



# FCC RF Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT2513-1, XT2513-2, XT2513-3, XT2513V  
**FCC ID** : IHDT56AT9  
**STANDARD** : 47 CFR Part 22(H), 24(E), 27(L)  
**CLASSIFICATION** : PCS Licensed Transmitter Held to Ear (PCE)  
**TEST DATE(S)** : Aug. 31, 2024 ~ Sep. 19, 2024

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

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

Jason Jia



Approved by: Jason Jia

**Sporton International Inc. (ShenZhen)**

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

**People's Republic of China**



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### REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG482618B	Rev. 01	Initial issue of report	Oct. 11, 2024



## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§22.913(a)(5)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2) (Band 25)	EIRP < 2Watt		-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt		-
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB		PASS
3.6	§2.1049	Occupied Bandwidth	-	Report Only	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 25) (Band 26) (Band 66)	< 43+10log <sub>10</sub> (P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 25) (Band 26) (Band 66)	< 43+10log <sub>10</sub> (P[Watts])	PASS	-
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 25) (Band 26) (Band 66)	< 43+10log <sub>10</sub> (P[Watts])	PASS	Under limit 40.97 dB at 3522.00 MHz

**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	XT2513-1, XT2513-2, XT2513-3, XT2513V
FCC ID	IHDT56AT9
IMEI Code	Conducted: 352291420069956/352291420069964 Radiation: 352291420055757/352291420055765
HW Version	DVT2
SW Version	VVK35.48
EUT Stage	Identical Prototype

Remark: There are four models, the four models are for different markets and no other difference.



### 1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
<b>Tx Frequency</b>	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 25 : 1850 MHz ~ 1915 MHz LTE Band 26 : 824 MHz ~ 849 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz
<b>Rx Frequency</b>	LTE Band 2 : 1930 MHz ~ 1990 MHz LTE Band 4 : 2110 MHz ~ 2155 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 25 : 1930 MHz ~ 1995 MHz LTE Band 26 : 869 MHz ~ 894 MHz LTE Band 66 : 2110 MHz~ 2200 MHz
<b>Bandwidth</b>	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 25 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
<b>Maximum Output Power to Antenna</b>	<Ant.0> LTE Band 2 : 23.18 dBm LTE Band 4 : 23.22 dBm LTE Band 5 : 23.05 dBm LTE CA_5B : 23.00 dBm LTE Band 25 : 23.20 dBm LTE Band 26 : 23.31 dBm LTE Band 66 : 23.25 dBm LTE CA_66B : 22.88 dBm LTE CA_66C : 22.85 dBm <Ant.4> LTE Band 2 : 23.34 dBm LTE Band 4 : 23.22 dBm LTE Band 5 : 23.07 dBm LTE CA_5B : 22.98 dBm LTE Band 25 : 23.37 dBm LTE Band 26 : 23.28 dBm LTE Band 66 : 23.29 dBm LTE CA_66B : 23.01 dBm LTE CA_66C : 22.97 dBm
<b>Antenna Gain</b>	<Ant.0> LTE Band 2/25 : -2.7 dBi LTE Band 4/66 : -2.5 dBi LTE Band 5/26 : -3.8 dBi <Ant.4> LTE Band 2/25 : -3.2 dBi LTE Band 4/66 : -3.8 dBi LTE Band 5/26 : -4.8 dBi
<b>Type of Modulation</b>	QPSK / 16QAM / 64QAM / 256QAM

**Note:**

1. The maximum ERP/EIRP is calculated from max output power and max antenna gain, so only the maximum ERP/EIRP of Antenna 0 for LTE Band 2/4/5/5B/25/26/66/66B/66C are shown in the



report.

- 2. For conducted test items, only the test data of the worse Ant.0(for Band 5B/26) and Ant.4(for Band 25/66/66B/66C) are shown in the report according to the maximum power, B2/4/5 are covered by B25/26/66.

### 1.5 Modification of EUT

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

### 1.6 Maximum ERP/EIRP Power and Emission Designator

LTE Band 2		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1850.7 ~ 1909.3	0.1089	1M10G7D	0.0908	1M10W7D
3	1851.5 ~ 1908.5	0.1094	2M72G7D	0.0931	2M71W7D
5	1852.5 ~ 1907.5	0.1109	4M52G7D	0.0920	4M48W7D
10	1855.0 ~ 1905.0	0.1112	9M09G7D	0.0916	9M01W7D
15	1857.5 ~ 1902.5	0.1114	13M4G7D	0.0933	13M5W7D
20	1860.0 ~ 1900.0	0.1117	17M9G7D	0.0938	17M8W7D
LTE Band 25		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1850.7 ~ 1914.3	0.1089	1M10G7D	0.0910	1M10W7D
3	1851.5 ~ 1913.5	0.1102	2M72G7D	0.0933	2M71W7D
5	1852.5 ~ 1912.5	0.1094	4M52G7D	0.0935	4M48W7D
10	1855.0 ~ 1910.0	0.1119	9M09G7D	0.0938	9M01W7D
15	1857.5 ~ 1907.5	0.1119	13M4G7D	0.0923	13M5W7D
20	1860.0 ~ 1905.0	0.1122	17M9G7D	0.0951	17M8W7D
LTE Band 4		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1754.3	0.1151	1M09G7D	0.0959	1M09W7D
3	1711.5 ~ 1753.5	0.1167	2M71G7D	0.0977	2M73W7D
5	1712.5 ~ 1752.5	0.1167	4M49G7D	0.0973	4M48W7D
10	1715.0 ~ 1750.0	0.1164	9M09G7D	0.0964	8M99W7D
15	1717.5 ~ 1747.5	0.1164	13M4G7D	0.0973	13M5W7D
20	1720.0 ~ 1745.0	0.1180	17M9G7D	0.0993	17M9W7D



LTE Band 5		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.0499	1M09G7D	0.0415	1M11W7D
3	825.5 ~ 847.5	0.0498	2M71G7D	0.0428	2M72W7D
5	826.5 ~ 846.5	0.0508	4M51G7D	0.0423	4M45W7D
10	829.0 ~ 844.0	0.0513	9M17G7D	0.0430	9M01W7D
LTE Band 26		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.0527	1M09G7D	0.0434	1M11W7D
3	825.5 ~ 847.5	0.0543	2M71G7D	0.0450	2M72W7D
5	826.5 ~ 846.5	0.0543	4M51G7D	0.0446	4M45W7D
10	829.0 ~ 844.0	0.0532	9M17G7D	0.0450	9M01W7D
15	831.5 ~ 841.5	0.0545	13M5G7D	0.0453	13M4W7D
CH26790	824.0	0.0542	13M4G7D	0.0443	13M4W7D
LTE Band 66		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1779.3	0.1146	1M09G7D	0.0944	1M09W7D
3	1711.5 ~ 1778.5	0.1175	2M71G7D	0.0964	2M73W7D
5	1712.5 ~ 1777.5	0.1159	4M49G7D	0.0966	4M48W7D
10	1715.0 ~ 1775.0	0.1161	9M09G7D	0.0955	8M99W7D
15	1717.5 ~ 1772.5	0.1172	13M4G7D	0.0962	13M5W7D
20	1720.0 ~ 1770.0	0.1189	17M9G7D	0.0977	17M9W7D
LTE Band CA_5B		QPSK		16QAM/64QAM/256QAM	
BW (MHz)		Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
3MHz+5MHz		0.0497	7M62G7D	0.0469	7M61W7D
5MHz+3MHz		0.0500	7M61G7D	0.0469	7M58W7D
5MHz+10MHz		0.0498	13M9G7D	0.0465	13M9W7D
10MHz+5MHz		0.0501	13M9G7D	0.0470	13M9W7D
10MHz+10MHz		0.0507	18M8G7D	0.0468	18M8W7D





LTE Band CA_66B	QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5MHz+5MHz	0.1084	9M29G7D	0.0940	9M29W7D
5MHz+10MHz	0.1084	13M9G7D	0.0944	13M9W7D
5MHz+15MHz	0.1089	18M1G7D	0.0951	18M2W7D
10MHz+5MHz	0.1091	13M9G7D	0.0944	13M9W7D
10MHz+10MHz	0.1086	18M8G7D	0.0975	18M8W7D
15MHz+5MHz	0.1086	18M2G7D	0.0948	18M1W7D
LTE Band CA_66C	QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5MHz+20MHz	0.1072	23M3G7D	0.0991	23M3W7D
10MHz+15MHz	0.1084	23M4G7D	0.0993	23M3W7D
10MHz+20MHz	0.1072	28M0G7D	0.0989	27M9W7D
15MHz+10MHz	0.1084	23M4G7D	0.0986	23M3W7D
15MHz+15MHz	0.1076	28M7G7D	0.0982	28M7W7D
15MHz+20MHz	0.1074	32M9G7D	0.0982	32M7W7D
20MHz+5MHz	0.1076	23M3G7D	0.0982	23M2W7D
20MHz+10MHz	0.1084	28M2G7D	0.0995	27M9W7D
20MHz+15MHz	0.1072	32M9G7D	0.0984	32M9W7D
20MHz+20MHz	0.1081	38M0G7D	0.1002	37M9W7D

Note:

1. LTE Band 26 overlaps the entire frequency range of LTE Band 5. Therefore, the test results provided in this report covers Band 5 and the portion of Band 26 subject to Part 22.
2. LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4.
3. LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2.
4. All modulations have been tested, 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.

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

<b>Test Firm</b>	Sporton International Inc. (ShenZhen)		
<b>Test Site Location</b>	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	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 22(H), 24(E), 27(L)
- 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	Brand Name	Motorola (AOHAI)	Model Name MC-201L
AC Adapter 2	Brand Name	Motorola (Salcomp)	Model Name MC-201L
USB Cable 1	Brand Name	Motorola(WASHIN)	Model Name HX-TL-04
USB Cable 2	Brand Name	Motorola(SAIBAO)	Model Name STN-A131A
USB Cable 3	Brand Name	Motorola(WASHIN)	Model Name HX-TL-07
USB Cable 4	Brand Name	Motorola(SAIBAO)	Model Name STN-A132A
Battery 1	Brand Name	Motorola(CosMX)	Model Name RA50
Battery 2	Brand Name	Motorola(ATL)	Model Name RA50



## 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/Z Plane)

Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16 QAM	64 QAM	256 QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	25						v	v	v	v				v		v	
	26					v	-	v	v	v				v		v	
	66						v	v	v	v				v		v	
26dB and 99% Bandwidth	25	v	v	v	v	v	v	v	v					v		v	
	26	v	v	v	v	v	-	v	v					v		v	
	66	v	v	v	v	v	v	v	v					v		v	
Conducted Band Edge	25	v	v	v	v	v	v	v	v	v		v		v	v		v
	26	v	v	v	v	v	-	v	v	v		v		v	v		v
	66	v	v	v	v	v	v	v	v	v		v		v	v		v



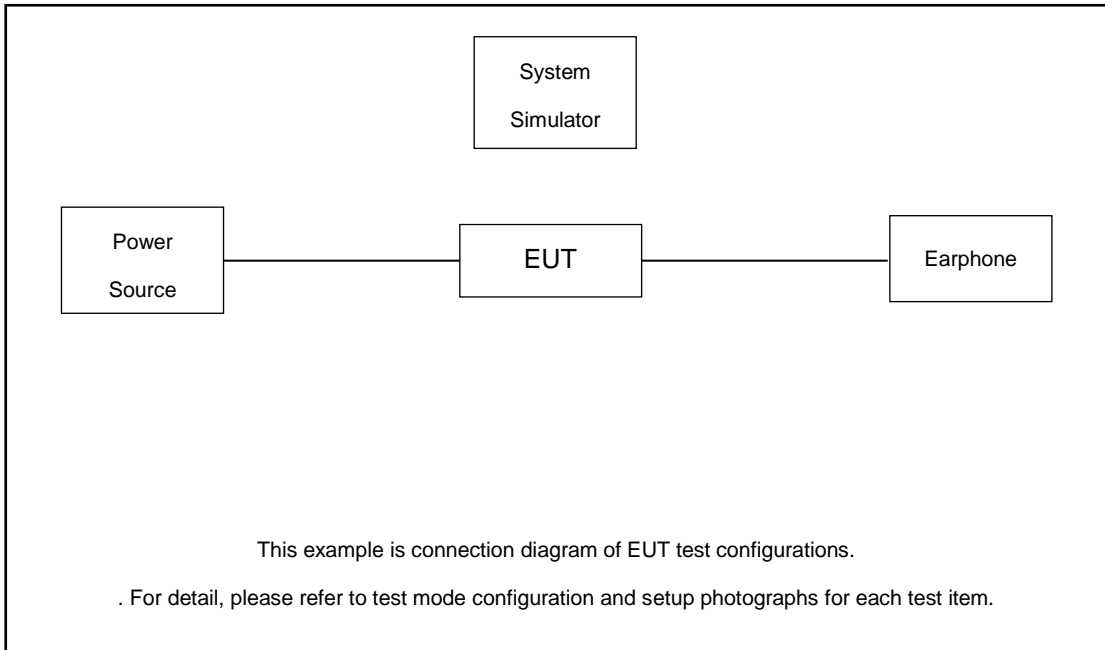
Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16 QAM	64 QAM	256 QAM	1	Half	Full	L	M	H
Conducted Spurious Emission	25	v	v	v	v	v	v	v				v			v	v	v
	26	v	v	v	v	v	-	v				v			v	v	v
	66	v	v	v	v	v	v	v				v			v	v	v
Frequency Stability	25				v			v						v		v	
	26				v		-	v						v		v	
	66				v			v						v		v	
E.R.P / E.I.R.P	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	25	Worst Case													v	v	v
	26	Worst Case													v	v	v
	66	Worst Case													v	v	v
Note	1. The mark "v" means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. All test items are based on engineering evaluation.																



Test Items	Band	Bandwidth (MHz)								Modulation				RB #			Test Channel			
		10+10	15+5	5+15	10+5	5+10	5+5	5+3	3+5	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H	
Max. Output Power	5B_CA	v	-	-	v	v	-	v	v	v	v	v	v	v	v			v	v	v
	66B_CA	v	v	v	v	v	v	-	-	v	v	v	v	v	v			v	v	v
26dB and 99% Bandwidth	5B_CA	v	-	-	v	v	-	v	v	v	v						v		v	
	66B_CA	v	v	v	v	v	v	-	-	v	v						v		v	
Conducted Band Edge	5B_CA	v	-	-	v	v	-	v	v	v	v	v	v		v		v	v	v	
	66B_CA	v	v	v	v	v	v	-	-	v	v	v	v		v		v	v	v	
Conducted Spurious Emission	5B_CA	v	-	-	v	v	-	v	v	v					v			v	v	v
	66B_CA	v	v	v	v	v	v	-	-	v					v			v	v	v
E.I.R.P.	5B_CA	v	-	-	v	v	-	v	v	v	v	v	v	v	v			v	v	v
	66B_CA	v	v	v	v	v	v	-	-	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	5B_CA	Worst Case																v	v	v
	66B_CA	Worst Case																v	v	v
Note	1. The mark "v" means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. All test items are based on engineering evaluation.																			

Test Items	Band	Bandwidth (MHz)										Modulation				RB #			Test Channel			
		20+20	20+15	20+10	20+5	15+20	15+15	15+10	10+20	10+15	5+20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H	
Max. Output Power	66C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
26dB and 99% Bandwidth	66C_CA	v	v	v	v	v	v	v	v	v	v	v	v						v		v	
Conducted Band Edge	66C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v		v		v	v	v	
Conducted Spurious Emission	66C_CA	v	v	v	v	v	v	v	v	v	v	v					v			v	v	v
E.I.R.P.	66C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	66C_CA	Worst Case																v	v	v		
Note	1. The mark "v" means that this configuration is chosen for testing 2. 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. 3. All test items are based on engineering evaluation.																					

## 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	N/A	N/A	N/A	N/A	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 4.5 dB and 10dB attenuator.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 4.5 + 10 = 14.5 \text{ (dB)} \end{aligned}$$



### 2.5 Frequency List of Low/Middle/High Channels

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

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





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

LTE Band 25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	26140	26340	26590
	Frequency	1860	1880	1905
15	Channel	26115	26340	26615
	Frequency	1857.5	1880	1907.5
10	Channel	26090	26340	26640
	Frequency	1855	1880	1910
5	Channel	26065	26340	26665
	Frequency	1852.5	1880	1912.5
3	Channel	26055	26340	26675
	Frequency	1851.5	1880	1913.5
1.4	Channel	26047	26340	26683
	Frequency	1850.7	1880	1914.3



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

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



LTE Band 5B_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
3 + 5	PCC	Channel	20416	20501	20586
		Frequency	825.6	834.1	842.6
	SCC	Channel	20455	20540	20625
		Frequency	829.5	838.0	846.5
5 + 3	PCC	Channel	20425	20510	20595
		Frequency	826.5	835.0	843.5
	SCC	Channel	20464	20549	20634
		Frequency	830.4	838.9	847.4
5 + 10	PCC	Channel	20428	20478	20528
		Frequency	826.8	831.8	836.8
	SCC	Channel	20500	20550	20600
		Frequency	834	839	844
10 + 5	PCC	Channel	20450	20500	20550
		Frequency	829	834	839
	SCC	Channel	20522	20572	20622
		Frequency	836.2	841.2	846.2
10 + 10	PCC	Channel	20450	20476	20501
		Frequency	829	831.6	834.1
	SCC	Channel	20549	20575	20600
		Frequency	838.9	841.5	844



LTE Band 66C_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
10 + 15	PCC	Channel	132025	132351	132477
		Frequency	1715.3	1747.9	1760.5
	SCC	Channel	132145	132471	132597
		Frequency	1727.3	1759.9	1772.5
15 + 10	PCC	Channel	132047	132373	132499
		Frequency	1717.5	1750.1	1762.7
	SCC	Channel	132167	132493	132619
		Frequency	1729.5	1762.1	1774.7
10 + 20	PCC	Channel	132027	132328	132428
		Frequency	1715.5	1745.6	1755.6
	SCC	Channel	132171	132472	132572
		Frequency	1729.9	1760	1770
20 + 10	PCC	Channel	132072	132373	132473
		Frequency	1720	1750.1	1760.1
	SCC	Channel	132216	132517	132617
		Frequency	1734.4	1764.5	1774.5
15 + 15	PCC	Channel	132047	132347	132447
		Frequency	1717.5	1747.5	1757.5
	SCC	Channel	132197	132497	132597
		Frequency	1732.5	1762.5	1772.5
15 + 20	PCC	Channel	132050	132325	132401
		Frequency	1717.8	1745.3	1752.9
	SCC	Channel	132221	132496	132572
		Frequency	1734.9	1762.4	1770
20 + 15	PCC	Channel	132072	132348	132423
		Frequency	1720	1747.6	1755.1
	SCC	Channel	132243	132519	132594
		Frequency	1737.1	1764.7	1772.2
20 + 5	PCC	Channel	132072	132397	132522
		Frequency	1720	1752.5	1765
	SCC	Channel	132189	132514	132639
		Frequency	1731.7	1764.2	1776.7
5 + 20	PCC	Channel	132005	132330	132455



	SCC	Frequency	1713.3	1745.8	1758.3
		Channel	132122	132447	132572
20 + 20	PCC	Frequency	1725	1757.5	1770
		Channel	132072	132323	132374
	SCC	Frequency	1720	1745.1	1750.2
		Channel	132270	132521	132572
	SCC	Frequency	1739.8	1764.9	1770
		Channel			

LTE Band 66B_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
5 + 5	PCC	Channel	131997	132398	132599
		Frequency	1712.5	1752.6	1772.7
	SCC	Channel	132045	132446	132647
		Frequency	1717.3	1757.4	1777.5
5 + 10	PCC	Channel	132000	132375	132550
		Frequency	1712.8	1750.3	1767.8
	SCC	Channel	132072	132447	132622
		Frequency	1720	1757.5	1775
10 + 5	PCC	Channel	132022	132397	132572
		Frequency	1715	1752.5	1770
	SCC	Channel	132094	132469	132644
		Frequency	1722.2	1759.7	1777.2
5 + 15	PCC	Channel	132002	132353	132504
		Frequency	1713	1748.1	1763.2
	SCC	Channel	132095	132446	132597
		Frequency	1722.3	1757.4	1772.5
15 + 5	PCC	Channel	132047	132398	132549
		Frequency	1717.5	1752.6	1767.7
	SCC	Channel	132140	132491	132642
		Frequency	1726.8	1761.9	1777
10 + 10	PCC	Channel	132022	132373	132523
		Frequency	1715	1750.1	1765.1
	SCC	Channel	132121	132472	132622
		Frequency	1724.9	1760	1775

### 3 Conducted Test Items

#### 3.1 Measuring Instruments

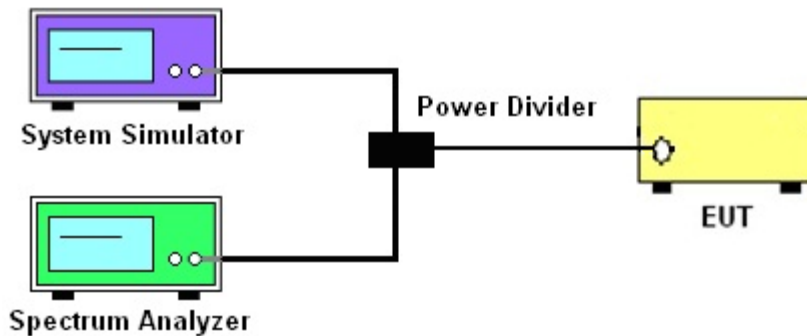
See list of measuring instruments of this test report.

#### 3.2 Test Setup

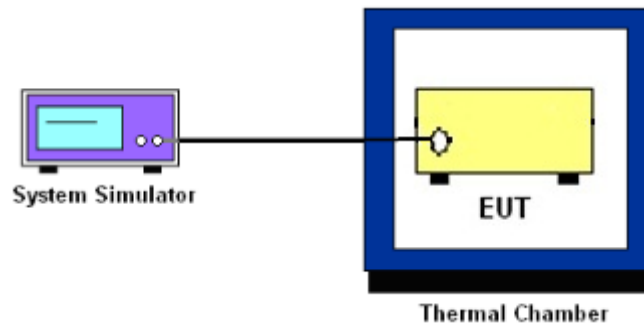
##### 3.2.1 Conducted Output Power



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



##### 3.2.3 Frequency Stability



### 3.3 Test Result of Conducted Test

Please refer to Appendix A.



### 3.4 Conducted Output Power and ERP/EIRP

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

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

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

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 and Band 25.

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

According to KDB 412172 D01 Power Approach,

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

$P_T$  = transmitter output power in dBm

$G_T$  = gain of the transmitting antenna in dBi

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

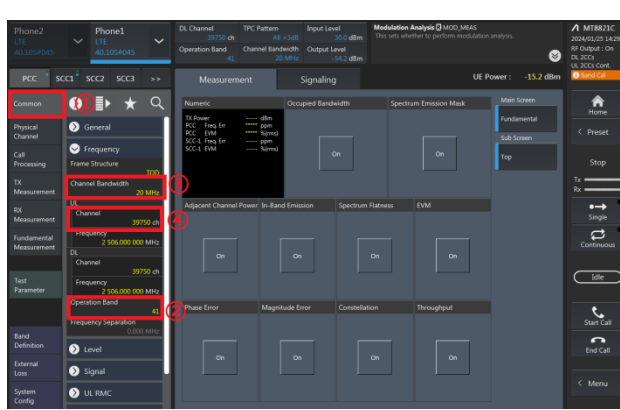
#### 3.4.2 Test Procedures

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

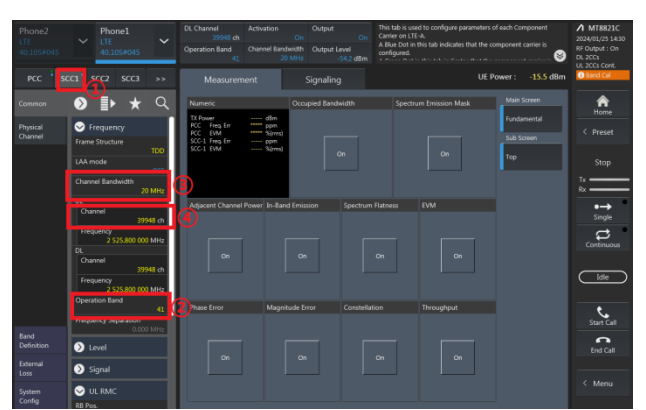
### 3.4.3 Test Procedures for LTE ULCA

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter PCC & SCC output ports were connected to the system simulator.
3. Set EUT at maximum power, set the PCC/SCC CA band, channel, bandwidth and RB config.

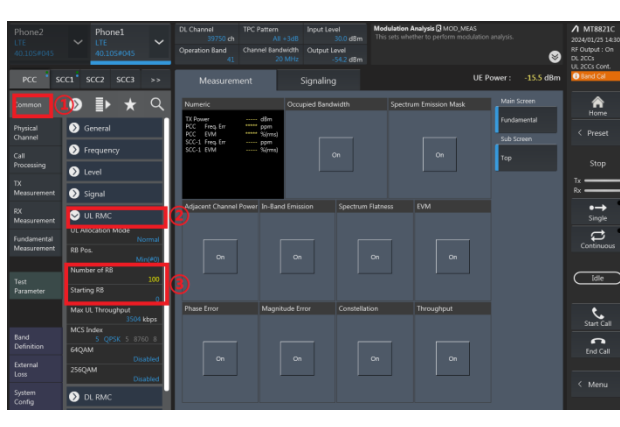
PCC config\_(Channel Bandwidth / Channel / Band)



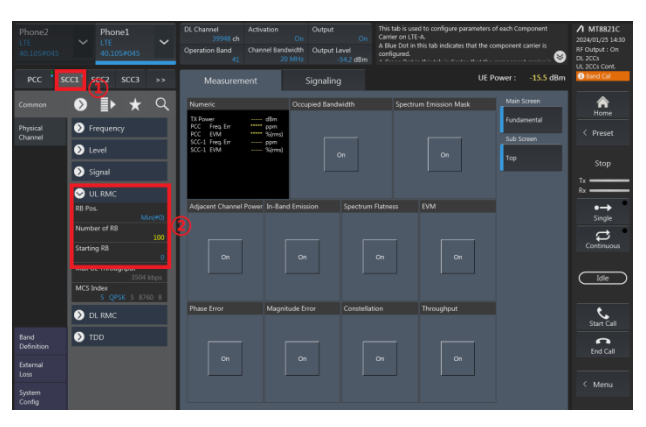
SCC config\_(Channel Bandwidth / Channel / Band)



PCC config\_(Number of RB / Starting RB)

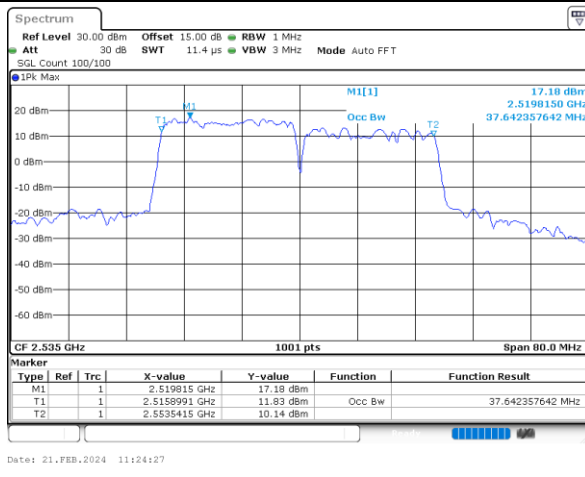


SCC config\_(Number of RB / Starting RB)

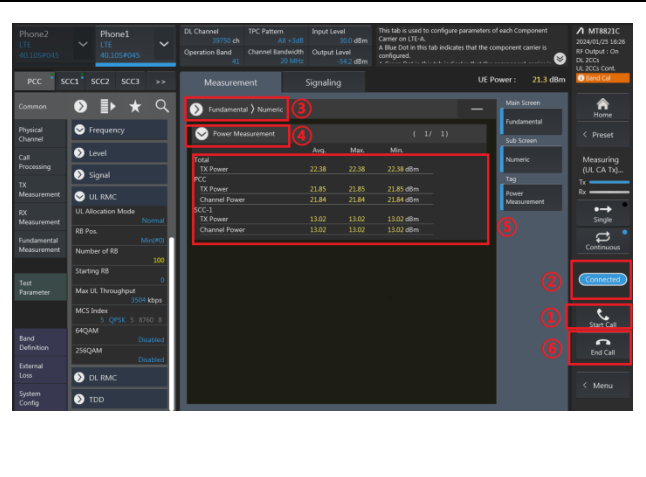


4. Select lowest, middle, and highest channels for each ULCA band and different modulation.
5. Check the ULCA spectrum and record the total power from the system simulator.

Check the ULCA spectrum (eg. 20M+20M)



Read the Total UL CA output power (PCC+SCC)







## **3.5 Peak-to-Average Ratio**

### **3.5.1 Description of the PAR Measurement**

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

### **3.5.2 Test Procedures**

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



### 3.6 Occupied Bandwidth

#### 3.6.1 Description of Occupied Bandwidth Measurement

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

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

#### 3.6.2 Test Procedures

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



## 3.7 Conducted Band Edge

### 3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

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

24.238 (a)

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

27.53 (h)

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



### 3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW  $\geq$  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 + 10log(P)] (dB)  
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

9. 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.

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

#### 3.8.2 Test Procedures

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



## 3.9 Frequency Stability

### 3.9.1 Description of Frequency Stability Measurement

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

### 3.9.2 Test Procedures for Temperature Variation

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

### 3.9.3 Test Procedures for Voltage Variation

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

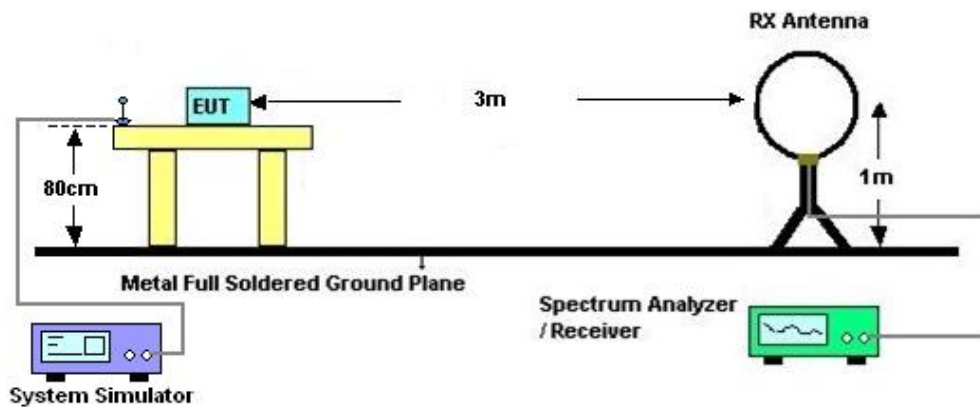
## 4 Radiated Test Items

### 4.1 Measuring Instruments

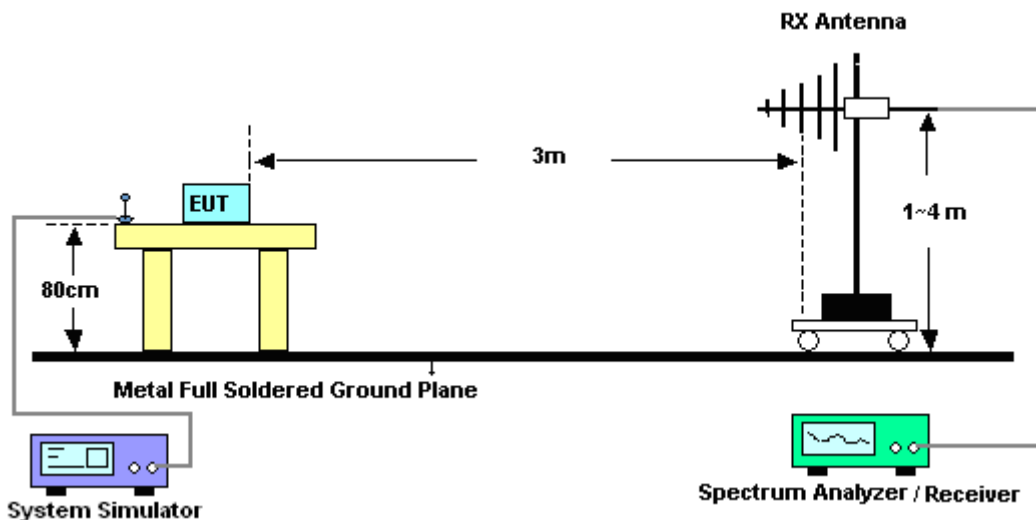
See list of measuring instruments of this test report.

### 4.2 Test Setup

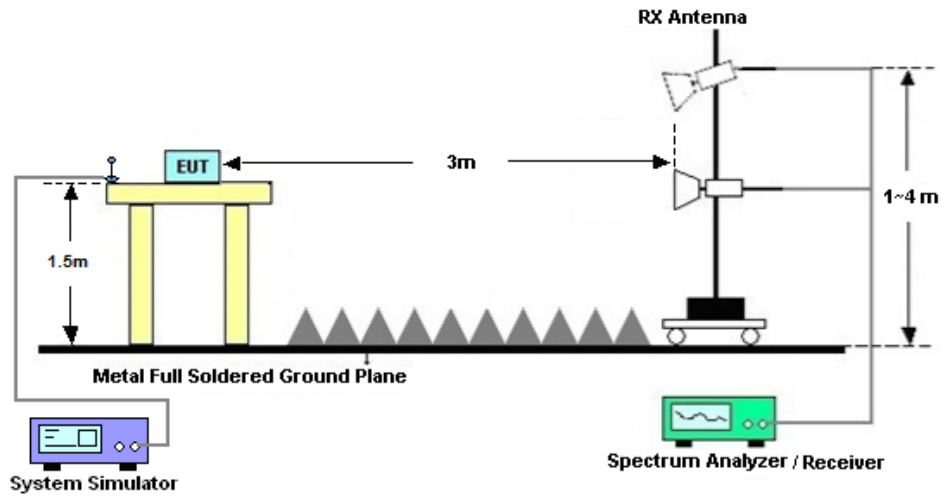
#### 4.2.1 For radiated test below 30MHz



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



#### 4.2.3 For radiated test above 1GHz



#### 4.3 Test Result of Radiated Test

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

Please refer to Appendix B.





## 4.4 Radiated Spurious Emission

### 4.4.1 Description of Radiated Spurious Emission

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

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



## 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 09, 2024	Aug. 31, 2024~ Sep. 10, 2024	Apr. 08, 2025	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V , 3A	Oct. 16, 2023	Aug. 31, 2024~ Sep. 10, 2024	Oct. 15, 2024	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2023	Aug. 31, 2024~ Sep. 10, 2024	Dec. 24, 2024	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 03, 2024	Aug. 31, 2024~ Sep. 10, 2024	Jul. 02, 2025	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 03, 2024	Sep. 19, 2024	Jul. 02, 2025	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 29, 2023	Sep. 19, 2024	Dec. 28, 2024	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Sep. 19, 2024	Oct. 23, 2025	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Sep. 19, 2024	Jul. 04, 2025	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 03, 2024	Sep. 19, 2024	Jul. 03, 2025	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	Sep. 19, 2024	Apr. 08, 2025	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 18, 2023	Sep. 19, 2024	Oct. 17, 2024	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 18, 2023	Sep. 19, 2024	Oct. 17, 2024	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	61601000304 3	N/A	Oct. 18, 2023	Sep. 19, 2024	Oct. 17, 2024	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Sep. 19, 2024	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Sep. 19, 2024	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 Spurious Emission & Bandedge	±1.34 dB
Occupied Channel Bandwidth	±0.012 MHz
Conducted Power	±1.34 dB
Peak to Average Ratio	±1.34 dB
Frequency Stability	±1.3 Hz

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.47 dB
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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))	3.31 dB
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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))	3.72 dB
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----- THE END -----



## Appendix A. Test Results of Conducted Test

Test Engineer :	Nina Cheng	Temperature :	24~26°C
		Relative Humidity :	50~53%

### Conducted Output Power(Average power) and ERP/EIRP

#### LTE Band 2\_ANT0:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
							L	M	H
Channel				18700	18900	19100	EIRP(W)		
Frequency (MHz)				1860	1880	1900	L	M	H
20	QPSK	1	0	23.17	23.18	23.15	0.1114	0.1117	0.1109
20	QPSK	1	49	23.09	23.17	23.12	0.1094	0.1114	0.1102
20	QPSK	1	99	23.06	23.10	23.06	0.1086	0.1096	0.1086
20	QPSK	50	0	22.16	22.19	22.13	0.0883	0.0889	0.0877
20	QPSK	50	24	22.09	22.06	22.12	0.0869	0.0863	0.0875
20	QPSK	50	50	22.07	22.05	22.08	0.0865	0.0861	0.0867
20	QPSK	100	0	22.13	22.17	22.12	0.0877	0.0885	0.0875
20	16QAM	1	0	22.42	22.34	22.42	0.0938	0.0920	0.0938
20	64QAM	1	0	21.36	21.30	21.31	0.0735	0.0724	0.0726
20	256QAM	1	0	17.91	17.98	17.93	0.0332	0.0337	0.0333
Channel				18675	18900	19125	EIRP(W)		
Frequency (MHz)				1857.5	1880	1902.5	L	M	H
15	QPSK	1	0	23.02	23.17	23.11	0.1076	0.1114	0.1099
15	16QAM	1	0	22.35	22.28	22.40	0.0923	0.0908	0.0933
Channel				18650	18900	19150	EIRP(W)		
Frequency (MHz)				1855	1880	1905	L	M	H
10	QPSK	1	0	23.04	23.16	23.03	0.1081	0.1112	0.1079
10	16QAM	1	0	22.32	22.29	22.31	0.0916	0.0910	0.0914
Channel				18625	18900	19175	EIRP(W)		
Frequency (MHz)				1852.5	1880	1907.5	L	M	H
5	QPSK	1	0	23.15	23.12	23.12	0.1109	0.1102	0.1102
5	16QAM	1	0	22.34	22.26	22.29	0.0920	0.0904	0.0910
Channel				18615	18900	19185	EIRP(W)		
Frequency (MHz)				1851.5	1880	1908.5	L	M	H
3	QPSK	1	0	23.05	23.09	23.07	0.1084	0.1094	0.1089
3	16QAM	1	0	22.30	22.21	22.39	0.0912	0.0893	0.0931
Channel				18607	18900	19193	EIRP(W)		
Frequency (MHz)				1850.7	1880	1909.3	L	M	H
1.4	QPSK	1	0	23.04	23.07	22.96	0.1081	0.1089	0.1062
1.4	16QAM	1	0	22.28	22.23	22.18	0.0908	0.0897	0.0887



LTE Band 4\_ANT0:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				20050	20175	20300			
Frequency (MHz)				1720	1732.5	1745	L	M	H
20	QPSK	1	0	23.20	23.22	23.15	0.1175	0.1180	0.1161
20	QPSK	1	49	23.17	23.14	23.13	0.1167	0.1159	0.1156
20	QPSK	1	99	23.06	23.03	23.07	0.1138	0.1130	0.1140
20	QPSK	50	0	22.11	22.19	22.16	0.0914	0.0931	0.0925
20	QPSK	50	24	22.09	22.14	22.14	0.0910	0.0920	0.0920
20	QPSK	50	50	22.07	22.12	22.11	0.0906	0.0916	0.0914
20	QPSK	100	0	22.11	22.14	22.13	0.0914	0.0920	0.0918
20	16QAM	1	0	22.40	22.39	22.47	0.0977	0.0975	0.0993
20	64QAM	1	0	21.30	21.25	21.38	0.0759	0.0750	0.0773
20	256QAM	1	0	17.89	18.02	17.87	0.0346	0.0356	0.0344
Channel				20025	20175	20325	EIRP(W)		
Frequency (MHz)				1717.5	1732.5	1747.5	L	M	H
15	QPSK	1	0	23.13	23.16	23.03	0.1156	0.1164	0.1130
15	16QAM	1	0	22.38	22.28	22.33	0.0973	0.0951	0.0962
Channel				20000	20175	20350	EIRP(W)		
Frequency (MHz)				1715	1732.5	1750	L	M	H
10	QPSK	1	0	23.08	23.16	23.06	0.1143	0.1164	0.1138
10	16QAM	1	0	22.28	22.34	22.34	0.0951	0.0964	0.0964
Channel				19975	20175	20375	EIRP(W)		
Frequency (MHz)				1712.5	1732.5	1752.5	L	M	H
5	QPSK	1	0	23.05	23.17	23.11	0.1135	0.1167	0.1151
5	16QAM	1	0	22.31	22.34	22.38	0.0957	0.0964	0.0973
Channel				19965	20175	20385	EIRP(W)		
Frequency (MHz)				1711.5	1732.5	1753.5	L	M	H
3	QPSK	1	0	23.17	23.12	23.02	0.1167	0.1153	0.1127
3	16QAM	1	0	22.26	22.28	22.40	0.0946	0.0951	0.0977
Channel				19950	20175	20393	EIRP(W)		
Frequency (MHz)				1710	1732.5	1754.3	L	M	H
1.4	QPSK	1	0	22.95	23.11	22.89	0.1109	0.1151	0.1094
1.4	16QAM	1	0	22.18	22.22	22.32	0.0929	0.0938	0.0959



LTE Band 5\_ANT0:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)		
Channel				20450	20525	20600	ERP(W)		
Frequency (MHz)				829	836.5	844	L	M	H
10	QPSK	1	0	22.99	23.05	23.03	0.0506	0.0513	0.0511
10	QPSK	1	25	22.97	23.01	22.93	0.0504	0.0508	0.0499
10	QPSK	1	49	22.97	23.01	23.02	0.0504	0.0508	0.0509
10	QPSK	25	0	22.03	22.05	22.01	0.0406	0.0407	0.0404
10	QPSK	25	12	22.02	22.02	22.00	0.0405	0.0405	0.0403
10	QPSK	25	25	22.01	22.02	22.00	0.0404	0.0405	0.0403
10	QPSK	50	0	22.02	22.03	22.01	0.0405	0.0406	0.0404
10	16QAM	1	0	22.23	22.27	22.28	0.0425	0.0429	0.0430
10	64QAM	1	0	21.16	21.24	21.15	0.0332	0.0338	0.0331
10	256QAM	1	0	18.55	18.56	18.42	0.0182	0.0182	0.0177
Channel				20425	20525	20625	ERP(W)		
Frequency (MHz)				826.5	836.5	846.5	L	M	H
5	QPSK	1	0	22.88	23.01	22.98	0.0493	0.0508	0.0505
5	16QAM	1	0	22.17	22.21	22.13	0.0419	0.0423	0.0415
Channel				20415	20525	20635	ERP(W)		
Frequency (MHz)				825.5	836.5	847.5	L	M	H
3	QPSK	1	0	22.90	22.91	22.92	0.0495	0.0497	0.0498
3	16QAM	1	0	22.08	22.22	22.26	0.0410	0.0424	0.0428
Channel				20407	20525	20643	ERP(W)		
Frequency (MHz)				824.7	836.5	848.3	L	M	H
1.4	QPSK	1	0	22.76	22.83	22.93	0.0480	0.0488	0.0499
1.4	16QAM	1	0	22.13	22.10	22.07	0.0415	0.0412	0.0409



LTE Band 25\_ANT0:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				26140	26340	26590			
Frequency (MHz)				1860	1880	1905	L	M	H
20	QPSK	1	0	23.14	23.20	23.18	0.1107	0.1122	0.1117
20	QPSK	1	49	23.09	23.15	23.08	0.1094	0.1109	0.1091
20	QPSK	1	99	23.07	23.08	23.13	0.1089	0.1091	0.1104
20	QPSK	50	0	22.24	22.26	22.23	0.0899	0.0904	0.0897
20	QPSK	50	24	22.14	22.15	22.20	0.0879	0.0881	0.0891
20	QPSK	50	50	22.23	22.15	22.16	0.0897	0.0881	0.0883
20	QPSK	100	0	22.15	22.20	22.13	0.0881	0.0891	0.0877
20	16QAM	1	0	22.48	22.43	22.43	0.0951	0.0940	0.0940
20	64QAM	1	0	21.43	21.37	21.35	0.0746	0.0736	0.0733
20	256QAM	1	0	17.90	18.03	17.91	0.0331	0.0341	0.0332
Channel				26115	26340	26615	EIRP(W)		
Frequency (MHz)				1857.5	1880	1907.5	L	M	H
15	QPSK	1	0	23.07	23.19	23.17	0.1089	0.1119	0.1114
15	16QAM	1	0	22.33	22.29	22.35	0.0918	0.0910	0.0923
Channel				26090	26340	26640	EIRP(W)		
Frequency (MHz)				1855	1880	1910	L	M	H
10	QPSK	1	0	23.06	23.19	23.04	0.1086	0.1119	0.1081
10	16QAM	1	0	22.42	22.42	22.34	0.0938	0.0938	0.0920
Channel				26065	26340	26665	EIRP(W)		
Frequency (MHz)				1852.5	1880	1912.5	L	M	H
5	QPSK	1	0	23.08	23.09	23.04	0.1091	0.1094	0.1081
5	16QAM	1	0	22.41	22.37	22.39	0.0935	0.0927	0.0931
Channel				26055	26340	26675	EIRP(W)		
Frequency (MHz)				1851.5	1880	1913.5	L	M	H
3	QPSK	1	0	23.08	23.12	23.09	0.1091	0.1102	0.1094
3	16QAM	1	0	22.40	22.40	22.33	0.0933	0.0933	0.0918
Channel				26047	26340	26683	EIRP(W)		
Frequency (MHz)				1850.7	1880	1914.3	L	M	H
1.4	QPSK	1	0	22.97	22.94	23.07	0.1064	0.1057	0.1089
1.4	16QAM	1	0	22.25	22.29	22.23	0.0902	0.0910	0.0897



LTE Band 26\_ANT0:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)			
Channel				26790	26865	26915	26965				
Frequency (MHz)				824	831.5	836.5	841.5	Straddle Ch	L	M	H
15	QPSK	1	0	23.29	23.27	23.31	23.26	0.0542	0.0540	0.0545	0.0538
15	QPSK	1	37	-	23.23	23.26	23.21	-	0.0535	0.0538	0.0532
15	QPSK	1	74	23.22	23.17	23.23	23.18	0.0533	0.0527	0.0535	0.0528
15	QPSK	36	0	-	22.23	22.27	22.23	-	0.0425	0.0429	0.0425
15	QPSK	36	20	-	22.16	22.23	22.17	-	0.0418	0.0425	0.0419
15	QPSK	36	39	-	22.17	22.20	22.16	-	0.0419	0.0422	0.0418
15	QPSK	75	0	22.11	22.21	22.25	22.23	0.0413	0.0423	0.0427	0.0425
15	16QAM	1	0	22.41	22.40	22.51	22.49	0.0443	0.0442	0.0453	0.0451
15	64QAM	1	0	21.31	21.34	21.46	21.40	0.0344	0.0346	0.0356	0.0351
15	256QAM	1	0	18.46	18.38	18.47	18.36	0.0178	0.0175	0.0179	0.0174
Channel				-	26840	26915	26990	ERP(W)			
Frequency (MHz)				-	829	836.5	844	-	L	M	H
10	QPSK	1	0	-	23.15	23.21	23.17	-	0.0525	0.0532	0.0527
10	16QAM	1	0	-	22.32	22.48	22.48	-	0.0434	0.0450	0.0450
Channel				-	26815	26915	27015	ERP(W)			
Frequency (MHz)				-	826.5	836.5	846.5	-	L	M	H
5	QPSK	1	0	-	23.17	23.30	23.16	-	0.0527	0.0543	0.0526
5	16QAM	1	0	-	22.38	22.44	22.42	-	0.0440	0.0446	0.0444
Channel				-	26815	26915	27025	ERP(W)			
Frequency (MHz)				-	825.5	836.5	847.5	-	L	M	H
3	QPSK	1	0	-	23.19	23.30	23.16	-	0.0530	0.0543	0.0526
3	16QAM	1	0	-	22.35	22.46	22.48	-	0.0437	0.0448	0.0450
Channel				-	26797	26915	27033	ERP(W)			
Frequency (MHz)				-	824.7	836.5	848.3	-	L	M	H
1.4	QPSK	1	0	-	23.17	23.07	23.03	-	0.0527	0.0515	0.0511
1.4	16QAM	1	0	-	22.30	22.31	22.32	-	0.0432	0.0433	0.0434





LTE Band 66\_ANT0:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				132072	132322	132572	EIRP(W)		
Frequency (MHz)				1720	1745	1770	L	M	H
20	QPSK	1	0	23.20	23.25	23.19	0.1175	0.1189	0.1172
20	QPSK	1	49	23.10	23.14	23.12	0.1148	0.1159	0.1153
20	QPSK	1	99	23.02	23.04	23.09	0.1127	0.1132	0.1146
20	QPSK	50	0	22.04	22.13	22.12	0.0899	0.0918	0.0916
20	QPSK	50	24	22.00	22.11	22.05	0.0891	0.0914	0.0902
20	QPSK	50	50	22.02	22.07	22.02	0.0895	0.0906	0.0895
20	QPSK	100	0	22.03	22.09	22.06	0.0897	0.0910	0.0904
20	16QAM	1	0	22.30	22.40	22.36	0.0955	0.0977	0.0968
20	64QAM	1	0	21.19	21.24	21.30	0.0740	0.0748	0.0759
20	256QAM	1	0	18.03	18.08	17.96	0.0357	0.0361	0.0352
Channel				132047	132322	132597	EIRP(W)		
Frequency (MHz)				1717.5	1745	1772.5	L	M	H
15	QPSK	1	0	23.13	23.19	23.14	0.1156	0.1172	0.1159
15	16QAM	1	0	22.18	22.33	22.24	0.0929	0.0962	0.0942
Channel				132022	132322	132622	EIRP(W)		
Frequency (MHz)				1715	1745	1775	L	M	H
10	QPSK	1	0	23.05	23.12	23.15	0.1135	0.1153	0.1161
10	16QAM	1	0	22.18	22.30	22.25	0.0929	0.0955	0.0944
Channel				131997	132322	132647	EIRP(W)		
Frequency (MHz)				1712.5	1745	1777.5	L	M	H
5	QPSK	1	0	23.14	23.11	23.14	0.1159	0.1151	0.1159
5	16QAM	1	0	22.24	22.30	22.35	0.0942	0.0955	0.0966
Channel				131987	132322	132657	EIRP(W)		
Frequency (MHz)				1711.5	1745	1778.5	L	M	H
3	QPSK	1	0	23.16	23.20	23.16	0.1164	0.1175	0.1164
3	16QAM	1	0	22.28	22.34	22.34	0.0951	0.0964	0.0964
Channel				131979	132322	132665	EIRP(W)		
Frequency (MHz)				1710.7	1745	1779.3	L	M	H
1.4	QPSK	1	0	23.05	22.98	23.09	0.1135	0.1117	0.1146
1.4	16QAM	1	0	22.09	22.25	22.21	0.0910	0.0944	0.0935



LTE CA\_5B\_ANT0:

Combination 10MHz+10MHz (50RB+50RB)								
Channel	Modulation	PCC		SCC		Measured Power	ERP(W)	EIRP(W)
		RB Size	RB offset	RB Size	RB offset			
L	QPSK	1	Max	1	0	23.00	0.0507	0.0832
M	QPSK	1	Max	1	0	22.97	0.0504	0.0826
H	QPSK	1	Max	1	0	22.95	0.0501	0.0822
L	16QAM	1	Max	1	0	22.65	0.0468	0.0767
M	16QAM	1	Max	1	0	22.59	0.0461	0.0757
H	16QAM	1	Max	1	0	22.60	0.0462	0.0759
L	64QAM	1	Max	1	0	20.43	0.0281	0.0460
M	64QAM	1	Max	1	0	20.41	0.0279	0.0458
H	64QAM	1	Max	1	0	20.38	0.0277	0.0455
L	256QAM	1	Max	1	0	18.43	0.0177	0.0290
M	256QAM	1	Max	1	0	18.41	0.0176	0.0289
H	256QAM	1	Max	1	0	18.36	0.0174	0.0286
Combination 10MHz+5MHz (50RB+25RB)								
Channel	Modulation	PCC		SCC		Measured Power	ERP(W)	EIRP(W)
		RB Size	RB offset	RB Size	RB offset			
L	QPSK	1	Max	1	0	22.95	0.0501	0.0822
L	16QAM	1	Max	1	0	22.67	0.0470	0.0771
Combination 5MHz+10MHz (25RB+50RB)								
Channel	Modulation	PCC		SCC		Measured Power	ERP(W)	EIRP(W)
		RB Size	RB offset	RB Size	RB offset			
L	QPSK	1	Max	1	0	22.92	0.0498	0.0817
L	16QAM	1	Max	1	0	22.62	0.0465	0.0762
Combination 5MHz+3MHz (25RB+15RB)								
Channel	Modulation	PCC		SCC		Measured Power	ERP(W)	EIRP(W)
		RB Size	RB offset	RB Size	RB offset			
L	QPSK	1	Max	1	0	22.94	0.0500	0.0820
L	16QAM	1	Max	1	0	22.66	0.0469	0.0769
Combination 3MHz+5MHz (15RB+25RB)								
Channel	Modulation	PCC		SCC		Measured Power	ERP(W)	EIRP(W)
		RB Size	RB offset	RB Size	RB offset			
L	QPSK	1	Max	1	0	22.91	0.0497	0.0815
L	16QAM	1	Max	1	0	22.66	0.0469	0.0769



LTE CA\_66B\_ANT0:

Combination 10MHz+10MHz (50RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.74	0.1057
M	QPSK	1	Max	1	0	22.80	0.1072
H	QPSK	1	Max	1	0	22.86	0.1086
L	16QAM	1	Max	1	0	22.26	0.0946
M	16QAM	1	Max	1	0	22.31	0.0957
H	16QAM	1	Max	1	0	22.39	0.0975
L	64QAM	1	Max	1	0	20.16	0.0583
M	64QAM	1	Max	1	0	20.21	0.0590
H	64QAM	1	Max	1	0	20.25	0.0596
L	256QAM	1	Max	1	0	18.10	0.0363
M	256QAM	1	Max	1	0	18.15	0.0367
H	256QAM	1	Max	1	0	18.23	0.0374
Combination 15MHz+5MHz (75RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.86	0.1086
H	16QAM	1	Max	1	0	22.27	0.0948
Combination 5MHz+15MHz (25RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.87	0.1089
H	16QAM	1	Max	1	0	22.28	0.0951
Combination 10MHz+5MHz (50RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.88	0.1091
H	16QAM	1	Max	1	0	22.25	0.0944
Combination 5MHz+10MHz (25RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.85	0.1084
H	16QAM	1	Max	1	0	22.25	0.0944
Combination 5MHz+5MHz (25RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.85	0.1084
H	16QAM	1	Max	1	0	22.23	0.0940



LTE CA\_66C\_ANT0:

Combination 20MHz+20MHz (100RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.78	0.1067
M	QPSK	1	Max	1	0	22.81	0.1074
H	QPSK	1	Max	1	0	22.84	0.1081
L	16QAM	1	Max	1	0	22.46	0.0991
M	16QAM	1	Max	1	0	22.47	0.0993
H	16QAM	1	Max	1	0	22.51	0.1002
L	64QAM	1	Max	1	0	20.32	0.0605
M	64QAM	1	Max	1	0	20.38	0.0614
H	64QAM	1	Max	1	0	20.35	0.0610
L	256QAM	1	Max	1	0	18.23	0.0374
M	256QAM	1	Max	1	0	18.25	0.0376
H	256QAM	1	Max	1	0	18.30	0.0380
Combination 20MHz+15MHz (100RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.80	0.1072
H	16QAM	1	Max	1	0	22.43	0.0984
Combination 15MHz+20MHz (75RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.81	0.1074
H	16QAM	1	Max	1	0	22.42	0.0982
Combination 15MHz+15MHz (75RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.82	0.1076
H	16QAM	1	Max	1	0	22.42	0.0982
Combination 20MHz+10MHz (100RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.85	0.1084
H	16QAM	1	Max	1	0	22.48	0.0995
Combination 10MHz+20MHz (50RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.80	0.1072
H	16QAM	1	Max	1	0	22.45	0.0989
Combination 15MHz+10MHz (75RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.85	0.1084
H	16QAM	1	Max	1	0	22.44	0.0986



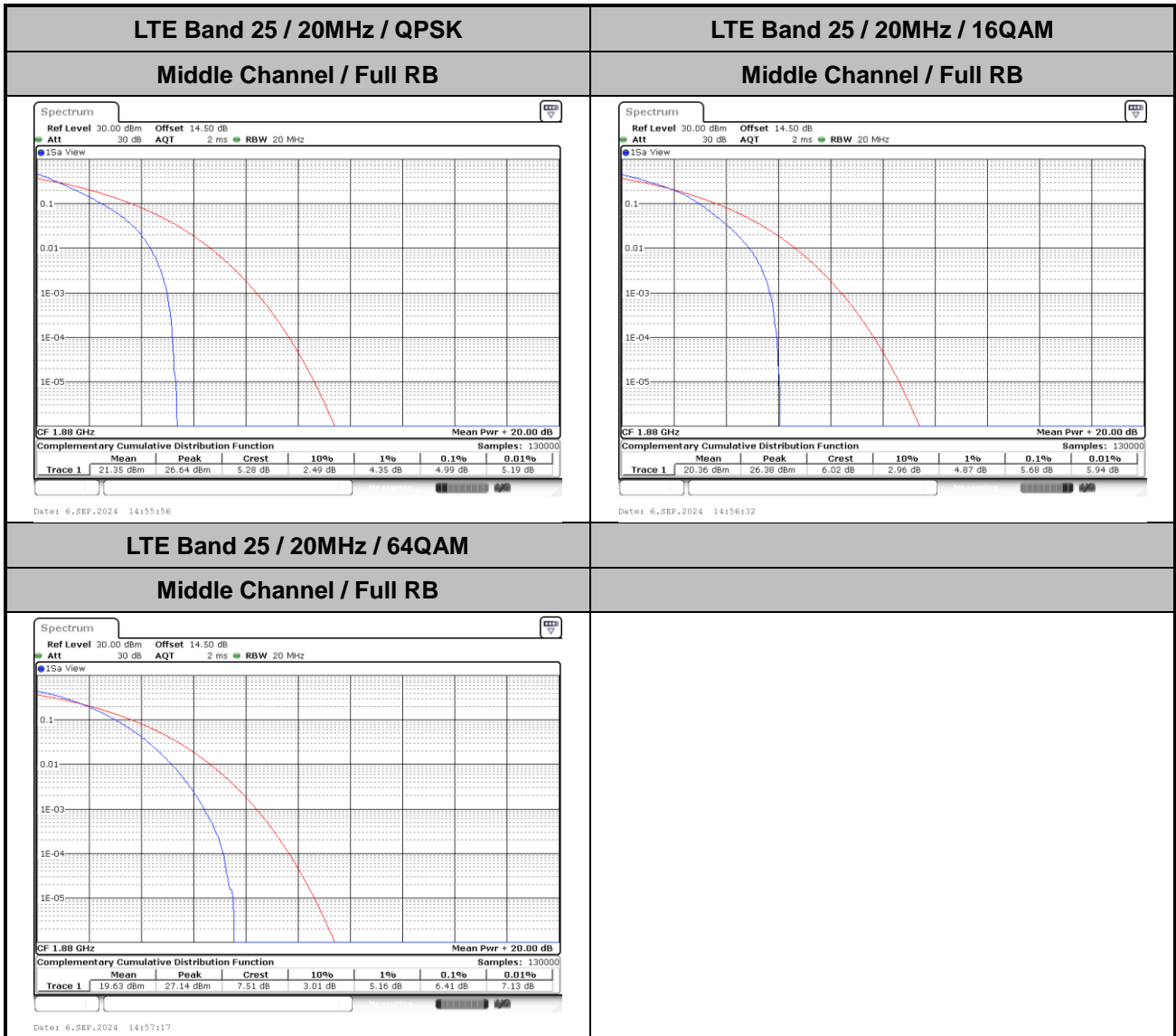
Combination 10MHz+15MHz (50RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.85	0.1084
H	16QAM	1	Max	1	0	22.47	0.0993
Combination 20MHz+5MHz (100RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.82	0.1076
H	16QAM	1	Max	1	0	22.42	0.0982
Combination 5MHz+20MHz (25RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
H	QPSK	1	Max	1	0	22.80	0.1072
H	16QAM	1	Max	1	0	22.46	0.0991



# LTE Band 25

## Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.99	5.68	6.41	PASS

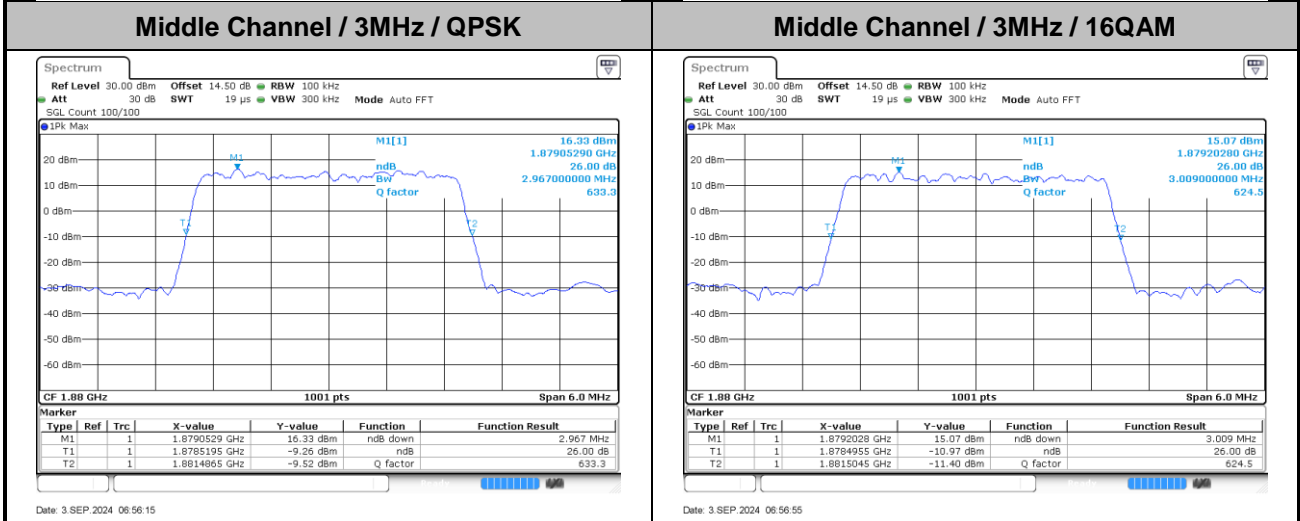
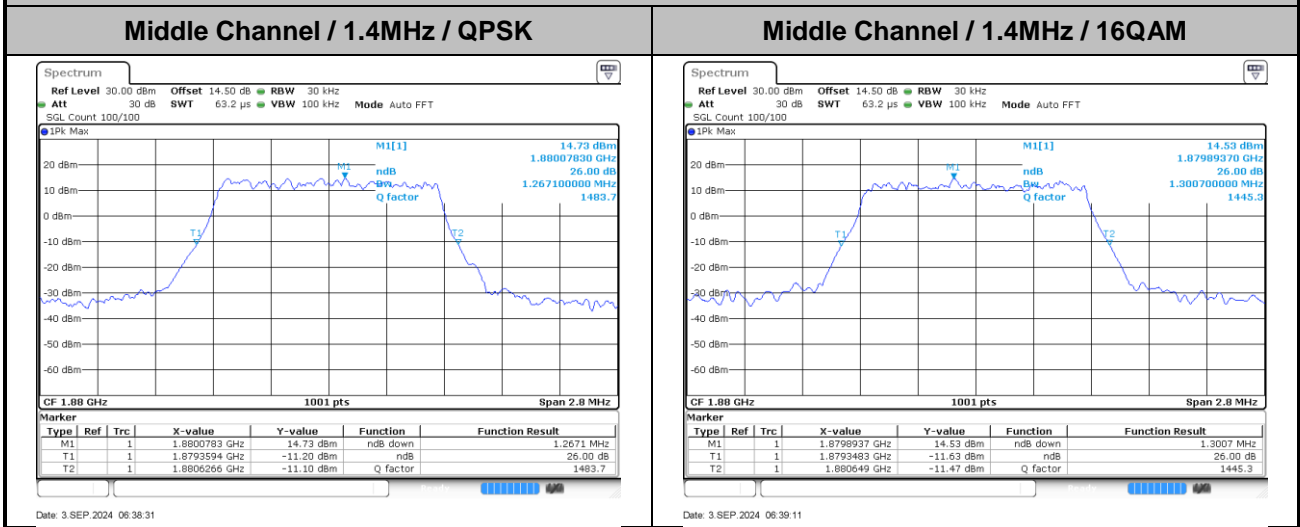


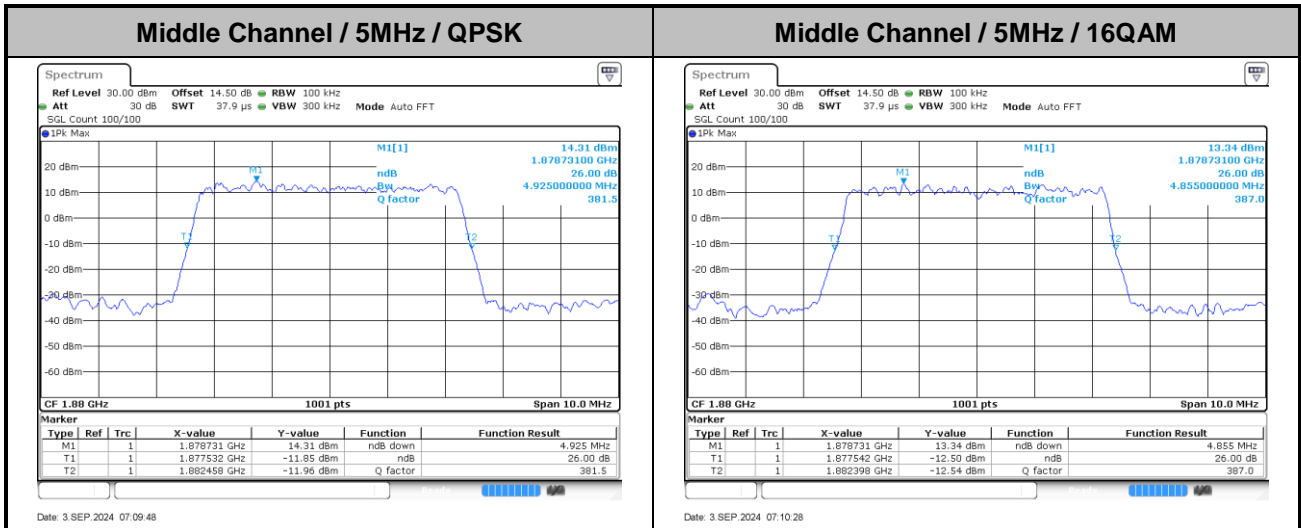


## 26dB Bandwidth

Mode	LTE Band 25 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.27	1.30	2.97	3.01	4.93	4.86	9.75	9.77	14.21	14.54	18.94	18.94

### LTE Band 25



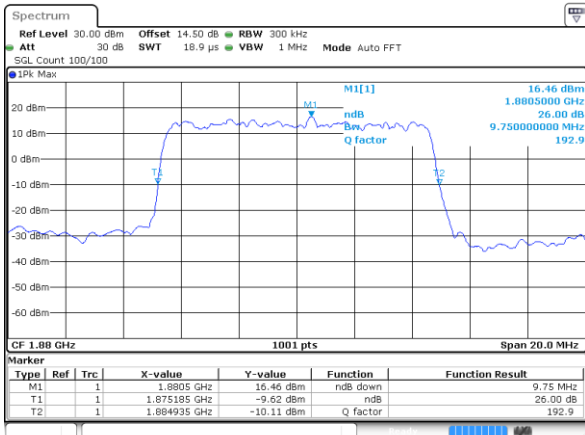






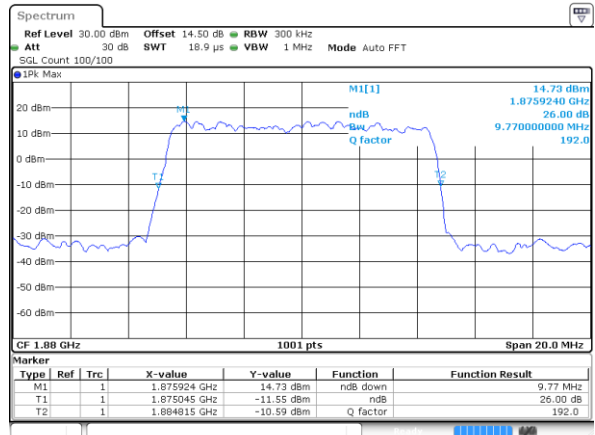
LTE Band 25

Middle Channel / 10MHz / QPSK



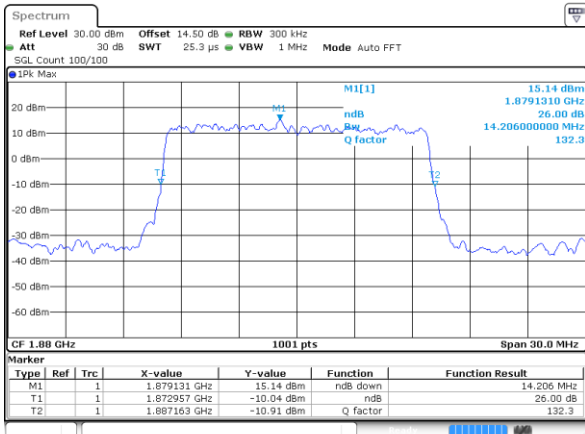
Date: 3 SEP 2024 07:45:59

Middle Channel / 10MHz / 16QAM



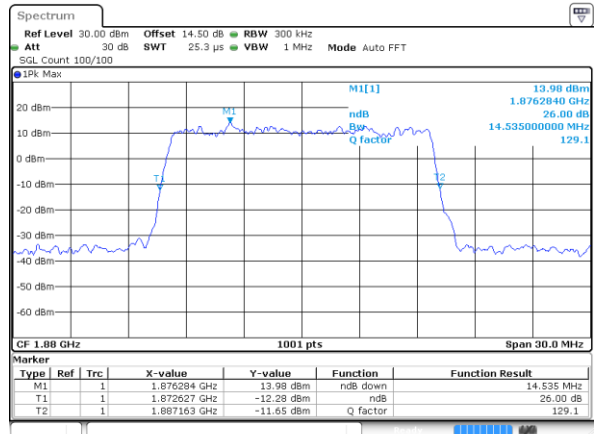
Date: 3 SEP 2024 07:46:38

Middle Channel / 15MHz / QPSK



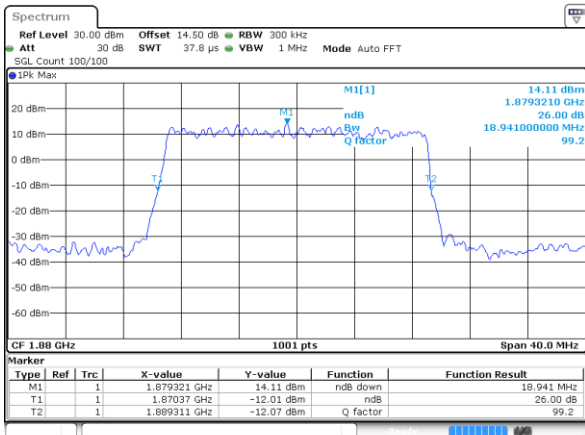
Date: 3 SEP 2024 07:59:02

Middle Channel / 15MHz / 16QAM



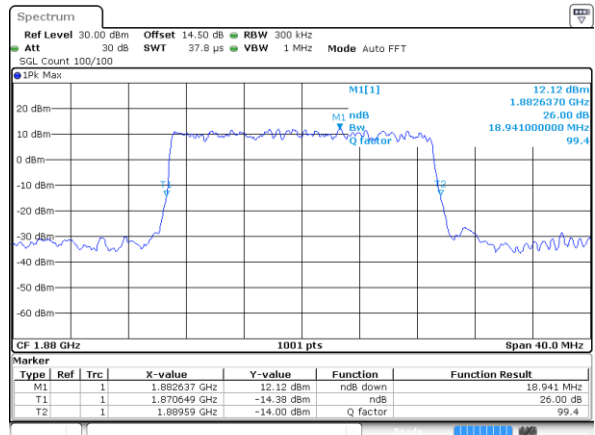
Date: 3 SEP 2024 07:59:42

Middle Channel / 20MHz / QPSK



Date: 3 SEP 2024 08:11:55

Middle Channel / 20MHz / 16QAM

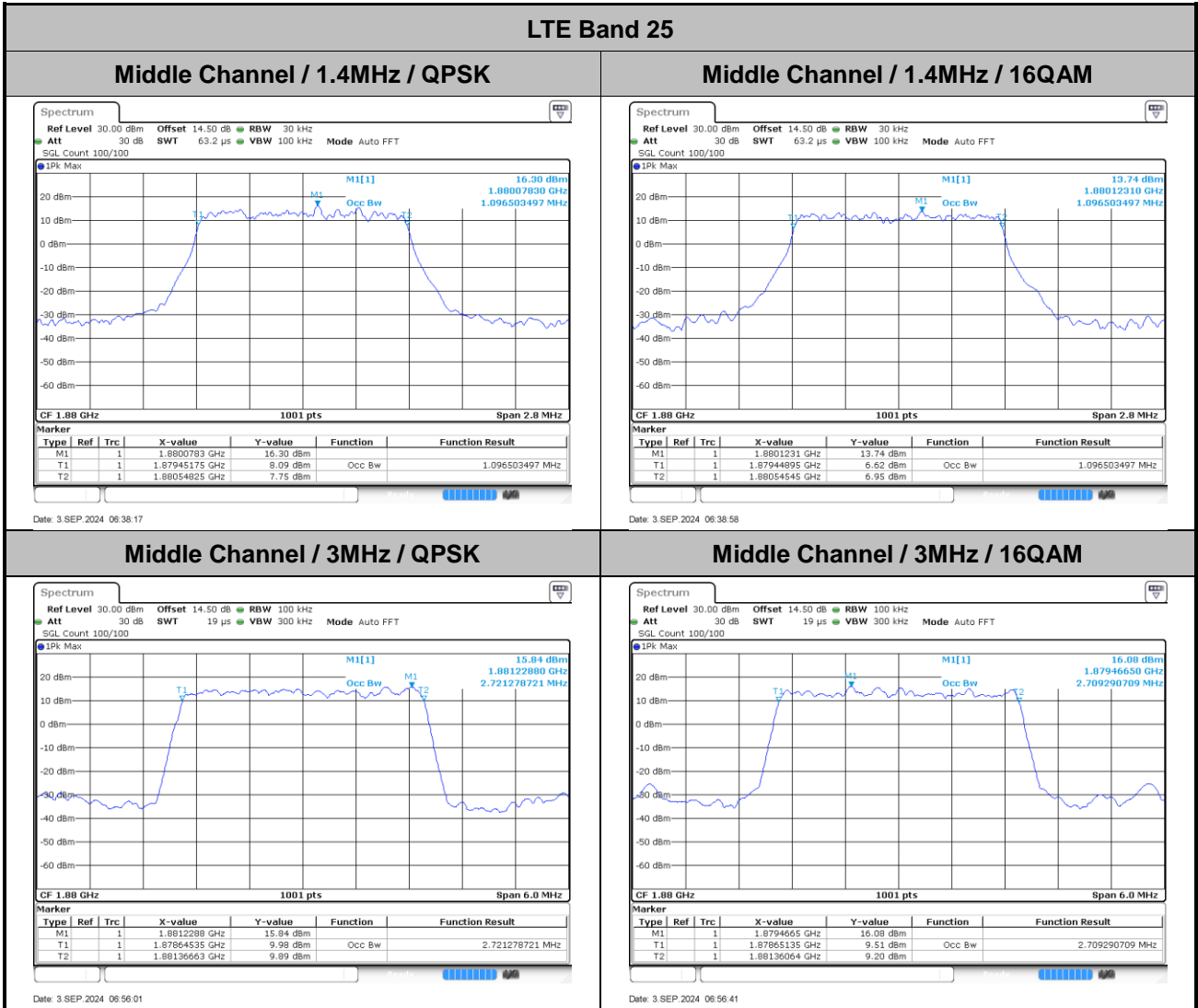


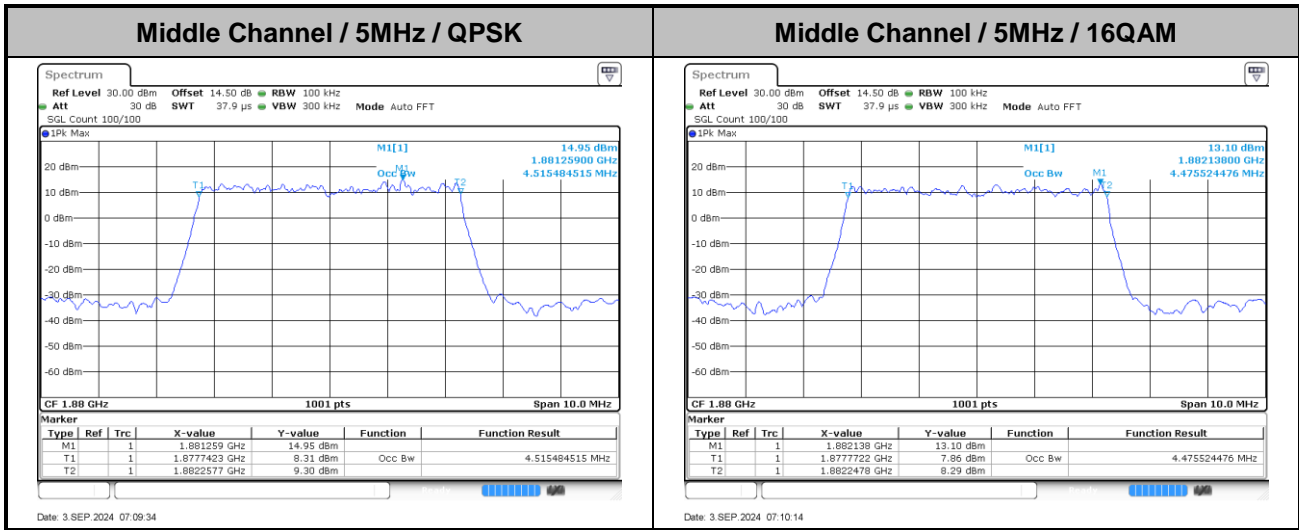
Date: 3 SEP 2024 08:12:35



# Occupied Bandwidth

Mode	LTE Band 25 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.10	1.10	2.72	2.71	4.52	4.48	9.09	9.01	13.43	13.46	17.86	17.82

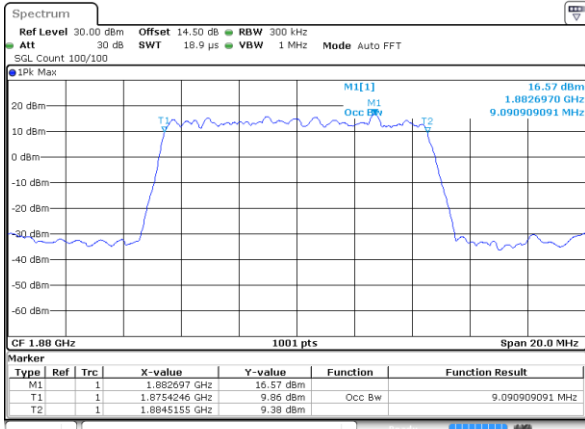






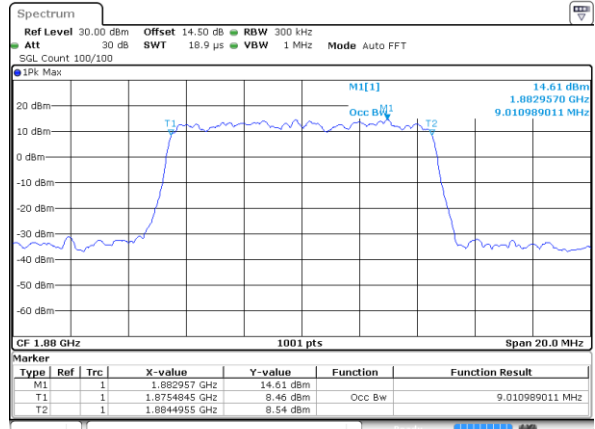
LTE Band 25

Middle Channel / 10MHz / QPSK



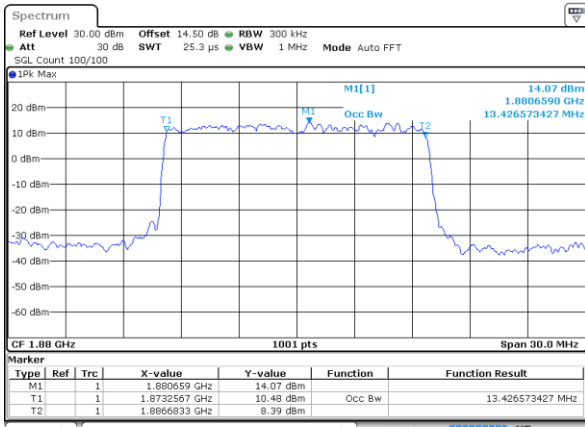
Date: 3 SEP 2024 07:45:45

Middle Channel / 10MHz / 16QAM



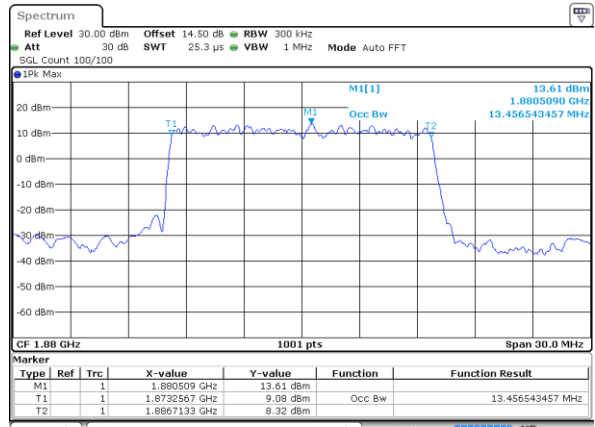
Date: 3 SEP 2024 07:46:24

Middle Channel / 15MHz / QPSK



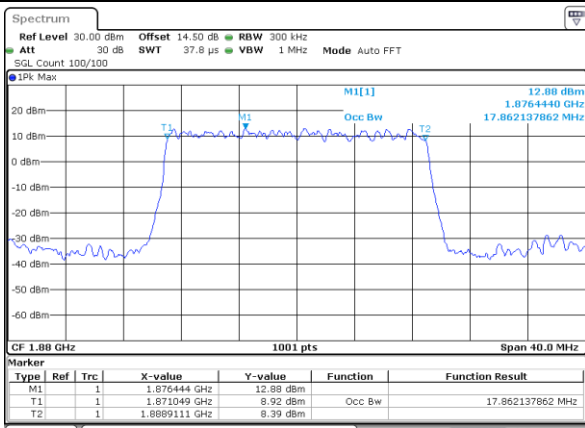
Date: 3 SEP 2024 07:58:48

Middle Channel / 15MHz / 16QAM



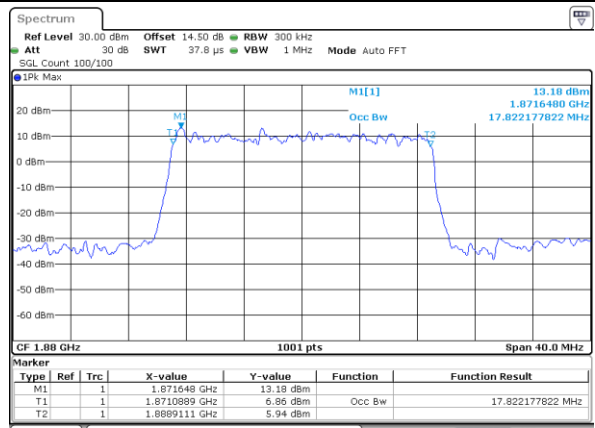
Date: 3 SEP 2024 07:59:28

Middle Channel / 20MHz / QPSK



Date: 3 SEP 2024 08:11:41

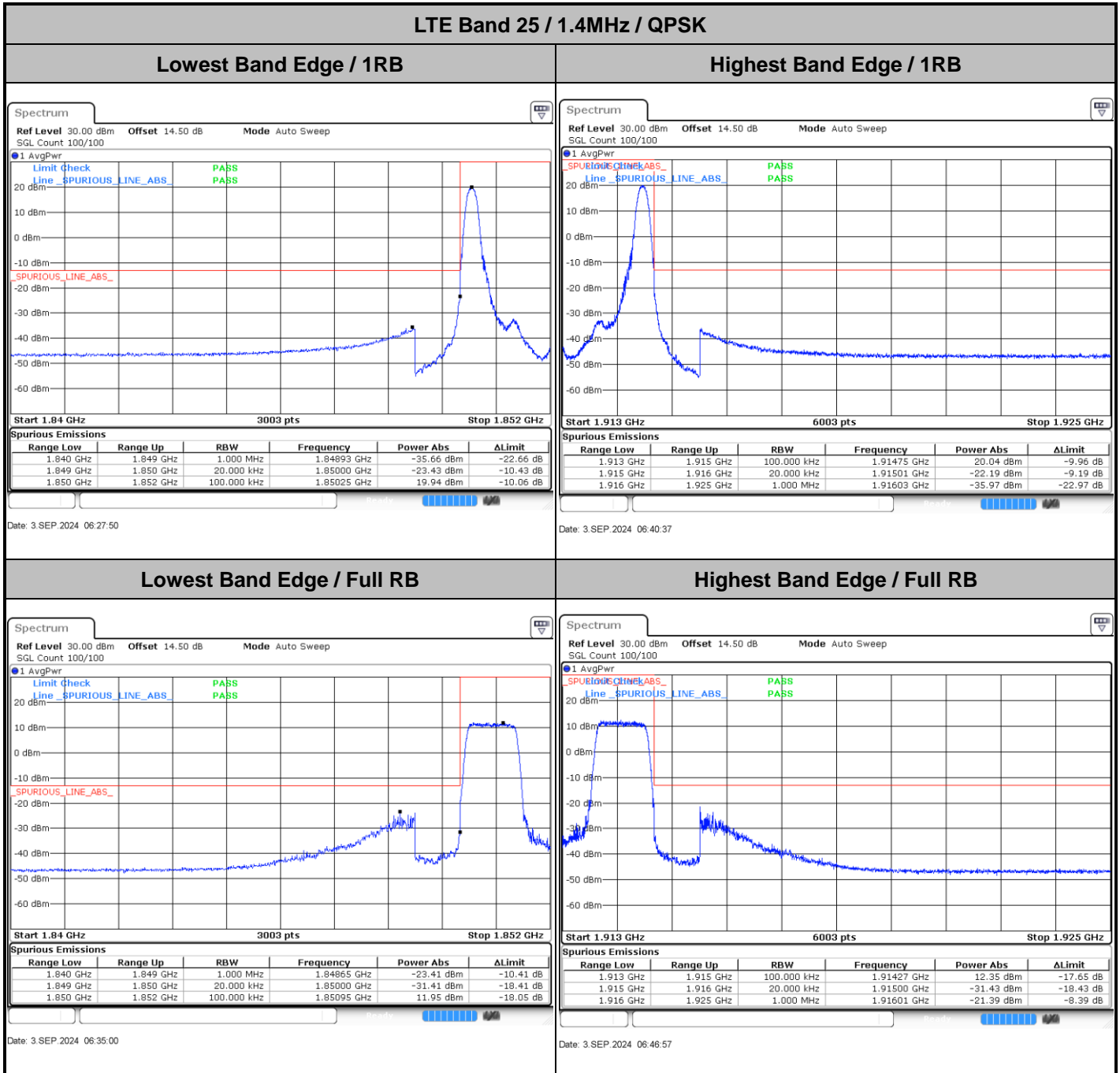
Middle Channel / 20MHz / 16QAM



Date: 3 SEP 2024 08:12:21



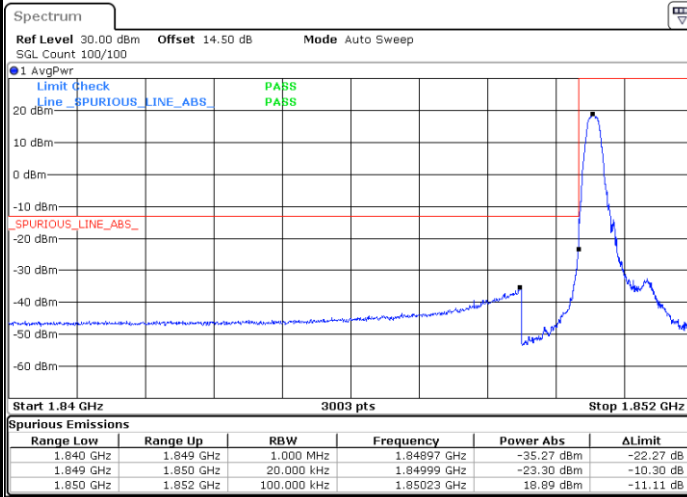
# Conducted Band Edge





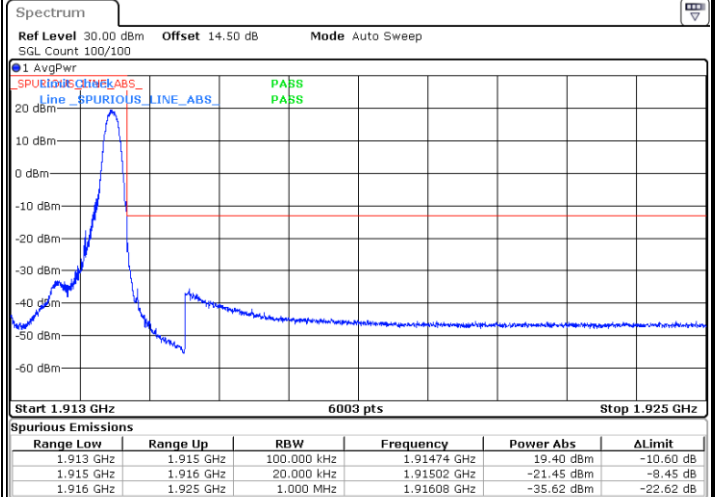
LTE Band 25 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



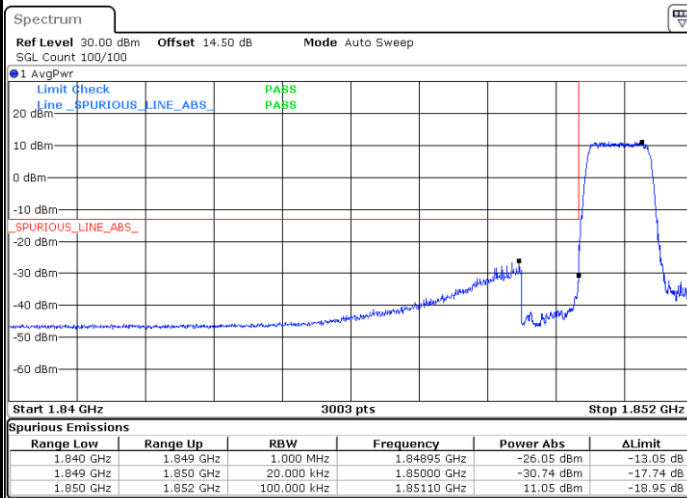
Date: 3 SEP 2024 06:29:16

Highest Band Edge / 1 RB



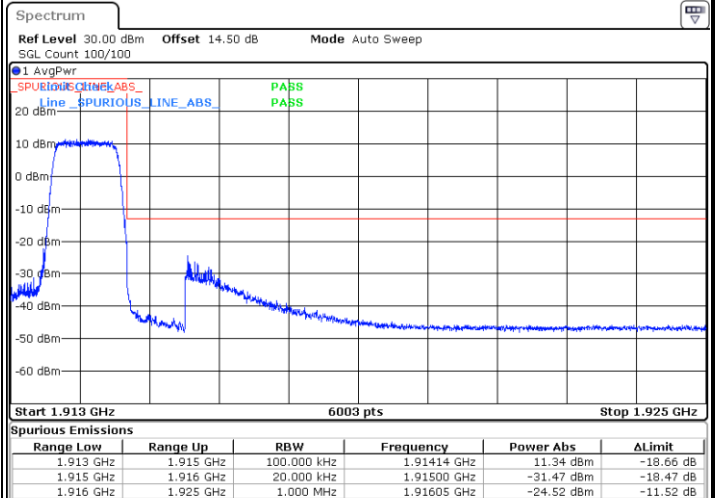
Date: 3 SEP 2024 06:42:03

Lowest Band Edge / Full RB



Date: 3 SEP 2024 06:33:34

Highest Band Edge / Full RB

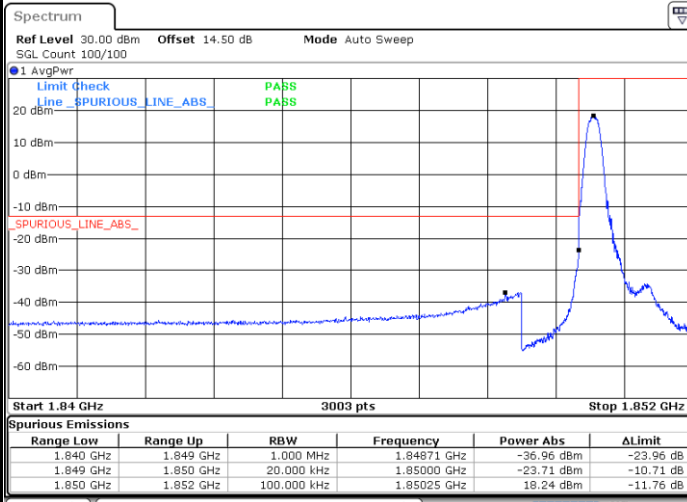


Date: 3 SEP 2024 06:46:21



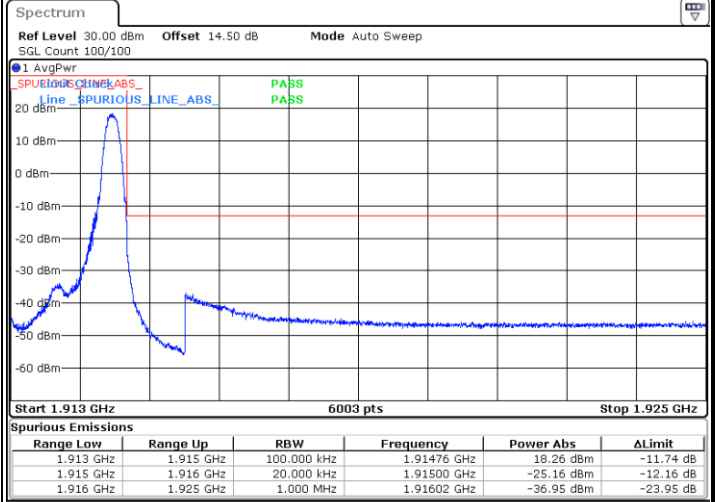
LTE Band 25 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



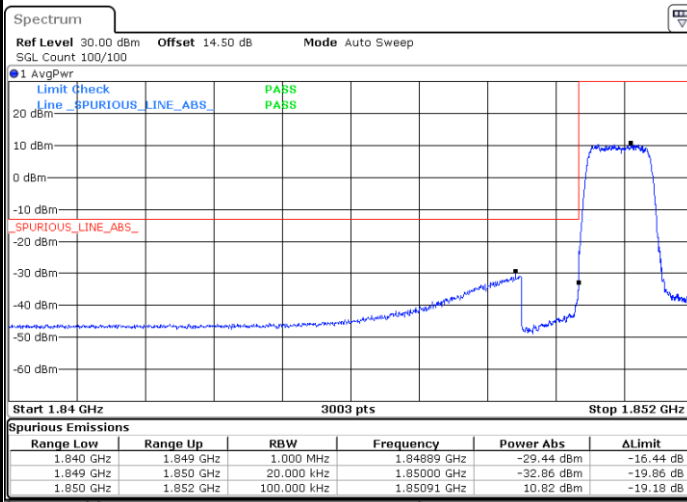
Date: 3 SEP 2024 06:30:42

Highest Band Edge / 1 RB



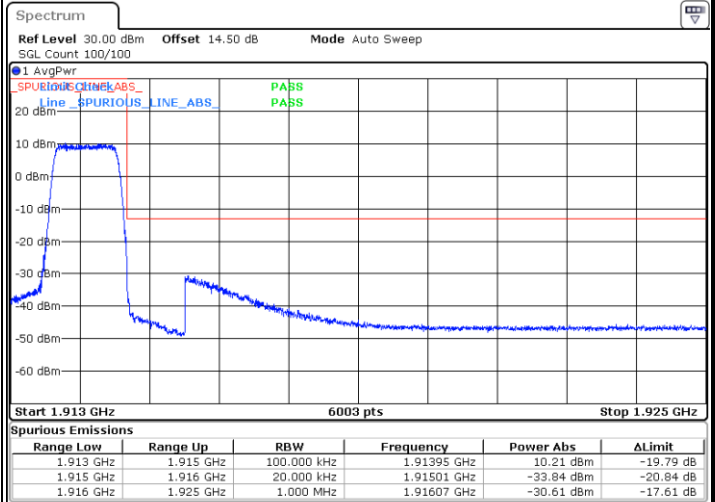
Date: 3 SEP 2024 06:43:29

Lowest Band Edge / Full RB



Date: 3 SEP 2024 06:32:08

Highest Band Edge / Full RB

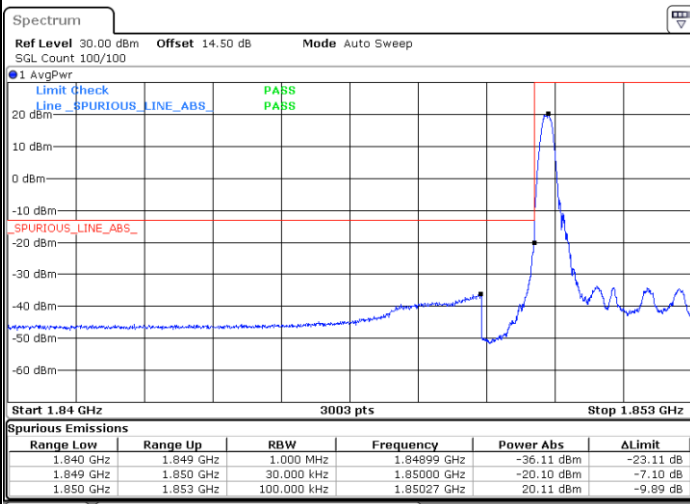


Date: 3 SEP 2024 06:44:55



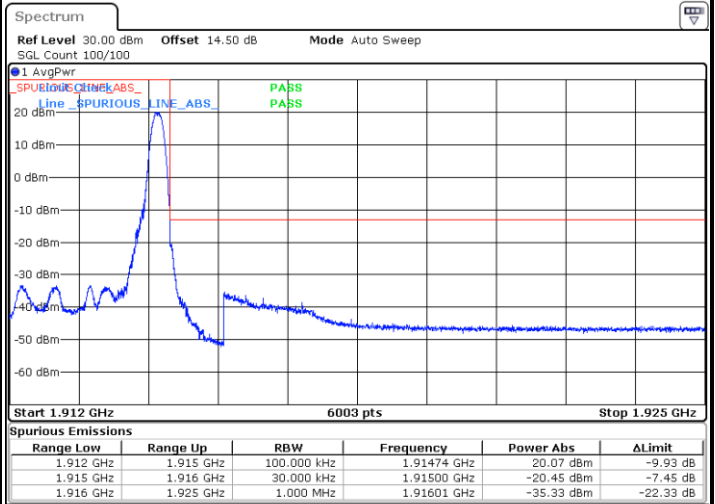
LTE Band 25 / 3MHz / QPSK

Lowest Band Edge / 1RB



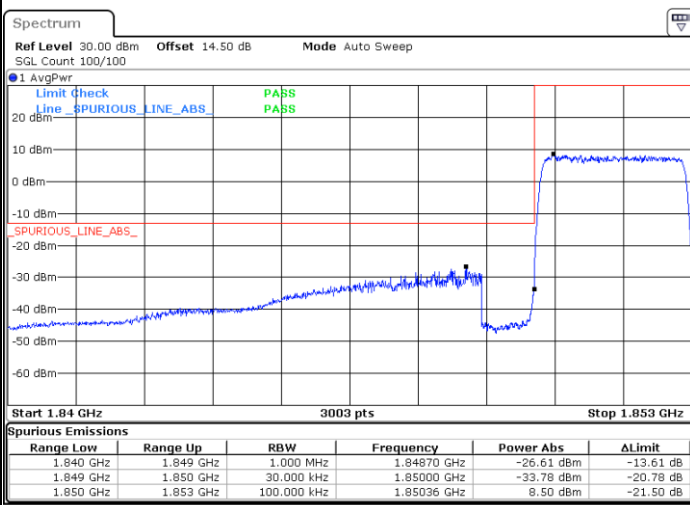
Date: 3 SEP 2024 06:49:44

Highest Band Edge / 1RB



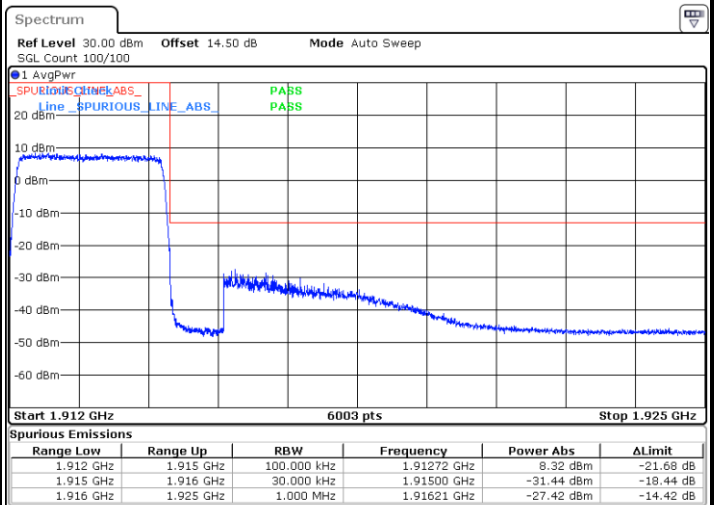
Date: 3 SEP 2024 06:57:31

Lowest Band Edge / Full RB



Date: 3 SEP 2024 06:52:44

Highest Band Edge / Full RB



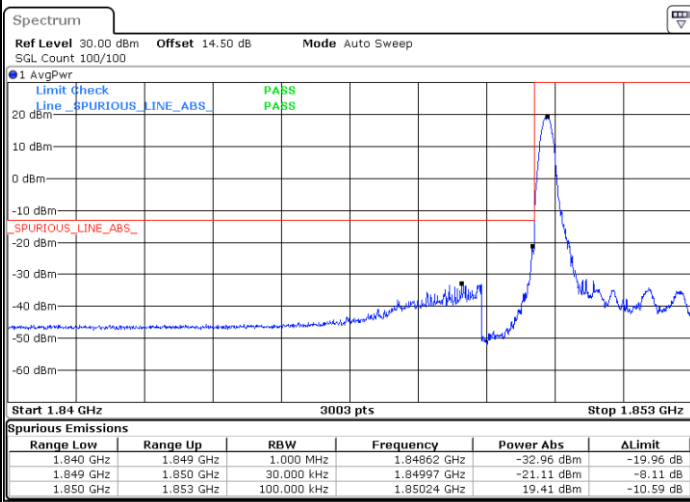
Date: 3 SEP 2024 07:00:31





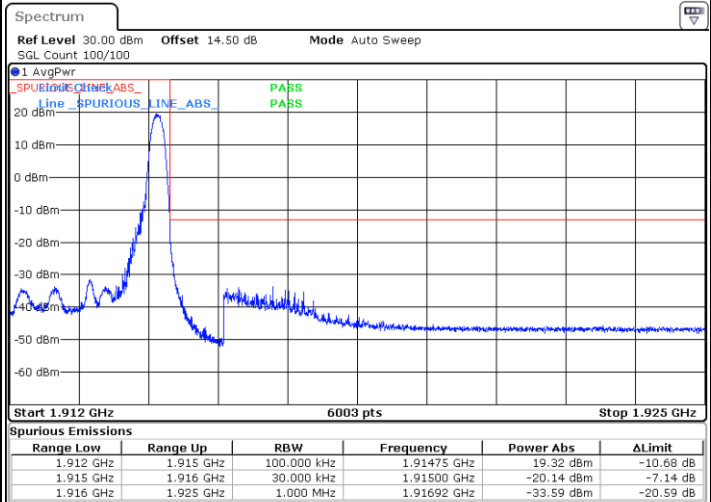
LTE Band 25 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



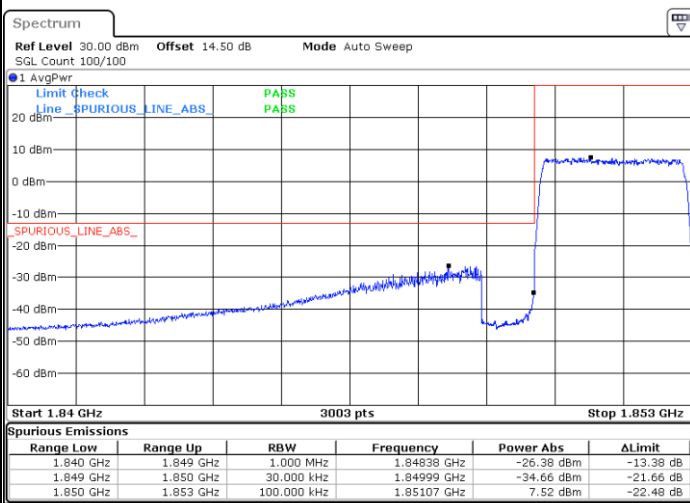
Date: 3 SEP 2024 06:50:20

Highest Band Edge / 1 RB



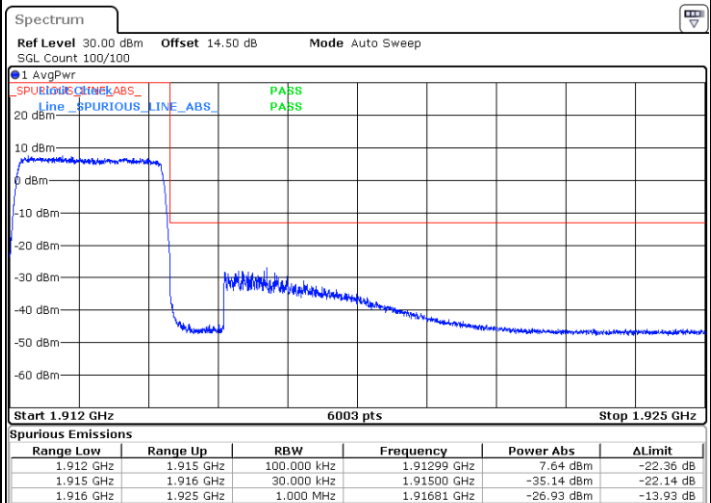
Date: 3 SEP 2024 06:58:07

Lowest Band Edge / Full RB



Date: 3 SEP 2024 06:52:08

Highest Band Edge / Full RB

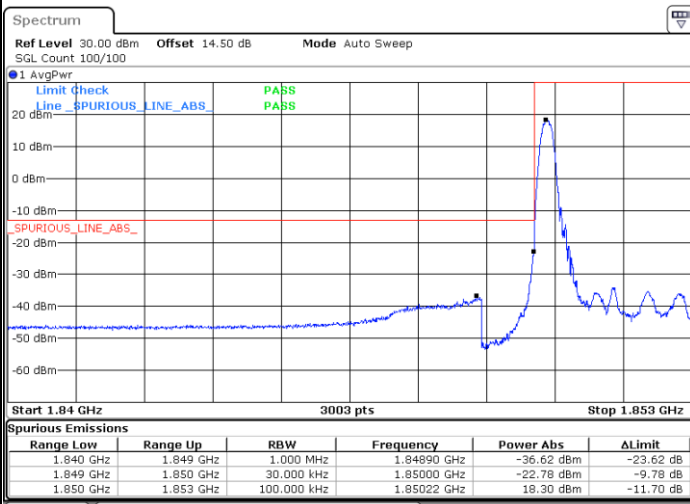


Date: 3 SEP 2024 06:59:55



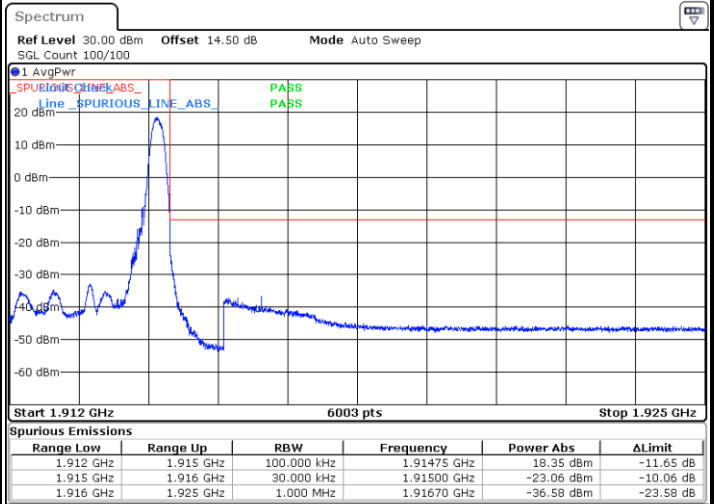
LTE Band 25 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



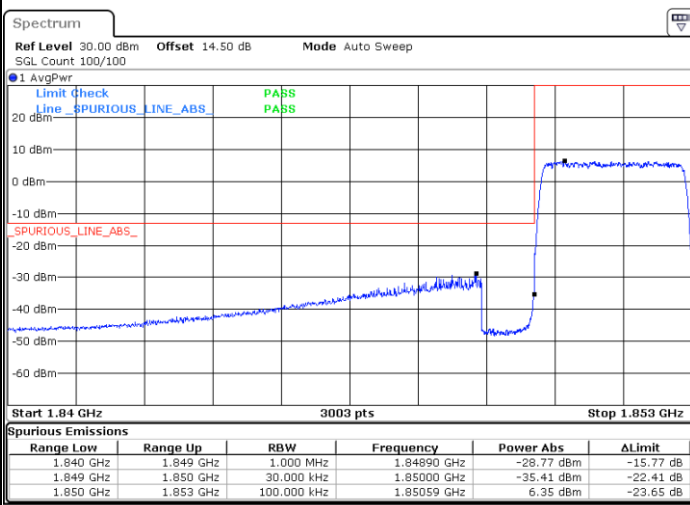
Date: 3 SEP 2024 06:50:56

Highest Band Edge / 1 RB



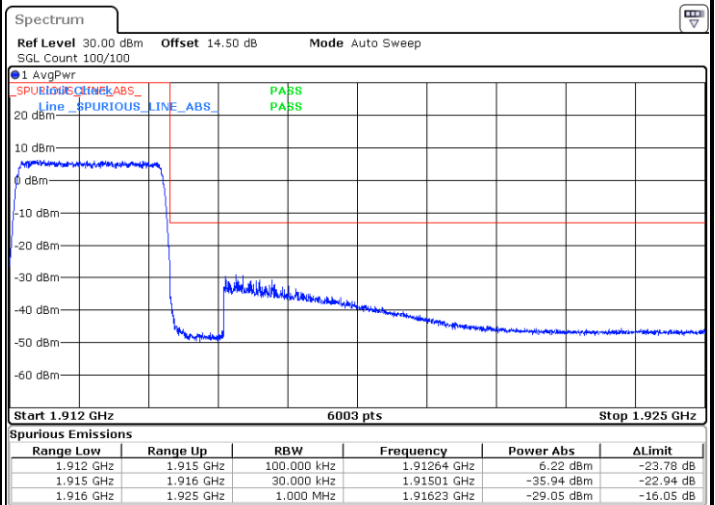
Date: 3 SEP 2024 06:58:43

Lowest Band Edge / Full RB



Date: 3 SEP 2024 06:51:32

Highest Band Edge / Full RB

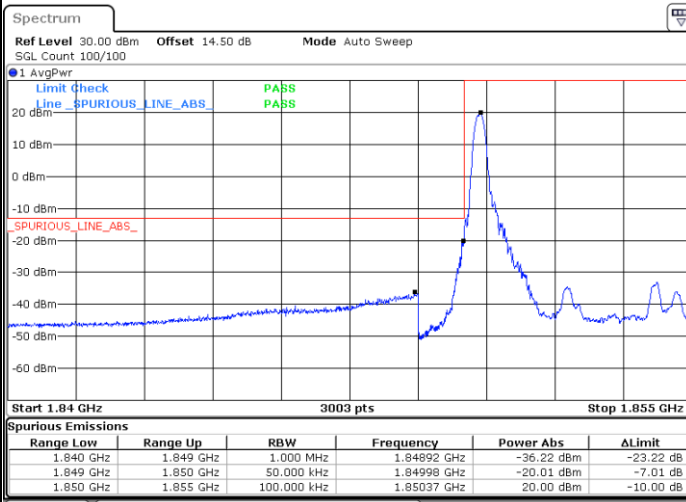


Date: 3 SEP 2024 06:59:19



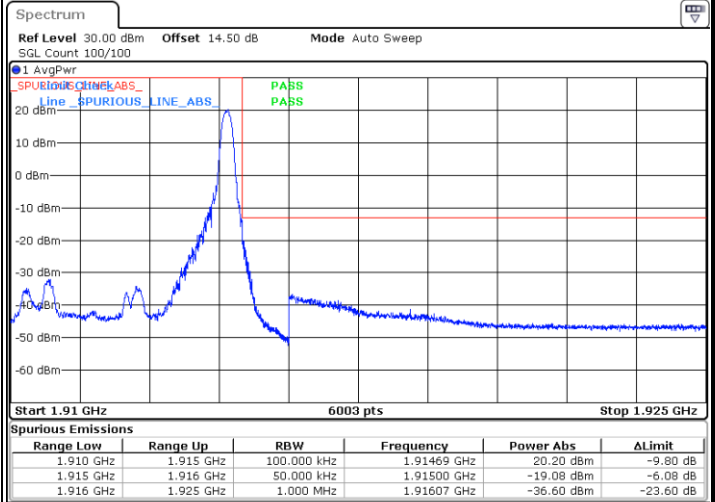
LTE Band 25 / 5MHz / QPSK

Lowest Band Edge / 1RB



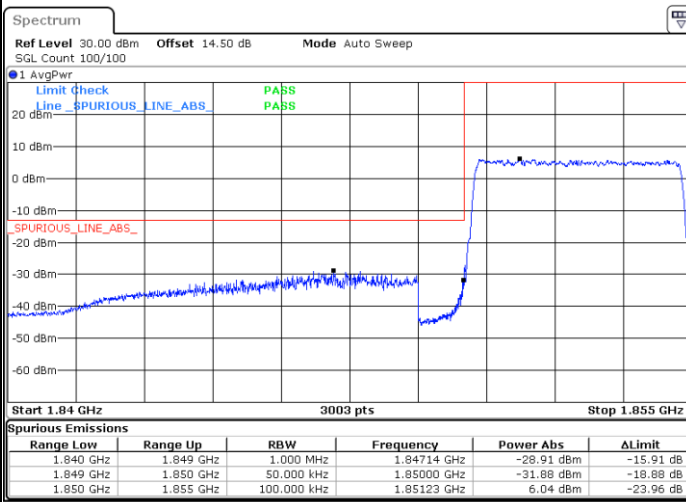
Date: 3 SEP 2024 07:03:17

Highest Band Edge / 1RB



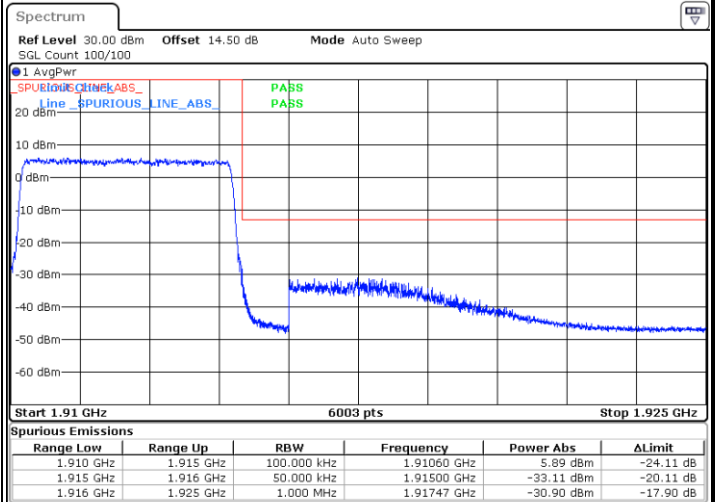
Date: 3 SEP 2024 07:11:04

Lowest Band Edge / Full RB



Date: 3 SEP 2024 07:06:17

Highest Band Edge / Full RB

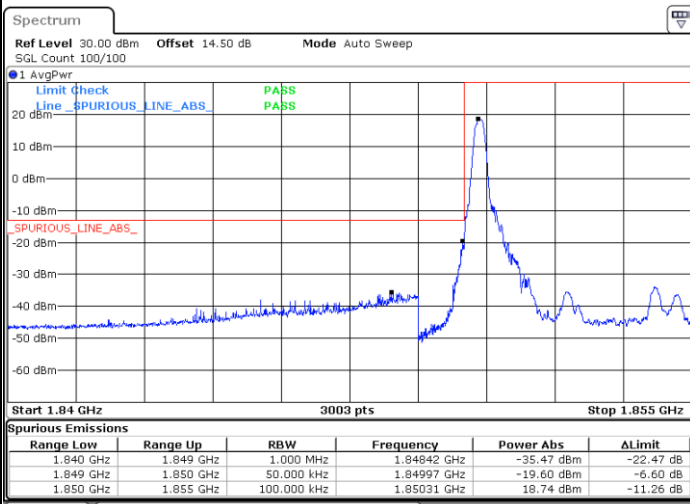


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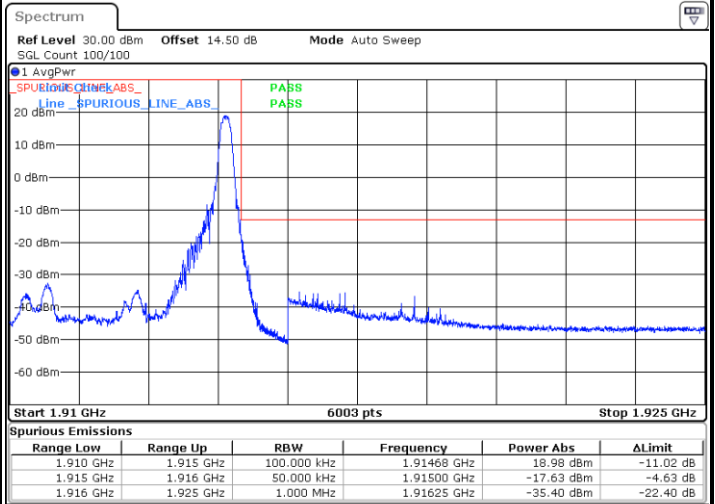
LTE Band 25 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



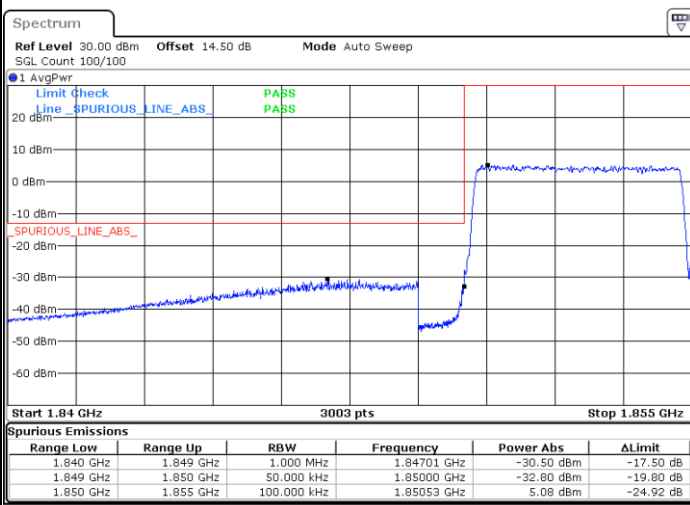
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Highest Band Edge / 1 RB



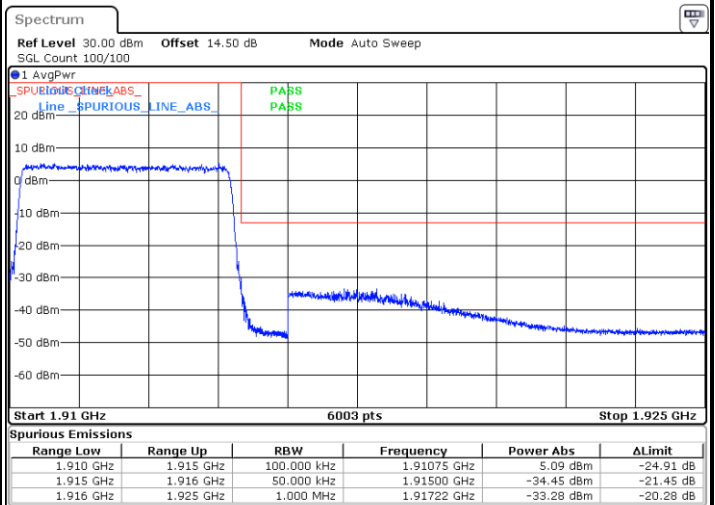
Date: 3 SEP 2024 07:11:40

Lowest Band Edge / Full RB



Date: 3 SEP 2024 07:05:41

Highest Band Edge / Full RB

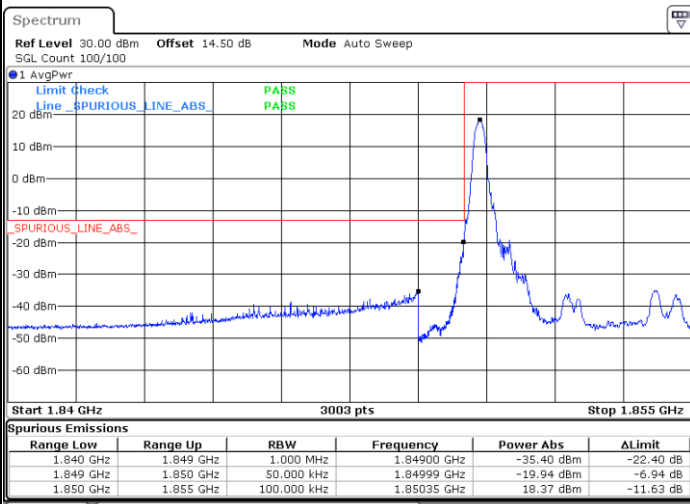


Date: 3 SEP 2024 07:13:28



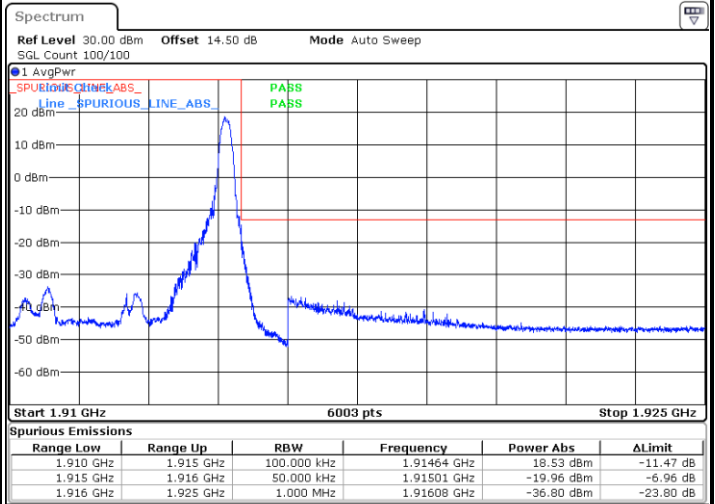
LTE Band 25 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



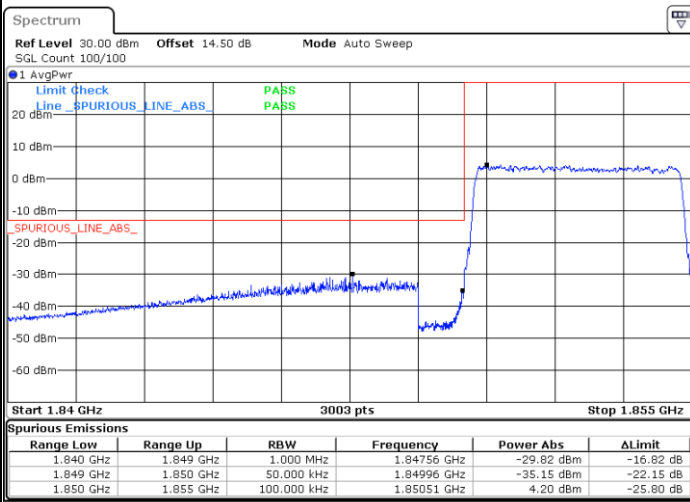
Date: 3 SEP 2024 07:04:29

Highest Band Edge / 1 RB



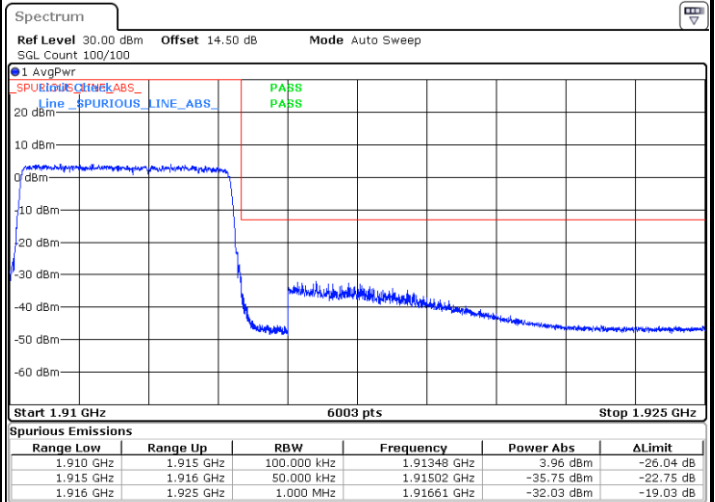
Date: 3 SEP 2024 07:12:16

Lowest Band Edge / Full RB



Date: 3 SEP 2024 07:05:05

Highest Band Edge / Full RB

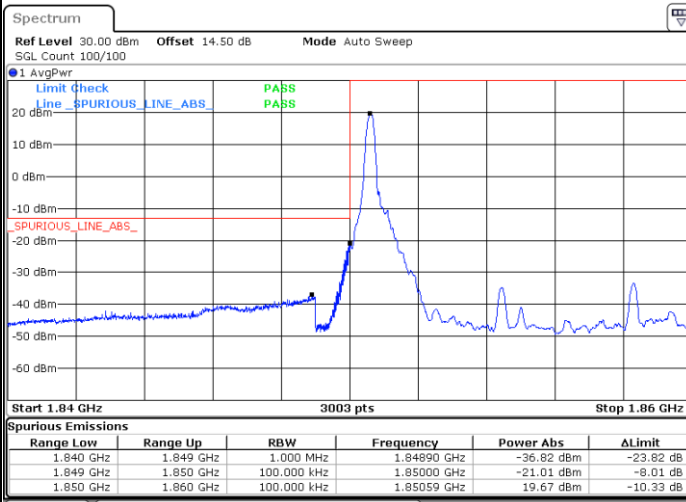


Date: 3 SEP 2024 07:12:52



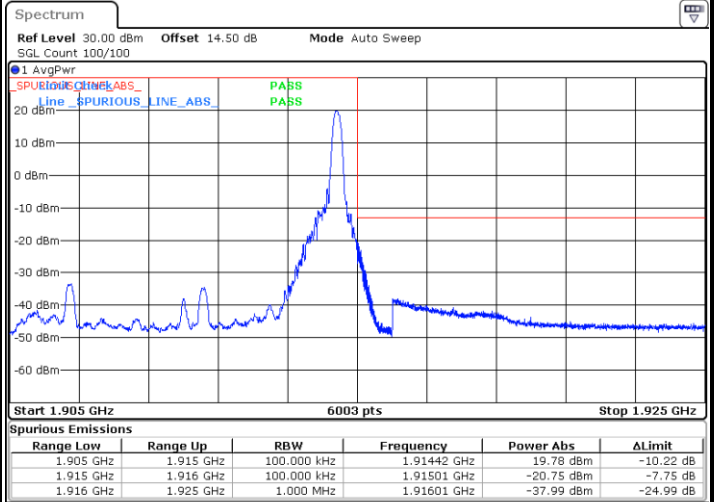
LTE Band 25 / 10MHz / QPSK

Lowest Band Edge / 1RB



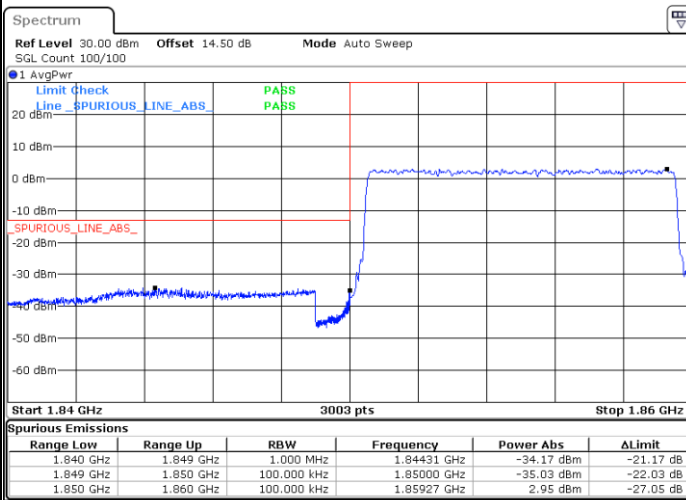
Date: 3 SEP 2024 07:39:30

Highest Band Edge / 1RB



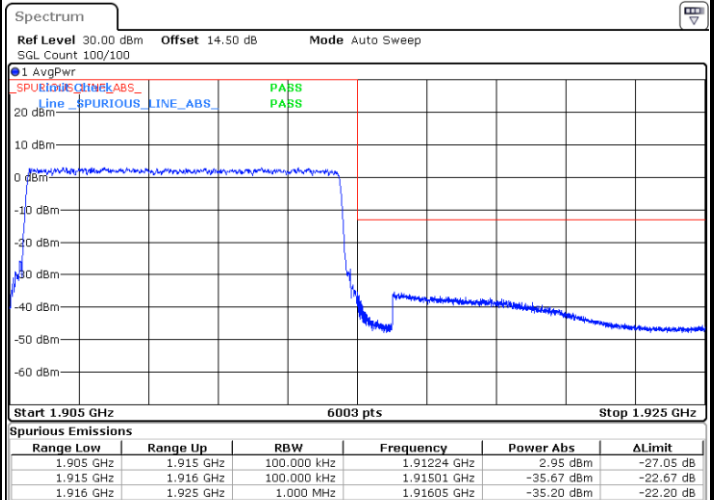
Date: 3 SEP 2024 07:47:13

Lowest Band Edge / Full RB



Date: 3 SEP 2024 07:42:29

Highest Band Edge / Full RB

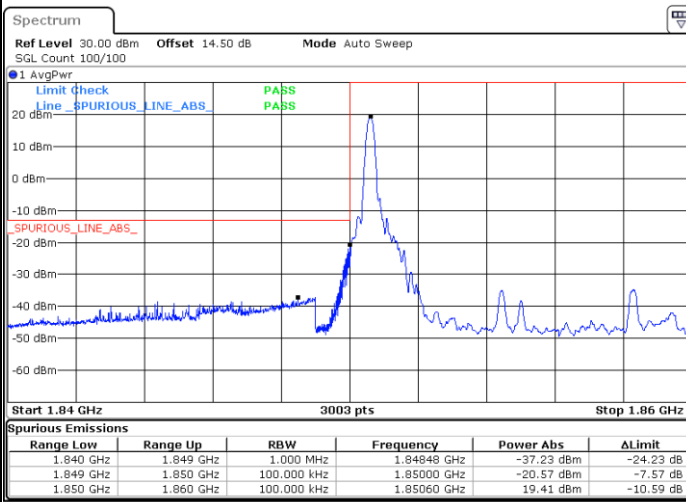


Date: 3 SEP 2024 07:50:11



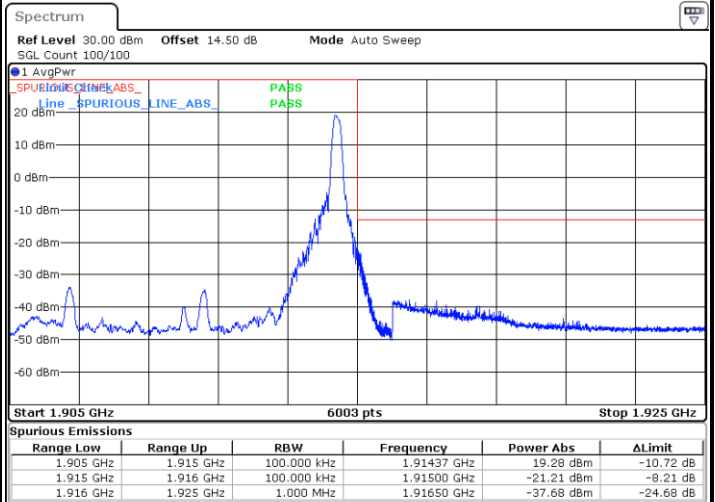
LTE Band 25 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



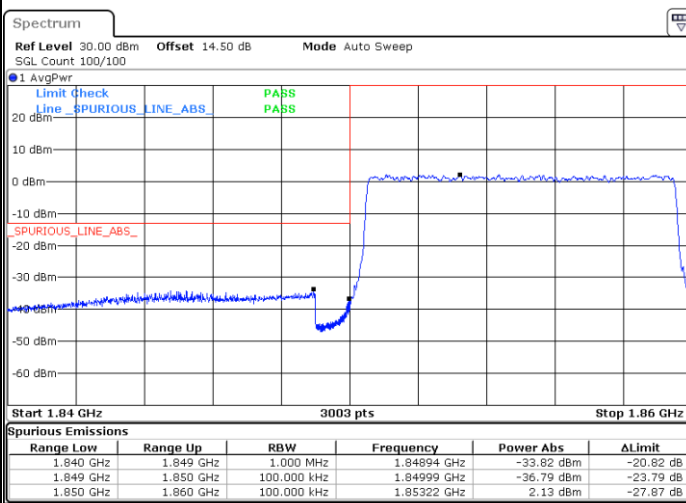
Date: 3 SEP 2024 07:40:06

Highest Band Edge / 1 RB



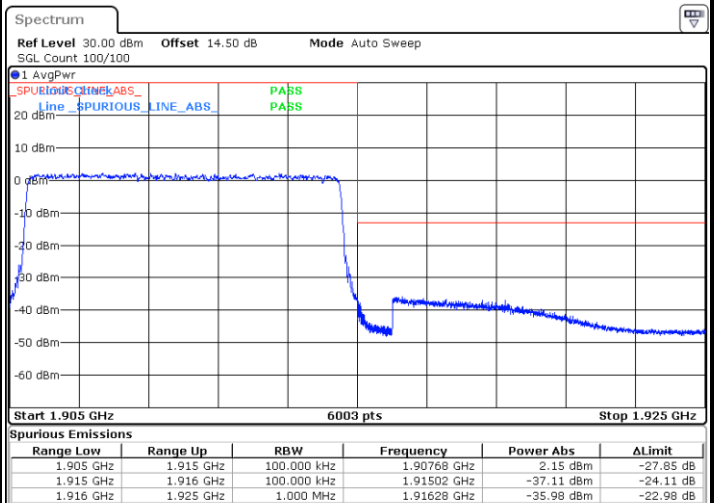
Date: 3 SEP 2024 07:47:49

Lowest Band Edge / Full RB



Date: 3 SEP 2024 07:41:53

Highest Band Edge / Full RB

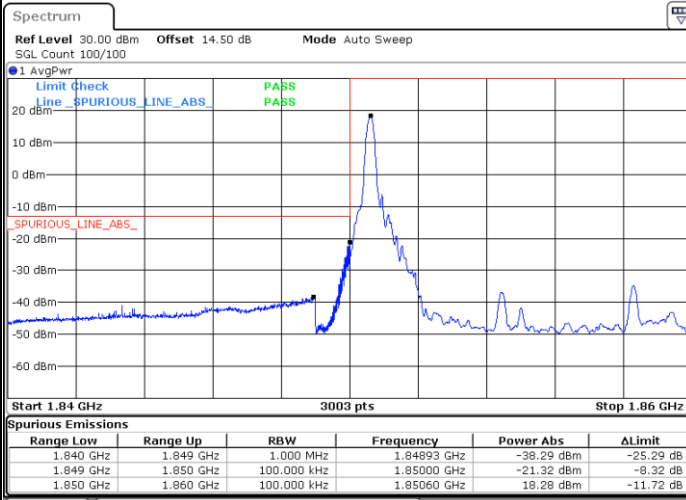


Date: 3 SEP 2024 07:49:35



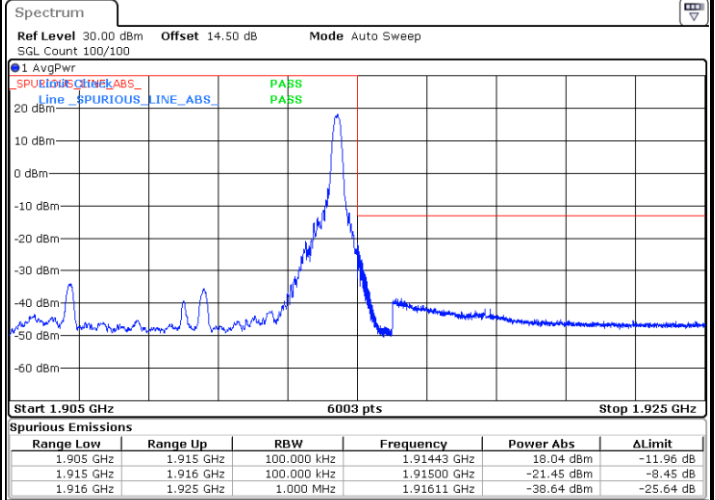
LTE Band 25 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



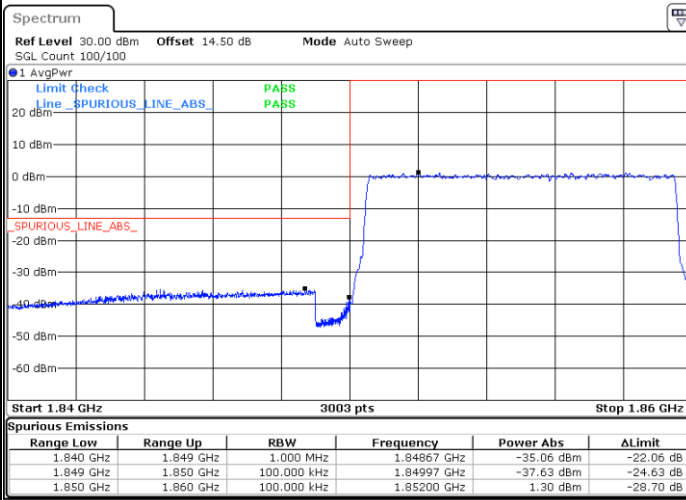
Date: 3 SEP 2024 07:40:41

Highest Band Edge / 1 RB



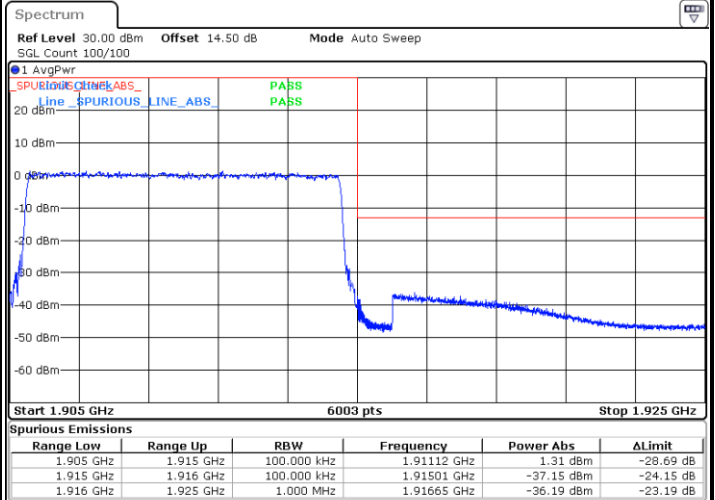
Date: 3 SEP 2024 07:48:24

Lowest Band Edge / Full RB



Date: 3 SEP 2024 07:41:17

Highest Band Edge / Full RB



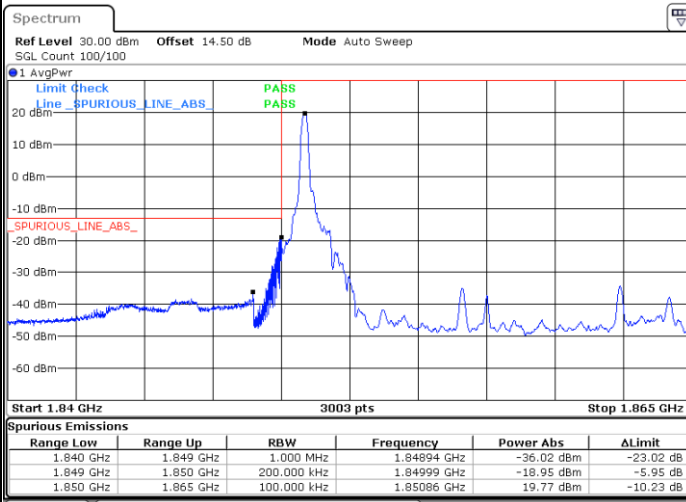
Date: 3 SEP 2024 07:49:00





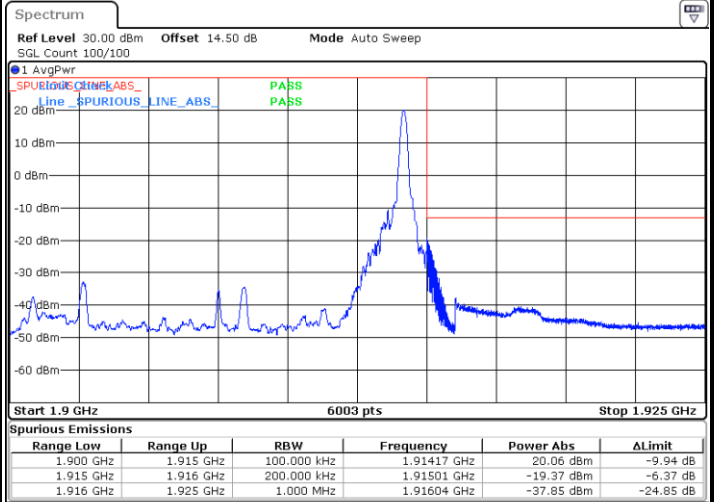
LTE Band 25 / 15MHz / QPSK

Lowest Band Edge / 1RB



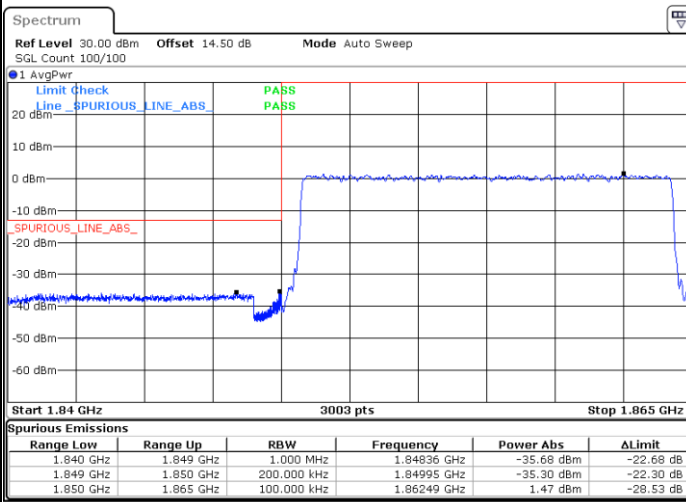
Date: 3 SEP 2024 07:52:54

Highest Band Edge / 1RB



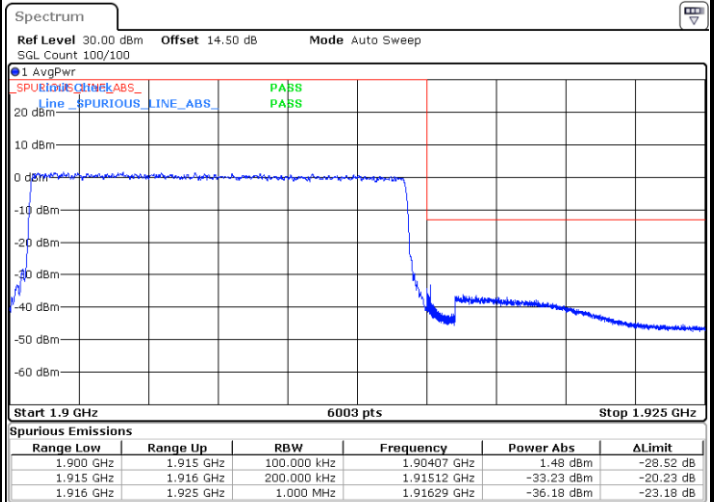
Date: 3 SEP 2024 08:00:17

Lowest Band Edge / Full RB



Date: 3 SEP 2024 07:55:52

Highest Band Edge / Full RB

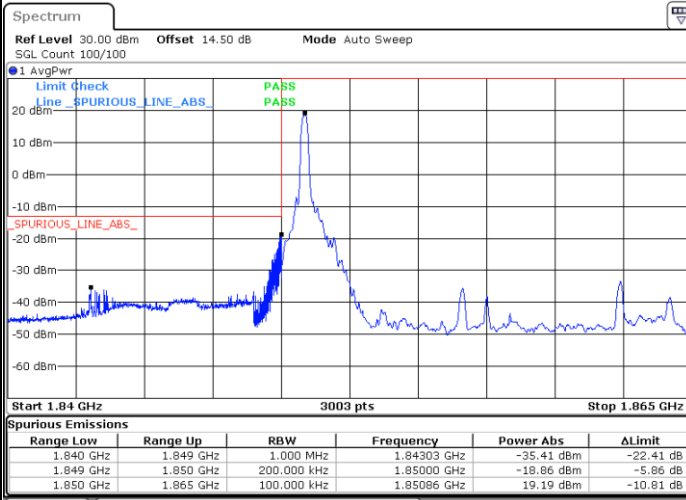


Date: 3 SEP 2024 08:03:14



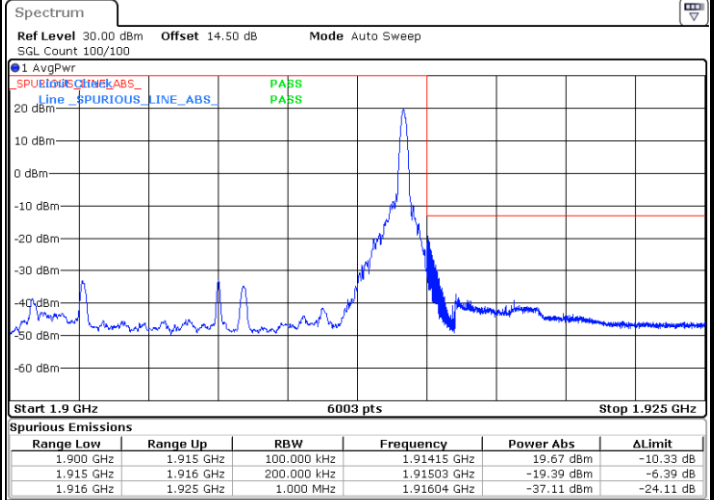
LTE Band 25 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



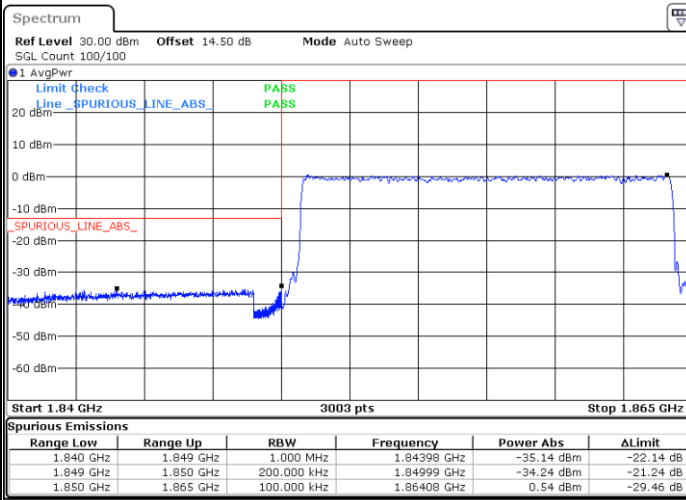
Date: 3 SEP 2024 07:53:30

Highest Band Edge / 1 RB



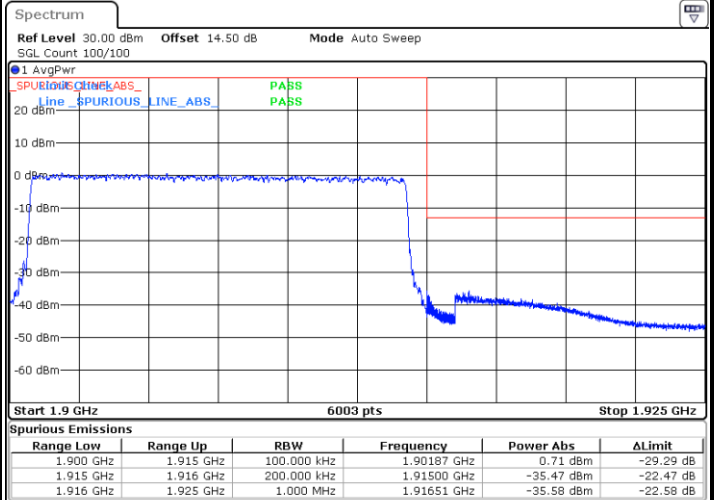
Date: 3 SEP 2024 08:00:52

Lowest Band Edge / Full RB



Date: 3 SEP 2024 07:55:16

Highest Band Edge / Full RB

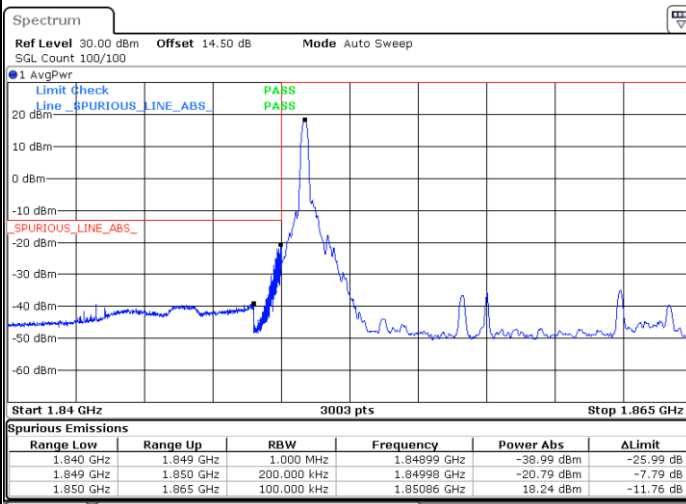


Date: 3 SEP 2024 08:02:39



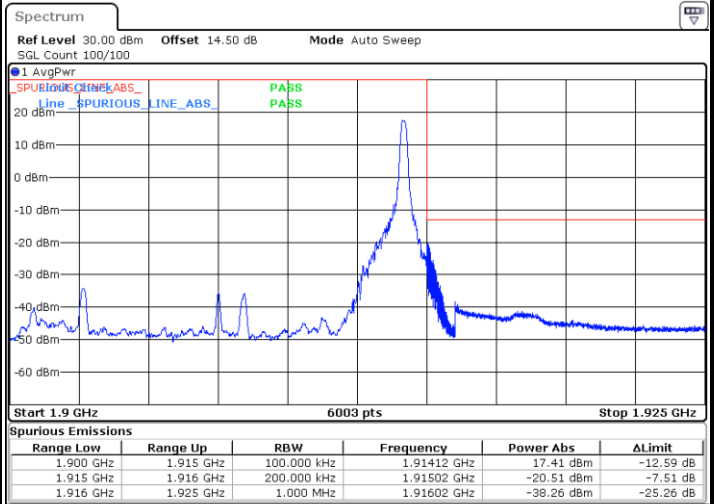
LTE Band 25 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



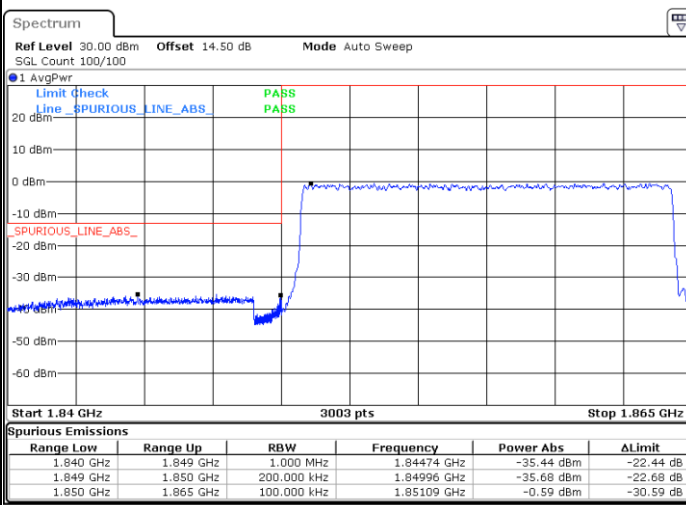
Date: 3 SEP 2024 07:54:05

Highest Band Edge / 1 RB



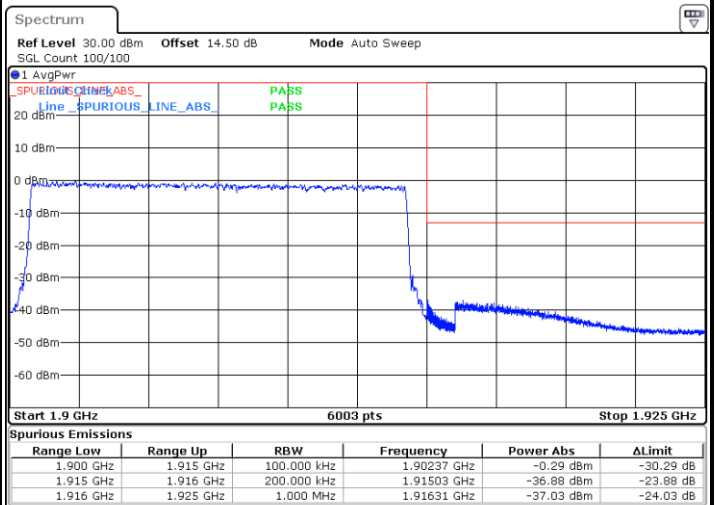
Date: 3 SEP 2024 08:01:28

Lowest Band Edge / Full RB



Date: 3 SEP 2024 07:54:41

Highest Band Edge / Full RB



Date: 3 SEP 2024 08:02:03