FCC RF Test Report

APPLICANT	: Fibocom Wireless Inc.
EQUIPMENT	: LTE Module
BRAND NAME	: Fibocom
MODEL NAME	: L860-GL-16
FCC ID	: ZMOL860GL16
STANDARD	: 47 CFR Part 2, 27(N)
CLASSIFICATION	: PCS Licensed Transmitter (PCB)
TEST DATE(S)	: Mar. 15, 2023 ~ Mar. 16, 2023

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

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

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.01

Sporton International Inc. (ShenZhen)

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

People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG0O3022-26A	Rev. 01	Initial issue of report	Mar. 23, 2023

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§27.50(c)(10)	Effective Radiated Power (Band 71)	ERP < 3 Watt	PASS	-
3.6	§2.1049	Occupied Bandwidth	-	Report Only	-
3.7	§2.1051 §27.53(g)	Conducted Band Edge Measurement (Band 71)	< 43+10log10(P[Watts])	PASS	-
3.8	§2.1051 §27.53(g)	Conducted Spurious Emission (Band 71)	< 43+10log10(P[Watts])	PASS	-
3.9	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(g)	Radiated Spurious Emission (Band 71)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 48.44 dB at 2686.000 MHz

Note: This is a variant report for L860-GL-16. The change note could be referred to L860-GL-16_ Class II Permissive Change letter which is exhibit separately. Based on the similarity between current and previous project, only the related test cases from original test report (Sporton Report Number FG0O3022C) were verified for the differences.

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

Fibocom Wireless Inc.

1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China

1.2 Manufacturer

Fibocom Wireless Inc.

1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	LTE Module
Brand Name	Fibocom
Model Name	L860-GL-16
FCC ID	ZMOL860GL16
IMEI Code	Conducted: 863714050132218 Radiation: 863714050132168
HW Version	V1.3
SW Version	18601.5001.00.01.02.05
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 71: 663 MHz ~ 698 MHz
Rx Frequency	LTE Band 71: 617 MHz ~ 652 MHz
Bandwidth	LTE Band 71 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 71 : 22.67 dBm
Antenna Gain	LTE Band 71 : 3.00 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

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 71		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
5	665.5 ~ 695.5	0.1841	4M50G7D	0.1552	4M52W7D
10	668.0 ~ 693.0	0.1828	9M09G7D	0.1542	9M17W7D
15	670.5 ~ 690.5	0.1845	13M6G7D	0.1570	13M5W7D
20	673.0 ~ 688.0	0.1849	17M9G7D	0.1524	17M9W7D

1.7 Testing Location

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

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

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH03-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH03-SZ	AUDIX	E3	6.2009-8-24

1.9 Applicable Standards

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

- 47 CFR Part 2, 27(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

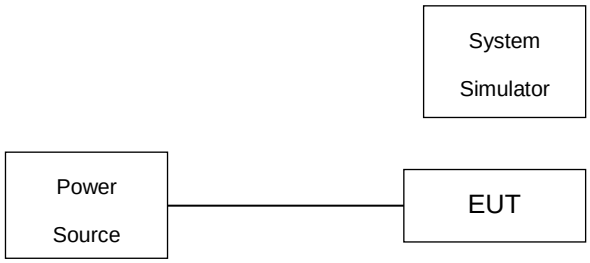
2.1 Test Mode

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.

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	71	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
99% Bandwidth	71	-	-	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	71	-	-	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	71	-	-	v	v	v	v	v	v	v	v			v	v	v
Frequency Stability	71	-	-		v			v					v		v	
E.R.P / E.I.R.P	71	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	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.															

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

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

2.3 Support Unit used in test configuration and system

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

2.4 Measurement Results Explanation Example

For all conducted test items:

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

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

Offset = RF cable loss + attenuator factor.

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

Example :

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

= 4.0 + 10 = 14.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

LTE Band 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

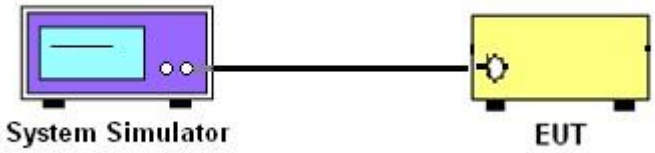
3 Conducted Test Items

3.1 Measuring Instruments

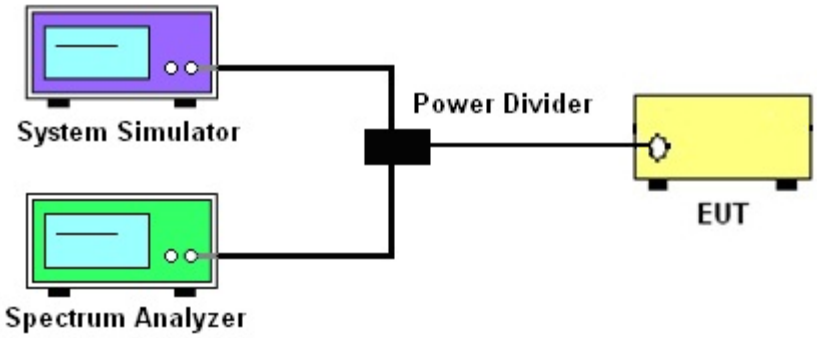
See list of measuring instruments of this test report.

3.2 Test Setup

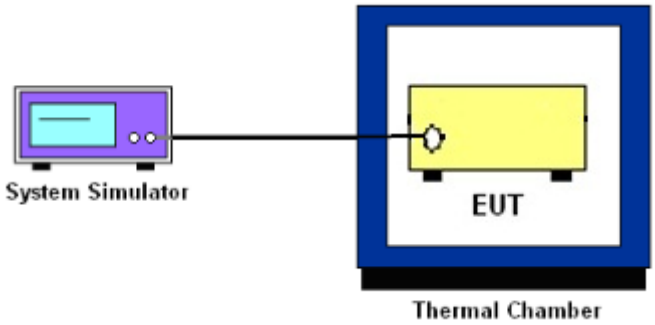
3.2.1 Conducted Output Power



3.2.2 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

3.4.1 Description of the Conducted Output Power Measurement and ERP Measurement

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

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

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 Occupied Bandwidth

3.5.1 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.

3.5.2 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.

3.6 Conducted Band Edge

3.6.1 Description of Conducted Band Edge Measurement

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.

3.6.2 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. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.
   Example:
   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
9. When using the integration method, the starting frequency of the integration shall be centered at one-half of the RBW away from the band edge.

3.7 Conducted Spurious Emission

3.7.1 Description of Conducted Spurious Emission Measurement

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

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

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

3.8 Frequency Stability

3.8.1 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.

3.8.2 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.

3.8.3 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.

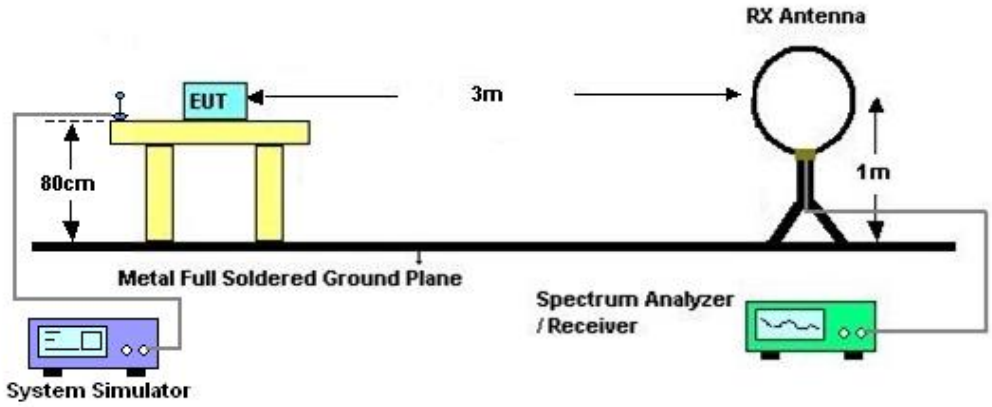
4 Radiated Test Items

4.1 Measuring Instruments

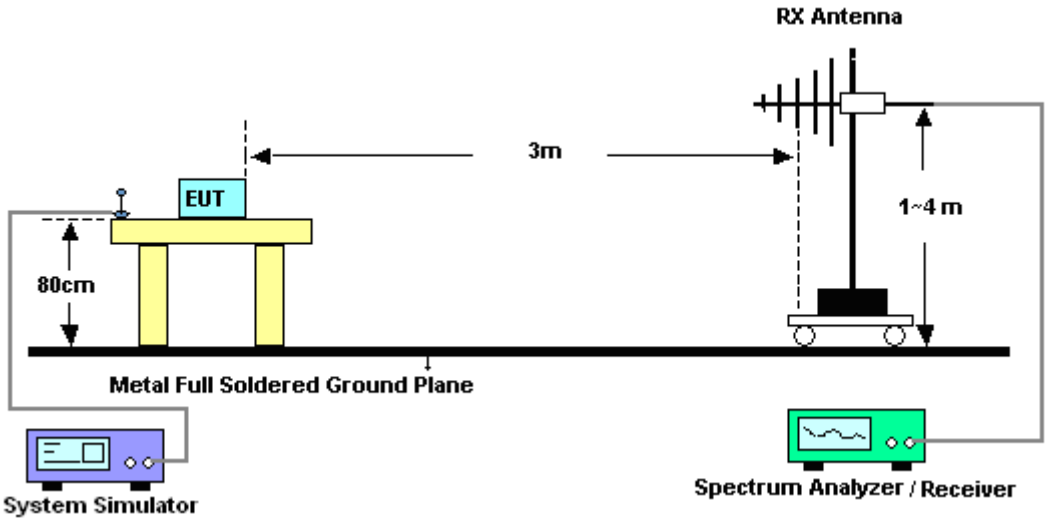
See list of measuring instruments of this test report.

4.2 Test Setup

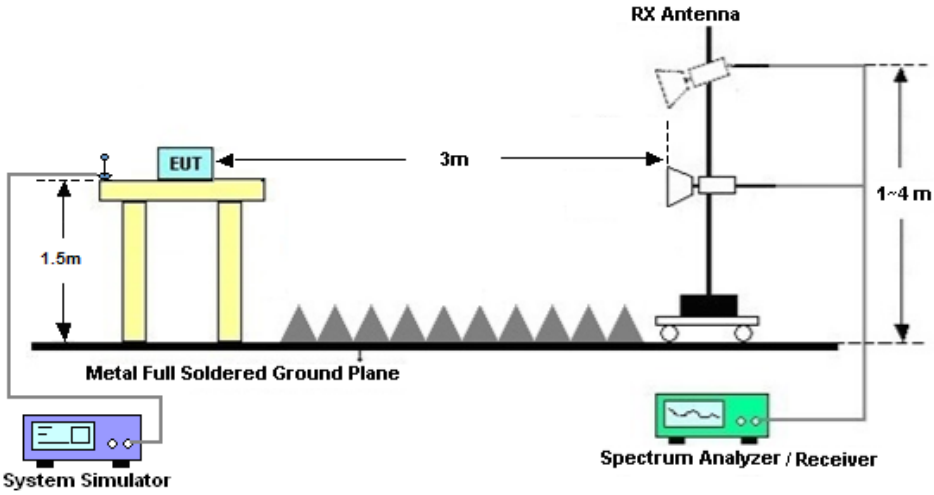
4.2.1 For radiated test below 30MHz



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.

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

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 07, 2022	Mar. 15, 2023~ Mar. 16, 2023	Apr. 08, 2023	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2022	Mar. 15, 2023~ Mar. 16, 2023	Dec. 24, 2023	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 07, 2022	Mar. 15, 2023~ Mar. 16, 2023	Jul. 06, 2023	Conducted (TH01-SZ)
EMI Test Receiver&SA	KEYSIGHT	N9038A	MY54450083	20Hz~8.4GHz	Apr. 06, 2022	Mar. 15, 2023	Apr. 05, 2023	Radiation (03CH03-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 28, 2022	Mar. 15, 2023	Jun. 27, 2023	Radiation (03CH03-SZ)
EXA Spectrum Anaiyzer	KEYSIGHT	N9010A	MY55150246	10Hz~44GHz;	Apr. 06, 2022	Mar. 15, 2023	Apr. 05, 2023	Radiation (03CH03-SZ
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	Aug. 09, 2021	Mar. 15, 2023	Aug. 08, 2023	Radiation (03CH03-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1355	1GHz~18GHz	Apr. 08, 2022	Mar. 15, 2023	Apr. 07, 2023	Radiation (03CH03-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct. 19, 2022	Mar. 15, 2023	Oct. 18, 2023	Radiation (03CH03-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 06, 2022	Mar. 15, 2023	Jul. 05, 2023	Radiation (03CH03-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 10, 2022	Mar. 15, 2023	Apr. 09, 2023	Radiation (03CH03-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Dec. 26, 2022	Mar. 15, 2023	Dec. 25, 2023	Radiation (03CH03-SZ)
AC Power Source	Chroma	61601	616010002729	N/A	Nov. 10, 2022	Mar. 15, 2023	Nov. 09, 2023	Radiation (03CH03-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Mar. 15, 2023	NCR	Radiation (03CH03-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Mar. 15, 2023	NCR	Radiation (03CH03-SZ)

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	±1.34 dB
Conducted Emissions	±1.34 dB
Occupied Channel Bandwidth	±0.012 %

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.0dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.6dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.8dB

Appendix A. Test Results of Conducted Test

Test Engineer :	Xu Zhi	Temperature :	24~26℃
		Relative Humidity :	50~53%

Conducted Output Power(Average power)

LTE Band 71

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				133222	133297	133372
Frequency (MHz)				673	680.5	688
20	QPSK	1	0	22.49	22.67	22.51
20	QPSK	1	49	22.46	22.43	22.46
20	QPSK	1	99	22.44	22.43	22.39
20	QPSK	50	0	21.34	21.41	21.51
20	QPSK	50	24	21.28	21.40	21.51
20	QPSK	50	50	21.58	21.51	21.35
20	QPSK	100	0	21.41	21.50	21.34
20	16QAM	1	0	21.61	21.77	21.83
20	16QAM	1	49	21.74	21.60	21.55
20	16QAM	1	99	21.74	21.68	21.82
20	16QAM	50	0	20.36	20.42	20.44
20	16QAM	50	24	20.56	20.42	20.59
20	16QAM	50	50	20.60	20.50	20.44
20	16QAM	100	0	20.48	20.49	20.63
20	64QAM	1	0	20.74	20.83	20.97
20	64QAM	1	49	20.70	20.56	20.51
20	64QAM	1	99	20.72	20.61	20.53
20	64QAM	50	0	19.57	19.41	19.35
20	64QAM	50	24	19.36	19.39	19.49
20	64QAM	50	50	19.46	19.47	19.57
20	64QAM	100	0	19.50	19.40	19.51
Channel				133197	133297	133397
Frequency (MHz)				670.5	680.5	690.5
15	QPSK	1	0	22.66	22.47	22.48
15	QPSK	1	37	22.63	22.25	22.57
15	QPSK	1	74	22.44	22.34	22.44
15	QPSK	36	0	21.44	21.26	21.51
15	QPSK	36	20	21.31	21.53	21.62
15	QPSK	36	39	21.42	21.42	21.21
15	QPSK	75	0	21.52	21.42	21.48
15	16QAM	1	0	21.78	21.59	21.96
15	16QAM	1	37	21.92	21.51	21.53
15	16QAM	1	74	21.64	21.65	21.90
15	16QAM	36	0	20.32	20.28	20.63

15	16QAM	36	20	20.59	20.60	20.57
15	16QAM	36	39	20.44	20.44	20.48
15	16QAM	75	0	20.61	20.46	20.73
15	64QAM	1	0	20.73	20.90	20.88
15	64QAM	1	37	20.61	20.67	20.38
15	64QAM	1	74	20.68	20.54	20.63
15	64QAM	36	0	19.47	19.56	19.50
15	64QAM	36	20	19.27	19.51	19.48
15	64QAM	36	39	19.62	19.52	19.60
15	64QAM	75	0	19.65	19.29	19.62
Channel				133172	133297	133422
Frequency (MHz)				668	680.5	693
10	QPSK	1	0	22.38	22.62	22.33
10	QPSK	1	25	22.35	22.31	22.53
10	QPSK	1	49	22.36	22.36	22.45
10	QPSK	25	0	21.50	21.25	21.61
10	QPSK	25	12	21.15	21.56	21.33
10	QPSK	25	25	21.45	21.70	21.40
10	QPSK	50	0	21.51	21.44	21.38
10	16QAM	1	0	21.50	21.73	21.71
10	16QAM	1	25	21.62	21.56	21.73
10	16QAM	1	49	21.63	21.69	21.88
10	16QAM	25	0	20.36	20.29	20.60
10	16QAM	25	12	20.43	20.52	20.60
10	16QAM	25	25	20.41	20.35	20.53
10	16QAM	50	0	20.35	20.33	20.53
10	64QAM	1	0	20.84	20.72	21.15
10	64QAM	1	25	20.84	20.75	20.39
10	64QAM	1	49	20.75	20.42	20.55
10	64QAM	25	0	19.48	19.33	19.31
10	64QAM	25	12	19.19	19.48	19.43
10	64QAM	25	25	19.45	19.32	19.43
10	64QAM	50	0	19.48	19.23	19.38
Channel				133147	133297	133447
Frequency (MHz)				665.5	680.5	695.5
5	QPSK	1	0	22.65	22.51	22.32
5	QPSK	1	12	22.47	22.47	22.36
5	QPSK	1	24	22.46	22.57	22.31
5	QPSK	12	0	21.39	21.36	21.62
5	QPSK	12	7	21.43	21.58	21.39
5	QPSK	12	13	21.72	21.37	21.48
5	QPSK	25	0	21.57	21.46	21.25
5	16QAM	1	0	21.42	21.91	21.78
5	16QAM	1	12	21.66	21.53	21.59
5	16QAM	1	24	21.61	21.82	21.70
5	16QAM	12	0	20.53	20.36	20.45
5	16QAM	12	7	20.68	20.46	20.49
5	16QAM	12	13	20.68	20.53	20.40
5	16QAM	25	0	20.65	20.59	20.67
5	64QAM	1	0	20.69	20.85	21.08

5	64QAM	1	12	20.69	20.64	20.67
5	64QAM	1	24	20.84	20.42	20.71
5	64QAM	12	0	19.75	19.41	19.51
5	64QAM	12	7	19.26	19.43	19.48
5	64QAM	12	13	19.55	19.62	19.65
5	64QAM	25	0	19.42	19.50	19.65

ERP

LTE Band 71 (GT - LC = 3.00 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	22.65	22.51	22.32	22.38	22.62	22.33	22.66	22.47	22.48
Conducted Power (Watts)	0.1841	0.1782	0.1706	0.1730	0.1828	0.1710	0.1845	0.1766	0.1770
ERP(dBm)	23.50	23.36	23.17	23.23	23.47	23.18	23.51	23.32	23.33
ERP(Watts)	0.2239	0.2168	0.2075	0.2104	0.2223	0.2080	0.2244	0.2148	0.2153

LTE Band 71 (GT - LC = 3.00 dB) QPSK			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	22.49	22.67	22.51
Conducted Power (Watts)	0.1774	0.1849	0.1782
ERP(dBm)	23.34	23.52	23.36
ERP(Watts)	0.2158	0.2249	0.2168

LTE Band 71 (GT - LC = 3.00 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	21.42	21.91	21.78	21.63	21.69	21.88	21.78	21.59	21.96
Conducted Power (Watts)	0.1387	0.1552	0.1507	0.1455	0.1476	0.1542	0.1507	0.1442	0.1570
ERP(dBm)	22.27	22.76	22.63	22.48	22.54	22.73	22.63	22.44	22.81
ERP(Watts)	0.1687	0.1888	0.1832	0.1770	0.1795	0.1875	0.1832	0.1754	0.1910

LTE Band 71 (GT - LC = 3.00 dB) 16QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	21.61	21.77	21.83
Conducted Power (Watts)	0.1449	0.1503	0.1524
ERP(dBm)	22.46	22.62	22.68
ERP(Watts)	0.1762	0.1828	0.1854

LTE Band 71 (GT - LC = 3.00 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	133147	133297	133447	133172	133297	133422	133197	133297	133397
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	665.5	680.5	695.5	668	680.5	693	670.5	680.5	690.5
Conducted Power (dBm)	20.69	20.85	21.08	20.84	20.72	21.15	20.73	20.90	20.88
Conducted Power (Watts)	0.1172	0.1216	0.1282	0.1213	0.1180	0.1303	0.1183	0.1230	0.1225
ERP(dBm)	21.54	21.70	21.93	21.69	21.57	22.00	21.58	21.75	21.73
ERP(Watts)	0.1426	0.1479	0.1560	0.1476	0.1435	0.1585	0.1439	0.1496	0.1489

LTE Band 71 (GT - LC = 3.00 dB) 64QAM			
Bandwidth	20M		
Channel	133222	133297	133372
	(Low)	(Mid)	(High)
Frequency (MHz)	673	680.5	688
Conducted Power (dBm)	20.74	20.83	20.97
Conducted Power (Watts)	0.1186	0.1211	0.1250
ERP(dBm)	21.59	21.68	21.82
ERP(Watts)	0.1442	0.1472	0.1521

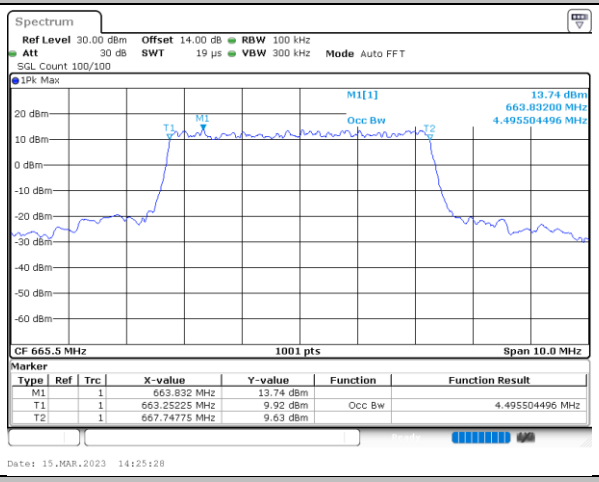
LTE Band 71

Occupied Bandwidth

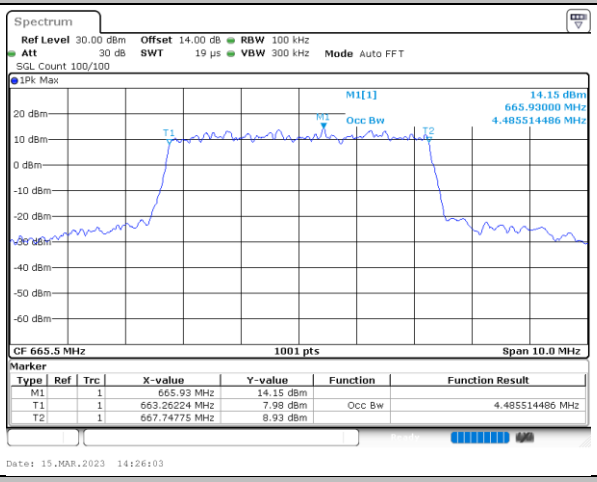
Mode	LTE Band 71 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.50	4.49	9.07	9.03	13.46	13.46	17.90	17.90
Middle CH	-	-	-	-	4.50	4.50	9.09	9.03	13.61	13.49	17.90	17.94
Highest CH	-	-	-	-	4.49	4.50	9.03	9.05	13.43	13.40	17.90	17.90
Mode	LTE Band 71 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.48	-	9.17	-	13.49	-	17.90	-
Middle CH	-	-	-	-	4.51	-	9.09	-	13.43	-	17.90	-
Highest CH	-	-	-	-	4.52	-	9.09	-	13.46	-	17.86	-

LTE Band 71

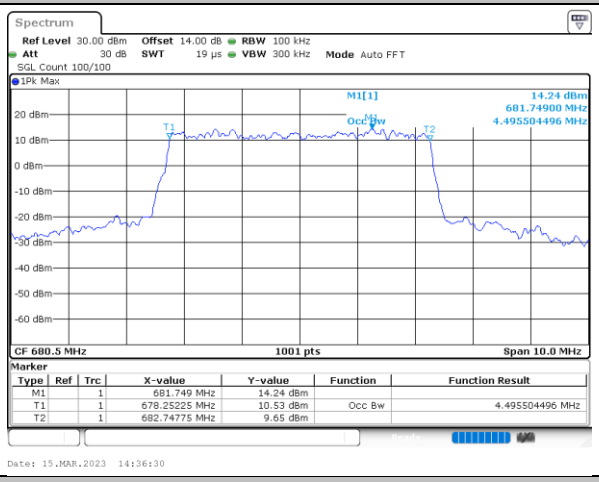
Lowest Channel / 5MHz / QPSK



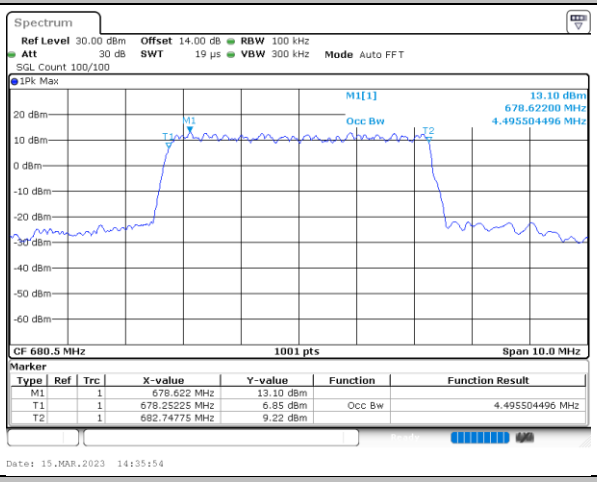
Lowest Channel / 5MHz / 16QAM



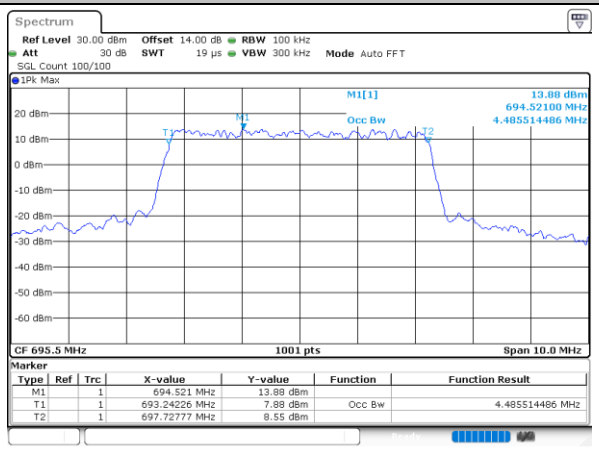
Middle Channel / 5MHz / QPSK



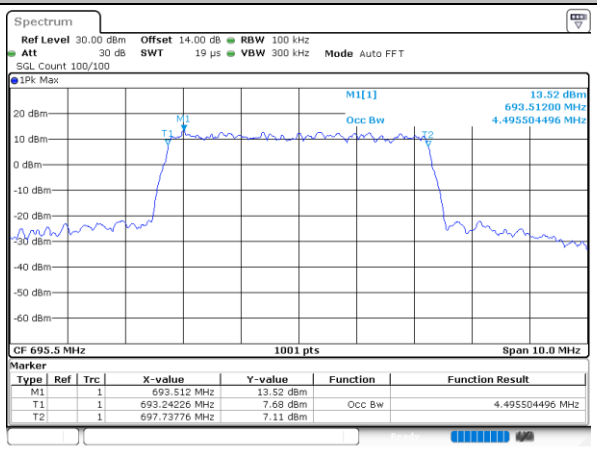
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

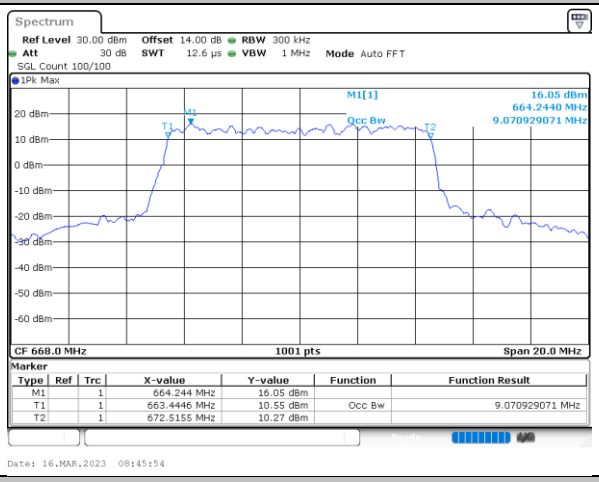


Highest Channel / 5MHz / 16QAM

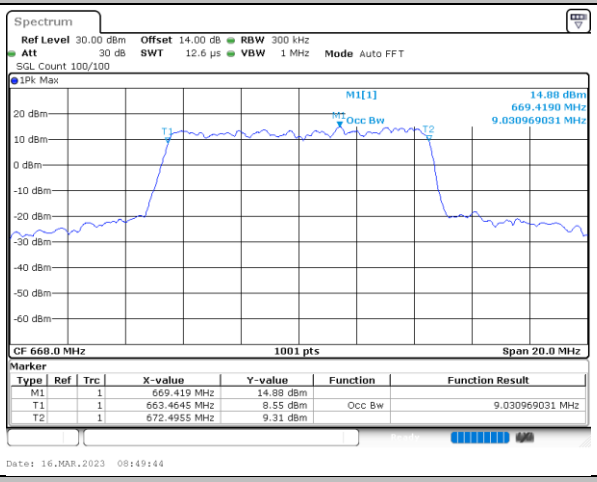


LTE Band 71

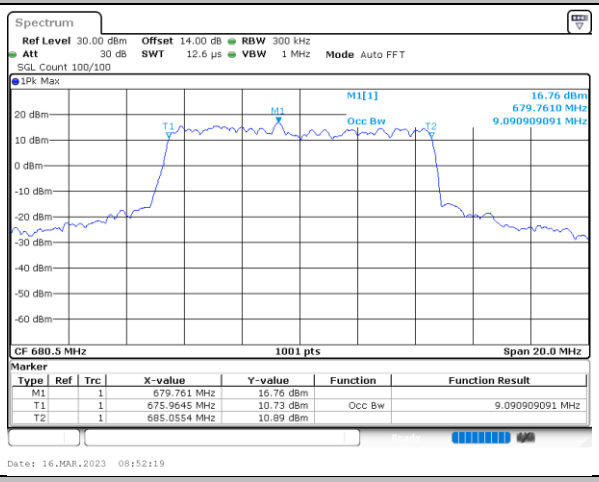
Lowest Channel / 10MHz / QPSK



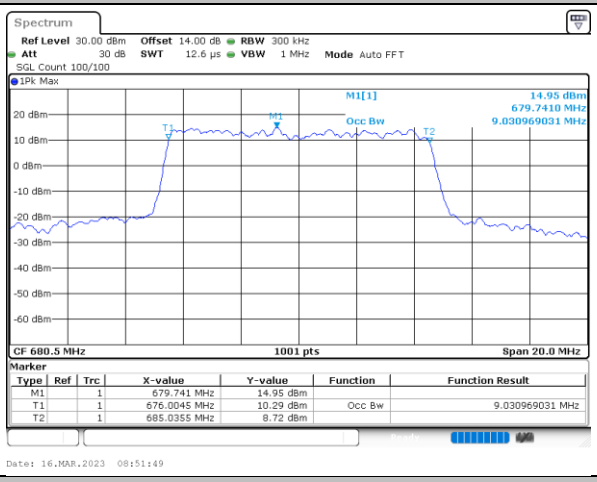
Lowest Channel / 10MHz / 16QAM



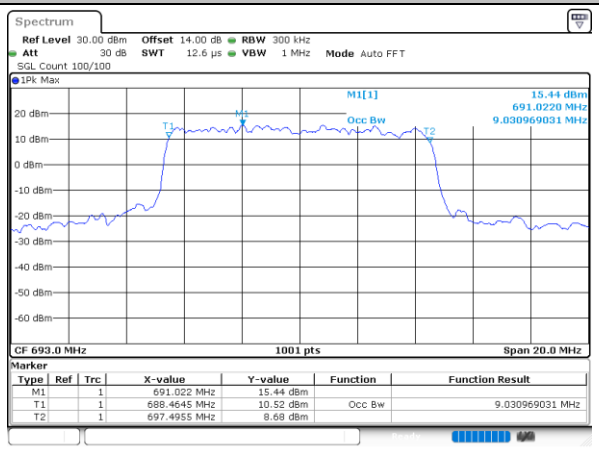
Middle Channel / 10MHz / QPSK



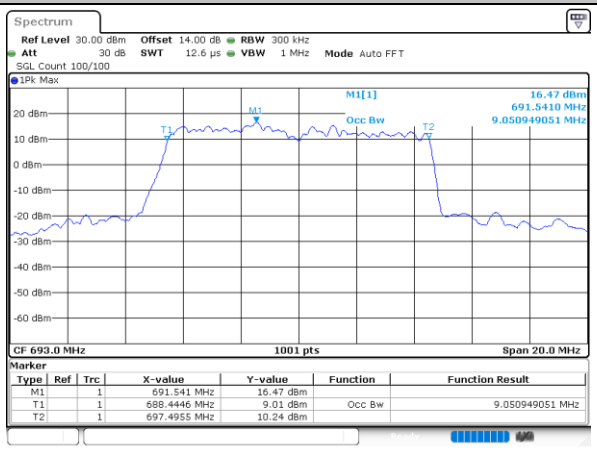
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

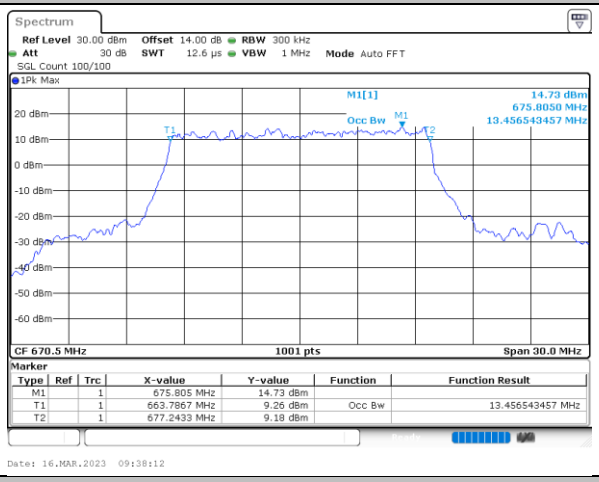


Highest Channel / 10MHz / 16QAM

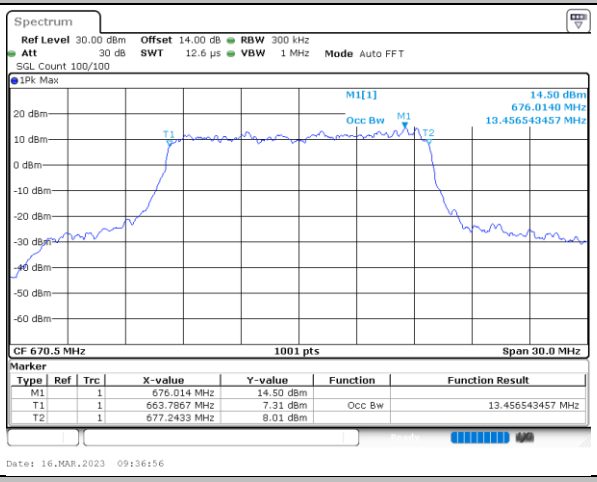


LTE Band 71

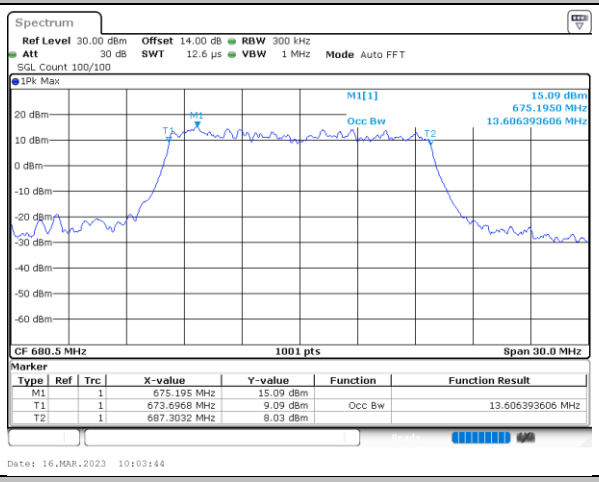
Lowest Channel / 15MHz / QPSK



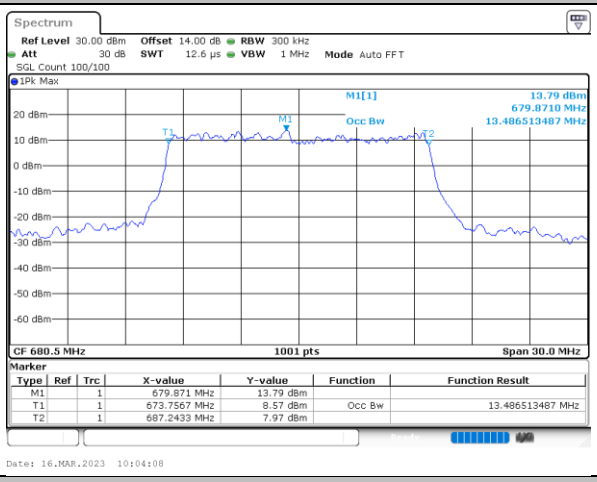
Lowest Channel / 15MHz / 16QAM



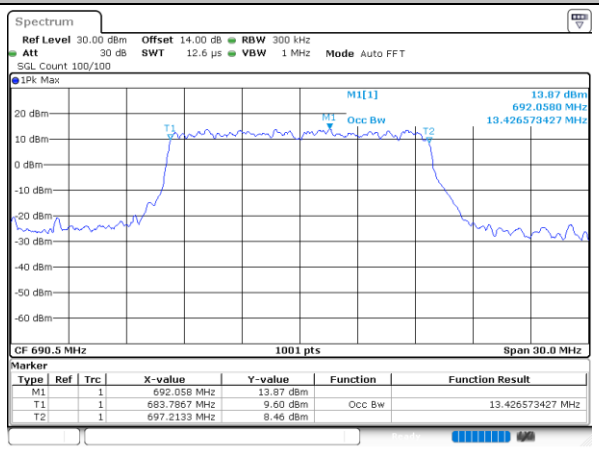
Middle Channel / 15MHz / QPSK



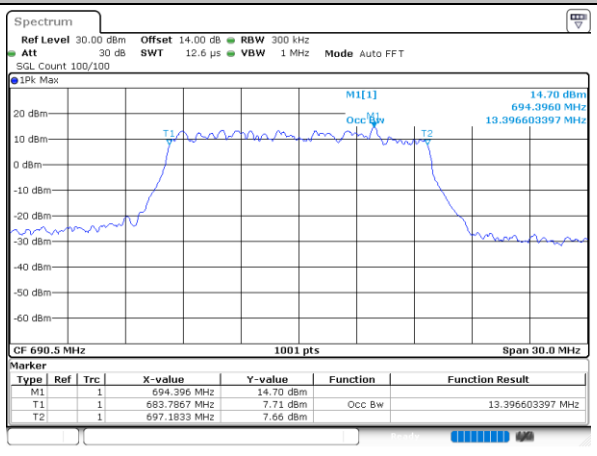
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

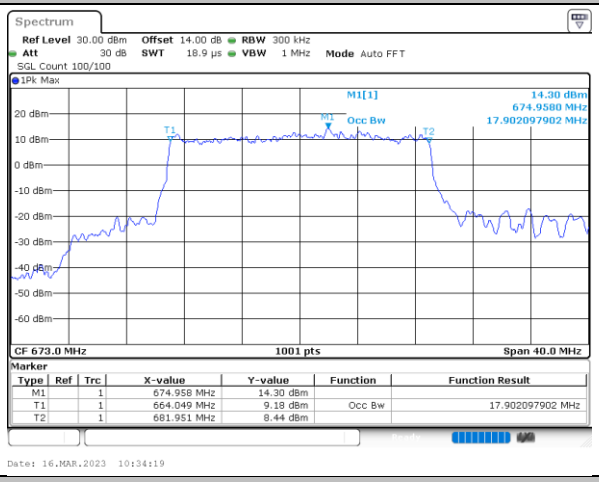


Highest Channel / 15MHz / 16QAM

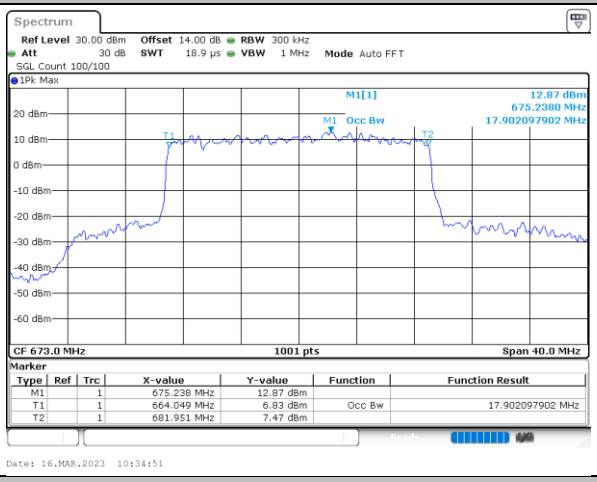


LTE Band 71

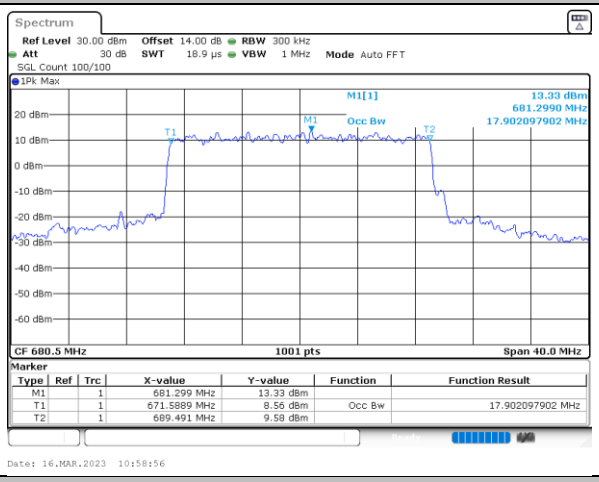
Lowest Channel / 20MHz / QPSK



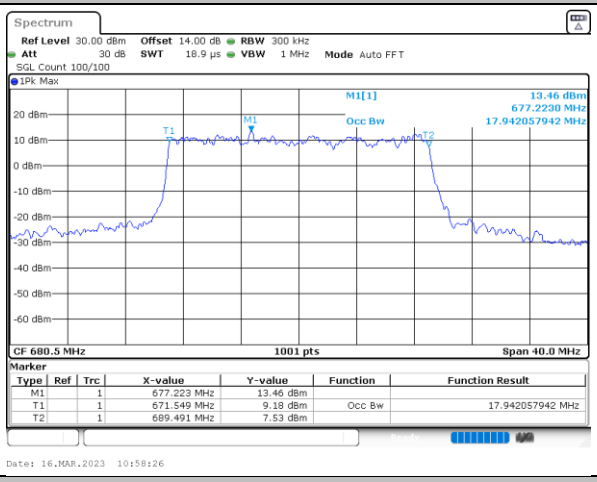
Lowest Channel / 20MHz / 16QAM



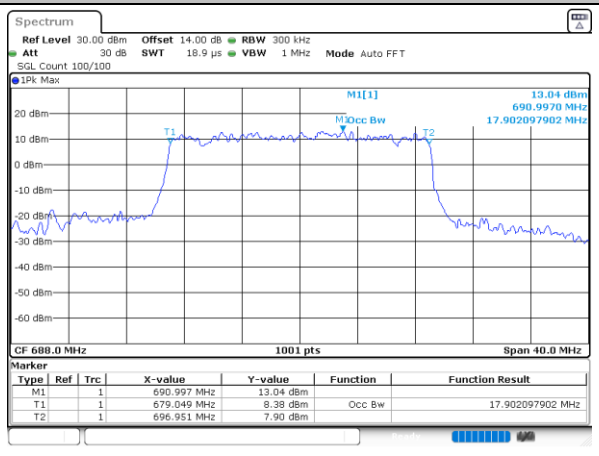
Middle Channel / 20MHz / QPSK



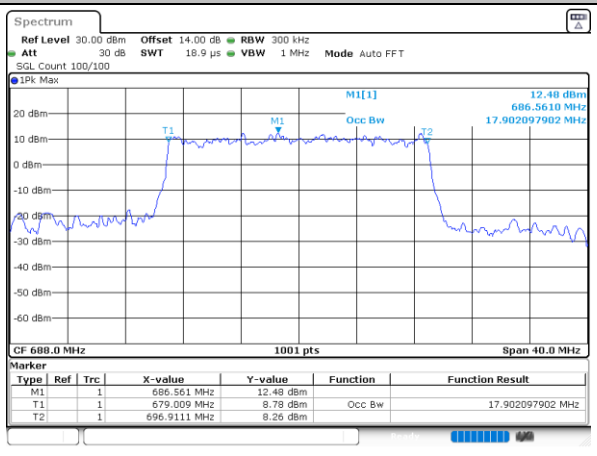
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

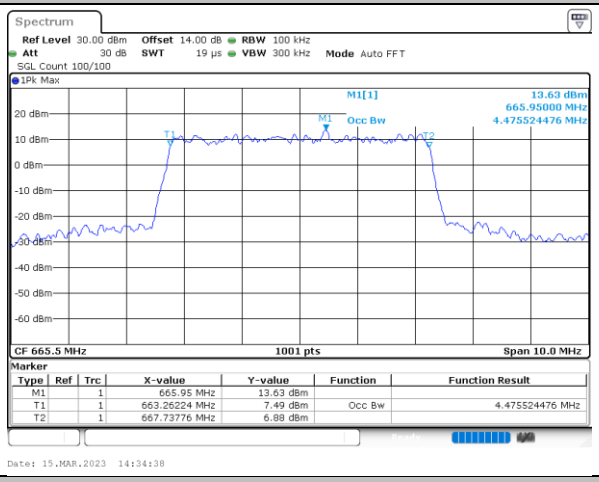


Highest Channel / 20MHz / 16QAM

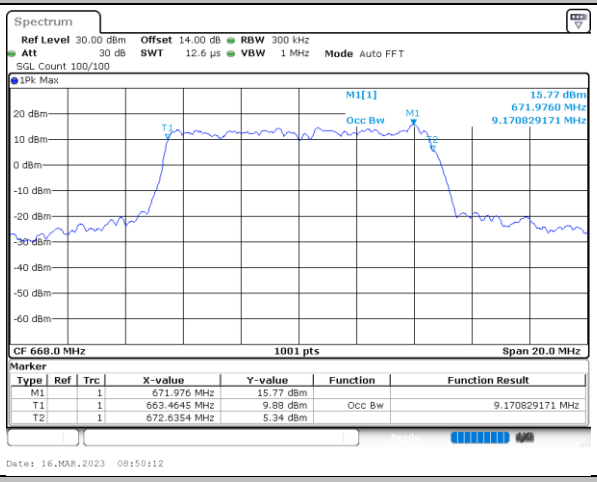


LTE Band 71

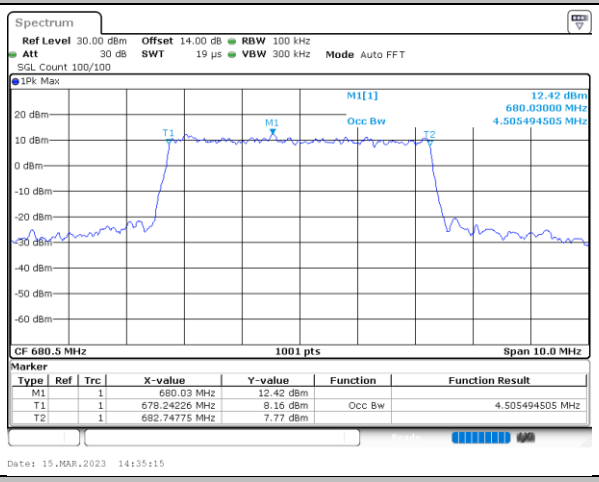
Lowest Channel / 5MHz / 64QAM



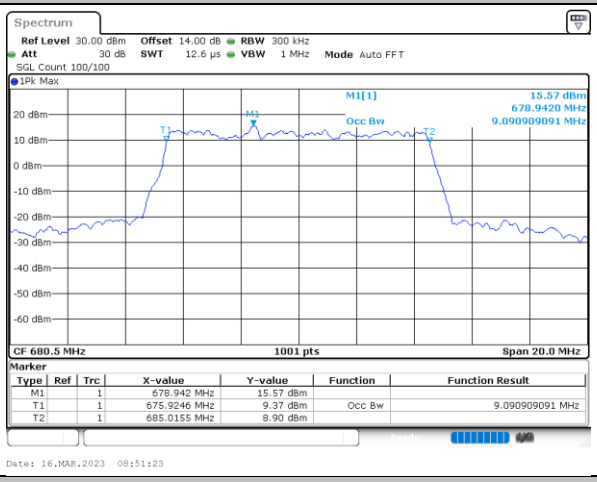
Lowest Channel / 10MHz / 64QAM



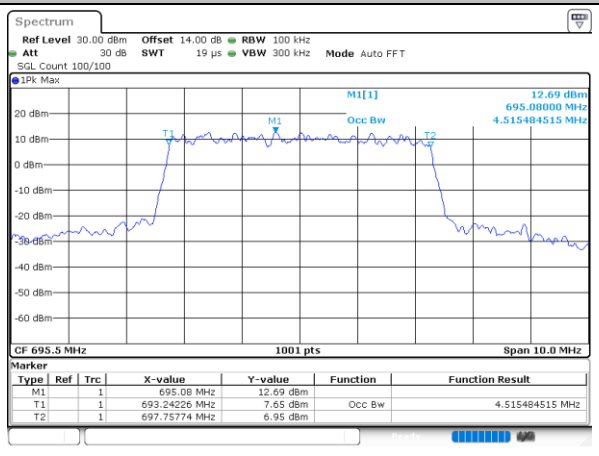
Middle Channel / 5MHz / 64QAM



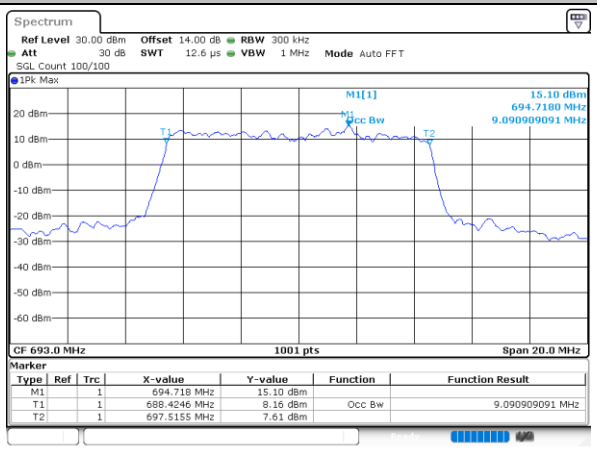
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

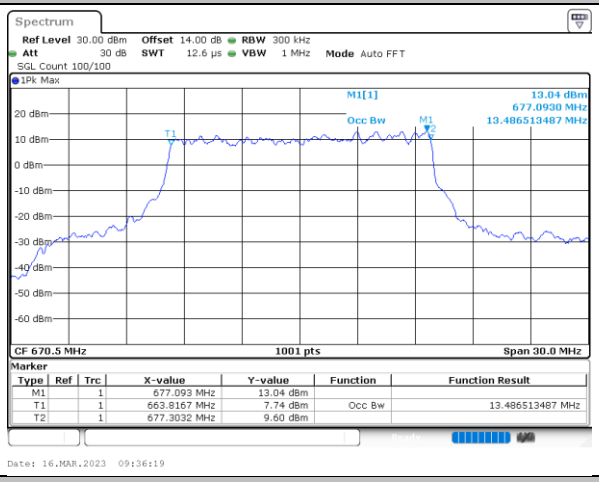


Highest Channel / 10MHz / 64QAM

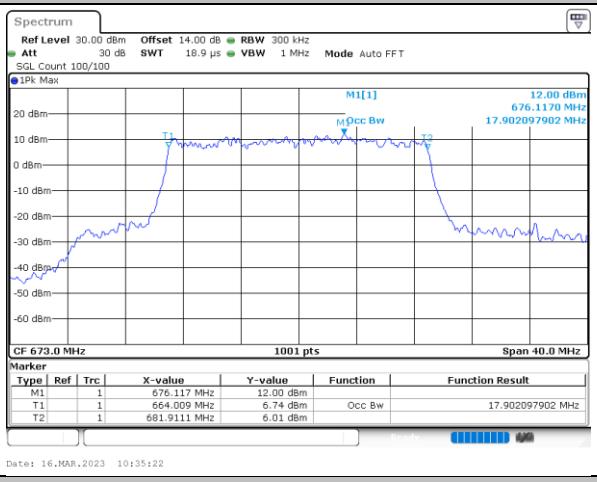


LTE Band 71

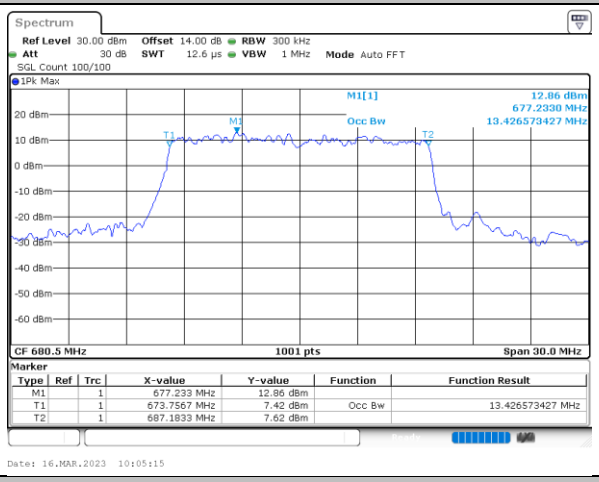
Lowest Channel / 15MHz / 64QAM



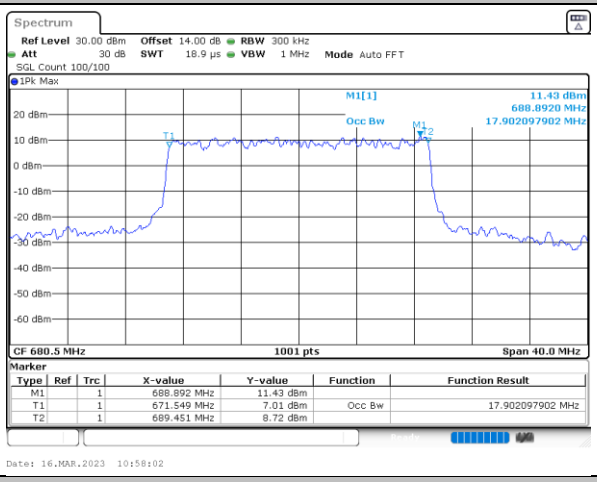
Lowest Channel / 20MHz / 64QAM



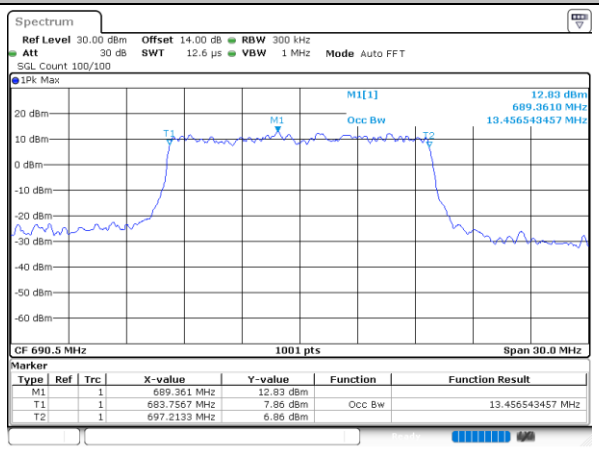
Middle Channel / 15MHz / 64QAM



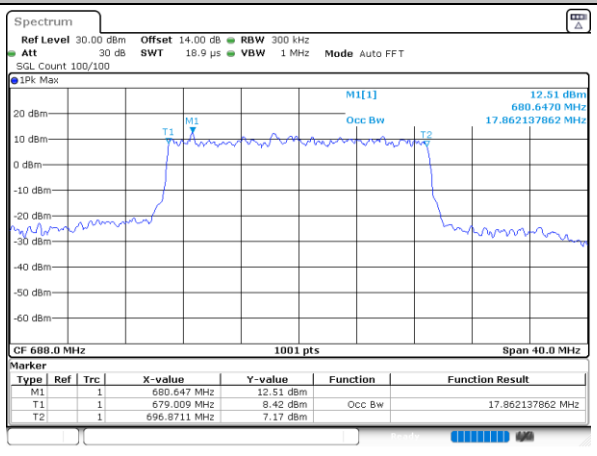
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM



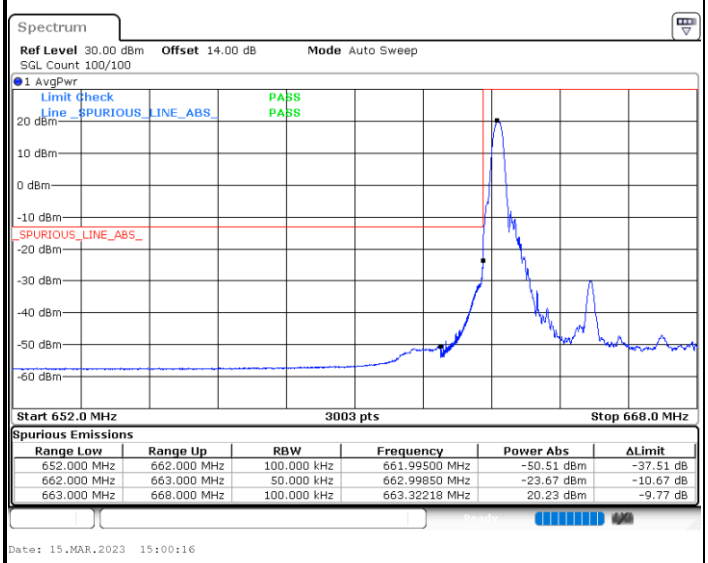
Highest Channel / 20MHz / 64QAM



Conducted Band Edge

LTE Band 71 / 5MHz / QPSK

Lowest Band Edge / 1 RB

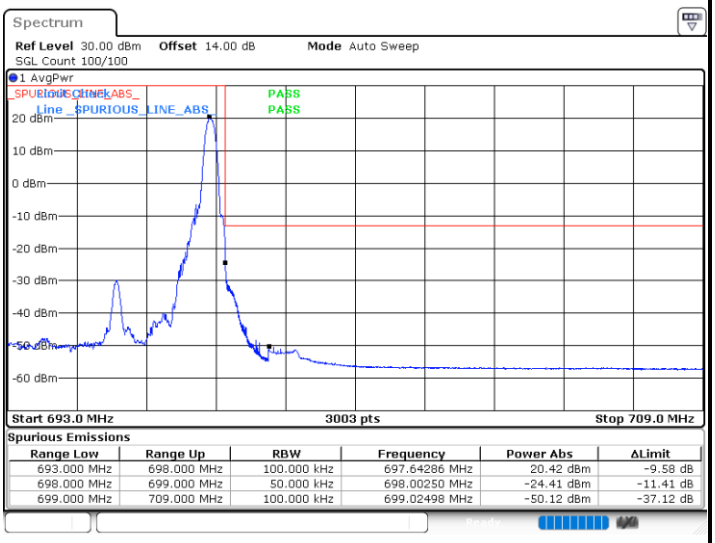


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.99500 MHz	-50.51 dBm	-37.51 dB
662.000 MHz	663.000 MHz	50.000 kHz	662.99850 MHz	-23.67 dBm	-10.67 dB
663.000 MHz	668.000 MHz	100.000 kHz	663.32218 MHz	20.23 dBm	-9.77 dB

Date: 15.MAR.2023 15:00:16

Highest Band Edge / 1 RB

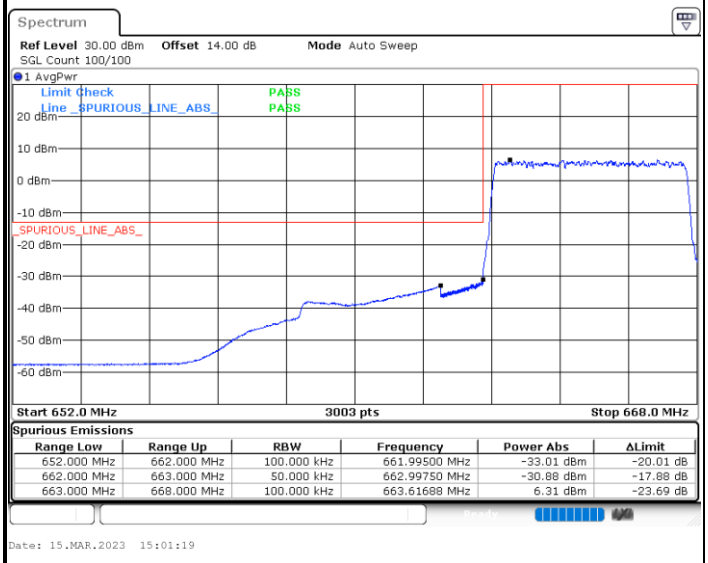


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
693.000 MHz	698.000 MHz	100.000 kHz	697.64286 MHz	20.42 dBm	-9.58 dB
698.000 MHz	699.000 MHz	50.000 kHz	698.00250 MHz	-24.41 dBm	-11.41 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.02498 MHz	-50.12 dBm	-37.12 dB

Date: 15.MAR.2023 14:56:01

Lowest Band Edge / Full RB

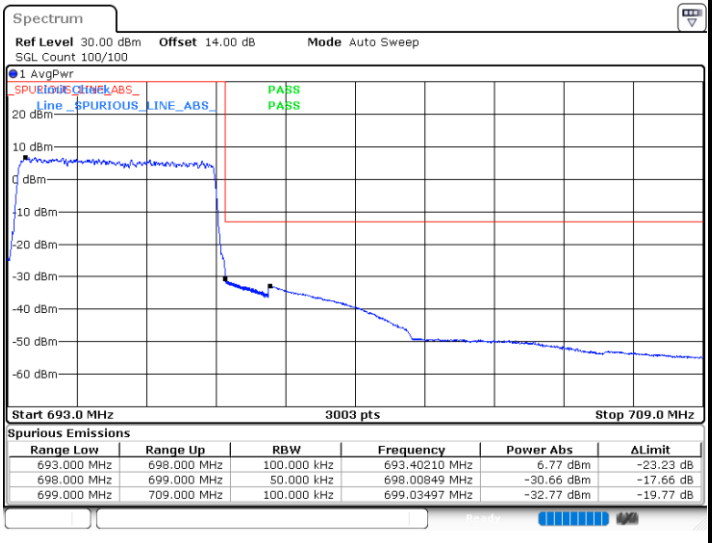


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.99500 MHz	-33.01 dBm	-20.01 dB
662.000 MHz	663.000 MHz	50.000 kHz	662.99750 MHz	-30.88 dBm	-17.88 dB
663.000 MHz	668.000 MHz	100.000 kHz	663.61688 MHz	6.31 dBm	-23.69 dB

Date: 15.MAR.2023 15:01:19

Highest Band Edge / Full RB



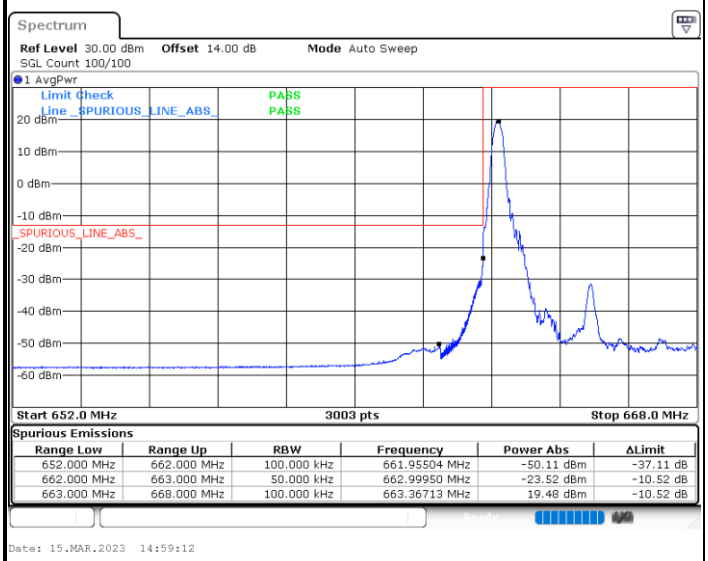
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
693.000 MHz	698.000 MHz	100.000 kHz	693.40210 MHz	6.77 dBm	-23.23 dB
698.000 MHz	699.000 MHz	50.000 kHz	698.00849 MHz	-30.66 dBm	-17.66 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.03497 MHz	-32.77 dBm	-19.77 dB

Date: 15.MAR.2023 14:50:28

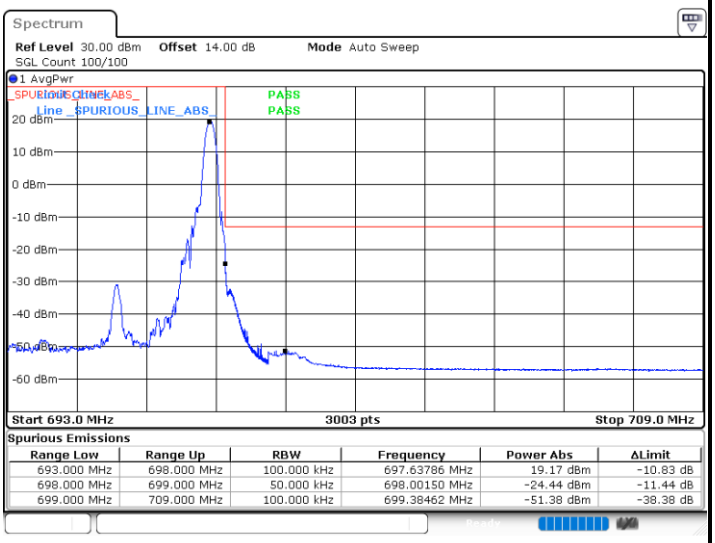
LTE Band 71 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



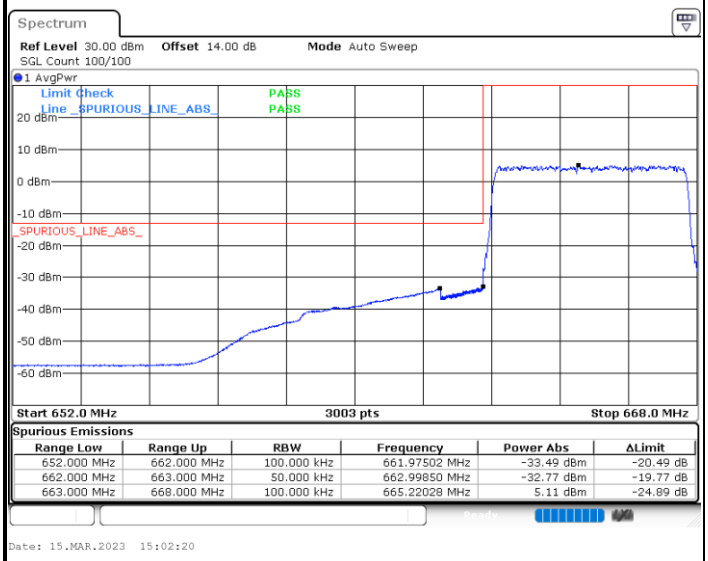
Date: 15.MAR.2023 14:59:12

Highest Band Edge / 1 RB



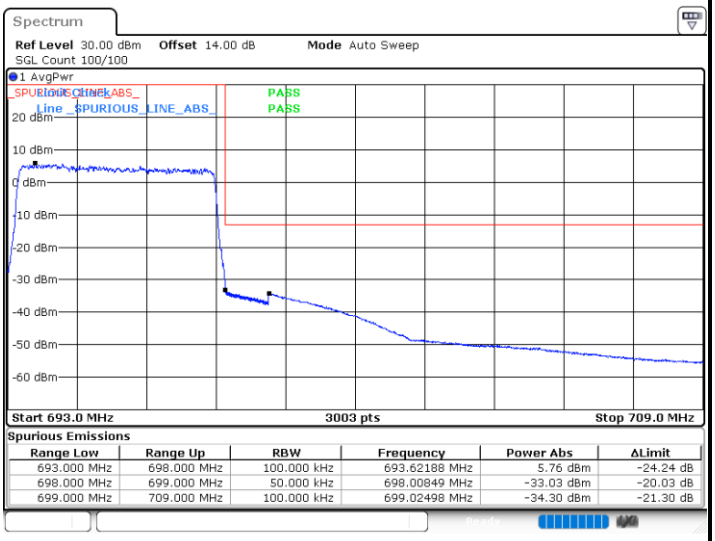
Date: 15.MAR.2023 14:54:54

Lowest Band Edge / Full RB



Date: 15.MAR.2023 15:02:20

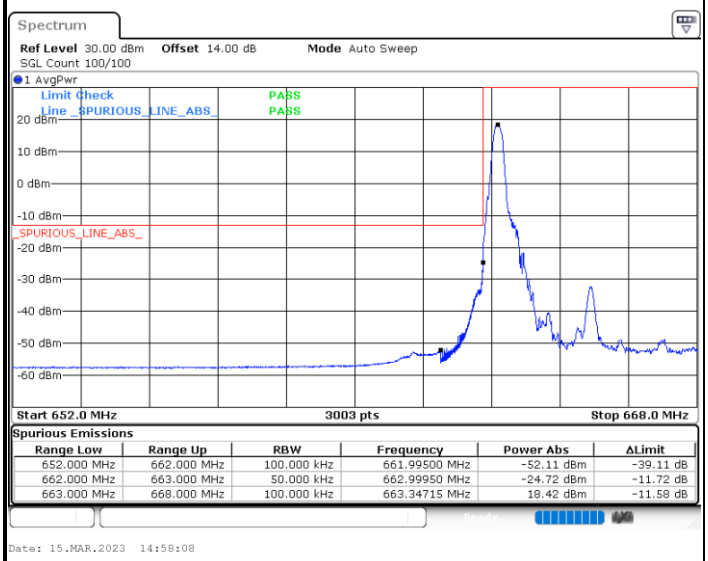
Highest Band Edge / Full RB



Date: 15.MAR.2023 14:49:00

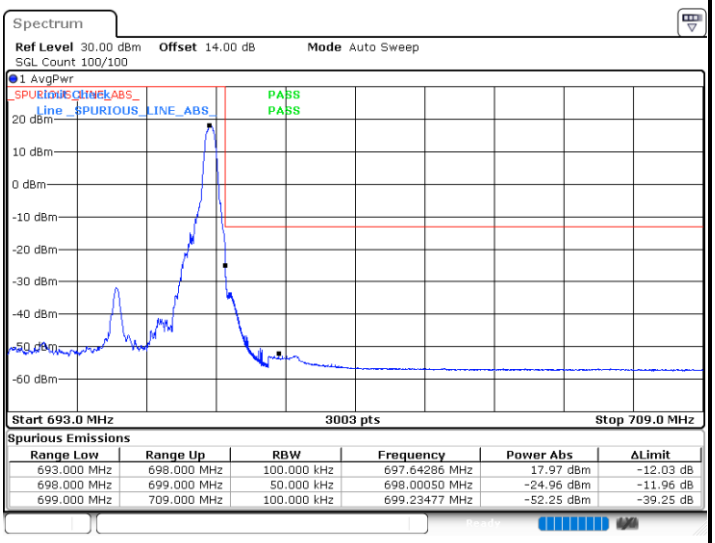
LTE Band 71 / 5MHz / 64QAM

Lowest Band Edge / 1RB



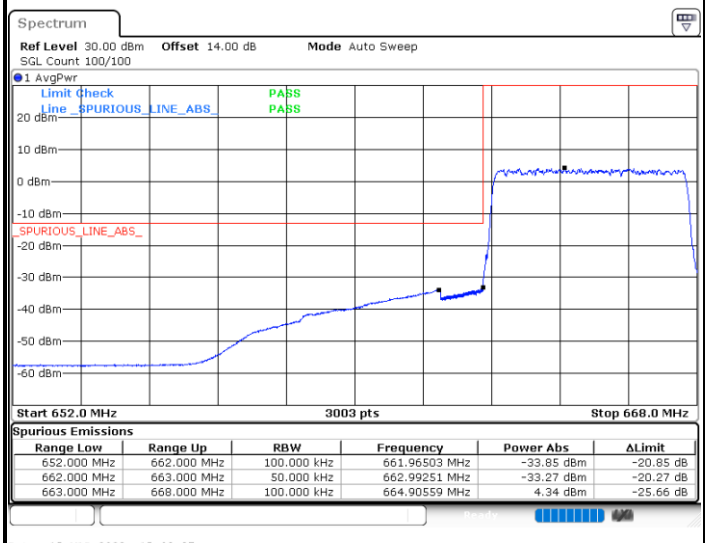
Date: 15.MAR.2023 14:58:08

Highest Band Edge / 1 RB



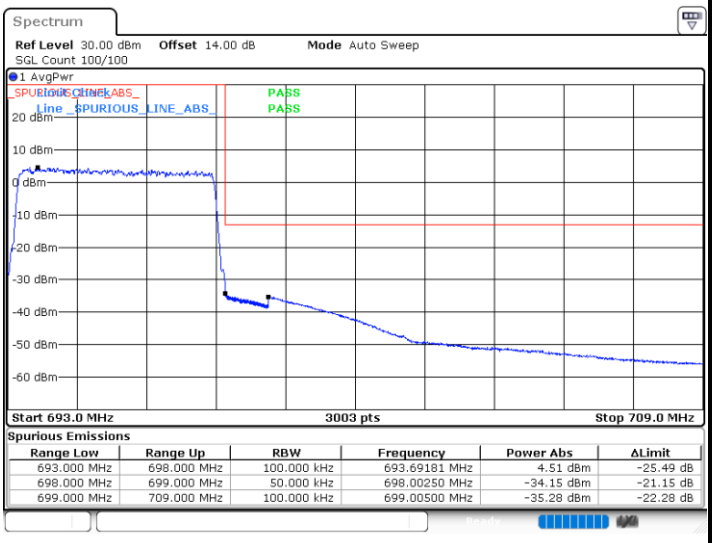
Date: 15.MAR.2023 14:57:03

Lowest Band Edge / Full RB



Date: 15.MAR.2023 15:03:37

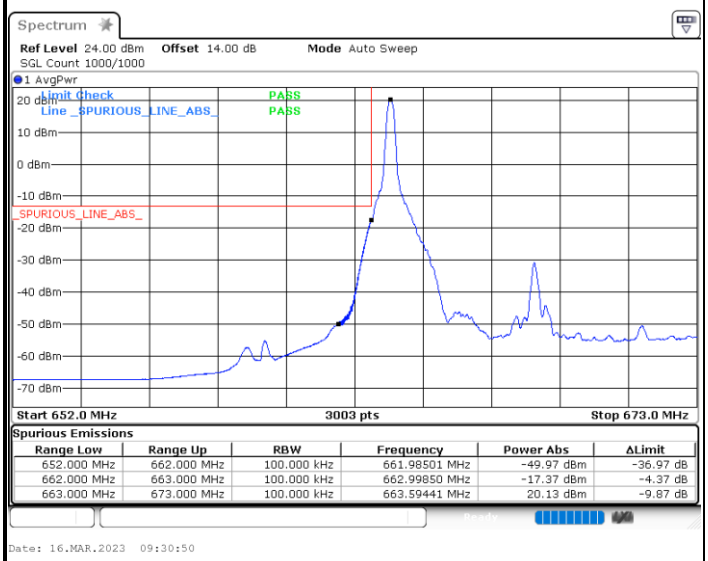
Highest Band Edge / Full RB



Date: 15.MAR.2023 14:45:47

LTE Band 71 / 10MHz / QPSK

Lowest Band Edge / 1 RB

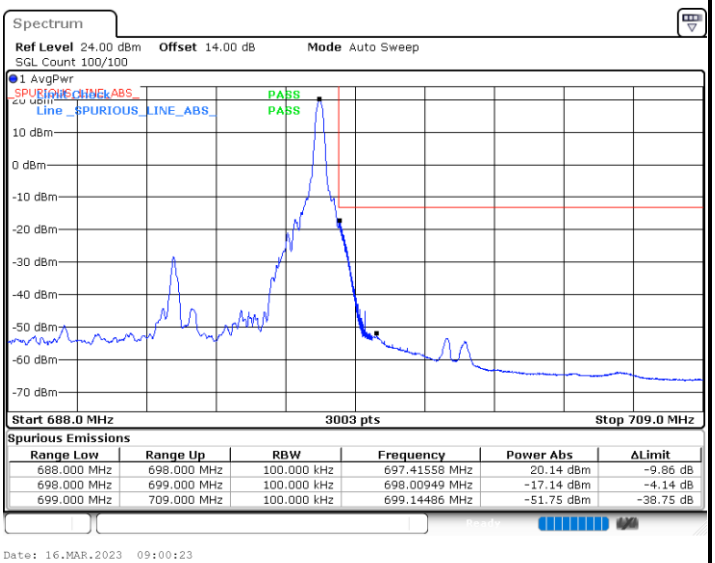


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.98501 MHz	-49.97 dBm	-36.97 dB
662.000 MHz	663.000 MHz	100.000 kHz	662.99850 MHz	-17.37 dBm	-4.37 dB
663.000 MHz	673.000 MHz	100.000 kHz	663.59441 MHz	20.13 dBm	-9.87 dB

Date: 16.MAR.2023 09:30:50

Highest Band Edge / 1 RB

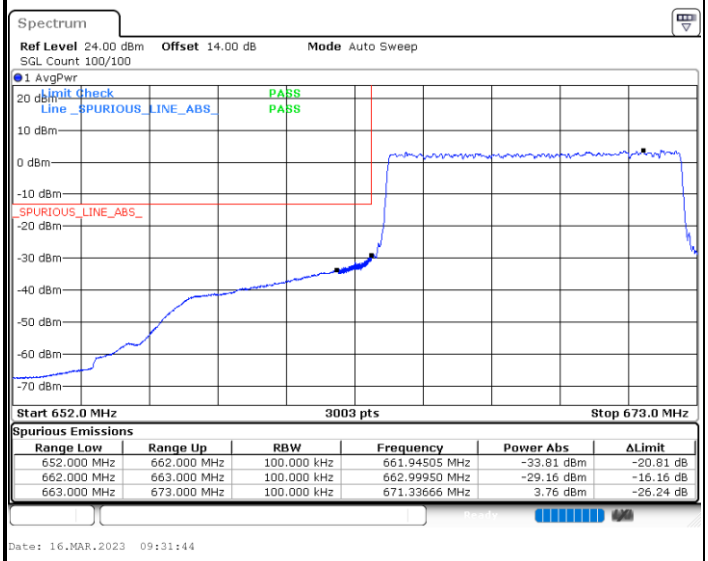


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
688.000 MHz	698.000 MHz	100.000 kHz	697.41558 MHz	20.14 dBm	-9.86 dB
698.000 MHz	699.000 MHz	100.000 kHz	698.00949 MHz	-17.14 dBm	-4.14 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.14486 MHz	-51.75 dBm	-38.75 dB

Date: 16.MAR.2023 09:00:23

Lowest Band Edge / Full RB

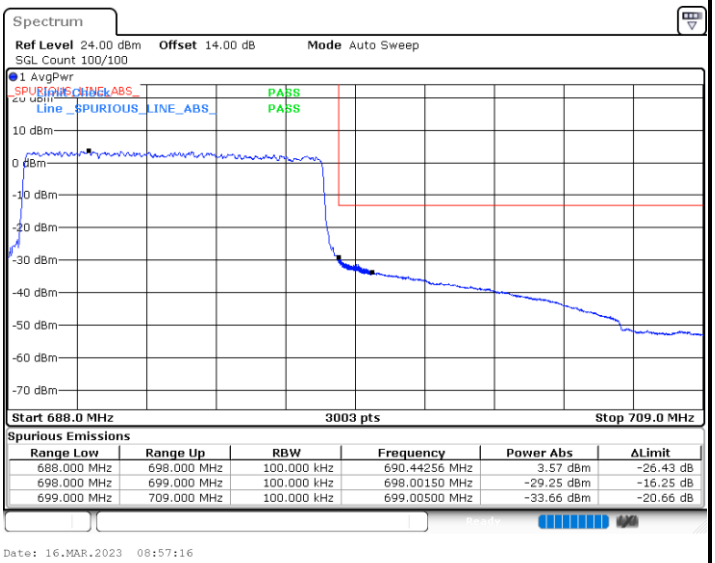


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.94505 MHz	-33.81 dBm	-20.81 dB
662.000 MHz	663.000 MHz	100.000 kHz	662.99950 MHz	-29.16 dBm	-16.16 dB
663.000 MHz	673.000 MHz	100.000 kHz	671.33666 MHz	3.76 dBm	-26.24 dB

Date: 16.MAR.2023 09:31:44

Highest Band Edge / Full RB



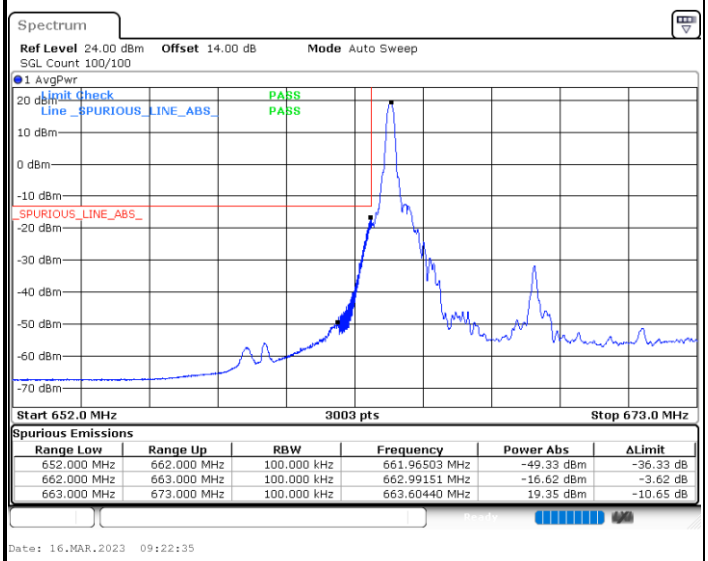
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
688.000 MHz	698.000 MHz	100.000 kHz	690.44256 MHz	3.57 dBm	-26.43 dB
698.000 MHz	699.000 MHz	100.000 kHz	698.00150 MHz	-29.25 dBm	-16.25 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.00500 MHz	-33.66 dBm	-20.66 dB

Date: 16.MAR.2023 08:57:16

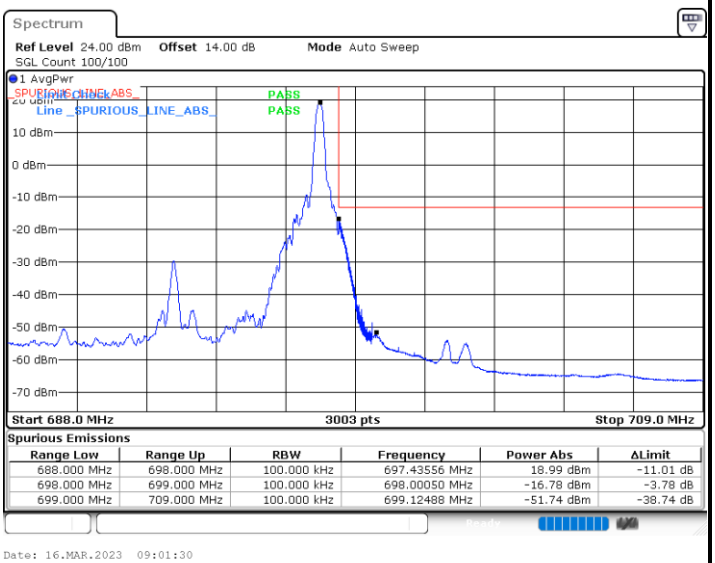
LTE Band 71 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



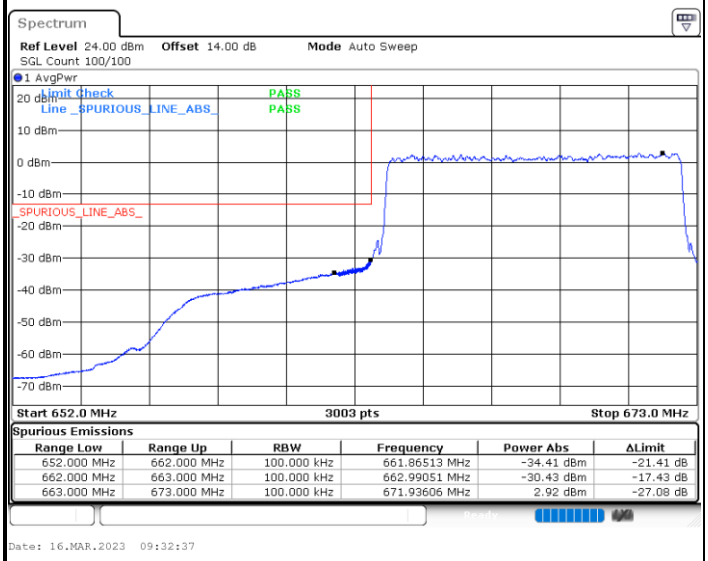
Date: 16.MAR.2023 09:22:35

Highest Band Edge / 1 RB



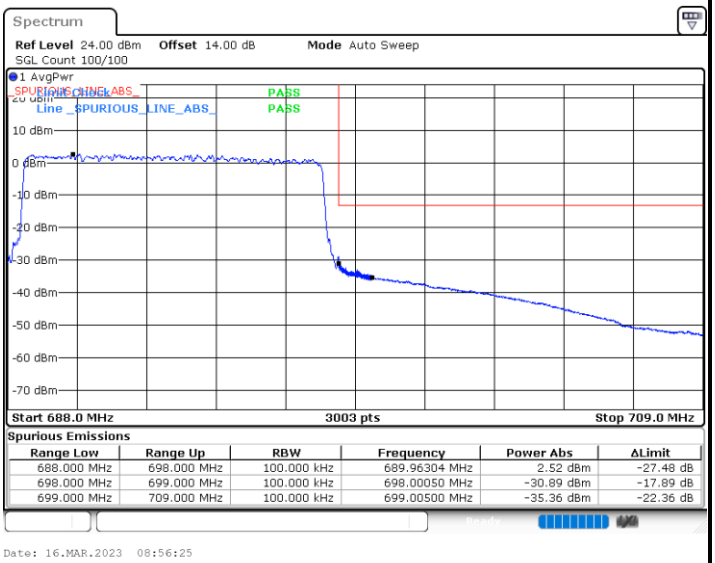
Date: 16.MAR.2023 09:01:30

Lowest Band Edge / Full RB



Date: 16.MAR.2023 09:32:37

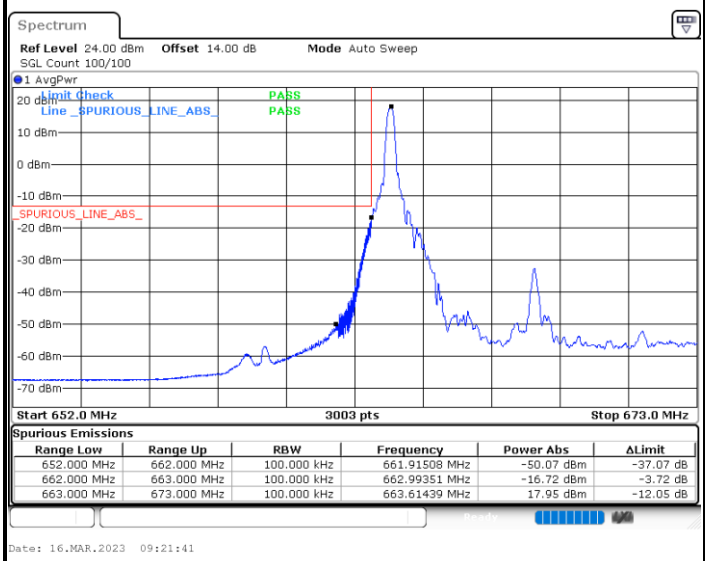
Highest Band Edge / Full RB



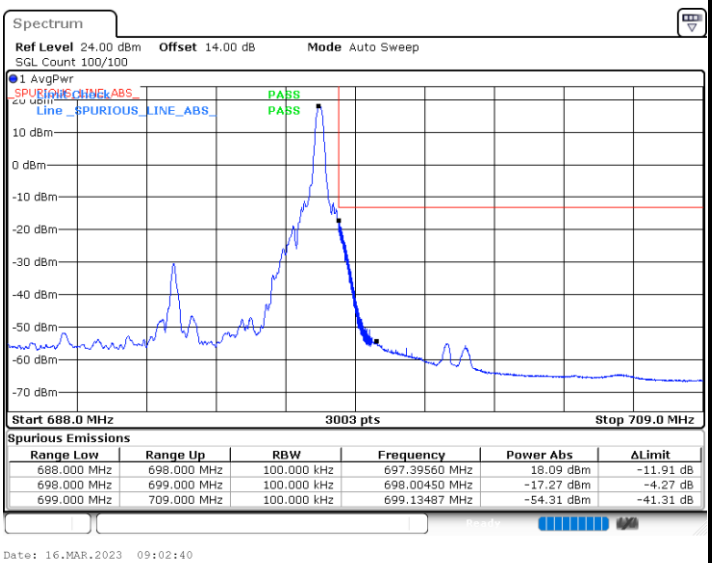
Date: 16.MAR.2023 08:56:25

LTE Band 71 / 10MHz / 64QAM

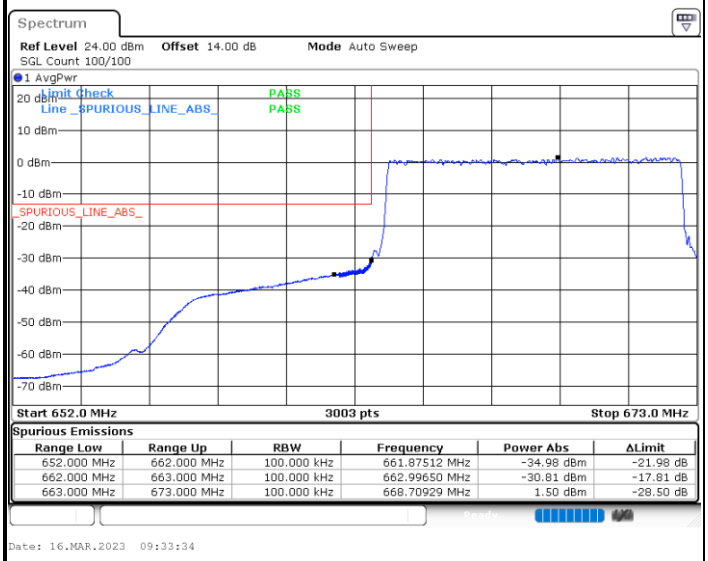
Lowest Band Edge / 1 RB



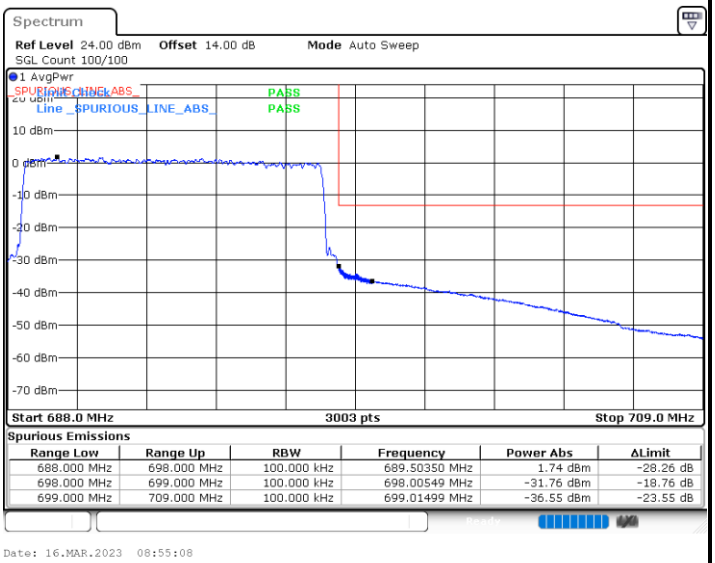
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

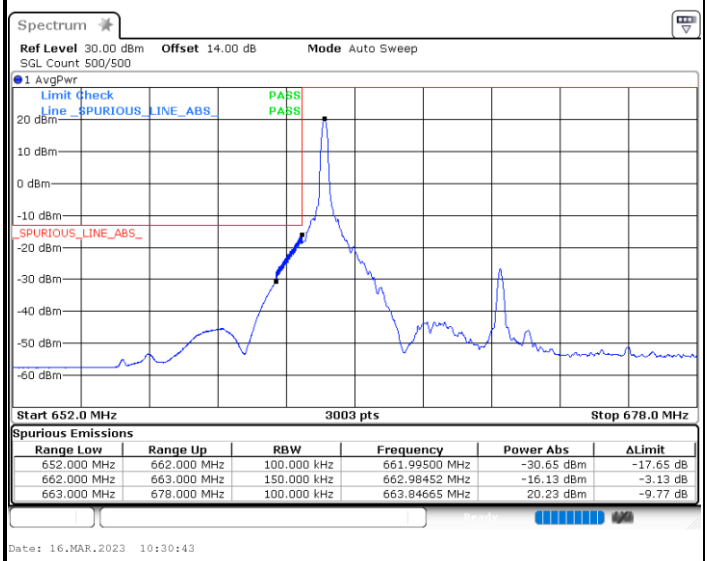


Highest Band Edge / Full RB



LTE Band 71 / 15MHz / QPSK

Lowest Band Edge / 1 RB

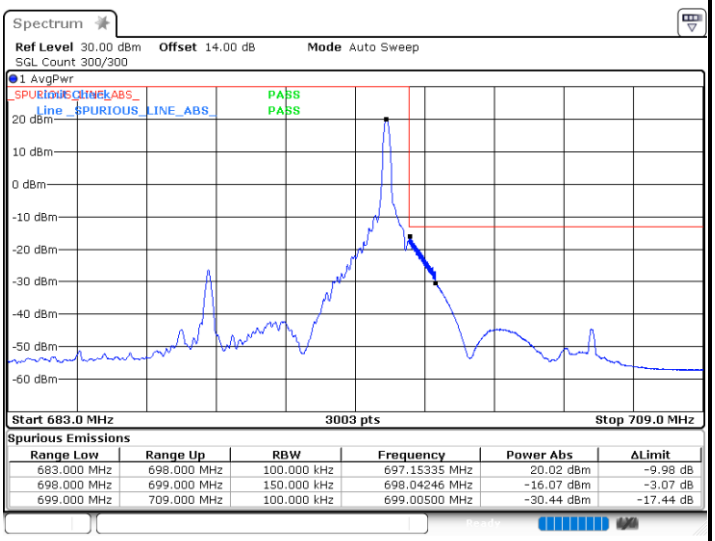


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.99500 MHz	-30.65 dBm	-17.65 dB
662.000 MHz	663.000 MHz	150.000 kHz	662.98452 MHz	-16.13 dBm	-3.13 dB
663.000 MHz	678.000 MHz	100.000 kHz	663.84665 MHz	20.23 dBm	-9.77 dB

Date: 16.MAR.2023 10:30:43

Highest Band Edge / 1 RB

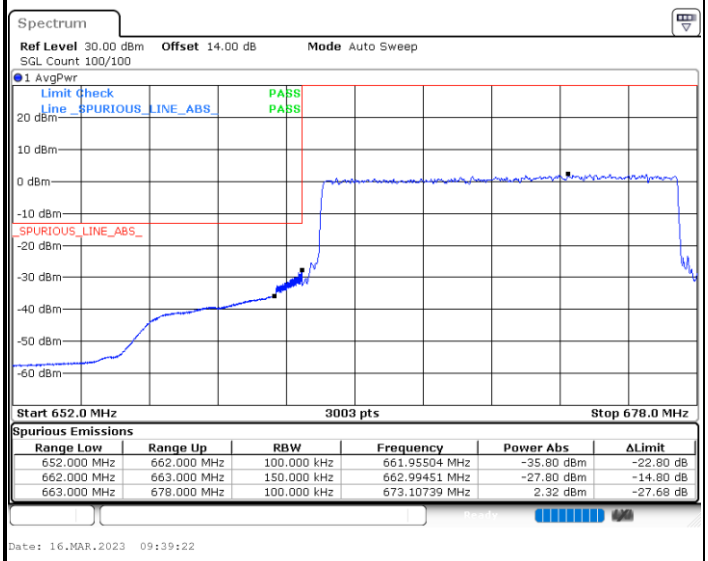


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
683.000 MHz	698.000 MHz	100.000 kHz	697.15335 MHz	20.02 dBm	-9.98 dB
698.000 MHz	699.000 MHz	150.000 kHz	698.04246 MHz	-16.07 dBm	-3.07 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.00500 MHz	-30.44 dBm	-17.44 dB

Date: 16.MAR.2023 10:20:03

Lowest Band Edge / Full RB

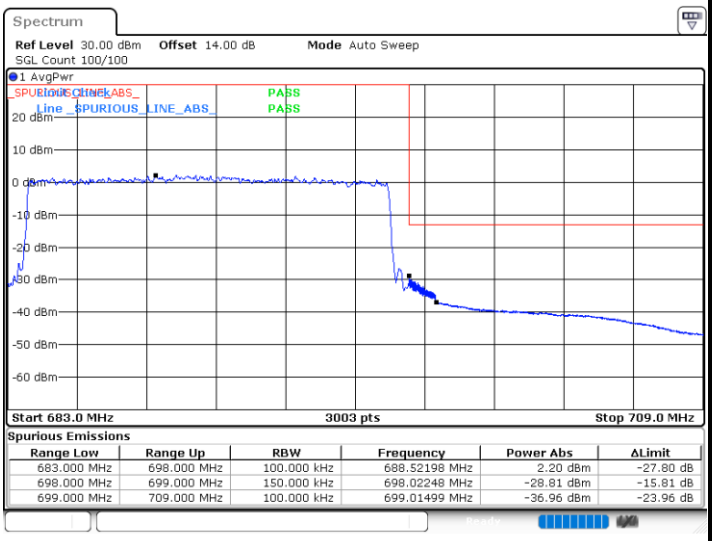


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.95504 MHz	-35.80 dBm	-22.80 dB
662.000 MHz	663.000 MHz	150.000 kHz	662.99451 MHz	-27.80 dBm	-14.80 dB
663.000 MHz	678.000 MHz	100.000 kHz	673.10739 MHz	2.32 dBm	-27.68 dB

Date: 16.MAR.2023 09:39:22

Highest Band Edge / Full RB



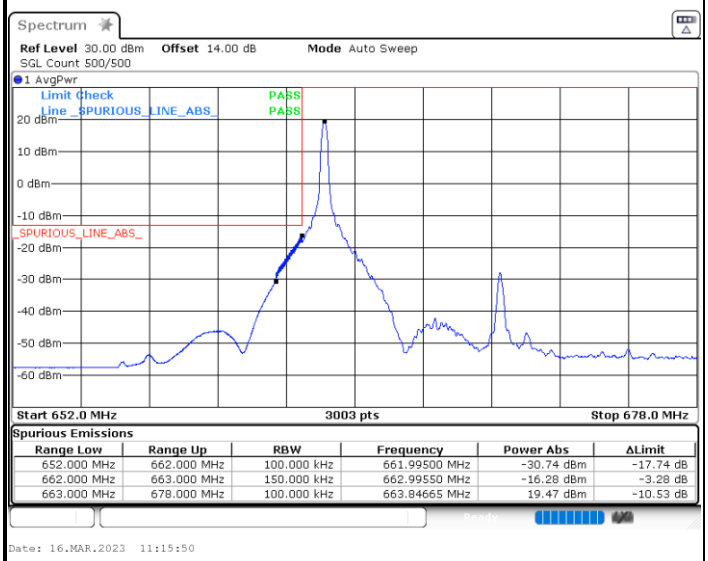
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
683.000 MHz	698.000 MHz	100.000 kHz	688.52198 MHz	2.20 dBm	-27.80 dB
698.000 MHz	699.000 MHz	150.000 kHz	698.02248 MHz	-28.81 dBm	-15.81 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.01499 MHz	-36.96 dBm	-23.96 dB

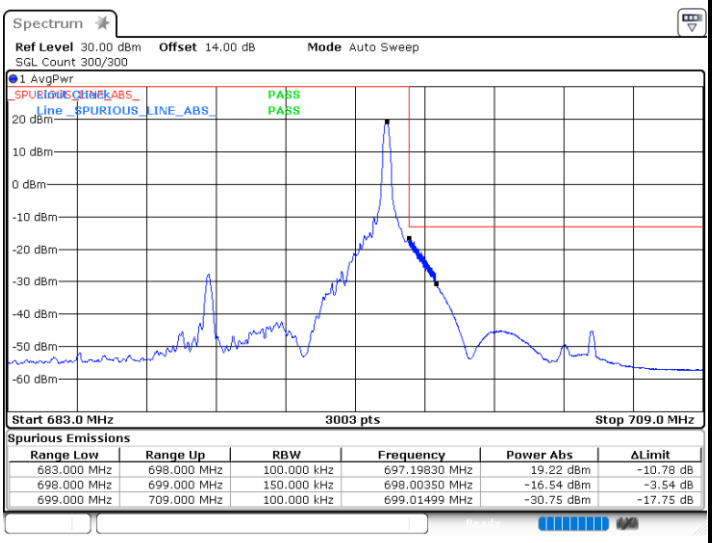
Date: 16.MAR.2023 10:11:04

LTE Band 71 / 15MHz / 16QAM

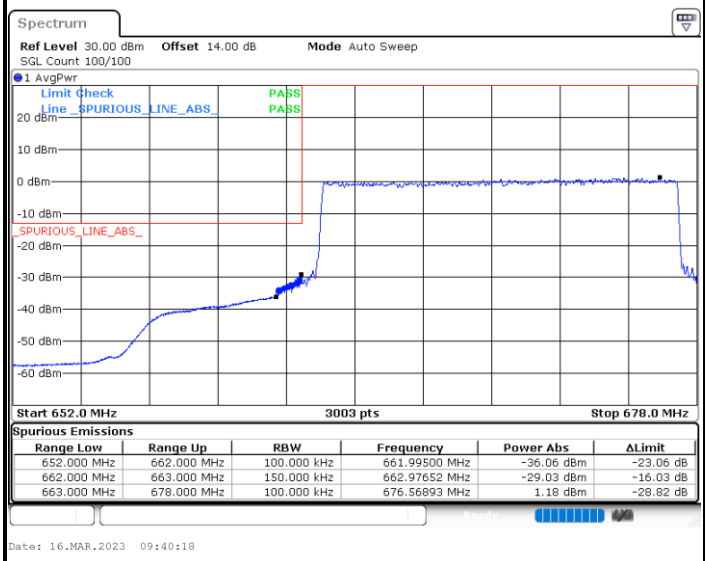
Lowest Band Edge / 1 RB



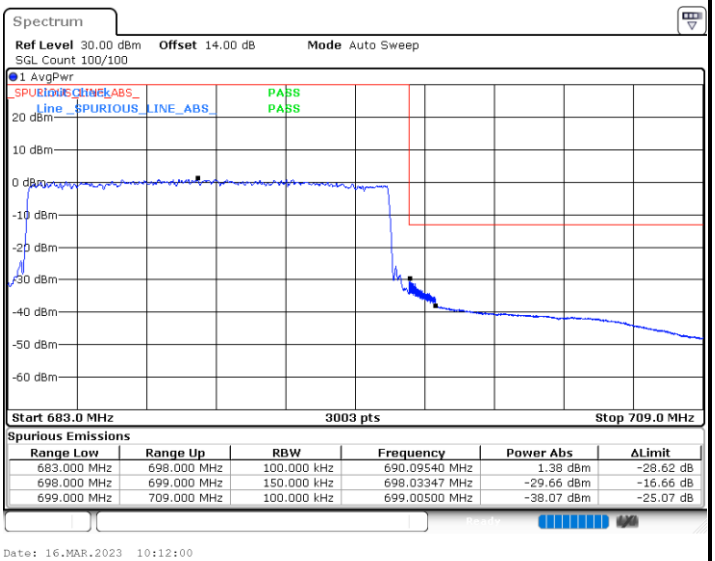
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

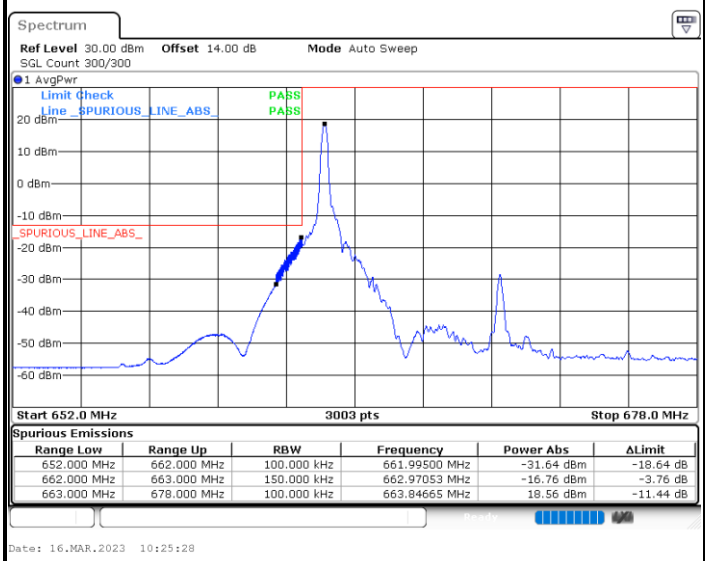


Highest Band Edge / Full RB



LTE Band 71 / 15MHz / 64QAM

Lowest Band Edge / 1 RB

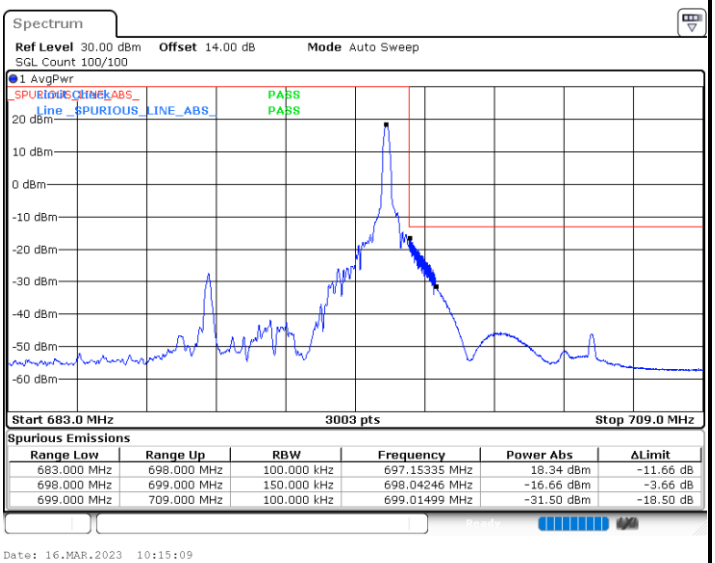


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.99500 MHz	-31.64 dBm	-18.64 dB
662.000 MHz	663.000 MHz	150.000 kHz	662.97053 MHz	-16.76 dBm	-3.76 dB
663.000 MHz	678.000 MHz	100.000 kHz	663.84665 MHz	18.56 dBm	-11.44 dB

Date: 16.MAR.2023 10:25:28

Highest Band Edge / 1 RB

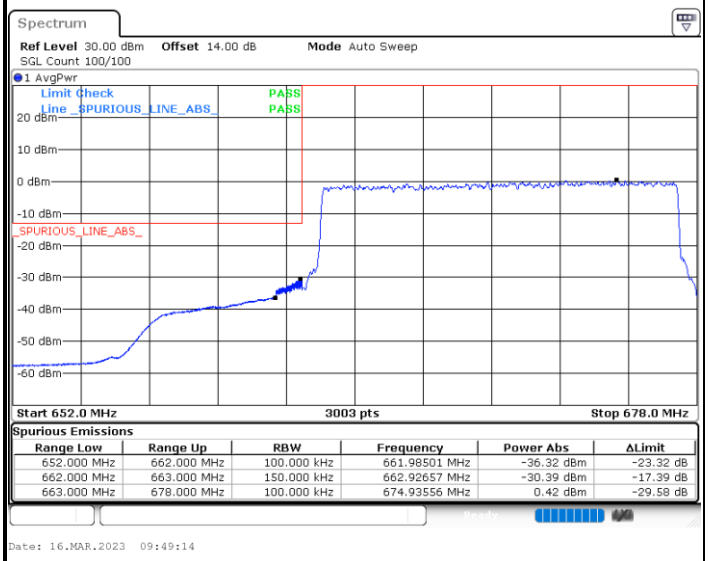


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
683.000 MHz	698.000 MHz	100.000 kHz	697.15335 MHz	18.34 dBm	-11.66 dB
698.000 MHz	699.000 MHz	150.000 kHz	698.04246 MHz	-16.66 dBm	-3.66 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.01499 MHz	-31.50 dBm	-18.50 dB

Date: 16.MAR.2023 10:15:09

Lowest Band Edge / Full RB

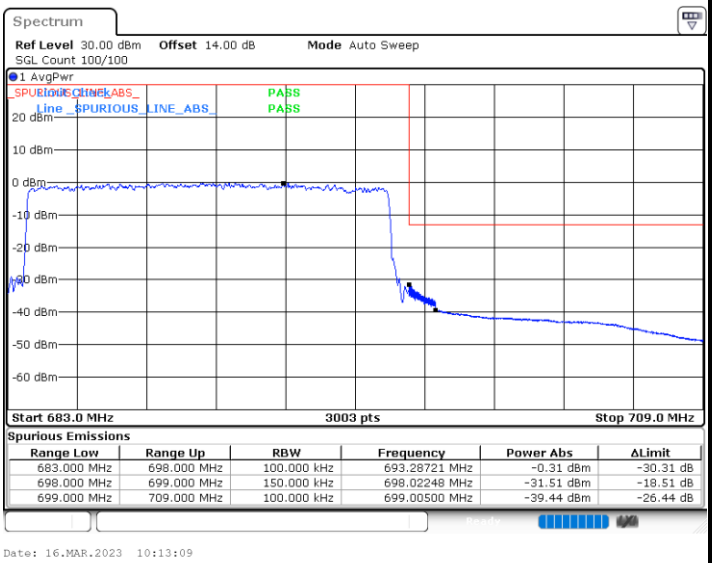


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.98501 MHz	-36.32 dBm	-23.32 dB
662.000 MHz	663.000 MHz	150.000 kHz	662.92657 MHz	-30.39 dBm	-17.39 dB
663.000 MHz	678.000 MHz	100.000 kHz	674.93556 MHz	0.42 dBm	-29.58 dB

Date: 16.MAR.2023 09:49:14

Highest Band Edge / Full RB



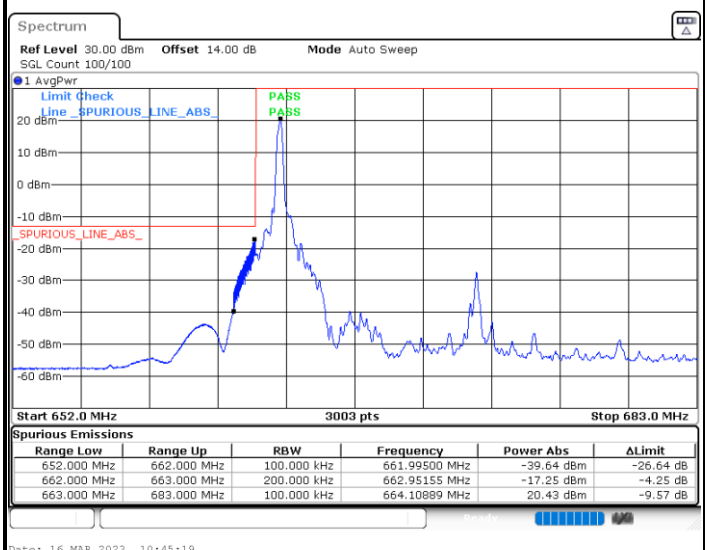
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
683.000 MHz	698.000 MHz	100.000 kHz	693.28721 MHz	-0.31 dBm	-30.31 dB
698.000 MHz	699.000 MHz	150.000 kHz	698.02248 MHz	-31.51 dBm	-18.51 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.00500 MHz	-39.44 dBm	-26.44 dB

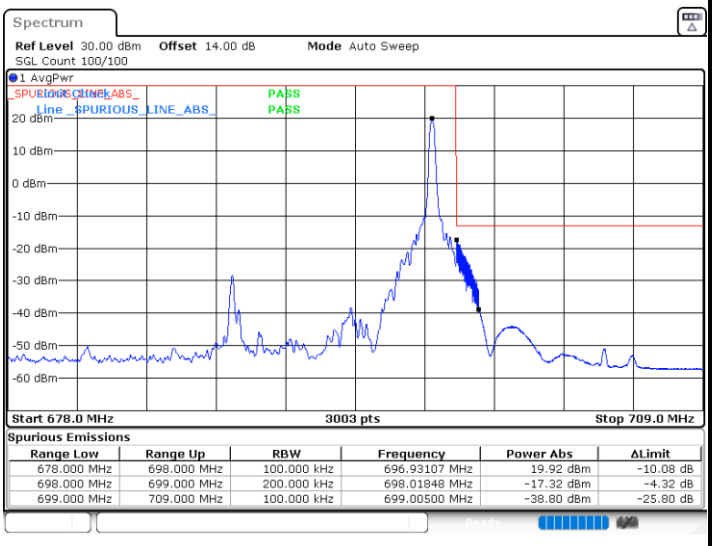
Date: 16.MAR.2023 10:13:09

LTE Band 71 / 20MHz / QPSK

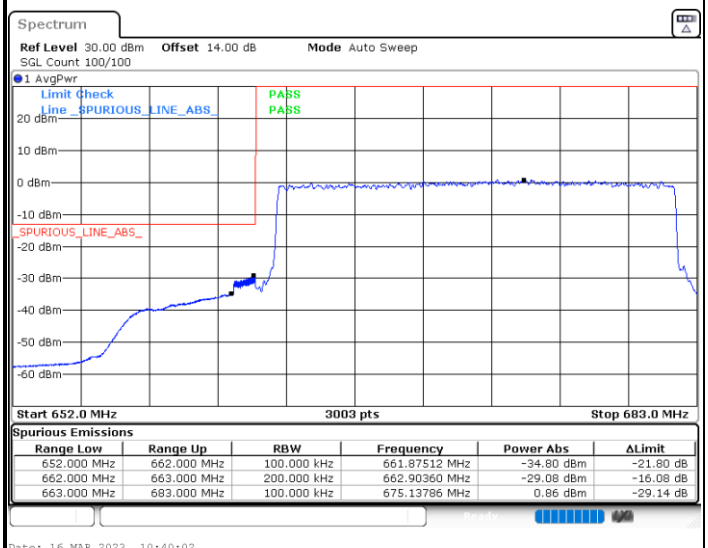
Lowest Band Edge / 1 RB



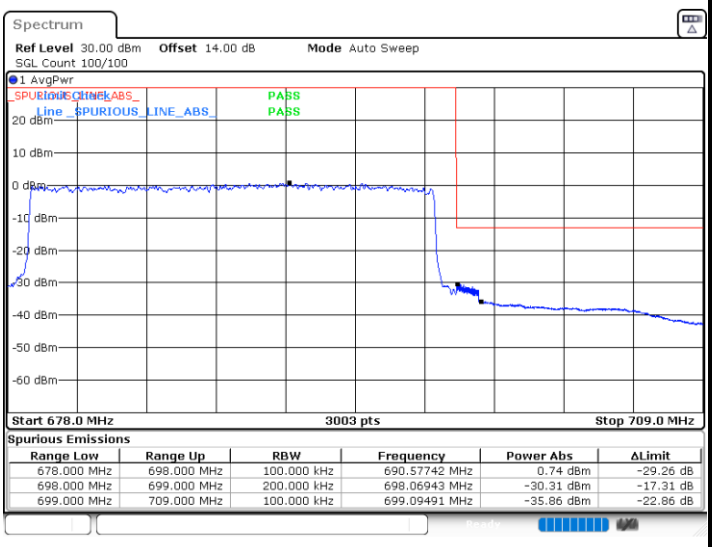
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB

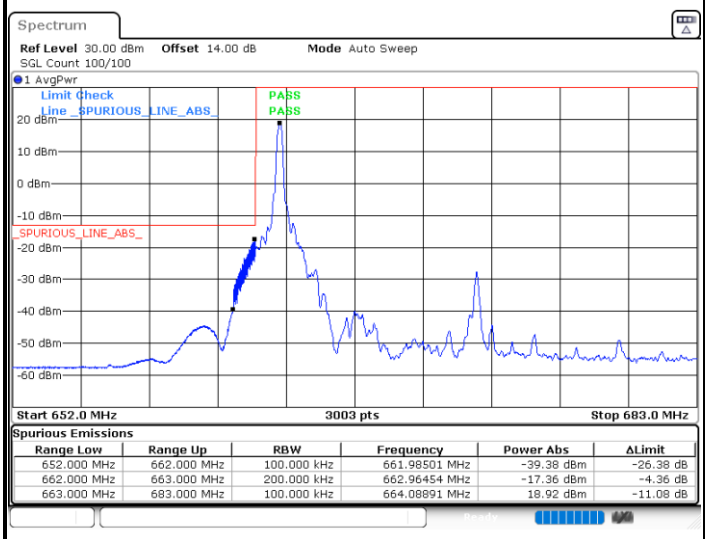


Highest Band Edge / Full RB

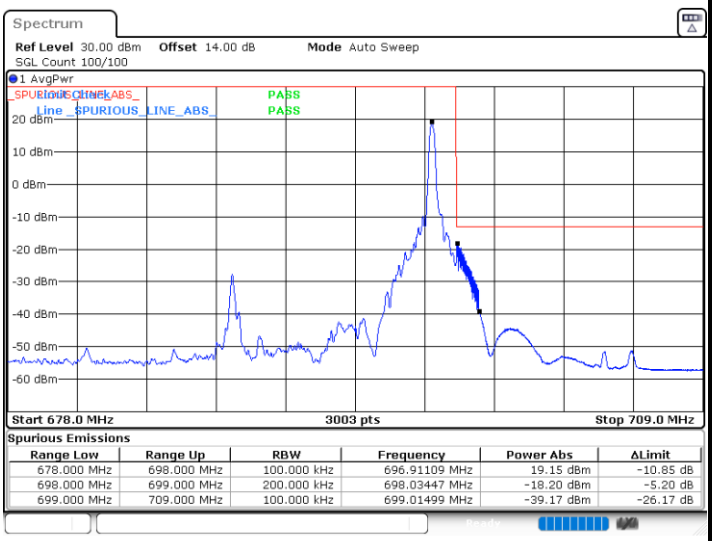


LTE Band 71 / 20MHz / 16QAM

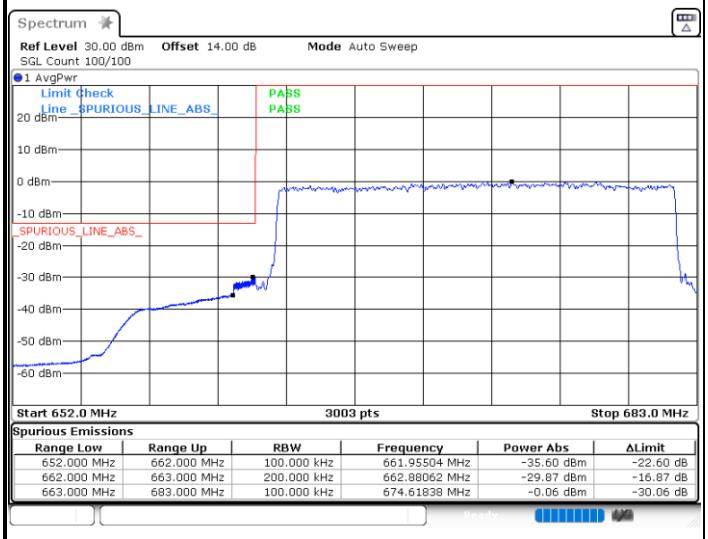
Lowest Band Edge /1 RB



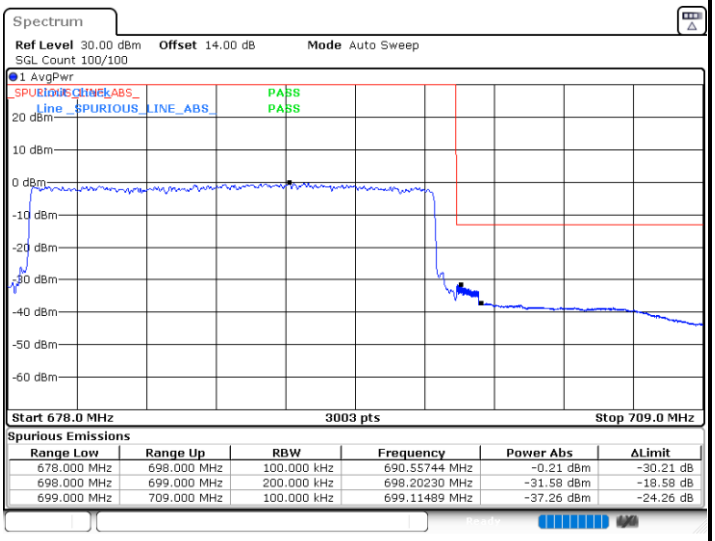
Highest Band Edge / 1RB



Lowest Band Edge / Full RB

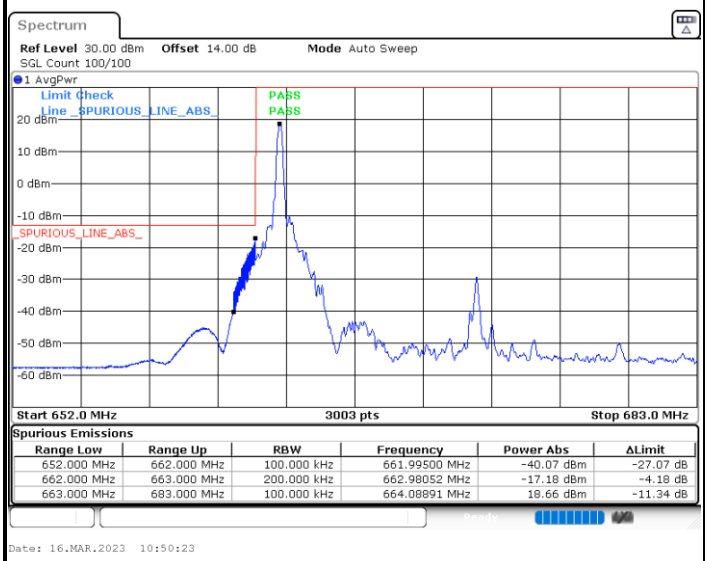


Highest Band Edge / Full RB



LTE Band 71 / 20MHz / 64QAM

Lowest Band Edge / 1 RB

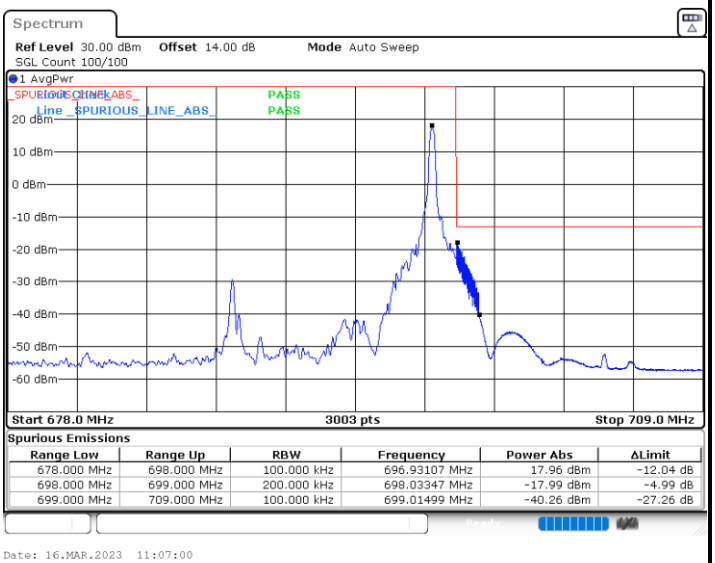


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.99500 MHz	-40.07 dBm	-27.07 dB
662.000 MHz	663.000 MHz	200.000 kHz	662.98052 MHz	-17.18 dBm	-4.18 dB
663.000 MHz	683.000 MHz	100.000 kHz	664.08891 MHz	18.66 dBm	-11.34 dB

Date: 16.MAR.2023 10:50:23

Highest Band Edge / 1 RB

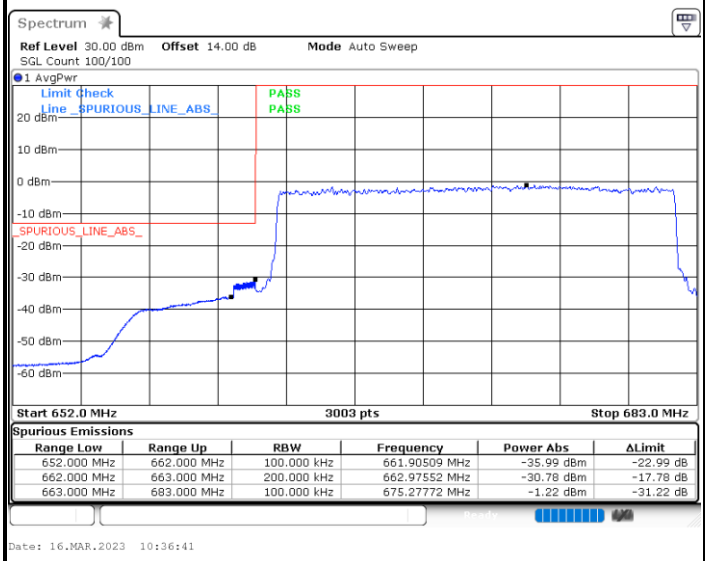


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
678.000 MHz	698.000 MHz	100.000 kHz	696.93107 MHz	17.96 dBm	-12.04 dB
698.000 MHz	699.000 MHz	200.000 kHz	698.03347 MHz	-17.99 dBm	-4.99 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.01499 MHz	-40.26 dBm	-27.26 dB

Date: 16.MAR.2023 11:07:00

Lowest Band Edge / Full RB

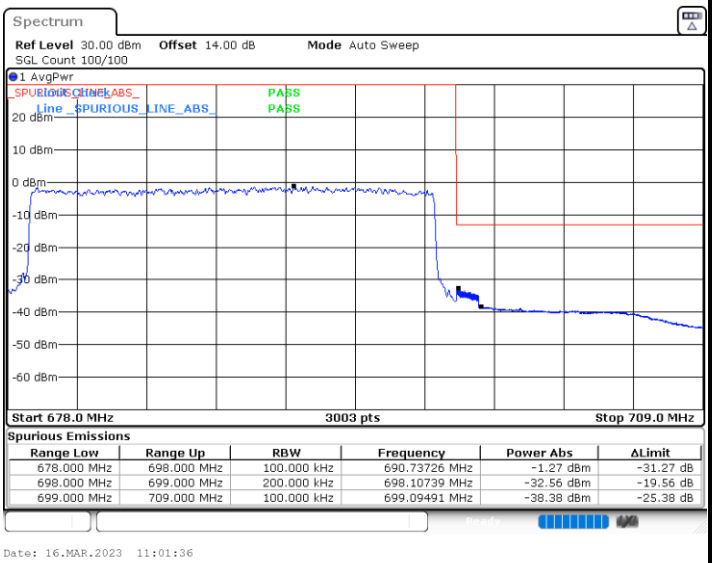


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
652.000 MHz	662.000 MHz	100.000 kHz	661.90509 MHz	-35.99 dBm	-22.99 dB
662.000 MHz	663.000 MHz	200.000 kHz	662.97552 MHz	-30.78 dBm	-17.78 dB
663.000 MHz	683.000 MHz	100.000 kHz	675.27772 MHz	-1.22 dBm	-31.22 dB

Date: 16.MAR.2023 10:36:41

Highest Band Edge / Full RB



Spurious Emissions

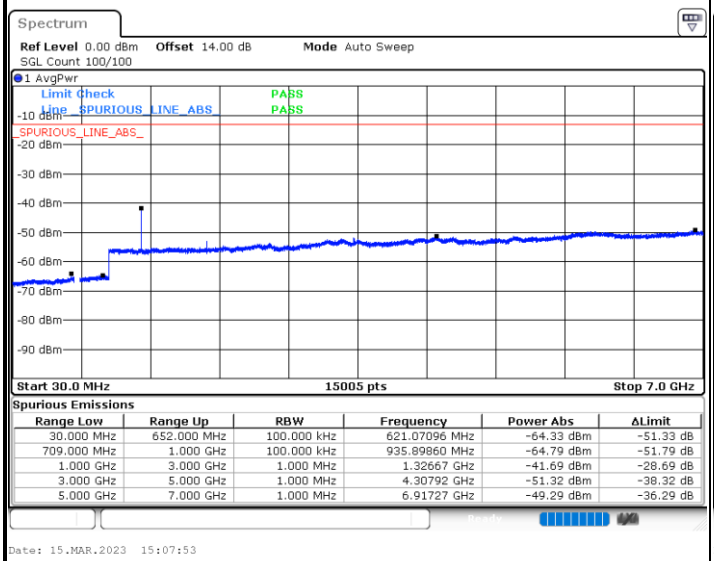
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
678.000 MHz	698.000 MHz	100.000 kHz	690.73726 MHz	-1.27 dBm	-31.27 dB
698.000 MHz	699.000 MHz	200.000 kHz	698.10739 MHz	-32.56 dBm	-19.56 dB
699.000 MHz	709.000 MHz	100.000 kHz	699.09491 MHz	-38.38 dBm	-25.38 dB

Date: 16.MAR.2023 11:01:36

Conducted Spurious Emission

LTE Band 71 / 5MHz

Lowest Channel / QPSK

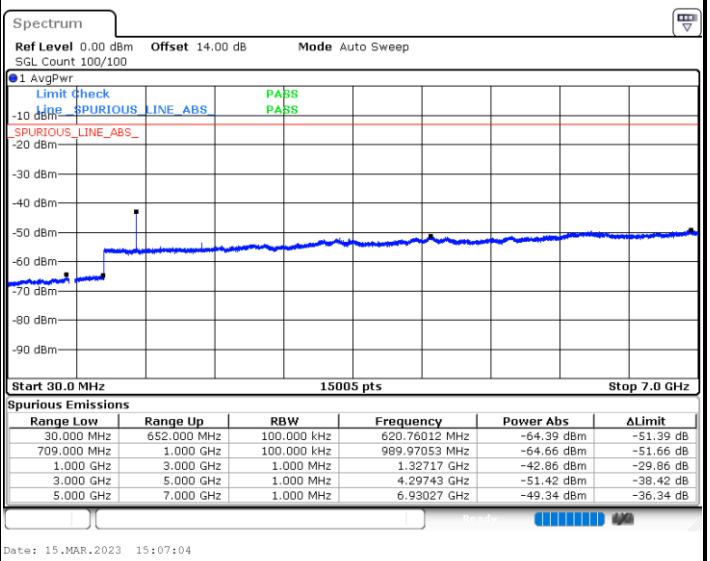


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	621.07096 MHz	-64.33 dBm	-51.33 dB
709.000 MHz	1.000 GHz	100.000 kHz	935.89860 MHz	-64.79 dBm	-51.79 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.32667 GHz	-41.69 dBm	-28.69 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.30792 GHz	-51.32 dBm	-38.32 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.91727 GHz	-49.29 dBm	-36.29 dB

Date: 15.MAR.2023 15:07:53

Lowest Channel / 16QAM

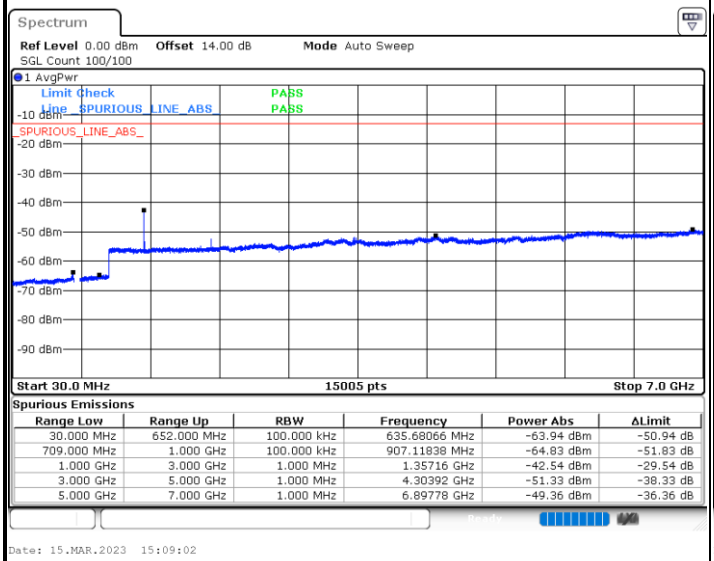


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	620.76012 MHz	-64.39 dBm	-51.39 dB
709.000 MHz	1.000 GHz	100.000 kHz	989.97053 MHz	-64.66 dBm	-51.66 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.32717 GHz	-42.86 dBm	-29.86 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.29743 GHz	-51.42 dBm	-38.42 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.93027 GHz	-49.34 dBm	-36.34 dB

Date: 15.MAR.2023 15:07:04

Middle Channel / QPSK

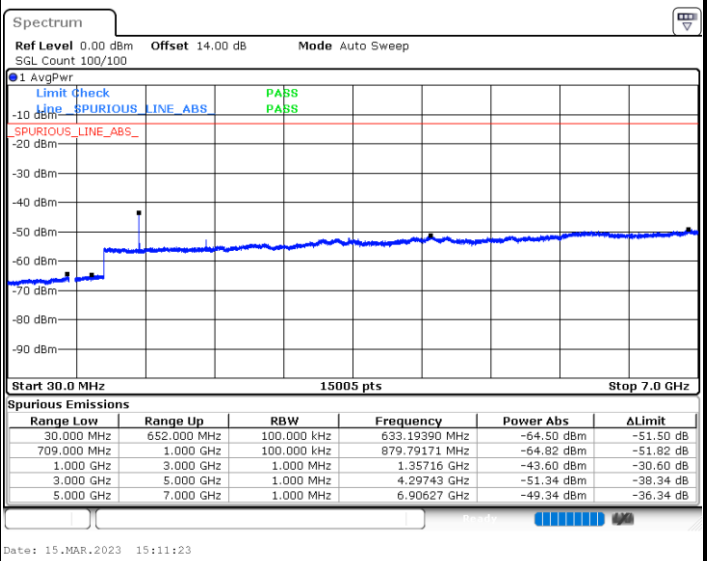


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	635.68066 MHz	-63.94 dBm	-50.94 dB
709.000 MHz	1.000 GHz	100.000 kHz	907.11838 MHz	-64.83 dBm	-51.83 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.35716 GHz	-42.54 dBm	-29.54 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.30392 GHz	-51.33 dBm	-38.33 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.89778 GHz	-49.36 dBm	-36.36 dB

Date: 15.MAR.2023 15:09:02

Middle Channel / 16QAM



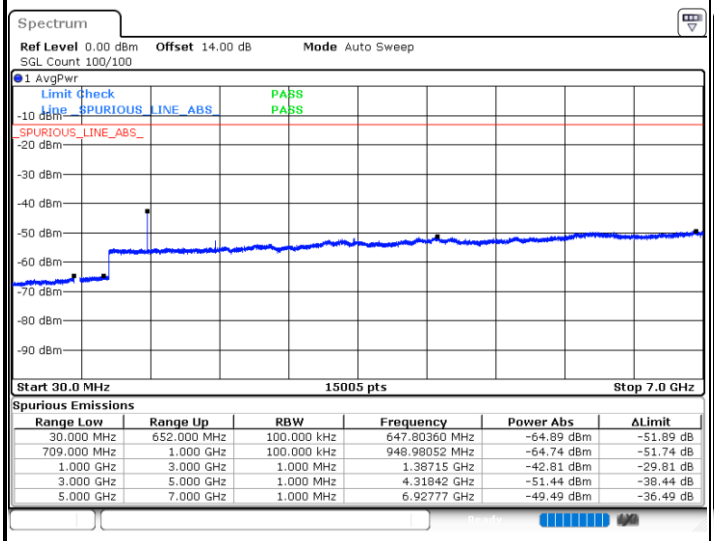
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	633.19390 MHz	-64.50 dBm	-51.50 dB
709.000 MHz	1.000 GHz	100.000 kHz	879.79171 MHz	-64.82 dBm	-51.82 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.35716 GHz	-43.60 dBm	-30.60 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.29743 GHz	-51.34 dBm	-38.34 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.90627 GHz	-49.34 dBm	-36.34 dB

Date: 15.MAR.2023 15:11:23

LTE Band 71 / 5MHz

Highest Channel / QPSK

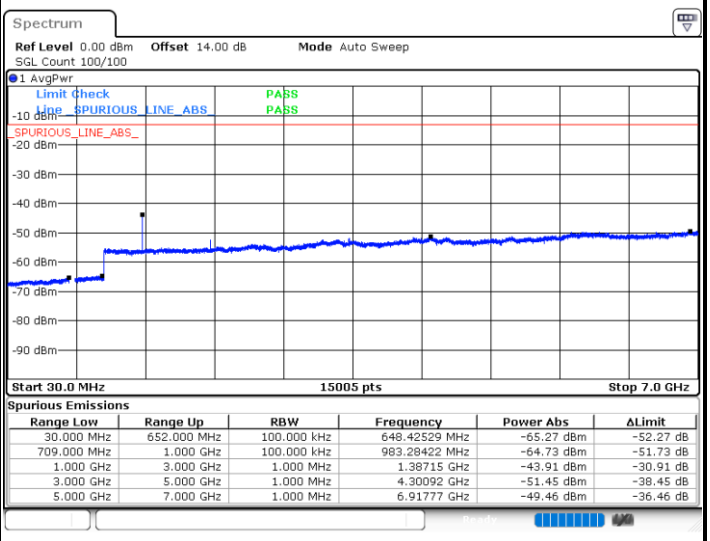


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	647.80360 MHz	-64.89 dBm	-51.89 dB
709.000 MHz	1.000 GHz	100.000 kHz	948.98052 MHz	-64.74 dBm	-51.74 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.38715 GHz	-42.81 dBm	-29.81 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.31842 GHz	-51.44 dBm	-38.44 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.92777 GHz	-49.49 dBm	-36.49 dB

Date: 15.MAR.2023 16:22:20

Highest Channel / 16QAM



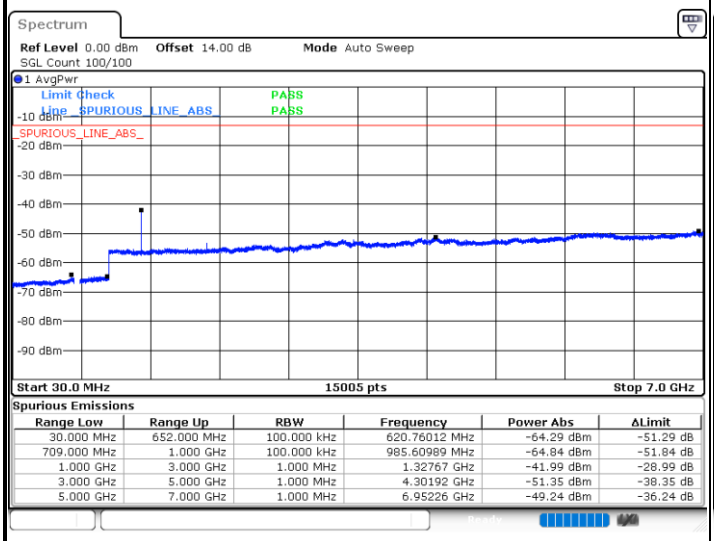
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	648.42529 MHz	-65.27 dBm	-52.27 dB
709.000 MHz	1.000 GHz	100.000 kHz	983.28422 MHz	-64.73 dBm	-51.73 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.38715 GHz	-43.91 dBm	-30.91 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.30092 GHz	-51.45 dBm	-38.45 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.91777 GHz	-49.46 dBm	-36.46 dB

Date: 15.MAR.2023 16:20:41

LTE Band 71 / 10MHz

Lowest Channel / QPSK

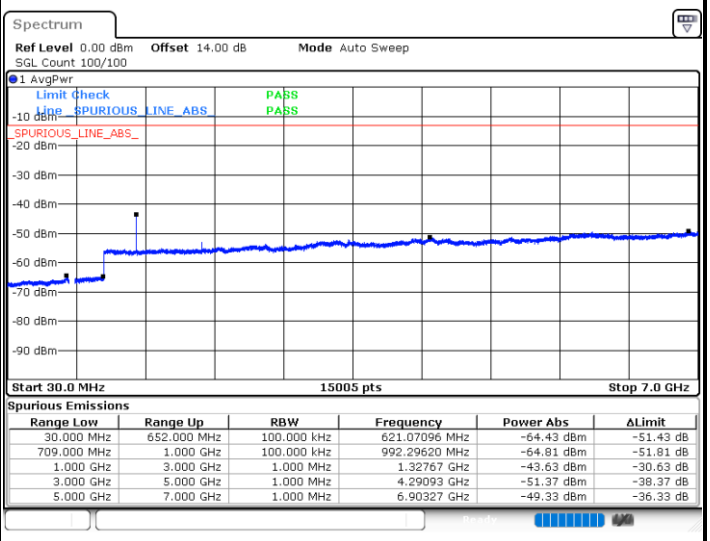


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	620.76012 MHz	-64.29 dBm	-51.29 dB
709.000 MHz	1.000 GHz	100.000 kHz	985.60989 MHz	-64.84 dBm	-51.84 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.32767 GHz	-41.99 dBm	-28.99 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.30192 GHz	-51.35 dBm	-38.35 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.95226 GHz	-49.24 dBm	-36.24 dB

Date: 16.MAR.2023 09:19:16

Lowest Channel / 16QAM



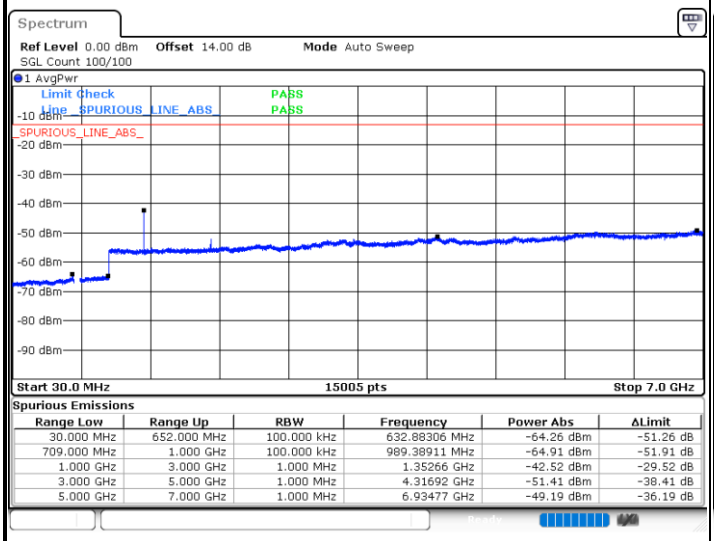
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	621.07096 MHz	-64.43 dBm	-51.43 dB
709.000 MHz	1.000 GHz	100.000 kHz	992.29620 MHz	-64.81 dBm	-51.81 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.32767 GHz	-43.63 dBm	-30.63 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.29093 GHz	-51.37 dBm	-38.37 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.90327 GHz	-49.33 dBm	-36.33 dB

Date: 16.MAR.2023 09:20:08

LTE Band 71 / 10MHz

Middle Channel / QPSK

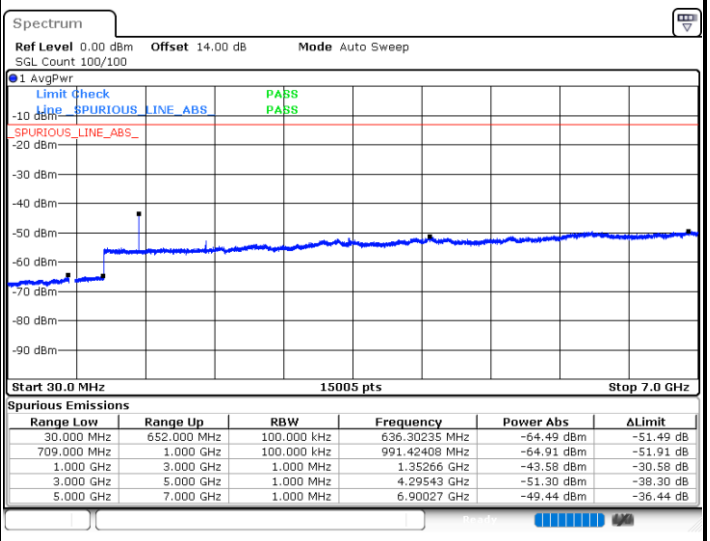


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	632.88306 MHz	-64.26 dBm	-51.26 dB
709.000 MHz	1.000 GHz	100.000 kHz	989.38911 MHz	-64.91 dBm	-51.91 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.35266 GHz	-42.52 dBm	-29.52 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.31692 GHz	-51.41 dBm	-38.41 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.93477 GHz	-49.19 dBm	-36.19 dB

Date: 16.MAR.2023 09:08:04

Middle Channel / 16QAM

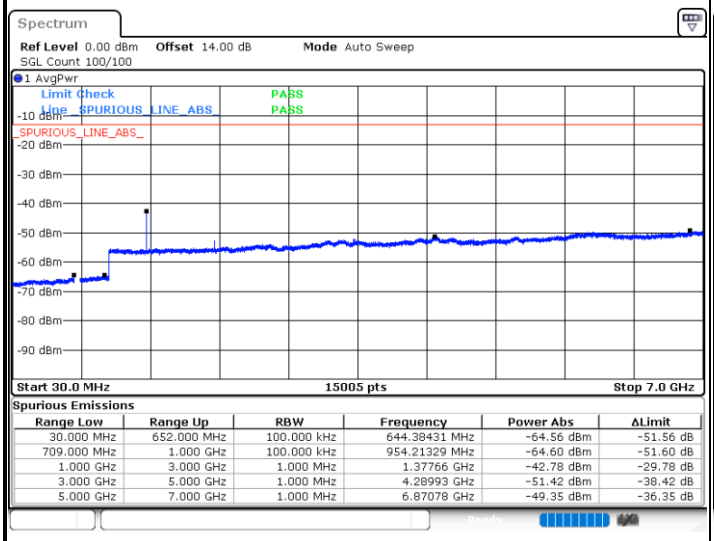


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	636.30235 MHz	-64.49 dBm	-51.49 dB
709.000 MHz	1.000 GHz	100.000 kHz	991.42408 MHz	-64.91 dBm	-51.91 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.35266 GHz	-43.58 dBm	-30.58 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.29543 GHz	-51.30 dBm	-38.30 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.90027 GHz	-49.44 dBm	-36.44 dB

Date: 16.MAR.2023 09:08:48

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	644.38431 MHz	-64.56 dBm	-51.56 dB
709.000 MHz	1.000 GHz	100.000 kHz	954.21329 MHz	-64.60 dBm	-51.60 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.37766 GHz	-42.78 dBm	-29.78 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.28993 GHz	-51.42 dBm	-38.42 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.87078 GHz	-49.35 dBm	-36.35 dB

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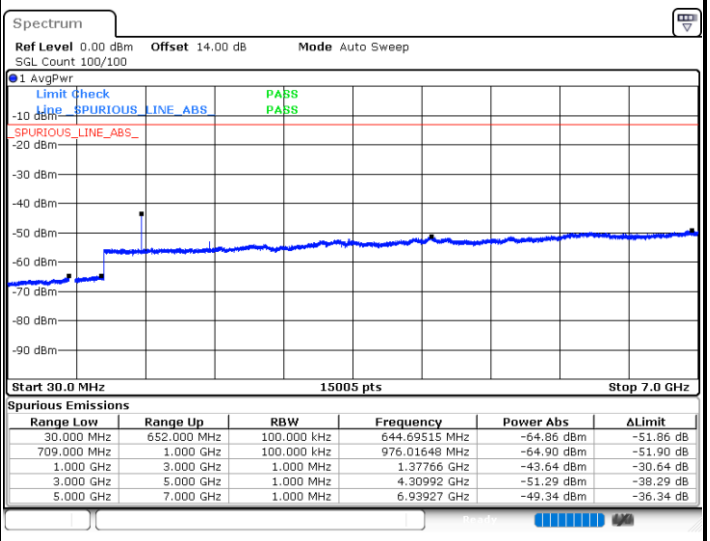
Highest Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	644.69515 MHz	-64.86 dBm	-51.86 dB
709.000 MHz	1.000 GHz	100.000 kHz	976.01648 MHz	-64.90 dBm	-51.90 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.37766 GHz	-43.64 dBm	-30.64 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.30992 GHz	-51.29 dBm	-38.29 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.93927 GHz	-49.34 dBm	-36.34 dB

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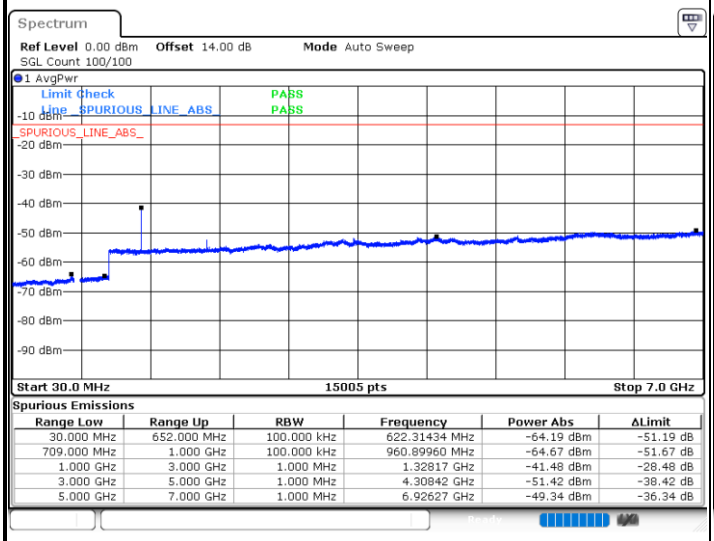
LTE Band 71 / 15MHz

Lowest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	622.31434 MHz	-64.19 dBm	-51.19 dB
709.000 MHz	1.000 GHz	100.000 kHz	960.89960 MHz	-64.67 dBm	-51.67 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.32817 GHz	-41.48 dBm	-28.48 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.30842 GHz	-51.42 dBm	-38.42 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.92627 GHz	-49.34 dBm	-36.34 dB

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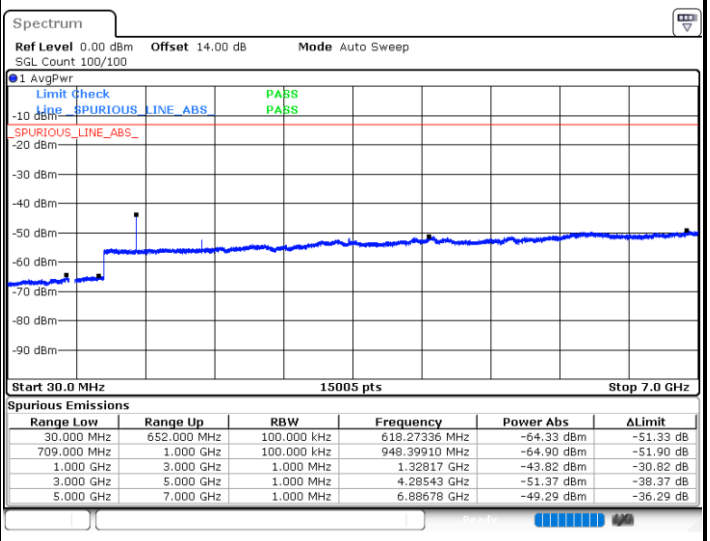
Lowest Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	618.27336 MHz	-64.33 dBm	-51.33 dB
709.000 MHz	1.000 GHz	100.000 kHz	948.39910 MHz	-64.90 dBm	-51.90 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.32817 GHz	-43.82 dBm	-30.82 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.28543 GHz	-51.37 dBm	-38.37 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.88678 GHz	-49.29 dBm	-36.29 dB

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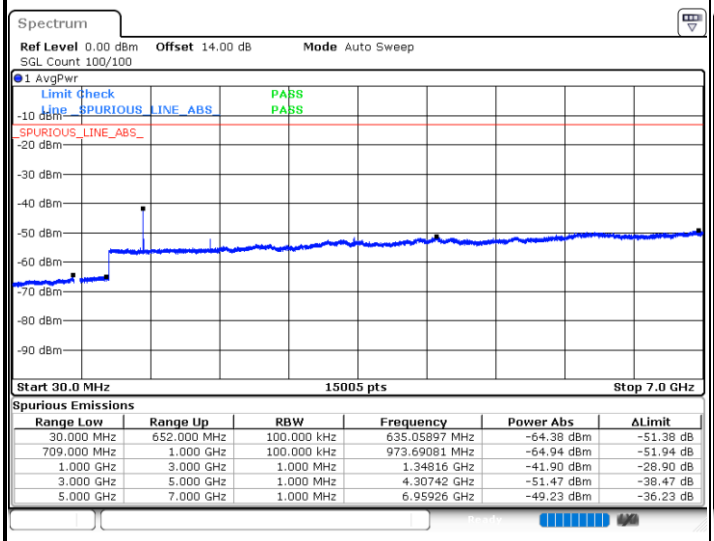
Middle Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	635.05897 MHz	-64.38 dBm	-51.38 dB
709.000 MHz	1.000 GHz	100.000 kHz	973.69081 MHz	-64.94 dBm	-51.94 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.34816 GHz	-41.90 dBm	-28.90 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.30742 GHz	-51.47 dBm	-38.47 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.95926 GHz	-49.23 dBm	-36.23 dB

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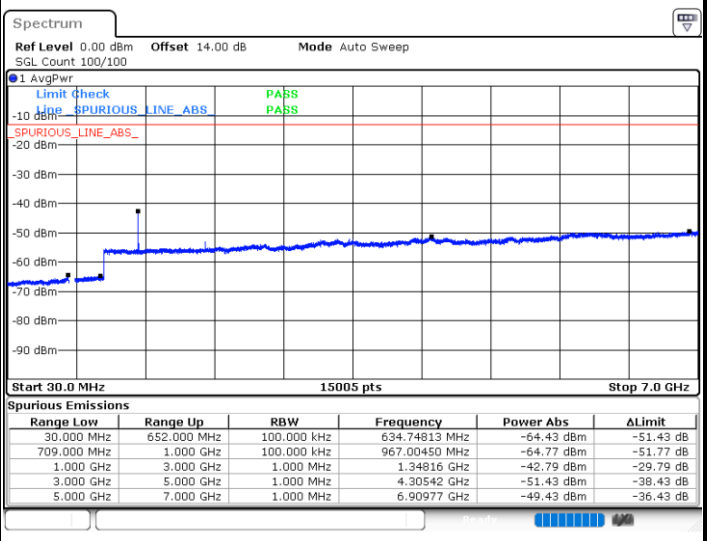
Middle Channel / 16QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	652.000 MHz	100.000 kHz	634.74813 MHz	-64.43 dBm	-51.43 dB
709.000 MHz	1.000 GHz	100.000 kHz	967.00450 MHz	-64.77 dBm	-51.77 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.34816 GHz	-42.79 dBm	-29.79 dB
3.000 GHz	5.000 GHz	1.000 MHz	4.30542 GHz	-51.43 dBm	-38.43 dB
5.000 GHz	7.000 GHz	1.000 MHz	6.90977 GHz	-49.43 dBm	-36.43 dB

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