



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2347-1
FCC ID : IHDT56AN1
STANDARD : 47 CFR Part 2, 27(M), 27(H), 27(F)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S) : Jun. 15, 2023 ~ Jul. 06, 2023

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

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

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (ShenZhen)

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People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG352602C	Rev. 01	Initial issue of report	Jul. 13, 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)	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)	< 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)	< 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)	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 18.61 dB at 1559.500 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log ₁₀ (P[Watts])		

Conformity Assessment Condition:

- The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
- The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



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	XT2347-1
FCC ID	IHDT56AN1
IMEI Code	Conducted: 357231700047152/357231700047160 Radiation: 357231700039357/357231700039365
HW Version	DVT2
SW Version	T3TC33.12
EUT Stage	Identical Prototype



1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 17 : 704 MHz ~ 716 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz
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
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 38/41 : 5MHz / 10MHz / 15MHz / 20MHz
CA	CA_7C
Maximum Output Power to Antenna	<Ant. 0> LTE Band 12 : 22.55 dBm LTE Band 13 : 22.49 dBm LTE Band 17 : 22.54 dBm <Ant. 1> LTE Band 7 : 22.64 dBm; LTE Band 7C : 23.46 dBm LTE Band 38 : 22.59 dBm; LTE Band 41 : 23.05 dBm <Ant. 4> LTE Band 12 : 22.55 dBm LTE Band 13 : 22.48 dBm LTE Band 17 : 22.53 dBm LTE Band 38 : 22.78 dBm LTE Band 41 : 22.79 dBm
Antenna Gain	<Ant. 0> LTE Band 12 : -3.9 dBi LTE Band 13 : -3.9 dBi LTE Band 17 : -3.9 dBi <Ant. 1> LTE Band 7 : -2.9 dBi; LTE Band 38 : -3.1 dBi; LTE Band 41 : -3.1 dBi <Ant. 4> LTE Band 12 : -4.9 dBi LTE Band 13 : -4.9 dBi LTE Band 17 : -4.9 dBi LTE Band 38 : -3.5 dBi LTE Band 41 : -3.5 dBi
Type of Modulation	QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. WWAN Antenna 0/1/4 only support antenna switch, not support MIMO.
2. The maximum ERP/EIRP is calculated from max output power and max antenna gain, only the maximum ERP/EIRP of Ant.0 for LTE Band 12/13/17, and Ant.1 for LTE Band 7/38/41/7C are shown in the report.



1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP Power and Emission Designator

LTE Band 7		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	2510.0 ~ 2560.0	0.0942	17M9G7D	0.0891	17M9W7D
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)
10	704.0 ~ 711.0	0.0447	9M01G7D	0.0385	8M95W7D
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)
10	782.0	0.0441	9M03G7D	0.0393	9M09W7D
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)
10	709.0 ~ 711.0	0.0446	9M01G7D	0.0375	8M95W7D
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)
20	2580.0 ~ 2610.0	0.0889	17M8G7D	0.0726	17M9W7D
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)
20	2506.0 ~ 2680.0	0.0989	17M8G7D	0.0875	17M9W7D
LTE Band 7 CA		QPSK		16QAM/64QAM/256QAM	
BW (MHz)		Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20MHz+20MHz		0.1054	37M5G7D	0.1138	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 Testing Location

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

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

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

1.8 Test Software

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



1.9 Applicable Standards

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

- 47 CFR Part 2, 27(M), 27(H), 27(F)
- 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.

1.10 Specification of Accessory

Accessories Information				
AC Adapter 1(US)	Brand Name	Motorola(Salcomp)	Model Name	MC-331
AC Adapter 1(EU)	Brand Name	Motorola(Salcomp)	Model Name	MC-332
AC Adapter 1(UK)	Brand Name	Motorola(Salcomp)	Model Name	MC-333
AC Adapter 1(AR)	Brand Name	Motorola(Salcomp)	Model Name	MC-336
AC Adapter 1(BR)	Brand Name	Motorola(Salcomp)	Model Name	MC-337
AC Adapter 1(CHILE)	Brand Name	Motorola(Salcomp)	Model Name	MC-339
AC Adapter 2(US)	Brand Name	Motorola(Chenyang)	Model Name	MC-331
AC Adapter 2(EU)	Brand Name	Motorola(Chenyang)	Model Name	MC-332
AC Adapter 2(AR)	Brand Name	Motorola(Chenyang)	Model Name	MC-336
AC Adapter 2(BR)	Brand Name	Motorola(Chenyang)	Model Name	MC-337
AC Adapter 2(BR Local)	Brand Name	Motorola(Cliptech)	Model Name	MC-337
AC Adapter 3(US)	Brand Name	Motorola(AOHAI)	Model Name	MC-331
AC Adapter 3(EU)	Brand Name	Motorola(AOHAI)	Model Name	MC-332
AC Adapter 3(UK)	Brand Name	Motorola(AOHAI)	Model Name	MC-333
Battery 1	Brand Name	Motorola(sunwoda)	Model Name	QB50
Battery 2	Brand Name	Motorola(cosmx)	Model Name	QB50
Bluetooth Earphone	Brand Name	Motorola(SGW)	Model Name	Moto earbuds 135
USB Cable 1	Brand Name	Motorola(Juwei)	Model Name	JWUB1580-T03H
USB Cable 2	Brand Name	Motorola(Saibao)	Model Name	STN-A121A
USB Cable 3	Brand Name	Motorola(ISHENG)	Model Name	SC18D38574



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. (X/Y -Plane)

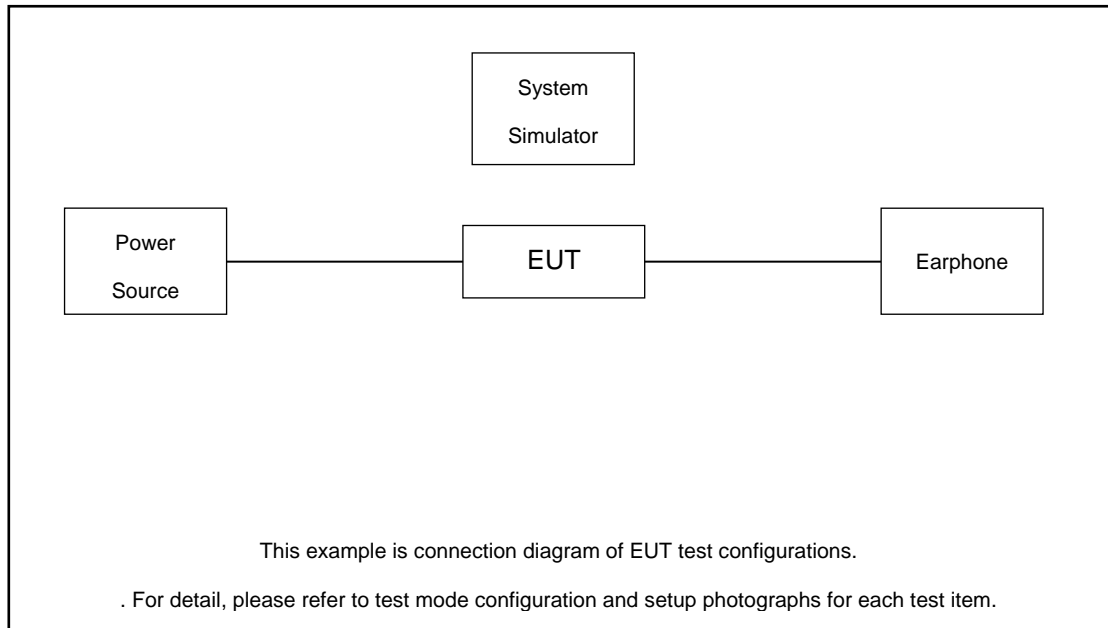
Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	13	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	38	-	-	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
Peak-to-Average Ratio	7	-	-				v	v	v	v				v		v	
	12				v	-	-	v	v	v				v		v	
	13	-	-		v	-	-	v	v	v				v		v	
	41	-	-				v	v	v	v				v		v	
26dB and 99% Bandwidth	7	-	-				v	v	v					v		v	
	12				v	-	-	v	v					v		v	
	13	-	-		v	-	-	v	v					v		v	
	41	-	-				v	v	v					v		v	
Conducted Band Edge	7	-	-	v	v	v	v	v	v	v		v		v	v	v	
	12	v	v	v	v	-	-	v	v	v		v		v	v	v	
	13	-	-	v	v	-	-	v	v	v		v		v	v	v	
	41	-	-	v	v	v	v	v	v	v		v		v	v	v	
Conducted Spurious Emission	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	



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		
Frequency Stability	7	-	-		v			v							v		v		
	12				v	-	-	v							v		v		
	13	-	-		v	-	-	v							v		v		
	41	-	-		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
Radiated Spurious Emission	7	Worst Case																v	
	12	Worst Case																v	
	13	Worst Case																v	
	41	Worst Case																v	
Note	<ol style="list-style-type: none"> The mark "v" means that this configuration is chosen for testing The mark "-" means that this bandwidth is not supported. 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. 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. LTE Band 41 overlaps the entire frequency range of LTE Band 38. Therefore, the test results provided in this report covers Band 41 as well as Band 38. For QAM modulation mode, the whole testing has assessed 16QAM&64QAM mode by referring to the higher conducted power 																		

Test Items	Band	Bandwidth (MHz)										Modulation				RB #			Test Channel				
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H		
Max. Output Power	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v	v			v	v	v	v	
26dB and 99% Bandwidth	7C_CA	v					-	-			-	v	v						v		v		
Conducted Band Edge	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v				v		v	v	v	
Conducted Spurious Emission	7C_CA	v	v	v	v	v	-	-	v	v	-	v						v			v	v	v
E.I.R.P.	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v	v				v	v	v	
Radiated Spurious Emission	7C_CA	Worst Case																		v			
Note	<ol style="list-style-type: none"> The mark "v" means that this configuration is chosen for testing The mark "-" means that this bandwidth is not supported. 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. For QAM modulation mode, the whole testing has assessed 16QAM&64QAM mode by referring to the higher conducted power 																						

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	Earphone	Apple	MC690ZP/A	N/A	Shielded, 1.0m	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

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

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 5.0 dB and 10dB attenuator.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 5.0 + 10 = 15.0 \text{ (dB)} \end{aligned}$$



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

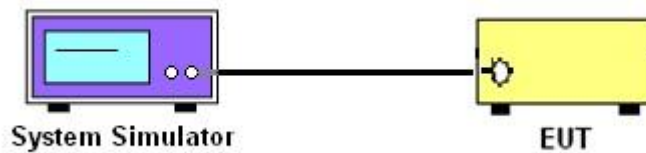
3 Conducted Test Items

3.1 Measuring Instruments

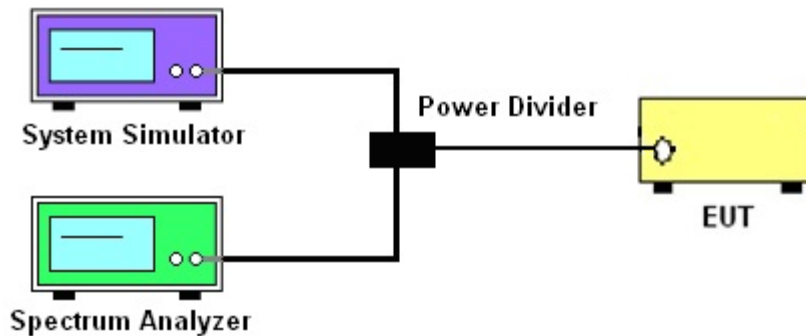
See list of measuring instruments of this test report.

3.2 Test Setup

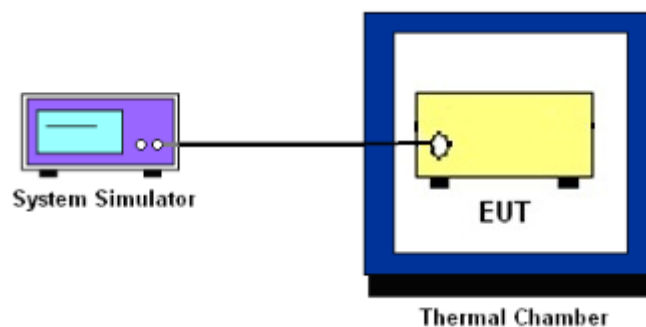
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.



3.4 Conducted Output Power and ERP/EIRP

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

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

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

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

Example:

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

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

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

9. For LTE Band 7, 38, 41, the other 40 dB, and 55 dB have additionally applied same calculation above.
10. When using the integration method, the starting frequency of the integration shall be centered at one-half of the RBW away from the band edge.



3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

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

For Band 7,38,41:

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

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

3.8.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from $43 + 10\log(P)$ 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.
11. 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. The frequency stability of the transmitter shall be maintained within $\pm 0.00025\%$ ($\pm 2.5\text{ppm}$) of the center frequency.

3.9.2 Test Procedures for Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°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.

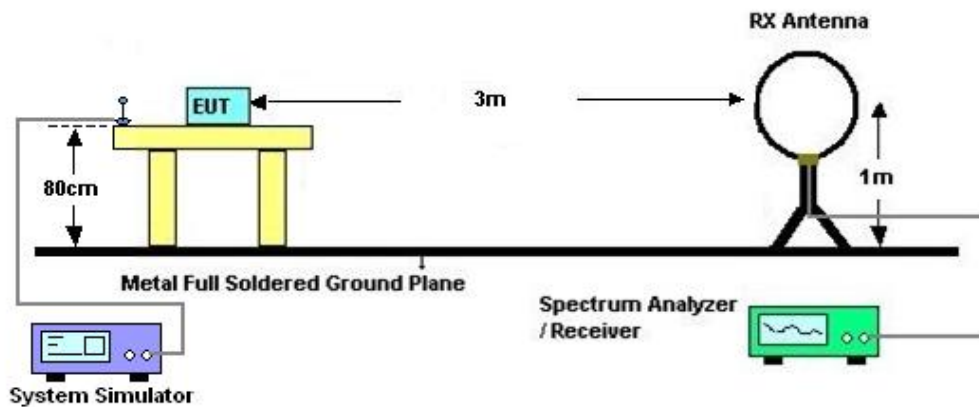
4 Radiated Test Items

4.1 Measuring Instruments

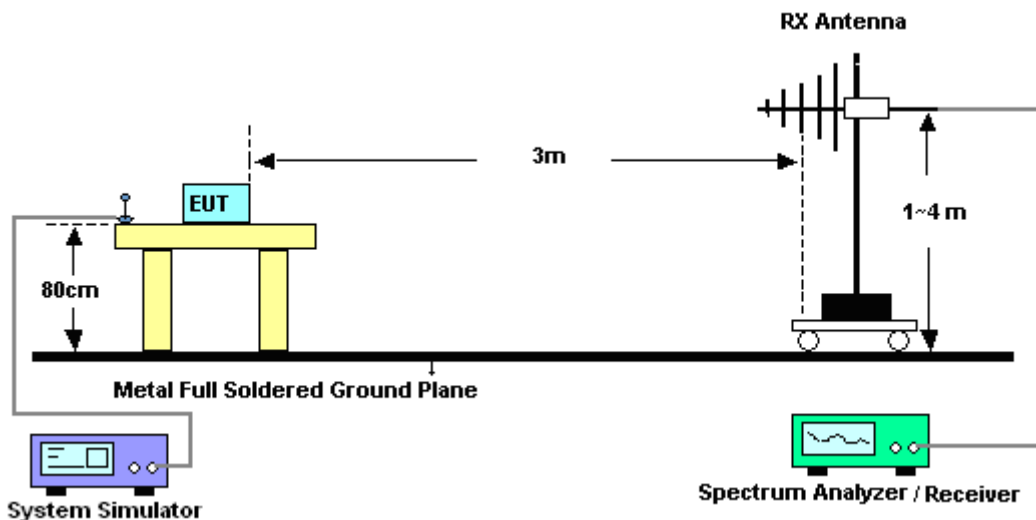
See list of measuring instruments of this test report.

4.2 Test Setup

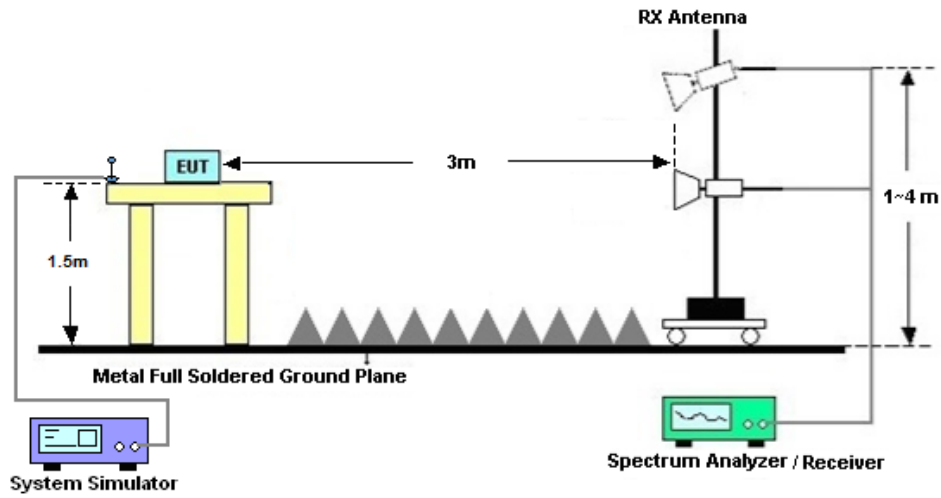
4.2.1 For radiated test below 30MHz



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.

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. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11. $ERP \text{ (dBm)} = EIRP - 2.15$
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)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$
13. For Band 7, 38, 41:
The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 06, 2023	Jun. 15, 2023~ Jun. 30, 2023	Apr. 05, 2024	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2022	Jun. 15, 2023~ Jun. 30, 2023	Dec. 24, 2023	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 07, 2022	Jun. 15, 2023~ Jun. 30, 2023	Jul. 06, 2023	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 07, 2022	Jul. 06, 2023	Jul. 06, 2023	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Jul. 06, 2023	Jul. 27, 2024	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz~2GHz	Oct. 19, 2022	Jul. 06, 2023	Oct. 18, 2023	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 07, 2022	Jul. 06, 2023	Jul. 06, 2023	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 07, 2022	Jul. 06, 2023	Jul. 06, 2023	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz~40GHz	Apr. 08, 2023	Jul. 06, 2023	Apr. 07, 2024	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 19, 2022	Jul. 06, 2023	Oct. 18, 2023	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 19, 2022	Jul. 06, 2023	Oct.18, 2023	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	61601000304 3	N/A	Nov. 10, 2022	Jul. 06, 2023	Nov. 10, 2023	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Jul. 06, 2023	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Jul. 06, 2023	NCR	Radiation (03CH02-SZ)

NCR: No Calibration Required



6 Measurement Uncertainty

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	±1.34 dB
Conducted Emissions	±1.34 dB
Occupied Channel Bandwidth	±0.13 %

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
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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 :	Jason Zhang	Temperature :	24~26°C
		Relative Humidity :	50~53%

Conducted Output Power(Average power)

LTE Band 7_Ant.1:

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	22.54	22.64	22.50
20	QPSK	1	49	22.46	22.55	22.49
20	QPSK	1	99	22.52	22.52	22.41
20	QPSK	50	0	21.89	22.05	21.78
20	QPSK	50	24	21.87	21.85	21.59
20	QPSK	50	50	21.84	21.82	21.75
20	QPSK	100	0	21.98	22.02	21.77
20	16QAM	1	0	22.36	22.18	22.13
20	16QAM	1	49	22.26	22.33	22.16
20	16QAM	1	99	22.29	22.40	22.07
20	16QAM	50	0	21.07	21.09	20.93
20	16QAM	50	24	21.09	21.11	20.85
20	16QAM	50	50	21.15	21.09	20.96
20	16QAM	100	0	21.23	21.09	20.96
20	64QAM	1	0	21.26	20.97	20.83
20	64QAM	1	49	21.09	21.18	21.03
20	64QAM	1	99	21.35	21.16	21.08
20	64QAM	50	0	20.10	20.06	19.91
20	64QAM	50	24	20.20	20.17	20.06
20	64QAM	50	50	20.10	20.08	19.90
20	64QAM	100	0	20.17	20.04	19.96
20	256QAM	1	0	17.93	17.76	17.72
20	256QAM	1	49	17.92	17.87	17.89
20	256QAM	1	99	17.85	17.93	17.96
20	256QAM	50	0	17.71	17.70	17.68
20	256QAM	50	24	17.83	17.79	17.85
20	256QAM	50	50	17.77	17.65	17.88
20	256QAM	100	0	17.87	17.77	17.79
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.49	22.50	22.39



15	QPSK	1	37	22.42	22.51	22.37
15	QPSK	1	74	22.51	22.47	22.42
15	QPSK	36	0	21.72	21.91	21.72
15	QPSK	36	20	21.74	21.83	21.57
15	QPSK	36	39	21.77	21.84	21.64
15	QPSK	75	0	21.88	21.94	21.79
15	16QAM	1	0	22.32	22.18	21.98
15	16QAM	1	37	22.21	22.31	22.12
15	16QAM	1	74	22.21	22.30	22.07
15	16QAM	36	0	21.01	21.01	20.85
15	16QAM	36	20	21.11	21.10	20.81
15	16QAM	36	39	21.01	21.05	20.88
15	16QAM	75	0	21.14	21.00	20.84
15	64QAM	1	0	21.10	20.88	20.76
15	64QAM	1	37	21.07	21.15	20.99
15	64QAM	1	74	21.32	21.09	20.92
15	64QAM	36	0	20.07	20.03	19.86
15	64QAM	36	20	20.05	20.04	19.90
15	64QAM	36	39	20.02	20.03	19.87
15	64QAM	75	0	20.14	19.98	19.78
15	256QAM	1	0	17.88	17.73	17.69
15	256QAM	1	37	17.80	17.82	17.78
15	256QAM	1	74	17.80	17.86	17.86
15	256QAM	36	0	17.66	17.67	17.58
15	256QAM	36	20	17.76	17.74	17.74
15	256QAM	36	39	17.81	17.67	17.76
15	256QAM	75	0	17.72	17.60	17.68
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.51	22.50	22.40
10	QPSK	1	25	22.48	22.43	22.37
10	QPSK	1	49	22.48	22.43	22.37
10	QPSK	25	0	21.81	21.91	21.63
10	QPSK	25	12	21.76	21.88	21.57
10	QPSK	25	25	21.81	21.86	21.63
10	QPSK	50	0	21.85	21.90	21.81
10	16QAM	1	0	22.25	22.19	21.96
10	16QAM	1	25	22.20	22.22	22.12
10	16QAM	1	49	22.21	22.27	22.05
10	16QAM	25	0	21.04	21.01	20.85
10	16QAM	25	12	21.03	21.08	20.81
10	16QAM	25	25	21.04	21.10	20.81
10	16QAM	50	0	21.08	20.98	20.88
10	64QAM	1	0	21.15	20.90	20.69
10	64QAM	1	25	21.07	21.13	20.89



10	64QAM	1	49	21.23	21.01	20.99
10	64QAM	25	0	20.07	20.08	19.90
10	64QAM	25	12	20.11	20.05	19.87
10	64QAM	25	25	20.09	20.09	19.90
10	64QAM	50	0	20.16	19.95	19.81
10	256QAM	1	0	17.93	17.74	17.72
10	256QAM	1	25	17.79	17.77	17.80
10	256QAM	1	49	17.79	17.84	17.86
10	256QAM	25	0	17.67	17.58	17.50
10	256QAM	25	12	17.76	17.68	17.79
10	256QAM	25	25	17.80	17.64	17.81
10	256QAM	50	0	17.69	17.63	17.68
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	22.56	22.59	22.37
5	QPSK	1	12	22.46	22.51	22.37
5	QPSK	1	24	22.48	22.44	22.39
5	QPSK	12	0	21.76	21.96	21.63
5	QPSK	12	7	21.82	21.84	21.56
5	QPSK	12	13	21.80	21.77	21.69
5	QPSK	25	0	21.88	21.96	21.80
5	16QAM	1	0	22.26	22.16	21.99
5	16QAM	1	12	22.22	22.28	22.08
5	16QAM	1	24	22.26	22.24	22.04
5	16QAM	12	0	20.98	20.99	20.84
5	16QAM	12	7	21.08	21.03	20.85
5	16QAM	12	13	21.00	21.02	20.90
5	16QAM	25	0	21.12	20.97	20.85
5	64QAM	1	0	21.17	20.94	20.68
5	64QAM	1	12	21.10	21.15	20.98
5	64QAM	1	24	21.32	21.09	20.91
5	64QAM	12	0	20.03	20.04	19.89
5	64QAM	12	7	20.08	20.13	19.89
5	64QAM	12	13	20.10	20.09	19.93
5	64QAM	25	0	20.18	19.97	19.80
5	256QAM	1	0	17.88	17.72	17.66
5	256QAM	1	12	17.82	17.84	17.85
5	256QAM	1	24	17.81	17.78	17.92
5	256QAM	12	0	17.68	17.58	17.50
5	256QAM	12	7	17.76	17.74	17.79
5	256QAM	12	13	17.71	17.63	17.78
5	256QAM	25	0	17.79	17.61	17.71



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	22.53	22.55	22.51
10	QPSK	1	25	22.41	22.39	22.46
10	QPSK	1	49	22.48	22.43	22.21
10	QPSK	25	0	21.54	21.64	21.54
10	QPSK	25	12	21.53	21.55	21.43
10	QPSK	25	25	21.51	21.44	21.51
10	QPSK	50	0	21.37	21.54	21.51
10	16QAM	1	0	21.72	21.89	21.86
10	16QAM	1	25	21.62	21.69	21.80
10	16QAM	1	49	21.90	21.75	21.85
10	16QAM	25	0	20.37	20.56	20.51
10	16QAM	25	12	20.62	20.55	20.53
10	16QAM	25	25	20.52	20.48	20.53
10	16QAM	50	0	20.56	20.60	20.57
10	64QAM	1	0	20.73	20.68	20.46
10	64QAM	1	25	20.62	20.58	20.68
10	64QAM	1	49	20.84	20.75	20.88
10	64QAM	25	0	19.53	19.51	19.45
10	64QAM	25	12	19.67	19.57	19.57
10	64QAM	25	25	19.57	19.51	19.52
10	64QAM	50	0	19.67	19.48	19.63
10	256QAM	1	0	17.59	17.69	17.78
10	256QAM	1	25	17.53	17.55	17.57
10	256QAM	1	49	17.62	17.59	17.72
10	256QAM	25	0	17.74	17.62	17.54
10	256QAM	25	12	17.68	17.62	17.73
10	256QAM	25	25	17.62	17.64	17.61
10	256QAM	50	0	17.65	17.63	17.69
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	22.43	22.54	22.51
5	QPSK	1	12	22.37	22.29	22.41
5	QPSK	1	24	22.40	22.41	22.14
5	QPSK	12	0	21.49	21.66	21.51
5	QPSK	12	7	21.57	21.47	21.47
5	QPSK	12	13	21.48	21.40	21.55
5	QPSK	25	0	21.40	21.45	21.43
5	16QAM	1	0	21.65	21.92	21.86
5	16QAM	1	12	21.56	21.72	21.73



5	16QAM	1	24	21.84	21.74	21.78
5	16QAM	12	0	20.30	20.61	20.44
5	16QAM	12	7	20.53	20.56	20.57
5	16QAM	12	13	20.50	20.50	20.51
5	16QAM	25	0	20.53	20.59	20.62
5	64QAM	1	0	20.67	20.71	20.51
5	64QAM	1	12	20.59	20.59	20.63
5	64QAM	1	24	20.82	20.68	20.92
5	64QAM	12	0	19.55	19.49	19.43
5	64QAM	12	7	19.71	19.47	19.47
5	64QAM	12	13	19.52	19.56	19.48
5	64QAM	25	0	19.61	19.46	19.66
5	256QAM	1	0	17.57	17.74	17.76
5	256QAM	1	12	17.50	17.51	17.62
5	256QAM	1	24	17.67	17.55	17.77
5	256QAM	12	0	17.64	17.55	17.56
5	256QAM	12	7	17.59	17.67	17.70
5	256QAM	12	13	17.63	17.66	17.60
5	256QAM	25	0	17.56	17.61	17.63
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.50	22.48	22.52
3	QPSK	1	8	22.42	22.44	22.46
3	QPSK	1	14	22.43	22.43	22.23
3	QPSK	8	0	21.44	21.56	21.48
3	QPSK	8	4	21.49	21.54	21.37
3	QPSK	8	7	21.51	21.37	21.48
3	QPSK	15	0	21.35	21.46	21.49
3	16QAM	1	0	21.75	21.93	21.80
3	16QAM	1	8	21.62	21.60	21.78
3	16QAM	1	14	21.95	21.71	21.86
3	16QAM	8	0	20.37	20.59	20.53
3	16QAM	8	4	20.60	20.50	20.45
3	16QAM	8	7	20.53	20.52	20.49
3	16QAM	15	0	20.50	20.55	20.61
3	64QAM	1	0	20.64	20.64	20.36
3	64QAM	1	8	20.56	20.51	20.67
3	64QAM	1	14	20.86	20.68	20.82
3	64QAM	8	0	19.52	19.46	19.46
3	64QAM	8	4	19.61	19.52	19.48
3	64QAM	8	7	19.49	19.41	19.44
3	64QAM	15	0	19.68	19.43	19.55
3	256QAM	1	0	17.62	17.71	17.70
3	256QAM	1	8	17.53	17.60	17.57
3	256QAM	1	14	17.60	17.59	17.76



3	256QAM	8	0	17.77	17.66	17.51
3	256QAM	8	4	17.72	17.55	17.66
3	256QAM	8	7	17.65	17.59	17.56
3	256QAM	15	0	17.61	17.55	17.74
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.43	22.48	22.42
1.4	QPSK	1	3	22.35	22.44	22.49
1.4	QPSK	1	5	22.42	22.33	22.13
1.4	QPSK	3	0	22.30	22.48	22.36
1.4	QPSK	3	1	22.36	22.33	22.24
1.4	QPSK	3	3	22.35	22.29	22.31
1.4	QPSK	6	0	21.40	21.48	21.43
1.4	16QAM	1	0	21.72	21.87	21.89
1.4	16QAM	1	3	21.53	21.70	21.73
1.4	16QAM	1	5	21.80	21.71	21.76
1.4	16QAM	3	0	21.39	21.55	21.48
1.4	16QAM	3	1	21.65	21.52	21.58
1.4	16QAM	3	3	21.53	21.51	21.45
1.4	16QAM	6	0	20.50	20.56	20.54
1.4	64QAM	1	0	20.76	20.58	20.41
1.4	64QAM	1	3	20.67	20.54	20.58
1.4	64QAM	1	5	20.85	20.75	20.89
1.4	64QAM	3	0	20.43	20.41	20.47
1.4	64QAM	3	1	20.71	20.58	20.50
1.4	64QAM	3	3	20.55	20.52	20.57
1.4	64QAM	6	0	19.62	19.50	19.56
1.4	256QAM	1	0	17.55	17.65	17.76
1.4	256QAM	1	3	17.45	17.51	17.52
1.4	256QAM	1	5	17.61	17.59	17.69
1.4	256QAM	3	0	17.77	17.58	17.57
1.4	256QAM	3	1	17.67	17.65	17.78
1.4	256QAM	3	3	17.59	17.63	17.62
1.4	256QAM	6	0	17.62	17.59	17.67



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		22.49	
10	QPSK	1	25		22.46	
10	QPSK	1	49		22.19	
10	QPSK	25	0		21.62	
10	QPSK	25	12		21.61	
10	QPSK	25	25		21.47	
10	QPSK	50	0		21.54	
10	16QAM	1	0		21.78	
10	16QAM	1	25		21.70	
10	16QAM	1	49		21.99	
10	16QAM	25	0		20.57	
10	16QAM	25	12		20.55	
10	16QAM	25	25		20.46	
10	16QAM	50	0		20.66	
10	64QAM	1	0		20.65	
10	64QAM	1	25		20.32	
10	64QAM	1	49		20.58	
10	64QAM	25	0		19.62	
10	64QAM	25	12		19.63	
10	64QAM	25	25		19.53	
10	64QAM	50	0		19.61	
10	256QAM	1	0		17.65	
10	256QAM	1	25		17.66	
10	256QAM	1	49		17.64	
10	256QAM	25	0		17.69	
10	256QAM	25	12		17.58	
10	256QAM	25	25		17.61	
10	256QAM	50	0		17.63	
Channel				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	22.39	22.42	22.35
5	QPSK	1	12	22.27	22.43	22.26
5	QPSK	1	24	22.07	22.09	22.26
5	QPSK	12	0	21.40	21.67	21.40
5	QPSK	12	7	21.44	21.51	21.34
5	QPSK	12	13	21.37	21.39	21.42
5	QPSK	25	0	21.34	21.47	21.27
5	16QAM	1	0	21.53	21.70	21.73
5	16QAM	1	12	21.75	21.62	21.69



5	16QAM	1	24	21.73	21.99	21.83
5	16QAM	12	0	20.42	20.49	20.26
5	16QAM	12	7	20.29	20.59	20.40
5	16QAM	12	13	20.47	20.37	20.36
5	16QAM	25	0	20.40	20.57	20.30
5	64QAM	1	0	20.75	20.67	20.67
5	64QAM	1	12	20.50	20.23	20.47
5	64QAM	1	24	20.39	20.55	20.40
5	64QAM	12	0	19.56	19.57	19.49
5	64QAM	12	7	19.58	19.65	19.49
5	64QAM	12	13	19.44	19.44	19.31
5	64QAM	25	0	19.43	19.59	19.44
5	256QAM	1	0	17.69	17.69	17.40
5	256QAM	1	12	17.42	17.69	17.53
5	256QAM	1	24	17.56	17.69	17.52
5	256QAM	12	0	17.33	17.61	17.50
5	256QAM	12	7	17.69	17.63	17.59
5	256QAM	12	13	17.34	17.56	17.44
5	256QAM	25	0	17.56	17.64	17.65



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	22.42	22.54	22.52
10	QPSK	1	25	22.21	22.41	22.38
10	QPSK	1	49	22.27	22.19	22.47
10	QPSK	25	0	21.43	21.51	21.40
10	QPSK	25	12	21.37	21.44	21.39
10	QPSK	25	25	21.40	21.34	21.38
10	QPSK	50	0	21.34	21.40	21.27
10	16QAM	1	0	21.77	21.42	21.39
10	16QAM	1	25	21.72	21.64	21.56
10	16QAM	1	49	21.79	21.55	21.60
10	16QAM	25	0	20.43	20.41	20.52
10	16QAM	25	12	20.47	20.48	20.37
10	16QAM	25	25	20.47	20.45	20.19
10	16QAM	50	0	20.36	20.31	20.48
10	64QAM	1	0	20.29	20.60	20.57
10	64QAM	1	25	20.32	20.65	20.70
10	64QAM	1	49	20.76	20.71	20.74
10	64QAM	25	0	19.46	19.45	19.39
10	64QAM	25	12	19.43	19.49	19.44
10	64QAM	25	25	19.55	19.40	19.37
10	64QAM	50	0	19.43	19.28	19.45
10	256QAM	1	0	17.50	17.51	17.58
10	256QAM	1	25	17.52	17.53	17.49
10	256QAM	1	49	17.41	17.49	17.39
10	256QAM	25	0	17.65	17.51	17.64
10	256QAM	25	12	17.56	17.52	17.50
10	256QAM	25	25	17.49	17.45	17.46
10	256QAM	50	0	17.44	17.50	17.60
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	22.33	22.47	22.50
5	QPSK	1	12	22.21	22.33	22.29
5	QPSK	1	24	22.18	22.16	22.49
5	QPSK	12	0	21.40	21.42	21.42
5	QPSK	12	7	21.28	21.35	21.34
5	QPSK	12	13	21.40	21.26	21.43
5	QPSK	25	0	21.33	21.45	21.22
5	16QAM	1	0	21.70	21.44	21.43
5	16QAM	1	12	21.70	21.69	21.56
5	16QAM	1	24	21.83	21.60	21.53



5	16QAM	12	0	20.43	20.43	20.47
5	16QAM	12	7	20.46	20.40	20.42
5	16QAM	12	13	20.40	20.50	20.14
5	16QAM	25	0	20.36	20.29	20.38
5	64QAM	1	0	20.25	20.53	20.55
5	64QAM	1	12	20.27	20.67	20.71
5	64QAM	1	24	20.78	20.68	20.75
5	64QAM	12	0	19.50	19.45	19.38
5	64QAM	12	7	19.47	19.43	19.37
5	64QAM	12	13	19.49	19.42	19.38
5	64QAM	25	0	19.44	19.19	19.49
5	256QAM	1	0	17.45	17.46	17.56
5	256QAM	1	12	17.43	17.51	17.45
5	256QAM	1	24	17.46	17.44	17.33
5	256QAM	12	0	17.63	17.48	17.59
5	256QAM	12	7	17.50	17.56	17.54
5	256QAM	12	13	17.41	17.45	17.47
5	256QAM	25	0	17.42	17.55	17.58



LTE Band 38_Ant.1:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				37850	38000	38150
Frequency (MHz)				2580	2595	2610
20	QPSK	1	0	22.52	22.59	22.45
20	QPSK	1	49	22.37	22.43	22.42
20	QPSK	1	99	22.46	22.46	22.38
20	QPSK	50	0	21.27	21.34	21.19
20	QPSK	50	24	21.15	21.25	21.17
20	QPSK	50	50	21.20	21.26	21.16
20	QPSK	100	0	21.75	21.76	21.70
20	16QAM	1	0	21.70	21.69	21.65
20	16QAM	1	49	21.62	21.71	21.65
20	16QAM	1	99	21.51	21.60	21.55
20	16QAM	50	0	20.06	20.16	20.16
20	16QAM	50	24	20.15	20.25	20.23
20	16QAM	50	50	20.22	20.27	20.20
20	16QAM	100	0	20.06	20.13	20.11
20	64QAM	1	0	20.31	20.27	20.24
20	64QAM	1	49	20.35	20.37	20.37
20	64QAM	1	99	20.28	20.35	20.35
20	64QAM	50	0	19.12	19.21	19.11
20	64QAM	50	24	19.19	19.28	19.27
20	64QAM	50	50	19.21	19.28	19.22
20	64QAM	100	0	19.12	19.21	19.15
20	256QAM	1	0	17.30	17.35	17.26
20	256QAM	1	49	17.38	17.38	17.36
20	256QAM	1	99	17.34	17.41	17.41
20	256QAM	50	0	17.15	17.23	17.21
20	256QAM	50	24	17.08	17.16	17.07
20	256QAM	50	50	17.22	17.22	17.20
20	256QAM	100	0	17.02	17.11	17.08
Channel				37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5
15	QPSK	1	0	22.57	22.49	22.36
15	QPSK	1	37	22.32	22.35	22.46
15	QPSK	1	74	22.40	22.48	22.37
15	QPSK	36	0	21.31	21.33	21.11
15	QPSK	36	20	21.12	21.17	21.09
15	QPSK	36	39	21.19	21.28	21.14
15	QPSK	75	0	21.66	21.78	21.68
15	16QAM	1	0	21.64	21.62	21.70
15	16QAM	1	37	21.53	21.64	21.67



15	16QAM	1	74	21.50	21.58	21.57
15	16QAM	36	0	20.10	20.17	20.15
15	16QAM	36	20	20.07	20.18	20.19
15	16QAM	36	39	20.22	20.29	20.20
15	16QAM	75	0	20.07	20.10	20.15
15	64QAM	1	0	20.35	20.24	20.16
15	64QAM	1	37	20.40	20.30	20.28
15	64QAM	1	74	20.33	20.32	20.39
15	64QAM	36	0	19.04	19.15	19.04
15	64QAM	36	20	19.20	19.22	19.30
15	64QAM	36	39	19.11	19.26	19.12
15	64QAM	75	0	19.02	19.16	19.08
15	256QAM	1	0	17.34	17.27	17.16
15	256QAM	1	37	17.32	17.41	17.31
15	256QAM	1	74	17.27	17.31	17.31
15	256QAM	36	0	17.05	17.19	17.25
15	256QAM	36	20	17.11	17.10	17.08
15	256QAM	36	39	17.15	17.26	17.25
15	256QAM	75	0	17.09	17.02	17.08
Channel				37800	38000	38200
Frequency (MHz)				2575	2595	2615
10	QPSK	1	0	22.56	22.54	22.44
10	QPSK	1	25	22.36	22.45	22.40
10	QPSK	1	49	22.46	22.39	22.42
10	QPSK	25	0	21.22	21.32	21.17
10	QPSK	25	12	21.14	21.22	21.20
10	QPSK	25	25	21.18	21.20	21.17
10	QPSK	50	0	21.66	21.77	21.61
10	16QAM	1	0	21.75	21.68	21.68
10	16QAM	1	25	21.66	21.63	21.56
10	16QAM	1	49	21.43	21.54	21.54
10	16QAM	25	0	20.01	20.11	20.07
10	16QAM	25	12	20.10	20.20	20.18
10	16QAM	25	25	20.12	20.27	20.24
10	16QAM	50	0	20.02	20.16	20.15
10	64QAM	1	0	20.34	20.26	20.14
10	64QAM	1	25	20.38	20.27	20.27
10	64QAM	1	49	20.33	20.31	20.28
10	64QAM	25	0	19.10	19.25	19.11
10	64QAM	25	12	19.11	19.29	19.17
10	64QAM	25	25	19.17	19.25	19.17
10	64QAM	50	0	19.10	19.22	19.12
10	256QAM	1	0	17.24	17.34	17.26
10	256QAM	1	25	17.39	17.29	17.30
10	256QAM	1	49	17.24	17.39	17.41



10	256QAM	25	0	17.06	17.13	17.12
10	256QAM	25	12	17.08	17.19	17.06
10	256QAM	25	25	17.13	17.22	17.18
10	256QAM	50	0	17.04	17.06	17.11
Channel				37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5
5	QPSK	1	0	22.47	22.49	22.45
5	QPSK	1	12	22.37	22.36	22.38
5	QPSK	1	24	22.45	22.43	22.32
5	QPSK	12	0	21.20	21.34	21.19
5	QPSK	12	7	21.19	21.26	21.08
5	QPSK	12	13	21.19	21.24	21.20
5	QPSK	25	0	21.76	21.81	21.68
5	16QAM	1	0	21.75	21.64	21.62
5	16QAM	1	12	21.60	21.71	21.59
5	16QAM	1	24	21.42	21.58	21.45
5	16QAM	12	0	20.07	20.18	20.07
5	16QAM	12	7	20.12	20.24	20.22
5	16QAM	12	13	20.22	20.27	20.25
5	16QAM	25	0	20.04	20.10	20.06
5	64QAM	1	0	20.28	20.24	20.16
5	64QAM	1	12	20.29	20.34	20.35
5	64QAM	1	24	20.25	20.35	20.29
5	64QAM	12	0	19.07	19.18	19.13
5	64QAM	12	7	19.13	19.22	19.32
5	64QAM	12	13	19.23	19.26	19.18
5	64QAM	25	0	19.16	19.12	19.12
5	256QAM	1	0	17.23	17.34	17.16
5	256QAM	1	12	17.29	17.40	17.39
5	256QAM	1	24	17.30	17.43	17.42
5	256QAM	12	0	17.07	17.25	17.24
5	256QAM	12	7	17.08	17.12	17.05
5	256QAM	12	13	17.23	17.23	17.15
5	256QAM	25	0	17.00	17.07	17.00



LTE Band 41_Ant.1:

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	23.03	23.05	22.56
20	QPSK	1	49	22.86	22.96	22.40
20	QPSK	1	99	22.81	22.88	22.47
20	QPSK	50	0	21.86	21.89	21.63
20	QPSK	50	24	21.83	21.84	21.58
20	QPSK	50	50	21.84	21.85	21.60
20	QPSK	100	0	22.57	22.62	21.80
20	16QAM	1	0	22.52	22.45	21.75
20	16QAM	1	49	22.34	22.34	21.72
20	16QAM	1	99	22.23	22.32	21.68
20	16QAM	50	0	20.89	20.91	20.59
20	16QAM	50	24	20.84	20.89	20.50
20	16QAM	50	50	20.85	20.90	20.55
20	16QAM	100	0	20.78	20.83	20.52
20	64QAM	1	0	21.01	21.08	20.58
20	64QAM	1	49	20.99	21.02	20.44
20	64QAM	1	99	20.97	21.04	20.53
20	64QAM	50	0	19.88	19.91	19.60
20	64QAM	50	24	19.78	19.88	19.59
20	64QAM	50	50	19.86	19.90	19.56
20	64QAM	100	0	19.76	19.84	19.55
20	256QAM	1	0	17.89	17.85	17.84
20	256QAM	1	49	17.80	17.81	17.74
20	256QAM	1	99	17.74	17.79	17.83
20	256QAM	50	0	17.93	17.95	17.55
20	256QAM	50	24	17.81	17.83	17.52
20	256QAM	50	50	17.80	17.90	17.53
20	256QAM	100	0	17.75	17.83	17.54
Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	23.02	23.03	22.53
15	QPSK	1	37	22.77	22.88	22.40
15	QPSK	1	74	22.79	22.92	22.50
15	QPSK	36	0	21.81	21.82	21.55
15	QPSK	36	20	21.85	21.88	21.55
15	QPSK	36	39	21.87	21.87	21.53
15	QPSK	75	0	22.62	22.61	21.73
15	16QAM	1	0	22.43	22.44	21.78
15	16QAM	1	37	22.27	22.31	21.75



15	16QAM	1	74	22.21	22.32	21.63
15	16QAM	36	0	20.94	20.92	20.50
15	16QAM	36	20	20.79	20.84	20.49
15	16QAM	36	39	20.78	20.90	20.54
15	16QAM	75	0	20.70	20.78	20.50
15	64QAM	1	0	21.03	21.01	20.51
15	64QAM	1	37	20.94	20.96	20.49
15	64QAM	1	74	20.95	21.09	20.47
15	64QAM	36	0	19.93	19.89	19.51
15	64QAM	36	20	19.76	19.87	19.59
15	64QAM	36	39	19.82	19.93	19.53
15	64QAM	75	0	19.77	19.76	19.45
15	256QAM	1	0	17.91	17.84	17.84
15	256QAM	1	37	17.80	17.78	17.69
15	256QAM	1	74	17.68	17.80	17.87
15	256QAM	36	0	17.90	17.88	17.58
15	256QAM	36	20	17.73	17.75	17.42
15	256QAM	36	39	17.85	17.83	17.51
15	256QAM	75	0	17.73	17.73	17.44
Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	22.98	22.99	22.46
10	QPSK	1	25	22.85	22.90	22.30
10	QPSK	1	49	22.75	22.87	22.40
10	QPSK	25	0	21.87	21.80	21.55
10	QPSK	25	12	21.87	21.75	21.49
10	QPSK	25	25	21.79	21.75	21.53
10	QPSK	50	0	22.51	22.52	21.85
10	16QAM	1	0	22.50	22.38	21.75
10	16QAM	1	25	22.28	22.28	21.65
10	16QAM	1	49	22.24	22.22	21.73
10	16QAM	25	0	20.86	20.88	20.62
10	16QAM	25	12	20.76	20.90	20.42
10	16QAM	25	25	20.78	20.82	20.57
10	16QAM	50	0	20.68	20.77	20.42
10	64QAM	1	0	21.06	21.07	20.49
10	64QAM	1	25	20.96	20.93	20.34
10	64QAM	1	49	20.94	21.00	20.49
10	64QAM	25	0	19.92	19.95	19.59
10	64QAM	25	12	19.79	19.92	19.57
10	64QAM	25	25	19.79	19.91	19.57
10	64QAM	50	0	19.70	19.81	19.46
10	256QAM	1	0	17.88	17.87	17.88
10	256QAM	1	25	17.73	17.78	17.66
10	256QAM	1	49	17.71	17.83	17.84



10	256QAM	25	0	17.91	17.87	17.57
10	256QAM	25	12	17.72	17.75	17.49
10	256QAM	25	25	17.78	17.89	17.50
10	256QAM	50	0	17.69	17.86	17.58
Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	22.93	23.04	22.58
5	QPSK	1	12	22.78	22.87	22.38
5	QPSK	1	24	22.86	22.79	22.46
5	QPSK	12	0	21.83	21.92	21.64
5	QPSK	12	7	21.80	21.86	21.59
5	QPSK	12	13	21.86	21.78	21.61
5	QPSK	25	0	22.47	22.58	21.80
5	16QAM	1	0	22.44	22.50	21.79
5	16QAM	1	12	22.26	22.24	21.66
5	16QAM	1	24	22.14	22.35	21.66
5	16QAM	12	0	20.84	20.90	20.61
5	16QAM	12	7	20.77	20.81	20.40
5	16QAM	12	13	20.76	20.92	20.45
5	16QAM	25	0	20.75	20.82	20.46
5	64QAM	1	0	21.00	21.13	20.56
5	64QAM	1	12	20.98	21.03	20.37
5	64QAM	1	24	20.92	21.01	20.43
5	64QAM	12	0	19.83	19.90	19.61
5	64QAM	12	7	19.78	19.84	19.56
5	64QAM	12	13	19.84	19.84	19.53
5	64QAM	25	0	19.80	19.78	19.49
5	256QAM	1	0	17.87	17.90	17.89
5	256QAM	1	12	17.74	17.85	17.76
5	256QAM	1	24	17.72	17.71	17.84
5	256QAM	12	0	17.86	17.93	17.58
5	256QAM	12	7	17.72	17.83	17.42
5	256QAM	12	13	17.85	17.88	17.51
5	256QAM	25	0	17.75	17.82	17.53



LTE Band 7C_CA_Ant.1:

CA_7C_Ant 1									
Combination 20MHz+20MHz (100RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20850	21048	QPSK	100	0	100	0	200	≤2	22.29
			1	0	1	99	2	≤8.5	15.73
			1	99	1	0	2	≤0	23.13
		16QAM	100	0	100	0	200	≤3	21.32
			1	0	1	99	2	≤8.5	16.36
			1	99	1	0	2	≤1	23.46
		64QAM	100	0	100	0	200	≤3	21.24
			1	0	1	99	2	≤8.5	16.00
			1	99	1	0	2	≤3	22.29
		256QAM	100	0	100	0	200	≤3	19.00
			1	0	1	99	2	≤8.5	15.74
			1	99	1	0	2	≤3	18.95
21001	21199	QPSK	100	0	100	0	200	≤2	22.26
			1	0	1	99	2	≤8.5	15.62
			1	99	1	0	2	≤0	23.06
		16QAM	100	0	100	0	200	≤3	21.31
			1	0	1	99	2	≤8.5	16.38
			1	99	1	0	2	≤1	23.25
		64QAM	100	0	100	0	200	≤3	21.29
			1	0	1	99	2	≤8.5	16.09
			1	99	1	0	2	≤3	22.40
		256QAM	100	0	100	0	200	≤3	18.98
			1	0	1	99	2	≤8.5	15.80
			1	99	1	0	2	≤3	18.97
21152	21350	QPSK	100	0	100	0	200	≤2	22.20
			1	0	1	99	2	≤8.5	15.60
			1	99	1	0	2	≤0	23.07
		16QAM	100	0	100	0	200	≤3	21.27
			1	0	1	99	2	≤8.5	16.35
			1	99	1	0	2	≤1	23.35
		64QAM	100	0	100	0	200	≤3	21.10
			1	0	1	99	2	≤8.5	15.85
			1	99	1	0	2	≤3	22.33
		256QAM	100	0	100	0	200	≤3	19.06
			1	0	1	99	2	≤8.5	15.81
			1	99	1	0	2	≤3	18.99



CA_7C_Ant 1									
Combination 20MHz+15MHz (100RB+75RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20850	21021	QPSK	100	0	75	0	175	≤2	22.24
			1	0	1	74	2	≤8.5	15.59
			1	99	1	0	2	≤0	23.08
		16QAM	100	0	75	0	175	≤3	21.28
			1	0	1	74	2	≤8.5	16.22
			1	99	1	0	2	≤1	23.43
		64QAM	100	0	75	0	175	≤3	21.11
			1	0	1	74	2	≤8.5	15.99
			1	99	1	0	2	≤3	22.26
		256QAM	100	0	75	0	175	≤3	18.89
			1	0	1	74	2	≤8.5	15.66
			1	99	1	0	2	≤3	18.81
21026	21197	QPSK	100	0	75	0	175	≤2	22.31
			1	0	1	74	2	≤8.5	15.73
			1	99	1	0	2	≤0	23.19
		16QAM	100	0	75	0	175	≤3	21.34
			1	0	1	74	2	≤8.5	16.51
			1	99	1	0	2	≤1	23.34
		64QAM	100	0	75	0	175	≤3	21.41
			1	0	1	74	2	≤8.5	16.21
			1	99	1	0	2	≤3	22.41
		256QAM	100	0	75	0	175	≤3	19.02
			1	0	1	74	2	≤8.5	15.91
			1	99	1	0	2	≤3	19.06
21201	21372	QPSK	100	0	75	0	175	≤2	22.06
			1	0	1	74	2	≤8.5	15.59
			1	99	1	0	2	≤0	23.03
		16QAM	100	0	75	0	175	≤3	21.21
			1	0	1	74	2	≤8.5	16.28
			1	99	1	0	2	≤1	23.33
		64QAM	100	0	75	0	175	≤3	21.08
			1	0	1	74	2	≤8.5	15.81
			1	99	1	0	2	≤3	22.26
		256QAM	100	0	75	0	175	≤3	18.91
			1	0	1	74	2	≤8.5	15.73
			1	99	1	0	2	≤3	18.91
Combination 15MHz+20MHz (75RB+100RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured
			RB	RB	RB	RB			



el	el		Size	offset	Size	offset			
20828	20999	QPSK	75	0	100	0	175	≤2	22.21
			1	0	1	99	2	≤8.5	15.59
			1	74	1	0	2	≤0	22.99
		16QAM	75	0	100	0	175	≤3	21.18
			1	0	1	99	2	≤8.5	16.21
			1	74	1	0	2	≤1	23.37
		64QAM	75	0	100	0	175	≤3	21.16
			1	0	1	99	2	≤8.5	15.98
			1	74	1	0	2	≤3	22.15
		256QAM	75	0	100	0	175	≤3	18.95
			1	0	1	99	2	≤8.5	15.61
			1	74	1	0	2	≤3	18.84
21003	21174	QPSK	75	0	100	0	175	≤2	22.40
			1	0	1	99	2	≤8.5	15.75
			1	74	1	0	2	≤0	23.18
		16QAM	75	0	100	0	175	≤3	21.43
			1	0	1	99	2	≤8.5	16.45
			1	74	1	0	2	≤1	23.33
		64QAM	75	0	100	0	175	≤3	21.34
			1	0	1	99	2	≤8.5	16.17
			1	74	1	0	2	≤3	22.42
		256QAM	75	0	100	0	175	≤3	19.11
			1	0	1	99	2	≤8.5	15.91
			1	74	1	0	2	≤3	19.06
21179	21350	QPSK	75	0	100	0	175	≤2	22.19
			1	0	1	99	2	≤8.5	15.46
			1	74	1	0	2	≤0	23.05
		16QAM	75	0	100	0	175	≤3	21.18
			1	0	1	99	2	≤8.5	16.23
			1	74	1	0	2	≤1	23.29
		64QAM	75	0	100	0	175	≤3	20.97
			1	0	1	99	2	≤8.5	15.77
			1	74	1	0	2	≤3	22.28
		256QAM	75	0	100	0	175	≤3	19.04
			1	0	1	99	2	≤8.5	15.80
			1	74	1	0	2	≤3	18.94
Combination 20MHz+10MHz (100RB+50RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20850	20994	QPSK	100	0	50	0	150	≤2	22.28
			1	0	1	49	2	≤8.5	15.66



		16QAM	1	99	1	0	2	≤0	23.12		
			100	0	50	0	150	≤3	21.17		
			1	0	1	49	2	≤8.5	16.23		
		64QAM	1	99	1	0	2	≤1	23.40		
				100	0	50	0	150	≤3	21.17	
				1	0	1	49	2	≤8.5	15.99	
			256QAM	1	99	1	0	2	≤3	22.21	
					100	0	50	0	150	≤3	18.90
					1	0	1	49	2	≤8.5	15.73
		21051	21195	QPSK	1	99	1	0	2	≤3	18.88
					100	0	50	0	150	≤2	22.39
					1	0	1	49	2	≤8.5	15.77
16QAM	1			99	1	0	2	≤0	23.11		
				100	0	50	0	150	≤3	21.41	
				1	0	1	49	2	≤8.5	16.44	
	64QAM			1	99	1	0	2	≤1	23.32	
					100	0	50	0	150	≤3	21.31
					1	0	1	49	2	≤8.5	16.13
256QAM	1			99	1	0	2	≤3	22.50		
				100	0	50	0	150	≤3	19.06	
				1	0	1	49	2	≤8.5	15.84	
21251	21395	QPSK	1	99	1	0	2	≤3	19.00		
			100	0	50	0	150	≤2	22.10		
			1	0	1	49	2	≤8.5	15.45		
		16QAM	1	99	1	0	2	≤0	22.99		
				100	0	50	0	150	≤3	21.23	
				1	0	1	49	2	≤8.5	16.30	
			64QAM	1	99	1	0	2	≤1	23.32	
					100	0	50	0	150	≤3	21.05
					1	0	1	49	2	≤8.5	15.81
		256QAM	1	99	1	0	2	≤3	22.29		
				100	0	50	0	150	≤3	19.04	
				1	0	1	49	2	≤8.5	15.71	
			1	99	1	0	2	≤3	18.92		
			Combination 10MHz+20MHz (50RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)		
			RB Size	RB offset	RB Size	RB offset					
20805	20949	QPSK	50	0	100	0	150	≤2	22.28		
			1	0	1	99	2	≤8.5	15.67		
			1	49	1	0	2	≤0	23.00		
		16QAM	1	50	0	100	0	150	≤3	21.20	
				1	0	1	99	2	≤8.5	16.35	
				1	49	1	0	2	≤1	23.32	



		64QAM	50	0	100	0	150	≤3	21.23		
			1	0	1	99	2	≤8.5	15.87		
			1	49	1	0	2	≤3	22.15		
		256QAM	50	0	100	0	150	≤3	18.87		
			1	0	1	99	2	≤8.5	15.60		
			1	49	1	0	2	≤3	18.92		
		21006	21150	QPSK	50	0	100	0	150	≤2	22.39
					1	0	1	99	2	≤8.5	15.73
					1	49	1	0	2	≤0	23.14
16QAM	50			0	100	0	150	≤3	21.40		
	1			0	1	99	2	≤8.5	16.53		
	1			49	1	0	2	≤1	23.26		
64QAM	50			0	100	0	150	≤3	21.43		
	1			0	1	99	2	≤8.5	16.23		
	1			49	1	0	2	≤3	22.48		
256QAM	50			0	100	0	150	≤3	19.13		
	1			0	1	99	2	≤8.5	15.87		
	1			49	1	0	2	≤3	19.10		
21206	21350			QPSK	50	0	100	0	150	≤2	22.13
					1	0	1	99	2	≤8.5	15.51
					1	49	1	0	2	≤0	22.97
				16QAM	50	0	100	0	150	≤3	21.16
					1	0	1	99	2	≤8.5	16.20
					1	49	1	0	2	≤1	23.34
		64QAM	50	0	100	0	150	≤3	21.02		
			1	0	1	99	2	≤8.5	15.78		
			1	49	1	0	2	≤3	22.30		
		256QAM	50	0	100	0	150	≤3	19.01		
			1	0	1	99	2	≤8.5	15.70		
			1	49	1	0	2	≤3	18.98		
Combination 15MHz+15MHz (75RB+75RB)											
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)		
			RB Size	RB offset	RB Size	RB offset					
20825	20975	QPSK	75	0	75	0	150	≤2	22.19		
			1	0	1	74	2	≤8.5	15.64		
			1	74	1	0	2	≤0	23.08		
		16QAM	75	0	75	0	150	≤3	21.22		
			1	0	1	74	2	≤8.5	16.28		
			1	74	1	0	2	≤1	23.38		
		64QAM	75	0	75	0	150	≤3	21.18		
			1	0	1	74	2	≤8.5	15.86		
			1	74	1	0	2	≤3	22.28		
		256QA	75	0	75	0	150	≤3	18.86		



		M	1	0	1	74	2	≤8.5	15.61
			1	74	1	0	2	≤3	18.84
21025	21175	QPSK	75	0	75	0	150	≤2	22.29
			1	0	1	74	2	≤8.5	15.73
			1	74	1	0	2	≤0	23.10
		16QAM	75	0	75	0	150	≤3	21.35
			1	0	1	74	2	≤8.5	16.43
			1	74	1	0	2	≤1	23.29
		64QAM	75	0	75	0	150	≤3	21.30
			1	0	1	74	2	≤8.5	16.10
			1	74	1	0	2	≤3	22.41
		256QAM	75	0	75	0	150	≤3	18.99
			1	0	1	74	2	≤8.5	15.87
			1	74	1	0	2	≤3	19.00
21225	21375	QPSK	75	0	75	0	150	≤2	22.13
			1	0	1	74	2	≤8.5	15.50
			1	74	1	0	2	≤0	22.92
		16QAM	75	0	75	0	150	≤3	21.14
			1	0	1	74	2	≤8.5	16.27
			1	74	1	0	2	≤1	23.31
		64QAM	75	0	75	0	150	≤3	21.03
			1	0	1	74	2	≤8.5	15.80
			1	74	1	0	2	≤3	22.21
		256QAM	75	0	75	0	150	≤3	18.98
			1	0	1	74	2	≤8.5	15.73
			1	74	1	0	2	≤3	18.96
Combination 15MHz+10MHz (75RB+50RB)									
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset			
20825	20945	QPSK	75	0	50	0	125	≤2	22.17
			1	0	1	49	2	≤8.5	15.72
			1	74	1	0	2	≤0	23.07
		16QAM	75	0	50	0	125	≤3	21.29
			1	0	1	49	2	≤8.5	16.24
			1	74	1	0	2	≤1	23.35
		64QAM	75	0	50	0	125	≤3	21.12
			1	0	1	49	2	≤8.5	15.85
			1	74	1	0	2	≤3	22.24
		256QAM	75	0	50	0	125	≤3	18.96
			1	0	1	49	2	≤8.5	15.73
			1	74	1	0	2	≤3	18.82
21051	21171	QPSK	75	0	50	0	125	≤2	22.27
			1	0	1	49	2	≤8.5	15.68



		16QAM	1	74	1	0	2	≤0	23.21		
			75	0	50	0	125	≤3	21.45		
			1	0	1	49	2	≤8.5	16.42		
		64QAM	1	74	1	0	2	≤1	23.40		
			75	0	50	0	125	≤3	21.44		
			1	0	1	49	2	≤8.5	16.15		
		256QAM	1	74	1	0	2	≤3	22.46		
			75	0	50	0	125	≤3	19.02		
			1	0	1	49	2	≤8.5	15.84		
		21277	21397	QPSK	1	74	1	0	2	≤3	19.10
					75	0	50	0	125	≤2	22.05
					1	0	1	49	2	≤8.5	15.56
16QAM	1			74	1	0	2	≤0	23.02		
	75			0	50	0	125	≤3	21.19		
	1			0	1	49	2	≤8.5	16.20		
64QAM	1			74	1	0	2	≤1	23.24		
	75			0	50	0	125	≤3	21.08		
	1			0	1	49	2	≤8.5	15.73		
256QAM	1			74	1	0	2	≤3	22.21		
	75			0	50	0	125	≤3	19.04		
	1			0	1	49	2	≤8.5	15.69		
			1	74	1	0	2	≤3	18.88		



ERP/EIRP

LTE Band 7 (GT - LC = -2.90 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	22.56	22.59
Conducted Power (Watts)	0.1803	0.1816	0.1726
EIRP(dBm)	19.66	19.69	19.47
EIRP(Watts)	0.0925	0.0931	0.0885

LTE Band 7 (GT - LC = -2.90 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
	Conducted Power (dBm)	22.51	22.50	22.40	22.42	22.51	22.37	22.54	22.64
Conducted Power (Watts)	0.1782	0.1778	0.1738	0.1746	0.1782	0.1726	0.1795	0.1837	0.1778
EIRP(dBm)	19.61	19.60	19.50	19.52	19.61	19.47	19.64	19.74	19.60
EIRP(Watts)	0.0914	0.0912	0.0891	0.0895	0.0914	0.0885	0.0920	0.0942	0.0912



LTE Band 7 (GT - LC = -2.90 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	22.22	22.28
Conducted Power (Watts)	0.1667	0.1690	0.1614
EIRP(dBm)	19.32	19.38	19.18
EIRP(Watts)	0.0855	0.0867	0.0828

LTE Band 7 (GT - LC = -2.90 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
	Conducted Power (dBm)	22.21	22.27	22.05	22.32	22.18	21.98	22.29	22.40
Conducted Power (Watts)	0.1663	0.1687	0.1603	0.1706	0.1652	0.1578	0.1694	0.1738	0.1611
EIRP(dBm)	19.31	19.37	19.15	19.42	19.28	19.08	19.39	19.50	19.17
EIRP(Watts)	0.0853	0.0865	0.0822	0.0875	0.0847	0.0809	0.0869	0.0891	0.0826



LTE Band 7 (GT - LC = -2.90 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	21.32	21.09
Conducted Power (Watts)	0.1355	0.1285	0.1233
EIRP(dBm)	18.42	18.19	18.01
EIRP(Watts)	0.0695	0.0659	0.0632

LTE Band 7 (GT - LC = -2.90 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
	Conducted Power (dBm)	21.23	21.01	20.99	21.32	21.09	20.92	21.35	21.16
Conducted Power (Watts)	0.1327	0.1262	0.1256	0.1355	0.1285	0.1236	0.1365	0.1306	0.1282
EIRP(dBm)	18.33	18.11	18.09	18.42	18.19	18.02	18.45	18.26	18.18
EIRP(Watts)	0.0681	0.0647	0.0644	0.0695	0.0659	0.0634	0.0700	0.0670	0.0658



LTE Band 7 (GT - LC = -2.90 dB) 256QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
	Conducted Power (dBm)	17.81	17.78
Conducted Power (Watts)	0.0604	0.0600	0.0619
EIRP(dBm)	14.91	14.88	15.02
EIRP(Watts)	0.0310	0.0308	0.0318

LTE Band 7 (GT - LC = -2.90 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 (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
	Conducted Power (dBm)	17.93	17.74	17.72	17.88	17.73	17.69	17.85	17.93
Conducted Power (Watts)	0.0621	0.0594	0.0592	0.0614	0.0593	0.0587	0.0610	0.0621	0.0625
EIRP(dBm)	15.03	14.84	14.82	14.98	14.83	14.79	14.95	15.03	15.06
EIRP(Watts)	0.0318	0.0305	0.0303	0.0315	0.0304	0.0301	0.0313	0.0318	0.0321



LTE Band 12 (GT - LC = -3.90 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)	22.35	22.44	22.49	22.50	22.48	22.52	22.43	22.54	22.51
Conducted Power (Watts)	0.1718	0.1754	0.1774	0.1778	0.1770	0.1786	0.1750	0.1795	0.1782
ERP(dBm)	16.30	16.39	16.44	16.45	16.43	16.47	16.38	16.49	16.46
ERP(Watts)	0.0427	0.0436	0.0441	0.0442	0.0440	0.0444	0.0435	0.0446	0.0443

LTE Band 12 (GT - LC = -3.90 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	22.53	22.55	22.51
Conducted Power (Watts)	0.1791	0.1799	0.1782
ERP(dBm)	16.48	16.50	16.46
ERP(Watts)	0.0445	0.0447	0.0443



LTE Band 12 (GT - LC = -3.90 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	21.72	21.87	21.89	21.95	21.71	21.86	21.65	21.92	21.86
Conducted Power (Watts)	0.1486	0.1538	0.1545	0.1567	0.1483	0.1535	0.1462	0.1556	0.1535
ERP(dBm)	15.67	15.82	15.84	15.90	15.66	15.81	15.60	15.87	15.81
ERP(Watts)	0.0369	0.0382	0.0384	0.0389	0.0368	0.0381	0.0363	0.0386	0.0381

LTE Band 12 (GT - LC = -3.90 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	21.90	21.75	21.85
Conducted Power (Watts)	0.1549	0.1496	0.1531
ERP(dBm)	15.85	15.70	15.80
ERP(Watts)	0.0385	0.0372	0.0380



LTE Band 12 (GT - LC = -3.90 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)	20.85	20.75	20.89	20.86	20.68	20.82	20.82	20.68	20.92
Conducted Power (Watts)	0.1216	0.1189	0.1227	0.1219	0.1169	0.1208	0.1208	0.1169	0.1236
ERP(dBm)	14.80	14.70	14.84	14.81	14.63	14.77	14.77	14.63	14.87
ERP(Watts)	0.0302	0.0295	0.0305	0.0303	0.0290	0.0300	0.0300	0.0290	0.0307

LTE Band 12 (GT - LC = -3.90 dB) 64QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	20.84	20.75	20.88
Conducted Power (Watts)	0.1213	0.1189	0.1225
ERP(dBm)	14.79	14.70	14.83
ERP(Watts)	0.0301	0.0295	0.0304



LTE Band 12 (GT - LC = -3.90 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)	17.67	17.65	17.78	17.77	17.66	17.51	17.67	17.55	17.77
Conducted Power (Watts)	0.0585	0.0582	0.0600	0.0598	0.0583	0.0564	0.0585	0.0569	0.0598
ERP(dBm)	11.62	11.60	11.73	11.72	11.61	11.46	11.62	11.50	11.72
ERP(Watts)	0.0145	0.0145	0.0149	0.0149	0.0145	0.0140	0.0145	0.0141	0.0149

LTE Band 12 (GT - LC = -3.90 dB) 256QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	17.59	17.69	17.78
Conducted Power (Watts)	0.0574	0.0587	0.0600
ERP(dBm)	11.54	11.64	11.73
ERP(Watts)	0.0143	0.0146	0.0149



LTE Band 13 (GT - LC = -3.90 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)	22.27	22.43	22.26	-	22.49	-
Conducted Power (Watts)	0.1687	0.1750	0.1683	-	0.1774	-
ERP(dBm)	16.22	16.38	16.21	-	16.44	-
ERP(Watts)	0.0419	0.0435	0.0418	-	0.0441	-

LTE Band 13 (GT - LC = -3.90 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)	21.73	21.99	21.83	-	21.99	-
Conducted Power (Watts)	0.1489	0.1581	0.1524	-	0.1581	-
ERP(dBm)	15.68	15.94	15.78	-	15.94	-
ERP(Watts)	0.0370	0.0393	0.0378	-	0.0393	-



LTE Band 13 (GT - LC = -3.90 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)	20.75	20.67	20.67	-	20.65	-
Conducted Power (Watts)	0.1189	0.1167	0.1167	-	0.1161	-
ERP(dBm)	14.70	14.62	14.62	-	14.60	-
ERP(Watts)	0.0295	0.0290	0.0290	-	0.0288	-

LTE Band 13 (GT - LC = -3.90 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)	17.69	17.69	17.40	-	17.69	-
Conducted Power (Watts)	0.0587	0.0587	0.0550	-	0.0587	-
ERP(dBm)	11.64	11.64	11.35	-	11.64	-
ERP(Watts)	0.0146	0.0146	0.0136	-	0.0146	-



LTE Band 17 (GT - LC = -3.90 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)	22.33	22.47	22.50	22.42	22.54	22.52
Conducted Power (Watts)	0.1710	0.1766	0.1778	0.1746	0.1795	0.1786
ERP(dBm)	16.28	16.42	16.45	16.37	16.49	16.47
ERP(Watts)	0.0425	0.0439	0.0442	0.0434	0.0446	0.0444

LTE Band 17 (GT - LC = -3.90 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)	21.83	21.60	21.53	21.79	21.55	21.60
Conducted Power (Watts)	0.1524	0.1445	0.1422	0.1510	0.1429	0.1445
ERP(dBm)	15.78	15.55	15.48	15.74	15.50	15.55
ERP(Watts)	0.0378	0.0359	0.0353	0.0375	0.0355	0.0359



LTE Band 17 (GT - LC = -3.90 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)	20.78	20.68	20.75	20.76	20.71	20.74
Conducted Power (Watts)	0.1197	0.1169	0.1189	0.1191	0.1178	0.1186
ERP(dBm)	14.73	14.63	14.70	14.71	14.66	14.69
ERP(Watts)	0.0297	0.0290	0.0295	0.0296	0.0292	0.0294

LTE Band 17 (GT - LC = -3.90 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)	17.63	17.48	17.59	17.65	17.51	17.64
Conducted Power (Watts)	0.0579	0.0560	0.0574	0.0582	0.0564	0.0581
ERP(dBm)	11.58	11.43	11.54	11.60	11.46	11.59
ERP(Watts)	0.0144	0.0139	0.0143	0.0145	0.0140	0.0144



LTE Band 38 (GT - LC = -3.10 dB) QPSK			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency	2572.5	2595	2617.5
(MHz)			
Conducted Power (dBm)	22.47	22.49	22.45
Conducted Power (Watts)	0.1766	0.1774	0.1758
EIRP(dBm)	19.37	19.39	19.35
EIRP(Watts)	0.0865	0.0869	0.0861

LTE Band 38 (GT - LC = -3.10 dB) QPSK									
Bandwidth	10M			15M			20M		
	37800	38000	38200	37825	38000	38175	37850	38000	38150
Channel	(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)	22.56	22.54	22.44	22.57	22.49	22.36	22.52	22.59	22.45
Conducted Power (Watts)	0.1803	0.1795	0.1754	0.1807	0.1774	0.1722	0.1786	0.1816	0.1758
EIRP(dBm)	19.46	19.44	19.34	19.47	19.39	19.26	19.42	19.49	19.35
EIRP(Watts)	0.0883	0.0879	0.0859	0.0885	0.0869	0.0843	0.0875	0.0889	0.0861



LTE Band 38 (GT - LC = -3.10 dB) 16QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency (MHz)	2572.5	2595	2617.5
	Conducted Power (dBm)	21.75	21.64
Conducted Power (Watts)	0.1496	0.1459	0.1452
EIRP(dBm)	18.65	18.54	18.52
EIRP(Watts)	0.0733	0.0714	0.0711

LTE Band 38 (GT - LC = -3.10 dB) 16QAM									
Bandwidth	10M			15M			20M		
	37800 (Low)	38000 (Mid)	38200 (High)	37825 (Low)	38000 (Mid)	38175 (High)	37850 (Low)	38000 (Mid)	38150 (Mid)
Frequency (MHz)	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
	Conducted Power (dBm)	21.75	21.68	21.68	21.64	21.62	21.70	21.62	21.71
Conducted Power (Watts)	0.1496	0.1472	0.1472	0.1459	0.1452	0.1479	0.1452	0.1483	0.1462
EIRP(dBm)	18.65	18.58	18.58	18.54	18.52	18.60	18.52	18.61	18.55
EIRP(Watts)	0.0733	0.0721	0.0721	0.0714	0.0711	0.0724	0.0711	0.0726	0.0716



LTE Band 38 (GT - LC = -3.10 dB) 64QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency	2572.5	2595	2617.5
(MHz)			
Conducted Power (dBm)	20.29	20.34	20.35
Conducted Power (Watts)	0.1069	0.1081	0.1084
EIRP(dBm)	17.19	17.24	17.25
EIRP(Watts)	0.0524	0.0530	0.0531

LTE Band 38 (GT - LC = -3.10 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)	20.38	20.27	20.27	20.40	20.30	20.28	20.35	20.37	20.37
Conducted Power (Watts)	0.1091	0.1064	0.1064	0.1096	0.1072	0.1067	0.1084	0.1089	0.1089
EIRP(dBm)	17.28	17.17	17.17	17.30	17.20	17.18	17.25	17.27	17.27
EIRP(Watts)	0.0535	0.0521	0.0521	0.0537	0.0525	0.0522	0.0531	0.0533	0.0533



LTE Band 38 (GT - LC = -3.10 dB) 256QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency	2572.5	2595	2617.5
(MHz)			
Conducted Power (dBm)	17.30	17.43	17.42
Conducted Power (Watts)	0.0537	0.0553	0.0552
EIRP(dBm)	14.20	14.33	14.32
EIRP(Watts)	0.0263	0.0271	0.0270

LTE Band 38 (GT - LC = -3.10 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)	17.24	17.39	17.41	17.32	17.41	17.31	17.34	17.41	17.41
Conducted Power (Watts)	0.0530	0.0548	0.0551	0.0540	0.0551	0.0538	0.0542	0.0551	0.0551
EIRP(dBm)	14.14	14.29	14.31	14.22	14.31	14.21	14.24	14.31	14.31
EIRP(Watts)	0.0259	0.0269	0.0270	0.0264	0.0270	0.0264	0.0265	0.0270	0.0270



LTE Band 41 (GT - LC = -3.10 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)	22.93	23.04	22.58	22.98	22.99	22.46	23.02	23.03	22.53
Conducted Power (Watts)	0.1963	0.2014	0.1811	0.1986	0.1991	0.1762	0.2004	0.2009	0.1791
EIRP(dBm)	19.83	19.94	19.48	19.88	19.89	19.36	19.92	19.93	19.43
EIRP(Watts)	0.0962	0.0986	0.0887	0.0973	0.0975	0.0863	0.0982	0.0984	0.0877

LTE Band 41 (GT - LC = -3.10 dB) QPSK			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	23.03	23.05	22.56
Conducted Power (Watts)	0.2009	0.2018	0.1803
EIRP(dBm)	19.93	19.95	19.46
EIRP(Watts)	0.0984	0.0989	0.0883



LTE Band 41 (GT - LC = -3.10 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)	22.44	22.50	21.79	22.50	22.38	21.75	22.43	22.44	21.78
Conducted Power (Watts)	0.1754	0.1778	0.1510	0.1778	0.1730	0.1496	0.1750	0.1754	0.1507
EIRP(dBm)	19.34	19.40	18.69	19.40	19.28	18.65	19.33	19.34	18.68
EIRP(Watts)	0.0859	0.0871	0.0740	0.0871	0.0847	0.0733	0.0857	0.0859	0.0738

LTE Band 41 (GT - LC = -3.10 dB) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	22.52	22.45	21.75
Conducted Power (Watts)	0.1786	0.1758	0.1496
EIRP(dBm)	19.42	19.35	18.65
EIRP(Watts)	0.0875	0.0861	0.0733



LTE Band 41 (GT - LC = -3.10 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)	21.00	21.13	20.56	21.06	21.07	20.49	20.95	21.09	20.47
Conducted Power (Watts)	0.1259	0.1297	0.1138	0.1276	0.1279	0.1119	0.1245	0.1285	0.1114
EIRP(dBm)	17.90	18.03	17.46	17.96	17.97	17.39	17.85	17.99	17.37
EIRP(Watts)	0.0617	0.0635	0.0557	0.0625	0.0627	0.0548	0.0610	0.0630	0.0546

LTE Band 41 (GT - LC = -3.10 dB) 64QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency	2506	2593	2680
(MHz)			
Conducted Power (dBm)	21.01	21.08	20.58
Conducted Power (Watts)	0.1262	0.1282	0.1143
EIRP(dBm)	17.91	17.98	17.48
EIRP(Watts)	0.0618	0.0628	0.0560



LTE Band 41 (GT - LC = -3.10 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 (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	17.86	17.93	17.58	17.91	17.87	17.57	17.91	17.84	17.84
Conducted Power (Watts)	0.0611	0.0621	0.0573	0.0618	0.0612	0.0571	0.0618	0.0608	0.0608
EIRP(dBm)	14.76	14.83	14.48	14.81	14.77	14.47	14.81	14.74	14.74
EIRP(Watts)	0.0299	0.0304	0.0281	0.0303	0.0300	0.0280	0.0303	0.0298	0.0298

LTE Band 41 (GT - LC = -3.10 dB) 256QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	17.93	17.95	17.55
Conducted Power (Watts)	0.0621	0.0624	0.0569
EIRP(dBm)	14.83	14.85	14.45
EIRP(Watts)	0.0304	0.0305	0.0279



CA EIRP

LTE Band CA_7C (GT - LC = -2.90 dB) QPSK									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.08	23.10	22.92	23.00	23.14	22.97	23.12	23.11	22.99
Conducted Power (Watts)	0.2032	0.2042	0.1959	0.1995	0.2061	0.1982	0.2051	0.2046	0.1991
EIRP(dBm)	20.18	20.20	20.02	20.10	20.24	20.07	20.22	20.21	20.09
EIRP(Watts)	0.1042	0.1047	0.1005	0.1023	0.1057	0.1016	0.1052	0.1050	0.1021

LTE Band CA_7C (GT - LC = -2.90 dB) QPSK									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.99	23.18	23.05	23.08	23.19	23.03	23.13	23.06	23.07
Conducted Power (Watts)	0.1991	0.2080	0.2018	0.2032	0.2084	0.2009	0.2056	0.2023	0.2028
EIRP(dBm)	20.09	20.28	20.15	20.18	20.29	20.13	20.23	20.16	20.17
EIRP(Watts)	0.1021	0.1067	0.1035	0.1042	0.1069	0.1030	0.1054	0.1038	0.1040



LTE Band CA_7C (GT - LC = -2.90 dB) 16QAM									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.38	23.29	23.31	23.32	23.26	23.34	23.40	23.32	23.32
Conducted Power (Watts)	0.2178	0.2133	0.2143	0.2148	0.2118	0.2158	0.2188	0.2148	0.2148
EIRP(dBm)	20.48	20.39	20.41	20.42	20.36	20.44	20.50	20.42	20.42
EIRP(Watts)	0.1117	0.1094	0.1099	0.1102	0.1086	0.1107	0.1122	0.1102	0.1102

LTE Band CA_7C (GT - LC = -2.90 dB) 16QAM									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.37	23.33	23.29	23.43	23.34	23.33	23.46	23.25	23.35
Conducted Power (Watts)	0.2173	0.2153	0.2133	0.2203	0.2158	0.2153	0.2218	0.2113	0.2163
EIRP(dBm)	20.47	20.43	20.39	20.53	20.44	20.43	20.56	20.35	20.45
EIRP(Watts)	0.1114	0.1104	0.1094	0.1130	0.1107	0.1104	0.1138	0.1084	0.1109



LTE Band CA_7C (GT - LC = -2.90 dB) 64QAM									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.28	22.41	22.21	22.48	22.30	22.28	22.21	22.50	22.29
Conducted Power (Watts)	0.1690	0.1742	0.1663	0.1770	0.1698	0.1690	0.1663	0.1778	0.1694
EIRP(dBm)	19.38	19.51	19.31	19.58	19.40	19.38	19.31	19.60	19.39
EIRP(Watts)	0.0867	0.0893	0.0853	0.0908	0.0871	0.0867	0.0853	0.0912	0.0869

LTE Band CA_7C (GT - LC = -2.90 dB) 64QAM									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.15	22.42	22.28	22.26	22.41	22.26	22.29	22.40	22.33
Conducted Power (Watts)	0.1641	0.1746	0.1690	0.1683	0.1742	0.1683	0.1694	0.1738	0.1710
EIRP(dBm)	19.25	19.52	19.38	19.36	19.51	19.36	19.39	19.50	19.43
EIRP(Watts)	0.0841	0.0895	0.0867	0.0863	0.0893	0.0863	0.0869	0.0891	0.0877



LTE Band CA_7C (GT - LC = -2.90 dB) 256QAM									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	18.86	19.00	18.98	18.86	19.00	18.98	18.90	19.06	19.04
Conducted Power (Watts)	0.0769	0.0794	0.0791	0.0769	0.0794	0.0791	0.0776	0.0805	0.0802
EIRP(dBm)	15.96	16.10	16.08	15.96	16.10	16.08	16.00	16.16	16.14
EIRP(Watts)	0.0394	0.0407	0.0406	0.0394	0.0407	0.0406	0.0398	0.0413	0.0411

LTE Band CA_7C (GT - LC = -2.90 dB) 256QAM									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	18.95	19.11	19.04	18.89	19.06	18.91	19.00	18.98	19.06
Conducted Power (Watts)	0.0785	0.0815	0.0802	0.0774	0.0805	0.0778	0.0794	0.0791	0.0805
EIRP(dBm)	16.05	16.21	16.14	15.99	16.16	16.01	16.10	16.08	16.16
EIRP(Watts)	0.0403	0.0418	0.0411	0.0397	0.0413	0.0399	0.0407	0.0406	0.0413



LTE Band CA_7C (GT - LC = -2.90 dB) QPSK			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.07	23.21	23.02
Conducted Power (Watts)	0.2028	0.2094	0.2004
EIRP(dBm)	20.17	20.31	20.12
EIRP(Watts)	0.1040	0.1074	0.1028

LTE Band CA_7C (GT - LC = -2.90 dB) 16QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.35	23.40	23.24
Conducted Power (Watts)	0.2163	0.2188	0.2109
EIRP(dBm)	20.45	20.50	20.34
EIRP(Watts)	0.1109	0.1122	0.1081



LTE Band CA_7C (GT - LC = -2.90 dB) 64QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.24	22.46	22.21
Conducted Power (Watts)	0.1675	0.1762	0.1663
EIRP(dBm)	19.34	19.56	19.31
EIRP(Watts)	0.0859	0.0904	0.0853

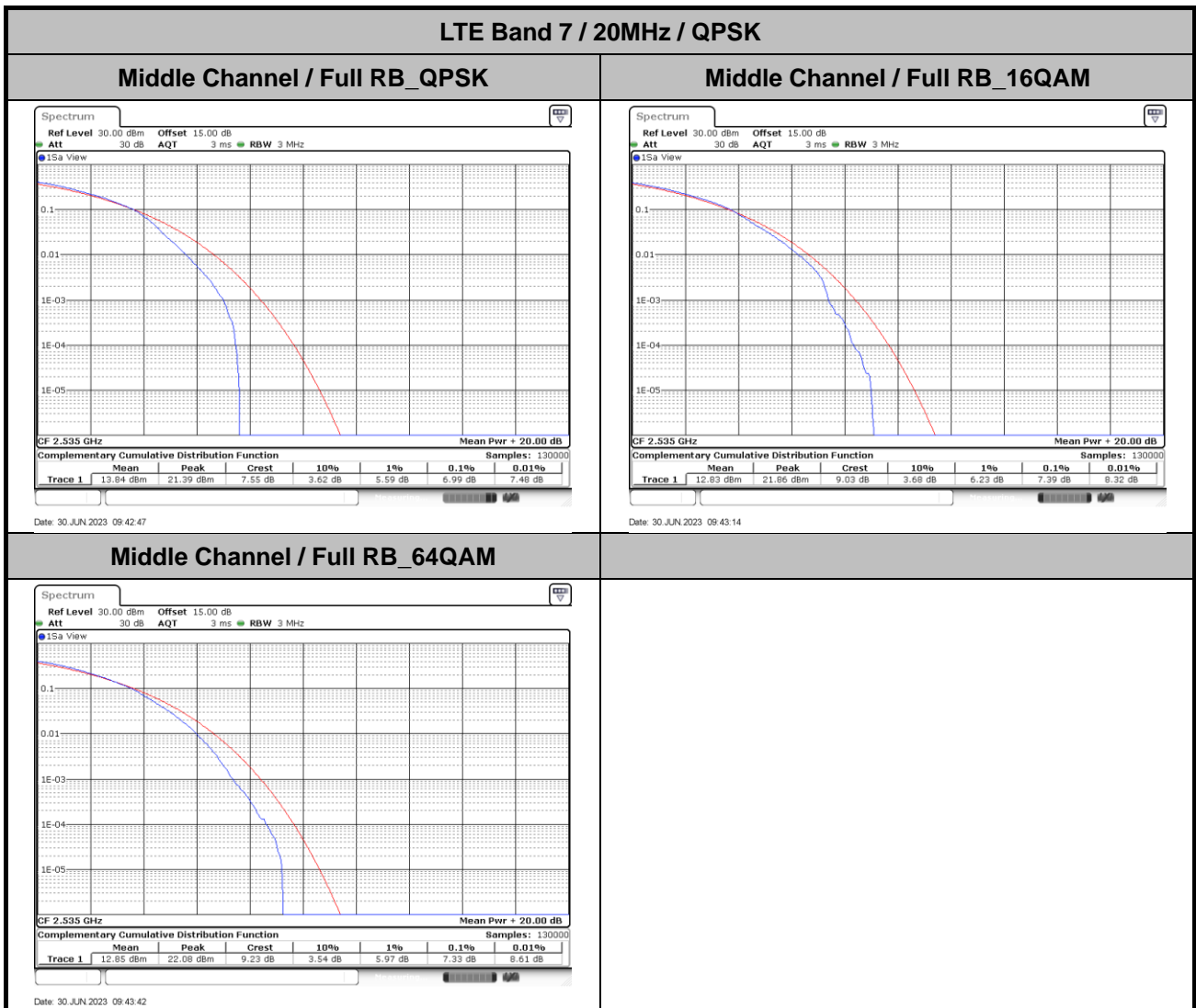
LTE Band CA_7C (GT - LC = -2.90 dB) 256QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21025	21225
	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375
	(Low)	(Mid)	(High)
Conducted Power (dBm)	18.96	19.10	19.04
Conducted Power (Watts)	0.0787	0.0813	0.0802
EIRP(dBm)	16.06	16.20	16.14
EIRP(Watts)	0.0404	0.0417	0.0411



LTE Band 7

Peak-to-Average Ratio

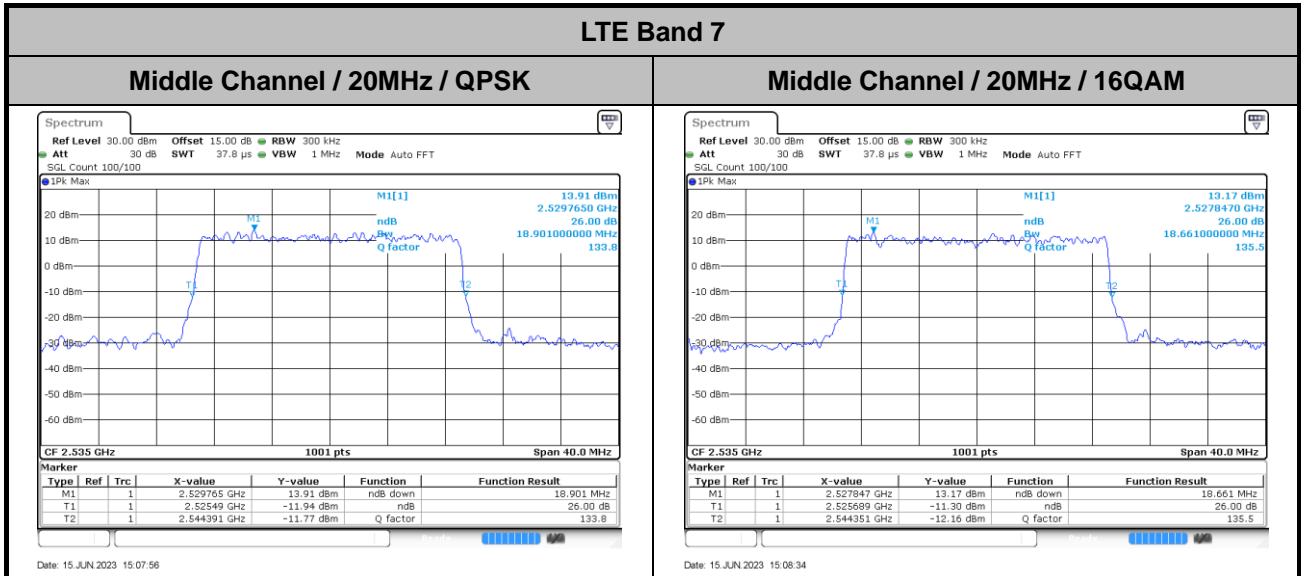
Mode	LTE Band 7 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	6.99	7.39	7.33	PASS





26dB Bandwidth

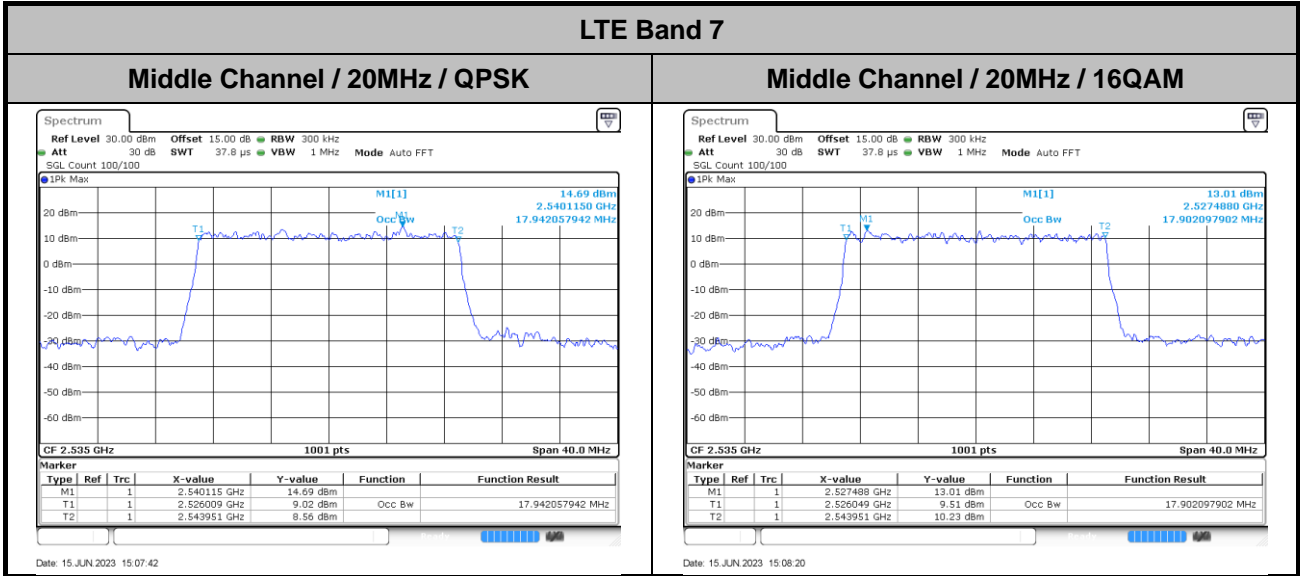
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BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.90	18.66





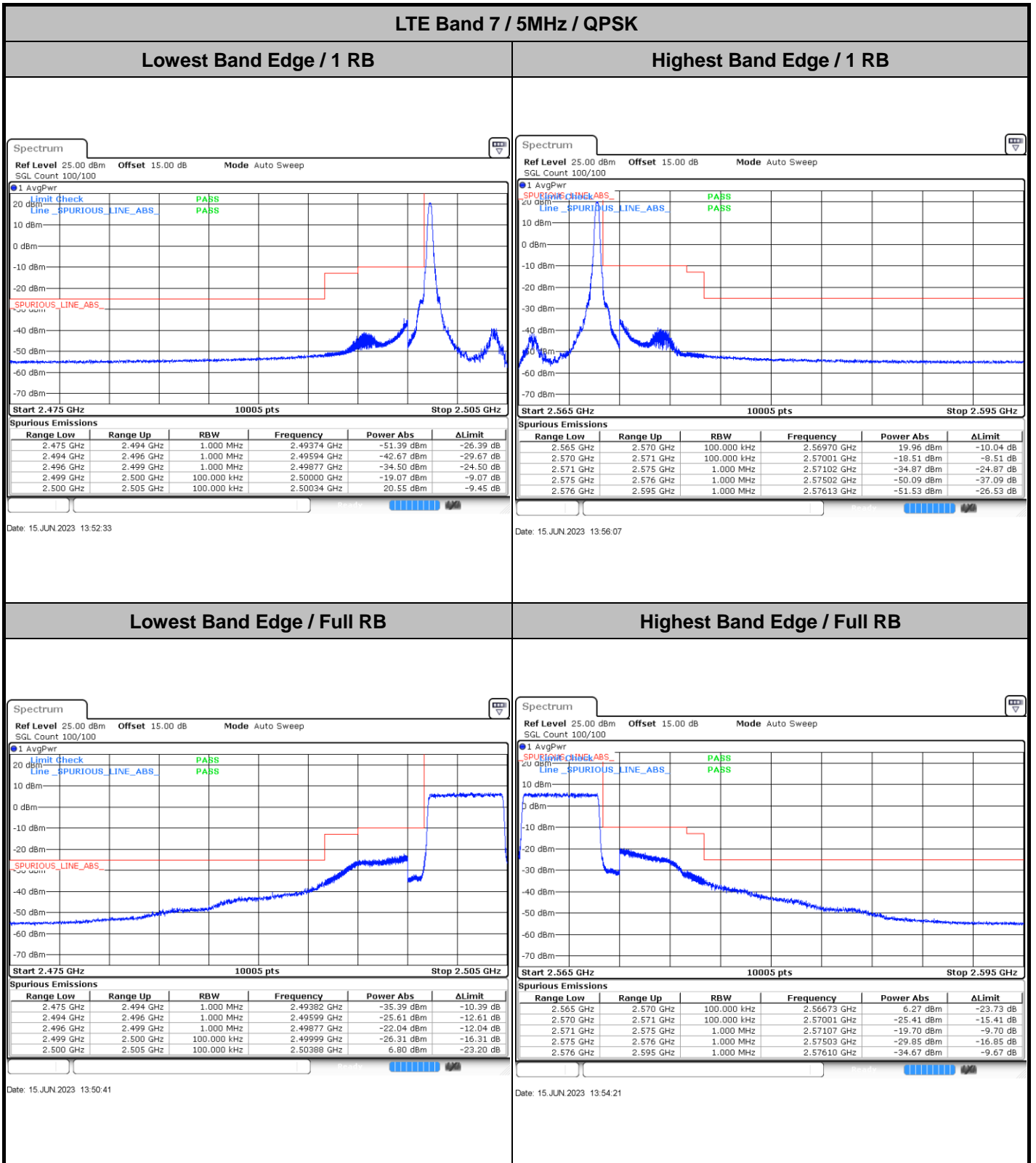
Occupied Bandwidth

Mode	LTE Band 7 : 99%OBW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	17.94	17.90





Conducted Band Edge

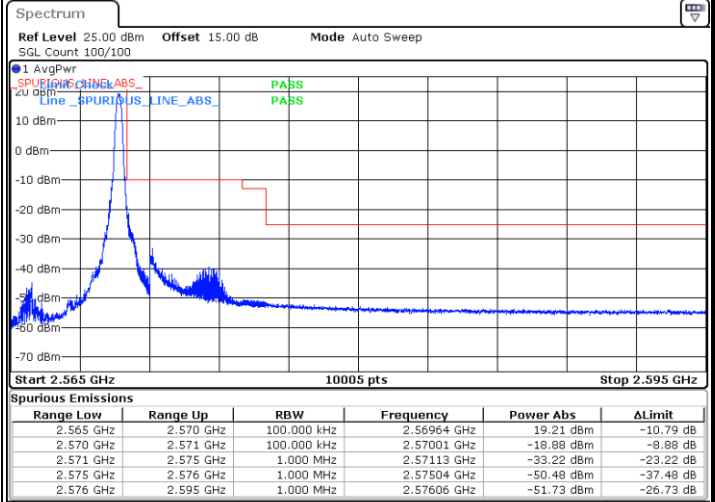
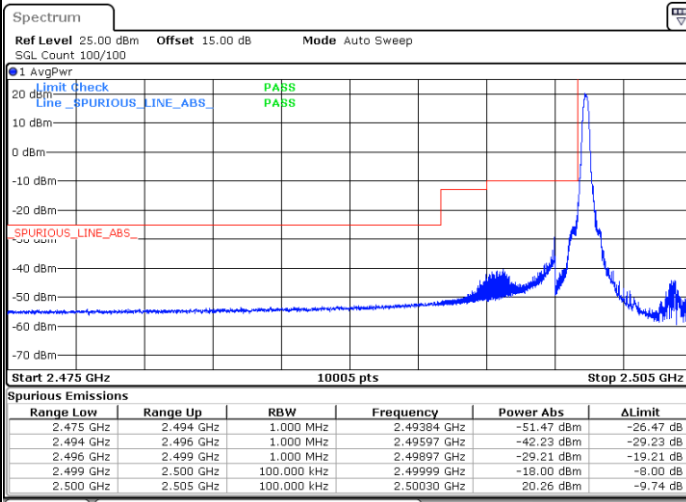




LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

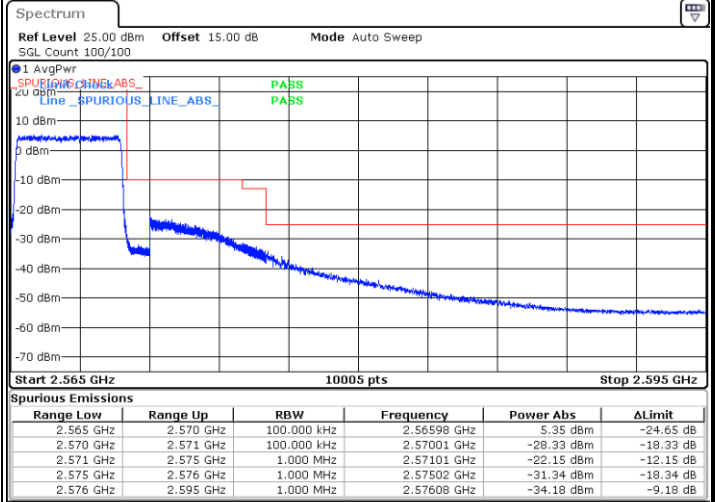
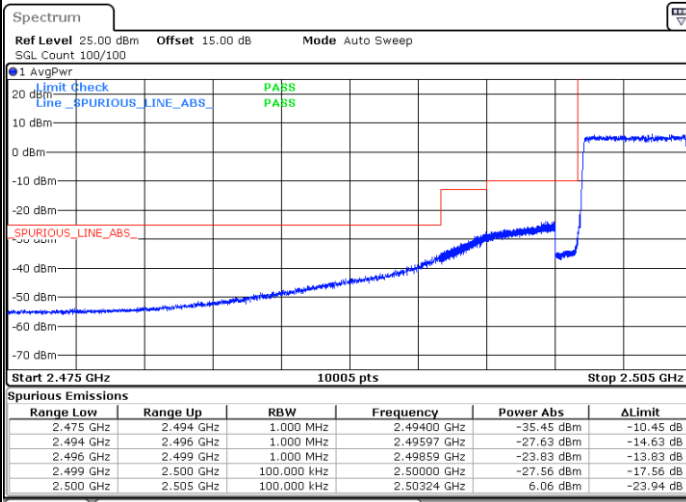


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Lowest Band Edge / Full RB

Highest Band Edge / Full RB



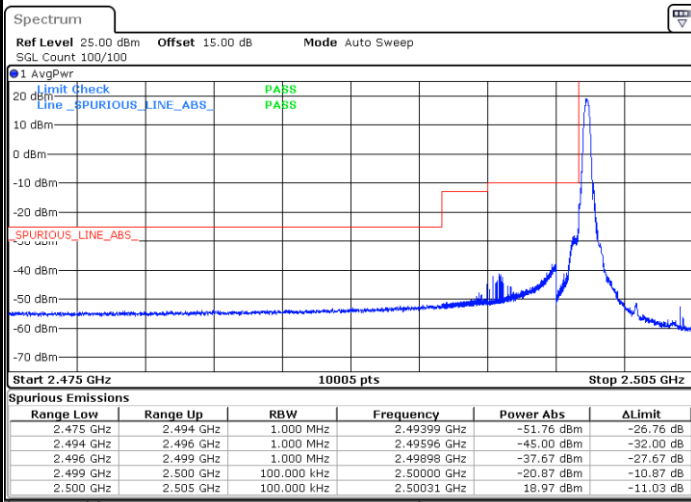
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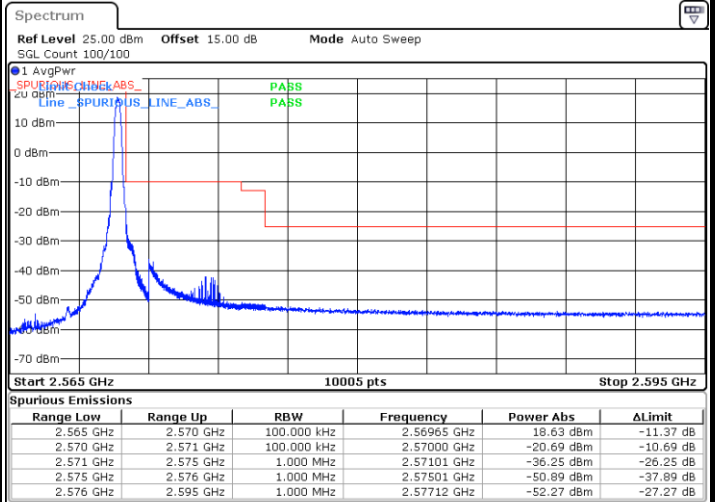
LTE Band 7 / 5MHz / 64QAM

Lowest Band Edge / 1RB



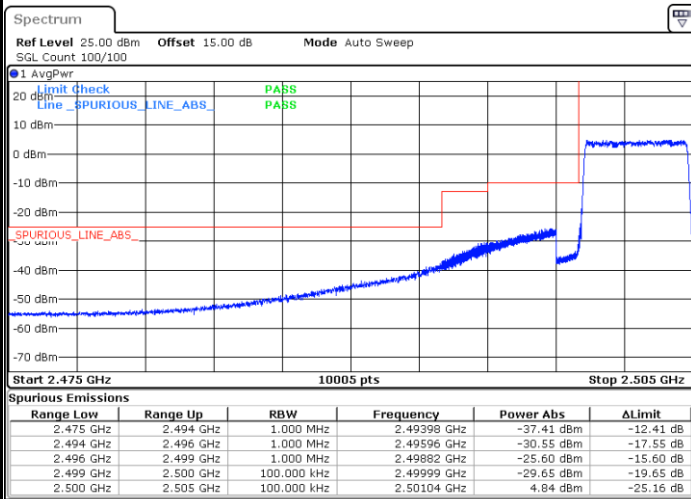
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Highest Band Edge / 1 RB



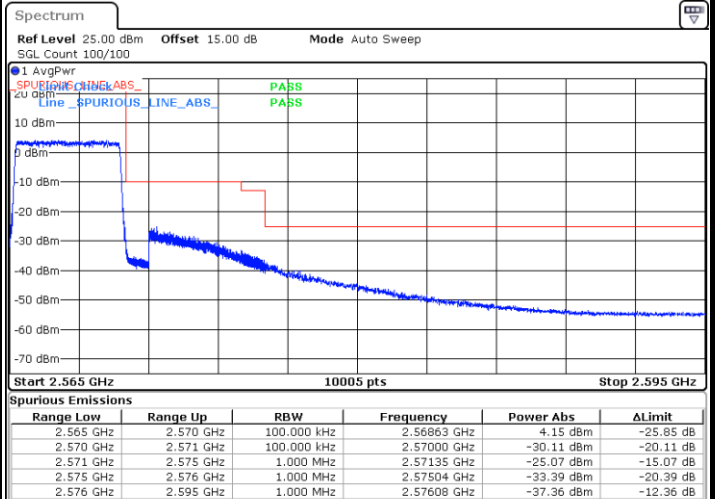
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Lowest Band Edge / Full RB



Date: 15 JUN 2023 13:51:56

Highest Band Edge / Full RB

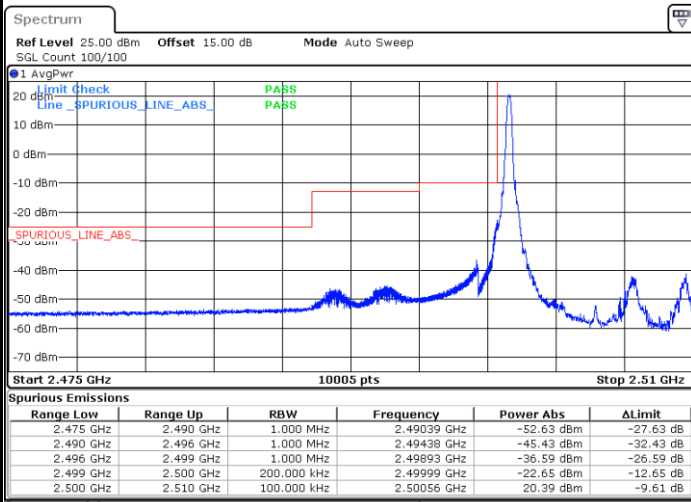


Date: 15 JUN 2023 13:55:32



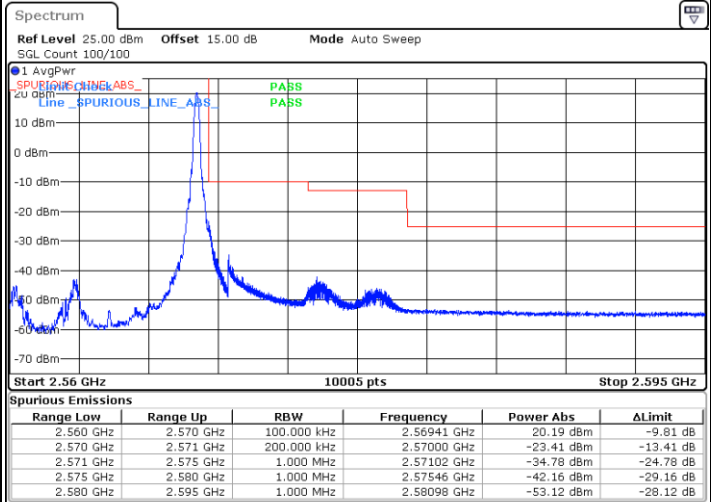
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB



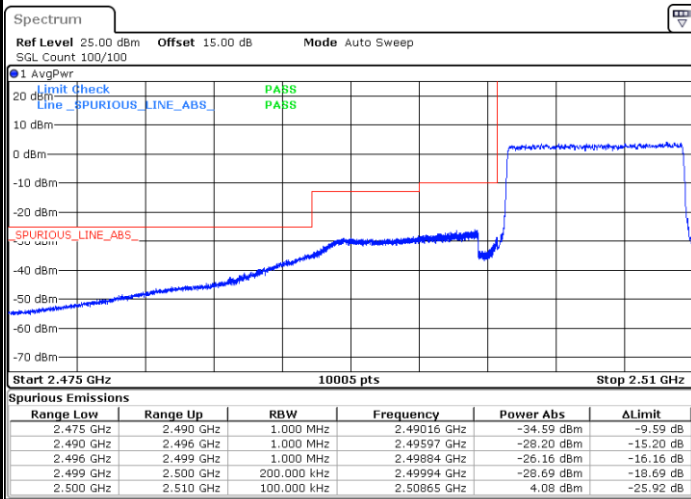
Date: 15 JUN 2023 14:04:18

Highest Band Edge / 1 RB



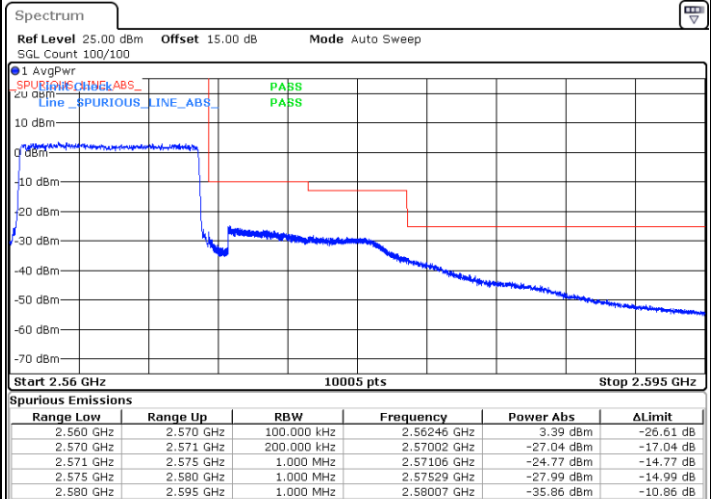
Date: 15 JUN 2023 14:07:48

Lowest Band Edge / Full RB



Date: 15 JUN 2023 14:02:34

Highest Band Edge / Full RB



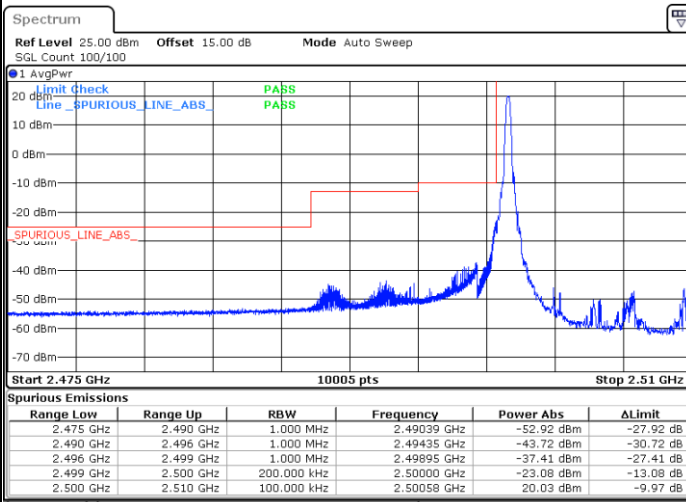
Date: 15 JUN 2023 14:06:03



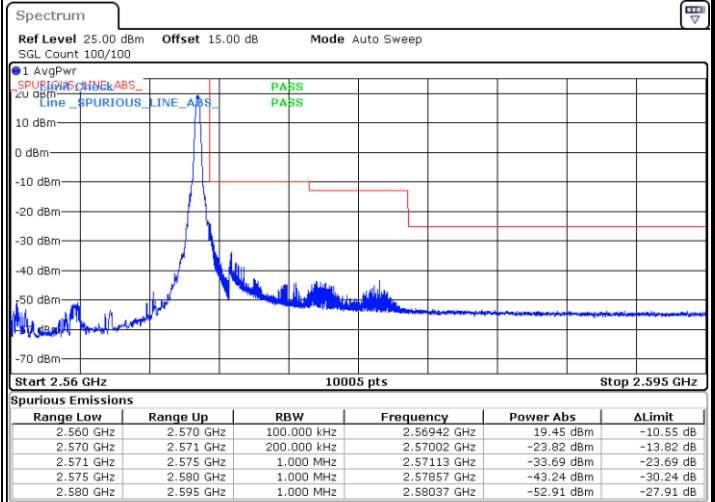
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



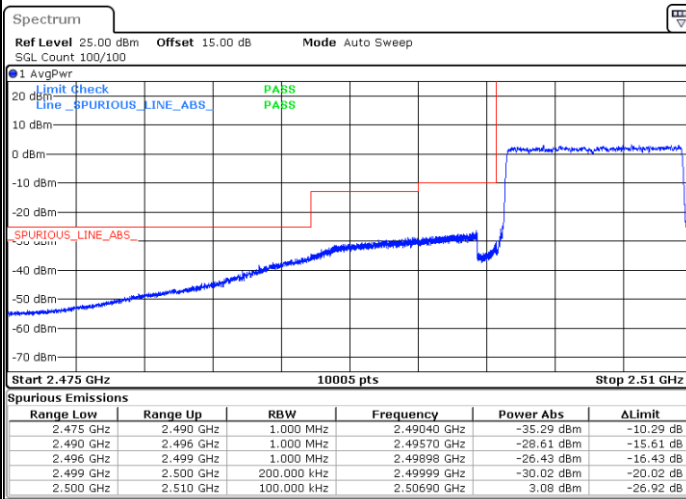
Date: 15 JUN 2023 14:04:53



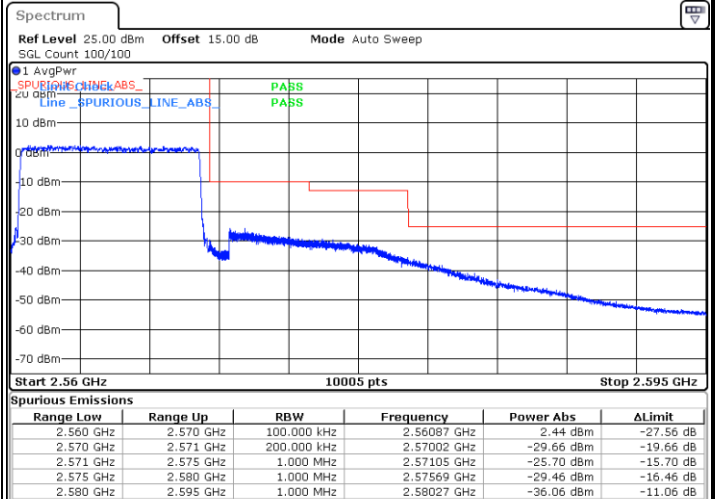
Date: 15 JUN 2023 14:08:24

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 15 JUN 2023 14:03:09

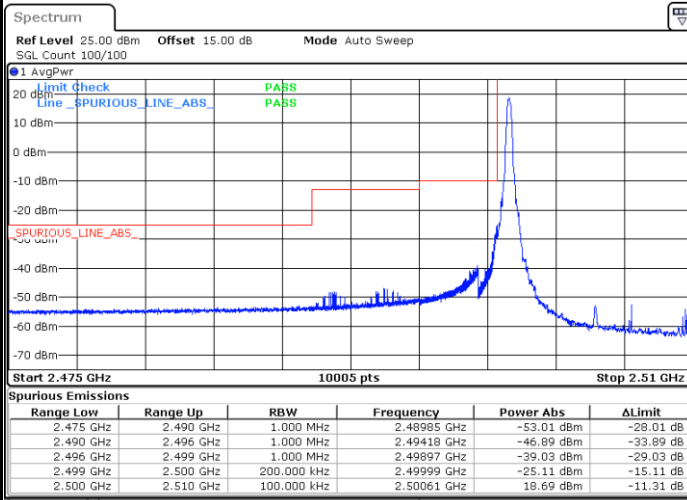


Date: 15 JUN 2023 14:06:37



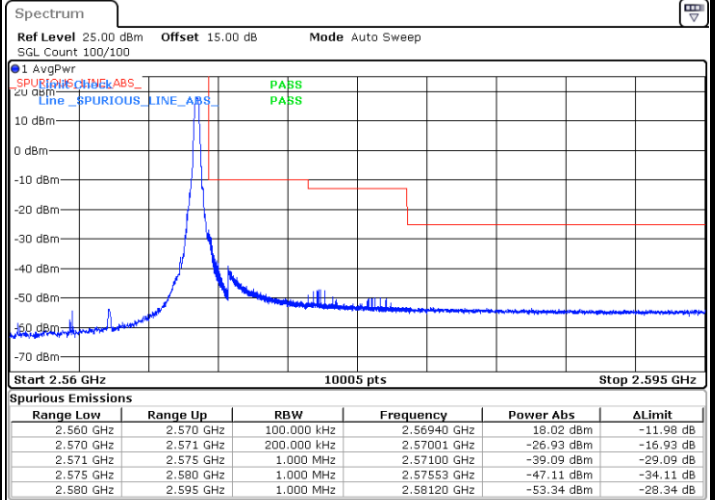
LTE Band 7 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



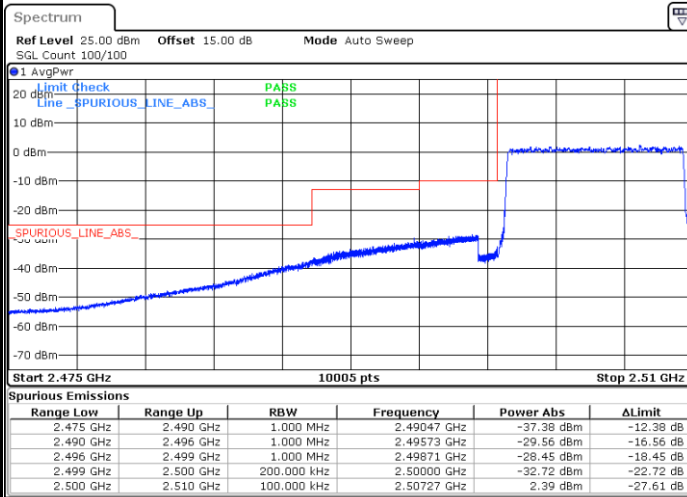
Date: 15 JUN 2023 14:05:28

Highest Band Edge / 1 RB



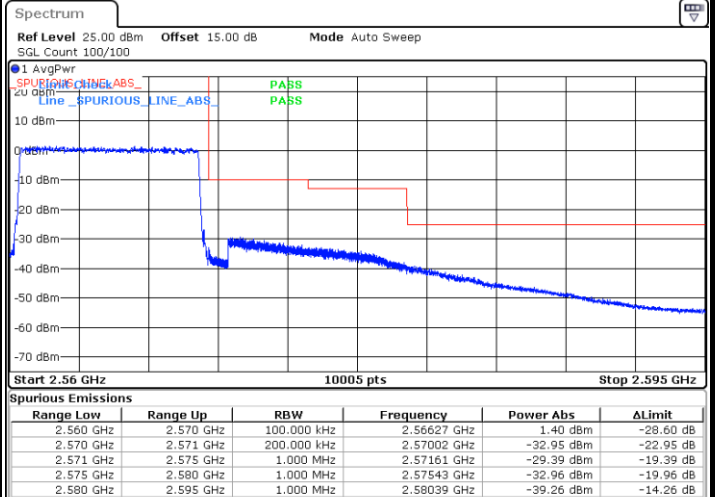
Date: 15 JUN 2023 14:08:59

Lowest Band Edge / Full RB



Date: 15 JUN 2023 14:03:43

Highest Band Edge / Full RB

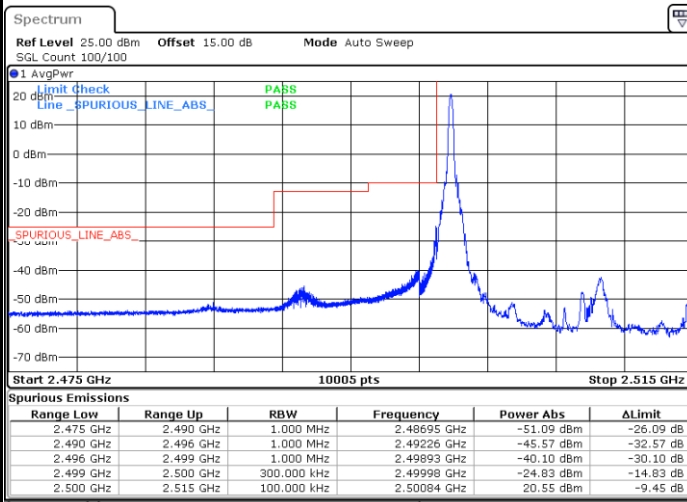


Date: 15 JUN 2023 14:07:12



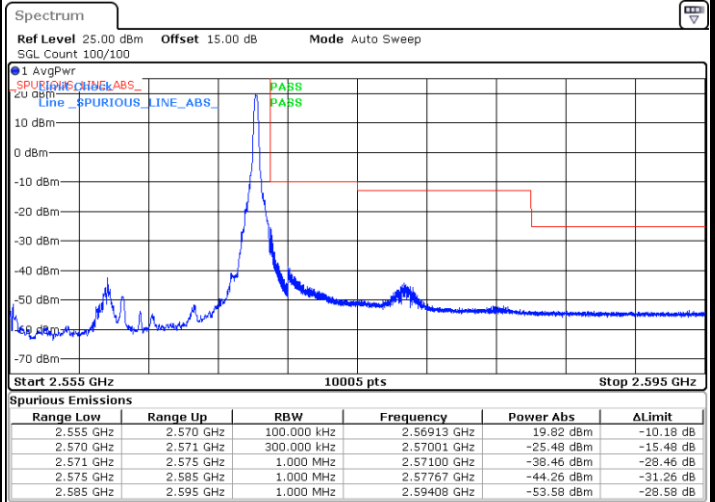
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



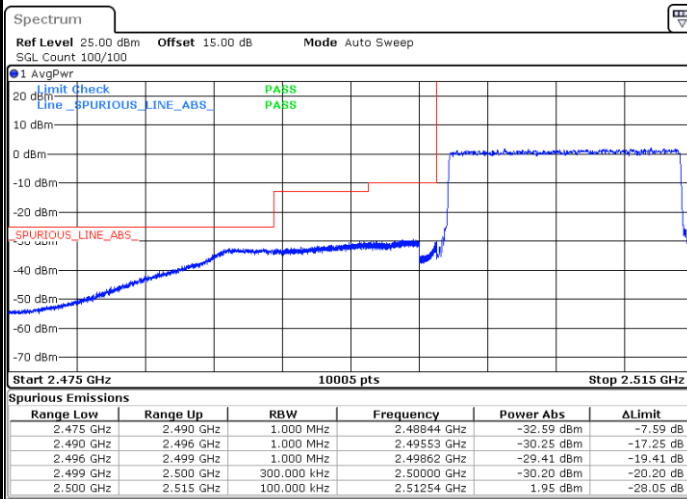
Date: 15 JUN 2023 14:16:10

Highest Band Edge / 1 RB



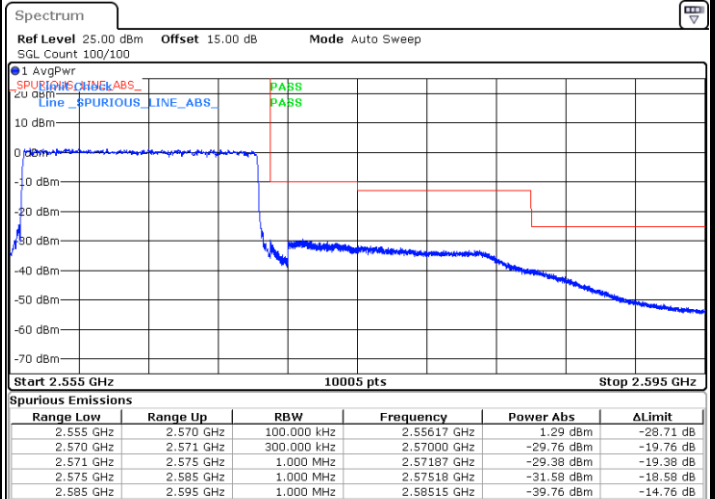
Date: 15 JUN 2023 14:19:46

Lowest Band Edge / Full RB



Date: 15 JUN 2023 14:14:18

Highest Band Edge / Full RB

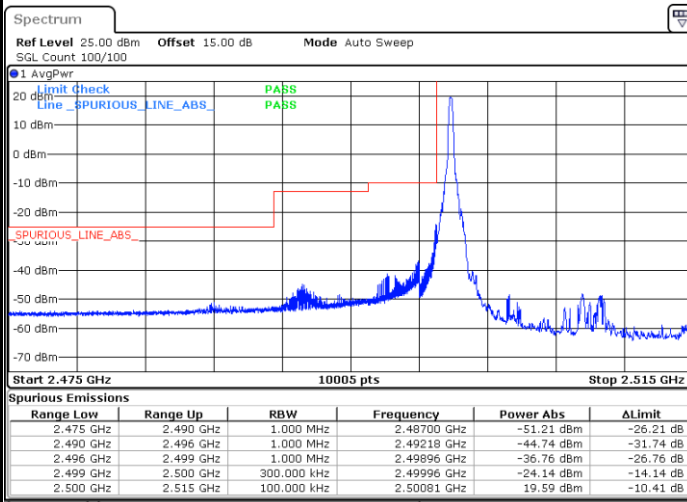


Date: 15 JUN 2023 14:18:00



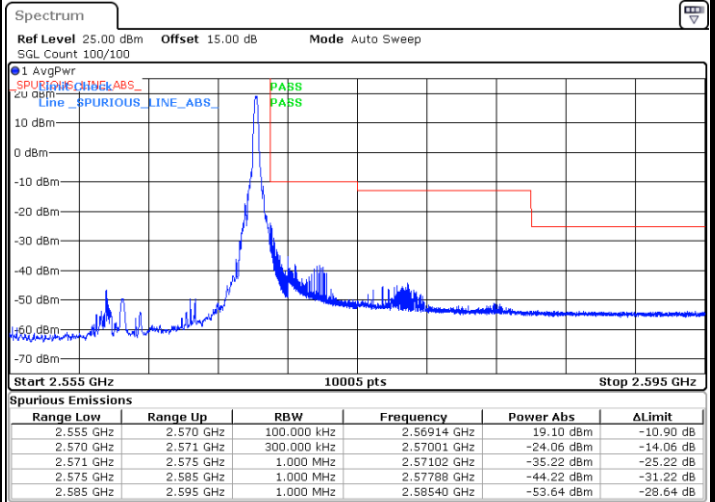
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



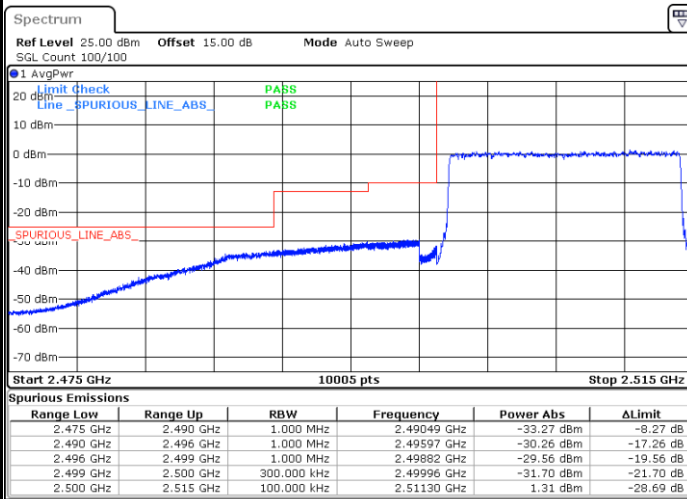
Date: 15 JUN 2023 14:16:46

Highest Band Edge / 1 RB



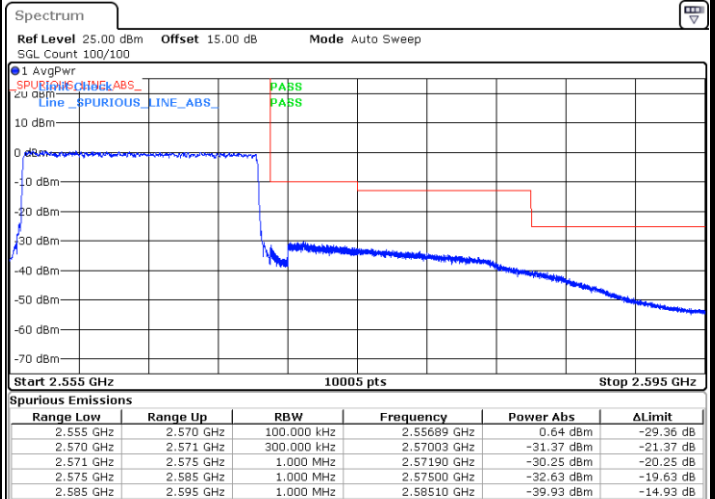
Date: 15 JUN 2023 14:20:20

Lowest Band Edge / Full RB



Date: 15 JUN 2023 14:14:55

Highest Band Edge / Full RB

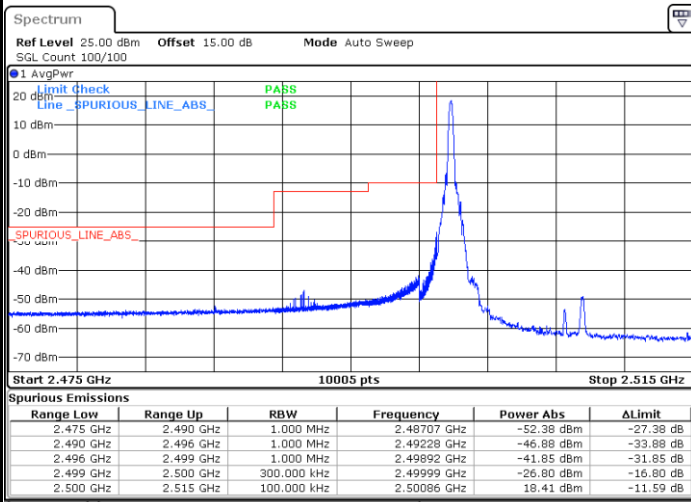


Date: 15 JUN 2023 14:18:34



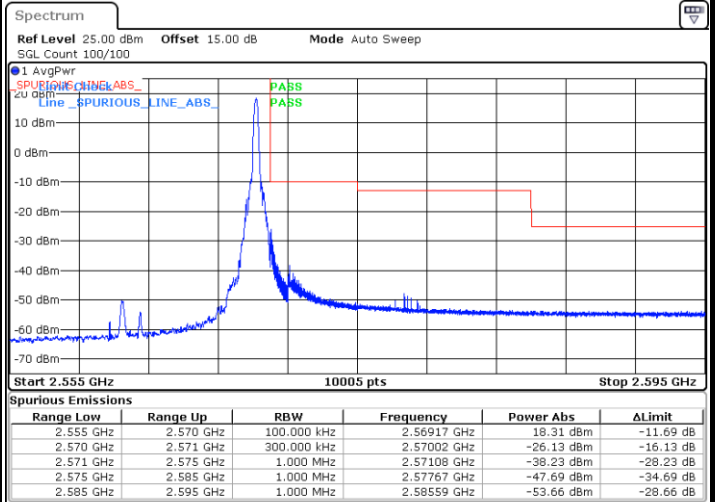
LTE Band 7 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



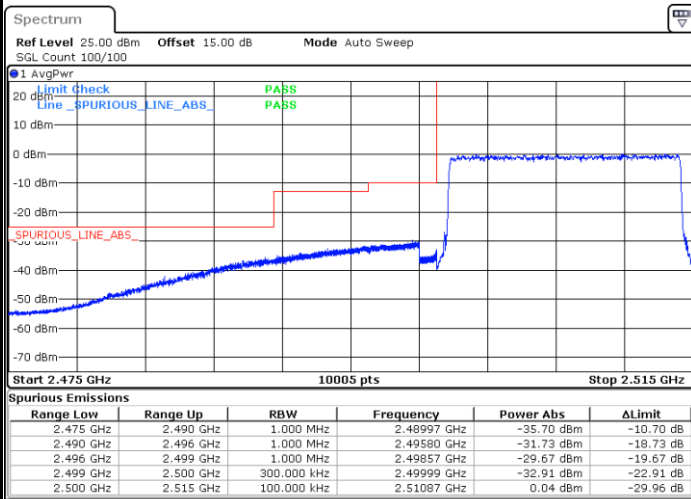
Date: 15 JUN 2023 14:17:24

Highest Band Edge / 1 RB



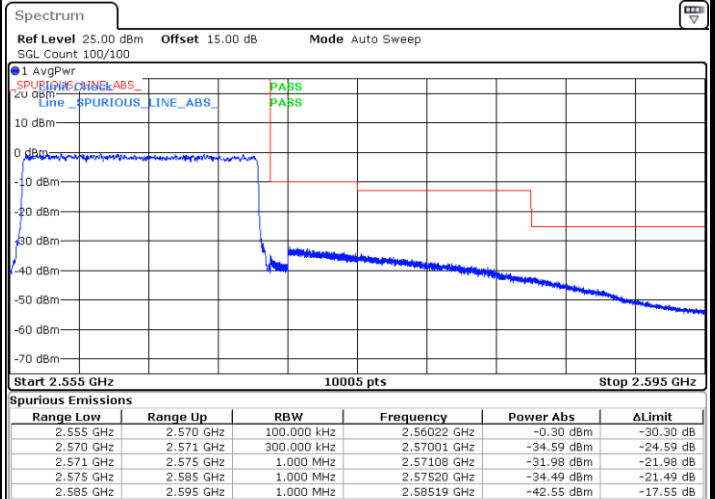
Date: 15 JUN 2023 14:20:55

Lowest Band Edge / Full RB



Date: 15 JUN 2023 14:15:32

Highest Band Edge / Full RB

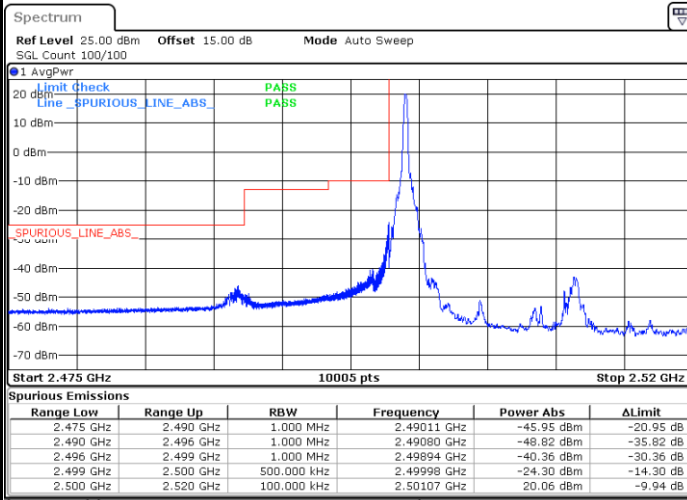


Date: 15 JUN 2023 14:19:10



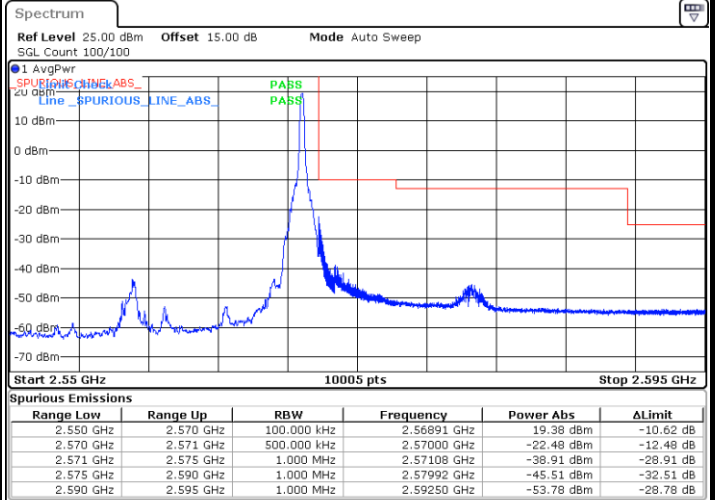
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



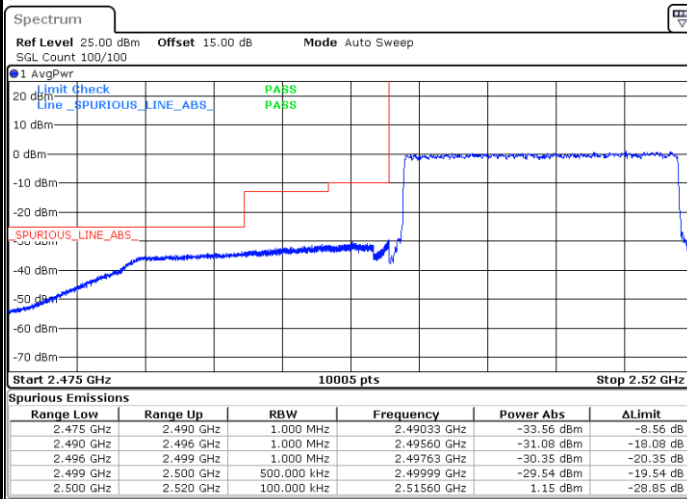
Date: 15 JUN 2023 14:28:06

Highest Band Edge / 1 RB



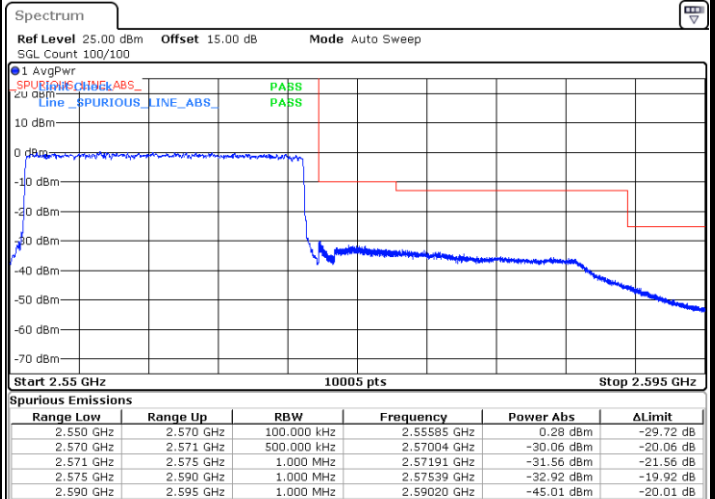
Date: 15 JUN 2023 14:31:40

Lowest Band Edge / Full RB



Date: 15 JUN 2023 14:26:14

Highest Band Edge / Full RB

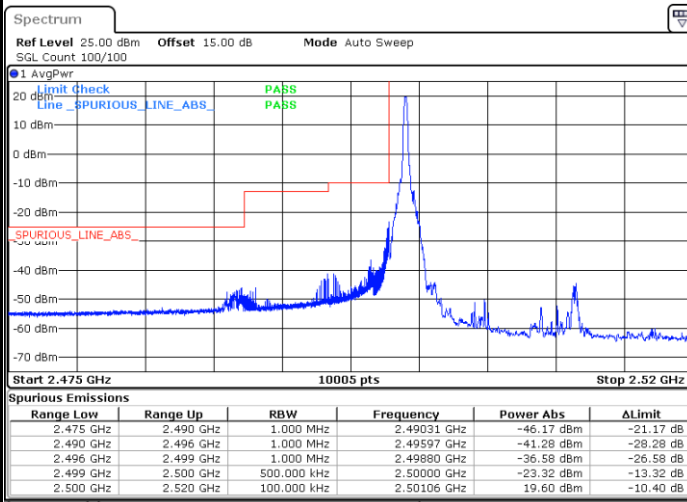


Date: 15 JUN 2023 14:29:55



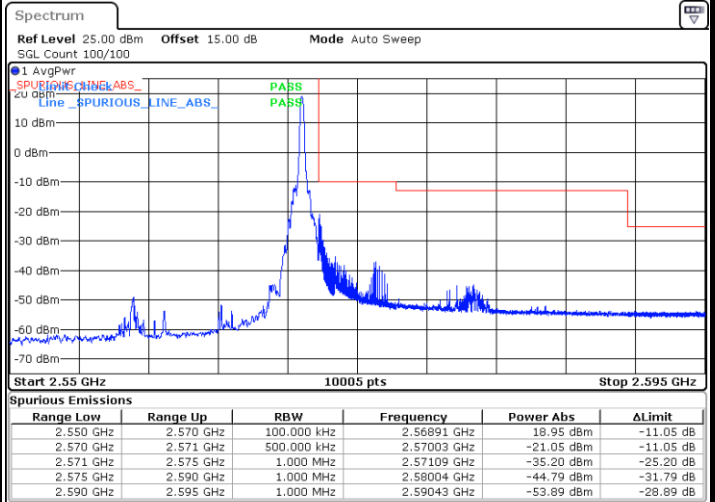
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



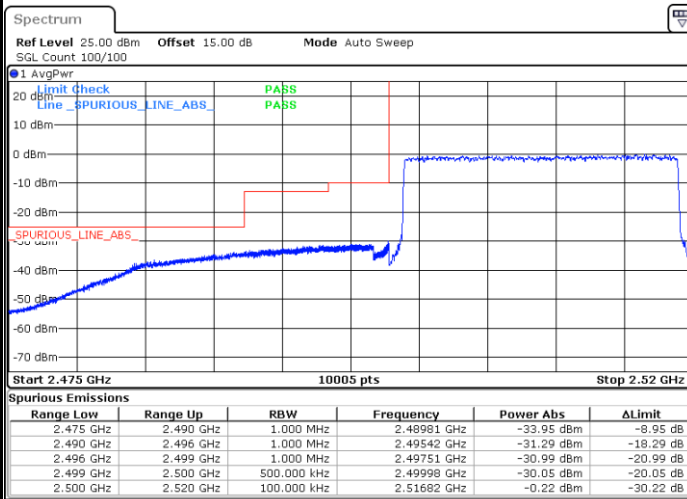
Date: 15 JUN 2023 14:28:44

Highest Band Edge / 1RB



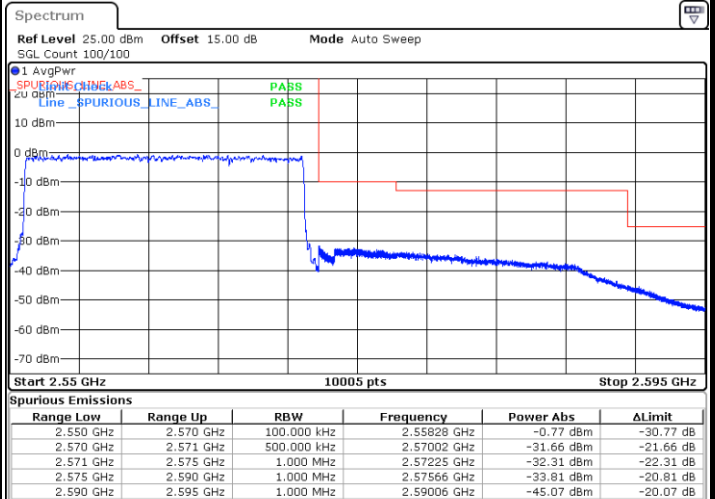
Date: 30 JUN 2023 09:35:43

Lowest Band Edge / Full RB



Date: 15 JUN 2023 14:26:52

Highest Band Edge / Full RB

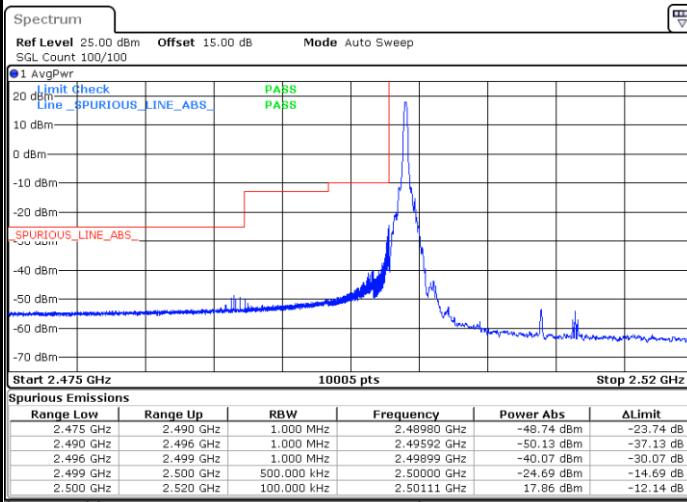


Date: 15 JUN 2023 14:30:29



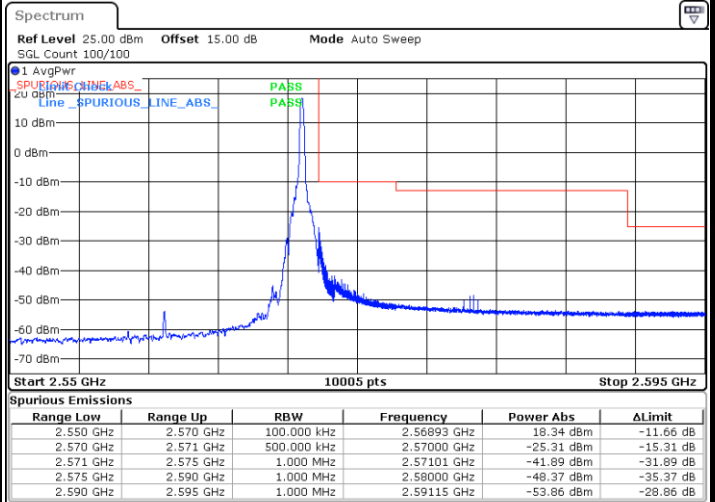
LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



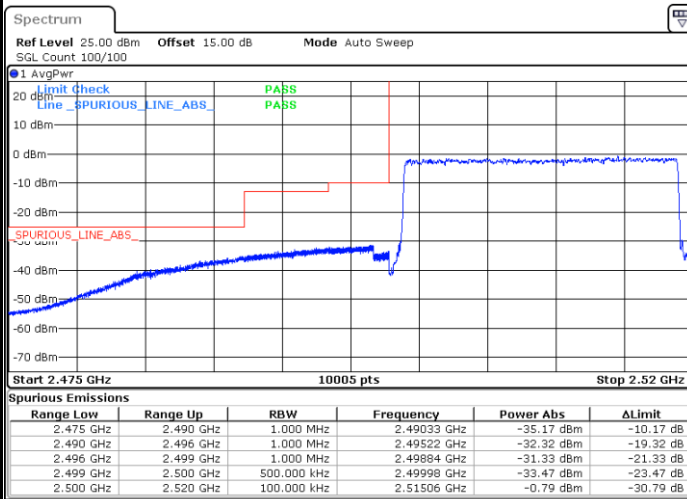
Date: 15 JUN 2023 14:29:20

Highest Band Edge / 1 RB



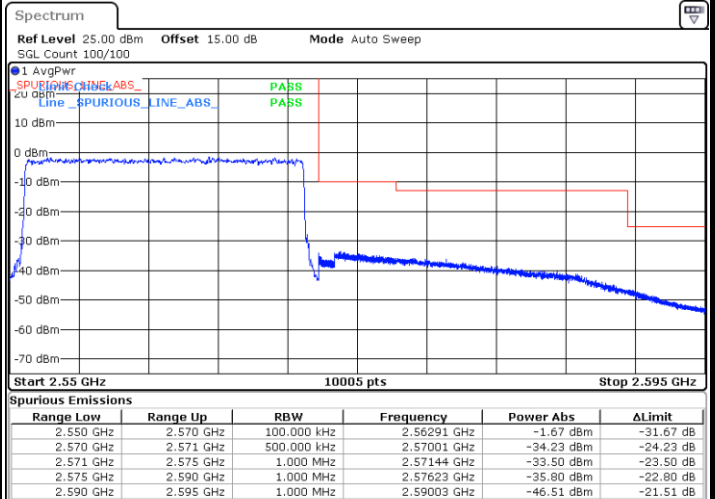
Date: 15 JUN 2023 15:02:35

Lowest Band Edge / Full RB



Date: 15 JUN 2023 14:27:28

Highest Band Edge / Full RB



Date: 15 JUN 2023 14:31:05

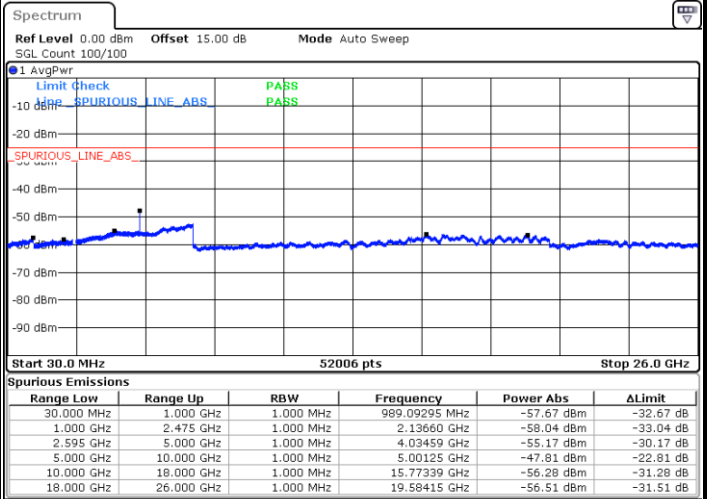
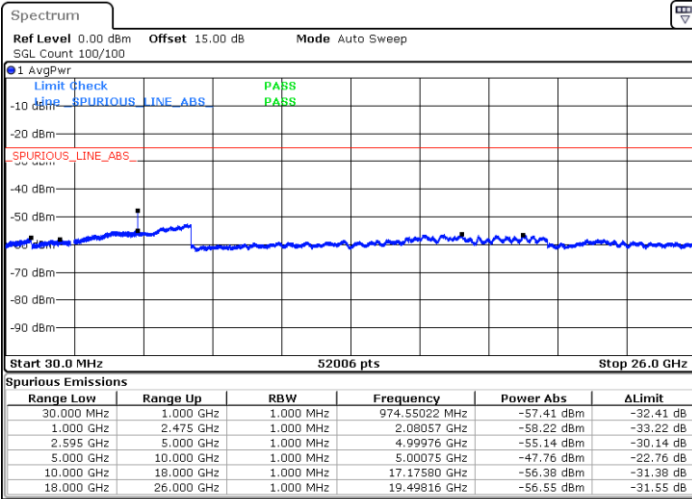


Conducted Spurious Emission

LTE Band 7

Lowest Channel / QPSK_5MHz

Lowest Channel / QPSK_10MHz

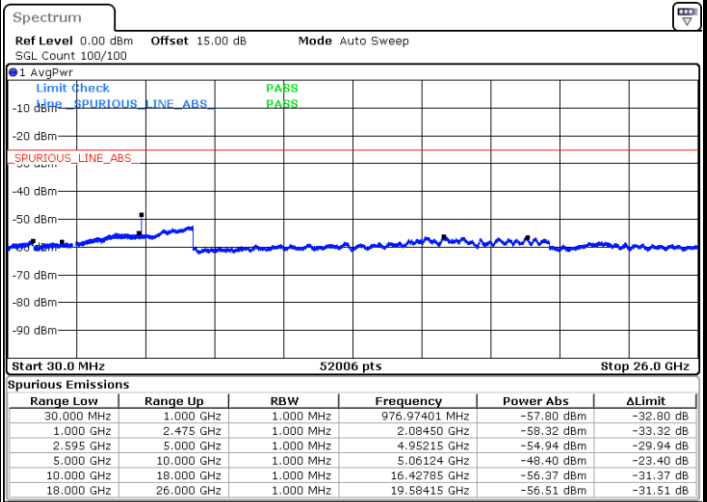
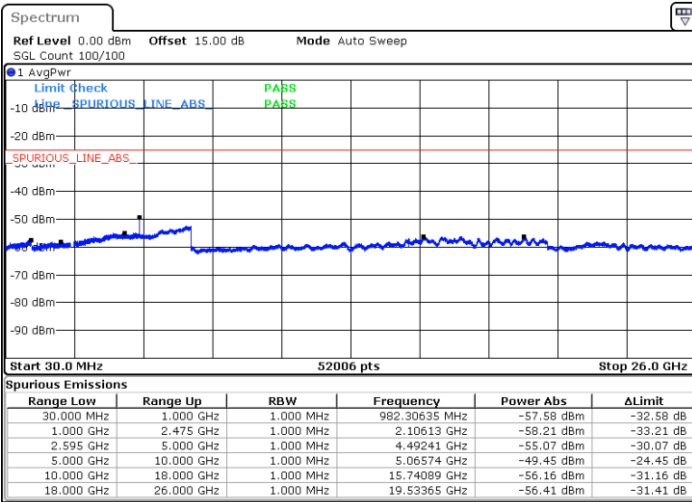


Date: 15 JUN 2023 13:58:51

Date: 15 JUN 2023 14:10:34

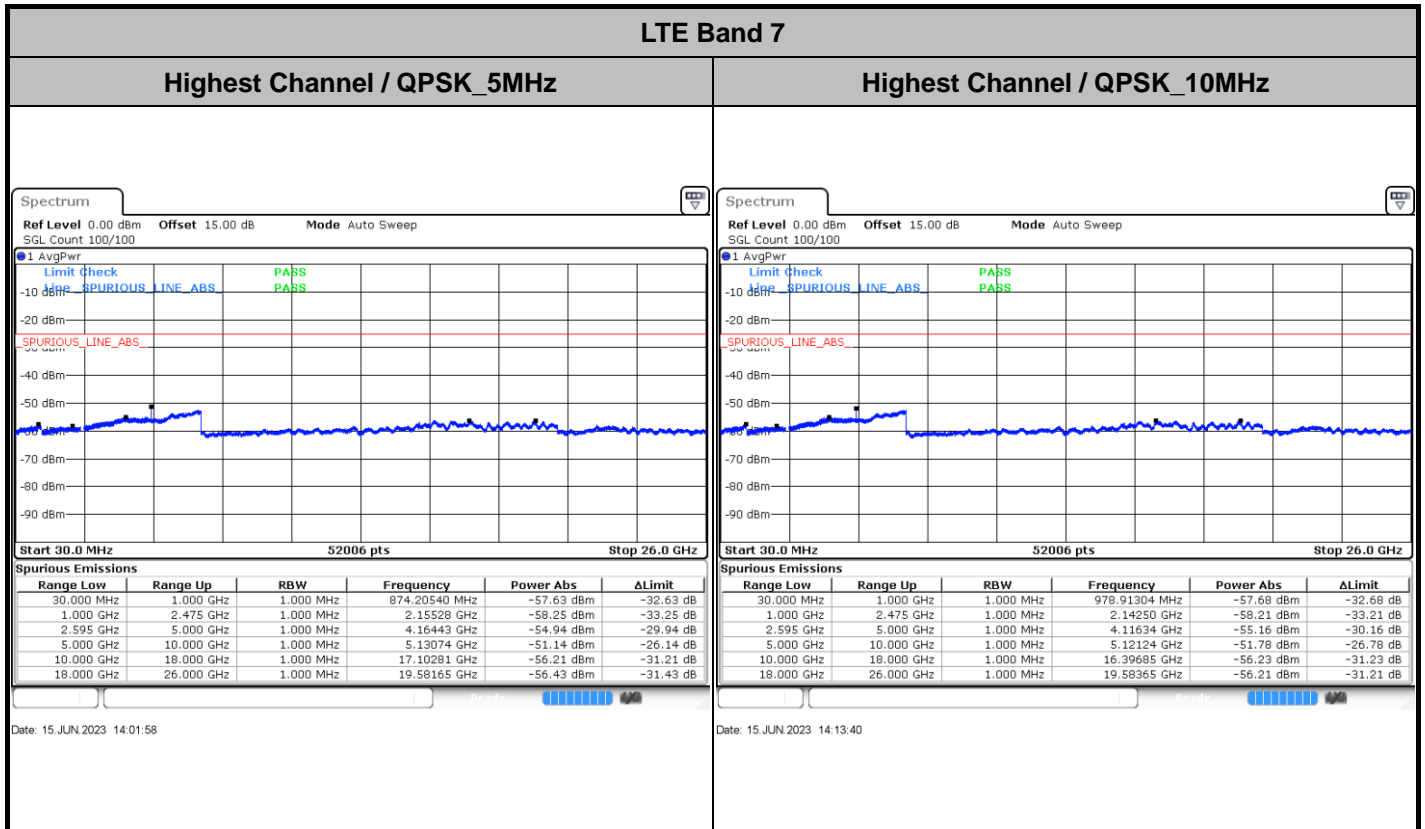
Middle Channel / QPSK_5MHz

Middle Channel / QPSK_10MHz



Date: 15 JUN 2023 14:00:25

Date: 15 JUN 2023 14:12:07

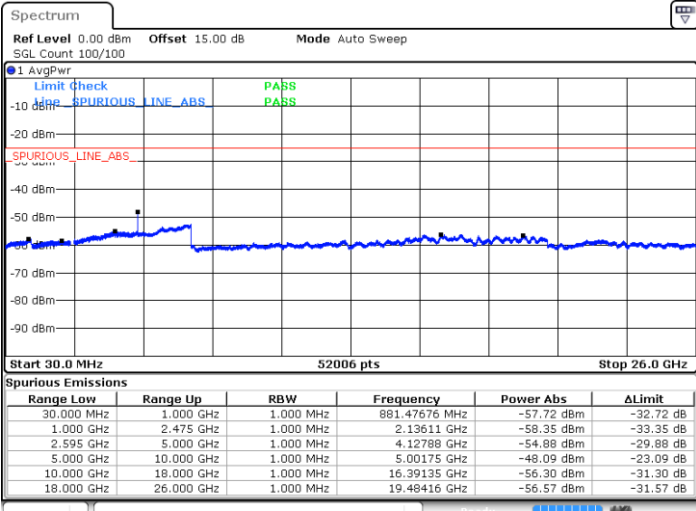




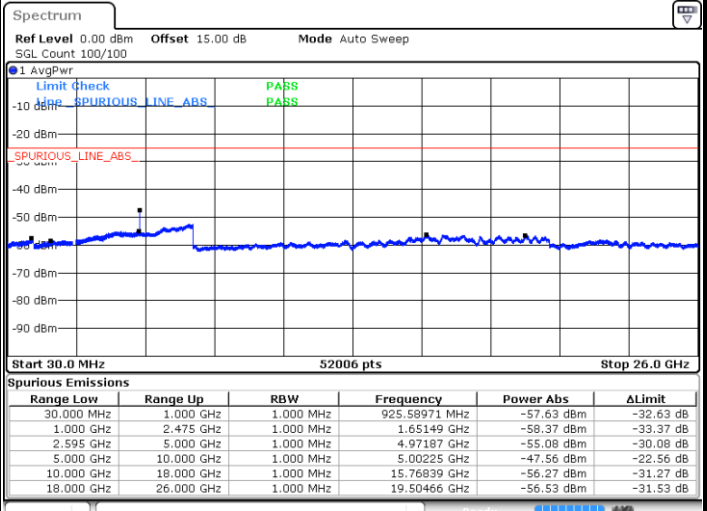
LTE Band 7

Lowest Channel / QPSK_15MHz

Lowest Channel / QPSK_20MHz



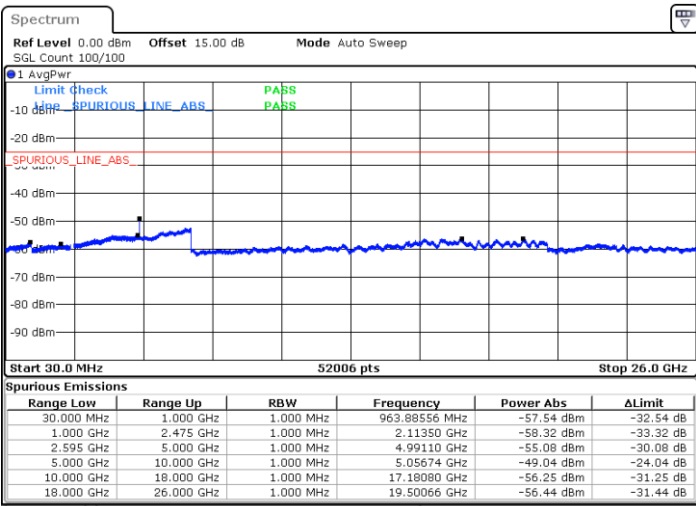
Date: 15 JUN 2023 14:22:29



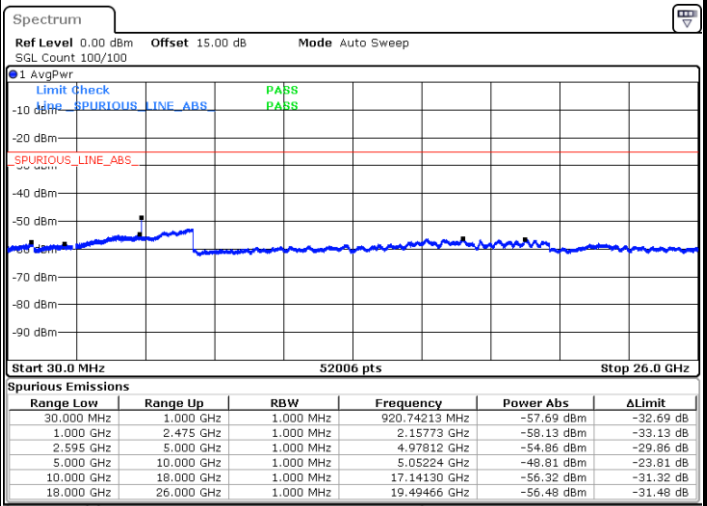
Date: 15 JUN 2023 15:04:10

Middle Channel / QPSK_15MHz

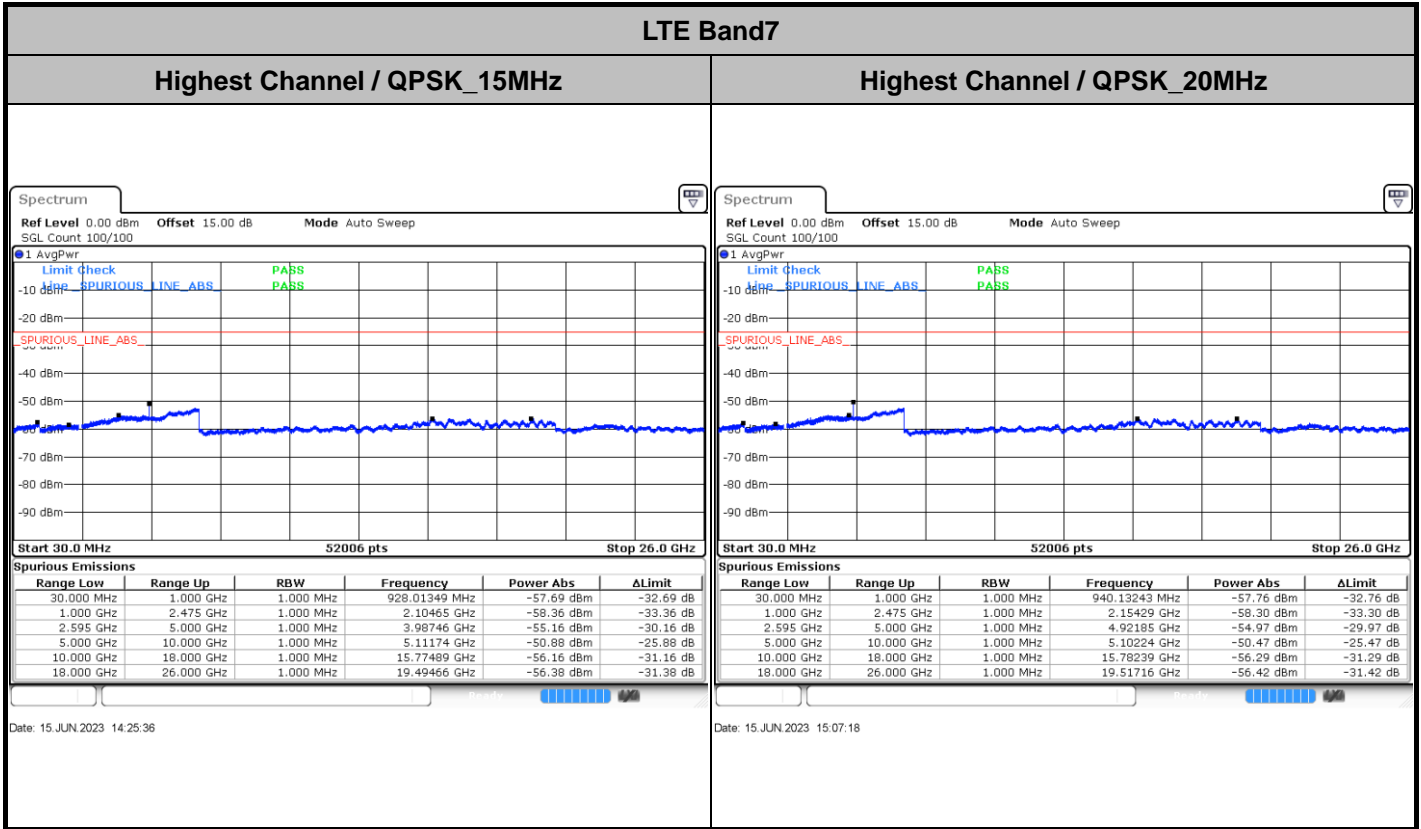
Middle Channel / QPSK_20MHz



Date: 15 JUN 2023 14:24:02



Date: 15 JUN 2023 15:05:45





Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0020	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0014	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0014	

Note:

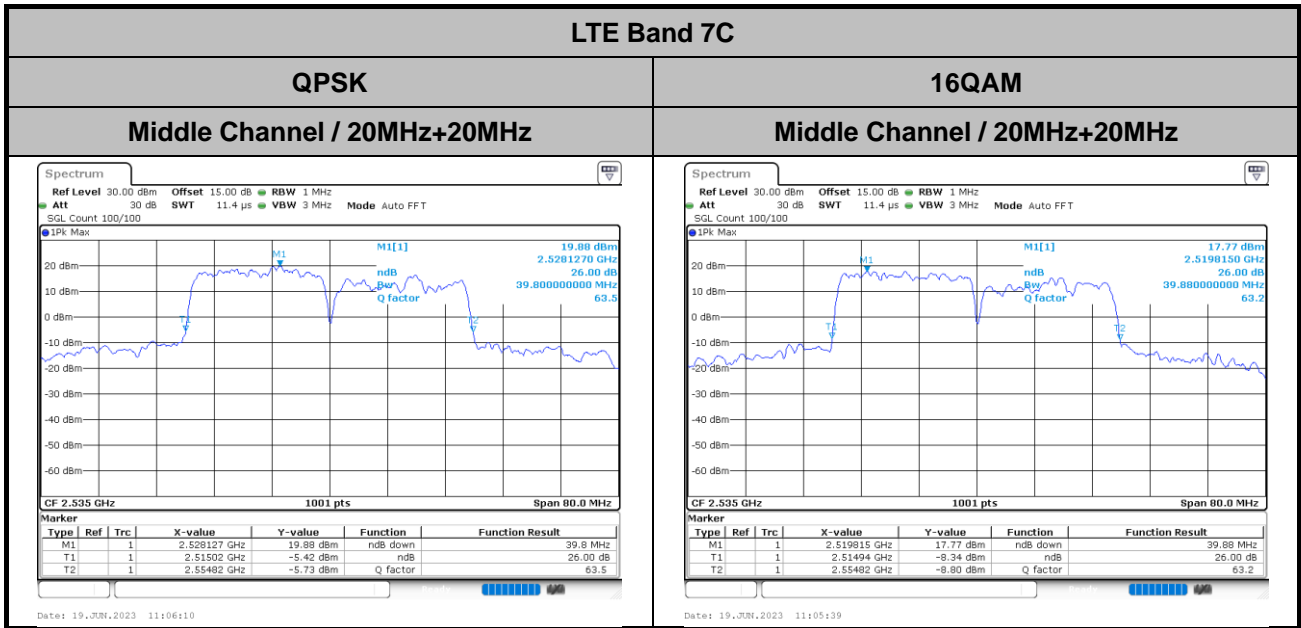
1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.40 V. ; Maximum Voltage =4.50 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 7C

26dB Bandwidth

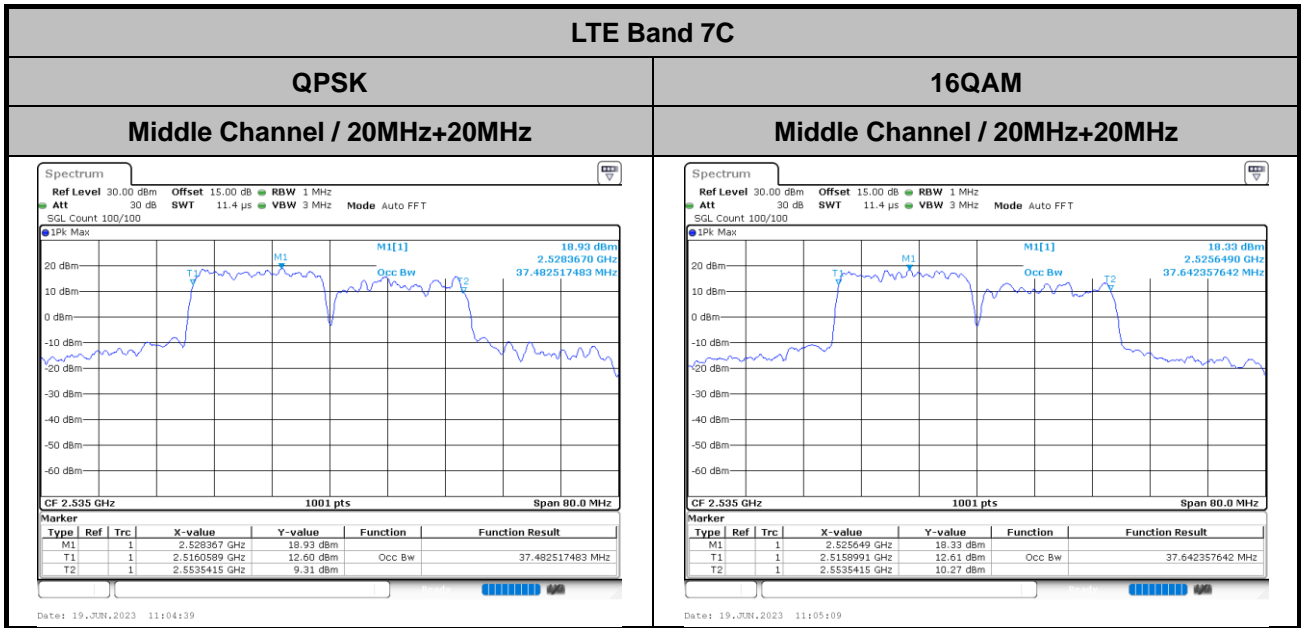
Mode	LTE Band 7C : 26dB BW(MHz)	
Modulation	QPSK	16QAM
BW	20MHz+20MHz	20MHz+20MHz
Middle CH	39.80	39.88





Occupied Bandwidth

Mode	LTE Band 7C : 99%OBW(MHz)	
Modulation	QPSK	16QAM
BW	20MHz+20MHz	20MHz+20MHz
Middle CH	37.48	37.64

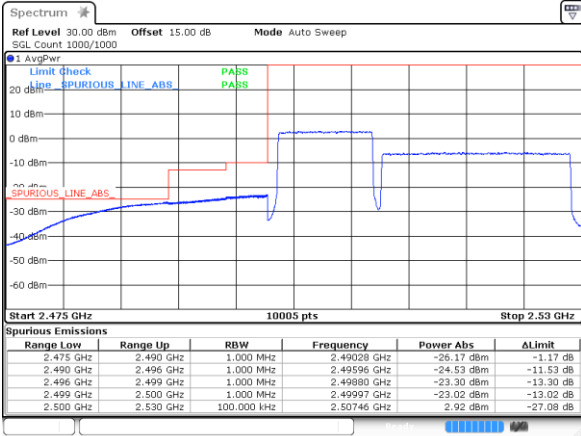




Conducted Band Edge

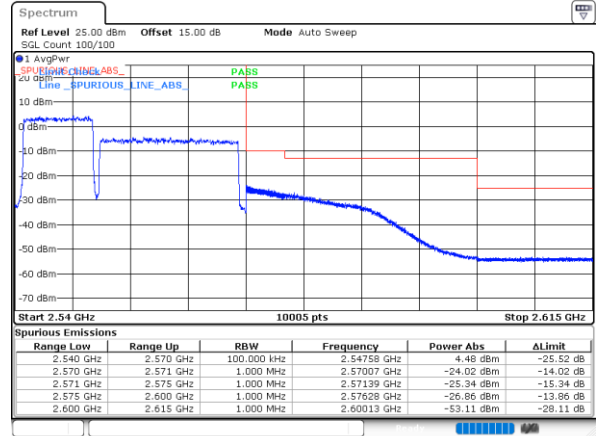
LTE Band 7C / 10MHz+20MHz

Lowest Band Edge / Full RB



Date: 5 JUL 2023 10:24:49

Highest Band Edge / Full RB



Date: 19 JUN 2023 08:55:08