



# FCC RF Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT2141-2  
**FCC ID** : IHDT56ZP2  
**STANDARD** : 47 CFR Part 2, 27(M)  
**CLASSIFICATION** : PCS Licensed Transmitter Held to Ear (PCE)  
**TEST DATE(S)** : Jun. 18, 2021 ~ Jul. 08, 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



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People's Republic of China



TABLE OF CONTENTS

REVISION HISTORY... 3
SUMMARY OF TEST RESULT ... 4
1 GENERAL DESCRIPTION ... 5
1.1 Applicant ... 5
1.2 Manufacturer ... 5
1.3 Product Feature of Equipment Under Test ... 5
1.4 Product Specification of Equipment Under Test ... 6
1.5 Modification of EUT ... 6
1.6 Specification of Accessory ... 6
1.7 Re-use of Measured Data ... 7
1.8 Maximum EIRP Power and Emission Designator ... 8
1.9 Testing Location ... 10
1.10 Test Software ... 10
1.11 Applicable Standards ... 10
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST ... 11
2.1 Test Mode ... 11
2.2 Connection Diagram of Test System ... 13
2.3 Support Unit used in test configuration and system ... 13
2.4 Frequency List of Low/Middle/High Channels ... 14
3 CONDUCTED TEST ITEMS ... 17
3.1 Measuring Instruments ... 17
3.2 Test Setup ... 17
3.3 Test Result of Conducted Test ... 17
3.4 Conducted Output Power and ERP/EIRP ... 18
3.5 Peak-to-Average Ratio ... 19
3.6 Occupied Bandwidth ... 20
3.7 Conducted Band Edge ... 21
3.8 Conducted Spurious Emission ... 22
3.9 Frequency Stability ... 23
4 RADIATED TEST ITEMS ... 24
4.1 Measuring Instruments ... 24
4.2 Test Setup ... 24
4.3 Test Result of Radiated Test ... 25
4.4 Radiated Spurious Emission ... 26
5 LIST OF MEASURING EQUIPMENT ... 27
6 UNCERTAINTY OF EVALUATION ... 28
APPENDIX A. TEST RESULTS OF CONDUCTED TEST
APPENDIX B. TEST RESULTS OF RADIATED TEST
APPENDIX C. TEST SETUP PHOTOGRAPHS
APPENDIX D. REFERENCE REPORT





## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	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	§27.53(m)(4)	Conducted Band Edge Measurement (Band 41)	§27.53(m)(4)	PASS	-
3.8	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 41)	< 55+10log <sub>10</sub> (P[Watts])	PASS	-
3.9	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log <sub>10</sub> (P[Watts])	PASS	Under limit 8.59 dB at 7752.270 MHz

**Declaration of Conformity:**

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

**Comments and Explanations:**

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



# 1 General Description

## 1.1 Applicant

Motorola Mobility LLC  
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.2 Manufacturer

Motorola Mobility LLC  
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2141-2
FCC ID	IHDT56ZP2
EUT supports Radios application	GSM/WCDMA/LTE/5G NR WLAN 2.4GHz 802.11b/g/n HT20 WLAN 2.4GHz 802.11ac/ax VHT20/HE20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/n HT20/HT40 WLAN 6GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC and GNSS
IMEI Code	Radiation: 354398490013240
HW Version	DVT2
SW Version	RRM31.43
EUT Stage	Identical Prototype

### 1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz
<b>Rx Frequency</b>	LTE Band 7 : 2620 MHz ~ 2690 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz
<b>Bandwidth</b>	LTE Band 7 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
<b>Maximum Output Power to Antenna</b>	LTE Band 7 : 23.03 dBm LTE Band 38 : 22.95 dBm LTE Band 41 : 26.14 dBm LTE Band 41C : 22.96 dBm
<b>Antenna Gain</b>	LTE Band 7 : -2.76 dBi LTE Band 38 : -2.29 dBi LTE Band 41 : -2.23 dBi
<b>Type of Modulation</b>	QPSK / 16QAM / 64QAM

### 1.5 Modification of EUT

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

### 1.6 Specification of Accessory

Specification of Accessory				
<b>AC Adapter 1</b>	<b>Brand Name</b>	Motorola (Salom)	<b>Model Name</b>	MC-301
<b>AC Adapter 2</b>	<b>Brand Name</b>	Motorola (Acbel)	<b>Model Name</b>	MC-301
<b>Battery</b>	<b>Brand Name</b>	Motorola (ATL)	<b>Model Name</b>	MB50
<b>USB Cable 1</b>	<b>Brand Name</b>	Motorola (Luxshare)	<b>Model Name</b>	SC18D13217
<b>USB Cable 2</b>	<b>Brand Name</b>	Motorola (Saibao)	<b>Model Name</b>	SC18D13215
<b>USB Cable 3</b>	<b>Brand Name</b>	Motorola (Cabletech)	<b>Model Name</b>	SC18D13216



## 1.7 Re-use of Measured Data

### 1.7.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: XT2141-2, FCC ID: IHDT56ZP2) is electrically identical to the reference device (Model: XT2143-1, FCC ID: IHDT56ZP3) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 484596 D01.

### 1.7.2 Difference Section

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

The re-used RF data includes the following bands provided in Appendix D (Sporton RF Report No. FG151701C for the reference device Model: XT2143-1, FCC ID: IHDT56ZP3).

### 1.7.3 Reference detail Section:

Equipment Class	Reference FCC ID	Folder Test	Report Title/Section
PCE	IHDT56ZP3	Part27M (Report No. FG151701C)	All sections applicable for LTE Band 7/38/41C except Power, EIRP and RSE

### 1.7.4 Spot Check Verification Data Section

In order to confirm hardware similarity of the subject device with the reference device, spot check measurements were performed on the subject device for the following test items, the test result were consistent with FCC ID: IHDT56ZP3 and LTE Band 41 to re-test for HPUE mode.

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

Test Item	Mode	IHDT56ZP3 Worst Result	IHDT56ZP2 Worst Result	Difference (dB)
Average Conducted Power (dBm)	LTE Band 7	23.34	23.03	0.31
	LTE Band 38	22.96	22.95	0.01
	LTE Band 41C	23.25	22.96	0.29



### 1.8 Maximum EIRP Power and Emission Designator

LTE Band 7		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2502.5 ~ 2567.5	0.1059	-	0.0920	-
10	2505.0 ~ 2565.0	0.1057	-	0.0927	-
15	2507.5 ~ 2562.5	0.1047	-	0.0925	-
20	2510.0 ~ 2560.0	0.1064	-	0.0910	-
LTE Band 38		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2572.5 ~ 2617.5	0.1146	-	0.1050	-
10	2575.0 ~ 2615.0	0.1159	-	0.1059	-
15	2577.5 ~ 2612.5	0.1153	-	0.0998	-
20	2580.0 ~ 2610.0	0.1164	-	0.1005	-
LTE Band 41		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2498.5 ~ 2687.5	0.2323	4M50G7D	0.1656	4M49W7D
10	2501.0 ~ 2685.0	0.2312	9M07G7D	0.1702	9M05W7D
15	2503.5 ~ 2682.5	0.2254	13M4G7D	0.1656	13M5W7D
20	2506.0 ~ 2680.0	0.2460	17M9G7D	0.1690	17M9W7D





LTE Band 41 CA	QPSK		16QAM	
BW (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5MHz+20MHz	0.0910	-	0.0701	-
10MHz+20MHz	0.1183	-	0.0955	-
10MHz+15MHz	0.0881	-	0.0679	-
15MHz+15MHz	0.0875	-	0.0682	-
15MHz+20MHz	0.1178	-	0.0979	-
15MHz+10MHz	0.1180	-	0.0968	-
20MHz+5MHz	0.0891	-	0.0695	-
20MHz+10MHz	0.1156	-	0.0953	-
20MHz+15MHz	0.1183	-	0.1169	-
20MHz+20MHz	0.0728	-	0.0687	-
LTE Band 41 CA			64QAM	
BW (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)		
5MHz+20MHz	0.0700	-		
10MHz+20MHz	0.0782	-		
10MHz+15MHz	0.0684	-		
15MHz+15MHz	0.0714	-		
15MHz+20MHz	0.0778	-		
15MHz+10MHz	0.0793	-		
20MHz+5MHz	0.0700	-		
20MHz+10MHz	0.0968	-		
20MHz+15MHz	0.1175	-		
20MHz+20MHz	0.0679	-		

**Note:** All modulations have been tested, and only the worst test results of PSK & QAM are shown in the report.



## 1.9 Testing Location

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

<b>Test Firm</b>	Sporton International (Shenzhen) Inc.		
<b>Test Site Location</b>	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		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	TH01-SZ	CN1256	421272

<b>Test Firm</b>	Sporton International (Shenzhen) Inc.		
<b>Test Site Location</b>	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		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH01-SZ	CN1256	421272

## 1.10 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH01-SZ	AUDIX	E3	6.2009-8-24

## 1.11 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(M)
- ♦ ANSI C63.26-2015
- ♦ FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

### Remark:

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



## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

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

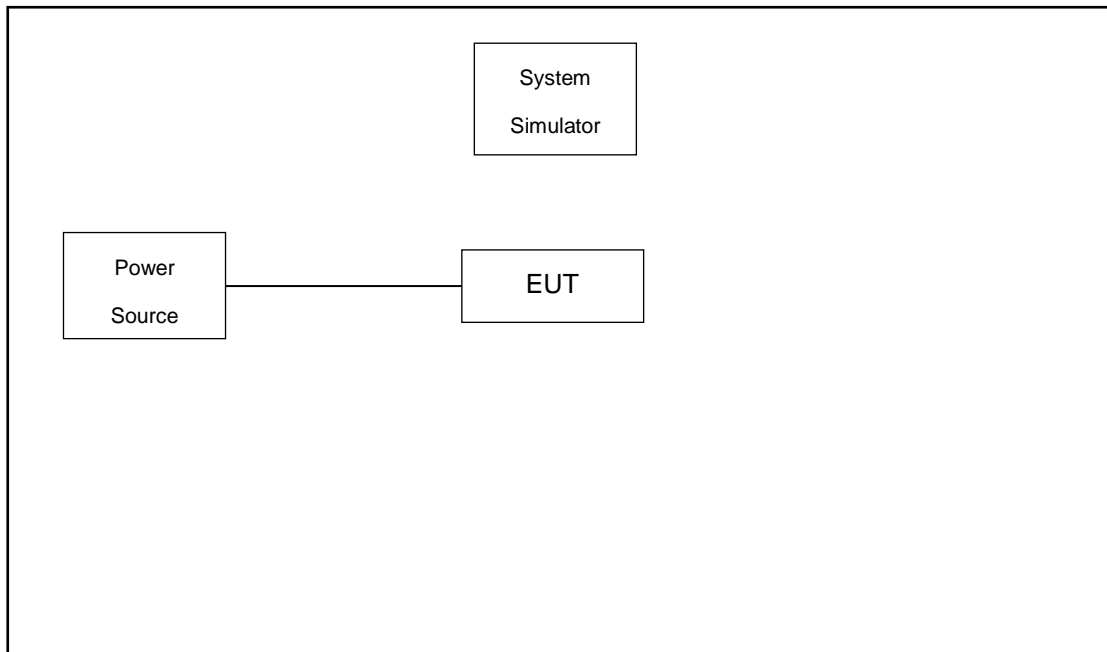
Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel			
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H	
Max. Output Power	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	
	38	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	
Peak-to-Average Ratio	41	-	-				v	v	v	v	v		v	v	v	v	
26dB and 99% Bandwidth	41	-	-	v	v	v	v	v	v	v			v	v	v	v	
Conducted Band Edge	41	-	-	v	v	v	v	v	v	v	v		v	v		v	
Conducted Spurious Emission	41	-	-	v	v	v	v	v	v	v	v			v	v	v	
Frequency Stability	41	-	-		v			v					v		v		
E.R.P / E.I.R.P	7	-	-	v	v	v	v	v	v	v	v			v	v	v	
	38	-	-	v	v	v	v	v	v	v	v			v	v	v	
	41	-	-	v	v	v	v	v	v	v	v			v	v	v	
Radiated Spurious Emission	7	Worst Case														v	
	41	Worst Case														v	
Note	<ol style="list-style-type: none"> <li>The mark "v" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>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.</li> <li>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 for RSE testing.</li> </ol>																



Test Items	Band	Bandwidth (MHz)										Modulation			RB #			Test Channel				
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	1	Half	Full	L	M	H		
Max. Output Power	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v		
E.I.R.P.	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v		
Radiated Spurious Emission	41C_CA	Worst Case																		v		
Note	<ol style="list-style-type: none"> <li>The mark "v" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>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.</li> </ol>																					

## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	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 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 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 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					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
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



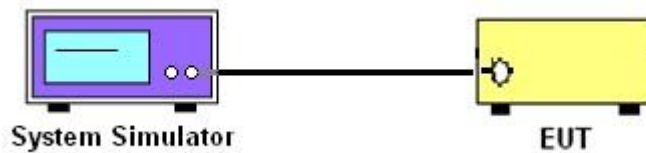
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

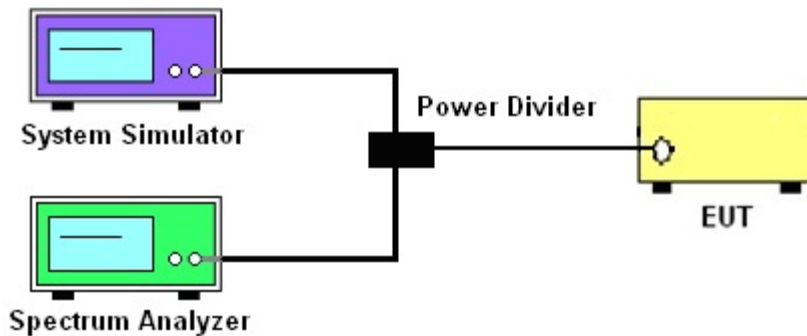
See list of measuring instruments of this test report.

#### 3.2 Test Setup

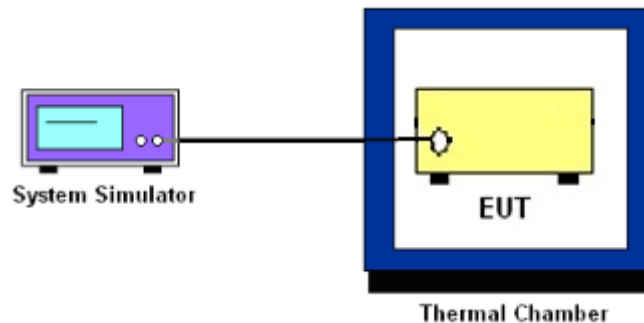
##### 3.2.1 Conducted Output Power



##### 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 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(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  $\geq$  1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.

Example:

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

9. For LTE Band 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 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<sup>th</sup> harmonic.

#### 3.8.2 Test Procedures

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



## 3.9 Frequency Stability

### 3.9.1 Description of Frequency Stability Measurement

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

### 3.9.2 Test Procedures for Temperature Variation

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

### 3.9.3 Test Procedures for Voltage Variation

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

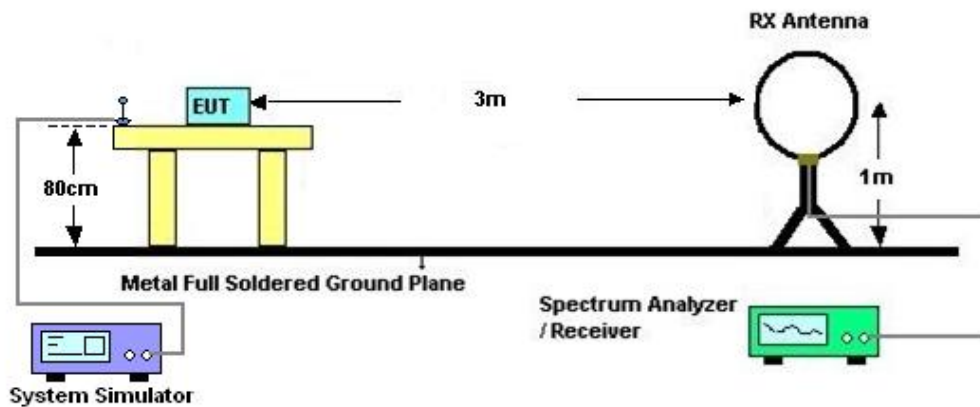
## 4 Radiated Test Items

### 4.1 Measuring Instruments

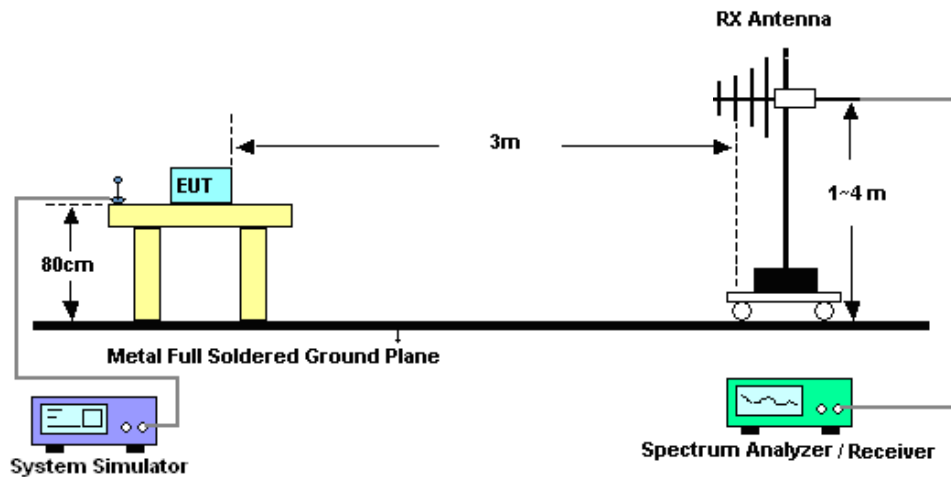
See list of measuring instruments of this test report.

### 4.2 Test Setup

#### 4.2.1 For radiated test below 30MHz

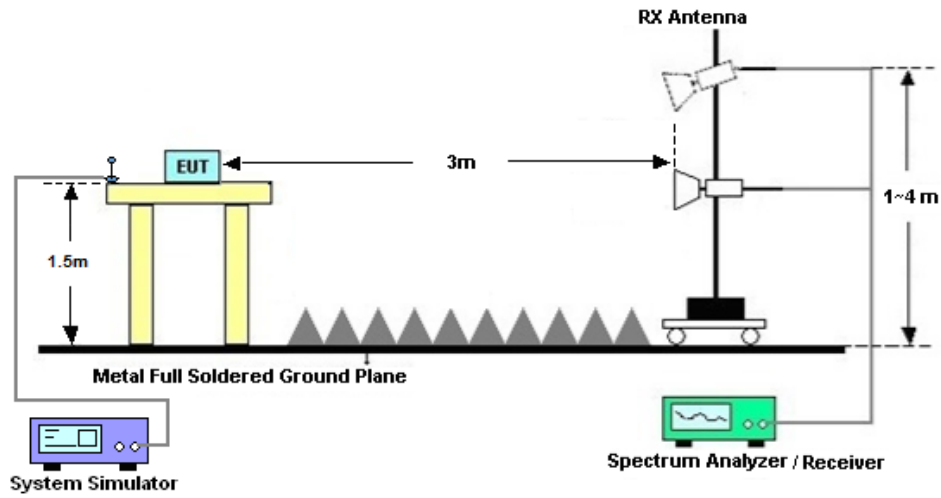


#### 4.2.2 For radiated test from 30MHz to 1GHz





### 4.2.3 For radiated test above 1GHz



### 4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix B.



## 4.4 Radiated Spurious Emission

### 4.4.1 Description of Radiated Spurious Emission

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

For Band 7, 38, 41

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

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

### 4.4.2 Test Procedures

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

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

13. For Band 7, 38, 41:

The limit line is derived from  $55 + 10\log(P)$ dB below the transmitter power P(Watts)



## 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 08, 2021	Jul. 08, 2021	Apr. 07, 2022	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 26, 2020	Jul. 08, 2021	Dec. 25, 2021	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 22, 2020	Jul. 08, 2021	Jul. 21, 2021	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Jul. 21, 2020	Jun. 18, 2021~ Jun. 26, 2021	Jul. 20, 2021	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 22, 2020	Jun. 18, 2021~ Jun. 26, 2021	Jul. 21, 2021	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5GHz	Oct. 16, 2020	Jun. 18, 2021~ Jun. 26, 2021	Oct. 15, 2021	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz~2GHz	Jul. 15, 2020	Jun. 18, 2021~ Jun. 26, 2021	Jul. 14, 2021	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 25, 2020	Jun. 18, 2021~ Jun. 26, 2021	Jul. 24, 2021	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Apr. 23, 2021	Jun. 18, 2021~ Jun. 26, 2021	Apr. 22, 2022	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 18, 2021	Jun. 18, 2021~ Jun. 26, 2021	Apr. 17, 2022	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 17, 2020	Jun. 18, 2021~ Jun. 26, 2021	Oct. 16, 2021	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 21, 2020	Jun. 18, 2021~ Jun. 26, 2021	Jul. 20, 2021	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Jun. 18, 2021~ Jun. 26, 2021	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jun. 18, 2021~ Jun. 26, 2021	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jun. 18, 2021~ Jun. 26, 2021	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required.



## 6 Uncertainty of Evaluation

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.48dB
---------------------------------------------------------------------	--------

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.53dB
---------------------------------------------------------------------	--------

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.02dB
---------------------------------------------------------------------	--------

----- THE END -----



# 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	22.59	22.58	22.76
20	QPSK	1	49	22.61	22.64	22.94
20	QPSK	1	99	22.68	22.78	23.03
20	QPSK	50	0	21.82	21.82	21.98
20	QPSK	50	24	21.86	21.91	22.15
20	QPSK	50	50	21.76	21.89	22.12
20	QPSK	100	0	21.85	21.85	22.07
20	16QAM	1	0	21.93	21.94	22.10
20	16QAM	1	49	21.98	21.96	22.23
20	16QAM	1	99	22.00	22.16	22.35
20	16QAM	50	0	20.81	20.80	20.97
20	16QAM	50	24	20.86	20.86	21.07
20	16QAM	50	50	20.77	20.88	21.14
20	16QAM	100	0	20.84	20.85	21.03
20	64QAM	1	0	20.87	20.83	20.96
20	64QAM	1	49	20.87	20.82	21.14
20	64QAM	1	99	20.86	20.98	21.21
20	64QAM	50	0	19.85	19.82	20.02
20	64QAM	50	24	19.89	19.88	20.09
20	64QAM	50	50	19.79	19.90	20.17
20	64QAM	100	0	19.86	19.87	20.05
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.69	22.67	22.84
15	QPSK	1	37	22.71	22.67	22.96
15	QPSK	1	74	22.69	22.77	22.89
15	QPSK	36	0	21.82	21.84	22.02
15	QPSK	36	20	21.84	21.88	22.10
15	QPSK	36	39	21.78	21.88	22.20
15	QPSK	75	0	21.80	21.90	22.10
15	16QAM	1	0	21.98	21.97	22.21
15	16QAM	1	37	22.03	21.96	22.33
15	16QAM	1	74	22.06	22.08	22.42
15	16QAM	36	0	20.86	20.83	21.05



15	16QAM	36	20	20.86	20.86	21.10
15	16QAM	36	39	20.78	20.89	21.19
15	16QAM	75	0	20.80	20.89	21.12
15	64QAM	1	0	20.88	20.90	21.12
15	64QAM	1	37	20.91	20.85	21.22
15	64QAM	1	74	20.86	20.96	21.30
15	64QAM	36	0	19.87	19.90	20.10
15	64QAM	36	20	19.92	19.91	20.15
15	64QAM	36	39	19.81	19.93	20.22
15	64QAM	75	0	19.84	19.90	20.12
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.77	22.80	22.98
10	QPSK	1	25	22.72	22.80	23.00
10	QPSK	1	49	22.65	22.86	22.92
10	QPSK	25	0	21.85	21.97	22.01
10	QPSK	25	12	21.83	21.99	22.05
10	QPSK	25	25	21.89	21.97	22.14
10	QPSK	50	0	21.88	21.97	22.02
10	16QAM	1	0	22.12	22.20	22.26
10	16QAM	1	25	22.23	22.22	22.36
10	16QAM	1	49	22.18	22.34	22.43
10	16QAM	25	0	20.95	20.99	21.03
10	16QAM	25	12	20.90	21.01	21.09
10	16QAM	25	25	20.91	21.01	21.17
10	16QAM	50	0	20.88	20.98	21.04
10	64QAM	1	0	21.06	21.07	21.15
10	64QAM	1	25	21.09	20.99	21.27
10	64QAM	1	49	21.03	21.21	21.31
10	64QAM	25	0	19.97	20.01	20.08
10	64QAM	25	12	19.95	20.03	20.09
10	64QAM	25	25	19.94	20.05	20.20
10	64QAM	50	0	19.91	20.01	20.06
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	22.77	22.85	23.01
5	QPSK	1	12	22.86	23.01	22.97
5	QPSK	1	24	22.92	22.92	22.88
5	QPSK	12	0	21.87	21.91	22.04
5	QPSK	12	7	21.97	21.98	22.12
5	QPSK	12	13	21.98	22.01	22.16
5	QPSK	25	0	21.94	21.94	22.09
5	16QAM	1	0	22.19	22.22	22.30
5	16QAM	1	12	22.11	22.23	22.34
5	16QAM	1	24	22.21	22.30	22.40



5	16QAM	12	0	20.87	20.94	21.08
5	16QAM	12	7	20.98	21.01	21.16
5	16QAM	12	13	21.00	21.05	21.19
5	16QAM	25	0	20.94	21.00	21.14
5	64QAM	1	0	21.07	21.11	21.29
5	64QAM	1	12	21.05	21.10	21.27
5	64QAM	1	24	21.16	21.18	21.36
5	64QAM	12	0	19.90	19.96	20.07
5	64QAM	12	7	20.01	20.03	20.19
5	64QAM	12	13	20.02	20.07	20.21
5	64QAM	25	0	19.94	19.98	20.11



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	22.91	22.59	22.72
20	QPSK	1	49	22.95	22.74	22.77
20	QPSK	1	99	22.93	22.72	22.75
20	QPSK	50	0	22.10	21.78	21.80
20	QPSK	50	24	22.12	21.88	21.91
20	QPSK	50	50	21.95	21.85	21.88
20	QPSK	100	0	21.93	21.84	21.83
20	16QAM	1	0	22.27	22.13	22.15
20	16QAM	1	49	22.31	22.09	22.09
20	16QAM	1	99	22.30	22.13	22.19
20	16QAM	50	0	21.16	20.85	20.84
20	16QAM	50	24	21.07	20.96	20.85
20	16QAM	50	50	21.05	20.92	21.01
20	16QAM	100	0	21.00	20.86	20.91
20	64QAM	1	0	21.11	20.81	20.80
20	64QAM	1	49	21.02	20.86	20.80
20	64QAM	1	99	20.95	20.89	20.91
20	64QAM	50	0	20.11	19.94	19.90
20	64QAM	50	24	19.99	19.88	19.85
20	64QAM	50	50	20.14	19.91	19.98
20	64QAM	100	0	20.09	19.93	19.79
Channel				37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5
15	QPSK	1	0	22.76	22.64	22.72
15	QPSK	1	37	22.91	22.58	22.60
15	QPSK	1	74	22.73	22.63	22.60
15	QPSK	36	0	22.02	21.66	21.73
15	QPSK	36	20	21.92	21.78	21.80
15	QPSK	36	39	22.05	21.77	21.76
15	QPSK	75	0	22.14	21.84	21.97
15	16QAM	1	0	21.97	21.76	21.81
15	16QAM	1	37	22.08	21.75	21.84
15	16QAM	1	74	22.28	21.95	22.00
15	16QAM	36	0	20.85	21.00	20.58
15	16QAM	36	20	20.92	20.58	20.68
15	16QAM	36	39	21.09	20.69	20.75
15	16QAM	75	0	21.10	20.83	20.87
15	64QAM	1	0	21.00	20.68	20.91
15	64QAM	1	37	21.14	20.83	20.85
15	64QAM	1	74	21.18	20.79	20.84





15	64QAM	36	0	20.04	19.67	19.88
15	64QAM	36	20	20.02	19.77	19.93
15	64QAM	36	39	20.06	19.75	19.77
15	64QAM	75	0	20.10	19.83	19.97
Channel				37800	38000	38200
Frequency (MHz)				2575	2595	2615
10	QPSK	1	0	22.93	22.78	22.74
10	QPSK	1	25	22.92	22.63	22.67
10	QPSK	1	49	22.83	22.67	22.69
10	QPSK	25	0	22.28	21.93	21.92
10	QPSK	25	12	22.21	21.96	21.97
10	QPSK	25	25	22.08	21.85	21.97
10	QPSK	50	0	22.19	21.93	21.94
10	16QAM	1	0	22.54	22.13	22.25
10	16QAM	1	25	22.33	22.00	22.21
10	16QAM	1	49	22.31	22.14	22.24
10	16QAM	25	0	21.14	20.79	21.05
10	16QAM	25	12	21.14	20.97	20.97
10	16QAM	25	25	21.15	20.84	21.12
10	16QAM	50	0	21.18	21.01	21.05
10	64QAM	1	0	21.28	21.01	21.02
10	64QAM	1	25	21.37	21.06	21.18
10	64QAM	1	49	21.16	20.99	21.09
10	64QAM	25	0	20.25	20.02	20.06
10	64QAM	25	12	20.29	20.06	20.03
10	64QAM	25	25	20.35	20.01	20.19
10	64QAM	50	0	20.29	19.91	19.97
Channel				37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5
5	QPSK	1	0	22.87	22.60	22.78
5	QPSK	1	12	22.88	22.72	22.72
5	QPSK	1	24	22.86	22.66	22.73
5	QPSK	12	0	22.22	21.86	22.07
5	QPSK	12	7	22.17	21.93	22.02
5	QPSK	12	13	22.28	21.79	21.95
5	QPSK	25	0	22.23	21.94	21.99
5	16QAM	1	0	22.45	22.12	22.31
5	16QAM	1	12	22.39	21.88	22.04
5	16QAM	1	24	22.50	22.12	22.22
5	16QAM	12	0	21.11	20.76	20.95
5	16QAM	12	7	21.38	20.97	20.99
5	16QAM	12	13	21.39	20.99	21.13
5	16QAM	25	0	21.26	20.97	21.04
5	64QAM	1	0	21.38	20.90	21.12
5	64QAM	1	12	21.21	20.86	21.33



5	64QAM	1	24	21.34	21.00	21.13
5	64QAM	12	0	20.33	19.97	20.06
5	64QAM	12	7	20.26	19.99	20.22
5	64QAM	12	13	20.31	19.92	20.13
5	64QAM	25	0	20.29	20.00	20.08



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	25.79	26.05	25.86
20	QPSK	1	49	25.85	26.02	25.83
20	QPSK	1	99	25.91	26.14	25.87
20	QPSK	50	0	24.09	24.40	24.24
20	QPSK	50	24	24.28	24.49	24.28
20	QPSK	50	50	24.19	24.39	24.18
20	QPSK	100	0	24.18	24.40	24.20
20	16QAM	1	0	24.27	24.51	24.34
20	16QAM	1	49	24.16	24.35	24.17
20	16QAM	1	99	24.15	24.44	24.23
20	16QAM	50	0	23.03	23.21	23.08
20	16QAM	50	24	23.20	23.18	23.12
20	16QAM	50	50	23.08	23.35	23.03
20	16QAM	100	0	23.08	23.26	23.13
20	64QAM	1	0	23.20	23.33	23.30
20	64QAM	1	49	23.13	23.24	23.13
20	64QAM	1	99	23.09	23.42	23.19
20	64QAM	50	0	22.23	22.43	22.40
20	64QAM	50	24	22.27	22.53	22.36
20	64QAM	50	50	22.28	22.47	22.26
20	64QAM	100	0	22.45	22.60	22.47
Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	25.54	25.66	25.70
15	QPSK	1	37	25.59	25.75	25.65
15	QPSK	1	74	25.52	25.76	25.62
15	QPSK	36	0	24.19	24.29	24.28
15	QPSK	36	20	24.30	24.43	24.25
15	QPSK	36	39	24.25	24.30	24.10
15	QPSK	75	0	24.14	24.37	24.31
15	16QAM	1	0	24.17	24.24	24.25
15	16QAM	1	37	24.09	24.19	24.14
15	16QAM	1	74	24.14	24.42	24.20
15	16QAM	36	0	23.18	23.24	23.27
15	16QAM	36	20	23.26	23.34	23.27
15	16QAM	36	39	23.14	23.30	23.12
15	16QAM	75	0	23.24	23.41	23.34
15	64QAM	1	0	23.15	23.33	23.22
15	64QAM	1	37	23.05	23.27	23.06
15	64QAM	1	74	23.06	23.44	23.26



15	64QAM	36	0	22.36	22.36	22.37
15	64QAM	36	20	22.31	22.48	22.36
15	64QAM	36	39	22.31	22.47	22.26
15	64QAM	75	0	22.33	22.44	22.45
Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	25.69	25.77	25.73
10	QPSK	1	25	25.71	25.87	25.71
10	QPSK	1	49	25.60	25.81	25.61
10	QPSK	25	0	24.03	24.23	24.24
10	QPSK	25	12	24.10	24.34	24.11
10	QPSK	25	25	24.20	24.34	24.21
10	QPSK	50	0	24.14	24.32	24.13
10	16QAM	1	0	24.43	24.46	24.40
10	16QAM	1	25	24.29	24.54	24.33
10	16QAM	1	49	24.20	24.49	24.23
10	16QAM	25	0	23.19	23.20	23.25
10	16QAM	25	12	23.19	23.42	23.27
10	16QAM	25	25	23.22	23.43	23.25
10	16QAM	50	0	23.13	23.38	23.23
10	64QAM	1	0	23.39	23.47	23.32
10	64QAM	1	25	23.31	23.35	23.23
10	64QAM	1	49	23.40	23.58	23.33
10	64QAM	25	0	22.34	22.32	22.23
10	64QAM	25	12	22.19	22.45	22.21
10	64QAM	25	25	22.26	22.45	22.19
10	64QAM	50	0	22.24	22.33	22.20
Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	25.71	25.84	25.62
5	QPSK	1	12	25.68	25.75	25.74
5	QPSK	1	24	25.71	25.89	25.59
5	QPSK	12	0	24.18	24.25	24.05
5	QPSK	12	7	24.10	24.32	24.10
5	QPSK	12	13	24.12	24.34	24.05
5	QPSK	25	0	24.10	24.23	24.08
5	16QAM	1	0	24.37	24.40	24.40
5	16QAM	1	12	24.41	24.42	24.23
5	16QAM	1	24	24.37	24.28	24.41
5	16QAM	12	0	23.02	23.18	23.23
5	16QAM	12	7	23.24	23.37	23.18
5	16QAM	12	13	23.16	23.39	23.02
5	16QAM	25	0	23.17	23.35	23.08
5	64QAM	1	0	23.45	23.43	23.20
5	64QAM	1	12	23.28	23.42	23.20



5	64QAM	1	24	23.33	23.49	23.19
5	64QAM	12	0	22.22	22.46	22.26
5	64QAM	12	7	22.28	22.44	22.32
5	64QAM	12	13	22.24	22.44	22.28
5	64QAM	25	0	22.17	22.39	22.20



**CA Power**

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	20.19
			1	0	1	99	2	≤8.5	13.48
			1	99	1	0	2	≤0	20.10
		16QAM	100	0	100	0	200	≤3	19.05
			1	0	1	99	2	≤8.5	13.56
			1	99	1	0	2	≤1	18.31
		64QAM	100	0	100	0	200	≤3	19.13
			1	0	1	99	2	≤8.5	13.46
			1	99	1	0	2	≤3	18.11
40521	40719	QPSK	100	0	100	0	200	≤2	20.15
			1	0	1	99	2	≤8.5	13.50
			1	99	1	0	2	≤0	20.21
		16QAM	100	0	100	0	200	≤3	19.14
			1	0	1	99	2	≤8.5	13.47
			1	99	1	0	2	≤1	18.24
		64QAM	100	0	100	0	200	≤3	19.14
			1	0	1	99	2	≤8.5	13.45
			1	99	1	0	2	≤3	18.15
41292	41490	QPSK	100	0	100	0	200	≤2	20.85
			1	0	1	99	2	≤8.5	14.22
			1	99	1	0	2	≤0	20.77
		16QAM	100	0	100	0	200	≤3	20.60
			1	0	1	99	2	≤8.5	14.97
			1	99	1	0	2	≤1	19.82
		64QAM	100	0	100	0	200	≤3	20.55
			1	0	1	99	2	≤8.5	14.88
			1	99	1	0	2	≤3	19.62



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	22.15
			1	0	1	74	2	≤8.5	13.56
			1	99	1	0	2	≤0	22.05
		16QAM	100	0	75	0	175	≤3	22.15
			1	0	1	74	2	≤8.5	13.67
			1	99	1	0	2	≤1	22.11
		64QAM	100	0	75	0	175	≤3	22.23
			1	0	1	74	2	≤8.5	13.55
			1	99	1	0	2	≤3	22.05
40546	40717	QPSK	100	0	75	0	175	≤2	22.17
			1	0	1	74	2	≤8.5	13.47
			1	99	1	0	2	≤0	21.97
		16QAM	100	0	75	0	175	≤3	22.21
			1	0	1	74	2	≤8.5	13.61
			1	99	1	0	2	≤1	22.08
		64QAM	100	0	75	0	175	≤3	22.18
			1	0	1	74	2	≤8.5	13.54
			1	99	1	0	2	≤3	22.03
41341	41512	QPSK	100	0	75	0	175	≤2	22.96
			1	0	1	74	2	≤8.5	14.94
			1	99	1	0	2	≤0	22.84
		16QAM	100	0	75	0	175	≤3	22.91
			1	0	1	74	2	≤8.5	15.06
			1	99	1	0	2	≤1	22.85
		64QAM	100	0	75	0	175	≤3	22.93
			1	0	1	74	2	≤8.5	14.95
			1	99	1	0	2	≤3	22.85
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	20.11
			1	0	1	99	2	≤8.5	13.55
			1	74	1	0	2	≤0	21.96
		16QAM	75	0	100	0	175	≤3	19.16
			1	0	1	99	2	≤8.5	13.58
			1	74	1	0	2	≤1	21.03
		64QAM	75	0	100	0	175	≤3	19.17
			1	0	1	99	2	≤8.5	13.56
			1	74	1	0	2	≤3	20.06
40523	40694	QPSK	75	0	100	0	175	≤2	20.16
			1	0	1	99	2	≤8.5	13.51



		16QAM	1	74	1	0	2	≤0	21.95		
			75	0	100	0	175	≤3	19.21		
			1	0	1	99	2	≤8.5	13.58		
			1	74	1	0	2	≤1	21.16		
			75	0	100	0	175	≤3	19.18		
			1	0	1	99	2	≤8.5	13.48		
		64QAM	1	74	1	0	2	≤3	20.11		
			75	0	100	0	175	≤3	19.18		
			1	0	1	99	2	≤8.5	13.48		
			1	74	1	0	2	≤3	20.11		
			75	0	100	0	175	≤3	19.18		
			1	0	1	99	2	≤8.5	13.48		
41319	41490	QPSK	75	0	100	0	175	≤2	21.60		
			1	0	1	99	2	≤8.5	15.01		
			1	74	1	0	2	≤0	22.94		
		16QAM	75	0	100	0	175	≤3	20.63		
			1	0	1	99	2	≤8.5	15.11		
			1	74	1	0	2	≤1	22.14		
		64QAM	75	0	100	0	175	≤3	20.62		
			1	0	1	99	2	≤8.5	14.98		
			1	74	1	0	2	≤3	21.14		
		<b>Combination 20MHz+10MHz (100RB+50RB)</b>									
		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	39894	QPSK	100	0	50	0	150	≤2	20.16		
			1	0	1	49	2	≤8.5	13.63		
			1	99	1	0	2	≤0	21.92		
		16QAM	100	0	50	0	150	≤3	19.14		
			1	0	1	49	2	≤8.5	13.61		
			1	99	1	0	2	≤1	20.98		
		64QAM	100	0	50	0	150	≤3	19.22		
			1	0	1	49	2	≤8.5	13.63		
			1	99	1	0	2	≤3	20.11		
		40571	40715	QPSK	100	0	50	0	150	≤2	20.22
					1	0	1	49	2	≤8.5	13.58
					1	99	1	0	2	≤0	21.89
16QAM	100			0	50	0	150	≤3	19.22		
	1			0	1	49	2	≤8.5	13.52		
	1			99	1	0	2	≤1	20.96		
64QAM	100			0	50	0	150	≤3	19.25		
	1			0	1	49	2	≤8.5	13.63		
	1			99	1	0	2	≤3	20.07		
41391	41535			QPSK	100	0	50	0	150	≤2	21.65
					1	0	1	49	2	≤8.5	15.14
					1	99	1	0	2	≤0	22.86
		16QAM	100	0	50	0	150	≤3	20.65		
			1	0	1	49	2	≤8.5	15.06		
			1	99	1	0	2	≤1	22.02		
		64QAM	100	0	50	0	150	≤3	20.69		
			1	0	1	49	2	≤8.5	15.09		
			1	99	1	0	2	≤3	22.09		





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	20.16
			1	0	1	99	2	≤8.5	13.61
			1	49	1	0	2	≤0	22.08
		16QAM	50	0	100	0	150	≤3	19.17
			1	0	1	99	2	≤8.5	13.59
			1	49	1	0	2	≤1	21.03
		64QAM	50	0	100	0	150	≤3	19.20
			1	0	1	99	2	≤8.5	13.65
			1	49	1	0	2	≤3	20.10
40526	40670	QPSK	50	0	100	0	150	≤2	20.24
			1	0	1	99	2	≤8.5	13.66
			1	49	1	0	2	≤0	22.12
		16QAM	50	0	100	0	150	≤3	19.21
			1	0	1	99	2	≤8.5	13.63
			1	49	1	0	2	≤1	21.06
		64QAM	50	0	100	0	150	≤3	19.23
			1	0	1	99	2	≤8.5	13.60
			1	49	1	0	2	≤3	20.15
41346	41490	QPSK	50	0	100	0	150	≤2	21.63
			1	0	1	99	2	≤8.5	15.08
			1	49	1	0	2	≤0	22.96
		16QAM	50	0	100	0	150	≤3	20.65
			1	0	1	99	2	≤8.5	15.04
			1	49	1	0	2	≤1	22.03
		64QAM	50	0	100	0	150	≤3	20.68
			1	0	1	99	2	≤8.5	15.05
			1	49	1	0	2	≤3	21.16
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	20.21
			1	0	1	24	2	≤8.5	13.58
			1	99	1	0	2	≤0	20.15
		16QAM	100	0	25	0	125	≤3	19.22
			1	0	1	24	2	≤8.5	13.67
			1	99	1	0	2	≤1	19.34
		64QAM	100	0	25	0	125	≤3	19.24
			1	0	1	24	2	≤8.5	13.62
			1	99	1	0	2	≤3	18.26
40595	40712	QPSK	100	0	25	0	125	≤2	20.18
			1	0	1	24	2	≤8.5	13.66
			1	99	1	0	2	≤0	20.27
		16QAM	100	0	25	0	125	≤3	19.21



		64QAM	1	0	1	24	2	≤8.5	13.65
			1	99	1	0	2	≤1	19.38
			100	0	25	0	125	≤3	19.25
			1	0	1	24	2	≤8.5	13.60
			1	99	1	0	2	≤3	18.32
41440	41557	QPSK	100	0	25	0	125	≤2	21.59
			1	0	1	24	2	≤8.5	15.13
			1	99	1	0	2	≤0	21.73
		16QAM	100	0	25	0	125	≤3	20.65
			1	0	1	24	2	≤8.5	15.19
			1	99	1	0	2	≤1	19.80
		64QAM	100	0	25	0	125	≤3	20.68
			1	0	1	24	2	≤8.5	15.11
			1	99	1	0	2	≤3	19.73
			<b>Combination 5MHz+20MHz (25RB+100RB)</b>						
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	20.10
			1	0	1	99	2	≤8.5	13.59
			1	24	1	0	2	≤0	20.15
		16QAM	25	0	100	0	125	≤3	19.11
			1	0	1	99	2	≤8.5	13.64
			1	24	1	0	2	≤1	18.60
		64QAM	25	0	100	0	125	≤3	19.13
			1	0	1	99	2	≤8.5	13.71
			1	24	1	0	2	≤3	18.25
40528	40645	QPSK	25	0	100	0	125	≤2	20.21
			1	0	1	99	2	≤8.5	13.63
			1	24	1	0	2	≤0	20.35
		16QAM	25	0	100	0	125	≤3	19.25
			1	0	1	99	2	≤8.5	13.70
			1	24	1	0	2	≤1	18.73
		64QAM	25	0	100	0	125	≤3	19.21
			1	0	1	99	2	≤8.5	13.61
			1	24	1	0	2	≤3	18.34
41373	41490	QPSK	25	0	100	0	125	≤2	21.63
			1	0	1	99	2	≤8.5	15.12
			1	24	1	0	2	≤0	21.82
		16QAM	25	0	100	0	125	≤3	20.69
			1	0	1	99	2	≤8.5	15.06
			1	24	1	0	2	≤1	19.87
		64QAM	25	0	100	0	125	≤3	20.68
			1	0	1	99	2	≤8.5	15.21
			1	24	1	0	2	≤3	19.88
<b>Combination 15MHz+10MHz (75RB+50RB)</b>									
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power



Channel	Channel		RB Size	RB offset	RB Size	RB offset			
39725	39845	QPSK	75	0	50	0	125	≤2	20.17
			1	0	1	49	2	≤8.5	13.60
			1	74	1	0	2	≤0	22.07
		16QAM	75	0	50	0	125	≤3	19.15
			1	0	1	49	2	≤8.5	13.58
			1	74	1	0	2	≤1	21.06
		64QAM	75	0	50	0	125	≤3	19.23
			1	0	1	49	2	≤8.5	13.61
			1	74	1	0	2	≤3	20.08
40571	40691	QPSK	75	0	50	0	125	≤2	20.12
			1	0	1	49	2	≤8.5	13.58
			1	74	1	0	2	≤0	22.00
		16QAM	75	0	50	0	125	≤3	19.14
			1	0	1	49	2	≤8.5	13.61
			1	74	1	0	2	≤1	21.01
		64QAM	75	0	50	0	125	≤3	19.19
			1	0	1	49	2	≤8.5	13.58
			1	74	1	0	2	≤3	20.05
41417	41537	QPSK	75	0	50	0	125	≤2	21.61
			1	0	1	49	2	≤8.5	15.08
			1	74	1	0	2	≤0	22.95
		16QAM	75	0	50	0	125	≤3	20.60
			1	0	1	49	2	≤8.5	15.11
			1	74	1	0	2	≤1	22.09
		64QAM	75	0	50	0	125	≤3	20.60
			1	0	1	49	2	≤8.5	15.09
			1	74	1	0	2	≤3	21.22
<b>Combination 10MHz+15MHz (50RB+75RB)</b>									
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	20.05
			1	0	1	74	2	≤8.5	13.56
			1	49	1	0	2	≤0	20.14
		16QAM	50	0	75	0	125	≤3	19.06
			1	0	1	74	2	≤8.5	13.57
			1	49	1	0	2	≤1	18.13
		64QAM	50	0	75	0	125	≤3	19.09
			1	0	1	74	2	≤8.5	13.56
			1	49	1	0	2	≤3	18.16
40549	40669	QPSK	50	0	75	0	125	≤2	20.12
			1	0	1	74	2	≤8.5	13.58
			1	49	1	0	2	≤0	20.21
		16QAM	50	0	75	0	125	≤3	19.13
			1	0	1	74	2	≤8.5	13.54
			1	49	1	0	2	≤1	18.16



41395	41515	64QAM	50	0	75	0	125	≤3	19.17				
			1	0	1	74	2	≤8.5	13.57				
			1	49	1	0	2	≤3	18.20				
		41395	41515	QPSK	50	0	75	0	125	≤2	21.54		
					1	0	1	74	2	≤8.5	15.03		
					1	49	1	0	2	≤0	21.68		
				41395	41515	16QAM	50	0	75	0	125	≤3	20.55
							1	0	1	74	2	≤8.5	15.02
							1	49	1	0	2	≤1	19.72
41395	41515					64QAM	50	0	75	0	125	≤3	20.58
							1	0	1	74	2	≤8.5	14.98
							1	49	1	0	2	≤3	19.67
		<b>Combination 15MHz+15MHz (75RB+75RB)</b>											
		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	20.13		
					1	0	1	74	2	≤8.5	13.54		
					1	74	1	0	2	≤0	19.93		
39725	39875			16QAM	75	0	75	0	150	≤3	19.09		
					1	0	1	74	2	≤8.5	13.67		
					1	74	1	0	2	≤1	18.22		
				39725	39875	64QAM	75	0	75	0	150	≤3	19.11
							1	0	1	74	2	≤8.5	13.53
							1	74	1	0	2	≤3	18.15
		40545	40695			QPSK	75	0	75	0	150	≤2	20.10
							1	0	1	74	2	≤8.5	13.51
							1	74	1	0	2	≤0	20.08
40545	40695					16QAM	75	0	75	0	150	≤3	19.12
							1	0	1	74	2	≤8.5	13.66
							1	74	1	0	2	≤1	18.23
				40545	40695	64QAM	75	0	75	0	150	≤3	19.17
							1	0	1	74	2	≤8.5	13.50
							1	74	1	0	2	≤3	18.18
		41365	41515			QPSK	75	0	75	0	150	≤2	21.57
							1	0	1	74	2	≤8.5	15.01
							1	74	1	0	2	≤0	21.65
41365	41515					16QAM	75	0	75	0	150	≤3	20.57
							1	0	1	74	2	≤8.5	15.14
							1	74	1	0	2	≤1	19.79
				41365	41515	64QAM	75	0	75	0	150	≤3	20.77
							1	0	1	74	2	≤8.5	14.80
							1	74	1	0	2	≤3	19.72



**ERP/EIRP**

LTE Band 7 (GT - LC = -2.76 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency	2502.5	2535	2567.5
(MHz)			
Conducted Power (dBm)	22.86	23.01	22.97
Conducted Power (Watts)	0.1932	0.2000	0.1982
EIRP(dBm)	20.10	20.25	20.21
EIRP(Watts)	0.1023	0.1059	0.1050

LTE Band 7 (GT - LC = -2.76 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	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
(MHz)									
Conducted Power (dBm)	22.72	22.80	23.00	22.71	22.67	22.96	22.68	22.78	23.03
Conducted Power (Watts)	0.1871	0.1905	0.1995	0.1866	0.1849	0.1977	0.1854	0.1897	0.2009
EIRP(dBm)	19.96	20.04	20.24	19.95	19.91	20.20	19.92	20.02	20.27
EIRP(Watts)	0.0991	0.1009	0.1057	0.0989	0.0979	0.1047	0.0982	0.1005	0.1064



LTE Band 7 (GT - LC = -2.76 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	22.21	22.30
Conducted Power (Watts)	0.1663	0.1698	0.1738
EIRP(dBm)	19.45	19.54	19.64
EIRP(Watts)	0.0881	0.0899	0.0920

LTE Band 7 (GT - LC = -2.76 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
	Conducted Power (dBm)	22.18	22.34	22.43	22.06	22.08	22.42	22.00	22.16
Conducted Power (Watts)	0.1652	0.1714	0.1750	0.1607	0.1614	0.1746	0.1585	0.1644	0.1718
EIRP(dBm)	19.42	19.58	19.67	19.30	19.32	19.66	19.24	19.40	19.59
EIRP(Watts)	0.0875	0.0908	0.0927	0.0851	0.0855	0.0925	0.0839	0.0871	0.0910



LTE Band 7 (GT - LC = -2.76 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	21.16	21.18
Conducted Power (Watts)	0.1306	0.1312	0.1368
EIRP(dBm)	18.40	18.42	18.60
EIRP(Watts)	0.0692	0.0695	0.0724

LTE Band 7 (GT - LC = -2.76 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
	Conducted Power (dBm)	21.03	21.21	21.31	20.86	20.96	21.30	20.86	20.98
Conducted Power (Watts)	0.1268	0.1321	0.1352	0.1219	0.1247	0.1349	0.1219	0.1253	0.1321
EIRP(dBm)	18.27	18.45	18.55	18.10	18.20	18.54	18.10	18.22	18.45
EIRP(Watts)	0.0671	0.0700	0.0716	0.0646	0.0661	0.0714	0.0646	0.0664	0.0700



LTE Band 38 (GT - LC = -2.29 dB) QPSK			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency	2572.5	2595	2617.5
(MHz)			
Conducted Power (dBm)	22.88	22.72	22.72
Conducted Power (Watts)	0.1941	0.1871	0.1871
EIRP(dBm)	20.59	20.43	20.43
EIRP(Watts)	0.1146	0.1104	0.1104

LTE Band 38 (GT - LC = -2.29 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
(MHz)									
Conducted Power (dBm)	22.93	22.78	22.74	22.91	22.58	22.60	22.95	22.74	22.77
Conducted Power (Watts)	0.1963	0.1897	0.1879	0.1954	0.1811	0.1820	0.1972	0.1879	0.1892
EIRP(dBm)	20.64	20.49	20.45	20.62	20.29	20.31	20.66	20.45	20.48
EIRP(Watts)	0.1159	0.1119	0.1109	0.1153	0.1069	0.1074	0.1164	0.1109	0.1117





LTE Band 38 (GT - LC = -2.29 dB) 16QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency	2572.5	2595	2617.5
(MHz)			
Conducted Power (dBm)	22.50	22.12	22.22
Conducted Power (Watts)	0.1778	0.1629	0.1667
EIRP(dBm)	20.21	19.83	19.93
EIRP(Watts)	0.1050	0.0962	0.0984

LTE Band 38 (GT - LC = -2.29 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
(MHz)									
Conducted Power (dBm)	22.54	22.13	22.25	22.28	21.95	22.00	22.31	22.09	22.09
Conducted Power (Watts)	0.1795	0.1633	0.1679	0.1690	0.1567	0.1585	0.1702	0.1618	0.1618
EIRP(dBm)	20.25	19.84	19.96	19.99	19.66	19.71	20.02	19.80	19.80
EIRP(Watts)	0.1059	0.0964	0.0991	0.0998	0.0925	0.0935	0.1005	0.0955	0.0955



LTE Band 38 (GT - LC = -2.29 dB) 64QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency (MHz)	2572.5	2595	2617.5
	Conducted Power (dBm)	21.38	20.90
Conducted Power (Watts)	0.1374	0.1230	0.1294
EIRP(dBm)	19.09	18.61	18.83
EIRP(Watts)	0.0811	0.0726	0.0764

LTE Band 38 (GT - LC = -2.29 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
	Conducted Power (dBm)	21.37	21.06	21.18	21.18	20.79	20.84	21.11	20.81
Conducted Power (Watts)	0.1371	0.1276	0.1312	0.1312	0.1199	0.1213	0.1291	0.1205	0.1202
EIRP(dBm)	19.08	18.77	18.89	18.89	18.50	18.55	18.82	18.52	18.51
EIRP(Watts)	0.0809	0.0753	0.0774	0.0774	0.0708	0.0716	0.0762	0.0711	0.0710



LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -2.23 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)	25.71	25.89	25.59	25.71	25.87	25.71	25.52	25.76	25.62
Conducted Power (Watts)	0.3724	0.3882	0.3622	0.3724	0.3864	0.3724	0.3565	0.3767	0.3648
EIRP(dBm)	23.48	23.66	23.36	23.48	23.64	23.48	23.29	23.53	23.39
EIRP(Watts)	0.2228	0.2323	0.2168	0.2228	0.2312	0.2228	0.2133	0.2254	0.2183

LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -2.23 dB) QPSK			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	25.91	26.14	25.87
Conducted Power (Watts)	0.3899	0.4111	0.3864
EIRP(dBm)	23.68	23.91	23.64
EIRP(Watts)	0.2333	0.2460	0.2312



LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -2.23 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)	24.41	24.42	24.23	24.29	24.54	24.33	24.14	24.42	24.20
Conducted Power (Watts)	0.2761	0.2767	0.2649	0.2685	0.2844	0.2710	0.2594	0.2767	0.2630
EIRP(dBm)	22.18	22.19	22.00	22.06	22.31	22.10	21.91	22.19	21.97
EIRP(Watts)	0.1652	0.1656	0.1585	0.1607	0.1702	0.1622	0.1552	0.1656	0.1574

LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -2.23 dB) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	24.27	24.51	24.34
Conducted Power (Watts)	0.2673	0.2825	0.2716
EIRP(dBm)	22.04	22.28	22.11
EIRP(Watts)	0.1600	0.1690	0.1626



LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -2.23 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)	23.33	23.49	23.19	23.40	23.58	23.33	23.06	23.44	23.26
Conducted Power (Watts)	0.2153	0.2234	0.2084	0.2188	0.2280	0.2153	0.2023	0.2208	0.2118
EIRP(dBm)	21.10	21.26	20.96	21.17	21.35	21.10	20.83	21.21	21.03
EIRP(Watts)	0.1288	0.1337	0.1247	0.1309	0.1365	0.1288	0.1211	0.1321	0.1268

LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -2.23 dB) 64QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	23.09	23.42	23.19
Conducted Power (Watts)	0.2037	0.2198	0.2084
EIRP(dBm)	20.86	21.19	20.96
EIRP(Watts)	0.1219	0.1315	0.1247



**CA EIRP**

LTE Band 41 CA (GT - LC = -2.23 dB) QPSK									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.13	20.10	21.65	20.15	20.35	21.82	20.21	20.27	21.73
Conducted Power (Watts)	0.1030	0.1023	0.1462	0.1035	0.1084	0.1521	0.1050	0.1064	0.1489
EIRP(dBm)	17.90	17.87	19.42	17.92	18.12	19.59	17.98	18.04	19.50
EIRP(Watts)	0.0617	0.0612	0.0875	0.0619	0.0649	0.0910	0.0628	0.0637	0.0891

LTE Band 41 CA (GT - LC = -2.23 dB) QPSK									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.08	22.12	22.96	21.92	21.89	22.86	21.96	21.95	22.94
Conducted Power (Watts)	0.1614	0.1629	0.1977	0.1556	0.1545	0.1932	0.1570	0.1567	0.1968
EIRP(dBm)	19.85	19.89	20.73	19.69	19.66	20.63	19.73	19.72	20.71
EIRP(Watts)	0.0966	0.0975	0.1183	0.0931	0.0925	0.1156	0.0940	0.0938	0.1178



LTE Band 41 CA (GT - LC = -2.23 dB) QPSK						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.15	22.17	22.96	20.19	20.21	20.85
Conducted Power (Watts)	0.1641	0.1648	0.1977	0.1045	0.1050	0.1216
EIRP(dBm)	19.92	19.94	20.73	17.96	17.98	18.62
EIRP(Watts)	0.0982	0.0986	0.1183	0.0625	0.0628	0.0728

LTE Band 41 CA (GT - LC = -2.23 dB) QPSK						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.07	22.00	22.95	20.14	20.21	21.68
Conducted Power (Watts)	0.1611	0.1585	0.1972	0.1033	0.1050	0.1472
EIRP(dBm)	19.84	19.77	20.72	17.91	17.98	19.45
EIRP(Watts)	0.0964	0.0948	0.1180	0.0618	0.0628	0.0881



LTE Band 41 CA (GT - LC = -2.23 dB) 16QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.09	19.12	20.57	19.11	19.25	20.69	19.34	19.38	20.65
Conducted Power (Watts)	0.0811	0.0817	0.1140	0.0815	0.0841	0.1172	0.0859	0.0867	0.1161
EIRP(dBm)	16.86	16.89	18.34	16.88	17.02	18.46	17.11	17.15	18.42
EIRP(Watts)	0.0485	0.0489	0.0682	0.0488	0.0504	0.0701	0.0514	0.0519	0.0695

LTE Band 41 CA (GT - LC = -2.23 dB) 16QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.03	21.06	22.03	20.98	20.96	22.02	21.03	21.16	22.14
Conducted Power (Watts)	0.1268	0.1276	0.1596	0.1253	0.1247	0.1592	0.1268	0.1306	0.1637
EIRP(dBm)	18.80	18.83	19.80	18.75	18.73	19.79	18.80	18.93	19.91
EIRP(Watts)	0.0759	0.0764	0.0955	0.0750	0.0746	0.0953	0.0759	0.0782	0.0979





LTE Band 41 CA (GT - LC = -2.23 dB) 16QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.15	22.21	22.91	19.05	19.14	20.60
Conducted Power (Watts)	0.1641	0.1663	0.1954	0.0804	0.0820	0.1148
EIRP(dBm)	19.92	19.98	20.68	16.82	16.91	18.37
EIRP(Watts)	0.0982	0.0995	0.1169	0.0481	0.0491	0.0687

LTE Band 41 CA (GT - LC = -2.23 dB) 16QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.06	21.01	22.09	19.06	19.13	20.55
Conducted Power (Watts)	0.1276	0.1262	0.1618	0.0805	0.0818	0.1135
EIRP(dBm)	18.83	18.78	19.86	16.83	16.90	18.32
EIRP(Watts)	0.0764	0.0755	0.0968	0.0482	0.0490	0.0679



LTE Band 41 CA (GT - LC = -2.23 dB) 64QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.11	19.17	20.77	19.13	19.21	20.68	19.24	19.25	20.68
Conducted Power (Watts)	0.0815	0.0826	0.1194	0.0818	0.0834	0.1169	0.0839	0.0841	0.1169
EIRP(dBm)	16.88	16.94	18.54	16.90	16.98	18.45	17.01	17.02	18.45
EIRP(Watts)	0.0488	0.0494	0.0714	0.0490	0.0499	0.0700	0.0502	0.0504	0.0700

LTE Band 41 CA (GT - LC = -2.23 dB) 64QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.10	20.15	21.16	20.11	20.07	22.09	20.06	20.11	21.14
Conducted Power (Watts)	0.1023	0.1035	0.1306	0.1026	0.1016	0.1618	0.1014	0.1026	0.1300
EIRP(dBm)	17.87	17.92	18.93	17.88	17.84	19.86	17.83	17.88	18.91
EIRP(Watts)	0.0612	0.0619	0.0782	0.0614	0.0608	0.0968	0.0607	0.0614	0.0778



LTE Band 41 CA (GT - LC = -2.23 dB) 64QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.23	22.18	22.93	19.13	19.14	20.55
Conducted Power (Watts)	0.1671	0.1652	0.1963	0.0818	0.0820	0.1135
EIRP(dBm)	20.00	19.95	20.70	16.90	16.91	18.32
EIRP(Watts)	0.1000	0.0989	0.1175	0.0490	0.0491	0.0679

LTE Band 41 CA (GT - LC = -2.23 dB) 64QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.08	20.05	21.22	19.09	19.17	20.58
Conducted Power (Watts)	0.1019	0.1012	0.1324	0.0811	0.0826	0.1143
EIRP(dBm)	17.85	17.82	18.99	16.86	16.94	18.35
EIRP(Watts)	0.0610	0.0605	0.0793	0.0485	0.0494	0.0684



# LTE Band 41

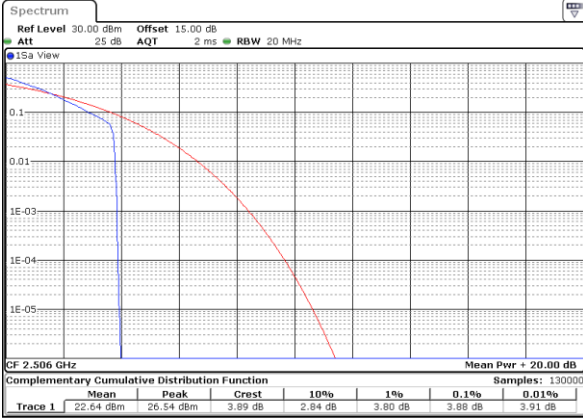
## Peak-to-Average Ratio

Mode	LTE Band 41 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.88	6.90	5.74	6.06	PASS
Middle CH	4.43	5.19	5.48	6.55	
Highest CH	4.52	5.22	5.51	6.58	
Mode	LTE Band 41 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.55	6.58	-	-	PASS
Middle CH	7.04	6.99	-	-	
Highest CH	6.81	6.49	-	-	



LTE Band 41 / 20MHz / QPSK

Lowest Channel / 1RB



Date: 8 JUL 2021 21:01:44

Lowest Channel / Full RB



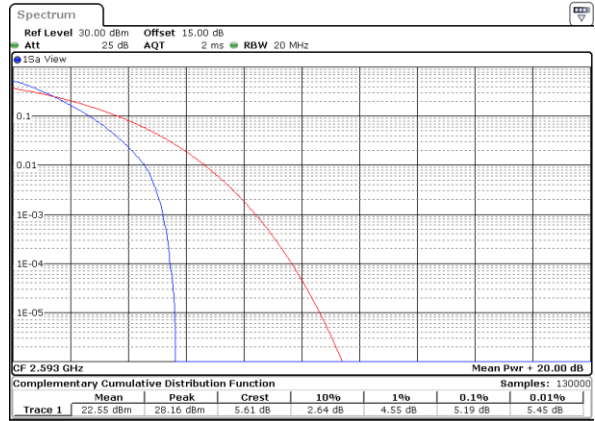
Date: 8 JUL 2021 21:01:59

Middle Channel / 1RB



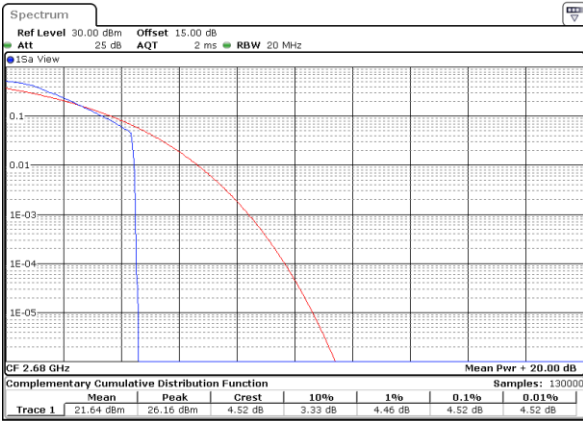
Date: 8 JUL 2021 21:02:09

Middle Channel / Full RB



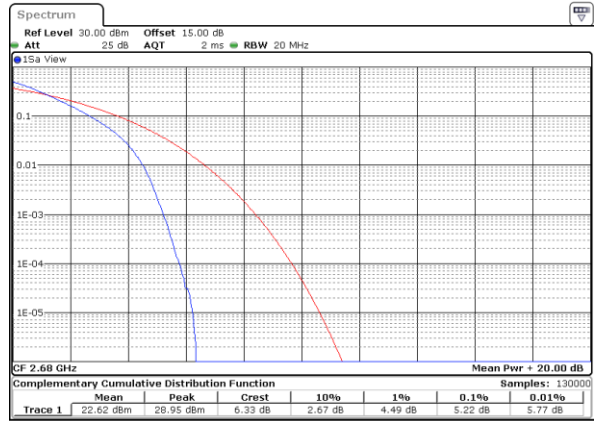
Date: 8 JUL 2021 21:02:19

Highest Channel / 1RB



Date: 8 JUL 2021 21:02:34

Highest Channel / Full RB

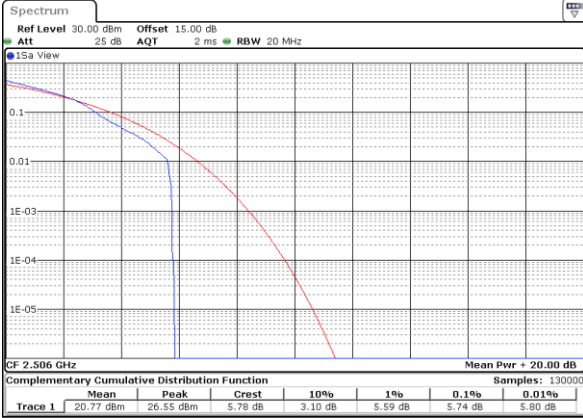


Date: 8 JUL 2021 21:02:57



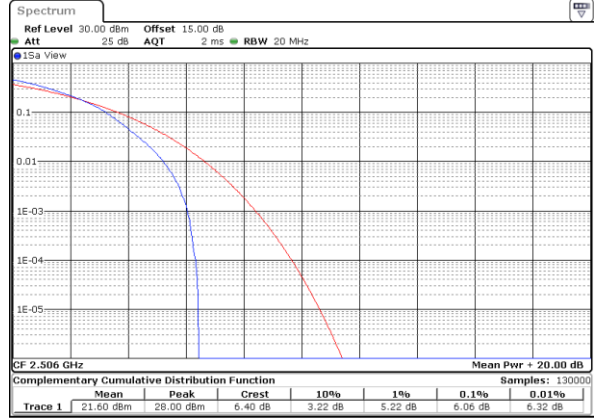
LTE Band 41 / 20MHz / 16QAM

Lowest Channel / 1RB



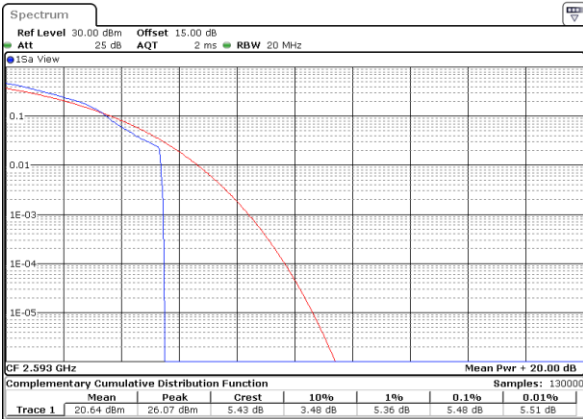
Date: 8 JUL 2021 21:00:23

Lowest Channel / Full RB



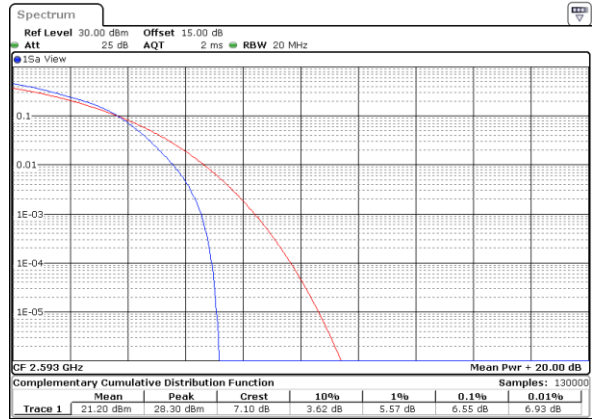
Date: 8 JUL 2021 21:00:37

Middle Channel / 1RB



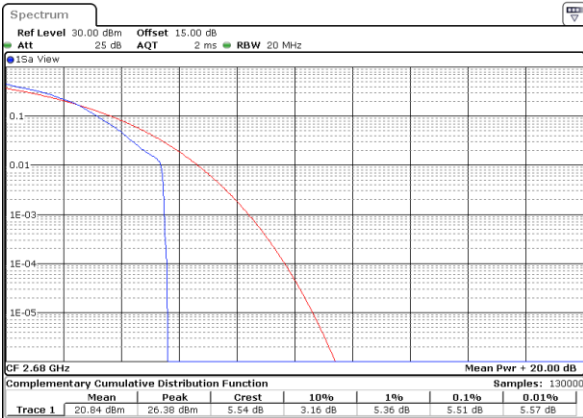
Date: 8 JUL 2021 21:00:53

Middle Channel / Full RB



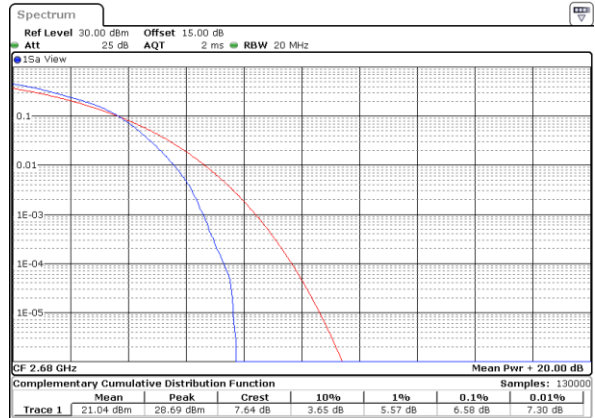
Date: 8 JUL 2021 21:01:09

Highest Channel / 1RB



Date: 8 JUL 2021 21:01:23

Highest Channel / Full RB

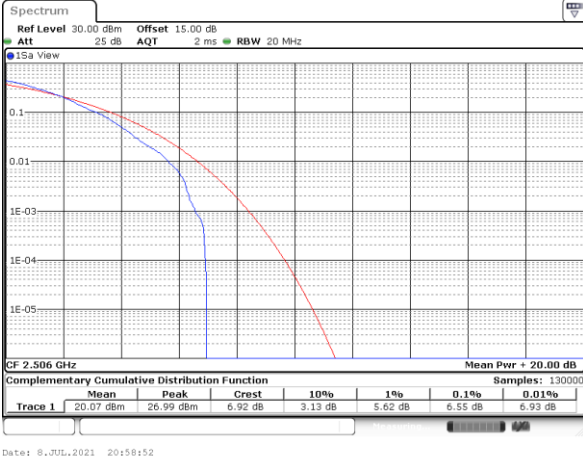


Date: 8 JUL 2021 21:01:34



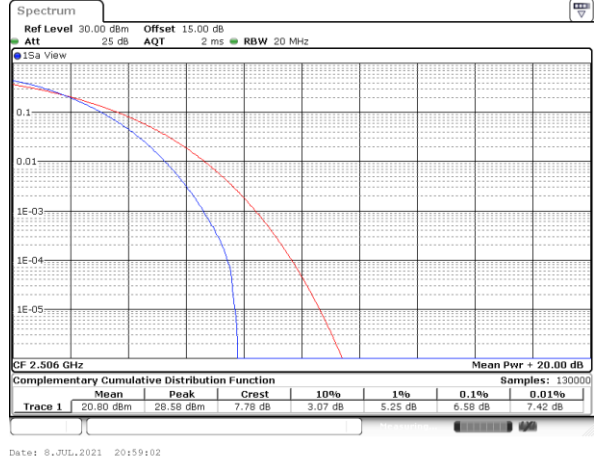
LTE Band 41 / 20MHz / 64QAM

Lowest Channel / 1RB



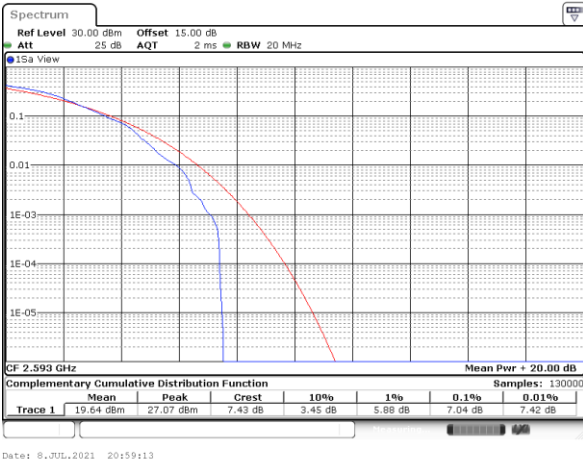
Date: 8 JUL 2021 20:58:52

Lowest Channel / Full RB



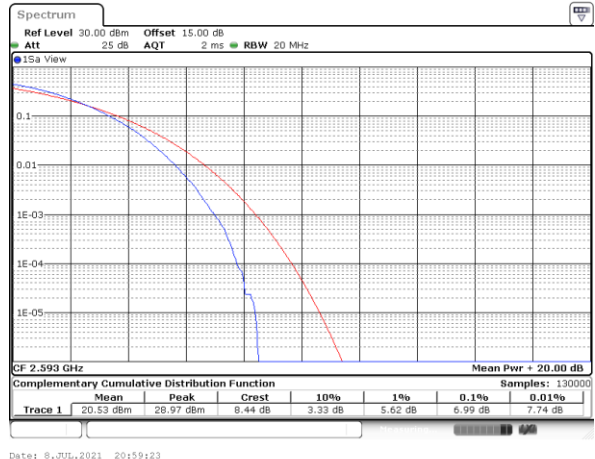
Date: 8 JUL 2021 20:59:02

Middle Channel / 1RB



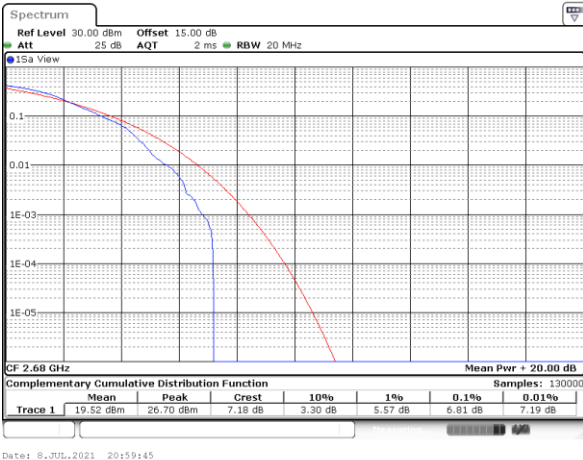
Date: 8 JUL 2021 20:59:13

Middle Channel / Full RB



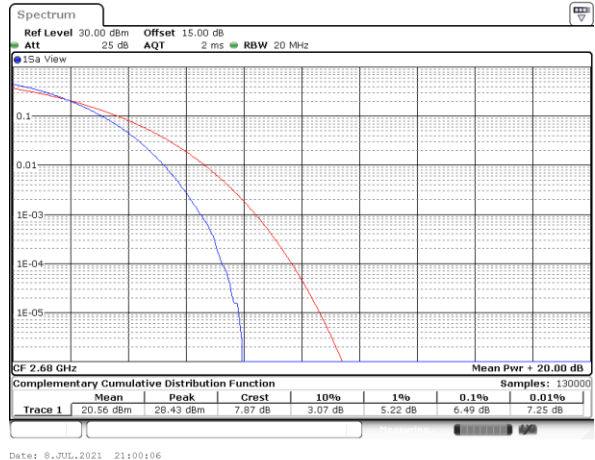
Date: 8 JUL 2021 20:59:23

Highest Channel / 1RB



Date: 8 JUL 2021 20:59:45

Highest Channel / Full RB



Date: 8 JUL 2021 21:00:06



**26dB Bandwidth**

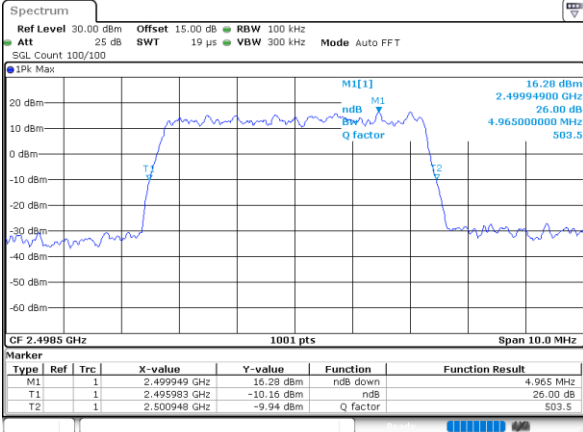
Mode	LTE Band 41 : 26dB BW(MHz)											
BW				5MHz		10MHz		15MHz		20MHz		
Mod.				QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	
Lowest CH				4.97	5.17	11.81	9.63	14.15	14.45	18.62	19.02	
Middle CH				4.87	4.94	9.81	9.73	14.27	14.18	18.82	18.86	
Highest CH				4.92	4.95	9.63	9.65	14.33	14.54	18.78	19.02	
Mode	LTE Band 41 : 26dB BW(MHz)											
BW				5MHz		10MHz		15MHz		20MHz		
Mod.				64QAM		64QAM		64QAM		64QAM		
Lowest CH				4.79	-	9.67	-	14.27	-	18.62	-	
Middle CH				4.87	-	9.83	-	14.18	-	18.70	-	
Highest CH				4.96	-	9.81	-	14.27	-	19.10	-	





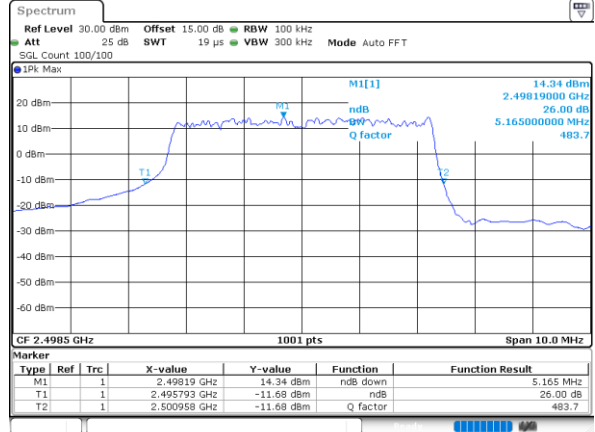
LTE Band 41

Lowest Channel / 5MHz / QPSK



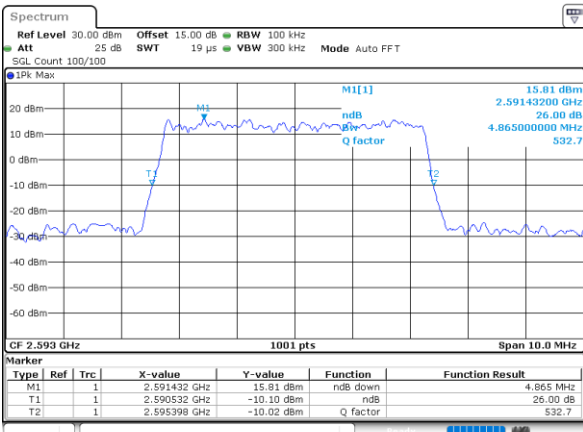
Date: 8 JUL 2021 19:04:20

Lowest Channel / 5MHz / 16QAM



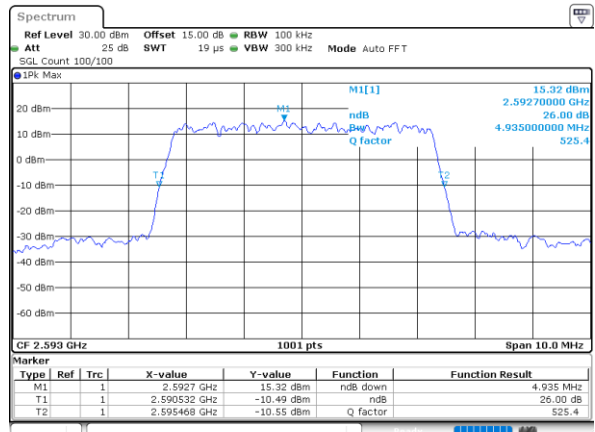
Date: 8 JUL 2021 19:04:31

Middle Channel / 5MHz / QPSK



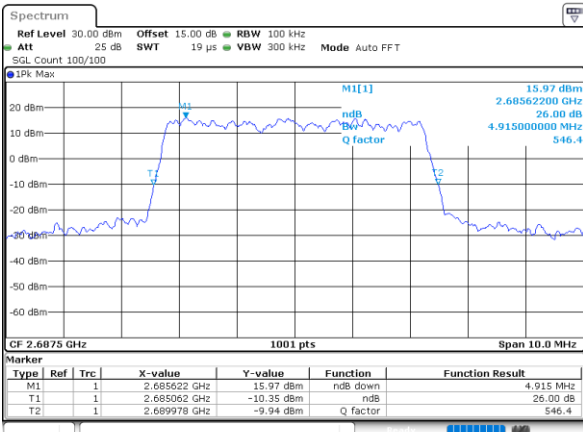
Date: 8 JUL 2021 19:05:04

Middle Channel / 5MHz / 16QAM



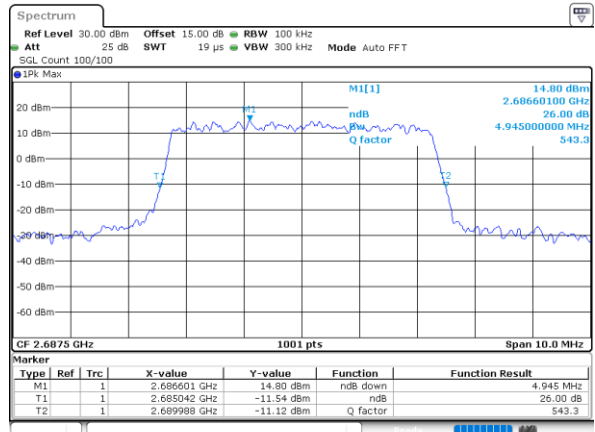
Date: 8 JUL 2021 19:05:15

Highest Channel / 5MHz / QPSK



Date: 8 JUL 2021 19:05:48

Highest Channel / 5MHz / 16QAM

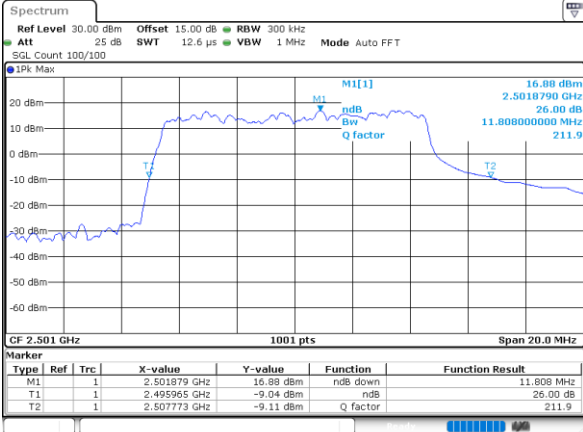


Date: 8 JUL 2021 19:05:59



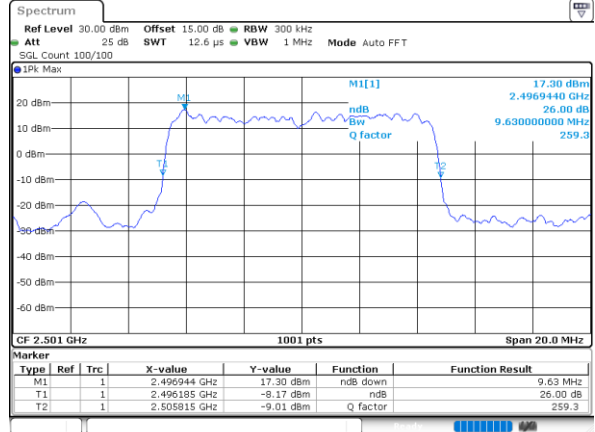
LTE Band 41

Lowest Channel / 10MHz / QPSK



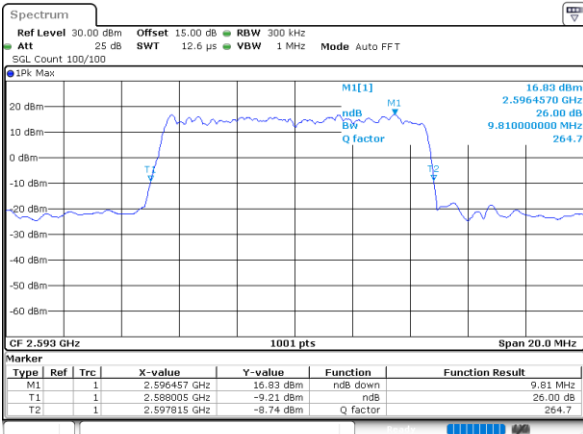
Date: 8 JUL 2021 19:06:32

Lowest Channel / 10MHz / 16QAM



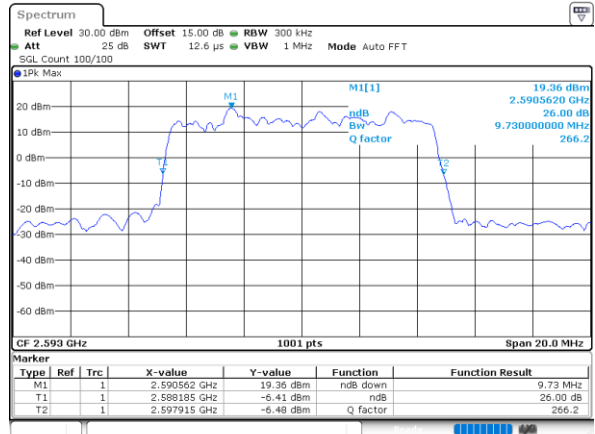
Date: 8 JUL 2021 19:06:43

Middle Channel / 10MHz / QPSK



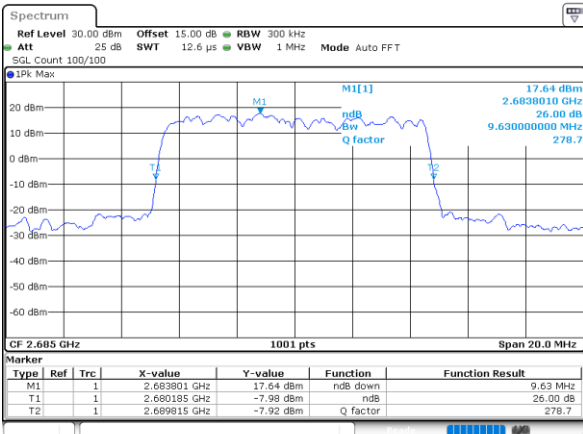
Date: 8 JUL 2021 19:07:18

Middle Channel / 10MHz / 16QAM



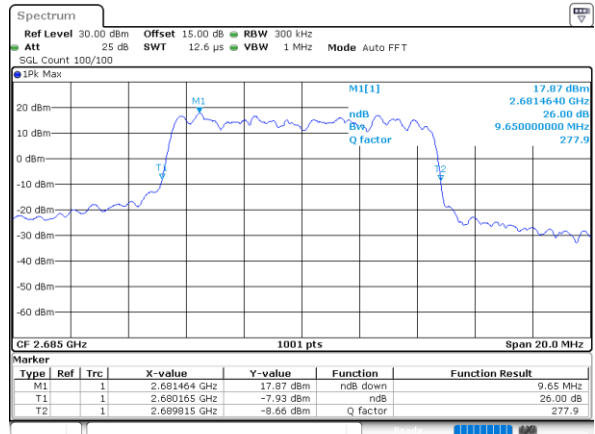
Date: 8 JUL 2021 19:07:28

Highest Channel / 10MHz / QPSK



Date: 8 JUL 2021 19:08:02

Highest Channel / 10MHz / 16QAM

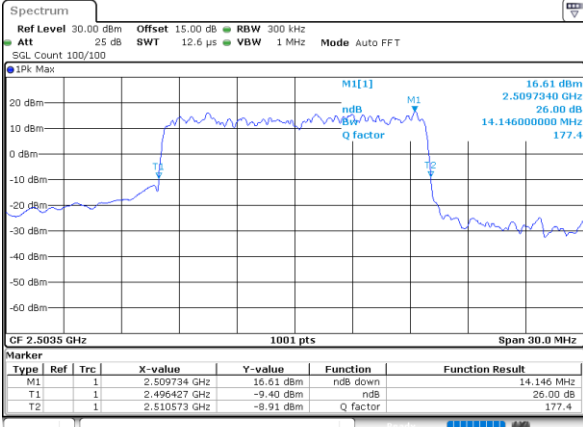


Date: 8 JUL 2021 19:08:13



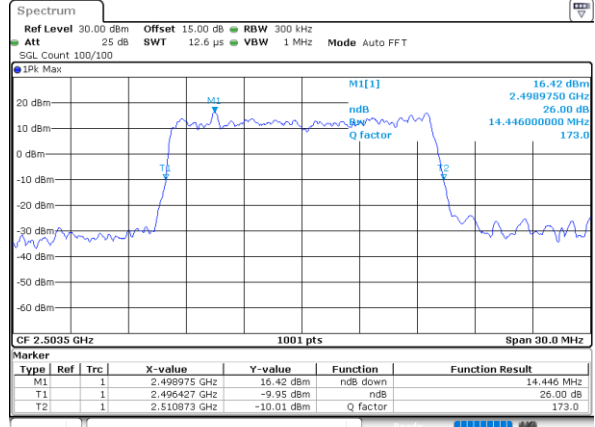
LTE Band 41

Lowest Channel / 15MHz / QPSK



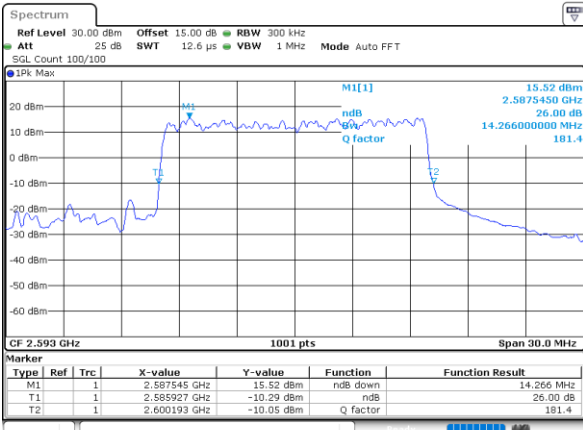
Date: 8 JUL 2021 19:08:47

Lowest Channel / 15MHz / 16QAM



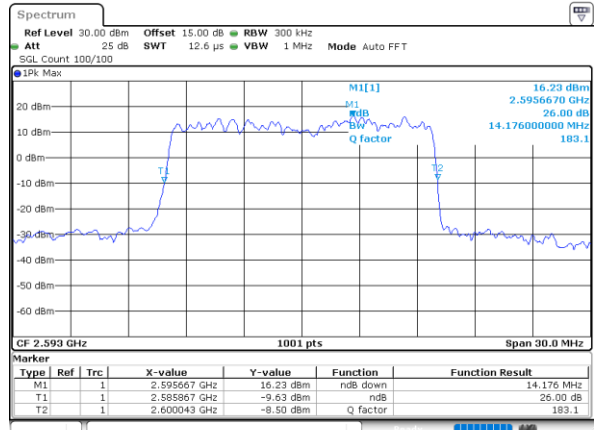
Date: 8 JUL 2021 19:08:58

Middle Channel / 15MHz / QPSK



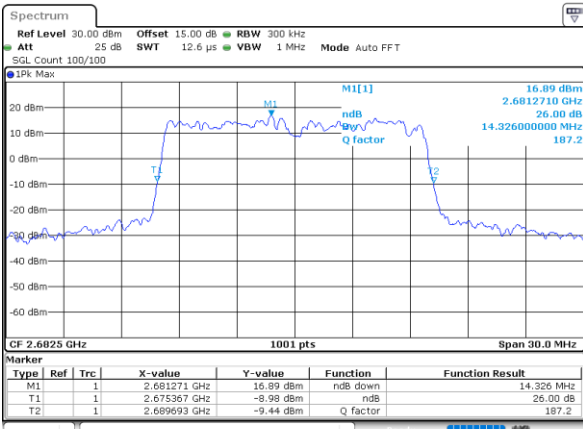
Date: 8 JUL 2021 19:09:31

Middle Channel / 15MHz / 16QAM



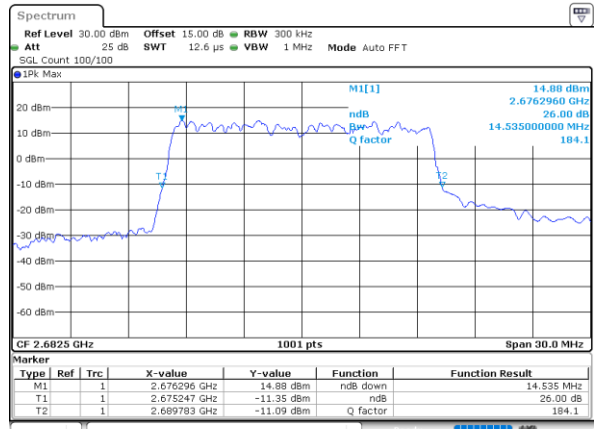
Date: 8 JUL 2021 19:09:42

Highest Channel / 15MHz / QPSK



Date: 8 JUL 2021 19:10:15

Highest Channel / 15MHz / 16QAM

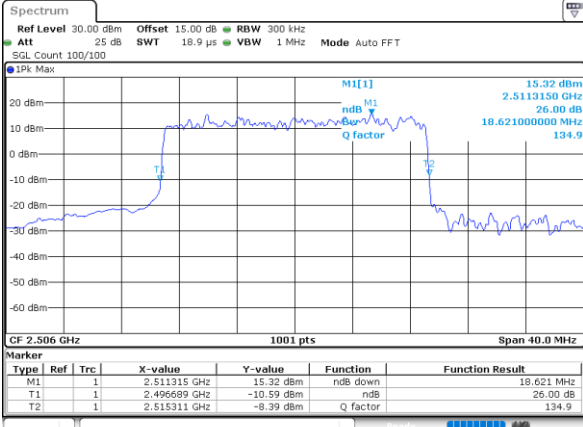


Date: 8 JUL 2021 19:10:26



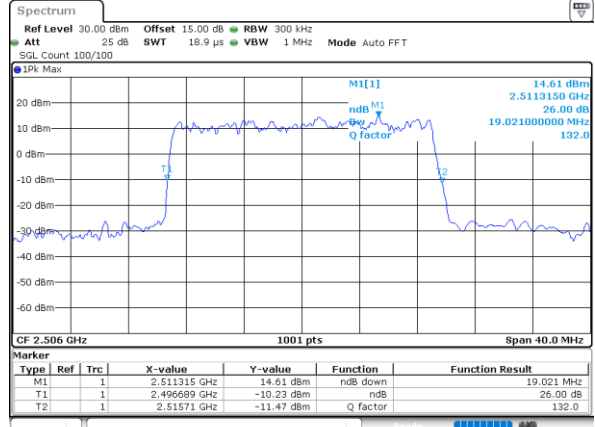
LTE Band 41

Lowest Channel / 20MHz / QPSK



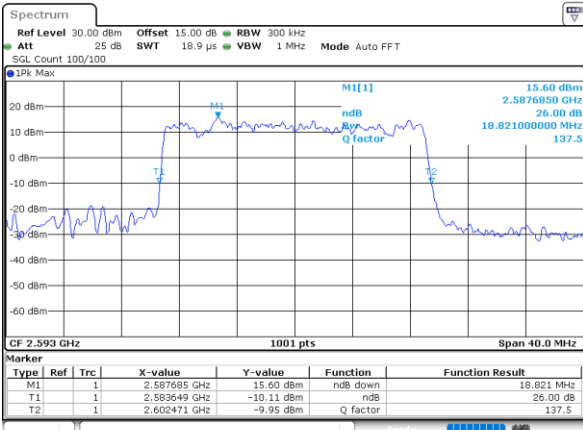
Date: 8 JUL 2021 19:11:10

Lowest Channel / 20MHz / 16QAM



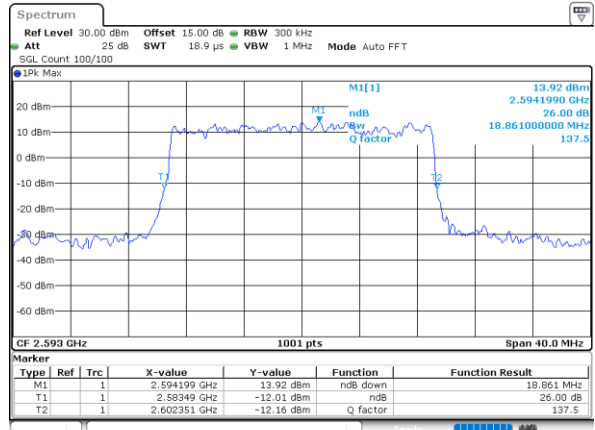
Date: 8 JUL 2021 19:11:12

Middle Channel / 20MHz / QPSK



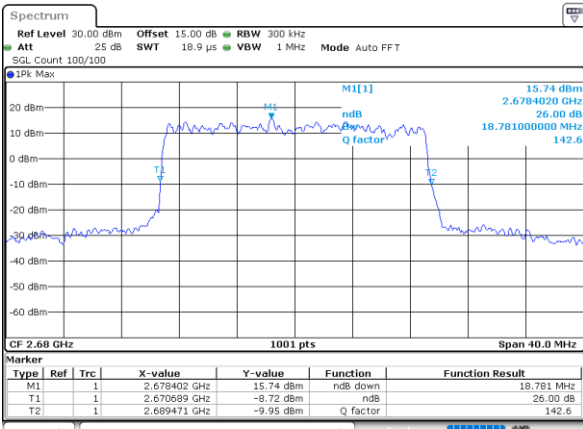
Date: 8 JUL 2021 19:11:46

Middle Channel / 20MHz / 16QAM



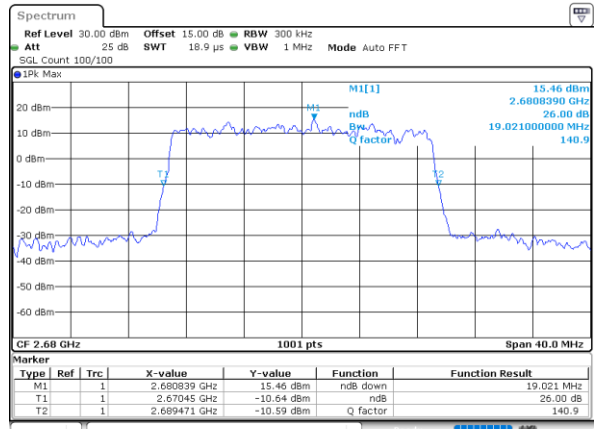
Date: 8 JUL 2021 19:11:57

Highest Channel / 20MHz / QPSK



Date: 8 JUL 2021 19:12:30

Highest Channel / 20MHz / 16QAM

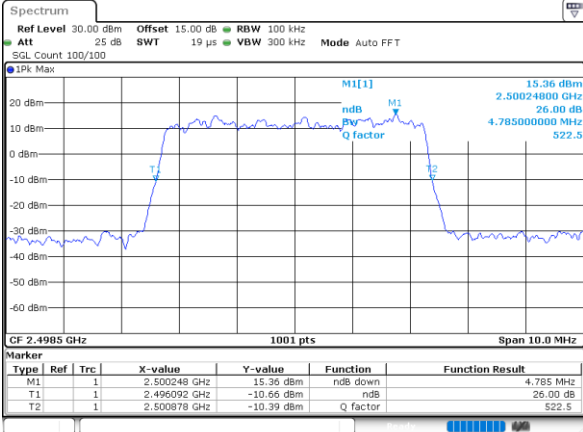


Date: 8 JUL 2021 19:12:41



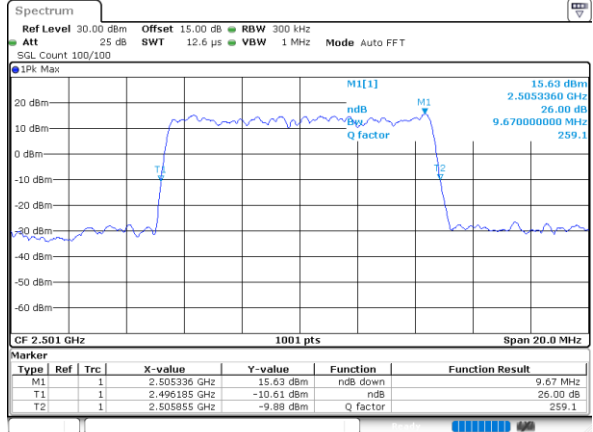
LTE Band 41

Lowest Channel / 5MHz / 64QAM



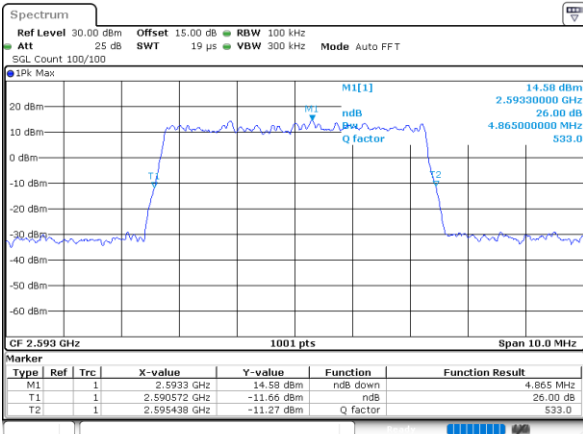
Date: 8 JUL 2021 19:13:03

Lowest Channel / 10MHz / 64QAM



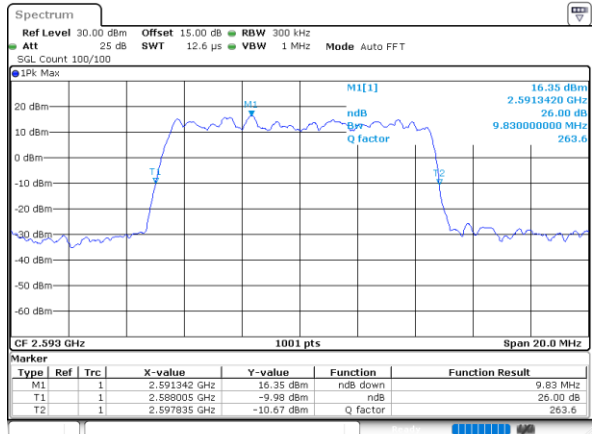
Date: 8 JUL 2021 19:14:12

Middle Channel / 5MHz / 64QAM



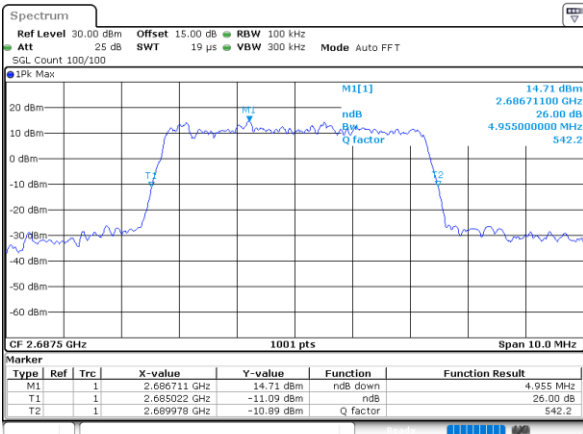
Date: 8 JUL 2021 19:13:27

Middle Channel / 10MHz / 64QAM



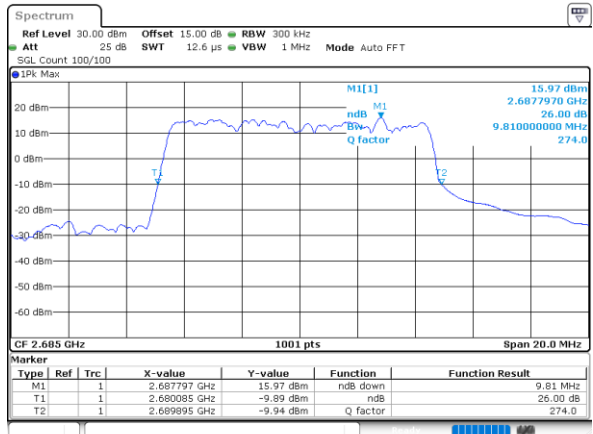
Date: 8 JUL 2021 19:14:35

Highest Channel / 5MHz / 64QAM



Date: 8 JUL 2021 19:13:49

Highest Channel / 10MHz / 64QAM

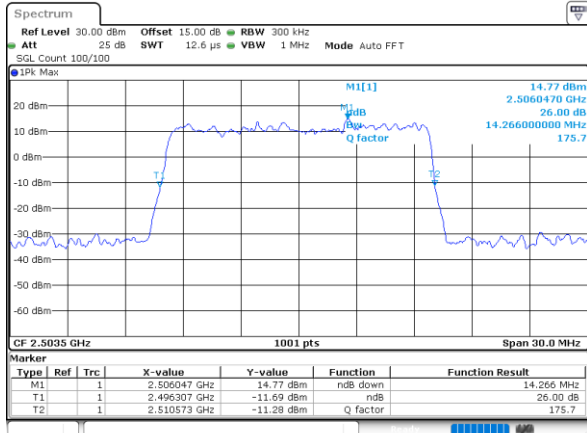


Date: 8 JUL 2021 19:14:57



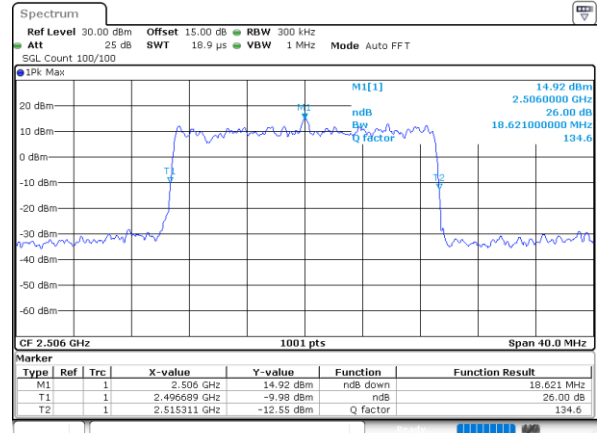
LTE Band 41

Lowest Channel / 15MHz / 64QAM



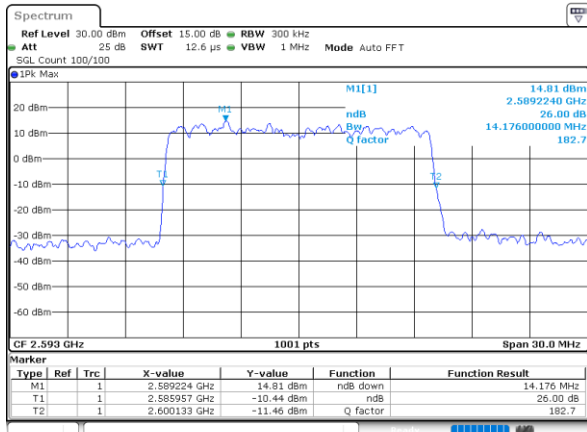
Date: 8 JUL 2021 19:15:20

Lowest Channel / 20MHz / 64QAM



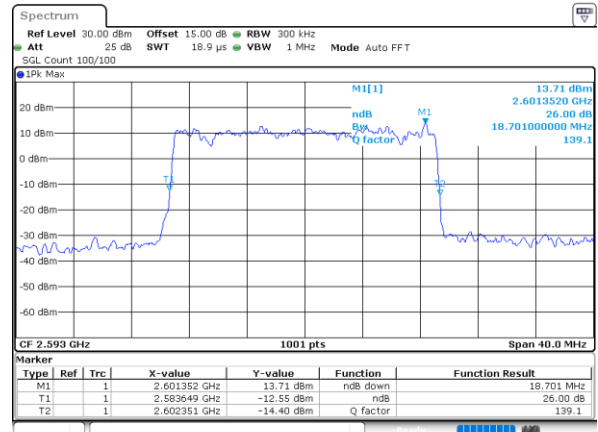
Date: 8 JUL 2021 19:16:27

Middle Channel / 15MHz / 64QAM



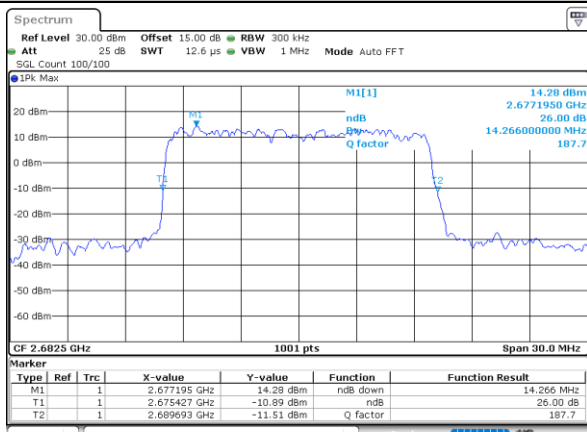
Date: 8 JUL 2021 19:15:43

Middle Channel / 20MHz / 64QAM



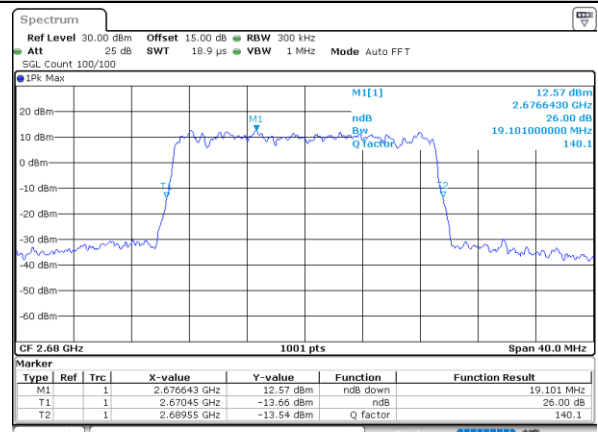
Date: 8 JUL 2021 19:16:49

Highest Channel / 15MHz / 64QAM



Date: 8 JUL 2021 19:16:05

Highest Channel / 20MHz / 64QAM



Date: 8 JUL 2021 19:17:11



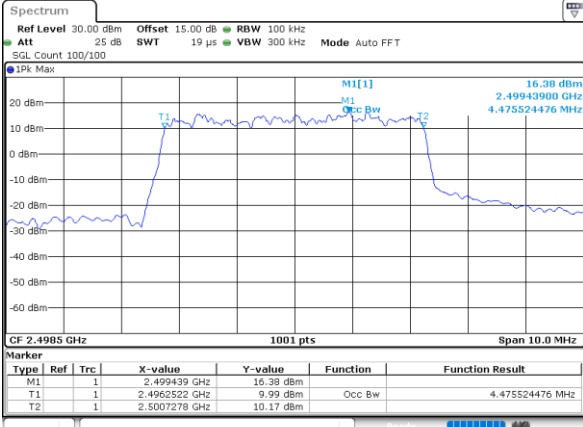
Occupied Bandwidth

Mode	LTE Band 41 : 99%OBW(MHz)											
BW				5MHz		10MHz		15MHz		20MHz		
Mod.				QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	
Lowest CH				4.48	4.49	9.03	9.03	13.43	13.49	17.86	17.86	
Middle CH				4.48	4.48	9.07	9.05	13.43	13.40	17.94	17.90	
Highest CH				4.50	4.48	8.99	8.95	13.40	13.40	17.82	17.82	
Mode	LTE Band 41 : 99%OBW(MHz)											
BW				5MHz		10MHz		15MHz		20MHz		
Mod.				64QAM		64QAM		64QAM		64QAM		
Lowest CH				4.47	-	9.01	-	13.43	-	17.82	-	
Middle CH				4.46	-	8.99	-	13.40	-	17.86	-	
Highest CH				4.52	-	9.01	-	13.46	-	17.98	-	



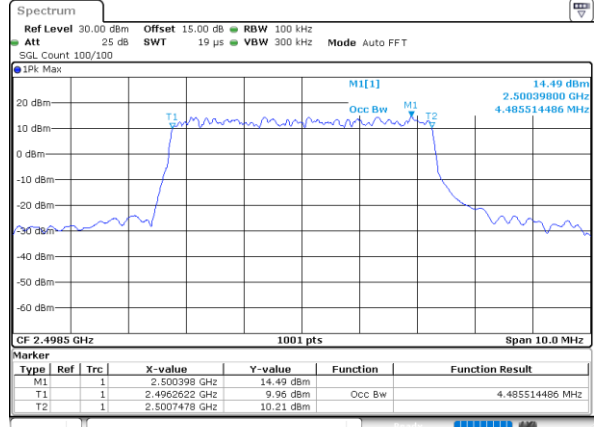
LTE Band 41

Lowest Channel / 5MHz / QPSK



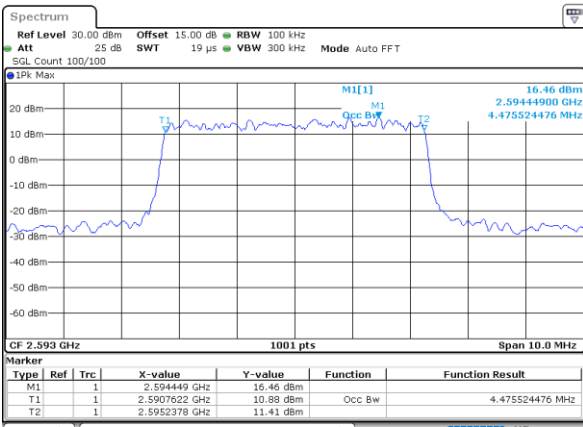
Date: 8 JUL 2021 19:03:58

Lowest Channel / 5MHz / 16QAM



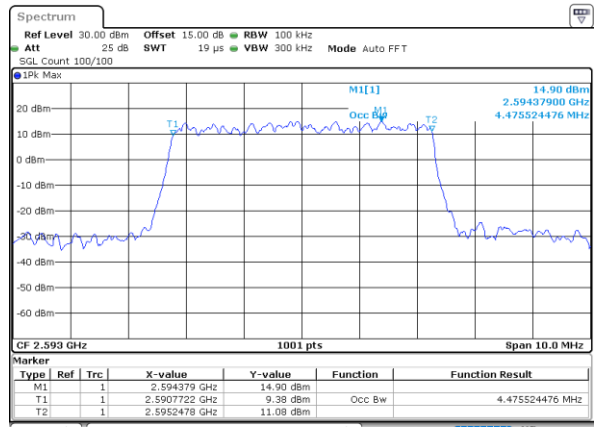
Date: 8 JUL 2021 19:04:09

Middle Channel / 5MHz / QPSK



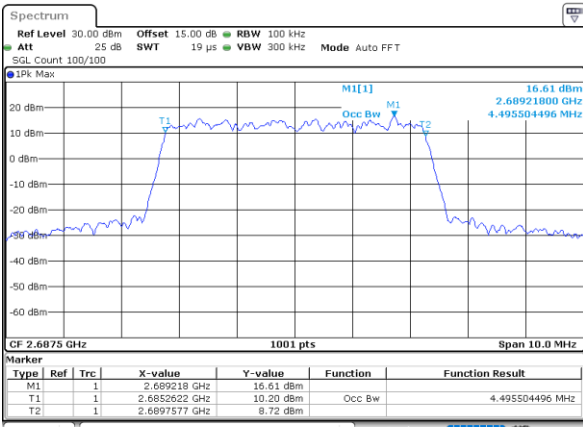
Date: 8 JUL 2021 19:04:42

Middle Channel / 5MHz / 16QAM



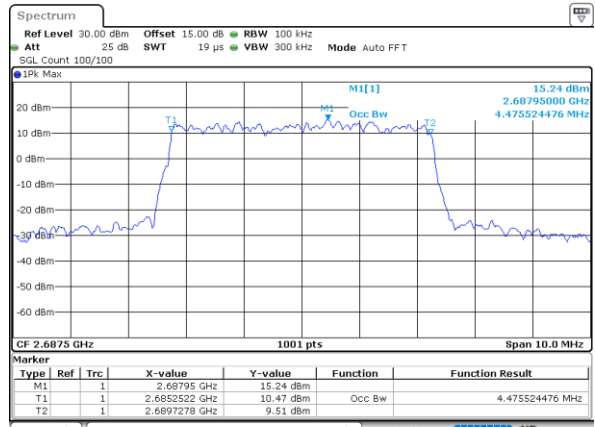
Date: 8 JUL 2021 19:04:53

Highest Channel / 5MHz / QPSK



Date: 8 JUL 2021 19:05:26

Highest Channel / 5MHz / 16QAM



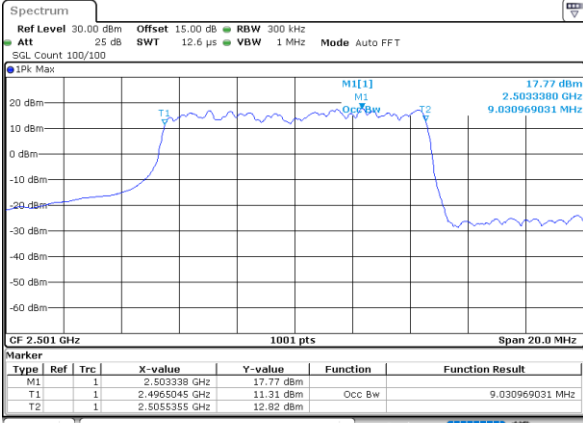
Date: 8 JUL 2021 19:05:37





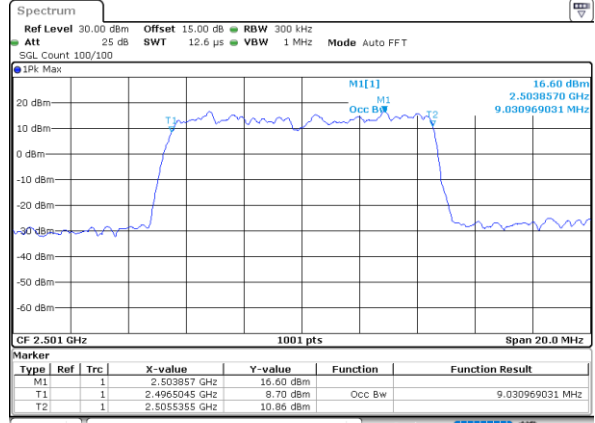
LTE Band 41

Lowest Channel / 10MHz / QPSK



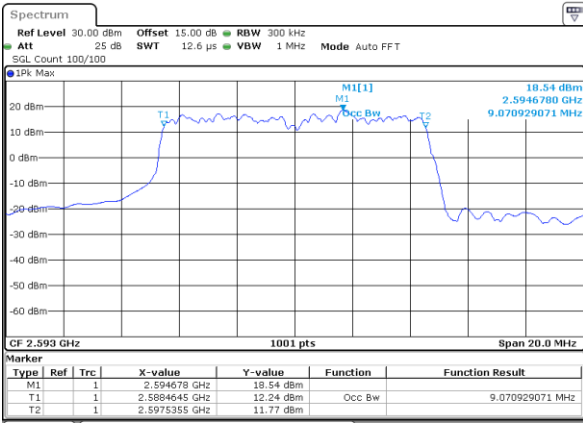
Date: 8 JUL 2021 19:06:10

Lowest Channel / 10MHz / 16QAM



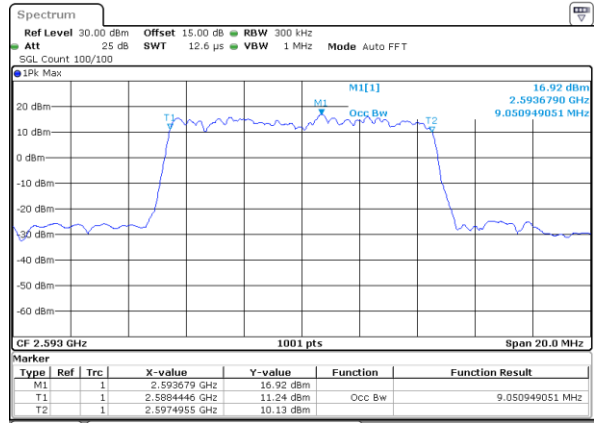
Date: 8 JUL 2021 19:06:21

Middle Channel / 10MHz / QPSK



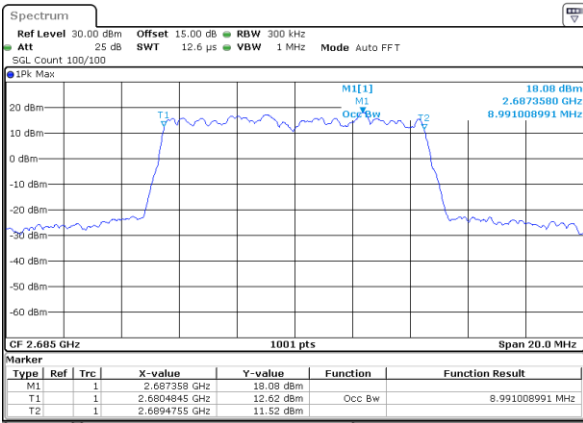
Date: 8 JUL 2021 19:06:55

Middle Channel / 10MHz / 16QAM



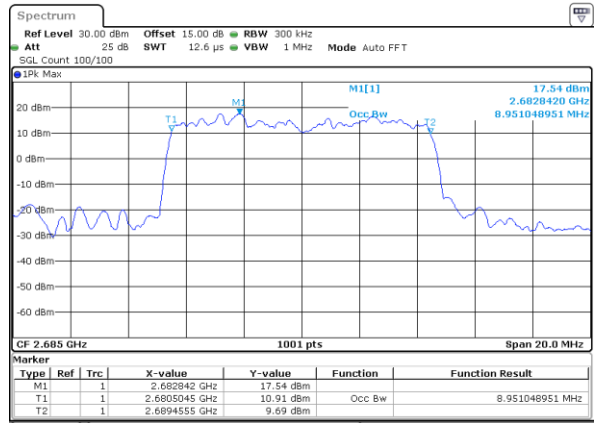
Date: 8 JUL 2021 19:07:06

Highest Channel / 10MHz / QPSK



Date: 8 JUL 2021 19:07:40

Highest Channel / 10MHz / 16QAM

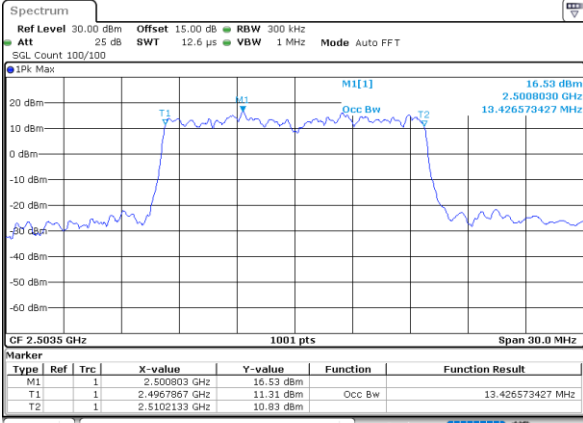


Date: 8 JUL 2021 19:07:51



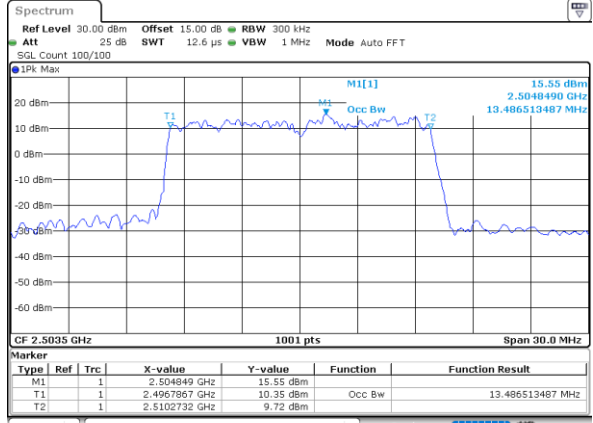
LTE Band 41

Lowest Channel / 15MHz / QPSK



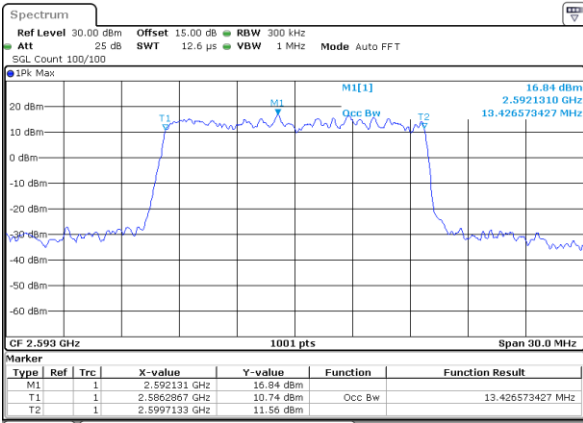
Date: 8 JUL 2021 19:08:24

Lowest Channel / 15MHz / 16QAM



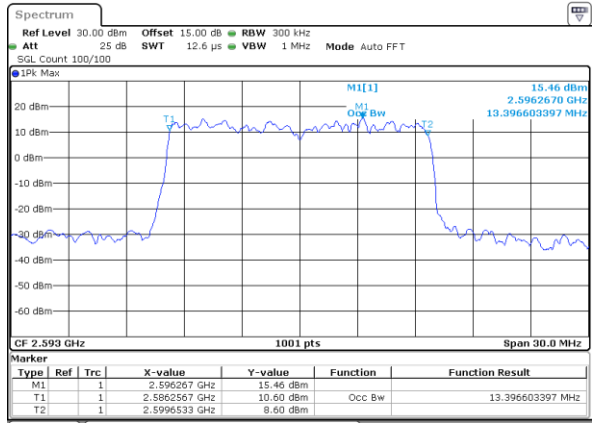
Date: 8 JUL 2021 19:08:36

Middle Channel / 15MHz / QPSK



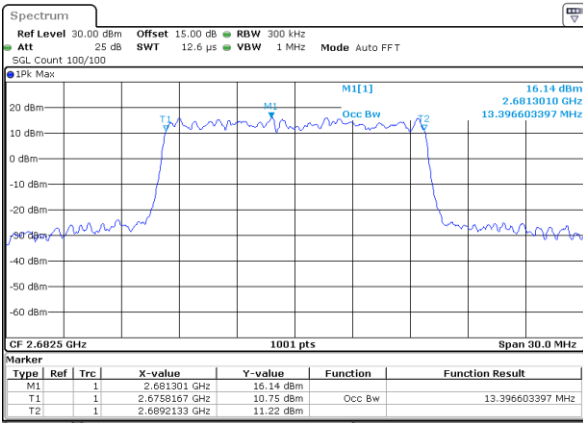
Date: 8 JUL 2021 19:09:09

Middle Channel / 15MHz / 16QAM



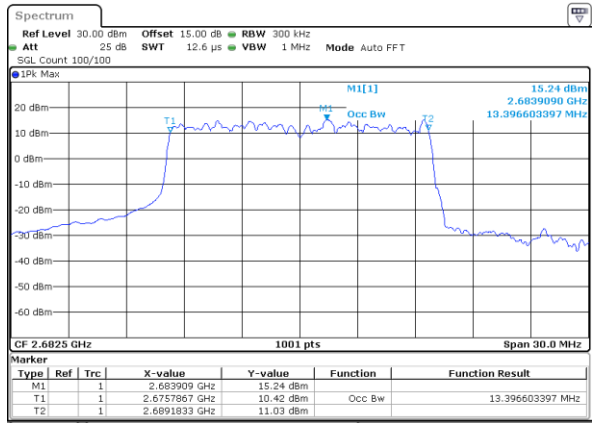
Date: 8 JUL 2021 19:09:20

Highest Channel / 15MHz / QPSK



Date: 8 JUL 2021 19:09:53

Highest Channel / 15MHz / 16QAM

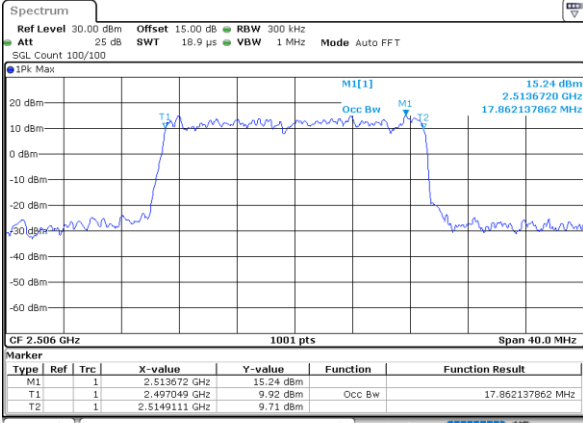


Date: 8 JUL 2021 19:10:04



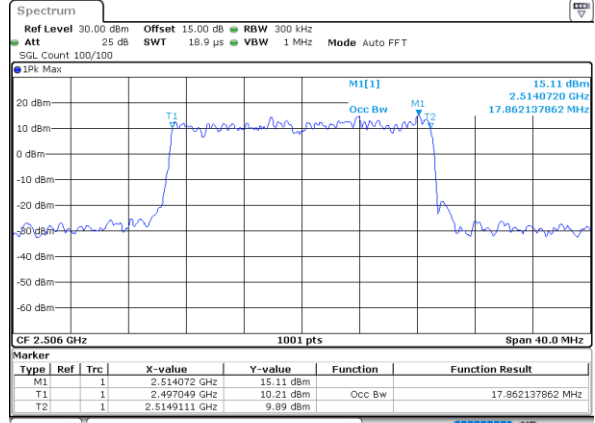
LTE Band 41

Lowest Channel / 20MHz / QPSK



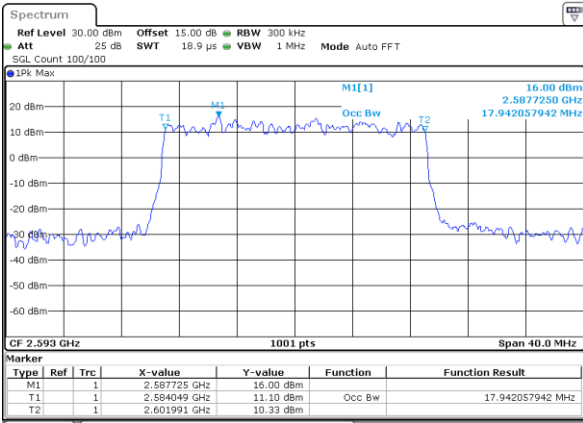
Date: 8 JUL 2021 19:10:38

Lowest Channel / 20MHz / 16QAM



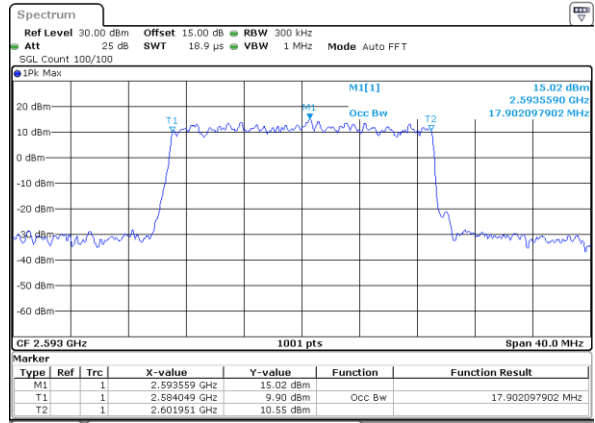
Date: 8 JUL 2021 19:10:49

Middle Channel / 20MHz / QPSK



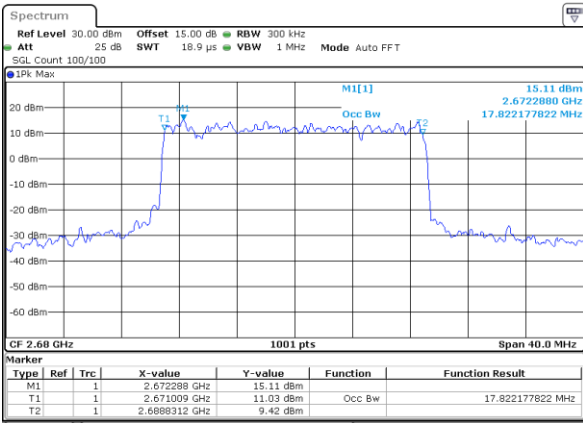
Date: 8 JUL 2021 19:11:23

Middle Channel / 20MHz / 16QAM



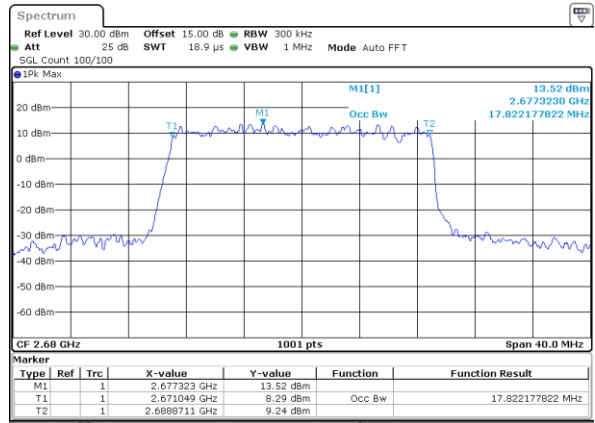
Date: 8 JUL 2021 19:11:34

Highest Channel / 20MHz / QPSK



Date: 8 JUL 2021 19:12:08

Highest Channel / 20MHz / 16QAM

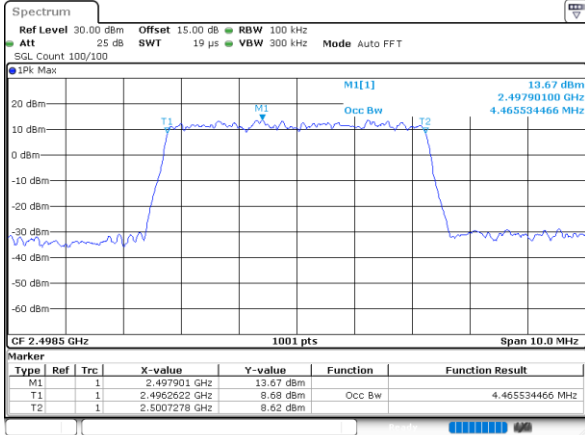


Date: 8 JUL 2021 19:12:19



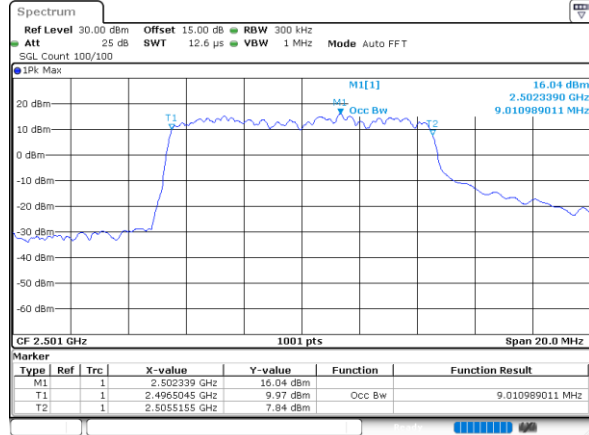
LTE Band 41

Lowest Channel / 5MHz / 64QAM



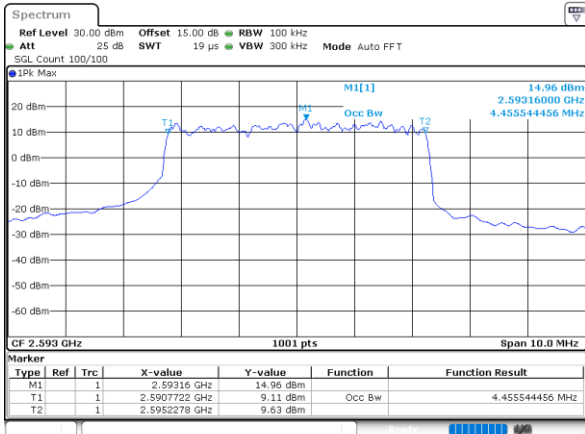
Date: 8 JUL 2021 19:12:52

Lowest Channel / 10MHz / 64QAM



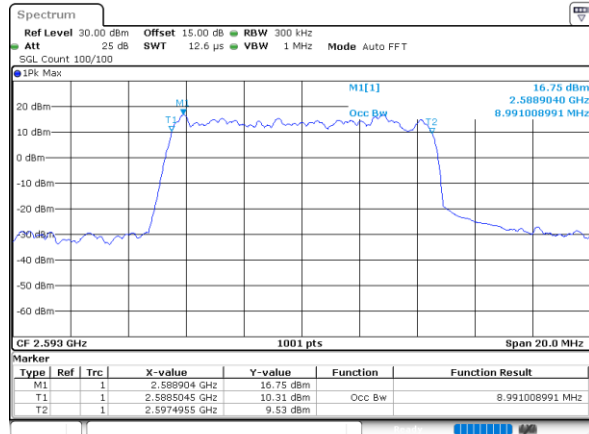
Date: 8 JUL 2021 19:14:01

Middle Channel / 5MHz / 64QAM



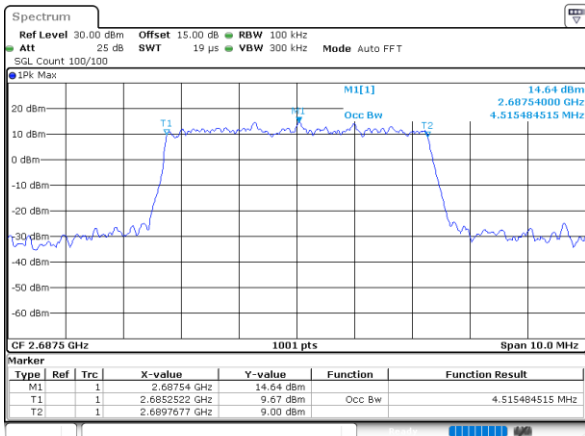
Date: 8 JUL 2021 19:13:15

Middle Channel / 10MHz / 64QAM



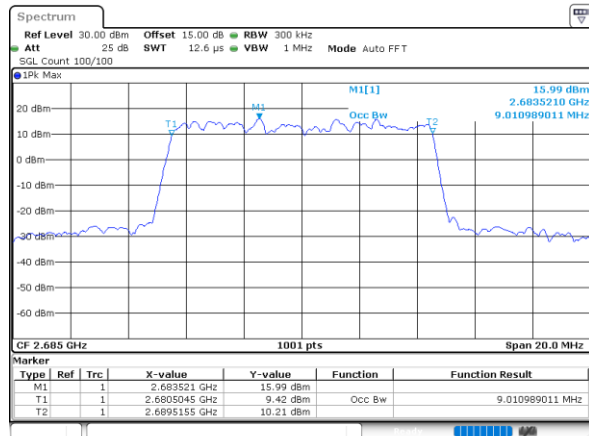
Date: 8 JUL 2021 19:14:24

Highest Channel / 5MHz / 64QAM



Date: 8 JUL 2021 19:13:38

Highest Channel / 10MHz / 64QAM

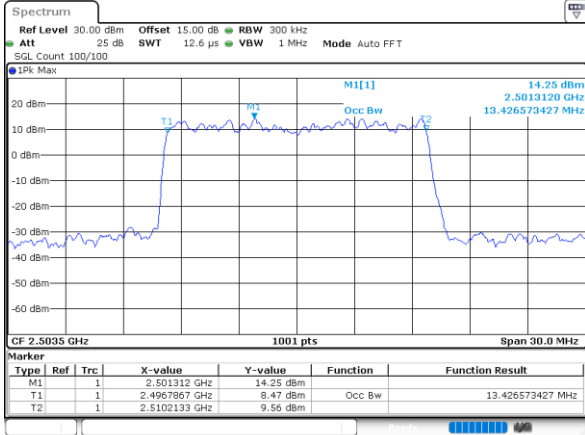


Date: 8 JUL 2021 19:14:46



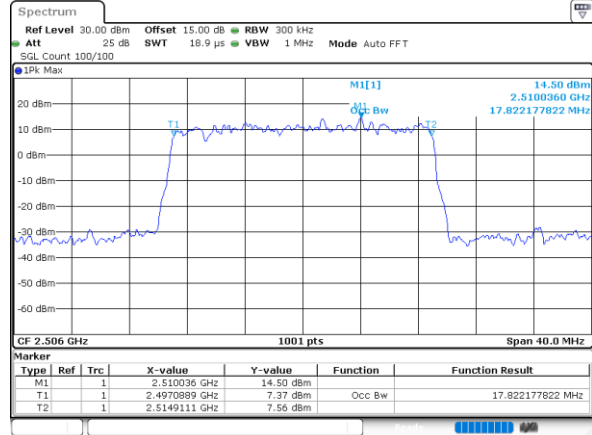
LTE Band 41

Lowest Channel / 15MHz / 64QAM



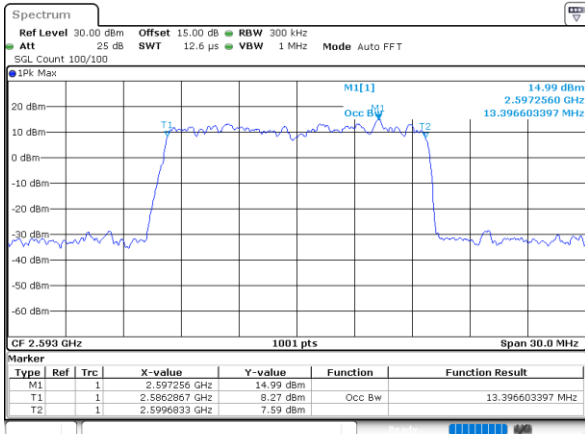
Date: 8 JUL 2021 19:15:09

Lowest Channel / 20MHz / 64QAM



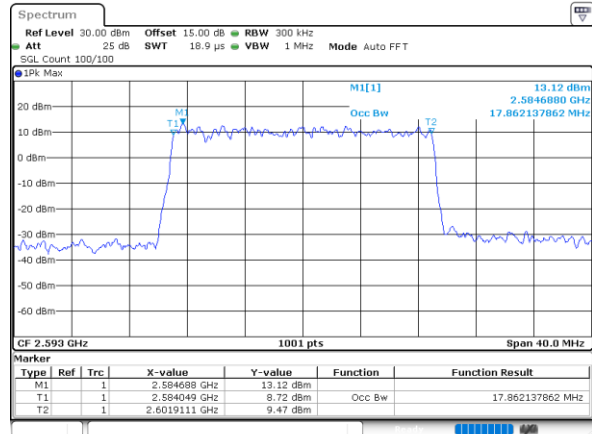
Date: 8 JUL 2021 19:16:16

Middle Channel / 15MHz / 64QAM



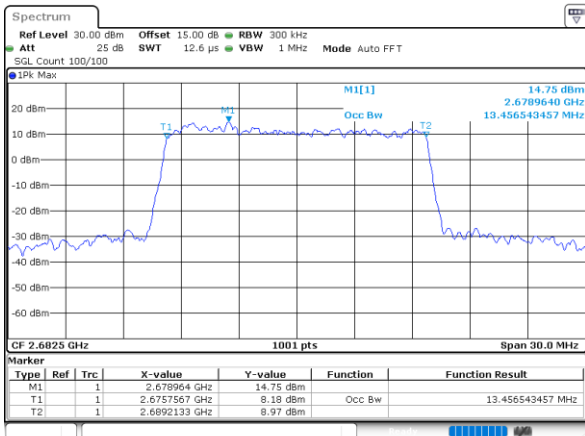
Date: 8 JUL 2021 19:15:31

Middle Channel / 20MHz / 64QAM



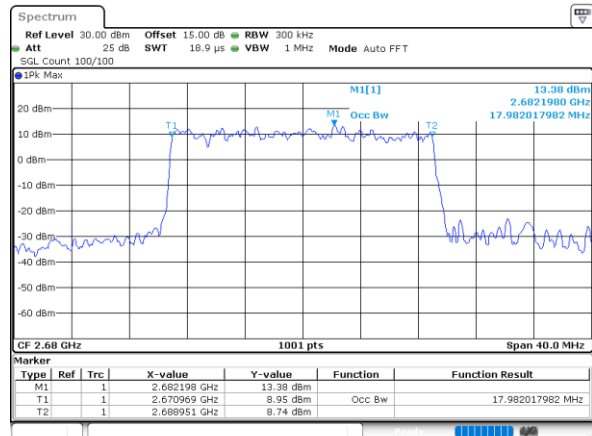
Date: 8 JUL 2021 19:16:38

Highest Channel / 15MHz / 64QAM



Date: 8 JUL 2021 19:15:54

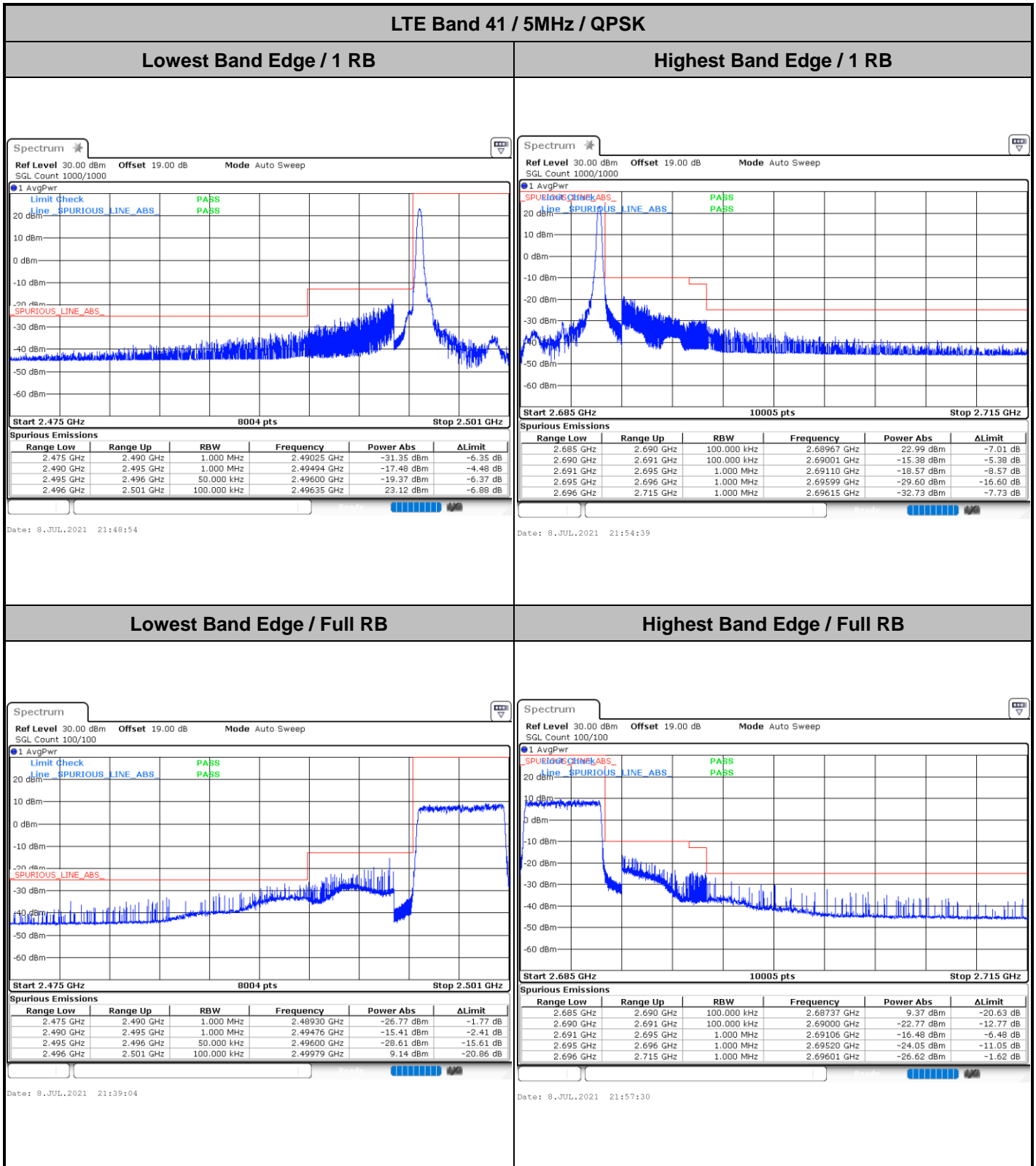
Highest Channel / 20MHz / 64QAM



Date: 8 JUL 2021 19:17:00



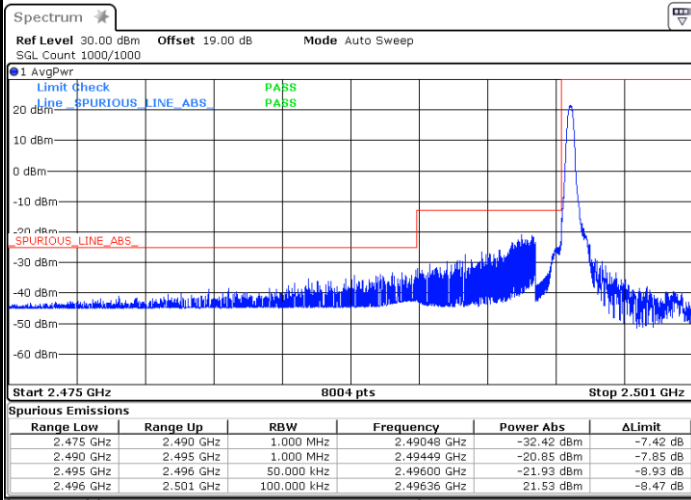
# Conducted Band Edge





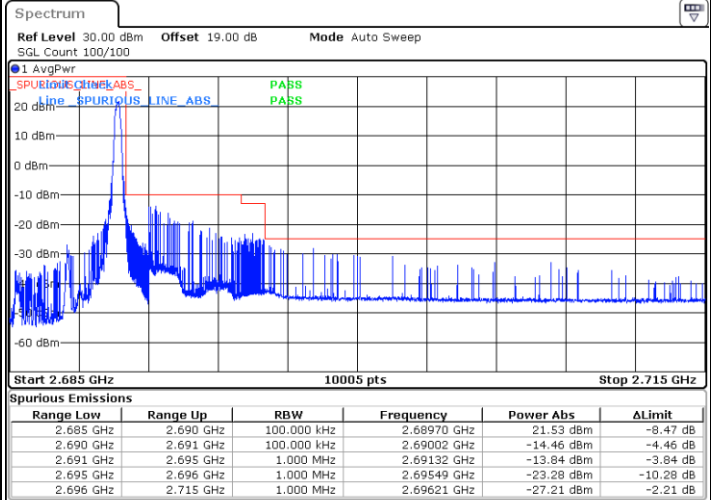
LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB



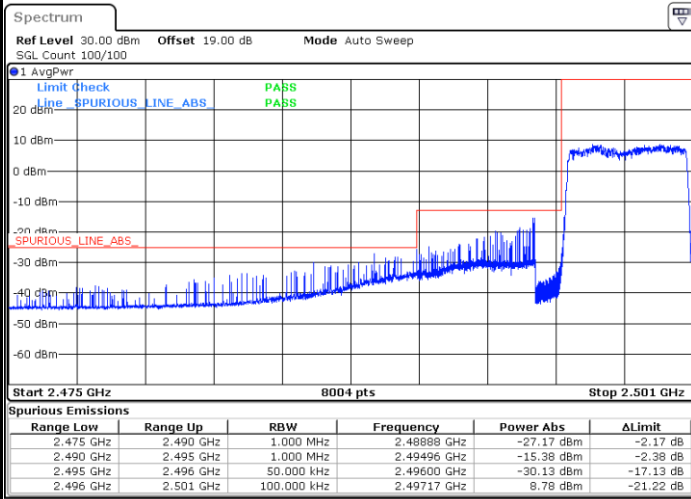
Date: 8.JUL.2021 21:46:33

Highest Band Edge / 1 RB



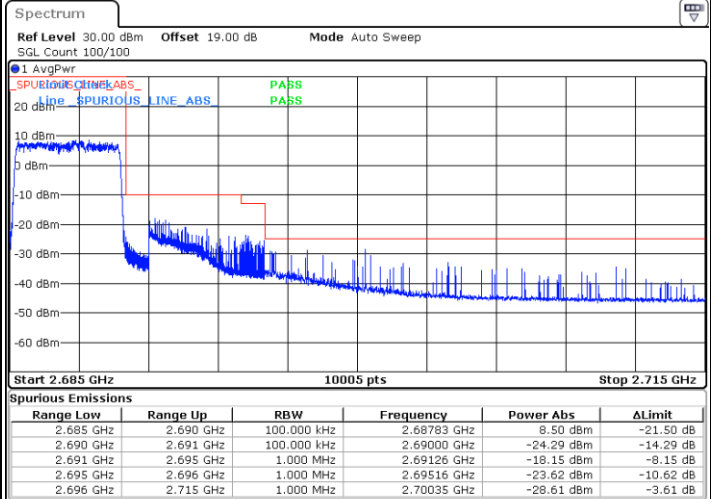
Date: 8.JUL.2021 21:55:11

Lowest Band Edge / Full RB



Date: 8.JUL.2021 21:40:04

Highest Band Edge / Full RB

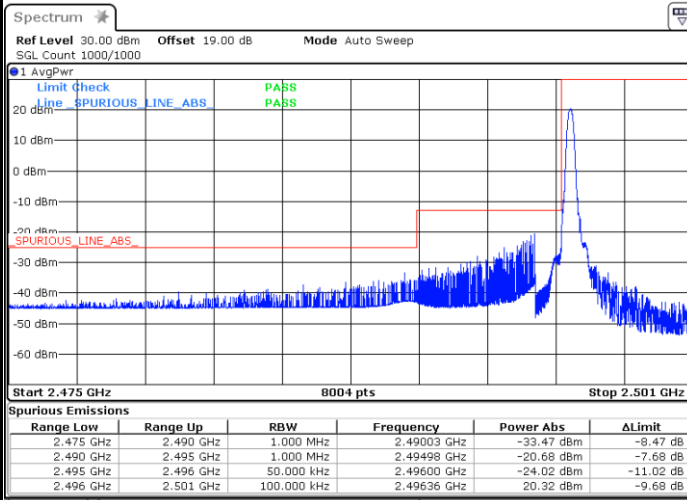


Date: 8.JUL.2021 21:57:04



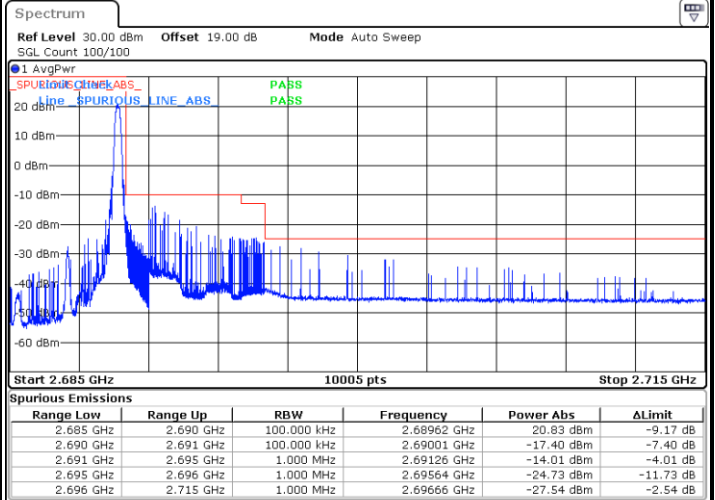
LTE Band 41 / 5MHz / 64QAM

Lowest Band Edge / 1RB



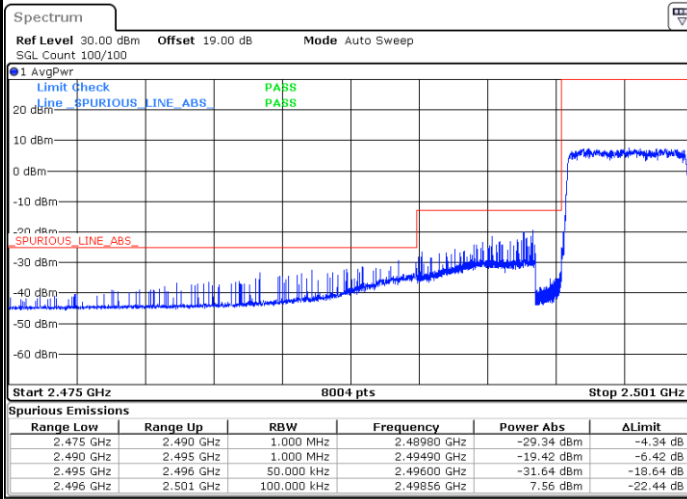
Date: 8.JUL.2021 21:44:15

Highest Band Edge / 1 RB



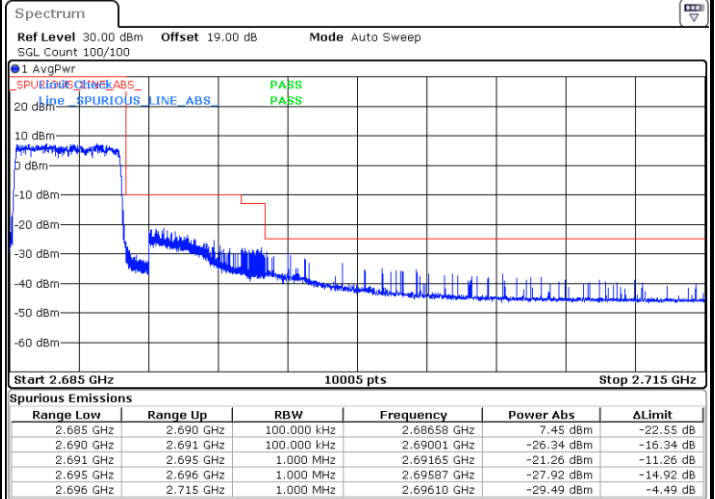
Date: 8.JUL.2021 21:55:36

Lowest Band Edge / Full RB



Date: 8.JUL.2021 21:40:31

Highest Band Edge / Full RB



Date: 8.JUL.2021 21:56:35