FCC RF Test Report

APPLICANT	:	Bullitt Group
EQUIPMENT	:	Rugged Smart Phone
BRAND NAME	:	Motorola
MODEL NAME	:	BM2S1E
FCC ID	:	ZL5BM2S1EE
STANDARD	:	47 CFR Part 2, 22(H), 24(E), 27(L), 27(M)
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	Nov. 23, 2022 ~ Jan. 04, 2023

We, Sporton International Inc. (ShenZhen), 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 Inc. (ShenZhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

Sporton International Inc. (ShenZhen)

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

People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG322807-01B	Rev. 01	Initial issue of report	Mar. 13, 2023

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§22.913(a)(5)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§24.232(c) §27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 7) (Band 38) (Band 41)	EIRP < 2Watt		-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt		-
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	-	Report Only	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5)	< 43+10log10(P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)	§27.53(m)(4)		
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log$_{10}$(P[Watts])		
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 23.06 dB at 7578.27 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log$_{10}$(P[Watts])		

Note: This is the change FCC ID report. Since no changes have been made to this device, all test cases were leveraged from original report (FG2O1410-01B).

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

Bullitt Group

One Valpy, Valpy Street, Reading, Berkshire, RG1 1AR, United Kingdom

1.2 Manufacturer

Bullitt Mobile Limited

One Valpy, Valpy Street, Reading, Berkshire, RG1 1AR, United Kingdom

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Rugged Smart Phone
Brand Name	Motorola
Model Name	BM2S1E
FCC ID	ZL5BM2S1EE
IMEI Code	Conducted : 351416010000076/351416010002072 Radiation : 351416010000050/351416010002056
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 7 : 2500 MHz ~ 2570 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 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 7 : 2620 MHz ~ 2690 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	**<Ant.1>** LTE Band 2 : 22.56 dBm LTE Band 4 : 22.46 dBm LTE Band 5 : 22.88 dBm

	<Ant.2> LTE Band 7 : 22.99 dBm LTE Band 38 : 22.87 dBm LTE Band 41 : 22.89 dBm **<Ant.7>** LTE Band 2 : 20.55 dBm LTE Band 4 : 20.39 dBm LTE Band 5 : 21.48 dBm LTE Band 7 : 23.17 dBm
Antenna Gain	**<Ant.1>** LTE Band 2 : -2.50 dBi LTE Band 4 : -2.00 dBi LTE Band 5 : -5.00 dBi **<Ant.2>** LTE Band 7 : -2.60 dBi LTE Band 38 : -2.60 dBi LTE Band 41 : -2.60 dBi **<Ant.7>** LTE Band 2 : -3.50 dBi LTE Band 4 : -3.70 dBi LTE Band 5 : -7.00 dBi LTE Band 7 : -3.80 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

Note:

1. The maximum ERP/EIRP is calculated from maximum Output power and antenna gain, only the maximum ERP/EIRP of Ant.1 for Band 2/4/5 and Ant.2 for Band 7/38/41 are shown in the report.
2. For LTE Band 2/4/5, the Ant.1 & Ant.7 only support antenna switch, not support MIMO.
3. When working on the ENDC bands for LTE Band 7, the device switch to the second PA (with Ant.7). Both the main PA (with Ant.2) and the second PA (with Ant.7) for LTE Band 7 are full test.

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	0.0977	1M10G7D	0.0783	1M10W7D
3	1851.5 ~ 1908.5	0.1000	2M72G7D	0.0778	2M73W7D
5	1852.5 ~ 1907.5	0.1005	4M50G7D	0.0773	4M50W7D
10	1855.0 ~ 1905.0	0.0984	9M05G7D	0.0767	9M07W7D
15	1857.5 ~ 1902.5	0.0998	13M6G7D	0.0769	13M6W7D
20	1860.0 ~ 1900.0	0.1014	17M9G7D	0.0783	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	0.1081	1M10G7D	0.0867	1M10W7D
3	1711.5 ~ 1753.5	0.1089	2M72G7D	0.0847	2M72W7D
5	1712.5 ~ 1752.5	0.1099	4M48G7D	0.0855	4M51W7D
10	1715.0 ~ 1750.0	0.1091	9M07G7D	0.0853	9M05W7D
15	1717.5 ~ 1747.5	0.1079	13M5G7D	0.0849	13M5W7D
20	1720.0 ~ 1745.0	0.1112	17M9G7D	0.0865	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	0.0367	1M09G7D	0.0295	1M10W7D
3	825.5 ~ 847.5	0.0370	2M72G7D	0.0287	2M73W7D
5	826.5 ~ 846.5	0.0368	4M50G7D	0.0287	4M50W7D
10	829.0 ~ 844.0	0.0374	9M05G7D	0.0292	9M09W7D
LTE Band 7		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2502.5 ~ 2567.5	0.1081	4M53G7D	0.0822	4M52W7D
10	2505.0 ~ 2565.0	0.1067	9M05G7D	0.0830	9M07W7D
15	2507.5 ~ 2562.5	0.1079	13M5G7D	0.0834	13M5W7D
20	2510.0 ~ 2560.0	0.1094	17M9G7D	0.0845	17M9W7D

LTE Band 38		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2572.5 ~ 2617.5	0.1050	4M49G7D	0.0791	4M50W7D
10	2575.0 ~ 2615.0	0.1033	9M05G7D	0.0798	9M05W7D
15	2577.5 ~ 2612.5	0.1042	13M5G7D	0.0800	13M5W7D
20	2580.0 ~ 2610.0	0.1064	17M9G7D	0.0813	17M9W7D
LTE Band 41		**QPSK**		**16QAM/64QAM**	
BW (MHz)	**Frequency Range (MHz)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**
5	2498.5 ~ 2687.5	0.1050	4M49G7D	0.0818	4M50W7D
10	2501.0 ~ 2685.0	0.1038	9M05G7D	0.0818	9M05W7D
15	2503.5 ~ 2682.5	0.1047	13M5G7D	0.0817	13M5W7D
20	2506.0 ~ 2680.0	0.1069	17M9G7D	0.0830	17M9W7D

LTE Band 7 CA	QPSK		16QAM/64QAM	
BW (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
15MHz+10MHz	0.0991	23M6G7D	0.0857	23M6W7D
10MHz+20MHz	0.0940	28M1G7D	0.0794	28M1W7D
15MHz+15MHz	0.0982	28M7G7D	0.0824	28M8W7D
15MHz+20MHz	0.0944	32M9G7D	0.0783	32M9W7D
20MHz+10MHz	0.0938	28M1G7D	0.0798	28M2W7D
20MHz+15MHz	0.0942	32M9G7D	0.0769	32M9W7D
20MHz+20MHz	0.0995	37M9G7D	0.0785	37M9W7D

Note:

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

1.7 Testing Location

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

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

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH03-SZ	AUDIX	E3	6.2009-8-24

1.9 Applicable Standards

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

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

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

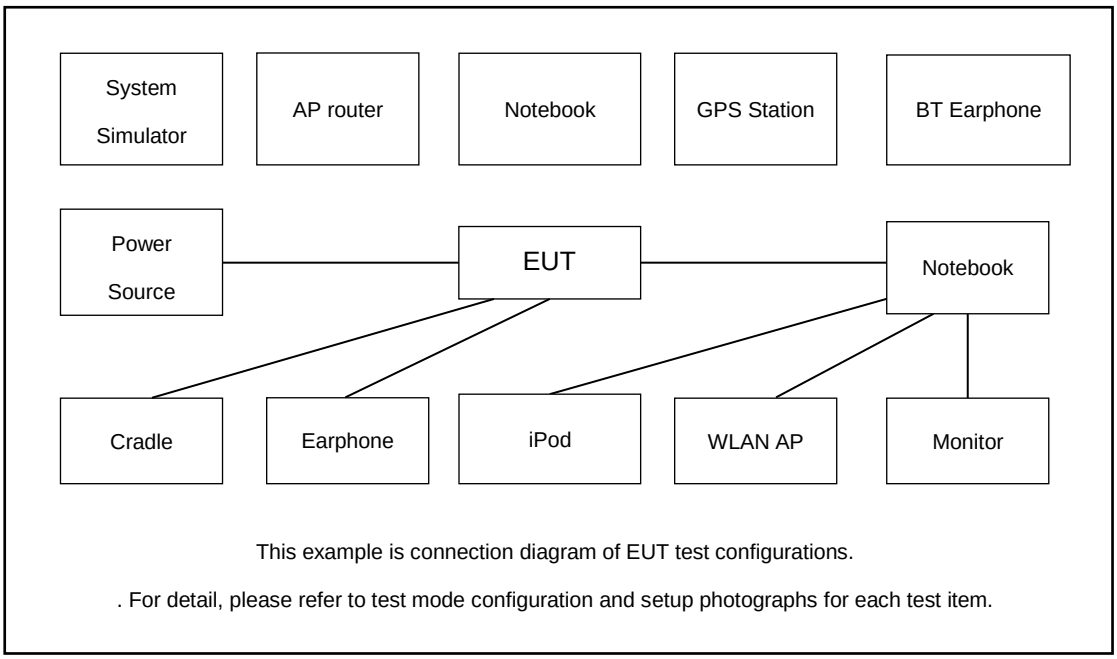
Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

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

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

Test Items	Band	Bandwidth (MHz)										Modulation			RB #			Test Channel		
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v			v	v	v	v
Conducted Band Edge	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v		v	v		v
Conducted Spurious Emission	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v			v	v	v
E.I.R.P.	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v			v	v	v
Radiated Spurious Emission	7C_CA	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.																			

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 4.5 dB and 10dB attenuator.

Example :

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

= 4.5 + 10 = 14.5 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

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

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

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

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

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

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

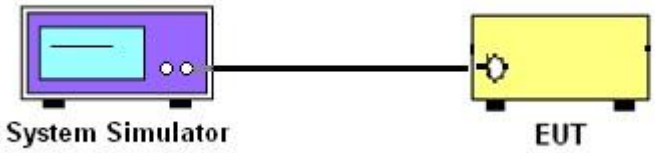
3 Conducted Test Items

3.1 Measuring Instruments

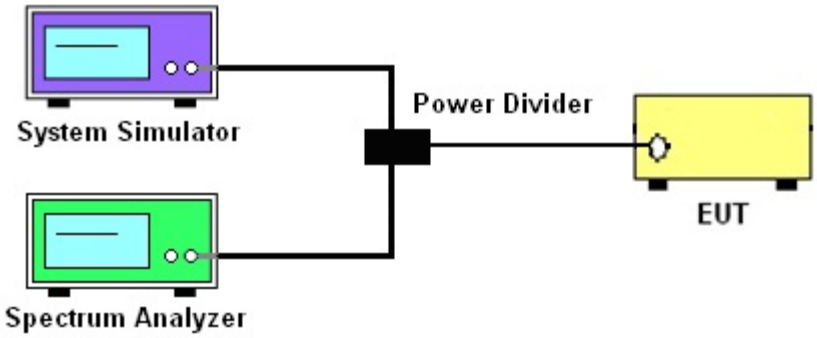
See list of measuring instruments of this test report.

3.2 Test Setup

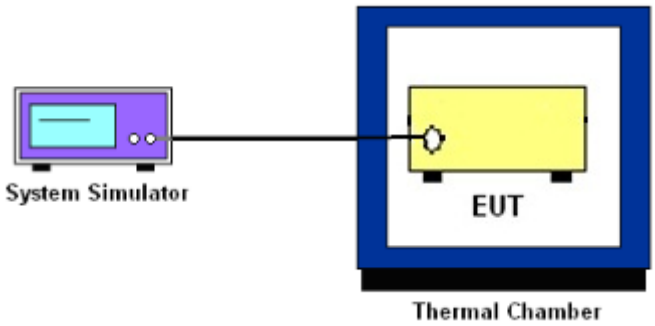
3.2.1 Conducted Output Power



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.

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

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

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

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

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

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

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

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

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

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

24.238 (a)

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

27.53 (h)

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

27.53(m)(4)

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

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used 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.
9. For LTE Band 7, 38, 41, the other 40 dB, and 55 dB have additionally applied same calculation above.
10. When using the integration method, the starting frequency of the integration shall be centered at one-half of the RBW away from the band edge.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

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

For Band 7,38,41:

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

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

3.8.2 Test Procedures

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

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

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

3.9.2 Test Procedures for Temperature Variation

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

3.9.3 Test Procedures for Voltage Variation

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

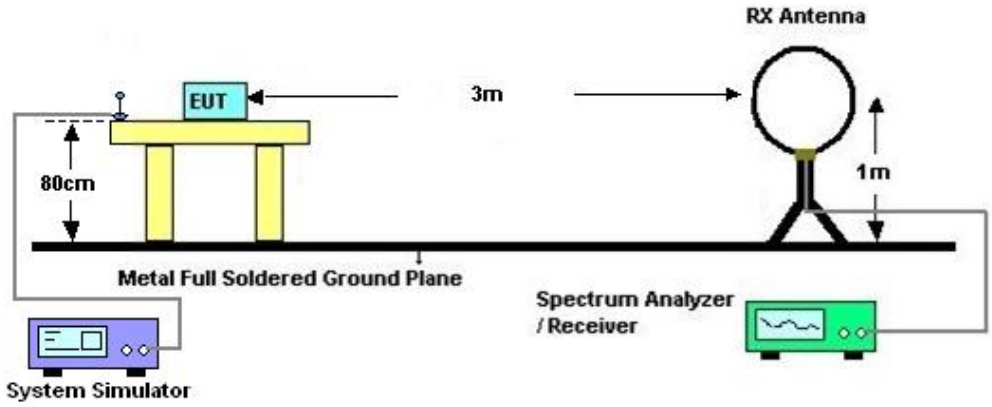
4 Radiated Test Items

4.1 Measuring Instruments

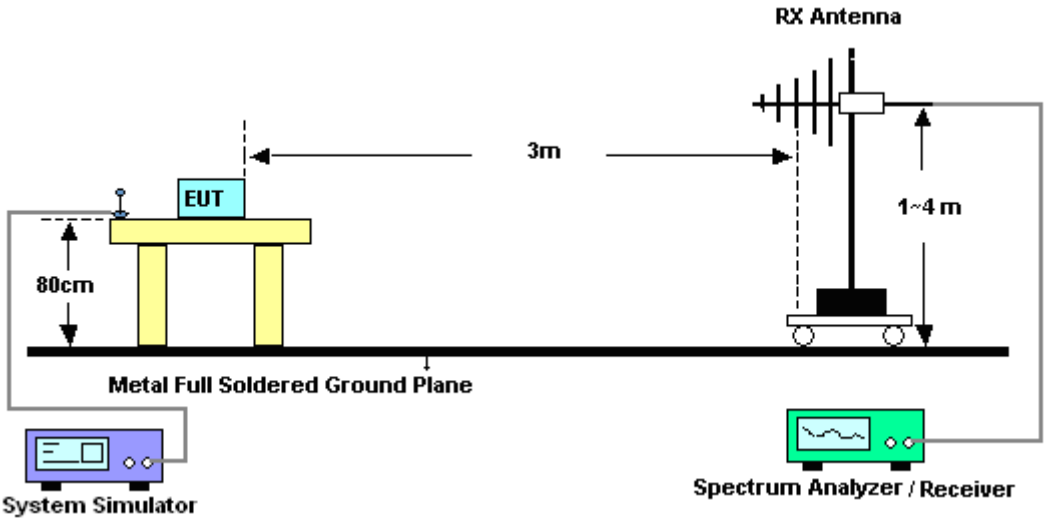
See list of measuring instruments of this test report.

4.2 Test Setup

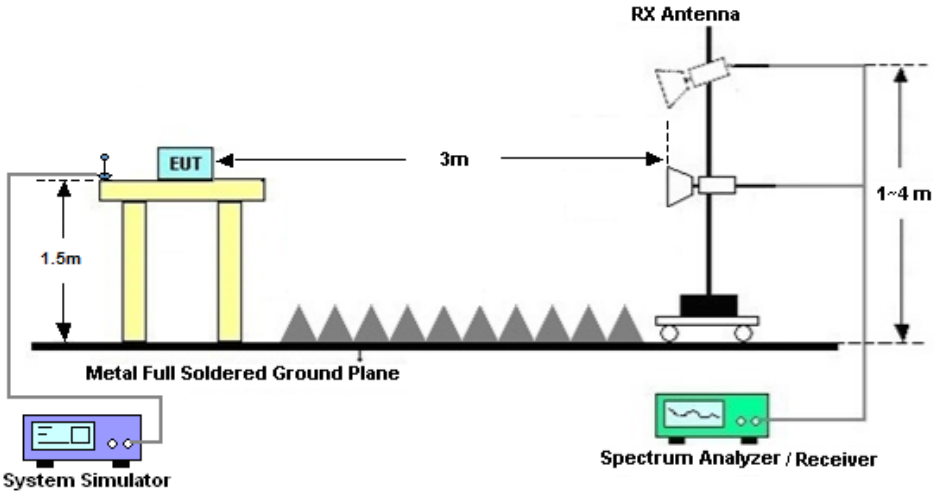
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

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

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

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

For Band 7, 38, 41

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

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

4.4.2 Test Procedures

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

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 07, 2022	Nov. 23, 2022~ Jan. 04, 2023	Apr. 08, 2023	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V，3A	Oct. 17, 2022	Nov. 23, 2022~ Jan. 04, 2023	Oct. 16, 2023	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2021	Nov. 23, 2022~ Jan. 04, 2023	Dec. 24, 2022	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 24, 2022		Dec. 23, 2023	Conducted (TH01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 06, 2022	Nov. 25, 2022~ Jan. 04, 2023	Apr. 05, 2023	Radiation (03CH03-SZ)
EXA Spectrum Anaiyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 06, 2022	Nov. 25, 2022~ Jan. 04, 2023	Apr. 05, 2023	Radiation (03CH03-SZ
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 28, 2022	Nov. 25, 2022~ Jan. 04, 2023	Jun. 27, 2024	Radiation (03CH03-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	Aug. 09, 2022	Nov. 25, 2022~ Jan. 04, 2023	Aug. 08, 2023	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 08, 2022	Nov. 25, 2022~ Jan. 04, 2023	Apr. 07, 2023	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 10, 2022	Nov. 25, 2022~ Jan. 04, 2023	Apr. 09, 2023	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 19, 2022	Nov. 25, 2022~ Jan. 04, 2023	Oct. 18, 2023	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 06, 2022	Nov. 25, 2022~ Jan. 04, 2023	Jul. 05, 2023	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 27 ,2021	Nov. 25, 2022~ Jan. 04, 2023	Dec. 26, 2022	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 26, 2022		Dec. 25, 2023	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010002729	N/A	Nov. 10, 2022	Nov. 25, 2022~ Jan. 04, 2023	Nov. 09, 2023	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Nov. 25, 2022~ Jan. 04, 2023	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Nov. 25, 2022~ Jan. 04, 2023	NCR	Radiation (03CH03-SZ)

NCR: No Calibration Required

6 Uncertainty of Evaluation

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

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±0.46 dB
Conducted Emissions	±0.48 dB
Occupied Channel Bandwidth	±0.1 %

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.0dB

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

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

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

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

Appendix A. Test Results of Conducted Test

Test Engineer :	Sam Zheng	Temperature :	24~26℃
		Relative Humidity :	50~53%

Conducted Output Power(Average power)

LTE Band 2_(Ant.1)

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	22.49	22.56	22.43
20	QPSK	1	49	22.43	22.50	22.43
20	QPSK	1	99	22.23	22.39	22.29
20	QPSK	50	0	21.46	21.58	21.42
20	QPSK	50	24	21.49	21.57	21.43
20	QPSK	50	50	21.27	21.46	21.24
20	QPSK	100	0	21.28	21.41	21.31
20	16QAM	1	0	21.38	21.44	21.21
20	16QAM	1	49	21.32	21.42	21.28
20	16QAM	1	99	21.32	21.44	21.34
20	16QAM	50	0	20.38	20.51	20.41
20	16QAM	50	24	20.41	20.53	20.46
20	16QAM	50	50	20.33	20.47	20.27
20	16QAM	100	0	20.27	20.48	20.24
20	64QAM	1	0	20.47	20.53	20.46
20	64QAM	1	49	20.55	20.63	20.57
20	64QAM	1	99	20.36	20.45	20.36
20	64QAM	50	0	19.45	19.62	19.57
20	64QAM	50	24	19.56	19.65	19.52
20	64QAM	50	50	19.52	19.52	19.49
20	64QAM	100	0	19.55	19.60	19.53
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	22.45	22.49	22.38
15	QPSK	1	37	22.34	22.40	22.38
15	QPSK	1	74	22.15	22.36	22.23
15	QPSK	36	0	21.34	21.48	21.37
15	QPSK	36	20	21.44	21.47	21.39
15	QPSK	36	39	21.14	21.42	21.10
15	QPSK	75	0	21.14	21.30	21.18
15	16QAM	1	0	21.30	21.36	21.12
15	16QAM	1	37	21.29	21.32	21.17
15	16QAM	1	74	21.17	21.31	21.27
15	16QAM	36	0	20.27	20.43	20.27
15	16QAM	36	20	20.35	20.40	20.33
15	16QAM	36	39	20.25	20.44	20.20
15	16QAM	75	0	20.21	20.37	20.20
15	64QAM	1	0	20.34	20.45	20.41
15	64QAM	1	37	20.42	20.48	20.49
15	64QAM	1	74	20.23	20.36	20.24

15	64QAM	36	0	19.34	19.55	19.53
15	64QAM	36	20	19.46	19.58	19.47
15	64QAM	36	39	19.37	19.49	19.45
15	64QAM	75	0	19.52	19.46	19.44
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	22.34	22.43	22.29
10	QPSK	1	25	22.35	22.42	22.31
10	QPSK	1	49	22.09	22.26	22.22
10	QPSK	25	0	21.36	21.45	21.34
10	QPSK	25	12	21.39	21.50	21.37
10	QPSK	25	25	21.15	21.42	21.18
10	QPSK	50	0	21.13	21.32	21.22
10	16QAM	1	0	21.27	21.35	21.09
10	16QAM	1	25	21.18	21.31	21.19
10	16QAM	1	49	21.26	21.32	21.20
10	16QAM	25	0	20.31	20.48	20.36
10	16QAM	25	12	20.38	20.39	20.38
10	16QAM	25	25	20.18	20.42	20.17
10	16QAM	50	0	20.13	20.44	20.18
10	64QAM	1	0	20.40	20.47	20.37
10	64QAM	1	25	20.42	20.57	20.47
10	64QAM	1	49	20.22	20.32	20.27
10	64QAM	25	0	19.39	19.48	19.51
10	64QAM	25	12	19.42	19.57	19.42
10	64QAM	25	25	19.41	19.42	19.43
10	64QAM	50	0	19.43	19.46	19.48
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	22.42	22.52	22.31
5	QPSK	1	12	22.32	22.36	22.35
5	QPSK	1	24	22.19	22.27	22.17
5	QPSK	12	0	21.40	21.55	21.28
5	QPSK	12	7	21.35	21.45	21.33
5	QPSK	12	13	21.20	21.38	21.15
5	QPSK	25	0	21.17	21.29	21.17
5	16QAM	1	0	21.33	21.32	21.09
5	16QAM	1	12	21.26	21.38	21.17
5	16QAM	1	24	21.20	21.36	21.24
5	16QAM	12	0	20.23	20.41	20.37
5	16QAM	12	7	20.27	20.48	20.38
5	16QAM	12	13	20.24	20.37	20.21
5	16QAM	25	0	20.20	20.40	20.18
5	64QAM	1	0	20.37	20.49	20.41
5	64QAM	1	12	20.47	20.49	20.52
5	64QAM	1	24	20.24	20.31	20.29
5	64QAM	12	0	19.37	19.52	19.51
5	64QAM	12	7	19.52	19.55	19.41
5	64QAM	12	13	19.37	19.37	19.44
5	64QAM	25	0	19.43	19.49	19.42
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	22.36	22.50	22.40
3	QPSK	1	8	22.39	22.41	22.36
3	QPSK	1	14	22.10	22.35	22.19
3	QPSK	8	0	21.32	21.48	21.37

3	QPSK	8	4	21.37	21.51	21.37
3	QPSK	8	7	21.12	21.38	21.12
3	QPSK	15	0	21.20	21.38	21.21
3	16QAM	1	0	21.26	21.38	21.18
3	16QAM	1	8	21.26	21.34	21.13
3	16QAM	1	14	21.24	21.41	21.24
3	16QAM	8	0	20.34	20.47	20.37
3	16QAM	8	4	20.37	20.45	20.40
3	16QAM	8	7	20.24	20.37	20.12
3	16QAM	15	0	20.24	20.43	20.15
3	64QAM	1	0	20.38	20.38	20.33
3	64QAM	1	8	20.46	20.56	20.48
3	64QAM	1	14	20.27	20.41	20.23
3	64QAM	8	0	19.35	19.50	19.44
3	64QAM	8	4	19.47	19.54	19.46
3	64QAM	8	7	19.39	19.47	19.38
3	64QAM	15	0	19.44	19.48	19.39
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.37	22.40	22.28
1.4	QPSK	1	3	22.28	22.38	22.33
1.4	QPSK	1	5	22.15	22.31	22.17
1.4	QPSK	3	0	22.14	22.36	22.24
1.4	QPSK	3	1	22.33	22.39	22.27
1.4	QPSK	3	3	22.14	22.38	22.33
1.4	QPSK	6	0	21.34	21.49	21.35
1.4	16QAM	1	0	21.42	21.44	21.39
1.4	16QAM	1	3	21.31	21.37	21.26
1.4	16QAM	1	5	21.19	21.35	21.33
1.4	16QAM	3	0	21.27	21.27	21.14
1.4	16QAM	3	1	21.12	21.16	21.24
1.4	16QAM	3	3	21.18	21.26	21.29
1.4	16QAM	6	0	20.33	20.38	20.32
1.4	64QAM	1	0	20.37	20.52	20.34
1.4	64QAM	1	3	20.36	20.30	20.19
1.4	64QAM	1	5	20.26	20.35	20.15
1.4	64QAM	3	0	20.45	20.50	20.37
1.4	64QAM	3	1	20.47	20.42	20.53
1.4	64QAM	3	3	20.22	20.37	20.27
1.4	64QAM	6	0	19.48	19.54	19.52

LTE Band 4_(Ant.1)

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	22.35	22.46	22.42
20	QPSK	1	49	22.28	22.31	22.24
20	QPSK	1	99	22.21	22.27	22.14
20	QPSK	50	0	21.29	21.43	21.30
20	QPSK	50	24	21.28	21.40	21.34
20	QPSK	50	50	21.35	21.41	21.27
20	QPSK	100	0	21.29	21.42	21.34
20	16QAM	1	0	21.26	21.32	21.27
20	16QAM	1	49	21.27	21.37	21.27
20	16QAM	1	99	21.25	21.36	21.23
20	16QAM	50	0	20.42	20.57	20.49
20	16QAM	50	24	20.42	20.53	20.42
20	16QAM	50	50	20.40	20.51	20.39
20	16QAM	100	0	20.39	20.53	20.48
20	64QAM	1	0	20.50	20.55	20.52
20	64QAM	1	49	20.55	20.68	20.62
20	64QAM	1	99	20.47	20.57	20.46
20	64QAM	50	0	19.41	19.53	19.46
20	64QAM	50	24	19.47	19.55	19.41
20	64QAM	50	50	19.38	19.53	19.40
20	64QAM	100	0	19.49	19.52	19.38
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	22.32	22.33	22.31
15	QPSK	1	37	22.14	22.25	22.20
15	QPSK	1	74	22.08	22.21	22.06
15	QPSK	36	0	21.19	21.32	21.24
15	QPSK	36	20	21.16	21.26	21.27
15	QPSK	36	39	21.30	21.33	21.21
15	QPSK	75	0	21.20	21.38	21.22
15	16QAM	1	0	21.23	21.17	21.20
15	16QAM	1	37	21.22	21.29	21.18
15	16QAM	1	74	21.11	21.25	21.17
15	16QAM	36	0	20.29	20.49	20.44
15	16QAM	36	20	20.34	20.39	20.36
15	16QAM	36	39	20.33	20.42	20.33
15	16QAM	75	0	20.28	20.50	20.38
15	64QAM	1	0	20.44	20.46	20.42
15	64QAM	1	37	20.51	20.63	20.50
15	64QAM	1	74	20.40	20.45	20.36
15	64QAM	36	0	19.29	19.49	19.35
15	64QAM	36	20	19.41	19.43	19.29
15	64QAM	36	39	19.26	19.44	19.35
15	64QAM	75	0	19.41	19.42	19.30
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	22.30	22.38	22.35

10	QPSK	1	25	22.21	22.16	22.12
10	QPSK	1	49	22.09	22.18	22.07
10	QPSK	25	0	21.22	21.34	21.19
10	QPSK	25	12	21.15	21.36	21.24
10	QPSK	25	25	21.27	21.27	21.13
10	QPSK	50	0	21.23	21.30	21.27
10	16QAM	1	0	21.14	21.28	21.23
10	16QAM	1	25	21.21	21.31	21.24
10	16QAM	1	49	21.11	21.27	21.11
10	16QAM	25	0	20.36	20.48	20.34
10	16QAM	25	12	20.35	20.41	20.36
10	16QAM	25	25	20.27	20.38	20.34
10	16QAM	50	0	20.25	20.39	20.37
10	64QAM	1	0	20.44	20.40	20.37
10	64QAM	1	25	20.42	20.57	20.50
10	64QAM	1	49	20.32	20.50	20.32
10	64QAM	25	0	19.37	19.45	19.41
10	64QAM	25	12	19.34	19.46	19.37
10	64QAM	25	25	19.29	19.47	19.30
10	64QAM	50	0	19.37	19.43	19.34
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	22.22	22.41	22.31
5	QPSK	1	12	22.22	22.27	22.20
5	QPSK	1	24	22.16	22.13	22.06
5	QPSK	12	0	21.22	21.33	21.23
5	QPSK	12	7	21.22	21.25	21.21
5	QPSK	12	13	21.21	21.30	21.23
5	QPSK	25	0	21.16	21.33	21.23
5	16QAM	1	0	21.20	21.26	21.13
5	16QAM	1	12	21.18	21.32	21.24
5	16QAM	1	24	21.13	21.31	21.12
5	16QAM	12	0	20.31	20.48	20.41
5	16QAM	12	7	20.36	20.48	20.32
5	16QAM	12	13	20.29	20.39	20.27
5	16QAM	25	0	20.28	20.41	20.41
5	64QAM	1	0	20.42	20.45	20.39
5	64QAM	1	12	20.47	20.65	20.51
5	64QAM	1	24	20.32	20.43	20.34
5	64QAM	12	0	19.33	19.47	19.41
5	64QAM	12	7	19.42	19.45	19.36
5	64QAM	12	13	19.33	19.41	19.33
5	64QAM	25	0	19.36	19.39	19.30
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	22.22	22.32	22.37
3	QPSK	1	8	22.22	22.26	22.21
3	QPSK	1	14	22.08	22.15	22.07
3	QPSK	8	0	21.17	21.34	21.16
3	QPSK	8	4	21.17	21.37	21.28
3	QPSK	8	7	21.31	21.27	21.23
3	QPSK	15	0	21.22	21.28	21.21
3	16QAM	1	0	21.16	21.23	21.21

3	16QAM	1	8	21.22	21.23	21.13
3	16QAM	1	14	21.16	21.28	21.08
3	16QAM	8	0	20.32	20.48	20.40
3	16QAM	8	4	20.33	20.41	20.29
3	16QAM	8	7	20.26	20.46	20.35
3	16QAM	15	0	20.35	20.48	20.33
3	64QAM	1	0	20.39	20.46	20.47
3	64QAM	1	8	20.43	20.64	20.58
3	64QAM	1	14	20.42	20.47	20.43
3	64QAM	8	0	19.37	19.42	19.35
3	64QAM	8	4	19.38	19.40	19.38
3	64QAM	8	7	19.32	19.46	19.30
3	64QAM	15	0	19.36	19.40	19.25
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.30	22.34	22.14
1.4	QPSK	1	3	22.14	22.28	22.22
1.4	QPSK	1	5	22.08	22.21	22.15
1.4	QPSK	3	0	22.05	22.23	22.11
1.4	QPSK	3	1	22.22	22.31	22.23
1.4	QPSK	3	3	22.28	22.31	22.18
1.4	QPSK	6	0	21.29	21.44	21.28
1.4	16QAM	1	0	21.29	21.38	21.29
1.4	16QAM	1	3	21.14	21.27	21.12
1.4	16QAM	1	5	21.09	21.25	21.18
1.4	16QAM	3	0	21.24	21.15	21.01
1.4	16QAM	3	1	21.10	21.10	21.12
1.4	16QAM	3	3	21.10	21.20	21.21
1.4	16QAM	6	0	20.24	20.31	20.20
1.4	64QAM	1	0	20.22	20.34	20.26
1.4	64QAM	1	3	20.28	20.21	20.06
1.4	64QAM	1	5	20.17	20.27	20.03
1.4	64QAM	3	0	20.40	20.42	20.32
1.4	64QAM	3	1	20.32	20.34	20.38
1.4	64QAM	3	3	20.17	20.26	20.22
1.4	64QAM	6	0	19.33	19.47	19.49

LTE Band 5_(Ant.1)

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	22.83	22.88	22.81
10	QPSK	1	25	22.72	22.79	22.66
10	QPSK	1	49	22.67	22.81	22.66
10	QPSK	25	0	21.82	21.89	21.77
10	QPSK	25	12	21.79	21.87	21.82
10	QPSK	25	25	21.70	21.80	21.76
10	QPSK	50	0	21.75	21.86	21.79
10	16QAM	1	0	21.77	21.81	21.77
10	16QAM	1	25	21.64	21.75	21.71
10	16QAM	1	49	21.65	21.78	21.65
10	16QAM	25	0	20.74	20.83	20.70
10	16QAM	25	12	20.71	20.81	20.75
10	16QAM	25	25	20.75	20.81	20.68
10	16QAM	50	0	20.75	20.80	20.74
10	64QAM	1	0	20.83	20.89	20.80
10	64QAM	1	25	20.89	20.98	20.93
10	64QAM	1	49	20.88	20.92	20.88
10	64QAM	25	0	19.76	19.85	19.75
10	64QAM	25	12	19.68	19.81	19.69
10	64QAM	25	25	19.71	19.80	19.75
10	64QAM	50	0	19.72	19.82	19.76
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	22.73	22.81	22.72
5	QPSK	1	12	22.58	22.75	22.60
5	QPSK	1	24	22.55	22.76	22.59
5	QPSK	12	0	21.74	21.85	21.66
5	QPSK	12	7	21.70	21.79	21.78
5	QPSK	12	13	21.55	21.65	21.67
5	QPSK	25	0	21.63	21.76	21.68
5	16QAM	1	0	21.65	21.72	21.73
5	16QAM	1	12	21.49	21.60	21.56
5	16QAM	1	24	21.57	21.70	21.52
5	16QAM	12	0	20.62	20.79	20.59
5	16QAM	12	7	20.60	20.74	20.66
5	16QAM	12	13	20.70	20.68	20.63
5	16QAM	25	0	20.60	20.76	20.64
5	64QAM	1	0	20.73	20.81	20.75
5	64QAM	1	12	20.74	20.85	20.80
5	64QAM	1	24	20.74	20.82	20.74
5	64QAM	12	0	19.63	19.78	19.71
5	64QAM	12	7	19.58	19.76	19.56
5	64QAM	12	13	19.64	19.70	19.67
5	64QAM	25	0	19.59	19.79	19.62
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.71	22.83	22.67

3	QPSK	1	8	22.68	22.75	22.59
3	QPSK	1	14	22.61	22.69	22.54
3	QPSK	8	0	21.72	21.85	21.63
3	QPSK	8	4	21.74	21.79	21.67
3	QPSK	8	7	21.57	21.69	21.66
3	QPSK	15	0	21.65	21.79	21.72
3	16QAM	1	0	21.68	21.73	21.68
3	16QAM	1	8	21.51	21.71	21.62
3	16QAM	1	14	21.50	21.70	21.59
3	16QAM	8	0	20.64	20.77	20.58
3	16QAM	8	4	20.61	20.72	20.68
3	16QAM	8	7	20.62	20.72	20.58
3	16QAM	15	0	20.72	20.76	20.69
3	64QAM	1	0	20.79	20.81	20.72
3	64QAM	1	8	20.83	20.92	20.86
3	64QAM	1	14	20.76	20.85	20.74
3	64QAM	8	0	19.66	19.72	19.60
3	64QAM	8	4	19.59	19.76	19.61
3	64QAM	8	7	19.58	19.68	19.71
3	64QAM	15	0	19.59	19.77	19.66
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.80	22.78	22.63
1.4	QPSK	1	3	22.60	22.79	22.63
1.4	QPSK	1	5	22.48	22.65	22.57
1.4	QPSK	3	0	22.47	22.68	22.55
1.4	QPSK	3	1	22.70	22.78	22.70
1.4	QPSK	3	3	22.49	22.73	22.59
1.4	QPSK	6	0	21.69	21.87	21.70
1.4	16QAM	1	0	21.72	21.85	21.77
1.4	16QAM	1	3	21.65	21.74	21.63
1.4	16QAM	1	5	21.57	21.66	21.61
1.4	16QAM	3	0	21.73	21.64	21.51
1.4	16QAM	3	1	21.52	21.51	21.57
1.4	16QAM	3	3	21.51	21.61	21.68
1.4	16QAM	6	0	20.68	20.72	20.65
1.4	64QAM	1	0	20.66	20.74	20.67
1.4	64QAM	1	3	20.78	20.62	20.52
1.4	64QAM	1	5	20.60	20.75	20.48
1.4	64QAM	3	0	20.88	20.87	20.82
1.4	64QAM	3	1	20.79	20.82	20.82
1.4	64QAM	3	3	20.68	20.70	20.63
1.4	64QAM	6	0	19.76	19.93	19.97

LTE Band 7_(Ant.2)

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	22.90	22.99	22.94
20	QPSK	1	49	22.88	22.89	22.87
20	QPSK	1	99	22.85	22.91	22.81
20	QPSK	50	0	21.84	22.04	21.96
20	QPSK	50	24	21.85	21.99	21.86
20	QPSK	50	50	21.75	21.88	21.85
20	QPSK	100	0	21.78	21.92	21.90
20	16QAM	1	0	21.76	21.85	21.80
20	16QAM	1	49	21.83	21.87	21.83
20	16QAM	1	99	21.71	21.81	21.68
20	16QAM	50	0	20.74	20.83	20.80
20	16QAM	50	24	20.82	20.88	20.78
20	16QAM	50	50	20.93	20.98	20.81
20	16QAM	100	0	20.84	20.90	20.80
20	64QAM	1	0	20.75	20.83	20.80
20	64QAM	1	49	21.06	21.06	21.03
20	64QAM	1	99	20.92	21.00	20.94
20	64QAM	50	0	19.96	20.03	20.01
20	64QAM	50	24	20.03	20.11	20.02
20	64QAM	50	50	20.03	20.17	20.12
20	64QAM	100	0	19.86	19.97	19.92
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.86	22.93	22.89
15	QPSK	1	37	22.78	22.85	22.79
15	QPSK	1	74	22.75	22.79	22.71
15	QPSK	36	0	21.71	21.99	21.86
15	QPSK	36	20	21.78	21.94	21.77
15	QPSK	36	39	21.64	21.74	21.82
15	QPSK	75	0	21.72	21.79	21.81
15	16QAM	1	0	21.71	21.81	21.72
15	16QAM	1	37	21.68	21.78	21.78
15	16QAM	1	74	21.64	21.72	21.62
15	16QAM	36	0	20.60	20.69	20.68
15	16QAM	36	20	20.67	20.85	20.64
15	16QAM	36	39	20.86	20.92	20.75
15	16QAM	75	0	20.74	20.77	20.76
15	64QAM	1	0	20.61	20.71	20.67
15	64QAM	1	37	21.01	20.93	20.96
15	64QAM	1	74	20.78	20.87	20.91
15	64QAM	36	0	19.93	19.96	19.96
15	64QAM	36	20	19.88	20.03	19.99
15	64QAM	36	39	19.98	20.05	19.98
15	64QAM	75	0	19.75	19.91	19.84
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.82	22.88	22.82

10	QPSK	1	25	22.75	22.85	22.80
10	QPSK	1	49	22.76	22.85	22.75
10	QPSK	25	0	21.73	21.98	21.84
10	QPSK	25	12	21.74	21.86	21.81
10	QPSK	25	25	21.67	21.76	21.78
10	QPSK	50	0	21.66	21.80	21.86
10	16QAM	1	0	21.64	21.79	21.67
10	16QAM	1	25	21.70	21.75	21.71
10	16QAM	1	49	21.64	21.66	21.54
10	16QAM	25	0	20.69	20.74	20.66
10	16QAM	25	12	20.78	20.80	20.69
10	16QAM	25	25	20.86	20.84	20.77
10	16QAM	50	0	20.78	20.86	20.65
10	64QAM	1	0	20.64	20.79	20.68
10	64QAM	1	25	20.92	20.95	20.96
10	64QAM	1	49	20.80	20.95	20.84
10	64QAM	25	0	19.83	19.92	19.87
10	64QAM	25	12	19.91	20.01	19.88
10	64QAM	25	25	19.89	20.10	20.07
10	64QAM	50	0	19.81	19.87	19.88
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	22.87	22.94	22.85
5	QPSK	1	12	22.83	22.82	22.77
5	QPSK	1	24	22.72	22.84	22.67
5	QPSK	12	0	21.78	21.96	21.93
5	QPSK	12	7	21.73	21.88	21.77
5	QPSK	12	13	21.71	21.82	21.72
5	QPSK	25	0	21.64	21.89	21.76
5	16QAM	1	0	21.72	21.71	21.72
5	16QAM	1	12	21.72	21.75	21.73
5	16QAM	1	24	21.64	21.72	21.61
5	16QAM	12	0	20.66	20.68	20.70
5	16QAM	12	7	20.73	20.85	20.73
5	16QAM	12	13	20.88	20.86	20.75
5	16QAM	25	0	20.77	20.84	20.73
5	64QAM	1	0	20.67	20.75	20.77
5	64QAM	1	12	20.93	20.92	20.92
5	64QAM	1	24	20.87	20.88	20.81
5	64QAM	12	0	19.87	19.97	19.86
5	64QAM	12	7	19.93	20.07	19.99
5	64QAM	12	13	19.99	20.06	20.08
5	64QAM	25	0	19.73	19.91	19.80

LTE Band 38_(Ant.2)

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				37850	38000	38150
Frequency (MHz)				2580	2595	2610
20	QPSK	1	0	22.82	22.87	22.78
20	QPSK	1	49	22.71	22.75	22.65
20	QPSK	1	99	22.70	22.76	22.78
20	QPSK	50	0	21.71	21.82	21.70
20	QPSK	50	24	21.66	21.73	21.62
20	QPSK	50	50	21.69	21.79	21.63
20	QPSK	100	0	21.67	21.70	21.64
20	16QAM	1	0	21.57	21.66	21.67
20	16QAM	1	49	21.52	21.70	21.54
20	16QAM	1	99	21.45	21.52	21.44
20	16QAM	50	0	20.76	20.85	20.75
20	16QAM	50	24	20.61	20.77	20.64
20	16QAM	50	50	20.68	20.78	20.71
20	16QAM	100	0	20.67	20.74	20.66
20	64QAM	1	0	20.31	20.43	20.34
20	64QAM	1	49	20.42	20.53	20.48
20	64QAM	1	99	20.48	20.49	20.43
20	64QAM	50	0	19.84	19.89	19.86
20	64QAM	50	24	19.81	19.90	19.80
20	64QAM	50	50	19.86	19.91	19.78
20	64QAM	100	0	19.74	19.92	19.82
Channel				37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5
15	QPSK	1	0	22.72	22.78	22.74
15	QPSK	1	37	22.62	22.61	22.51
15	QPSK	1	74	22.60	22.67	22.69
15	QPSK	36	0	21.59	21.71	21.66
15	QPSK	36	20	21.56	21.61	21.49
15	QPSK	36	39	21.61	21.72	21.51
15	QPSK	75	0	21.62	21.61	21.55
15	16QAM	1	0	21.48	21.52	21.63
15	16QAM	1	37	21.37	21.63	21.45
15	16QAM	1	74	21.32	21.41	21.35
15	16QAM	36	0	20.68	20.75	20.71
15	16QAM	36	20	20.47	20.71	20.52
15	16QAM	36	39	20.53	20.66	20.63
15	16QAM	75	0	20.53	20.62	20.57
15	64QAM	1	0	20.27	20.40	20.23
15	64QAM	1	37	20.34	20.44	20.43
15	64QAM	1	74	20.35	20.38	20.28
15	64QAM	36	0	19.73	19.77	19.78
15	64QAM	36	20	19.76	19.79	19.74
15	64QAM	36	39	19.81	19.87	19.65
15	64QAM	75	0	19.67	19.85	19.78
Channel				37800	38000	38200
Frequency (MHz)				2575	2595	2615
10	QPSK	1	0	22.73	22.74	22.74

10	QPSK	1	25	22.61	22.67	22.51
10	QPSK	1	49	22.63	22.69	22.66
10	QPSK	25	0	21.58	21.74	21.60
10	QPSK	25	12	21.52	21.59	21.58
10	QPSK	25	25	21.63	21.64	21.59
10	QPSK	50	0	21.63	21.59	21.60
10	16QAM	1	0	21.43	21.59	21.61
10	16QAM	1	25	21.38	21.62	21.50
10	16QAM	1	49	21.35	21.39	21.40
10	16QAM	25	0	20.62	20.75	20.64
10	16QAM	25	12	20.53	20.74	20.56
10	16QAM	25	25	20.58	20.73	20.63
10	16QAM	50	0	20.57	20.60	20.52
10	64QAM	1	0	20.20	20.34	20.24
10	64QAM	1	25	20.27	20.48	20.38
10	64QAM	1	49	20.34	20.40	20.34
10	64QAM	25	0	19.75	19.83	19.74
10	64QAM	25	12	19.71	19.76	19.71
10	64QAM	25	25	19.73	19.80	19.67
10	64QAM	50	0	19.60	19.84	19.77
Channel				37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5
5	QPSK	1	0	22.70	22.81	22.68
5	QPSK	1	12	22.58	22.70	22.52
5	QPSK	1	24	22.60	22.63	22.66
5	QPSK	12	0	21.67	21.72	21.58
5	QPSK	12	7	21.59	21.69	21.48
5	QPSK	12	13	21.55	21.75	21.59
5	QPSK	25	0	21.60	21.56	21.53
5	16QAM	1	0	21.51	21.53	21.58
5	16QAM	1	12	21.43	21.55	21.48
5	16QAM	1	24	21.30	21.49	21.30
5	16QAM	12	0	20.71	20.77	20.67
5	16QAM	12	7	20.48	20.68	20.56
5	16QAM	12	13	20.55	20.74	20.64
5	16QAM	25	0	20.61	20.70	20.57
5	64QAM	1	0	20.22	20.34	20.30
5	64QAM	1	12	20.31	20.43	20.38
5	64QAM	1	24	20.37	20.44	20.28
5	64QAM	12	0	19.76	19.76	19.83
5	64QAM	12	7	19.68	19.84	19.71
5	64QAM	12	13	19.78	19.78	19.73
5	64QAM	25	0	19.66	19.87	19.68

LTE Band 41_(Ant.2)

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				39750	40620	41490
Frequency (MHz)				2506	2593	2680
20	QPSK	1	0	22.81	22.89	22.75
20	QPSK	1	49	22.73	22.80	22.76
20	QPSK	1	99	22.60	22.76	22.74
20	QPSK	50	0	21.80	21.84	21.62
20	QPSK	50	24	21.75	21.73	21.75
20	QPSK	50	50	21.83	21.76	21.73
20	QPSK	100	0	21.76	21.78	21.75
20	16QAM	1	0	21.65	21.73	21.72
20	16QAM	1	49	21.78	21.75	21.73
20	16QAM	1	99	21.79	21.76	21.63
20	16QAM	50	0	20.81	20.76	20.65
20	16QAM	50	24	20.74	20.77	20.73
20	16QAM	50	50	20.74	20.81	20.71
20	16QAM	100	0	20.82	20.77	20.76
20	64QAM	1	0	20.32	20.51	20.45
20	64QAM	1	49	20.52	20.47	20.53
20	64QAM	1	99	20.48	20.50	20.38
20	64QAM	50	0	19.92	19.92	19.93
20	64QAM	50	24	19.96	19.96	19.80
20	64QAM	50	50	19.83	19.83	19.66
20	64QAM	100	0	19.89	19.85	19.81
Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	22.66	22.80	22.61
15	QPSK	1	37	22.67	22.69	22.66
15	QPSK	1	74	22.56	22.62	22.67
15	QPSK	36	0	21.72	21.71	21.52
15	QPSK	36	20	21.64	21.67	21.60
15	QPSK	36	39	21.71	21.65	21.62
15	QPSK	75	0	21.66	21.72	21.68
15	16QAM	1	0	21.60	21.67	21.65
15	16QAM	1	37	21.69	21.63	21.70
15	16QAM	1	74	21.72	21.70	21.51
15	16QAM	36	0	20.73	20.64	20.57
15	16QAM	36	20	20.65	20.63	20.66
15	16QAM	36	39	20.62	20.76	20.60
15	16QAM	75	0	20.69	20.72	20.68
15	64QAM	1	0	20.18	20.48	20.39
15	64QAM	1	37	20.44	20.39	20.46
15	64QAM	1	74	20.34	20.36	20.25
15	64QAM	36	0	19.79	19.79	19.87
15	64QAM	36	20	19.83	19.85	19.74
15	64QAM	36	39	19.70	19.72	19.52
15	64QAM	75	0	19.78	19.71	19.72
Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	22.73	22.76	22.63

10	QPSK	1	25	22.62	22.73	22.68
10	QPSK	1	49	22.50	22.70	22.69
10	QPSK	25	0	21.75	21.74	21.57
10	QPSK	25	12	21.65	21.63	21.68
10	QPSK	25	25	21.75	21.69	21.68
10	QPSK	50	0	21.72	21.64	21.68
10	16QAM	1	0	21.53	21.64	21.62
10	16QAM	1	25	21.67	21.60	21.60
10	16QAM	1	49	21.73	21.66	21.60
10	16QAM	25	0	20.78	20.71	20.51
10	16QAM	25	12	20.62	20.64	20.70
10	16QAM	25	25	20.69	20.72	20.59
10	16QAM	50	0	20.78	20.71	20.65
10	64QAM	1	0	20.25	20.45	20.34
10	64QAM	1	25	20.37	20.43	20.42
10	64QAM	1	49	20.37	20.45	20.28
10	64QAM	25	0	19.81	19.78	19.82
10	64QAM	25	12	19.89	19.88	19.74
10	64QAM	25	25	19.78	19.77	19.57
10	64QAM	50	0	19.81	19.71	19.68
Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	22.74	22.81	22.68
5	QPSK	1	12	22.65	22.69	22.64
5	QPSK	1	24	22.54	22.61	22.69
5	QPSK	12	0	21.69	21.80	21.53
5	QPSK	12	7	21.62	21.66	21.71
5	QPSK	12	13	21.71	21.70	21.65
5	QPSK	25	0	21.67	21.65	21.69
5	16QAM	1	0	21.60	21.66	21.63
5	16QAM	1	12	21.65	21.62	21.67
5	16QAM	1	24	21.73	21.67	21.53
5	16QAM	12	0	20.76	20.62	20.61
5	16QAM	12	7	20.69	20.70	20.68
5	16QAM	12	13	20.70	20.71	20.58
5	16QAM	25	0	20.68	20.69	20.68
5	64QAM	1	0	20.25	20.41	20.38
5	64QAM	1	12	20.46	20.42	20.43
5	64QAM	1	24	20.36	20.41	20.30
5	64QAM	12	0	19.83	19.82	19.79
5	64QAM	12	7	19.91	19.82	19.77
5	64QAM	12	13	19.75	19.72	19.61
5	64QAM	25	0	19.77	19.77	19.73

CA_7C_(Ant.2)

CA_7C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21048	QPSK	100	0	100	0	200	20.46
			1	0	1	99	2	13.50
			1	99	1	0	2	22.58
		16QAM	100	0	100	0	200	19.65
			1	0	1	99	2	13.72
			1	99	1	0	2	21.52
		64QAM	100	0	100	0	200	19.61
			1	0	1	99	2	13.45
			1	99	1	0	2	19.63
21001	21199	QPSK	100	0	100	0	200	20.55
			1	0	1	99	2	13.49
			1	99	1	0	2	22.39
		16QAM	100	0	100	0	200	19.66
			1	0	1	99	2	13.55
			1	99	1	0	2	21.48
		64QAM	100	0	100	0	200	19.68
			1	0	1	99	2	13.42
			1	99	1	0	2	19.57
21152	21350	QPSK	100	0	100	0	200	20.48
			1	0	1	99	2	13.46
			1	99	1	0	2	22.43
		16QAM	100	0	100	0	200	19.58
			1	0	1	99	2	13.51
			1	99	1	0	2	21.55
		64QAM	100	0	100	0	200	19.65
			1	0	1	99	2	13.36
			1	99	1	0	2	19.67

Combination 20MHz+15MHz (100RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	21021	QPSK	100	0	75	0	175	20.28
			1	0	1	74	2	13.61
			1	99	1	0	2	22.34
		16QAM	100	0	75	0	175	19.68
			1	0	1	74	2	13.83
			1	99	1	0	2	21.36
		64QAM	100	0	75	0	175	19.60
			1	0	1	74	2	13.66
			1	99	1	0	2	19.69
21026	21197	QPSK	100	0	75	0	175	20.55
			1	0	1	74	2	13.62
			1	99	1	0	2	22.27
		16QAM	100	0	75	0	175	19.72
			1	0	1	74	2	13.80
			1	99	1	0	2	21.46
		64QAM	100	0	75	0	175	19.76
			1	0	1	74	2	13.67
			1	99	1	0	2	19.68
21201	21372	QPSK	100	0	75	0	175	20.18
			1	0	1	74	2	13.28
			1	99	1	0	2	22.23
		16QAM	100	0	75	0	175	19.56
			1	0	1	74	2	13.63
			1	99	1	0	2	21.25
		64QAM	100	0	75	0	175	19.58
			1	0	1	74	2	13.64
			1	99	1	0	2	19.60
Combination 15MHz+20MHz (75RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20828	20999	QPSK	75	0	100	0	175	20.30
			1	0	1	99	2	13.27
			1	74	1	0	2	22.21
		16QAM	75	0	100	0	175	19.52
			1	0	1	99	2	13.66
			1	74	1	0	2	21.06
		64QAM	75	0	100	0	175	19.50
			1	0	1	99	2	13.62
			1	74	1	0	2	19.38
21003	21174	QPSK	75	0	100	0	175	18.71
			1	0	1	99	2	13.26
			1	74	1	0	2	22.35
		16QAM	75	0	100	0	175	19.66
			1	0	1	99	2	13.63
			1	74	1	0	2	21.14
		64QAM	75	0	100	0	175	19.43

			1	0	1	99	2	13.57
			1	74	1	0	2	19.34
21179	21350	QPSK	75	0	100	0	175	20.40
			1	0	1	99	2	13.34
			1	74	1	0	2	22.05
		16QAM	75	0	100	0	175	19.44
			1	0	1	99	2	13.66
			1	74	1	0	2	21.54
		64QAM	75	0	100	0	175	19.58
			1	0	1	99	2	13.11
			1	74	1	0	2	19.22

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

PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20850	20994	QPSK	100	0	50	0	150	20.42
			1	0	1	49	2	13.37
			1	99	1	0	2	22.32
		16QAM	100	0	50	0	150	19.35
			1	0	1	49	2	13.64
			1	99	1	0	2	21.62
		64QAM	100	0	50	0	150	19.70
			1	0	1	49	2	13.43
			1	99	1	0	2	19.39
21051	21195	QPSK	100	0	50	0	150	20.55
			1	0	1	49	2	13.61
			1	99	1	0	2	22.25
		16QAM	100	0	50	0	150	19.81
			1	0	1	49	2	13.84
			1	99	1	0	2	21.52
		64QAM	100	0	50	0	150	19.75
			1	0	1	49	2	13.56
			1	99	1	0	2	19.50
21251	21395	QPSK	100	0	50	0	150	20.44
			1	0	1	49	2	13.57
			1	99	1	0	2	22.17
		16QAM	100	0	50	0	150	19.67
			1	0	1	49	2	13.65
			1	99	1	0	2	21..33
		64QAM	100	0	50	0	150	19.61
			1	0	1	49	2	13.38
			1	99	1	0	2	19.43

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

PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20805	20949	QPSK	50	0	100	0	150	20.35
			1	0	1	99	2	13.38
			1	49	1	0	2	22.33
		16QAM	50	0	100	0	150	19.54
			1	0	1	99	2	13.51
			1	49	1	0	2	21.34

		64QAM	50	0	100	0	150	19.57
			1	0	1	99	2	13.56
			1	49	1	0	2	19.44
21006	21150	QPSK	50	0	100	0	150	20.33
			1	0	1	99	2	13.55
			1	49	1	0	2	22.17
		16QAM	50	0	100	0	150	19.72
			1	0	1	99	2	13.58
			1	49	1	0	2	21.60
		64QAM	50	0	100	0	150	19.68
			1	0	1	99	2	13.36
			1	49	1	0	2	19.26
21206	21350	QPSK	50	0	100	0	150	20.28
			1	0	1	99	2	13.42
			1	49	1	0	2	22.28
		16QAM	50	0	100	0	150	19.57
			1	0	1	99	2	13.44
			1	49	1	0	2	21.26
		64QAM	50	0	100	0	150	19.69
			1	0	1	99	2	13.53
			1	49	1	0	2	19.39
Combination 15MHz+15MHz (75RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20825	20975	QPSK	75	0	75	0	150	20.36
			1	0	1	74	2	13.61
			1	74	1	0	2	22.43
		16QAM	75	0	75	0	150	19.51
			1	0	1	74	2	13..53
			1	74	1	0	2	21.74
		64QAM	75	0	75	0	150	19.53
			1	0	1	74	2	13.91
			1	74	1	0	2	19.74
21025	21175	QPSK	75	0	75	0	150	20.67
			1	0	1	74	2	13.76
			1	74	1	0	2	22.48
		16QAM	75	0	75	0	150	19.85
			1	0	1	74	2	13.83
			1	74	1	0	2	21.76
		64QAM	75	0	75	0	150	19.84
			1	0	1	74	2	13.84
			1	74	1	0	2	19.71
21225	21375	QPSK	75	0	75	0	150	20.56
			1	0	1	74	2	13.82
			1	74	1	0	2	22.52
		16QAM	75	0	75	0	150	19.73
			1	0	1	74	2	13.94
			1	74	1	0	2	21.65
		64QAM	75	0	75	0	150	19.73
			1	0	1	74	2	13.81

			1	74	1	0	2	19.83
Combination 15MHz+10MHz (75RB+50RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
20825	20945	QPSK	75	0	50	0	125	20.59
			1	0	1	49	2	13.82
			1	74	1	0	2	22.54
		16QAM	75	0	50	0	125	19.83
			1	0	1	49	2	13.98
			1	74	1	0	2	21.66
		64QAM	75	0	50	0	125	19.79
			1	0	1	49	2	13..99
			1	74	1	0	2	19.63
21051	21171	QPSK	75	0	50	0	125	20.65
			1	0	1	49	2	13..92
			1	74	1	0	2	22.56
		16QAM	75	0	50	0	125	19.85
			1	0	1	49	2	13.86
			1	74	1	0	2	21.93
		64QAM	75	0	50	0	125	19.88
			1	0	1	49	2	13.97
			1	74	1	0	2	19.81
21277	21397	QPSK	75	0	50	0	125	20.62
			1	0	1	49	2	13.82
			1	74	1	0	2	22.32
		16QAM	75	0	50	0	125	19.75
			1	0	1	49	2	13.96
			1	74	1	0	2	21.47
		64QAM	75	0	50	0	125	19.77
			1	0	1	49	2	13.92
			1	74	1	0	2	19.65

ERP/EIRP

LTE Band 2 (GT - LC = -2.5 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)	22.37	22.40	22.28	22.36	22.50	22.40	22.42	22.52	22.31
Conducted Power (Watts)	0.1726	0.1738	0.1690	0.1722	0.1778	0.1738	0.1746	0.1786	0.1702
EIRP(dBm)	19.87	19.90	19.78	19.86	20.00	19.90	19.92	20.02	19.81
EIRP(Watts)	0.0971	0.0977	0.0951	0.0968	0.1000	0.0977	0.0982	0.1005	0.0957

LTE Band 2 (GT - LC = -2.5 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)	22.34	22.43	22.29	22.45	22.49	22.38	22.49	22.56	22.43
Conducted Power (Watts)	0.1714	0.1750	0.1694	0.1758	0.1774	0.1730	0.1774	0.1803	0.1750
EIRP(dBm)	19.84	19.93	19.79	19.95	19.99	19.88	19.99	20.06	19.93
EIRP(Watts)	0.0964	0.0984	0.0953	0.0989	0.0998	0.0973	0.0998	0.1014	0.0984

LTE Band 2 (GT - LC = -2.5 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)	21.42	21.44	21.39	21.24	21.41	21.24	21.26	21.38	21.17
Conducted Power (Watts)	0.1387	0.1393	0.1377	0.1330	0.1384	0.1330	0.1337	0.1374	0.1309
EIRP(dBm)	18.92	18.94	18.89	18.74	18.91	18.74	18.76	18.88	18.67
EIRP(Watts)	0.0780	0.0783	0.0774	0.0748	0.0778	0.0748	0.0752	0.0773	0.0736

LTE Band 2 (GT - LC = -2.5 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)	21.27	21.35	21.09	21.30	21.36	21.12	21.38	21.44	21.21
Conducted Power (Watts)	0.1340	0.1365	0.1285	0.1349	0.1368	0.1294	0.1374	0.1393	0.1321
EIRP(dBm)	18.77	18.85	18.59	18.80	18.86	18.62	18.88	18.94	18.71
EIRP(Watts)	0.0753	0.0767	0.0723	0.0759	0.0769	0.0728	0.0773	0.0783	0.0743

LTE Band 2 (GT - LC = -2.5 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)	20.47	20.42	20.53	20.46	20.56	20.48	20.47	20.49	20.52
Conducted Power (Watts)	0.1114	0.1102	0.1130	0.1112	0.1138	0.1117	0.1114	0.1119	0.1127
EIRP(dBm)	17.97	17.92	18.03	17.96	18.06	17.98	17.97	17.99	18.02
EIRP(Watts)	0.0627	0.0619	0.0635	0.0625	0.0640	0.0628	0.0627	0.0630	0.0634

LTE Band 2 (GT - LC = -2.5 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)	20.42	20.57	20.47	20.42	20.48	20.49	20.55	20.63	20.57
Conducted Power (Watts)	0.1102	0.1140	0.1114	0.1102	0.1117	0.1119	0.1135	0.1156	0.1140
EIRP(dBm)	17.92	18.07	17.97	17.92	17.98	17.99	18.05	18.13	18.07
EIRP(Watts)	0.0619	0.0641	0.0627	0.0619	0.0628	0.0630	0.0638	0.0650	0.0641

LTE Band 4 (GT - LC = -2.0 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	22.30	22.34	22.14	22.22	22.32	22.37	22.22	22.41	22.31
Conducted Power (Watts)	0.1698	0.1714	0.1637	0.1667	0.1706	0.1726	0.1667	0.1742	0.1702
EIRP(dBm)	20.30	20.34	20.14	20.22	20.32	20.37	20.22	20.41	20.31
EIRP(Watts)	0.1072	0.1081	0.1033	0.1052	0.1076	0.1089	0.1052	0.1099	0.1074

LTE Band 4 (GT - LC = -2.0 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	22.30	22.38	22.35	22.32	22.33	22.31	22.35	22.46	22.42
Conducted Power (Watts)	0.1698	0.1730	0.1718	0.1706	0.1710	0.1702	0.1718	0.1762	0.1746
EIRP(dBm)	20.30	20.38	20.35	20.32	20.33	20.31	20.35	20.46	20.42
EIRP(Watts)	0.1072	0.1091	0.1084	0.1076	0.1079	0.1074	0.1084	0.1112	0.1102

LTE Band 4 (GT - LC = -2.0 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	21.29	21.38	21.29	21.16	21.28	21.08	21.18	21.32	21.24
Conducted Power (Watts)	0.1346	0.1374	0.1346	0.1306	0.1343	0.1282	0.1312	0.1355	0.1330
EIRP(dBm)	19.29	19.38	19.29	19.16	19.28	19.08	19.18	19.32	19.24
EIRP(Watts)	0.0849	0.0867	0.0849	0.0824	0.0847	0.0809	0.0828	0.0855	0.0839

LTE Band 4 (GT - LC = -2.0 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	21.21	21.31	21.24	21.22	21.29	21.18	21.27	21.37	21.27
Conducted Power (Watts)	0.1321	0.1352	0.1330	0.1324	0.1346	0.1312	0.1340	0.1371	0.1340
EIRP(dBm)	19.21	19.31	19.24	19.22	19.29	19.18	19.27	19.37	19.27
EIRP(Watts)	0.0834	0.0853	0.0839	0.0836	0.0849	0.0828	0.0845	0.0865	0.0845

LTE Band 4 (GT - LC = -2.0 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	20.40	20.42	20.32	20.43	20.64	20.58	20.47	20.65	20.51
Conducted Power (Watts)	0.1096	0.1102	0.1076	0.1104	0.1159	0.1143	0.1114	0.1161	0.1125
EIRP(dBm)	18.40	18.42	18.32	18.43	18.64	18.58	18.47	18.65	18.51
EIRP(Watts)	0.0692	0.0695	0.0679	0.0697	0.0731	0.0721	0.0703	0.0733	0.0710

LTE Band 4 (GT - LC = -2.0 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	20.42	20.57	20.50	20.51	20.63	20.50	20.55	20.68	20.62
Conducted Power (Watts)	0.1102	0.1140	0.1122	0.1125	0.1156	0.1122	0.1135	0.1169	0.1153
EIRP(dBm)	18.42	18.57	18.50	18.51	18.63	18.50	18.55	18.68	18.62
EIRP(Watts)	0.0695	0.0719	0.0708	0.0710	0.0729	0.0708	0.0716	0.0738	0.0728

LTE Band 5 (GT - LC = -5.0 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)	22.80	22.78	22.63	22.71	22.83	22.67	22.73	22.81	22.72
Conducted Power (Watts)	0.1905	0.1897	0.1832	0.1866	0.1919	0.1849	0.1875	0.1910	0.1871
ERP(dBm)	15.65	15.63	15.48	15.56	15.68	15.52	15.58	15.66	15.57
ERP(Watts)	0.0367	0.0366	0.0353	0.0360	0.0370	0.0356	0.0361	0.0368	0.0361

LTE Band 5 (GT - LC = -5.0 dB) QPSK			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	22.83	22.88	22.81
Conducted Power (Watts)	0.1919	0.1941	0.1910
ERP(dBm)	15.68	15.73	15.66
ERP(Watts)	0.0370	0.0374	0.0368

LTE Band 5 (GT - LC = -5.0 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)	21.72	21.85	21.77	21.68	21.73	21.68	21.65	21.72	21.73
Conducted Power (Watts)	0.1486	0.1531	0.1503	0.1472	0.1489	0.1472	0.1462	0.1486	0.1489
ERP(dBm)	14.57	14.70	14.62	14.53	14.58	14.53	14.50	14.57	14.58
ERP(Watts)	0.0286	0.0295	0.0290	0.0284	0.0287	0.0284	0.0282	0.0286	0.0287

LTE Band 5 (GT - LC = -5.0 dB) 16QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	21.77	21.81	21.77
Conducted Power (Watts)	0.1503	0.1517	0.1503
ERP(dBm)	14.62	14.66	14.62
ERP(Watts)	0.0290	0.0292	0.0290

LTE Band 5 (GT - LC = -5.0 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)	20.88	20.87	20.82	20.83	20.92	20.86	20.74	20.85	20.80
Conducted Power (Watts)	0.1225	0.1222	0.1208	0.1211	0.1236	0.1219	0.1186	0.1216	0.1202
ERP(dBm)	13.73	13.72	13.67	13.68	13.77	13.71	13.59	13.70	13.65
ERP(Watts)	0.0236	0.0236	0.0233	0.0233	0.0238	0.0235	0.0229	0.0234	0.0232

LTE Band 5 (GT - LC = -5.0 dB) 64QAM			
Bandwidth	10M		
Channel	20450	20525	20600
	(Low)	(Mid)	(High)
Frequency (MHz)	829	836.5	844
Conducted Power (dBm)	20.89	20.98	20.93
Conducted Power (Watts)	0.1227	0.1253	0.1239
ERP(dBm)	13.74	13.83	13.78
ERP(Watts)	0.0237	0.0242	0.0239

LTE Band 7 (GT - LC = -2.60 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	22.87	22.94	22.85
Conducted Power (Watts)	0.1936	0.1968	0.1928
EIRP(dBm)	20.27	20.34	20.25
EIRP(Watts)	0.1064	0.1081	0.1059

LTE Band 7 (GT - LC = -2.60 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	22.82	22.88	22.82	22.86	22.93	22.89	22.90	22.99	22.94
Conducted Power (Watts)	0.1914	0.1941	0.1914	0.1932	0.1963	0.1945	0.1950	0.1991	0.1968
EIRP(dBm)	20.22	20.28	20.22	20.26	20.33	20.29	20.30	20.39	20.34
EIRP(Watts)	0.1052	0.1067	0.1052	0.1062	0.1079	0.1069	0.1072	0.1094	0.1081

LTE Band 7 (GT - LC = -2.60 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	21.72	21.75	21.73
Conducted Power (Watts)	0.1486	0.1496	0.1489
EIRP(dBm)	19.12	19.15	19.13
EIRP(Watts)	0.0817	0.0822	0.0818

LTE Band 7 (GT - LC = -2.60 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	21.64	21.79	21.67	21.71	21.81	21.72	21.83	21.87	21.83
Conducted Power (Watts)	0.1459	0.1510	0.1469	0.1483	0.1517	0.1486	0.1524	0.1538	0.1524
EIRP(dBm)	19.04	19.19	19.07	19.11	19.21	19.12	19.23	19.27	19.23
EIRP(Watts)	0.0802	0.0830	0.0807	0.0815	0.0834	0.0817	0.0838	0.0845	0.0838

LTE Band 7 (GT - LC = -2.60 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	20.93	20.92	20.92
Conducted Power (Watts)	0.1239	0.1236	0.1236
EIRP(dBm)	18.33	18.32	18.32
EIRP(Watts)	0.0681	0.0679	0.0679

LTE Band 7 (GT - LC = -2.60 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	20.92	20.95	20.96	21.01	20.93	20.96	21.06	21.06	21.03
Conducted Power (Watts)	0.1236	0.1245	0.1247	0.1262	0.1239	0.1247	0.1276	0.1276	0.1268
EIRP(dBm)	18.32	18.35	18.36	18.41	18.33	18.36	18.46	18.46	18.43
EIRP(Watts)	0.0679	0.0684	0.0685	0.0693	0.0681	0.0685	0.0701	0.0701	0.0697

LTE Band 38 (GT - LC = -2.60 dB) QPSK			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency (MHz)	2572.5	2595	2617.5
Conducted Power (dBm)	22.70	22.81	22.68
Conducted Power (Watts)	0.1862	0.1910	0.1854
EIRP(dBm)	20.10	20.21	20.08
EIRP(Watts)	0.1023	0.1050	0.1019

LTE Band 38 (GT - LC =-2.60 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
Conducted Power (dBm)	22.73	22.74	22.74	22.72	22.78	22.74	22.82	22.87	22.78
Conducted Power (Watts)	0.1875	0.1879	0.1879	0.1871	0.1897	0.1879	0.1914	0.1936	0.1897
EIRP(dBm)	20.13	20.14	20.14	20.12	20.18	20.14	20.22	20.27	20.18
EIRP(Watts)	0.1030	0.1033	0.1033	0.1028	0.1042	0.1033	0.1052	0.1064	0.1042

LTE Band 38 (GT - LC =-2.60 dB) 16QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency (MHz)	2572.5	2595	2617.5
Conducted Power (dBm)	21.51	21.53	21.58
Conducted Power (Watts)	0.1416	0.1422	0.1439
EIRP(dBm)	18.91	18.93	18.98
EIRP(Watts)	0.0778	0.0782	0.0791

LTE Band 38 (GT - LC =-2.60 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
Conducted Power (dBm)	21.38	21.62	21.50	21.48	21.52	21.63	21.52	21.70	21.54
Conducted Power (Watts)	0.1374	0.1452	0.1413	0.1406	0.1419	0.1455	0.1419	0.1479	0.1426
EIRP(dBm)	18.78	19.02	18.90	18.88	18.92	19.03	18.92	19.10	18.94
EIRP(Watts)	0.0755	0.0798	0.0776	0.0773	0.0780	0.0800	0.0780	0.0813	0.0783

LTE Band 38 (GT - LC =-2.60 dB) 64QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency (MHz)	2572.5	2595	2617.5
Conducted Power (dBm)	20.37	20.44	20.28
Conducted Power (Watts)	0.1089	0.1107	0.1067
EIRP(dBm)	17.77	17.84	17.68
EIRP(Watts)	0.0598	0.0608	0.0586

LTE Band 38 (GT - LC =-2.60 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
Conducted Power (dBm)	20.27	20.48	20.38	20.34	20.44	20.43	20.42	20.53	20.48
Conducted Power (Watts)	0.1064	0.1117	0.1091	0.1081	0.1107	0.1104	0.1102	0.1130	0.1117
EIRP(dBm)	17.67	17.88	17.78	17.74	17.84	17.83	17.82	17.93	17.88
EIRP(Watts)	0.0585	0.0614	0.0600	0.0594	0.0608	0.0607	0.0605	0.0621	0.0614

LTE Band 41 (G_T - L_C = -2.60dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	22.74	22.81	22.68	22.73	22.76	22.63	22.66	22.80	22.61
Conducted Power (Watts)	0.1879	0.1910	0.1854	0.1875	0.1888	0.1832	0.1845	0.1905	0.1824
EIRP(dBm)	20.14	20.21	20.08	20.13	20.16	20.03	20.06	20.20	20.01
EIRP(Watts)	0.1033	0.1050	0.1019	0.1030	0.1038	0.1007	0.1014	0.1047	0.1002

LTE Band 41 (G_T - L_C = -2.60 dB) QPSK			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	22.81	22.89	22.75
Conducted Power (Watts)	0.1910	0.1945	0.1884
EIRP(dBm)	20.21	20.29	20.15
EIRP(Watts)	0.1050	0.1069	0.1035

LTE Band 41 (G_T - L_C = -2.60 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	21.73	21.67	21.53	21.73	21.66	21.60	21.72	21.70	21.51
Conducted Power (Watts)	0.1489	0.1469	0.1422	0.1489	0.1466	0.1445	0.1486	0.1479	0.1416
EIRP(dBm)	19.13	19.07	18.93	19.13	19.06	19.00	19.12	19.10	18.91
EIRP(Watts)	0.0818	0.0807	0.0782	0.0818	0.0805	0.0794	0.0817	0.0813	0.0778

LTE Band 41 (G_T - L_C = -2.60 dB) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	21.79	21.76	21.63
Conducted Power (Watts)	0.1510	0.1500	0.1455
EIRP(dBm)	19.19	19.16	19.03
EIRP(Watts)	0.0830	0.0824	0.0800

LTE Band 41 (G_T - L_C = -2.60 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	20.46	20.42	20.43	20.25	20.45	20.34	20.18	20.48	20.39
Conducted Power (Watts)	0.1112	0.1102	0.1104	0.1059	0.1109	0.1081	0.1042	0.1117	0.1094
EIRP(dBm)	17.86	17.82	17.83	17.65	17.85	17.74	17.58	17.88	17.79
EIRP(Watts)	0.0611	0.0605	0.0607	0.0582	0.0610	0.0594	0.0573	0.0614	0.0601

LTE Band 41 (G_T - L_C = -2.60 dB) 64QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	20.52	20.47	20.53
Conducted Power (Watts)	0.1127	0.1114	0.1130
EIRP(dBm)	17.92	17.87	17.93
EIRP(Watts)	0.0619	0.0612	0.0621

CA EIRP

LTE Band 7 CA (GT - LC = -2.6 dBi) QPSK									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.43	22.48	22.52	22.33	22.17	22.28	22.32	22.25	22.17
Conducted Power (Watts)	0.1750	0.1770	0.1786	0.1710	0.1648	0.1690	0.1706	0.1679	0.1648
EIRP(dBm)	19.83	19.88	19.92	19.73	19.57	19.68	19.72	19.65	19.57
EIRP(Watts)	0.0962	0.0973	0.0982	0.0940	0.0906	0.0929	0.0938	0.0923	0.0906

LTE Band 7 CA (GT - LC = -2.6 dBi) QPSK									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.21	22.35	22.05	22.34	22.27	22.23	22.58	22.39	22.43
Conducted Power (Watts)	0.1663	0.1718	0.1601	0.1714	0.1687	0.1671	0.1811	0.1734	0.1750
EIRP(dBm)	19.61	19.75	19.45	19.74	19.67	19.63	19.98	19.79	19.83
EIRP(Watts)	0.0914	0.0944	0.0880	0.0942	0.0927	0.0918	0.0995	0.0953	0.0962

LTE Band 7 CA (GT - LC = -2.6 dBi)QPSK			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.54	22.56	22.32
Conducted Power (Watts)	0.1795	0.1803	0.1706
EIRP(dBm)	19.94	19.96	19.72
EIRP(Watts)	0.0986	0.0991	0.0938

LTE Band 7 CA (GT - LC = -2.6 dBi) 16QAM									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.74	21.76	21.65	21.34	21.60	21.26	21.62	21.52	21.33
Conducted Power (Watts)	0.1493	0.1500	0.1462	0.1361	0.1445	0.1337	0.1452	0.1419	0.1358
EIRP(dBm)	19.14	19.16	19.05	18.74	19.00	18.66	19.02	18.92	18.73
EIRP(Watts)	0.0820	0.0824	0.0804	0.0748	0.0794	0.0735	0.0798	0.0780	0.0746

LTE Band 7 CA (GT - LC = -2.6 dBi) 16QAM									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.06	21.14	21.54	21.36	21.46	21.25	21.52	21.48	21.55
Conducted Power (Watts)	0.1276	0.1300	0.1426	0.1368	0.1400	0.1334	0.1419	0.1406	0.1429
EIRP(dBm)	18.46	18.54	18.94	18.76	18.86	18.65	18.92	18.88	18.95
EIRP(Watts)	0.0701	0.0714	0.0783	0.0752	0.0769	0.0733	0.0780	0.0773	0.0785

LTE Band 7 CA (GT - LC = -2.6 dBi)16QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	21.66	21.93	21.47
Conducted Power (Watts)	0.1466	0.1560	0.1403
EIRP(dBm)	19.06	19.33	18.87
EIRP(Watts)	0.0805	0.0857	0.0771

LTE Band 7 CA (GT - LC = -2.6 dBi) 64QAM									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.74	19.84	19.83	19.57	19.68	19.69	19.70	19.75	19.61
Conducted Power (Watts)	0.0942	0.0964	0.0962	0.0906	0.0929	0.0931	0.0933	0.0944	0.0914
EIRP(dBm)	17.14	17.24	17.23	16.97	17.08	17.09	17.10	17.15	17.01
EIRP(Watts)	0.0518	0.0530	0.0528	0.0498	0.0511	0.0512	0.0513	0.0519	0.0502

LTE Band 7 CA (GT - LC = -2.6 dBi) 64QAM									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.50	19.43	19.58	19.69	19.76	19.60	19.63	19.68	19.67
Conducted Power (Watts)	0.0891	0.0877	0.0908	0.0931	0.0946	0.0912	0.0918	0.0929	0.0927
EIRP(dBm)	16.90	16.83	16.98	17.09	17.16	17.00	17.03	17.08	17.07
EIRP(Watts)	0.0490	0.0482	0.0499	0.0512	0.0520	0.0501	0.0505	0.0511	0.0509

LTE Band 7 CA (GT - LC = -2.6 dBi) 64QAM			
Bandwidth	**15M + 10M**		
Channel PCC	**20825**	**21025**	**21225**
	(Low)	**(Mid)**	**(High)**
Channel SCC	**20975**	**21175**	**21375**
	(Low)	**(Mid)**	**(High)**
Conducted Power (dBm)	19.79	19.88	19.77
Conducted Power (Watts)	0.0953	0.0973	0.0948
EIRP(dBm)	17.19	17.28	17.17
EIRP(Watts)	0.0524	0.0535	0.0521

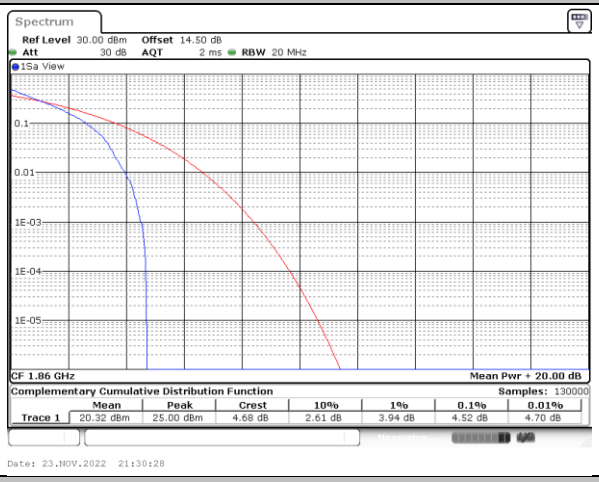
LTE Band 2

Peak-to-Average Ratio

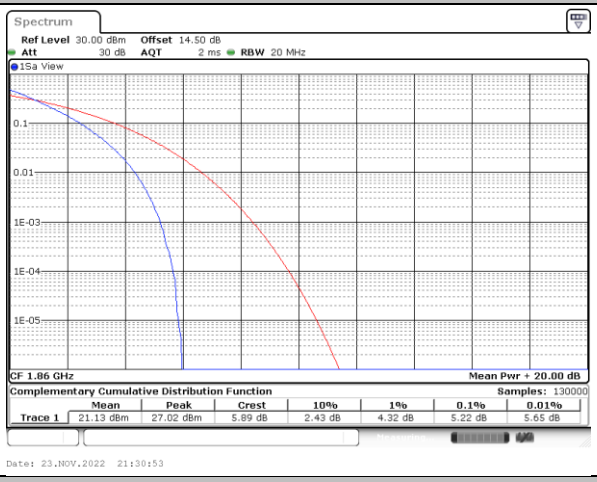
Mode	LTE Band 2 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.52	5.22	5.36	6.09	PASS
Middle CH	4.78	4.99	5.74	5.91	
Highest CH	4.64	4.87	5.62	5.83	
Mode	LTE Band 2 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.09	6.38	-	-	PASS
Middle CH	6.41	6.29	-	-	
Highest CH	6.32	6.23	-	-	

LTE Band 2 / 20MHz / QPSK

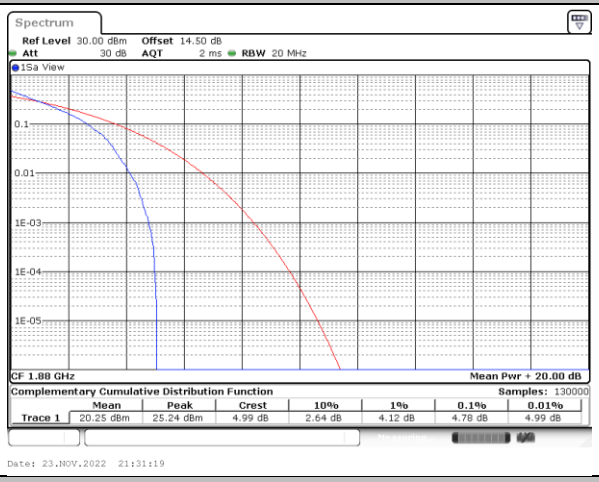
Lowest Channel / 1RB



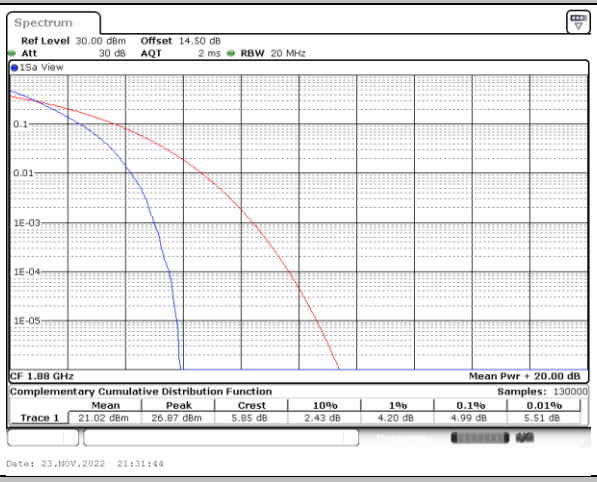
Lowest Channel / Full RB



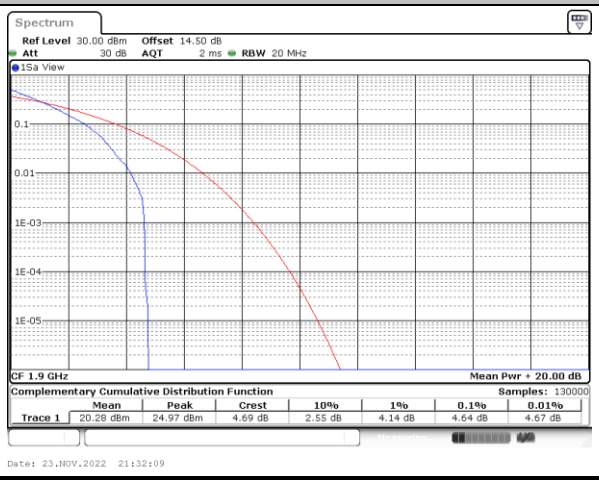
Middle Channel / 1RB



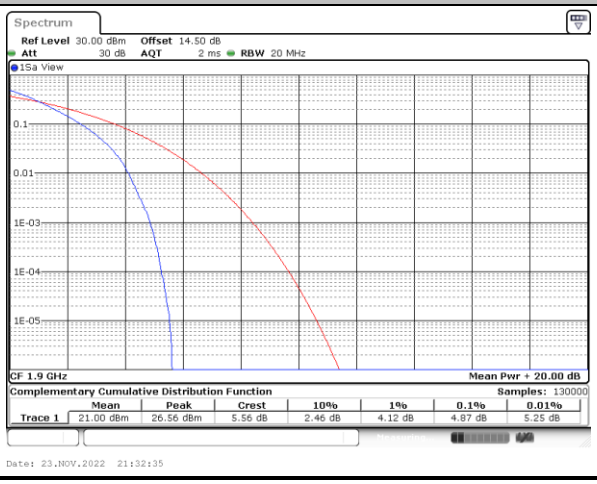
Middle Channel / Full RB

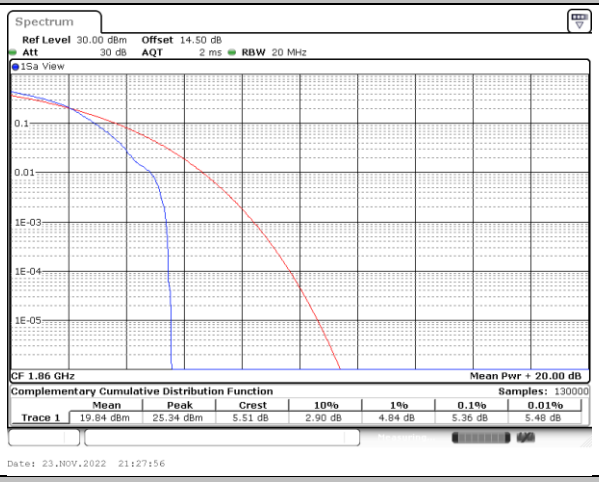
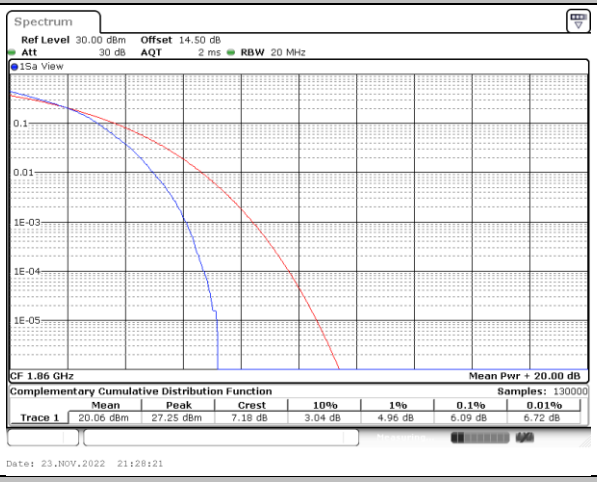
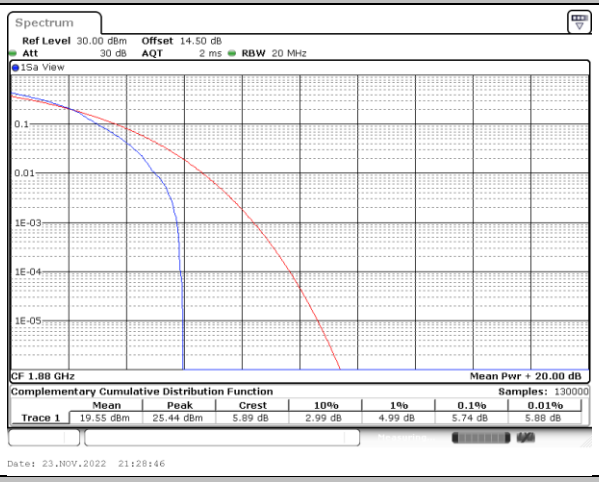
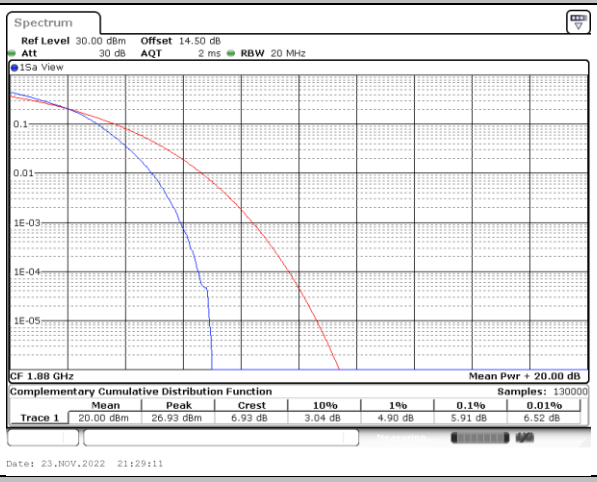
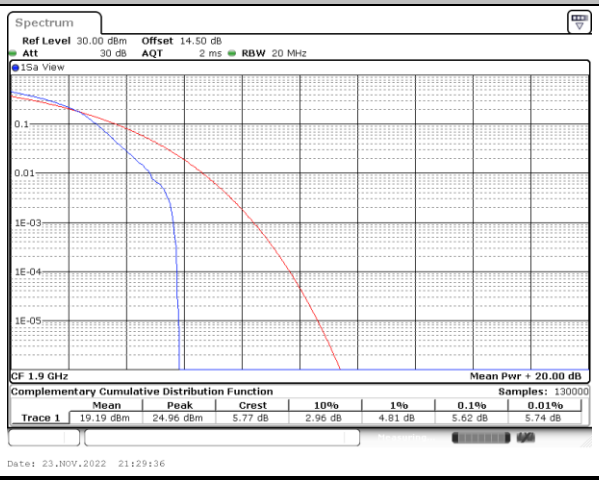
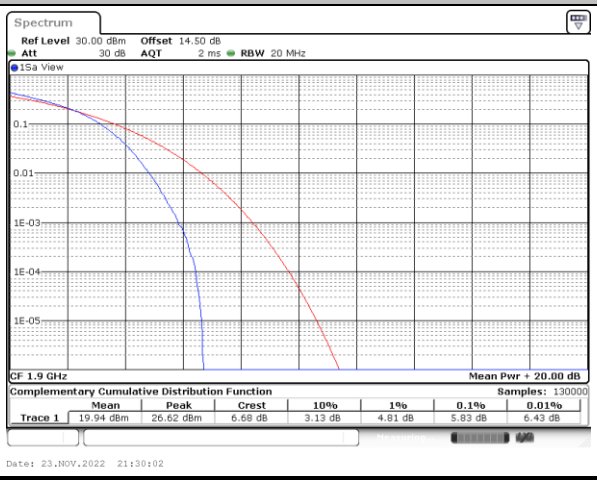


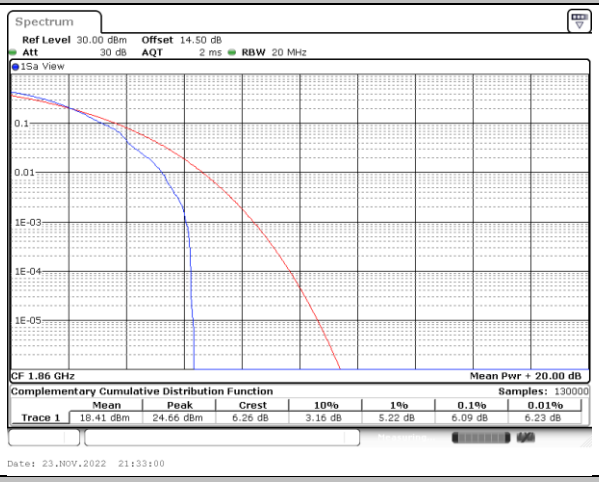
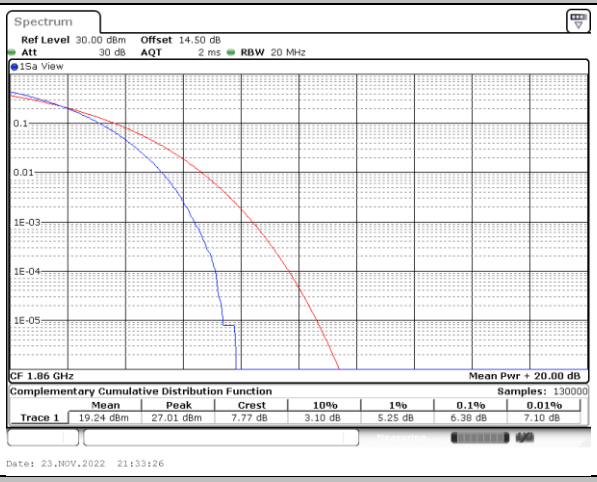
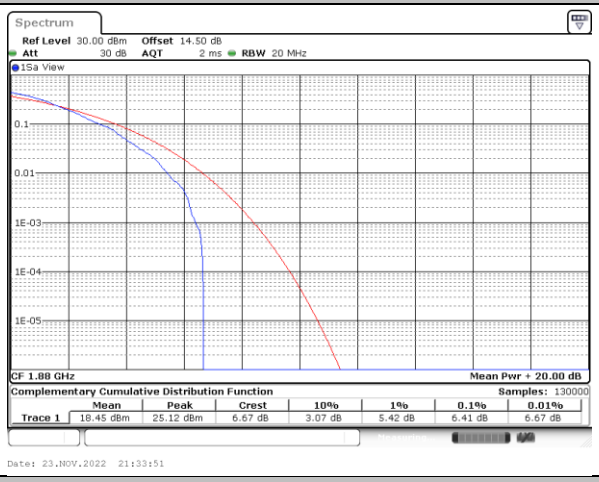
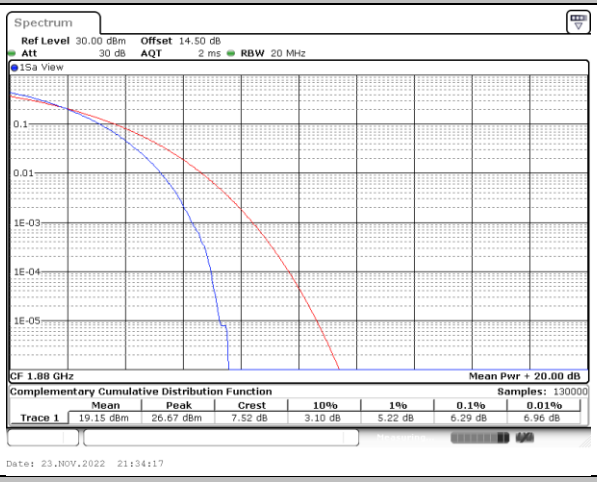
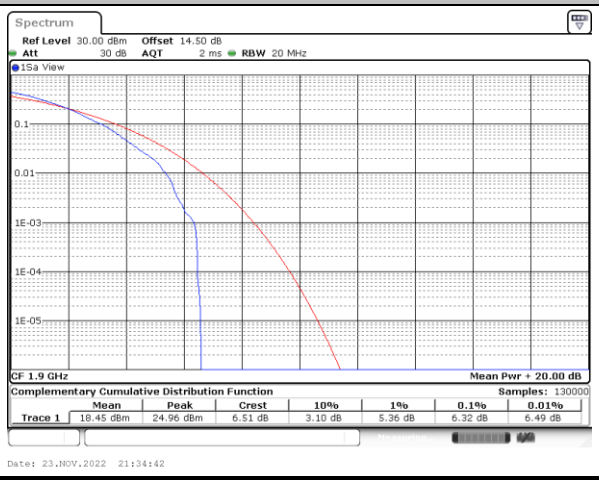
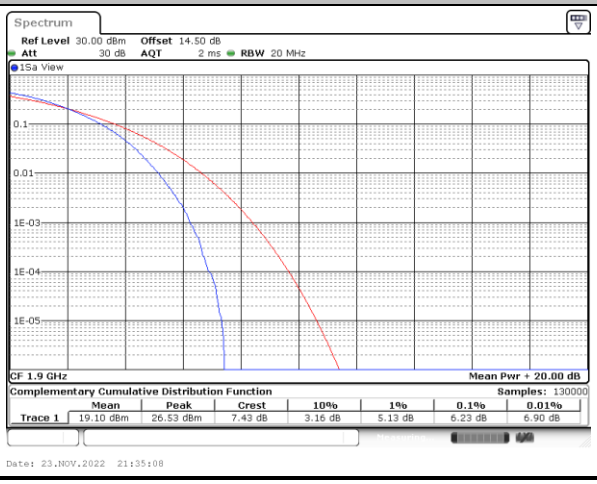
Highest Channel / 1RB



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**
	

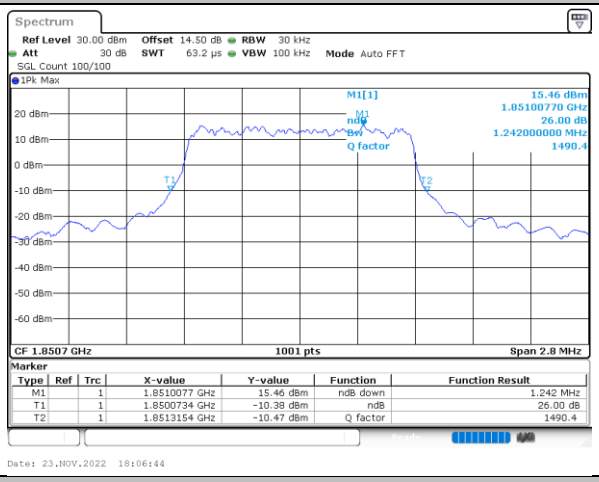
LTE Band 2 / 20MHz / 64QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

26dB Bandwidth

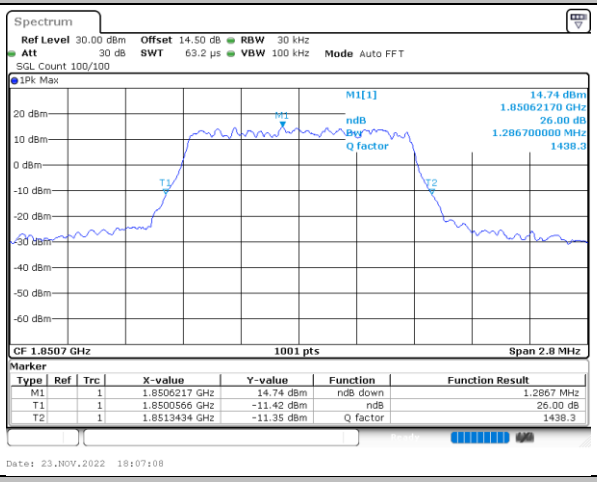
Mode	LTE Band 2 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.24	1.29	2.99	2.96	4.98	4.85	9.89	9.85	14.45	14.36	19.30	18.98
Middle CH	1.26	1.28	2.99	2.97	4.84	4.86	9.71	9.71	14.36	14.15	18.66	18.74
Highest CH	1.27	1.32	3.00	2.96	4.91	4.81	9.73	9.65	14.30	14.39	18.86	18.90
Mode	LTE Band 2 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.28	-	2.96	-	4.88	-	9.81	-	14.36	-	18.74	-
Middle CH	1.27	-	2.98	-	4.90	-	9.83	-	14.48	-	18.98	-
Highest CH	1.26	-	2.94	-	4.88	-	9.83	-	14.27	-	18.98	-

LTE Band 2

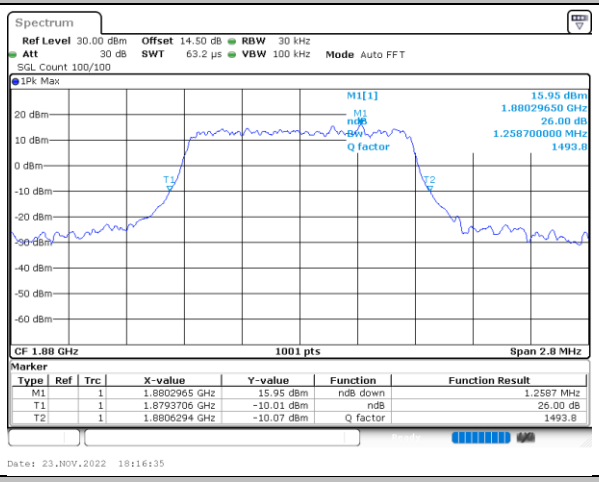
Lowest Channel / 1.4MHz / QPSK



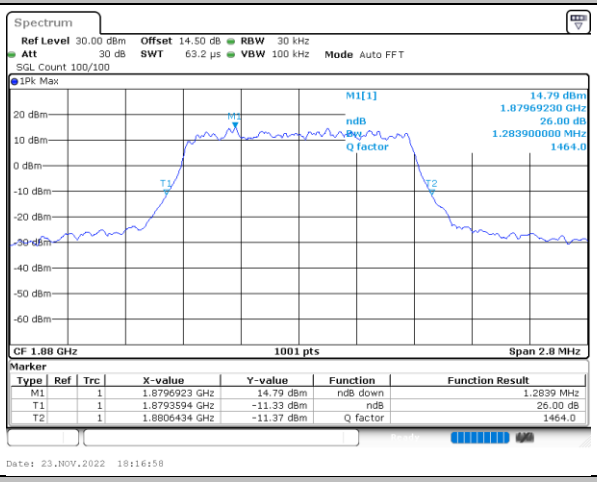
Lowest Channel / 1.4MHz / 16QAM



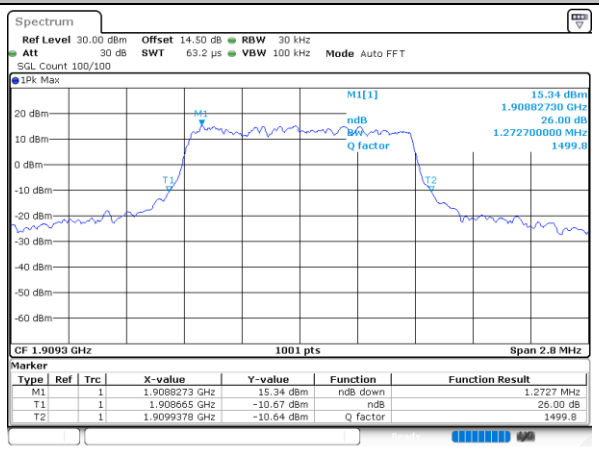
Middle Channel / 1.4MHz / QPSK



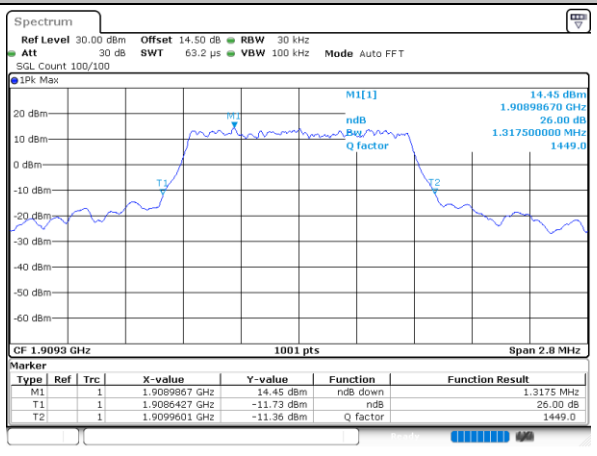
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

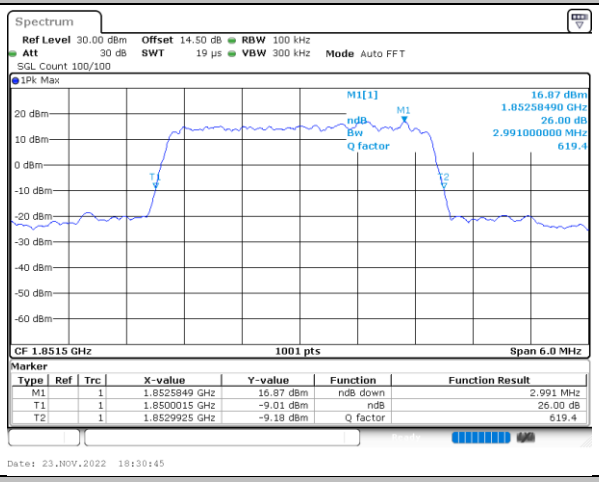


Highest Channel / 1.4MHz / 16QAM

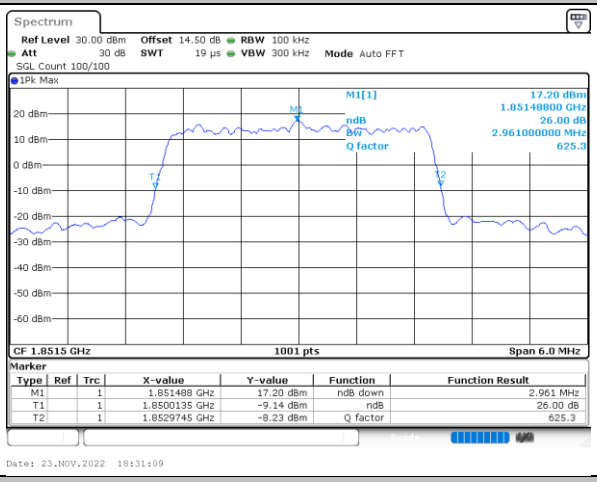


LTE Band 2

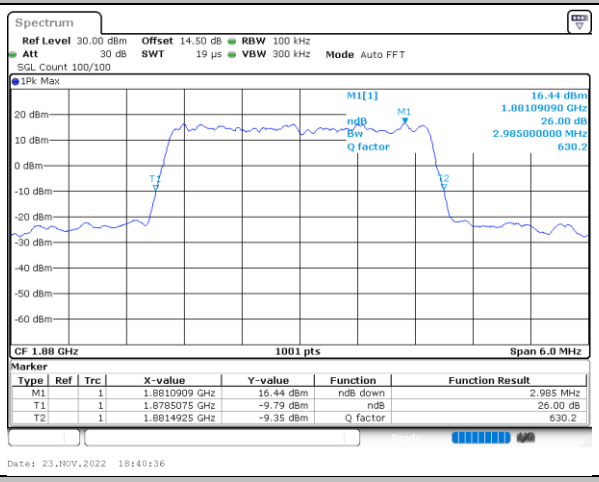
Lowest Channel / 3MHz / QPSK



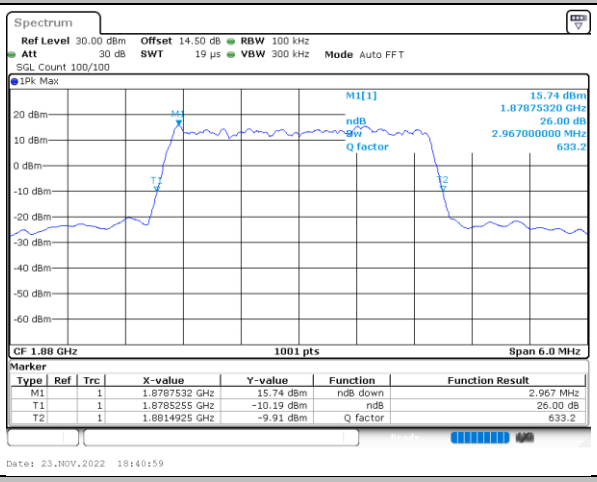
Lowest Channel / 3MHz / 16QAM



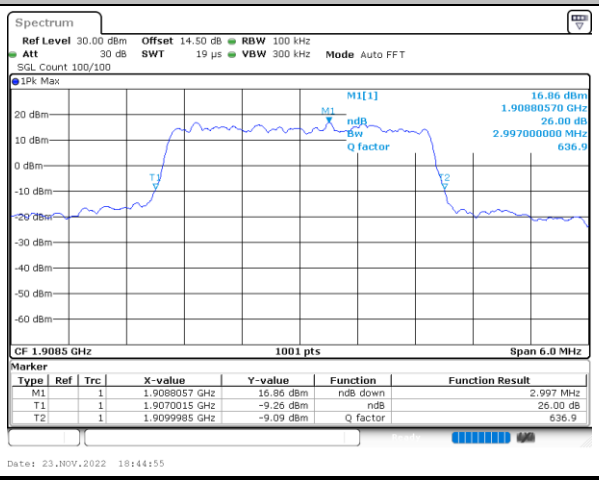
Middle Channel / 3MHz / QPSK



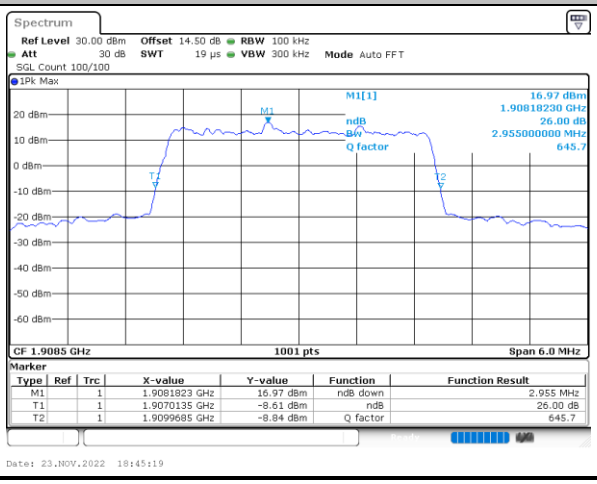
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

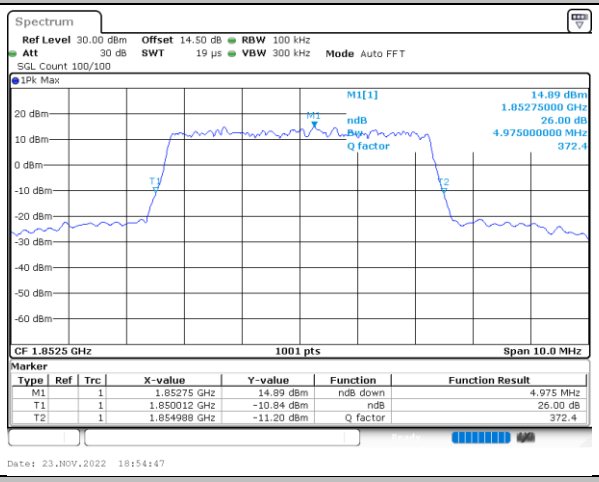


Highest Channel / 3MHz / 16QAM

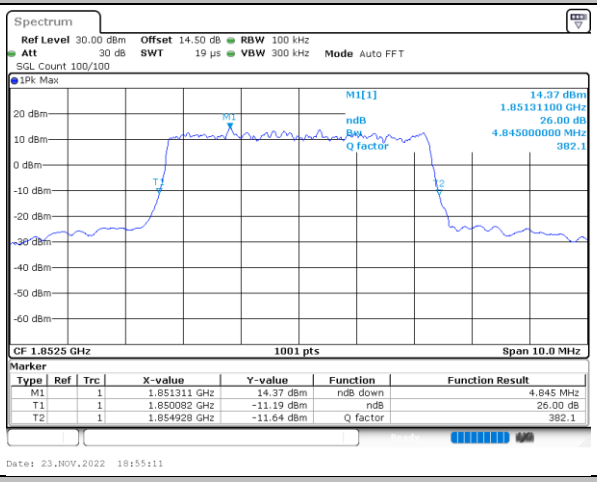


LTE Band 2

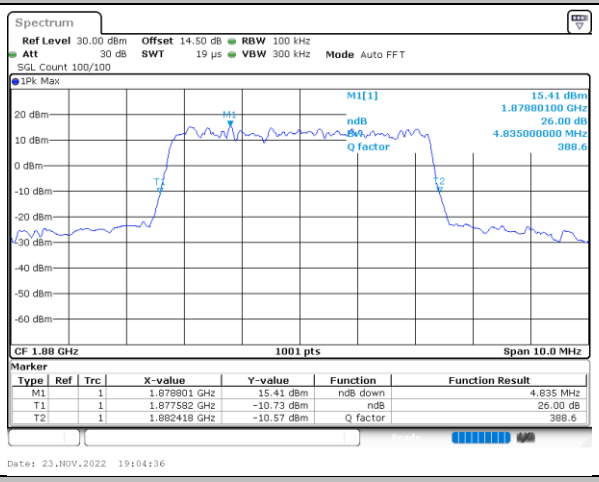
Lowest Channel / 5MHz / QPSK



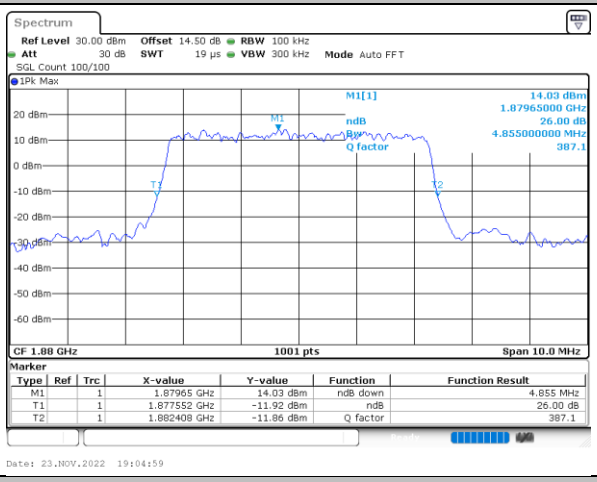
Lowest Channel / 5MHz / 16QAM



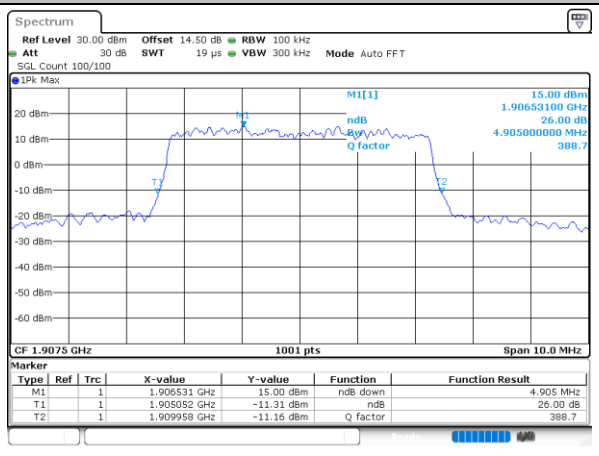
Middle Channel / 5MHz / QPSK



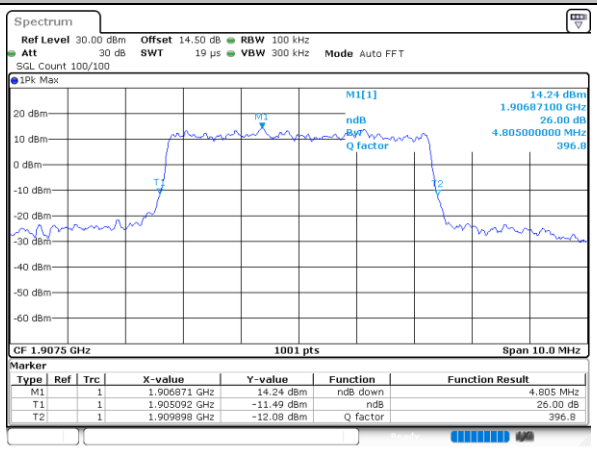
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

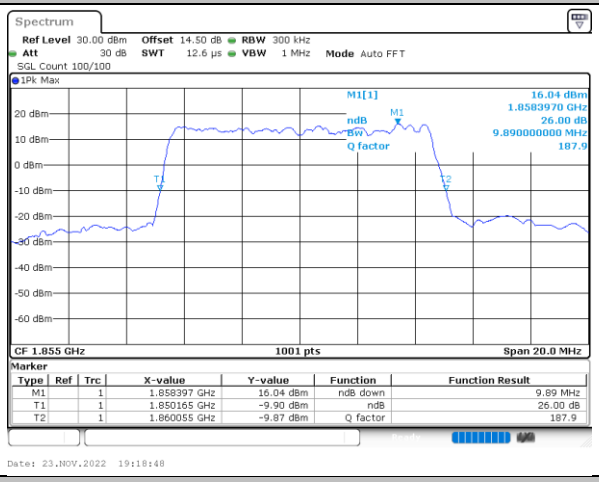


Highest Channel / 5MHz / 16QAM

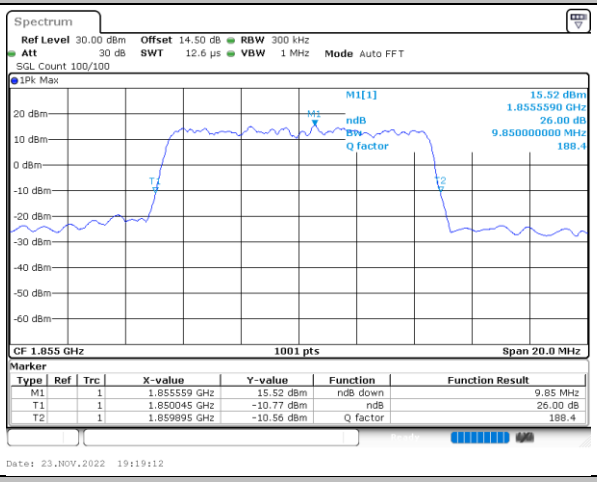


LTE Band 2

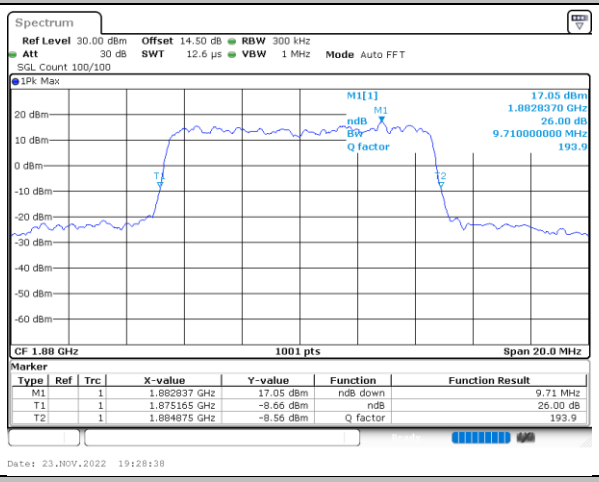
Lowest Channel / 10MHz / QPSK



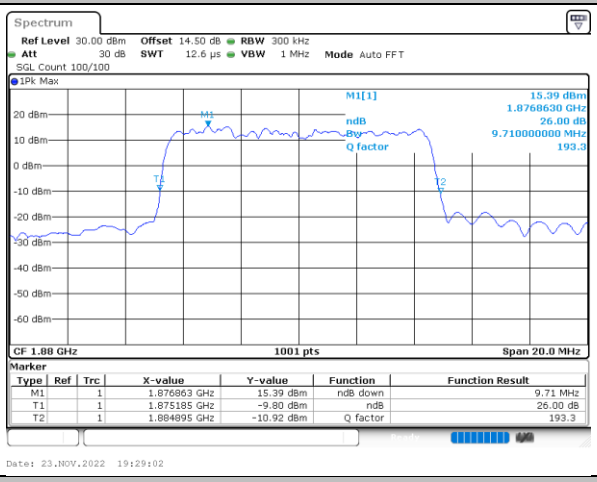
Lowest Channel / 10MHz / 16QAM



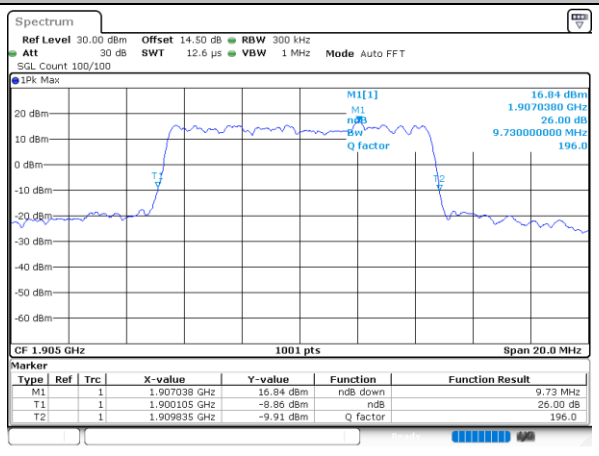
Middle Channel / 10MHz / QPSK



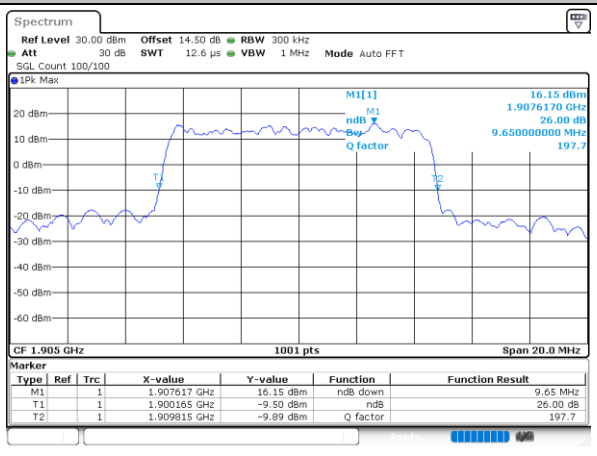
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

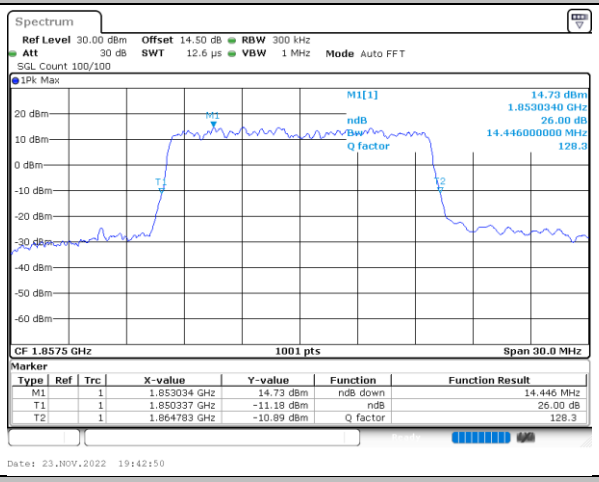


Highest Channel / 10MHz / 16QAM

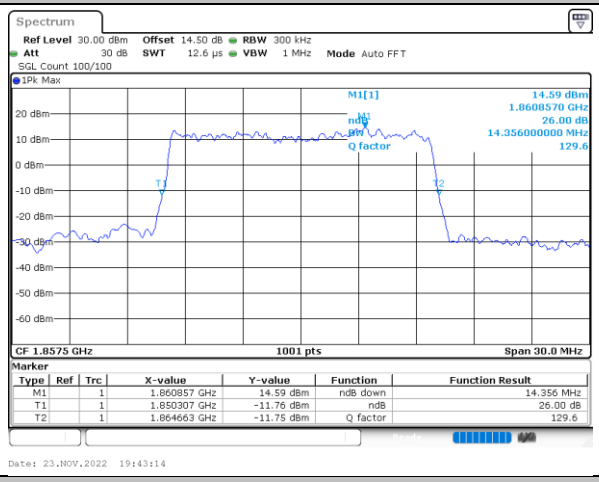


LTE Band 2

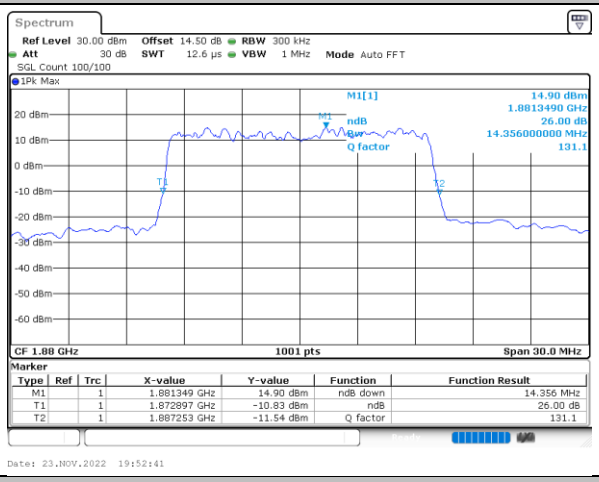
Lowest Channel / 15MHz / QPSK



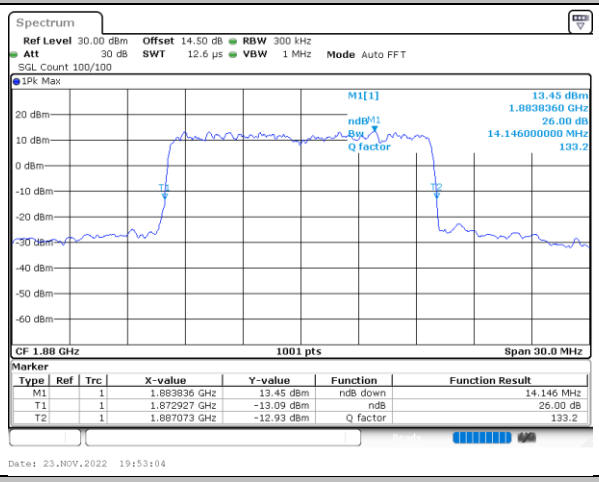
Lowest Channel / 15MHz / 16QAM



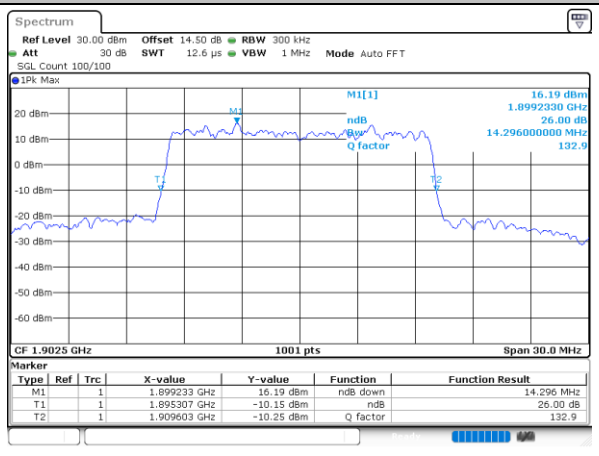
Middle Channel / 15MHz / QPSK



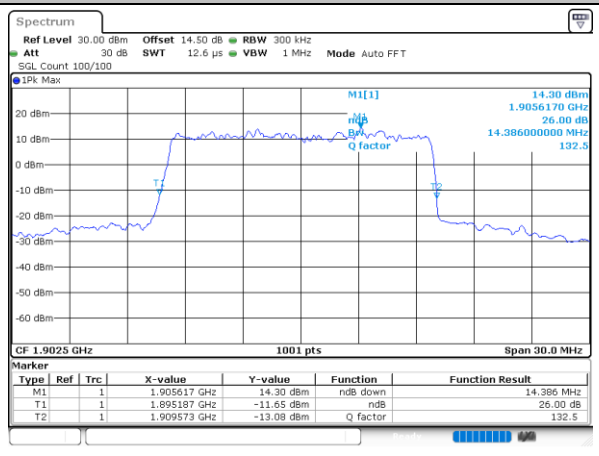
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

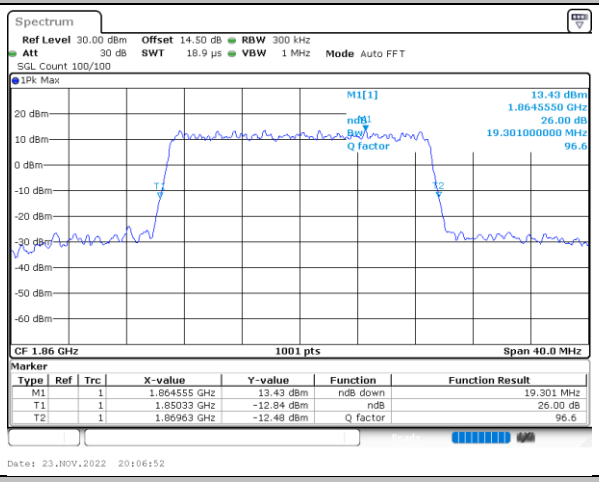


Highest Channel / 15MHz / 16QAM

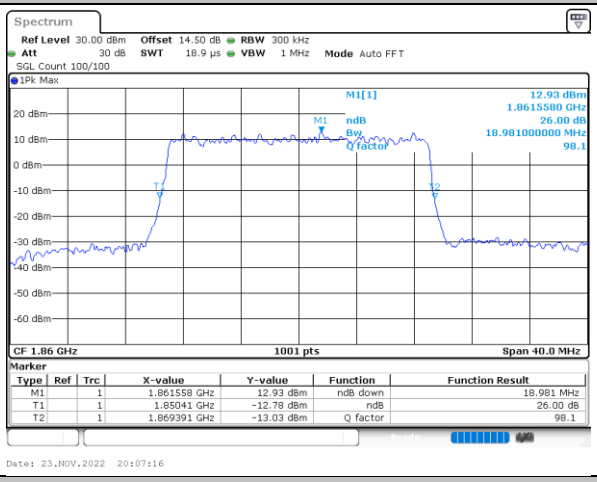


LTE Band 2

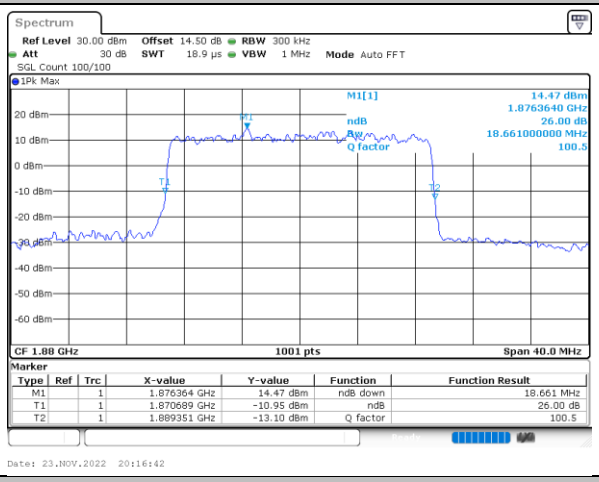
Lowest Channel / 20MHz / QPSK



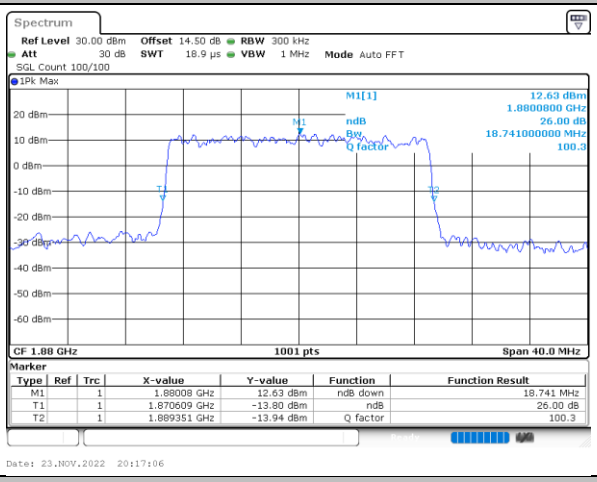
Lowest Channel / 20MHz / 16QAM



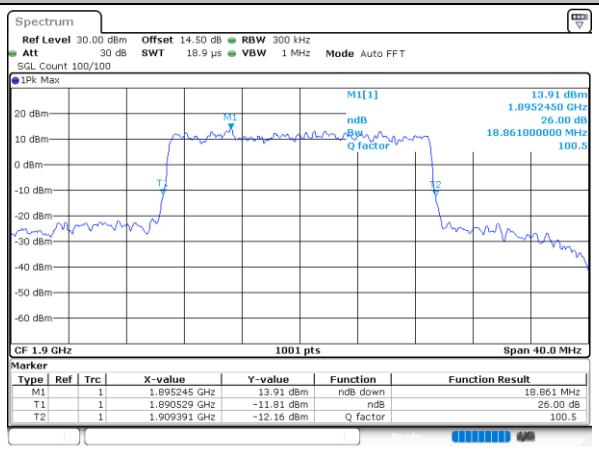
Middle Channel / 20MHz / QPSK



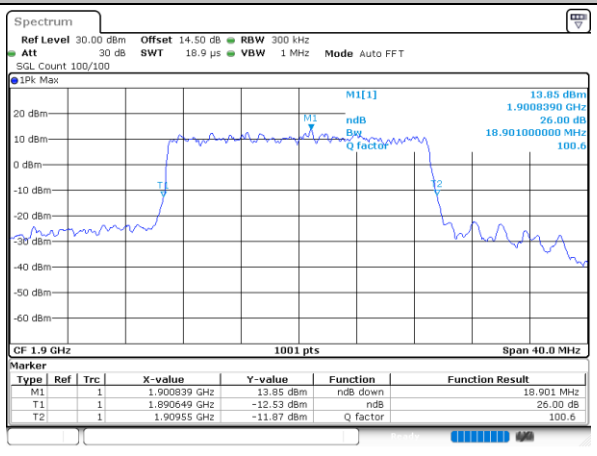
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

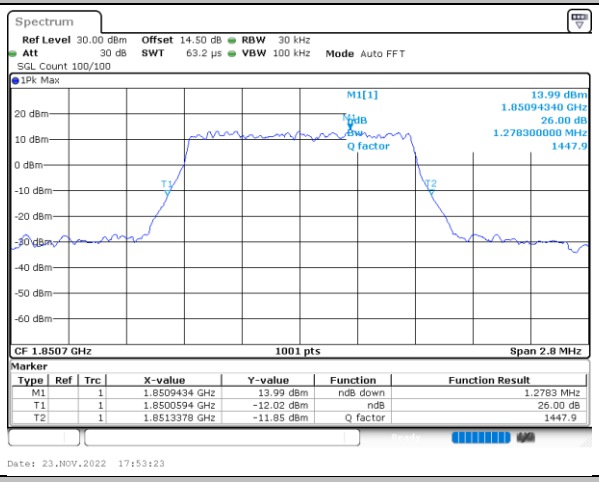


Highest Channel / 20MHz / 16QAM

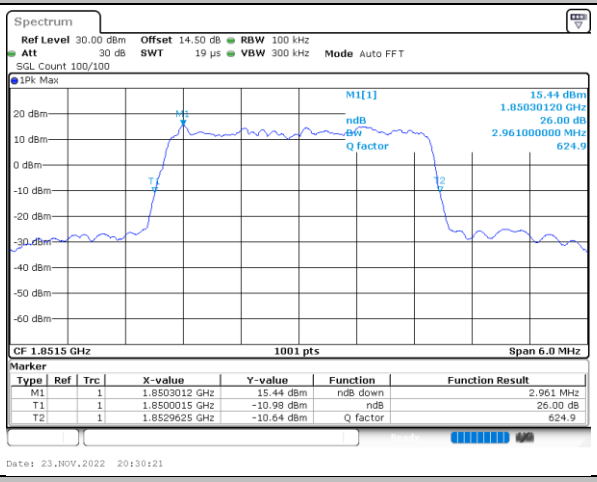


LTE Band 2

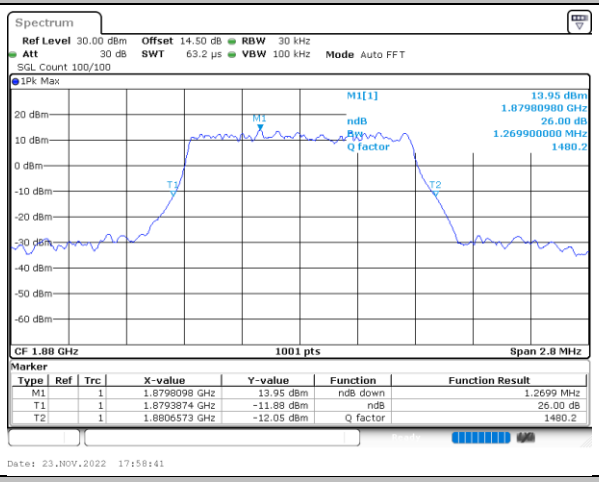
Lowest Channel / 1.4MHz / 64QAM



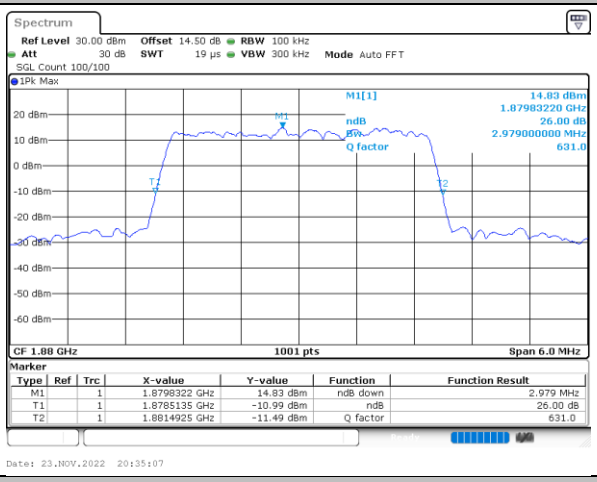
Lowest Channel / 3MHz / 64QAM



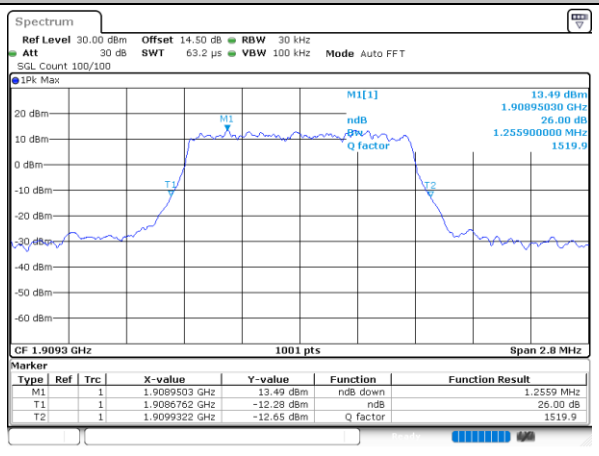
Middle Channel / 1.4MHz / 64QAM



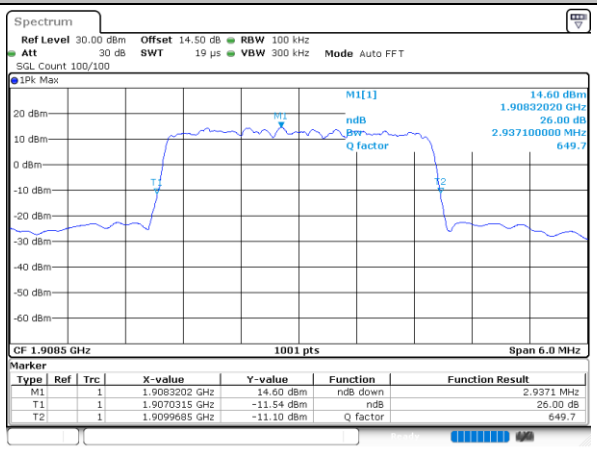
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM

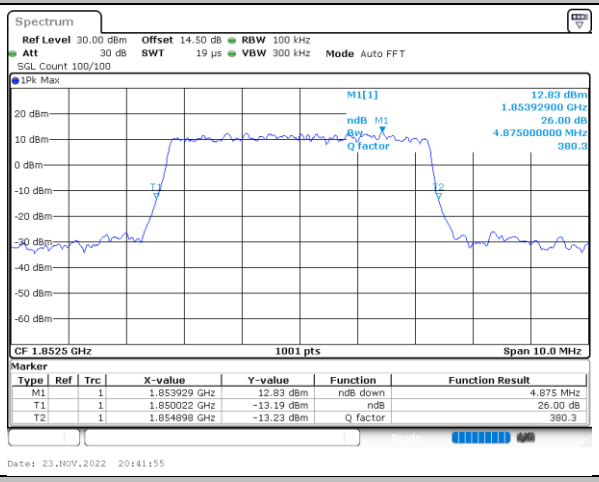


Highest Channel / 3MHz / 64QAM

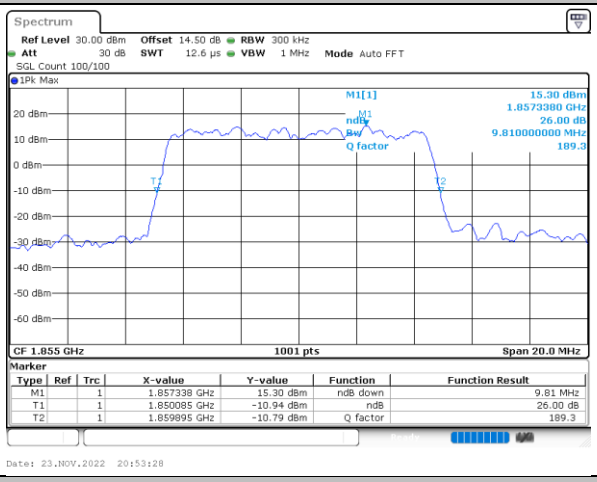


LTE Band 2

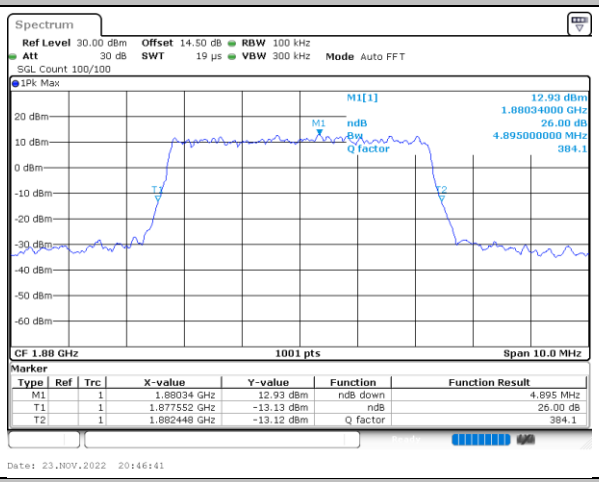
Lowest Channel / 5MHz / 64QAM



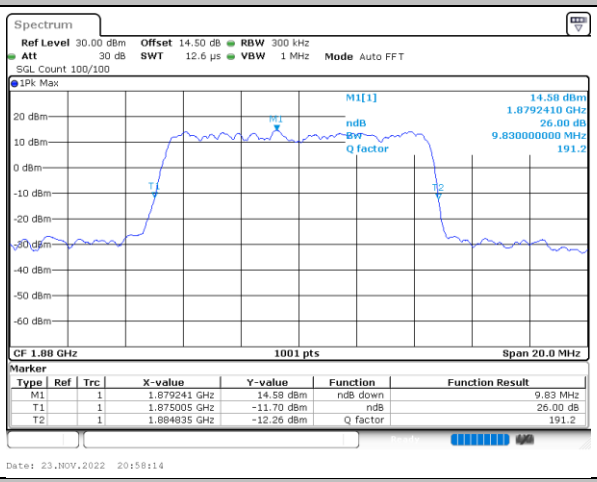
Lowest Channel / 10MHz / 64QAM



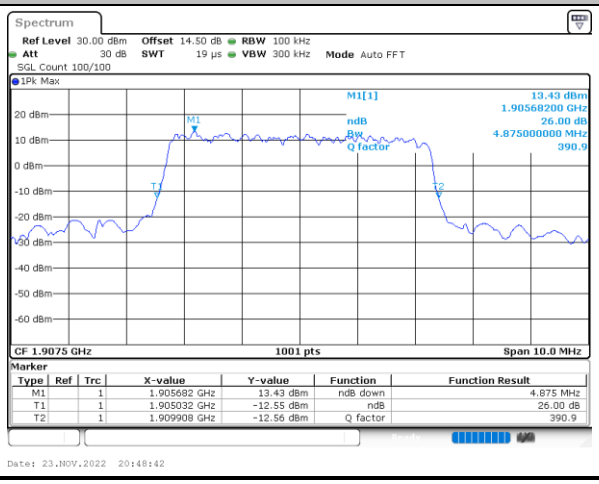
Middle Channel / 5MHz / 64QAM



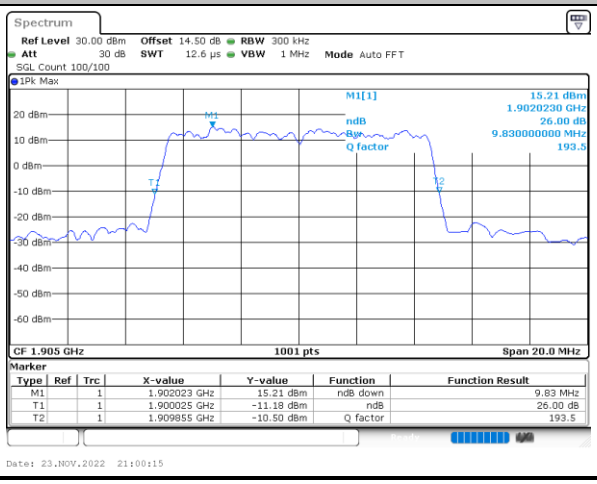
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

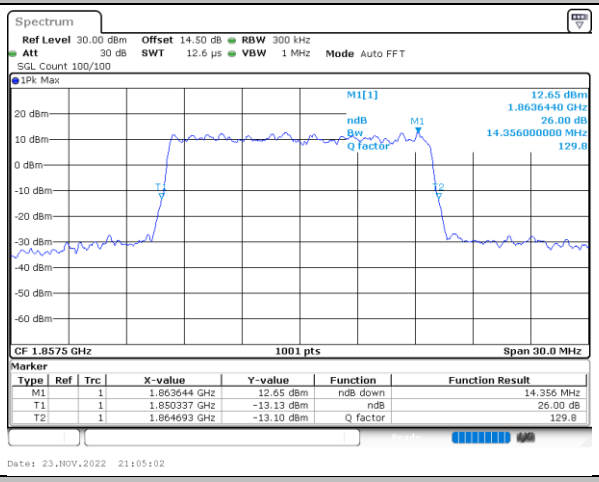


Highest Channel / 10MHz / 64QAM

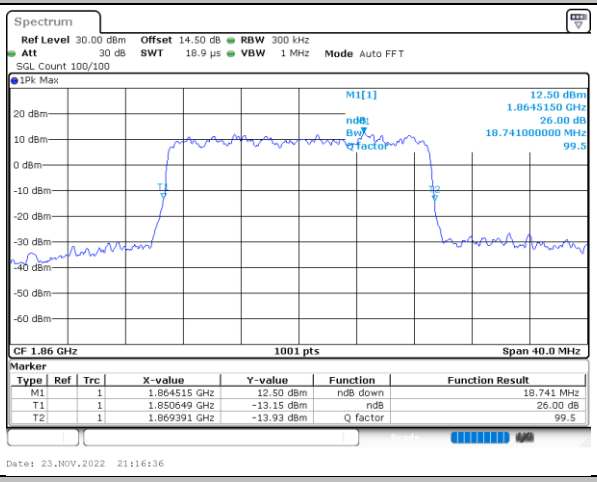


LTE Band 2

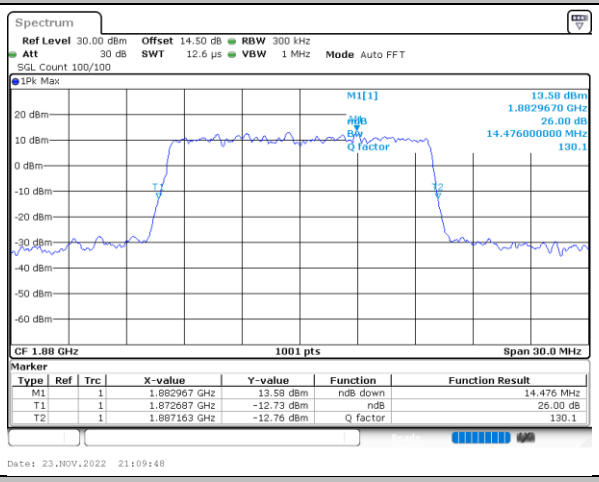
Lowest Channel / 15MHz / 64QAM



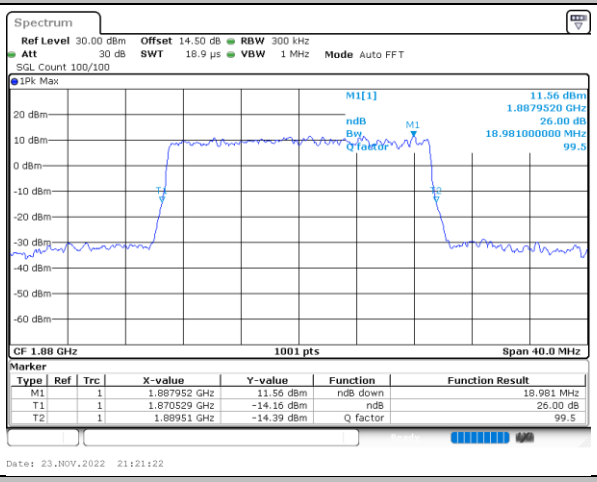
Lowest Channel / 20MHz / 64QAM



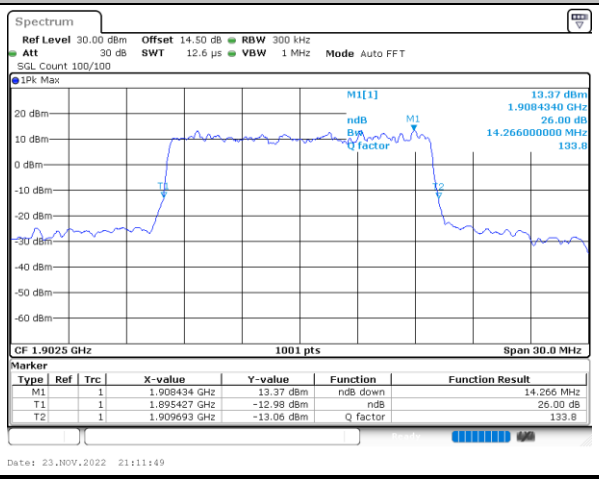
Middle Channel / 15MHz / 64QAM



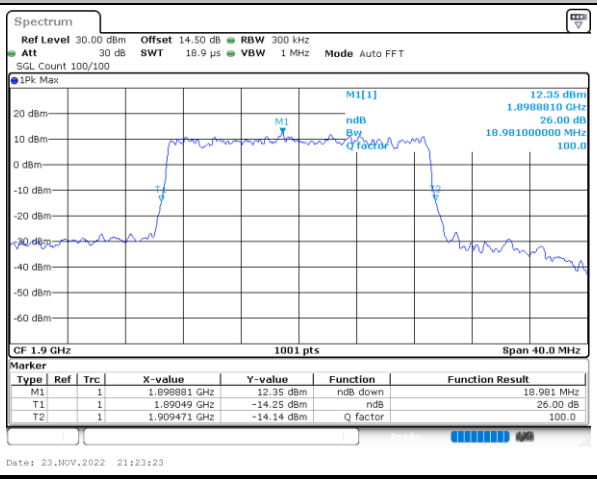
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM



Highest Channel / 20MHz / 64QAM

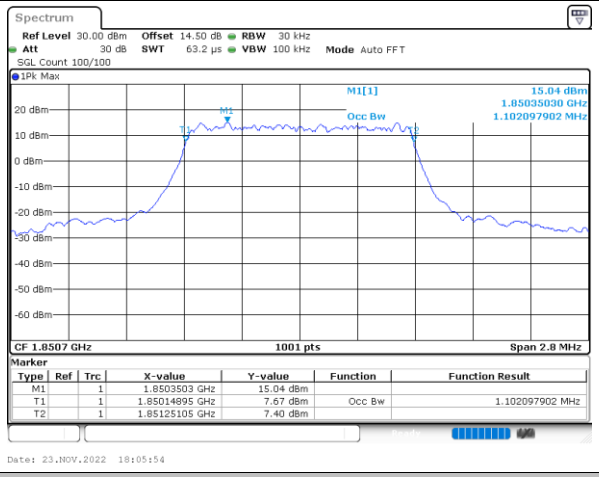


Occupied Bandwidth

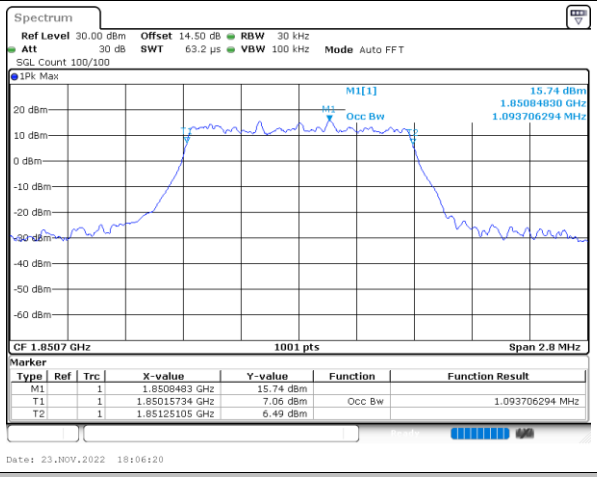
Mode	LTE Band 2 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.10	1.09	2.71	2.70	4.49	4.49	9.03	9.07	13.49	13.55	17.78	17.82
Middle CH	1.09	1.09	2.70	2.72	4.50	4.49	9.05	8.99	13.46	13.37	17.94	17.82
Highest CH	1.09	1.09	2.72	2.71	4.49	4.49	9.01	9.05	13.55	13.46	17.82	17.86
Mode	LTE Band 2 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.10	-	2.72	-	4.48	-	9.03	-	13.43	-	17.90	-
Middle CH	1.10	-	2.73	-	4.50	-	9.05	-	13.43	-	17.86	-
Highest CH	1.09	-	2.71	-	4.50	-	9.05	-	13.46	-	17.86	-

LTE Band 2

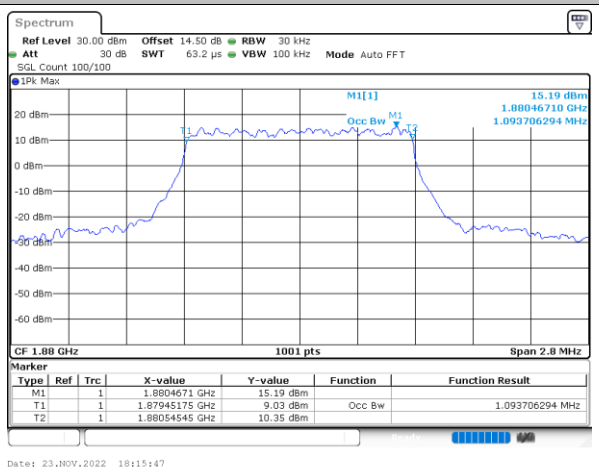
Lowest Channel / 1.4MHz / QPSK



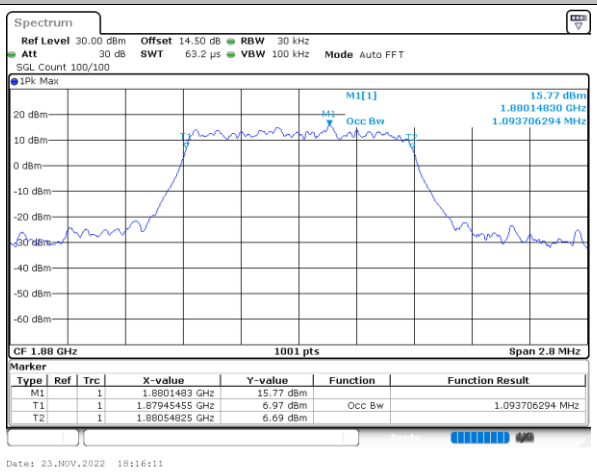
Lowest Channel / 1.4MHz / 16QAM



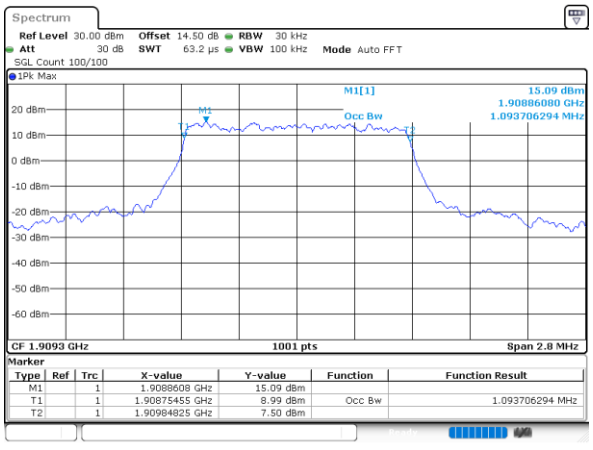
Middle Channel / 1.4MHz / QPSK



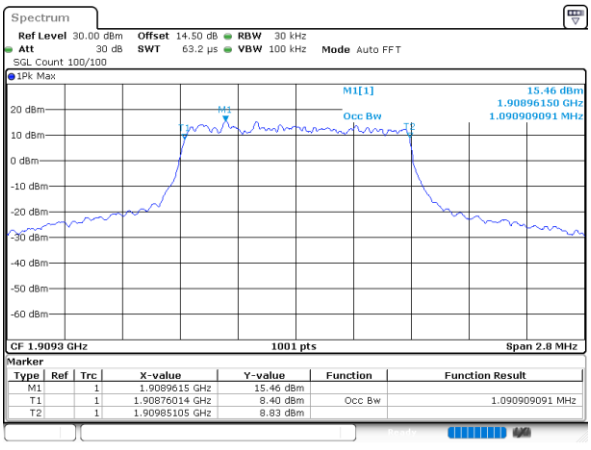
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

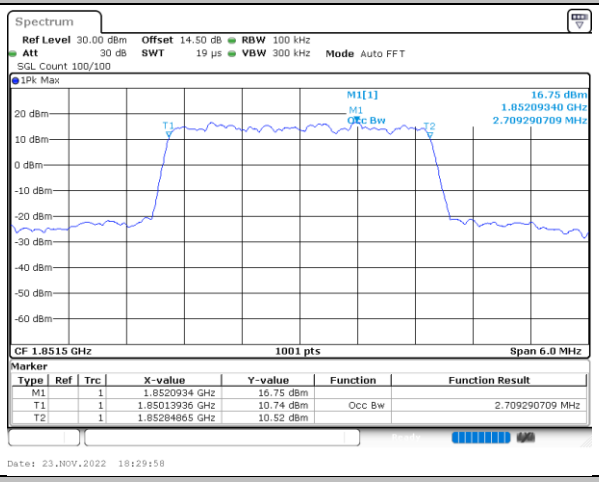


Highest Channel / 1.4MHz / 16QAM

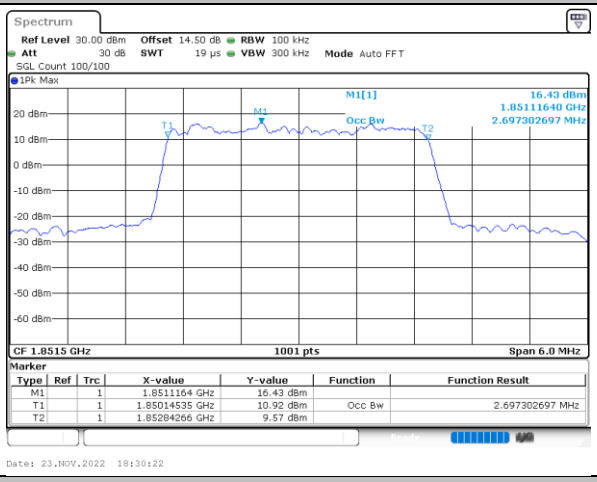


LTE Band 2

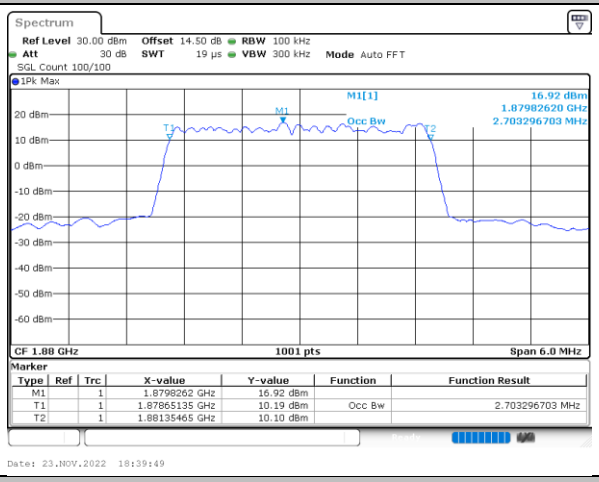
Lowest Channel / 3MHz / QPSK



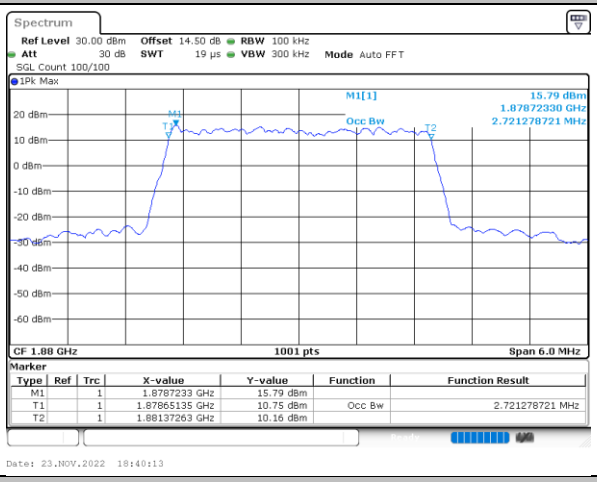
Lowest Channel / 3MHz / 16QAM



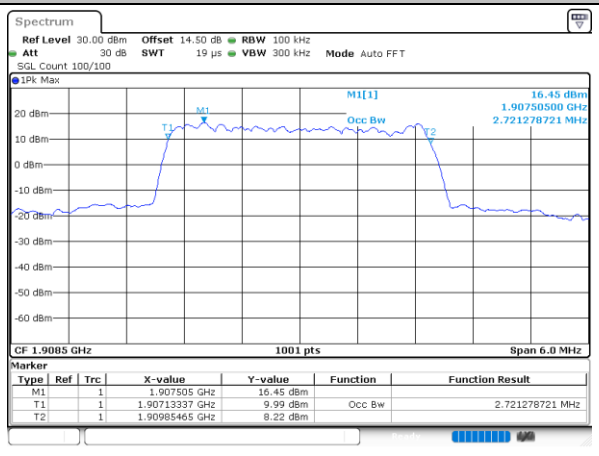
Middle Channel / 3MHz / QPSK



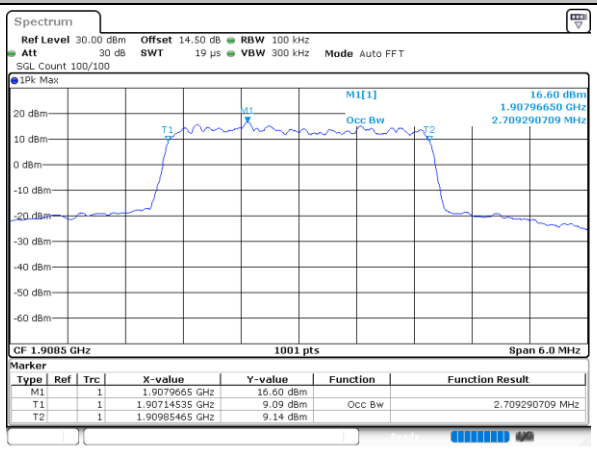
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK

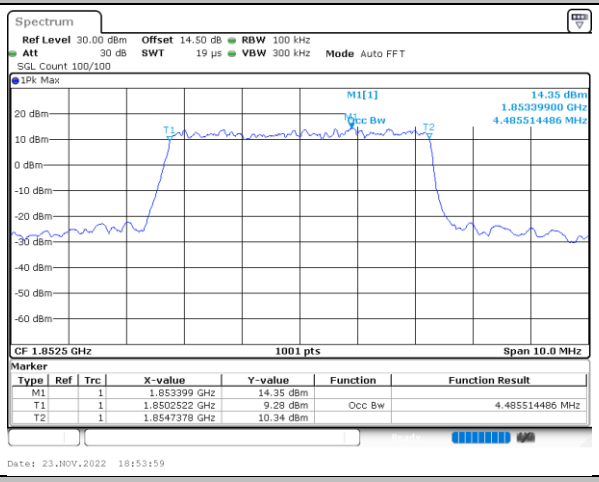


Highest Channel / 3MHz / 16QAM

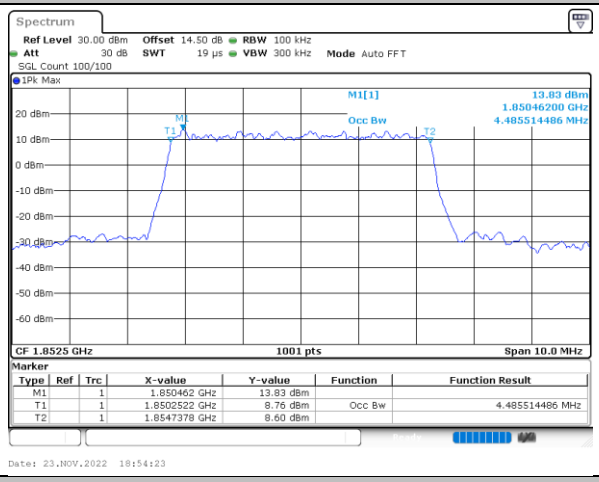


LTE Band 2

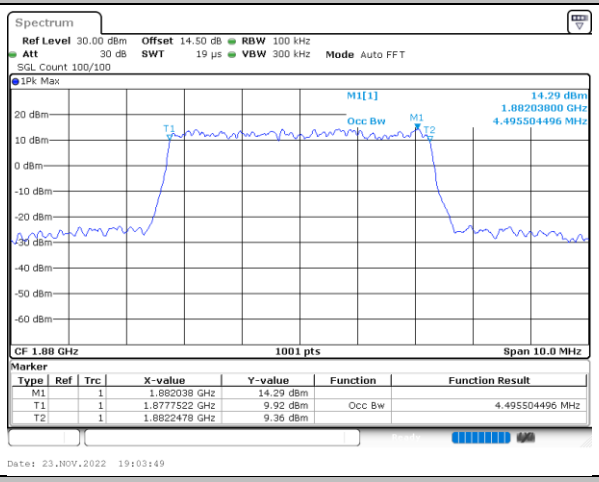
Lowest Channel / 5MHz / QPSK



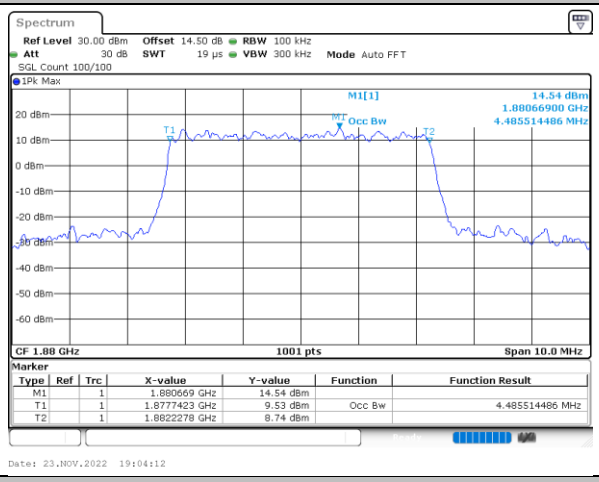
Lowest Channel / 5MHz / 16QAM



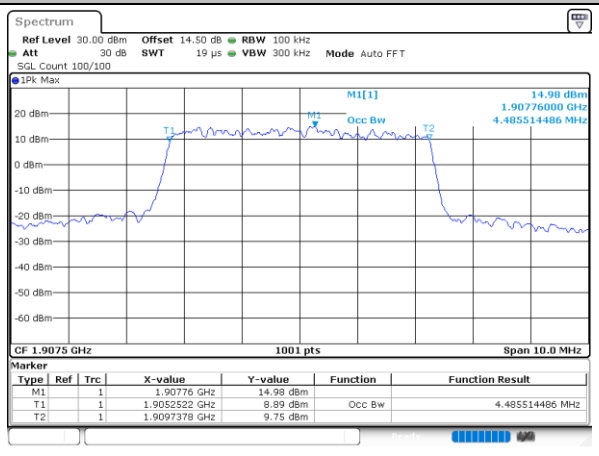
Middle Channel / 5MHz / QPSK



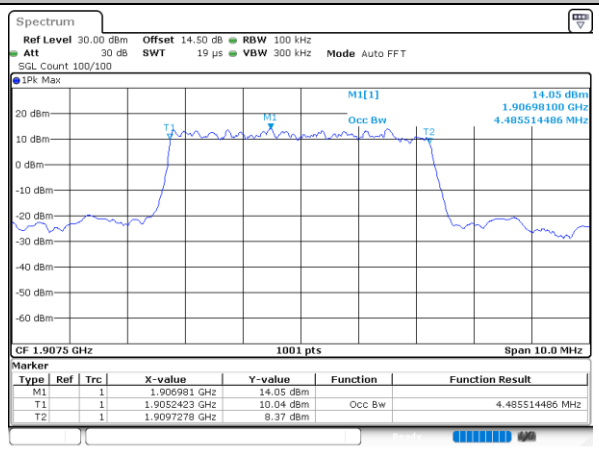
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

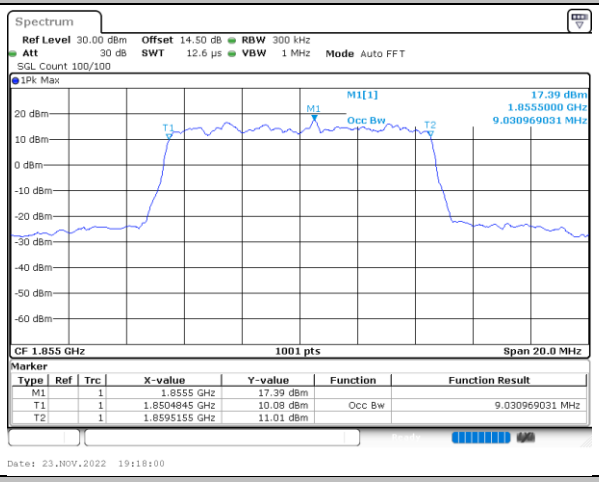


Highest Channel / 5MHz / 16QAM

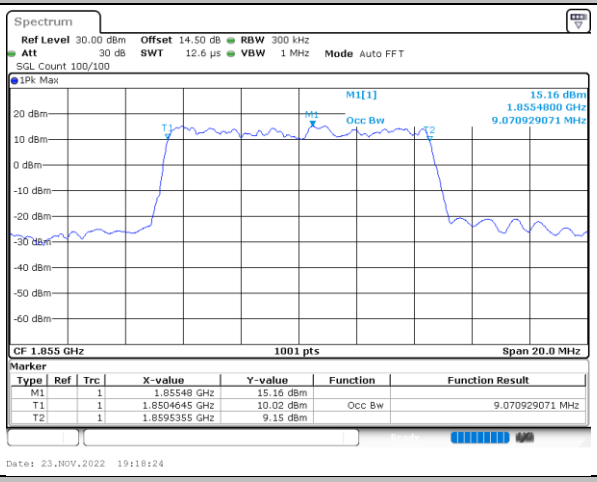


LTE Band 2

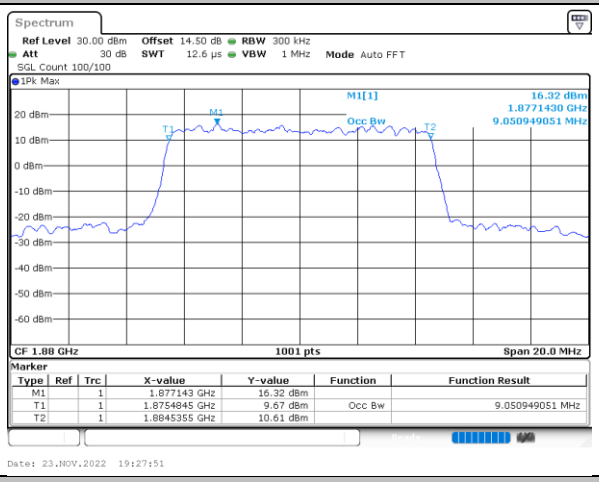
Lowest Channel / 10MHz / QPSK



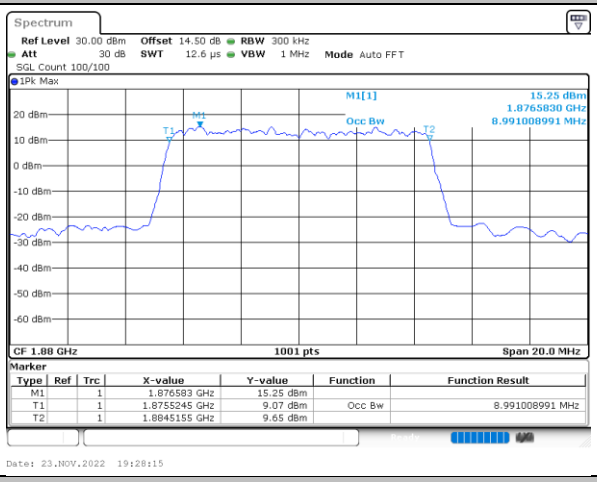
Lowest Channel / 10MHz / 16QAM



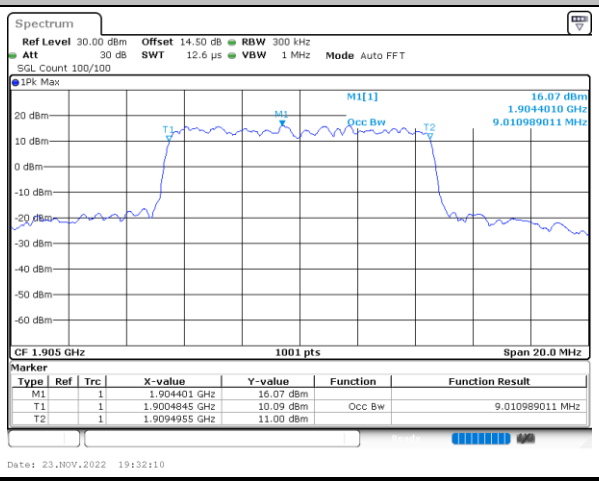
Middle Channel / 10MHz / QPSK



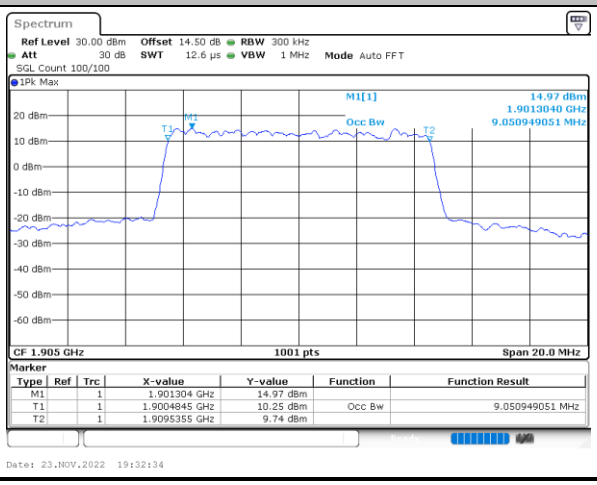
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

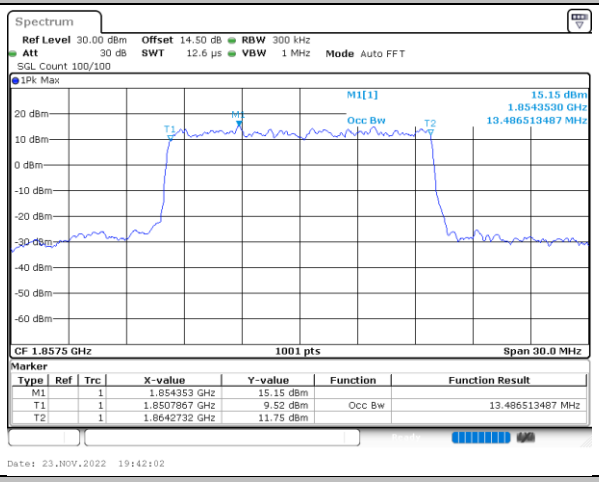


Highest Channel / 10MHz / 16QAM

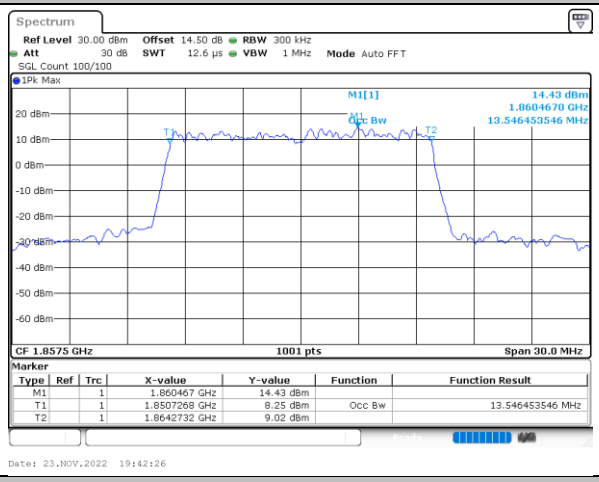


LTE Band 2

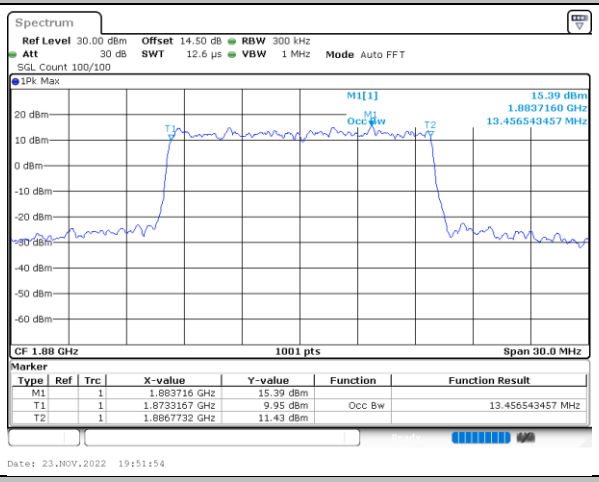
Lowest Channel / 15MHz / QPSK



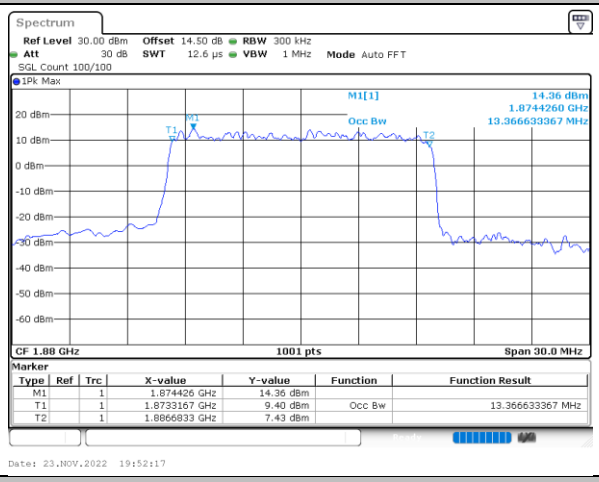
Lowest Channel / 15MHz / 16QAM



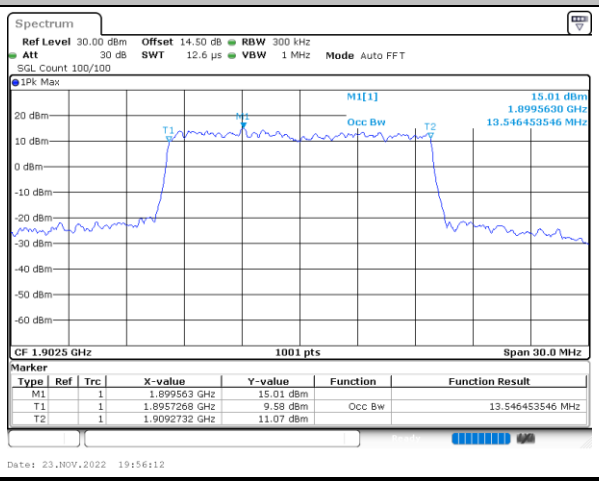
Middle Channel / 15MHz / QPSK



Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



Highest Channel / 15MHz / 16QAM