FCC RF Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT2407-2
FCC ID	:	IHDT56AS3
STANDARD	:	47 CFR Part 2, 22(H), 24(E), 27(L), 27(F), 27(H)
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	Apr. 19, 2024 ~ May 27, 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

ACCREDITED
Cert #5145.01

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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APPENDIX A. TEST RESULTS OF CONDUCTED TEST

APPENDIX B. TEST RESULTS OF RADIATED TEST

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG441212B	Rev. 01	Initial issue of report	May 31, 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	-
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17)	ERP < 3 Watt		-
	§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(c)(2)(4) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66)	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66)	< 43+10log10(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(c)(2) §27.53(f) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66)	< 43+10$\log_{10}$(P[Watts])	PASS	Under limit 22.30 dB at 1559.50 MHz

Conformity Assessment Condition:

1. 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.
2. 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	XT2407-2
FCC ID	IHDT56AS3
IMEI Code	Conducted: 358858730018610/358858730018628 Radiation: 358858730017315/358858730017323
HW Version	DVT2
SW Version	U3UW34.46
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 17 : 704 MHz ~ 716 MHz LTE Band 25 : 1850 MHz ~ 1915 MHz LTE Band 26 : 824 MHz ~ 849 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz
Rx Frequency	LTE Band 2 : 1930 MHz ~ 1990 MHz LTE Band 4 : 2110 MHz ~ 2155 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 13 : 746 MHz ~ 756 MHz LTE Band 17 : 734 MHz ~ 746 MHz LTE Band 25 : 1930 MHz ~ 1995 MHz LTE Band 26 : 869 MHz ~ 894 MHz LTE Band 66 : 2110 MHz~ 2180 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz

	LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 17 : 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
Maximum Output Power to Antenna	<ANT0> LTE Band 2 : 22.98 dBm LTE Band 4 : 22.60 dBm LTE Band 5 : 22.81 dBm LTE Band 12 : 23.07 dBm LTE Band 13 : 23.32 dBm LTE Band 17 : 23.05 dBm LTE Band 25 : 23.07 dBm LTE Band 26 : 22.89 dBm LTE Band 66 : 22.61 dBm <ANT1> LTE Band 2 : 22.35 dBm LTE Band 4 : 22.38 dBm LTE Band 5 : 22.60 dBm LTE Band 12 : 22.42 dBm LTE Band 13 : 22.87 dBm LTE Band 17 : 22.39 dBm LTE Band 25 : 22.36 dBm LTE Band 26 : 22.74 dBm LTE Band 66 : 22.41 dBm <ANT2> LTE Band 2 : 22.89 dBm LTE Band 4 : 22.53 dBm LTE Band 25 : 22.90 dBm LTE Band 66 : 22.58 dBm
Antenna Gain	<ANT0> LTE Band 2/25 : -2.00 dBi LTE Band 4/66 : -2.27 dBi LTE Band 5/26 : -5.60 dBi LTE Band 12/17 : -7.00 dBi LTE Band 13 : -6.00 dBi <ANT1> LTE Band 2/25 : -1.00 dBi LTE Band 4/66 : -1.21 dBi LTE Band 5/26 : -6.38 dBi LTE Band 12/17 : -7.50 dBi LTE Band 13 : -7.10 dBi <ANT2> LTE Band 2/25 : -1.23 dBi LTE Band 4/66 : -1.52 dBi
Type of Modulation	QPSK / 16QAM / 64QAM / 256QAM

Note: The maximum ERP/EIRP is calculated from max output power and max antenna gain, only the maximum ERP/EIRP of Antenna 2 for LTE Band 2/25, Antenna 1 for LTE Band 4/66 and Antenna 0 for LTE Band 5/12/13/17/26 are shown in the report.

1.5 Modification of EUT

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

1.6 Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	**Brand Name**	Motorola(chenyang)	**Model Name**	MC-681N
AC Adapter 1(EU)	**Brand Name**	Motorola(chenyang)	**Model Name**	MC-682N
AC Adapter 1(UK)	**Brand Name**	Motorola(chenyang)	**Model Name**	MC-683N
AC Adapter 1(AU)	**Brand Name**	Motorola(chenyang)	**Model Name**	MC-685N
AC Adapter 1(AR)	**Brand Name**	Motorola(chenyang)	**Model Name**	MC-686N
AC Adapter 1(Chile)	**Brand Name**	Motorola(chenyang)	**Model Name**	MC-689N
AC Adapter 2(US)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-681N
AC Adapter 2(EU)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-682N
AC Adapter 2(UK)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-683N
AC Adapter 2(AU)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-685N
AC Adapter 2(AR)	**Brand Name**	Motorola(Acbel)	**Model Name**	MC-686N
Battery 1	**Brand Name**	Motorola(SUNWODA)	**Model Name**	QR50
Battery 2	**Brand Name**	Motorola(ATL)	**Model Name**	QR50
USB Cable 1	**Brand Name**	Motorola (Luxshare)	**Model Name**	SC18E08104
USB Cable 2	**Brand Name**	Motorola (Saibao)	**Model Name**	SC18D71644

1.7 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	0.1449	1M10G7D	0.1330	1M11W7D
3	1851.5 ~ 1908.5	0.1432	2M74G7D	0.1303	2M72W7D
5	1852.5 ~ 1907.5	0.1445	4M50G7D	0.1327	4M51W7D
10	1855.0 ~ 1905.0	0.1439	9M05G7D	0.1334	9M03W7D
15	1857.5 ~ 1902.5	0.1403	13M4G7D	0.1250	13M5W7D
20	1860.0 ~ 1900.0	0.1466	17M9G7D	0.1253	17M9W7D
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	0.1355	1M10G7D	0.1400	1M11W7D
3	1851.5 ~ 1913.5	0.1327	2M74G7D	0.1419	2M72W7D
5	1852.5 ~ 1912.5	0.1330	4M50G7D	0.1416	4M51W7D
10	1855.0 ~ 1910.0	0.1334	9M05G7D	0.1426	9M03W7D
15	1857.5 ~ 1907.5	0.1406	13M4G7D	0.1358	13M5W7D
20	1860.0 ~ 1905.0	0.1469	17M9G7D	0.1377	17M9W7D
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	0.1306	1M09G7D	0.1125	1M10W7D
3	1711.5 ~ 1753.5	0.1274	2M73G7D	0.1268	2M72W7D
5	1712.5 ~ 1752.5	0.1276	4M52G7D	0.1216	4M51W7D
10	1715.0 ~ 1750.0	0.1297	9M07G7D	0.1271	9M03W7D
15	1717.5 ~ 1747.5	0.1268	13M5G7D	0.1183	13M5W7D
20	1720.0 ~ 1745.0	0.1309	17M8G7D	0.1239	17M9W7D

LTE Band 5		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.0316	1M10G7D	0.0316	1M10W7D
3	825.5 ~ 847.5	0.0317	2M73G7D	0.0303	2M73W7D
5	826.5 ~ 846.5	0.0316	4M53G7D	0.0308	4M50W7D
10	829.0 ~ 844.0	0.0321	9M03G7D	0.0306	9M03W7D
LTE Band 12		**QPSK**		**16QAM/64QAM/256QAM**	
BW (MHz)	**Frequency Range (MHz)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**
1.4	699.7 ~ 715.3	0.0222	1M09G7D	0.0239	1M12W7D
3	700.5 ~ 714.5	0.0230	2M72G7D	0.0245	2M72W7D
5	701.5 ~ 713.5	0.0216	4M49G7D	0.0233	4M50W7D
10	704.0 ~ 711.0	0.0247	9M01G7D	0.0236	9M03W7D
LTE Band 13		**QPSK**		**16QAM/64QAM/256QAM**	
BW (MHz)	**Frequency Range (MHz)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**
5	779.5 ~ 784.5	0.0306	4M53G7D	0.0328	4M52W7D
10	782.0	0.0329	9M07G7D	0.0326	9M03W7D
LTE Band 17		**QPSK**		**16QAM/64QAM/256QAM**	
BW (MHz)	**Frequency Range (MHz)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**
5	706.5 ~ 713.5	0.0225	4M49G7D	0.0230	4M50W7D
10	709.0 ~ 711.0	0.0245	9M01G7D	0.0239	9M03W7D
LTE Band 26		**QPSK**		**16QAM/64QAM/256QAM**	
BW (MHz)	**Frequency Range (MHz)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**
1.4	824.7 ~ 848.3	0.0310	1M10G7D	0.0318	1M10W7D
3	825.5 ~ 847.5	0.0318	2M73G7D	0.0316	2M73W7D
5	826.5 ~ 846.5	0.0324	4M53G7D	0.0316	4M50W7D
10	829.0 ~ 844.0	0.0320	9M03G7D	0.0322	9M03W7D
15	831.5 ~ 841.5	0.0327	13M5G7D	0.0326	13M4W7D
CH26790	824.0	0.0313	13M4G7D	0.0286	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	0.1268	1M09G7D	0.1161	1M10W7D
3	1711.5 ~ 1778.5	0.1268	2M73G7D	0.1161	2M72W7D
5	1712.5 ~ 1777.5	0.1253	4M52G7D	0.1169	4M51W7D
10	1715.0 ~ 1775.0	0.1265	9M07G7D	0.1175	9M03W7D
15	1717.5 ~ 1772.5	0.1265	13M5G7D	0.1180	13M5W7D
20	1720.0 ~ 1770.0	0.1318	17M8G7D	0.1239	17M9W7D

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. LTE Band 12 overlaps the entire frequency range of LTE Band 17. Therefore, the test results provided in this report covers Band 12 as well as Band 17.

1.8 Testing Location

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

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

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH01-SZ	CN1256	421272

1.9 Test Software

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

1.10 Applicable Standards

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

- 47 CFR Part 2, 22(H), 24(E), 27(L), 27(F), 27(H)
- 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

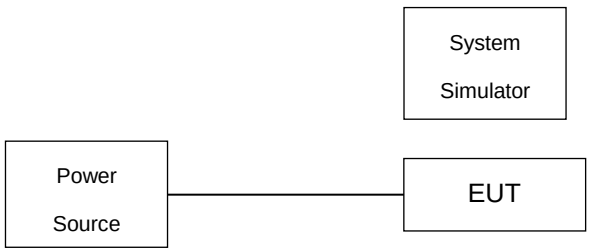
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission. (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
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	13	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	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	12				v	-	-	v	v	v				v		v	
	13	-	-		v	-	-	v	v	v				v		v	
	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	12	v	v	v	v	-	-	v	v					v		v	
	13	-	-	v	v	-	-	v	v					v		v	
	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	12	v	v	v	v	-	-	v	v	v		v		v	v		v
	13	-	-	v	v	-	-	v	v	v		v		v	v		v
	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	12	v	v	v	v	-	-	v				v			v	v	v
	13	-	-	v	v	-	-	v				v			v	v	v
	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	12				v	-	-	v						v		v	
	13	-	-		v	-	-	v						v		v	
	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
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	13	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	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	12	Worst Case														v	
	13	Worst Case														v	
	25	Worst Case														v	
	26	Worst Case														v	
	66	Worst Case														v	
Note	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported																

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.3 Support Unit used in test configuration and system

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

2.4 Measurement Results Explanation Example

For all conducted test items:

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

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.0 dB and 10dB attenuator.

Example :

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

= 4.0 + 10 = 14.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

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

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

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

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

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

LTE Band 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

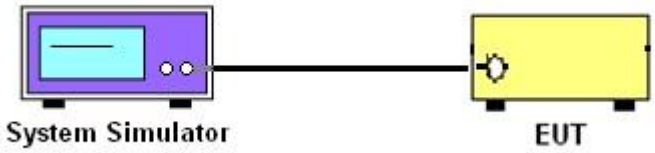
3 Conducted Test Items

3.1 Measuring Instruments

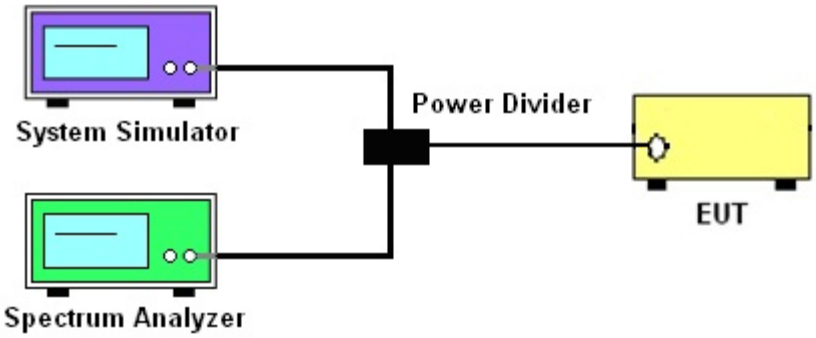
See list of measuring instruments of this test report.

3.2 Test Setup

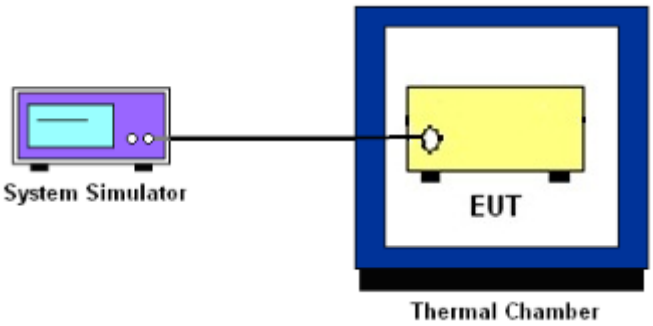
3.2.1 Conducted Output Power



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 12, Band 13 and Band 17.

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[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

24.238 (a)

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

27.53 (c)

For operations in the 776-788 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed. In addition, the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least 65 + 10 log10 p(watts), dB, for mobile and portable equipment.

27.53 (g)

For operations in the 600MHz band and 698 -746 MHz band, the FCC limit is 43 + 10log10(P[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 band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured.
3. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. 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.
5. Set spectrum analyzer with RMS detector.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. Checked that all the results comply with the emission limit line.

   Example:

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

   = P(W)- [43 + 10log(P)] (dB)

   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
8. 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 10th harmonic.

3.8.2 Test Procedures

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

3.9.2 Test Procedures for Temperature Variation

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

3.9.3 Test Procedures for Voltage Variation

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

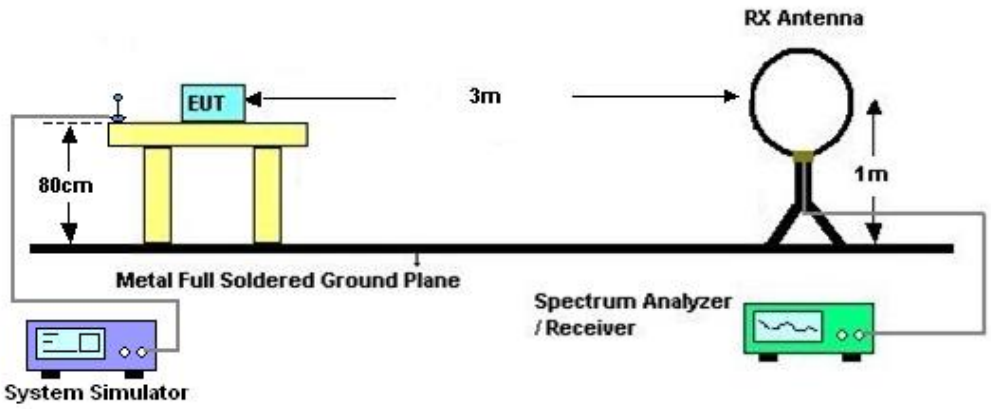
4 Radiated Test Items

4.1 Measuring Instruments

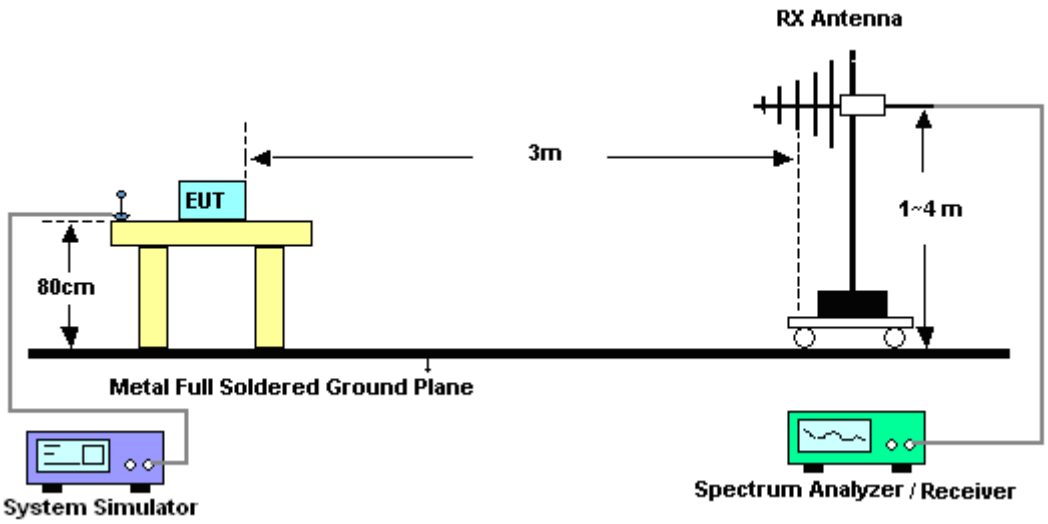
See list of measuring instruments of this test report.

4.2 Test Setup

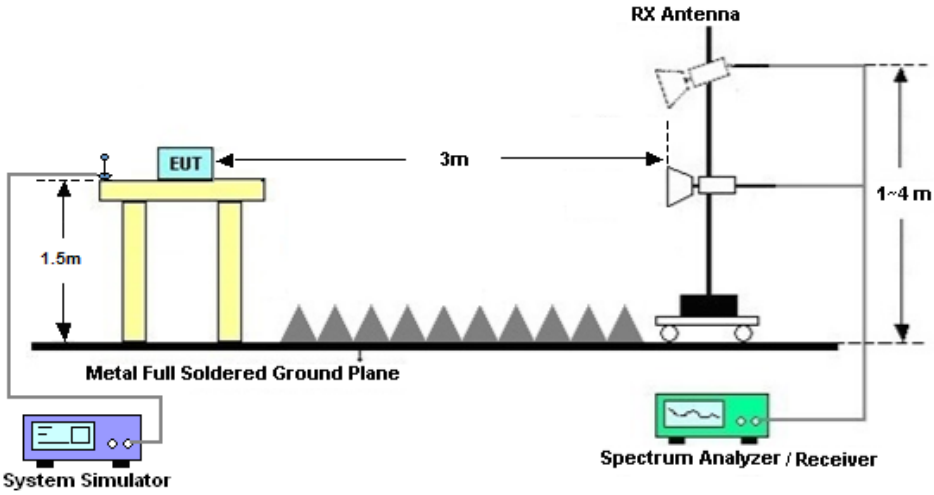
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

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

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

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

For LTE Band 13

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

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

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (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	May 26, 2024~ May 27, 2024	Apr. 08, 2025	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V，3A	Oct. 16, 2023	May 26, 2024~ May 27, 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	May 26, 2024~ May 27, 2024	Dec. 24, 2024	Conducted (TH01-SZ)
Power Divider	SOLVANG TECHNOLOY	STI08-0055	-	Max 40GHz	Mar. 20, 2024	May 26, 2024~ May 27, 2024	Mar. 19, 2025	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 05, 2023	May 26, 2024~ May 27, 2024	Jul. 04, 2024	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2023	Apr. 19, 2024~ Apr. 25, 2024	Dec. 26, 2024	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Apr. 19, 2024~ Apr. 25, 2024	Jul. 27, 2024	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Apr. 19, 2024~ Apr. 25, 2024	Oct. 23, 2025	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 08, 2023	Apr. 19, 2024~ Apr. 25, 2024	Jul. 07, 2024	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09,2024	Apr. 19, 2024~ Apr. 25, 2024	Apr. 08,2025	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 09, 2024	Apr. 19, 2024~ Apr. 25, 2024	Apr. 08, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 18,2023	Apr. 19, 2024~ Apr. 25, 2024	Oct. 17,2024	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 18,2023	Apr. 19, 2024~ Apr. 25, 2024	Oct. 17,2024	Radiation (03CH01-SZ
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 07, 2023	Apr. 19, 2024~ Apr. 25, 2024	Jul. 06, 2024	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	Oct. 18,2023	Apr. 19, 2024~ Apr. 25, 2024	Oct. 17,2024	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Apr. 19, 2024~ Apr. 25, 2024	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Apr. 19, 2024~ Apr. 25, 2024	NCR	Radiation (03CH01-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))	2.48 dB

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

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

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

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

---------- THE END ----------

Appendix A. Test Results of Conducted Test

Test Engineer :	Lorenzo Liu	Temperature :	24~26℃
		Relative Humidity :	50~53%

Conducted Output Power(Average power)

LTE Band 2_ANT.2

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	22.87	22.89	22.85	0.1459	0.1466	0.1452
20	QPSK	1	49	22.86	22.88	22.80	0.1455	0.1462	0.1435
20	QPSK	1	99	22.73	22.74	22.68	0.1413	0.1416	0.1396
20	QPSK	50	0	22.41	22.47	22.33	0.1312	0.1330	0.1288
20	QPSK	50	24	22.36	22.45	22.30	0.1297	0.1324	0.1279
20	QPSK	50	50	22.32	22.40	22.28	0.1285	0.1309	0.1274
20	QPSK	100	0	22.23	22.31	22.20	0.1259	0.1282	0.1250
20	16QAM	1	0	22.21	22.12	22.18	0.1253	0.1227	0.1245
20	64QAM	1	0	22.07	22.15	22.17	0.1213	0.1236	0.1242
20	256QAM	1	0	18.69	18.80	18.70	0.0557	0.0571	0.0558
Channel				18675	18900	19125	EIRP(W)		
Frequency (MHz)				1857.5	1880	1902.5	L	M	H
15	QPSK	1	0	22.68	22.63	22.70	0.1396	0.1380	0.1403
15	16QAM	1	0	22.20	22.18	22.11	0.1250	0.1245	0.1225
Channel				18650	18900	19150	EIRP(W)		
Frequency (MHz)				1855	1880	1905	L	M	H
10	QPSK	1	0	22.81	22.77	22.56	0.1439	0.1426	0.1358
10	16QAM	1	0	22.39	22.41	22.48	0.1306	0.1312	0.1334
Channel				18625	18900	19175	EIRP(W)		
Frequency (MHz)				1852.5	1880	1907.5	L	M	H
5	QPSK	1	0	22.78	22.66	22.83	0.1429	0.1390	0.1445
5	16QAM	1	0	22.44	22.30	22.46	0.1321	0.1279	0.1327
Channel				18615	18900	19185	EIRP(W)		
Frequency (MHz)				1851.5	1880	1908.5	L	M	H
3	QPSK	1	0	22.78	22.73	22.79	0.1429	0.1413	0.1432
3	16QAM	1	0	22.36	22.23	22.38	0.1297	0.1259	0.1303
Channel				18607	18900	19193	EIRP(W)		
Frequency (MHz)				1850.7	1880	1909.3	L	M	H
1.4	QPSK	1	0	22.79	22.78	22.84	0.1432	0.1429	0.1449
1.4	16QAM	1	0	22.47	22.42	22.34	0.1330	0.1315	0.1291

LTE Band 4_ANT.1

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	22.31	22.38	22.25	0.1288	0.1309	0.1271
20	QPSK	1	49	22.26	22.14	22.13	0.1274	0.1239	0.1236
20	QPSK	1	99	22.18	22.03	22.19	0.1250	0.1208	0.1253
20	QPSK	50	0	21.64	21.65	21.60	0.1104	0.1107	0.1094
20	QPSK	50	24	21.62	21.55	21.56	0.1099	0.1081	0.1084
20	QPSK	50	50	21.49	21.44	21.54	0.1067	0.1054	0.1079
20	QPSK	100	0	21.48	21.54	21.37	0.1064	0.1079	0.1038
20	16QAM	1	0	22.14	21.92	21.57	0.1239	0.1178	0.1086
20	64QAM	1	0	20.87	20.87	20.73	0.0925	0.0925	0.0895
20	256QAM	1	0	18.16	18.20	18.05	0.0495	0.0500	0.0483
Channel				20025	20175	20325	EIRP(W)		
Frequency (MHz)				1717.5	1732.5	1747.5	L	M	H
15	QPSK	1	0	22.24	22.11	22.22	0.1268	0.1230	0.1262
15	16QAM	1	0	21.94	21.67	21.88	0.1183	0.1112	0.1167
Channel				20000	20175	20350	EIRP(W)		
Frequency (MHz)				1715	1732.5	1750	L	M	H
10	QPSK	1	0	22.34	22.24	22.21	0.1297	0.1268	0.1259
10	16QAM	1	0	22.18	22.25	22.04	0.1250	0.1271	0.1211
Channel				19975	20175	20375	EIRP(W)		
Frequency (MHz)				1712.5	1732.5	1752.5	L	M	H
5	QPSK	1	0	22.10	22.14	22.27	0.1227	0.1239	0.1276
5	16QAM	1	0	22.06	21.77	21.75	0.1216	0.1138	0.1132
Channel				19965	20175	20385	EIRP(W)		
Frequency (MHz)				1711.5	1732.5	1753.5	L	M	H
3	QPSK	1	0	22.15	22.26	22.26	0.1242	0.1274	0.1274
3	16QAM	1	0	22.24	21.91	21.88	0.1268	0.1175	0.1167
Channel				19950	20175	20393	EIRP(W)		
Frequency (MHz)				1710	1732.5	1754.3	L	M	H
1.4	QPSK	1	0	22.33	22.37	22.18	0.1294	0.1306	0.1250
1.4	16QAM	1	0	21.72	21.70	21.66	0.1125	0.1119	0.1109

LTE Band 5_ANT.0

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			
Frequency (MHz)				829	836.5	844	L	M	H
10	QPSK	1	0	22.79	22.81	22.75	0.0319	0.0321	0.0316
10	QPSK	1	25	22.70	22.73	22.69	0.0313	0.0315	0.0312
10	QPSK	1	49	22.64	22.70	22.54	0.0308	0.0313	0.0301
10	QPSK	25	0	22.59	22.64	22.55	0.0305	0.0308	0.0302
10	QPSK	25	12	22.45	22.49	22.43	0.0295	0.0298	0.0294
10	QPSK	25	25	22.52	22.51	22.46	0.0300	0.0299	0.0296
10	QPSK	50	0	22.43	22.55	22.42	0.0294	0.0302	0.0293
10	16QAM	1	0	22.61	22.52	22.35	0.0306	0.0300	0.0288
10	64QAM	1	0	21.59	21.52	21.52	0.0242	0.0238	0.0238
10	256QAM	1	0	18.94	19.00	18.98	0.0132	0.0133	0.0133
Channel				20425	20525	20625	ERP(W)		
Frequency (MHz)				826.5	836.5	846.5	L	M	H
5	QPSK	1	0	22.74	22.66	22.59	0.0316	0.0310	0.0305
5	16QAM	1	0	22.56	22.63	22.56	0.0303	0.0308	0.0303
Channel				20415	20525	20635	ERP(W)		
Frequency (MHz)				825.5	836.5	847.5	L	M	H
3	QPSK	1	0	22.76	22.56	22.59	0.0317	0.0303	0.0305
3	16QAM	1	0	22.56	22.38	22.30	0.0303	0.0290	0.0285
Channel				20407	20525	20643	ERP(W)		
Frequency (MHz)				824.7	836.5	848.3	L	M	H
1.4	QPSK	1	0	22.75	22.57	22.55	0.0316	0.0303	0.0302
1.4	16QAM	1	0	22.64	22.70	22.74	0.0308	0.0313	0.0316

LTE Band 12_ANT.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)		
Channel				23060	23095	23130			
Frequency (MHz)				704	707.5	711	L	M	H
10	QPSK	1	0	23.01	23.07	22.99	0.0243	0.0247	0.0242
10	QPSK	1	25	22.99	23.04	22.96	0.0242	0.0245	0.0240
10	QPSK	1	49	22.94	22.95	22.87	0.0239	0.0240	0.0236
10	QPSK	25	0	22.87	22.89	22.85	0.0236	0.0237	0.0234
10	QPSK	25	12	22.82	22.85	22.82	0.0233	0.0234	0.0233
10	QPSK	25	25	22.80	22.84	22.77	0.0232	0.0234	0.0230
10	QPSK	50	0	22.80	22.85	22.77	0.0232	0.0234	0.0230
10	16QAM	1	0	22.87	22.87	22.76	0.0236	0.0236	0.0230
10	64QAM	1	0	22.18	22.31	22.21	0.0201	0.0207	0.0202
10	256QAM	1	0	18.76	18.82	18.77	0.0091	0.0093	0.0092
Channel				23035	23095	23155	ERP(W)		
Frequency (MHz)				701.5	707.5	713.5	L	M	H
5	QPSK	1	0	22.49	22.44	22.42	0.0216	0.0213	0.0212
5	16QAM	1	0	22.80	22.82	22.70	0.0232	0.0233	0.0226
Channel				23025	23095	23165	ERP(W)		
Frequency (MHz)				700.5	707.5	714.5	L	M	H
3	QPSK	1	0	22.76	22.57	22.41	0.0230	0.0220	0.0212
3	16QAM	1	0	22.56	22.79	23.04	0.0219	0.0231	0.0245
Channel				23017	23095	23173	ERP(W)		
Frequency (MHz)				699.7	707.5	715.3	L	M	H
1.4	QPSK	1	0	22.62	22.57	22.44	0.0222	0.0220	0.0213
1.4	16QAM	1	0	22.50	22.86	22.93	0.0216	0.0235	0.0239

LTE Band 13_ANT.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)		
Channel					23230				
Frequency (MHz)					782			M	
10	QPSK	1	0		23.32			0.0329	
10	QPSK	1	25		23.24			0.0323	
10	QPSK	1	49		23.24			0.0323	
10	QPSK	25	0		23.07			0.0310	
10	QPSK	25	12		22.99			0.0305	
10	QPSK	25	25		23.01			0.0306	
10	QPSK	50	0		22.95			0.0302	
10	16QAM	1	0		23.28			0.0326	
10	64QAM	1	0		22.80			0.0292	
10	256QAM	1	0		18.90			0.0119	
Channel				23205	23230	23255	ERP(W)		
Frequency (MHz)				779.5	782	784.5	L	M	H
5	QPSK	1	0	22.98	22.95	23.01	0.0304	0.0302	0.0306
5	16QAM	1	0	23.27	23.10	23.31	0.0325	0.0313	0.0328

LTE Band 17_ANT.0

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)		
Channel				23780	23790	23800			
Frequency (MHz)				709	710	711	L	M	H
10	QPSK	1	0	22.97	23.05	22.95	0.0241	0.0245	0.0240
10	QPSK	1	25	22.94	22.96	22.93	0.0239	0.0240	0.0239
10	QPSK	1	49	22.87	22.85	22.88	0.0236	0.0234	0.0236
10	QPSK	25	0	22.84	22.85	22.79	0.0234	0.0234	0.0231
10	QPSK	25	12	22.82	22.73	22.73	0.0233	0.0228	0.0228
10	QPSK	25	25	22.79	22.76	22.77	0.0231	0.0230	0.0230
10	QPSK	50	0	22.76	22.80	22.71	0.0230	0.0232	0.0227
10	16QAM	1	0	22.93	22.87	22.93	0.0239	0.0236	0.0239
10	64QAM	1	0	22.21	22.21	22.30	0.0202	0.0202	0.0207
10	256QAM	1	0	18.68	18.82	18.73	0.0090	0.0093	0.0091
Channel				23755	23790	23825	ERP(W)		
Frequency (MHz)				706.5	710	713.5	L	M	H
5	QPSK	1	0	22.66	22.67	22.62	0.0224	0.0225	0.0222
5	16QAM	1	0	22.77	22.77	22.70	0.0230	0.0230	0.0226

LTE Band 25_ANT.2

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	22.80	22.90	22.75	0.1435	0.1469	0.1419
20	QPSK	1	49	22.73	22.85	22.70	0.1413	0.1452	0.1403
20	QPSK	1	99	22.70	22.80	22.69	0.1403	0.1435	0.1400
20	QPSK	50	0	22.39	22.44	22.35	0.1306	0.1321	0.1294
20	QPSK	50	24	22.38	22.40	22.32	0.1303	0.1309	0.1285
20	QPSK	50	50	22.31	22.35	22.30	0.1282	0.1294	0.1279
20	QPSK	100	0	22.38	22.39	22.31	0.1303	0.1306	0.1282
20	16QAM	1	0	22.62	22.48	22.54	0.1377	0.1334	0.1352
20	64QAM	1	0	22.16	22.04	22.13	0.1239	0.1205	0.1230
20	256QAM	1	0	18.60	18.70	18.61	0.0546	0.0558	0.0547
Channel				26115	26340	26615	EIRP(W)		
Frequency (MHz)				1857.5	1880	1907.5	L	M	H
15	QPSK	1	0	22.70	22.58	22.71	0.1403	0.1365	0.1406
15	16QAM	1	0	22.56	22.51	22.51	0.1358	0.1343	0.1343
Channel				26090	26340	26640	EIRP(W)		
Frequency (MHz)				1855	1880	1910	L	M	H
10	QPSK	1	0	22.40	22.28	22.48	0.1309	0.1274	0.1334
10	16QAM	1	0	22.77	22.72	22.77	0.1426	0.1409	0.1426
Channel				26065	26340	26665	EIRP(W)		
Frequency (MHz)				1852.5	1880	1912.5	L	M	H
5	QPSK	1	0	22.43	22.33	22.47	0.1318	0.1288	0.1330
5	16QAM	1	0	22.44	22.74	22.47	0.1321	0.1416	0.1330
Channel				26055	26340	26675	EIRP(W)		
Frequency (MHz)				1851.5	1880	1913.5	L	M	H
3	QPSK	1	0	22.36	22.31	22.46	0.1297	0.1282	0.1327
3	16QAM	1	0	22.74	22.73	22.75	0.1416	0.1413	0.1419
Channel				26047	26340	26683	EIRP(W)		
Frequency (MHz)				1850.7	1880	1914.3	L	M	H
1.4	QPSK	1	0	22.46	22.35	22.55	0.1327	0.1294	0.1355
1.4	16QAM	1	0	22.45	22.69	22.61	0.1324	0.1400	0.1374

LTE Band 26_ANT.0

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	22.70	22.85	22.89	22.83	0.0313	0.0324	0.0327	0.0322
15	QPSK	1	37	22.65	22.75	22.78	22.69	0.0309	0.0316	0.0318	0.0312
15	QPSK	1	74	22.55	22.68	22.70	22.56	0.0302	0.0311	0.0313	0.0303
15	QPSK	36	0	22.20	22.60	22.68	22.56	0.0279	0.0305	0.0311	0.0303
15	QPSK	36	20	22.17	22.55	22.58	22.50	0.0277	0.0302	0.0304	0.0299
15	QPSK	36	39	22.14	22.40	22.43	22.32	0.0275	0.0292	0.0294	0.0286
15	QPSK	75	0	22.12	22.53	22.57	22.30	0.0274	0.0301	0.0303	0.0285
15	16QAM	1	0	22.32	22.81	22.88	22.62	0.0286	0.0321	0.0326	0.0307
15	64QAM	1	0	20.97	21.70	21.83	21.69	0.0210	0.0248	0.0256	0.0248
15	256QAM	1	0	18.45	18.74	18.75	18.70	0.0117	0.0126	0.0126	0.0124
Channel					26840	26915	26990	ERP(W)			
Frequency (MHz)					829	836.5	844		L	M	H
10	QPSK	1	0		22.78	22.76	22.80		0.0318	0.0317	0.0320
10	16QAM	1	0		22.74	22.83	22.55		0.0316	0.0322	0.0302
Channel					26815	26915	27015	ERP(W)			
Frequency (MHz)					826.5	836.5	846.5		L	M	H
5	QPSK	1	0		22.82	22.86	22.81		0.0321	0.0324	0.0321
5	16QAM	1	0		22.74	22.75	22.53		0.0316	0.0316	0.0301
Channel					26815	26915	27025	ERP(W)			
Frequency (MHz)					825.5	836.5	847.5		L	M	H
3	QPSK	1	0		22.76	22.78	22.77		0.0317	0.0318	0.0318
3	16QAM	1	0		22.72	22.74	22.52		0.0314	0.0316	0.0300
Channel					26797	26915	27033	ERP(W)			
Frequency (MHz)					824.7	836.5	848.3		L	M	H
1.4	QPSK	1	0		22.66	22.52	22.27		0.0310	0.0300	0.0283
1.4	16QAM	1	0		22.78	22.60	22.31		0.0318	0.0305	0.0286

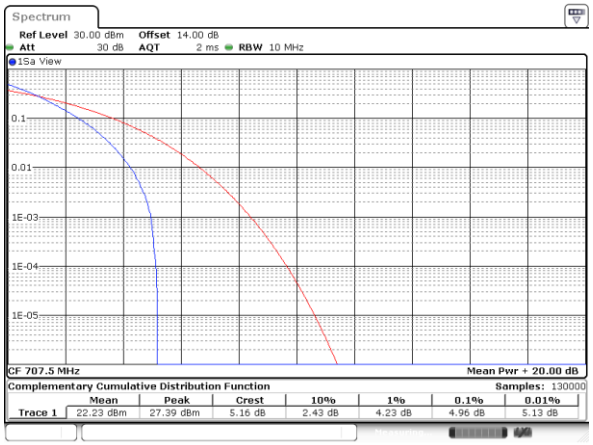
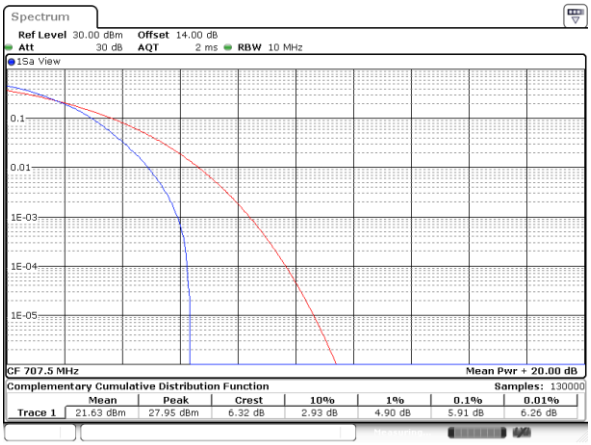
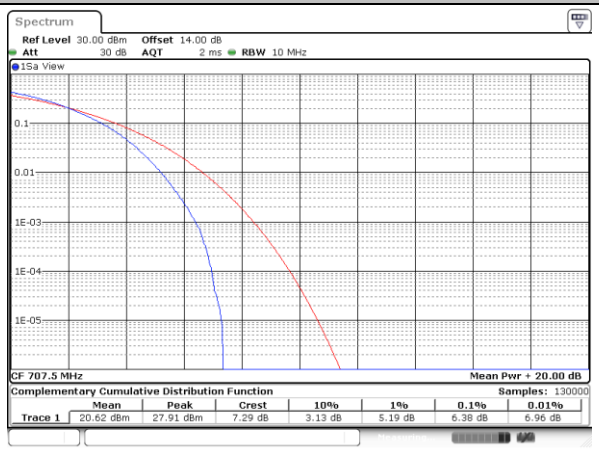
LTE Band 66_ANT.1

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			
Frequency (MHz)				1720	1745	1770	L	M	H
20	QPSK	1	0	22.35	22.41	22.38	0.1300	0.1318	0.1309
20	QPSK	1	49	22.31	22.34	22.35	0.1288	0.1297	0.1300
20	QPSK	1	99	22.33	22.33	22.33	0.1294	0.1294	0.1294
20	QPSK	50	0	21.87	22.00	21.90	0.1164	0.1199	0.1172
20	QPSK	50	24	21.80	21.97	21.89	0.1146	0.1191	0.1169
20	QPSK	50	50	21.85	21.91	21.82	0.1159	0.1175	0.1151
20	QPSK	100	0	21.77	21.92	21.86	0.1138	0.1178	0.1161
20	16QAM	1	0	22.08	22.08	22.14	0.1222	0.1222	0.1239
20	64QAM	1	0	21.06	21.18	21.19	0.0966	0.0993	0.0995
20	256QAM	1	0	18.05	18.05	18.20	0.0483	0.0483	0.0500
Channel				132047	132322	132597	EIRP(W)		
Frequency (MHz)				1717.5	1745	1772.5	L	M	H
15	QPSK	1	0	22.23	22.14	22.19	0.1265	0.1239	0.1253
15	16QAM	1	0	21.82	21.93	21.82	0.1151	0.1180	0.1151
Channel				132022	132322	132622	EIRP(W)		
Frequency (MHz)				1715	1745	1775	L	M	H
10	QPSK	1	0	22.23	22.22	22.17	0.1265	0.1262	0.1247
10	16QAM	1	0	21.84	21.90	21.91	0.1156	0.1172	0.1175
Channel				131997	132322	132647	EIRP(W)		
Frequency (MHz)				1712.5	1745	1777.5	L	M	H
5	QPSK	1	0	22.19	22.14	22.15	0.1253	0.1239	0.1242
5	16QAM	1	0	21.85	21.89	21.87	0.1159	0.1169	0.1164
Channel				131987	132322	132657	EIRP(W)		
Frequency (MHz)				1711.5	1745	1778.5	L	M	H
3	QPSK	1	0	22.24	22.12	22.16	0.1268	0.1233	0.1245
3	16QAM	1	0	21.82	21.86	21.82	0.1151	0.1161	0.1151
Channel				131979	132322	132665	EIRP(W)		
Frequency (MHz)				1710.7	1745	1779.3	L	M	H
1.4	QPSK	1	0	22.24	22.12	22.16	0.1268	0.1233	0.1245
1.4	16QAM	1	0	21.82	21.86	21.82	0.1151	0.1161	0.1151

LTE Band 12

Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.96	5.91	6.38	PASS

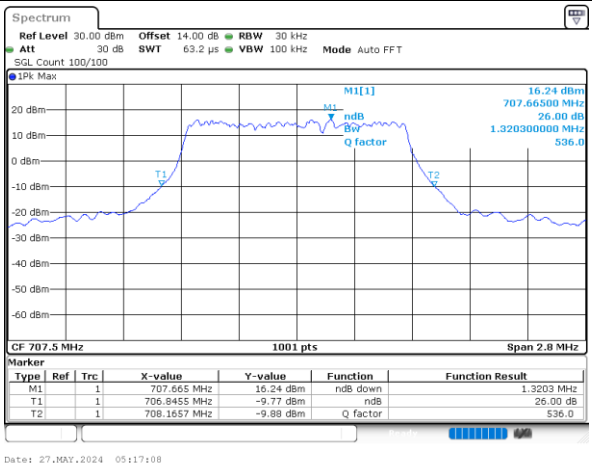
LTE Band 12 / 10MHz / QPSK	LTE Band 12 / 10MHz / 16QAM
Middle Channel / Full RB	Middle Channel / Full RB
	
LTE Band 12 / 10MHz / 64QAM	**NA**
Middle Channel / Full RB	
	

26dB Bandwidth

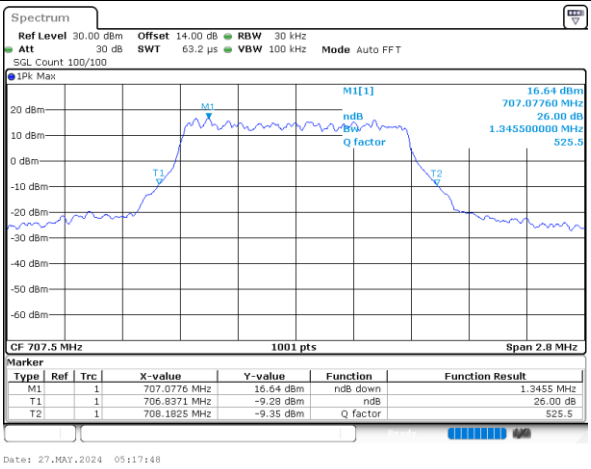
Mode	LTE Band 12 : 26dB BW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.32	1.35	3.10	3.10	5.01	5.06	9.69	10.01

LTE Band 12

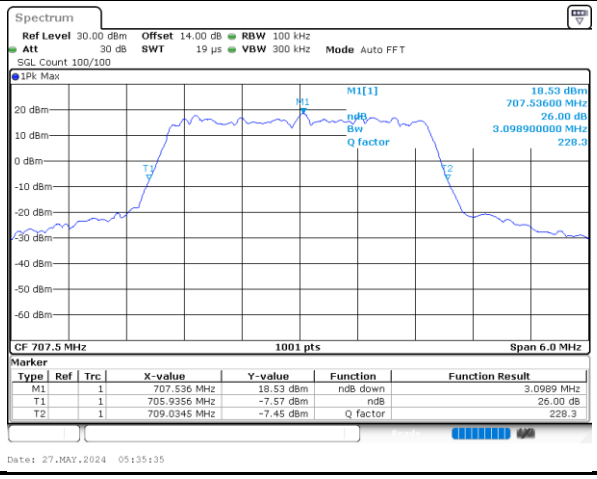
Middle Channel / 1.4MHz / QPSK



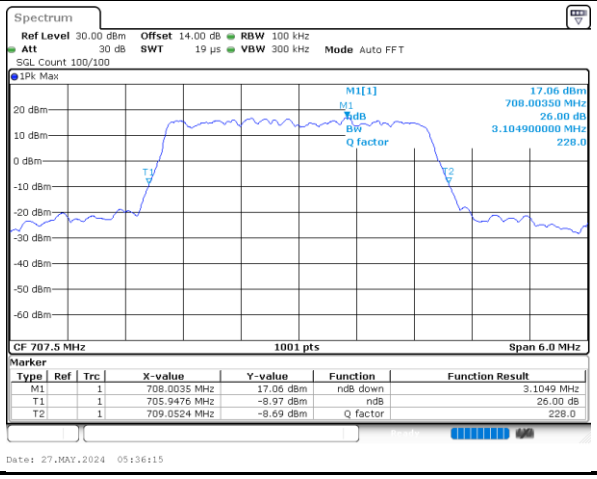
Middle Channel / 1.4MHz / 16QAM



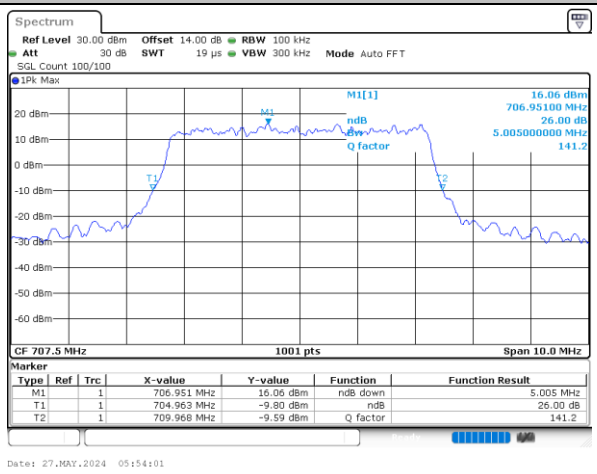
Middle Channel / 3MHz / QPSK



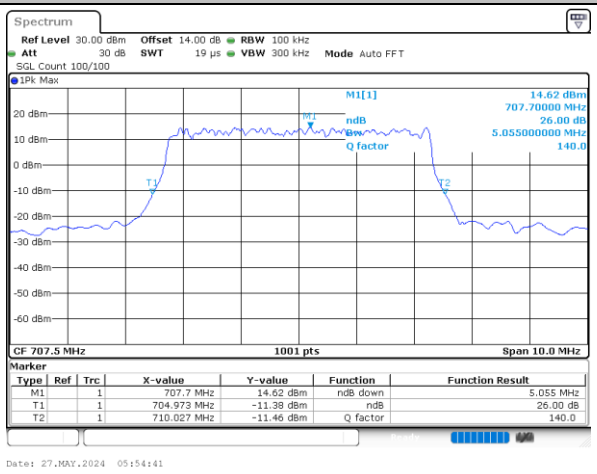
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK

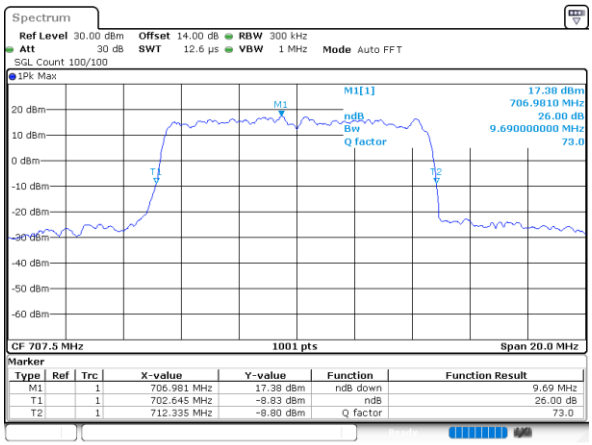


Middle Channel / 5MHz / 16QAM

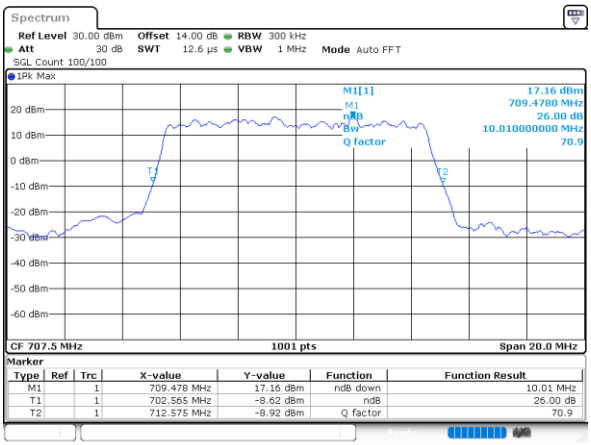


LTE Band 12

Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM

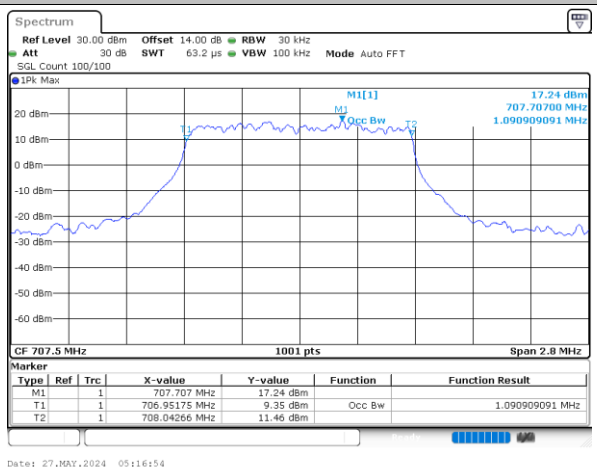


Occupied Bandwidth

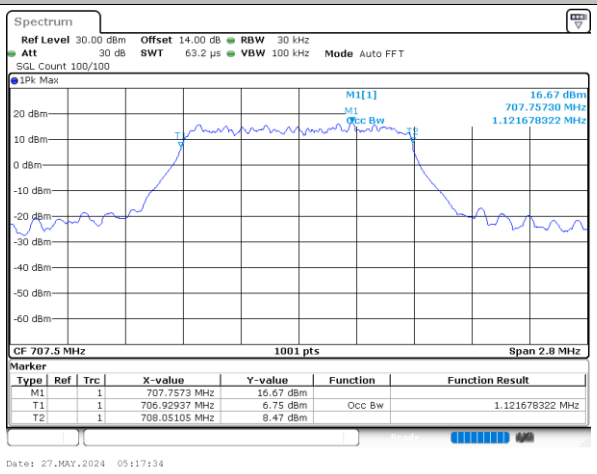
Mode	LTE Band 12 : 99%OBW(MHz)							
BW	1.4MHz		3MHz		5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.09	1.12	2.72	2.72	4.49	4.50	9.01	9.03

LTE Band 12

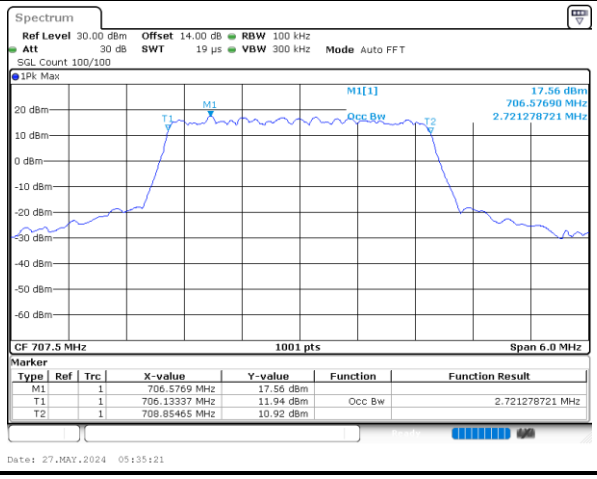
Middle Channel / 1.4MHz / QPSK



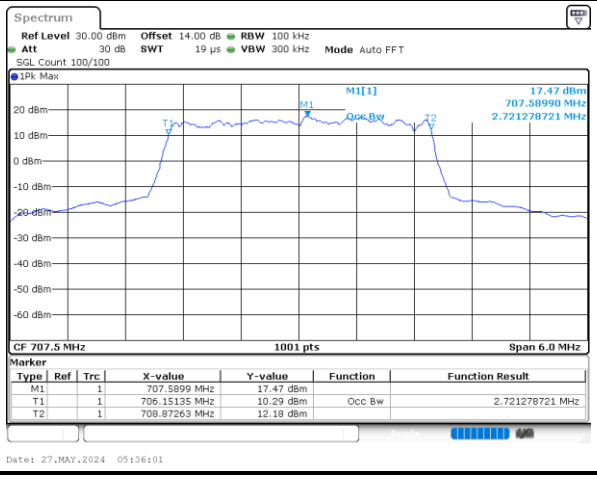
Middle Channel / 1.4MHz / 16QAM



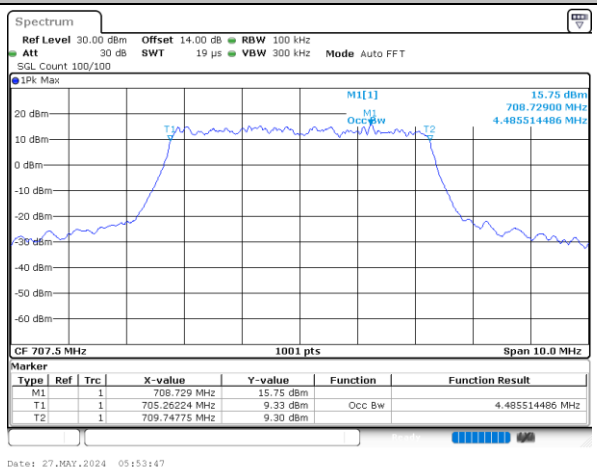
Middle Channel / 3MHz / QPSK



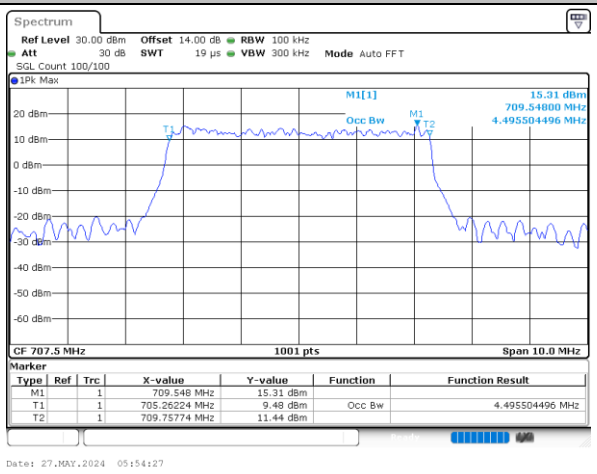
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK

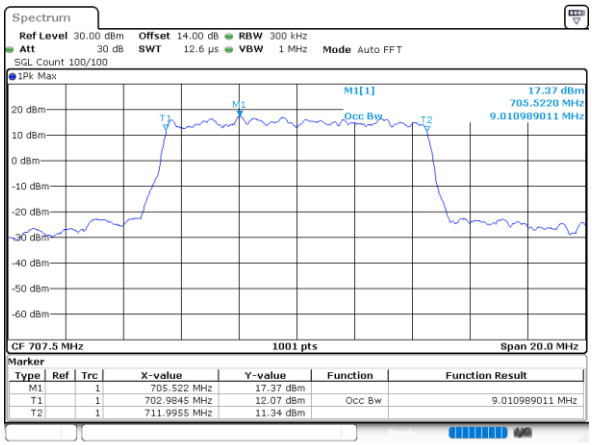


Middle Channel / 5MHz / 16QAM

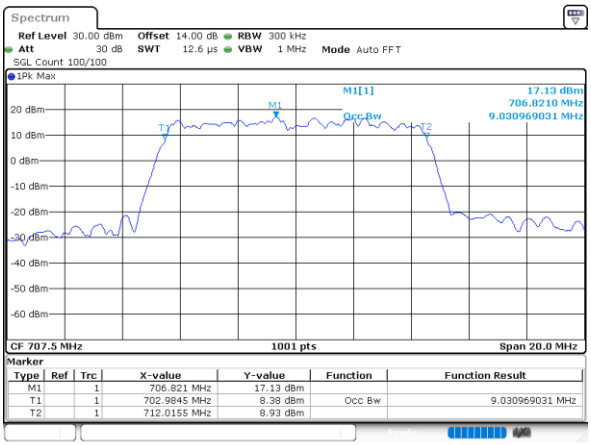


LTE Band 12

Middle Channel / 10MHz / QPSK



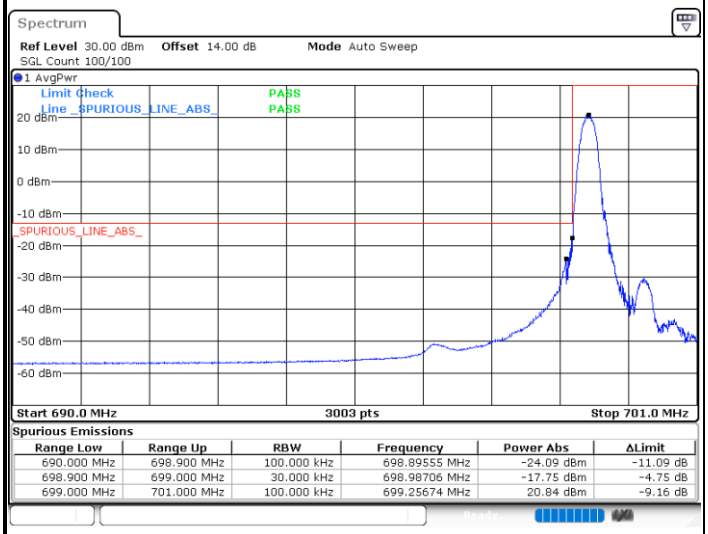
Middle Channel / 10MHz / 16QAM



Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1RB

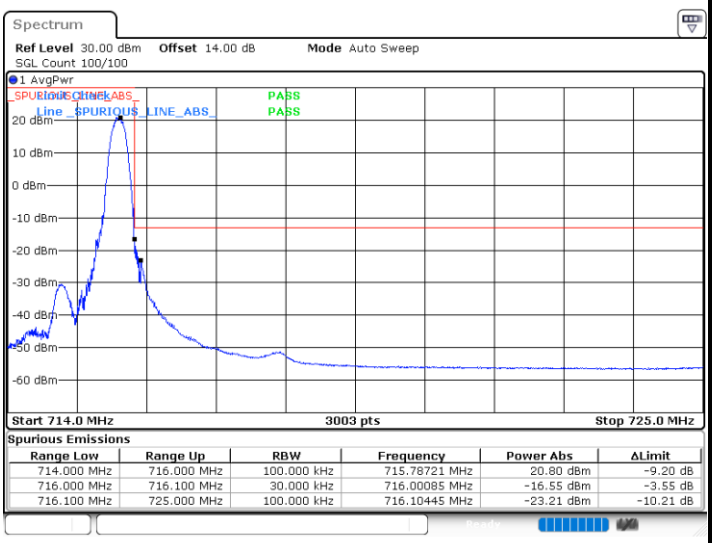


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-24.09 dBm	-11.09 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.98706 MHz	-17.75 dBm	-4.75 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.25674 MHz	20.84 dBm	-9.16 dB

Date: 27.MAY.2024 05:08:27

Highest Band Edge / 1RB

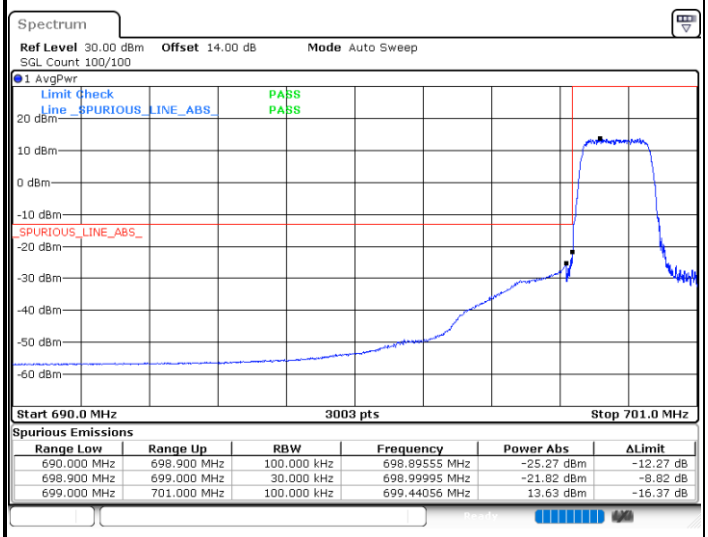


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.78721 MHz	20.80 dBm	-9.20 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00085 MHz	-16.55 dBm	-3.55 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-23.21 dBm	-10.21 dB

Date: 8.JUN.2024 09:32:45

Lowest Band Edge / Full RB

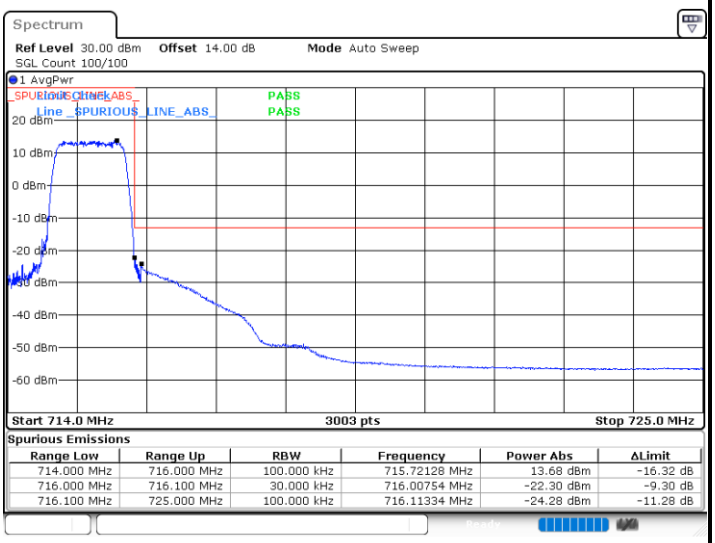


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-25.27 dBm	-12.27 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99995 MHz	-21.82 dBm	-8.82 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.44056 MHz	13.63 dBm	-16.37 dB

Date: 27.MAY.2024 05:11:50

Highest Band Edge / Full RB



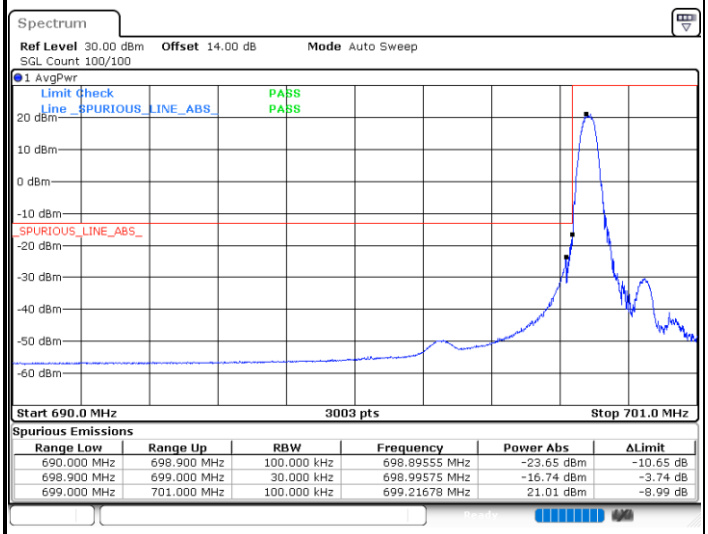
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.72128 MHz	13.68 dBm	-16.32 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00754 MHz	-22.30 dBm	-9.30 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.11334 MHz	-24.28 dBm	-11.28 dB

Date: 27.MAY.2024 05:22:18

LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

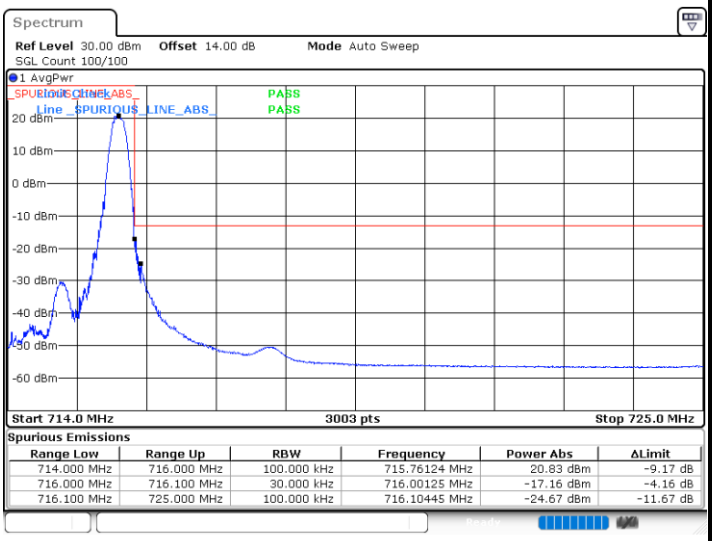


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-23.65 dBm	-10.65 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99575 MHz	-16.74 dBm	-3.74 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.21678 MHz	21.01 dBm	-8.99 dB

Date: 27.MAY.2024 05:09:35

Highest Band Edge / 1 RB

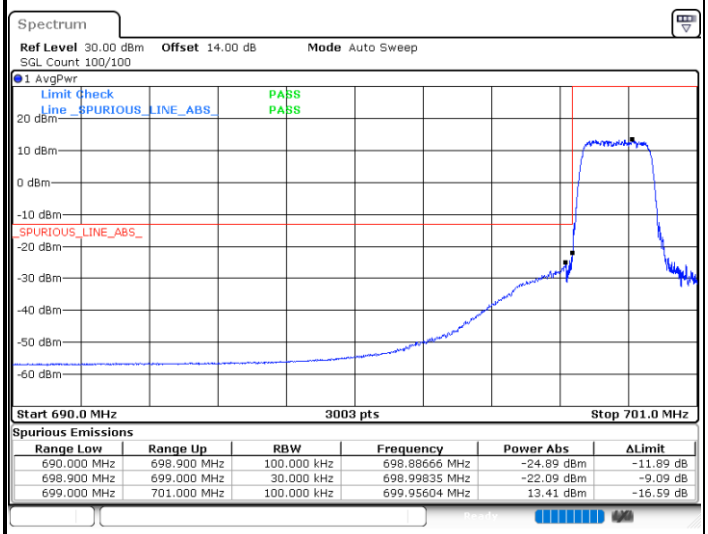


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.76124 MHz	20.83 dBm	-9.17 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00125 MHz	-17.16 dBm	-4.16 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-24.67 dBm	-11.67 dB

Date: 27.MAY.2024 05:20:02

Lowest Band Edge / Full RB

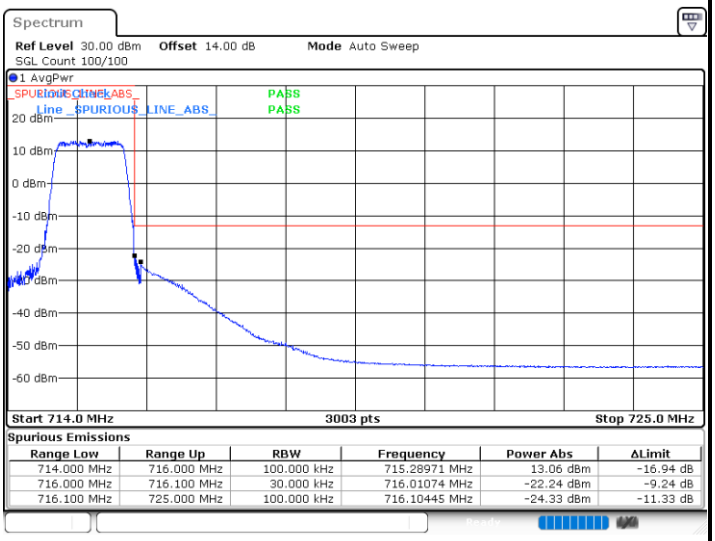


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.88666 MHz	-24.89 dBm	-11.89 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99835 MHz	-22.09 dBm	-9.09 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.95604 MHz	13.41 dBm	-16.59 dB

Date: 27.MAY.2024 05:12:58

Highest Band Edge / Full RB



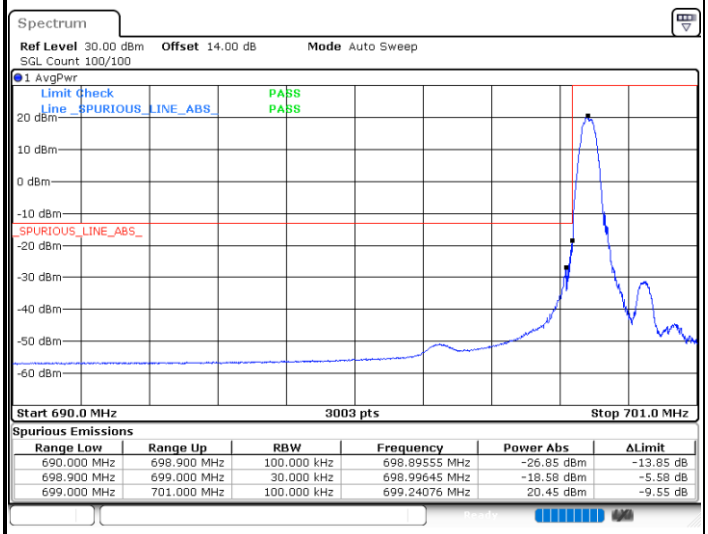
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.28971 MHz	13.06 dBm	-16.94 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.01074 MHz	-22.24 dBm	-9.24 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-24.33 dBm	-11.33 dB

Date: 27.MAY.2024 05:23:25

LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB

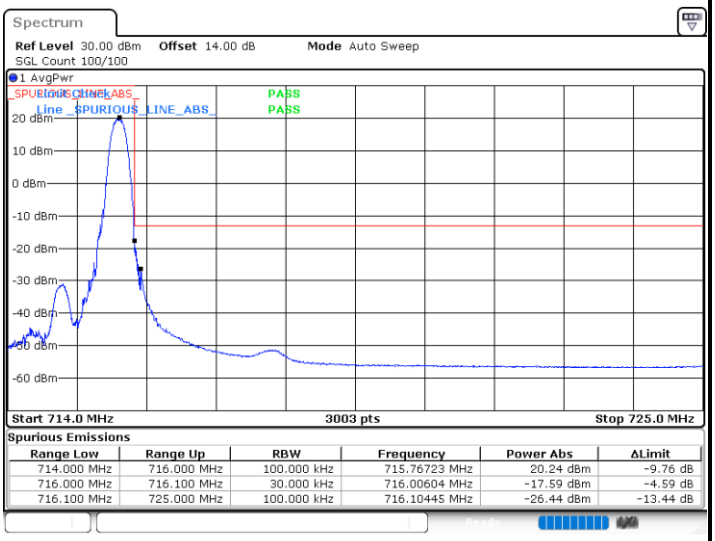


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-26.85 dBm	-13.85 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99645 MHz	-18.58 dBm	-5.58 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.24076 MHz	20.45 dBm	-9.55 dB

Date: 27.MAY.2024 05:10:42

Highest Band Edge / 1 RB

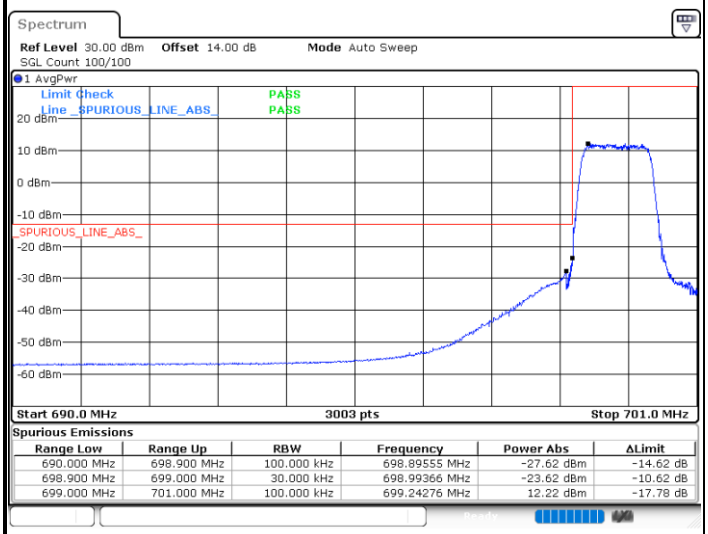


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.76723 MHz	20.24 dBm	-9.76 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00604 MHz	-17.59 dBm	-4.59 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-26.44 dBm	-13.44 dB

Date: 27.MAY.2024 05:21:09

Lowest Band Edge / Full RB

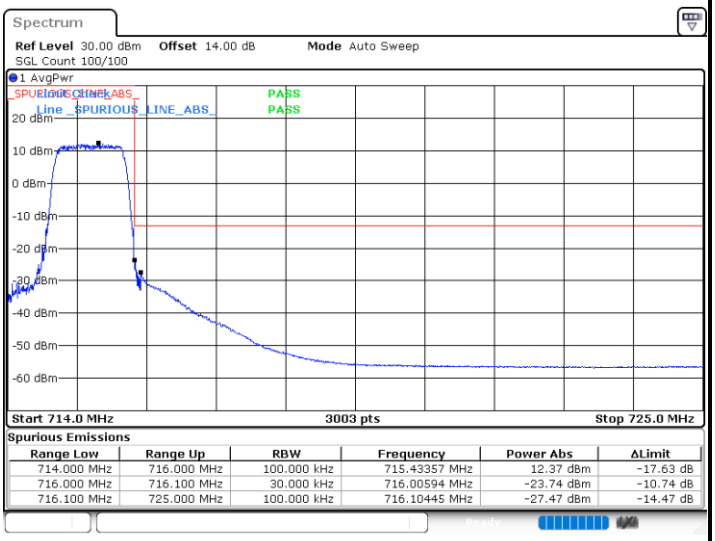


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-27.62 dBm	-14.62 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99366 MHz	-23.62 dBm	-10.62 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.24276 MHz	12.22 dBm	-17.78 dB

Date: 27.MAY.2024 05:14:05

Highest Band Edge / Full RB



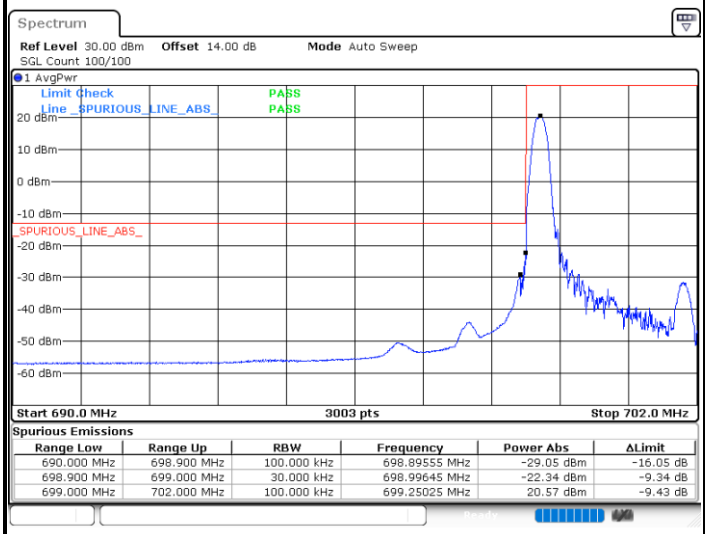
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.43357 MHz	12.37 dBm	-17.63 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00594 MHz	-23.74 dBm	-10.74 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-27.47 dBm	-14.47 dB

Date: 27.MAY.2024 05:24:33

LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB

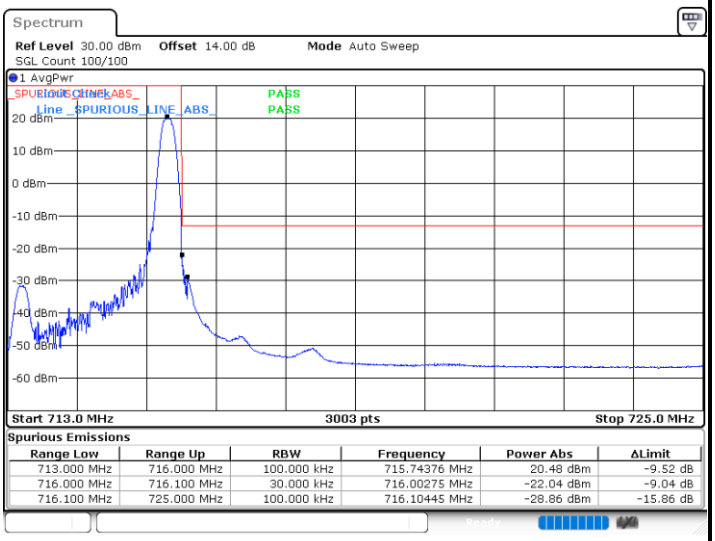


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-29.05 dBm	-16.05 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99645 MHz	-22.34 dBm	-9.34 dB
699.000 MHz	702.000 MHz	100.000 kHz	699.25025 MHz	20.57 dBm	-9.43 dB

Date: 27.MAY.2024 05:26:53

Highest Band Edge / 1RB

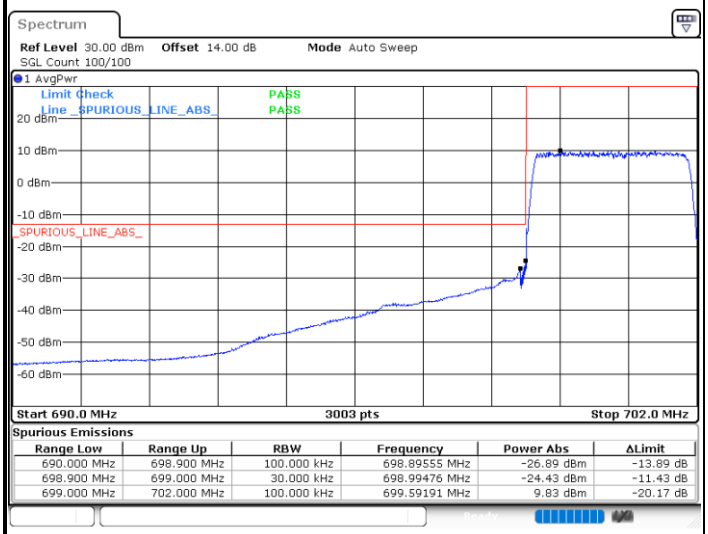


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	715.74376 MHz	20.48 dBm	-9.52 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00275 MHz	-22.04 dBm	-9.04 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-28.86 dBm	-15.86 dB

Date: 27.MAY.2024 05:37:20

Lowest Band Edge / Full RB

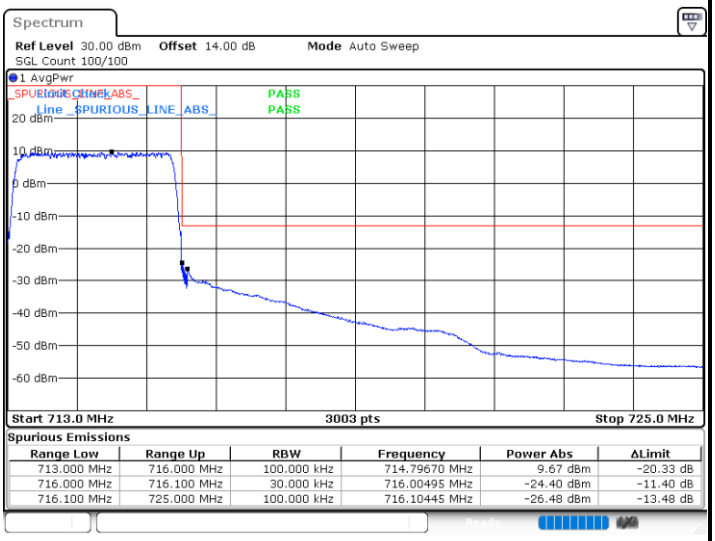


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-26.89 dBm	-13.89 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99476 MHz	-24.43 dBm	-11.43 dB
699.000 MHz	702.000 MHz	100.000 kHz	699.59191 MHz	9.83 dBm	-20.17 dB

Date: 27.MAY.2024 05:30:16

Highest Band Edge / Full RB



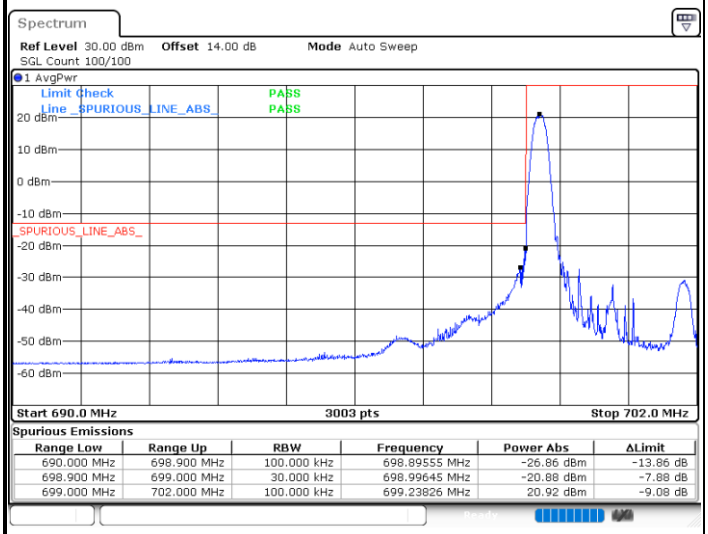
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	714.79670 MHz	9.67 dBm	-20.33 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00495 MHz	-24.40 dBm	-11.40 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-26.48 dBm	-13.48 dB

Date: 27.MAY.2024 05:40:44

LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB

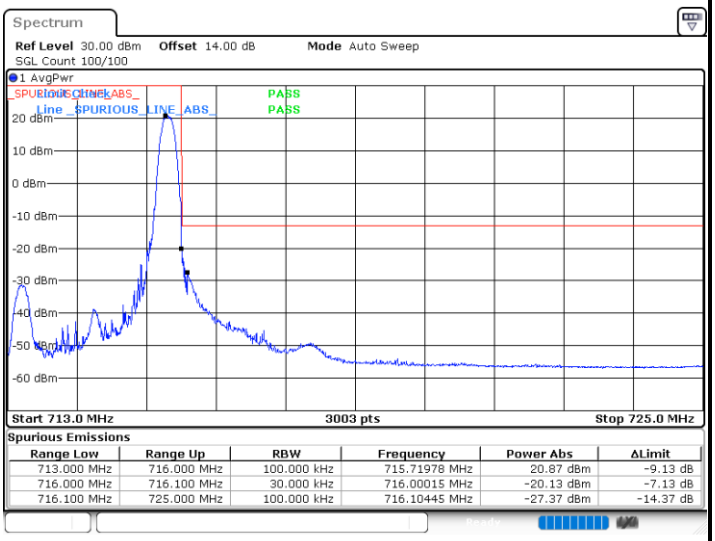


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-26.86 dBm	-13.86 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99645 MHz	-20.88 dBm	-7.88 dB
699.000 MHz	702.000 MHz	100.000 kHz	699.23826 MHz	20.92 dBm	-9.08 dB

Date: 27.MAY.2024 05:28:01

Highest Band Edge / 1 RB

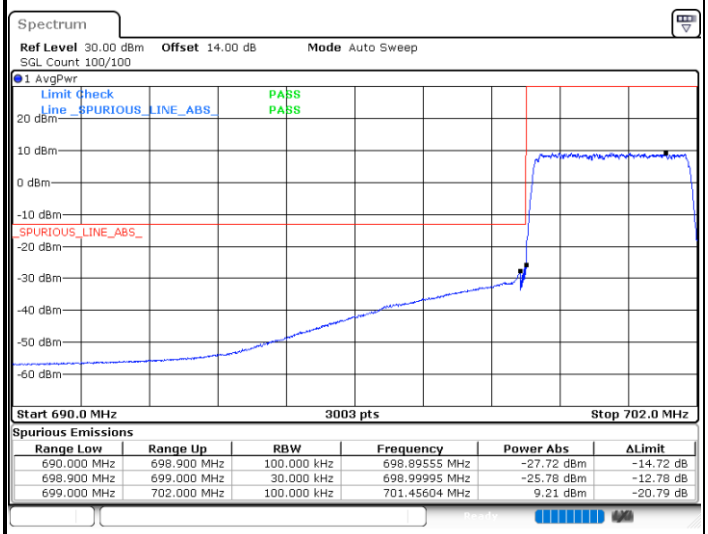


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	715.71978 MHz	20.87 dBm	-9.13 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00015 MHz	-20.13 dBm	-7.13 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-27.37 dBm	-14.37 dB

Date: 27.MAY.2024 05:38:28

Lowest Band Edge / Full RB

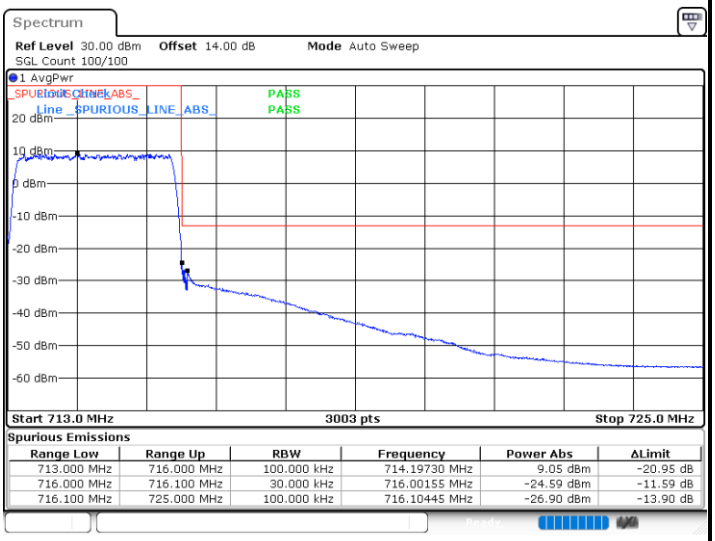


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-27.72 dBm	-14.72 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99995 MHz	-25.78 dBm	-12.78 dB
699.000 MHz	702.000 MHz	100.000 kHz	701.45604 MHz	9.21 dBm	-20.79 dB

Date: 27.MAY.2024 05:31:24

Highest Band Edge / Full RB



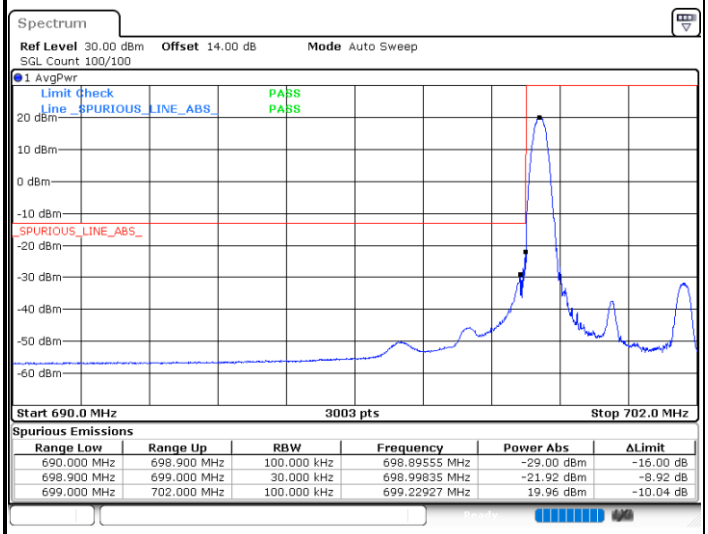
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	714.19730 MHz	9.05 dBm	-20.95 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00155 MHz	-24.59 dBm	-11.59 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-26.90 dBm	-13.90 dB

Date: 27.MAY.2024 05:41:52

LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB

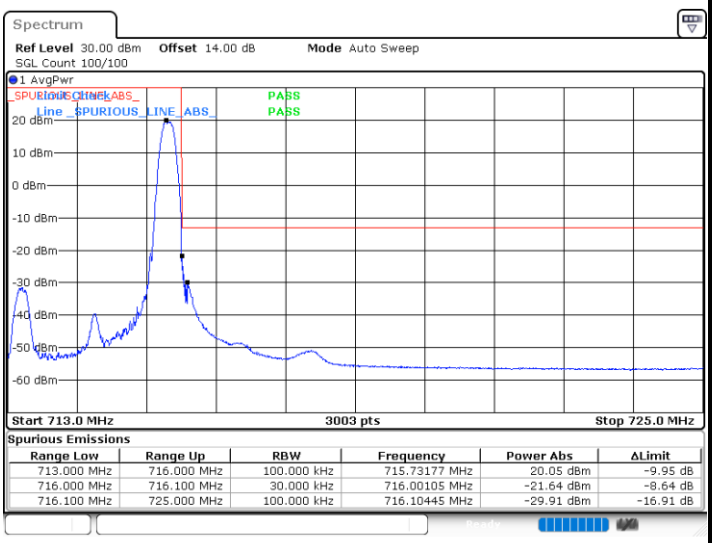


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-29.00 dBm	-16.00 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99835 MHz	-21.92 dBm	-8.92 dB
699.000 MHz	702.000 MHz	100.000 kHz	699.22927 MHz	19.96 dBm	-10.04 dB

Date: 27.MAY.2024 05:29:09

Highest Band Edge / 1 RB

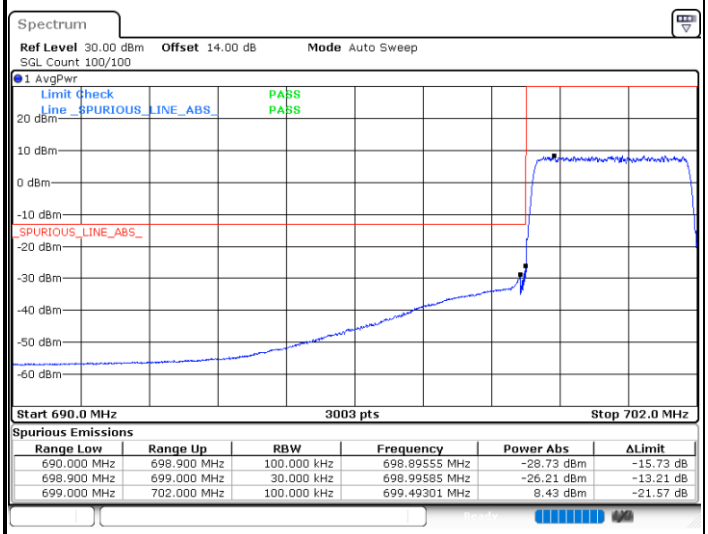


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	715.73177 MHz	20.05 dBm	-9.95 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00105 MHz	-21.64 dBm	-8.64 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-29.91 dBm	-16.91 dB

Date: 27.MAY.2024 05:39:36

Lowest Band Edge / Full RB

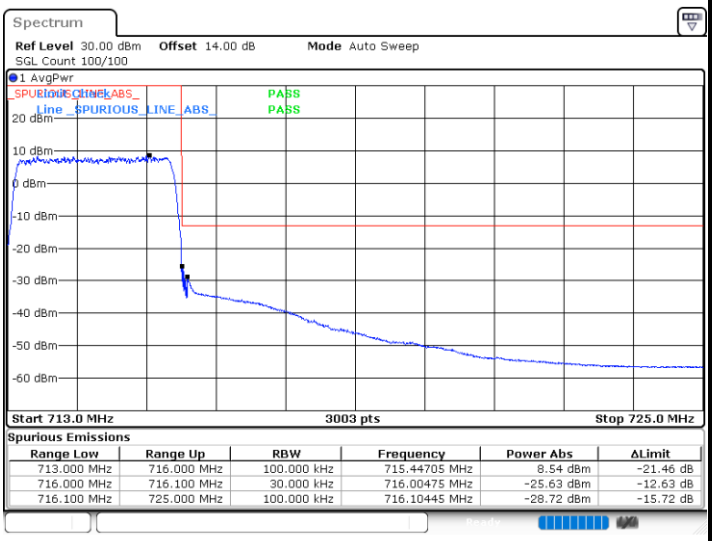


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-28.73 dBm	-15.73 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99585 MHz	-26.21 dBm	-13.21 dB
699.000 MHz	702.000 MHz	100.000 kHz	699.49301 MHz	8.43 dBm	-21.57 dB

Date: 27.MAY.2024 05:32:32

Highest Band Edge / Full RB



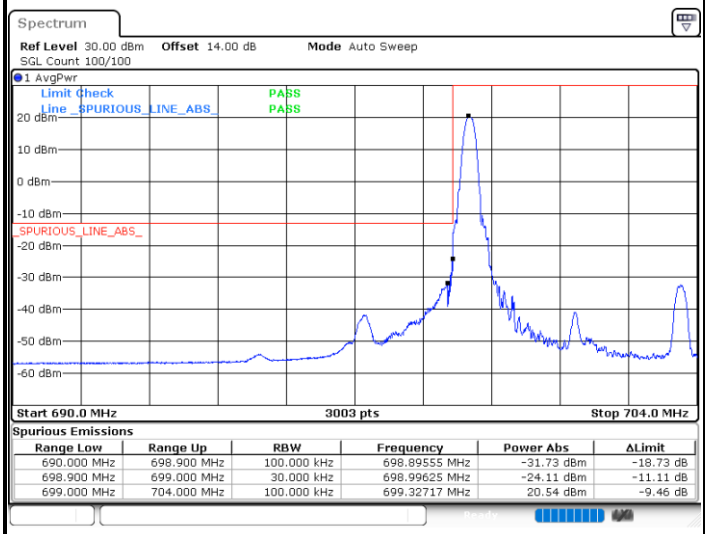
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	715.44705 MHz	8.54 dBm	-21.46 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00475 MHz	-25.63 dBm	-12.63 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-28.72 dBm	-15.72 dB

Date: 27.MAY.2024 05:42:59

LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1RB

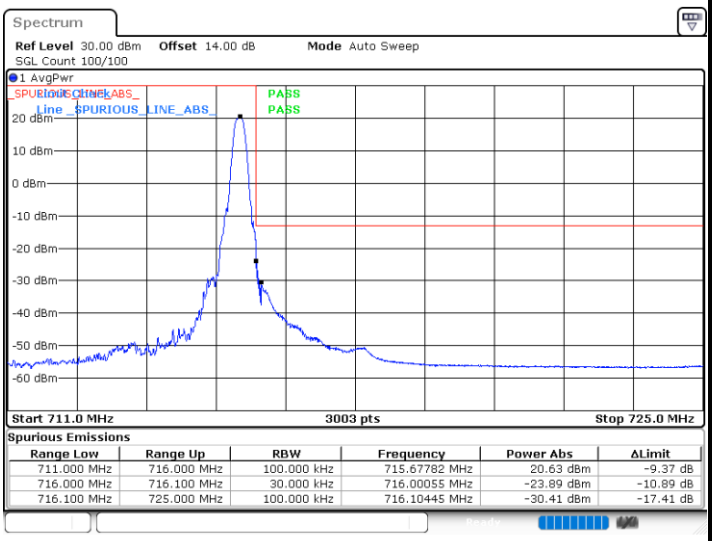


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-31.73 dBm	-18.73 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99625 MHz	-24.11 dBm	-11.11 dB
699.000 MHz	704.000 MHz	100.000 kHz	699.32717 MHz	20.54 dBm	-9.46 dB

Date: 27.MAY.2024 05:45:20

Highest Band Edge / 1RB

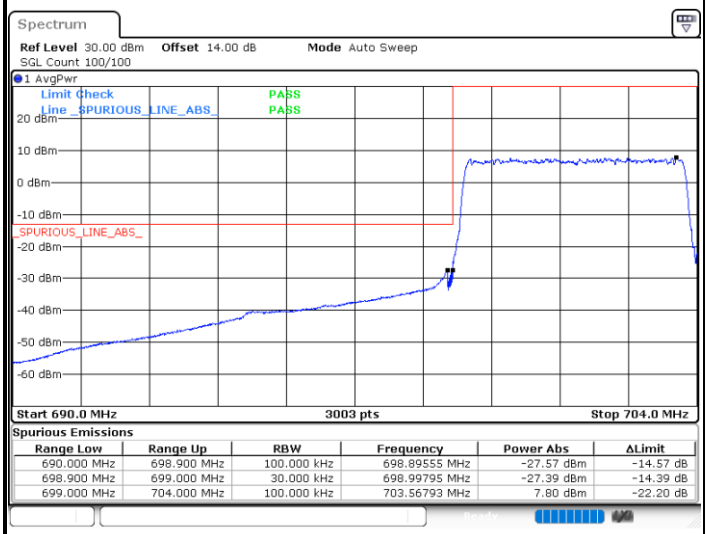


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.67782 MHz	20.63 dBm	-9.37 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00055 MHz	-23.89 dBm	-10.89 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-30.41 dBm	-17.41 dB

Date: 27.MAY.2024 05:55:47

Lowest Band Edge / Full RB

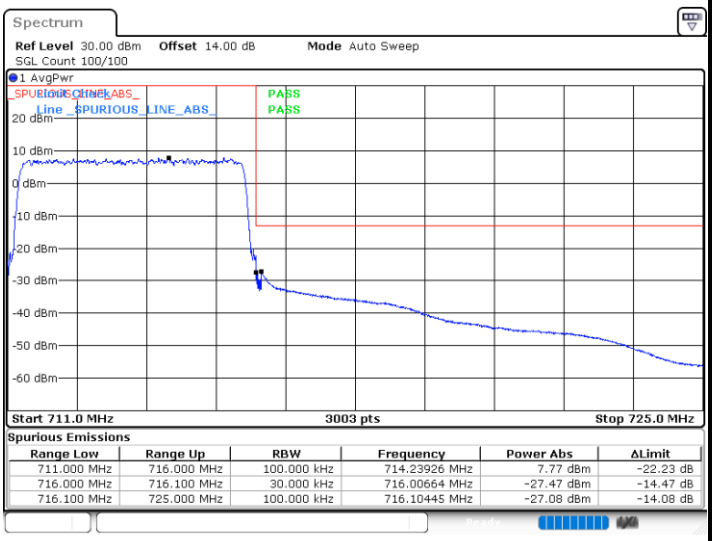


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-27.57 dBm	-14.57 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99795 MHz	-27.39 dBm	-14.39 dB
699.000 MHz	704.000 MHz	100.000 kHz	703.56793 MHz	7.80 dBm	-22.20 dB

Date: 27.MAY.2024 05:48:43

Highest Band Edge / Full RB



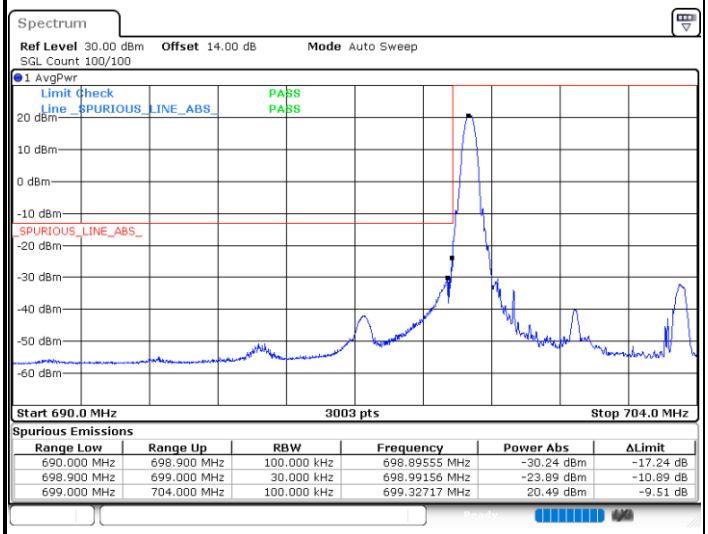
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	714.23926 MHz	7.77 dBm	-22.23 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00664 MHz	-27.47 dBm	-14.47 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-27.08 dBm	-14.08 dB

Date: 27.MAY.2024 05:59:10

LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

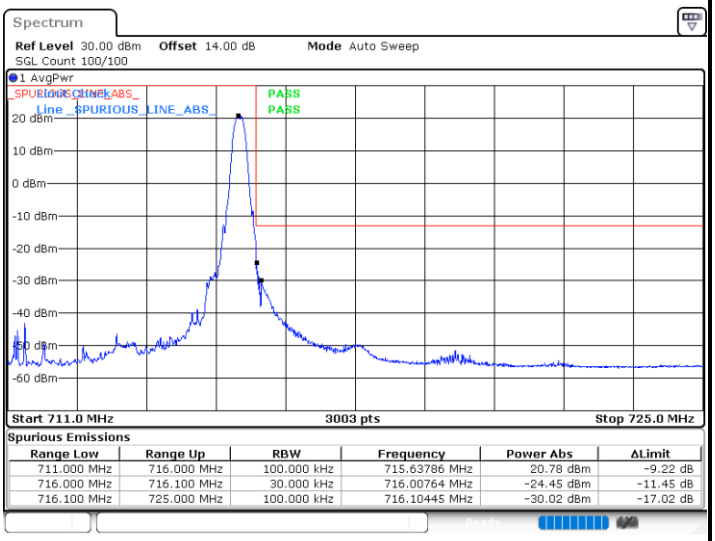


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-30.24 dBm	-17.24 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99156 MHz	-23.89 dBm	-10.89 dB
699.000 MHz	704.000 MHz	100.000 kHz	699.32717 MHz	20.49 dBm	-9.51 dB

Date: 27.MAY.2024 05:46:27

Highest Band Edge / 1 RB

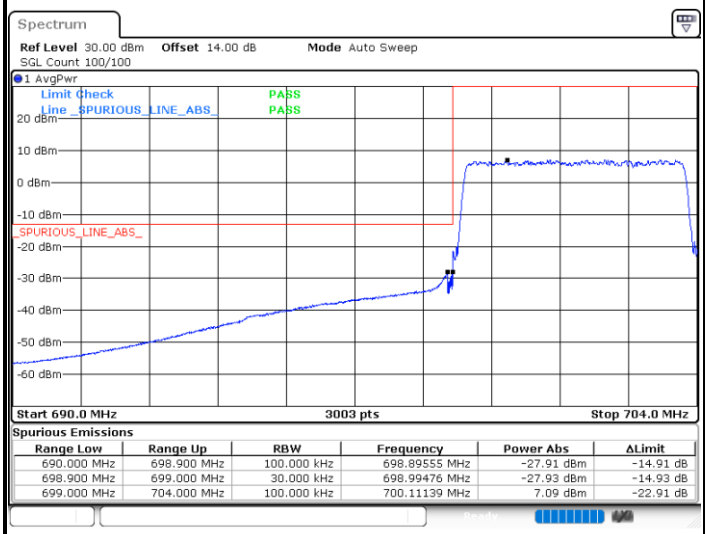


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.63786 MHz	20.78 dBm	-9.22 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00764 MHz	-24.45 dBm	-11.45 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-30.02 dBm	-17.02 dB

Date: 27.MAY.2024 05:56:55

Lowest Band Edge / Full RB

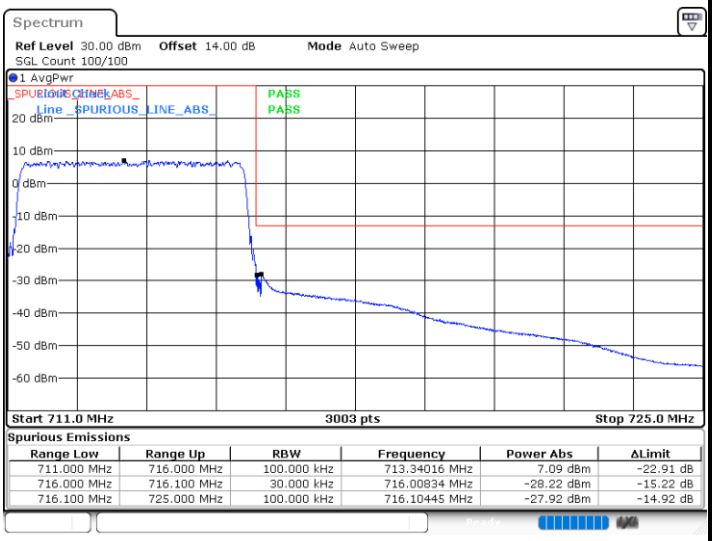


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-27.91 dBm	-14.91 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99476 MHz	-27.93 dBm	-14.93 dB
699.000 MHz	704.000 MHz	100.000 kHz	700.11139 MHz	7.09 dBm	-22.91 dB

Date: 27.MAY.2024 05:49:51

Highest Band Edge / Full RB



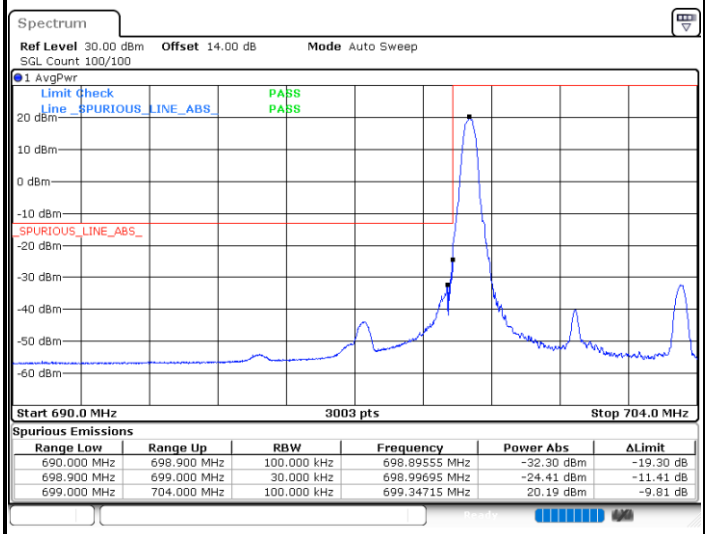
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	713.34016 MHz	7.09 dBm	-22.91 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00834 MHz	-28.22 dBm	-15.22 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-27.92 dBm	-14.92 dB

Date: 27.MAY.2024 06:00:18

LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

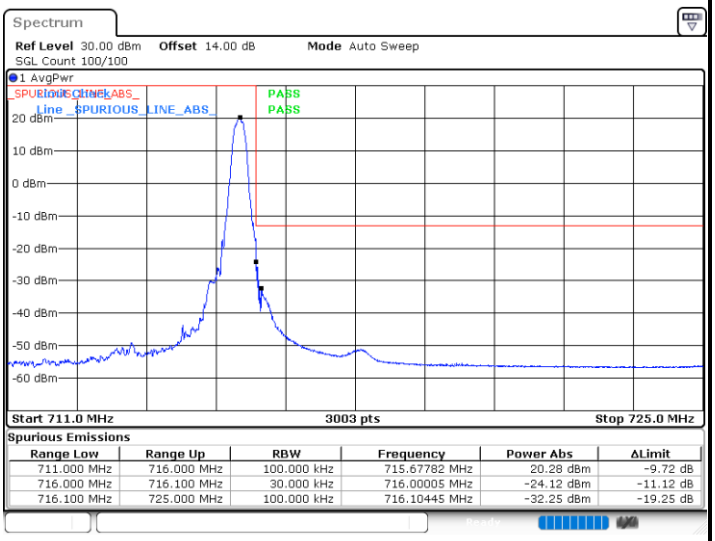


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-32.30 dBm	-19.30 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99695 MHz	-24.41 dBm	-11.41 dB
699.000 MHz	704.000 MHz	100.000 kHz	699.34715 MHz	20.19 dBm	-9.81 dB

Date: 27.MAY.2024 05:47:35

Highest Band Edge / 1 RB

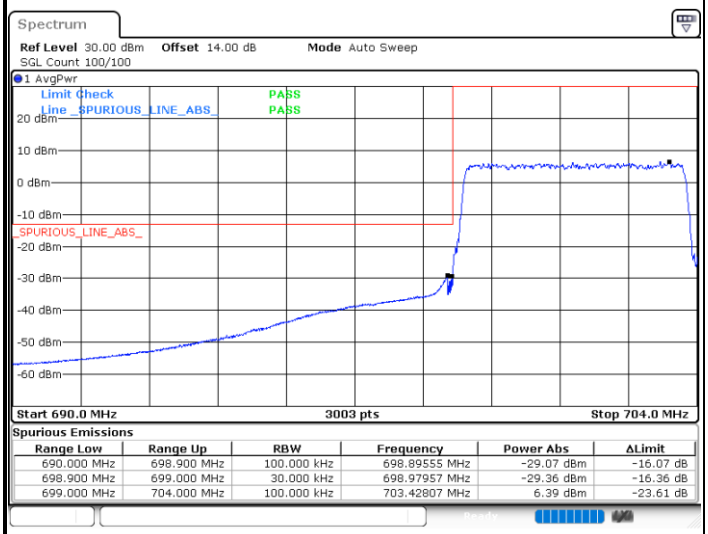


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.67782 MHz	20.28 dBm	-9.72 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00005 MHz	-24.12 dBm	-11.12 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-32.25 dBm	-19.25 dB

Date: 27.MAY.2024 05:58:02

Lowest Band Edge / Full RB

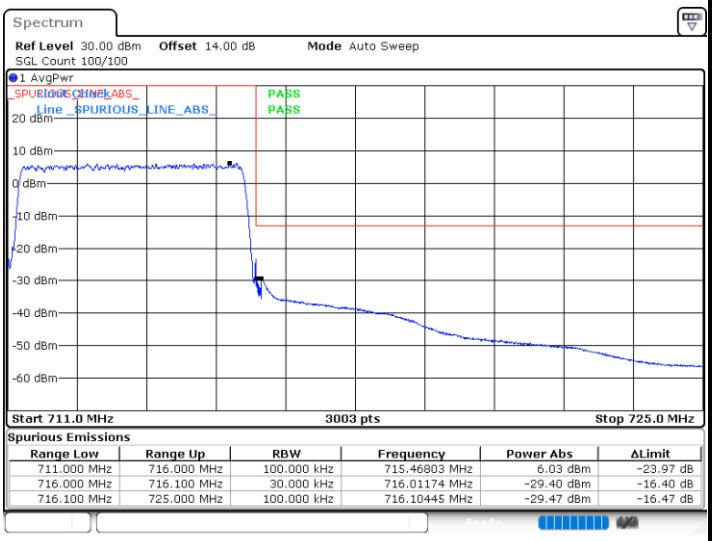


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-29.07 dBm	-16.07 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.97957 MHz	-29.36 dBm	-16.36 dB
699.000 MHz	704.000 MHz	100.000 kHz	703.42807 MHz	6.39 dBm	-23.61 dB

Date: 27.MAY.2024 05:50:58

Highest Band Edge / Full RB



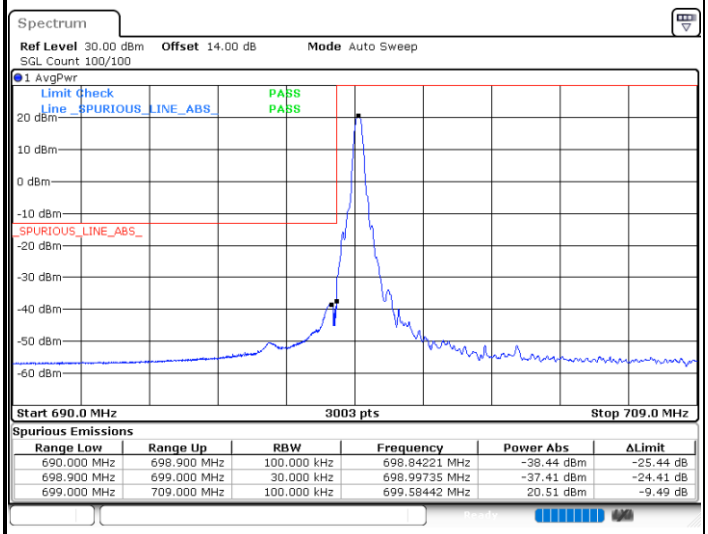
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.46803 MHz	6.03 dBm	-23.97 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.01174 MHz	-29.40 dBm	-16.40 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-29.47 dBm	-16.47 dB

Date: 27.MAY.2024 06:01:26

LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1RB

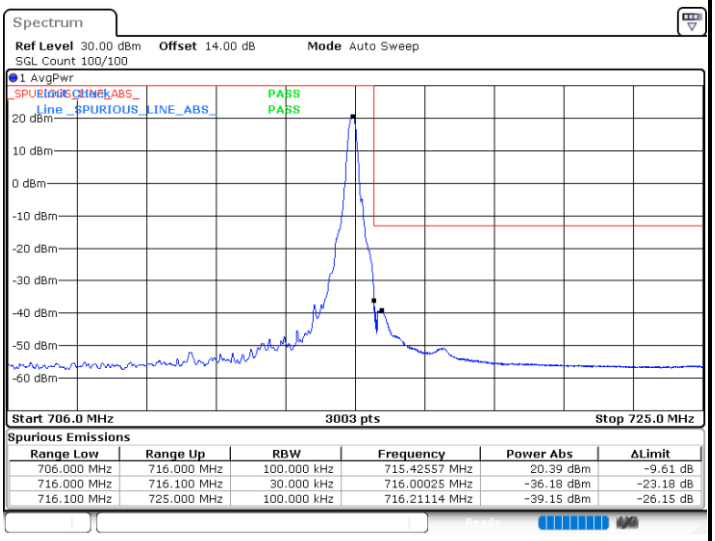


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.84221 MHz	-38.44 dBm	-25.44 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99735 MHz	-37.41 dBm	-24.41 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.58442 MHz	20.51 dBm	-9.49 dB

Date: 27.MAY.2024 06:03:47

Highest Band Edge / 1RB

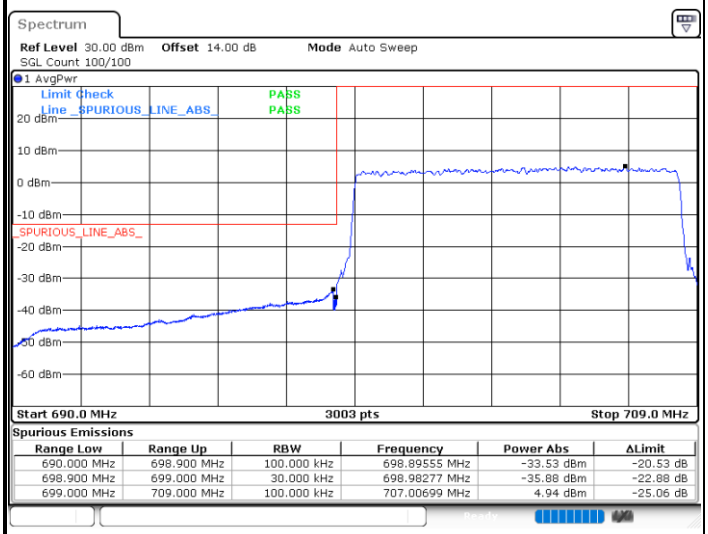


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.42557 MHz	20.39 dBm	-9.61 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00025 MHz	-36.18 dBm	-23.18 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.21114 MHz	-39.15 dBm	-26.15 dB

Date: 27.MAY.2024 06:14:16

Lowest Band Edge / Full RB

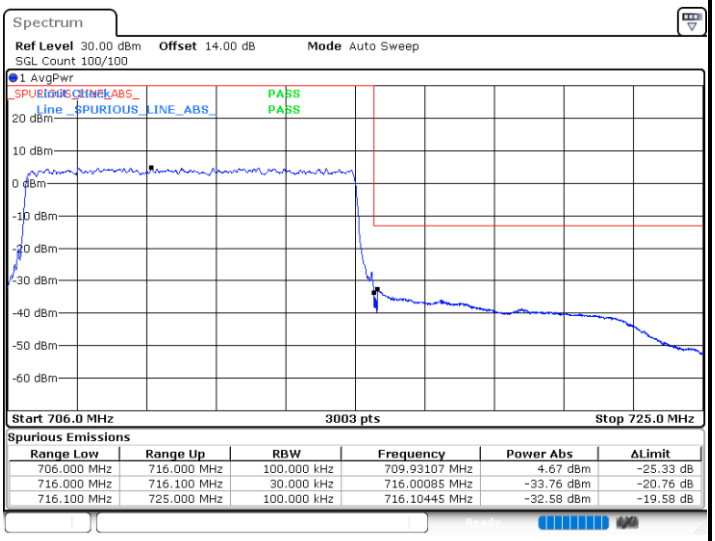


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-33.53 dBm	-20.53 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.98277 MHz	-35.88 dBm	-22.88 dB
699.000 MHz	709.000 MHz	100.000 kHz	707.00699 MHz	4.94 dBm	-25.06 dB

Date: 27.MAY.2024 06:07:10

Highest Band Edge / Full RB



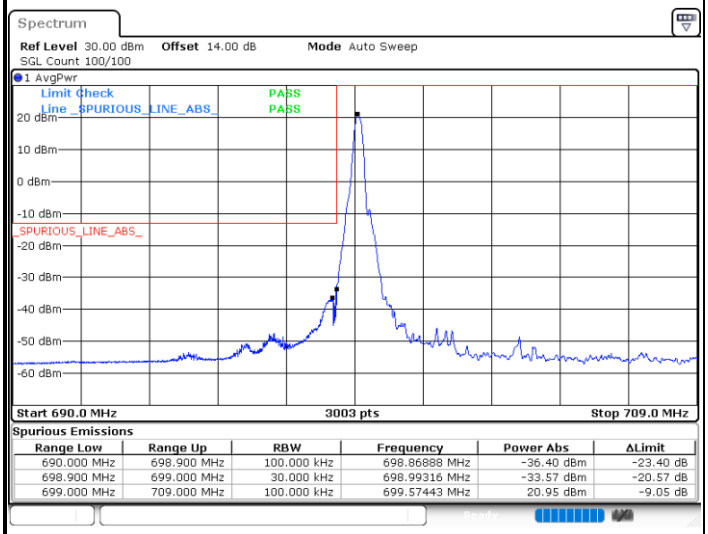
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	709.93107 MHz	4.67 dBm	-25.33 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00085 MHz	-33.76 dBm	-20.76 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-32.58 dBm	-19.58 dB

Date: 27.MAY.2024 06:17:40

LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

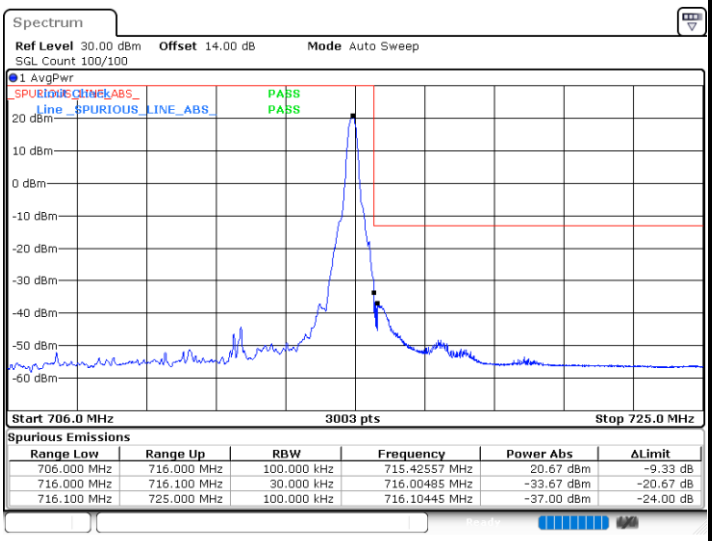


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.86888 MHz	-36.40 dBm	-23.40 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99316 MHz	-33.57 dBm	-20.57 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.57443 MHz	20.95 dBm	-9.05 dB

Date: 27.MAY.2024 06:04:54

Highest Band Edge / 1 RB

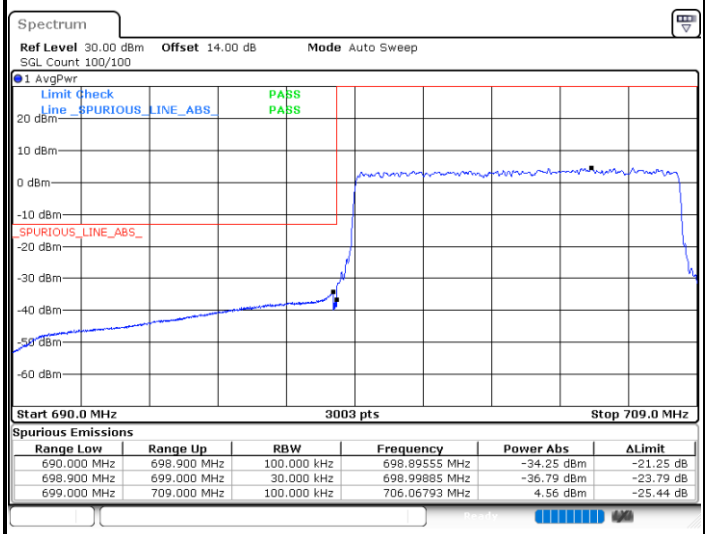


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.42557 MHz	20.67 dBm	-9.33 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00485 MHz	-33.67 dBm	-20.67 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-37.00 dBm	-24.00 dB

Date: 27.MAY.2024 06:15:24

Lowest Band Edge / Full RB

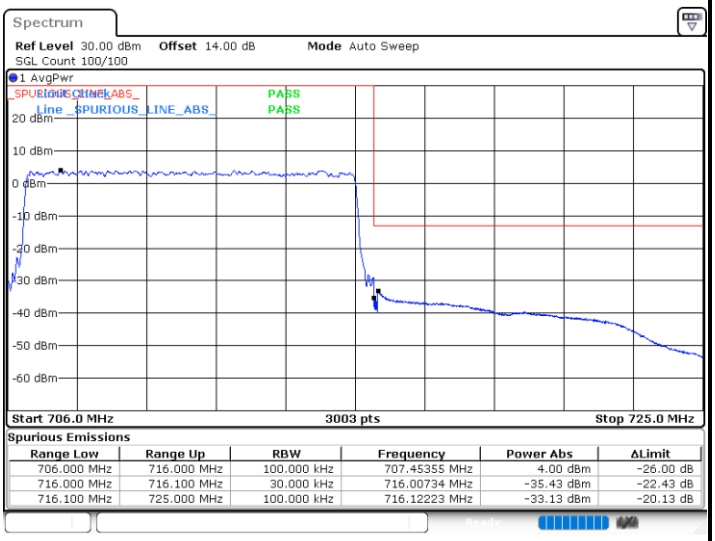


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-34.25 dBm	-21.25 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99885 MHz	-36.79 dBm	-23.79 dB
699.000 MHz	709.000 MHz	100.000 kHz	706.06793 MHz	4.56 dBm	-25.44 dB

Date: 27.MAY.2024 06:08:18

Highest Band Edge / Full RB



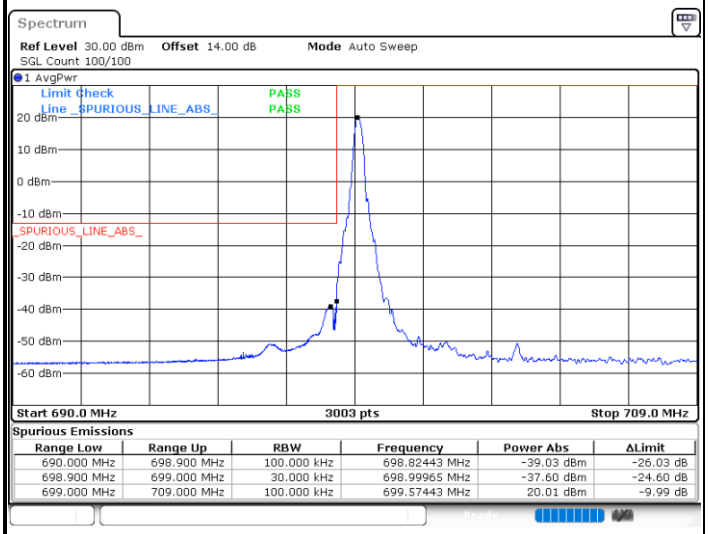
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	707.45355 MHz	4.00 dBm	-26.00 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00734 MHz	-35.43 dBm	-22.43 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.12223 MHz	-33.13 dBm	-20.13 dB

Date: 27.MAY.2024 06:18:47

LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

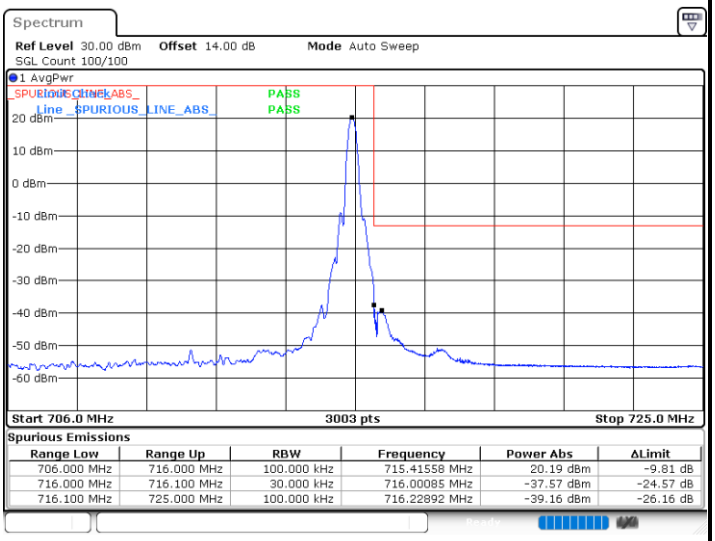


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.82443 MHz	-39.03 dBm	-26.03 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99965 MHz	-37.60 dBm	-24.60 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.57443 MHz	20.01 dBm	-9.99 dB

Date: 27.MAY.2024 06:06:02

Highest Band Edge / 1 RB

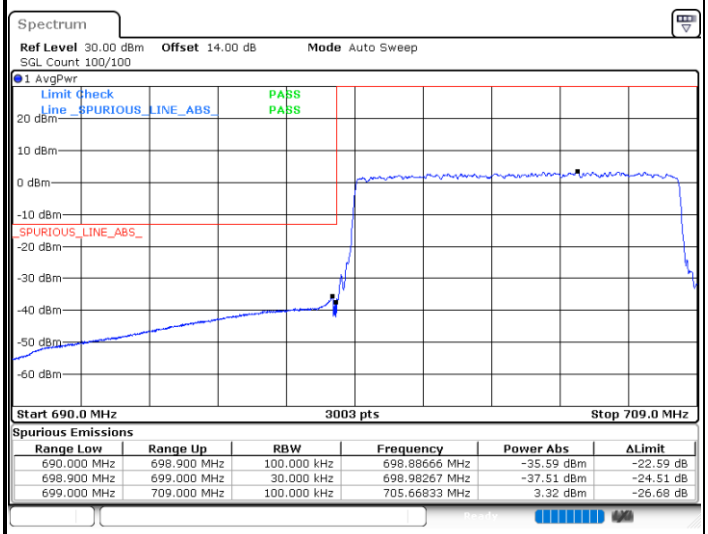


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.41558 MHz	20.19 dBm	-9.81 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00085 MHz	-37.57 dBm	-24.57 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.22892 MHz	-39.16 dBm	-26.16 dB

Date: 27.MAY.2024 06:16:32

Lowest Band Edge / Full RB

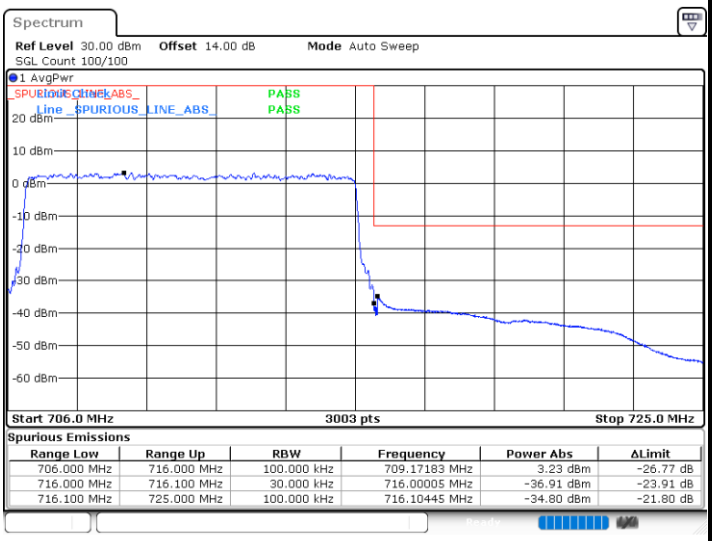


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.88666 MHz	-35.59 dBm	-22.59 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.98267 MHz	-37.51 dBm	-24.51 dB
699.000 MHz	709.000 MHz	100.000 kHz	705.66833 MHz	3.32 dBm	-26.68 dB

Date: 27.MAY.2024 06:09:26

Highest Band Edge / Full RB



Spurious Emissions

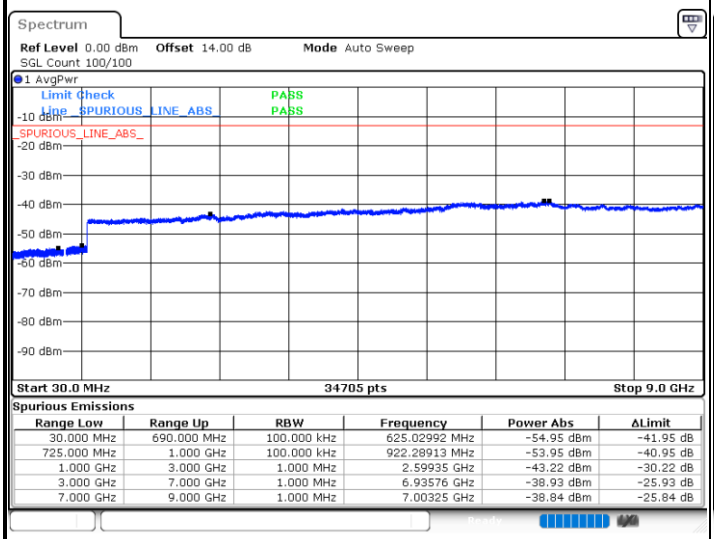
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	709.17183 MHz	3.23 dBm	-26.77 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00005 MHz	-36.91 dBm	-23.91 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-34.80 dBm	-21.80 dB

Date: 27.MAY.2024 06:19:55

Conducted Spurious Emission

LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

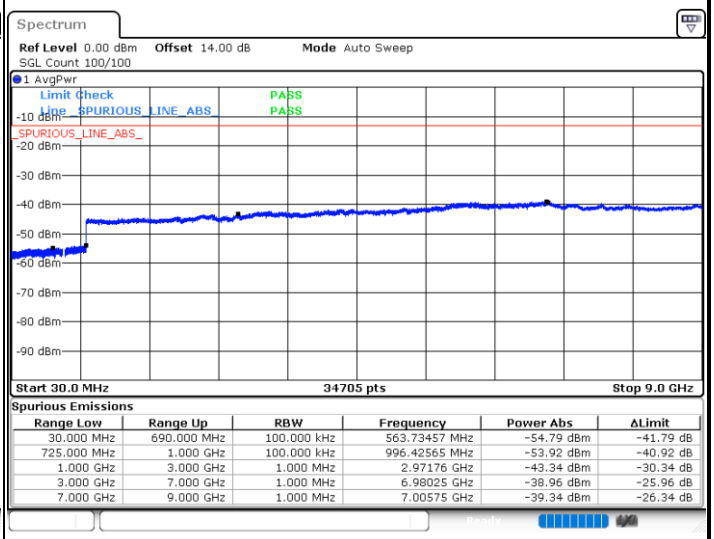


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	625.02992 MHz	-54.95 dBm	-41.95 dB
725.000 MHz	1.000 GHz	100.000 kHz	922.28913 MHz	-53.95 dBm	-40.95 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.59935 GHz	-43.22 dBm	-30.22 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93576 GHz	-38.93 dBm	-25.93 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.00325 GHz	-38.84 dBm	-25.84 dB

Date: 27.MAY.2024 05:15:18

Middle Channel / QPSK

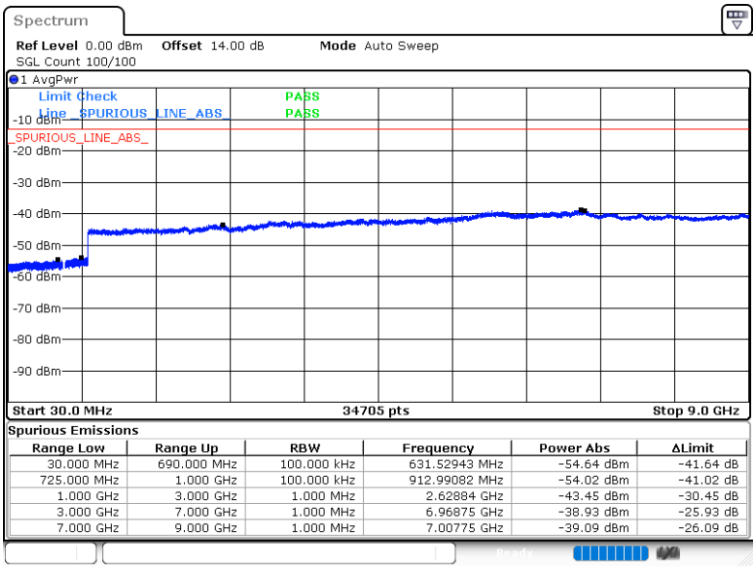


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	563.73457 MHz	-54.79 dBm	-41.79 dB
725.000 MHz	1.000 GHz	100.000 kHz	996.42565 MHz	-53.92 dBm	-40.92 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.97176 GHz	-43.34 dBm	-30.34 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98025 GHz	-38.96 dBm	-25.96 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.00575 GHz	-39.34 dBm	-26.34 dB

Date: 27.MAY.2024 05:16:28

Highest Channel / QPSK



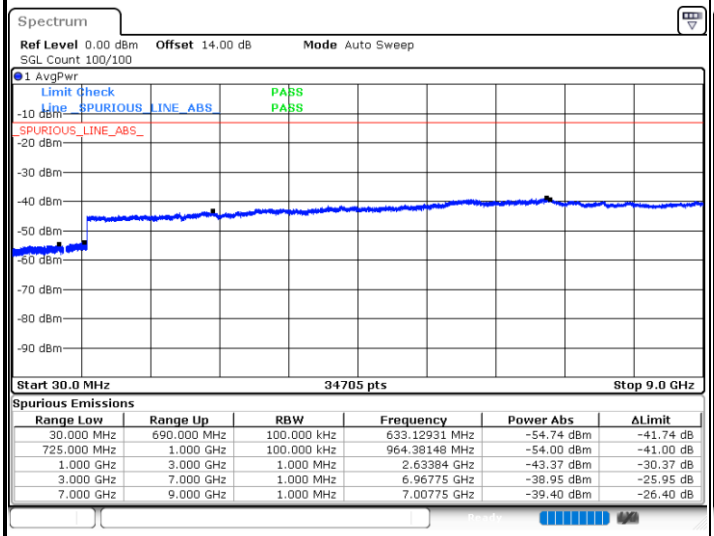
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	631.52943 MHz	-54.64 dBm	-41.64 dB
725.000 MHz	1.000 GHz	100.000 kHz	912.99082 MHz	-54.02 dBm	-41.02 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.62884 GHz	-43.45 dBm	-30.45 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96875 GHz	-38.93 dBm	-25.93 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.00775 GHz	-39.09 dBm	-26.09 dB

Date: 27.MAY.2024 05:25:45

LTE Band 12 / 3MHz

Lowest Channel / QPSK

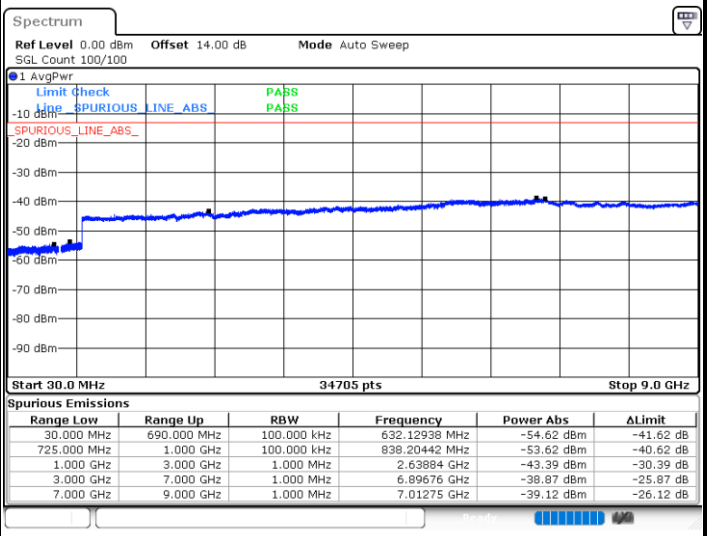


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	633.12931 MHz	-54.74 dBm	-41.74 dB
725.000 MHz	1.000 GHz	100.000 kHz	964.38148 MHz	-54.00 dBm	-41.00 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.63384 GHz	-43.37 dBm	-30.37 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96775 GHz	-38.95 dBm	-25.95 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.00775 GHz	-39.40 dBm	-26.40 dB

Date: 27.MAY.2024 05:33:44

Middle Channel / QPSK

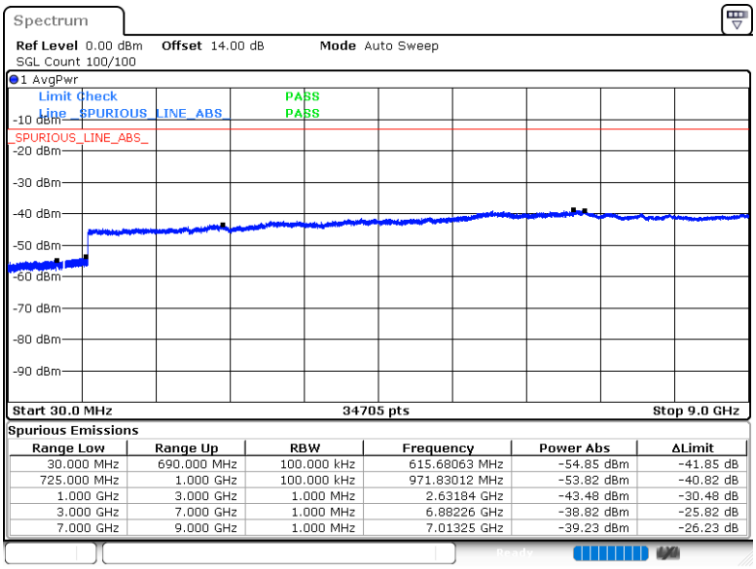


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	632.12938 MHz	-54.62 dBm	-41.62 dB
725.000 MHz	1.000 GHz	100.000 kHz	838.20442 MHz	-53.62 dBm	-40.62 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.63884 GHz	-43.39 dBm	-30.39 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.89676 GHz	-38.87 dBm	-25.87 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.01275 GHz	-39.12 dBm	-26.12 dB

Date: 27.MAY.2024 05:34:54

Highest Channel / QPSK



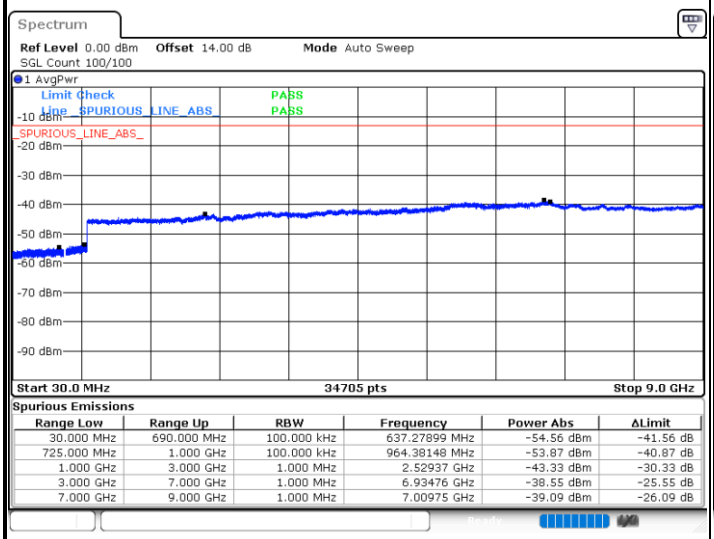
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	615.68063 MHz	-54.85 dBm	-41.85 dB
725.000 MHz	1.000 GHz	100.000 kHz	971.83012 MHz	-53.82 dBm	-40.82 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.63184 GHz	-43.48 dBm	-30.48 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88226 GHz	-38.82 dBm	-25.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.01325 GHz	-39.23 dBm	-26.23 dB

Date: 27.MAY.2024 05:44:11

LTE Band 12 / 5MHz

Lowest Channel / QPSK

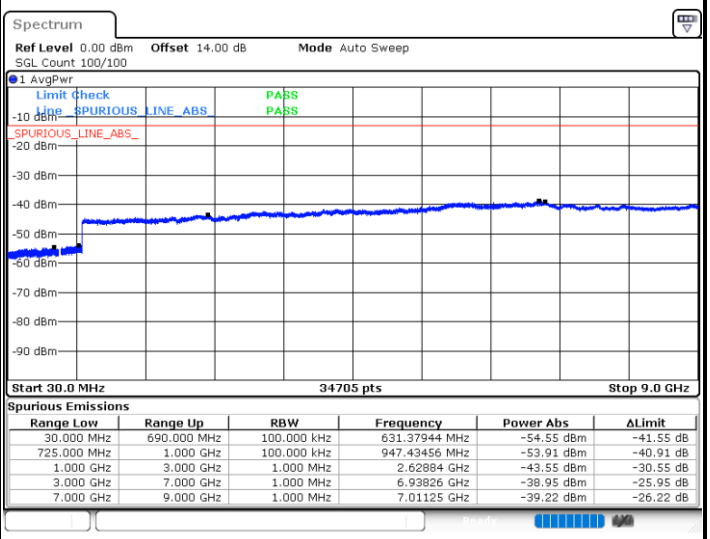


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	637.27899 MHz	-54.56 dBm	-41.56 dB
725.000 MHz	1.000 GHz	100.000 kHz	964.38148 MHz	-53.87 dBm	-40.87 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.52937 GHz	-43.33 dBm	-30.33 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93476 GHz	-38.55 dBm	-25.55 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.00975 GHz	-39.09 dBm	-26.09 dB

Date: 27.MAY.2024 05:52:11

Middle Channel / QPSK

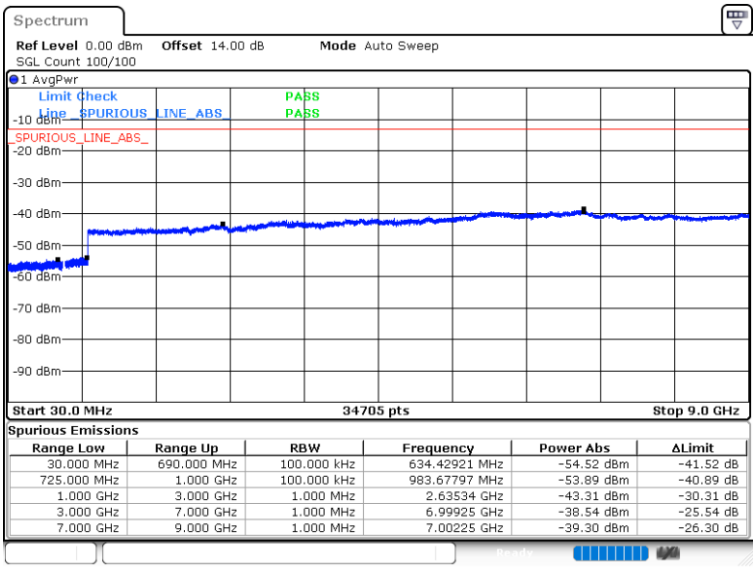


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	631.37944 MHz	-54.55 dBm	-41.55 dB
725.000 MHz	1.000 GHz	100.000 kHz	947.43456 MHz	-53.91 dBm	-40.91 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.62884 GHz	-43.55 dBm	-30.55 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93826 GHz	-38.95 dBm	-25.95 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.01125 GHz	-39.22 dBm	-26.22 dB

Date: 27.MAY.2024 05:53:21

Highest Channel / QPSK



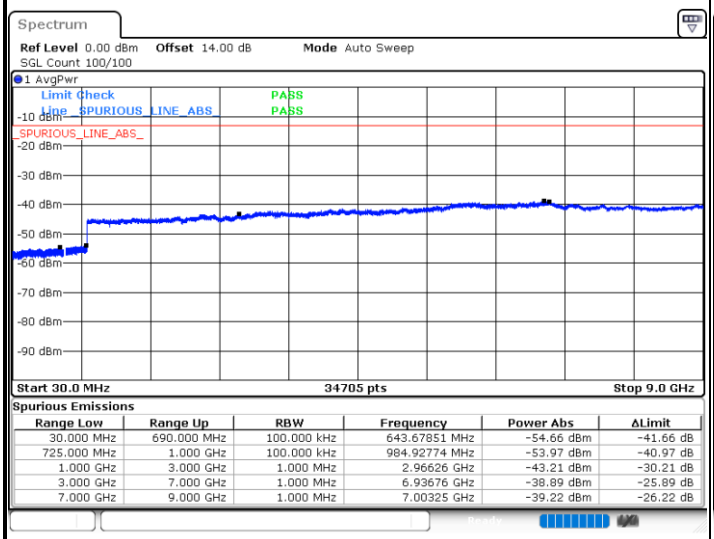
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	634.42921 MHz	-54.52 dBm	-41.52 dB
725.000 MHz	1.000 GHz	100.000 kHz	983.67797 MHz	-53.89 dBm	-40.89 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.63534 GHz	-43.31 dBm	-30.31 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99925 GHz	-38.54 dBm	-25.54 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.00225 GHz	-39.30 dBm	-26.30 dB

Date: 27.MAY.2024 06:02:38

LTE Band 12 / 10MHz

Lowest Channel / QPSK

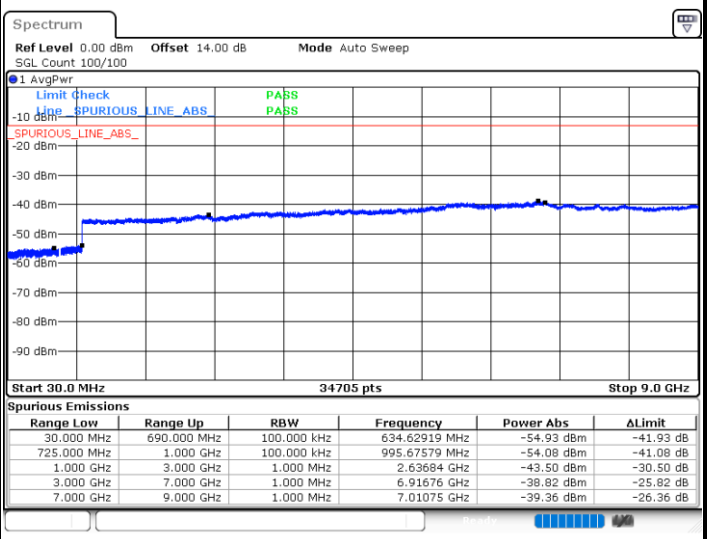


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	643.67851 MHz	-54.66 dBm	-41.66 dB
725.000 MHz	1.000 GHz	100.000 kHz	984.92774 MHz	-53.97 dBm	-40.97 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.96626 GHz	-43.21 dBm	-30.21 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93676 GHz	-38.89 dBm	-25.89 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.00325 GHz	-39.22 dBm	-26.22 dB

Date: 27.MAY.2024 06:10:38

Middle Channel / QPSK

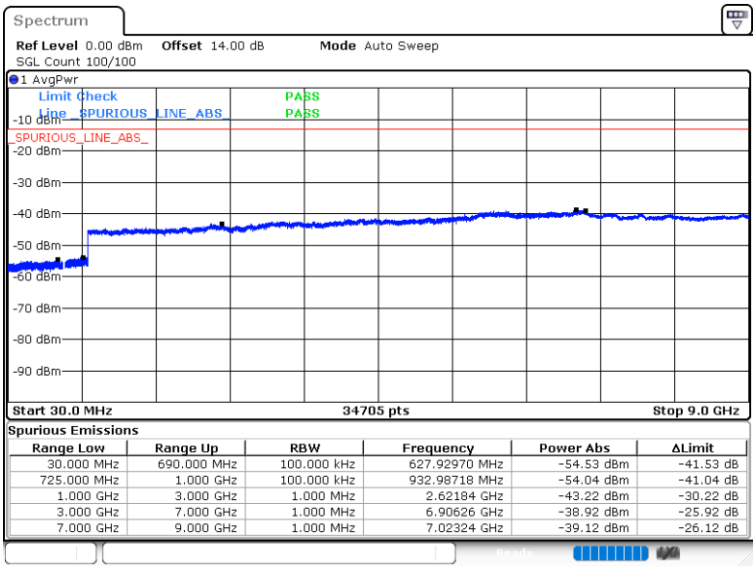


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	634.62919 MHz	-54.93 dBm	-41.93 dB
725.000 MHz	1.000 GHz	100.000 kHz	995.67579 MHz	-54.08 dBm	-41.08 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.63684 GHz	-43.50 dBm	-30.50 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91676 GHz	-38.82 dBm	-25.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.01075 GHz	-39.36 dBm	-26.36 dB

Date: 27.MAY.2024 06:11:48

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	627.92970 MHz	-54.53 dBm	-41.53 dB
725.000 MHz	1.000 GHz	100.000 kHz	932.98718 MHz	-54.04 dBm	-41.04 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.62184 GHz	-43.22 dBm	-30.22 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.90626 GHz	-38.92 dBm	-25.92 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.02324 GHz	-39.12 dBm	-26.12 dB

Date: 27.MAY.2024 06:21:07

Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0000	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0007	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0017	
20	Battery End Point	0.0012	

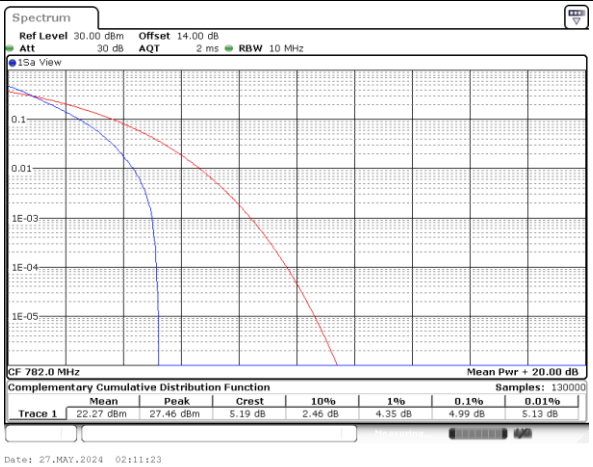
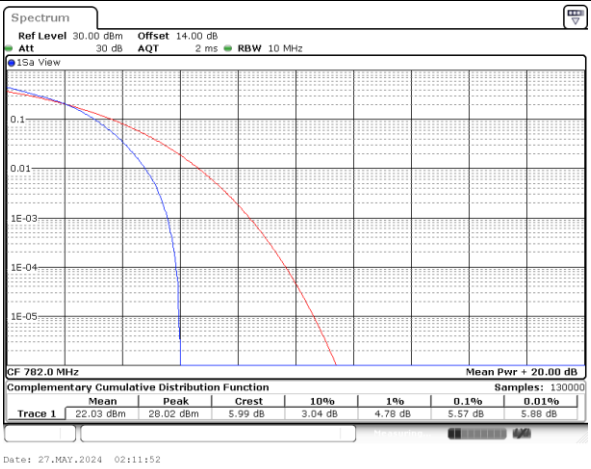
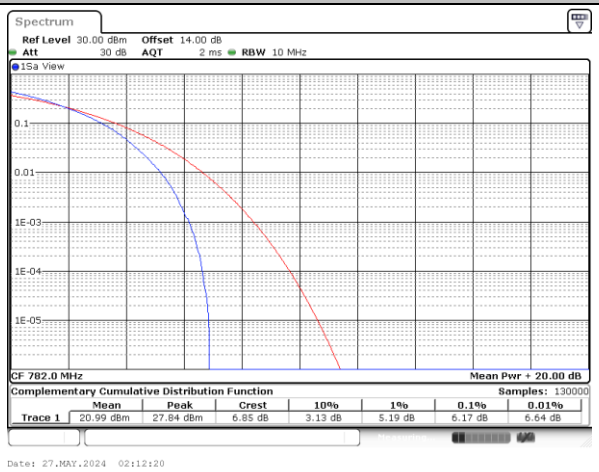
Note:

1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 13

Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.99	5.57	6.17	PASS

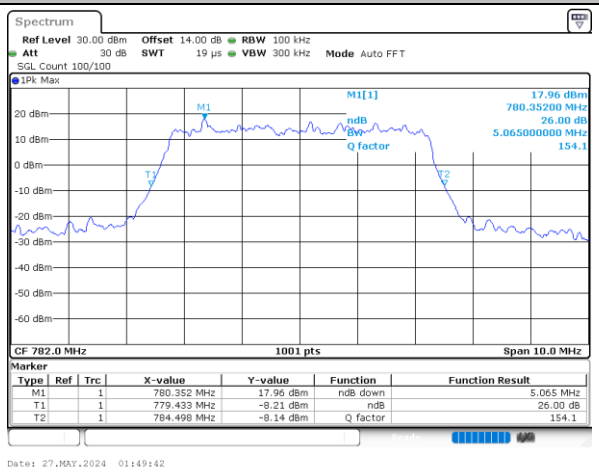
LTE Band 13 / 10MHz / QPSK	LTE Band 13 / 10MHz / 16QAM
Middle Channel / Full RB	Middle Channel / Full RB
	
LTE Band 13 / 10MHz / 64QAM	NA
Middle Channel / Full RB	
	

26dB Bandwidth

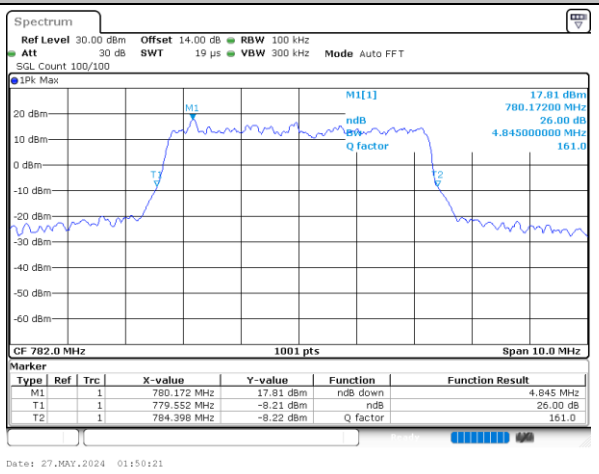
Mode	LTE Band 13 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Middle CH	5.07	4.85	9.69	9.69

LTE Band 13

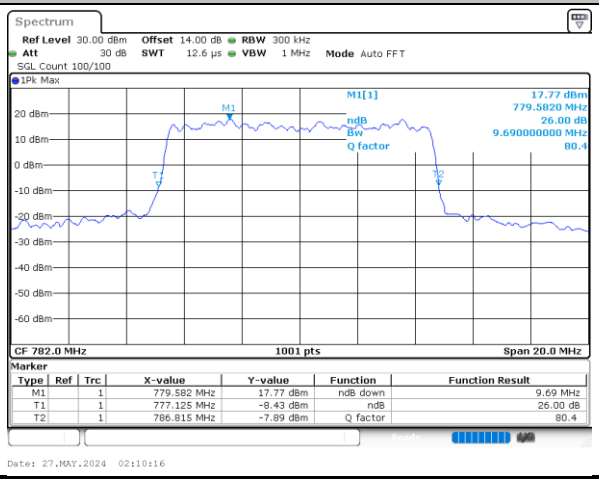
Middle Channel / 5MHz / QPSK



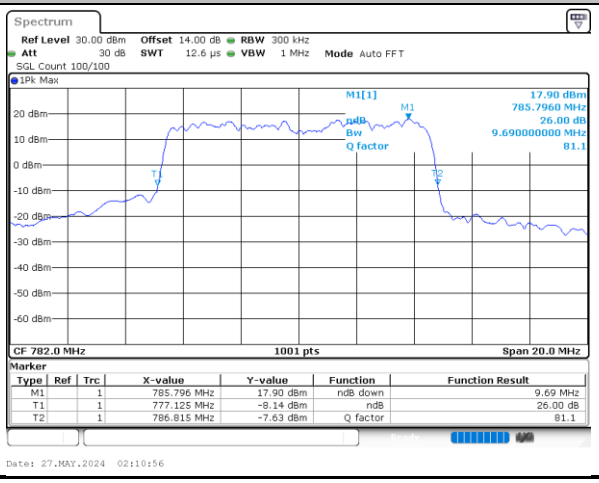
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM

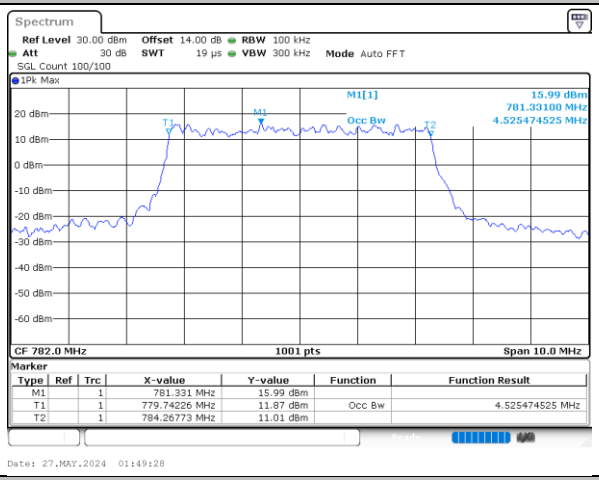


Occupied Bandwidth

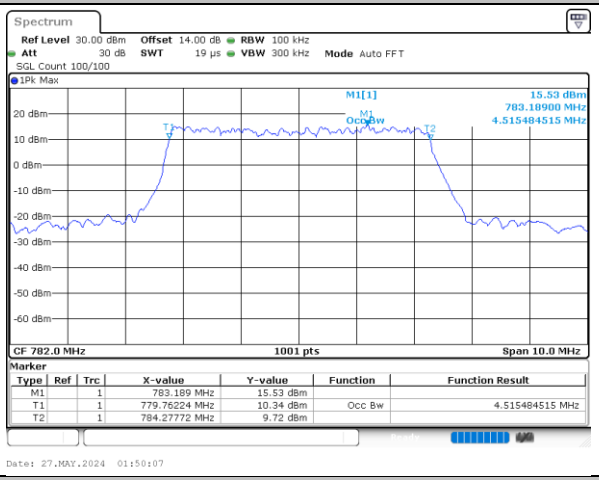
Mode	LTE Band 13 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Middle CH	4.53	4.52	9.07	9.03

LTE Band 13

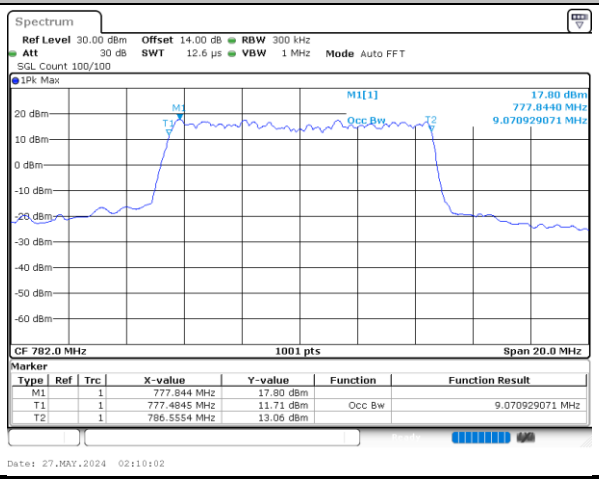
Middle Channel / 5MHz / QPSK



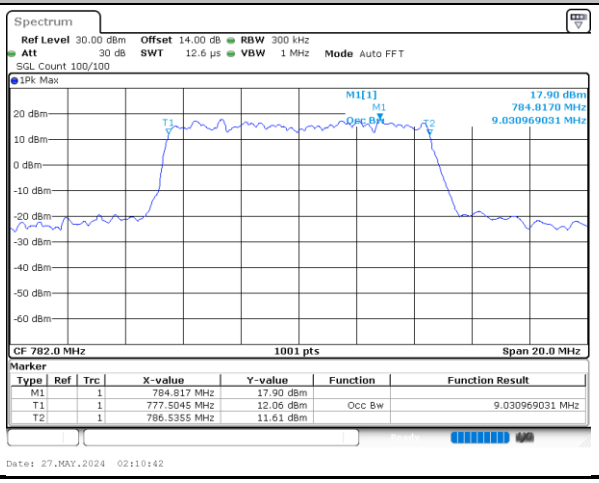
Middle Channel / 5MHz / 16QAM



Middle Channel / 10MHz / QPSK



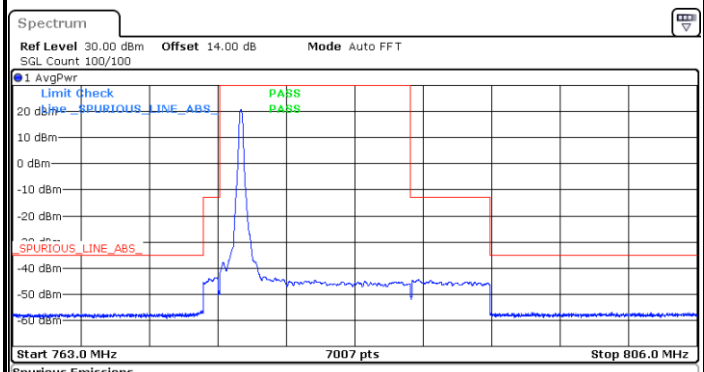
Middle Channel / 10MHz / 16QAM



Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

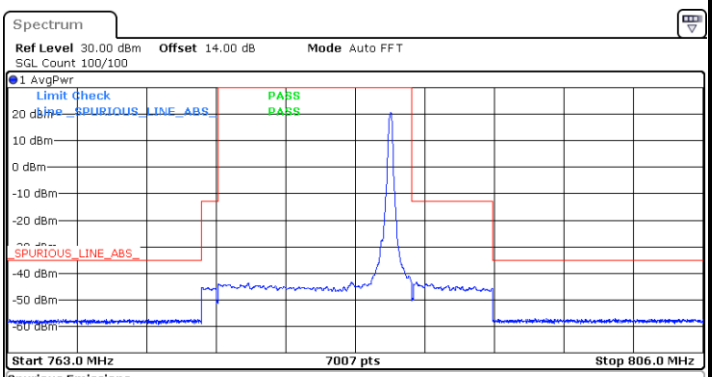


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.82617 MHz	-56.24 dBm	-21.24 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.77368 MHz	-43.61 dBm	-30.61 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.92592 MHz	-48.86 dBm	-35.86 dB
776.000 MHz	788.000 MHz	100.000 kHz	777.34865 MHz	20.58 dBm	-9.42 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.00005 MHz	-50.47 dBm	-37.47 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.49895 MHz	-44.57 dBm	-31.57 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.73377 MHz	-57.06 dBm	-22.06 dB

Date: 27.MAY.2024 01:41:01

Highest Band Edge / 1 RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	766.44655 MHz	-57.27 dBm	-22.27 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.02383 MHz	-45.39 dBm	-32.39 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.94840 MHz	-50.34 dBm	-37.34 dB
776.000 MHz	788.000 MHz	100.000 kHz	786.67532 MHz	20.54 dBm	-9.46 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.07288 MHz	-49.46 dBm	-36.46 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.28846 MHz	-43.50 dBm	-30.50 dB
793.000 MHz	806.000 MHz	6.250 kHz	795.61688 MHz	-56.91 dBm	-21.91 dB

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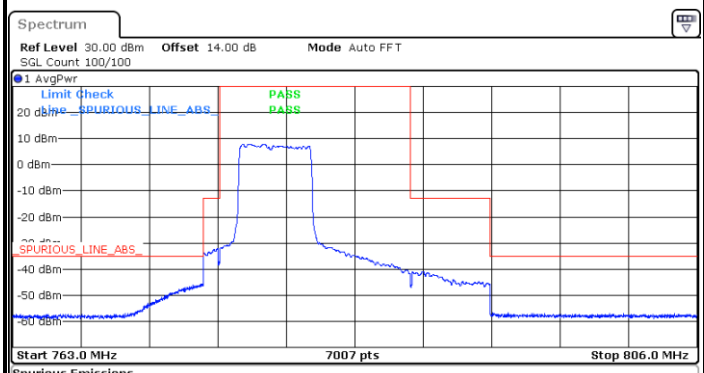
Lowest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.86214 MHz	-45.66 dBm	-10.66 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.87258 MHz	-32.05 dBm	-19.05 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.97158 MHz	-37.12 dBm	-24.12 dB
776.000 MHz	788.000 MHz	100.000 kHz	778.72727 MHz	7.90 dBm	-22.10 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.09985 MHz	-45.85 dBm	-32.85 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.76329 MHz	-40.93 dBm	-27.93 dB
793.000 MHz	806.000 MHz	6.250 kHz	794.14935 MHz	-56.81 dBm	-21.81 dB

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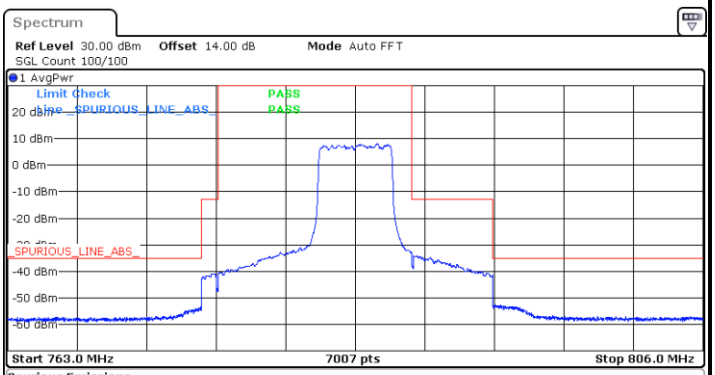
Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
763.000 MHz	775.000 MHz	6.250 kHz	774.93407 MHz	-53.40 dBm	-18.40 dB
775.000 MHz	775.900 MHz	100.000 kHz	775.77637 MHz	-40.93 dBm	-27.93 dB
775.900 MHz	776.000 MHz	30.000 kHz	775.95579 MHz	-46.40 dBm	-33.40 dB
776.000 MHz	788.000 MHz	100.000 kHz	785.86014 MHz	8.15 dBm	-21.85 dB
788.000 MHz	788.100 MHz	30.000 kHz	788.00005 MHz	-38.04 dBm	-25.04 dB
788.100 MHz	793.000 MHz	100.000 kHz	788.10245 MHz	-34.16 dBm	-21.16 dB
793.000 MHz	806.000 MHz	6.250 kHz	793.47403 MHz	-52.68 dBm	-17.68 dB

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