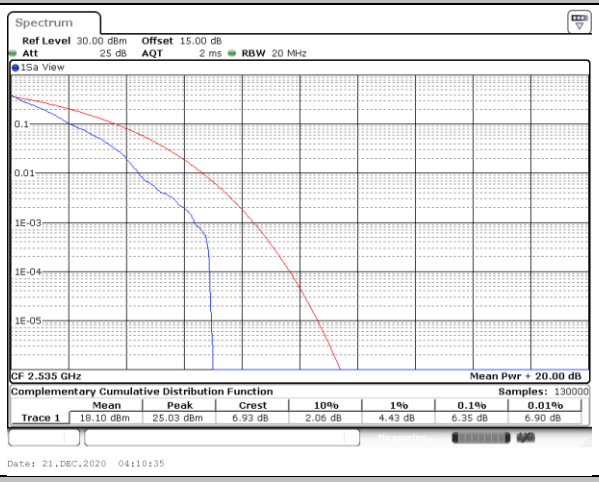
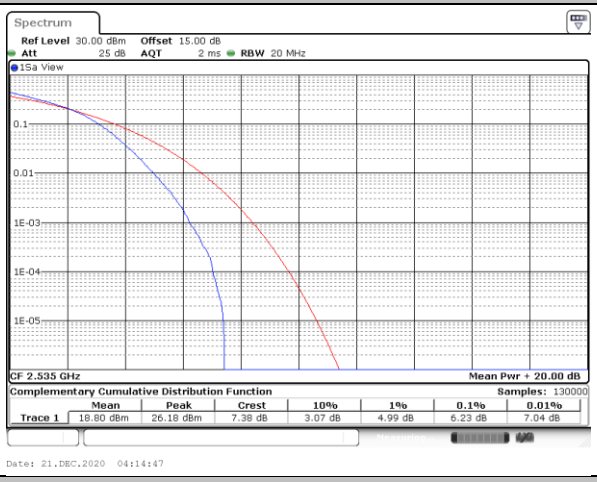
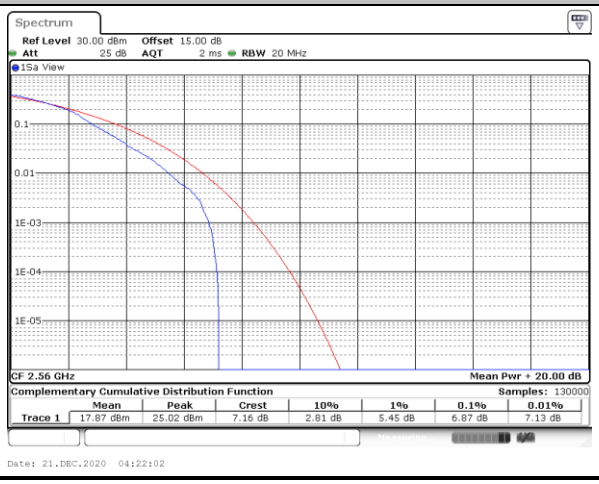
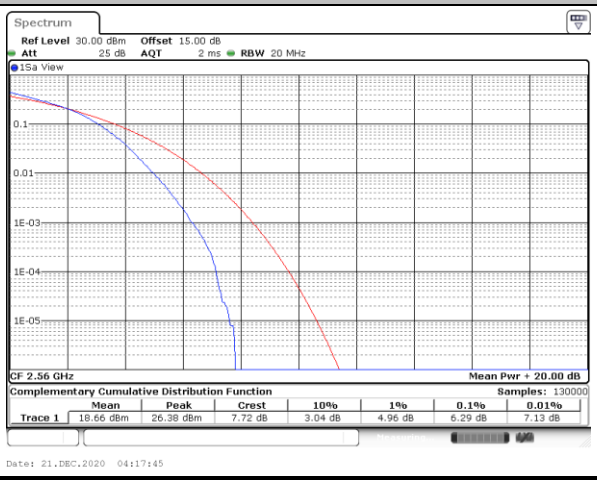
LTE Band 41 CA (GT - LC = 4.00 dB) 64QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.02	18.83	18.91	19.02	18.73	19.03
Conducted Power (Watts)	0.0798	0.0764	0.0778	0.0798	0.0746	0.0800
EIRP(dBm)	23.02	22.83	22.91	23.02	22.73	23.03
EIRP(Watts)	0.2004	0.1919	0.1954	0.2004	0.1875	0.2009

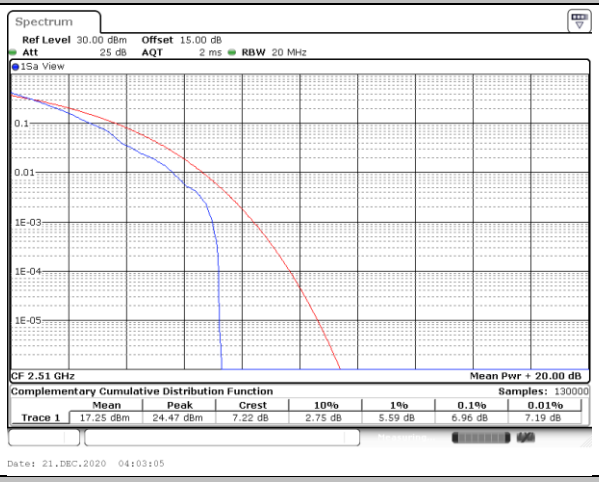
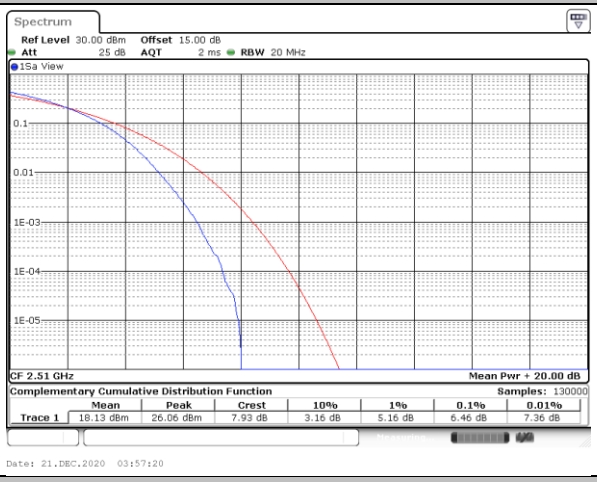
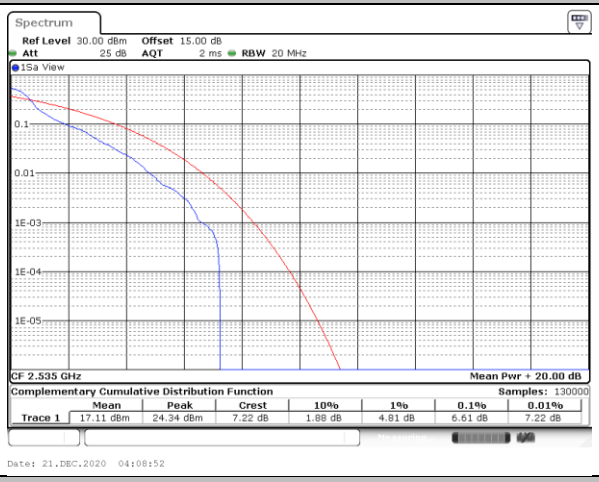
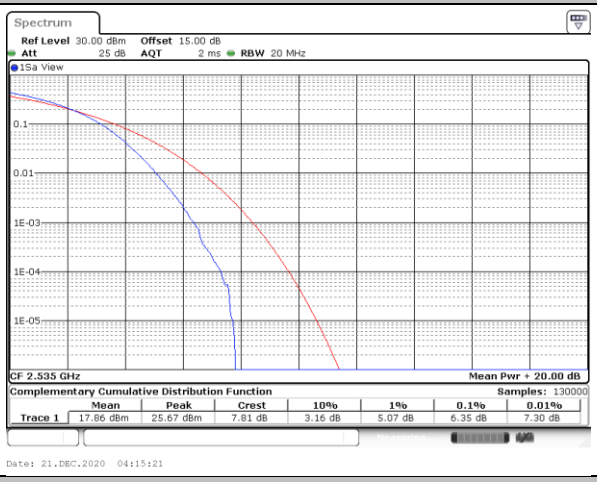
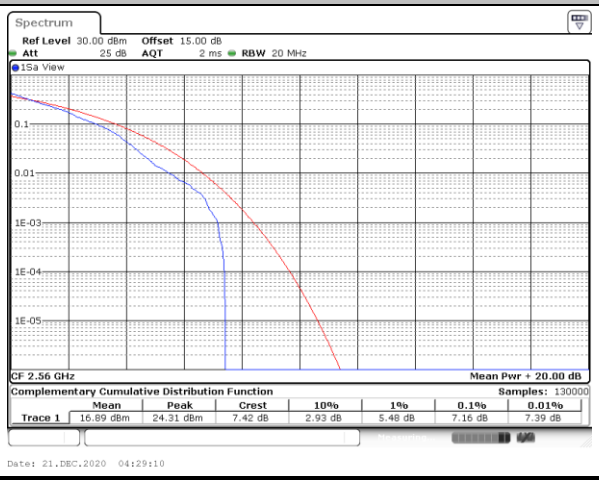
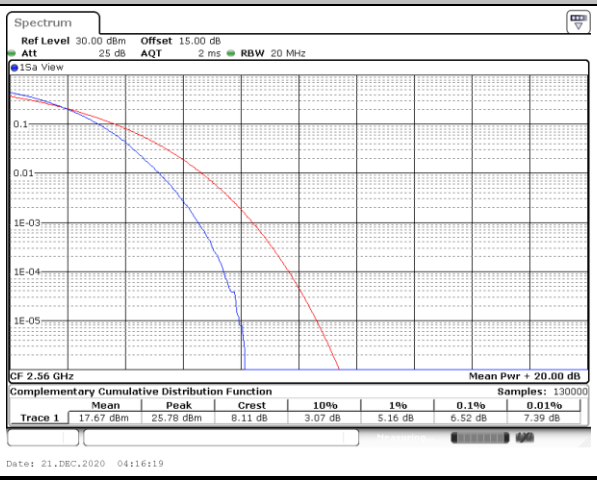
LTE Band 7

Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.97	5.51	7.16	6.35	PASS
Middle CH	5.39	5.42	6.35	6.23	
Highest CH	6.03	5.25	6.87	6.29	
Mode	LTE Band 7 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.96	6.46	-	-	PASS
Middle CH	6.61	6.35	-	-	
Highest CH	7.16	6.52	-	-	

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

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

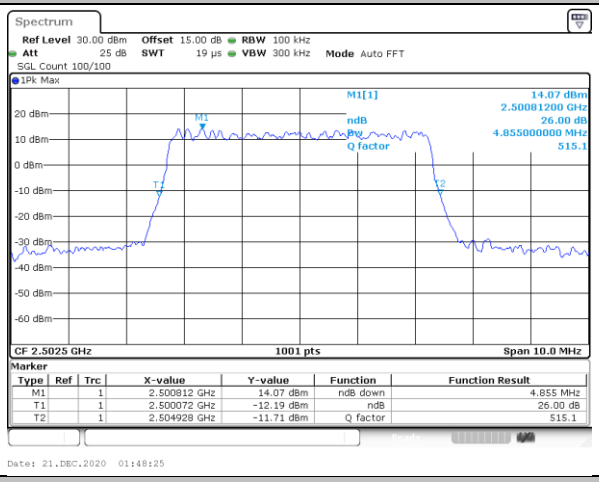
LTE Band 7 / 20MHz / 64QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

26dB Bandwidth

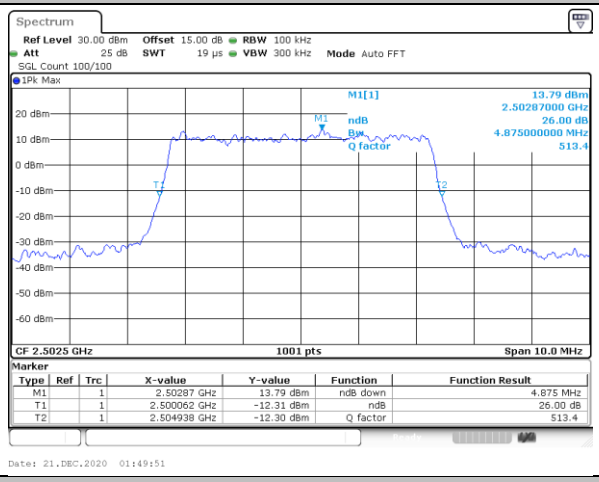
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.86	4.88	9.77	9.59	14.27	14.30	19.02	18.90
Middle CH	-	-	-	-	4.92	4.90	9.79	9.75	14.33	14.39	18.70	18.82
Highest CH	-	-	-	-	4.88	4.98	9.77	9.81	14.30	14.36	19.02	18.74
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.83	-	9.63	-	14.33	-	18.78	-
Middle CH	-	-	-	-	4.91	-	9.83	-	14.39	-	18.86	-
Highest CH	-	-	-	-	4.94	-	9.71	-	14.39	-	18.90	-

LTE Band 7

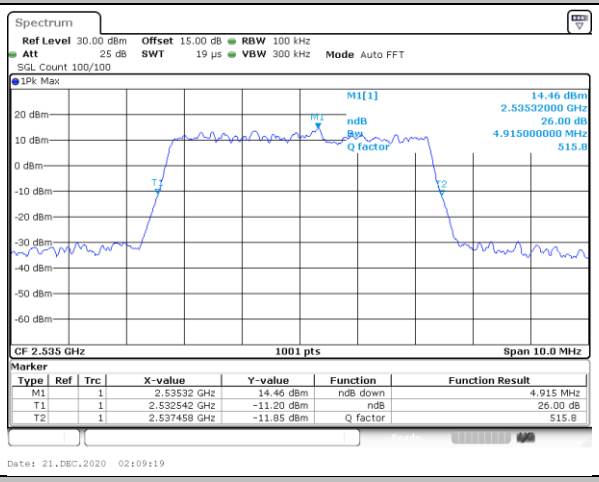
Lowest Channel / 5MHz / QPSK



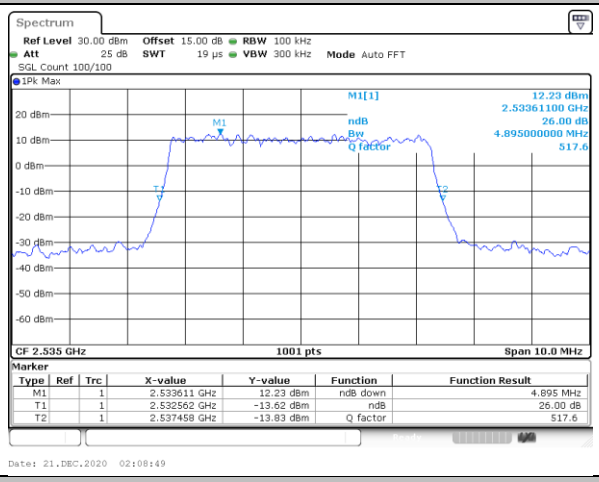
Lowest Channel / 5MHz / 16QAM



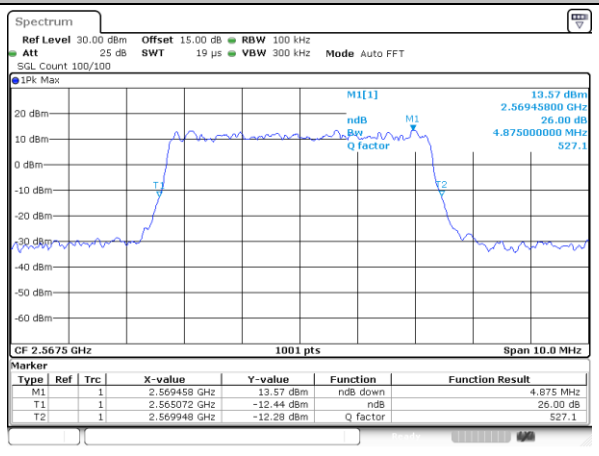
Middle Channel / 5MHz / QPSK



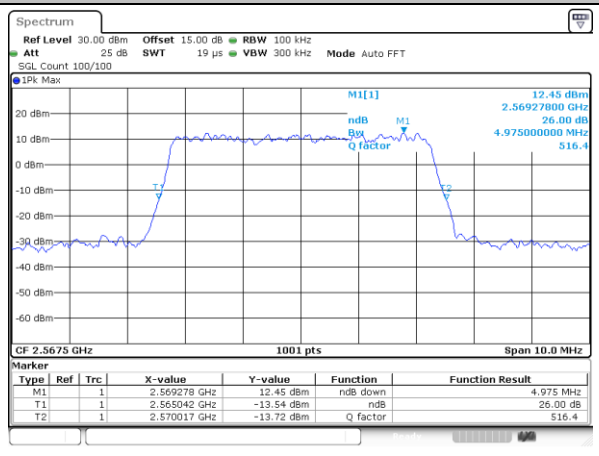
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

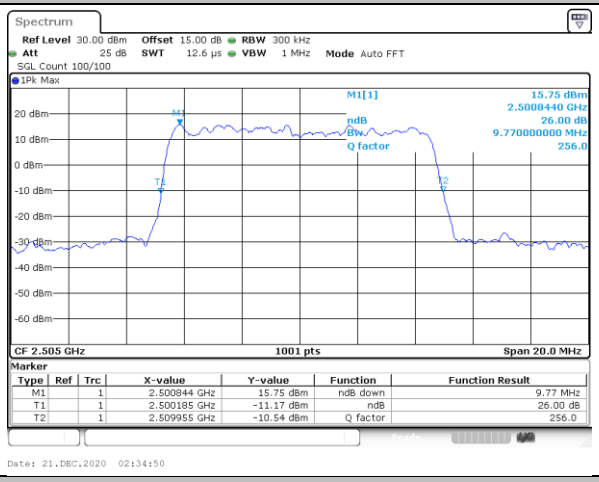


Highest Channel / 5MHz / 16QAM

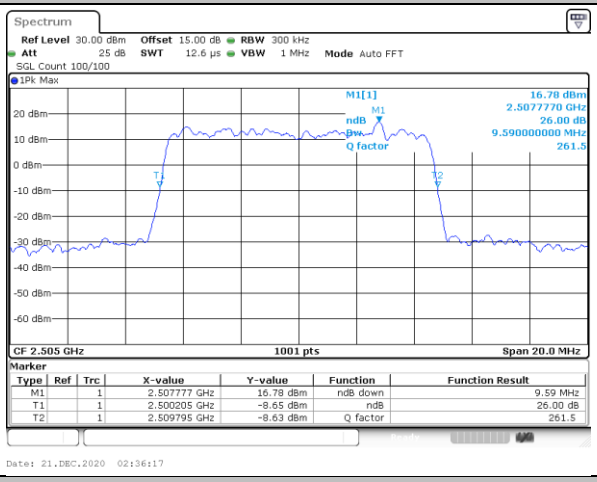


LTE Band 7

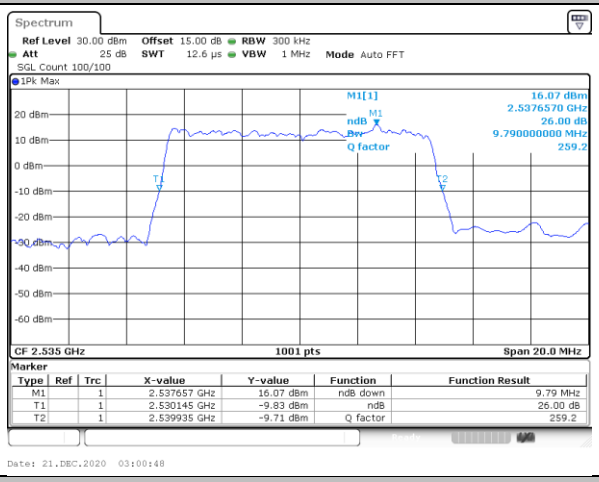
Lowest Channel / 10MHz / QPSK



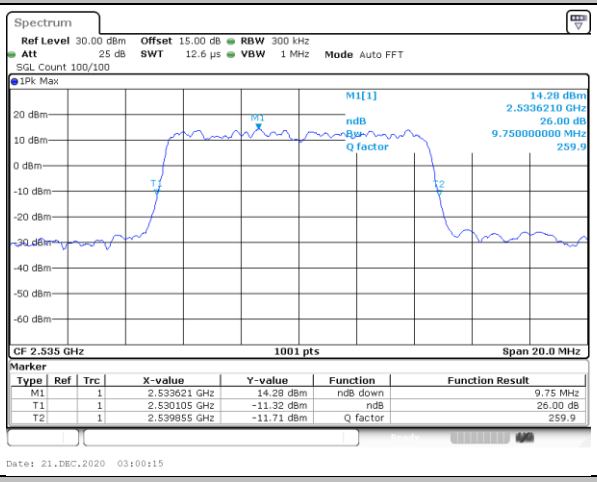
Lowest Channel / 10MHz / 16QAM



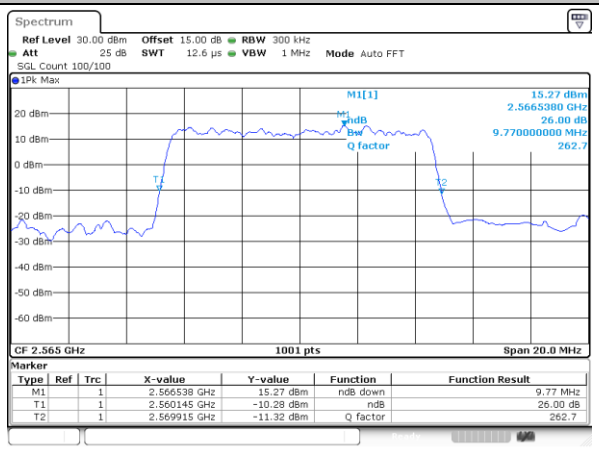
Middle Channel / 10MHz / QPSK



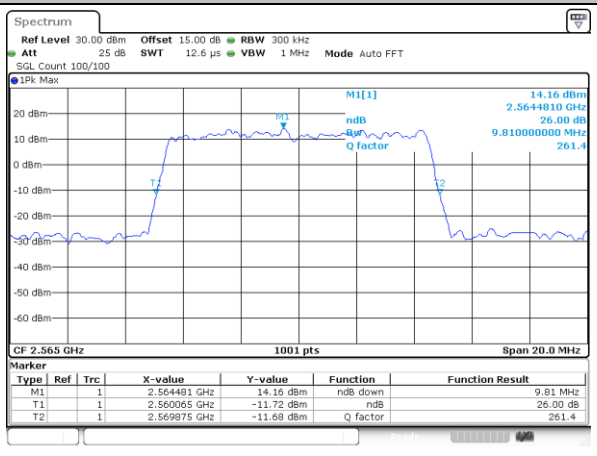
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

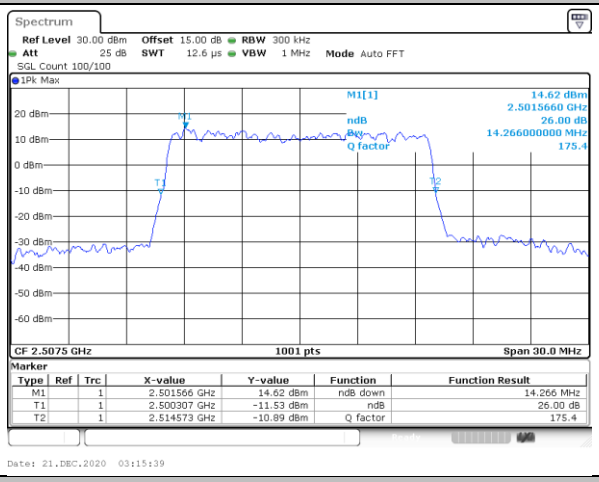


Highest Channel / 10MHz / 16QAM

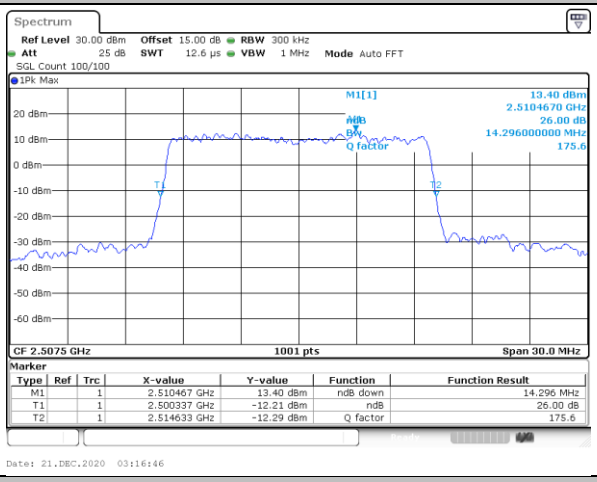


LTE Band 7

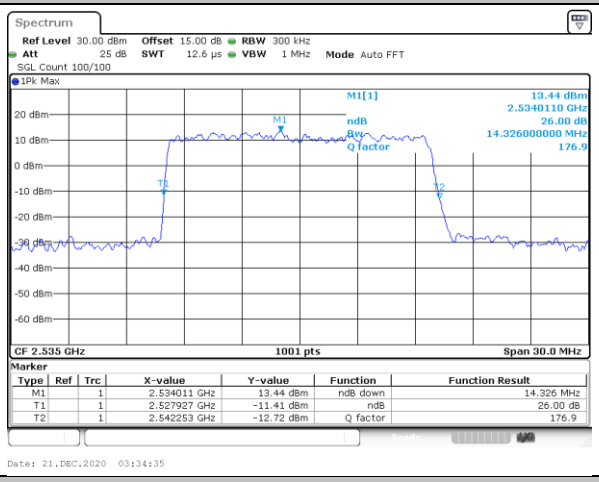
Lowest Channel / 15MHz / QPSK



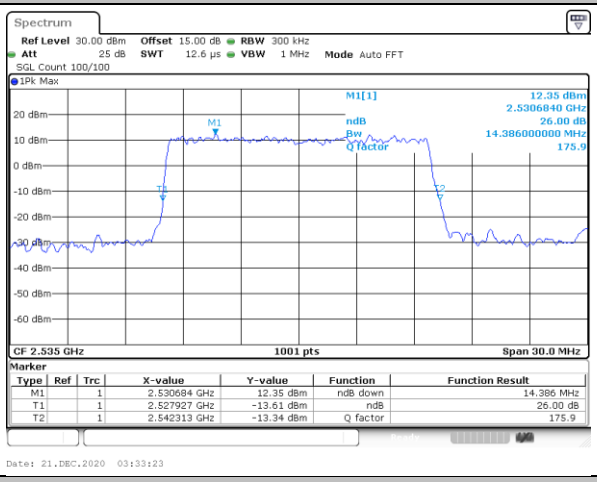
Lowest Channel / 15MHz / 16QAM



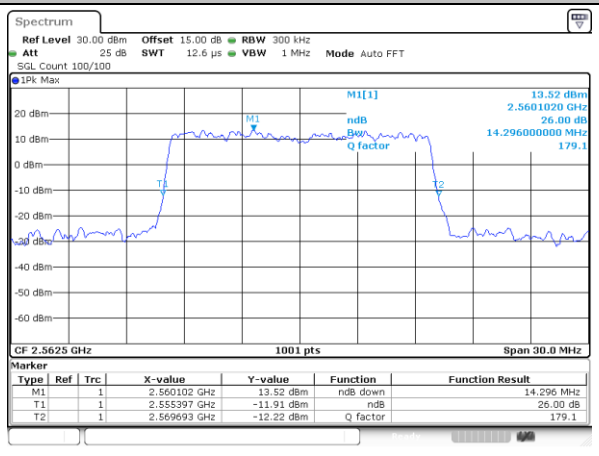
Middle Channel / 15MHz / QPSK



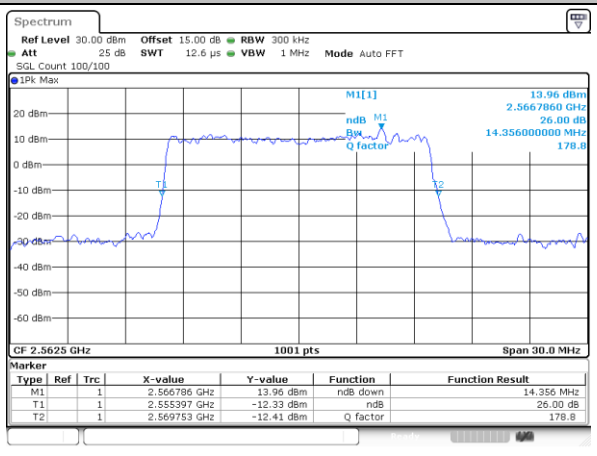
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

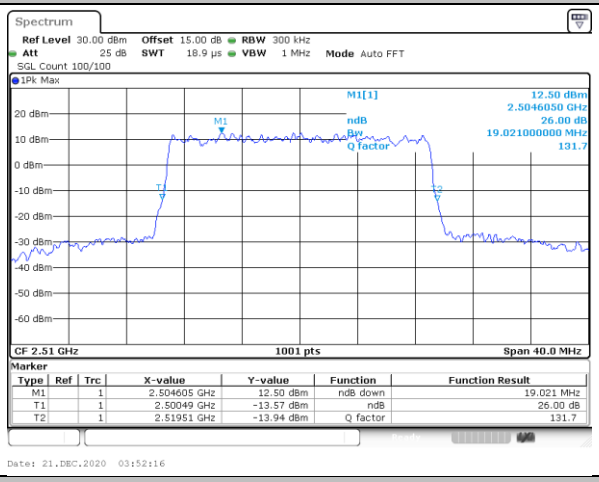


Highest Channel / 15MHz / 16QAM

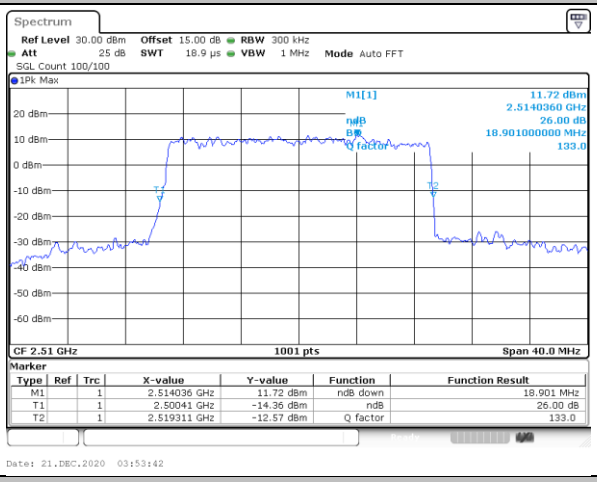


LTE Band 7

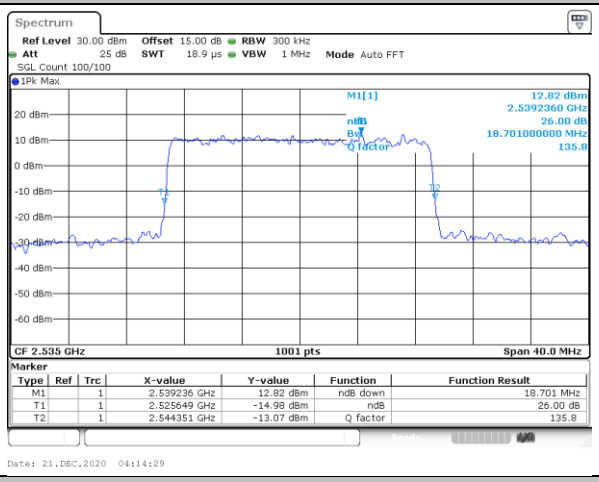
Lowest Channel / 20MHz / QPSK



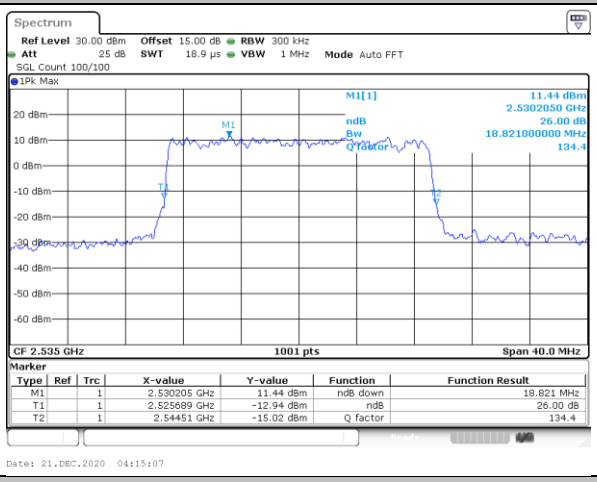
Lowest Channel / 20MHz / 16QAM



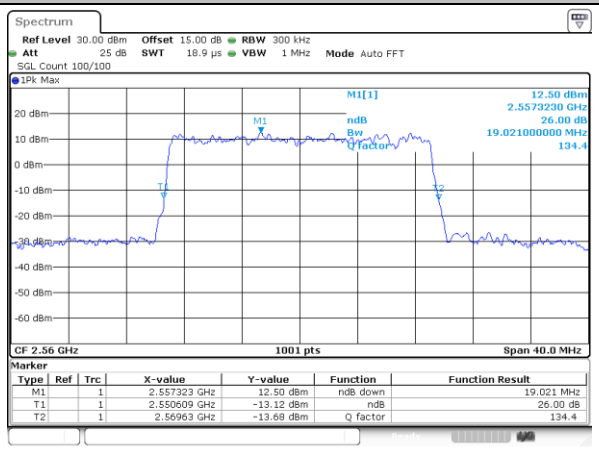
Middle Channel / 20MHz / QPSK



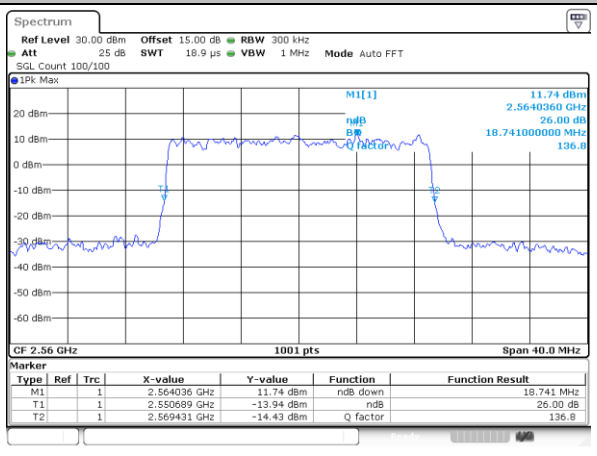
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

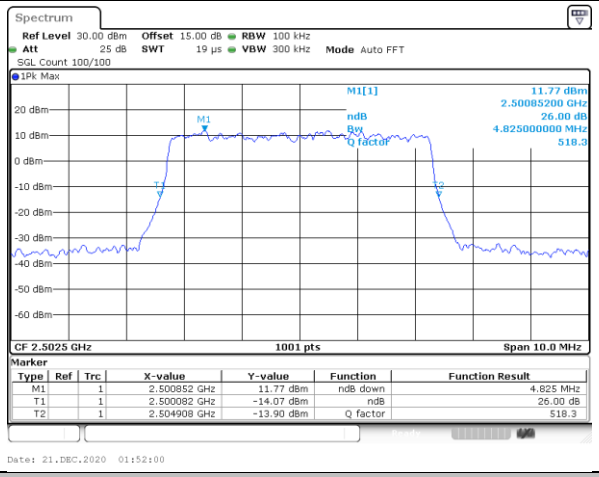


Highest Channel / 20MHz / 16QAM

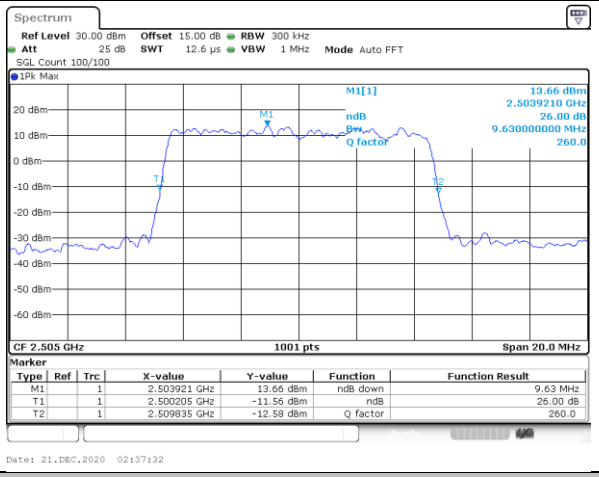


LTE Band 7

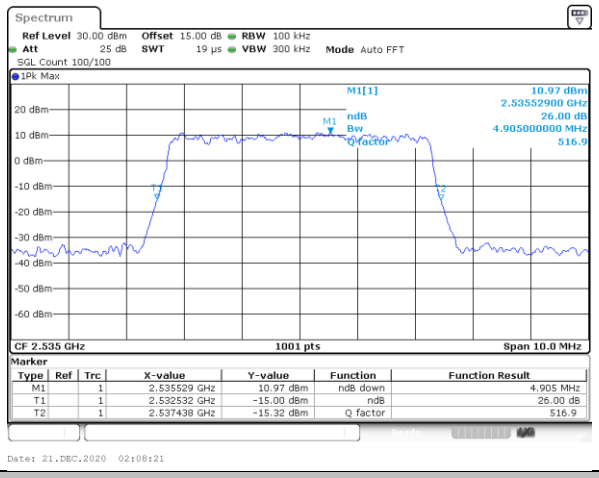
Lowest Channel / 5MHz / 64QAM



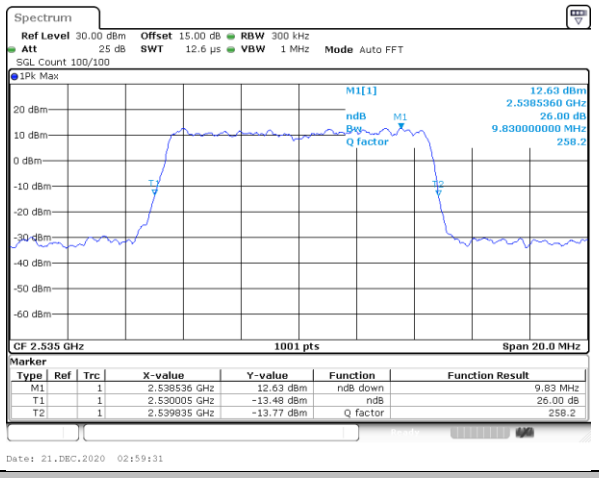
Lowest Channel / 10MHz / 64QAM



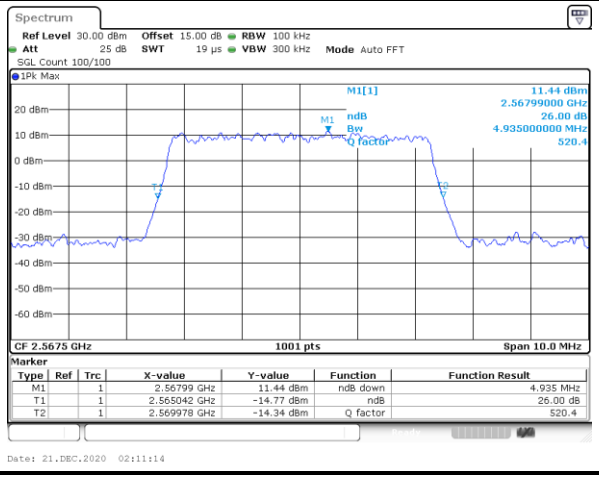
Middle Channel / 5MHz / 64QAM



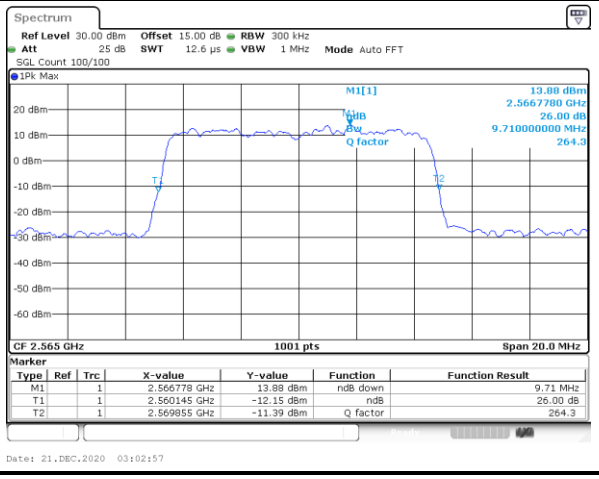
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

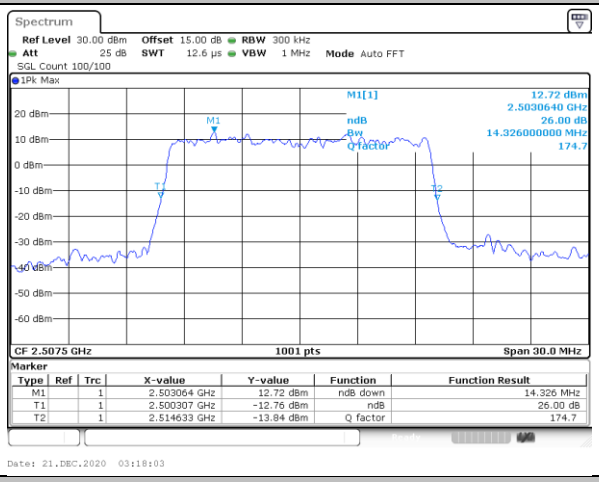


Highest Channel / 10MHz / 64QAM

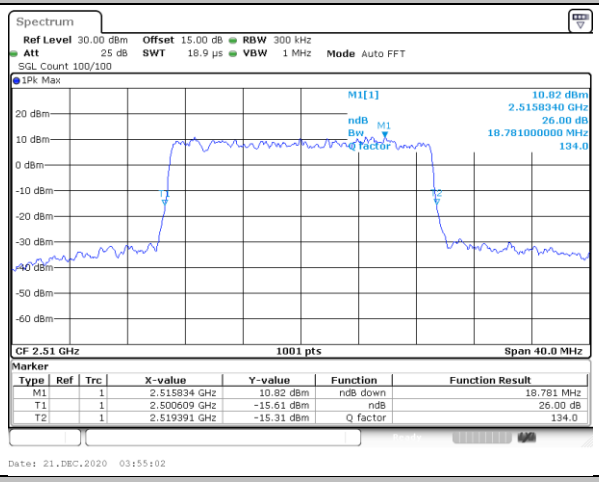


LTE Band 7

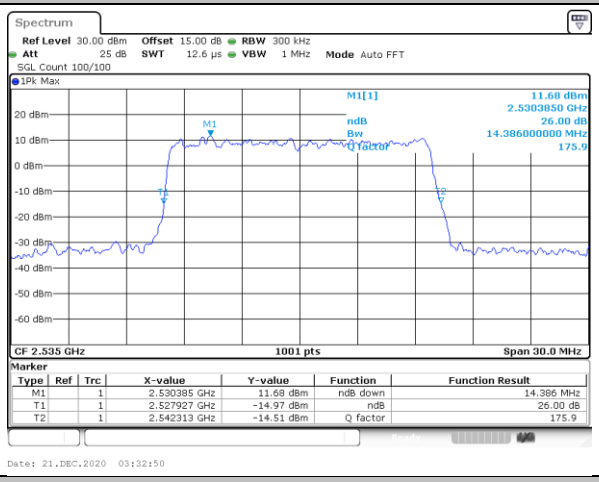
Lowest Channel / 15MHz / 64QAM



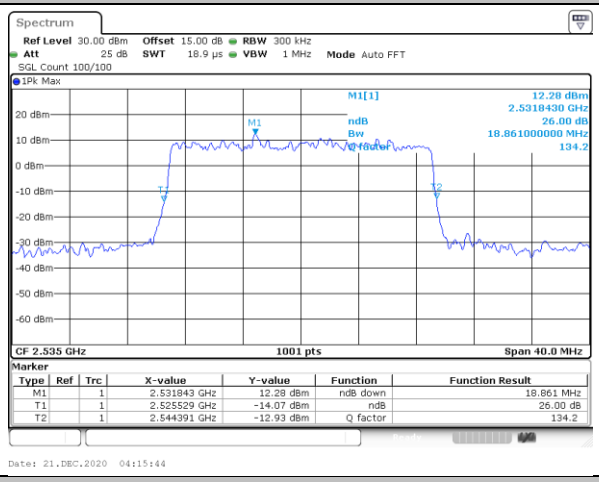
Lowest Channel / 20MHz / 64QAM



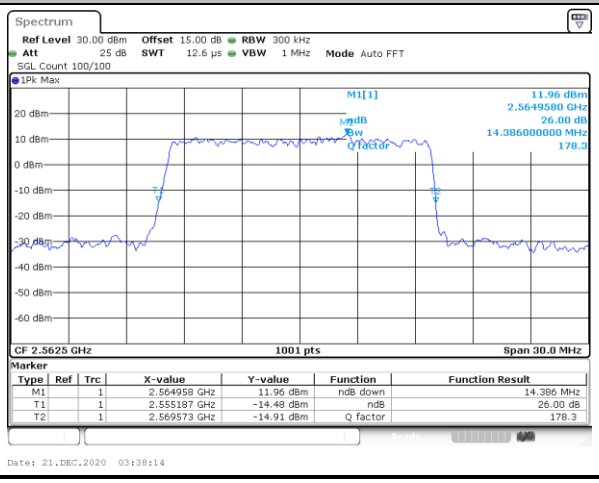
Middle Channel / 15MHz / 64QAM



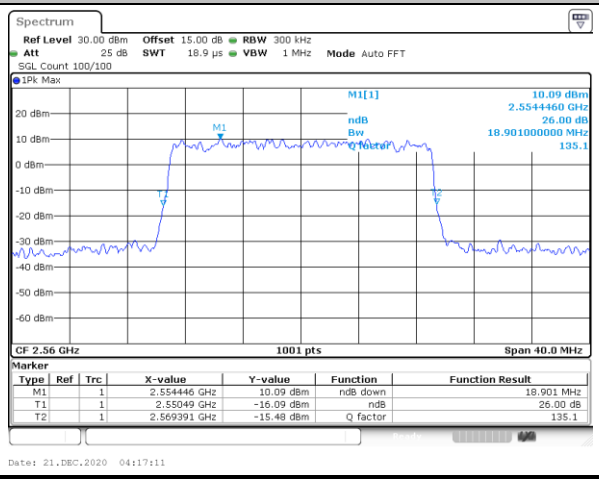
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM



Highest Channel / 20MHz / 64QAM

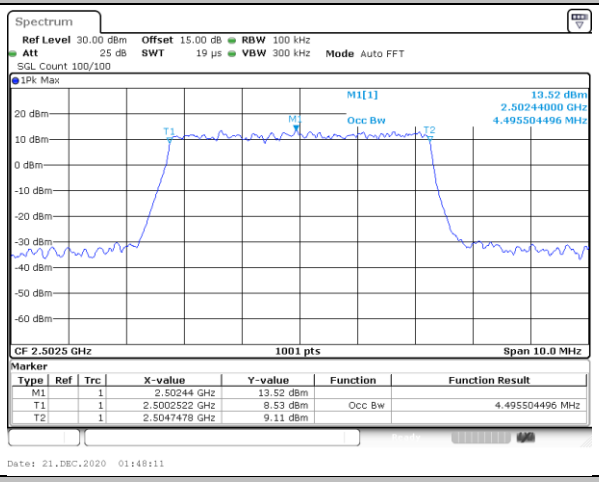


Occupied Bandwidth

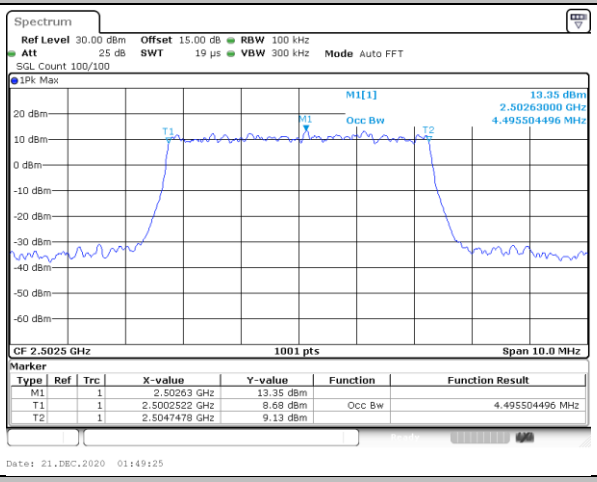
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.50	4.50	9.03	9.07	13.46	13.40	17.90	17.90
Middle CH	-	-	-	-	4.50	4.50	8.99	9.01	13.46	13.40	17.94	17.86
Highest CH	-	-	-	-	4.50	4.48	9.01	9.01	13.46	13.46	17.90	17.90
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.51	-	9.05	-	13.46	-	17.86	-
Middle CH	-	-	-	-	4.49	-	9.03	-	13.43	-	17.94	-
Highest CH	-	-	-	-	4.49	-	9.01	-	13.43	-	17.82	-

LTE Band 7

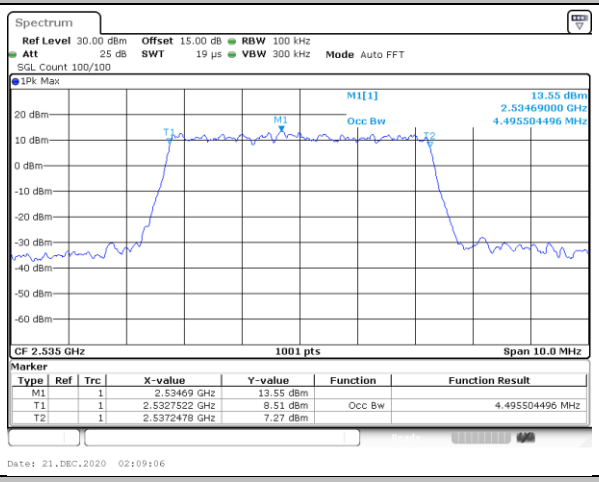
Lowest Channel / 5MHz / QPSK



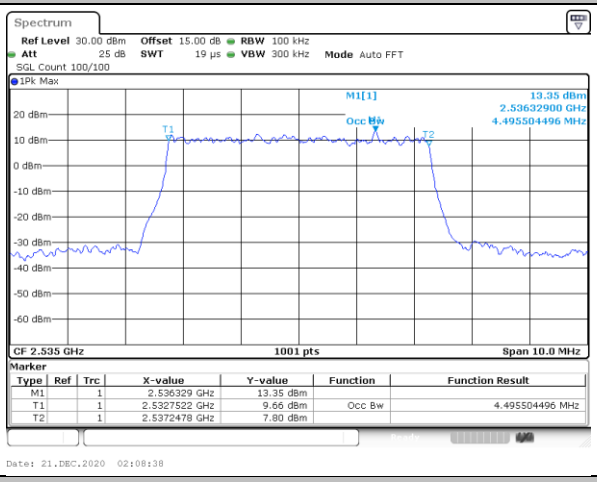
Lowest Channel / 5MHz / 16QAM



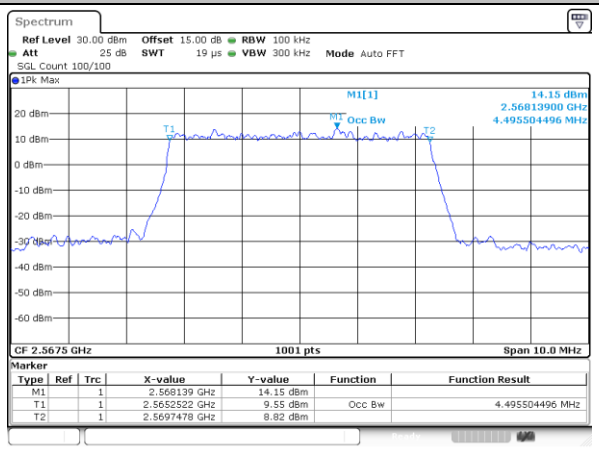
Middle Channel / 5MHz / QPSK



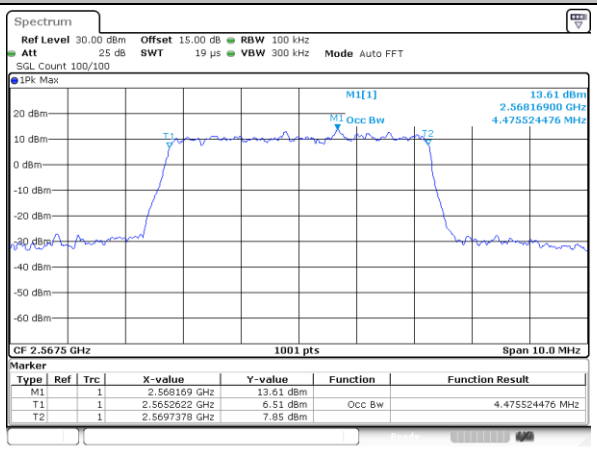
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

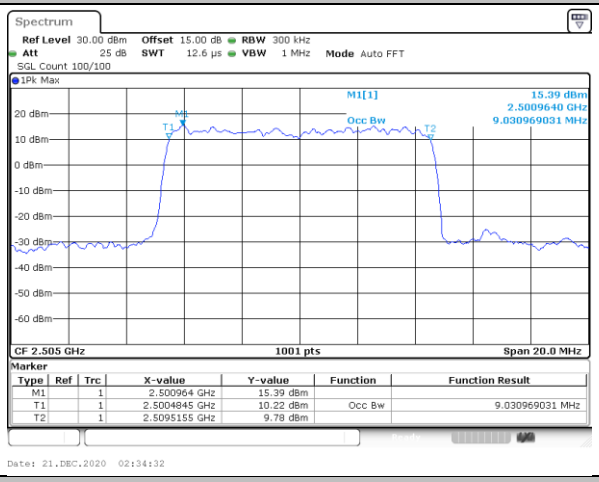


Highest Channel / 5MHz / 16QAM

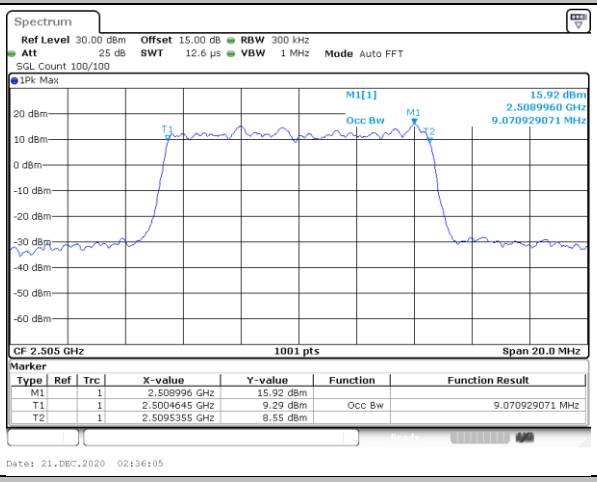


LTE Band 7

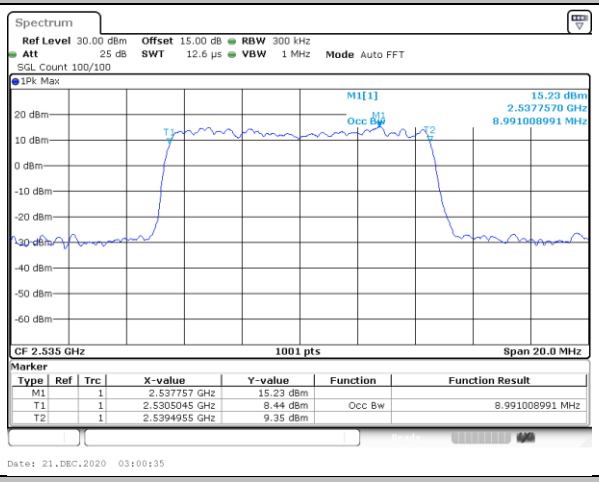
Lowest Channel / 10MHz / QPSK



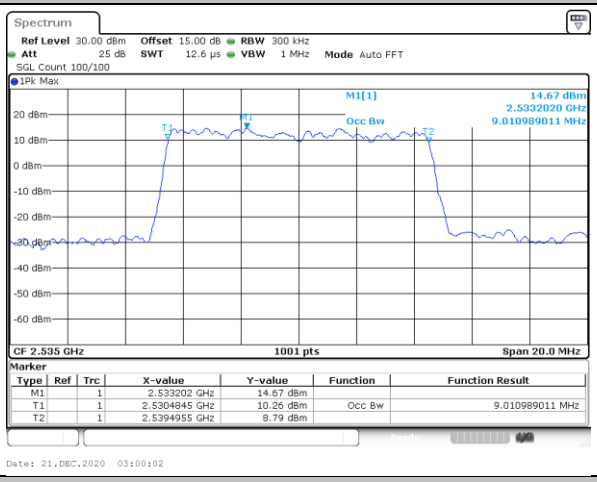
Lowest Channel / 10MHz / 16QAM



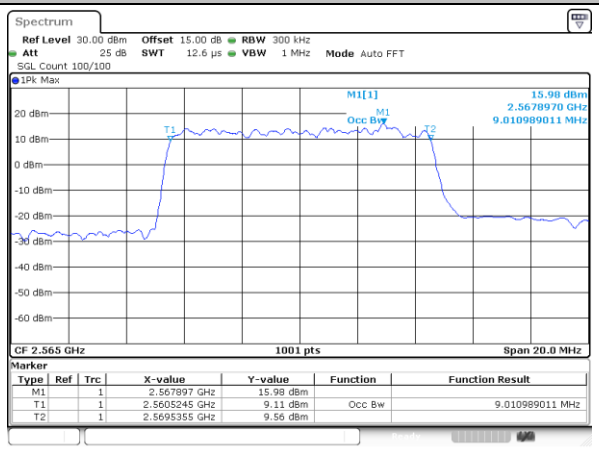
Middle Channel / 10MHz / QPSK



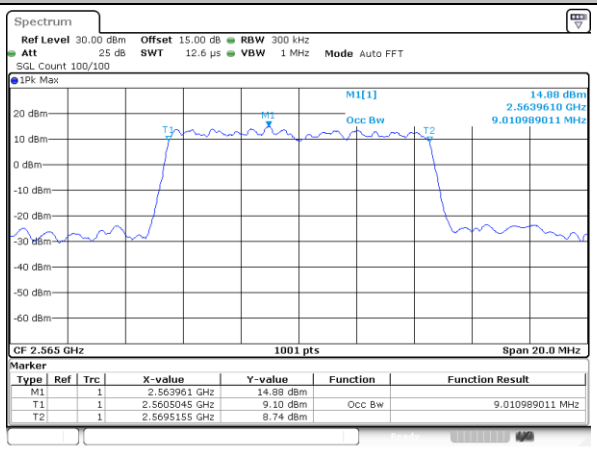
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

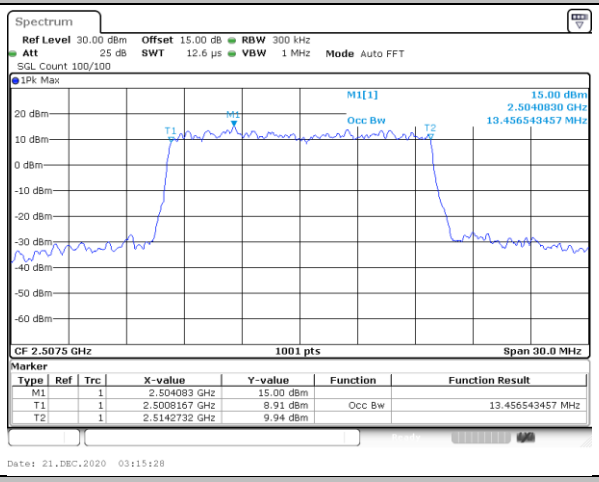


Highest Channel / 10MHz / 16QAM

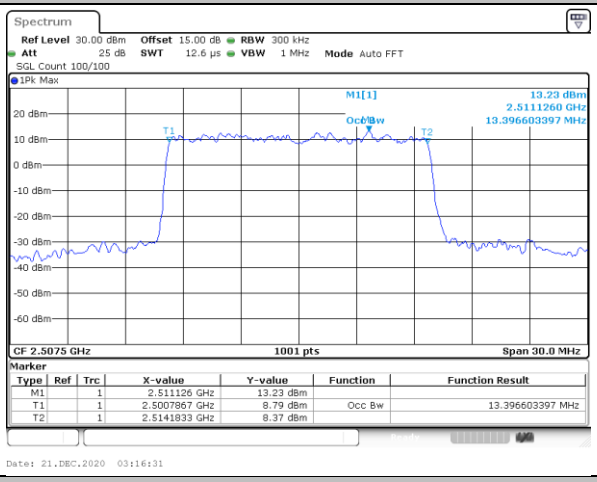


LTE Band 7

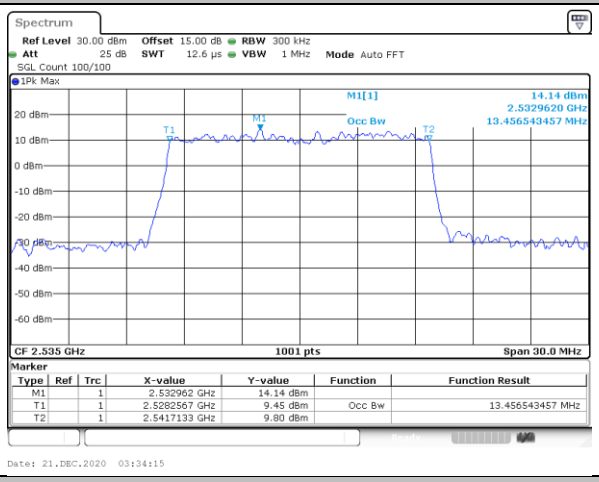
Lowest Channel / 15MHz / QPSK



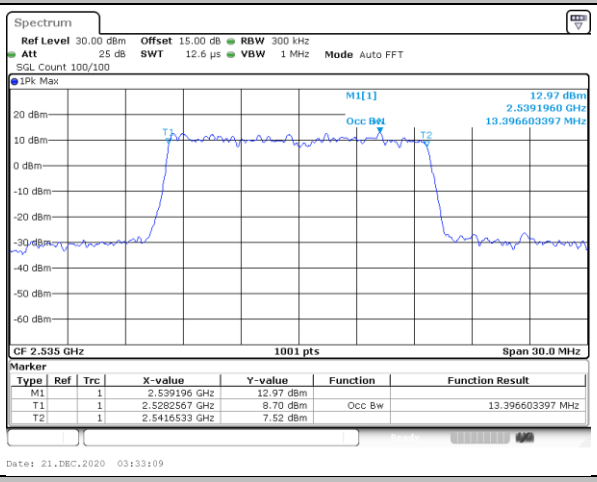
Lowest Channel / 15MHz / 16QAM



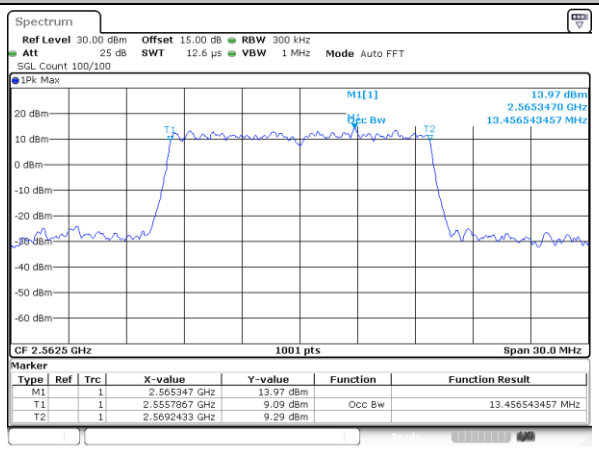
Middle Channel / 15MHz / QPSK



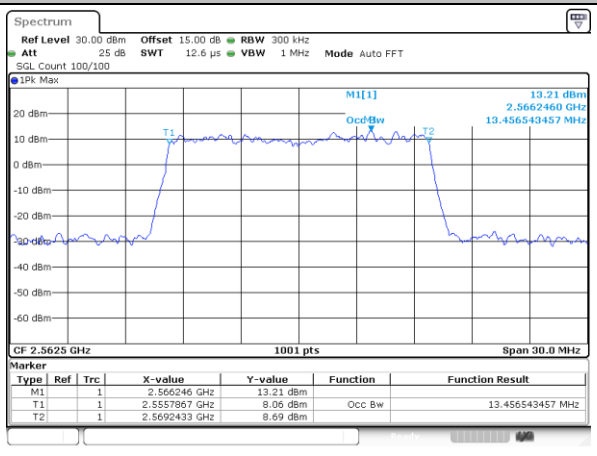
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

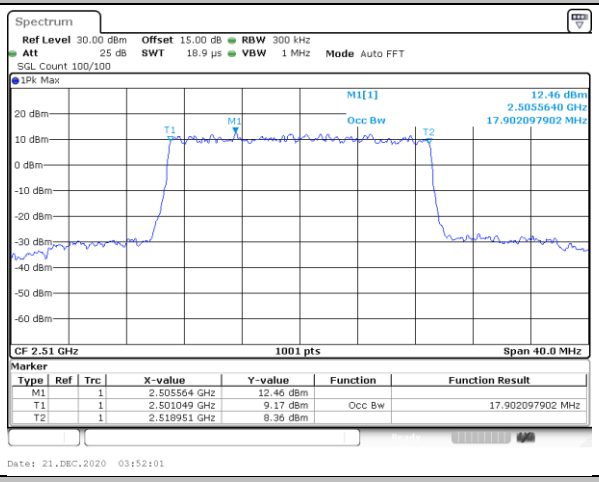


Highest Channel / 15MHz / 16QAM

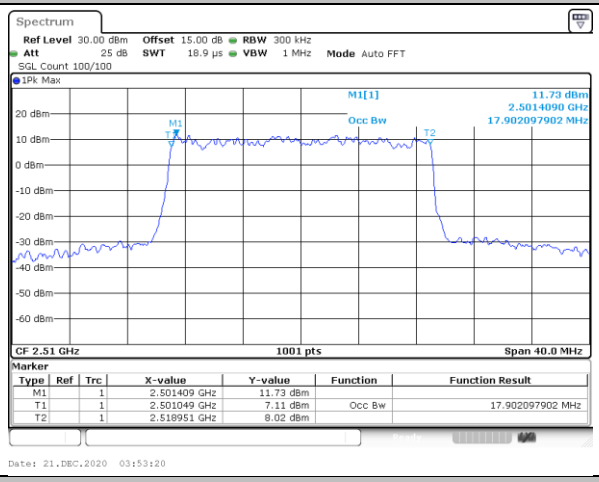


LTE Band 7

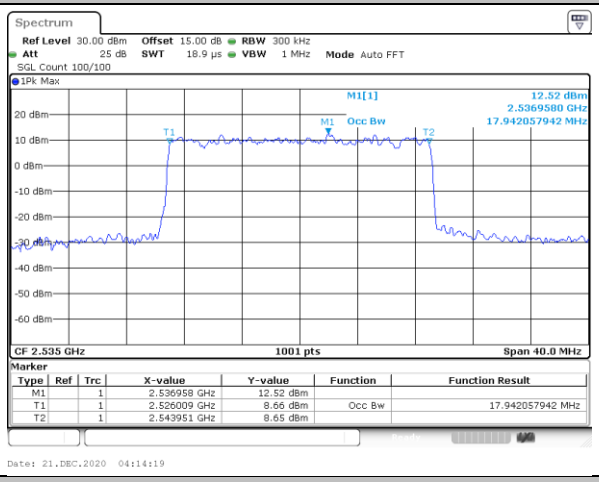
Lowest Channel / 20MHz / QPSK



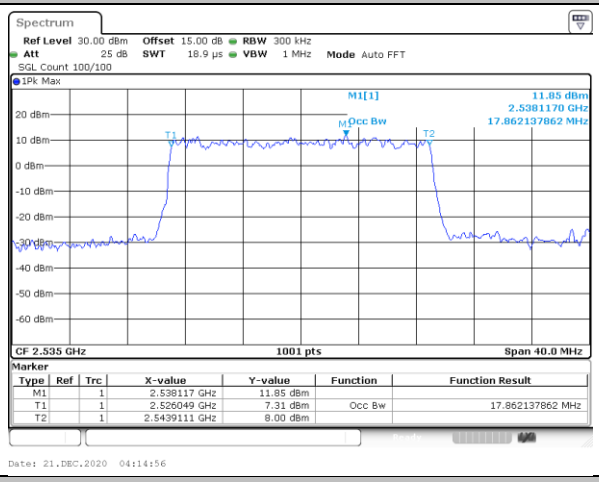
Lowest Channel / 20MHz / 16QAM



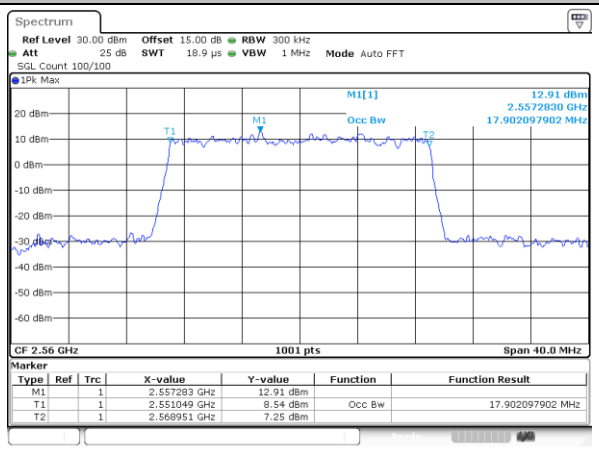
Middle Channel / 20MHz / QPSK



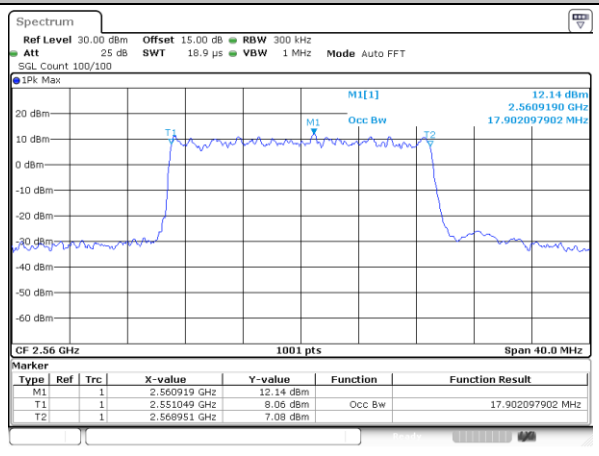
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

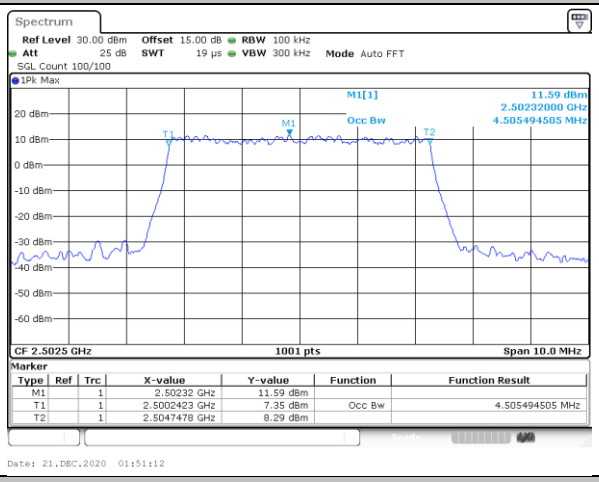


Highest Channel / 20MHz / 16QAM

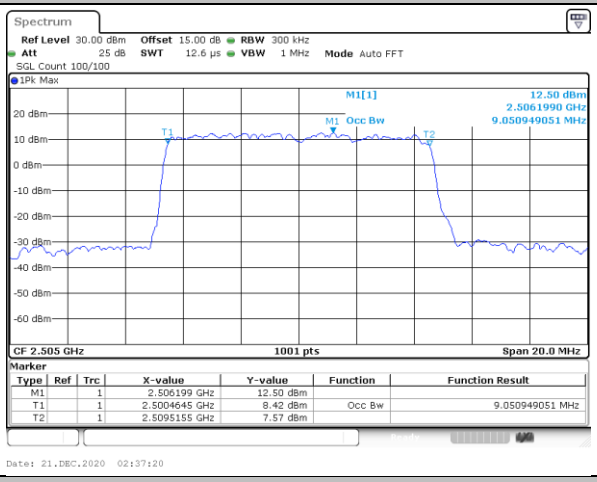


LTE Band 7

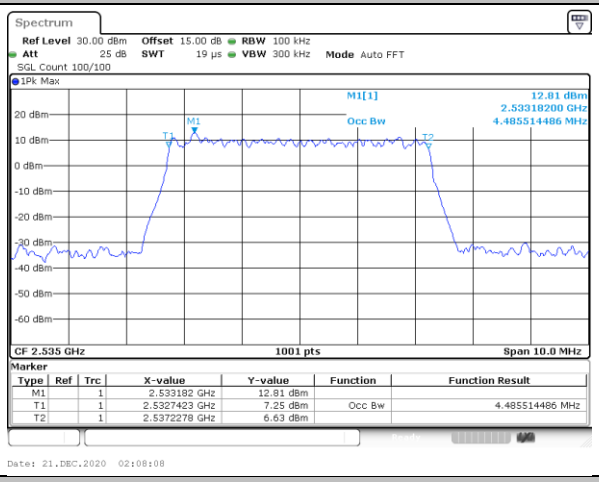
Lowest Channel / 5MHz / 64QAM



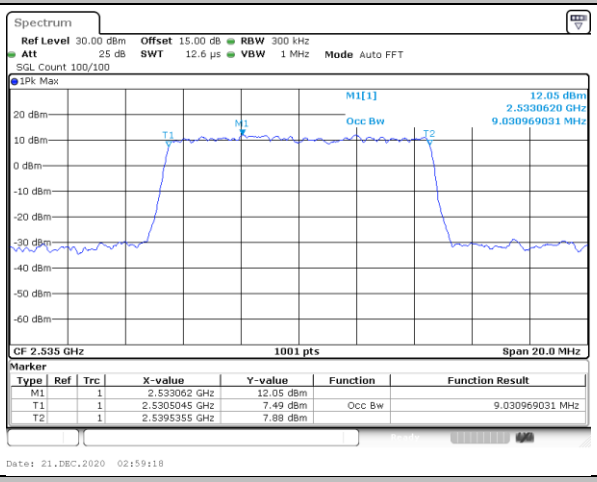
Lowest Channel / 10MHz / 64QAM



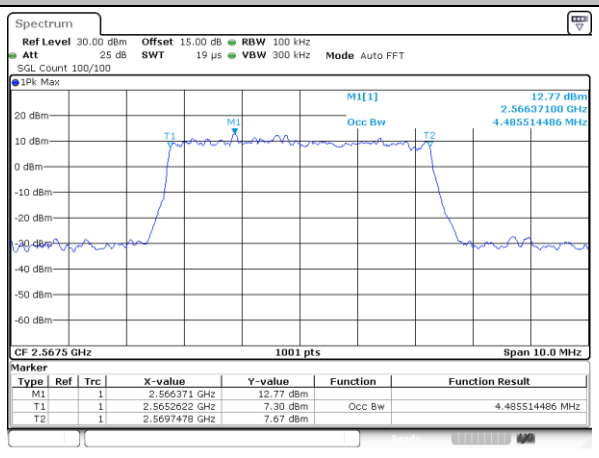
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM