FCC RF Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT2143-1
FCC ID	:	IHDT56ZP3
STANDARD	:	47 CFR Part 2, 22(H), 24(E), 27(L), 27(H)
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	May 20, 2021 ~ Jun. 21, 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

ACCREDITED
Cert #5145.01

Sporton International (ShenZhen) Inc.

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People's Republic of China

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APPENDIX A. TEST RESULTS OF CONDUCTED TEST

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG151701B	Rev. 01	Initial issue of report	Jun. 29, 2021

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt	PASS	-
	§27.50(c)(10)	Effective Radiated Power (Band 12)	ERP < 3 Watt	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt	PASS	-
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 26) (Band 66)	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 26) (Band 66)	< 43+10log10(P[Watts])	PASS	-
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		

Report Section	FCC Rule	Description	Limit	Result	Remark
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 26) (Band 66)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 37.64 dB at 2489.250 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	XT2143-1
FCC ID	IHDT56ZP3
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	Conducted: 353121920026553/353121920026561 Radiation: 353121920024673/353121920024681
HW Version	DVT2
SW Version	RRG31.35
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 26 : 824 MHz ~ 849 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz
Rx Frequency	LTE Band 2 : 1930 MHz ~ 1990 MHz LTE Band 4 : 2110 MHz ~ 2155 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 26 : 869 MHz ~ 894 MHz LTE Band 66 : 2110 MHz~ 2200 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	Main Antenna: LTE Band 2 : 22.66 dBm LTE Band 4 : 22.39 dBm LTE Band 5 : 22.57 dBm LTE Band 12 : 22.66 dBm LTE Band 26 : 22.89 dBm LTE Band 66 : 22.42 dBm ASDIV Antenna: LTE Band 5 : 23.14 dBm
Antenna Gain	Main Antenna: LTE Band 2 : 0.20 dBi LTE Band 4 : 0.00 dBi LTE Band 5 : -4.80 dBi LTE Band 12 : -7.64 dBi LTE Band 26 : -4.81 dBi LTE Band 66 : -0.01 dBi ASDIV Antenna: LTE Band 5 : -6.30 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

Note: The maximum EIRP is calculated from max Output power and max antenna gain, only the maximum EIRP is shown in the report.

1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP Power and Emission Designator

LTE Band 2		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1850.7 ~ 1909.3	0.1845	1M10G7D	0.1694	1M10W7D
3	1851.5 ~ 1908.5	0.1845	2M73G7D	0.1694	2M74W7D
5	1852.5 ~ 1907.5	0.1828	4M52G7D	0.1556	4M51W7D
10	1855.0 ~ 1905.0	0.1828	9M09G7D	0.1585	9M07W7D
15	1857.5 ~ 1902.5	0.1832	13M5G7D	0.1596	13M5W7D
20	1860.0 ~ 1900.0	0.1932	17M9G7D	0.1675	17M9W7D

LTE Band 4		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1754.3	0.1648	1M10G7D	0.1581	1M09W7D
3	1711.5 ~ 1753.5	0.1667	2M72G7D	0.1698	2M73W7D
5	1712.5 ~ 1752.5	0.1679	4M53G7D	0.1679	4M51W7D
10	1715.0 ~ 1750.0	0.1667	9M11G7D	0.1660	9M05W7D
15	1717.5 ~ 1747.5	0.1687	13M5G7D	0.1563	13M5W7D
20	1720.0 ~ 1745.0	0.1742	17M9G7D	0.1614	17M9W7D

LTE Band 66		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1779.3	0.1648	1M10G7D	0.1581	1M09W7D
3	1711.5 ~ 1778.5	0.1667	2M72G7D	0.1698	2M73W7D
5	1712.5 ~ 1777.5	0.1679	4M53G7D	0.1679	4M51W7D
10	1715.0 ~ 1775.0	0.1667	9M11G7D	0.1660	9M05W7D
15	1717.5 ~ 1772.5	0.1687	13M5G7D	0.1563	13M5W7D
20	1720.0 ~ 1770.0	0.1742	17M9G7D	0.1614	17M9W7D

LTE Band 5		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.0346	1M09G7D	0.0305	1M10W7D
3	825.5 ~ 847.5	0.0352	2M73G7D	0.0308	2M75W7D
5	826.5 ~ 846.5	0.0364	4M50G7D	0.0314	4M51W7D
10	829.0 ~ 844.0	0.0365	9M05G7D	0.0315	9M09W7D

LTE Band 26		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.0352	1M10G7D	0.0305	1M10W7D
3	825.5 ~ 847.5	0.0347	2M73G7D	0.0311	2M72W7D
5	826.5 ~ 846.5	0.0352	4M50G7D	0.0309	4M51W7D
10	829.0 ~ 844.0	0.0344	9M05G7D	0.0316	9M03W7D
15	831.5 ~ 841.5	0.0392	13M5G7D	0.0300	13M5W7D
CH26765	821.5	0.0348	13M4G7D	0.0300	13M4W7D

LTE Band 12		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
1.4	699.7 ~ 715.3	0.0182	1M09G7D	0.0162	1M09W7D
3	700.5 ~ 714.5	0.0184	2M72G7D	0.0163	2M74W7D
5	701.5 ~ 713.5	0.0183	4M52G7D	0.0168	4M51W7D
10	704.0 ~ 711.0	0.0194	9M07G7D	0.0164	9M05W7D

Note:

LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4.

1.7 Testing Location

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

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

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH02-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a

1.9 Applicable Standards

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

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

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

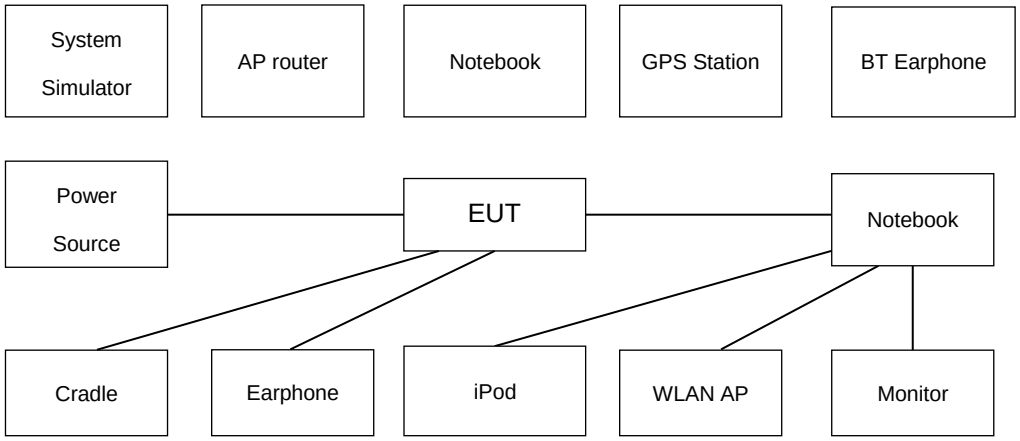
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

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

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

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

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

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

2.3 Support Unit used in test configuration and system

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

2.4 Measurement Results Explanation Example

For all conducted test items:

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

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.0 dB and 10dB attenuator.

Example :

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

= 4.0 + 10 = 14.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

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

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

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

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

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

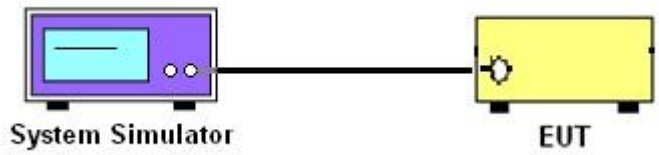
3 Conducted Test Items

3.1 Measuring Instruments

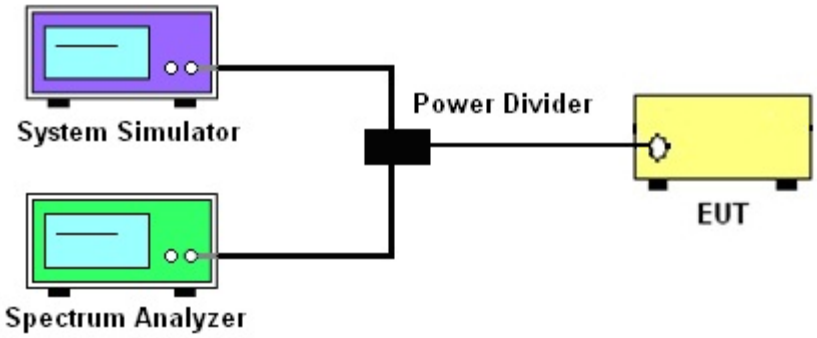
See list of measuring instruments of this test report.

3.2 Test Setup

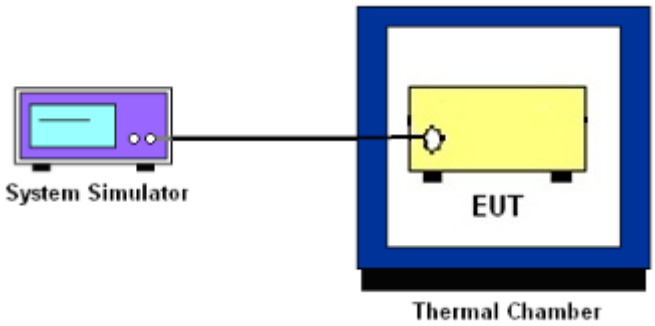
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

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

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

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

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

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 .

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

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

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

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

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

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

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

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

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

24.238 (a)

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

27.53 (g)

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

27.53 (h)

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

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used or a narrower RBW was used and the measured power was integrated over the full required measurement bandwidth of 1 MHz.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.

   Example:

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

   = P(W)- [43 + 10log(P)] (dB)

   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

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.

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

3.8.2 Test Procedures

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

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

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

3.9.2 Test Procedures for Temperature Variation

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

3.9.3 Test Procedures for Voltage Variation

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

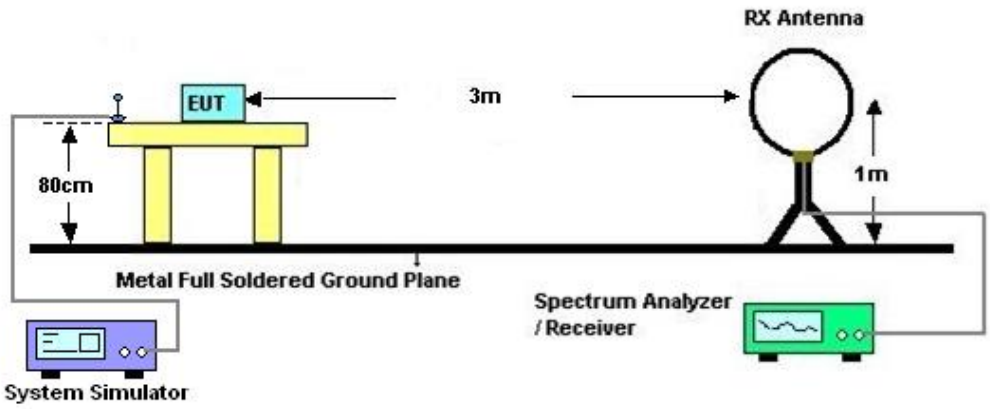
4 Radiated Test Items

4.1 Measuring Instruments

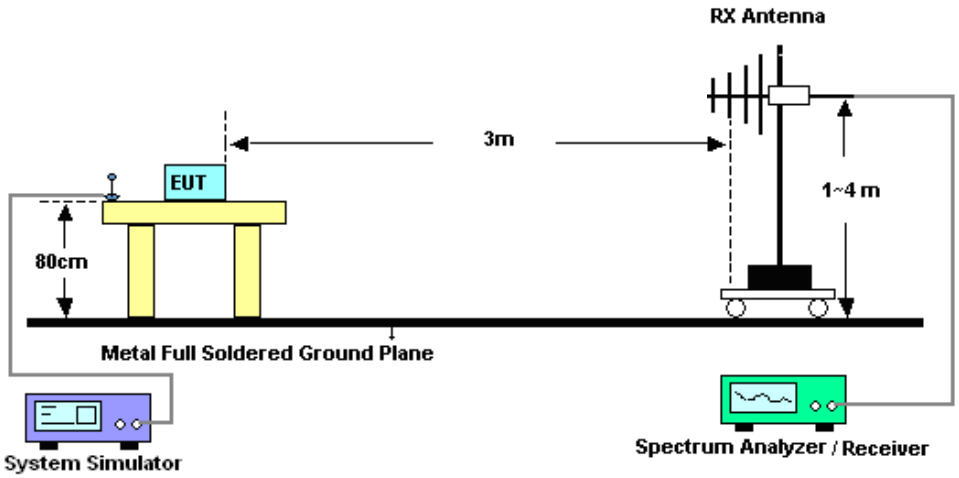
See list of measuring instruments of this test report.

4.2 Test Setup

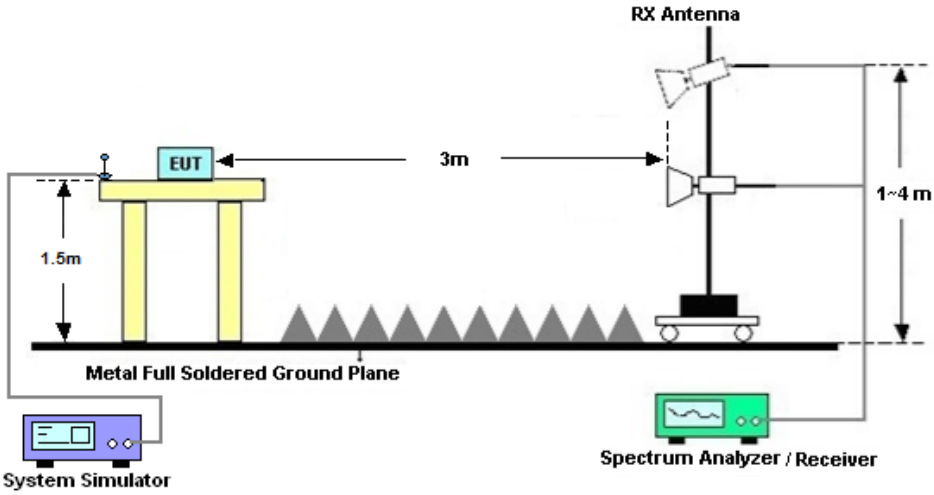
4.2.1 For radiated test below 30MHz



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.

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

4.4.2 Test Procedures

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

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	May 20, 2021~ Jun. 09, 2021	Apr. 07, 2022	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V，3A	Oct. 15, 2020	May 20, 2021~ Jun. 09, 2021	Oct. 14, 2021	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 26, 2020	May 20, 2021~ Jun. 09, 2021	Dec. 25, 2021	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 22, 2020	May 20, 2021~ Jun. 09, 2021	Jul. 21, 2021	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 21, 2020	Jun. 22, 2021	Jul. 20, 2021	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	Jun. 22, 2021	Jun. 21, 2022	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Jul. 15, 2020	Jun. 22, 2021	Jul. 14, 2021	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 25, 2020	Jun. 22, 2021	Jul. 24, 2021	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 21. 2020	Jun. 22, 2021	Jul. 20, 2021	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 23, 2021	Jun. 22, 2021	Apr. 22, 2022	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 16, 2020	Jun. 22, 2021	Oct. 15, 2021	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 16, 2020	Jun. 22, 2021	Oct. 15, 2021	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010002470	N/A	NCR	Jun. 22, 2021	NCR	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Jun. 22, 2021	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Jun. 22, 2021	NCR	Radiation (03CH02-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))	**2.47dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.31dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.72dB**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	22.66	22.54	22.60
20	QPSK	1	49	22.51	22.53	22.58
20	QPSK	1	99	22.37	22.41	22.41
20	QPSK	50	0	21.69	21.67	21.68
20	QPSK	50	24	21.66	21.55	21.65
20	QPSK	50	50	21.53	21.60	21.65
20	QPSK	100	0	21.66	21.62	21.64
20	16QAM	1	0	22.04	21.85	21.93
20	16QAM	1	49	21.83	21.81	21.95
20	16QAM	1	99	21.70	21.80	21.73
20	16QAM	50	0	20.68	20.57	20.68
20	16QAM	50	24	20.66	20.56	20.66
20	16QAM	50	50	20.54	20.58	20.64
20	16QAM	100	0	20.67	20.62	20.67
20	64QAM	1	0	20.82	20.63	20.79
20	64QAM	1	49	20.72	20.72	20.81
20	64QAM	1	99	20.66	20.61	20.63
20	64QAM	50	0	19.71	19.61	19.71
20	64QAM	50	24	19.68	19.63	19.69
20	64QAM	50	50	19.58	19.63	19.70
20	64QAM	100	0	19.67	19.62	19.68
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	22.10	22.16	22.33
15	QPSK	1	37	22.02	22.20	22.29
15	QPSK	1	74	22.06	22.10	22.14
15	QPSK	36	0	21.18	21.20	21.41
15	QPSK	36	20	21.15	21.29	21.38
15	QPSK	36	39	21.09	21.26	21.38
15	QPSK	75	0	21.15	21.25	21.35
15	16QAM	1	0	21.59	21.40	21.57
15	16QAM	1	37	21.35	21.38	21.66
15	16QAM	1	74	21.28	21.51	21.47
15	16QAM	36	0	20.17	20.18	20.37
15	16QAM	36	20	20.19	20.29	20.36

15	16QAM	36	39	20.10	20.23	20.36
15	16QAM	75	0	20.17	20.24	20.34
15	64QAM	1	0	20.32	20.23	20.42
15	64QAM	1	37	20.17	20.35	20.49
15	64QAM	1	74	20.08	20.21	20.36
15	64QAM	36	0	19.21	19.25	19.42
15	64QAM	36	20	19.19	19.26	19.42
15	64QAM	36	39	19.14	19.26	19.39
15	64QAM	75	0	19.15	19.26	19.37
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	22.23	22.22	22.43
10	QPSK	1	25	22.07	22.22	22.34
10	QPSK	1	49	22.06	22.21	22.20
10	QPSK	25	0	21.28	21.32	21.54
10	QPSK	25	12	21.24	21.27	21.48
10	QPSK	25	25	21.16	21.30	21.48
10	QPSK	50	0	21.22	21.32	21.48
10	16QAM	1	0	21.55	21.60	21.83
10	16QAM	1	25	21.45	21.59	21.74
10	16QAM	1	49	21.41	21.49	21.55
10	16QAM	25	0	20.35	20.30	20.53
10	16QAM	25	12	20.28	20.28	20.53
10	16QAM	25	25	20.15	20.27	20.52
10	16QAM	50	0	20.25	20.35	20.47
10	64QAM	1	0	20.54	20.37	20.57
10	64QAM	1	25	20.31	20.41	20.53
10	64QAM	1	49	20.28	20.46	20.56
10	64QAM	25	0	19.38	19.35	19.54
10	64QAM	25	12	19.30	19.30	19.55
10	64QAM	25	25	19.18	19.38	19.50
10	64QAM	50	0	19.31	19.37	19.52
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	22.26	22.31	22.42
5	QPSK	1	12	22.15	22.20	22.33
5	QPSK	1	24	22.08	22.19	22.25
5	QPSK	12	0	21.31	21.27	21.55
5	QPSK	12	7	21.22	21.30	21.49
5	QPSK	12	13	21.13	21.25	21.38
5	QPSK	25	0	21.22	21.31	21.46
5	16QAM	1	0	21.55	21.54	21.80
5	16QAM	1	12	21.43	21.58	21.74
5	16QAM	1	24	21.35	21.53	21.68
5	16QAM	12	0	20.35	20.29	20.56
5	16QAM	12	7	20.30	20.35	20.54
5	16QAM	12	13	20.16	20.28	20.43

5	16QAM	25	0	20.26	20.31	20.50
5	64QAM	1	0	20.44	20.41	20.69
5	64QAM	1	12	20.25	20.39	20.60
5	64QAM	1	24	20.34	20.34	20.55
5	64QAM	12	0	19.39	19.35	19.60
5	64QAM	12	7	19.33	19.41	19.55
5	64QAM	12	13	19.21	19.33	19.46
5	64QAM	25	0	19.28	19.35	19.49
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	22.30	22.31	22.42
3	QPSK	1	8	22.22	22.24	22.37
3	QPSK	1	14	22.12	22.14	22.21
3	QPSK	8	0	21.33	21.26	21.49
3	QPSK	8	4	21.26	21.34	21.53
3	QPSK	8	7	21.15	21.26	21.38
3	QPSK	15	0	21.22	21.32	21.49
3	16QAM	1	0	21.55	21.62	21.70
3	16QAM	1	8	21.68	21.71	21.72
3	16QAM	1	14	21.35	21.46	21.51
3	16QAM	8	0	20.34	20.29	20.63
3	16QAM	8	4	20.30	20.39	20.54
3	16QAM	8	7	20.17	20.34	20.43
3	16QAM	15	0	20.22	20.33	20.51
3	64QAM	1	0	20.56	20.39	20.71
3	64QAM	1	8	20.44	20.53	20.70
3	64QAM	1	14	20.38	20.40	20.47
3	64QAM	8	0	19.40	19.38	19.57
3	64QAM	8	4	19.36	19.45	19.52
3	64QAM	8	7	19.23	19.32	19.53
3	64QAM	15	0	19.34	19.37	19.60
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.27	22.22	22.28
1.4	QPSK	1	3	22.46	22.38	22.33
1.4	QPSK	1	5	22.30	22.27	22.12
1.4	QPSK	3	0	22.37	22.18	22.23
1.4	QPSK	3	1	22.41	22.27	22.25
1.4	QPSK	3	3	22.40	22.13	22.23
1.4	QPSK	6	0	21.48	21.35	21.32
1.4	16QAM	1	0	21.31	21.98	21.92
1.4	16QAM	1	3	21.28	22.09	21.71
1.4	16QAM	1	5	21.46	21.71	21.80
1.4	16QAM	3	0	21.44	21.38	21.49
1.4	16QAM	3	1	21.58	21.53	21.11
1.4	16QAM	3	3	21.19	21.39	21.39
1.4	16QAM	6	0	20.61	20.25	20.41

1.4	64QAM	1	0	20.58	20.42	20.27
1.4	64QAM	1	3	20.82	20.36	20.24
1.4	64QAM	1	5	20.52	20.25	20.60
1.4	64QAM	3	0	20.73	20.45	20.51
1.4	64QAM	3	1	20.98	20.37	20.62
1.4	64QAM	3	3	20.43	20.76	20.31
1.4	64QAM	6	0	19.24	19.46	19.22

LTE Band 4:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	22.36	22.39	22.37
20	QPSK	1	49	22.27	22.34	22.23
20	QPSK	1	99	22.17	22.13	22.09
20	QPSK	50	0	21.44	21.46	21.40
20	QPSK	50	24	21.40	21.36	21.36
20	QPSK	50	50	21.34	21.27	21.25
20	QPSK	100	0	21.37	21.38	21.36
20	16QAM	1	0	21.70	21.72	21.70
20	16QAM	1	49	21.62	21.63	21.55
20	16QAM	1	99	21.55	21.47	21.44
20	16QAM	50	0	20.37	20.41	20.43
20	16QAM	50	24	20.42	20.39	20.40
20	16QAM	50	50	20.35	20.29	20.29
20	16QAM	100	0	20.39	20.35	20.36
20	64QAM	1	0	20.56	20.56	20.58
20	64QAM	1	49	20.45	20.54	20.47
20	64QAM	1	99	20.40	20.34	20.31
20	64QAM	50	0	19.37	19.45	19.46
20	64QAM	50	24	19.44	19.42	19.42
20	64QAM	50	50	19.37	19.29	19.27
20	64QAM	100	0	19.41	19.38	19.37
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	22.08	22.31	22.17
15	QPSK	1	37	22.28	22.17	22.08
15	QPSK	1	74	22.04	22.15	22.09
15	QPSK	36	0	21.04	21.22	21.17
15	QPSK	36	20	21.22	21.24	21.20
15	QPSK	36	39	21.16	21.16	21.10
15	QPSK	75	0	21.14	21.19	21.15
15	16QAM	1	0	21.44	21.37	21.42
15	16QAM	1	37	21.65	21.39	21.36
15	16QAM	1	74	21.66	21.15	21.61

15	16QAM	36	0	20.09	20.26	20.33
15	16QAM	36	20	20.21	20.25	20.25
15	16QAM	36	39	20.14	20.23	20.14
15	16QAM	75	0	20.19	20.25	20.19
15	64QAM	1	0	20.25	20.37	20.33
15	64QAM	1	37	20.19	20.59	20.27
15	64QAM	1	74	20.47	20.50	20.23
15	64QAM	36	0	19.18	19.34	19.31
15	64QAM	36	20	19.28	19.29	19.35
15	64QAM	36	39	19.26	19.23	19.21
15	64QAM	75	0	19.19	19.19	19.19
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	22.13	22.34	22.09
10	QPSK	1	25	22.06	22.29	22.19
10	QPSK	1	49	22.13	22.25	22.24
10	QPSK	25	0	21.37	21.29	21.41
10	QPSK	25	12	21.26	21.35	21.34
10	QPSK	25	25	21.26	21.34	21.29
10	QPSK	50	0	21.32	21.39	21.28
10	16QAM	1	0	21.80	21.35	22.00
10	16QAM	1	25	21.79	21.27	21.51
10	16QAM	1	49	21.40	21.24	21.73
10	16QAM	25	0	20.28	20.32	20.25
10	16QAM	25	12	20.34	20.36	20.29
10	16QAM	25	25	20.32	20.39	20.27
10	16QAM	50	0	20.47	20.31	20.31
10	64QAM	1	0	20.60	20.63	20.33
10	64QAM	1	25	20.44	20.42	20.08
10	64QAM	1	49	20.45	20.30	20.12
10	64QAM	25	0	19.34	19.51	19.35
10	64QAM	25	12	19.34	19.45	19.38
10	64QAM	25	25	19.32	19.47	19.30
10	64QAM	50	0	19.41	19.25	19.29
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	22.33	22.38	22.21
5	QPSK	1	12	22.07	22.25	22.17
5	QPSK	1	24	22.13	22.13	22.17
5	QPSK	12	0	21.31	21.27	21.33
5	QPSK	12	7	21.23	21.27	21.20
5	QPSK	12	13	21.32	21.36	21.29
5	QPSK	25	0	21.29	21.29	21.31
5	16QAM	1	0	21.42	21.89	21.25
5	16QAM	1	12	21.12	22.05	21.28
5	16QAM	1	24	21.85	21.77	21.32
5	16QAM	12	0	20.42	20.36	20.40

5	16QAM	12	7	20.34	20.19	20.23
5	16QAM	12	13	20.35	20.28	20.22
5	16QAM	25	0	20.34	20.29	20.25
5	64QAM	1	0	20.64	20.52	20.43
5	64QAM	1	12	20.61	20.47	20.16
5	64QAM	1	24	20.58	20.36	20.19
5	64QAM	12	0	19.38	19.36	19.36
5	64QAM	12	7	19.38	19.41	19.50
5	64QAM	12	13	19.38	19.39	19.34
5	64QAM	25	0	19.27	19.43	19.33
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	22.31	22.23	22.10
3	QPSK	1	8	22.30	22.29	22.37
3	QPSK	1	14	22.34	22.28	22.15
3	QPSK	8	0	21.35	21.27	21.28
3	QPSK	8	4	21.38	21.42	21.39
3	QPSK	8	7	21.36	21.42	21.23
3	QPSK	15	0	21.34	21.26	21.37
3	16QAM	1	0	21.30	21.88	21.52
3	16QAM	1	8	21.52	21.24	21.54
3	16QAM	1	14	21.61	21.91	21.79
3	16QAM	8	0	20.38	20.43	20.28
3	16QAM	8	4	20.41	20.44	20.18
3	16QAM	8	7	20.36	20.40	20.19
3	16QAM	15	0	20.39	20.43	20.39
3	64QAM	1	0	20.00	20.56	20.41
3	64QAM	1	8	20.80	20.29	20.45
3	64QAM	1	14	20.40	20.50	20.11
3	64QAM	8	0	19.43	19.27	19.38
3	64QAM	8	4	19.64	19.38	19.39
3	64QAM	8	7	19.45	19.58	19.32
3	64QAM	15	0	19.20	19.33	19.24
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.17	22.21	22.05
1.4	QPSK	1	3	22.38	22.34	22.21
1.4	QPSK	1	5	22.13	22.32	22.09
1.4	QPSK	3	0	22.21	22.29	22.14
1.4	QPSK	3	1	22.31	22.28	22.19
1.4	QPSK	3	3	22.16	22.29	22.10
1.4	QPSK	6	0	21.19	21.27	21.18
1.4	16QAM	1	0	21.45	21.78	21.72
1.4	16QAM	1	3	21.36	21.84	21.57
1.4	16QAM	1	5	21.74	21.81	21.67
1.4	16QAM	3	0	21.18	21.39	21.27
1.4	16QAM	3	1	21.23	21.43	21.46

1.4	16QAM	3	3	21.33	21.41	21.22
1.4	16QAM	6	0	20.31	20.44	20.26
1.4	64QAM	1	0	20.81	20.33	20.15
1.4	64QAM	1	3	20.38	20.20	20.33
1.4	64QAM	1	5	20.08	20.63	20.01
1.4	64QAM	3	0	20.26	20.53	20.32
1.4	64QAM	3	1	20.55	20.58	20.16
1.4	64QAM	3	3	20.47	20.62	20.27
1.4	64QAM	6	0	19.17	19.33	19.20

LTE Band 5:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	22.50	22.55	22.57
10	QPSK	1	25	22.45	22.43	22.56
10	QPSK	1	49	22.41	22.50	22.49
10	QPSK	25	0	21.64	21.62	21.73
10	QPSK	25	12	21.60	21.61	21.65
10	QPSK	25	25	21.58	21.59	21.70
10	QPSK	50	0	21.61	21.62	21.66
10	16QAM	1	0	21.78	21.86	21.91
10	16QAM	1	25	21.80	21.81	21.92
10	16QAM	1	49	21.83	21.90	21.93
10	16QAM	25	0	20.54	20.54	20.65
10	16QAM	25	12	20.65	20.63	20.67
10	16QAM	25	25	20.58	20.63	20.69
10	16QAM	50	0	20.62	20.62	20.62
10	64QAM	1	0	20.70	20.67	20.69
10	64QAM	1	25	20.63	20.67	20.76
10	64QAM	1	49	20.72	20.75	20.80
10	64QAM	25	0	19.57	19.57	19.68
10	64QAM	25	12	19.65	19.67	19.69
10	64QAM	25	25	19.63	19.63	19.75
10	64QAM	50	0	19.63	19.67	19.70
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	22.46	22.56	22.33
5	QPSK	1	12	22.30	22.11	22.37
5	QPSK	1	24	22.32	22.20	22.35
5	QPSK	12	0	21.32	21.33	21.40
5	QPSK	12	7	21.42	21.31	21.41
5	QPSK	12	13	21.34	21.29	21.40
5	QPSK	25	0	21.39	21.36	21.46
5	16QAM	1	0	21.64	21.92	21.71

5	16QAM	1	12	21.49	21.33	21.35
5	16QAM	1	24	21.62	21.53	21.05
5	16QAM	12	0	20.45	20.27	20.45
5	16QAM	12	7	20.44	20.37	20.48
5	16QAM	12	13	20.44	20.45	20.44
5	16QAM	25	0	20.26	20.40	20.40
5	64QAM	1	0	20.76	20.69	20.62
5	64QAM	1	12	20.77	20.57	20.78
5	64QAM	1	24	20.79	20.50	20.71
5	64QAM	12	0	19.52	19.25	19.29
5	64QAM	12	7	19.32	19.33	19.31
5	64QAM	12	13	19.38	19.38	19.49
5	64QAM	25	0	19.43	19.40	19.50
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.26	22.17	22.31
3	QPSK	1	8	22.39	22.20	22.26
3	QPSK	1	14	22.11	22.26	22.41
3	QPSK	8	0	21.44	21.27	21.33
3	QPSK	8	4	21.45	21.24	21.48
3	QPSK	8	7	21.30	21.35	21.42
3	QPSK	15	0	21.43	21.24	21.32
3	16QAM	1	0	21.55	21.24	21.30
3	16QAM	1	8	21.42	21.31	21.61
3	16QAM	1	14	21.21	21.52	21.83
3	16QAM	8	0	20.31	20.21	20.48
3	16QAM	8	4	20.48	20.49	20.50
3	16QAM	8	7	20.44	20.44	20.46
3	16QAM	15	0	20.57	20.26	20.44
3	64QAM	1	0	20.88	20.70	20.56
3	64QAM	1	8	20.63	20.84	20.61
3	64QAM	1	14	20.59	20.12	20.25
3	64QAM	8	0	19.47	19.23	19.52
3	64QAM	8	4	19.37	19.28	19.26
3	64QAM	8	7	19.33	19.54	19.38
3	64QAM	15	0	19.54	19.41	19.34
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.17	22.21	22.16
1.4	QPSK	1	3	22.30	22.20	22.32
1.4	QPSK	1	5	22.20	22.12	22.21
1.4	QPSK	3	0	22.27	22.21	22.24
1.4	QPSK	3	1	22.31	22.28	22.34
1.4	QPSK	3	3	22.20	22.20	22.29
1.4	QPSK	6	0	21.23	21.23	21.34
1.4	16QAM	1	0	21.77	21.53	21.57
1.4	16QAM	1	3	21.79	21.55	21.78

1.4	16QAM	1	5	21.58	21.46	21.68
1.4	16QAM	3	0	21.28	21.21	21.35
1.4	16QAM	3	1	21.60	21.43	21.57
1.4	16QAM	3	3	21.41	21.20	21.61
1.4	16QAM	6	0	20.41	20.26	20.42
1.4	64QAM	1	0	20.54	20.40	20.38
1.4	64QAM	1	3	20.46	20.56	20.49
1.4	64QAM	1	5	20.12	20.62	20.58
1.4	64QAM	3	0	20.39	20.18	20.38
1.4	64QAM	3	1	20.54	20.24	20.44
1.4	64QAM	3	3	20.52	20.50	20.48
1.4	64QAM	6	0	19.40	19.15	19.38

LTE Band 12:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	22.66	22.62	22.50
10	QPSK	1	25	22.51	22.51	22.41
10	QPSK	1	49	22.50	22.46	22.35
10	QPSK	25	0	21.71	21.63	21.63
10	QPSK	25	12	21.70	21.61	21.60
10	QPSK	25	25	21.68	21.62	21.54
10	QPSK	50	0	21.68	21.60	21.52
10	16QAM	1	0	21.95	21.93	21.93
10	16QAM	1	25	21.88	21.89	21.83
10	16QAM	1	49	21.91	21.85	21.78
10	16QAM	25	0	20.61	20.64	20.57
10	16QAM	25	12	20.74	20.64	20.63
10	16QAM	25	25	20.68	20.64	20.56
10	16QAM	50	0	20.69	20.60	20.50
10	64QAM	1	0	20.80	20.78	20.76
10	64QAM	1	25	20.74	20.77	20.65
10	64QAM	1	49	20.82	20.74	20.67
10	64QAM	25	0	19.67	19.65	19.57
10	64QAM	25	12	19.72	19.55	19.64
10	64QAM	25	25	19.70	19.66	19.58
10	64QAM	50	0	19.70	19.61	19.53
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	22.39	22.30	22.31
5	QPSK	1	12	22.25	22.28	22.24
5	QPSK	1	24	22.29	22.42	22.32
5	QPSK	12	0	21.35	21.34	21.33
5	QPSK	12	7	21.39	21.28	21.39

5	QPSK	12	13	21.44	21.43	21.40
5	QPSK	25	0	21.39	21.37	21.33
5	16QAM	1	0	21.62	21.69	21.86
5	16QAM	1	12	22.05	21.20	21.42
5	16QAM	1	24	21.84	21.65	21.80
5	16QAM	12	0	20.37	20.18	20.39
5	16QAM	12	7	20.40	20.24	20.12
5	16QAM	12	13	20.34	20.44	20.35
5	16QAM	25	0	20.37	20.27	20.28
5	64QAM	1	0	20.47	20.66	20.40
5	64QAM	1	12	20.49	20.88	20.65
5	64QAM	1	24	20.32	20.63	20.62
5	64QAM	12	0	19.47	19.39	19.48
5	64QAM	12	7	19.31	19.36	19.50
5	64QAM	12	13	19.42	19.34	19.35
5	64QAM	25	0	19.32	19.38	19.43
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.44	22.35	22.20
3	QPSK	1	8	22.28	22.35	22.26
3	QPSK	1	14	22.28	22.17	22.34
3	QPSK	8	0	21.47	21.40	21.32
3	QPSK	8	4	21.69	21.32	21.38
3	QPSK	8	7	21.36	21.42	21.29
3	QPSK	15	0	21.38	21.26	21.32
3	16QAM	1	0	21.34	21.57	21.70
3	16QAM	1	8	21.50	21.91	21.88
3	16QAM	1	14	21.30	21.72	21.70
3	16QAM	8	0	20.45	20.41	20.35
3	16QAM	8	4	20.58	20.45	20.34
3	16QAM	8	7	20.48	20.47	20.31
3	16QAM	15	0	20.34	20.11	20.15
3	64QAM	1	0	20.72	20.35	20.53
3	64QAM	1	8	20.82	20.36	20.19
3	64QAM	1	14	20.84	20.53	20.17
3	64QAM	8	0	19.38	19.41	19.38
3	64QAM	8	4	19.30	19.45	19.44
3	64QAM	8	7	19.34	19.39	19.47
3	64QAM	15	0	19.47	19.47	19.40
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.28	22.42	22.23
1.4	QPSK	1	3	22.38	22.40	22.27
1.4	QPSK	1	5	22.11	22.25	22.15
1.4	QPSK	3	0	22.31	22.33	22.12
1.4	QPSK	3	1	22.32	22.24	22.21
1.4	QPSK	3	3	22.31	22.29	22.16

1.4	QPSK	6	0	21.37	21.32	21.28
1.4	16QAM	1	0	21.27	21.52	21.30
1.4	16QAM	1	3	21.27	21.83	21.14
1.4	16QAM	1	5	21.29	21.89	21.51
1.4	16QAM	3	0	21.40	21.34	21.46
1.4	16QAM	3	1	21.69	21.51	21.19
1.4	16QAM	3	3	21.40	21.51	21.34
1.4	16QAM	6	0	20.35	20.35	20.10
1.4	64QAM	1	0	21.16	20.52	20.98
1.4	64QAM	1	3	20.42	20.41	20.63
1.4	64QAM	1	5	20.47	20.22	20.53
1.4	64QAM	3	0	20.57	20.39	20.38
1.4	64QAM	3	1	20.76	20.47	20.46
1.4	64QAM	3	3	20.47	20.58	20.35
1.4	64QAM	6	0	19.23	19.44	19.24

LTE Band 26:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				26865	26915	26965
Frequency (MHz)				831.5	836.5	841.5
15	QPSK	1	0	22.38	22.89	22.36
15	QPSK	1	37	22.36	22.28	22.34
15	QPSK	1	74	22.25	22.34	22.32
15	QPSK	36	0	21.46	21.53	21.52
15	QPSK	36	20	21.42	21.46	21.48
15	QPSK	36	39	21.40	21.44	21.44
15	QPSK	75	0	21.50	21.52	21.51
15	16QAM	1	0	21.73	21.66	21.73
15	16QAM	1	37	21.64	21.61	21.69
15	16QAM	1	74	21.65	21.68	21.68
15	16QAM	36	0	20.48	20.42	20.49
15	16QAM	36	20	20.51	20.48	20.56
15	16QAM	36	39	20.50	20.47	20.54
15	16QAM	75	0	20.54	20.47	20.53
15	64QAM	1	0	20.55	20.48	20.56
15	64QAM	1	37	20.58	20.53	20.62
15	64QAM	1	74	20.53	20.52	20.57
15	64QAM	36	0	19.51	19.44	19.54
15	64QAM	36	20	19.53	19.49	19.60
15	64QAM	36	39	19.54	19.49	19.59
15	64QAM	75	0	19.54	19.46	19.52
Channel				26740	26865	26990
Frequency (MHz)				819	831.5	844
10	QPSK	1	0	22.21	22.16	22.11
10	QPSK	1	25	22.10	22.26	22.21

10	QPSK	1	49	22.16	22.24	22.32
10	QPSK	25	0	21.34	21.32	21.36
10	QPSK	25	12	21.41	21.38	21.36
10	QPSK	25	25	21.37	21.37	21.39
10	QPSK	50	0	21.42	21.41	21.34
10	16QAM	1	0	21.96	21.24	21.76
10	16QAM	1	25	21.55	21.46	21.69
10	16QAM	1	49	21.53	21.53	21.55
10	16QAM	25	0	20.42	20.18	20.46
10	16QAM	25	12	20.40	20.36	20.48
10	16QAM	25	25	20.34	20.26	20.50
10	16QAM	50	0	20.39	20.38	20.30
10	64QAM	1	0	20.65	20.42	20.22
10	64QAM	1	25	20.21	20.45	20.59
10	64QAM	1	49	20.49	20.31	20.68
10	64QAM	25	0	19.33	19.30	19.43
10	64QAM	25	12	19.46	19.45	19.38
10	64QAM	25	25	19.34	19.41	19.39
10	64QAM	50	0	19.37	19.39	19.41
Channel				26715	26865	27015
Frequency (MHz)				816.5	831.5	846.5
5	QPSK	1	0	22.24	22.13	22.38
5	QPSK	1	12	22.21	22.16	22.43
5	QPSK	1	24	22.21	22.26	22.13
5	QPSK	12	0	21.31	21.23	21.35
5	QPSK	12	7	21.29	21.40	21.40
5	QPSK	12	13	21.32	21.37	21.44
5	QPSK	25	0	21.41	21.40	21.33
5	16QAM	1	0	21.57	21.36	21.62
5	16QAM	1	12	21.08	21.36	21.29
5	16QAM	1	24	21.39	21.45	21.86
5	16QAM	12	0	20.29	20.41	20.42
5	16QAM	12	7	20.37	20.42	20.33
5	16QAM	12	13	20.44	20.29	20.38
5	16QAM	25	0	20.44	20.30	20.33
5	64QAM	1	0	20.67	20.47	20.56
5	64QAM	1	12	20.53	20.45	20.38
5	64QAM	1	24	20.50	20.31	20.48
5	64QAM	12	0	19.21	19.33	19.50
5	64QAM	12	7	19.44	19.39	19.47
5	64QAM	12	13	19.39	19.35	19.36
5	64QAM	25	0	19.44	19.41	19.48
Channel				26705	26865	27025
Frequency (MHz)				815.5	831.5	847.5
3	QPSK	1	0	22.24	22.25	22.27
3	QPSK	1	8	22.29	22.14	22.36
3	QPSK	1	14	22.26	22.03	22.33

3	QPSK	8	0	21.31	21.31	21.40
3	QPSK	8	4	21.39	21.32	21.31
3	QPSK	8	7	21.38	21.35	21.36
3	QPSK	15	0	21.40	21.31	21.28
3	16QAM	1	0	21.41	21.35	21.74
3	16QAM	1	8	21.31	21.82	21.61
3	16QAM	1	14	21.39	21.89	21.69
3	16QAM	8	0	20.54	20.08	20.36
3	16QAM	8	4	20.54	20.40	20.38
3	16QAM	8	7	20.47	20.30	20.30
3	16QAM	15	0	20.28	20.35	20.43
3	64QAM	1	0	20.58	20.39	20.60
3	64QAM	1	8	20.86	20.35	20.74
3	64QAM	1	14	20.48	20.25	20.62
3	64QAM	8	0	19.47	19.29	19.48
3	64QAM	8	4	19.20	19.44	19.42
3	64QAM	8	7	19.39	19.42	19.32
3	64QAM	15	0	19.39	19.29	19.39
Channel				26697	26865	27033
Frequency (MHz)				814.7	831.5	848.3
1.4	QPSK	1	0	22.38	22.19	22.16
1.4	QPSK	1	3	22.38	22.28	22.22
1.4	QPSK	1	5	22.36	22.21	22.11
1.4	QPSK	3	0	22.41	22.13	22.25
1.4	QPSK	3	1	22.29	22.23	22.24
1.4	QPSK	3	3	22.43	22.30	22.20
1.4	QPSK	6	0	21.48	21.20	21.13
1.4	16QAM	1	0	21.79	21.60	21.80
1.4	16QAM	1	3	21.67	21.38	21.74
1.4	16QAM	1	5	21.62	21.72	21.75
1.4	16QAM	3	0	21.43	21.16	21.61
1.4	16QAM	3	1	21.65	21.45	21.42
1.4	16QAM	3	3	21.67	21.36	21.17
1.4	16QAM	6	0	20.51	20.34	20.14
1.4	64QAM	1	0	20.66	20.44	20.23
1.4	64QAM	1	3	20.68	20.12	20.15
1.4	64QAM	1	5	20.62	20.50	20.67
1.4	64QAM	3	0	20.54	20.27	20.40
1.4	64QAM	3	1	20.84	20.30	20.28
1.4	64QAM	3	3	20.88	20.38	20.53
1.4	64QAM	6	0	19.13	19.23	19.15

LTE Band 66:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				132072	132322	132572

Frequency (MHz)				1720	1745	1770
20	QPSK	1	0	22.22	22.42	22.21
20	QPSK	1	49	22.10	22.26	22.02
20	QPSK	1	99	22.00	22.02	22.02
20	QPSK	50	0	21.73	21.75	21.59
20	QPSK	50	24	21.72	21.66	21.54
20	QPSK	50	50	21.67	21.63	21.55
20	QPSK	100	0	21.72	21.74	21.54
20	16QAM	1	0	22.00	22.09	21.92
20	16QAM	1	49	21.99	21.95	21.86
20	16QAM	1	99	21.87	21.80	21.69
20	16QAM	50	0	20.68	20.72	20.62
20	16QAM	50	24	20.77	20.65	20.56
20	16QAM	50	50	20.71	20.65	20.56
20	16QAM	100	0	20.72	20.64	20.55
20	64QAM	1	0	20.80	20.90	20.80
20	64QAM	1	49	20.88	20.91	20.74
20	64QAM	1	99	20.71	20.67	20.60
20	64QAM	50	0	19.71	19.73	19.61
20	64QAM	50	24	19.77	19.71	19.59
20	64QAM	50	50	19.73	19.66	19.59
20	64QAM	100	0	19.76	19.66	19.58
Channel				132047	132322	132597
Frequency (MHz)				1717.5	1745	1772.5
15	QPSK	1	0	22.07	22.18	22.20
15	QPSK	1	37	22.02	22.14	22.28
15	QPSK	1	74	22.08	22.10	22.17
15	QPSK	36	0	21.73	21.75	21.58
15	QPSK	36	20	21.75	21.72	21.65
15	QPSK	36	39	21.70	21.72	21.69
15	QPSK	75	0	21.72	21.59	21.69
15	16QAM	1	0	21.78	21.93	21.95
15	16QAM	1	37	21.91	21.91	21.77
15	16QAM	1	74	21.86	21.52	21.65
15	16QAM	36	0	20.74	20.74	20.69
15	16QAM	36	20	20.84	20.82	20.75
15	16QAM	36	39	20.82	20.77	20.67
15	16QAM	75	0	20.80	20.75	20.68
15	64QAM	1	0	20.97	20.92	21.04
15	64QAM	1	37	20.99	20.63	20.96
15	64QAM	1	74	20.95	20.55	20.66
15	64QAM	36	0	19.71	19.84	19.67
15	64QAM	36	20	19.87	19.73	19.65
15	64QAM	36	39	19.81	19.72	19.69
15	64QAM	75	0	19.78	19.68	19.73
Channel				132022	132322	132622
Frequency (MHz)				1715	1745	1775

10	QPSK	1	0	22.22	22.20	22.23
10	QPSK	1	25	22.21	22.21	22.09
10	QPSK	1	49	22.03	22.07	22.01
10	QPSK	25	0	21.86	21.78	21.75
10	QPSK	25	12	21.84	21.75	21.69
10	QPSK	25	25	21.84	21.72	21.62
10	QPSK	50	0	21.82	21.81	21.59
10	16QAM	1	0	22.21	21.79	21.64
10	16QAM	1	25	21.70	21.69	21.62
10	16QAM	1	49	21.75	21.64	21.59
10	16QAM	25	0	20.85	20.80	20.56
10	16QAM	25	12	20.91	20.67	20.76
10	16QAM	25	25	20.79	20.75	20.66
10	16QAM	50	0	20.81	20.73	20.72
10	64QAM	1	0	21.12	21.00	20.84
10	64QAM	1	25	21.04	20.47	20.92
10	64QAM	1	49	20.93	20.49	20.87
10	64QAM	25	0	19.87	19.86	19.80
10	64QAM	25	12	19.88	19.84	19.76
10	64QAM	25	25	19.80	19.81	19.68
10	64QAM	50	0	19.89	19.83	19.71
Channel				131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5
5	QPSK	1	0	22.19	22.26	22.22
5	QPSK	1	12	22.10	22.13	22.12
5	QPSK	1	24	22.25	22.21	22.07
5	QPSK	12	0	21.80	21.80	21.64
5	QPSK	12	7	21.77	21.74	21.74
5	QPSK	12	13	21.81	21.79	21.67
5	QPSK	25	0	21.75	21.71	21.70
5	16QAM	1	0	22.00	22.11	22.05
5	16QAM	1	12	22.07	22.26	21.96
5	16QAM	1	24	21.80	21.75	21.98
5	16QAM	12	0	20.90	20.88	20.68
5	16QAM	12	7	20.86	21.35	20.79
5	16QAM	12	13	20.80	20.85	20.75
5	16QAM	25	0	20.74	20.83	20.71
5	64QAM	1	0	20.67	20.89	21.14
5	64QAM	1	12	20.94	21.07	20.84
5	64QAM	1	24	20.92	21.06	20.88
5	64QAM	12	0	19.84	19.76	19.77
5	64QAM	12	7	19.83	19.70	19.74
5	64QAM	12	13	19.74	19.69	19.69
5	64QAM	25	0	19.83	19.79	19.88
Channel				131987	132322	132657
Frequency (MHz)				1711.5	1745	1778.5
3	QPSK	1	0	22.18	22.22	22.15

3	QPSK	1	8	22.20	22.23	22.06
3	QPSK	1	14	22.04	22.13	22.03
3	QPSK	8	0	21.69	21.72	21.62
3	QPSK	8	4	21.74	21.64	21.72
3	QPSK	8	7	21.86	21.79	21.61
3	QPSK	15	0	21.83	21.61	21.55
3	16QAM	1	0	22.10	22.20	21.77
3	16QAM	1	8	22.24	22.31	22.14
3	16QAM	1	14	22.29	22.27	22.09
3	16QAM	8	0	20.79	20.67	20.57
3	16QAM	8	4	20.86	20.74	20.75
3	16QAM	8	7	20.75	20.86	20.71
3	16QAM	15	0	20.76	21.01	20.78
3	64QAM	1	0	21.24	20.31	20.63
3	64QAM	1	8	21.04	20.84	21.05
3	64QAM	1	14	20.61	21.01	21.13
3	64QAM	8	0	19.83	19.52	19.69
3	64QAM	8	4	20.06	19.81	19.60
3	64QAM	8	7	19.83	19.91	19.74
3	64QAM	15	0	19.80	19.77	19.78
Channel				131979	132322	132665
Frequency (MHz)				1710.7	1745	1779.3
1.4	QPSK	1	0	22.01	22.05	22.01
1.4	QPSK	1	3	22.03	22.11	22.07
1.4	QPSK	1	5	22.03	22.04	22.03
1.4	QPSK	3	0	22.14	22.15	22.03
1.4	QPSK	3	1	22.05	22.15	22.14
1.4	QPSK	3	3	22.12	22.18	22.07
1.4	QPSK	6	0	21.62	21.67	21.57
1.4	16QAM	1	0	21.86	21.93	21.90
1.4	16QAM	1	3	21.85	22.00	21.85
1.4	16QAM	1	5	21.79	21.90	21.79
1.4	16QAM	3	0	21.67	21.78	21.54
1.4	16QAM	3	1	21.81	21.49	21.70
1.4	16QAM	3	3	21.67	21.63	21.92
1.4	16QAM	6	0	20.72	20.78	20.76
1.4	64QAM	1	0	20.75	20.81	20.75
1.4	64QAM	1	3	20.76	20.81	20.75
1.4	64QAM	1	5	20.83	20.75	20.68
1.4	64QAM	3	0	20.85	20.94	20.39
1.4	64QAM	3	1	20.85	20.66	20.73
1.4	64QAM	3	3	20.90	20.44	20.41
1.4	64QAM	6	0	19.56	19.72	19.58

ERP/EIRP

LTE Band 2 (GT - LC = 0.20 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	22.46	22.38	22.33	22.46	22.38	22.33	22.30	22.31	22.42
Conducted Power (Watts)	0.1762	0.1730	0.1710	0.1762	0.1730	0.1710	0.1698	0.1702	0.1746
EIRP(dBm)	22.66	22.58	22.53	22.66	22.58	22.53	22.50	22.51	22.62
EIRP(Watts)	0.1845	0.1811	0.1791	0.1845	0.1811	0.1791	0.1778	0.1782	0.1828

LTE Band 2 (GT - LC = 0.20 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	22.26	22.31	22.42	22.23	22.22	22.43	22.66	22.54	22.60
Conducted Power (Watts)	0.1683	0.1702	0.1746	0.1671	0.1667	0.1750	0.1845	0.1795	0.1820
EIRP(dBm)	22.46	22.51	22.62	22.43	22.42	22.63	22.86	22.74	22.80
EIRP(Watts)	0.1762	0.1782	0.1828	0.1750	0.1746	0.1832	0.1932	0.1879	0.1905

LTE Band 2 (GT - LC = 0.20 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	21.28	22.09	21.71	21.28	22.09	21.71	21.68	21.71	21.72
Conducted Power (Watts)	0.1343	0.1618	0.1483	0.1343	0.1618	0.1483	0.1472	0.1483	0.1486
EIRP(dBm)	21.48	22.29	21.91	21.48	22.29	21.91	21.88	21.91	21.92
EIRP(Watts)	0.1406	0.1694	0.1552	0.1406	0.1694	0.1552	0.1542	0.1552	0.1556

LTE Band 2 (GT - LC = 0.20 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	21.55	21.54	21.80	21.55	21.60	21.83	22.04	21.85	21.93
Conducted Power (Watts)	0.1429	0.1426	0.1514	0.1429	0.1445	0.1524	0.1600	0.1531	0.1560
EIRP(dBm)	21.75	21.74	22.00	21.75	21.80	22.03	22.24	22.05	22.13
EIRP(Watts)	0.1496	0.1493	0.1585	0.1496	0.1514	0.1596	0.1675	0.1603	0.1633

LTE Band 2 (GT - LC = 0.20 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
Conducted Power (dBm)	20.98	20.37	20.62	20.56	20.39	20.71	20.56	20.39	20.71
Conducted Power (Watts)	0.1253	0.1089	0.1153	0.1138	0.1094	0.1178	0.1138	0.1094	0.1178
EIRP(dBm)	21.18	20.57	20.82	20.76	20.59	20.91	20.76	20.59	20.91
EIRP(Watts)	0.1312	0.1140	0.1208	0.1191	0.1146	0.1233	0.1191	0.1146	0.1233

LTE Band 2 (GT - LC = 0.20 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
Conducted Power (dBm)	20.44	20.41	20.69	20.54	20.37	20.57	20.17	20.35	20.49
Conducted Power (Watts)	0.1107	0.1099	0.1172	0.1132	0.1089	0.1140	0.1040	0.1084	0.1119
EIRP(dBm)	20.64	20.61	20.89	20.74	20.57	20.77	20.37	20.55	20.69
EIRP(Watts)	0.1159	0.1151	0.1227	0.1186	0.1140	0.1194	0.1089	0.1135	0.1172

LTE Band 5 (GT - LC = -4.80 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.31	22.28	22.34	22.11	22.26	22.41	22.46	22.56	22.33
Conducted Power (Watts)	0.1702	0.1690	0.1714	0.1626	0.1683	0.1742	0.1762	0.1803	0.1710
ERP(dBm)	15.36	15.33	15.39	15.16	15.31	15.46	15.51	15.61	15.38
ERP(Watts)	0.0344	0.0341	0.0346	0.0328	0.0340	0.0352	0.0356	0.0364	0.0345

LTE Band 5 (GT - LC = -4.80 dB) QPSK			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	22.50	22.55	22.57
Conducted Power (Watts)	0.1778	0.1799	0.1807
ERP(dBm)	15.55	15.60	15.62
ERP(Watts)	0.0359	0.0363	0.0365

LTE Band 5 (GT - LC = -4.80 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	21.79	21.55	21.78	21.21	21.52	21.83	21.64	21.92	21.71
Conducted Power (Watts)	0.1510	0.1429	0.1507	0.1321	0.1419	0.1524	0.1459	0.1556	0.1483
ERP(dBm)	14.84	14.60	14.83	14.26	14.57	14.88	14.69	14.97	14.76
ERP(Watts)	0.0305	0.0288	0.0304	0.0267	0.0286	0.0308	0.0294	0.0314	0.0299

LTE Band 5 (GT - LC = -4.80 dB) 16QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	21.83	21.90	21.93
Conducted Power (Watts)	0.1524	0.1549	0.1560
ERP(dBm)	14.88	14.95	14.98
ERP(Watts)	0.0308	0.0313	0.0315

LTE Band 5 (GT - LC = -4.80 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	20407	20525	20643	20415	20525	20635	20425	20525	20625
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	20.12	20.62	20.58	20.88	20.70	20.56	20.79	20.50	20.71
Conducted Power (Watts)	0.1028	0.1153	0.1143	0.1225	0.1175	0.1138	0.1199	0.1122	0.1178
ERP(dBm)	13.17	13.67	13.63	13.93	13.75	13.61	13.84	13.55	13.76
ERP(Watts)	0.0207	0.0233	0.0231	0.0247	0.0237	0.0230	0.0242	0.0226	0.0238

LTE Band 5 (GT - LC = -4.80 dB) 64QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	20.72	20.75	20.80
Conducted Power (Watts)	0.1180	0.1189	0.1202
ERP(dBm)	13.77	13.80	13.85
ERP(Watts)	0.0238	0.0240	0.0243

LTE Band 12 (GT - LC = -7.64 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	22.38	22.40	22.27	22.44	22.35	22.20	22.29	22.42	22.32
Conducted Power (Watts)	0.1730	0.1738	0.1687	0.1754	0.1718	0.1660	0.1694	0.1746	0.1706
ERP(dBm)	12.59	12.61	12.48	12.65	12.56	12.41	12.50	12.63	12.53
ERP(Watts)	0.0182	0.0182	0.0177	0.0184	0.0180	0.0174	0.0178	0.0183	0.0179

LTE Band 12 (GT - LC = -7.64 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.66	22.62	22.50
Conducted Power (Watts)	0.1845	0.1828	0.1778
ERP(dBm)	12.87	12.83	12.71
ERP(Watts)	0.0194	0.0192	0.0187

LTE Band 12 (GT - LC = -7.64 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	21.29	21.89	21.51	21.50	21.91	21.88	22.05	21.20	21.42
Conducted Power (Watts)	0.1346	0.1545	0.1416	0.1413	0.1552	0.1542	0.1603	0.1318	0.1387
ERP(dBm)	11.50	12.10	11.72	11.71	12.12	12.09	12.26	11.41	11.63
ERP(Watts)	0.0141	0.0162	0.0149	0.0148	0.0163	0.0162	0.0168	0.0138	0.0146

LTE Band 12 (GT - LC = -7.64 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	21.95	21.93	21.93
Conducted Power (Watts)	0.1567	0.1560	0.1560
ERP(dBm)	12.16	12.14	12.14
ERP(Watts)	0.0164	0.0164	0.0164

LTE Band 12 (GT - LC = -7.64 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	21.16	20.52	20.98	20.84	20.53	20.17	20.49	20.88	20.65
Conducted Power (Watts)	0.1306	0.1127	0.1253	0.1213	0.1130	0.1040	0.1119	0.1225	0.1161
ERP(dBm)	11.37	10.73	11.19	11.05	10.74	10.38	10.70	11.09	10.86
ERP(Watts)	0.0137	0.0118	0.0132	0.0127	0.0119	0.0109	0.0117	0.0129	0.0122

LTE Band 12 (GT - LC = -7.64 dB) 64QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	20.82	20.74	20.67
Conducted Power (Watts)	0.1208	0.1186	0.1167
ERP(dBm)	11.03	10.95	10.88
ERP(Watts)	0.0127	0.0124	0.0122

LTE Band 26 (GT - LC = -4.81 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	22.43	22.30	22.20	22.29	22.14	22.36	22.21	22.16	22.43
Conducted Power (Watts)	0.1750	0.1698	0.1660	0.1694	0.1637	0.1722	0.1663	0.1644	0.1750
ERP(dBm)	15.47	15.34	15.24	15.33	15.18	15.40	15.25	15.20	15.47
ERP(Watts)	0.0352	0.0342	0.0334	0.0341	0.0330	0.0347	0.0335	0.0331	0.0352

LTE Band 26 (GT - LC = -4.81 dB) QPSK							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	22.16	22.24	22.32	22.38	22.89	22.36	22.38
Conducted Power (Watts)	0.1644	0.1675	0.1706	0.1730	0.1945	0.1722	0.1730
ERP(dBm)	15.20	15.28	15.36	15.42	15.93	15.40	15.42
ERP(Watts)	0.0331	0.0337	0.0344	0.0348	0.0392	0.0347	0.0348

LTE Band 26 (GT - LC = -4.81 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	21.79	21.60	21.80	21.39	21.89	21.69	21.39	21.45	21.86
Conducted Power (Watts)	0.1510	0.1445	0.1514	0.1377	0.1545	0.1476	0.1377	0.1396	0.1535
ERP(dBm)	14.83	14.64	14.84	14.43	14.93	14.73	14.43	14.49	14.90
ERP(Watts)	0.0304	0.0291	0.0305	0.0277	0.0311	0.0297	0.0277	0.0281	0.0309

LTE Band 26 (GT - LC = -4.81 dB) 16QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	21.96	21.24	21.76	21.73	21.66	21.73	21.73
Conducted Power (Watts)	0.1570	0.1330	0.1500	0.1489	0.1466	0.1489	0.1489
ERP(dBm)	15.00	14.28	14.80	14.77	14.70	14.77	14.77
ERP(Watts)	0.0316	0.0268	0.0302	0.0300	0.0295	0.0300	0.0300

LTE Band 26 (GT - LC = -4.81 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
Conducted Power (dBm)	20.88	20.38	20.53	20.86	20.35	20.74	20.67	20.47	20.56
Conducted Power (Watts)	0.1225	0.1091	0.1130	0.1219	0.1084	0.1186	0.1167	0.1114	0.1138
ERP(dBm)	13.92	13.42	13.57	13.90	13.39	13.78	13.71	13.51	13.60
ERP(Watts)	0.0247	0.0220	0.0228	0.0245	0.0218	0.0239	0.0235	0.0224	0.0229

LTE Band 26 (GT - LC = -4.81 dB) 64QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency (MHz)	829	836.5	844	831.5	836.5	841.5	821.5
Conducted Power (dBm)	20.49	20.31	20.68	20.58	20.53	20.62	20.58
Conducted Power (Watts)	0.1119	0.1074	0.1169	0.1143	0.1130	0.1153	0.1143
ERP(dBm)	13.53	13.35	13.72	13.62	13.57	13.66	13.62
ERP(Watts)	0.0225	0.0216	0.0236	0.0230	0.0228	0.0232	0.0230

LTE Band 66 (GT - LC = -0.01 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	22.12	22.18	22.07	22.20	22.23	22.06	22.19	22.26	22.22
Conducted Power (Watts)	0.1629	0.1652	0.1611	0.1660	0.1671	0.1607	0.1656	0.1683	0.1667
EIRP(dBm)	22.11	22.17	22.06	22.19	22.22	22.05	22.18	22.25	22.21
EIRP(Watts)	0.1626	0.1648	0.1607	0.1656	0.1667	0.1603	0.1652	0.1679	0.1663

LTE Band 66 (GT - LC = -0.01 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	22.22	22.20	22.23	22.02	22.14	22.28	22.22	22.42	22.21
Conducted Power (Watts)	0.1667	0.1660	0.1671	0.1592	0.1637	0.1690	0.1667	0.1746	0.1663
EIRP(dBm)	22.21	22.19	22.22	22.01	22.13	22.27	22.21	22.41	22.20
EIRP(Watts)	0.1663	0.1656	0.1667	0.1589	0.1633	0.1687	0.1663	0.1742	0.1660

LTE Band 66 (GT - LC = -0.01 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	21.85	22.00	21.85	22.24	22.31	22.14	22.07	22.26	21.96
Conducted Power (Watts)	0.1531	0.1585	0.1531	0.1675	0.1702	0.1637	0.1611	0.1683	0.1570
EIRP(dBm)	21.84	21.99	21.84	22.23	22.30	22.13	22.06	22.25	21.95
EIRP(Watts)	0.1528	0.1581	0.1528	0.1671	0.1698	0.1633	0.1607	0.1679	0.1567

LTE Band 66 (GT - LC = -0.01 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	22.21	21.79	21.64	21.78	21.93	21.95	22.00	22.09	21.92
Conducted Power (Watts)	0.1663	0.1510	0.1459	0.1507	0.1560	0.1567	0.1585	0.1618	0.1556
EIRP(dBm)	22.20	21.78	21.63	21.77	21.92	21.94	21.99	22.08	21.91
EIRP(Watts)	0.1660	0.1507	0.1455	0.1503	0.1556	0.1563	0.1581	0.1614	0.1552

LTE Band 66 (GT - LC = -0.01 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
Conducted Power (dBm)	20.85	20.94	20.39	21.24	20.31	20.63	20.67	20.89	21.14
Conducted Power (Watts)	0.1216	0.1242	0.1094	0.1330	0.1074	0.1156	0.1167	0.1227	0.1300
EIRP(dBm)	20.84	20.93	20.38	21.23	20.30	20.62	20.66	20.88	21.13
EIRP(Watts)	0.1213	0.1239	0.1091	0.1327	0.1072	0.1153	0.1164	0.1225	0.1297

LTE Band 66 (GT - LC = -0.01 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
Conducted Power (dBm)	21.12	21.00	20.84	20.97	20.92	21.04	20.88	20.91	20.74
Conducted Power (Watts)	0.1294	0.1259	0.1213	0.1250	0.1236	0.1271	0.1225	0.1233	0.1186
EIRP(dBm)	21.11	20.99	20.83	20.96	20.91	21.03	20.87	20.90	20.73
EIRP(Watts)	0.1291	0.1256	0.1211	0.1247	0.1233	0.1268	0.1222	0.1230	0.1183

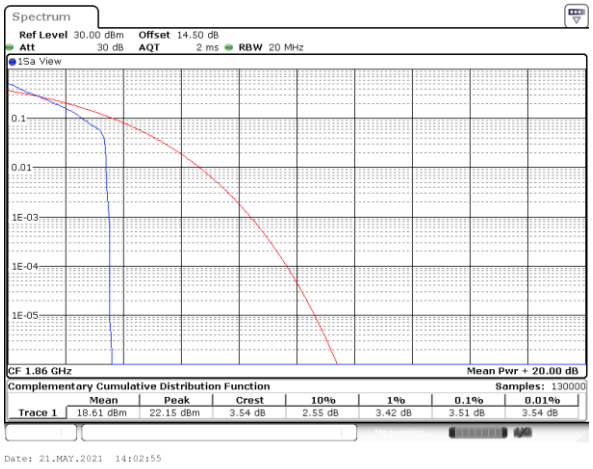
LTE Band 2

Peak-to-Average Ratio

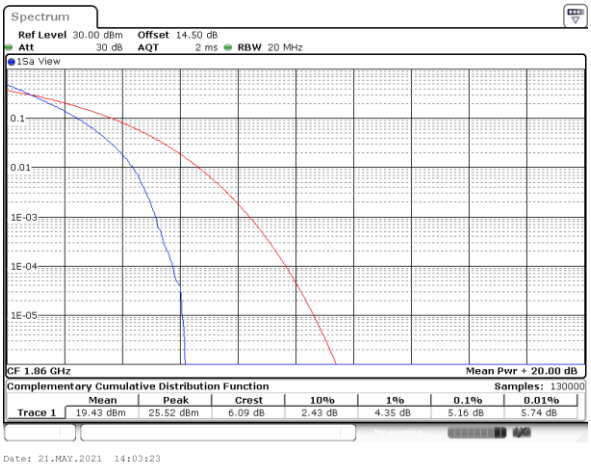
Mode	LTE Band 2 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.51	5.16	5.19	6.09	PASS
Middle CH	3.83	5.30	5.86	6.20	
Highest CH	3.62	5.22	5.22	6.23	
Mode	LTE Band 2 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.55	6.72	-	-	PASS
Middle CH	7.77	6.84	-	-	
Highest CH	6.26	6.81	-	-	

LTE Band 2 / 20MHz / QPSK

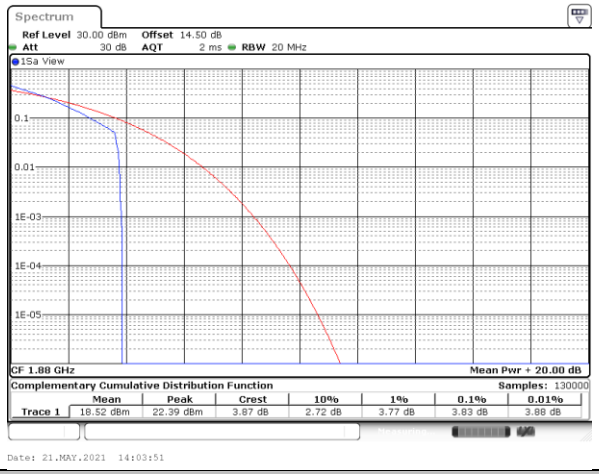
Lowest Channel / 1RB



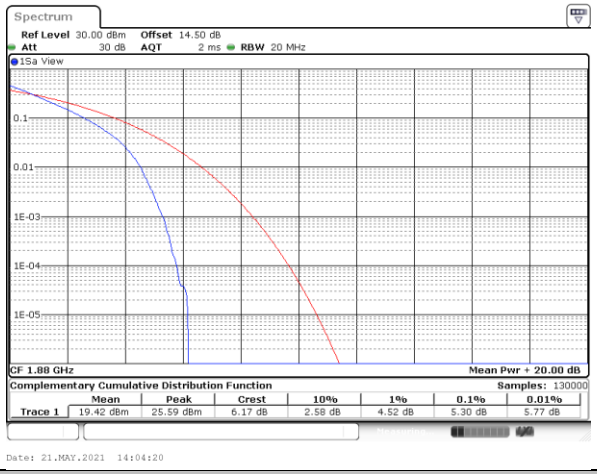
Lowest Channel / Full RB



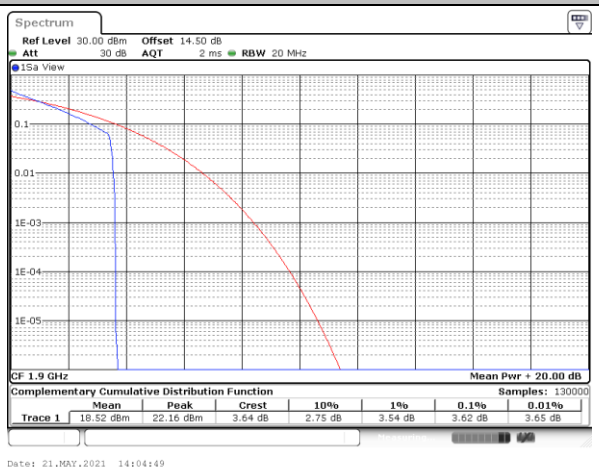
Middle Channel / 1RB



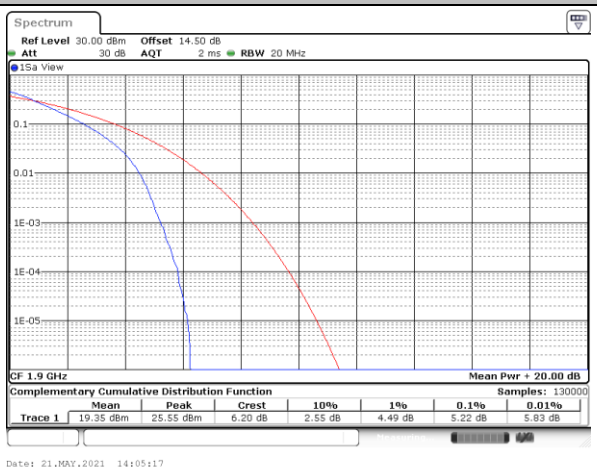
Middle Channel / Full RB



Highest Channel / 1RB

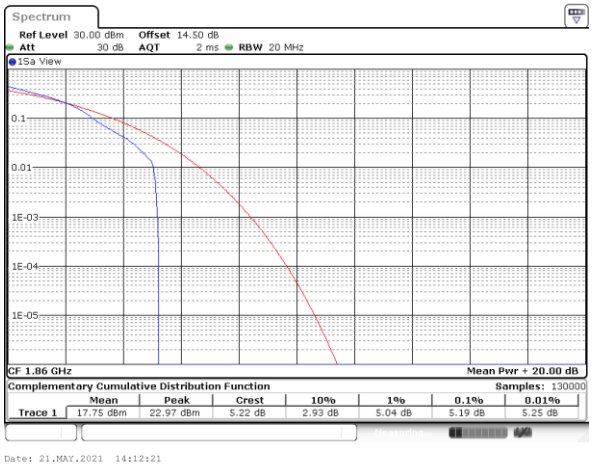


Highest Channel / Full RB

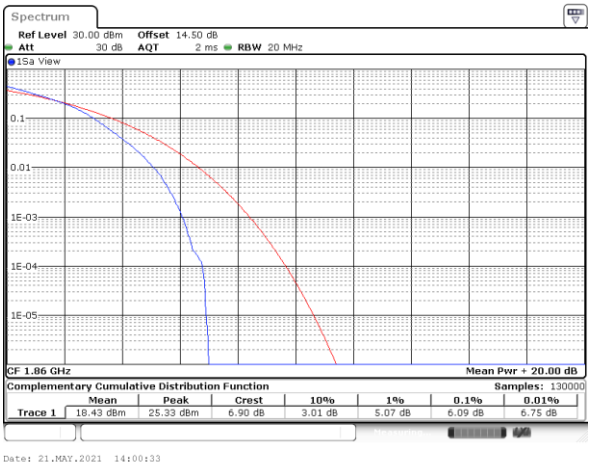


LTE Band 2 / 20MHz / 16QAM

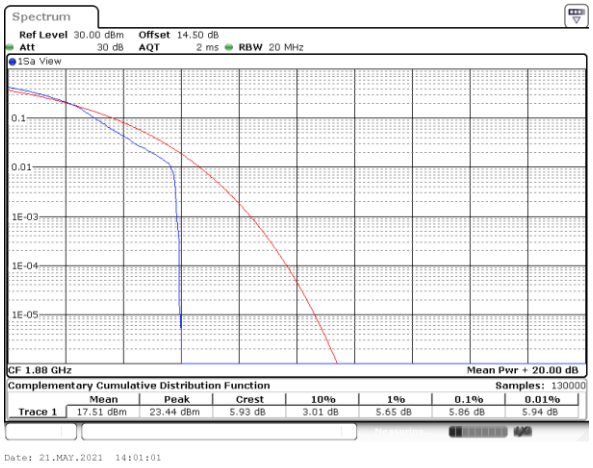
Lowest Channel / 1RB



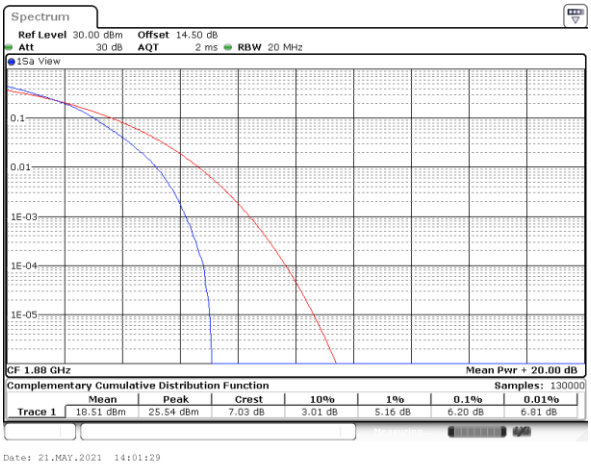
Lowest Channel / Full RB



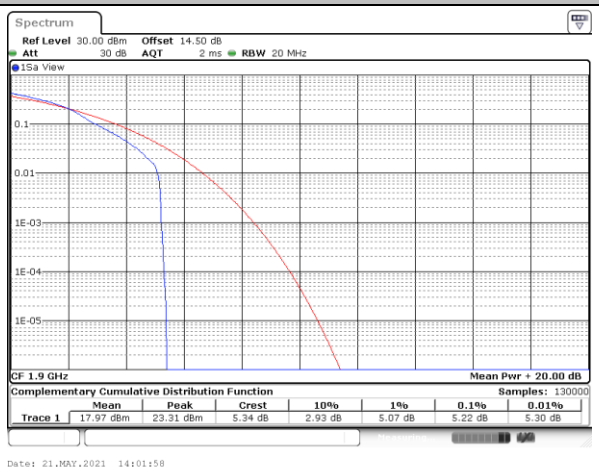
Middle Channel / 1RB



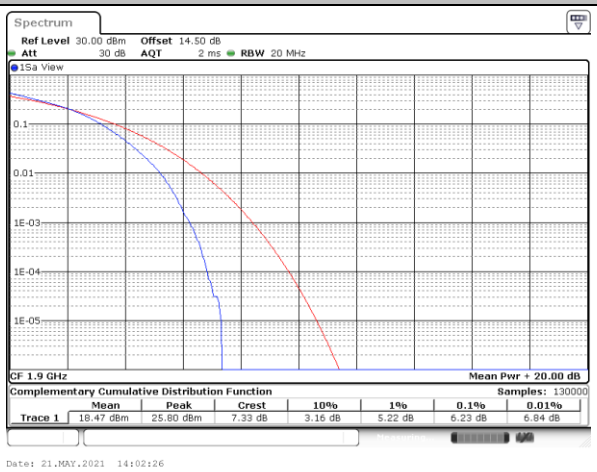
Middle Channel / Full RB



Highest Channel / 1RB

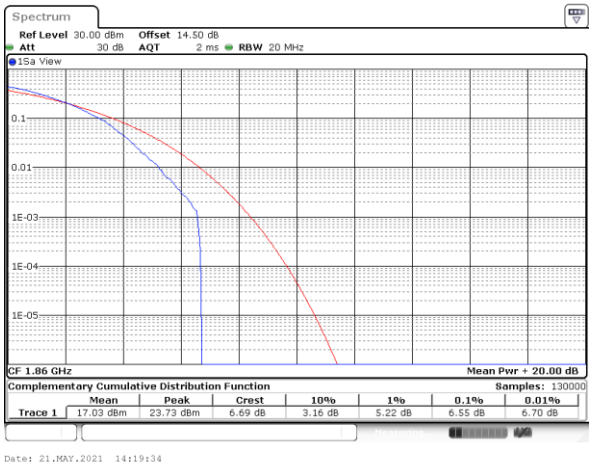


Highest Channel / Full RB

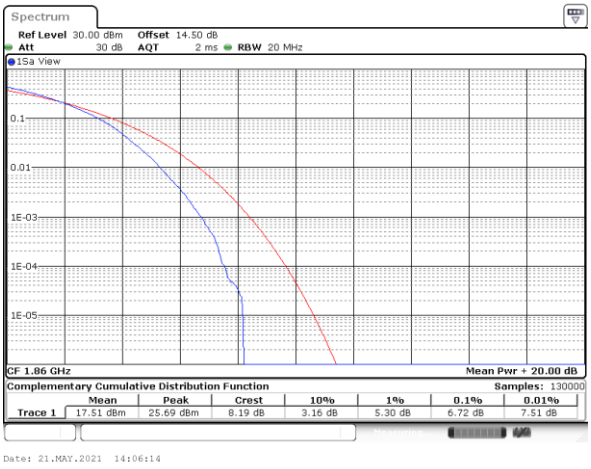


LTE Band 2 / 20MHz / 64QAM

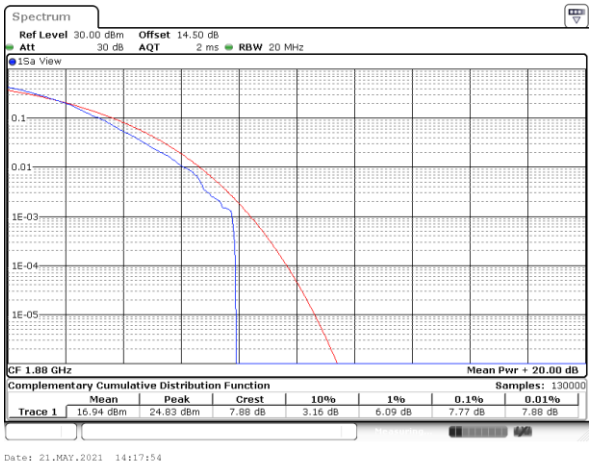
Lowest Channel / 1RB



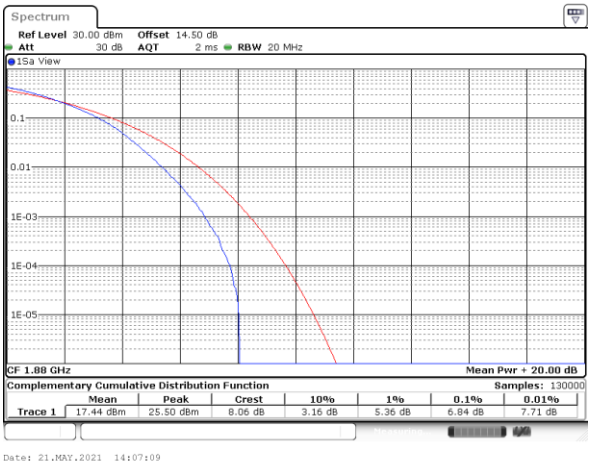
Lowest Channel / Full RB



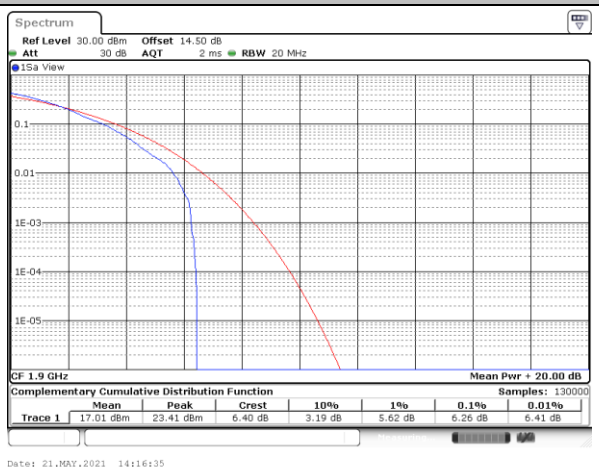
Middle Channel / 1RB



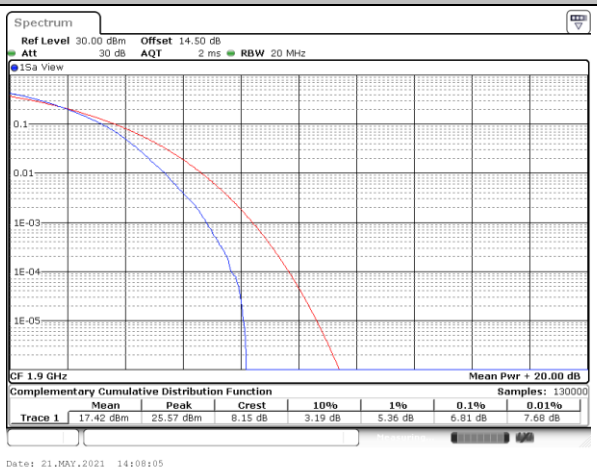
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

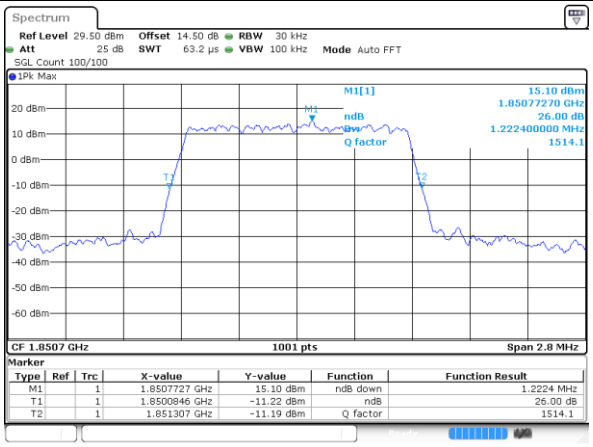


26dB Bandwidth

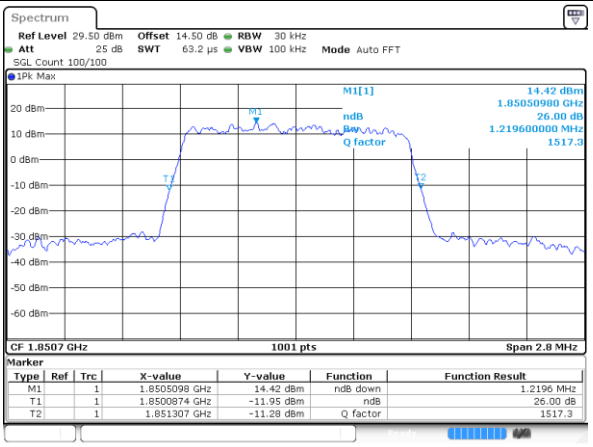
Mode	LTE Band 2 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.22	1.22	2.99	3.05	4.86	4.93	9.71	9.77	14.54	14.60	18.86	19.06
Middle CH	1.23	1.23	3.04	3.02	4.87	4.88	9.83	9.77	14.42	14.57	19.06	19.02
Highest CH	1.23	1.23	2.99	3.00	4.89	4.94	9.83	9.93	14.39	14.39	19.22	19.02
Mode	LTE Band 2 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.22	-	3.05	-	4.88	-	9.65	-	14.48	-	19.30	-
Middle CH	1.23	-	3.05	-	4.89	-	9.73	-	14.63	-	18.90	-
Highest CH	1.23	-	3.05	-	4.93	-	9.83	-	14.42	-	18.74	-

LTE Band 2

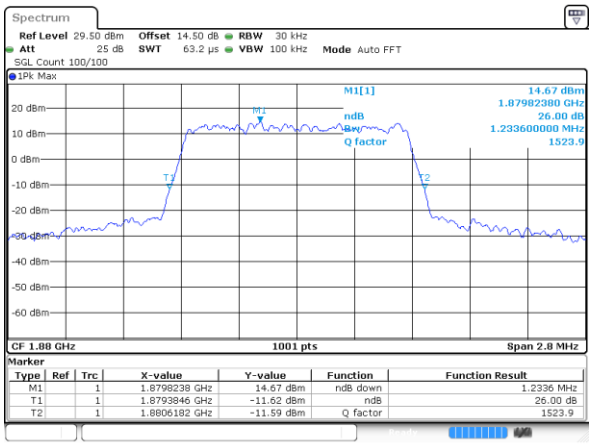
Lowest Channel / 1.4MHz / QPSK



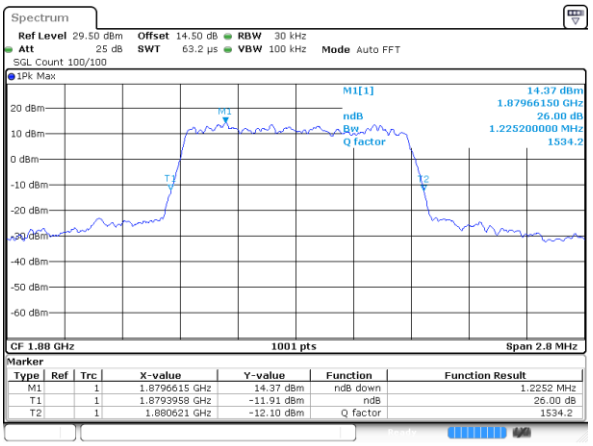
Lowest Channel / 1.4MHz / 16QAM



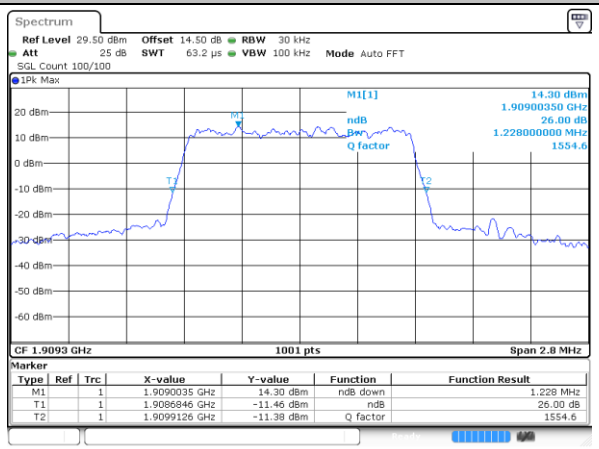
Middle Channel / 1.4MHz / QPSK



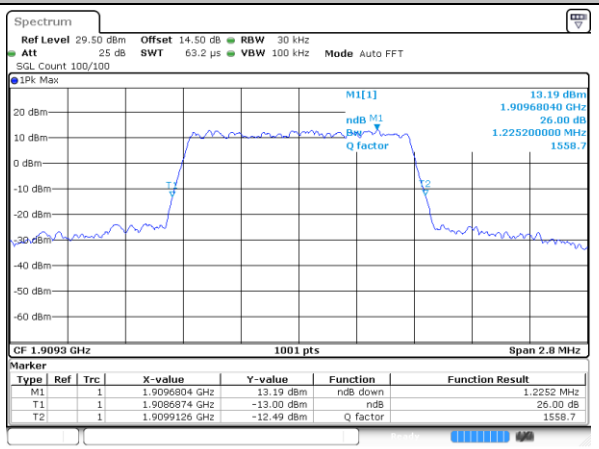
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

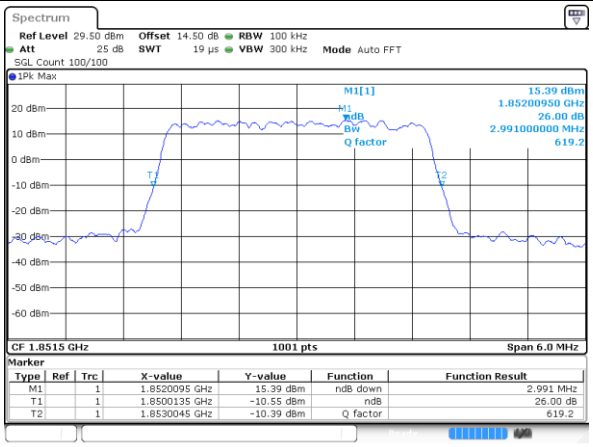


Highest Channel / 1.4MHz / 16QAM

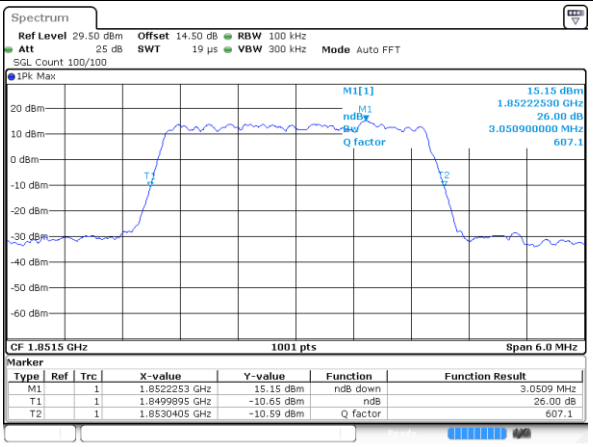


LTE Band 2

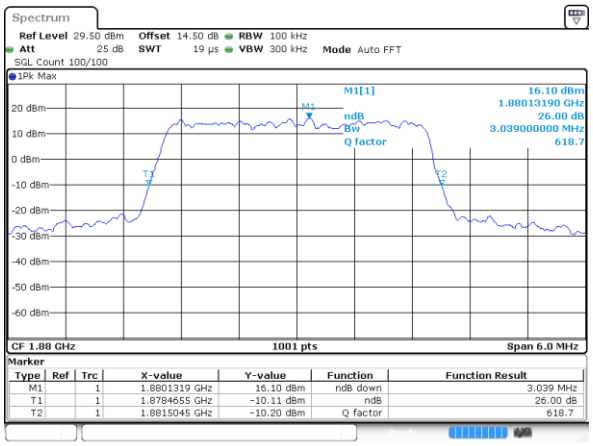
Lowest Channel / 3MHz / QPSK



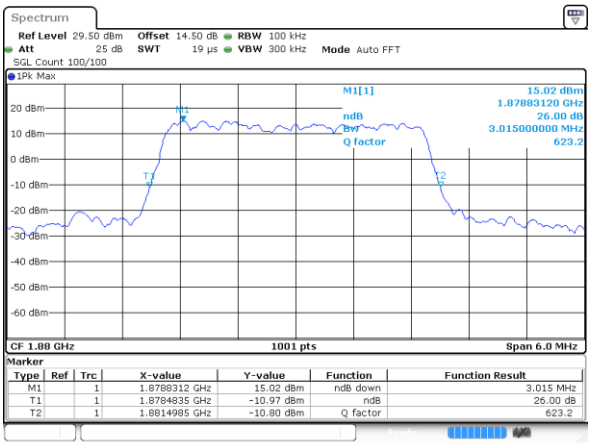
Lowest Channel / 3MHz / 16QAM



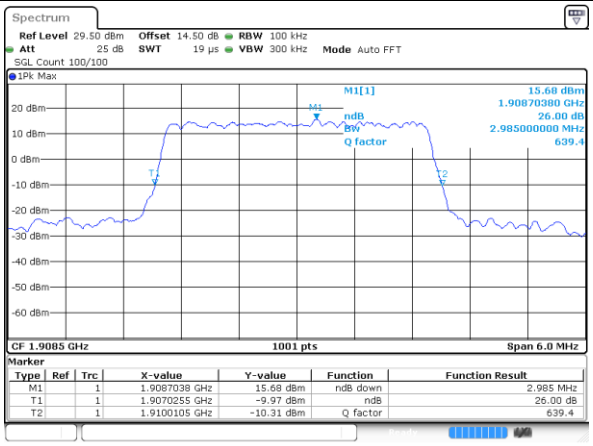
Middle Channel / 3MHz / QPSK



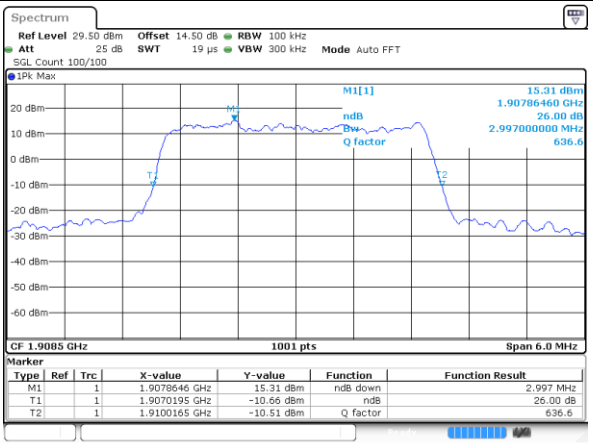
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

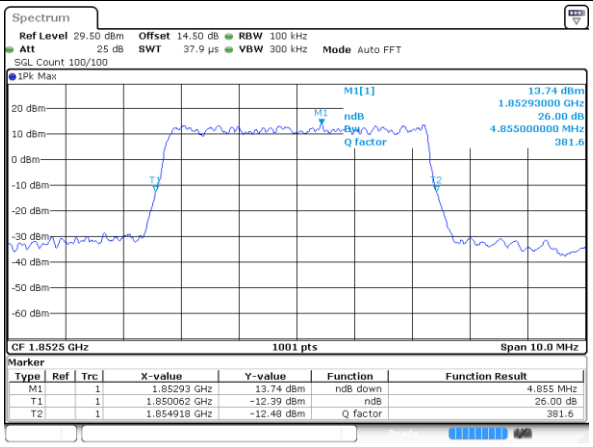


Highest Channel / 3MHz / 16QAM

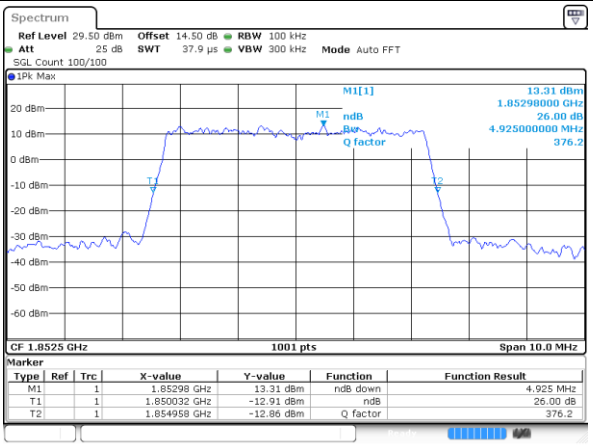


LTE Band 2

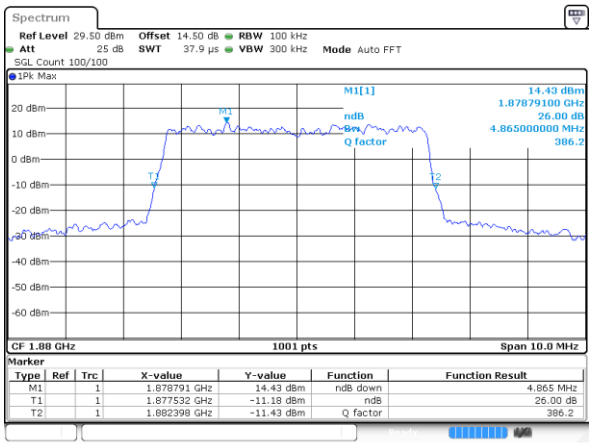
Lowest Channel / 5MHz / QPSK



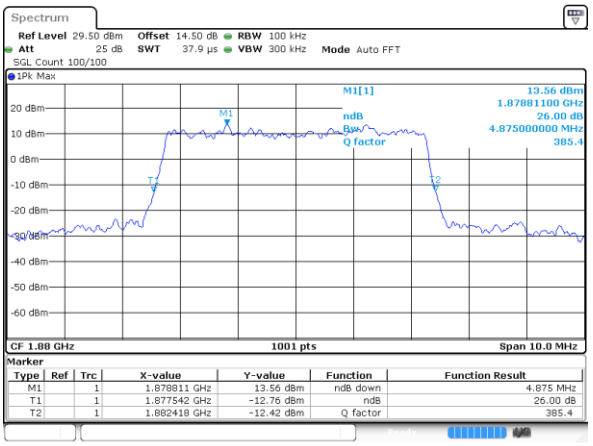
Lowest Channel / 5MHz / 16QAM



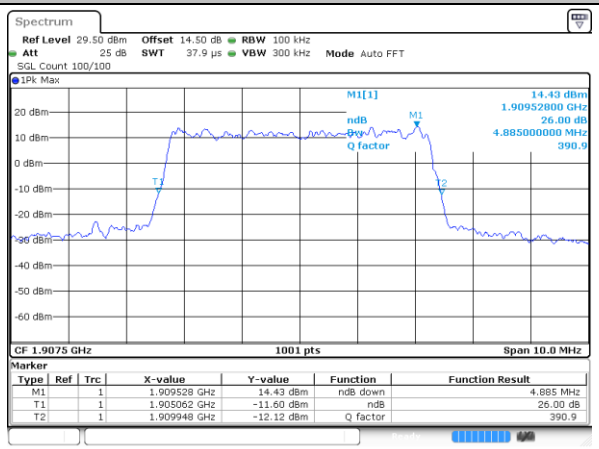
Middle Channel / 5MHz / QPSK



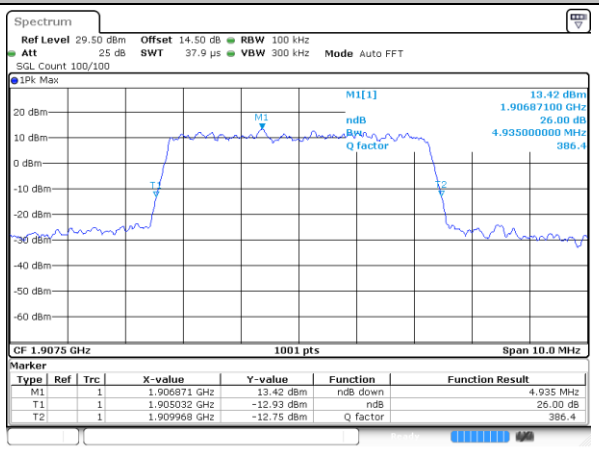
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

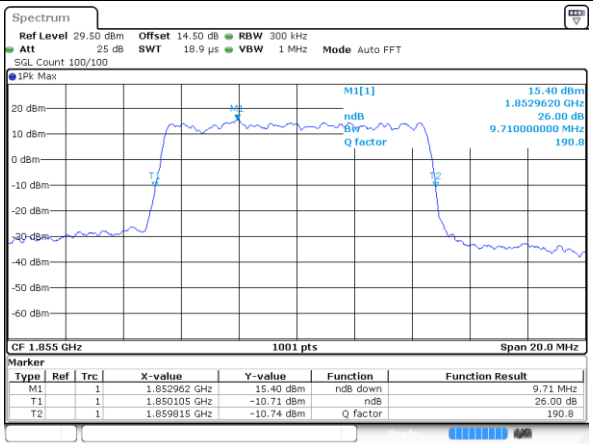


Highest Channel / 5MHz / 16QAM

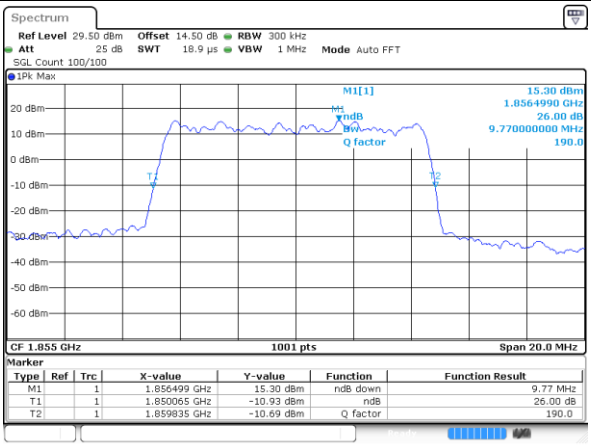


LTE Band 2

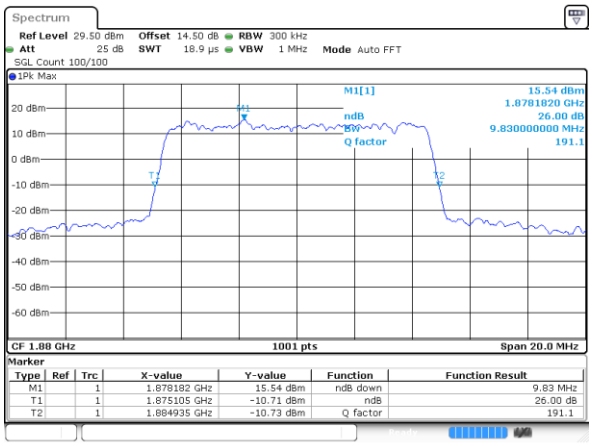
Lowest Channel / 10MHz / QPSK



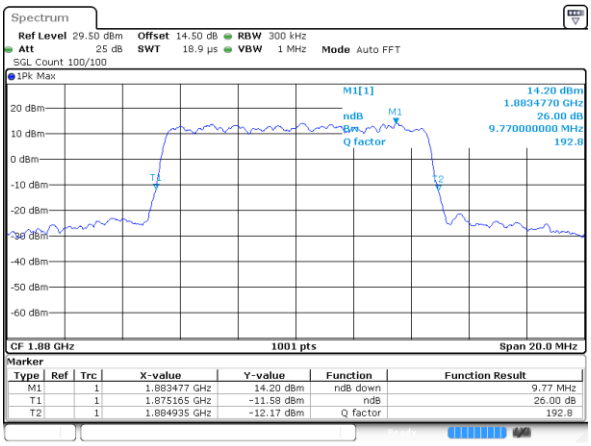
Lowest Channel / 10MHz / 16QAM



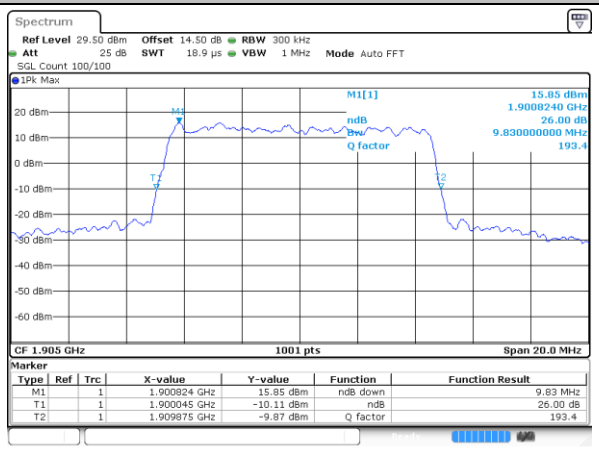
Middle Channel / 10MHz / QPSK



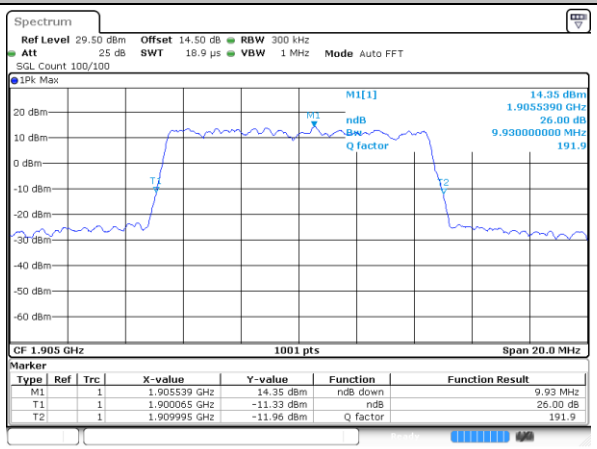
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

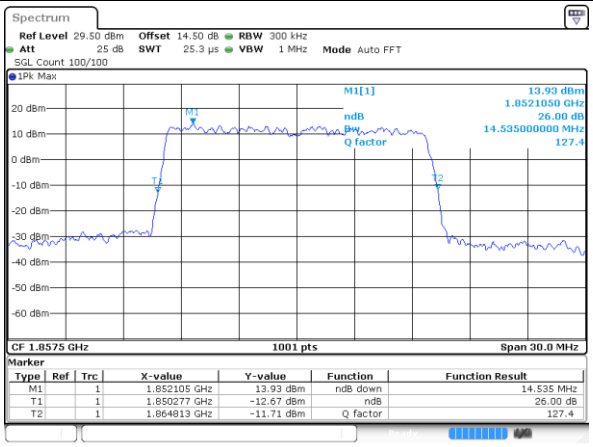


Highest Channel / 10MHz / 16QAM



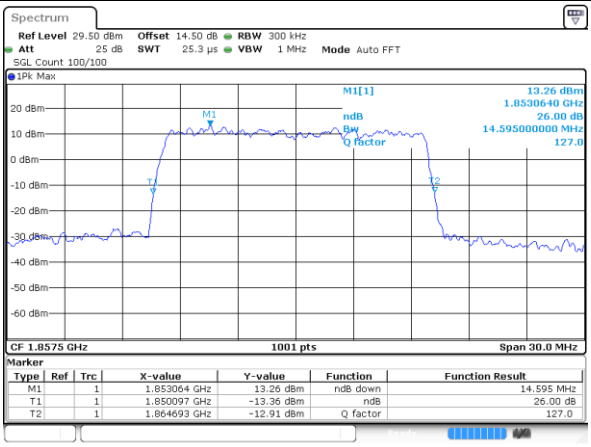
LTE Band 2

Lowest Channel / 15MHz / QPSK



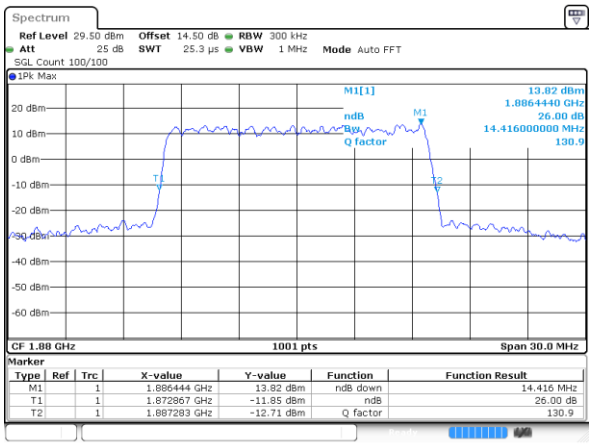
Date: 20.MAY.2021 12:50:17

Lowest Channel / 15MHz / 16QAM



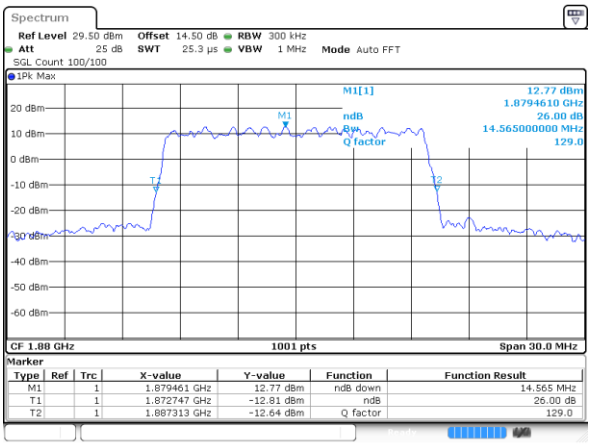
Date: 20.MAY.2021 12:50:28

Middle Channel / 15MHz / QPSK



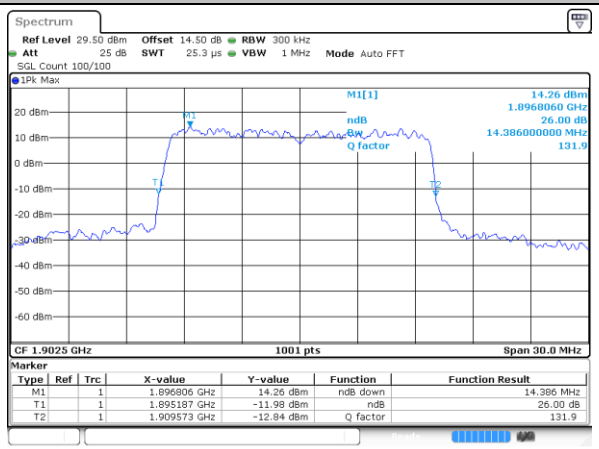
Date: 20.MAY.2021 13:36:43

Middle Channel / 15MHz / 16QAM



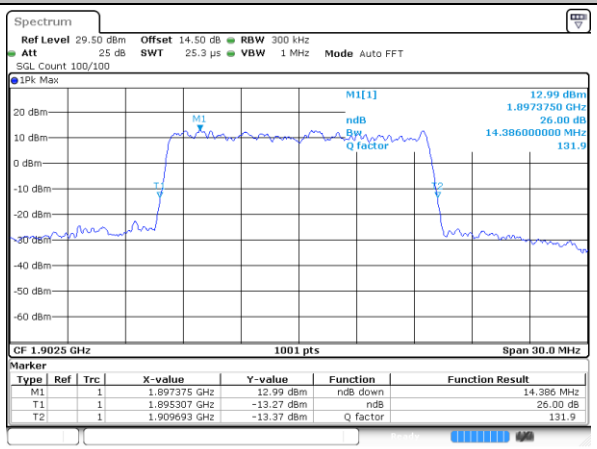
Date: 20.MAY.2021 13:36:54

Highest Channel / 15MHz / QPSK



Date: 20.MAY.2021 13:38:45

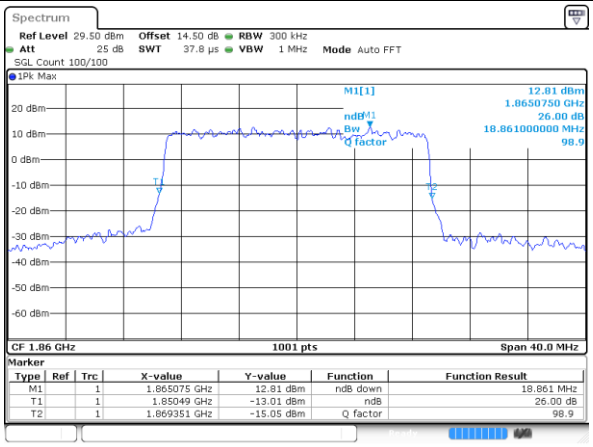
Highest Channel / 15MHz / 16QAM



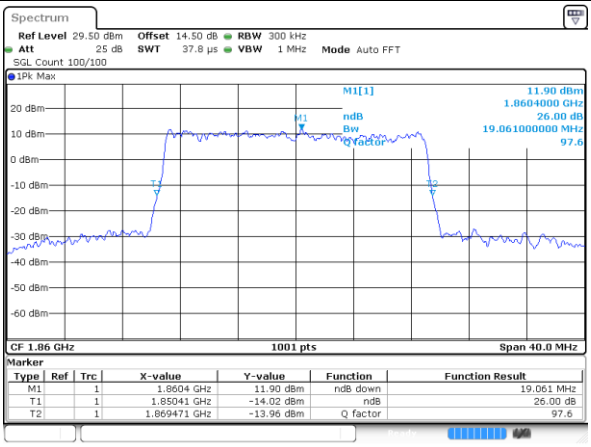
Date: 20.MAY.2021 13:38:56

LTE Band 2

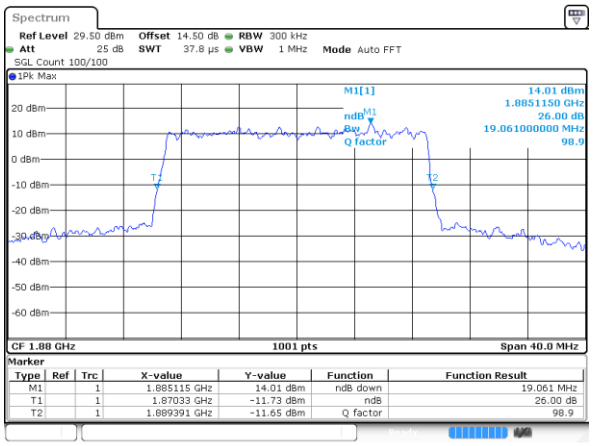
Lowest Channel / 20MHz / QPSK



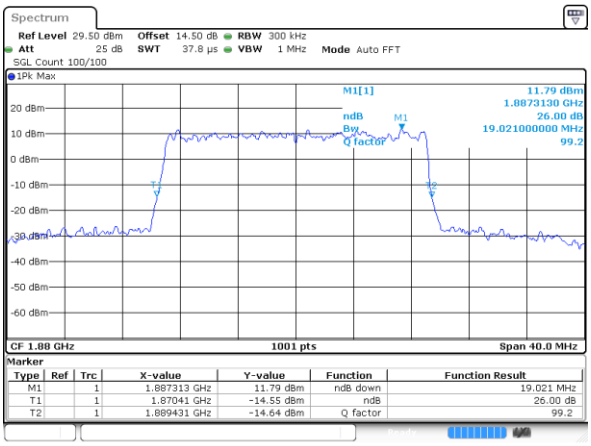
Lowest Channel / 20MHz / 16QAM



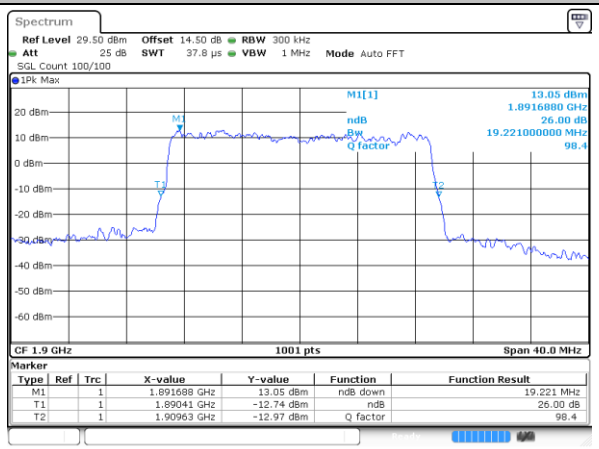
Middle Channel / 20MHz / QPSK



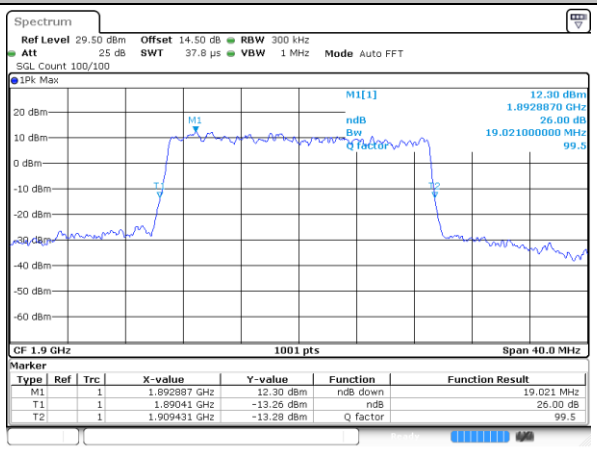
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

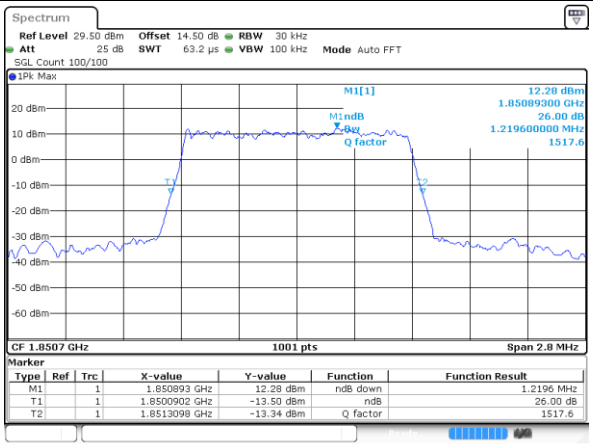


Highest Channel / 20MHz / 16QAM

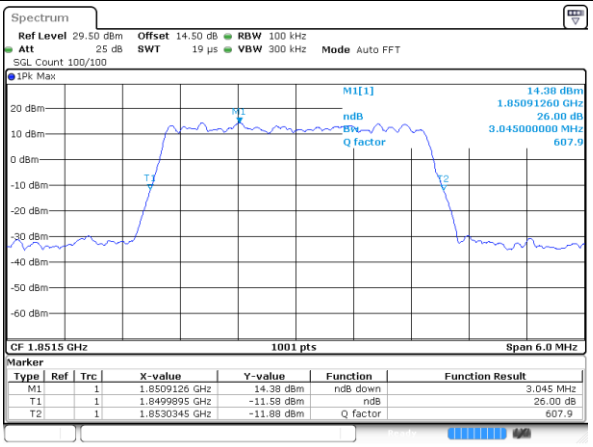


LTE Band 2

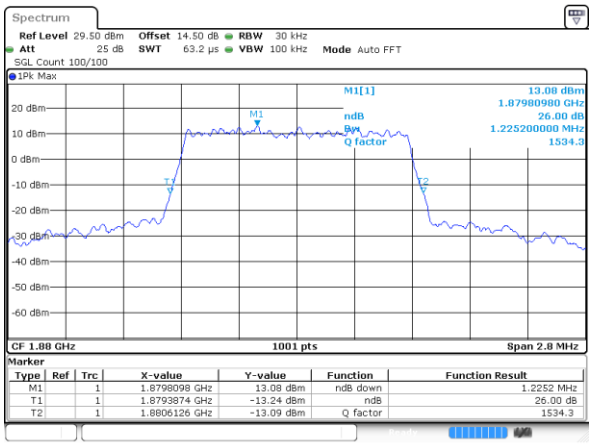
Lowest Channel / 1.4MHz / 64QAM



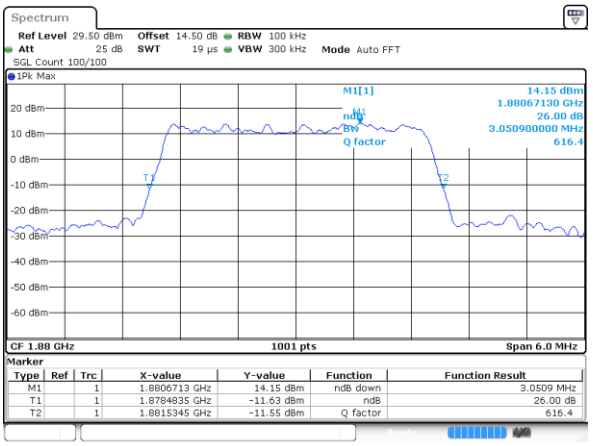
Lowest Channel / 3MHz / 64QAM



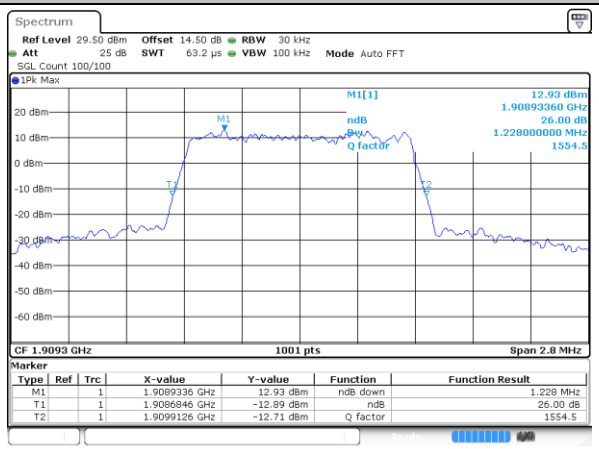
Middle Channel / 1.4MHz / 64QAM



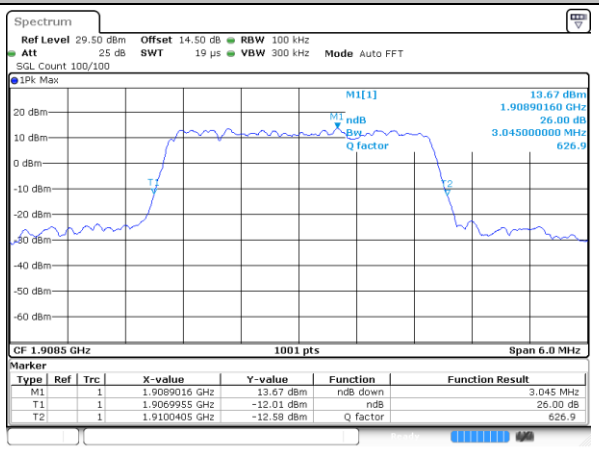
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM

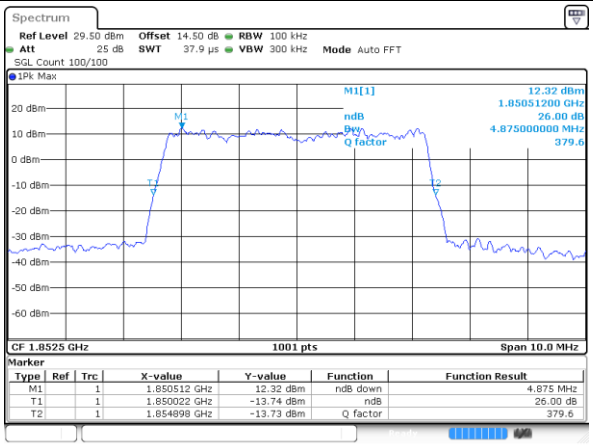


Highest Channel / 3MHz / 64QAM

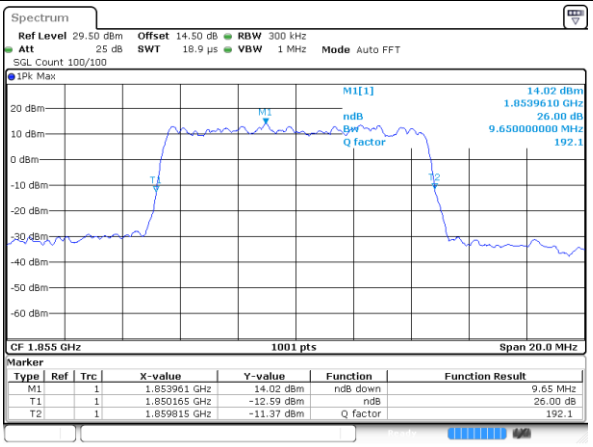


LTE Band 2

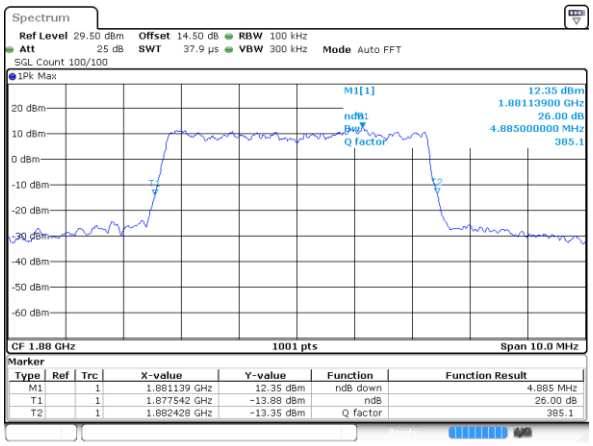
Lowest Channel / 5MHz / 64QAM



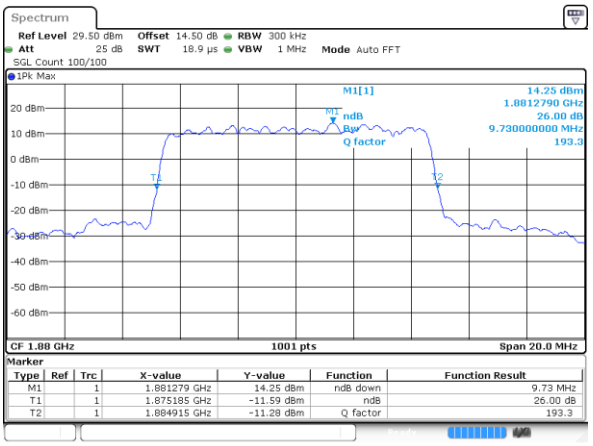
Lowest Channel / 10MHz / 64QAM



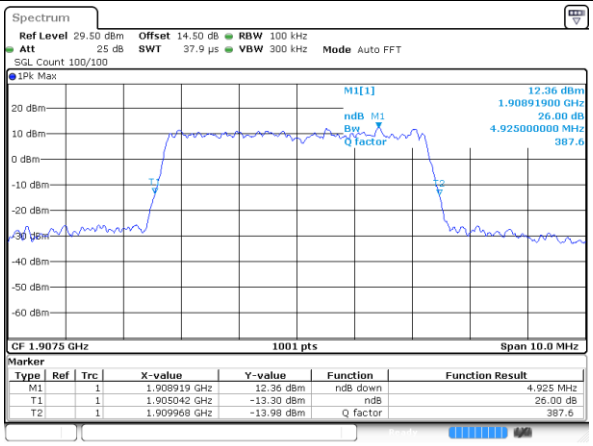
Middle Channel / 5MHz / 64QAM



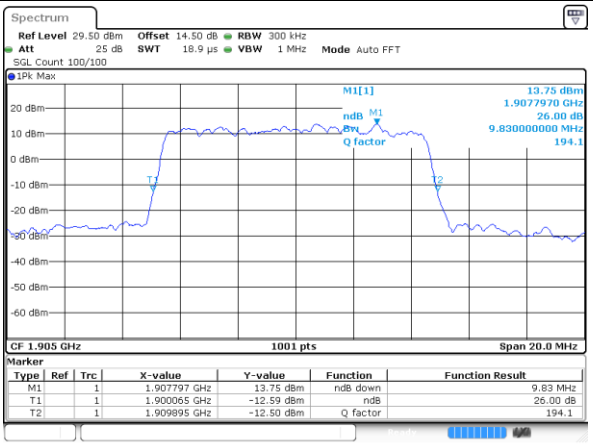
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

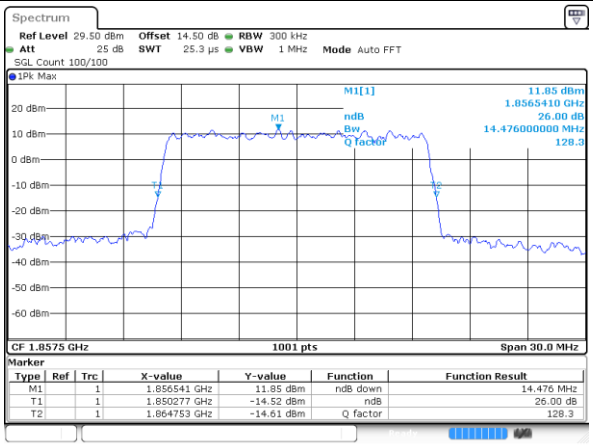


Highest Channel / 10MHz / 64QAM

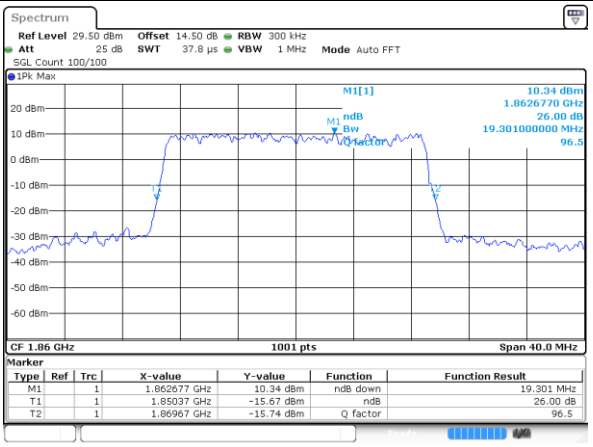


LTE Band 2

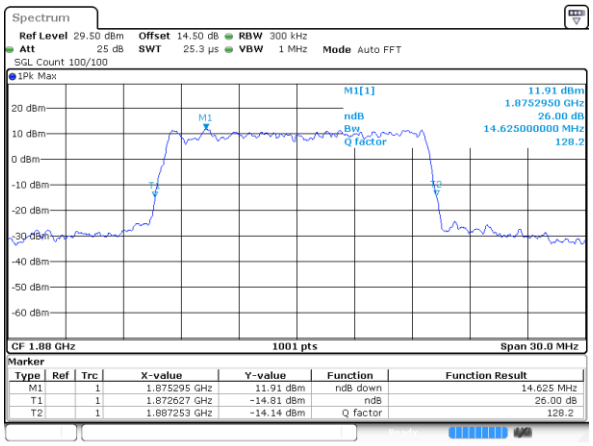
Lowest Channel / 15MHz / 64QAM



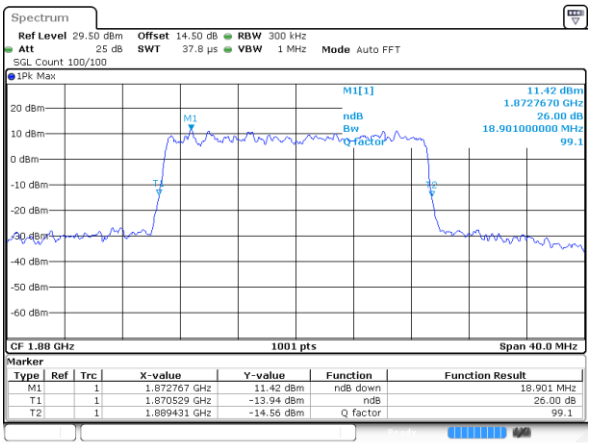
Lowest Channel / 20MHz / 64QAM



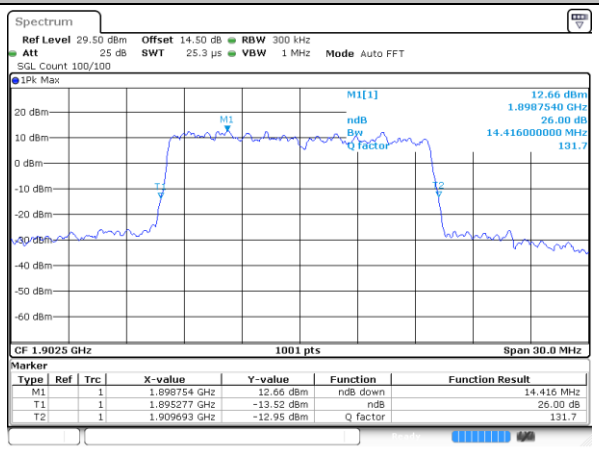
Middle Channel / 15MHz / 64QAM



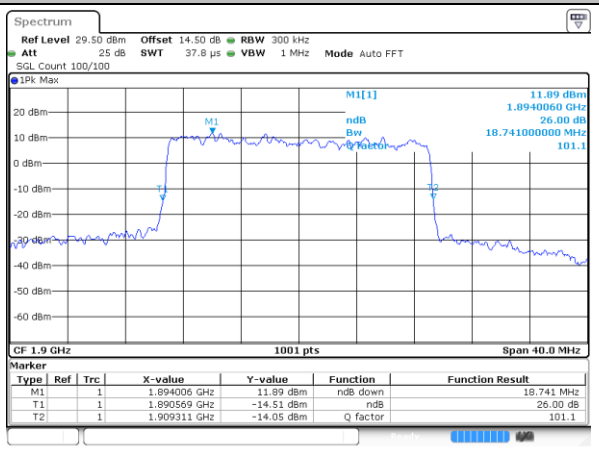
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM



Highest Channel / 20MHz / 64QAM

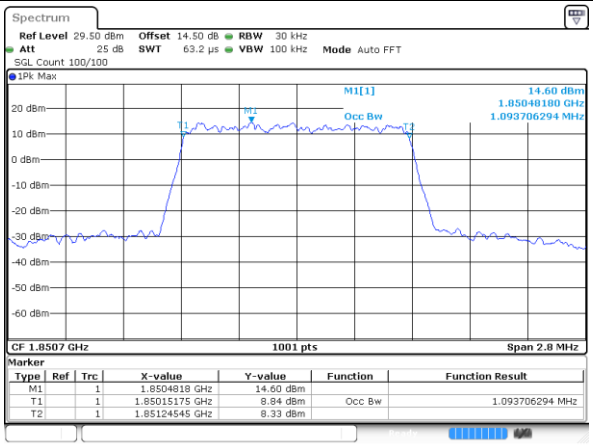


Occupied Bandwidth

Mode	LTE Band 2 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.70	2.73	4.50	4.50	9.09	9.01	13.43	13.49	17.90	17.94
Middle CH	1.10	1.10	2.73	2.71	4.52	4.50	9.03	8.99	13.43	13.52	17.86	17.94
Highest CH	1.09	1.09	2.70	2.73	4.49	4.50	9.05	9.01	13.52	13.46	17.86	17.94
Mode	LTE Band 2 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.74	-	4.50	-	9.07	-	13.43	-	17.86	-
Middle CH	1.09	-	2.72	-	4.51	-	8.95	-	13.40	-	17.86	-
Highest CH	1.09	-	2.73	-	4.48	-	9.01	-	13.43	-	17.90	-

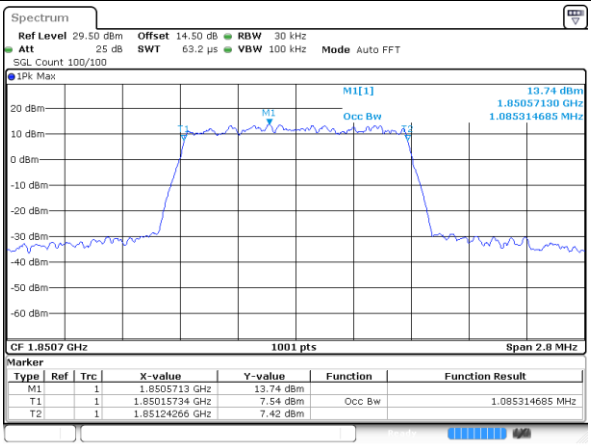
LTE Band 2

Lowest Channel / 1.4MHz / QPSK



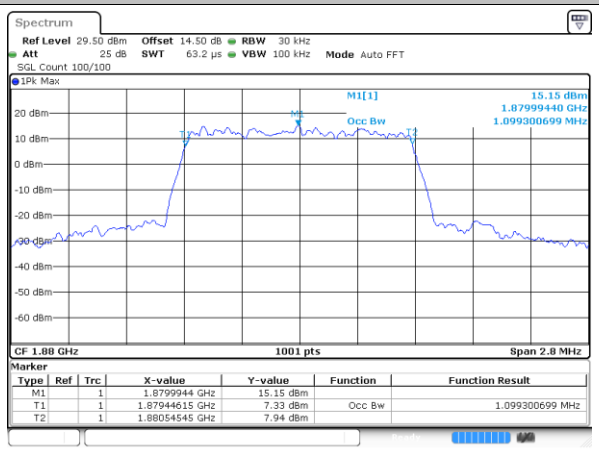
Date: 20.MAY.2021 11:52:23

Lowest Channel / 1.4MHz / 16QAM



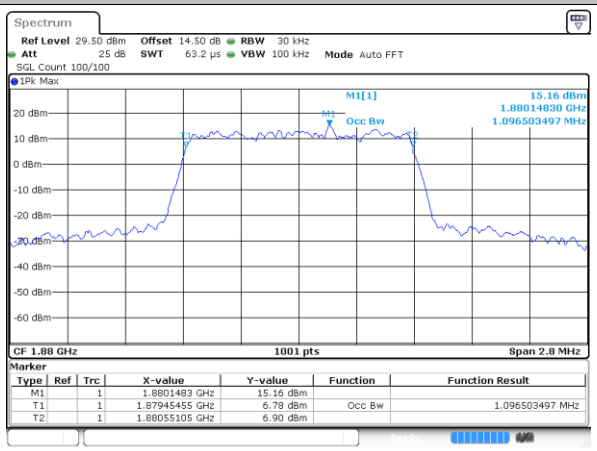
Date: 20.MAY.2021 11:52:34

Middle Channel / 1.4MHz / QPSK



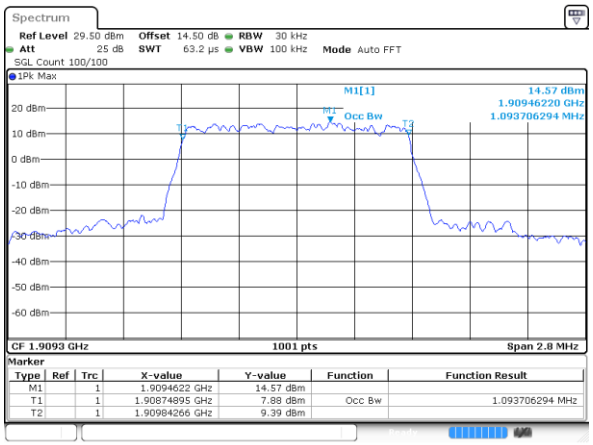
Date: 20.MAY.2021 11:58:50

Middle Channel / 1.4MHz / 16QAM



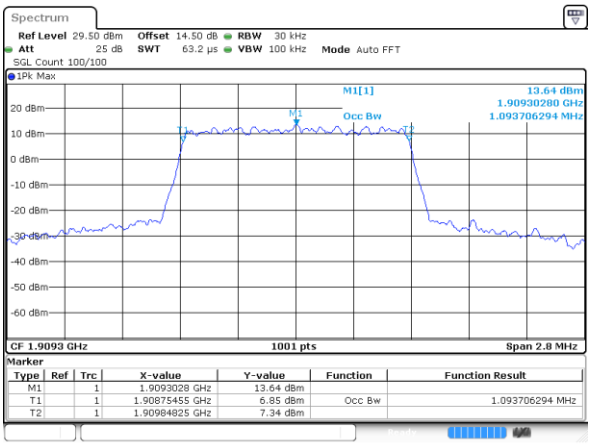
Date: 20.MAY.2021 11:59:00

Highest Channel / 1.4MHz / QPSK



Date: 20.MAY.2021 12:01:09

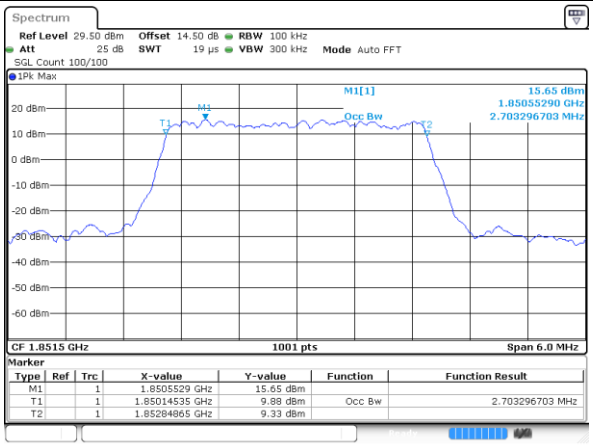
Highest Channel / 1.4MHz / 16QAM



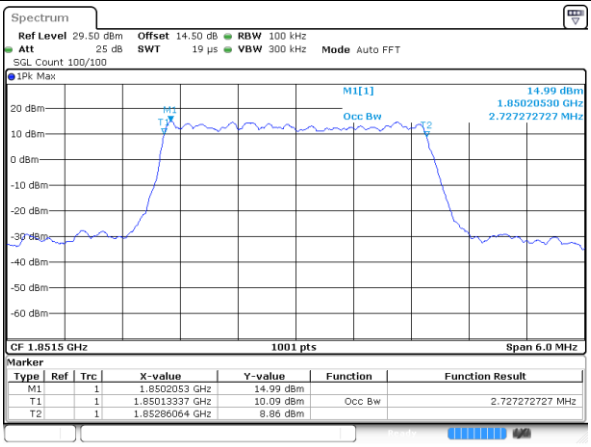
Date: 20.MAY.2021 12:01:20

LTE Band 2

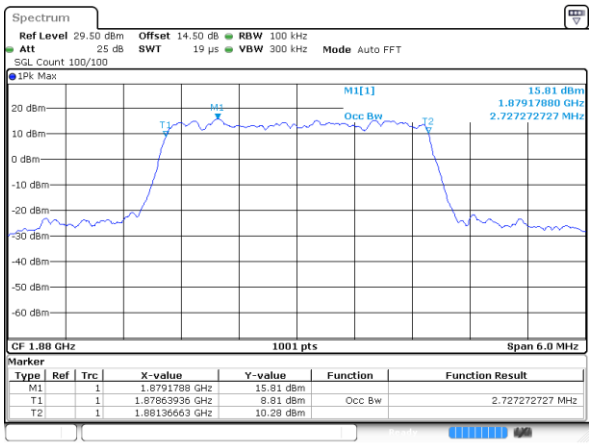
Lowest Channel / 3MHz / QPSK



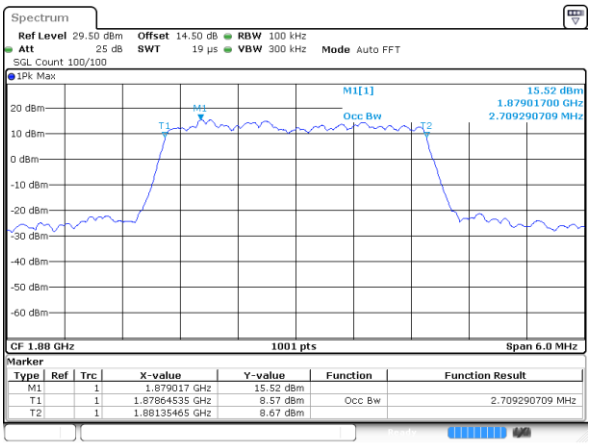
Lowest Channel / 3MHz / 16QAM



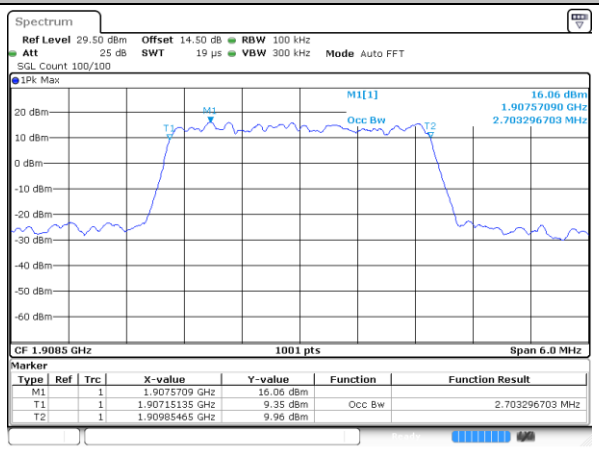
Middle Channel / 3MHz / QPSK



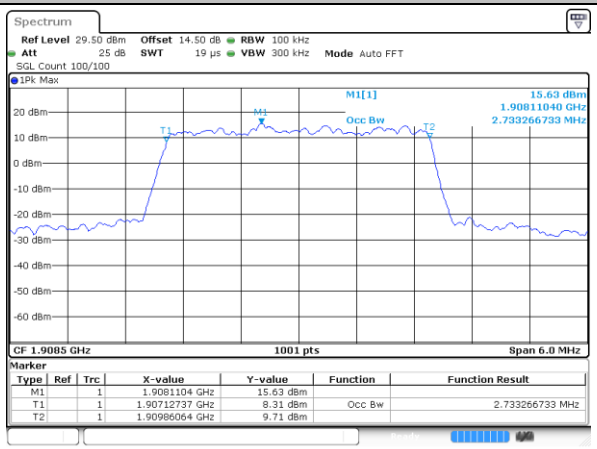
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

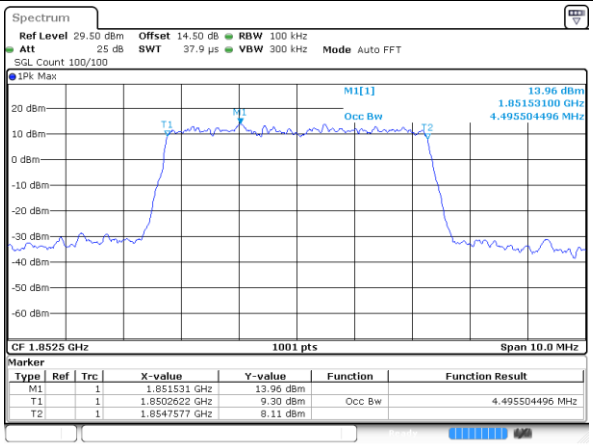


Highest Channel / 3MHz / 16QAM



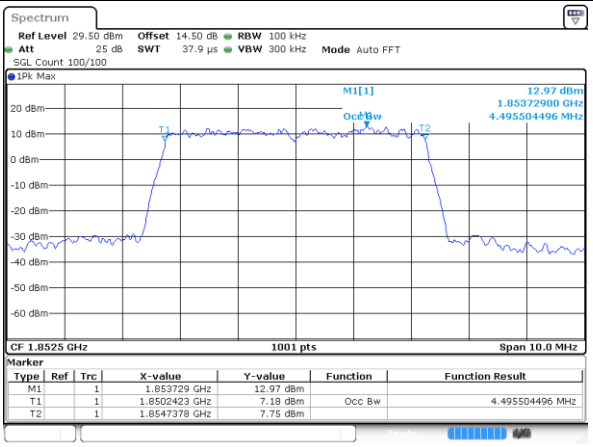
LTE Band 2

Lowest Channel / 5MHz / QPSK



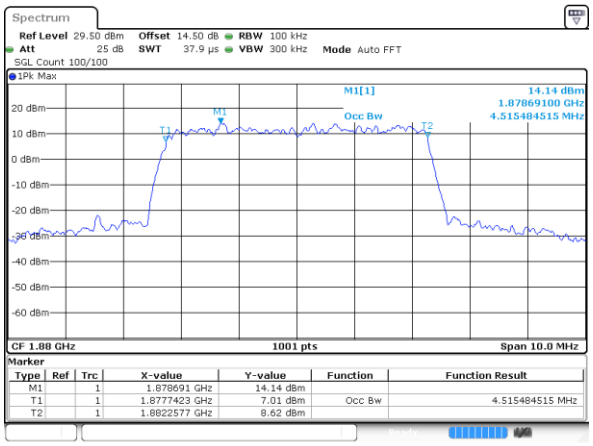
Date: 20.MAY.2021 12:21:56

Lowest Channel / 5MHz / 16QAM



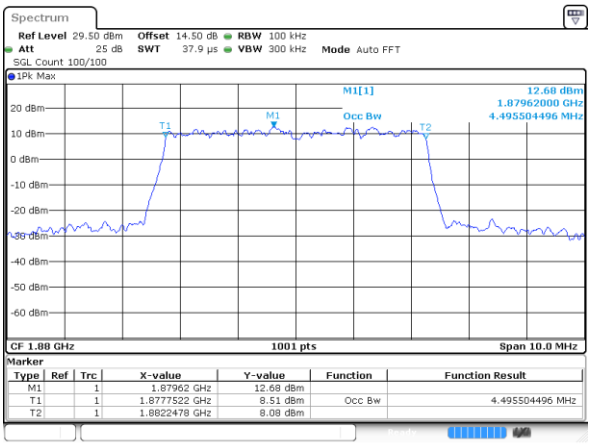
Date: 20.MAY.2021 12:22:07

Middle Channel / 5MHz / QPSK



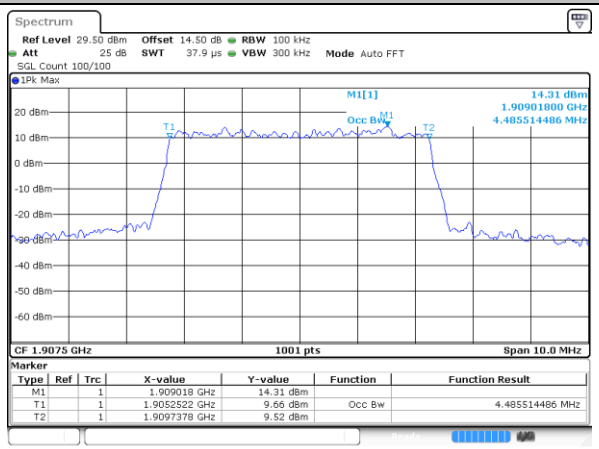
Date: 20.MAY.2021 12:27:46

Middle Channel / 5MHz / 16QAM



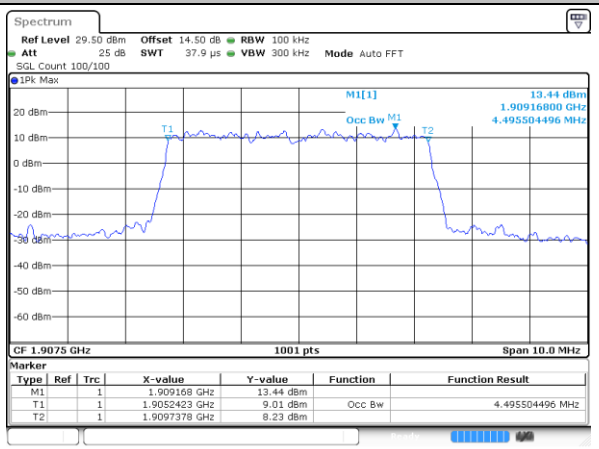
Date: 20.MAY.2021 12:27:57

Highest Channel / 5MHz / QPSK



Date: 20.MAY.2021 12:30:03

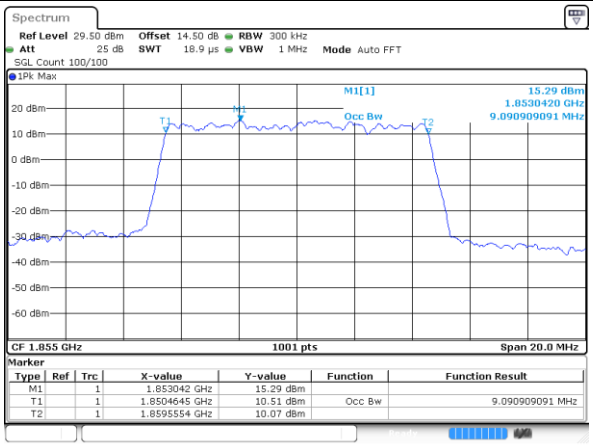
Highest Channel / 5MHz / 16QAM



Date: 20.MAY.2021 12:30:14

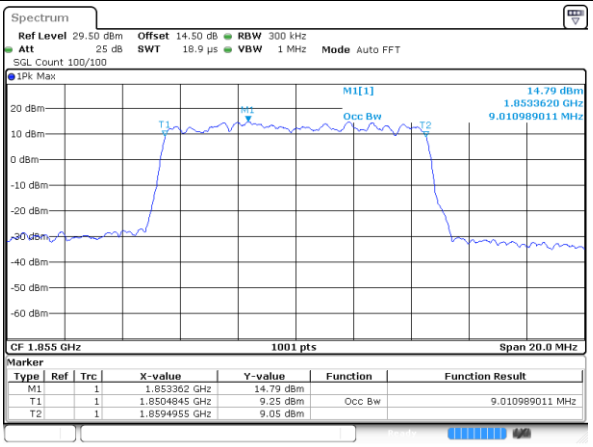
LTE Band 2

Lowest Channel / 10MHz / QPSK



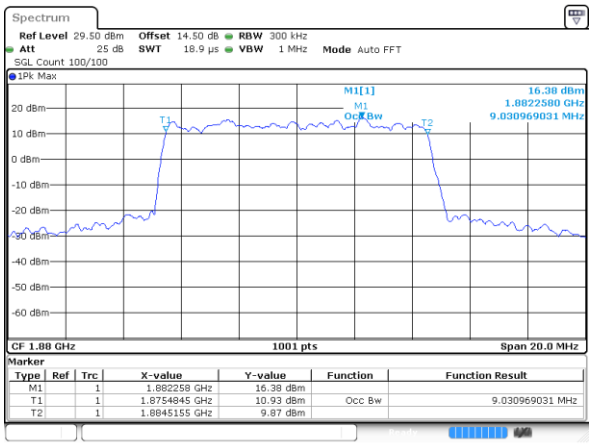
Date: 20.MAY.2021 12:35:55

Lowest Channel / 10MHz / 16QAM



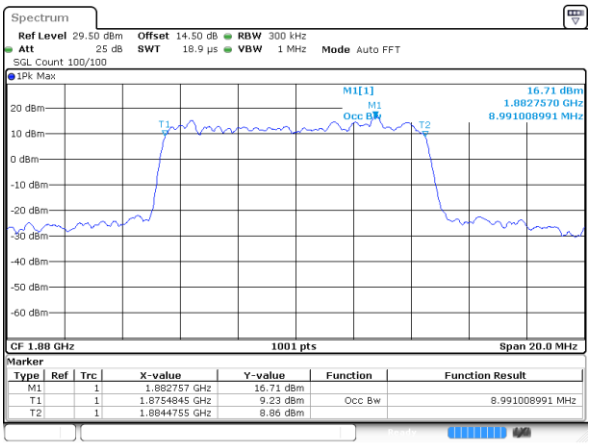
Date: 20.MAY.2021 12:36:06

Middle Channel / 10MHz / QPSK



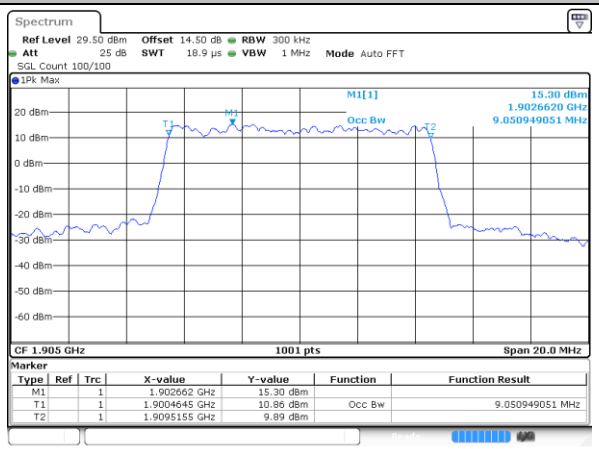
Date: 20.MAY.2021 12:41:43

Middle Channel / 10MHz / 16QAM



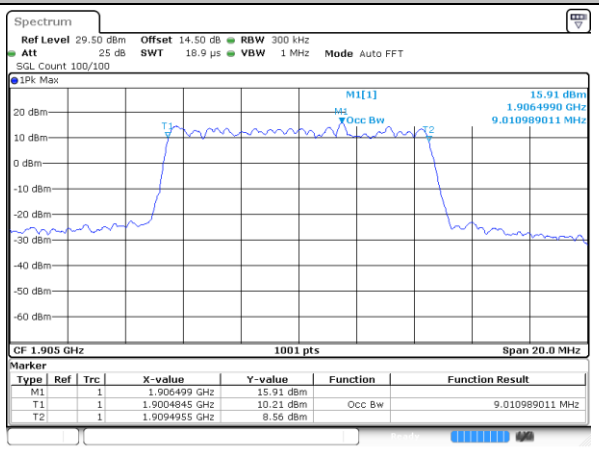
Date: 20.MAY.2021 12:41:54

Highest Channel / 10MHz / QPSK



Date: 20.MAY.2021 12:44:03

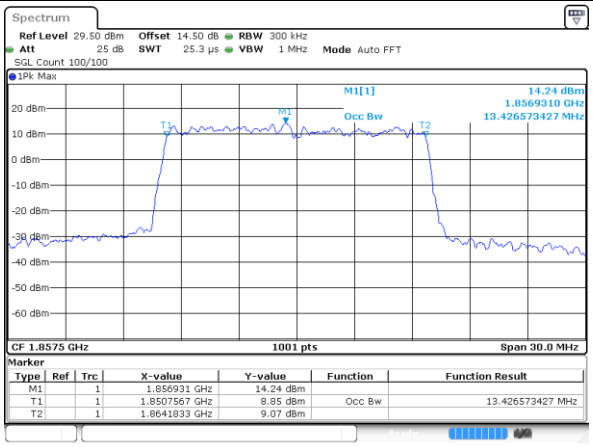
Highest Channel / 10MHz / 16QAM



Date: 20.MAY.2021 12:44:14

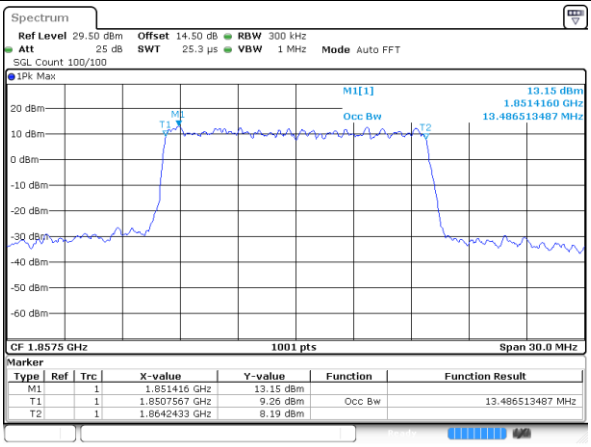
LTE Band 2

Lowest Channel / 15MHz / QPSK



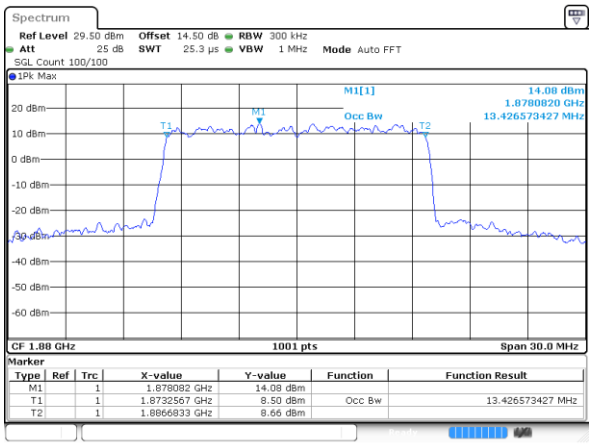
Date: 20.MAY.2021 12:49:55

Lowest Channel / 15MHz / 16QAM



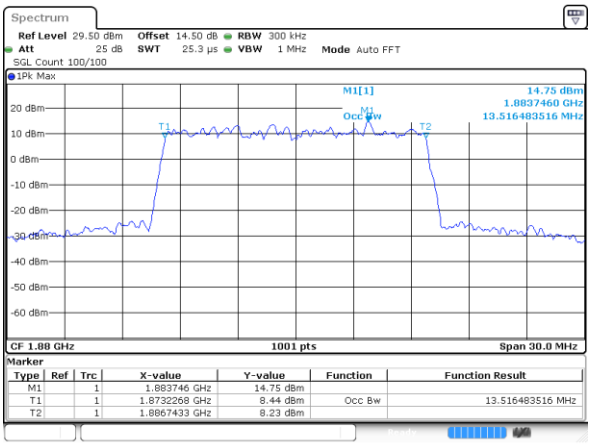
Date: 20.MAY.2021 12:50:06

Middle Channel / 15MHz / QPSK



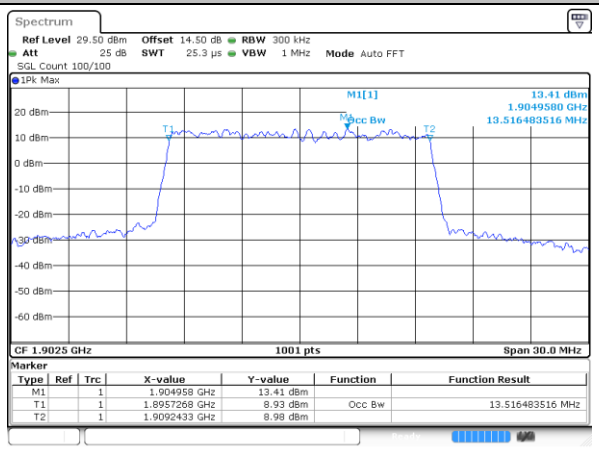
Date: 20.MAY.2021 13:36:21

Middle Channel / 15MHz / 16QAM



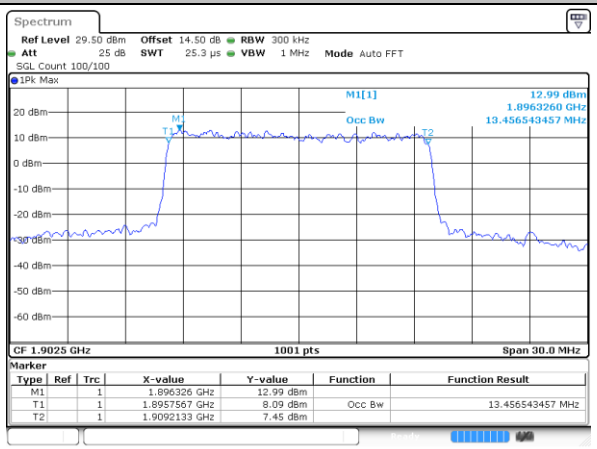
Date: 20.MAY.2021 13:36:32

Highest Channel / 15MHz / QPSK



Date: 20.MAY.2021 13:38:23

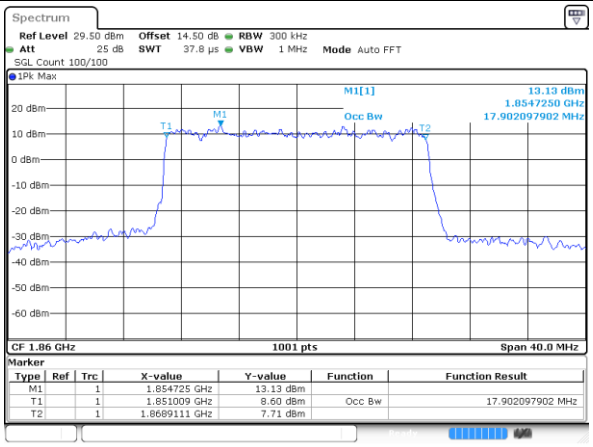
Highest Channel / 15MHz / 16QAM



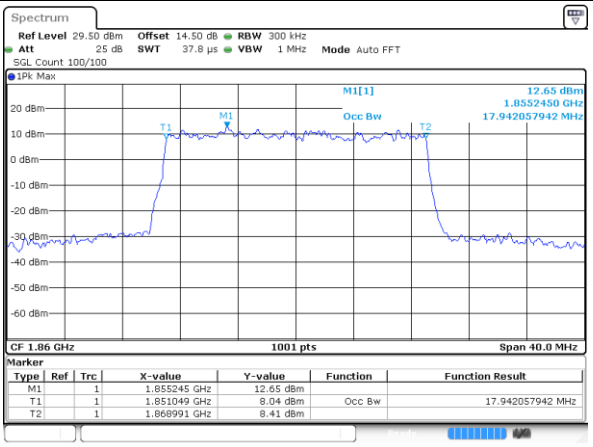
Date: 20.MAY.2021 13:38:34

LTE Band 2

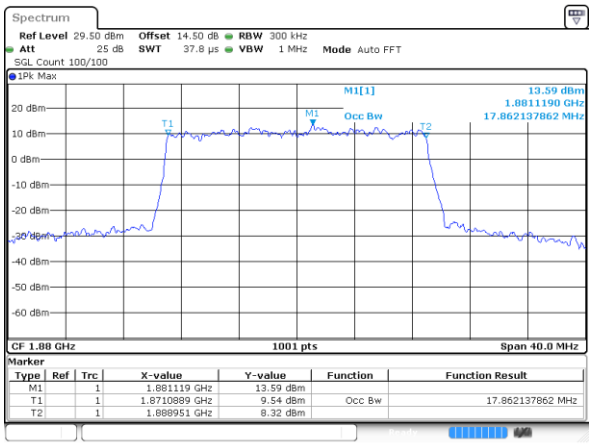
Lowest Channel / 20MHz / QPSK



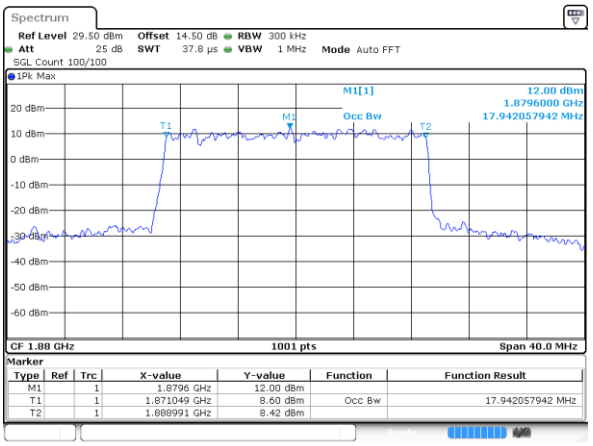
Lowest Channel / 20MHz / 16QAM



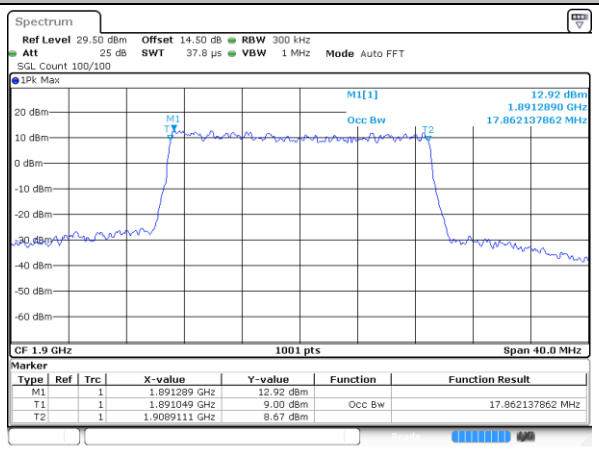
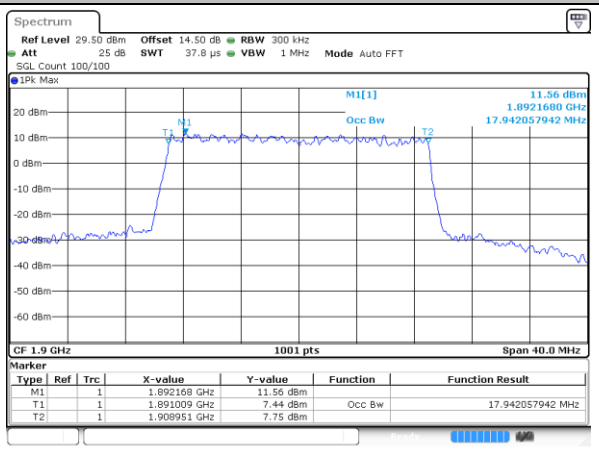
Middle Channel / 20MHz / QPSK



Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



Highest Channel / 20MHz / 16QAM