



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2321-3, XT2321-5
FCC ID : IHDT56AJ3
STANDARD : 47 CFR Part 2, 27(F), 27(H), 27(M), 27(N)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S) : Dec. 28, 2022 ~ Feb. 04, 2023

We, Sporton International Inc. (Kunshan), 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.

This report contains data that were produced under subcontract by Sporton International Inc. (ShenZhen)

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (Kunshan)

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG2D0913C	Rev. 01	Initial issue of report	Feb. 09, 2023



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17) (Band 71)	ERP < 3 Watt	PASS	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 7) (Band 38) (Band 41)	EIRP < 2Watt		-
3.5	N/A	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	-	Report Only	-
3.7	§2.1051 §27.53(c)(2)(4) §27.53(g)	Conducted Band Edge Measurement (Band 12) (Band 13) (Band 17) (Band 71)	< 43+10log ₁₀ (P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)	§27.53(m)(4)		
3.8	§2.1051 §27.53(c)(2) §27.53(g)	Conducted Spurious Emission (Band 12) (Band 13) (Band 17) (Band 71)	< 43+10log ₁₀ (P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log ₁₀ (P[Watts])		
3.9	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(c)(2) §27.53(f) §27.53(g)	Radiated Spurious Emission (Band 12) (Band 13) (Band 17) (Band 71)	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 19.96 dB at 7752.270 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log ₁₀ (P[Watts])		

Declaration of Conformity:

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

Comments and Explanations:

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



1 General Description

1.1 Applicant

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

1.2 Manufacturer

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

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2321-3, XT2321-5
FCC ID	IHDT56AJ3
IMEI Code	Conducted: 358041760019911/358041760019929 Radiation: 358041760025637/358041760025645
HW Version	DVT2
SW Version	TTZ 33.50
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. The two model name XT2321-3, XT2321-5 are the same product except model name different for market segment.
3. The EUT has two working states, flip open state and flip close state, by verifying these two states, we choose the worst flip open state for all tests.



1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 17 : 704 MHz ~ 716 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz LTE Band 71: 663 MHz ~ 698 MHz
Rx Frequency	LTE Band 7 : 2620 MHz ~ 2690 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 13 : 746 MHz ~ 756 MHz LTE Band 17 : 734 MHz ~ 746 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz LTE Band 71: 617 MHz ~ 652 MHz
Bandwidth	LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 71 : 5MHz / 10MHz / 15MHz / 20MHz
CA	CA_41C; CA_7C
Maximum Output Power to Antenna	<Ant.0>: LTE Band 7 : 21.12 dBm LTE Band CA_7C: 21.35 dBm LTE Band 12 : 22.92 dBm LTE Band 13 : 23.07 dBm LTE Band 17 : 22.73 dBm LTE Band 71 : 23.04 dBm LTE Band 38 : 20.69 dBm LTE Band 41 : 25.62 dBm LTE Band CA_41C: 25.54 dBm <Ant.1>: LTE Band 7 : 21.70 dBm LTE Band CA_7C: 20.65 dBm LTE Band 12 : 21.73 dBm LTE Band 13 : 21.67 dBm LTE Band 17 : 21.66 dBm LTE Band 71 : 21.85 dBm LTE Band 38 : 22.53 dBm LTE Band 41 : 25.64 dBm LTE Band CA_41C: 25.32 dBm <Ant.2>: LTE Band 7 : 21.55 dBm LTE Band CA_7C: 20.36 dBm LTE Band 12 : 22.59 dBm LTE Band 13 : 22.53 dBm LTE Band 17 : 22.48 dBm LTE Band 38 : 22.24 dBm LTE Band 41 : 25.92 dBm LTE Band CA_41C: 25.84 dBm <Ant.3>: LTE Band 7 : 23.05 dBm



	LTE Band CA_7C : 23.05 dBm LTE Band 38 : 23.57 dBm LTE Band 41 : 26.53 dBm LTE Band CA_41C: 25.49 dBm
Antenna Gain	<Ant.0>: LTE Band 7 : -1.11 dBi LTE Band 12 : -2.97 dBi LTE Band 13 : -2.69 dBi LTE Band 17 : -3.00 dBi LTE Band 71 : -2.97 dBi LTE Band 38 : -1.27 dBi LTE Band 41 : -1.08 dBi <Ant.1>: LTE Band 7 : -3.27 dBi LTE Band 12 : -3.94 dBi LTE Band 13 : -2.84 dBi LTE Band 17 : -3.94 dBi LTE Band 71 : -4.19 dBi LTE Band 38 : -2.77 dBi LTE Band 41 : -1.90 dBi <Ant.2>: LTE Band 7 : -0.86 dBi LTE Band 12 : -7.13 dBi LTE Band 13 : -8.53 dBi LTE Band 17 : -7.39 dBi LTE Band 38 : -0.86 dBi LTE Band 41 : -0.86 dBi <Ant.3>: LTE Band 7 : -2.06 dBi LTE Band 38 : -1.91 dBi LTE Band 41 : -1.91 dBi
Type of Modulation	QPSK / 16QAM / 64QAM / 256QAM

Note:

1. The maximum ERP/EIRP is calculated from Output power and antenna gain, only the maximum ERP/EIRP of Ant.0 are shown in the report for LTE Band12/13/17/71, Ant.3 for LTE Band 7/7C/38 and Ant.2 for LTE Band 41/41C.
2. The device supports two PAs for LTE Band 41, Main PA (Ant.3) and other PA(Ant.2).
3. LTE Band 41 support HPUE mode.

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 7		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2502.5 ~ 2567.5	0.1236	4M50G7D	0.1186	4M51W7D
10	2505.0 ~ 2565.0	0.1233	9M01G7D	0.1183	9M09W7D
15	2507.5 ~ 2562.5	0.1242	13M5G7D	0.1172	13M6W7D
20	2510.0 ~ 2560.0	0.1256	18M5G7D	0.1202	18M4W7D
LTE Band 12		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
1.4	699.7 ~ 715.3	0.0590	1M10G7D	0.0562	1M10W7D
3	700.5 ~ 714.5	0.0587	2M72G7D	0.0558	2M73W7D
5	701.5 ~ 713.5	0.0594	4M51G7D	0.0562	4M52W7D
10	704.0 ~ 711.0	0.0603	8M99G7D	0.0575	9M03W7D
LTE Band 13		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	779.5 ~ 784.5	0.0659	4M49G7D	0.0635	4M50W7D
10	782.0	0.0665	9M01G7D	0.0641	9M15W7D
LTE Band 17		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	706.5 ~ 713.5	0.0568	4M51G7D	0.0546	4M52W7D
10	709.0 ~ 711.0	0.0573	8M99G7D	0.0556	9M03W7D
LTE Band 38		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2572.5 ~ 2617.5	0.1435	4M50G7D	0.1371	4M48W7D
10	2575.0 ~ 2615.0	0.1439	9M03G7D	0.1387	9M05W7D
15	2577.5 ~ 2612.5	0.1445	13M5G7D	0.1387	13M5W7D
20	2580.0 ~ 2610.0	0.1466	18M5G7D	0.1400	18M6W7D
LTE Band 41		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2498.5 ~ 2687.5	0.3126	4M50G7D	0.3048	4M48W7D
10	2501.0 ~ 2685.0	0.3184	9M03G7D	0.3062	9M05W7D
15	2503.5 ~ 2682.5	0.3148	13M5G7D	0.3090	13M5W7D
20	2506.0 ~ 2680.0	0.3206	18M5G7D	0.3133	18M6W7D



LTE Band 71		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	665.5 ~ 695.5	0.0600	4M50G7D	0.0589	4M53W7D
10	668.0 ~ 693.0	0.0608	9M03G7D	0.0582	9M03W7D
15	670.5 ~ 690.5	0.0614	13M4G7D	0.0589	13M5W7D
20	673.0 ~ 688.0	0.0619	18M4G7D	0.0603	18M2W7D
LTE Band 7 CA		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	
10MHz+20MHz	0.1245	28M0G7D	0.1076	28M2W7D	
15MHz+15MHz	0.1227	28M8G7D	0.0993	28M8W7D	
15MHz+20MHz	0.1245	32M7G7D	0.1042	32M9W7D	
15MHz+10MHz	0.1219	23M6G7D	0.1033	23M5W7D	
20MHz+10MHz	0.1205	28M1G7D	0.1225	28M0W7D	
20MHz+15MHz	0.1202	32M7G7D	0.1050	32M7W7D	
20MHz+20MHz	0.1256	37M8G7D	0.1014	37M9W7D	
LTE Band 41 CA		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	
5MHz+20MHz	0.3141	23M1G7D	0.2084	23M1W7D	
10MHz+20MHz	0.3097	28M1G7D	0.2089	28M0W7D	
10MHz+15MHz	0.3006	23M6G7D	0.2032	23M4W7D	
15MHz+15MHz	0.3020	28M7G7D	0.2028	28M7W7D	
15MHz+20MHz	0.3055	32M9G7D	0.1995	32M8W7D	
15MHz+10MHz	0.3069	23M5G7D	0.2037	23M4W7D	
20MHz+5MHz	0.3034	23M4G7D	0.2070	23M3W7D	
20MHz+10MHz	0.3062	28M3G7D	0.2004	27M9W7D	
20MHz+15MHz	0.3041	32M8G7D	0.2042	32M7W7D	
20MHz+20MHz	0.3148	37M8G7D	0.2084	37M6W7D	

Note:

1. LTE Band 12 overlaps the entire frequency range of LTE Band 17. Therefore, the test results provided in this report covers Band 12 as well as Band 17.
2. LTE Band 41 overlaps the entire frequency range of LTE Band 38. Therefore, the test results provided in this report covers Band 41 as well as Band 38.
3. All modulations have been tested, and only the worst test results of PSK & QAM are shown in the report.



1.7 Specification of Accessory

Specification of Accessory				
AC Adapter	Brand Name	Motorola (Salom)	Model Name	MC-301
Battery 1	Brand Name	Motorola(ATL)	Model Name	PM29
Battery 2	Brand Name	Motorola(ATL)	Model Name	PM08
USB Cable 1	Brand Name	Motorola (Cabletech)	Model Name	SC18D13216
USB Cable 2	Brand Name	Motorola (Luxshare)	Model Name	SC18D13217
USB Cable 3	Brand Name	Motorola (Saibao)	Model Name	SC18D86732

1.8 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People’s Republic of China TEL : +86-512-57900158 FAX : +86 512 57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-KS	CN1257	314309

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	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.
	03CH01-SZ	CN1256	421272

Test data subcontracted: Radiated Spurious Emission test results in section 4.4 of this report.



1.9 Test Software

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

1.10 Applicable Standards

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

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

Remark:

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



2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission. (Y -Plane)

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

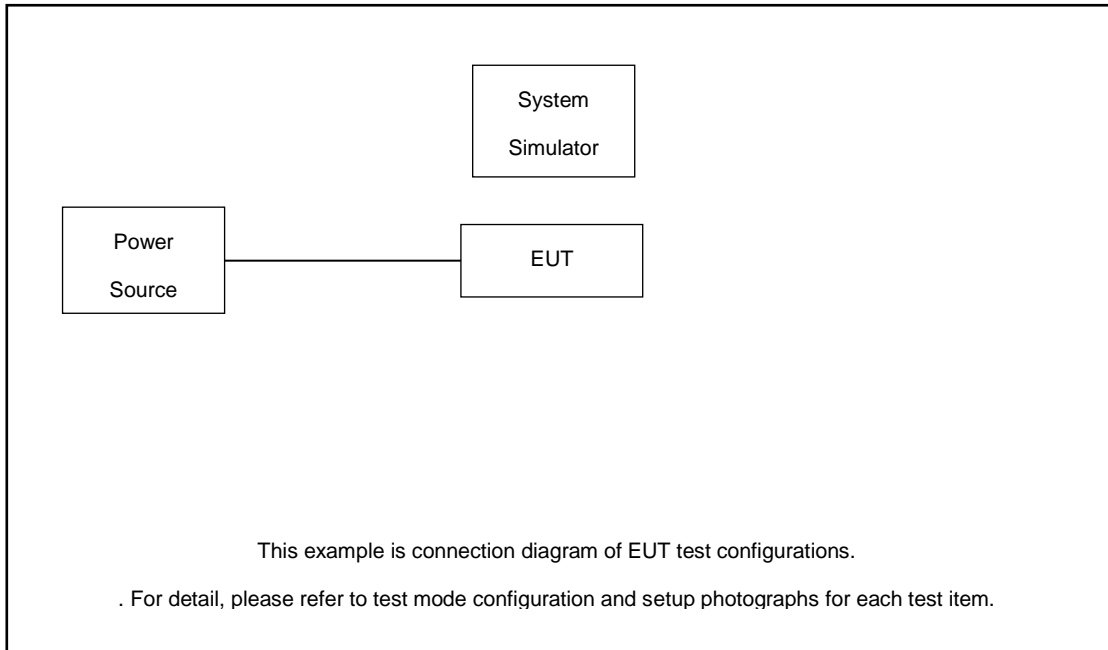


Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Conducted Spurious Emission	7	-	-	v	v	v	v	v				v			v	v	v
	12	v	v	v	v	-	-	v				v			v	v	v
	13	-	-	v	v	-	-	v				v			v	v	v
	41	-	-	v	v	v	v	v				v			v	v	v
	71	-	-	v	v	v	v	v				v			v	v	v
Frequency Stability	7	-	-		v			v						v		v	
	12				v	-	-	v						v		v	
	13	-	-		v	-	-	v						v		v	
	41	-	-		v			v						v		v	
	71	-	-		v			v						v		v	
E.R.P / E.I.R.P	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	13	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	38	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	71	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	7	Worst Case													v	v	v
	12	Worst Case													v	v	v
	13	Worst Case													v	v	v
	41	Worst Case													v	v	v
	71	Worst Case													v	v	v
Note	1. The mark "v " means that this configuration is chosen for testing 2. The mark "- " means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.																



Test Items	Band	Bandwidth (MHz)										Modulation				RB #			Test Channel		
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v	v			v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v
26dB and 99% Bandwidth	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v						v		v
	41C_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	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v		v	v	v
Conducted Spurious Emission	7C_CA	v	v	v	v	v	-	-	v	v	-	v					v			v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v					v			v	v
Frequency Stability	7C_CA	v					-	-			-	v							v		v
	41C_CA	v										v							v		v
E.I.R.P.	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v			v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v
Radiated Spurious Emission	41C_CA	Worst Case																	v	v	v
	7C_CA	Worst Case																	v	v	v
Note	1. The mark "v" means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.																				

2.2 Connection Diagram of Test System



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.	Base Station	Anritsu	MT8821C	Fcc DoC	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 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.

$$\text{Offset} = \text{RF cable loss.}$$

Following shows an offset computation example with cable loss 6.20 dB.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)}. \\ &= 6.20 \text{ (dB)} \end{aligned}$$



2.5 Frequency List of Low/Middle/High Channels

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

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

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

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



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

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

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



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



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



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

3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

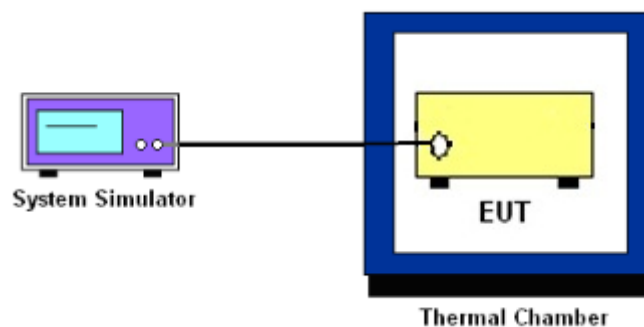
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.



3.4 Conducted Output Power and ERP/EIRP

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

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

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12, Band 13 and Band 17 and Band 71.

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

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

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



3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

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

3.5.2 Test Procedures

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



3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

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



3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

27.53 (c)

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

27.53 (g)

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

27.53(m)(4)

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



3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW \geq 1%/2% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. Offset has included the duty factor for LTE Band 38/41. Duty factor = $10 \log (1/x)$, where x is the measured duty cycle.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. Checked that all the results comply with the emission limit line.

Example:

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

$$= P(W) - [43 + 10\log(P)] \text{ (dB)}$$

$$= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)} = -13\text{dBm.}$$

10. For LTE Band 7, 38, 41, the other 40 dB, and 55 dB have additionally applied same calculation above.
11. 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 10th harmonic.

3.8.2 Test Procedures

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

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

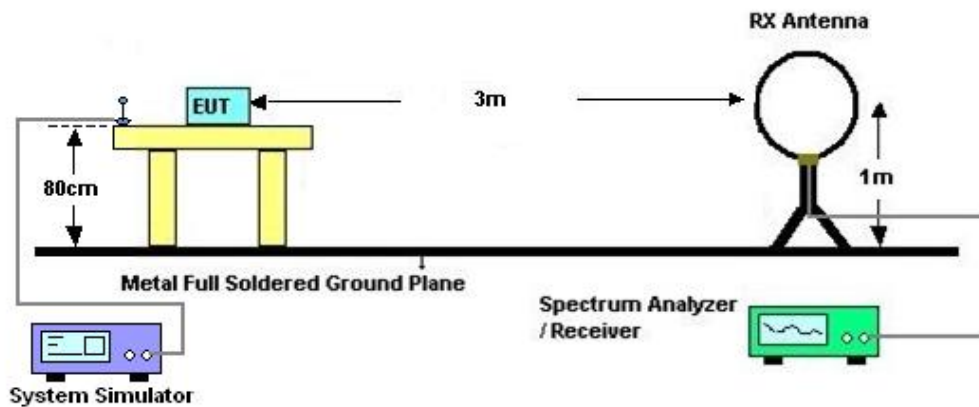
4 Radiated Test Items

4.1 Measuring Instruments

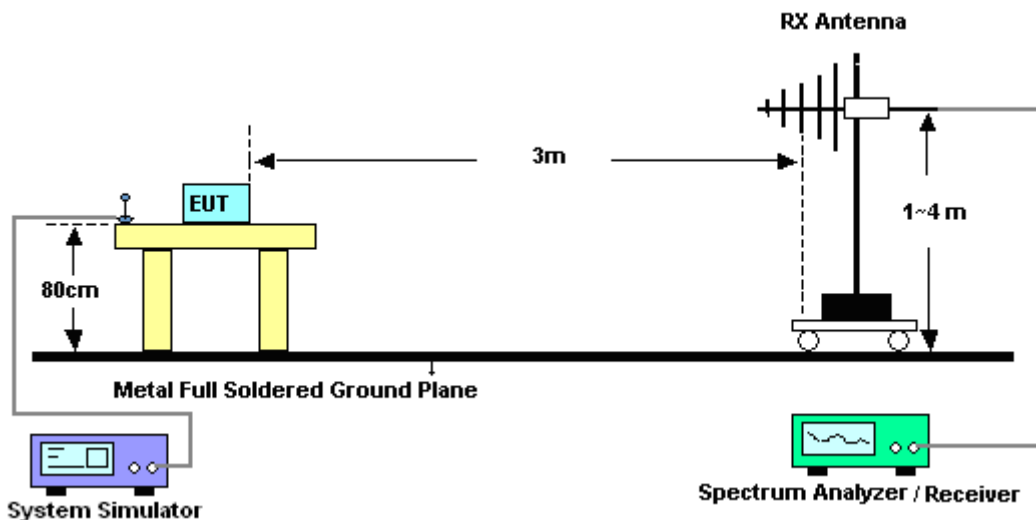
See list of measuring instruments of this test report.

4.2 Test Setup

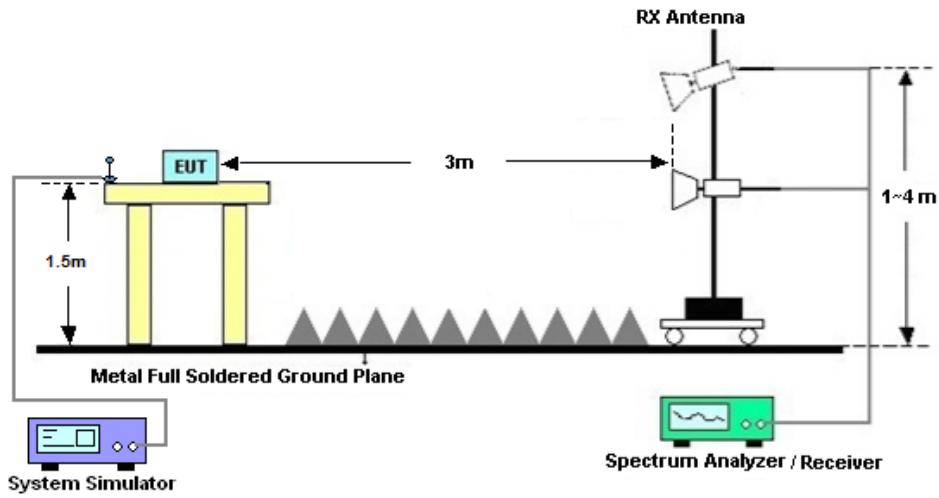
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

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

Please refer to Appendix B.



4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

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

For Band 7, 38, 41

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

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

For LTE Band 13

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

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

4.4.2 Test Procedures

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



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 12, 2022	Dec. 28, 2022~ Feb. 04, 2023	Oct. 11, 2023	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	Aug. 26, 2022	Dec. 28, 2022~ Feb. 04, 2023	Aug. 25, 2023	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 15, 2022	Dec. 28, 2022~ Feb. 04, 2023	Jul. 14, 2023	Conducted (TH01-KS)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 26, 2022	Jan. 08, 2023	Dec. 25, 2023	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Jan. 08, 2023	Jul. 27, 2024	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 19, 2022	Jan. 08, 2023	Oct. 18, 2023	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Sep. 28, 2022	Jan. 08, 2023	Sep. 27, 2023	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 07, 2022	Jan. 08, 2023	Jul. 06, 2023	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 10, 2022	Jan. 08, 2023	Apr. 09, 2023	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 06, 2022	Jan. 08, 2023	Apr. 05, 2023	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 19, 2022	Jan. 08, 2023	Oct. 18, 2023	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 06, 2022	Jan. 08, 2023	Jul. 05, 2023	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	61601000198 5	N/A	Nov. 10, 2022	Jan. 08, 2023	Nov. 09, 2023	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jan. 08, 2023	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jan. 08, 2023	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required



6 Uncertainty of Evaluation

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

Uncertainty of 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))	2.48dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

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

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

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



Appendix A. Test Results of Conducted Test

Test Engineer :	Zhaohui Liang	Temperature :	24~26°C
		Relative Humidity :	50~53%

Conducted Output Power(Average power)

LTE Band 7 – Ant 3						
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	22.98	23.05	22.93
20	QPSK	1	49	22.83	22.90	22.85
20	QPSK	1	99	22.76	22.85	22.79
20	QPSK	50	0	22.86	22.97	22.91
20	QPSK	50	24	22.74	22.80	22.69
20	QPSK	50	50	22.69	22.69	22.67
20	QPSK	100	0	22.84	22.90	22.87
20	16QAM	1	0	22.84	22.86	22.78
20	16QAM	1	49	22.78	22.78	22.73
20	16QAM	1	99	22.73	22.79	22.70
20	16QAM	50	0	22.68	22.81	22.62
20	16QAM	50	24	22.54	22.64	22.58
20	16QAM	50	50	22.58	22.66	22.59
20	16QAM	100	0	22.64	22.78	22.65
20	64QAM	1	0	22.64	22.84	22.73
20	64QAM	1	49	22.59	22.65	22.63
20	64QAM	1	99	22.62	22.64	22.64
20	64QAM	50	0	21.63	21.80	21.68
20	64QAM	50	24	21.58	21.65	21.58
20	64QAM	50	50	21.50	21.56	21.58
20	64QAM	100	0	21.52	21.60	21.56
20	256QAM	1	0	19.72	19.84	19.68
20	256QAM	1	49	19.69	19.84	19.64
20	256QAM	1	99	19.61	19.59	19.60
20	256QAM	50	0	19.69	19.81	19.62
20	256QAM	50	24	19.63	19.69	19.58
20	256QAM	50	50	19.58	19.56	19.60
20	256QAM	100	0	19.62	19.77	19.64
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.91	23.00	22.83
15	QPSK	1	37	22.78	22.81	22.82



15	QPSK	1	74	22.64	22.71	22.66
15	QPSK	36	0	22.77	22.86	22.86
15	QPSK	36	20	22.66	22.70	22.54
15	QPSK	36	39	22.57	22.64	22.53
15	QPSK	75	0	22.72	22.86	22.78
15	16QAM	1	0	22.75	22.73	22.67
15	16QAM	1	37	22.67	22.72	22.68
15	16QAM	1	74	22.65	22.74	22.55
15	16QAM	36	0	22.61	22.69	22.51
15	16QAM	36	20	22.41	22.57	22.51
15	16QAM	36	39	22.45	22.57	22.49
15	16QAM	75	0	22.52	22.71	22.62
15	64QAM	1	0	22.61	22.73	22.59
15	64QAM	1	37	22.47	22.54	22.50
15	64QAM	1	74	22.52	22.59	22.55
15	64QAM	36	0	21.53	21.76	21.65
15	64QAM	36	20	21.54	21.53	21.45
15	64QAM	36	39	21.35	21.49	21.55
15	64QAM	75	0	21.44	21.49	21.46
15	256QAM	1	0	19.63	19.78	19.59
15	256QAM	1	37	19.56	19.80	19.56
15	256QAM	1	74	19.48	19.52	19.55
15	256QAM	36	0	19.55	19.69	19.53
15	256QAM	36	20	19.57	19.61	19.50
15	256QAM	36	39	19.45	19.49	19.54
15	256QAM	75	0	19.50	19.72	19.51
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.92	22.97	22.79
10	QPSK	1	25	22.77	22.79	22.76
10	QPSK	1	49	22.72	22.71	22.73
10	QPSK	25	0	22.83	22.89	22.78
10	QPSK	25	12	22.68	22.70	22.59
10	QPSK	25	25	22.65	22.56	22.57
10	QPSK	50	0	22.74	22.77	22.72
10	16QAM	1	0	22.75	22.74	22.71
10	16QAM	1	25	22.69	22.72	22.62
10	16QAM	1	49	22.69	22.69	22.60
10	16QAM	25	0	22.55	22.74	22.56
10	16QAM	25	12	22.49	22.57	22.52
10	16QAM	25	25	22.54	22.57	22.48
10	16QAM	50	0	22.56	22.70	22.56
10	64QAM	1	0	22.59	22.79	22.66
10	64QAM	1	25	22.48	22.61	22.49
10	64QAM	1	49	22.49	22.51	22.56



10	64QAM	25	0	21.58	21.77	21.63
10	64QAM	25	12	21.45	21.50	21.50
10	64QAM	25	25	21.36	21.49	21.51
10	64QAM	50	0	21.49	21.47	21.47
10	256QAM	1	0	19.64	19.70	19.62
10	256QAM	1	25	19.66	19.78	19.52
10	256QAM	1	49	19.56	19.54	19.55
10	256QAM	25	0	19.63	19.70	19.57
10	256QAM	25	12	19.50	19.56	19.47
10	256QAM	25	25	19.47	19.42	19.45
10	256QAM	50	0	19.51	19.65	19.52
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	22.94	22.98	22.79
5	QPSK	1	12	22.71	22.87	22.70
5	QPSK	1	24	22.64	22.76	22.69
5	QPSK	12	0	22.77	22.90	22.78
5	QPSK	12	7	22.64	22.77	22.57
5	QPSK	12	13	22.65	22.60	22.58
5	QPSK	25	0	22.79	22.82	22.77
5	16QAM	1	0	22.77	22.72	22.72
5	16QAM	1	12	22.74	22.74	22.62
5	16QAM	1	24	22.64	22.69	22.60
5	16QAM	12	0	22.62	22.69	22.55
5	16QAM	12	7	22.46	22.50	22.52
5	16QAM	12	13	22.46	22.56	22.49
5	16QAM	25	0	22.51	22.69	22.61
5	64QAM	1	0	22.53	22.80	22.65
5	64QAM	1	12	22.47	22.55	22.57
5	64QAM	1	24	22.57	22.56	22.55
5	64QAM	12	0	21.58	21.71	21.65
5	64QAM	12	7	21.52	21.53	21.43
5	64QAM	12	13	21.46	21.45	21.52
5	64QAM	25	0	21.37	21.52	21.41
5	256QAM	1	0	19.65	19.80	19.55
5	256QAM	1	12	19.64	19.75	19.53
5	256QAM	1	24	19.51	19.51	19.55
5	256QAM	12	0	19.63	19.74	19.53
5	256QAM	12	7	19.57	19.60	19.53
5	256QAM	12	13	19.54	19.47	19.45
5	256QAM	25	0	19.52	19.69	19.50



LTE Band 12 – Ant 0						
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	22.84	22.92	22.79
10	QPSK	1	25	22.76	22.81	22.64
10	QPSK	1	49	22.60	22.68	22.62
10	QPSK	25	0	22.63	22.82	22.72
10	QPSK	25	12	22.59	22.68	22.61
10	QPSK	25	25	22.56	22.60	22.63
10	QPSK	50	0	22.65	22.77	22.62
10	16QAM	1	0	22.54	22.72	22.60
10	16QAM	1	25	22.54	22.59	22.58
10	16QAM	1	49	22.44	22.55	22.46
10	16QAM	25	0	22.35	22.51	22.41
10	16QAM	25	12	22.32	22.43	22.28
10	16QAM	25	25	22.30	22.35	22.28
10	16QAM	50	0	22.37	22.47	22.28
10	64QAM	1	0	22.26	22.41	22.29
10	64QAM	1	25	22.14	22.25	22.19
10	64QAM	1	49	22.10	22.22	22.16
10	64QAM	25	0	21.54	21.67	21.50
10	64QAM	25	12	21.44	21.58	21.51
10	64QAM	25	25	21.39	21.44	21.44
10	64QAM	50	0	21.43	21.54	21.41
10	256QAM	1	0	19.38	19.55	19.40
10	256QAM	1	25	19.33	19.40	19.38
10	256QAM	1	49	19.30	19.33	19.28
10	256QAM	25	0	19.30	19.51	19.41
10	256QAM	25	12	19.29	19.34	19.30
10	256QAM	25	25	19.20	19.33	19.22
10	256QAM	50	0	19.23	19.45	19.26
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	22.77	22.86	22.74
5	QPSK	1	12	22.63	22.69	22.56
5	QPSK	1	24	22.47	22.54	22.47
5	QPSK	12	0	22.50	22.75	22.58
5	QPSK	12	7	22.45	22.55	22.51
5	QPSK	12	13	22.53	22.45	22.51
5	QPSK	25	0	22.56	22.69	22.56
5	16QAM	1	0	22.42	22.62	22.48
5	16QAM	1	12	22.50	22.48	22.47
5	16QAM	1	24	22.33	22.52	22.36



5	16QAM	12	0	22.30	22.47	22.28
5	16QAM	12	7	22.28	22.33	22.19
5	16QAM	12	13	22.19	22.24	22.19
5	16QAM	25	0	22.31	22.34	22.19
5	64QAM	1	0	22.15	22.30	22.22
5	64QAM	1	12	22.04	22.12	22.10
5	64QAM	1	24	21.96	22.07	22.07
5	64QAM	12	0	21.48	21.63	21.41
5	64QAM	12	7	21.34	21.53	21.47
5	64QAM	12	13	21.29	21.32	21.33
5	64QAM	25	0	21.33	21.48	21.34
5	256QAM	1	0	19.35	19.45	19.31
5	256QAM	1	12	19.21	19.31	19.29
5	256QAM	1	24	19.17	19.23	19.18
5	256QAM	12	0	19.16	19.37	19.26
5	256QAM	12	7	19.22	19.27	19.27
5	256QAM	12	13	19.07	19.21	19.11
5	256QAM	25	0	19.13	19.31	19.12
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.78	22.81	22.72
3	QPSK	1	8	22.70	22.76	22.50
3	QPSK	1	14	22.53	22.54	22.57
3	QPSK	8	0	22.49	22.79	22.57
3	QPSK	8	4	22.51	22.61	22.48
3	QPSK	8	7	22.49	22.49	22.57
3	QPSK	15	0	22.54	22.73	22.58
3	16QAM	1	0	22.39	22.59	22.47
3	16QAM	1	8	22.48	22.48	22.48
3	16QAM	1	14	22.38	22.44	22.38
3	16QAM	8	0	22.26	22.44	22.28
3	16QAM	8	4	22.23	22.37	22.16
3	16QAM	8	7	22.22	22.22	22.20
3	16QAM	15	0	22.23	22.35	22.19
3	64QAM	1	0	22.23	22.28	22.17
3	64QAM	1	8	22.02	22.10	22.09
3	64QAM	1	14	22.02	22.15	22.04
3	64QAM	8	0	21.45	21.61	21.40
3	64QAM	8	4	21.40	21.48	21.37
3	64QAM	8	7	21.35	21.36	21.33
3	64QAM	15	0	21.37	21.50	21.31
3	256QAM	1	0	19.28	19.41	19.36
3	256QAM	1	8	19.26	19.31	19.24
3	256QAM	1	14	19.23	19.30	19.21
3	256QAM	8	0	19.18	19.46	19.28



3	256QAM	8	4	19.18	19.22	19.18
3	256QAM	8	7	19.06	19.22	19.07
3	256QAM	15	0	19.18	19.40	19.14
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.76	22.83	22.75
1.4	QPSK	1	3	22.65	22.67	22.51
1.4	QPSK	1	5	22.48	22.57	22.53
1.4	QPSK	3	0	22.50	22.67	22.67
1.4	QPSK	3	1	22.54	22.55	22.56
1.4	QPSK	3	3	22.44	22.54	22.57
1.4	QPSK	6	0	22.59	22.73	22.56
1.4	16QAM	1	0	22.50	22.62	22.56
1.4	16QAM	1	3	22.49	22.46	22.50
1.4	16QAM	1	5	22.40	22.46	22.43
1.4	16QAM	3	0	22.47	22.60	22.56
1.4	16QAM	3	1	22.49	22.45	22.47
1.4	16QAM	3	3	22.37	22.48	22.40
1.4	16QAM	6	0	22.17	22.30	22.14
1.4	64QAM	1	0	22.33	22.41	22.29
1.4	64QAM	1	3	22.22	22.40	22.17
1.4	64QAM	1	5	22.13	22.33	22.16
1.4	64QAM	3	0	22.05	22.21	22.09
1.4	64QAM	3	1	21.99	22.16	22.05
1.4	64QAM	3	3	22.22	22.28	22.16
1.4	64QAM	6	0	21.45	21.60	21.41
1.4	256QAM	1	0	19.29	19.47	19.32
1.4	256QAM	1	3	19.21	19.31	19.24
1.4	256QAM	1	5	19.22	19.27	19.22
1.4	256QAM	3	0	19.18	19.37	19.34
1.4	256QAM	3	1	19.16	19.21	19.24
1.4	256QAM	3	3	19.15	19.21	19.09
1.4	256QAM	6	0	19.17	19.35	19.18



LTE Band 13 – Ant 0						
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23230		
Frequency (MHz)				782		
10	QPSK	1	0		23.07	
10	QPSK	1	25		23.04	
10	QPSK	1	49		22.92	
10	QPSK	25	0		22.98	
10	QPSK	25	12		22.85	
10	QPSK	25	25		22.82	
10	QPSK	50	0		22.95	
10	16QAM	1	0		22.91	
10	16QAM	1	25		22.86	
10	16QAM	1	49		22.79	
10	16QAM	25	0		22.74	
10	16QAM	25	12		22.62	
10	16QAM	25	25		22.54	
10	16QAM	50	0		22.70	
10	64QAM	1	0		22.62	
10	64QAM	1	25		22.41	
10	64QAM	1	49		22.49	
10	64QAM	25	0		21.91	
10	64QAM	25	12		21.77	
10	64QAM	25	25		21.67	
10	64QAM	50	0		21.77	
10	256QAM	1	0		19.82	
10	256QAM	1	25		19.62	
10	256QAM	1	49		19.55	
10	256QAM	25	0		19.69	
10	256QAM	25	12		19.58	
10	256QAM	25	25		19.55	
10	256QAM	50	0		19.68	
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5



5	QPSK	1	0	22.93	23.03	22.99
5	QPSK	1	12	22.90	23.00	22.92
5	QPSK	1	24	22.84	22.85	22.80
5	QPSK	12	0	22.95	22.84	22.93
5	QPSK	12	7	22.77	22.71	22.73
5	QPSK	12	13	22.71	22.75	22.68
5	QPSK	25	0	22.88	22.91	22.91
5	16QAM	1	0	22.86	22.80	22.87
5	16QAM	1	12	22.72	22.78	22.71
5	16QAM	1	24	22.67	22.69	22.74
5	16QAM	12	0	22.62	22.60	22.65
5	16QAM	12	7	22.49	22.55	22.58
5	16QAM	12	13	22.43	22.49	22.45
5	16QAM	25	0	22.67	22.66	22.63
5	64QAM	1	0	22.53	22.55	22.47
5	64QAM	1	12	22.33	22.32	22.27
5	64QAM	1	24	22.39	22.42	22.45
5	64QAM	12	0	21.79	21.83	21.82
5	64QAM	12	7	21.62	21.66	21.70
5	64QAM	12	13	21.61	21.55	21.59
5	64QAM	25	0	21.71	21.66	21.73
5	256QAM	1	0	19.77	19.78	19.74
5	256QAM	1	12	19.56	19.48	19.51
5	256QAM	1	24	19.41	19.47	19.50
5	256QAM	12	0	19.59	19.55	19.64
5	256QAM	12	7	19.55	19.52	19.53
5	256QAM	12	13	19.46	19.43	19.52
5	256QAM	25	0	19.57	19.56	19.60



LTE Band 17 – Ant 0						
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	22.65	22.73	22.70
10	QPSK	1	25	22.57	22.60	22.59
10	QPSK	1	49	22.46	22.51	22.46
10	QPSK	25	0	22.46	22.66	22.54
10	QPSK	25	12	22.49	22.53	22.42
10	QPSK	25	25	22.41	22.48	22.47
10	QPSK	50	0	22.49	22.62	22.44
10	16QAM	1	0	22.49	22.60	22.45
10	16QAM	1	25	22.39	22.48	22.41
10	16QAM	1	49	22.30	22.40	22.38
10	16QAM	25	0	22.36	22.58	22.49
10	16QAM	25	12	22.38	22.40	22.43
10	16QAM	25	25	22.30	22.41	22.40
10	16QAM	50	0	22.24	22.38	22.33
10	64QAM	1	0	22.39	22.56	22.46
10	64QAM	1	25	22.37	22.42	22.40
10	64QAM	1	49	22.32	22.40	22.29
10	64QAM	25	0	21.37	21.54	21.36
10	64QAM	25	12	21.28	21.39	21.36
10	64QAM	25	25	21.32	21.36	21.32
10	64QAM	50	0	21.19	21.28	21.29
10	256QAM	1	0	19.59	19.71	19.63
10	256QAM	1	25	19.45	19.53	19.56
10	256QAM	1	49	19.44	19.57	19.51
10	256QAM	25	0	19.44	19.55	19.43
10	256QAM	25	12	19.34	19.44	19.33
10	256QAM	25	25	19.34	19.39	19.37
10	256QAM	50	0	19.28	19.32	19.22
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	22.53	22.69	22.65
5	QPSK	1	12	22.53	22.55	22.48
5	QPSK	1	24	22.33	22.41	22.37
5	QPSK	12	0	22.36	22.57	22.44
5	QPSK	12	7	22.44	22.40	22.38
5	QPSK	12	13	22.28	22.41	22.43
5	QPSK	25	0	22.46	22.49	22.32
5	16QAM	1	0	22.38	22.52	22.31
5	16QAM	1	12	22.26	22.39	22.35
5	16QAM	1	24	22.16	22.32	22.32



5	16QAM	12	0	22.27	22.45	22.35
5	16QAM	12	7	22.33	22.32	22.35
5	16QAM	12	13	22.19	22.34	22.27
5	16QAM	25	0	22.11	22.24	22.19
5	64QAM	1	0	22.24	22.48	22.35
5	64QAM	1	12	22.29	22.34	22.29
5	64QAM	1	24	22.17	22.33	22.14
5	64QAM	12	0	21.33	21.42	21.31
5	64QAM	12	7	21.24	21.27	21.22
5	64QAM	12	13	21.19	21.23	21.25
5	64QAM	25	0	21.07	21.23	21.24
5	256QAM	1	0	19.50	19.65	19.49
5	256QAM	1	12	19.33	19.42	19.50
5	256QAM	1	24	19.41	19.43	19.47
5	256QAM	12	0	19.31	19.51	19.33
5	256QAM	12	7	19.27	19.34	19.22
5	256QAM	12	13	19.20	19.33	19.27
5	256QAM	25	0	19.24	19.26	19.16



LTE Band 38 – Ant3						
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				37850	38000	38150
Frequency (MHz)				2580	2595	2610
20	QPSK	1	0	23.49	23.57	23.53
20	QPSK	1	49	23.37	23.45	23.30
20	QPSK	1	99	23.28	23.33	23.35
20	QPSK	50	0	23.32	23.52	23.38
20	QPSK	50	24	23.25	23.36	23.36
20	QPSK	50	50	23.21	23.30	23.24
20	QPSK	100	0	23.24	23.45	23.36
20	16QAM	1	0	23.16	23.37	23.21
20	16QAM	1	49	23.14	23.24	23.23
20	16QAM	1	99	23.09	23.24	23.13
20	16QAM	50	0	22.77	22.98	22.86
20	16QAM	50	24	22.82	22.87	22.74
20	16QAM	50	50	22.73	22.74	22.71
20	16QAM	100	0	22.99	23.10	22.90
20	64QAM	1	0	22.79	22.97	22.88
20	64QAM	1	49	22.77	22.87	22.81
20	64QAM	1	99	22.66	22.75	22.67
20	64QAM	50	0	21.80	22.01	21.90
20	64QAM	50	24	21.82	21.90	21.80
20	64QAM	50	50	21.72	21.86	21.78
20	64QAM	100	0	21.97	22.01	21.91
20	256QAM	1	0	19.81	20.02	19.87
20	256QAM	1	49	19.81	20.02	19.85
20	256QAM	1	99	19.80	19.77	19.75
20	256QAM	50	0	19.89	20.04	19.86
20	256QAM	50	24	19.89	19.85	19.91
20	256QAM	50	50	19.82	19.85	19.77
20	256QAM	100	0	20.01	20.13	19.99
Channel				37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5
15	QPSK	1	0	23.38	23.51	23.39
15	QPSK	1	37	23.24	23.38	23.25
15	QPSK	1	74	23.14	23.18	23.32
15	QPSK	36	0	23.25	23.46	23.23
15	QPSK	36	20	23.14	23.26	23.23
15	QPSK	36	39	23.17	23.24	23.14
15	QPSK	75	0	23.14	23.31	23.24
15	16QAM	1	0	23.02	23.33	23.08
15	16QAM	1	37	23.07	23.13	23.09
15	16QAM	1	74	23.06	23.17	22.99



15	16QAM	36	0	22.72	22.84	22.72
15	16QAM	36	20	22.71	22.77	22.62
15	16QAM	36	39	22.60	22.70	22.62
15	16QAM	75	0	22.86	23.06	22.85
15	64QAM	1	0	22.71	22.92	22.79
15	64QAM	1	37	22.71	22.74	22.74
15	64QAM	1	74	22.62	22.71	22.53
15	64QAM	36	0	21.75	21.97	21.84
15	64QAM	36	20	21.67	21.81	21.67
15	64QAM	36	39	21.64	21.71	21.73
15	64QAM	75	0	21.83	21.95	21.76
15	256QAM	1	0	19.75	19.95	19.75
15	256QAM	1	37	19.69	19.90	19.74
15	256QAM	1	74	19.69	19.63	19.68
15	256QAM	36	0	19.80	19.99	19.76
15	256QAM	36	20	19.82	19.73	19.76
15	256QAM	36	39	19.77	19.77	19.66
15	256QAM	75	0	19.93	20.09	19.85
Channel				37800	38000	38200
Frequency (MHz)				2575	2595	2615
10	QPSK	1	0	23.40	23.49	23.41
10	QPSK	1	25	23.28	23.33	23.20
10	QPSK	1	49	23.13	23.21	23.27
10	QPSK	25	0	23.20	23.49	23.33
10	QPSK	25	12	23.17	23.25	23.25
10	QPSK	25	25	23.16	23.24	23.13
10	QPSK	50	0	23.10	23.33	23.30
10	16QAM	1	0	23.06	23.33	23.16
10	16QAM	1	25	23.07	23.16	23.14
10	16QAM	1	49	23.00	23.18	23.02
10	16QAM	25	0	22.64	22.88	22.79
10	16QAM	25	12	22.68	22.77	22.71
10	16QAM	25	25	22.60	22.64	22.60
10	16QAM	50	0	22.91	23.07	22.77
10	64QAM	1	0	22.69	22.93	22.80
10	64QAM	1	25	22.62	22.73	22.72
10	64QAM	1	49	22.59	22.67	22.53
10	64QAM	25	0	21.70	21.91	21.85
10	64QAM	25	12	21.78	21.81	21.67
10	64QAM	25	25	21.64	21.75	21.64
10	64QAM	50	0	21.86	21.91	21.88
10	256QAM	1	0	19.73	19.91	19.75
10	256QAM	1	25	19.74	19.88	19.72
10	256QAM	1	49	19.67	19.64	19.70
10	256QAM	25	0	19.76	19.95	19.73



10	256QAM	25	12	19.85	19.70	19.82
10	256QAM	25	25	19.78	19.81	19.66
10	256QAM	50	0	19.94	20.05	19.85
Channel				37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5
5	QPSK	1	0	23.36	23.48	23.47
5	QPSK	1	12	23.23	23.35	23.31
5	QPSK	1	24	23.22	23.24	23.29
5	QPSK	12	0	23.23	23.42	23.24
5	QPSK	12	7	23.11	23.25	23.30
5	QPSK	12	13	23.09	23.21	23.10
5	QPSK	25	0	23.09	23.40	23.26
5	16QAM	1	0	23.02	23.28	23.17
5	16QAM	1	12	23.06	23.11	23.10
5	16QAM	1	24	23.00	23.15	23.00
5	16QAM	12	0	22.68	22.94	22.74
5	16QAM	12	7	22.69	22.77	22.61
5	16QAM	12	13	22.70	22.68	22.66
5	16QAM	25	0	22.95	23.03	22.78
5	64QAM	1	0	22.67	22.87	22.74
5	64QAM	1	12	22.65	22.80	22.76
5	64QAM	1	24	22.59	22.70	22.53
5	64QAM	12	0	21.71	21.91	21.78
5	64QAM	12	7	21.71	21.80	21.66
5	64QAM	12	13	21.59	21.78	21.73
5	64QAM	25	0	21.85	21.96	21.78
5	256QAM	1	0	19.67	19.99	19.81
5	256QAM	1	12	19.68	19.93	19.77
5	256QAM	1	24	19.69	19.67	19.62
5	256QAM	12	0	19.80	19.91	19.73
5	256QAM	12	7	19.75	19.76	19.84
5	256QAM	12	13	19.79	19.76	19.70
5	256QAM	25	0	19.88	20.05	19.88



LTE Band 71 – Ant 0						
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				133222	133322	133372
Frequency (MHz)				673	683	688
20	QPSK	1	0	22.95	23.04	22.89
20	QPSK	1	49	22.84	22.87	22.77
20	QPSK	1	99	22.71	22.88	22.66
20	QPSK	50	0	22.76	22.94	22.84
20	QPSK	50	24	22.77	22.77	22.75
20	QPSK	50	50	22.71	22.73	22.66
20	QPSK	100	0	22.66	22.76	22.70
20	16QAM	1	0	22.78	22.92	22.73
20	16QAM	1	49	22.69	22.83	22.73
20	16QAM	1	99	22.61	22.76	22.66
20	16QAM	50	0	22.53	22.74	22.61
20	16QAM	50	24	22.50	22.54	22.54
20	16QAM	50	50	22.48	22.60	22.51
20	16QAM	100	0	22.46	22.54	22.45
20	64QAM	1	0	22.73	22.88	22.76
20	64QAM	1	49	22.72	22.75	22.72
20	64QAM	1	99	22.64	22.69	22.60
20	64QAM	50	0	21.67	21.83	21.73
20	64QAM	50	24	21.63	21.72	21.69
20	64QAM	50	50	21.56	21.61	21.62
20	64QAM	100	0	21.49	21.55	21.55
20	256QAM	1	0	19.64	19.81	19.72
20	256QAM	1	49	19.57	19.61	19.61
20	256QAM	1	99	19.58	19.64	19.55
20	256QAM	50	0	19.59	19.77	19.58
20	256QAM	50	24	19.56	19.64	19.53
20	256QAM	50	50	19.54	19.64	19.50
20	256QAM	100	0	19.43	19.48	19.47
Channel				133197	133297	133397
Frequency (MHz)				670.5	680.5	690.5
15	QPSK	1	0	22.85	23.00	22.78
15	QPSK	1	37	22.71	22.75	22.65
15	QPSK	1	74	22.67	22.82	22.58
15	QPSK	36	0	22.69	22.88	22.74
15	QPSK	36	20	22.64	22.63	22.66
15	QPSK	36	39	22.68	22.64	22.53
15	QPSK	75	0	22.58	22.61	22.59
15	16QAM	1	0	22.68	22.78	22.64
15	16QAM	1	37	22.64	22.69	22.66
15	16QAM	1	74	22.47	22.69	22.59



15	16QAM	36	0	22.44	22.62	22.52
15	16QAM	36	20	22.40	22.49	22.49
15	16QAM	36	39	22.45	22.46	22.40
15	16QAM	75	0	22.33	22.41	22.41
15	64QAM	1	0	22.68	22.82	22.67
15	64QAM	1	37	22.68	22.63	22.67
15	64QAM	1	74	22.59	22.57	22.55
15	64QAM	36	0	21.61	21.78	21.58
15	64QAM	36	20	21.49	21.59	21.57
15	64QAM	36	39	21.46	21.47	21.57
15	64QAM	75	0	21.46	21.50	21.44
15	256QAM	1	0	19.52	19.68	19.62
15	256QAM	1	37	19.47	19.53	19.46
15	256QAM	1	74	19.54	19.57	19.45
15	256QAM	36	0	19.48	19.65	19.46
15	256QAM	36	20	19.43	19.55	19.48
15	256QAM	36	39	19.50	19.60	19.43
15	256QAM	75	0	19.31	19.37	19.36
Channel				133172	133272	133422
Frequency (MHz)				668	678	693
10	QPSK	1	0	22.83	22.96	22.78
10	QPSK	1	25	22.75	22.74	22.64
10	QPSK	1	49	22.67	22.83	22.59
10	QPSK	25	0	22.71	22.81	22.73
10	QPSK	25	12	22.70	22.73	22.63
10	QPSK	25	25	22.66	22.65	22.56
10	QPSK	50	0	22.60	22.71	22.59
10	16QAM	1	0	22.73	22.77	22.64
10	16QAM	1	25	22.58	22.72	22.69
10	16QAM	1	49	22.50	22.67	22.62
10	16QAM	25	0	22.42	22.62	22.55
10	16QAM	25	12	22.40	22.47	22.49
10	16QAM	25	25	22.42	22.46	22.40
10	16QAM	50	0	22.32	22.50	22.40
10	64QAM	1	0	22.64	22.73	22.65
10	64QAM	1	25	22.63	22.61	22.59
10	64QAM	1	49	22.54	22.55	22.49
10	64QAM	25	0	21.63	21.71	21.60
10	64QAM	25	12	21.52	21.63	21.58
10	64QAM	25	25	21.41	21.54	21.55
10	64QAM	50	0	21.35	21.51	21.48
10	256QAM	1	0	19.60	19.72	19.61
10	256QAM	1	25	19.42	19.49	19.48
10	256QAM	1	49	19.53	19.51	19.49
10	256QAM	25	0	19.52	19.72	19.55



10	256QAM	25	12	19.43	19.55	19.43
10	256QAM	25	25	19.44	19.53	19.37
10	256QAM	50	0	19.36	19.37	19.36
Channel				133147	133247	133447
Frequency (MHz)				665.5	675.5	695.5
5	QPSK	1	0	22.82	22.90	22.82
5	QPSK	1	12	22.78	22.83	22.63
5	QPSK	1	24	22.64	22.84	22.53
5	QPSK	12	0	22.68	22.81	22.80
5	QPSK	12	7	22.64	22.69	22.61
5	QPSK	12	13	22.59	22.60	22.57
5	QPSK	25	0	22.57	22.71	22.65
5	16QAM	1	0	22.68	22.82	22.63
5	16QAM	1	12	22.54	22.75	22.69
5	16QAM	1	24	22.54	22.70	22.61
5	16QAM	12	0	22.49	22.71	22.49
5	16QAM	12	7	22.43	22.42	22.43
5	16QAM	12	13	22.38	22.54	22.42
5	16QAM	25	0	22.42	22.42	22.41
5	64QAM	1	0	22.68	22.80	22.62
5	64QAM	1	12	22.62	22.61	22.57
5	64QAM	1	24	22.58	22.55	22.46
5	64QAM	12	0	21.61	21.71	21.64
5	64QAM	12	7	21.52	21.65	21.63
5	64QAM	12	13	21.42	21.50	21.51
5	64QAM	25	0	21.39	21.43	21.52
5	256QAM	1	0	19.60	19.74	19.68
5	256QAM	1	12	19.44	19.48	19.56
5	256QAM	1	24	19.45	19.60	19.40
5	256QAM	12	0	19.54	19.63	19.45
5	256QAM	12	7	19.41	19.50	19.41
5	256QAM	12	13	19.44	19.52	19.40
5	256QAM	25	0	19.31	19.43	19.36



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	25.75	25.92	25.83
20	QPSK	1	49	25.59	25.75	25.68
20	QPSK	1	99	25.55	25.78	25.69
20	QPSK	50	0	25.61	25.77	25.72
20	QPSK	50	24	25.49	25.65	25.54
20	QPSK	50	50	25.42	25.55	25.40
20	QPSK	100	0	25.37	25.72	25.60
20	16QAM	1	0	25.61	25.82	25.73
20	16QAM	1	49	25.53	25.70	25.60
20	16QAM	1	99	25.52	25.63	25.51
20	16QAM	50	0	24.48	24.74	24.70
20	16QAM	50	24	24.46	24.66	24.60
20	16QAM	50	50	24.44	24.61	24.53
20	16QAM	100	0	24.49	24.76	24.71
20	64QAM	1	0	24.93	25.14	25.08
20	64QAM	1	49	24.91	24.97	24.92
20	64QAM	1	99	24.81	24.94	24.84
20	64QAM	50	0	23.58	23.76	23.61
20	64QAM	50	24	23.43	23.63	23.51
20	64QAM	50	50	23.46	23.61	23.48
20	64QAM	100	0	23.50	23.67	23.61
20	256QAM	1	0	21.69	21.95	21.81
20	256QAM	1	49	21.72	21.95	21.91
20	256QAM	1	99	21.62	21.73	21.64
20	256QAM	50	0	21.55	21.74	21.67
20	256QAM	50	24	21.39	21.59	21.52
20	256QAM	50	50	21.36	21.54	21.43
20	256QAM	100	0	21.50	21.77	21.63
Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	25.64	25.84	25.71
15	QPSK	1	37	25.51	25.65	25.59
15	QPSK	1	74	25.43	25.74	25.56
15	QPSK	36	0	25.52	25.69	25.59
15	QPSK	36	20	25.37	25.54	25.42
15	QPSK	36	39	25.36	25.40	25.25
15	QPSK	75	0	25.32	25.59	25.49
15	16QAM	1	0	25.54	25.76	25.66
15	16QAM	1	37	25.49	25.63	25.56
15	16QAM	1	74	25.42	25.51	25.48



15	16QAM	36	0	24.38	24.59	24.58
15	16QAM	36	20	24.35	24.59	24.46
15	16QAM	36	39	24.38	24.57	24.40
15	16QAM	75	0	24.35	24.63	24.63
15	64QAM	1	0	24.85	25.06	25.04
15	64QAM	1	37	24.81	24.85	24.86
15	64QAM	1	74	24.76	24.81	24.73
15	64QAM	36	0	23.47	23.62	23.46
15	64QAM	36	20	23.32	23.51	23.41
15	64QAM	36	39	23.40	23.50	23.33
15	64QAM	75	0	23.44	23.63	23.51
15	256QAM	1	0	21.64	21.82	21.66
15	256QAM	1	37	21.63	21.84	21.83
15	256QAM	1	74	21.48	21.62	21.52
15	256QAM	36	0	21.50	21.68	21.61
15	256QAM	36	20	21.31	21.51	21.38
15	256QAM	36	39	21.30	21.51	21.38
15	256QAM	75	0	21.40	21.67	21.58
Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	25.67	25.89	25.79
10	QPSK	1	25	25.53	25.70	25.56
10	QPSK	1	49	25.44	25.70	25.62
10	QPSK	25	0	25.54	25.70	25.66
10	QPSK	25	12	25.38	25.62	25.41
10	QPSK	25	25	25.38	25.42	25.31
10	QPSK	50	0	25.26	25.64	25.46
10	16QAM	1	0	25.56	25.72	25.70
10	16QAM	1	25	25.47	25.66	25.51
10	16QAM	1	49	25.38	25.53	25.42
10	16QAM	25	0	24.38	24.67	24.66
10	16QAM	25	12	24.33	24.55	24.46
10	16QAM	25	25	24.33	24.50	24.39
10	16QAM	50	0	24.40	24.63	24.65
10	64QAM	1	0	24.83	25.07	25.05
10	64QAM	1	25	24.87	24.94	24.85
10	64QAM	1	49	24.70	24.81	24.79
10	64QAM	25	0	23.54	23.65	23.58
10	64QAM	25	12	23.38	23.54	23.40
10	64QAM	25	25	23.32	23.46	23.41
10	64QAM	50	0	23.44	23.64	23.55
10	256QAM	1	0	21.58	21.81	21.69
10	256QAM	1	25	21.66	21.88	21.87
10	256QAM	1	49	21.48	21.69	21.56
10	256QAM	25	0	21.43	21.61	21.56



10	256QAM	25	12	21.25	21.47	21.46
10	256QAM	25	25	21.29	21.41	21.30
10	256QAM	50	0	21.35	21.69	21.55
Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	25.61	25.81	25.69
5	QPSK	1	12	25.53	25.64	25.60
5	QPSK	1	24	25.43	25.73	25.64
5	QPSK	12	0	25.46	25.71	25.69
5	QPSK	12	7	25.38	25.53	25.48
5	QPSK	12	13	25.35	25.51	25.31
5	QPSK	25	0	25.23	25.62	25.49
5	16QAM	1	0	25.55	25.70	25.65
5	16QAM	1	12	25.38	25.56	25.46
5	16QAM	1	24	25.38	25.52	25.41
5	16QAM	12	0	24.41	24.69	24.57
5	16QAM	12	7	24.38	24.52	24.48
5	16QAM	12	13	24.33	24.58	24.43
5	16QAM	25	0	24.37	24.73	24.65
5	64QAM	1	0	24.86	25.05	25.04
5	64QAM	1	12	24.80	24.86	24.82
5	64QAM	1	24	24.76	24.79	24.79
5	64QAM	12	0	23.44	23.65	23.51
5	64QAM	12	7	23.38	23.49	23.39
5	64QAM	12	13	23.35	23.57	23.37
5	64QAM	25	0	23.46	23.59	23.49
5	256QAM	1	0	21.57	21.81	21.67
5	256QAM	1	12	21.58	21.91	21.87
5	256QAM	1	24	21.54	21.64	21.55
5	256QAM	12	0	21.43	21.69	21.64
5	256QAM	12	7	21.35	21.49	21.41
5	256QAM	12	13	21.23	21.42	21.37
5	256QAM	25	0	21.38	21.72	21.56



ERP/EIRP

LTE Band 7 (GT - LC = -2.06 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency	2502.5	2535	2567.5
(MHz)			
Conducted Power (dBm)	22.94	22.98	22.79
Conducted Power (Watts)	0.1968	0.1986	0.1901
EIRP(dBm)	20.88	20.92	20.73
EIRP(Watts)	0.1225	0.1236	0.1183

LTE Band 7 (GT - LC = -2.06 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
(MHz)									
Conducted Power (dBm)	22.92	22.97	22.79	22.91	23.00	22.83	22.98	23.05	22.93
Conducted Power (Watts)	0.1959	0.1982	0.1901	0.1954	0.1995	0.1919	0.1986	0.2018	0.1963
EIRP(dBm)	20.86	20.91	20.73	20.85	20.94	20.77	20.92	20.99	20.87
EIRP(Watts)	0.1219	0.1233	0.1183	0.1216	0.1242	0.1194	0.1236	0.1256	0.1222



LTE Band 7 (GT - LC = -2.06 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency	2502.5	2535	2567.5
(MHz)			
Conducted Power (dBm)	22.77	22.72	22.72
Conducted Power (Watts)	0.1892	0.1871	0.1871
EIRP(dBm)	20.71	20.66	20.66
EIRP(Watts)	0.1178	0.1164	0.1164

LTE Band 7 (GT - LC = -2.06 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	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
(MHz)									
Conducted Power (dBm)	22.54	22.57	22.48	22.75	22.73	22.67	22.84	22.86	22.78
Conducted Power (Watts)	0.1795	0.1807	0.1770	0.1884	0.1875	0.1849	0.1923	0.1932	0.1897
EIRP(dBm)	20.48	20.51	20.42	20.69	20.67	20.61	20.78	20.80	20.72
EIRP(Watts)	0.1117	0.1125	0.1102	0.1172	0.1167	0.1151	0.1197	0.1202	0.1180



LTE Band 7 (GT - LC = -2.06 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency	2502.5	2535	2567.5
(MHz)			
Conducted Power (dBm)	22.53	22.80	22.65
Conducted Power (Watts)	0.1791	0.1905	0.1841
EIRP(dBm)	20.47	20.74	20.59
EIRP(Watts)	0.1114	0.1186	0.1146

LTE Band 7 (GT - LC = -2.06 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	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
(MHz)									
Conducted Power (dBm)	22.59	22.79	22.66	22.61	22.73	22.59	22.64	22.84	22.73
Conducted Power (Watts)	0.1816	0.1901	0.1845	0.1824	0.1875	0.1816	0.1837	0.1923	0.1875
EIRP(dBm)	20.53	20.73	20.60	20.55	20.67	20.53	20.58	20.78	20.67
EIRP(Watts)	0.1130	0.1183	0.1148	0.1135	0.1167	0.1130	0.1143	0.1197	0.1167



LTE Band 7 (GT - LC = -2.06 dB) 256QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency	2502.5	2535	2567.5
(MHz)			
Conducted Power (dBm)	19.65	19.80	19.55
Conducted Power (Watts)	0.0923	0.0955	0.0902
EIRP(dBm)	17.59	17.74	17.49
EIRP(Watts)	0.0574	0.0594	0.0561

LTE Band 7 (GT - LC = -2.06 dB) 256QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
(MHz)									
Conducted Power (dBm)	19.66	19.78	19.52	19.56	19.80	19.56	19.72	19.84	19.68
Conducted Power (Watts)	0.0925	0.0951	0.0895	0.0904	0.0955	0.0904	0.0938	0.0964	0.0929
EIRP(dBm)	17.60	17.72	17.46	17.50	17.74	17.50	17.66	17.78	17.62
EIRP(Watts)	0.0575	0.0592	0.0557	0.0562	0.0594	0.0562	0.0583	0.0600	0.0578



LTE Band 12 (GT - LC = -2.97 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	22.76	22.83	22.75	22.78	22.81	22.72	22.77	22.86	22.74
Conducted Power (Watts)	0.1888	0.1919	0.1884	0.1897	0.1910	0.1871	0.1892	0.1932	0.1879
ERP(dBm)	17.64	17.71	17.63	17.66	17.69	17.60	17.65	17.74	17.62
ERP(Watts)	0.0581	0.0590	0.0579	0.0583	0.0587	0.0575	0.0582	0.0594	0.0578

LTE Band 12 (GT - LC = -2.97 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.84	22.92	22.79
Conducted Power (Watts)	0.1923	0.1959	0.1901
ERP(dBm)	17.72	17.80	17.67
ERP(Watts)	0.0592	0.0603	0.0585



LTE Band 12 (GT - LC = -2.97 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	22.50	22.62	22.56	22.39	22.59	22.47	22.42	22.62	22.48
Conducted Power (Watts)	0.1778	0.1828	0.1803	0.1734	0.1816	0.1766	0.1746	0.1828	0.1770
ERP(dBm)	17.38	17.50	17.44	17.27	17.47	17.35	17.30	17.50	17.36
ERP(Watts)	0.0547	0.0562	0.0555	0.0533	0.0558	0.0543	0.0537	0.0562	0.0545

LTE Band 12 (GT - LC = -2.97 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.54	22.72	22.60
Conducted Power (Watts)	0.1795	0.1871	0.1820
ERP(dBm)	17.42	17.60	17.48
ERP(Watts)	0.0552	0.0575	0.0560



LTE Band 12 (GT - LC = -2.97 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	22.33	22.41	22.29	22.23	22.28	22.17	22.15	22.30	22.22
Conducted Power (Watts)	0.1710	0.1742	0.1694	0.1671	0.1690	0.1648	0.1641	0.1698	0.1667
ERP(dBm)	17.21	17.29	17.17	17.11	17.16	17.05	17.03	17.18	17.10
ERP(Watts)	0.0526	0.0536	0.0521	0.0514	0.0520	0.0507	0.0505	0.0522	0.0513

LTE Band 12 (GT - LC = -2.97 dB) 64QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.26	22.41	22.29
Conducted Power (Watts)	0.1683	0.1742	0.1694
ERP(dBm)	17.14	17.29	17.17
ERP(Watts)	0.0518	0.0536	0.0521



LTE Band 12 (GT - LC = -2.97 dB) 256QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	19.29	19.47	19.32	19.18	19.46	19.28	19.35	19.45	19.31
Conducted Power (Watts)	0.0849	0.0885	0.0855	0.0828	0.0883	0.0847	0.0861	0.0881	0.0853
ERP(dBm)	14.17	14.35	14.20	14.06	14.34	14.16	14.23	14.33	14.19
ERP(Watts)	0.0261	0.0272	0.0263	0.0255	0.0272	0.0261	0.0265	0.0271	0.0262

LTE Band 12 (GT - LC = -2.97 dB) 256QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	19.38	19.55	19.40
Conducted Power (Watts)	0.0867	0.0902	0.0871
ERP(dBm)	14.26	14.43	14.28
ERP(Watts)	0.0267	0.0277	0.0268



LTE Band 13 (GT - LC = -2.69 dB) QPSK						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	22.93	23.03	22.99		23.07	-
Conducted Power (Watts)	0.1963	0.2009	0.1991		0.2028	-
ERP(dBm)	18.09	18.19	18.15		18.23	-
ERP(Watts)	0.0644	0.0659	0.0653		0.0665	-

LTE Band 13 (GT - LC = -2.69 dB) 16QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	22.86	22.80	22.87		22.91	-
Conducted Power (Watts)	0.1932	0.1905	0.1936		0.1954	-
ERP(dBm)	18.02	17.96	18.03		18.07	-
ERP(Watts)	0.0634	0.0625	0.0635		0.0641	-



LTE Band 13 (GT - LC = -2.69 dB) 64QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	22.53	22.55	22.47		22.62	-
Conducted Power (Watts)	0.1791	0.1799	0.1766		0.1828	-
ERP(dBm)	17.69	17.71	17.63		17.78	-
ERP(Watts)	0.0587	0.0590	0.0579		0.0600	-

LTE Band 13 (GT - LC = -2.69 dB) 256QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	19.77	19.78	19.74		19.82	-
Conducted Power (Watts)	0.0948	0.0951	0.0942		0.0959	-
ERP(dBm)	14.93	14.94	14.90		14.98	-
ERP(Watts)	0.0311	0.0312	0.0309		0.0315	-



LTE Band 17 (GT - LC = -3.0 dB) QPSK						
Bandwidth	5M			10M		
Channel	23755	23790	23825	23780	23790	23800
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	706.5	710	713.5	709	710	711
(MHz)						
Conducted Power (dBm)	22.53	22.69	22.65	22.65	22.73	22.70
Conducted Power (Watts)	0.1791	0.1858	0.1841	0.1841	0.1875	0.1862
ERP(dBm)	17.38	17.54	17.50	17.50	17.58	17.55
ERP(Watts)	0.0547	0.0568	0.0562	0.0562	0.0573	0.0569

LTE Band 17 (GT - LC = -3.0 dB) 16QAM						
Bandwidth	5M			10M		
Channel	23755	23790	23825	23780	23790	23800
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	706.5	710	713.5	709	710	711
(MHz)						
Conducted Power (dBm)	22.38	22.52	22.31	22.49	22.60	22.45
Conducted Power (Watts)	0.1730	0.1786	0.1702	0.1774	0.1820	0.1758
ERP(dBm)	17.23	17.37	17.16	17.34	17.45	17.30
ERP(Watts)	0.0528	0.0546	0.0520	0.0542	0.0556	0.0537



LTE Band 17 (GT - LC = -3.0 dB) 64QAM						
Bandwidth	5M			10M		
Channel	23755	23790	23825	23780	23790	23800
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	706.5	710	713.5	709	710	711
(MHz)						
Conducted Power (dBm)	22.24	22.48	22.35	22.39	22.56	22.46
Conducted Power (Watts)	0.1675	0.1770	0.1718	0.1734	0.1803	0.1762
ERP(dBm)	17.09	17.33	17.20	17.24	17.41	17.31
ERP(Watts)	0.0512	0.0541	0.0525	0.0530	0.0551	0.0538

LTE Band 17 (GT - LC = -3.0 dB) 256QAM						
Bandwidth	5M			10M		
Channel	23755	23790	23825	23780	23790	23800
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	706.5	710	713.5	709	710	711
(MHz)						
Conducted Power (dBm)	19.50	19.65	19.49	19.59	19.71	19.63
Conducted Power (Watts)	0.0891	0.0923	0.0889	0.0910	0.0935	0.0918
ERP(dBm)	14.35	14.50	14.34	14.44	14.56	14.48
ERP(Watts)	0.0272	0.0282	0.0272	0.0278	0.0286	0.0281



LTE Band 38 (GT - LC = -1.91 dB) QPSK			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency	2572.5	2595	2617.5
(MHz)			
Conducted Power (dBm)	23.36	23.48	23.47
Conducted Power (Watts)	0.2168	0.2228	0.2223
EIRP(dBm)	21.45	21.57	21.56
EIRP(Watts)	0.1396	0.1435	0.1432

LTE Band 38 (GT - LC = -1.91 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
(MHz)									
Conducted Power (dBm)	23.40	23.49	23.41	23.38	23.51	23.39	23.49	23.57	23.53
Conducted Power (Watts)	0.2188	0.2234	0.2193	0.2178	0.2244	0.2183	0.2234	0.2275	0.2254
EIRP(dBm)	21.49	21.58	21.50	21.47	21.60	21.48	21.58	21.66	21.62
EIRP(Watts)	0.1409	0.1439	0.1413	0.1403	0.1445	0.1406	0.1439	0.1466	0.1452



LTE Band 38 (GT - LC = -1.91 dB) 16QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency	2572.5	2595	2617.5
(MHz)			
Conducted Power (dBm)	23.02	23.28	23.17
Conducted Power (Watts)	0.2004	0.2128	0.2075
EIRP(dBm)	21.11	21.37	21.26
EIRP(Watts)	0.1291	0.1371	0.1337

LTE Band 38 (GT - LC = -1.91 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
(MHz)									
Conducted Power (dBm)	23.06	23.33	23.16	23.02	23.33	23.08	23.16	23.37	23.21
Conducted Power (Watts)	0.2023	0.2153	0.2070	0.2004	0.2153	0.2032	0.2070	0.2173	0.2094
EIRP(dBm)	21.15	21.42	21.25	21.11	21.42	21.17	21.25	21.46	21.30
EIRP(Watts)	0.1303	0.1387	0.1334	0.1291	0.1387	0.1309	0.1334	0.1400	0.1349



LTE Band 38 (GT - LC = -1.91 dB) 64QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency	2572.5	2595	2617.5
(MHz)			
Conducted Power (dBm)	22.67	22.87	22.74
Conducted Power (Watts)	0.1849	0.1936	0.1879
EIRP(dBm)	20.76	20.96	20.83
EIRP(Watts)	0.1191	0.1247	0.1211

LTE Band 38 (GT - LC = -1.91 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	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
(MHz)									
Conducted Power (dBm)	22.69	22.93	22.80	22.71	22.92	22.79	22.79	22.97	22.88
Conducted Power (Watts)	0.1858	0.1963	0.1905	0.1866	0.1959	0.1901	0.1901	0.1982	0.1941
EIRP(dBm)	20.78	21.02	20.89	20.80	21.01	20.88	20.88	21.06	20.97
EIRP(Watts)	0.1197	0.1265	0.1227	0.1202	0.1262	0.1225	0.1225	0.1276	0.1250



LTE Band 38 (GT - LC = -1.91 dB) 256QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency	2572.5	2595	2617.5
(MHz)			
Conducted Power (dBm)	19.88	20.05	19.88
Conducted Power (Watts)	0.0973	0.1012	0.0973
EIRP(dBm)	17.97	18.14	17.97
EIRP(Watts)	0.0627	0.0652	0.0627

LTE Band 38 (GT - LC = -1.91 dB) 256QAM									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
(MHz)									
Conducted Power (dBm)	19.94	20.05	19.85	19.93	20.09	19.85	20.01	20.13	19.99
Conducted Power (Watts)	0.0986	0.1012	0.0966	0.0984	0.1021	0.0966	0.1002	0.1030	0.0998
EIRP(dBm)	18.03	18.14	17.94	18.02	18.18	17.94	18.10	18.22	18.08
EIRP(Watts)	0.0635	0.0652	0.0622	0.0634	0.0658	0.0622	0.0646	0.0664	0.0643



LTE Band 41 (GT - LC = -0.86 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	25.61	25.81	25.69	25.67	25.89	25.79	25.64	25.84	25.71
Conducted Power (Watts)	0.3639	0.3811	0.3707	0.3690	0.3882	0.3793	0.3664	0.3837	0.3724
EIRP(dBm)	24.75	24.95	24.83	24.81	25.03	24.93	24.78	24.98	24.85
EIRP(Watts)	0.2985	0.3126	0.3041	0.3027	0.3184	0.3112	0.3006	0.3148	0.3055

LTE Band 41 (GT - LC = -0.86 dB) QPSK			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	25.75	25.92	25.83
Conducted Power (Watts)	0.3758	0.3908	0.3828
EIRP(dBm)	24.89	25.06	24.97
EIRP(Watts)	0.3083	0.3206	0.3141



LTE Band 41 (GT - LC = -0.86 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	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	25.55	25.70	25.65	25.56	25.72	25.70	25.54	25.76	25.66
Conducted Power (Watts)	0.3589	0.3715	0.3673	0.3597	0.3733	0.3715	0.3581	0.3767	0.3681
EIRP(dBm)	24.69	24.84	24.79	24.70	24.86	24.84	24.68	24.90	24.80
EIRP(Watts)	0.2944	0.3048	0.3013	0.2951	0.3062	0.3048	0.2938	0.3090	0.3020

LTE Band 41 (GT - LC = -0.86 dB) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	25.61	25.82	25.73
Conducted Power (Watts)	0.3639	0.3819	0.3741
EIRP(dBm)	24.75	24.96	24.87
EIRP(Watts)	0.2985	0.3133	0.3069



LTE Band 41 (GT - LC = -0.86 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	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	24.86	25.05	25.04	24.83	25.07	25.05	24.85	25.06	25.04
Conducted Power (Watts)	0.3062	0.3199	0.3192	0.3041	0.3214	0.3199	0.3055	0.3206	0.3192
EIRP(dBm)	24.00	24.19	24.18	23.97	24.21	24.19	23.99	24.20	24.18
EIRP(Watts)	0.2512	0.2624	0.2618	0.2495	0.2636	0.2624	0.2506	0.2630	0.2618

LTE Band 41 (GT - LC = -0.86 dB) 64QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	24.93	25.14	25.08
Conducted Power (Watts)	0.3112	0.3266	0.3221
EIRP(dBm)	24.07	24.28	24.22
EIRP(Watts)	0.2553	0.2679	0.2642



LTE Band 41 (GT - LC = -0.86 dB) 256QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
(MHz)									
Conducted Power (dBm)	21.58	21.91	21.87	21.66	21.88	21.87	21.63	21.84	21.83
Conducted Power (Watts)	0.1439	0.1552	0.1538	0.1466	0.1542	0.1538	0.1455	0.1528	0.1524
EIRP(dBm)	20.72	21.05	21.01	20.80	21.02	21.01	20.77	20.98	20.97
EIRP(Watts)	0.1180	0.1274	0.1262	0.1202	0.1265	0.1262	0.1194	0.1253	0.1250

LTE Band 41 (GT - LC = -0.86 dB) 256QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	21.72	21.95	21.91
Conducted Power (Watts)	0.1486	0.1567	0.1552
EIRP(dBm)	20.86	21.09	21.05
EIRP(Watts)	0.1219	0.1285	0.1274



LTE Band 71 (GT - LC = -2.97 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	22.82	22.90	22.82	22.83	22.96	22.78	22.85	23.00	22.78
Conducted Power (Watts)	0.1914	0.1950	0.1914	0.1919	0.1977	0.1897	0.1928	0.1995	0.1897
ERP(dBm)	17.70	17.78	17.70	17.71	17.84	17.66	17.73	17.88	17.66
ERP(Watts)	0.0589	0.0600	0.0589	0.0590	0.0608	0.0583	0.0593	0.0614	0.0583

LTE Band 71 (GT - LC = -2.97 dB) QPSK			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	22.95	23.04	22.89
Conducted Power (Watts)	0.1972	0.2014	0.1945
ERP(dBm)	17.83	17.92	17.77
ERP(Watts)	0.0607	0.0619	0.0598



LTE Band 71 (GT - LC = -2.97 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
(MHz)									
Conducted Power (dBm)	22.68	22.82	22.63	22.73	22.77	22.64	22.68	22.78	22.64
Conducted Power (Watts)	0.1854	0.1914	0.1832	0.1875	0.1892	0.1837	0.1854	0.1897	0.1837
ERP(dBm)	17.56	17.70	17.51	17.61	17.65	17.52	17.56	17.66	17.52
ERP(Watts)	0.0570	0.0589	0.0564	0.0577	0.0582	0.0565	0.0570	0.0583	0.0565

LTE Band 71 (GT - LC = -2.97 dB) 16QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency	673	680.5	688
(MHz)			
Conducted Power (dBm)	22.78	22.92	22.73
Conducted Power (Watts)	0.1897	0.1959	0.1875
ERP(dBm)	17.66	17.80	17.61
ERP(Watts)	0.0583	0.0603	0.0577



LTE Band 71 (GT - LC = -2.97 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
(MHz)									
Conducted Power (dBm)	22.68	22.80	22.62	22.64	22.73	22.65	22.68	22.82	22.67
Conducted Power (Watts)	0.1854	0.1905	0.1828	0.1837	0.1875	0.1841	0.1854	0.1914	0.1849
ERP(dBm)	17.56	17.68	17.50	17.52	17.61	17.53	17.56	17.70	17.55
ERP(Watts)	0.0570	0.0586	0.0562	0.0565	0.0577	0.0566	0.0570	0.0589	0.0569

LTE Band 71 (GT - LC = -2.97 dB) 64QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency	673	680.5	688
(MHz)			
Conducted Power (dBm)	22.73	22.88	22.76
Conducted Power (Watts)	0.1875	0.1941	0.1888
ERP(dBm)	17.61	17.76	17.64
ERP(Watts)	0.0577	0.0597	0.0581



LTE Band 71 (GT - LC = -2.97 dB) 256QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
(MHz)									
Conducted Power (dBm)	19.60	19.74	19.68	19.60	19.72	19.61	19.52	19.68	19.62
Conducted Power (Watts)	0.0912	0.0942	0.0929	0.0912	0.0938	0.0914	0.0895	0.0929	0.0916
ERP(dBm)	14.48	14.62	14.56	14.48	14.60	14.49	14.40	14.56	14.50
ERP(Watts)	0.0281	0.0290	0.0286	0.0281	0.0288	0.0281	0.0275	0.0286	0.0282

LTE Band 71 (GT - LC = -2.97 dB) 256QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency	673	680.5	688
(MHz)			
Conducted Power (dBm)	19.64	19.81	19.72
Conducted Power (Watts)	0.0920	0.0957	0.0938
ERP(dBm)	14.52	14.69	14.60
ERP(Watts)	0.0283	0.0294	0.0288



CA Power and EIRP

LTE Band 7C-Ant 3							
Combination 20MHz+20MHz (100RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.87	0.1205
M	QPSK	1	Max	1	0	23.04	0.1253
H	QPSK	1	Max	1	0	23.05	0.1256
L	16QAM	1	Max	1	0	21.86	0.0955
M	16QAM	1	Max	1	0	22.08	0.1005
H	16QAM	1	Max	1	0	22.12	0.1014
L	64QAM	1	Max	1	0	18.27	0.0418
M	64QAM	1	Max	1	0	18.32	0.0423
H	64QAM	1	Max	1	0	18.39	0.0430
L	256QAM	1	Max	1	0	17.45	0.0346
M	256QAM	1	Max	1	0	17.42	0.0344
H	256QAM	1	Max	1	0	17.47	0.0348
Combination 20MHz+15MHz (100RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.86	0.1202
H	16QAM	1	Max	1	0	22.27	0.1050
Combination 15MHz+20MHz (75RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	23.01	0.1245
H	16QAM	1	Max	1	0	22.24	0.1042
Combination 15MHz+15MHz (75RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.95	0.1227
H	16QAM	1	Max	1	0	22.03	0.0993
Combination 20MHz+10MHz (100RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.87	0.1205
H	16QAM	1	Max	1	0	22.94	0.1225
Combination 10MHz+20MHz (50RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	23.01	0.1245
H	16QAM	1	Max	1	0	22.38	0.1076
Combination 15MHz+10MHz (75RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.92	0.1219
H	16QAM	1	Max	1	0	22.20	0.1033



LTE Band 41C-Ant 2							
Combination 20MHz+20MHz (100RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	25.76	0.3090
M	QPSK	1	Max	1	0	25.84	0.3148
H	QPSK	1	Max	1	0	25.66	0.3020
L	16QAM	1	Max	1	0	24.00	0.2061
M	16QAM	1	Max	1	0	24.02	0.2070
H	16QAM	1	Max	1	0	24.05	0.2084
L	64QAM	1	Max	1	0	23.35	0.1774
M	64QAM	1	Max	1	0	23.45	0.1816
H	64QAM	1	Max	1	0	23.49	0.1832
L	256QAM	1	Max	1	0	20.40	0.0899
M	256QAM	1	Max	1	0	20.33	0.0885
H	256QAM	1	Max	1	0	20.23	0.0865
Combination 20MHz+15MHz (100RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.69	0.3041
H	16QAM	1	Max	1	0	23.96	0.2042
Combination 15MHz+20MHz (100RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.71	0.3055
H	16QAM	1	Max	1	0	23.86	0.1995
Combination 20MHz+10MHz (100RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.72	0.3062
H	16QAM	1	Max	1	0	23.88	0.2004
Combination 10MHz+20MHz (50RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.77	0.3097
H	16QAM	1	Max	1	0	24.06	0.2089
Combination 20MHz+5MHz (100RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.68	0.3034
H	16QAM	1	Max	1	0	24.02	0.2070
Combination 5MHz+20MHz (25RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.83	0.3141
H	16QAM	1	Max	1	0	24.05	0.2084
Combination 15MHz+15MHz (75RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.66	0.3020



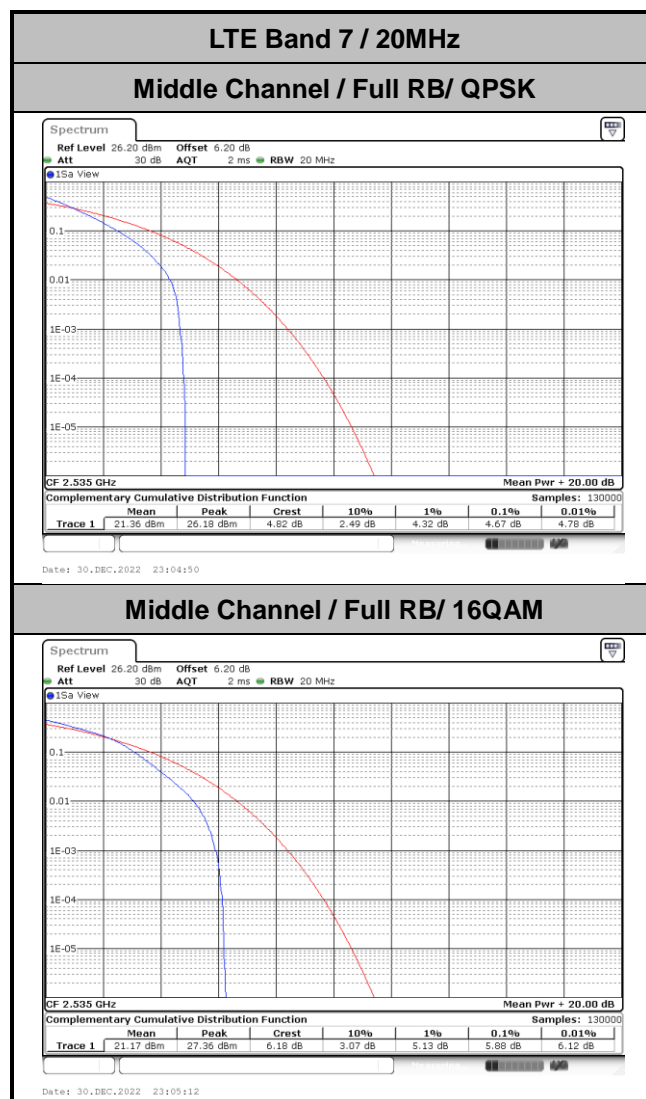
L	16QAM	1	Max	1	0	23.93	0.2028
Combination 15MHz+10MHz (75RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.73	0.3069
L	16QAM	1	Max	1	0	23.95	0.2037
Combination 10MHz+15MHz (50RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.64	0.3006
L	16QAM	1	Max	1	0	23.94	0.2032

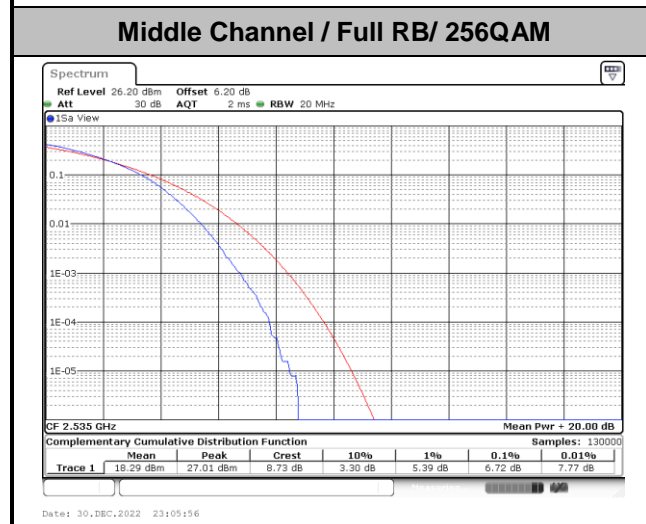
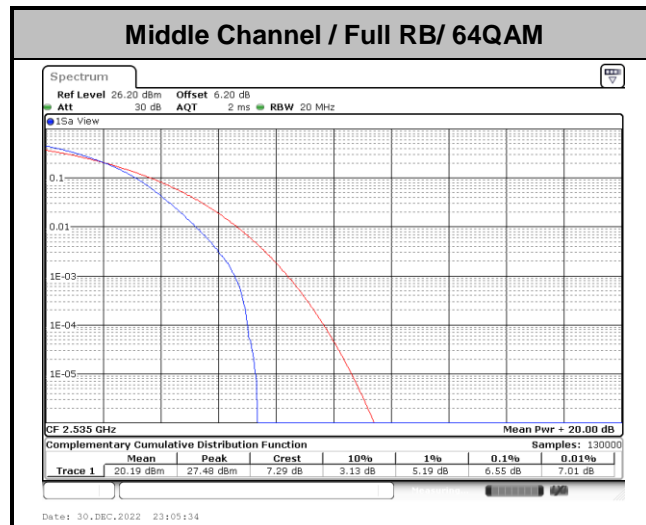


LTE Band 7

Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	4.67	5.88	6.55	6.72	PASS

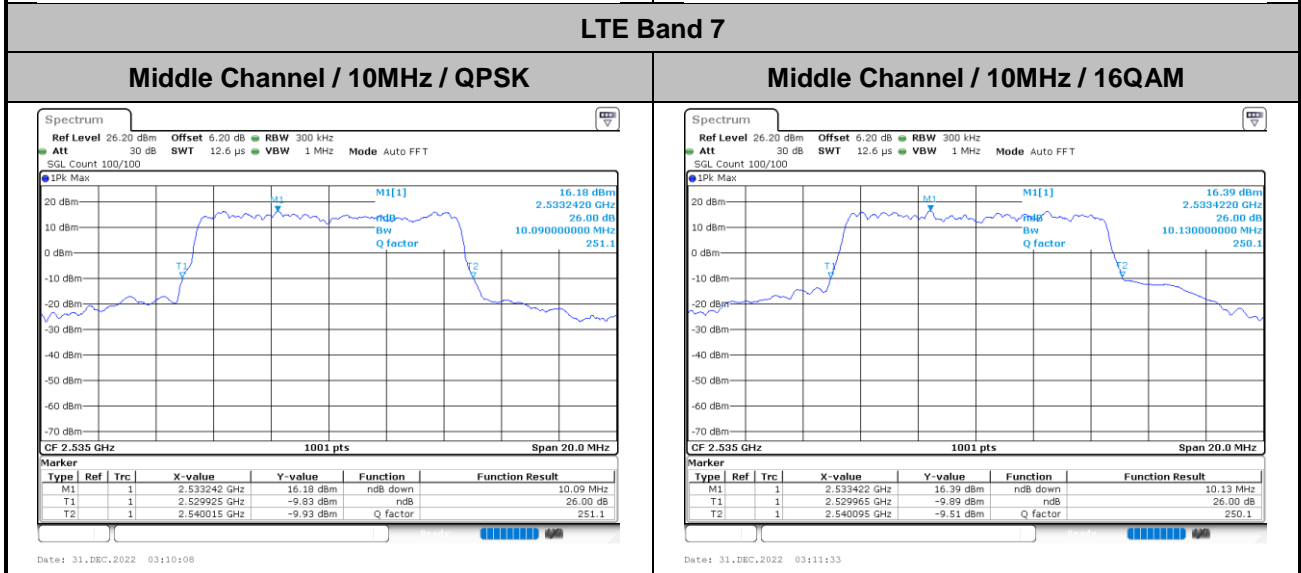
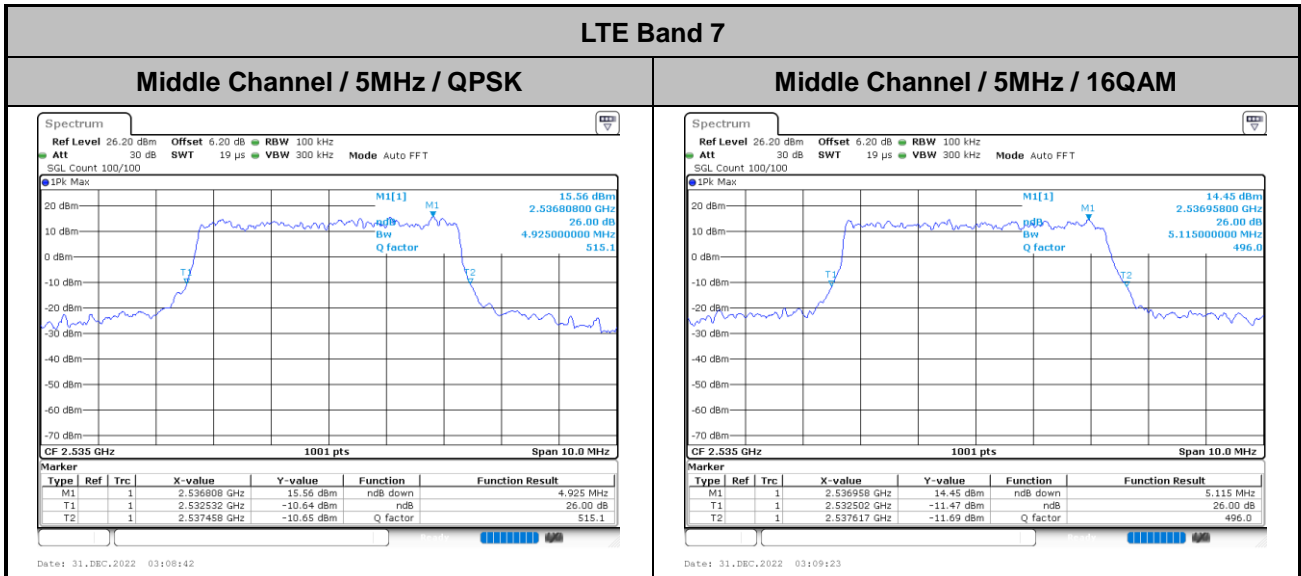






26dB Bandwidth

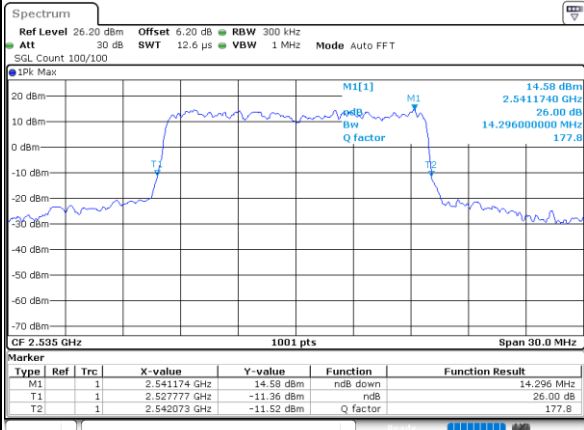
Mode	LTE Band 7 : 26dB BW(MHz)							
	5MHz		10MHz		15MHz		20MHz	
BW								
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.93	5.12	10.09	10.13	14.30	14.75	20.66	20.30





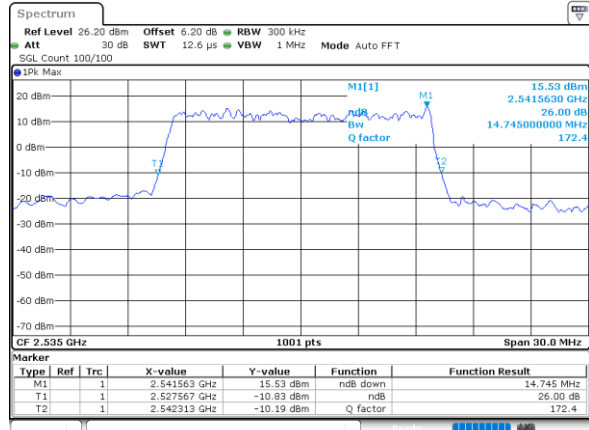
LTE Band 7

Middle Channel / 15MHz / QPSK



Date: 31.DEC.2022 03:12:36

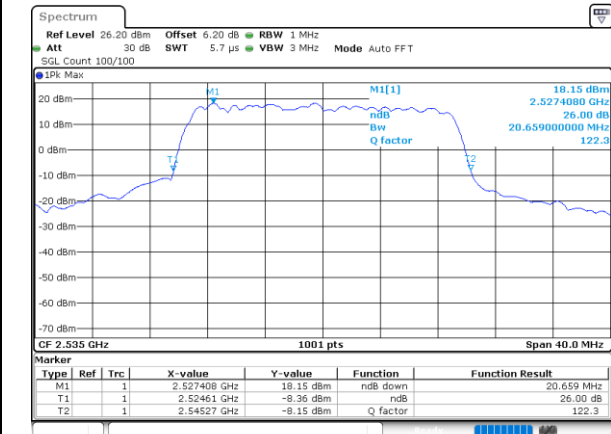
Middle Channel / 15MHz / 16QAM



Date: 31.DEC.2022 03:12:57

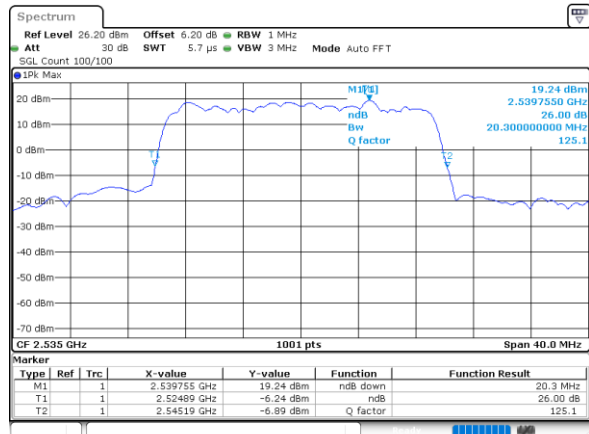
LTE Band 7

Middle Channel / 20MHz / QPSK



Date: 30.DEC.2022 23:03:26

Middle Channel / 20MHz / 16QAM

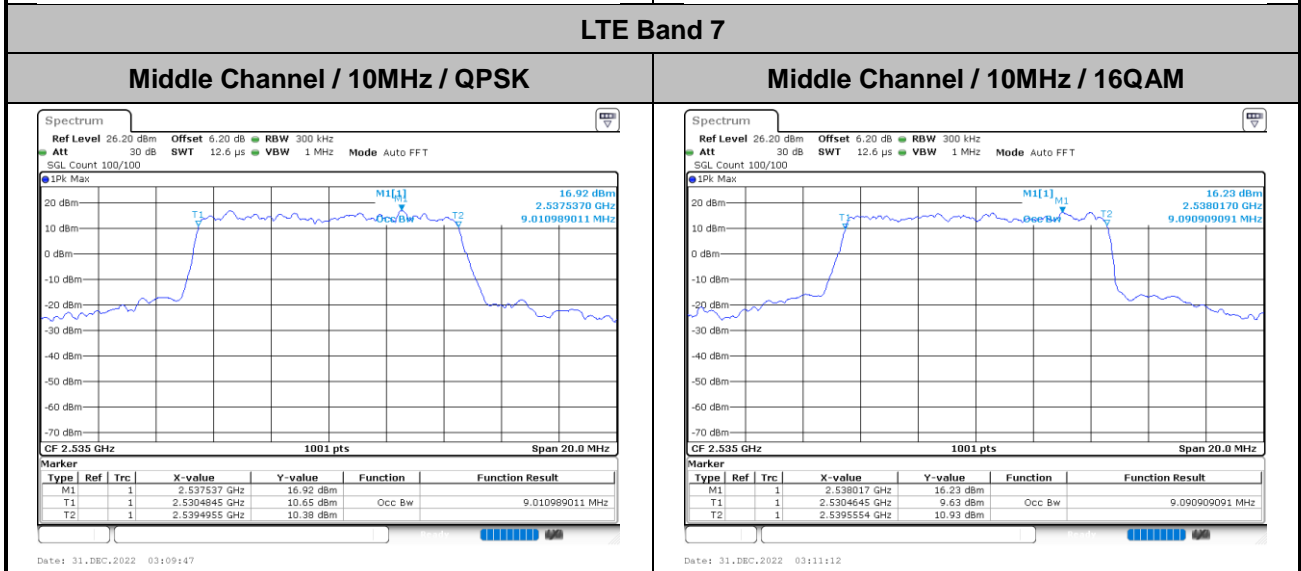
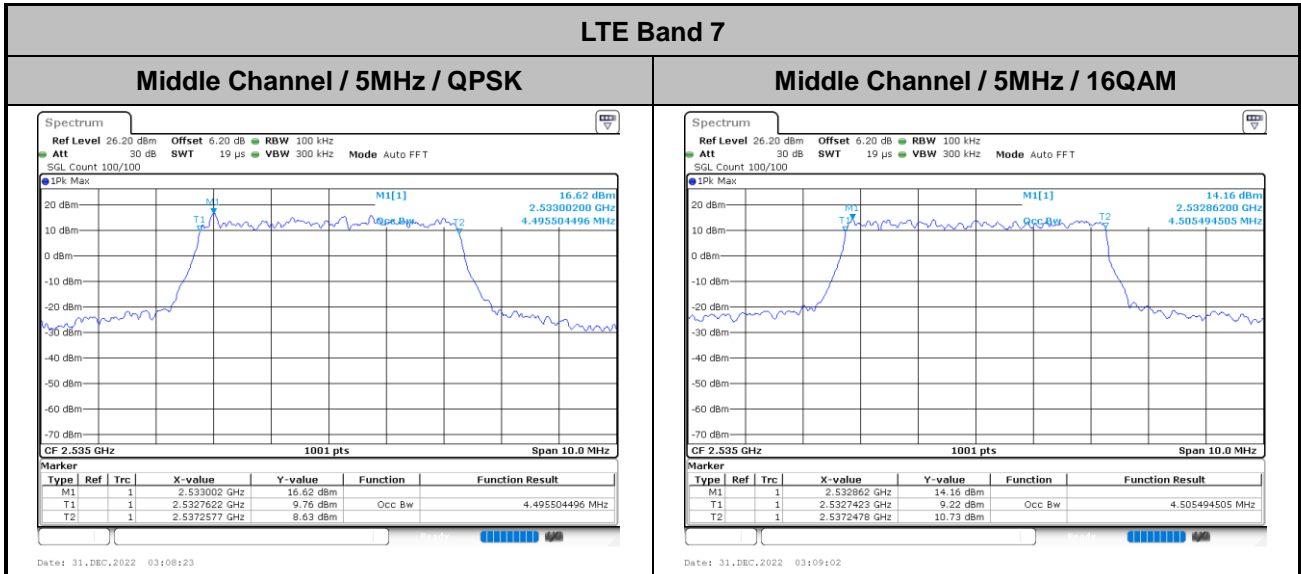


Date: 30.DEC.2022 23:04:28



Occupied Bandwidth

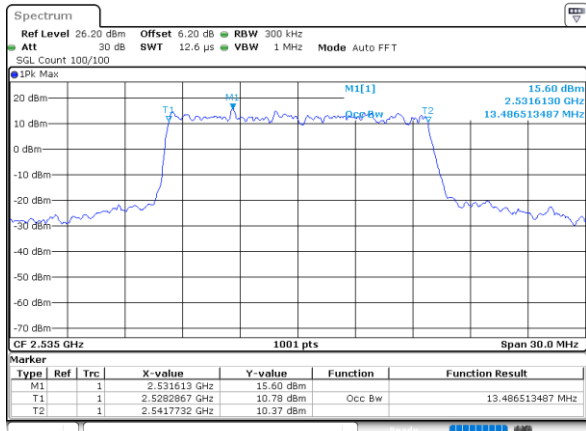
Mode	LTE Band 7 : 99%OBW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.50	4.51	9.01	9.09	13.49	13.55	18.50	18.42





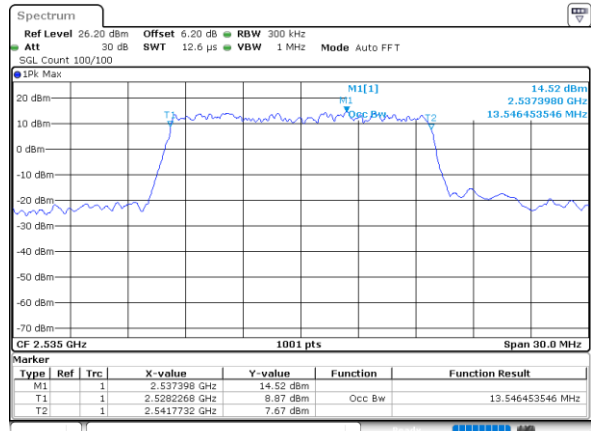
LTE Band 7

Middle Channel / 15MHz / QPSK



Date: 31. DEC. 2022 03:11:54

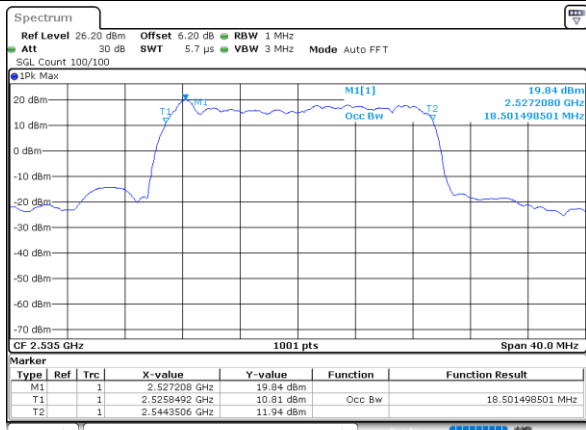
Middle Channel / 15MHz / 16QAM



Date: 31. DEC. 2022 03:12:15

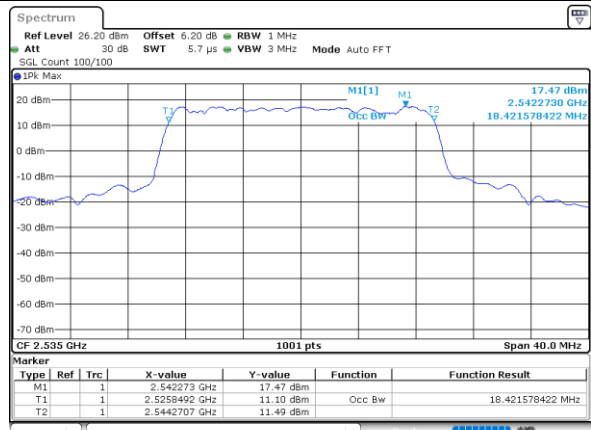
LTE Band 7

Middle Channel / 20MHz / QPSK



Date: 30. DEC. 2022 23:03:46

Middle Channel / 20MHz / 16QAM



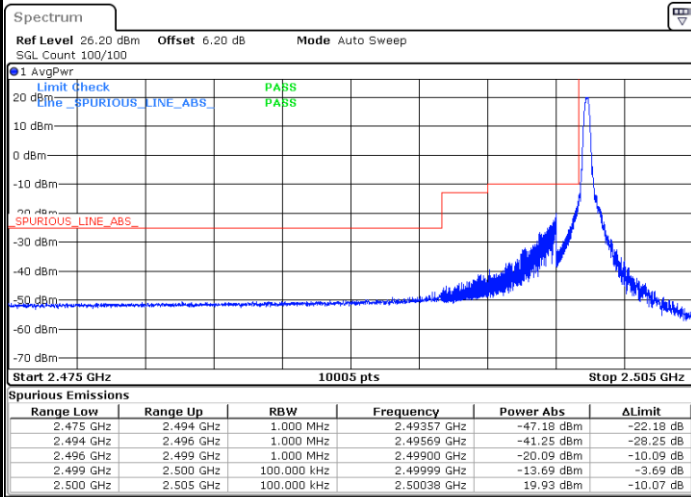
Date: 30. DEC. 2022 23:04:07



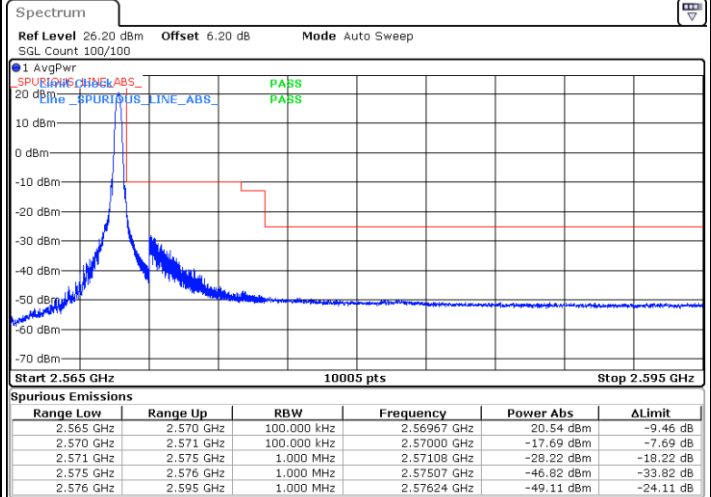
Conducted Band Edge

LTE Band 7 / 5MHz / QPSK

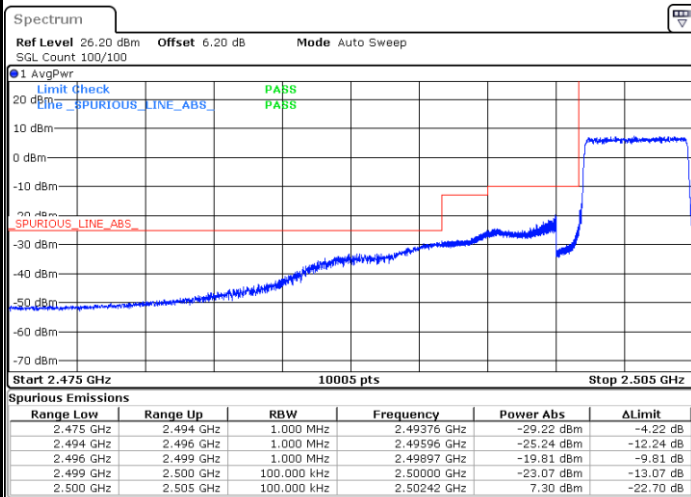
Lowest Band Edge / 1 RB



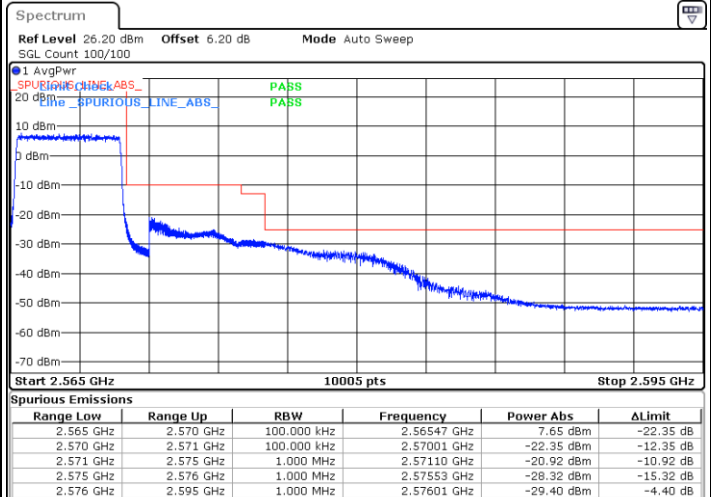
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



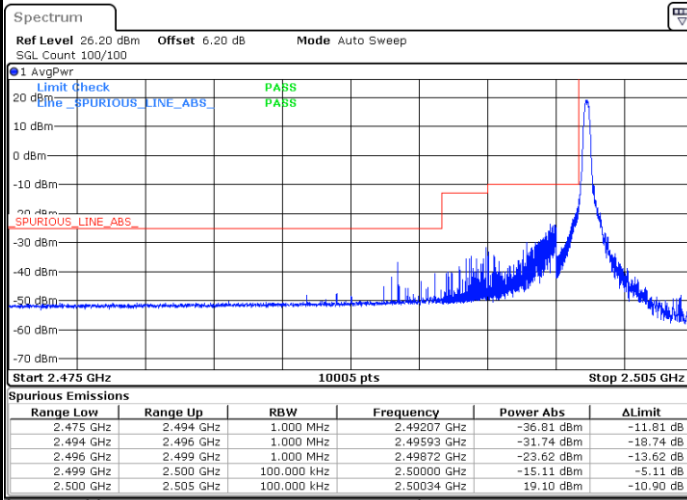
Highest Band Edge / Full RB





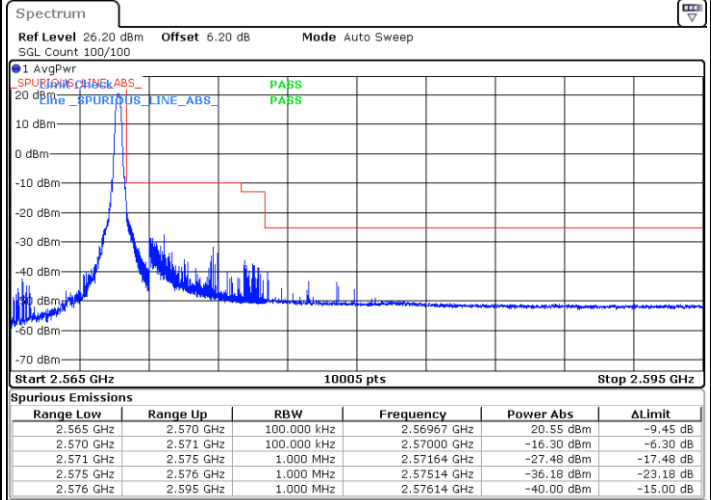
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1RB



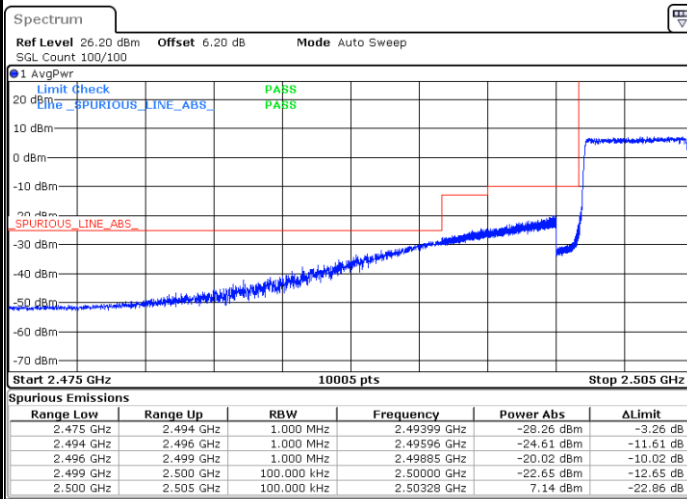
Date: 30.DEC.2022 21:07:15

Highest Band Edge / 1 RB



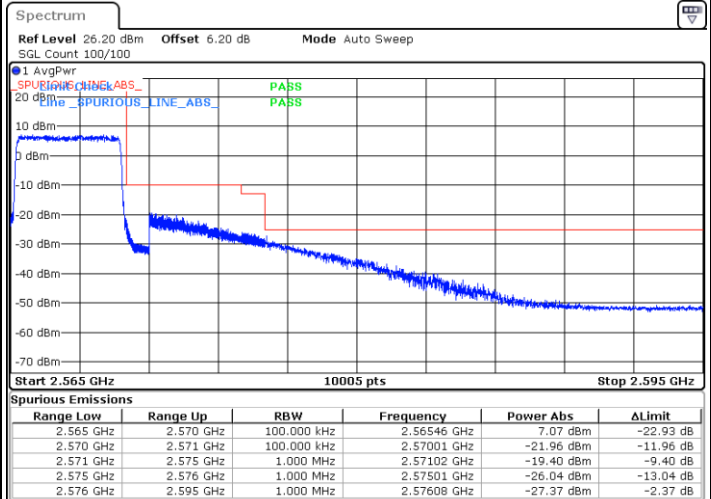
Date: 30.DEC.2022 21:20:19

Lowest Band Edge / Full RB



Date: 30.DEC.2022 21:15:31

Highest Band Edge / Full RB

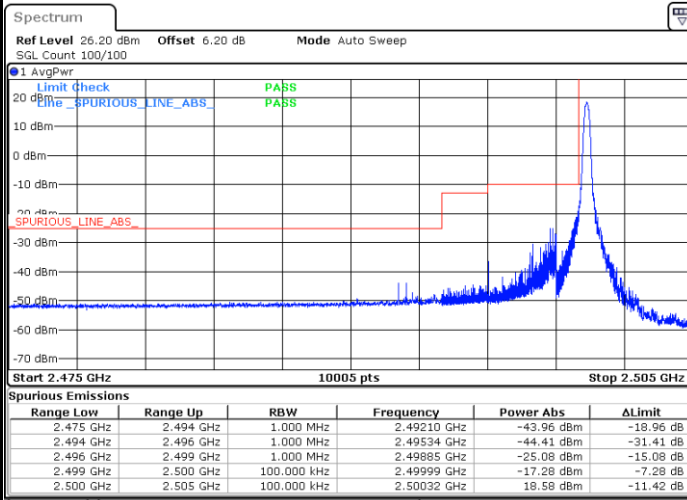


Date: 30.DEC.2022 21:23:14



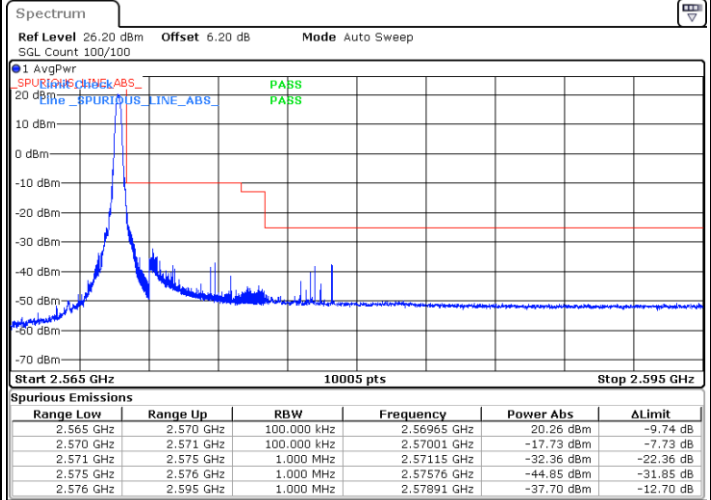
LTE Band 7 / 5MHz / 64QAM

Lowest Band Edge / 1RB



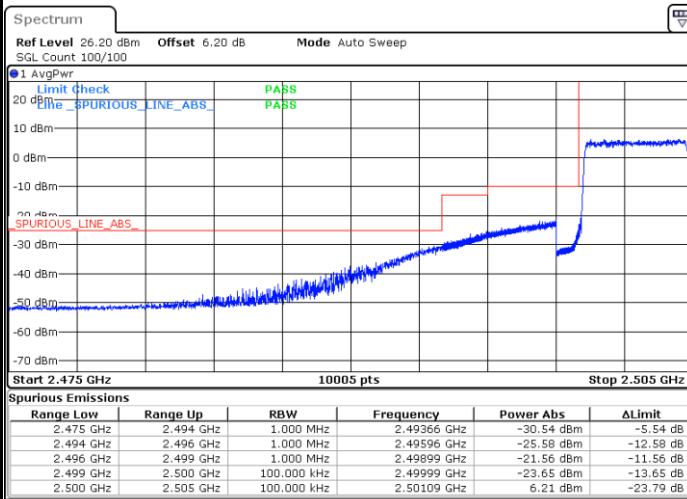
Date: 30.DEC.2022 21:07:45

Highest Band Edge / 1 RB



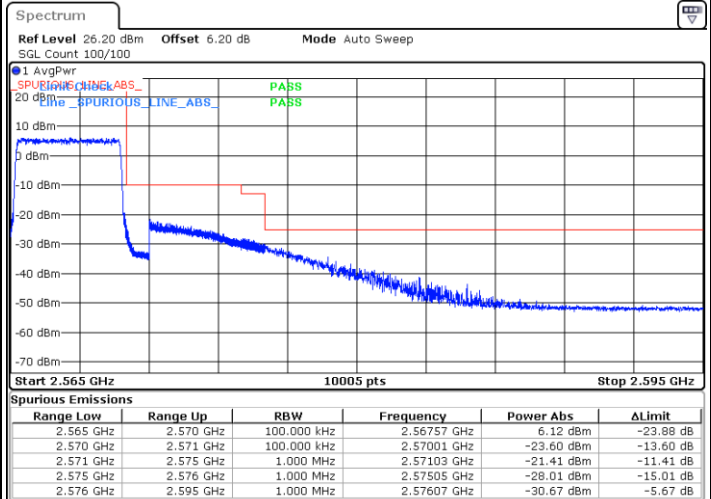
Date: 30.DEC.2022 21:20:49

Lowest Band Edge / Full RB



Date: 30.DEC.2022 21:15:01

Highest Band Edge / Full RB

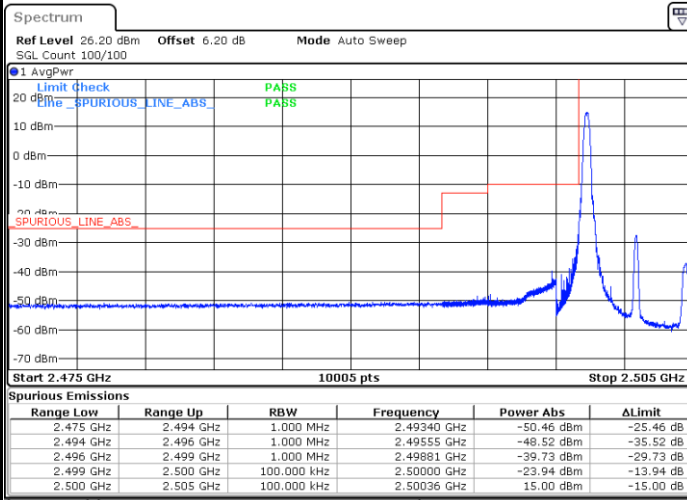


Date: 30.DEC.2022 21:22:44



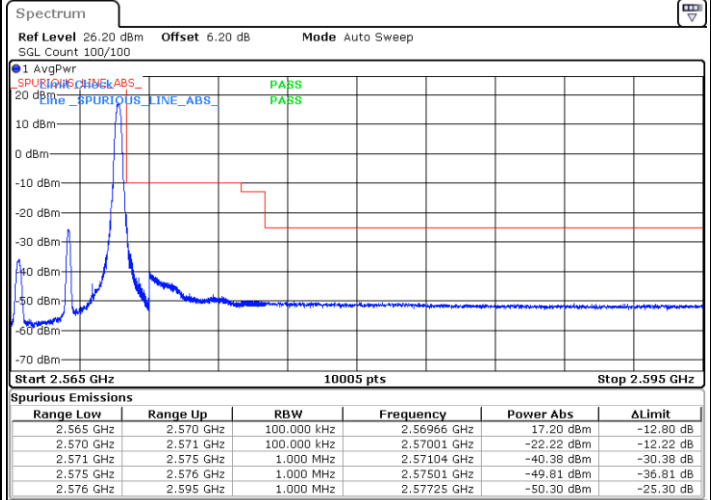
LTE Band 7 / 5MHz / 256QAM

Lowest Band Edge / 1RB



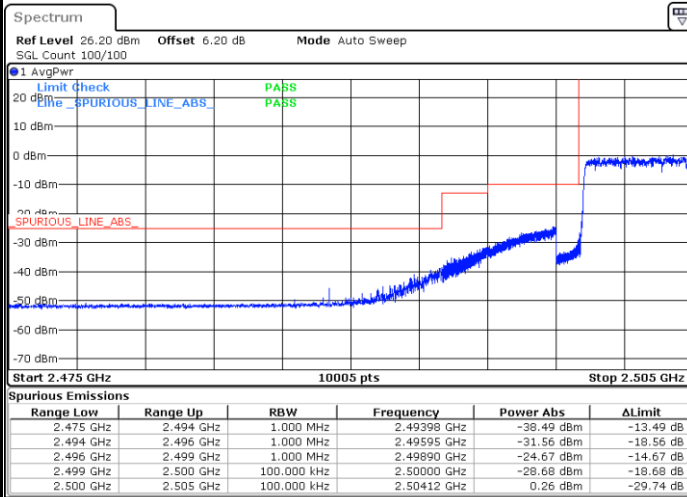
Date: 30.DEC.2022 21:08:15

Highest Band Edge / 1 RB



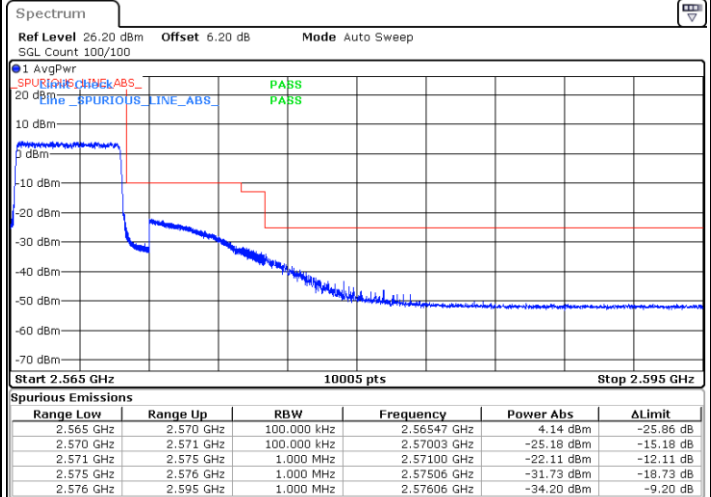
Date: 30.DEC.2022 21:21:19

Lowest Band Edge / Full RB



Date: 30.DEC.2022 21:14:28

Highest Band Edge / Full RB



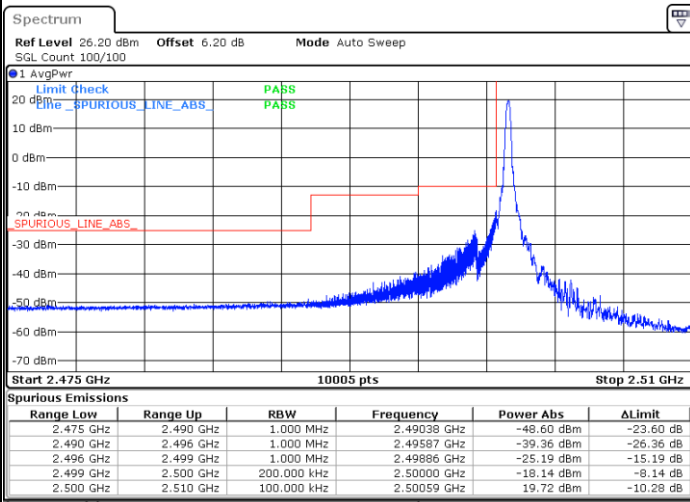
Date: 30.DEC.2022 21:22:13



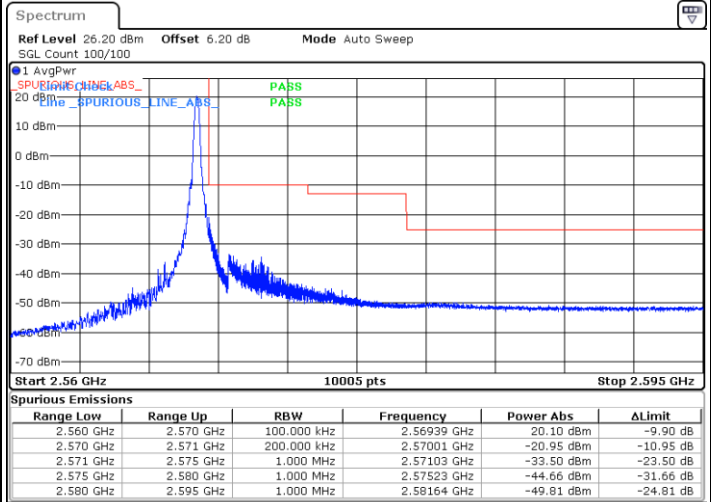
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



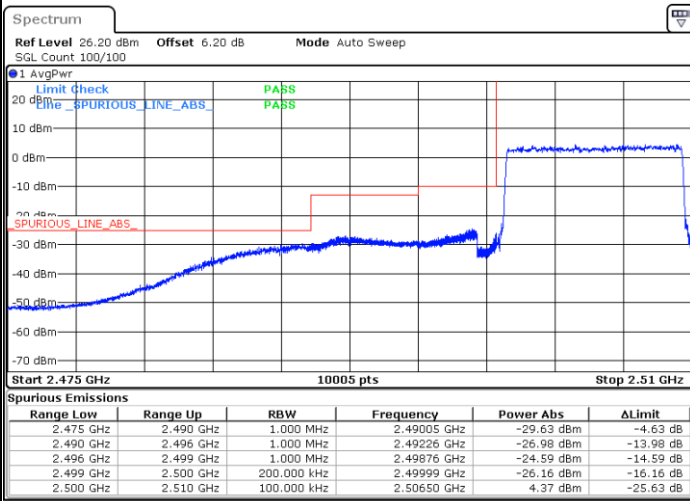
Date: 30.DEC.2022 21:25:54



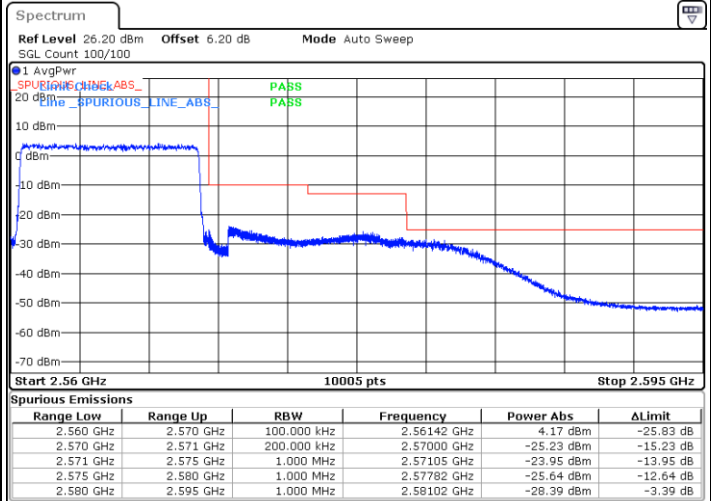
Date: 30.DEC.2022 21:42:39

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2022 21:38:51



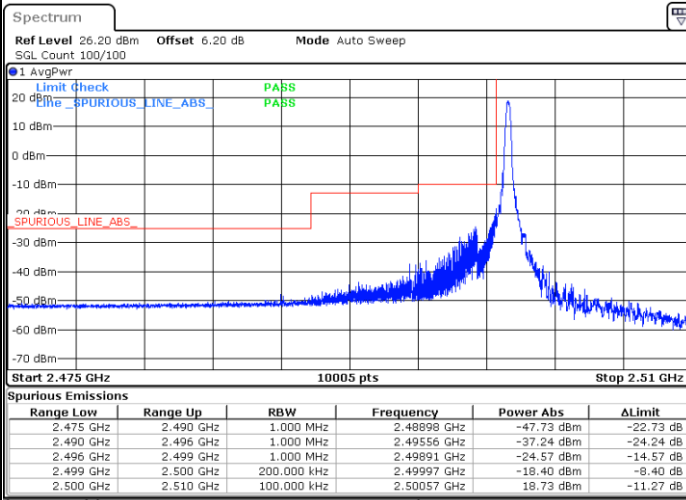
Date: 30.DEC.2022 21:46:37



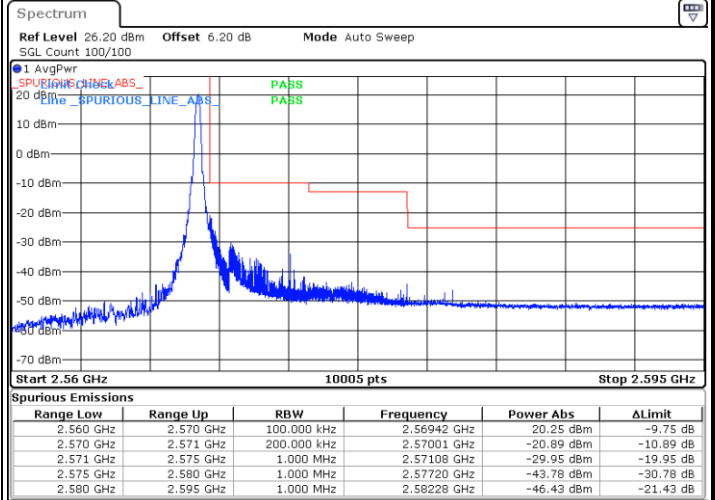
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



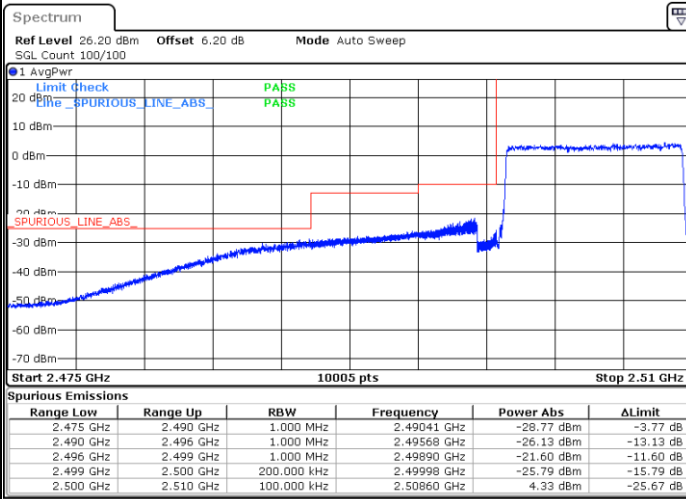
Date: 30.DEC.2022 21:26:24



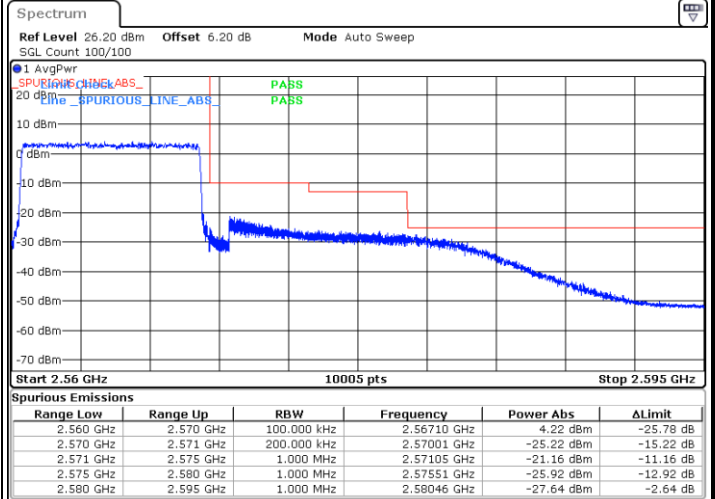
Date: 30.DEC.2022 21:43:09

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2022 21:38:21



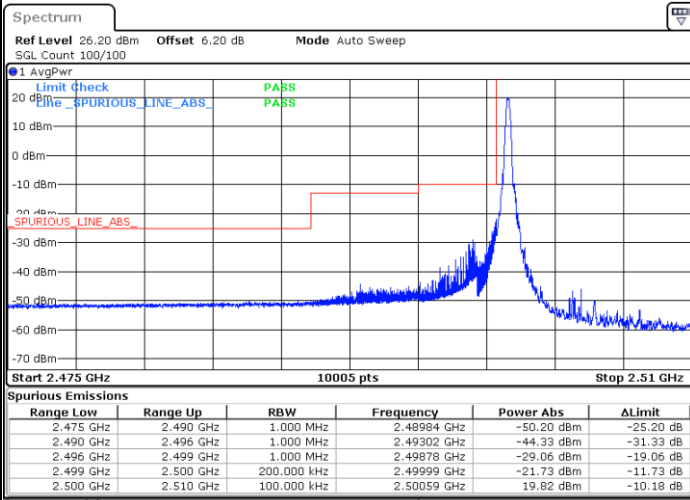
Date: 30.DEC.2022 21:46:07



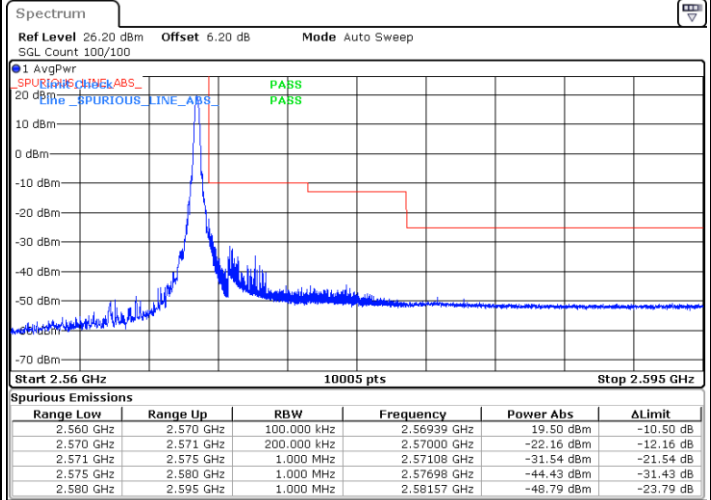
LTE Band 7 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



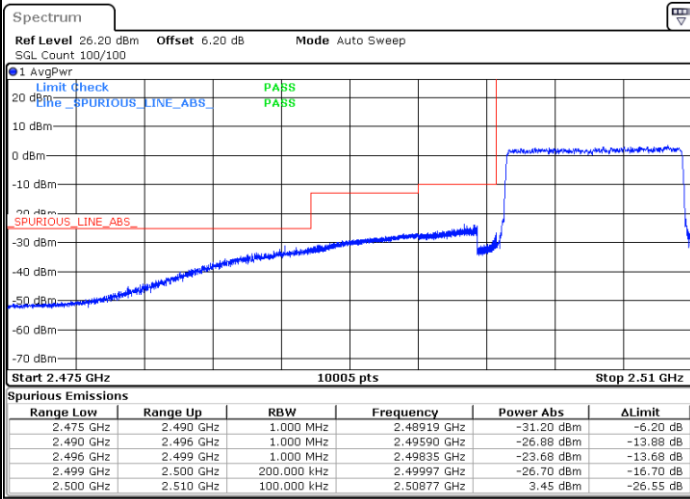
Date: 30.DEC.2022 21:26:53



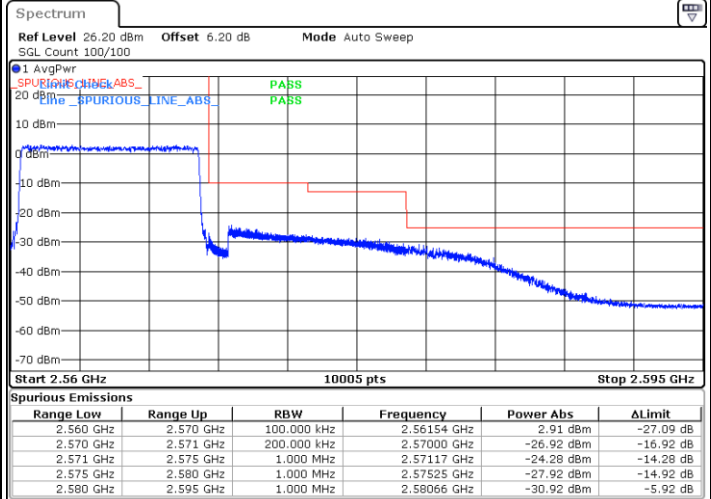
Date: 30.DEC.2022 21:43:39

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2022 21:37:51



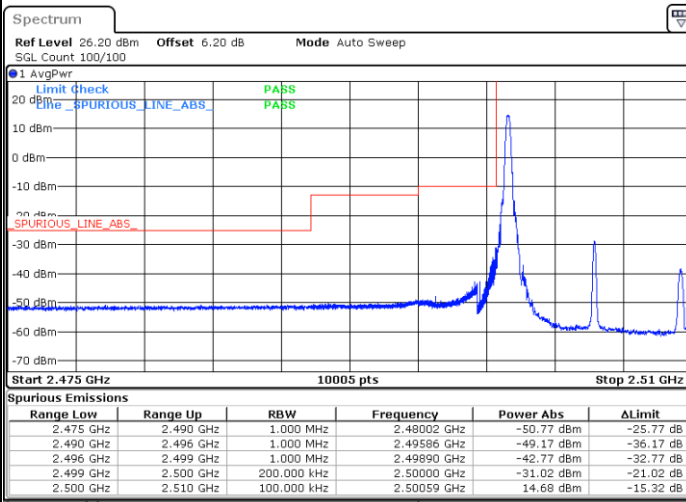
Date: 30.DEC.2022 21:45:36



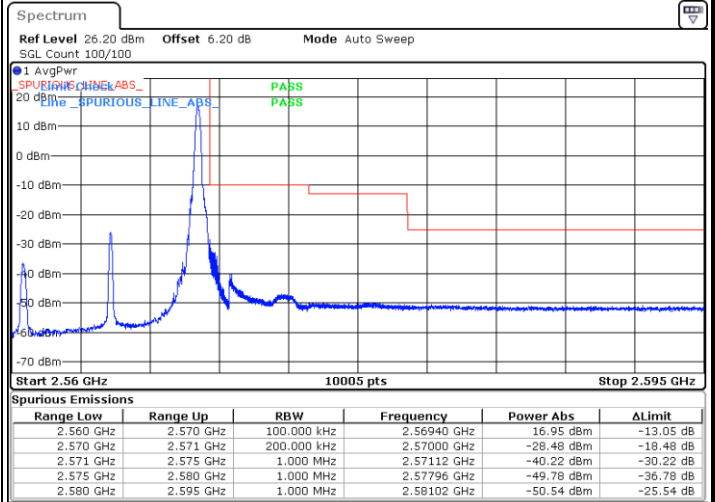
LTE Band 7 / 10MHz / 256QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



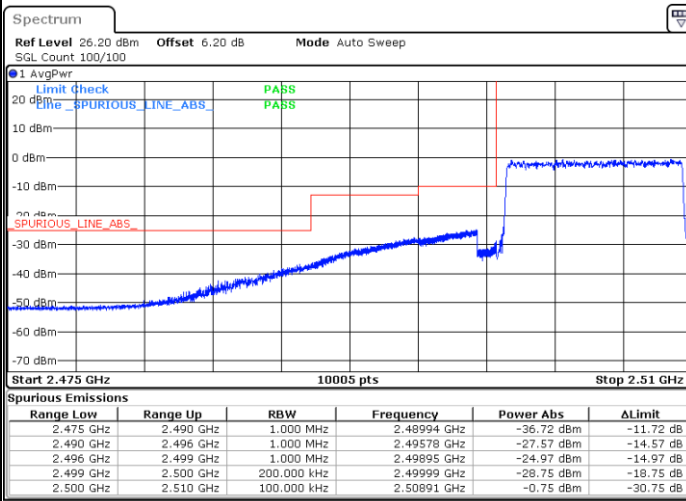
Date: 30. DEC. 2022 21:27:23



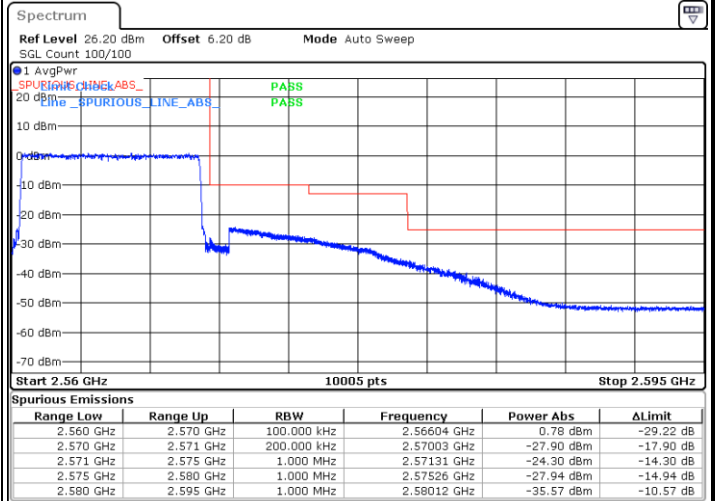
Date: 30. DEC. 2022 21:44:09

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30. DEC. 2022 21:37:22

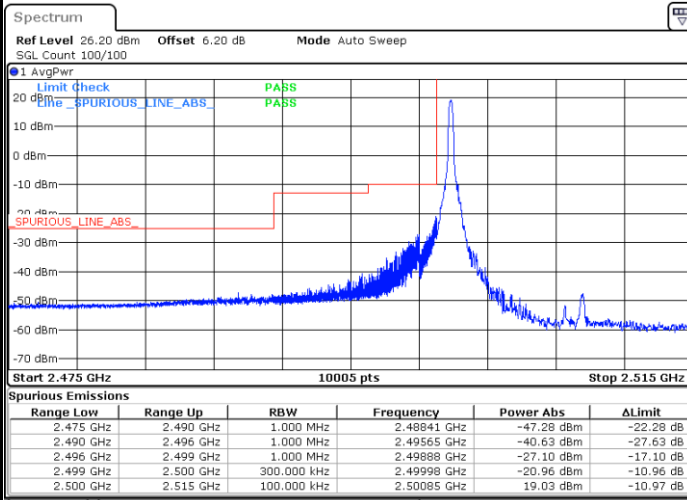


Date: 30. DEC. 2022 21:45:04



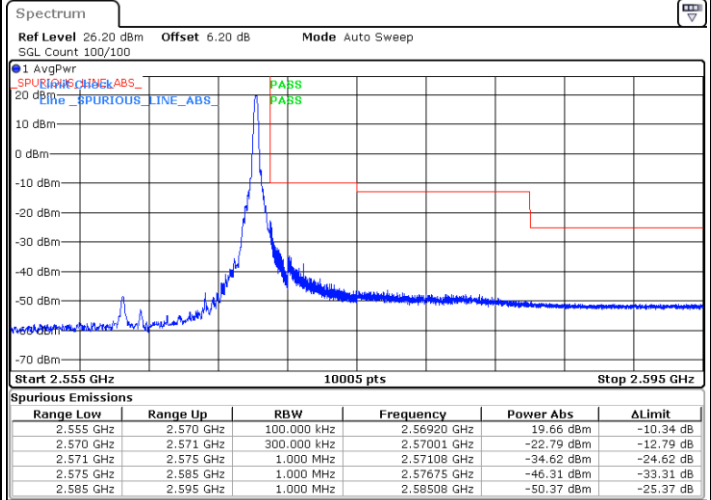
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



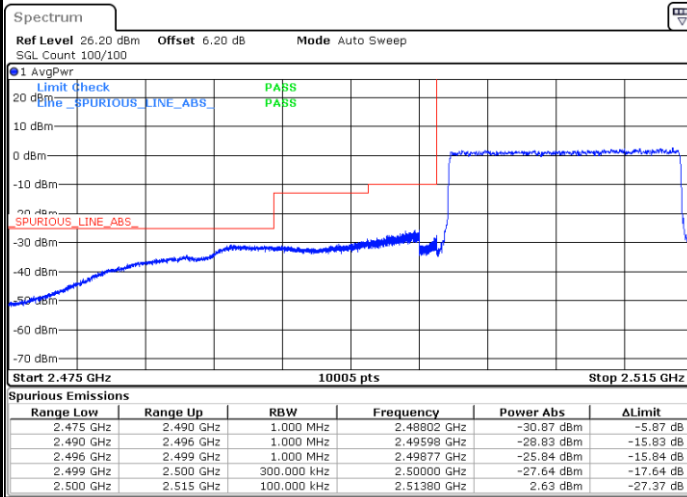
Date: 30.DEC.2022 21:48:46

Highest Band Edge / 1 RB



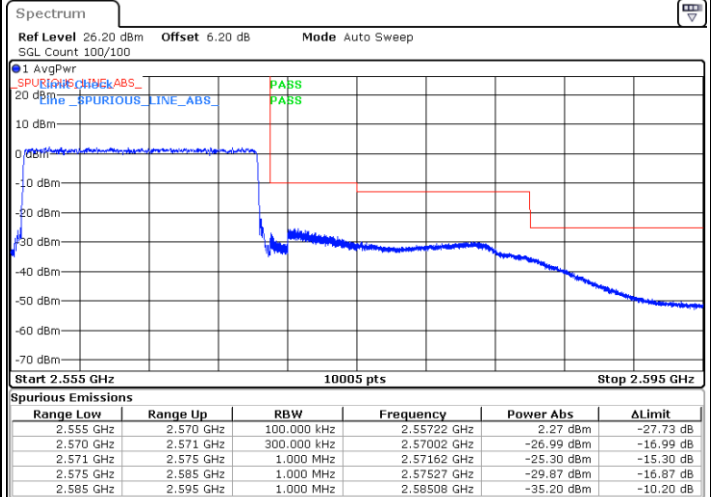
Date: 30.DEC.2022 22:00:30

Lowest Band Edge / Full RB



Date: 30.DEC.2022 21:56:42

Highest Band Edge / Full RB

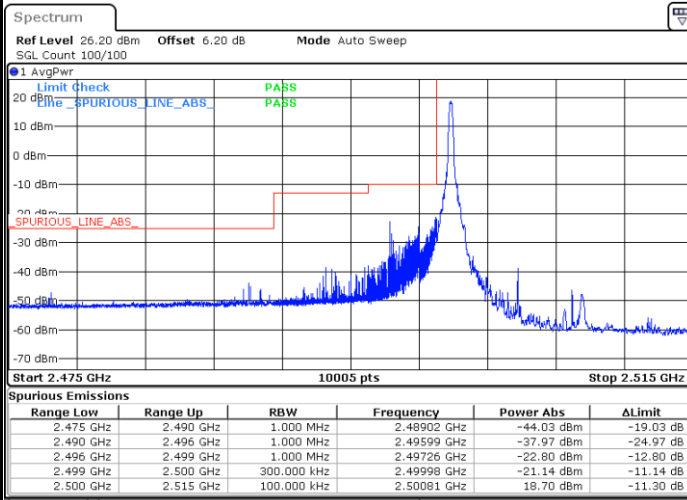


Date: 30.DEC.2022 22:04:34



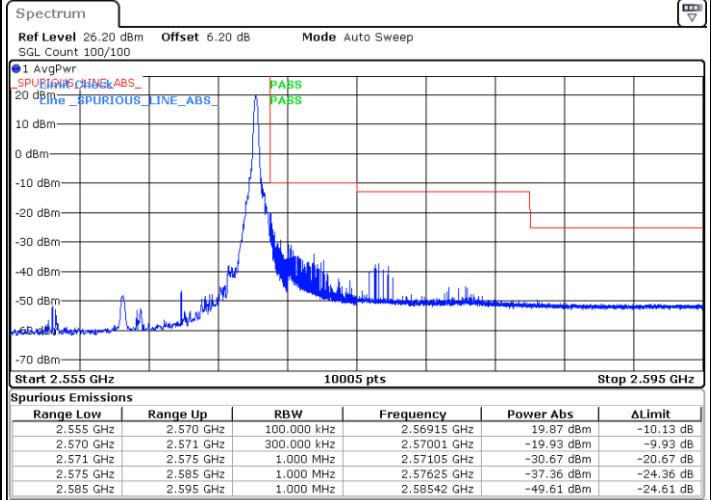
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



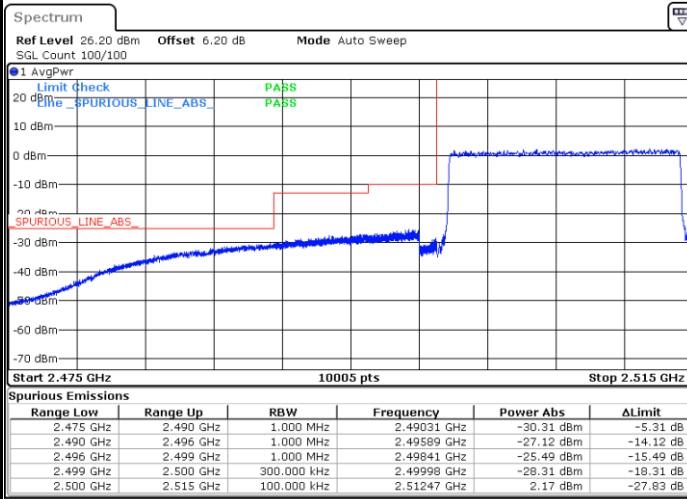
Date: 30.DEC.2022 21:49:16

Highest Band Edge / 1 RB



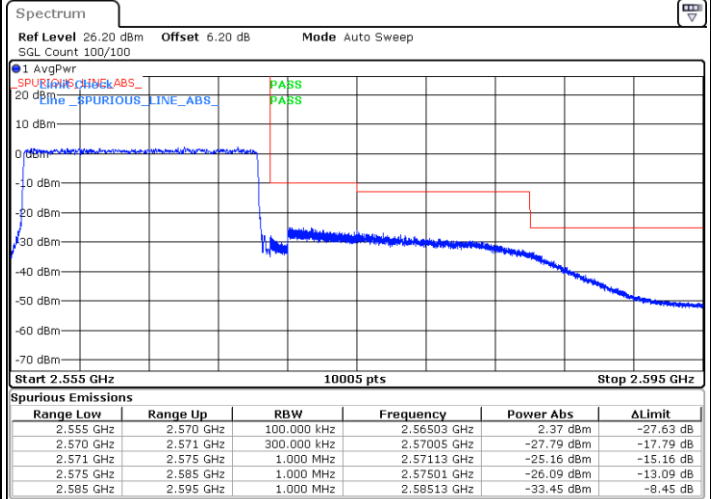
Date: 30.DEC.2022 22:01:00

Lowest Band Edge / Full RB



Date: 30.DEC.2022 21:56:12

Highest Band Edge / Full RB

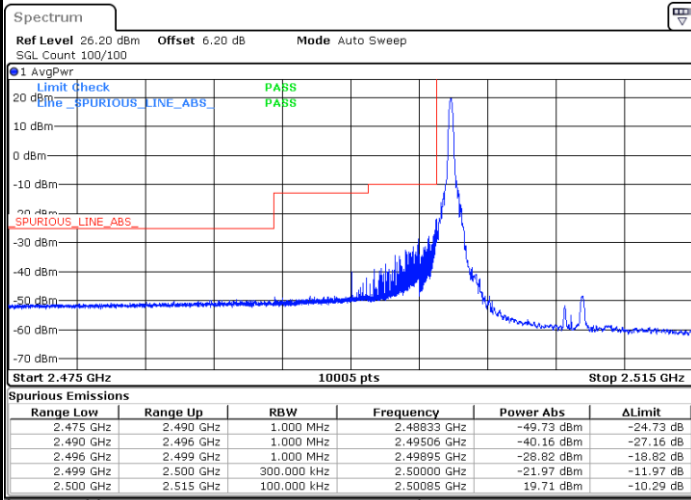


Date: 30.DEC.2022 22:03:55



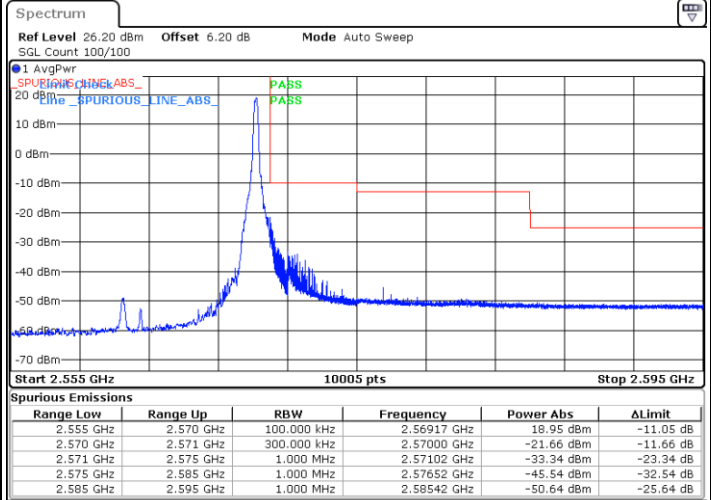
LTE Band 7 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



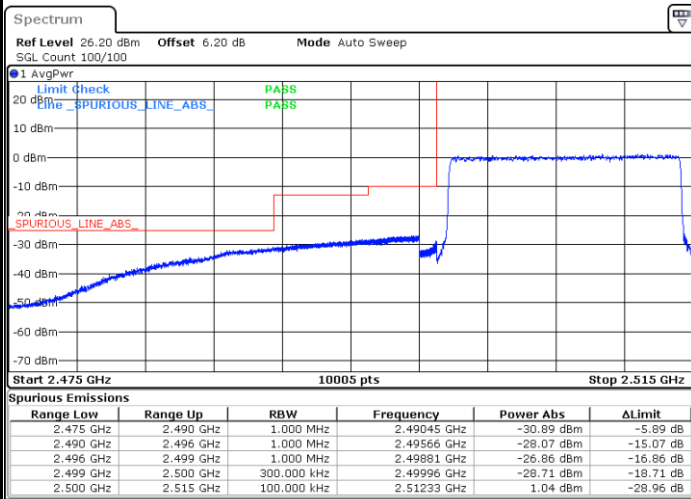
Date: 30.DEC.2022 21:49:46

Highest Band Edge / 1 RB



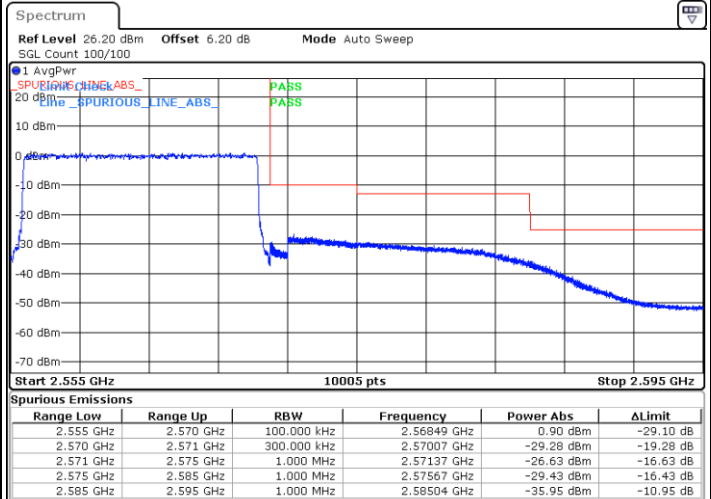
Date: 30.DEC.2022 22:01:30

Lowest Band Edge / Full RB



Date: 30.DEC.2022 21:55:42

Highest Band Edge / Full RB

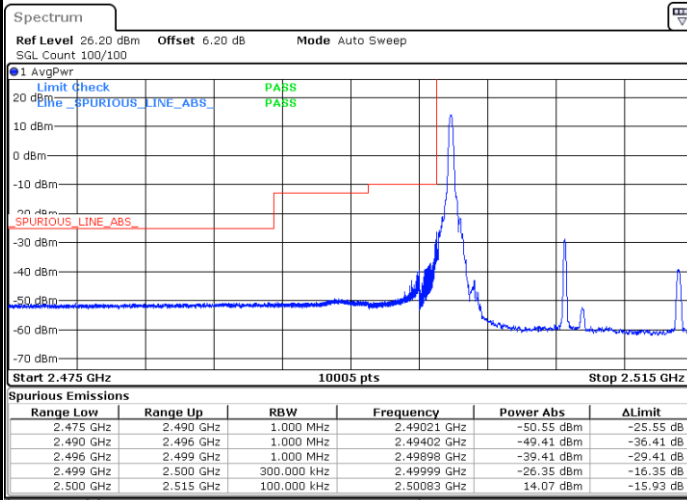


Date: 30.DEC.2022 22:03:25



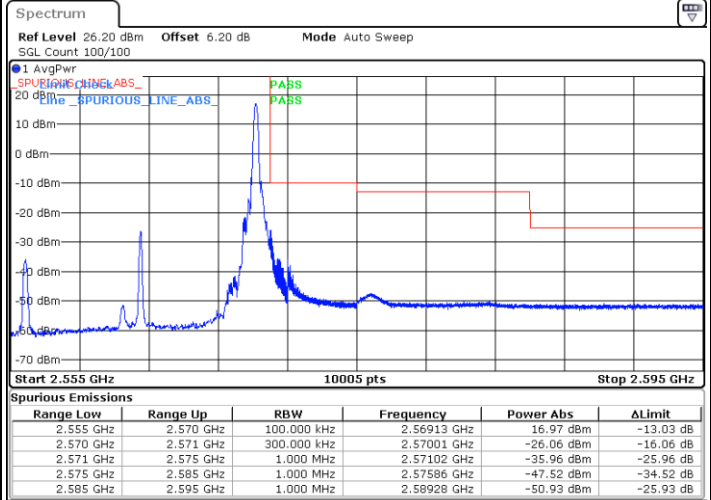
LTE Band 7 / 15MHz / 256QAM

Lowest Band Edge / 1 RB



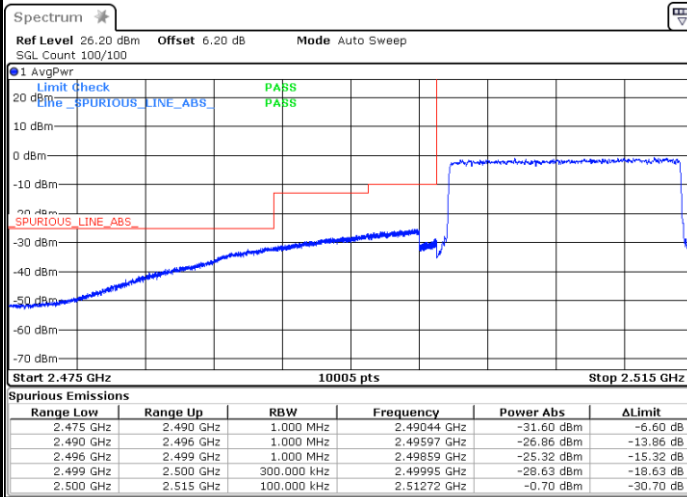
Date: 30.DEC.2022 21:50:16

Highest Band Edge / 1 RB



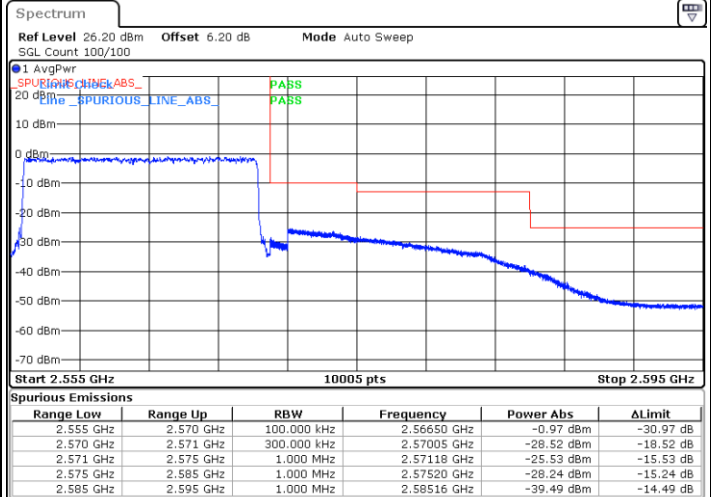
Date: 30.DEC.2022 22:02:00

Lowest Band Edge / Full RB



Date: 30.DEC.2022 23:21:04

Highest Band Edge / Full RB

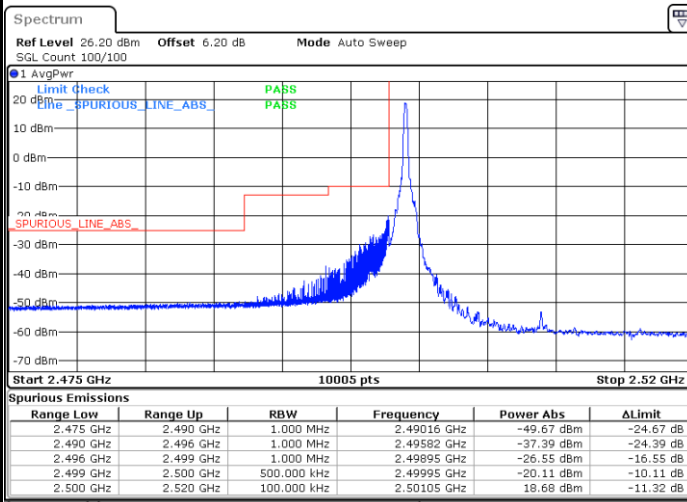


Date: 30.DEC.2022 22:02:55



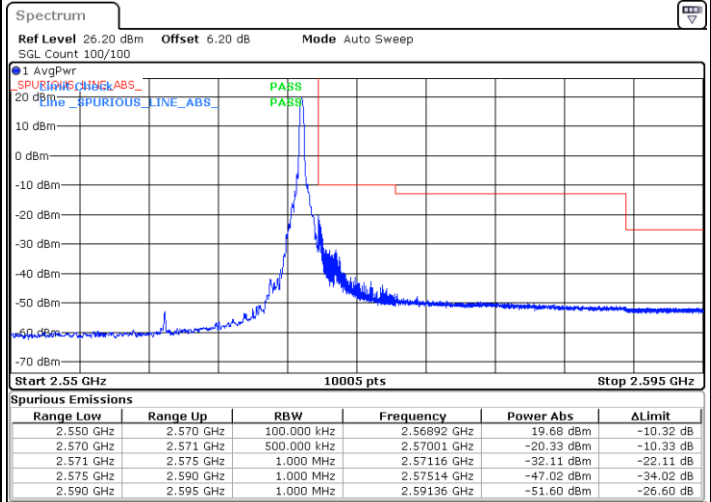
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



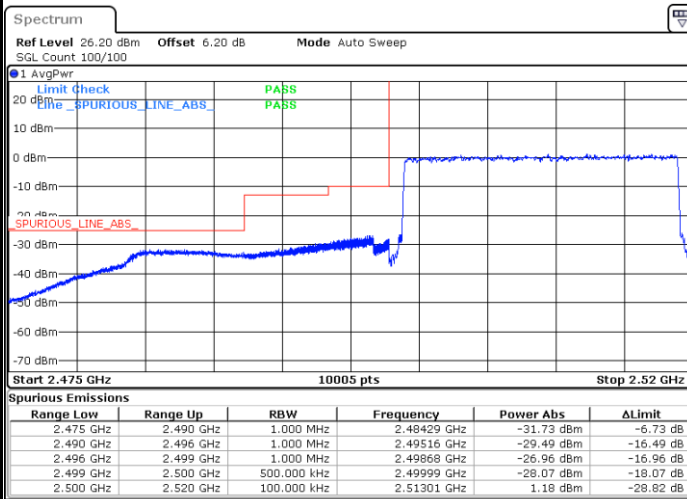
Date: 30.DEC.2022 22:06:44

Highest Band Edge / 1 RB



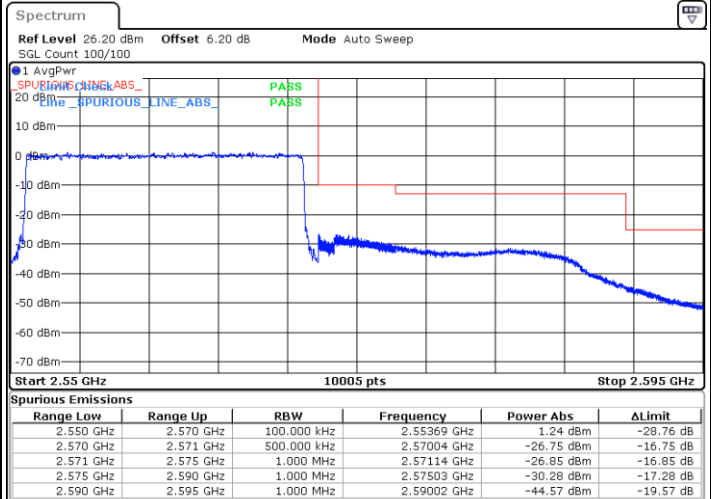
Date: 30.DEC.2022 23:00:34

Lowest Band Edge / Full RB



Date: 30.DEC.2022 22:56:16

Highest Band Edge / Full RB



Date: 30.DEC.2022 23:03:04