



# FCC RF Test Report

**APPLICANT** : Quectel Wireless Solutions Co., Ltd.  
**EQUIPMENT** : 5G Sub-6 GHz LGA Module  
**BRAND NAME** : Quectel  
**MODEL NAME** : RG500L-NA  
**FCC ID** : XMR2023RG500LNA  
**STANDARD** : 47 CFR Part 2, 22(H), 24(E), 27(L), 27(N)  
**CLASSIFICATION** : PCS Licensed Transmitter (PCB)  
**TEST DATE(S)** : Jan. 10, 2023 ~ Mar. 20, 2023

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

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

Jason Jia

Approved by: Jason Jia



**Sporton International Inc. (Kunshan)**

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300  
People's Republic of China**



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### REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG2D0201A	Rev. 01	Initial issue of report	Jun. 02, 2023



## SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§22.913(a)(5)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2) (Band 25)	EIRP < 2Watt		-
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 71)	ERP < 3 Watt		-
	§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) §27.53(g)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 25) (Band 26) (Band 66) (Band 71)	< 43+10log <sub>10</sub> (P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(h) §27.53(g)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 25) (Band 26) (Band 66) (Band 71)	< 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) §27.53(g)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 25) (Band 26) (Band 66) (Band 71)	< 43+10log <sub>10</sub> (P[Watts])	PASS	Under limit 29.22 dB at 5688.00 MHz

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and Explanations:</b>
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



# 1 General Description

## 1.1 Applicant

**Quectel Wireless Solutions Co., Ltd.**

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233,China

## 1.2 Manufacturer

**Quectel Wireless Solutions Co., Ltd.**

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233,China

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	5G Sub-6 GHz LGA Module
Brand Name	Quectel
Model Name	RG500L-NA
FCC ID	XMR2023RG500LNA
IMEI Code	Conducted: 860815050004316 Radiation: 860815050004233
HW Version	R1.0
SW Version	RG500LNAAAR04A02E32_OCPU
EUT Stage	Identical Prototype



### 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 LTE Band 71: 663 MHz ~ 698 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 LTE Band 71: 617 MHz ~ 652 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 LTE Band 71 : 5MHz / 10MHz / 15MHz / 20MHz
<b>Maximum Output Power to Antenna</b>	<b>Ant 1:</b> LTE Band 2 : 22.69 dBm LTE Band 5 : 23.11 dBm LTE Band 26 : 23.28 dBm LTE Band 66 : 23.16 dBm <b>Ant 7:</b> LTE Band 2 : 22.76 dBm LTE Band 4 : 22.68 dBm LTE Band 25 : 22.83 dBm LTE Band 66 : 22.95 dBm LTE Band 66B : 23.15 dBm LTE Band 66C : 23.05 dBm LTE Band 71 : 22.83 dBm
<b>Antenna Gain</b>	<b>Ant 1:</b> LTE Band 2 : 0.73 dBi LTE Band 5 : 0.49 dBi LTE Band 26 : 0.49 dBi LTE Band 66 : -0.20 dBi <b>Ant 7:</b> LTE Band 2 : 0.75 dBi LTE Band 4 : 0.33 dBi LTE Band 25 : 0.75 dBi LTE Band 66 : 0.33 dBi LTE Band 71 : -9.34 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, only the maximum ERP/EIRP of Ant 7 for LTE Band 2/4/25/66/66B/66C/71 and Ant 1 for LTE Band 5/26 are



shown in the report.

- The device supports two PAs for LTE Band 2/66 (main PA with Ant.7 for single carrier mode, and other PA with Ant.1 for ENDC mode), both the PA are full test.

### 1.5 Modification of EUT

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

### 1.6 Maximum Conducted Power and Emission Designator

LTE Band 2_Ant.7		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
1.4	1850.7 ~ 1909.3	0.1824	1M10G7D	0.1574	1M08W7D
3	1851.5 ~ 1908.5	0.1799	2M72G7D	0.1560	2M72W7D
5	1852.5 ~ 1907.5	0.1824	4M49G7D	0.1567	4M50W7D
10	1855.0 ~ 1905.0	0.1807	9M05G7D	0.1563	8M93W7D
15	1857.5 ~ 1902.5	0.1791	13M4G7D	0.1563	13M5W7D
20	1860.0 ~ 1900.0	0.1888	17M9G7D	0.1581	17M9W7D
LTE Band 25_Ant.7		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
1.4	1850.7 ~ 1914.3	0.1841	1M10G7D	0.1581	1M08W7D
3	1851.5 ~ 1913.5	0.1824	2M72G7D	0.1570	2M72W7D
5	1852.5 ~ 1912.5	0.1832	4M49G7D	0.1574	4M50W7D
10	1855.0 ~ 1910.0	0.1832	9M05G7D	0.1574	8M93W7D
15	1857.5 ~ 1907.5	0.1837	13M4G7D	0.1578	13M5W7D
20	1860.0 ~ 1905.0	0.1919	17M9G7D	0.1581	17M9W7D
LTE Band 4_Ant.7		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1754.3	0.1828	1M09G7D	0.1549	1M09W7D
3	1711.5 ~ 1753.5	0.1824	2M72G7D	0.1552	2M71W7D
5	1712.5 ~ 1752.5	0.1841	4M49G7D	0.1556	4M49W7D
10	1715.0 ~ 1750.0	0.1841	9M03G7D	0.1552	9M07W7D
15	1717.5 ~ 1747.5	0.1807	13M5G7D	0.1542	13M5W7D
20	1720.0 ~ 1745.0	0.1854	17M9G7D	0.1560	17M9W7D



LTE Band 5_Ant.1		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.2014	1M09G7D	0.1722	1M09W7D
3	825.5 ~ 847.5	0.2018	2M70G7D	0.1754	2M72W7D
5	826.5 ~ 846.5	0.2028	4M47G7D	0.1734	4M51W7D
10	829.0 ~ 844.0	0.2046	9M11G7D	0.1766	9M01W7D
LTE Band 26_Ant.1		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.2028	1M09G7D	0.1762	1M09W7D
3	825.5 ~ 847.5	0.2061	2M70G7D	0.1774	2M72W7D
5	826.5 ~ 846.5	0.2084	4M47G7D	0.1786	4M51W7D
10	829.0 ~ 844.0	0.2075	9M11G7D	0.1807	9M01W7D
15	831.5 ~ 841.5	0.2128	13M5G7D	0.1816	13M5W7D
CH26790	824.0	0.1932	13M5G7D	0.1718	13M4W7D
LTE Band 66_Ant.7		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1779.3	0.1919	1M09G7D	0.1614	1M09W7D
3	1711.5 ~ 1778.5	0.1928	2M72G7D	0.1618	2M71W7D
5	1712.5 ~ 1777.5	0.1928	4M49G7D	0.1626	4M49W7D
10	1715.0 ~ 1775.0	0.1950	9M03G7D	0.1567	9M07W7D
15	1717.5 ~ 1772.5	0.1941	13M5G7D	0.1570	13M5W7D
20	1720.0 ~ 1770.0	0.1972	17M9G7D	0.1641	17M9W7D
LTE Band 71_Ant.7		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
5	665.5 ~ 695.5	0.1888	4M48G7D	0.1524	4M50W7D
10	668.0 ~ 693.0	0.1897	9M01G7D	0.1455	9M01W7D
15	670.5 ~ 690.5	0.1905	13M4G7D	0.1459	13M4W7D
20	673.0 ~ 688.0	0.1919	17M9G7D	0.1535	17M9W7D





LTE Band CA_66B_Ant.7	QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
5MHz+5MHz	0.1959	9M33G7D	0.1726	9M29W7D
5MHz+10MHz	0.1936	13M9G7D	0.1871	13M9W7D
10MHz+5MHz	0.1982	13M9G7D	0.1866	13M9W7D
5MHz+15MHz	0.1941	18M1G7D	0.1884	18M2W7D
15MHz+5MHz	0.2042	18M2G7D	0.1875	18M1W7D
10MHz+10MHz	0.2065	18M8G7D	0.1919	18M7W7D

LTE Band CA_66C_Ant.7	QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
5MHz+20MHz	0.1941	23M1G7D	0.1726	23M3W7D
10MHz+15MHz	0.2004	23M3G7D	0.1750	23M6W7D
10MHz+20MHz	0.1941	27M9G7D	0.1766	28M0W7D
15MHz+10MHz	0.2009	23M4G7D	0.1824	23M3W7D
15MHz+15MHz	0.2004	28M7G7D	0.1807	28M5W7D
15MHz+20MHz	0.2009	32M9G7D	0.1786	33M7W7D
20MHz+5MHz	0.1986	23M2G7D	0.1807	23M1W7D
20MHz+10MHz	0.1995	28M1G7D	0.1832	27M9W7D
20MHz+15MHz	0.2000	32M8G7D	0.1742	32M9W7D
20MHz+20MHz	0.2018	37M3G7D	0.1858	37M5W7D

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.



### 1.7 Testing Location

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

<b>Test Firm</b>	Sporton International Inc. (Kunshan)		
<b>Test Site Location</b>	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH04-KS TH01-KS	CN1257	314309

### 1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24al

### 1.9 Applicable Standards

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

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

**Remark:**

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



## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

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

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission. (X-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	2	v	v	v	v	v	v	v	v	v	v	v		v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v		v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v		v	v	v	v
	25	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
	66	v	v	v	v	v	v	v	v	v	v	v		v	v	v	v
	71	-	-	v	v	v	v	v	v	v	v	v		v	v	v	v
Peak-to-Average Ratio	2/25						v	v	v	v	v			v		v	
	26				v		-	v	v	v	v			v		v	
	66						v	v	v	v	v			v		v	
	71	-	-				v	v	v	v	v			v		v	
26dB and 99% Bandwidth	2/25	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	
	71	-	-	v	v	v	v	v	v					v		v	
Conducted Band Edge	2/25	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
	66	v	v	v	v	v	v	v	v	v	v	v		v	v		v
	71	-	-	v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	2/25	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
	71	-	-	v	v	v	v	v				v			v	v	v
Frequency Stability	2/25				v			v						v		v	
	26				v		-	v						v		v	
	66				v			v						v		v	
	71	-	-		v			v						v		v	



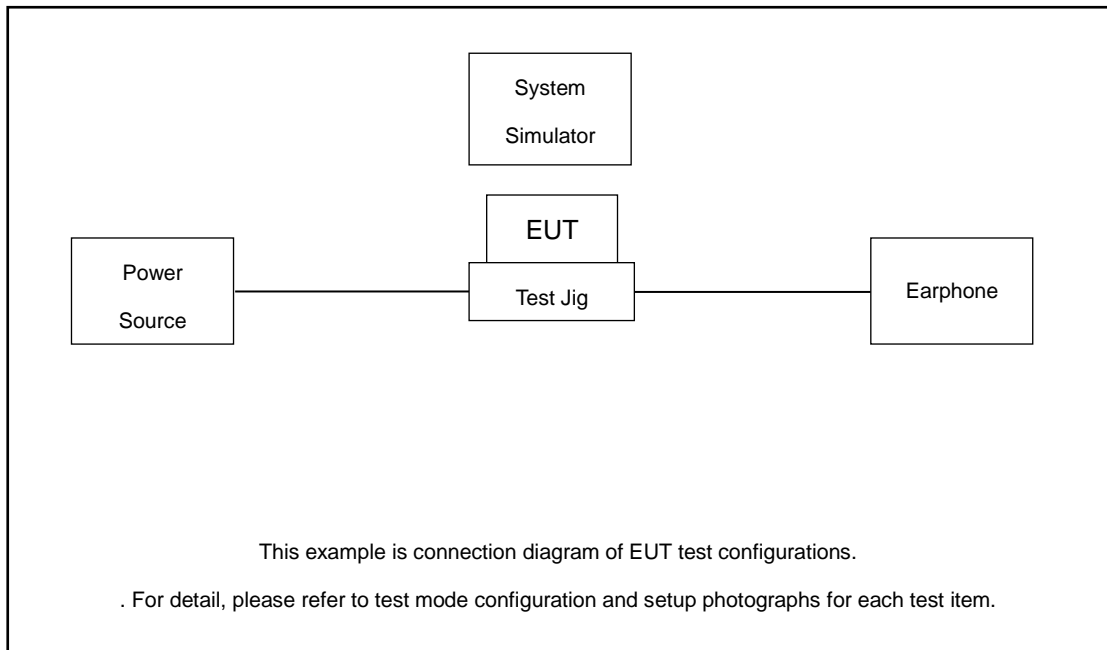
Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
E.R.P / E.I.R.P	2	v	v	v	v	v	v	v	v	v	v	v	v		v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v		v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v		v	v	v
	25	v	v	v	v	v	v	v	v	v	v	v	v		v	v	v
	26	v	v	v	v	v	-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



Test Items	Band	Bandwidth (MHz)								Modulation				RB #			Test Channel		
		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	66B_CA	v	v	v	v	v	v	-	-	v	v	v	v	v			v	v	v
26dB and 99% Bandwidth	66B_CA	v	v	v	v	v	v	-	-	v	v						v		v
Conducted Band Edge	66B_CA	v	v	v	v	v	v	-	-	v	v	v	v	v			v	v	v
Conducted Spurious Emission	66B_CA	v	v	v	v	v	v	-	-	v				v			v	v	v
Frequency Stability	66B_CA	v								v							v		v
E.I.R.P.	66B_CA	v	v	v	v	v	v	-	-	v	v	v	v	v			v	v	v
Radiated Spurious Emission	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. 5. For QAM modulation mode, the whole testing has assessed 16QAM mode by referring to the higher conducted power																		

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
26dB and 99% Bandwidth	66C_CA	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
Frequency Stability	66C_CA	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
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. 4. For QAM modulation mode, the whole testing has assessed 16QAM 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.	Base Station	Anritsu	MT8820/8821	N/A	N/A	Unshielded, 1.8 m
3.	Adapter	N/A	N/A	N/A	N/A	N/A
4.	Test Jig	N/A	N/A	N/A	N/A	N/A
5.	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 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.

*Offset = RF cable loss.*

Following shows an offset computation example with cable loss 5.4 dB.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)}. \\ &= 5.4 \text{ (dB)} \end{aligned}$$



### 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 26 Cross-rule Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	-	Middle	-
15	Channel	-	26790	-
	Frequency	-	824	-
10	Channel	-	26790	-
	Frequency	-	824	-
5	Channel	-	26790	-
	Frequency	-	824	-
3	Channel	-	26790	-
	Frequency	-	824	-
1.4	Channel	-	26790	-
	Frequency	-	824	-



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



LTE Band 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

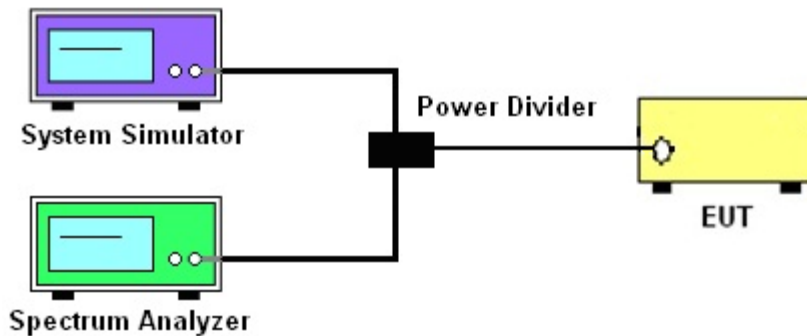
See list of measuring instruments of this test report.

#### 3.2 Test Setup

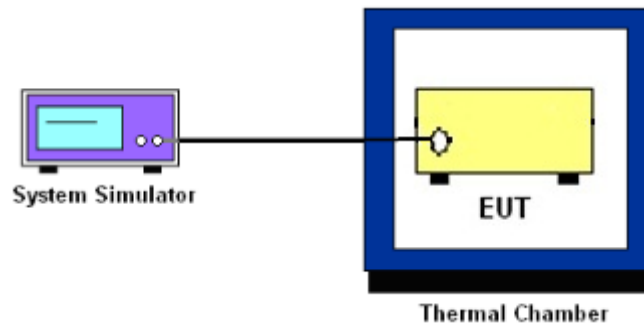
##### 3.2.1 Conducted Output Power



##### 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 ERP of mobile transmitters must not exceed 3 Watts for LTE Band 71.

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.



## **3.5 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(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(Watts) in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53 (g)

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

27.53 (h)

For operations in the 1710 – 1755 MHz and 1710 – 1780 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.



### 3.7.2 Test Procedures

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

Example:

The limit line is derived from  $43 + 10\log(P)$ 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. 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 + 10log(P)] (dB)  
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)  
= -13dBm.



## 3.9 Frequency Stability

### 3.9.1 Description of Frequency Stability Measurement

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

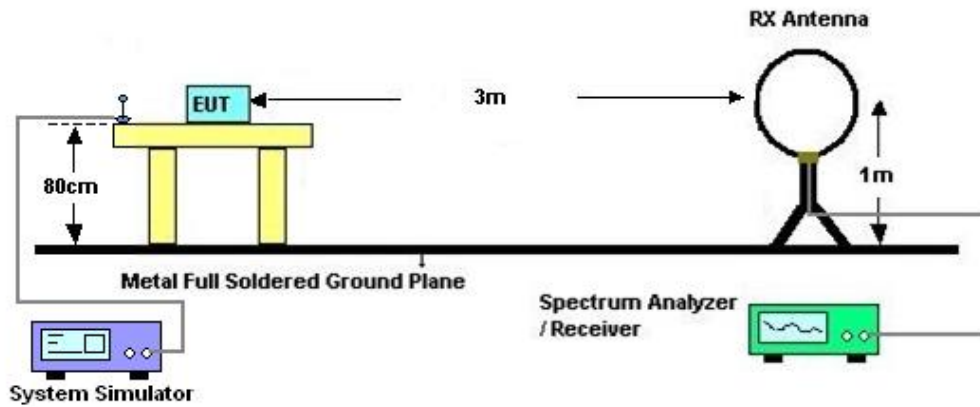
## 4 Radiated Test Items

### 4.1 Measuring Instruments

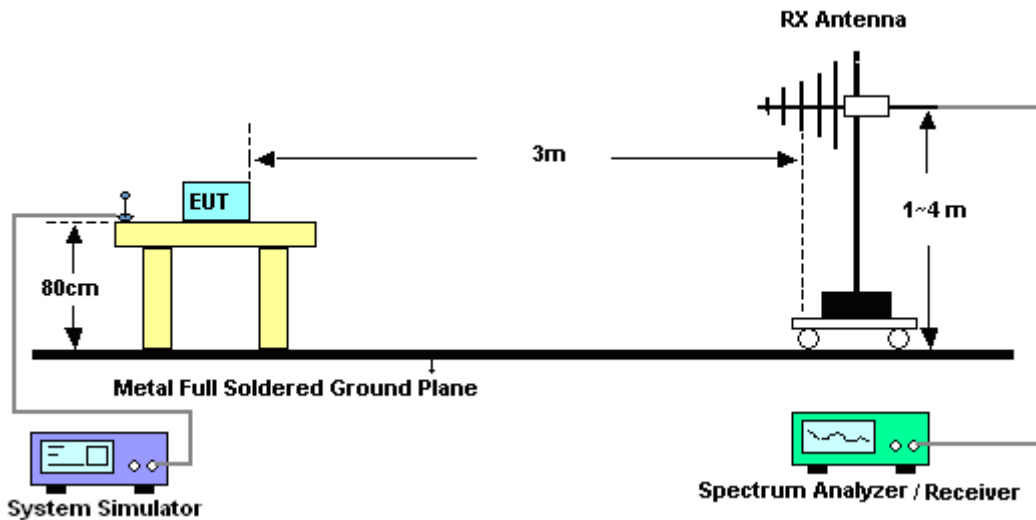
See list of measuring instruments of this test report.

### 4.2 Test Setup

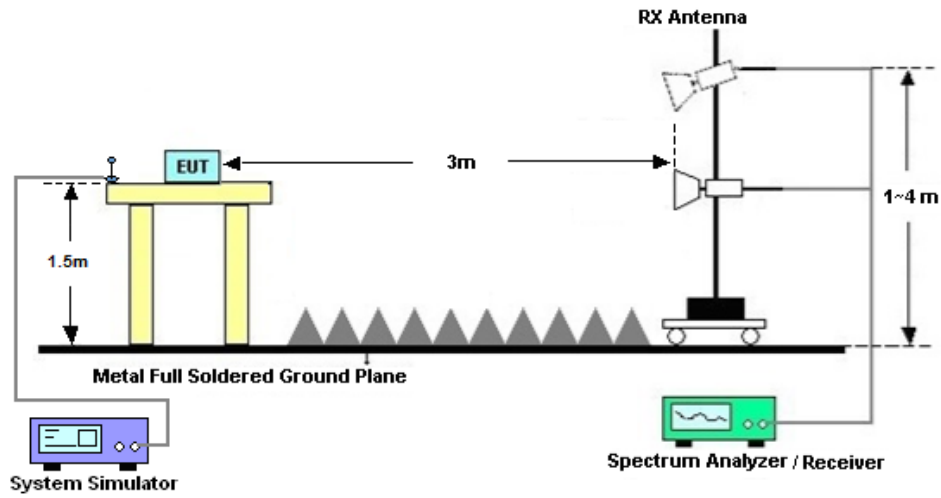
#### 4.2.1 For radiated test below 30MHz



#### 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
EXA Spectrum Analyzer	Keysight	N9010B	MY57471079	10Hz-44G,MAX 30dB	Oct. 12, 2022	Mar. 20, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 16, 2022	Mar. 20, 2023	Oct. 15, 2023	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 24, 2022	Mar. 20, 2023	May 23, 2023	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1284	1GHz~18GHz	Oct. 16, 2022	Mar. 20, 2023	Oct. 15, 2023	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 08, 2023	Mar. 20, 2023	Jan. 07, 2024	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	May 24, 2022	Mar. 20, 2023	May 23, 2023	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 05, 2023	Mar. 20, 2023	Jan. 04, 2024	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18G A	060840	1Ghz-18Ghz	Oct. 12, 2022	Mar. 20, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
Amplifier	Agilent	8449B	3008A02370	1Ghz-18Ghz	Oct. 12, 2022	Mar. 20, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Mar. 20, 2023	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Mar. 20, 2023	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Mar. 20, 2023	NCR	Radiation (03CH04-KS)
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 12, 2022	Jan. 10, 2023~Feb. 17, 2023	Oct. 11, 2023	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	Jan. 10, 2023~Feb. 17, 2023	NCR	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 15, 2022	Jan. 10, 2023~Feb. 17, 2023	Jul. 14, 2023	Conducted (TH01-KS)

NCR: No Calibration Required



## 6 Uncertainty of Evaluation

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

### Uncertainty of Conducted Measurement

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.3dB
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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))	2.8dB
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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))	2.8dB
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## Appendix A. Test Results of Conducted Test

Test Engineer :	Simle Wang	Temperature :	22~23°C
		Relative Humidity :	40~42%

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

LTE Band 2- Ant 7									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				18700	18900	19100			
Frequency (MHz)				1860	1880	1900	L	M	H
20	QPSK	1	0	22.76	22.56	22.57	0.2244	0.2143	0.2148
20	QPSK	1	99	22.68	22.47	22.37	0.2203	0.2099	0.2051
20	QPSK	100	0	21.62	21.58	21.55	0.1726	0.1710	0.1698
20	16QAM	1	0	21.99	21.88	21.82	0.1879	0.1832	0.1807
20	64QAM	1	0	20.51	20.77	20.79	0.1337	0.1419	0.1426
20	256QAM	1	0	17.80	17.71	17.69	0.0716	0.0701	0.0698
Channel				18675	18900	19125	EIRP(W)		
Frequency (MHz)				1857.5	1880	1902.5	L	M	H
15	QPSK	1	0	22.41	22.47	22.53	0.2070	0.2099	0.2128
15	16QAM	1	0	21.91	21.94	21.82	0.1845	0.1858	0.1807
Channel				18650	18900	19150	EIRP(W)		
Frequency (MHz)				1855	1880	1905	L	M	H
10	QPSK	1	0	22.57	22.57	22.55	0.2148	0.2148	0.2138
10	16QAM	1	0	21.89	21.91	21.94	0.1837	0.1845	0.1858
Channel				18625	18900	19175	EIRP(W)		
Frequency (MHz)				1852.5	1880	1907.5	L	M	H
5	QPSK	1	0	22.53	22.61	22.49	0.2128	0.2168	0.2109
5	16QAM	1	0	21.89	21.95	21.87	0.1837	0.1862	0.1828
Channel				18615	18900	19185	EIRP(W)		
Frequency (MHz)				1851.5	1880	1908.5	L	M	H
3	QPSK	1	0	22.55	21.59	22.46	0.2138	0.1714	0.2094
3	16QAM	1	0	21.93	21.89	21.93	0.1854	0.1837	0.1854
Channel				18607	18900	19193	EIRP(W)		
Frequency (MHz)				1850.7	1880	1909.3	L	M	H
1.4	QPSK	1	0	22.52	22.61	22.49	0.2123	0.2168	0.2109
1.4	16QAM	1	0	21.92	21.97	21.93	0.1849	0.1871	0.1854



LTE Band 4- Ant 7									
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	22.47	22.68	22.51	0.1905	0.2000	0.1923
20	QPSK	1	99	22.62	22.66	22.65	0.1972	0.1991	0.1986
20	QPSK	100	0	21.54	21.74	21.63	0.1538	0.1611	0.1570
20	16QAM	1	0	20.49	21.81	21.93	0.1208	0.1637	0.1683
20	64QAM	1	0	20.79	20.81	20.87	0.1294	0.1300	0.1318
20	256QAM	1	0	17.61	17.63	17.71	0.0622	0.0625	0.0637
Channel				20025	20175	20325	EIRP(W)		
Frequency (MHz)				1717.5	1732.5	1747.5	L	M	H
15	QPSK	1	0	22.51	22.55	22.57	0.1923	0.1941	0.1950
15	16QAM	1	0	21.88	21.82	21.87	0.1663	0.1641	0.1660
Channel				20000	20175	20350	EIRP(W)		
Frequency (MHz)				1715	1732.5	1750	L	M	H
10	QPSK	1	0	22.61	22.62	22.65	0.1968	0.1972	0.1986
10	16QAM	1	0	21.89	21.91	21.88	0.1667	0.1675	0.1663
Channel				19975	20175	20375	EIRP(W)		
Frequency (MHz)				1712.5	1732.5	1752.5	L	M	H
5	QPSK	1	0	22.63	22.65	22.61	0.1977	0.1986	0.1968
5	16QAM	1	0	21.91	21.87	21.92	0.1675	0.1660	0.1679
Channel				19965	20175	20385	EIRP(W)		
Frequency (MHz)				1711.5	1732.5	1753.5	L	M	H
3	QPSK	1	0	22.59	22.61	22.61	0.1959	0.1968	0.1968
3	16QAM	1	0	21.87	21.91	21.84	0.1660	0.1675	0.1648
Channel				19950	20175	20393	EIRP(W)		
Frequency (MHz)				1710	1732.5	1754.3	L	M	H
1.4	QPSK	1	0	22.55	22.59	22.62	0.1941	0.1959	0.1972
1.4	16QAM	1	0	21.85	21.90	21.88	0.1652	0.1671	0.1663



LTE Band 5- Ant 1									
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	22.96	23.07	23.09	0.1349	0.1384	0.1390
10	QPSK	1	49	22.93	23.11	23.03	0.1340	0.1396	0.1371
10	QPSK	50	0	22.02	22.09	22.08	0.1086	0.1104	0.1102
10	16QAM	1	0	22.37	22.47	22.32	0.1178	0.1205	0.1164
10	64QAM	1	0	20.94	21.34	21.33	0.0847	0.0929	0.0927
10	256QAM	1	0	17.99	18.02	18.03	0.0430	0.0433	0.0434
Channel				20425	20525	20625	ERP(W)		
Frequency (MHz)				826.5	836.5	846.5	L	M	H
5	QPSK	1	0	23.03	23.02	23.07	0.1371	0.1368	0.1384
5	16QAM	1	0	22.35	22.37	22.39	0.1172	0.1178	0.1183
Channel				20415	20525	20635	ERP(W)		
Frequency (MHz)				825.5	836.5	847.5	L	M	H
3	QPSK	1	0	23.04	23.05	23.05	0.1374	0.1377	0.1377
3	16QAM	1	0	22.44	22.34	22.38	0.1197	0.1169	0.1180
Channel				20407	20525	20643	ERP(W)		
Frequency (MHz)				824.7	836.5	848.3	L	M	H
1.4	QPSK	1	0	23.01	23.04	23.02	0.1365	0.1374	0.1368
1.4	16QAM	1	0	22.36	22.35	22.29	0.1175	0.1172	0.1156



LTE Band 25- Ant 7									
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	22.83	22.57	22.67	0.2280	0.2148	0.2198
20	QPSK	1	99	22.69	22.56	22.48	0.2208	0.2143	0.2104
20	QPSK	100	0	21.63	21.61	21.59	0.1730	0.1722	0.1714
20	16QAM	1	0	21.97	21.92	21.99	0.1871	0.1849	0.1879
20	64QAM	1	0	20.74	20.86	20.84	0.1409	0.1449	0.1442
20	256QAM	1	0	17.81	17.79	17.73	0.0718	0.0714	0.0705
Channel				26115	26340	26615	EIRP(W)		
Frequency (MHz)				1857.5	1880	1907.5	L	M	H
15	QPSK	1	0	22.57	22.51	22.64	0.2148	0.2118	0.2183
15	16QAM	1	0	21.96	21.98	21.92	0.1866	0.1875	0.1849
Channel				26090	26340	26640	EIRP(W)		
Frequency (MHz)				1855	1880	1910	L	M	H
10	QPSK	1	0	22.61	22.63	22.57	0.2168	0.2178	0.2148
10	16QAM	1	0	21.93	21.97	21.96	0.1854	0.1871	0.1866
Channel				26065	26340	26665	EIRP(W)		
Frequency (MHz)				1852.5	1880	1912.5	L	M	H
5	QPSK	1	0	22.63	22.63	22.52	0.2178	0.2178	0.2123
5	16QAM	1	0	21.92	21.97	21.92	0.1849	0.1871	0.1849
Channel				26055	26340	26675	EIRP(W)		
Frequency (MHz)				1851.5	1880	1913.5	L	M	H
3	QPSK	1	0	22.59	22.61	22.52	0.2158	0.2168	0.2123
3	16QAM	1	0	21.94	21.91	21.96	0.1858	0.1845	0.1866
Channel				26047	26340	26683	EIRP(W)		
Frequency (MHz)				1850.7	1880	1914.3	L	M	H
1.4	QPSK	1	0	22.65	22.63	22.51	0.2188	0.2178	0.2118
1.4	16QAM	1	0	21.97	21.99	21.98	0.1871	0.1879	0.1875



LTE Band 26- Ant 1											
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	22.86	22.98	23.28	23.11	0.1318	0.1355	0.1452	0.1396
15	QPSK	1	74	22.81	23.06	23.15	23.05	0.1303	0.1380	0.1409	0.1377
15	QPSK	75	0	21.88	22.06	22.11	22.12	0.1052	0.1096	0.1109	0.1112
15	16QAM	1	0	22.35	22.48	22.59	22.39	0.1172	0.1208	0.1239	0.1183
15	64QAM	1	0	21.22	21.34	21.39	21.42	0.0904	0.0929	0.0940	0.0946
15	256QAM	1	0	17.91	18.36	18.25	18.22	0.0422	0.0468	0.0456	0.0453
Channel					26840	26915	26990	ERP(W)			
Frequency (MHz)					829	836.5	844	L	M	H	
10	QPSK	1	0		23.07	23.15	23.17		0.1384	0.1409	0.1416
10	16QAM	1	0		22.54	22.45	22.57		0.1225	0.1199	0.1233
Channel					26815	26915	27015	ERP(W)			
Frequency (MHz)					826.5	836.5	846.5	L	M	H	
5	QPSK	1	0		23.08	23.19	23.10		0.1387	0.1422	0.1393
5	16QAM	1	0		22.51	22.43	22.52		0.1216	0.1194	0.1219
Channel					26815	26915	27025	ERP(W)			
Frequency (MHz)					825.5	836.5	847.5	L	M	H	
3	QPSK	1	0		23.08	23.14	23.06		0.1387	0.1406	0.1380
3	16QAM	1	0		22.49	22.43	22.44		0.1211	0.1194	0.1197
Channel					26797	26915	27033	ERP(W)			
Frequency (MHz)					824.7	836.5	848.3	L	M	H	
1.4	QPSK	1	0		23.07	23.06	23.06		0.1384	0.1380	0.1380
1.4	16QAM	1	0		22.38	22.45	22.46		0.1180	0.1199	0.1202



LTE Band 66- Ant 7									
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	22.65	22.75	22.91	0.1986	0.2032	0.2109
20	QPSK	1	99	22.79	22.87	22.95	0.2051	0.2089	0.2128
20	QPSK	100	0	21.70	21.82	21.96	0.1596	0.1641	0.1694
20	16QAM	1	0	21.94	22.15	21.98	0.1687	0.1770	0.1702
20	64QAM	1	0	20.92	21.93	20.97	0.1334	0.1683	0.1349
20	256QAM	1	0	17.81	17.89	17.94	0.0652	0.0664	0.0671
Channel				132047	132322	132597	EIRP(W)		
Frequency (MHz)				1717.5	1745	1772.5	L	M	H
15	QPSK	1	0	22.71	22.76	22.88	0.2014	0.2037	0.2094
15	16QAM	1	0	21.91	21.96	21.90	0.1675	0.1694	0.1671
Channel				132022	132322	132622	EIRP(W)		
Frequency (MHz)				1715	1745	1775	L	M	H
10	QPSK	1	0	22.77	22.80	22.90	0.2042	0.2056	0.2104
10	16QAM	1	0	21.95	21.94	21.95	0.1690	0.1687	0.1690
Channel				131997	132322	132647	EIRP(W)		
Frequency (MHz)				1712.5	1745	1777.5	L	M	H
5	QPSK	1	0	22.79	22.85	22.82	0.2051	0.2080	0.2065
5	16QAM	1	0	21.98	22.05	22.11	0.1702	0.1730	0.1754
Channel				131987	132322	132657	EIRP(W)		
Frequency (MHz)				1711.5	1745	1778.5	L	M	H
3	QPSK	1	0	22.73	22.81	22.85	0.2023	0.2061	0.2080
3	16QAM	1	0	22.09	22.07	22.08	0.1746	0.1738	0.1742
Channel				131979	132322	132665	EIRP(W)		
Frequency (MHz)				1710.7	1745	1779.3	L	M	H
1.4	QPSK	1	0	22.83	22.76	22.81	0.2070	0.2037	0.2061
1.4	16QAM	1	0	22.08	22.03	22.07	0.1742	0.1722	0.1738





LTE Band 71- Ant 7									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)		
Channel				133222	133322	133372			
Frequency (MHz)				673	683	688	L	M	H
20	QPSK	1	0	22.83	22.78	22.61	0.0136	0.0135	0.0129
20	QPSK	1	99	22.43	22.52	22.46	0.0124	0.0127	0.0125
20	QPSK	100	0	21.35	21.36	21.52	0.0097	0.0097	0.0101
20	16QAM	1	0	21.86	21.72	21.46	0.0109	0.0105	0.0099
20	64QAM	1	0	20.43	20.65	20.55	0.0078	0.0082	0.0081
20	256QAM	1	0	17.53	17.56	17.43	0.0040	0.0040	0.0039
Channel				133197	133297	133397	EIRP(W)		
Frequency (MHz)				670.5	680.5	690.5	L	M	H
15	QPSK	1	0	22.80	22.72	22.58	0.0135	0.0133	0.0129
15	16QAM	1	0	21.46	21.64	21.45	0.0099	0.0104	0.0099
Channel				133172	133272	133422	EIRP(W)		
Frequency (MHz)				668	678	693	L	M	H
10	QPSK	1	0	22.78	22.69	22.57	0.0135	0.0132	0.0128
10	16QAM	1	0	21.43	21.63	21.43	0.0099	0.0103	0.0099
Channel				133147	133247	133447	EIRP(W)		
Frequency (MHz)				665.5	675.5	695.5	L	M	H
5	QPSK	1	0	22.76	22.65	22.56	0.0134	0.0131	0.0128
5	16QAM	1	0	21.43	21.83	21.35	0.0099	0.0108	0.0097



**CA Power(Average power) and EIRP**

LTE Band 66B- Ant 7							
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	23.15	0.2228
M	QPSK	1	Max	1	0	22.97	0.2138
H	QPSK	1	Max	1	0	23.01	0.2158
L	16QAM	1	Max	1	0	22.79	0.2051
M	16QAM	1	Max	1	0	22.58	0.1954
H	16QAM	1	Max	1	0	22.83	0.2070
L	64QAM	1	Max	1	0	20.17	0.1122
M	64QAM	1	Max	1	0	20.57	0.1230
H	64QAM	1	Max	1	0	20.62	0.1245
L	256QAM	1	Max	1	0	18.26	0.0723
M	256QAM	1	Max	1	0	18.59	0.0780
H	256QAM	1	Max	1	0	18.51	0.0766
Combination 15MHz+5MHz (75RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	23.10	0.2203
H	16QAM	1	Max	1	0	22.73	0.2023
Combination 5MHz+15MHz (25RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.88	0.2094
H	16QAM	1	Max	1	0	22.75	0.2032
Combination 10MHz+5MHz (50RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.97	0.2138
H	16QAM	1	Max	1	0	22.71	0.2014
Combination 5MHz+10MHz (25RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.87	0.2089
H	16QAM	1	Max	1	0	22.72	0.2018
Combination 5MHz+5MHz (25RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.92	0.2113
H	16QAM	1	Max	1	0	22.37	0.1862



LTE Band 66C- Ant 7							
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	22.91	0.2109
M	QPSK	1	Max	1	0	23.05	0.2178
H	QPSK	1	Max	1	0	22.93	0.2118
L	16QAM	1	Max	1	0	22.69	0.2004
M	16QAM	1	Max	1	0	22.52	0.1928
H	16QAM	1	Max	1	0	21.88	0.1663
L	64QAM	1	Max	1	0	20.24	0.1140
M	64QAM	1	Max	1	0	20.09	0.1102
H	64QAM	1	Max	1	0	19.81	0.1033
L	256QAM	1	Max	1	0	18.13	0.0701
M	256QAM	1	Max	1	0	18.12	0.0700
H	256QAM	1	Max	1	0	17.94	0.0671
Combination 20MHz+15MHz (100RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	23.01	0.2158
L	16QAM	1	Max	1	0	22.41	0.1879
Combination 15MHz+20MHz (75RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	23.03	0.2168
L	16QAM	1	Max	1	0	22.52	0.1928
Combination 15MHz+15MHz (75RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	23.02	0.2163
L	16QAM	1	Max	1	0	22.57	0.1950
Combination 20MHz+10MHz (100RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	23.00	0.2153
L	16QAM	1	Max	1	0	22.63	0.1977
Combination 10MHz+20MHz (50RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	22.88	0.2094
L	16QAM	1	Max	1	0	22.47	0.1905
Combination 15MHz+10MHz (75RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	23.03	0.2168
L	16QAM	1	Max	1	0	22.61	0.1968
Combination 10MHz+15MHz (50RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	23.02	0.2163
L	16QAM	1	Max	1	0	22.43	0.1888



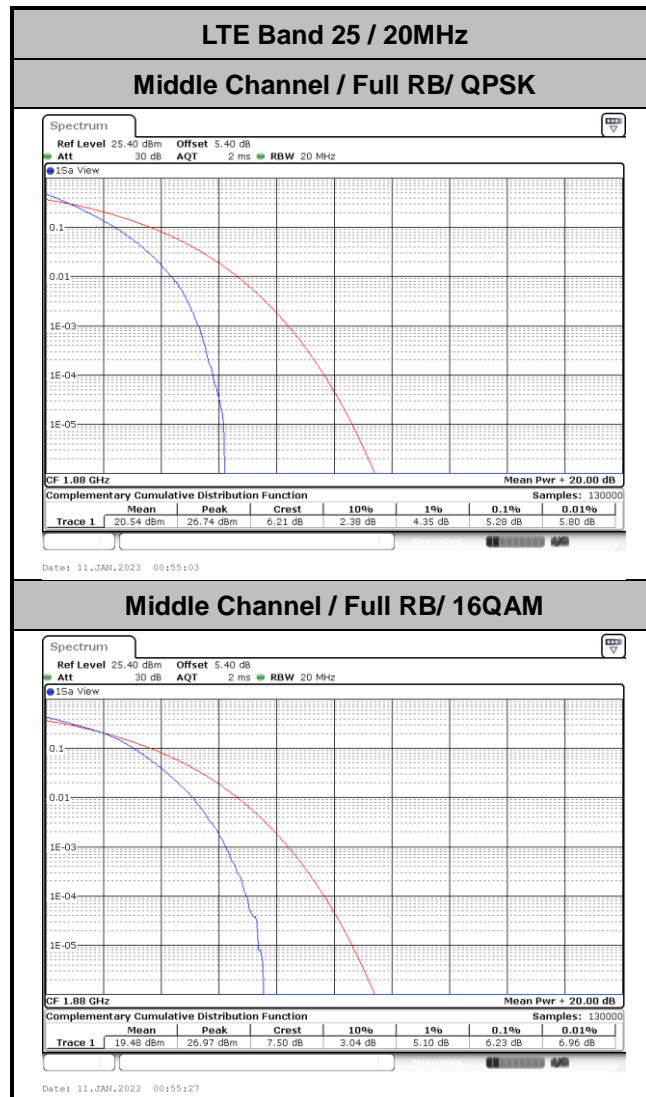
Combination 20MHz+5MHz (100RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	22.98	0.2143
L	16QAM	1	Max	1	0	22.57	0.1950
Combination 5MHz+20MHz (25RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	22.88	0.2094
L	16QAM	1	Max	1	0	22.37	0.1862

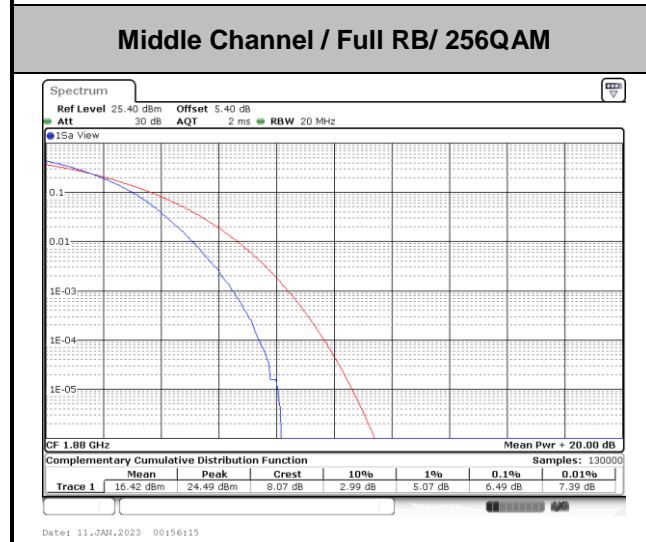
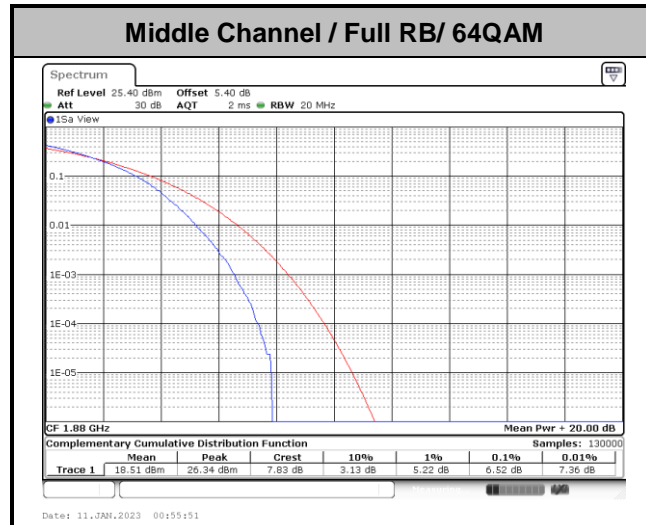


# LTE Band 25

## Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.28	6.23	6.52	6.49	<b>PASS</b>







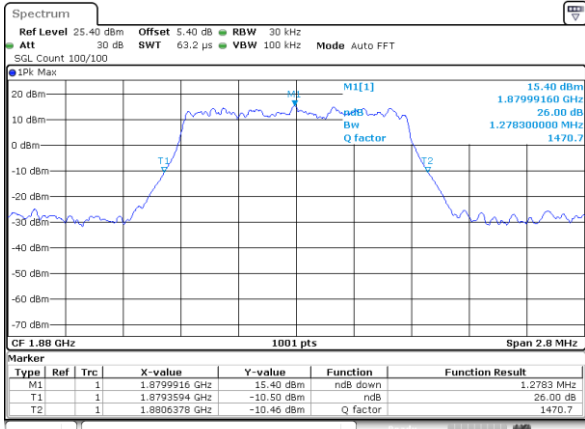
**26dB Bandwidth**

Mode	LTE Band 25 : 26dB BW(MHz)	
<b>BW</b>	<b>1.4MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	1.28	1.29
<b>BW</b>	<b>3MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	2.96	2.30
<b>BW</b>	<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	4.82	4.89
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	9.71	9.71
<b>BW</b>	<b>15MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	14.45	14.33
<b>BW</b>	<b>20MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	18.86	18.62



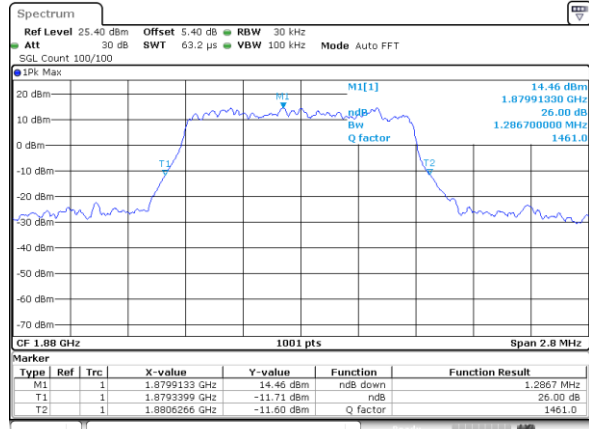
LTE Band 25

Middle Channel / 1.4MHz / QPSK



Date: 11.JAN.2023 01:39:33

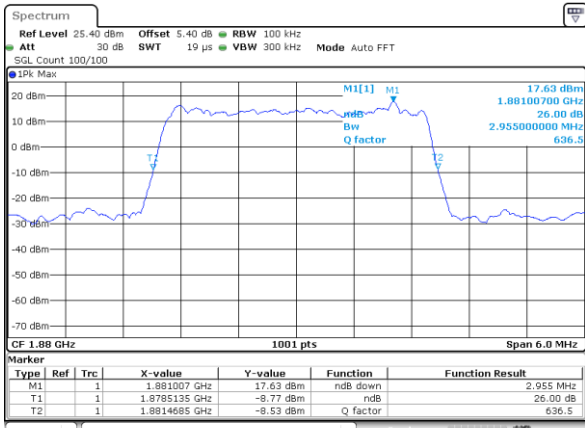
Middle Channel / 1.4MHz / 16QAM



Date: 11.JAN.2023 01:40:20

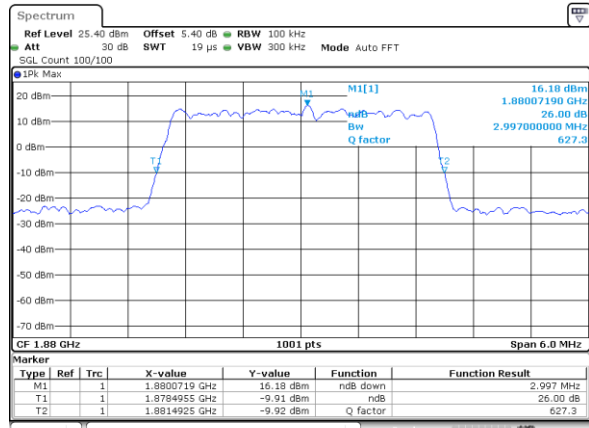
LTE Band 25

Middle Channel / 3MHz / QPSK



Date: 11.JAN.2023 01:41:28

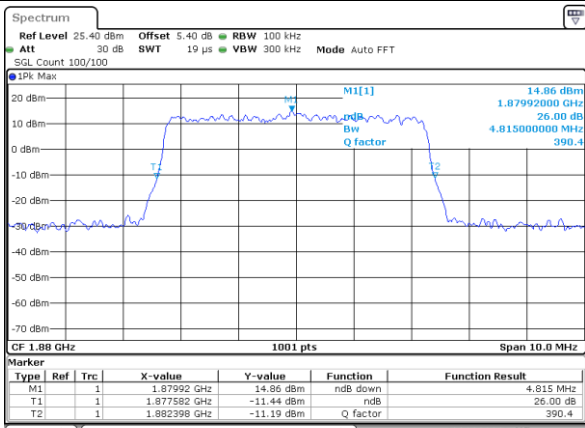
Middle Channel / 3MHz / 16QAM



Date: 11.JAN.2023 01:42:25

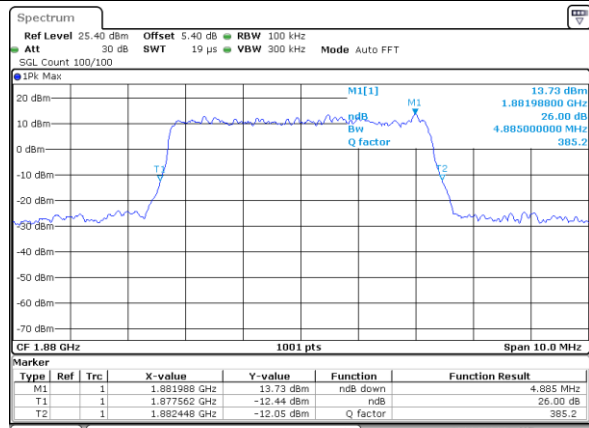
LTE Band 25

Middle Channel / 5MHz / QPSK



Date: 11.JAN.2023 01:46:23

Middle Channel / 5MHz / 16QAM



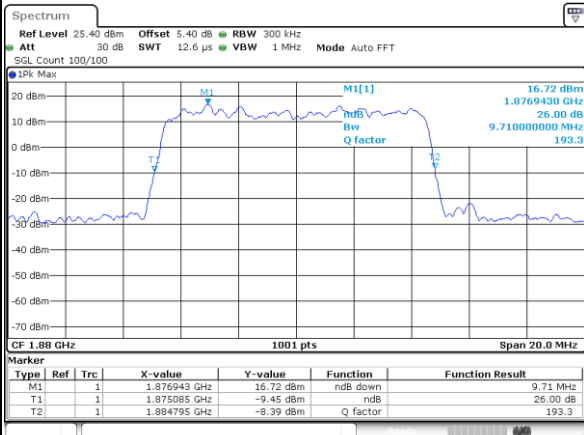
Date: 11.JAN.2023 01:47:07





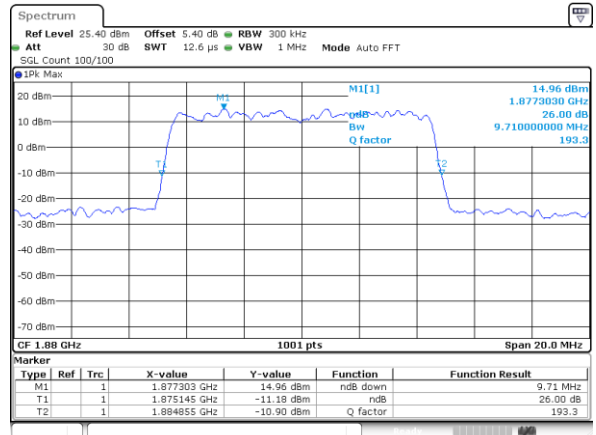
LTE Band 25

Middle Channel / 10MHz / QPSK



Date: 11.JAN.2023 01:48:12

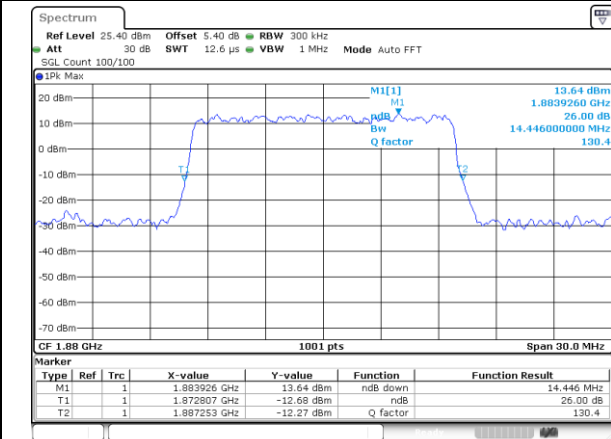
Middle Channel / 10MHz / 16QAM



Date: 11.JAN.2023 01:48:56

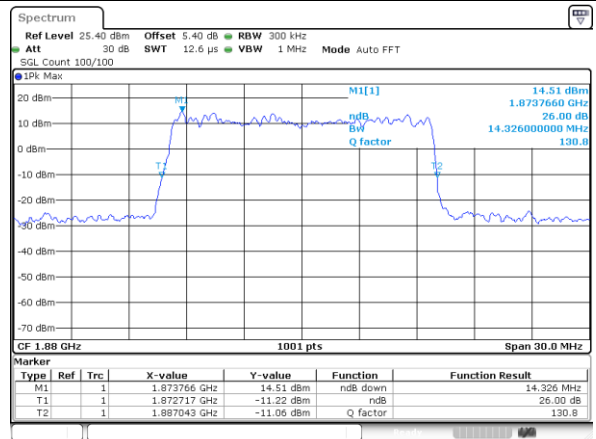
LTE Band 25

Middle Channel / 15MHz / QPSK



Date: 11.JAN.2023 01:49:52

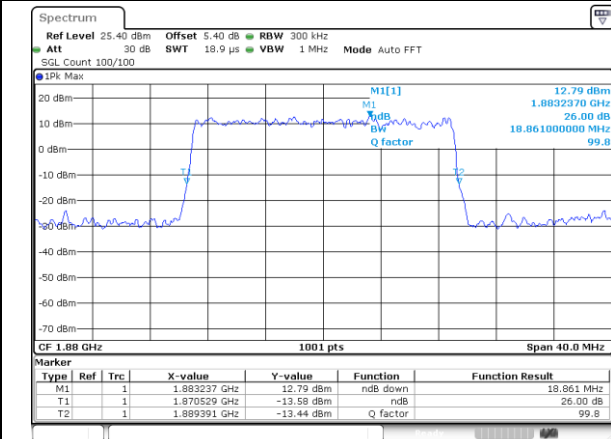
Middle Channel / 15MHz / 16QAM



Date: 11.JAN.2023 01:50:44

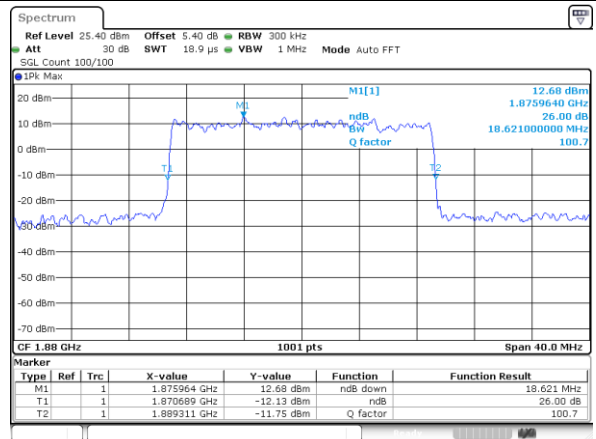
LTE Band 25

Middle Channel / 20MHz / QPSK



Date: 11.JAN.2023 00:54:39

Middle Channel / 20MHz / 16QAM



Date: 11.JAN.2023 00:54:16



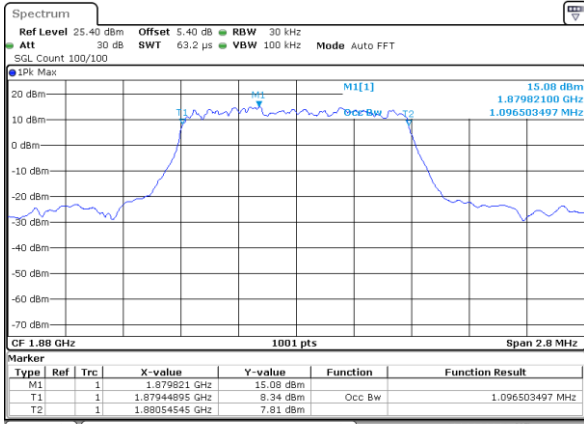
### Occupied Bandwidth

Mode	LTE Band 25 : 99%OBW(MHz)	
<b>BW</b>	<b>1.4MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	1.10	1.08
<b>BW</b>	<b>3MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	2.72	2.72
<b>BW</b>	<b>5MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	4.49	4.50
<b>BW</b>	<b>10MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	9.05	8.93
<b>BW</b>	<b>15MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	13.40	13.49
<b>BW</b>	<b>20MHz</b>	
<b>Mod.</b>	<b>QPSK</b>	<b>16QAM</b>
<b>Middle CH</b>	17.90	17.90



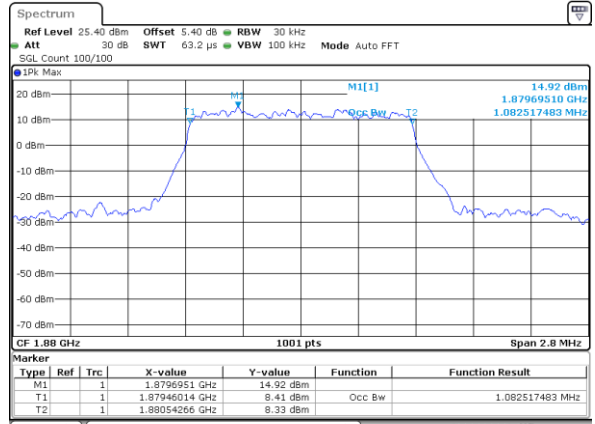
LTE Band 25

Middle Channel / 1.4MHz / QPSK



Date: 11.JAN.2023 01:39:10

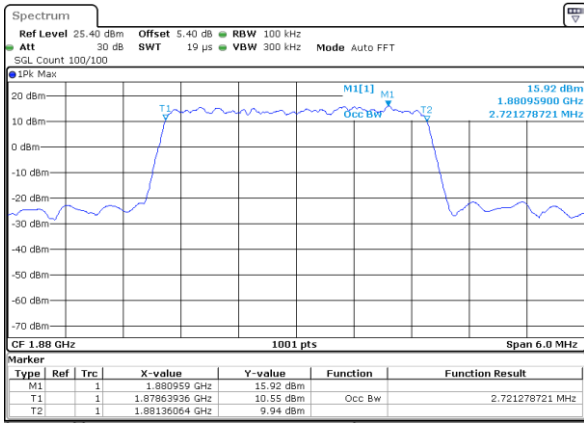
Middle Channel / 1.4MHz / 16QAM



Date: 11.JAN.2023 01:39:57

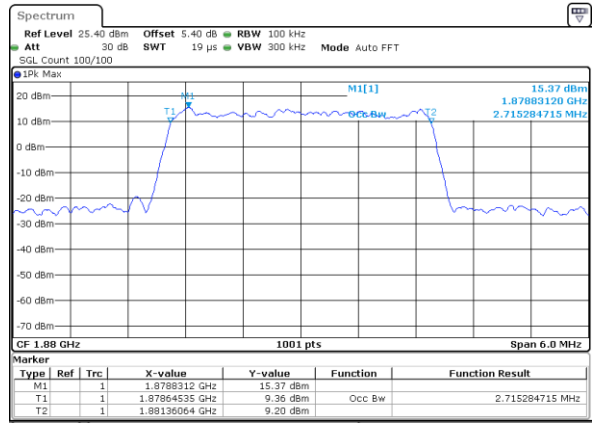
LTE Band 25

Middle Channel / 3MHz / QPSK



Date: 11.JAN.2023 01:41:07

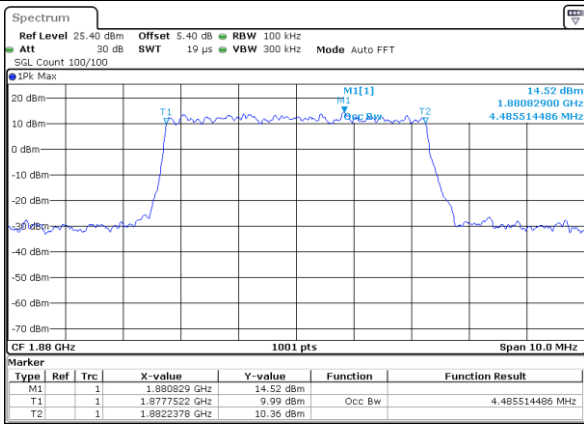
Middle Channel / 3MHz / 16QAM



Date: 11.JAN.2023 01:41:59

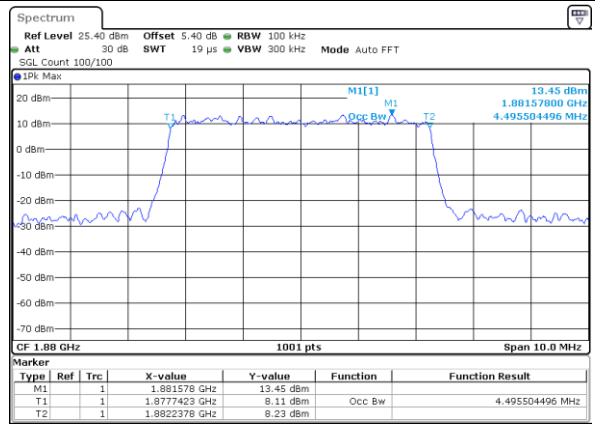
LTE Band 25

Middle Channel / 5MHz / QPSK



Date: 11.JAN.2023 01:45:58

Middle Channel / 5MHz / 16QAM

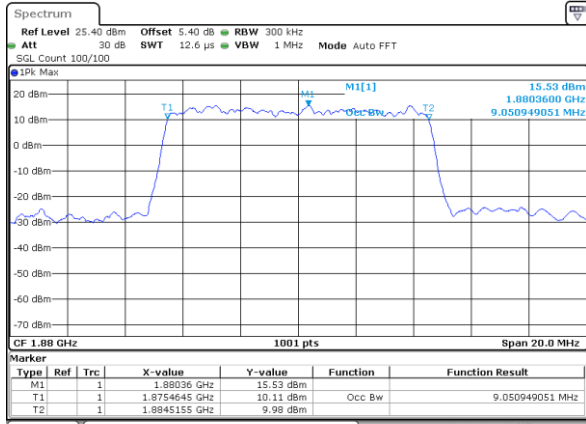


Date: 11.JAN.2023 01:46:45



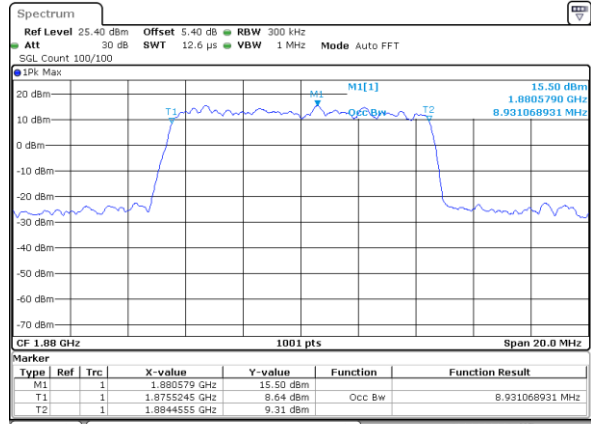
LTE Band 25

Middle Channel / 10MHz / QPSK



Date: 11\_JAN\_2023 01:47:50

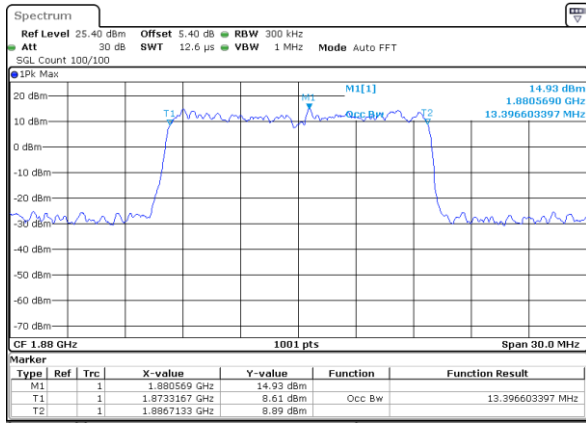
Middle Channel / 10MHz / 16QAM



Date: 11\_JAN\_2023 01:48:35

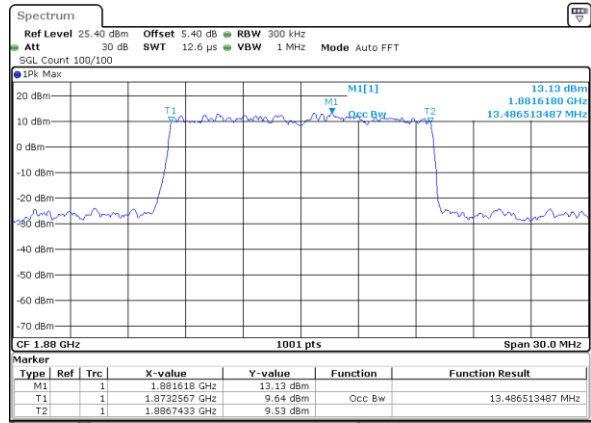
LTE Band 25

Middle Channel / 15MHz / QPSK



Date: 11\_JAN\_2023 01:49:26

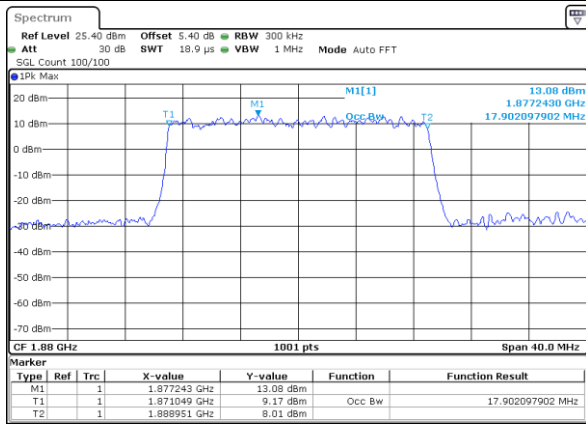
Middle Channel / 15MHz / 16QAM



Date: 11\_JAN\_2023 01:50:17

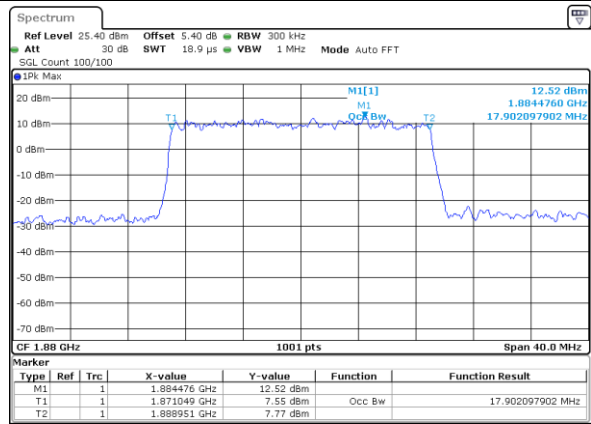
LTE Band 25

Middle Channel / 20MHz / QPSK



Date: 11\_JAN\_2023 00:53:33

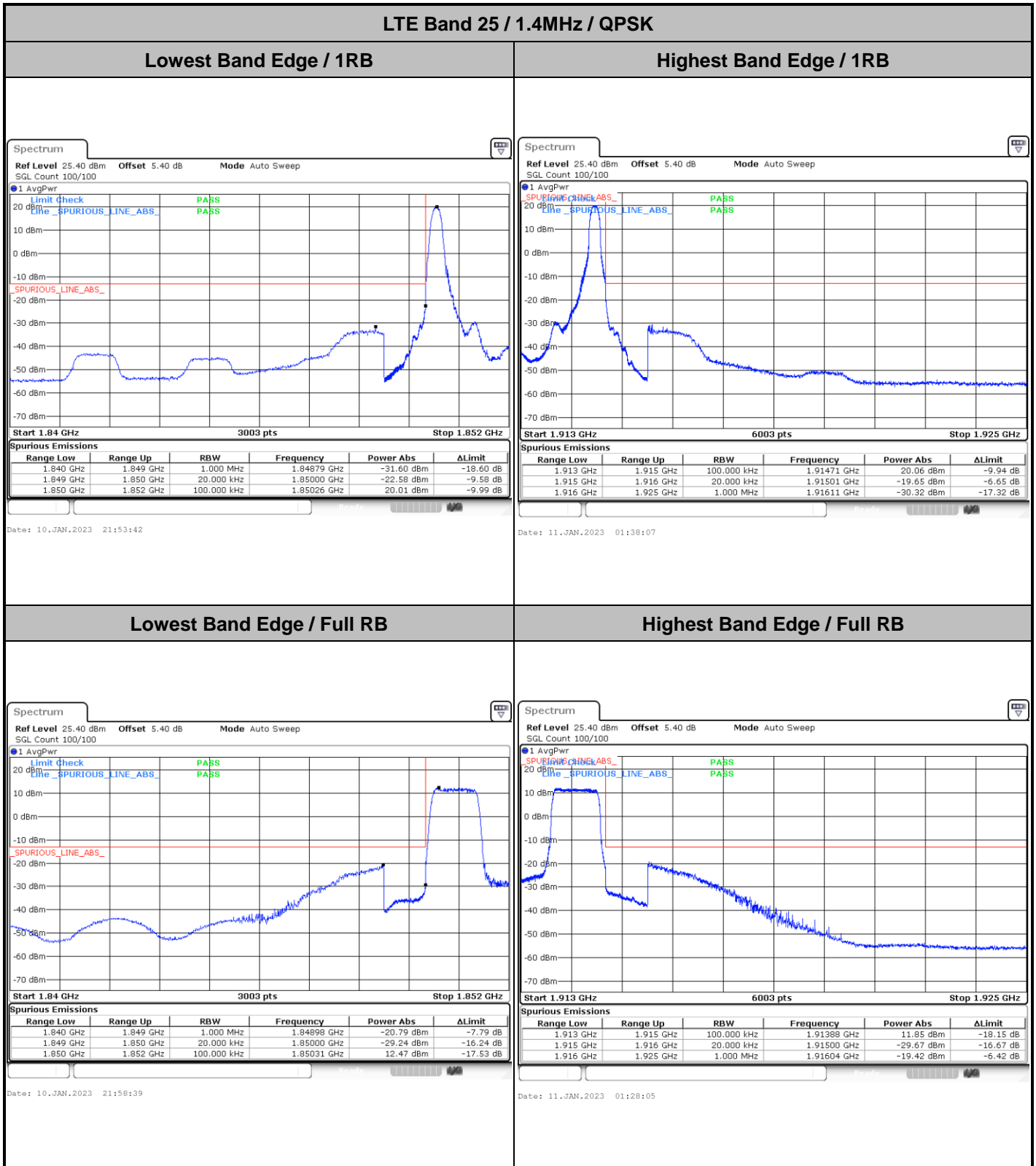
Middle Channel / 20MHz / 16QAM



Date: 11\_JAN\_2023 00:53:54



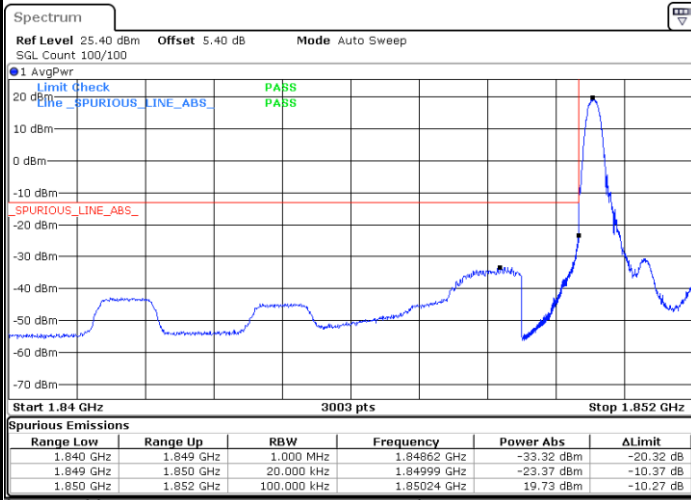
# Conducted Band Edge





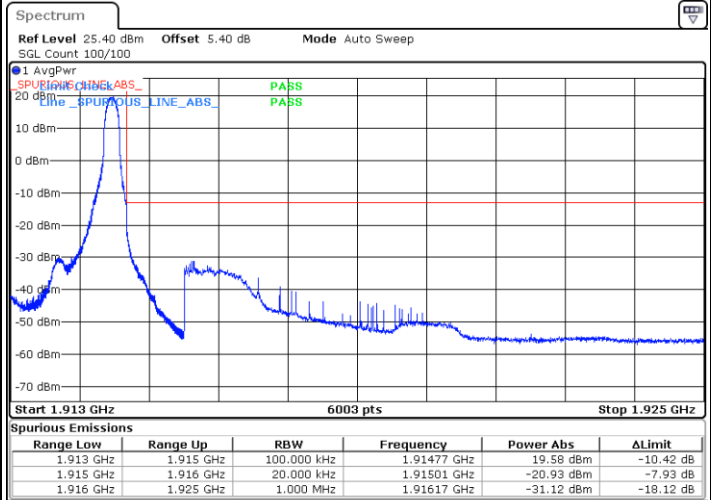
LTE Band 25 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



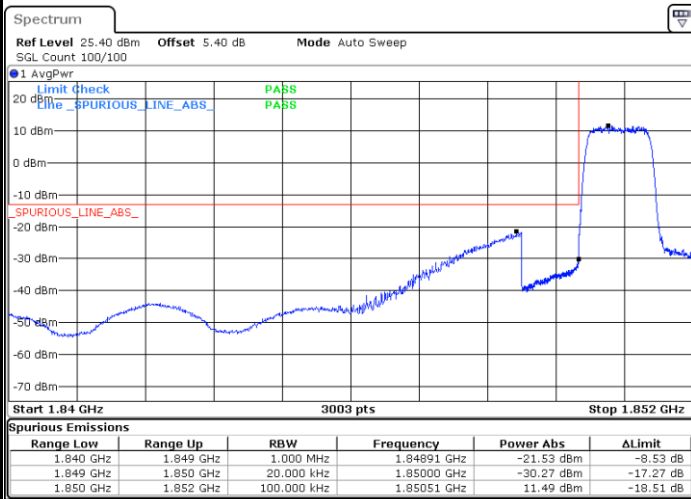
Date: 10.JAN.2023 21:54:56

Highest Band Edge / 1 RB



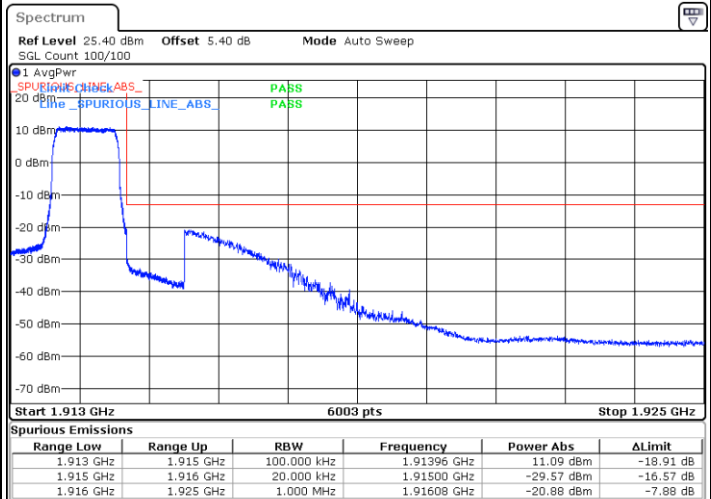
Date: 11.JAN.2023 01:36:43

Lowest Band Edge / Full RB



Date: 10.JAN.2023 21:59:52

Highest Band Edge / Full RB

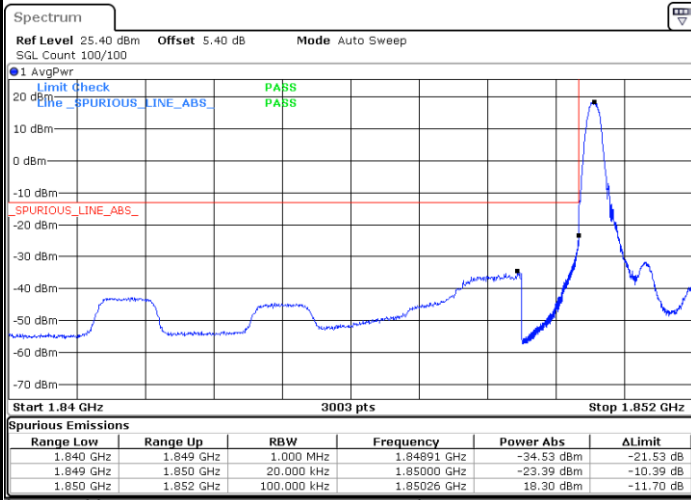


Date: 11.JAN.2023 01:29:28



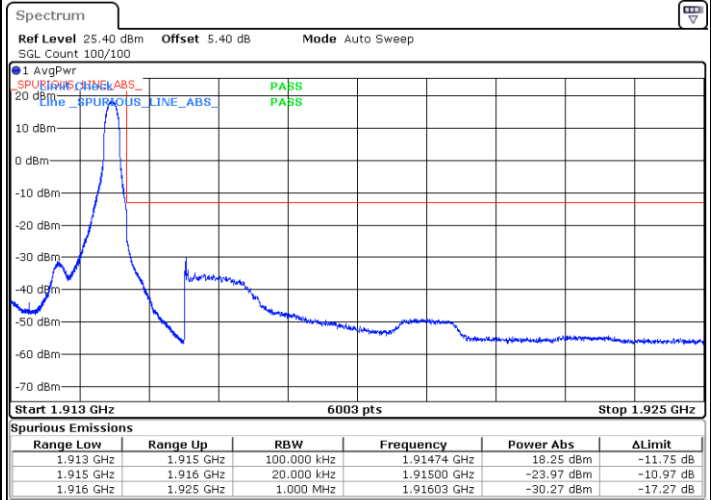
LTE Band 25 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



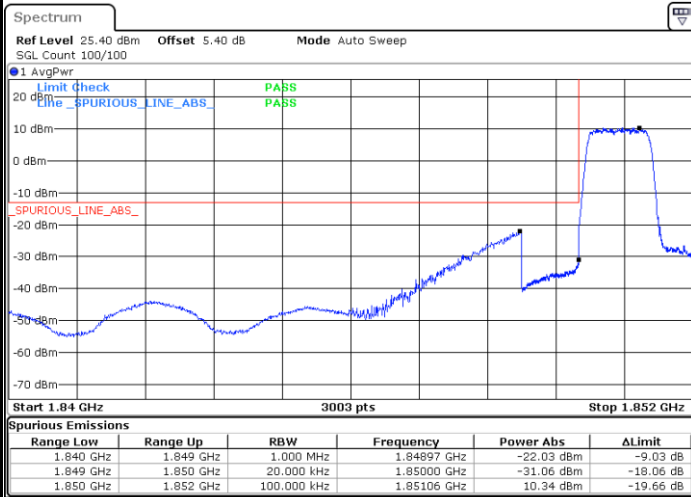
Date: 10.JAN.2023 21:56:10

Highest Band Edge / 1 RB



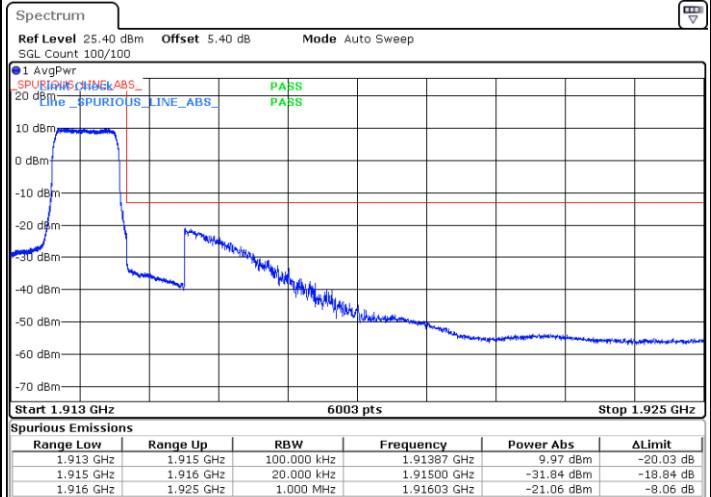
Date: 11.JAN.2023 01:35:12

Lowest Band Edge / Full RB



Date: 10.JAN.2023 22:01:06

Highest Band Edge / Full RB

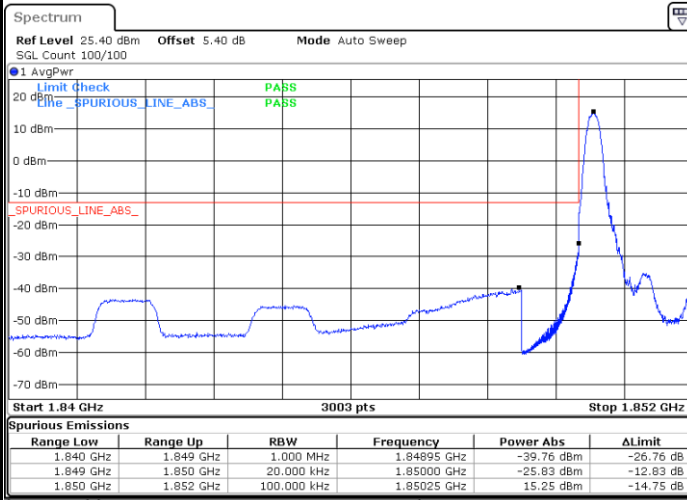


Date: 11.JAN.2023 01:30:50



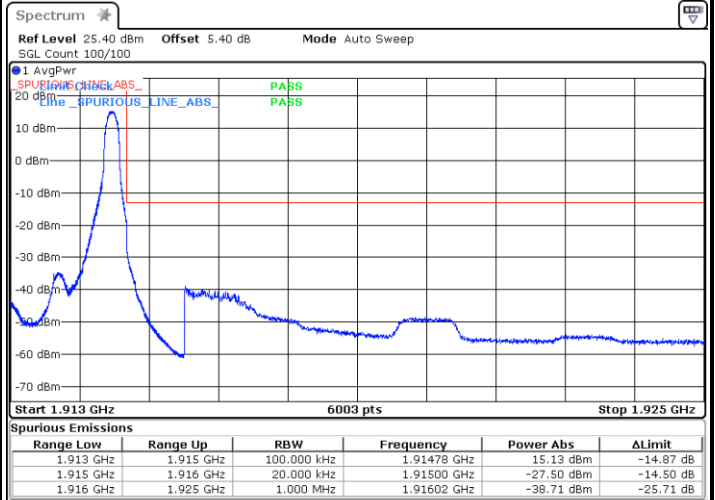
LTE Band 25 / 1.4MHz / 256QAM

Lowest Band Edge / 1 RB



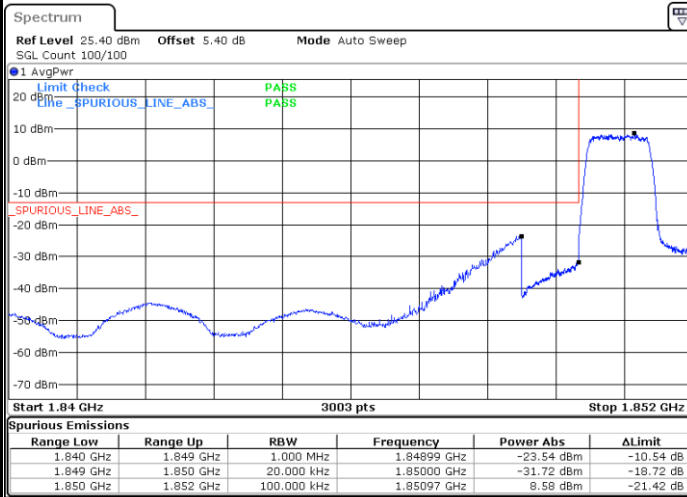
Date: 10.JAN.2023 21:57:25

Highest Band Edge / 1 RB



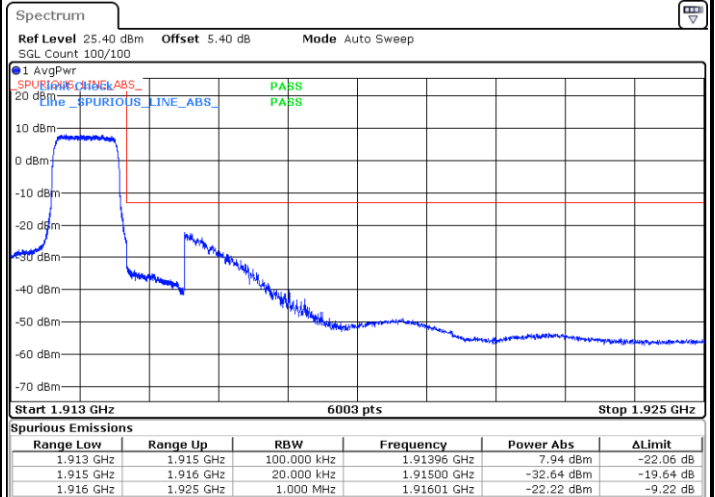
Date: 11.JAN.2023 01:33:50

Lowest Band Edge / Full RB



Date: 10.JAN.2023 22:02:20

Highest Band Edge / Full RB



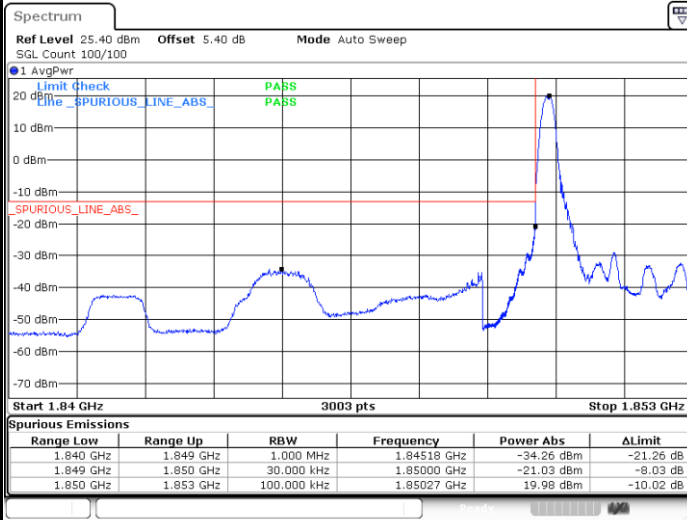
Date: 11.JAN.2023 01:32:14





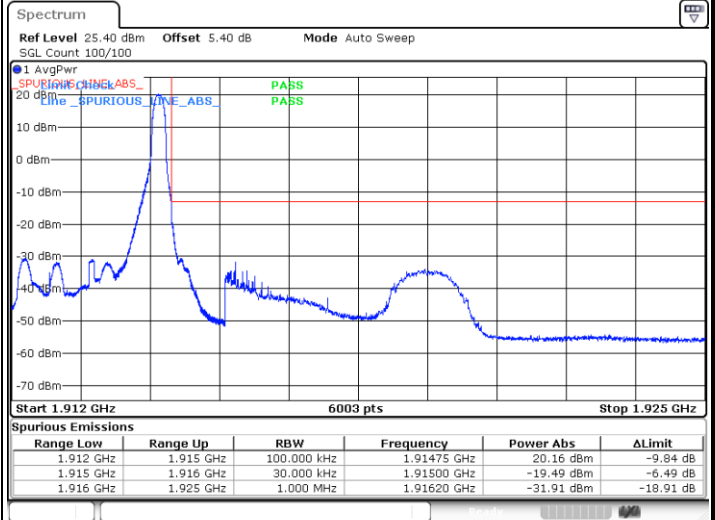
LTE Band 25 / 3MHz / QPSK

Lowest Band Edge / 1RB



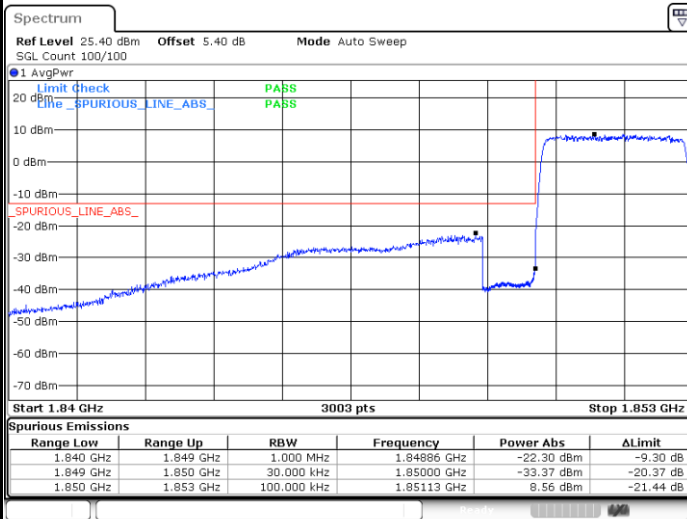
Date: 10.JAN.2023 22:42:13

Highest Band Edge / 1 RB



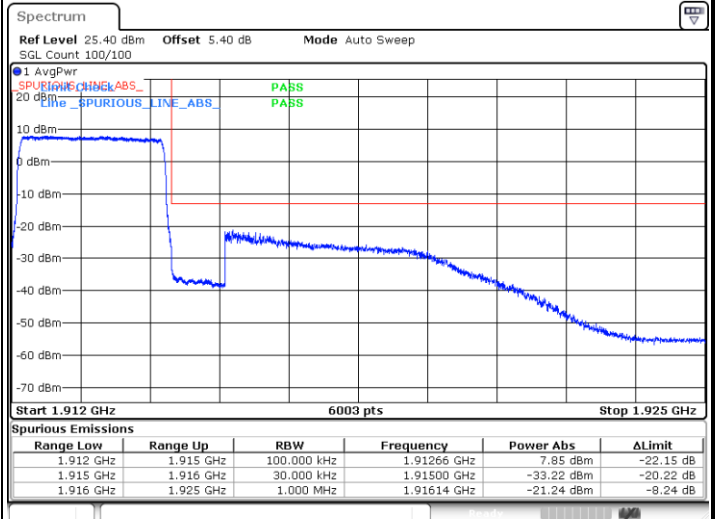
Date: 10.JAN.2023 22:55:15

Lowest Band Edge / Full RB



Date: 10.JAN.2023 22:46:34

Highest Band Edge / Full RB

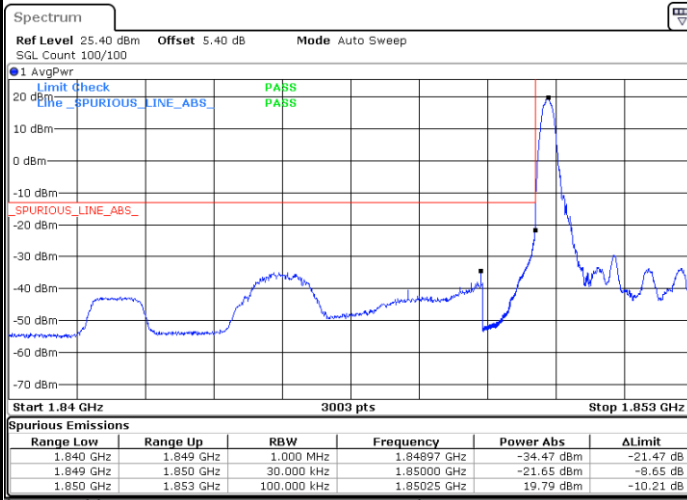


Date: 10.JAN.2023 22:50:53



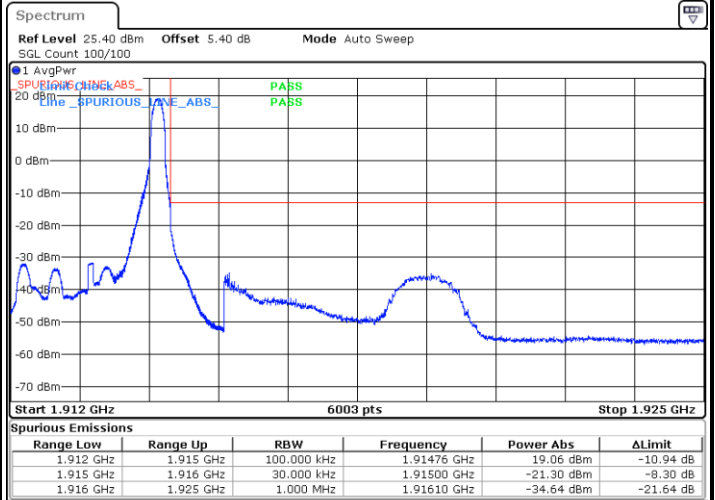
LTE Band 25 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



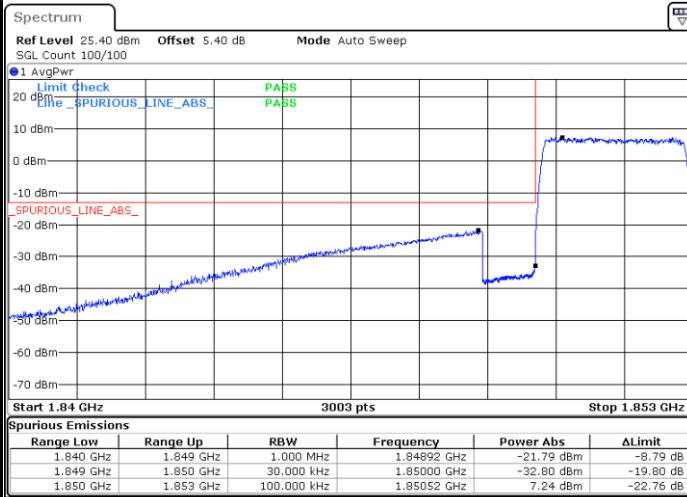
Date: 10.JAN.2023 22:43:24

Highest Band Edge / 1 RB



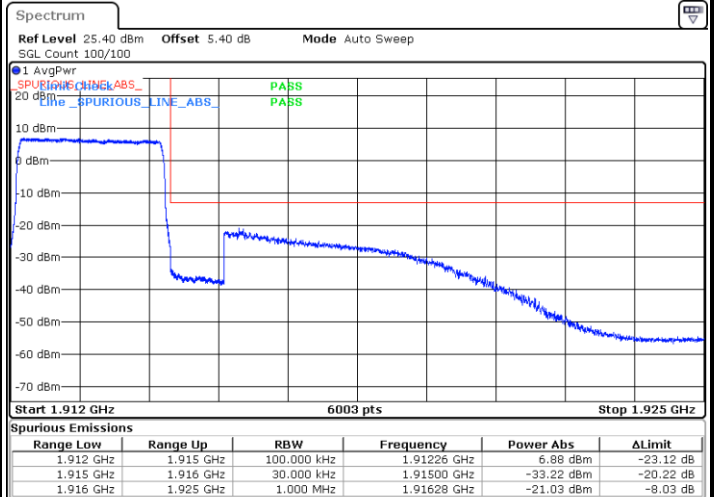
Date: 10.JAN.2023 22:56:17

Lowest Band Edge / Full RB



Date: 10.JAN.2023 22:47:38

Highest Band Edge / Full RB

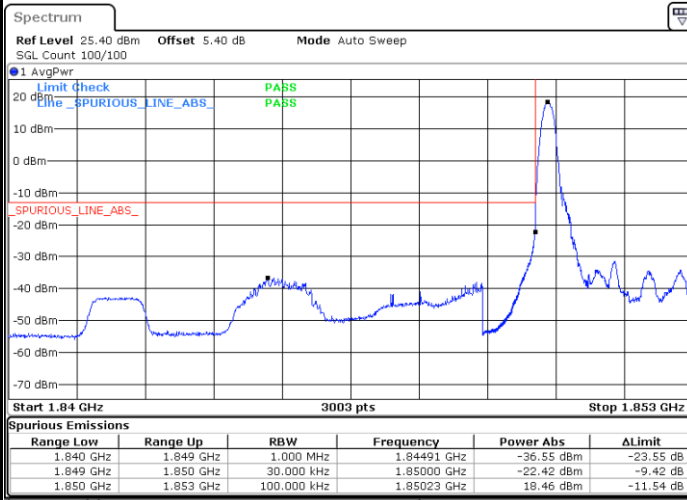


Date: 10.JAN.2023 22:51:58



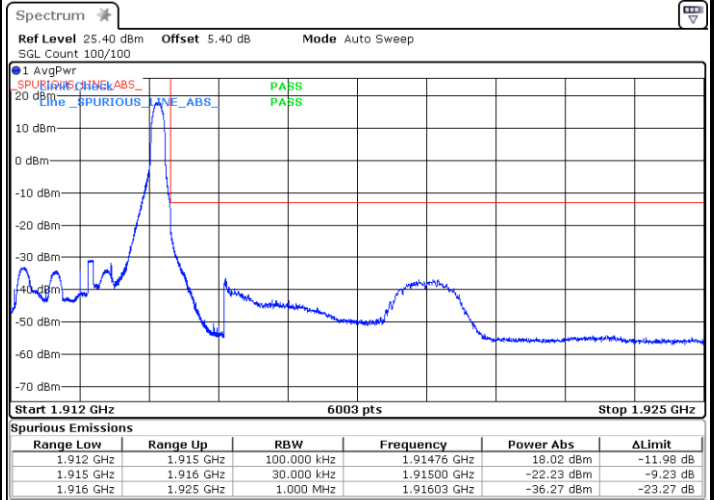
LTE Band 25 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



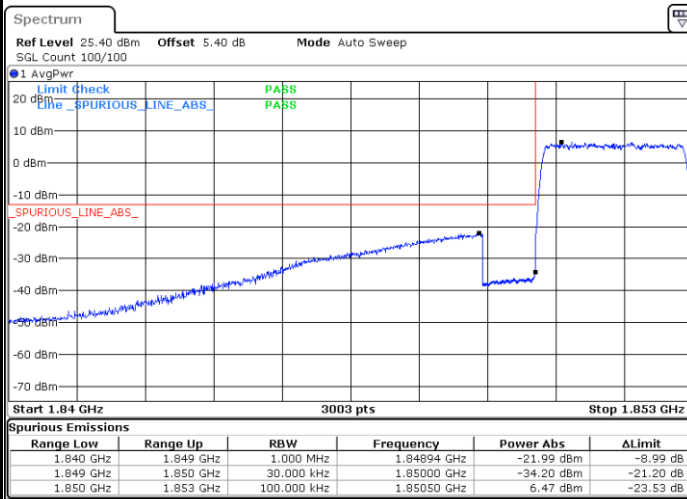
Date: 10.JAN.2023 22:44:26

Highest Band Edge / 1 RB



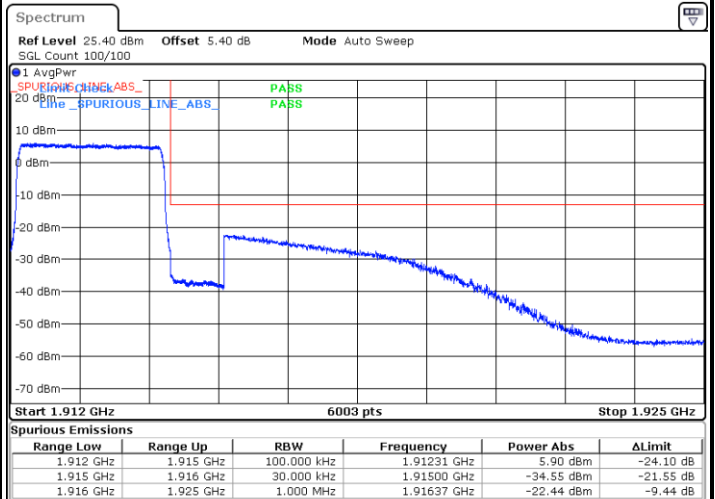
Date: 10.JAN.2023 22:57:23

Lowest Band Edge / Full RB



Date: 10.JAN.2023 22:48:43

Highest Band Edge / Full RB

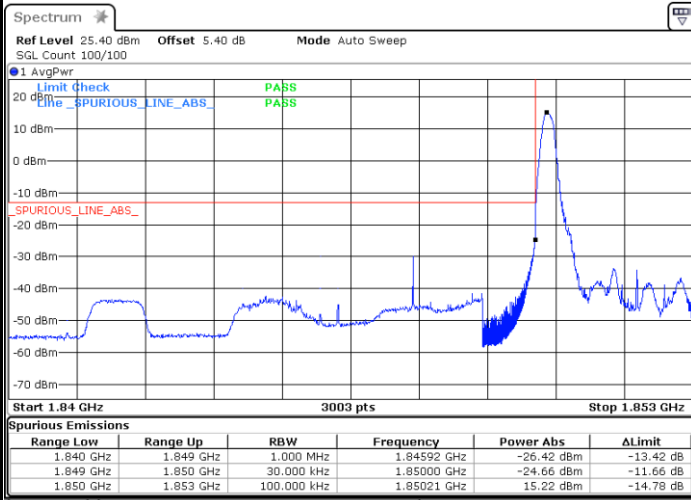


Date: 10.JAN.2023 22:53:04



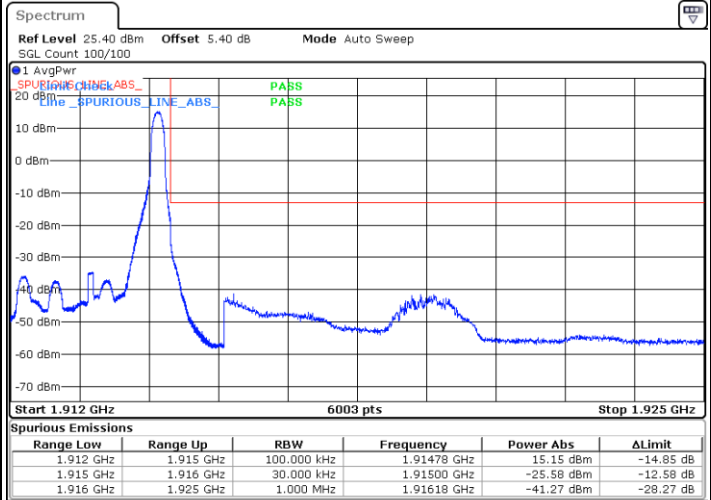
LTE Band 25 / 3MHz / 256QAM

Lowest Band Edge / 1 RB



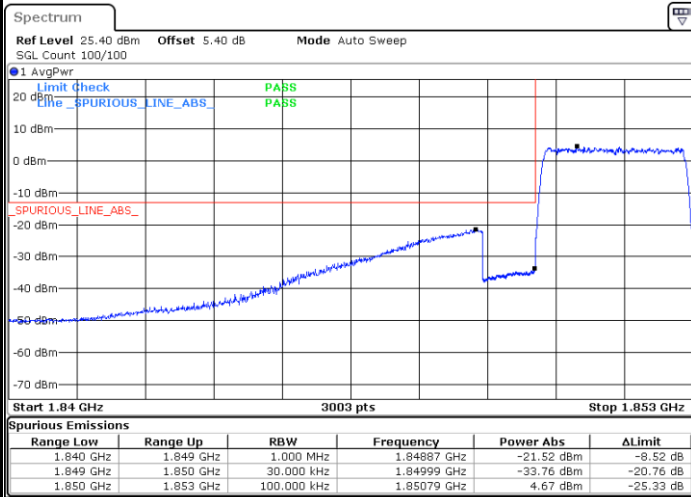
Date: 11.JAN.2023 01:43:35

Highest Band Edge / 1 RB



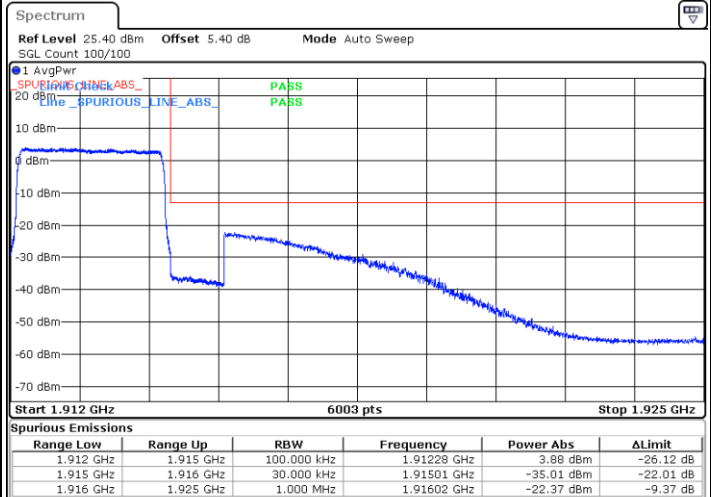
Date: 10.JAN.2023 22:58:29

Lowest Band Edge / Full RB



Date: 10.JAN.2023 22:49:48

Highest Band Edge / Full RB

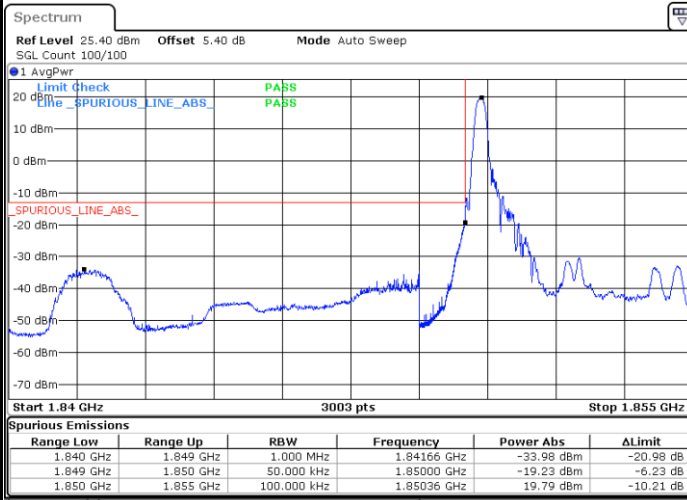


Date: 10.JAN.2023 22:54:10



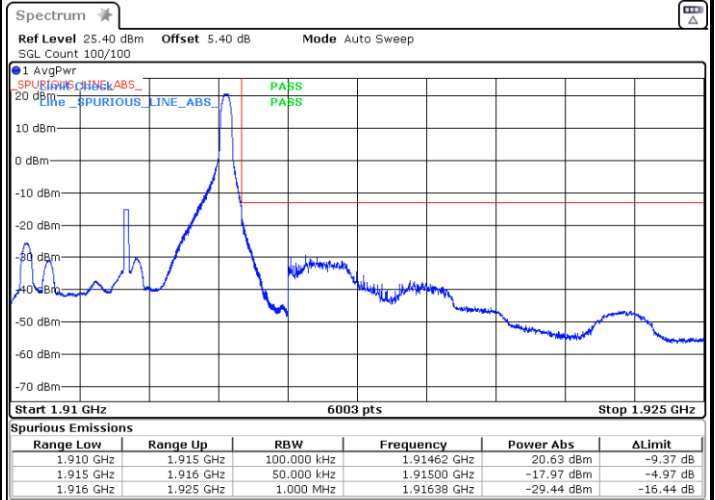
LTE Band 25 / 5MHz / QPSK

Lowest Band Edge / 1 RB



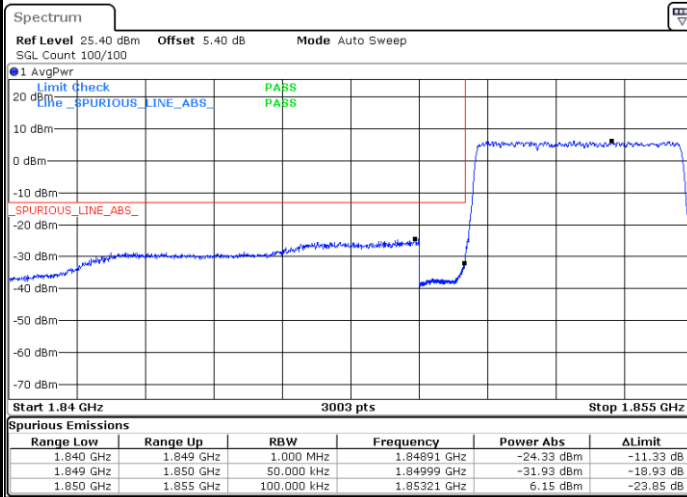
Date: 10.JAN.2023 22:59:53

Highest Band Edge / 1 RB



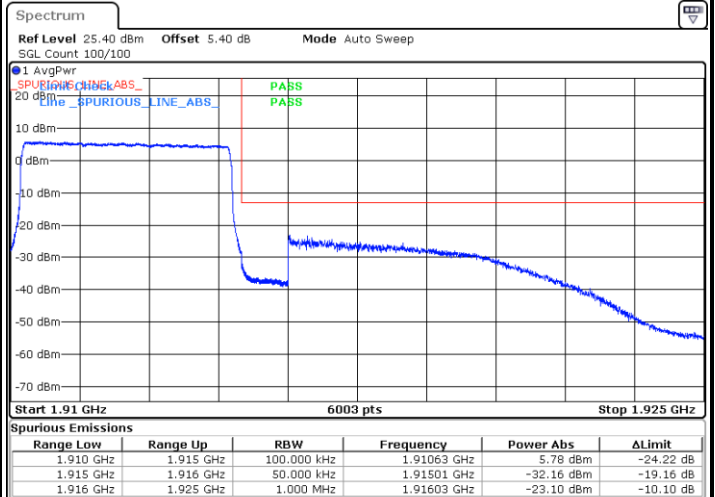
Date: 28.JAN.2023 22:10:47

Lowest Band Edge / Full RB



Date: 10.JAN.2023 23:03:58

Highest Band Edge / Full RB

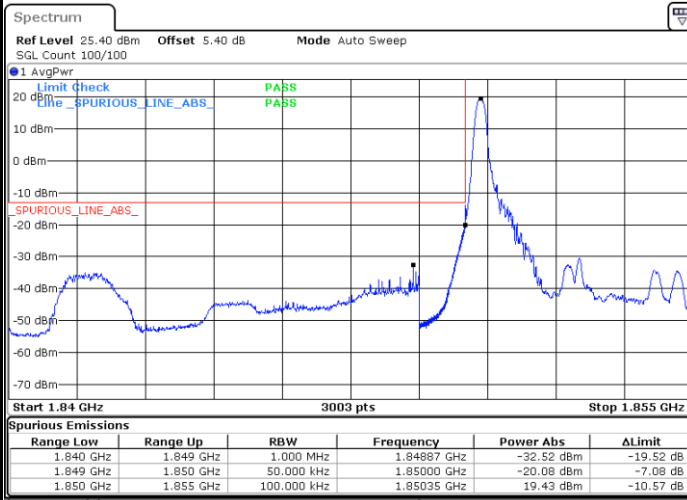


Date: 10.JAN.2023 23:08:03



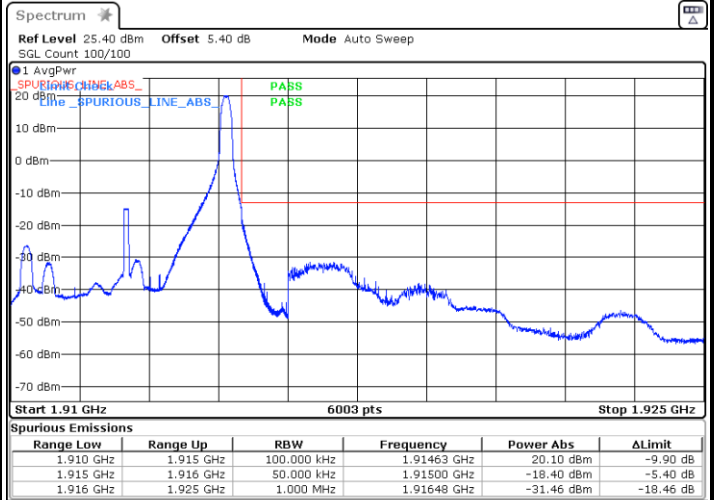
LTE Band 25 / 5MHz / 16QAM

Lowest Band Edge / 1RB



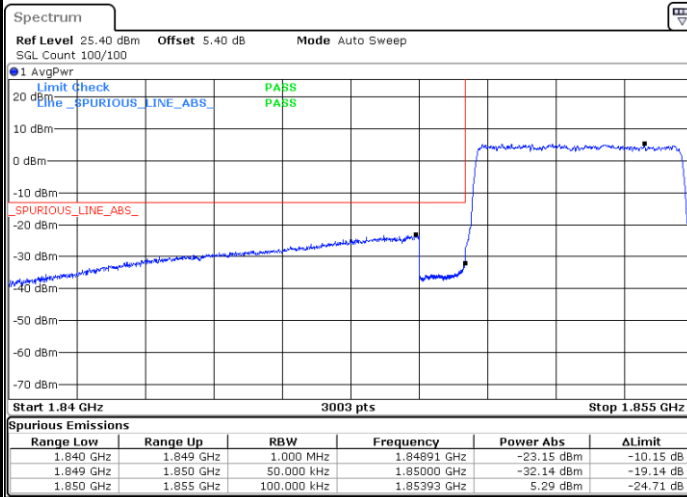
Date: 10.JAN.2023 23:00:54

Highest Band Edge / 1 RB



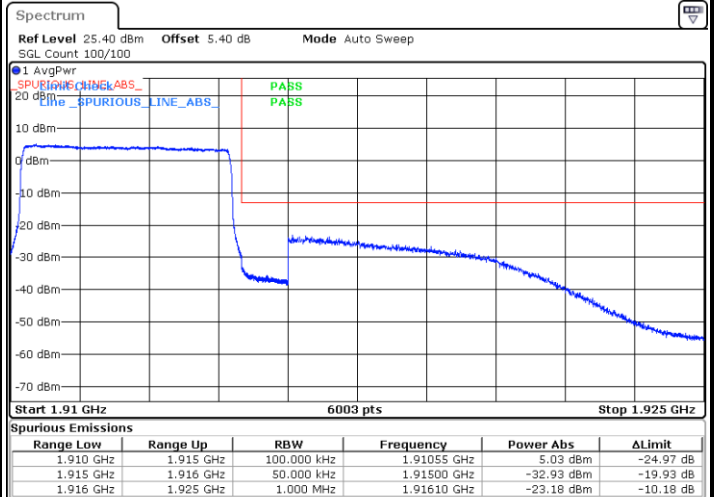
Date: 28.JAN.2023 22:12:51

Lowest Band Edge / Full RB



Date: 10.JAN.2023 23:04:59

Highest Band Edge / Full RB

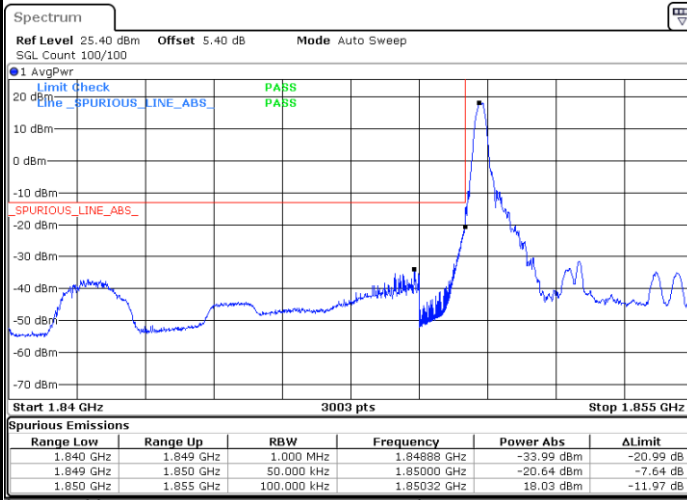


Date: 10.JAN.2023 23:09:05



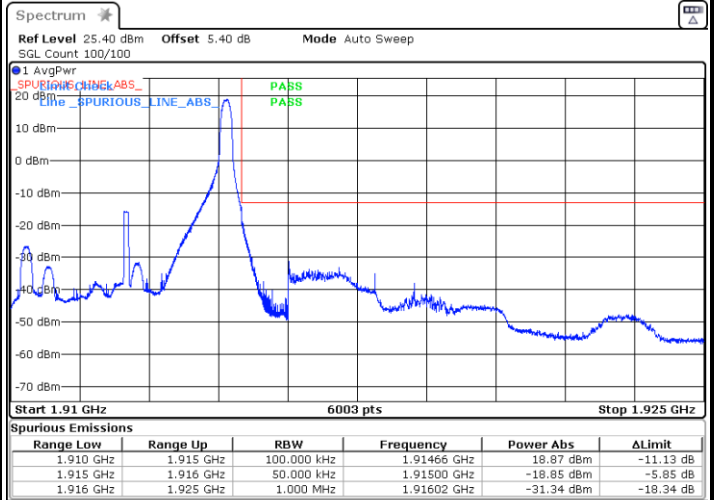
LTE Band 25 / 5MHz / 64QAM

Lowest Band Edge / 1RB



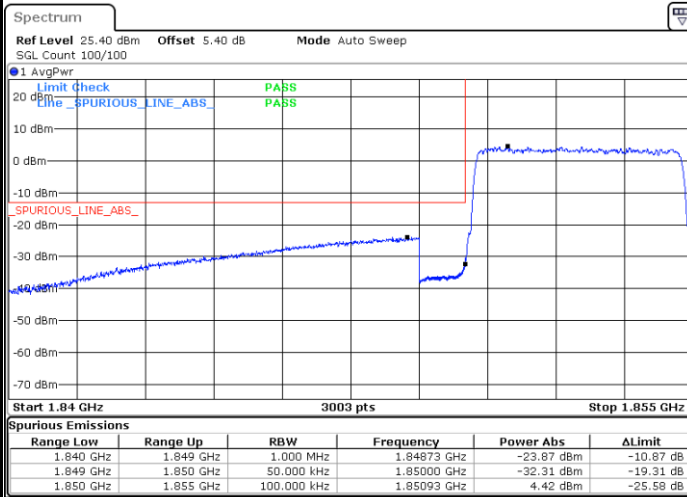
Date: 10.JAN.2023 23:01:55

Highest Band Edge / 1 RB



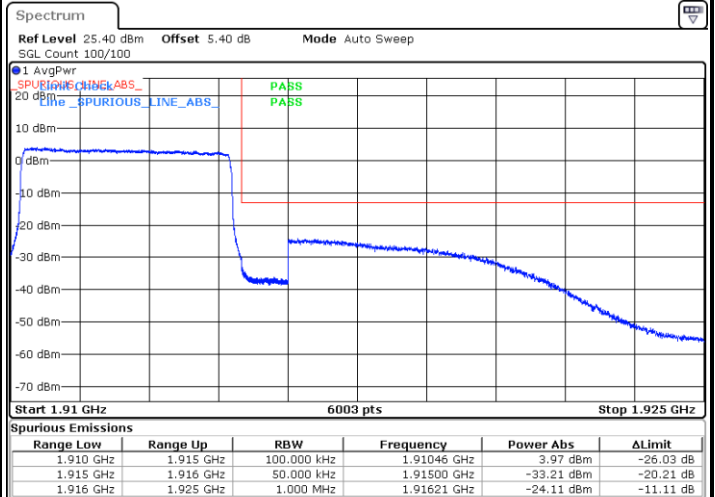
Date: 28.JAN.2023 22:14:33

Lowest Band Edge / Full RB



Date: 10.JAN.2023 23:06:00

Highest Band Edge / Full RB

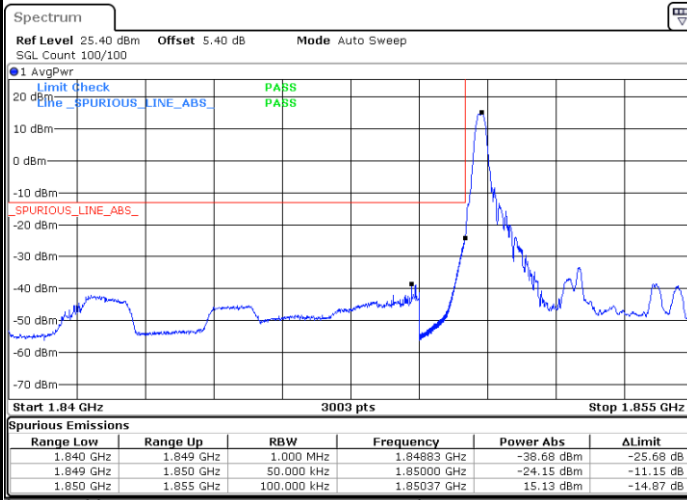


Date: 10.JAN.2023 23:10:07



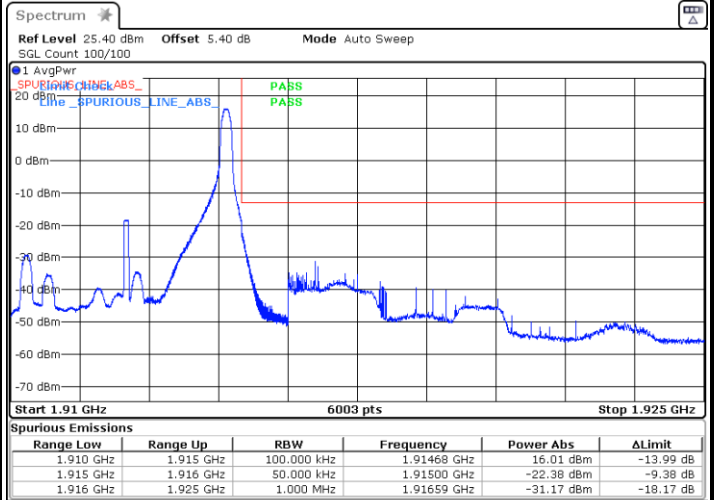
LTE Band 25 / 5MHz / 256QAM

Lowest Band Edge / 1RB



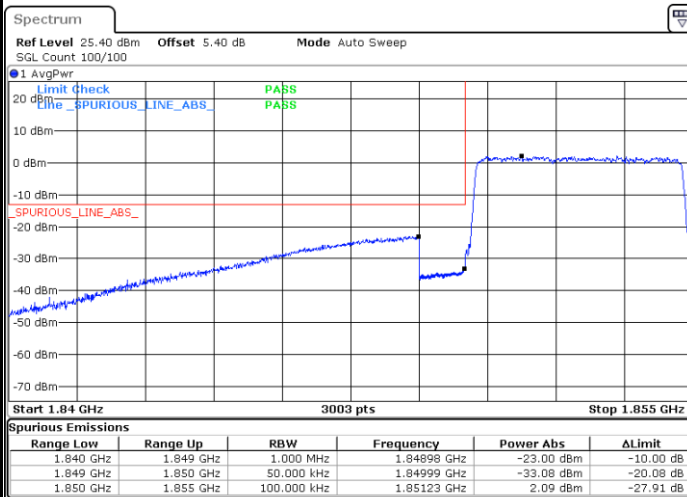
Date: 10. JAN. 2023 23:02:56

Highest Band Edge / 1 RB



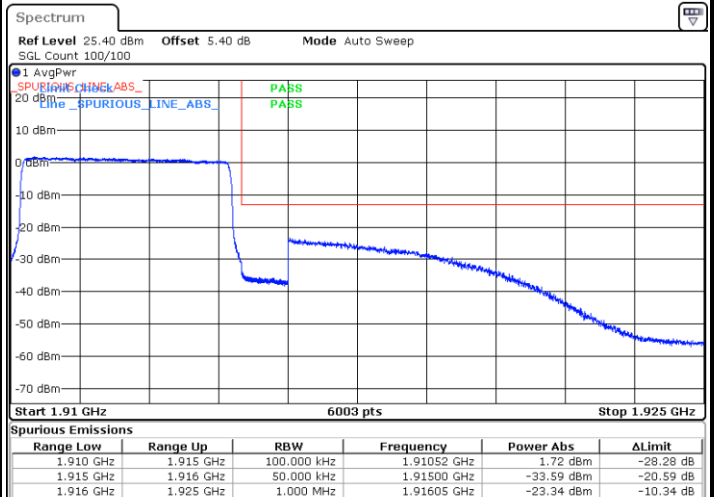
Date: 28. JAN. 2023 22:17:19

Lowest Band Edge / Full RB



Date: 10. JAN. 2023 23:07:01

Highest Band Edge / Full RB



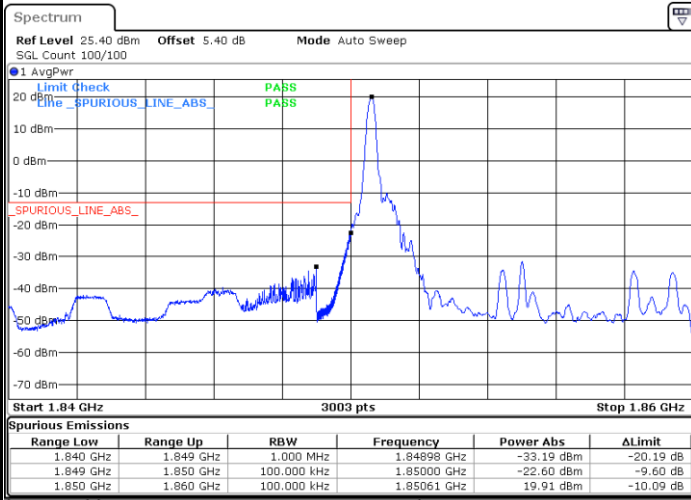
Date: 10. JAN. 2023 23:11:08





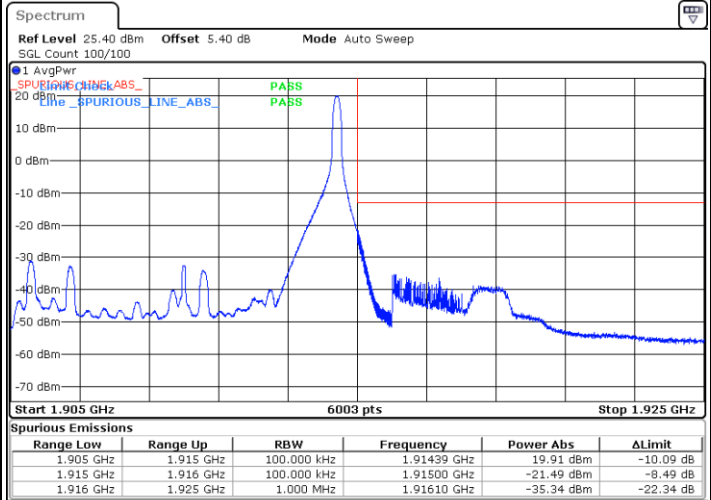
LTE Band 25 / 10MHz / QPSK

Lowest Band Edge / 1 RB



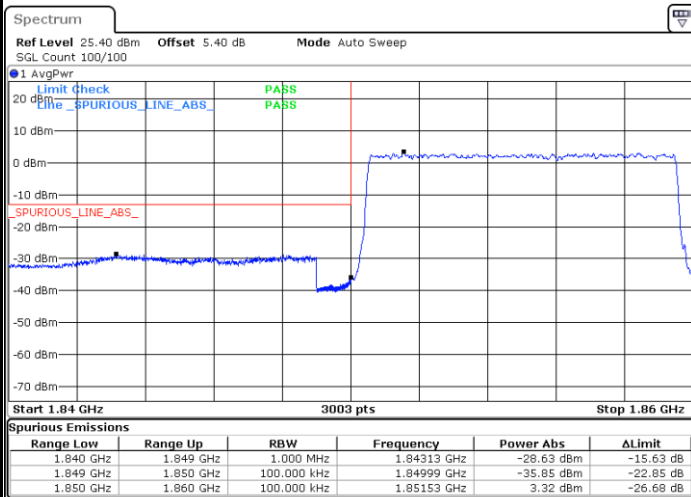
Date: 10.JAN.2023 23:38:02

Highest Band Edge / 1 RB



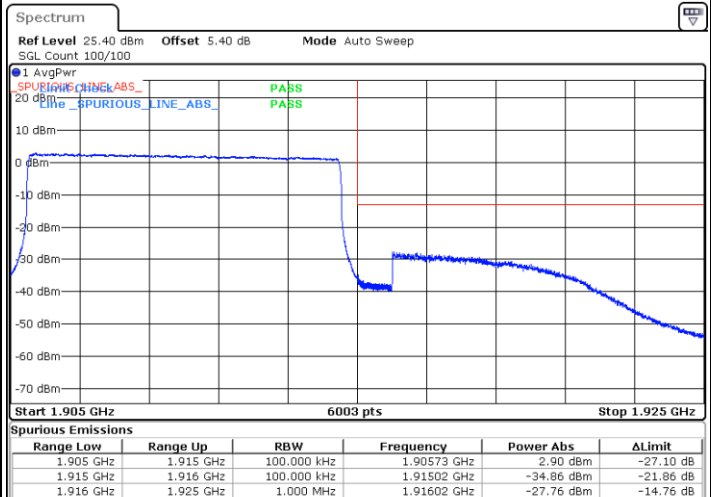
Date: 10.JAN.2023 23:46:15

Lowest Band Edge / Full RB



Date: 10.JAN.2023 23:33:58

Highest Band Edge / Full RB

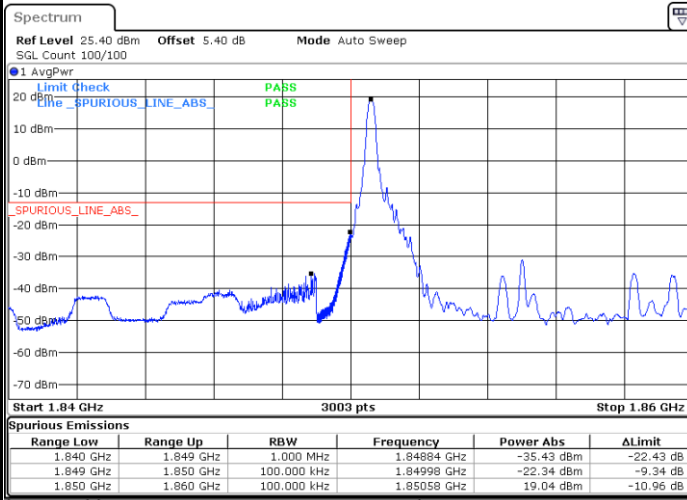


Date: 10.JAN.2023 23:42:08



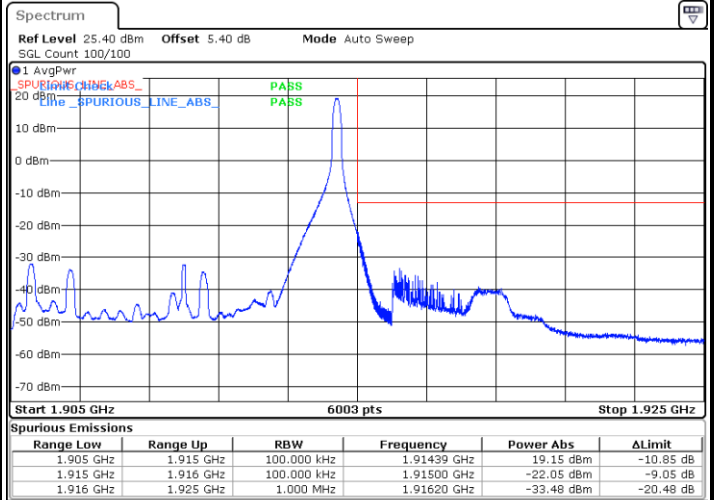
LTE Band 25 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



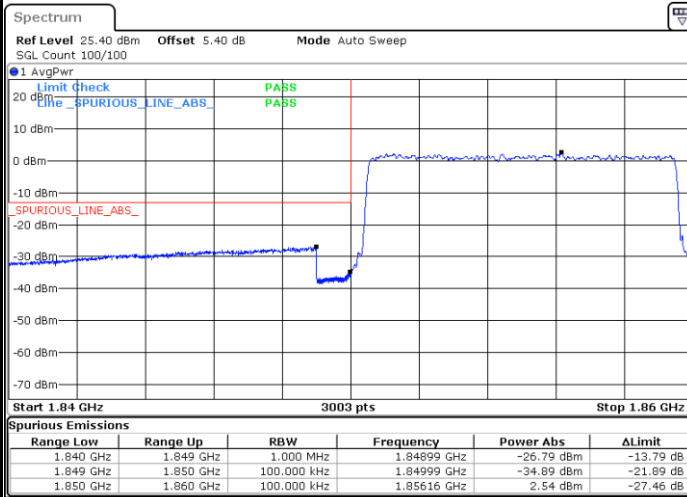
Date: 10.JAN.2023 23:39:03

Highest Band Edge / 1 RB



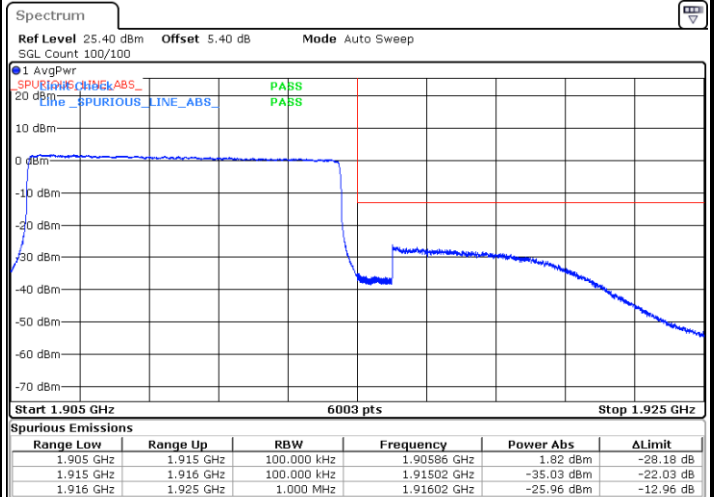
Date: 10.JAN.2023 23:47:18

Lowest Band Edge / Full RB



Date: 10.JAN.2023 23:34:59

Highest Band Edge / Full RB

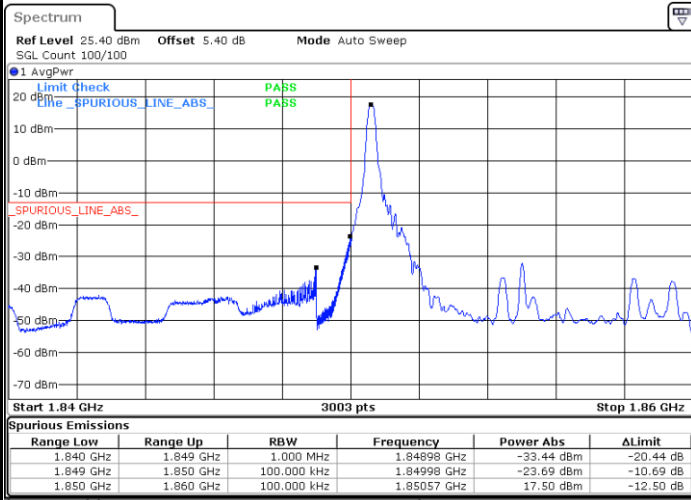


Date: 10.JAN.2023 23:43:09



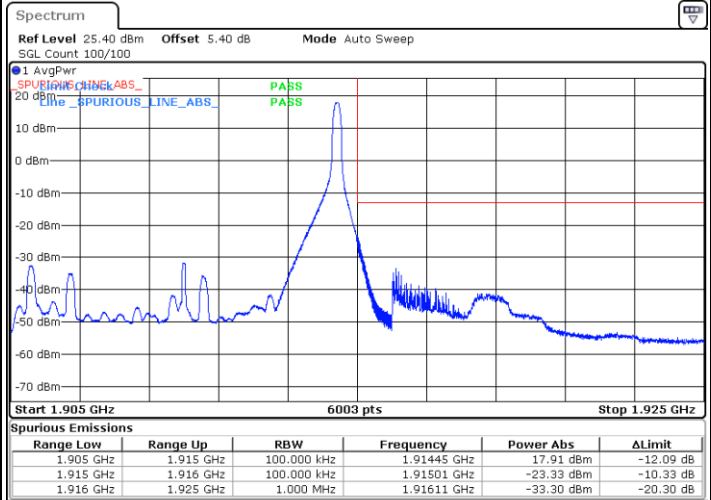
LTE Band 25 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



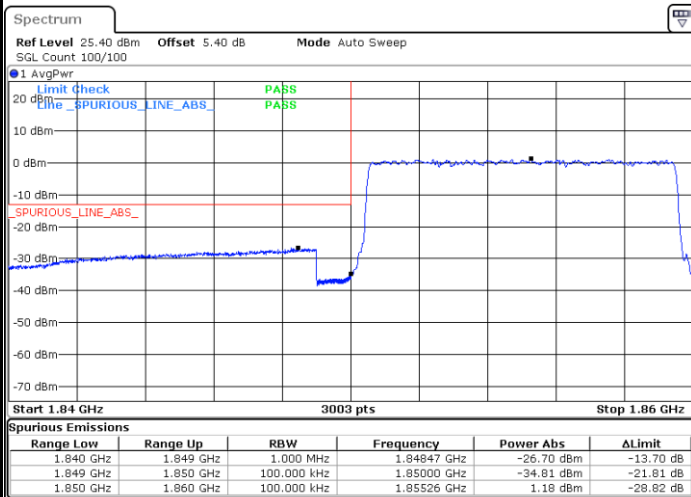
Date: 10.JAN.2023 23:40:05

Highest Band Edge / 1 RB



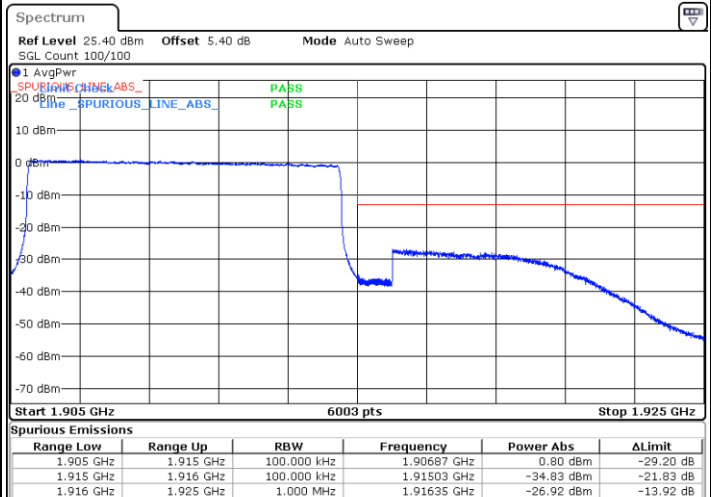
Date: 10.JAN.2023 23:48:19

Lowest Band Edge / Full RB



Date: 10.JAN.2023 23:36:00

Highest Band Edge / Full RB

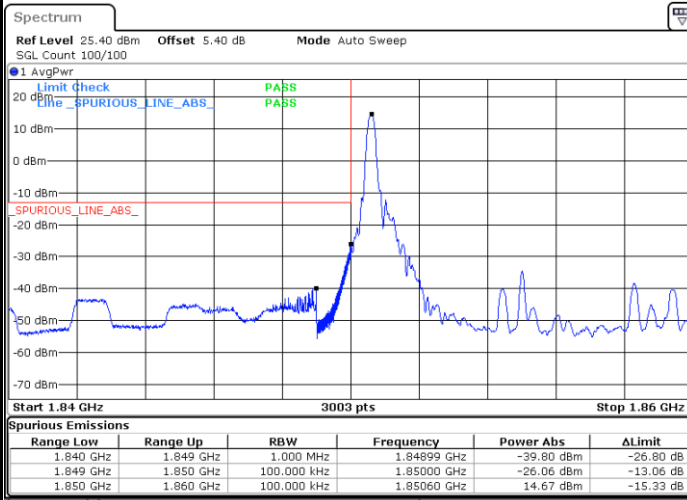


Date: 10.JAN.2023 23:44:11



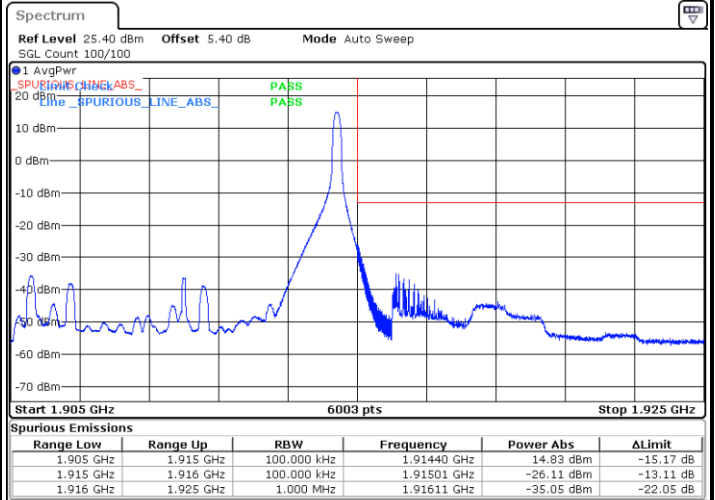
LTE Band 25 / 10MHz / 256QAM

Lowest Band Edge / 1 RB



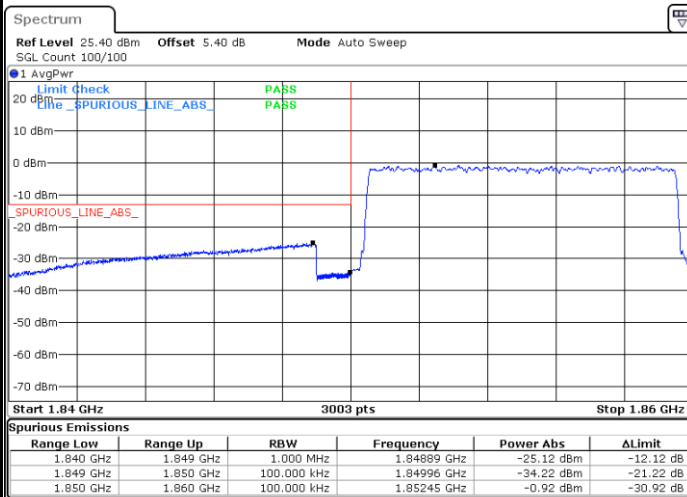
Date: 10.JAN.2023 23:41:06

Highest Band Edge / 1 RB



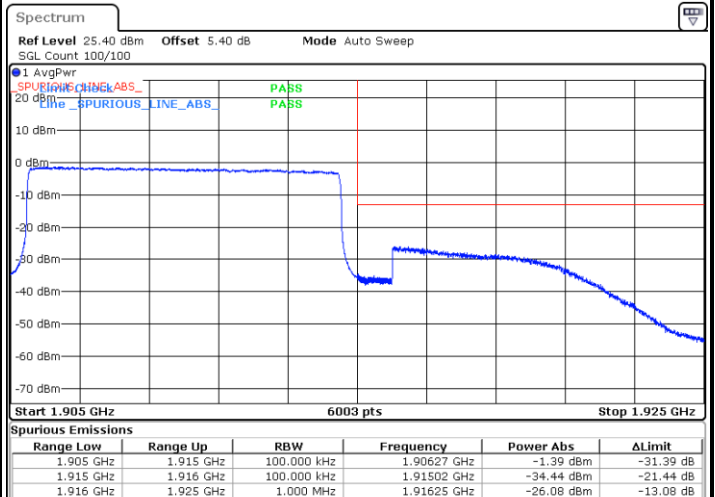
Date: 10.JAN.2023 23:49:21

Lowest Band Edge / Full RB



Date: 10.JAN.2023 23:37:01

Highest Band Edge / Full RB

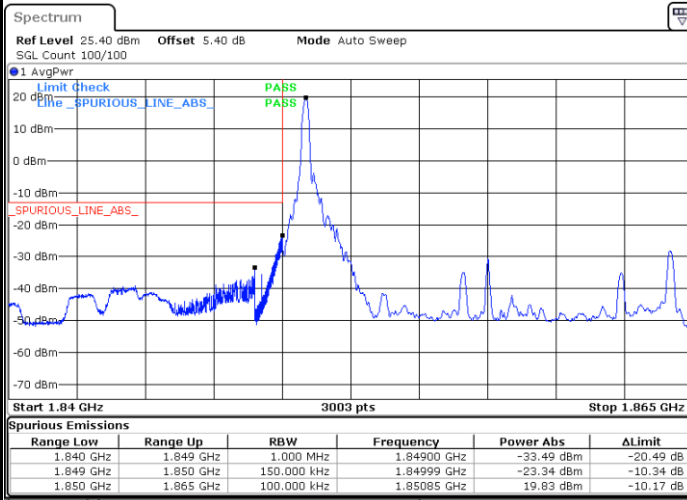


Date: 10.JAN.2023 23:45:13



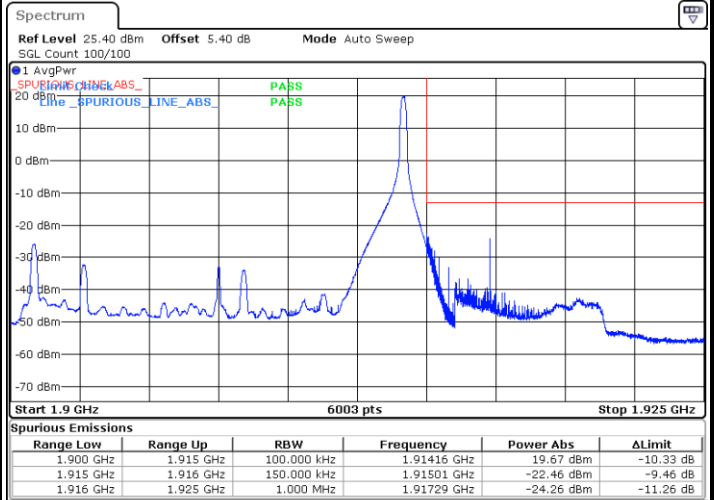
LTE Band 25 / 15MHz / QPSK

Lowest Band Edge / 1 RB



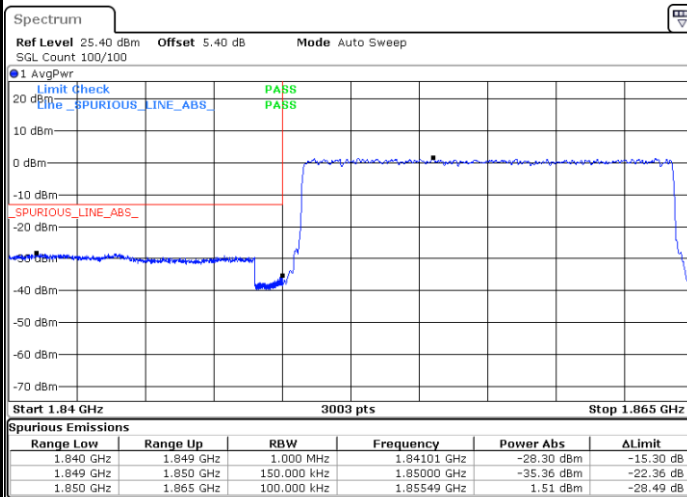
Date: 10.JAN.2023 23:53:20

Highest Band Edge / 1 RB



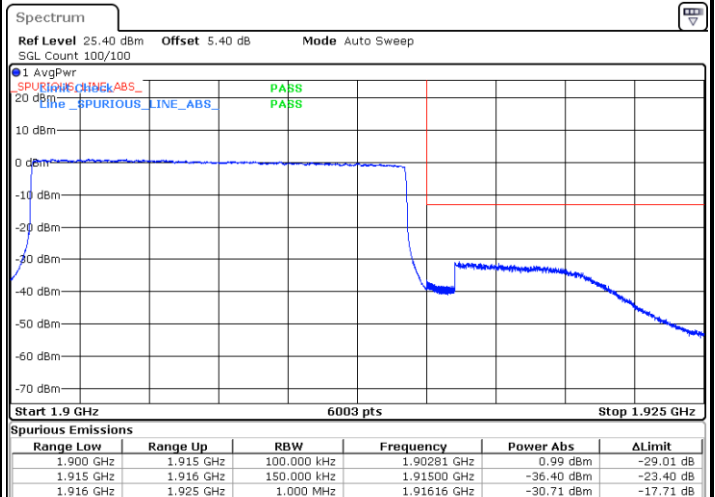
Date: 11.JAN.2023 00:09:36

Lowest Band Edge / Full RB



Date: 10.JAN.2023 23:57:25

Highest Band Edge / Full RB



Date: 11.JAN.2023 00:01:29