FCC RF Test Report

APPLICANT	:	Franklin Technology Inc.
EQUIPMENT	:	5G RF module
MODEL NAME	:	M2500
FCC ID	:	XHG-M2500
STANDARD	:	47 CFR Part 2, 22(H), 24(E), 27(L), 27(H), 27(M), 27(N)
CLASSIFICATION	:	PCS Licensed Transmitter (PCB)
TEST DATE(S)	:	Jul. 02, 2022 ~ Aug. 14, 2022

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

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

Jason Jia

Approved by: Jason Jia

ACCREDITED
Cert #5145.02

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APPENDIX A. TEST RESULTS OF CONDUCTED TEST

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG262007B	Rev. 01	Initial issue of report	Aug. 23, 2022

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(c)(10)	Effective Radiated Power (Band 12) (Band 71)	ERP < 3 Watt		-
	§24.232(c) §27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 25) (Band 41)	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(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 25) (Band 26) (Band 66) (Band 71)	< 43+10log10(P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 41)	§27.53(m)(4)		
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 25) (Band 26) (Band 66) (Band 71)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 41)	< 55+10$\log_{10}$(P[Watts])		
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		

Report Section	FCC Rule	Description	Limit	Result	Remark
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 25) (Band 26) (Band 66) (Band 71)	< 43+10log$_{10}$(P[Watts])	PASS	Under limit 22.52 dB at 7720.000 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 41)	< 55+10log$_{10}$(P[Watts])		

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

1 General Description

1.1 Applicant

Franklin Technology Inc.
906 JEI Platz, 186, Gasan digital 1-ro, Gumcheon-Gu, Seoul, South Korea, 08502

1.2 Manufacturer

Franklin Technology Inc.
906 JEI Platz, 186, Gasan digital 1-ro, Gumcheon-Gu, Seoul, South Korea, 08502

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	5G RF module
Model Name	M2500
FCC ID	XHG-M2500
IMEI Code	Conducted: 358563790001254/358563790001247 Radiation: 358563790000926
HW Version	P1
SW Version	RG2100.TM.1354
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 25 : 1850 MHz ~ 1915 MHz LTE Band 26 : 824 MHz ~ 849 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 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 25 : 1930 MHz ~ 1995 MHz LTE Band 26 : 869 MHz ~ 894 MHz LTE Band 41 : 2496 MHz ~ 2690 MHz LTE Band 66 : 2110 MHz~ 2180 MHz LTE Band 71: 617 MHz ~ 652 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 25 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 71 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 2 : 22.08 dBm LTE Band 4 : 22.54 dBm LTE Band 5 : 22.83 dBm LTE Band 12 : 23.06 dBm LTE Band 25 : 22.17 dBm LTE Band 26 : 23.00 dBm LTE Band 41 : 25.36 dBm; LTE Band 41C : 24.76 dBm LTE Band 66 : 22.56 dBm LTE Band 71 : 23.13 dBm
Antenna Gain	LTE Band 2 : -1.66 dBi LTE Band 4 : -1.56 dBi LTE Band 5 : -0.66 dBi LTE Band 12 : -1.43 dBi LTE Band 25 : -1.66 dBi LTE Band 26 : -0.66 dBi LTE Band 41 : -2.99 dBi LTE Band 66 : -1.56 dBi LTE Band 71 : -2.75 dBi
Type of Modulation	QPSK / 16QAM

1.5 Modification of EUT

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

1.6 Maximum Conducted Power and Emission Designator

LTE Band 2		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
20	1860.0 ~ 1900.0	0.1614	18M0G7D	0.1416	17M9W7D
LTE Band 25		**QPSK**		**16QAM**	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
20	1860.0 ~ 1905.0	0.1648	18M0G7D	0.1452	17M9W7D
LTE Band 4		**QPSK**		**16QAM**	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
20	1720.0 ~ 1745.0	0.1795	17M9G7D	0.1479	17M9W7D
LTE Band 5		**QPSK**		**16QAM**	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
10	829.0 ~ 844.0	0.1919	9M03G7D	0.1671	9M05W7D
LTE Band 12		**QPSK**		**16QAM**	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
10	704.0 ~ 711.0	0.2023	9M05G7D	0.1782	9M07W7D
LTE Band 26		**QPSK**		**16QAM**	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
15	831.5 ~ 841.5	0.1995	13M5G7D	0.1730	13M5W7D
CH26765	821.5	0.1991	13M3G7D	0.1641	13M4W7D
LTE Band 41		**QPSK**		**16QAM**	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
20	2506.0 ~ 2680.0	0.3436	17M9G7D	0.2917	17M8W7D

LTE Band 66		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
20	1720.0 ~ 1770.0	0.1803	17M9G7D	0.1552	17M9W7D
LTE Band 71		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
20	673.0 ~ 688.0	0.2056	17M9G7D	0.1854	17M9W7D
LTE Band 41 CA		QPSK		16QAM	
BW (MHz)		Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
20MHz+20MHz		0.2992	37M9G7D	0.2500	37M6W7D

Note:

1. LTE Band 26 overlaps the entire frequency range of LTE Band 5. Therefore, the test results provided in this report covers Band 26 as well as Band 5.
2. LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4.
3. LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2.
4. All modulations have been tested, and only the maximum bandwidth test results are shown in the report.

1.7 Testing Location

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

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH04-KS TH01-KS	CN1257	314309

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24a

1.9 Applicable Standards

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

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

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

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)

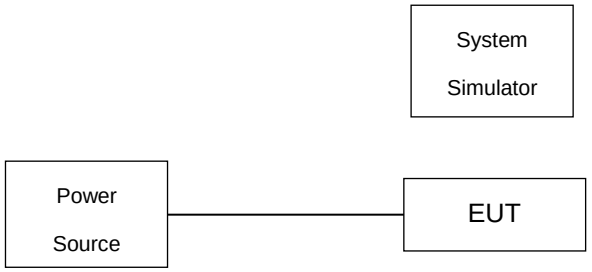
Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	-	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	-	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	71	-	-	v	v	v	v	v	v	-	v	v	v	v	v	v
Peak-to-Average Ratio	12				v	-	-	v	v	-			v		v	
	25						v	v	v	-			v		v	
	26				v		-	v	v	-			v		v	
	41	-	-				v	v	v	-			v		v	
	66						v	v	v	-			v		v	
	71	-	-				v	v	v	-			v		v	
26dB and 99% Bandwidth	5				v	-	-	v	v	-			v		v	
	12				v	-	-	v	v	-			v		v	
	25						v	v	v	-			v		v	
	26					v	-	v	v	-			v		v	
	41	-	-				v	v	v	-			v		v	
	66						v	v	v	-			v		v	
	71	-	-				v	v	v	-			v		v	

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Conducted Band Edge	12	v	v	v	v	-	-	v	v	-	v		v	v		v
	25	v	v	v	v	v	v	v	v	-	v		v	v		v
	26	v	v	v	v	v	-	v	v	-	v		v	v		v
	41	-	-	v	v	v	v	v	v	-	v		v	v		v
	66	v	v	v	v	v	v	v	v	-	v		v	v		v
	71	-	-	v	v	v	v	v	v	-	v		v	v		v
Conducted Spurious Emission	12	v	v	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
	41	-	-	v	v	v	v	v		-	v			v	v	v
	66	v	v	v	v	v	v	v		-	v			v	v	v
	71	-	-	v	v	v	v	v		-	v			v	v	v
Frequency Stability	12				v	-	-	v		-			v		v	
	25				v			v		-			v		v	
	26				v		-	v		-			v		v	
	41	-	-		v			v		-			v		v	
	66				v			v		-			v		v	
	71	-	-		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
	4	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
	12	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
	26	v	v	v	v	v	-	v	v	-	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	-	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
	71	-	-	v	v	v	v	v	v	-	v	v	v	v	v	v

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	-	1	Half	Full	L	M	H
Radiated Spurious Emission	12	Worst Case													v	
	25	Worst Case													v	
	26	Worst Case													v	
	41	Worst Case													v	
	66	Worst Case													v	
	71	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.															

Test Items	Band	Bandwidth (MHz)										Modulation			RB #			Test Channel		
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
26dB and 99% Bandwidth	41C_CA	v										v	v	-			v	v	v	v
Conducted Band Edge	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	-	v		v	v		v
Conducted Spurious Emission	41C_CA	v	v	v	v	v	v	v	v	v	v	v		-	v			v	v	v
E.I.R.P.	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v
Radiated Spurious Emission	41C_CA	Worst Case																	v	
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.	Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	Adapter	N/A	N/A	N/A	N/A	N/A
4.	Test Jig	N/A	N/A	N/A	N/A	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

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

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

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

Example :

Offset(dB) = RF cable loss(dB).

= 5.0 (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 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 41 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	39750	40620	41490
	Frequency	2506	2593	2680
15	Channel	39725	40620	41515
	Frequency	2503.5	2593	2682.5
10	Channel	39700	40620	41540
	Frequency	2501	2593	2685
5	Channel	39675	40620	41565
	Frequency	2498.5	2593	2687.5

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

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

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

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

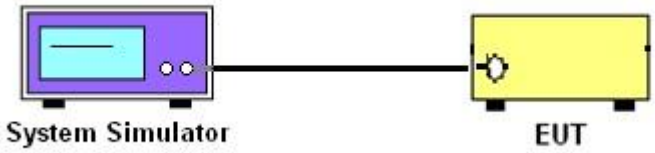
3 Conducted Test Items

3.1 Measuring Instruments

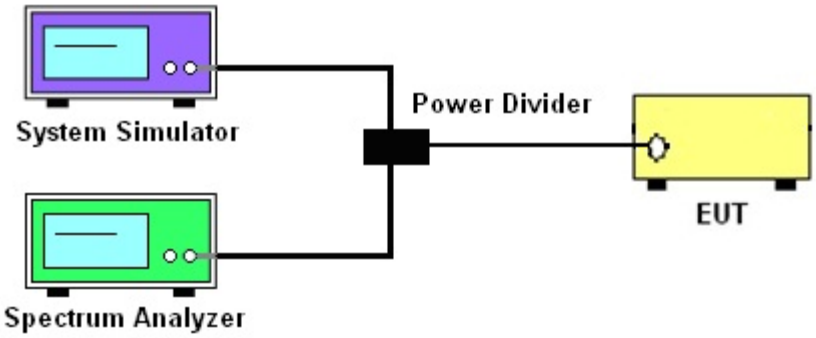
See list of measuring instruments of this test report.

3.2 Test Setup

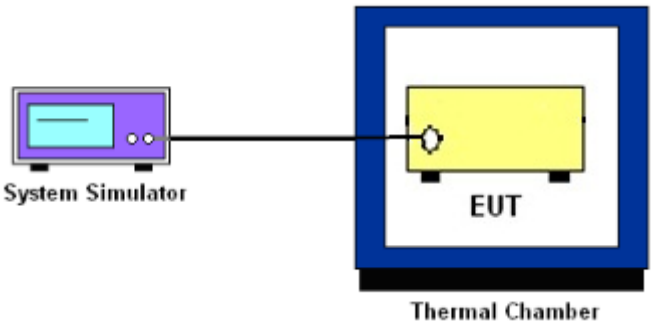
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

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

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

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

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

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 and Band 25 and Band 41.

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 (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 and 1710 – 1780 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.

27.53(m)(4)

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

3.7.2 Test Procedures

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

   Example:

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

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

   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
10. For LTE Band 41, the other 40 dB, and 55 dB have additionally applied same calculation above.
11. When using the integration method, the starting frequency of the integration shall be centered at one-half of the RBW away from the band edge.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

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

For Band 41:

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

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

3.8.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Offset has included the duty factor for LTE Band 41. Duty factor =10 log (1/x), where x is the measured duty cycle.
9. Taking the record of maximum spurious emission.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
11. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
12. For Band 41
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [55+ 10log(P)] (dB)
    = [30+ 10log(P)] (dBm) - [55+ 10log(P)] (dB)
    = -25dBm.

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±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.

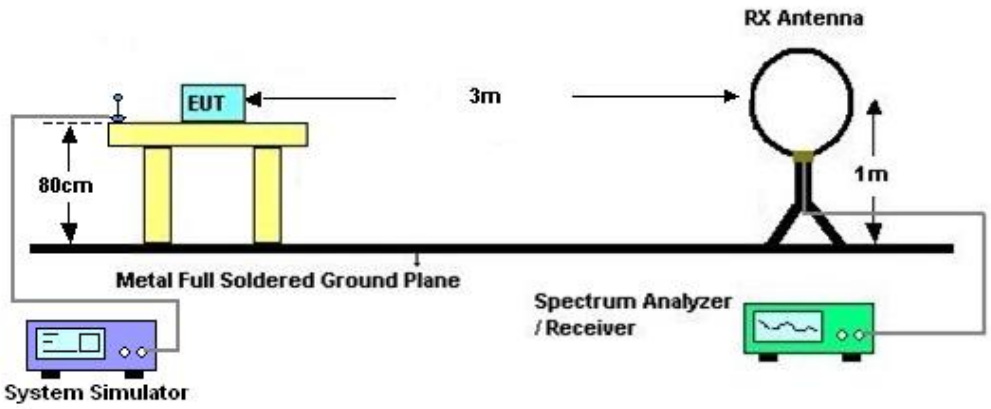
4 Radiated Test Items

4.1 Measuring Instruments

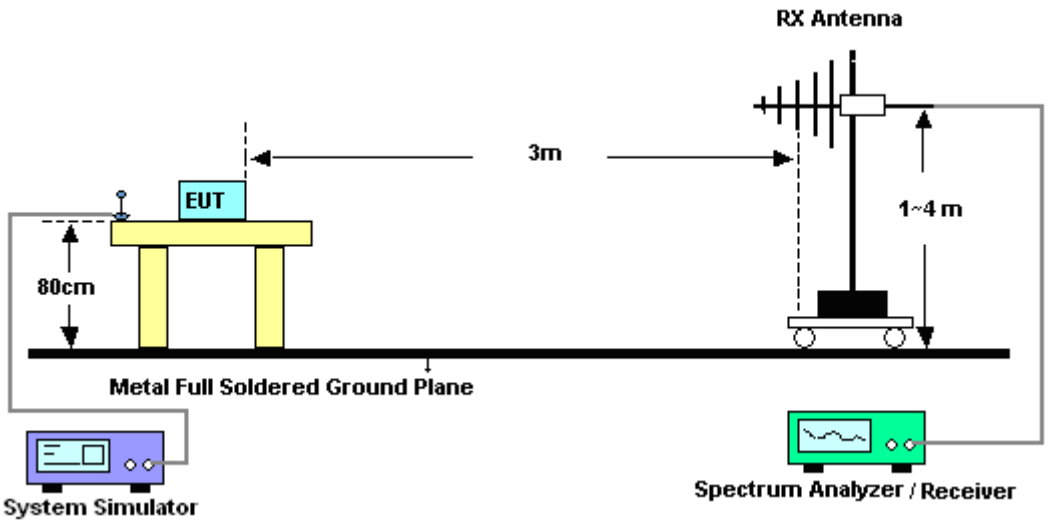
See list of measuring instruments of this test report.

4.2 Test Setup

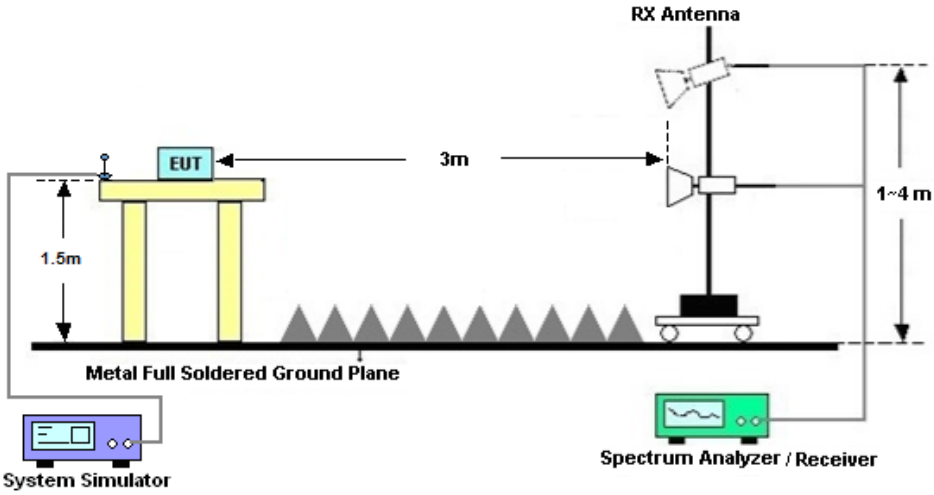
4.2.1 For radiated test below 30MHz



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 Band 41

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

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

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.
13. For Band 41:
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 14, 2021	Jul. 02, 2022~ Aug. 14, 2022	Oct. 13, 2022	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	Aug. 26, 2021	Jul. 02, 2022~ Aug. 14, 2022	Aug. 25, 2022	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 12, 2021	Jul. 02, 2022~ Aug. 14, 2022	Jul. 11, 2022	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 11, 2022		Jul. 10, 2023	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57541079	10Hz-44G,MAX 30dB	Oct. 14, 2021	Jul. 13, 2022	Oct. 13, 2022	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 30, 2021	Jul. 13, 2022	Oct. 29, 2022	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 30, 2022	Jul. 13, 2022	May 29, 2023	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1284	1GHz~18GHz	Oct. 18, 2021	Jul. 13, 2022	Oct. 17, 2022	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2022	Jul. 13, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 05, 2022	Jul. 13, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 05, 2022	Jul. 13, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P	2025788	1Ghz-18Ghz	Jul. 30, 2021	Jul. 13, 2022	Jul. 29, 2022	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Oct. 13, 2021	Jul. 13, 2022	Oct. 12, 2022	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jul. 13, 2022	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jul. 13, 2022	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jul. 13, 2022	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required

6 Uncertainty of Evaluation

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

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	0.56 dB
Conducted Emissions	0.92 dB
Occupied Channel Bandwidth	0.03 %
Conducted Power Spectral Density	0.54 dB
Conducted emission	0.92
Frequency tolerance	0.414ppm

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.3dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.8dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.8dB

Appendix A. Test Results of Conducted Test

Test Engineer :	Lex Wu	Temperature :	22~23℃
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and EIRP

LTE Band 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	22.08	21.73	21.71	0.1102	0.1016	0.1012
20	QPSK	1	99	21.68	21.65	21.75	0.1005	0.0998	0.1021
20	QPSK	100	0	20.79	20.64	20.68	0.0818	0.0791	0.0798
20	16QAM	1	0	21.51	20.96	21.08	0.0966	0.0851	0.0875
Channel				18675	18900	19125	EIRP(W)		
Frequency (MHz)				1857.5	1880	1902.5	L	M	H
15	QPSK	1	0	21.76	21.32	21.57	0.1023	0.0925	0.0979
15	16QAM	1	0	21.01	20.73	20.78	0.0861	0.0807	0.0817
Channel				18650	18900	19150	EIRP(W)		
Frequency (MHz)				1855	1880	1905	L	M	H
10	QPSK	1	0	21.94	21.76	21.89	0.1067	0.1023	0.1054
10	16QAM	1	0	21.32	21.00	21.28	0.0925	0.0859	0.0916
Channel				18625	18900	19175	EIRP(W)		
Frequency (MHz)				1852.5	1880	1907.5	L	M	H
5	QPSK	1	0	22.04	21.64	21.95	0.1091	0.0995	0.1069
5	16QAM	1	0	21.39	21.18	21.35	0.0940	0.0895	0.0931
Channel				18615	18900	19185	EIRP(W)		
Frequency (MHz)				1851.5	1880	1908.5	L	M	H
3	QPSK	1	0	22.02	21.73	21.96	0.1086	0.1016	0.1072
3	16QAM	1	0	21.24	21.06	21.44	0.0908	0.0871	0.0951
Channel				18607	18900	19193	EIRP(W)		
Frequency (MHz)				1850.7	1880	1909.3	L	M	H
1.4	QPSK	1	0	22.07	21.62	21.89	0.1099	0.0991	0.1054
1.4	16QAM	1	0	21.46	21.01	21.38	0.0955	0.0861	0.0938

LTE Band 4:

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	22.25	22.54	22.30	0.1172	0.1253	0.1186
20	QPSK	1	99	22.15	22.29	22.09	0.1146	0.1183	0.1130
20	QPSK	100	0	21.08	21.11	21.07	0.0895	0.0902	0.0893
20	16QAM	1	0	21.70	21.37	21.42	0.1033	0.0957	0.0968
Channel				20025	20175	20325	EIRP(W)		
Frequency (MHz)				1717.5	1732.5	1747.5	L	M	H
15	QPSK	1	0	22.30	22.34	22.22	0.1186	0.1197	0.1164
15	16QAM	1	0	21.52	21.42	21.13	0.0991	0.0968	0.0906
Channel				20000	20175	20350	EIRP(W)		
Frequency (MHz)				1715	1732.5	1750	L	M	H
10	QPSK	1	0	22.28	22.43	22.04	0.1180	0.1222	0.1117
10	16QAM	1	0	21.55	21.66	21.14	0.0998	0.1023	0.0908
Channel				19975	20175	20375	EIRP(W)		
Frequency (MHz)				1712.5	1732.5	1752.5	L	M	H
5	QPSK	1	0	22.25	22.35	22.01	0.1172	0.1199	0.1109
5	16QAM	1	0	21.46	21.68	21.21	0.0977	0.1028	0.0923
Channel				19965	20175	20385	EIRP(W)		
Frequency (MHz)				1711.5	1732.5	1753.5	L	M	H
3	QPSK	1	0	22.18	22.26	21.83	0.1153	0.1175	0.1064
3	16QAM	1	0	21.55	21.62	21.28	0.0998	0.1014	0.0938
Channel				19950	20175	20393	EIRP(W)		
Frequency (MHz)				1710	1732.5	1754.3	L	M	H
1.4	QPSK	1	0	22.13	22.30	21.64	0.1140	0.1186	0.1019
1.4	16QAM	1	0	21.41	21.43	21.06	0.0966	0.0971	0.0891

LTE Band 5:

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	22.83	22.77	22.67	0.1005	0.0991	0.0968
10	QPSK	1	49	22.55	22.51	22.48	0.0942	0.0933	0.0927
10	QPSK	50	0	21.84	21.63	21.65	0.0800	0.0762	0.0766
10	16QAM	1	0	22.23	22.18	22.12	0.0875	0.0865	0.0853
Channel				20425	20525	20625	ERP(W)		
Frequency (MHz)				826.5	836.5	846.5	L	M	H
5	QPSK	1	0	22.80	22.69	22.63	0.0998	0.0973	0.0959
5	16QAM	1	0	22.22	22.21	22.07	0.0873	0.0871	0.0843
Channel				20415	20525	20635	ERP(W)		
Frequency (MHz)				825.5	836.5	847.5	L	M	H
3	QPSK	1	0	22.83	22.61	22.41	0.1005	0.0955	0.0912
3	16QAM	1	0	22.05	21.92	21.89	0.0839	0.0815	0.0809
Channel				20407	20525	20643	ERP(W)		
Frequency (MHz)				824.7	836.5	848.3	L	M	H
1.4	QPSK	1	0	22.81	22.63	22.42	0.1000	0.0959	0.0914
1.4	16QAM	1	0	22.18	21.98	21.83	0.0865	0.0826	0.0798

LTE Band 12:

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	23.06	22.99	22.98	0.0887	0.0873	0.0871
10	QPSK	1	49	22.69	22.76	22.70	0.0815	0.0828	0.0817
10	QPSK	50	0	21.95	21.76	21.80	0.0687	0.0658	0.0664
10	16QAM	1	0	22.51	22.31	22.26	0.0782	0.0746	0.0738
Channel				23035	23095	23205	ERP(W)		
Frequency (MHz)				701.5	707.5	718.5	L	M	H
5	QPSK	1	0	23.06	22.82	22.85	0.0887	0.0839	0.0845
5	16QAM	1	0	22.34	22.22	22.23	0.0752	0.0731	0.0733
Channel				23025	23095	23195	ERP(W)		
Frequency (MHz)				700.5	707.5	717.5	L	M	H
3	QPSK	1	0	22.92	22.83	22.84	0.0859	0.0841	0.0843
3	16QAM	1	0	22.35	22.18	22.14	0.0753	0.0724	0.0718
Channel				23017	23095	23173	ERP(W)		
Frequency (MHz)				699.7	707.5	715.3	L	M	H
1.4	QPSK	1	0	23.01	22.97	22.86	0.0877	0.0869	0.0847
1.4	16QAM	1	0	22.49	22.04	22.19	0.0778	0.0701	0.0726

LTE Band 25:

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	22.17	21.93	22.16	0.1125	0.1064	0.1122
20	QPSK	1	99	21.96	21.84	22.08	0.1072	0.1042	0.1102
20	QPSK	100	0	20.77	20.71	20.86	0.0815	0.0804	0.0832
20	16QAM	1	0	21.11	21.12	21.62	0.0881	0.0883	0.0991
Channel				26115	26340	26615	EIRP(W)		
Frequency (MHz)				1857.5	1880	1907.5	L	M	H
15	QPSK	1	0	22.15	22.00	22.16	0.1119	0.1081	0.1122
15	16QAM	1	0	21.02	21.21	21.07	0.0863	0.0902	0.0873
Channel				26090	26340	26640	EIRP(W)		
Frequency (MHz)				1855	1880	1910	L	M	H
10	QPSK	1	0	22.14	21.92	22.13	0.1117	0.1062	0.1114
10	16QAM	1	0	21.36	21.00	21.42	0.0933	0.0859	0.0946
Channel				26065	26340	26665	EIRP(W)		
Frequency (MHz)				1852.5	1880	1912.5	L	M	H
5	QPSK	1	0	22.10	21.92	22.04	0.1107	0.1062	0.1091
5	16QAM	1	0	21.46	21.24	21.52	0.0955	0.0908	0.0968
Channel				26055	26340	26675	EIRP(W)		
Frequency (MHz)				1851.5	1880	1913.5	L	M	H
3	QPSK	1	0	22.04	21.82	22.02	0.1091	0.1038	0.1086
3	16QAM	1	0	21.35	21.22	21.56	0.0931	0.0904	0.0977
Channel				26047	26340	26683	EIRP(W)		
Frequency (MHz)				1850.7	1880	1914.3	L	M	H
1.4	QPSK	1	0	22.09	21.75	22.06	0.1104	0.1021	0.1096
1.4	16QAM	1	0	21.48	21.03	21.45	0.0959	0.0865	0.0953

LTE Band 26:

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				26765	26865	26915	26965				
Frequency (MHz)				821.5	831.5	836.5	841.5	L		M	H
15	QPSK	1	0	22.99	22.90	23.00	22.86	0.1042	0.1021	0.1045	0.1012
15	QPSK	1	74	22.68	22.65	22.55	22.51	0.0971	0.0964	0.0942	0.0933
15	QPSK	75	0	21.84	21.68	21.66	21.55	0.0800	0.0771	0.0767	0.0748
15	16QAM	1	0	22.15	22.38	21.90	21.98	0.0859	0.0906	0.0811	0.0826
Channel					26840	26915	26990		ERP(W)		
Frequency (MHz)					829	836.5	844		L	M	H
10	QPSK	1	0		22.92	22.79	22.83		0.1026	0.0995	0.1005
10	16QAM	1	0		22.30	22.28	22.10		0.0889	0.0885	0.0849
Channel					26815	26915	27015		ERP(W)		
Frequency (MHz)					826.5	836.5	846.5		L	M	H
5	QPSK	1	0		22.86	22.76	22.65		0.1012	0.0989	0.0964
5	16QAM	1	0		22.35	22.20	22.08		0.0899	0.0869	0.0845
Channel					26815	26915	27025		ERP(W)		
Frequency (MHz)					825.5	836.5	847.5		L	M	H
3	QPSK	1	0		22.89	22.74	22.52		0.1019	0.0984	0.0935
3	16QAM	1	0		22.14	22.01	21.99		0.0857	0.0832	0.0828
Channel					26797	26915	27033		ERP(W)		
Frequency (MHz)					824.7	836.5	848.3		L	M	H
1.4	QPSK	1	0		22.81	22.70	22.58		0.1000	0.0975	0.0948
1.4	16QAM	1	0		22.18	22.05	22.01		0.0865	0.0839	0.0832

LTE Band 41:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				39750	40620	41490			
Frequency (MHz)				2506	2593	2680	L	M	H
20	QPSK	1	0	25.03	25.36	24.53	0.1600	0.1726	0.1426
20	QPSK	1	99	25.02	25.17	24.87	0.1596	0.1652	0.1542
20	QPSK	100	0	24.08	24.23	23.92	0.1285	0.1330	0.1239
20	16QAM	1	0	24.49	24.65	23.87	0.1413	0.1466	0.1225
Channel				39725	40620	41515	EIRP(W)		
Frequency (MHz)				2503.5	2593	2682.5	L	M	H
15	QPSK	1	0	25.07	25.35	24.66	0.1614	0.1722	0.1469
15	16QAM	1	0	24.37	24.54	24.15	0.1374	0.1429	0.1306
Channel				39700	40620	41540	EIRP(W)		
Frequency (MHz)				2501	2593	2685	L	M	H
10	QPSK	1	0	25.24	25.33	24.92	0.1679	0.1714	0.1560
10	16QAM	1	0	24.56	24.61	24.22	0.1435	0.1452	0.1327
Channel				39675	40620	41565	EIRP(W)		
Frequency (MHz)				2498.5	2593	2687.5	L	M	H
5	QPSK	1	0	25.13	25.31	25.10	0.1637	0.1706	0.1626
5	16QAM	1	0	24.47	24.60	24.50	0.1406	0.1449	0.1416

LTE Band 66:

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	22.36	22.55	22.56	0.1202	0.1256	0.1259
20	QPSK	1	99	22.24	22.44	22.22	0.1169	0.1225	0.1164
20	QPSK	100	0	21.26	21.36	21.21	0.0933	0.0955	0.0923
20	16QAM	1	0	21.91	21.62	21.61	0.1084	0.1014	0.1012
Channel				132047	132322	132597	EIRP(W)		
Frequency (MHz)				1717.5	1745	1772.5	L	M	H
15	QPSK	1	0	22.31	22.45	22.34	0.1189	0.1227	0.1197
15	16QAM	1	0	21.35	21.69	21.22	0.0953	0.1030	0.0925
Channel				132022	132322	132622	EIRP(W)		
Frequency (MHz)				1715	1745	1775	L	M	H
10	QPSK	1	0	22.30	22.46	22.14	0.1186	0.1230	0.1143
10	16QAM	1	0	21.61	21.78	21.28	0.1012	0.1052	0.0938
Channel				131997	132322	132647	EIRP(W)		
Frequency (MHz)				1712.5	1745	1777.5	L	M	H
5	QPSK	1	0	22.33	22.48	22.09	0.1194	0.1236	0.1130
5	16QAM	1	0	21.61	21.88	21.17	0.1012	0.1076	0.0914
Channel				131987	132322	132657	EIRP(W)		
Frequency (MHz)				1711.5	1745	1778.5	L	M	H
3	QPSK	1	0	22.16	22.44	21.85	0.1148	0.1225	0.1069
3	16QAM	1	0	21.64	21.81	21.31	0.1019	0.1059	0.0944
Channel				131979	132322	132665	EIRP(W)		
Frequency (MHz)				1710.7	1745	1779.3	L	M	H
1.4	QPSK	1	0	22.19	22.42	21.98	0.1156	0.1219	0.1102
1.4	16QAM	1	0	21.51	21.82	21.13	0.0989	0.1062	0.0906

LTE Band 71:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)		
Channel				133222	133322	133372			
Frequency (MHz)				673	683	688	L	M	H
20	QPSK	1	0	22.86	23.07	23.13	0.0625	0.0656	0.0665
20	QPSK	1	99	22.81	22.84	22.84	0.0618	0.0622	0.0622
20	QPSK	100	0	22.02	21.97	21.91	0.0515	0.0509	0.0502
20	16QAM	1	0	22.15	22.10	22.68	0.0531	0.0525	0.0600
Channel				133197	133297	133397	ERP(W)		
Frequency (MHz)				670.5	680.5	690.5	L	M	H
15	QPSK	1	0	22.92	22.63	22.65	0.0634	0.0593	0.0596
15	16QAM	1	0	22.05	22.27	22.16	0.0519	0.0546	0.0532
Channel				133172	133272	133422	ERP(W)		
Frequency (MHz)				668	678	693	L	M	H
10	QPSK	1	0	23.05	23.12	23.03	0.0653	0.0664	0.0650
10	16QAM	1	0	22.47	22.65	22.42	0.0571	0.0596	0.0565
Channel				133147	133247	133447	ERP(W)		
Frequency (MHz)				665.5	675.5	695.5	L	M	H
5	QPSK	1	0	23.02	23.13	22.88	0.0649	0.0665	0.0628
5	16QAM	1	0	22.34	22.29	22.35	0.0555	0.0548	0.0556

LTE Band 41C_CA:

Combination 20MHz+20MHz (100RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	23.89	0.1230
M	QPSK	1	Max	1	0	24.76	0.1503
H	QPSK	1	Max	1	0	24.37	0.1374
L	16QAM	1	Max	1	0	23.11	0.1028
M	16QAM	1	Max	1	0	23.98	0.1256
H	16QAM	1	Max	1	0	23.22	0.1054
Combination 20MHz+15MHz (100RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	24.40	0.1384
M	16QAM	1	Max	1	0	23.65	0.1164
Combination 15MHz+20MHz (75RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	24.46	0.1403
M	16QAM	1	Max	1	0	23.72	0.1183
Combination 15MHz+15MHz (75RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	24.75	0.1500
M	16QAM	1	Max	1	0	23.83	0.1213
Combination 20MHz+10MHz (100RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	24.44	0.1396
M	16QAM	1	Max	1	0	23.63	0.1159
Combination 10MHz+20MHz (50RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	24.64	0.1462
M	16QAM	1	Max	1	0	23.97	0.1253
Combination 15MHz+10MHz (75RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	24.65	0.1466
M	16QAM	1	Max	1	0	23.75	0.1191
Combination 10MHz+15MHz (50RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	24.47	0.1406
M	16QAM	1	Max	1	0	23.86	0.1222
Combination 20MHz+5MHz (100RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	24.50	0.1416
M	16QAM	1	Max	1	0	23.72	0.1183
Combination 5MHz+20MHz (25RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	24.50	0.1416
M	16QAM	1	Max	1	0	23.78	0.1199

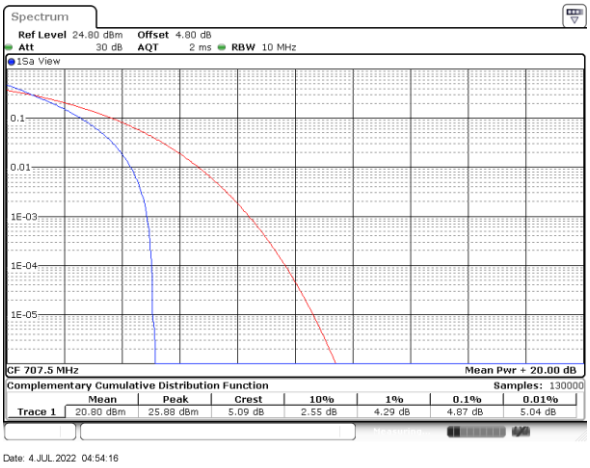
LTE Band 12

Peak-to-Average Ratio

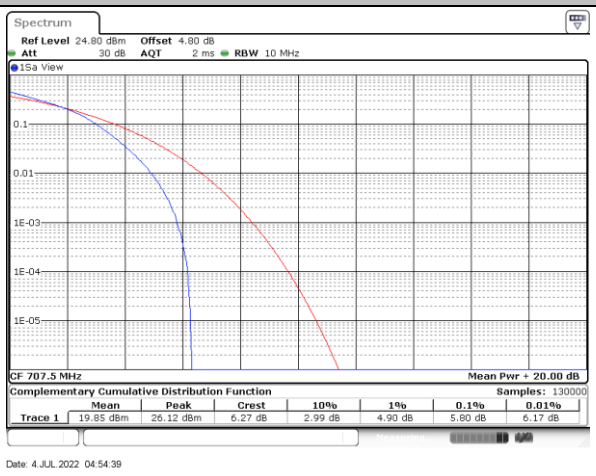
Mode	LTE Band 12 / 10MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.87	5.80	PASS

LTE Band 12 / 10MHz

Middle Channel / Full RB/ QPSK



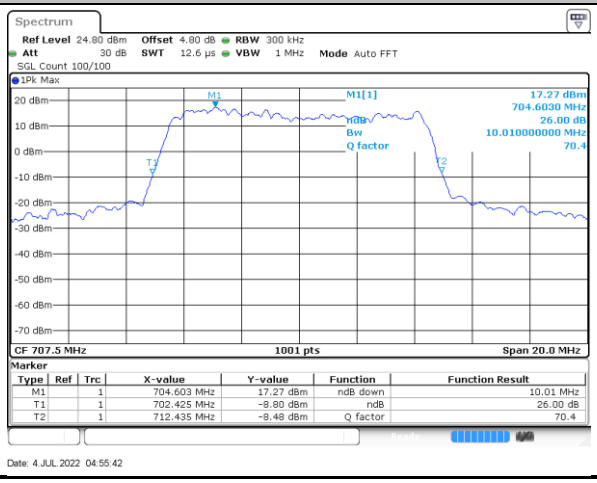
Middle Channel / Full RB/ 16QAM

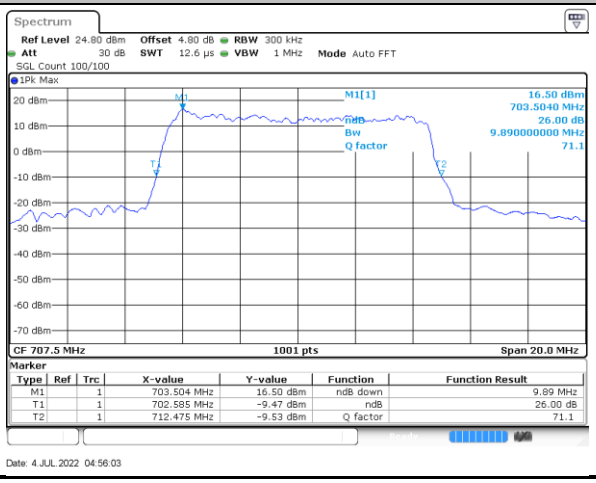


26dB Bandwidth

Mode	LTE Band 12 : 26dB BW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	10.01	9.89

LTE Band 12	
Middle Channel / 10MHz / QPSK	Middle Channel / 10MHz / 16QAM

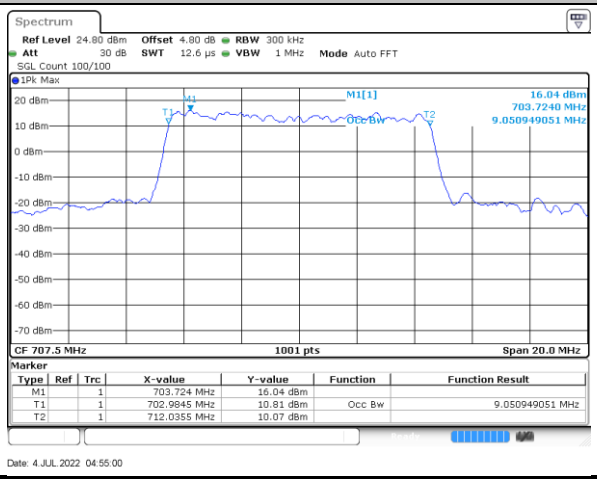


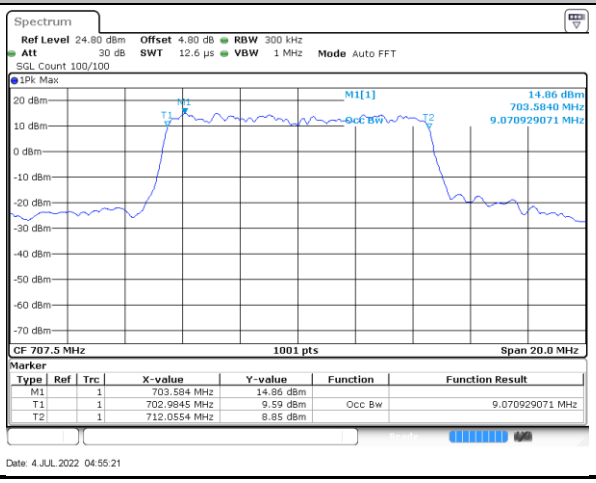


Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)	
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.05	9.07

LTE Band 12	
Middle Channel / 10MHz / QPSK	Middle Channel / 10MHz / 16QAM

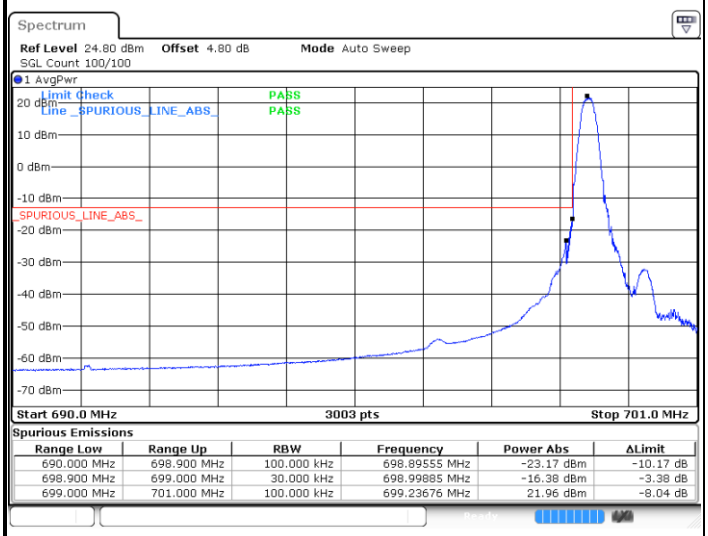




Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1RB

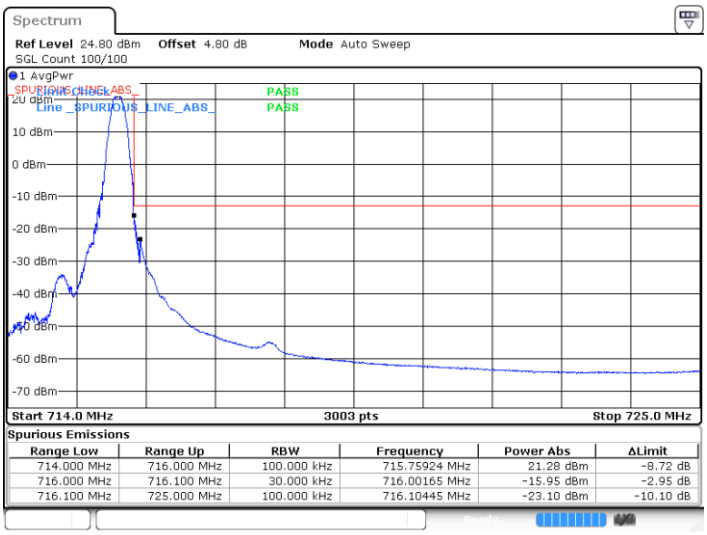


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-23.17 dBm	-10.17 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99885 MHz	-16.38 dBm	-3.38 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.23676 MHz	21.96 dBm	-8.04 dB

Date: 4.JUL.2022 03:47:55

Highest Band Edge / 1RB

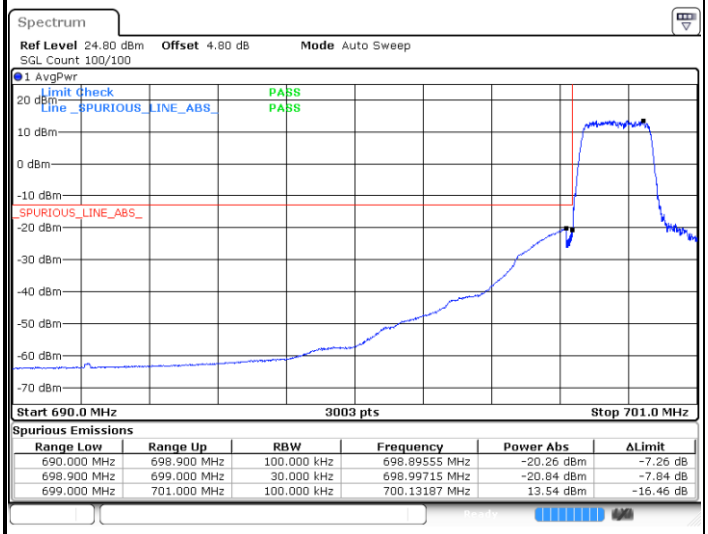


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.75924 MHz	21.28 dBm	-8.72 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00165 MHz	-15.95 dBm	-2.95 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-23.10 dBm	-10.10 dB

Date: 4.JUL.2022 03:57:12

Lowest Band Edge / Full RB

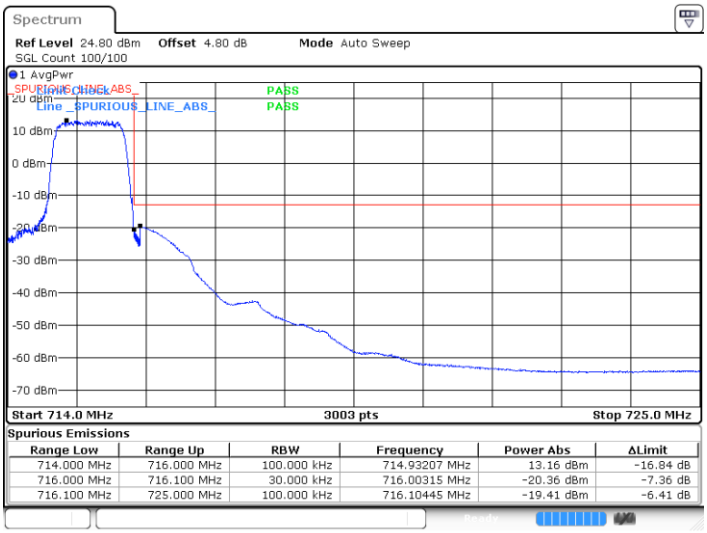


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-20.26 dBm	-7.26 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99715 MHz	-20.84 dBm	-7.84 dB
699.000 MHz	701.000 MHz	100.000 kHz	700.13187 MHz	13.54 dBm	-16.46 dB

Date: 4.JUL.2022 03:52:53

Highest Band Edge / Full RB



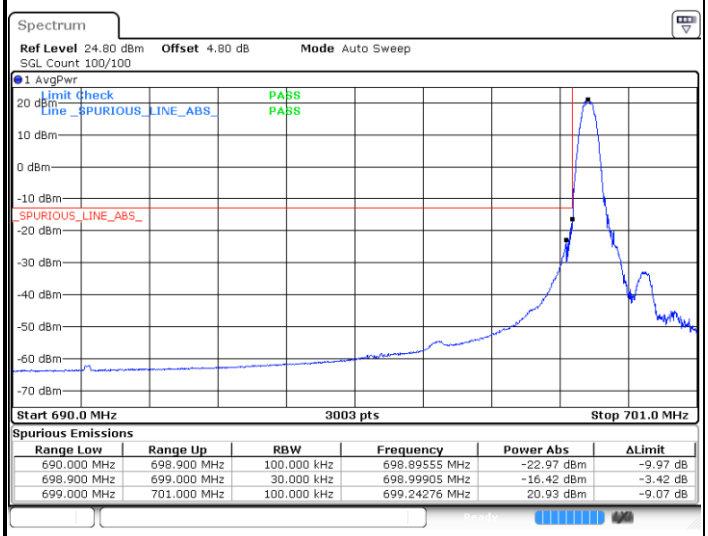
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	714.93207 MHz	13.16 dBm	-16.84 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00315 MHz	-20.36 dBm	-7.36 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-19.41 dBm	-6.41 dB

Date: 4.JUL.2022 04:02:10

LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

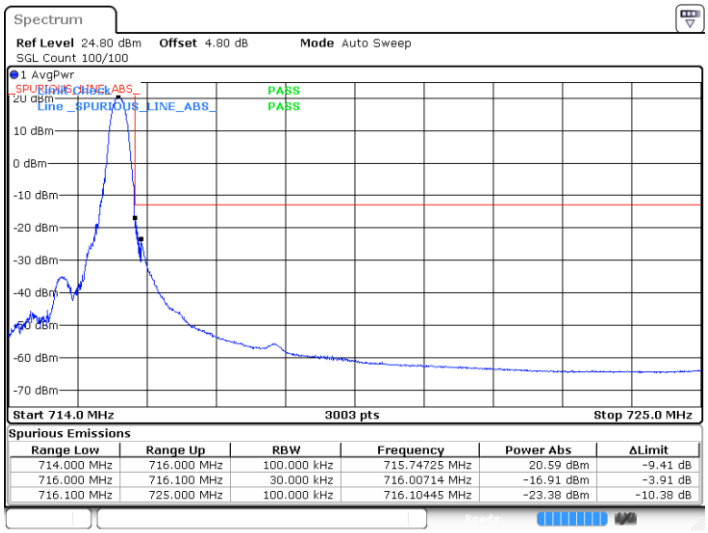


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-22.97 dBm	-9.97 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99905 MHz	-16.42 dBm	-3.42 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.24276 MHz	20.93 dBm	-9.07 dB

Date: 4.JUL.2022 03:49:34

Highest Band Edge / 1 RB

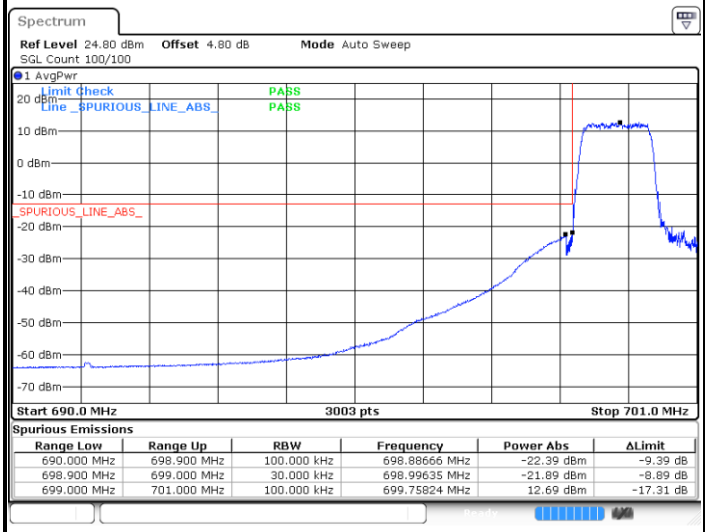


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.74725 MHz	20.59 dBm	-9.41 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00714 MHz	-16.91 dBm	-3.91 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-23.38 dBm	-10.38 dB

Date: 4.JUL.2022 03:58:51

Lowest Band Edge / Full RB

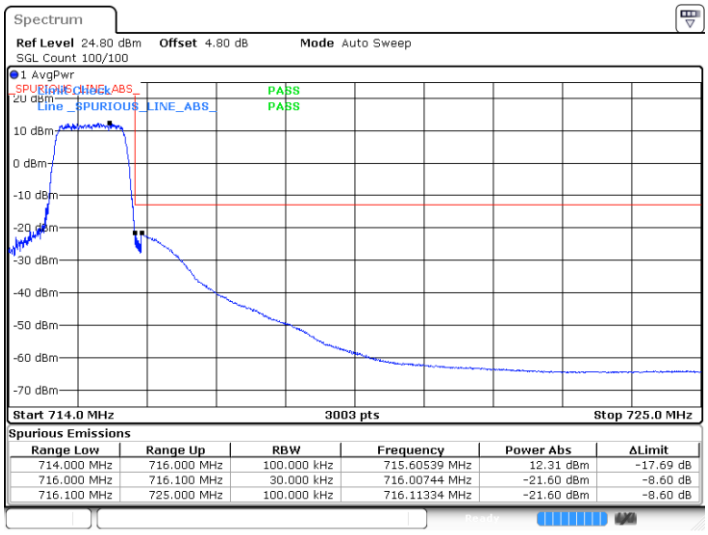


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.88666 MHz	-22.39 dBm	-9.39 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99635 MHz	-21.89 dBm	-8.89 dB
699.000 MHz	701.000 MHz	100.000 kHz	699.75824 MHz	12.69 dBm	-17.31 dB

Date: 4.JUL.2022 03:51:14

Highest Band Edge / Full RB



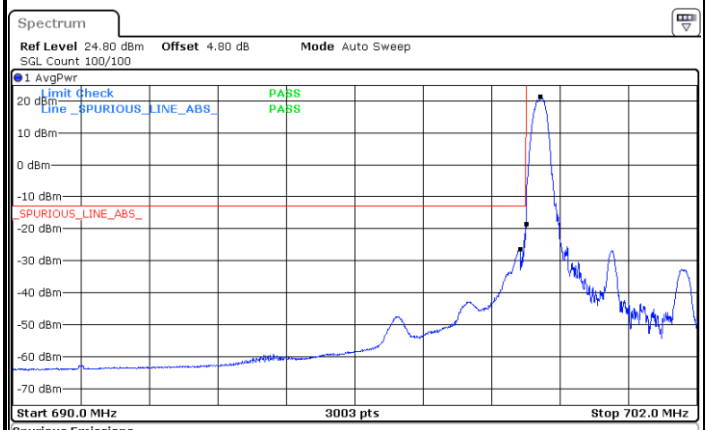
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
714.000 MHz	716.000 MHz	100.000 kHz	715.60539 MHz	12.31 dBm	-17.69 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00744 MHz	-21.60 dBm	-8.60 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.11334 MHz	-21.60 dBm	-8.60 dB

Date: 4.JUL.2022 04:00:31

LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB

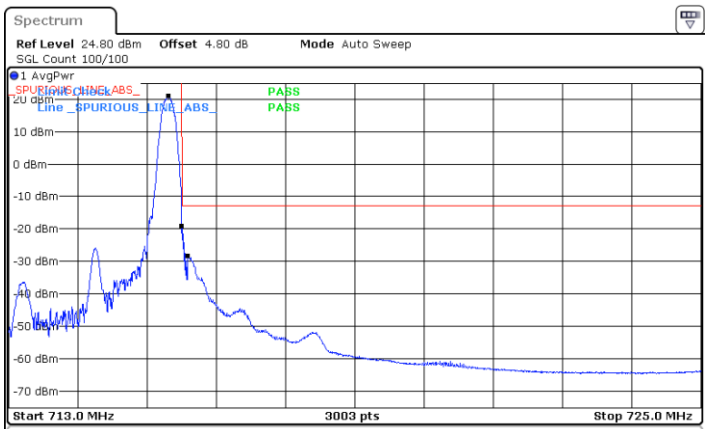


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-26.38 dBm	-13.38 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99975 MHz	-18.53 dBm	-5.53 dB
699.000 MHz	702.000 MHz	100.000 kHz	699.25025 MHz	21.32 dBm	-8.68 dB

Date: 4.JUL.2022 04:05:10

Highest Band Edge / 1 RB

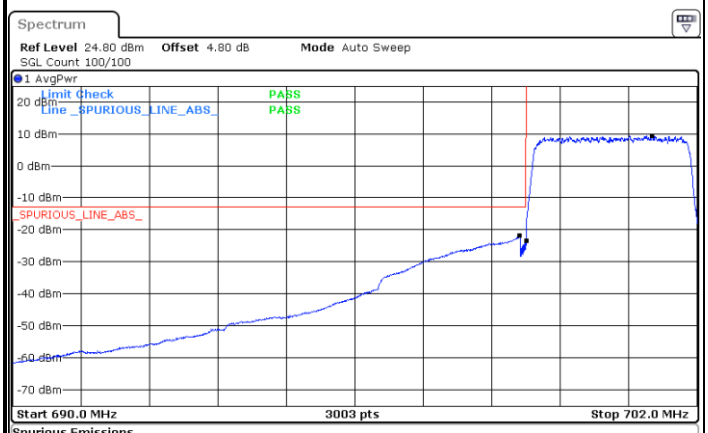


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	715.76174 MHz	20.98 dBm	-9.02 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00005 MHz	-19.16 dBm	-6.16 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-28.38 dBm	-15.38 dB

Date: 4.JUL.2022 04:14:26

Lowest Band Edge / Full RB

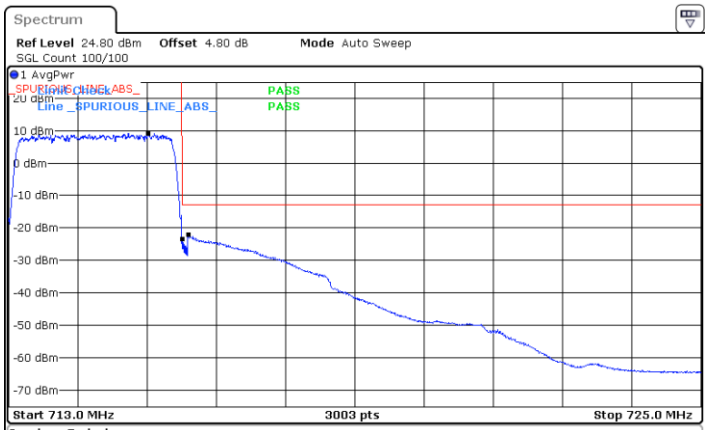


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.87777 MHz	-21.87 dBm	-8.87 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99995 MHz	-23.37 dBm	-10.37 dB
699.000 MHz	702.000 MHz	100.000 kHz	701.20729 MHz	9.31 dBm	-20.69 dB

Date: 4.JUL.2022 04:10:08

Highest Band Edge / Full RB



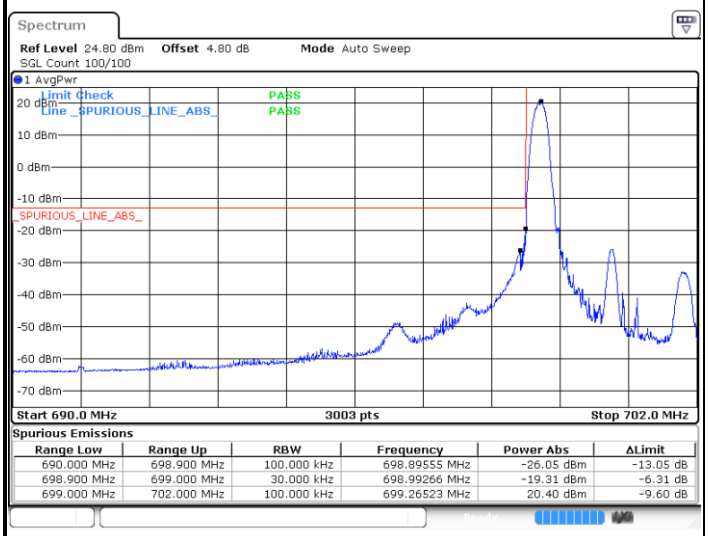
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	715.41109 MHz	9.05 dBm	-20.95 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00185 MHz	-23.45 dBm	-10.45 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.11334 MHz	-22.12 dBm	-9.12 dB

Date: 4.JUL.2022 04:19:25

LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB

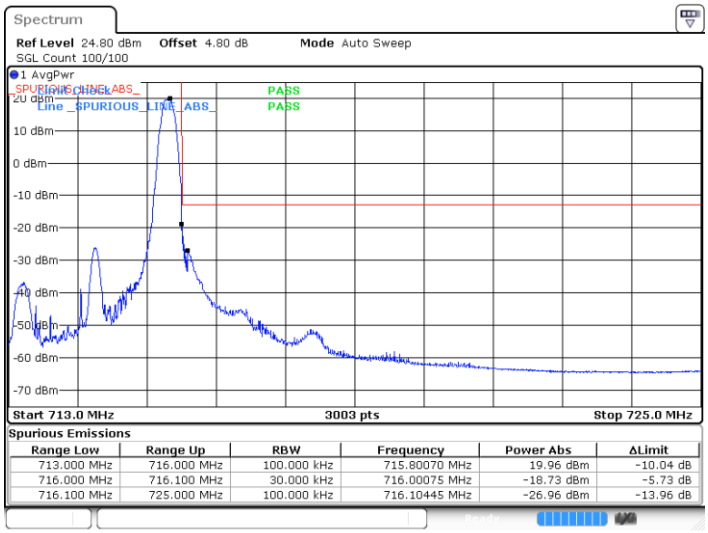


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-26.05 dBm	-13.05 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99266 MHz	-19.31 dBm	-6.31 dB
699.000 MHz	702.000 MHz	100.000 kHz	699.26523 MHz	20.40 dBm	-9.60 dB

Date: 4.JUL.2022 04:06:49

Highest Band Edge /1 RB

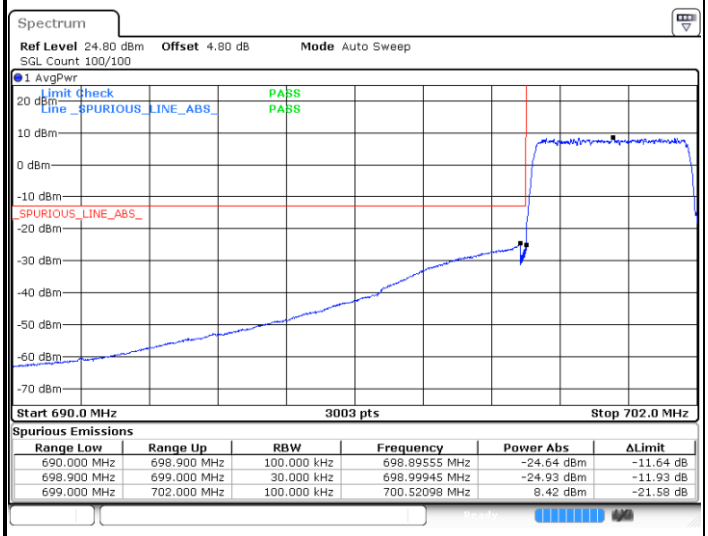


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	715.80070 MHz	19.96 dBm	-10.04 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00075 MHz	-18.73 dBm	-5.73 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-26.96 dBm	-13.96 dB

Date: 4.JUL.2022 04:16:06

Lowest Band Edge / Full RB

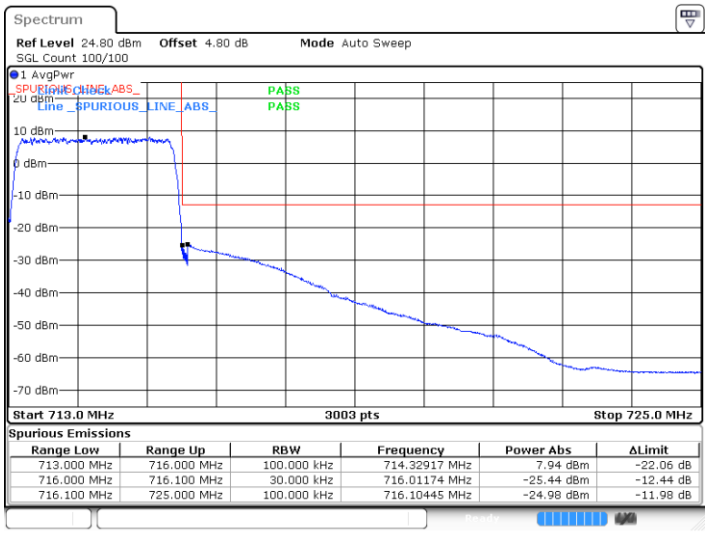


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-24.64 dBm	-11.64 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99945 MHz	-24.93 dBm	-11.93 dB
699.000 MHz	702.000 MHz	100.000 kHz	700.52098 MHz	8.42 dBm	-21.58 dB

Date: 4.JUL.2022 04:08:29

Highest Band Edge / Full RB



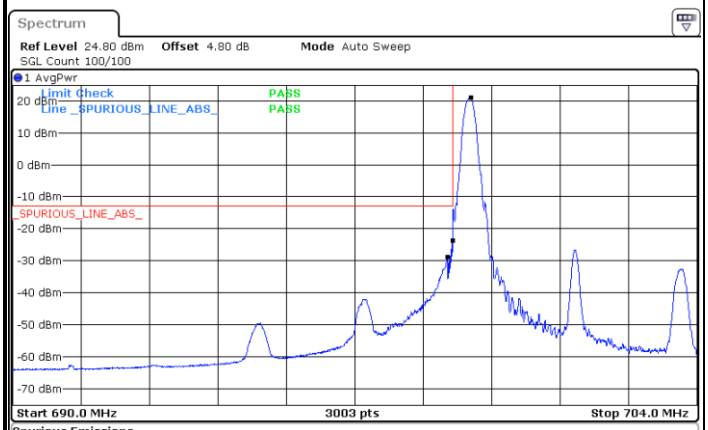
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
713.000 MHz	716.000 MHz	100.000 kHz	714.32917 MHz	7.94 dBm	-22.06 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.01174 MHz	-25.44 dBm	-12.44 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-24.98 dBm	-11.98 dB

Date: 4.JUL.2022 04:17:45

LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB

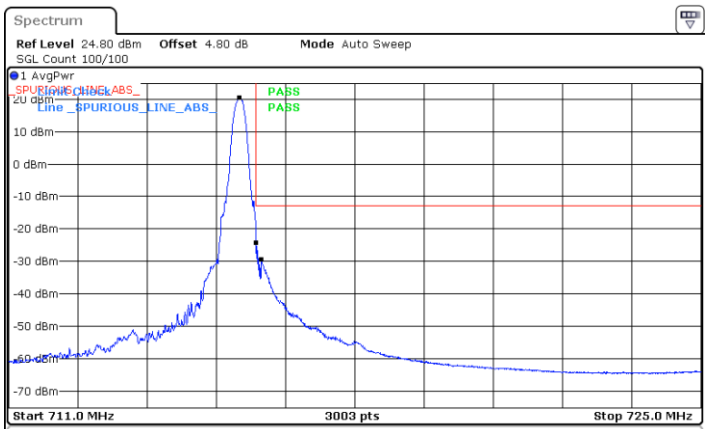


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-28.86 dBm	-15.86 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99995 MHz	-23.64 dBm	-10.64 dB
699.000 MHz	704.000 MHz	100.000 kHz	699.37213 MHz	20.89 dBm	-9.11 dB

Date: 4.JUL.2022 04:22:24

Highest Band Edge / 1 RB

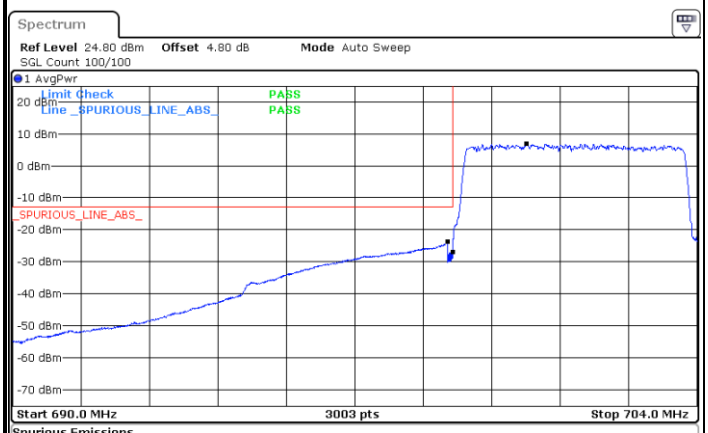


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.65784 MHz	20.33 dBm	-9.67 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00125 MHz	-24.19 dBm	-11.19 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-29.31 dBm	-16.31 dB

Date: 4.JUL.2022 04:31:41

Lowest Band Edge / Full RB

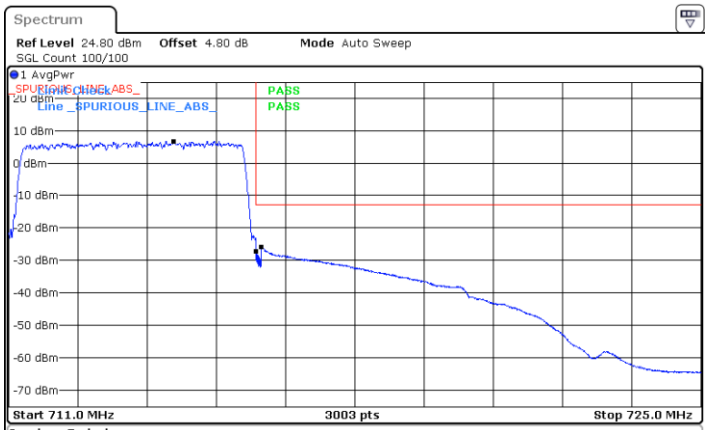


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-23.77 dBm	-10.77 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99785 MHz	-26.92 dBm	-13.92 dB
699.000 MHz	704.000 MHz	100.000 kHz	700.51598 MHz	6.86 dBm	-23.14 dB

Date: 4.JUL.2022 04:27:23

Highest Band Edge / Full RB



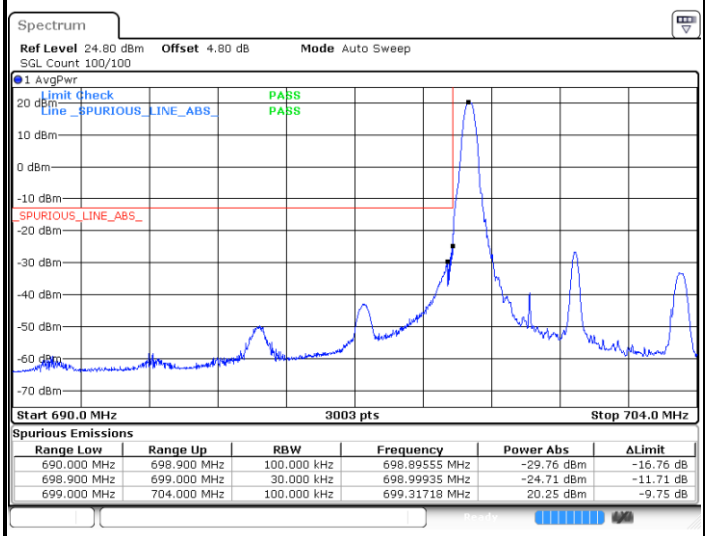
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	714.33916 MHz	6.77 dBm	-23.23 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00185 MHz	-27.23 dBm	-14.23 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-25.83 dBm	-12.83 dB

Date: 4.JUL.2022 04:36:39

LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB

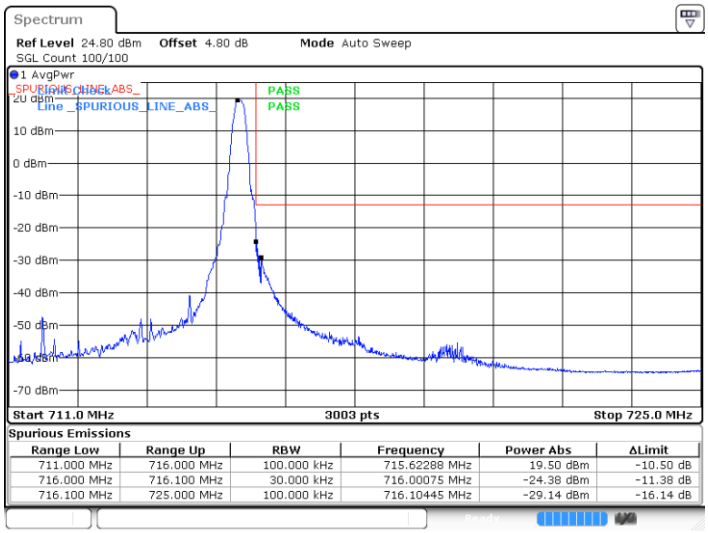


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-29.76 dBm	-16.76 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99935 MHz	-24.71 dBm	-11.71 dB
699.000 MHz	704.000 MHz	100.000 kHz	699.31718 MHz	20.25 dBm	-9.75 dB

Date: 4.JUL.2022 04:24:04

Highest Band Edge / 1 RB

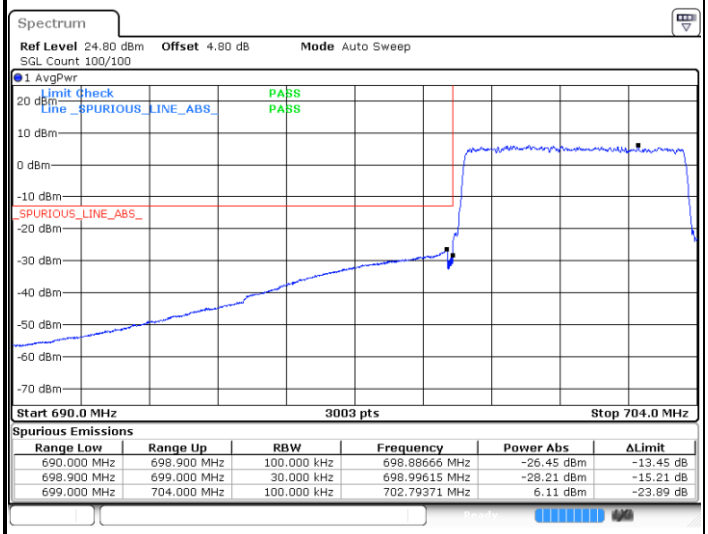


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.62288 MHz	19.50 dBm	-10.50 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00075 MHz	-24.38 dBm	-11.38 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-29.14 dBm	-16.14 dB

Date: 4.JUL.2022 04:33:20

Lowest Band Edge / Full RB

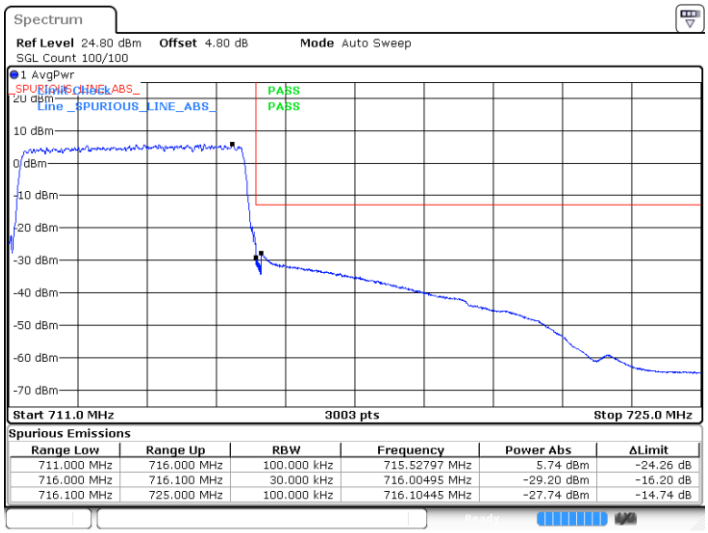


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.88666 MHz	-26.45 dBm	-13.45 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99615 MHz	-28.21 dBm	-15.21 dB
699.000 MHz	704.000 MHz	100.000 kHz	702.79371 MHz	6.11 dBm	-23.89 dB

Date: 4.JUL.2022 04:25:43

Highest Band Edge / Full RB



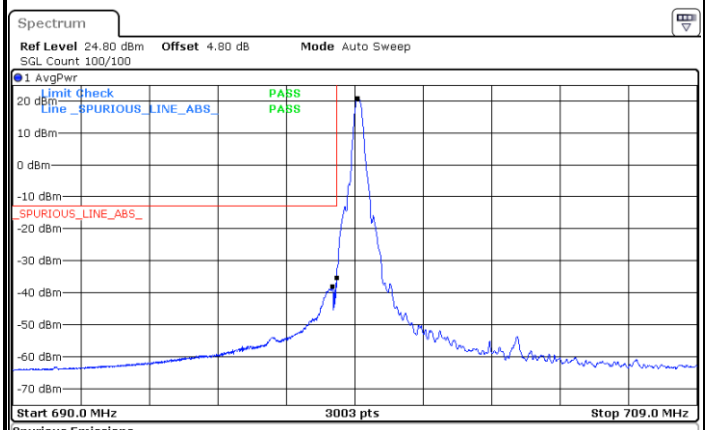
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
711.000 MHz	716.000 MHz	100.000 kHz	715.52797 MHz	5.74 dBm	-24.26 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00495 MHz	-29.20 dBm	-16.20 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-27.74 dBm	-14.74 dB

Date: 4.JUL.2022 04:35:00

LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB

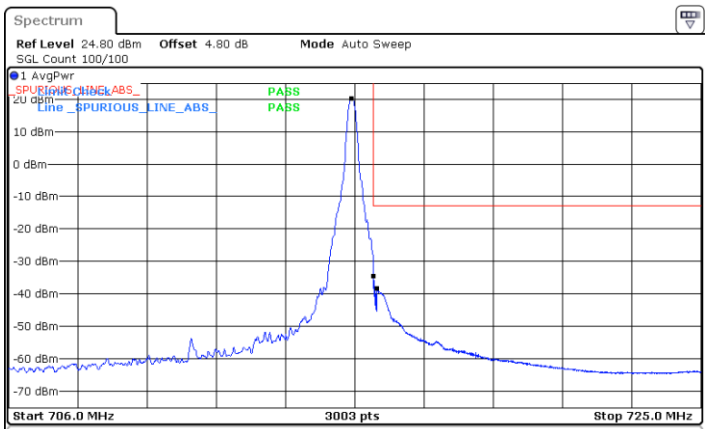


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.88666 MHz	-38.16 dBm	-25.16 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99885 MHz	-35.35 dBm	-22.35 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.57443 MHz	20.72 dBm	-9.28 dB

Date: 4.JUL.2022 04:39:39

Highest Band Edge / 1 RB

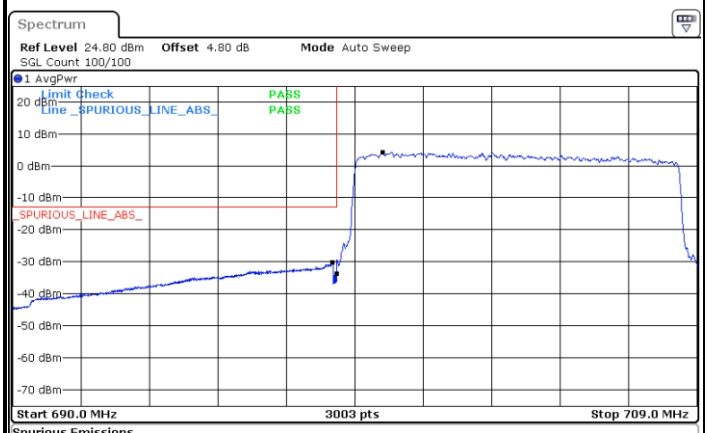


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.40559 MHz	20.26 dBm	-9.74 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00305 MHz	-34.50 dBm	-21.50 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-38.21 dBm	-25.21 dB

Date: 4.JUL.2022 04:48:56

Lowest Band Edge / Full RB

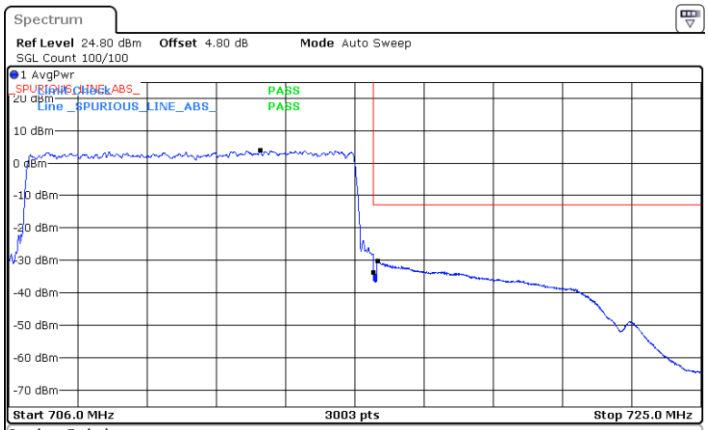


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.88666 MHz	-30.32 dBm	-17.32 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99126 MHz	-33.80 dBm	-20.80 dB
699.000 MHz	709.000 MHz	100.000 kHz	700.26374 MHz	4.28 dBm	-25.72 dB

Date: 4.JUL.2022 04:44:38

Highest Band Edge / Full RB



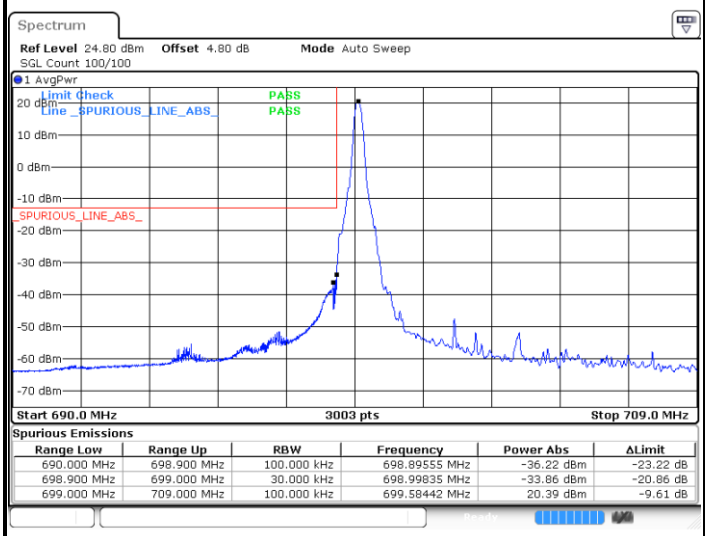
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	712.90809 MHz	3.86 dBm	-26.14 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00634 MHz	-33.74 dBm	-20.74 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.13112 MHz	-30.16 dBm	-17.16 dB

Date: 4.JUL.2022 04:53:54

LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

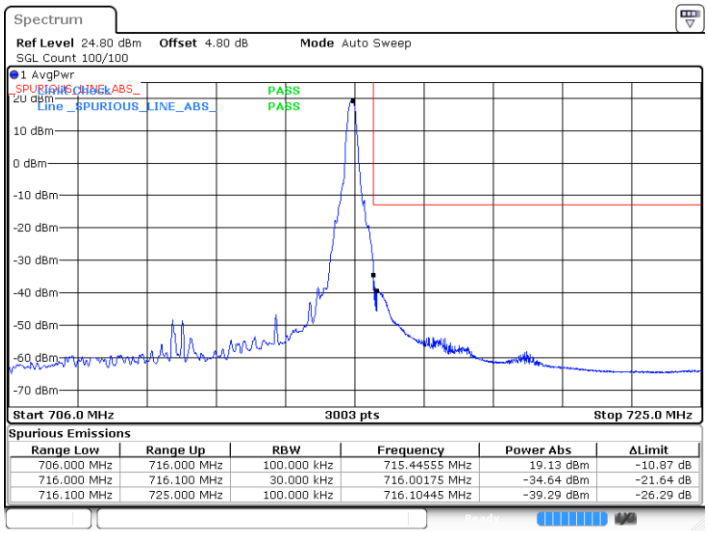


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.89555 MHz	-36.22 dBm	-23.22 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99835 MHz	-33.86 dBm	-20.86 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.58442 MHz	20.39 dBm	-9.61 dB

Date: 4.JUL.2022 04:41:19

Highest Band Edge / 1 RB

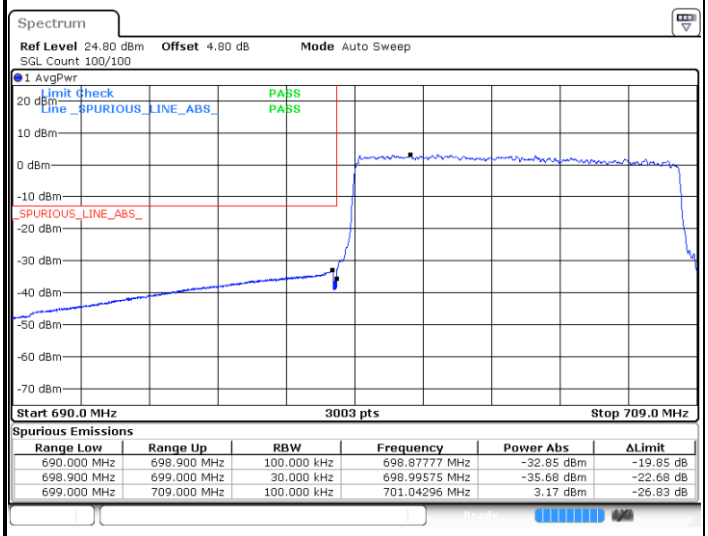


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	715.44555 MHz	19.13 dBm	-10.87 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.00175 MHz	-34.64 dBm	-21.64 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.10445 MHz	-39.29 dBm	-26.29 dB

Date: 4.JUL.2022 04:50:35

Lowest Band Edge / Full RB

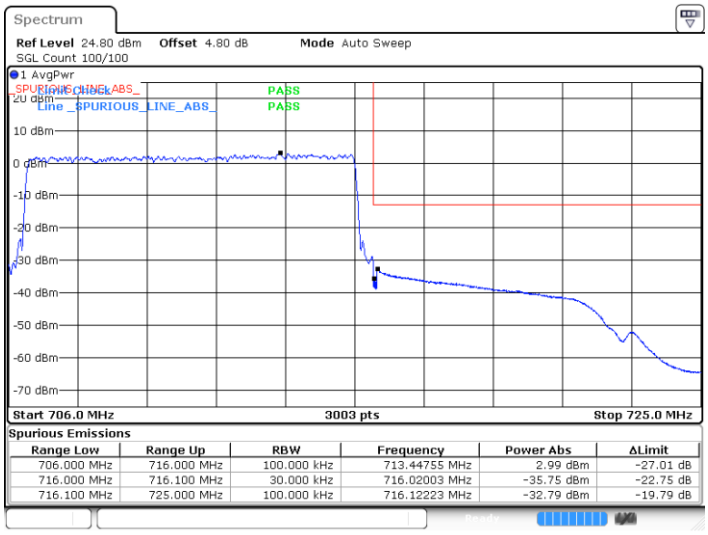


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
690.000 MHz	698.900 MHz	100.000 kHz	698.87777 MHz	-32.85 dBm	-19.85 dB
698.900 MHz	699.000 MHz	30.000 kHz	698.99575 MHz	-35.68 dBm	-22.68 dB
699.000 MHz	709.000 MHz	100.000 kHz	701.04296 MHz	3.17 dBm	-26.83 dB

Date: 4.JUL.2022 04:42:58

Highest Band Edge / Full RB



Spurious Emissions

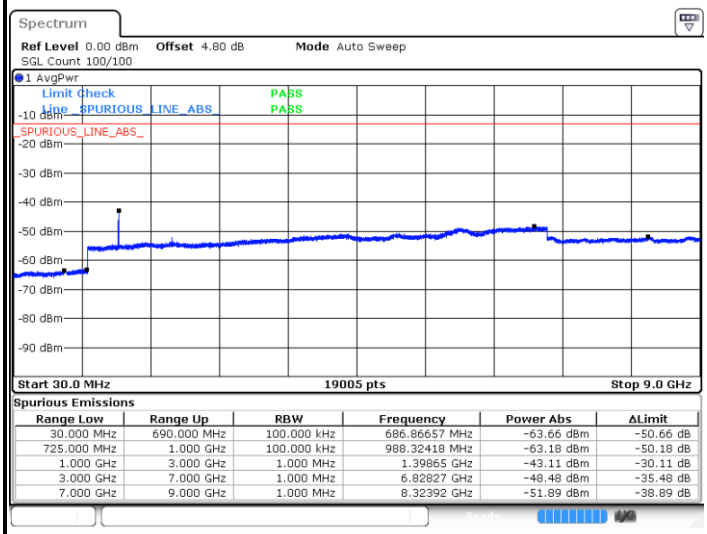
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
706.000 MHz	716.000 MHz	100.000 kHz	713.44755 MHz	2.99 dBm	-27.01 dB
716.000 MHz	716.100 MHz	30.000 kHz	716.02003 MHz	-35.75 dBm	-22.75 dB
716.100 MHz	725.000 MHz	100.000 kHz	716.12223 MHz	-32.79 dBm	-19.79 dB

Date: 4.JUL.2022 04:52:15

Conducted Spurious Emission

LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

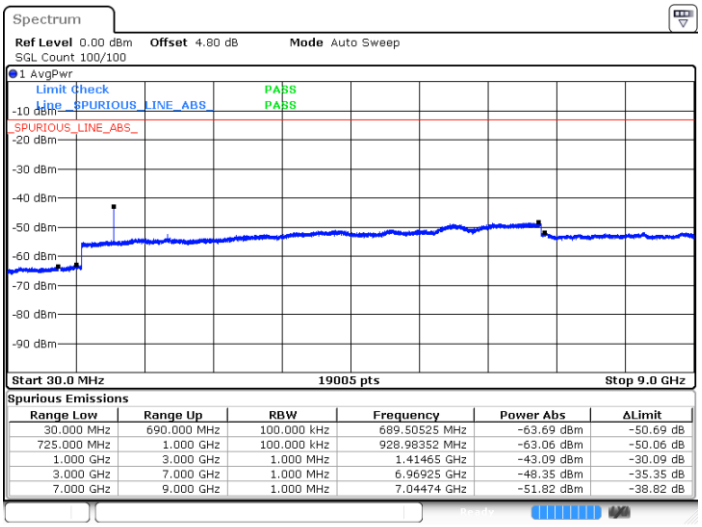


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	686.86657 MHz	-63.66 dBm	-50.66 dB
725.000 MHz	1.000 GHz	100.000 kHz	988.32418 MHz	-63.18 dBm	-50.18 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.39865 GHz	-43.11 dBm	-30.11 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.82827 GHz	-48.48 dBm	-35.48 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.32392 GHz	-51.89 dBm	-38.89 dB

Date: 4.JUL.2022 03:46:16

Middle Channel / QPSK

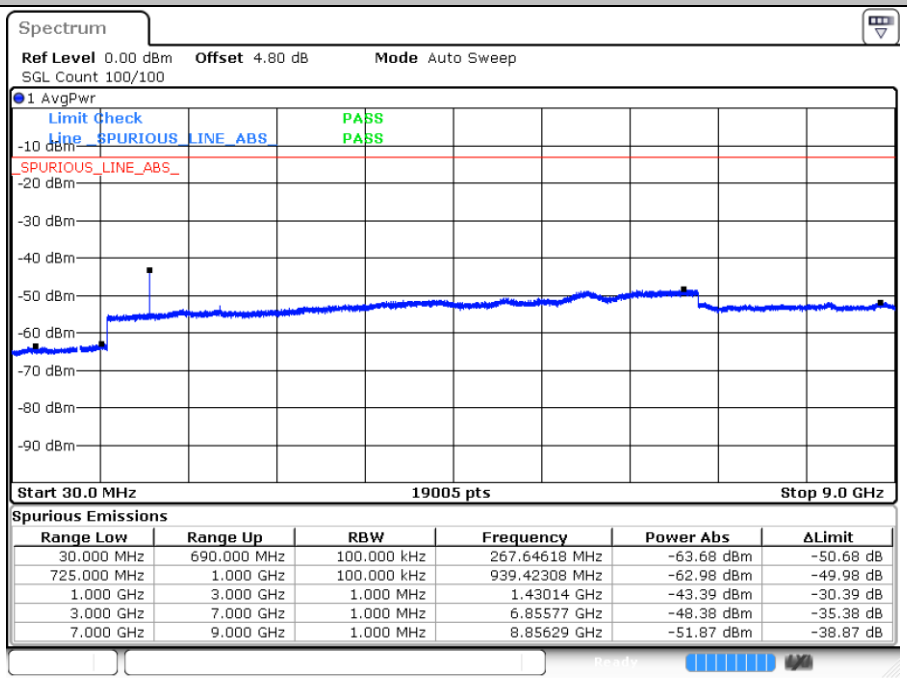


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.50525 MHz	-63.69 dBm	-50.69 dB
725.000 MHz	1.000 GHz	100.000 kHz	928.98352 MHz	-63.06 dBm	-50.06 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.41465 GHz	-43.09 dBm	-30.09 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96925 GHz	-48.35 dBm	-35.35 dB
7.000 GHz	9.000 GHz	1.000 MHz	7.04474 GHz	-51.82 dBm	-38.82 dB

Date: 4.JUL.2022 03:54:13

Highest Channel / QPSK



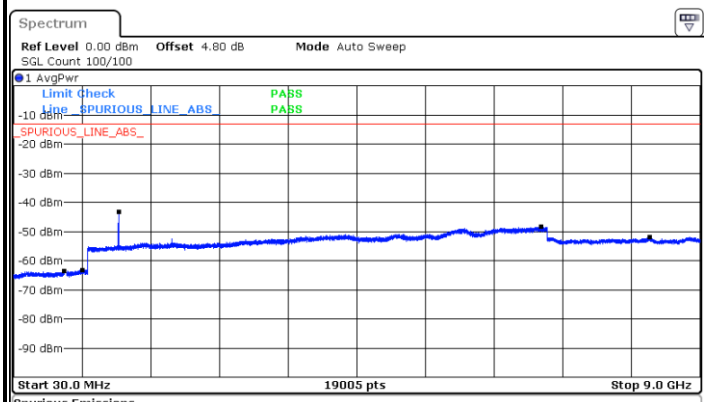
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	267.64618 MHz	-63.68 dBm	-50.68 dB
725.000 MHz	1.000 GHz	100.000 kHz	939.42308 MHz	-62.98 dBm	-49.98 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.43014 GHz	-43.39 dBm	-30.39 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.85577 GHz	-48.38 dBm	-35.38 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.85629 GHz	-51.87 dBm	-38.87 dB

Date: 4.JUL.2022 03:55:32

LTE Band 12 / 3MHz

Lowest Channel / QPSK

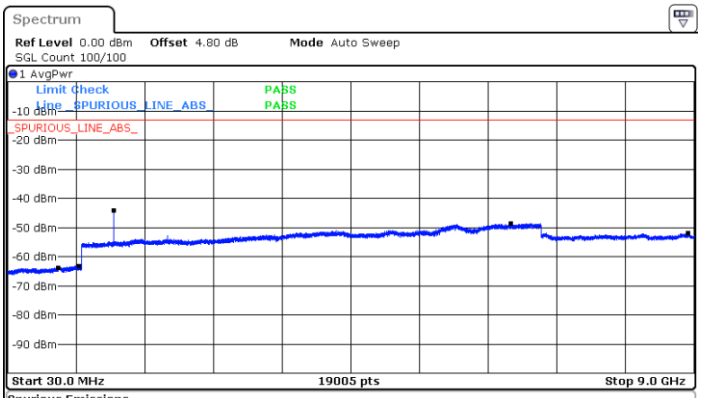


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.17541 MHz	-63.44 dBm	-50.44 dB
725.000 MHz	1.000 GHz	100.000 kHz	930.63187 MHz	-63.15 dBm	-50.15 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.39865 GHz	-43.37 dBm	-30.37 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.92526 GHz	-48.49 dBm	-35.49 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.34191 GHz	-51.94 dBm	-38.94 dB

Date: 4.JUL.2022 04:03:30

Middle Channel / QPSK

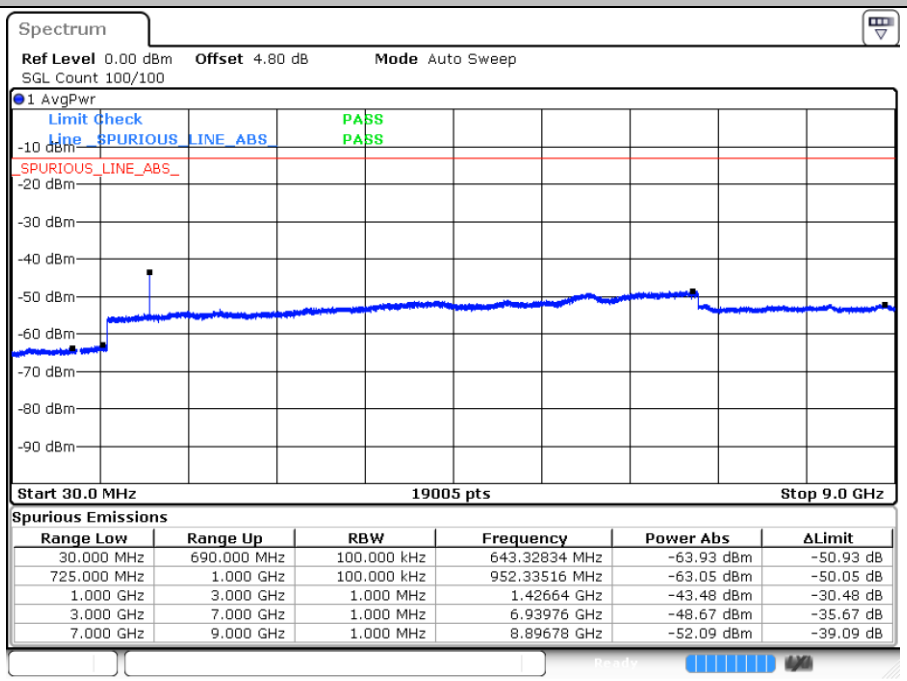


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.83508 MHz	-63.85 dBm	-50.85 dB
725.000 MHz	1.000 GHz	100.000 kHz	957.00549 MHz	-63.19 dBm	-50.19 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.41265 GHz	-44.08 dBm	-31.08 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.60880 GHz	-48.66 dBm	-35.66 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.91777 GHz	-51.93 dBm	-38.93 dB

Date: 4.JUL.2022 04:11:27

Highest Channel / QPSK



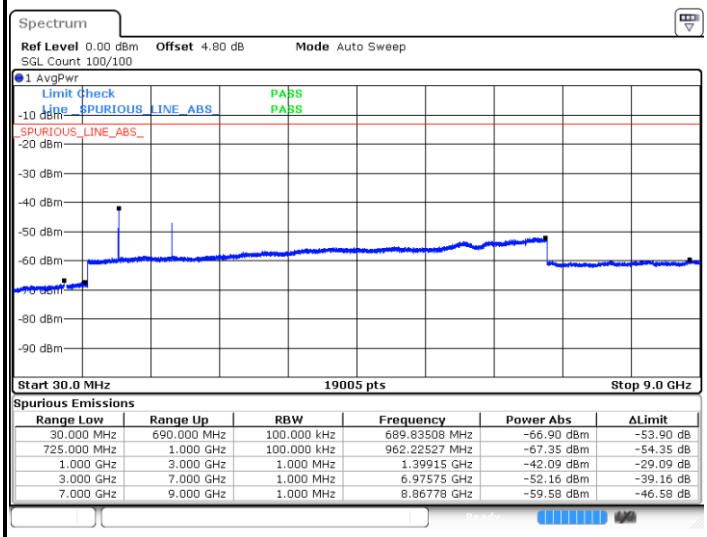
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	643.32834 MHz	-63.93 dBm	-50.93 dB
725.000 MHz	1.000 GHz	100.000 kHz	952.33516 MHz	-63.05 dBm	-50.05 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.42664 GHz	-43.48 dBm	-30.48 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93976 GHz	-48.67 dBm	-35.67 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89678 GHz	-52.09 dBm	-39.09 dB

Date: 4.JUL.2022 04:12:47

LTE Band 12 / 5MHz

Lowest Channel / QPSK

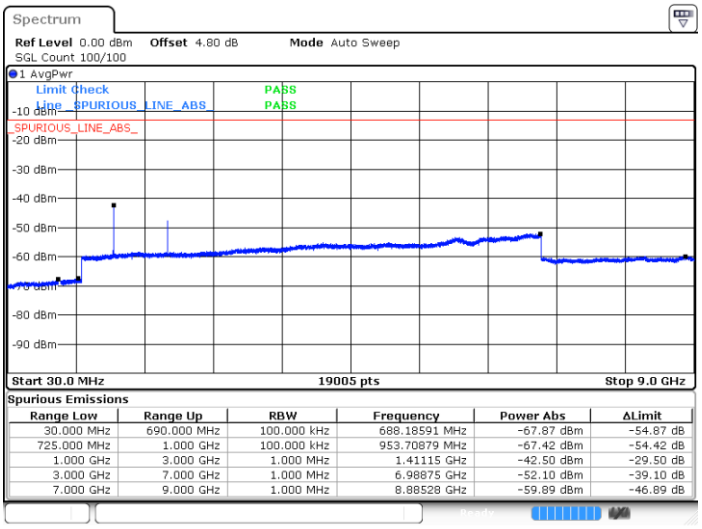


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.83508 MHz	-66.90 dBm	-53.90 dB
725.000 MHz	1.000 GHz	100.000 kHz	962.22527 MHz	-67.35 dBm	-54.35 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.39915 GHz	-42.09 dBm	-29.09 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97575 GHz	-52.16 dBm	-39.16 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.86778 GHz	-59.58 dBm	-46.58 dB

Date: 4.JUL.2022 04:20:45

Middle Channel / QPSK

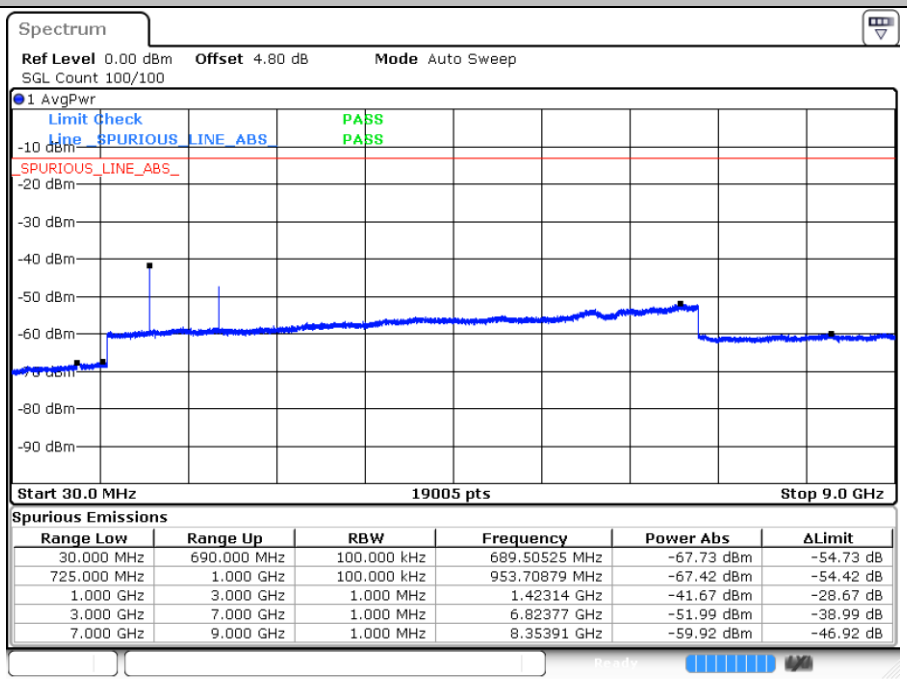


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	688.18591 MHz	-67.87 dBm	-54.87 dB
725.000 MHz	1.000 GHz	100.000 kHz	953.70879 MHz	-67.42 dBm	-54.42 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.41115 GHz	-42.50 dBm	-29.50 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98875 GHz	-52.10 dBm	-39.10 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.88528 GHz	-59.89 dBm	-46.89 dB

Date: 4.JUL.2022 04:28:42

Highest Channel / QPSK



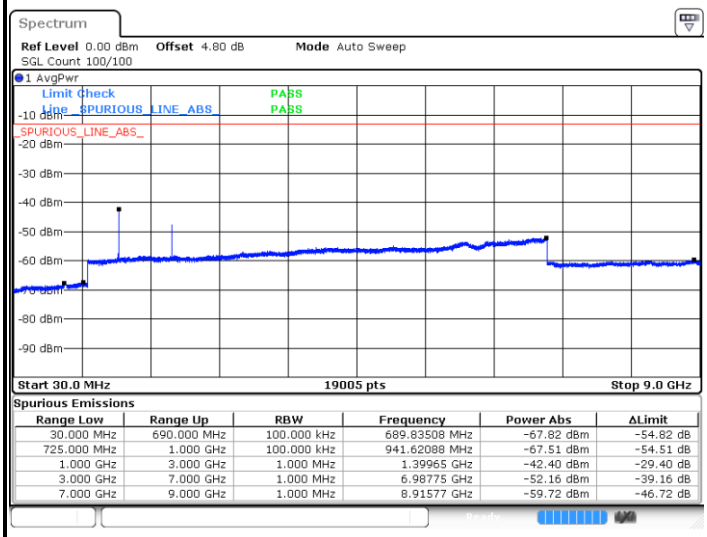
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.50525 MHz	-67.73 dBm	-54.73 dB
725.000 MHz	1.000 GHz	100.000 kHz	953.70879 MHz	-67.42 dBm	-54.42 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.42314 GHz	-41.67 dBm	-28.67 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.82377 GHz	-51.99 dBm	-38.99 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.35391 GHz	-59.92 dBm	-46.92 dB

Date: 4.JUL.2022 04:30:02

LTE Band 12 / 10MHz

Lowest Channel / QPSK

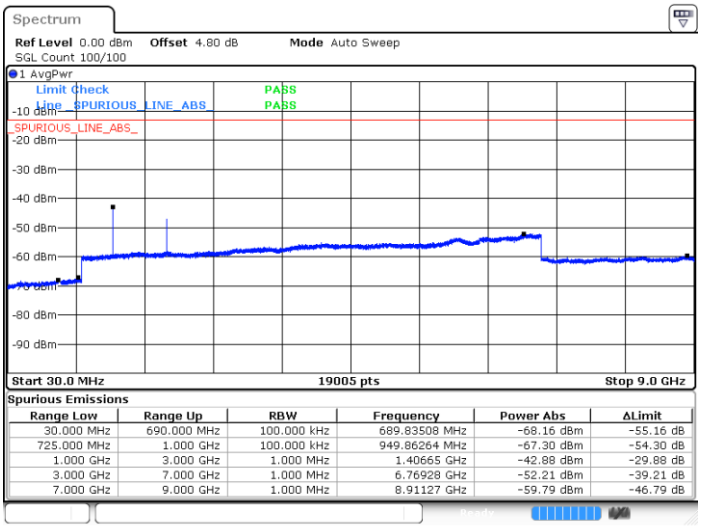


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.83508 MHz	-67.82 dBm	-54.82 dB
725.000 MHz	1.000 GHz	100.000 kHz	941.62088 MHz	-67.51 dBm	-54.51 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.39965 GHz	-42.40 dBm	-29.40 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98775 GHz	-52.16 dBm	-39.16 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.91577 GHz	-59.72 dBm	-46.72 dB

Date: 4.JUL.2022 04:38:00

Middle Channel / QPSK

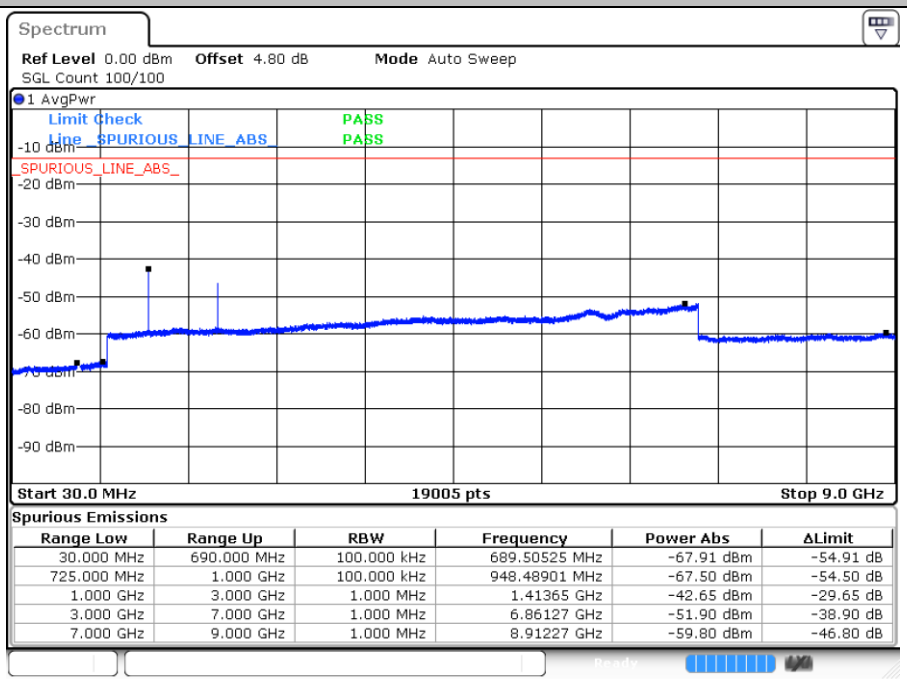


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.83508 MHz	-68.16 dBm	-55.16 dB
725.000 MHz	1.000 GHz	100.000 kHz	949.86264 MHz	-67.30 dBm	-54.30 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.40665 GHz	-42.88 dBm	-29.88 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.76928 GHz	-52.21 dBm	-39.21 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.91127 GHz	-59.79 dBm	-46.79 dB

Date: 4.JUL.2022 04:45:57

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	690.000 MHz	100.000 kHz	689.50525 MHz	-67.91 dBm	-54.91 dB
725.000 MHz	1.000 GHz	100.000 kHz	948.48901 MHz	-67.50 dBm	-54.50 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.41365 GHz	-42.65 dBm	-29.65 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86127 GHz	-51.90 dBm	-38.90 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.91227 GHz	-59.80 dBm	-46.80 dB

Date: 4.JUL.2022 04:47:16

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	0.0017	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0009	
0	Normal Voltage	0.0014	
-10	Normal Voltage	0.0021	
-20	Normal Voltage	0.0028	
-30	Normal Voltage	0.0019	
20	Maximum Voltage	0.0026	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0031	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

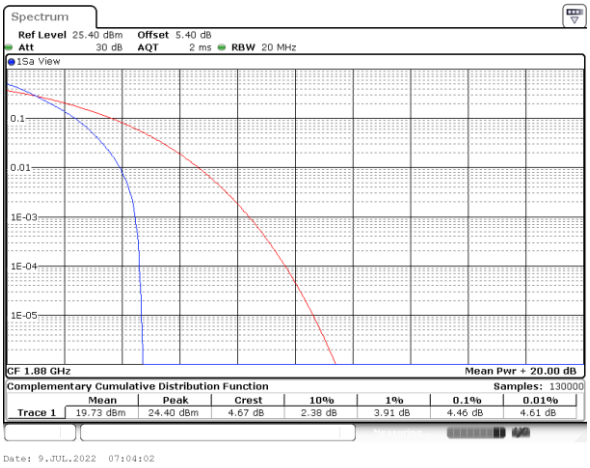
LTE Band 25

Peak-to-Average Ratio

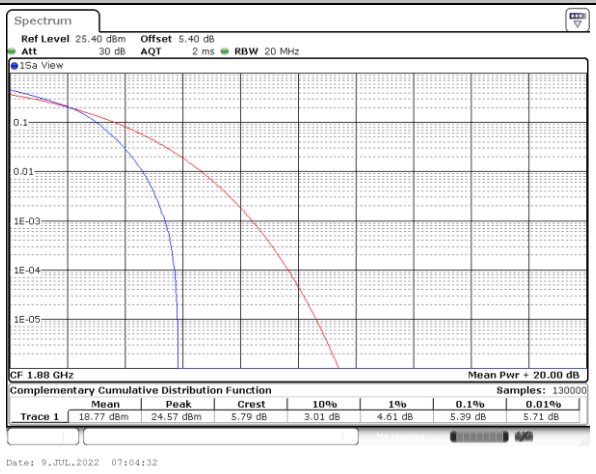
Mode	LTE Band 25 / 20MHz		
Mod.	QPSK	16QAM	Limit: 13dB
RB Size	Full RB	Full RB	Result
Middle CH	4.46	5.39	PASS

LTE Band 25 / 20MHz

Middle Channel / Full RB/ QPSK



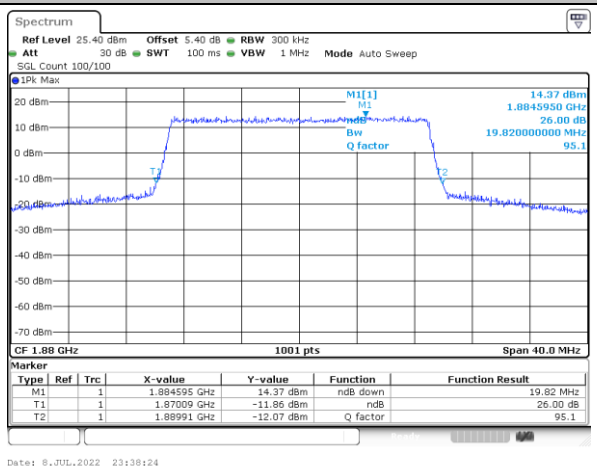
Middle Channel / Full RB/ 16QAM

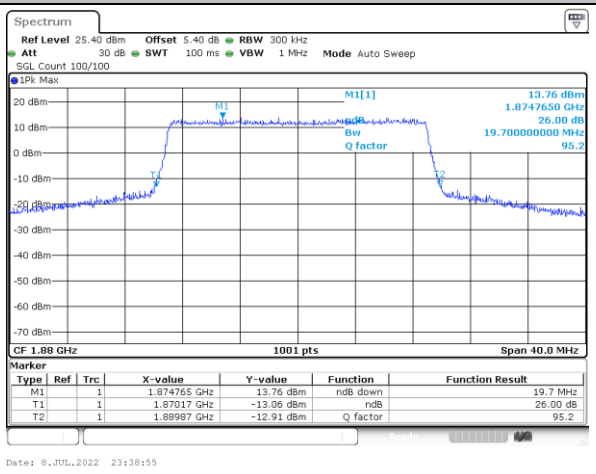


26dB Bandwidth

Mode	LTE Band 25 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	19.82	19.70

LTE Band 25	
Middle Channel / 20MHz / QPSK	Middle Channel / 20MHz / 16QAM

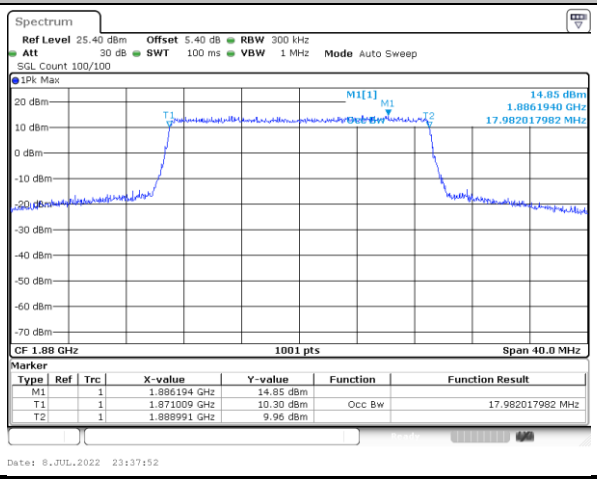


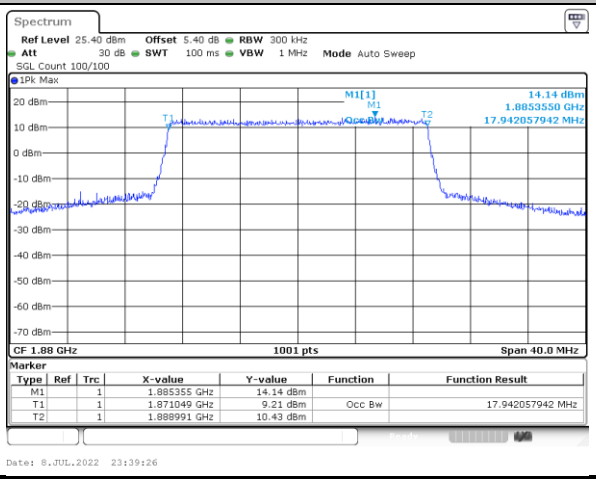


Occupied Bandwidth

Mode	LTE Band 25 : 99%OBW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	17.98	17.94

LTE Band 25	
Middle Channel / 20MHz / QPSK	Middle Channel / 20MHz / 16QAM

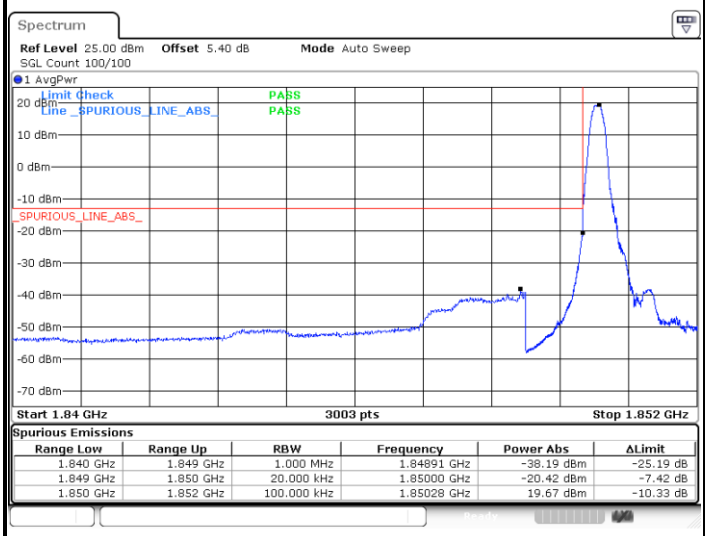




Conducted Band Edge

LTE Band 25 / 1.4MHz / QPSK

Lowest Band Edge / 1RB

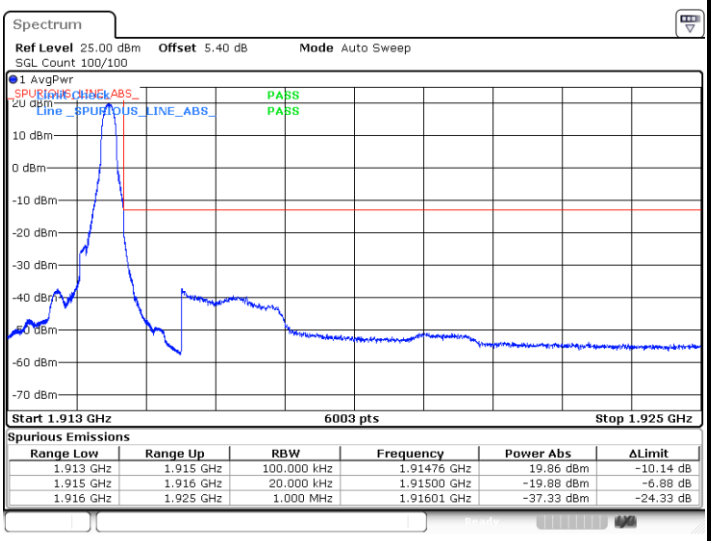


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84891 GHz	-38.19 dBm	-25.19 dB
1.849 GHz	1.850 GHz	20.000 kHz	1.85000 GHz	-20.42 dBm	-7.42 dB
1.850 GHz	1.852 GHz	100.000 kHz	1.85028 GHz	19.67 dBm	-10.33 dB

Date: 8.JUL.2022 23:11:11

Highest Band Edge / 1RB

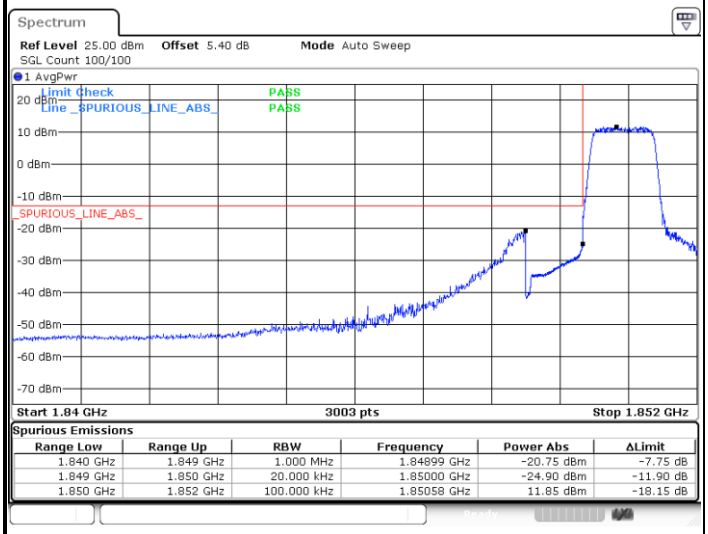


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.913 GHz	1.915 GHz	100.000 kHz	1.91476 GHz	19.86 dBm	-10.14 dB
1.915 GHz	1.916 GHz	20.000 kHz	1.91500 GHz	-19.88 dBm	-6.88 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91601 GHz	-37.33 dBm	-24.33 dB

Date: 8.JUL.2022 23:27:21

Lowest Band Edge / Full RB

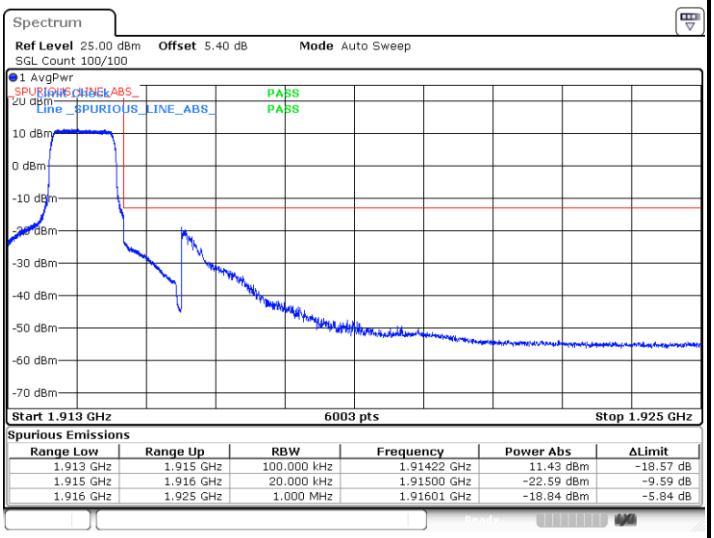


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84899 GHz	-20.75 dBm	-7.75 dB
1.849 GHz	1.850 GHz	20.000 kHz	1.85000 GHz	-24.90 dBm	-11.90 dB
1.850 GHz	1.852 GHz	100.000 kHz	1.85058 GHz	11.85 dBm	-18.15 dB

Date: 8.JUL.2022 23:14:35

Highest Band Edge / Full RB



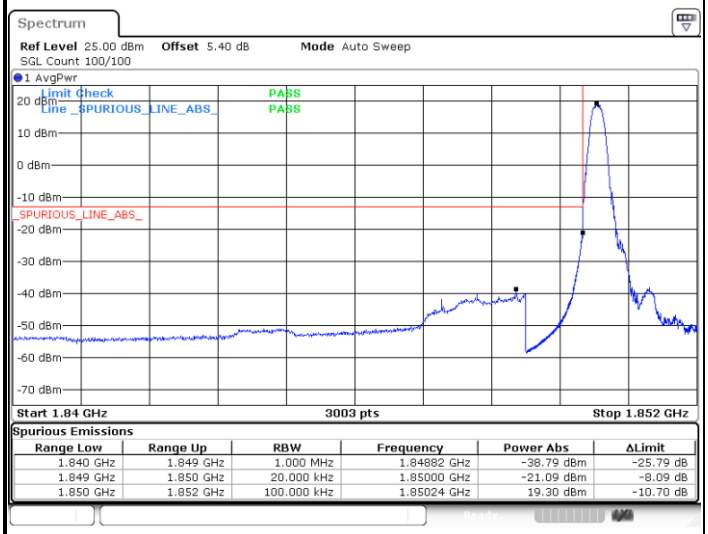
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.913 GHz	1.915 GHz	100.000 kHz	1.91422 GHz	11.43 dBm	-18.57 dB
1.915 GHz	1.916 GHz	20.000 kHz	1.91500 GHz	-22.59 dBm	-9.59 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91601 GHz	-18.84 dBm	-5.84 dB

Date: 8.JUL.2022 23:22:12

LTE Band 25 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

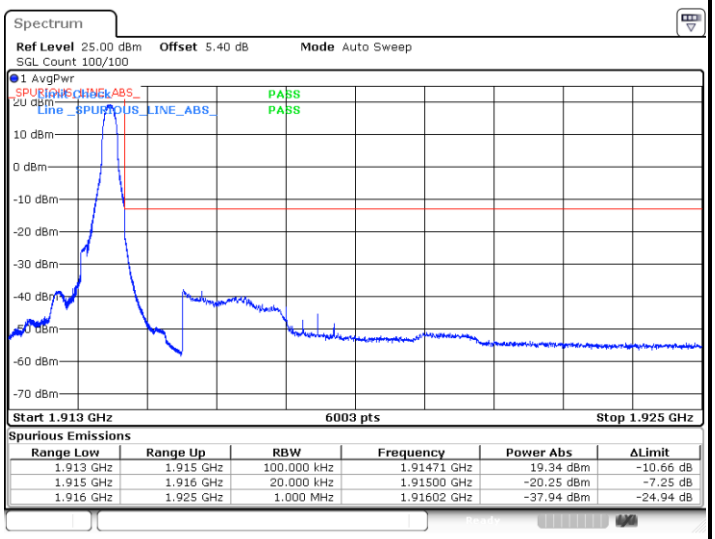


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84882 GHz	-38.79 dBm	-25.79 dB
1.849 GHz	1.850 GHz	20.000 kHz	1.85000 GHz	-21.09 dBm	-8.09 dB
1.850 GHz	1.852 GHz	100.000 kHz	1.85024 GHz	19.30 dBm	-10.70 dB

Date: 8.JUL.2022 23:12:53

Highest Band Edge / 1 RB

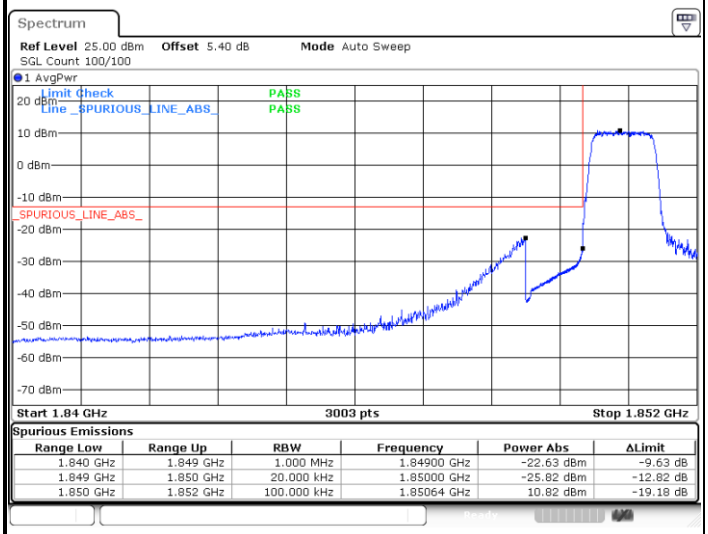


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.913 GHz	1.915 GHz	100.000 kHz	1.91471 GHz	19.34 dBm	-10.66 dB
1.915 GHz	1.916 GHz	20.000 kHz	1.91500 GHz	-20.25 dBm	-7.25 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91602 GHz	-37.94 dBm	-24.94 dB

Date: 8.JUL.2022 23:25:38

Lowest Band Edge / Full RB

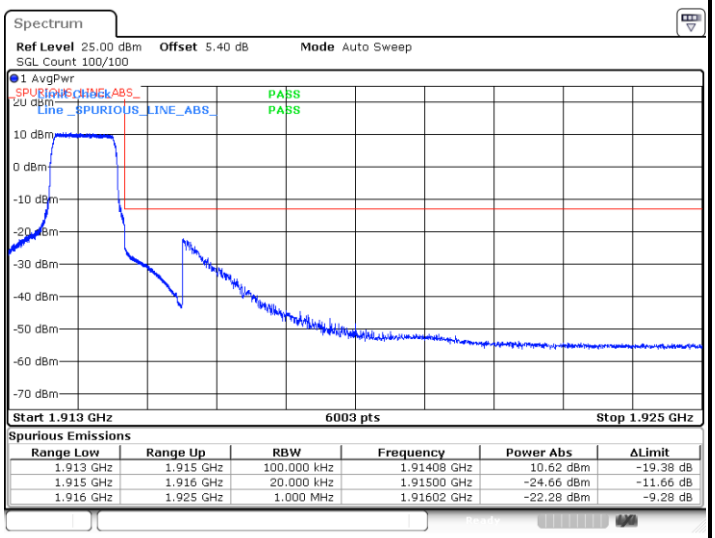


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84900 GHz	-22.63 dBm	-9.63 dB
1.849 GHz	1.850 GHz	20.000 kHz	1.85000 GHz	-25.82 dBm	-12.82 dB
1.850 GHz	1.852 GHz	100.000 kHz	1.85064 GHz	10.82 dBm	-19.18 dB

Date: 8.JUL.2022 23:16:17

Highest Band Edge / Full RB



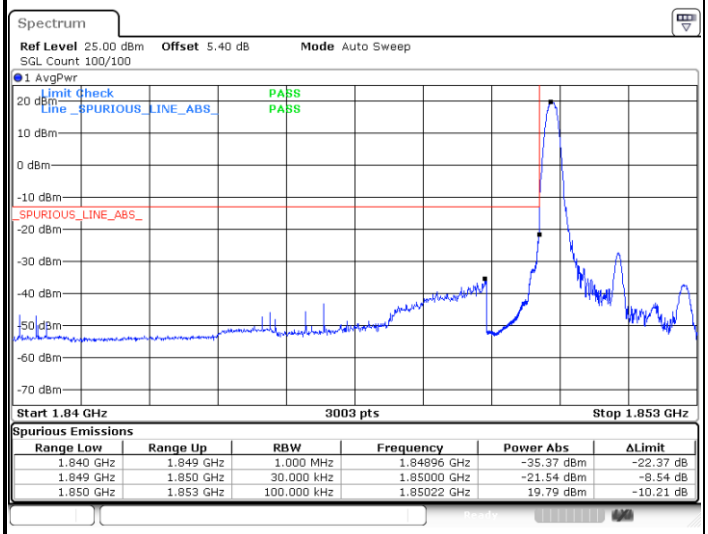
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.913 GHz	1.915 GHz	100.000 kHz	1.91408 GHz	10.62 dBm	-19.38 dB
1.915 GHz	1.916 GHz	20.000 kHz	1.91500 GHz	-24.66 dBm	-11.66 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91602 GHz	-22.28 dBm	-9.28 dB

Date: 8.JUL.2022 23:23:55

LTE Band 25 / 3MHz / QPSK

Lowest Band Edge / 1RB

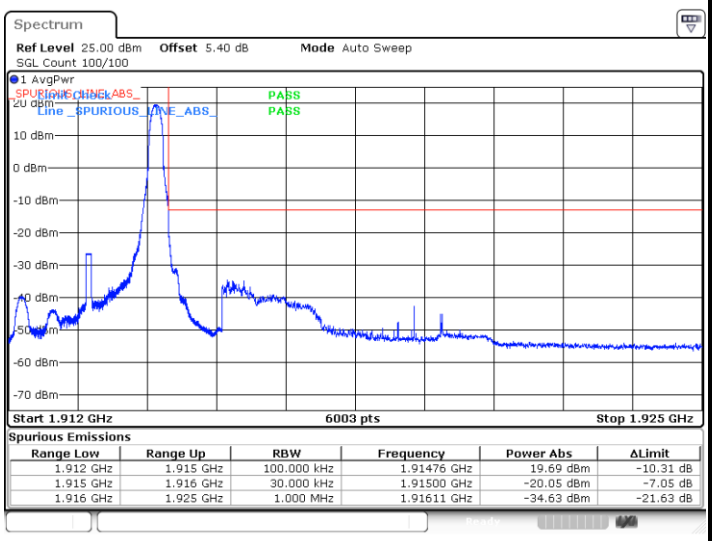


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84896 GHz	-35.37 dBm	-22.37 dB
1.849 GHz	1.850 GHz	30.000 kHz	1.85000 GHz	-21.54 dBm	-8.54 dB
1.850 GHz	1.853 GHz	100.000 kHz	1.85022 GHz	19.79 dBm	-10.21 dB

Date: 8.JUL.2022 21:18:50

Highest Band Edge / 1 RB

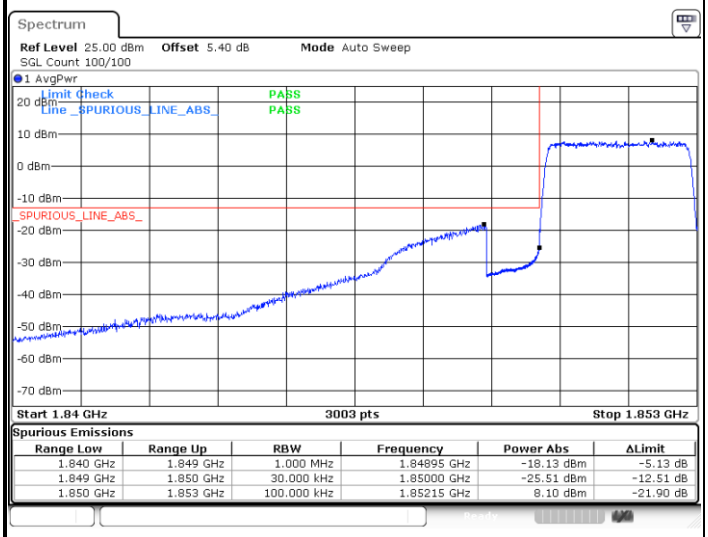


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.912 GHz	1.915 GHz	100.000 kHz	1.91476 GHz	19.69 dBm	-10.31 dB
1.915 GHz	1.916 GHz	30.000 kHz	1.91500 GHz	-20.05 dBm	-7.05 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91611 GHz	-34.63 dBm	-21.63 dB

Date: 8.JUL.2022 21:44:09

Lowest Band Edge / Full RB

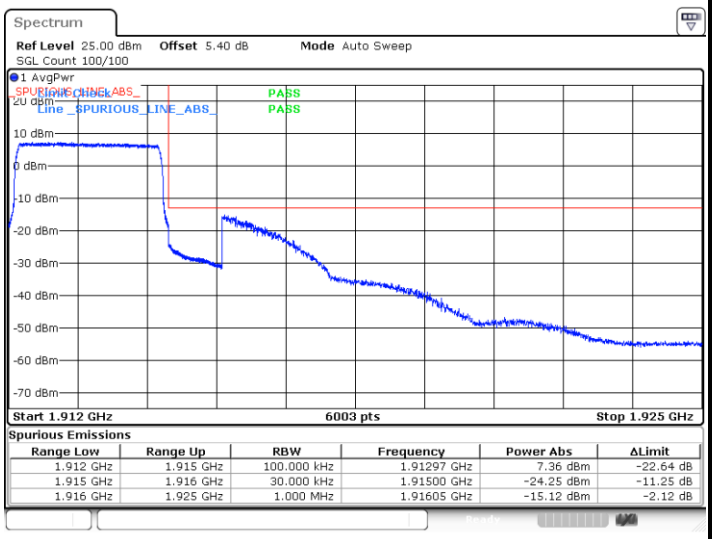


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84895 GHz	-18.13 dBm	-5.13 dB
1.849 GHz	1.850 GHz	30.000 kHz	1.85000 GHz	-25.51 dBm	-12.51 dB
1.850 GHz	1.853 GHz	100.000 kHz	1.85215 GHz	8.10 dBm	-21.90 dB

Date: 8.JUL.2022 21:21:38

Highest Band Edge / Full RB



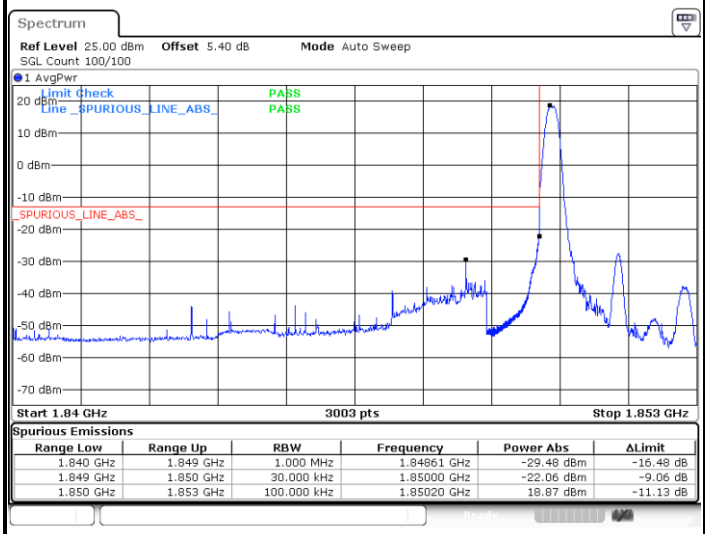
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.912 GHz	1.915 GHz	100.000 kHz	1.91297 GHz	7.36 dBm	-22.64 dB
1.915 GHz	1.916 GHz	30.000 kHz	1.91500 GHz	-24.25 dBm	-11.25 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91605 GHz	-15.12 dBm	-2.12 dB

Date: 8.JUL.2022 21:38:58

LTE Band 25 / 3MHz / 16QAM

Lowest Band Edge / 1 RB

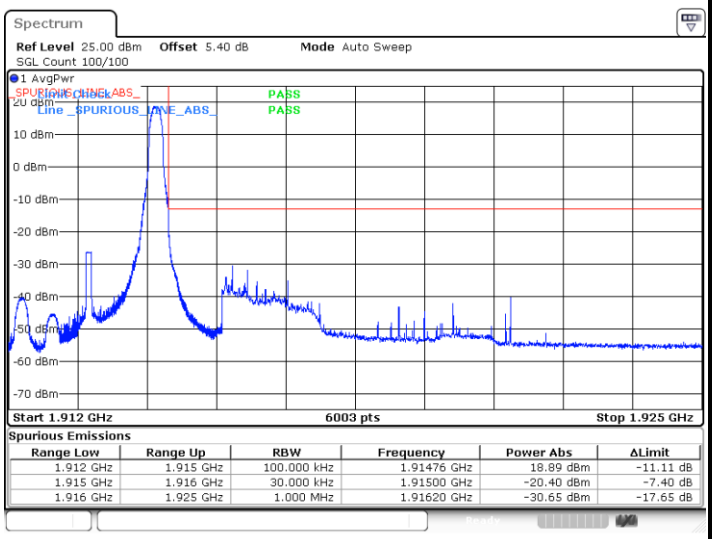


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84861 GHz	-29.48 dBm	-16.48 dB
1.849 GHz	1.850 GHz	30.000 kHz	1.85000 GHz	-22.06 dBm	-9.06 dB
1.850 GHz	1.853 GHz	100.000 kHz	1.85020 GHz	18.87 dBm	-11.13 dB

Date: 8.JUL.2022 21:20:14

Highest Band Edge /1 RB

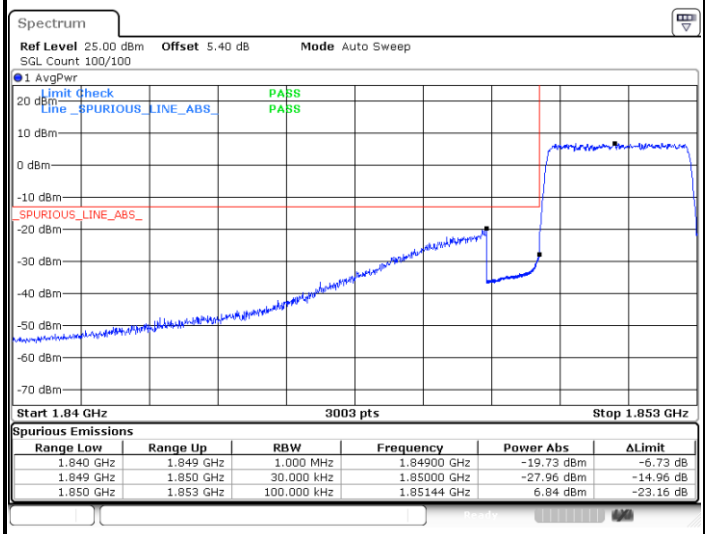


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.912 GHz	1.915 GHz	100.000 kHz	1.91476 GHz	18.89 dBm	-11.11 dB
1.915 GHz	1.916 GHz	30.000 kHz	1.91500 GHz	-20.40 dBm	-7.40 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91620 GHz	-30.65 dBm	-17.65 dB

Date: 8.JUL.2022 21:42:25

Lowest Band Edge / Full RB

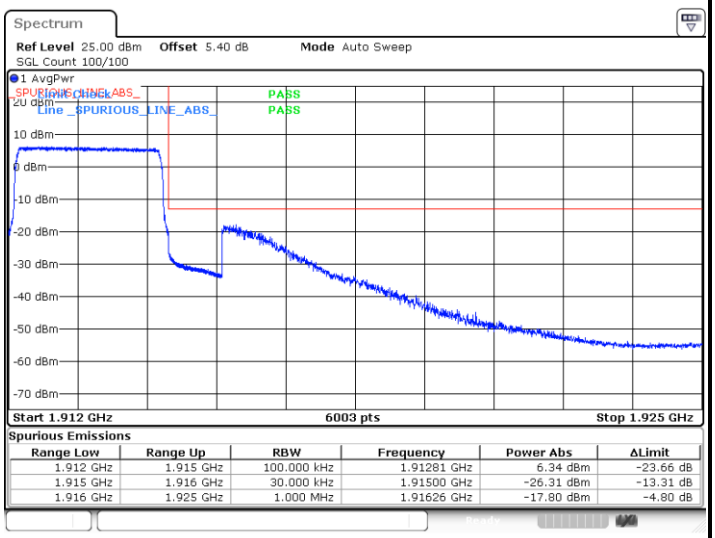


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84900 GHz	-19.73 dBm	-6.73 dB
1.849 GHz	1.850 GHz	30.000 kHz	1.85000 GHz	-27.96 dBm	-14.96 dB
1.850 GHz	1.853 GHz	100.000 kHz	1.85144 GHz	6.84 dBm	-23.16 dB

Date: 8.JUL.2022 21:23:02

Highest Band Edge / Full RB



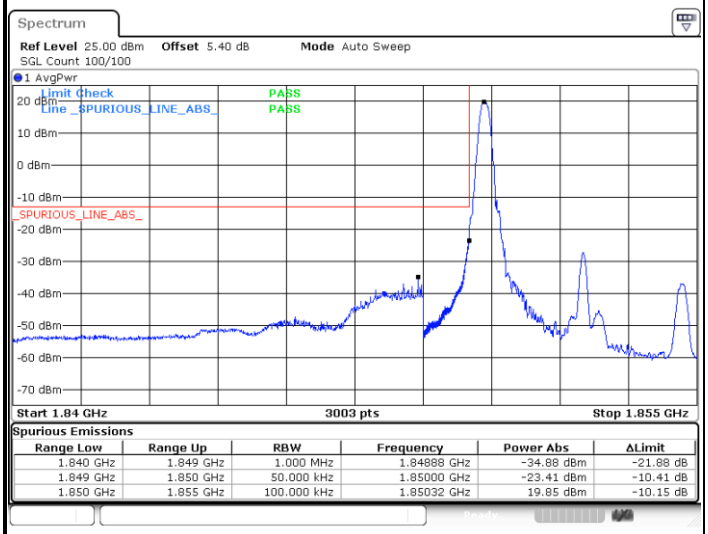
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.912 GHz	1.915 GHz	100.000 kHz	1.91281 GHz	6.34 dBm	-23.66 dB
1.915 GHz	1.916 GHz	30.000 kHz	1.91500 GHz	-26.31 dBm	-13.31 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91626 GHz	-17.80 dBm	-4.80 dB

Date: 8.JUL.2022 21:40:41

LTE Band 25 / 5MHz / QPSK

Lowest Band Edge / 1 RB

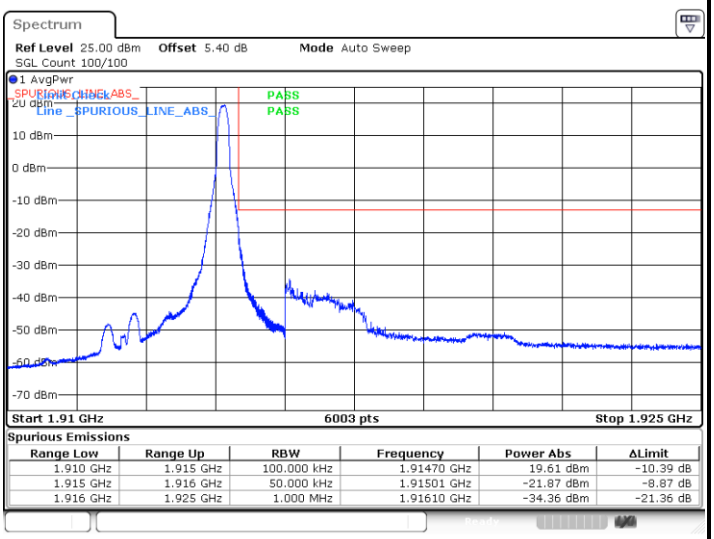


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84888 GHz	-34.88 dBm	-21.88 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.85000 GHz	-23.41 dBm	-10.41 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85032 GHz	19.85 dBm	-10.15 dB

Date: 8.JUL.2022 21:47:58

Highest Band Edge / 1 RB

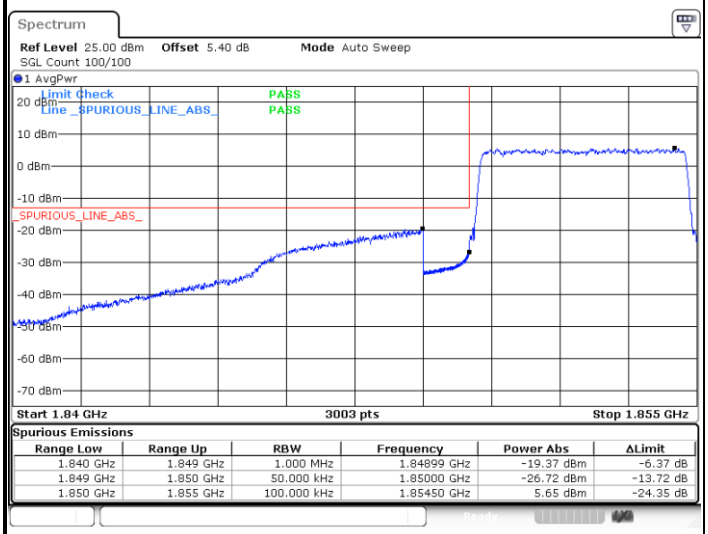


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.910 GHz	1.915 GHz	100.000 kHz	1.91470 GHz	19.61 dBm	-10.39 dB
1.915 GHz	1.916 GHz	50.000 kHz	1.91501 GHz	-21.87 dBm	-8.87 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91610 GHz	-34.36 dBm	-21.36 dB

Date: 8.JUL.2022 22:04:13

Lowest Band Edge / Full RB

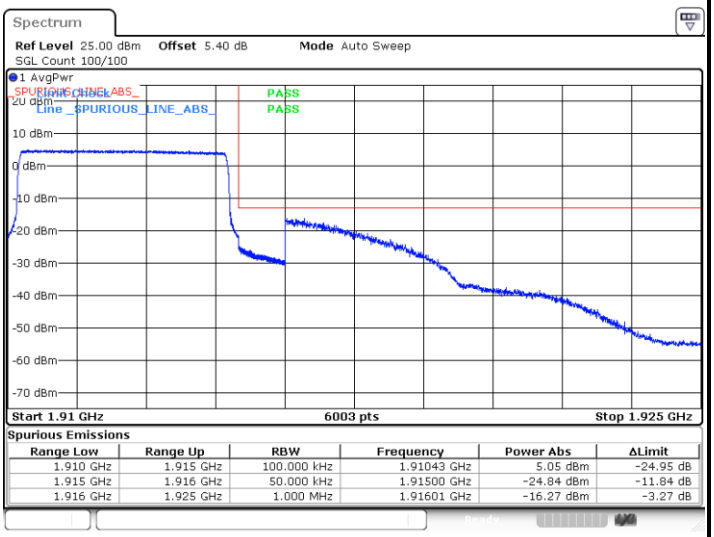


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84899 GHz	-19.37 dBm	-6.37 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.85000 GHz	-26.72 dBm	-13.72 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85450 GHz	5.65 dBm	-24.35 dB

Date: 8.JUL.2022 21:51:25

Highest Band Edge / Full RB



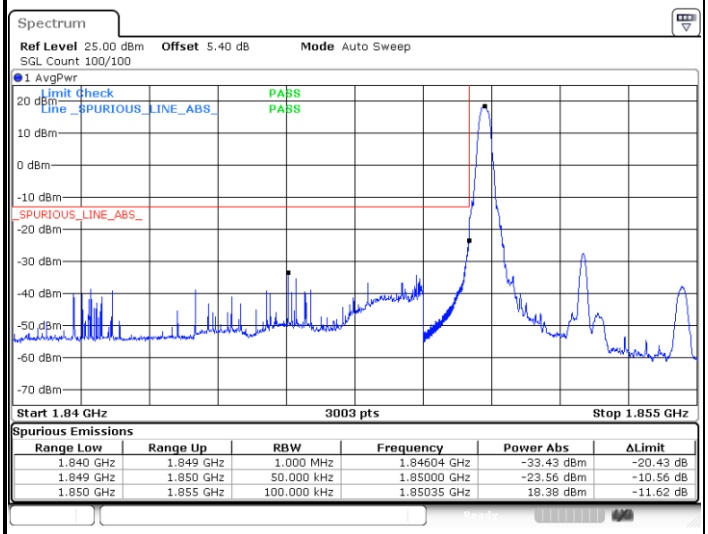
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.910 GHz	1.915 GHz	100.000 kHz	1.91043 GHz	5.05 dBm	-24.95 dB
1.915 GHz	1.916 GHz	50.000 kHz	1.91500 GHz	-24.84 dBm	-11.84 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91601 GHz	-16.27 dBm	-3.27 dB

Date: 8.JUL.2022 21:59:03

LTE Band 25 / 5MHz / 16QAM

Lowest Band Edge / 1RB

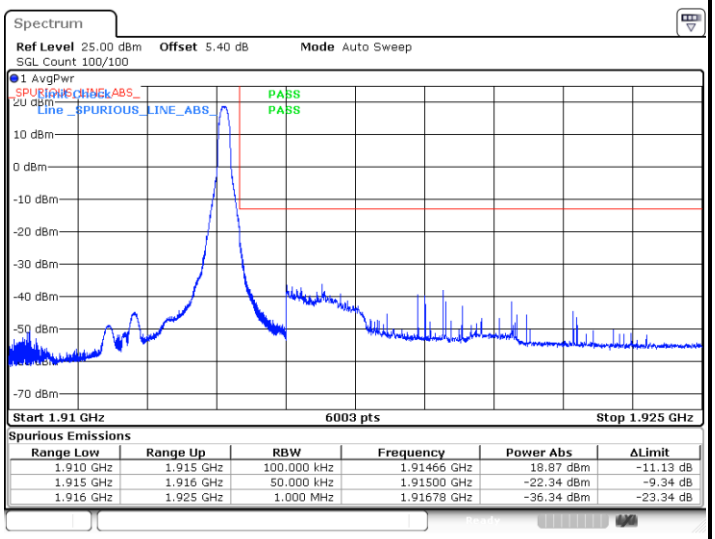


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84604 GHz	-33.43 dBm	-20.43 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.85000 GHz	-23.56 dBm	-10.56 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85035 GHz	18.38 dBm	-11.62 dB

Date: 8.JUL.2022 21:49:41

Highest Band Edge / 1 RB

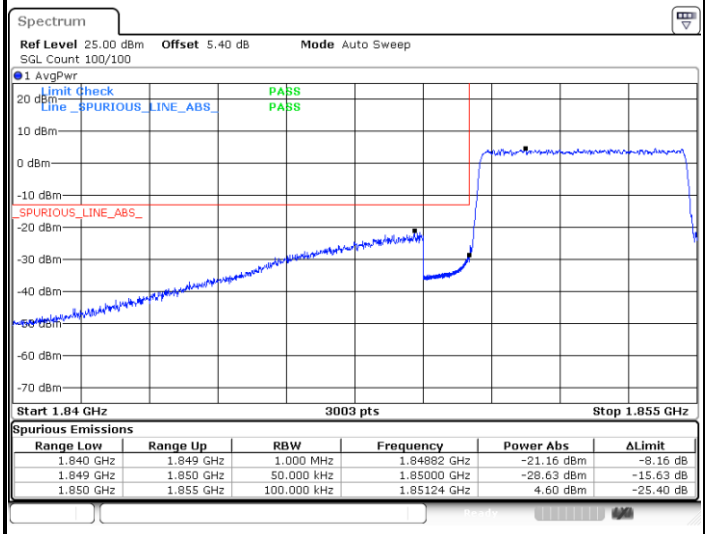


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.910 GHz	1.915 GHz	100.000 kHz	1.91466 GHz	18.87 dBm	-11.13 dB
1.915 GHz	1.916 GHz	50.000 kHz	1.91500 GHz	-22.34 dBm	-9.34 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91678 GHz	-36.34 dBm	-23.34 dB

Date: 8.JUL.2022 22:02:30

Lowest Band Edge / Full RB

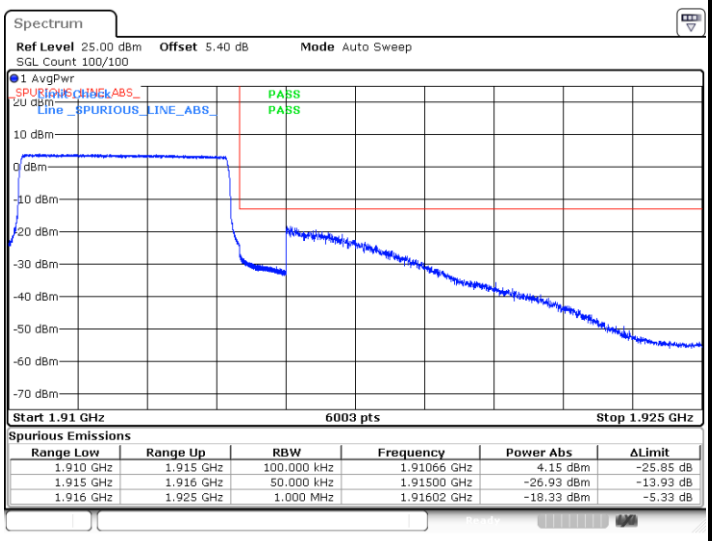


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84882 GHz	-21.16 dBm	-8.16 dB
1.849 GHz	1.850 GHz	50.000 kHz	1.85000 GHz	-28.63 dBm	-15.63 dB
1.850 GHz	1.855 GHz	100.000 kHz	1.85124 GHz	4.60 dBm	-25.40 dB

Date: 8.JUL.2022 21:53:07

Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.910 GHz	1.915 GHz	100.000 kHz	1.91066 GHz	4.15 dBm	-25.85 dB
1.915 GHz	1.916 GHz	50.000 kHz	1.91500 GHz	-26.93 dBm	-13.93 dB
1.916 GHz	1.925 GHz	1.000 MHz	1.91602 GHz	-18.33 dBm	-5.33 dB

Date: 8.JUL.2022 22:00:46