FCC RF Test Report

APPLICANT	: Motorola Mobility LLC
EQUIPMENT	: Mobile Phone
BRAND NAME	: Motorola
MODEL NAME	: XT2239-7
FCC ID	: IHDT56AG6
STANDARD	: 47 CFR Part 2, 27(M)
CLASSIFICATION	: PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	: Jun. 22, 2022 ~ Jun. 29, 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

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG252513-02	Rev. 01	Initial issue of report	Jul. 22, 2022

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 41)	EIRP < 2Watt		-
3.5	N/A	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	-	Report Only	-
3.7	§27.53(m)(4)	Conducted Band Edge Measurement (Band 41)	§27.53(m)(4)	PASS	-
3.8	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 41)	< $55+10\log_{10}$(P[Watts])	PASS	-
3.9	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 41)	< $55+10\log_{10}$(P[Watts])	PASS	Under limit 21.87 dB at 5168.00MHz

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

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago, IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W,Merchandise Mart Plaza, Chicago, IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	Motorola
Model Name	XT2239-7
FCC ID	IHDT56AG6
IMEI Code	Conducted: 351474850005655 Radiation: 351474850009111/351474850049117
HW Version	DVT2
SW Version	SOV32.73
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 41 : 2535 MHz ~ 2655 MHz
Rx Frequency	LTE Band 41 : 2535 MHz ~ 2655 MHz
Bandwidth	LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 41 : 23.21 dBm
Antenna Type / Gain	Loop Antenna / LTE Band 41 : -0.37 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 EIRP and Emission Designator

LTE Band 41		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	2545.0 ~ 2645.0	0.1923	18M3G7D	0.1493	18M5W7D

Note: All modulations have been tested, only the maximum bandwidth and the worst test results of PSK & QAM 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.**
	TH01-KS 03CH04-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, 27(M)
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

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

1.10 Specification of Accessory

Specification of Accessory				
AC Adapter 1(US)	**Brand Name**	Motorola (Aohai)	**Model Name**	MC-101
AC Adapter 1(EU)	**Brand Name**	Motorola (Aohai)	**Model Name**	MC-102
AC Adapter 1(UK)	**Brand Name**	Motorola (Aohai)	**Model Name**	MC-103
AC Adapter 1(AU)	**Brand Name**	Motorola (Aohai)	**Model Name**	MC-105
AC Adapter 1(AR)	**Brand Name**	Motorola (Aohai)	**Model Name**	MC-106
AC Adapter 1(IN)	**Brand Name**	Motorola (Aohai)	**Model Name**	MC-104
AC Adapter 2(US)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-101
AC Adapter 2(EU)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-102
AC Adapter 2(UK)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-103
AC Adapter 2(IN)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-104
AC Adapter 2(AU)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-105
AC Adapter 2(AR)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-106
AC Adapter 2(PRC)	**Brand Name**	Motorola (Chenyang)	**Model Name**	MC-108
AC Adapter 3(US)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-101
AC Adapter 3(EU)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-102
AC Adapter 3(UK)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-103
AC Adapter 3(AU)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-105
AC Adapter 3(AR)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-106
AC Adapter 3(PRC)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-108
AC Adapter 3(Chile)	**Brand Name**	Motorola (Salcomp)	**Model Name**	MC-109
AC Adapter 4(EU)	**Brand Name**	Lenovo(Salcomp)	**Model Name**	MC-102
AC Adapter 5(UK)	**Brand Name**	Lenovo(Salcomp)	**Model Name**	MC-103
Battery 1	**Brand Name**	Motorola (ATL)	**Model Name**	NH40
Battery 2	**Brand Name**	Motorola (CosMX+SCUD)	**Model Name**	NH40
Earphone 1	**Brand Name**	Motorola(NEW LEADER)	**Model Name**	NLD-EM313A-23SF
Earphone 2	**Brand Name**	Motorola(Ju wei)	**Model Name**	JWEP1185-ZN01H
USB Cable 1	**Brand Name**	Motorola(Washin)	**Model Name**	HX-ZN-13
USB Cable 2	**Brand Name**	Motorola(Ju wei)	**Model Name**	JWUB1498-ZN01H

2 Test Configuration of Equipment Under Test

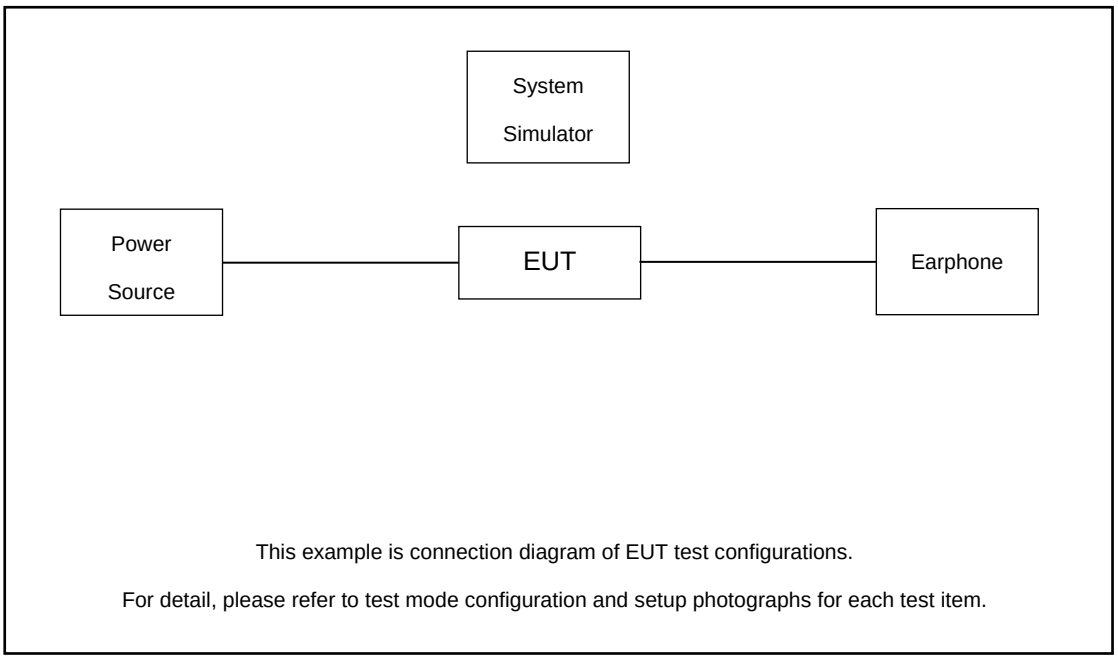
2.1 Test Mode

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	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	41	-	-				v	v	v	v			v		v	
26dB and 99% Bandwidth	41	-	-				v	v	v				v		v	
Conducted Band Edge	41	-	-	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	41	-	-	v	v	v	v	v			v			v	v	v
Frequency Stability	41	-	-		v			v					v		v	
E.R.P / E.I.R.P	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	41	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



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 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 6.0 dB.

Example :

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

= 6.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

LTE Band 41 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	40140	40640	41140
	Frequency	2545	2595	2645
15	Channel	40115	40640	41165
	Frequency	2542.5	2595	2647.5
10	Channel	40090	40640	41190
	Frequency	2540	2595	2650
5	Channel	40065	40640	41215
	Frequency	2537.5	2595	2652.5

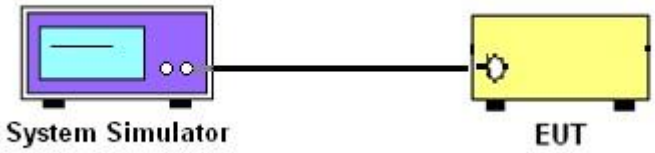
3 Conducted Test Items

3.1 Measuring Instruments

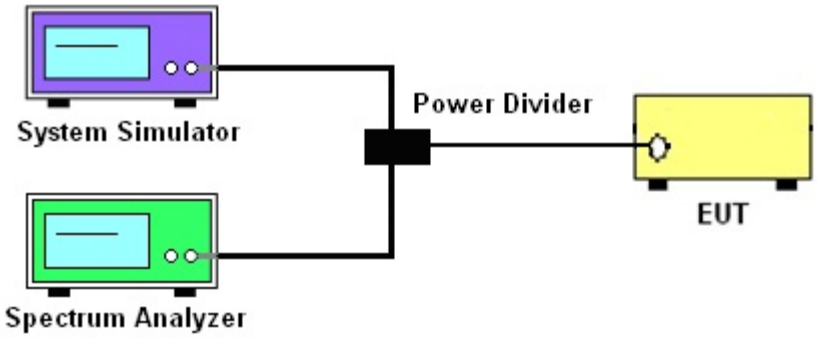
See list of measuring instruments of this test report.

3.2 Test Setup

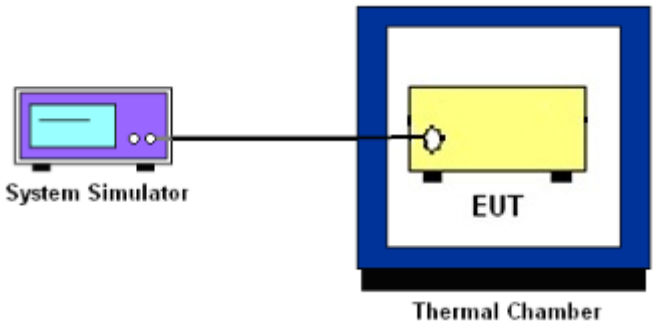
3.2.1 Conducted Output Power



3.2.2 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 EIRP

3.4.1 Description of the Conducted Output Power Measurement and 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 EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 41.

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

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. 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. For LTE Band 41, the other 40 dB, and 55 dB have additionally applied same calculation above.
10. 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 10^{th} harmonic.

3.8.2 Test Procedures

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

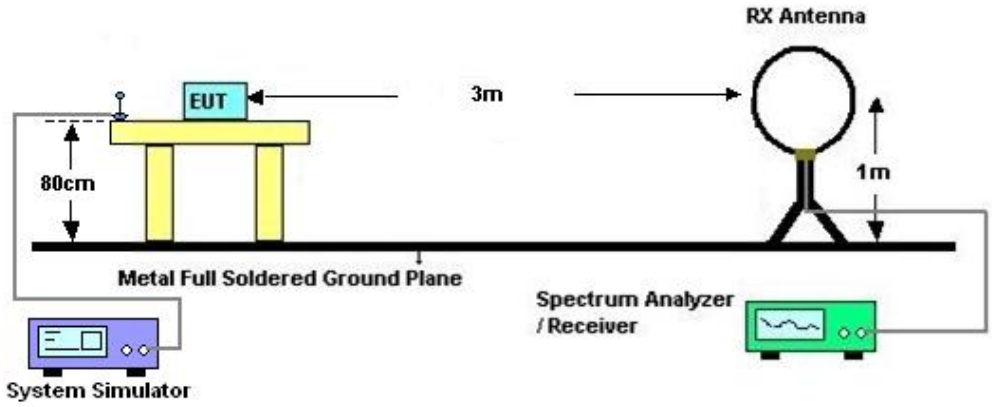
4 Radiated Test Items

4.1 Measuring Instruments

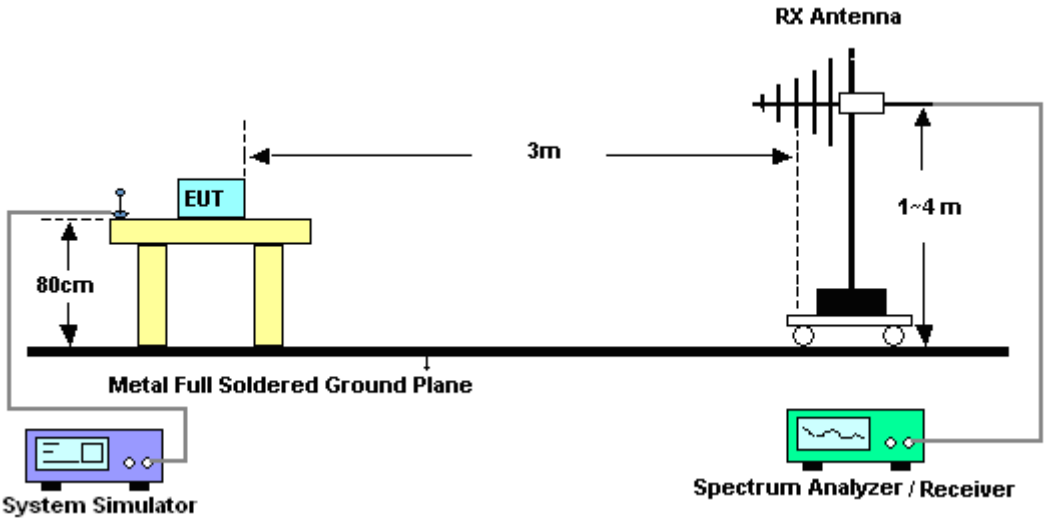
See list of measuring instruments of this test report.

4.2 Test Setup

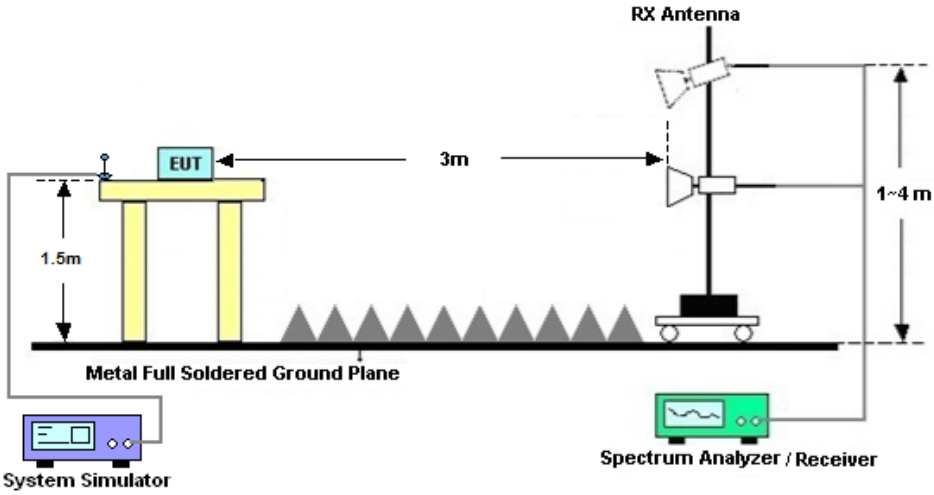
4.2.1 For radiated test below 30MHz



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 7

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	Jun. 22, 2022~ Jun. 29, 2022	Oct. 13, 2022	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	Aug. 26, 2021	Jun. 22, 2022~ Jun. 29, 2022	Aug. 25, 2022	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 12, 2021	Jun. 22, 2022~ Jun. 29, 2022	Jul. 11, 2022	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57541079	10Hz-44G,MAX 30dB	Oct. 14, 2022	Jun. 29, 2022	Oct. 13, 2023	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 30, 2021	Jun. 29, 2022	Oct. 29, 2022	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 24, 2022	Jun. 29, 2022	May 23, 2023	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1284	1GHz~18GHz	Jan. 05, 2022	Jun. 29, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2022	Jun. 29, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 05, 2022	Jun. 29, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 05, 2022	Jun. 29, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18GA	060839	1Ghz-18Ghz	Oct. 14, 2021	Jun. 29, 2022	Oct. 13, 2022	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Oct. 13, 2021	Jun. 29, 2022	Oct. 12, 2022	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jun. 29, 2022	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jun. 29, 2022	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jun. 29, 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 :	Simle Wang	Temperature :	22~23℃
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and EIRP

LTE Band 41:

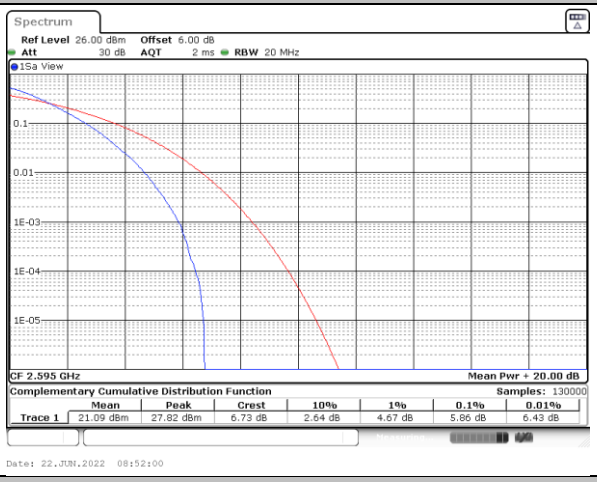
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Low Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				40140	40640	41140			
Frequency (MHz)				2545	2595	2645	L	M	H
20	QPSK	1	0	23.14	23.21	23.10	0.1892	0.1923	0.1875
20	QPSK	1	99	22.98	22.94	22.95	0.1824	0.1807	0.1811
20	QPSK	100	0	22.00	22.08	22.04	0.1455	0.1483	0.1469
20	16QAM	1	0	22.08	22.11	22.05	0.1483	0.1493	0.1472
20	64QAM	1	0	20.94	20.96	20.76	0.1140	0.1146	0.1094
Channel				40115	40640	41165	EIRP(W)		
Frequency (MHz)				2542.5	2595	2647.5	L	M	H
15	QPSK	1	0	23.01	23.07	23.08	0.1837	0.1862	0.1866
15	16QAM	1	0	21.97	21.90	21.88	0.1445	0.1422	0.1416
Channel				40090	40640	41190	EIRP(W)		
Frequency (MHz)				2540	2595	2650	L	M	H
10	QPSK	1	0	23.02	23.17	22.88	0.1841	0.1905	0.1782
10	16QAM	1	0	22.04	21.96	22.06	0.1469	0.1442	0.1476
Channel				40065	40640	41215	EIRP(W)		
Frequency (MHz)				2537.5	2595	2652.5	L	M	H
5	QPSK	1	0	22.98	23.20	22.99	0.1824	0.1919	0.1828
5	16QAM	1	0	21.76	22.02	21.94	0.1377	0.1462	0.1435

LTE Band 41

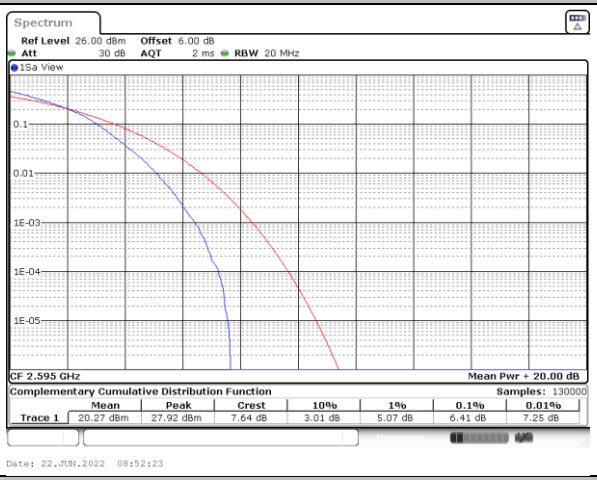
Peak-to-Average Ratio

Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.86	6.41	7.13	PASS

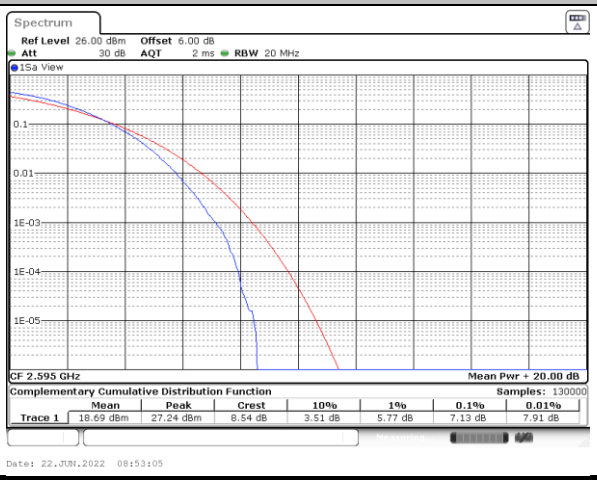
LTE Band 41 / 20MHz
Middle Channel / Full RB / QPSK



Middle Channel / Full RB / 16QAM



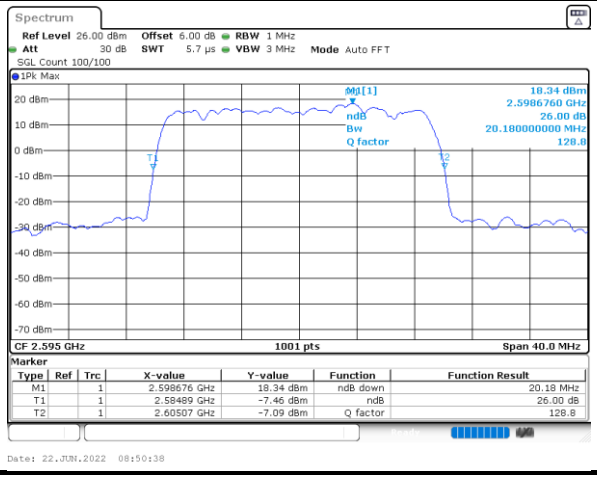
Middle Channel / Full RB / 64QAM

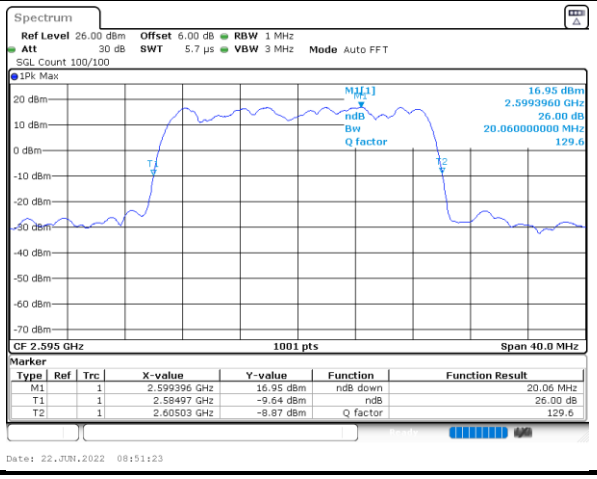


26dB Bandwidth

Mode	LTE Band 41 : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	20.18	20.06

LTE Band 41	
Middle Channel / 20MHz / QPSK	Middle Channel / 20MHz / 16QAM

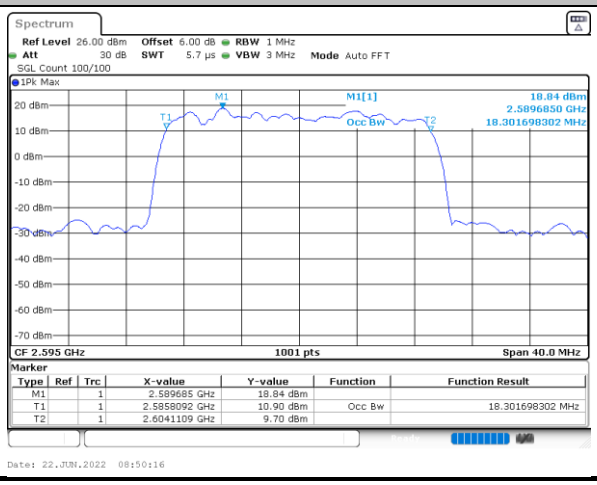


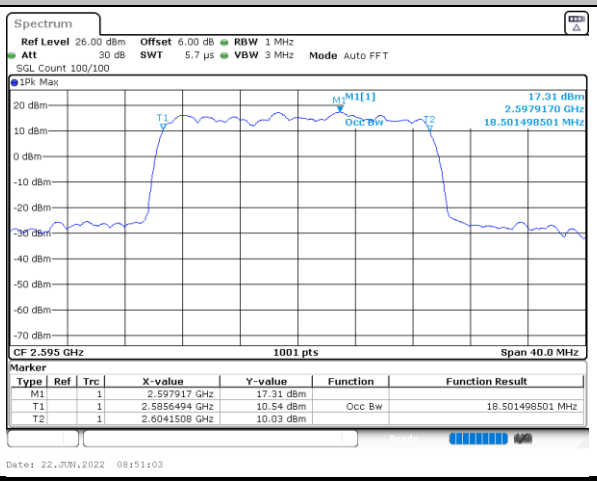


Occupied Bandwidth

Mode	LTE Band 41 : 99%OBW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.30	18.50

LTE Band 41	
Middle Channel / 20MHz / QPSK	Middle Channel / 20MHz / 16QAM

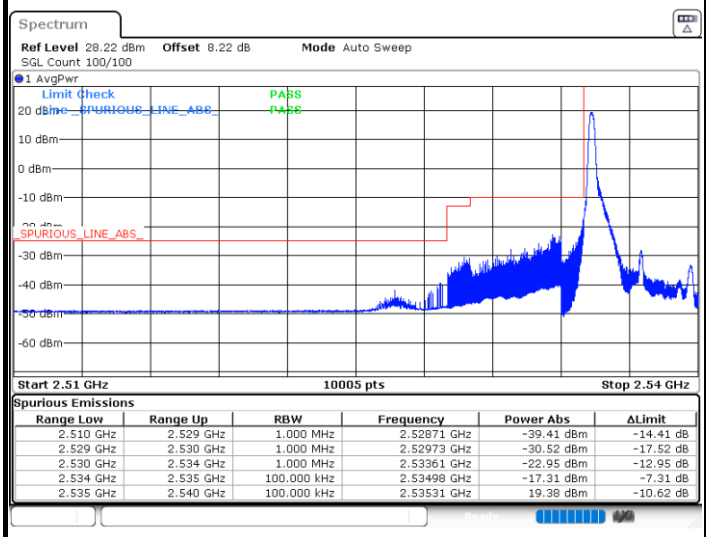




Conducted Band Edge

LTE Band 41 / 5MHz / QPSK

Lowest Band Edge / 1 RB

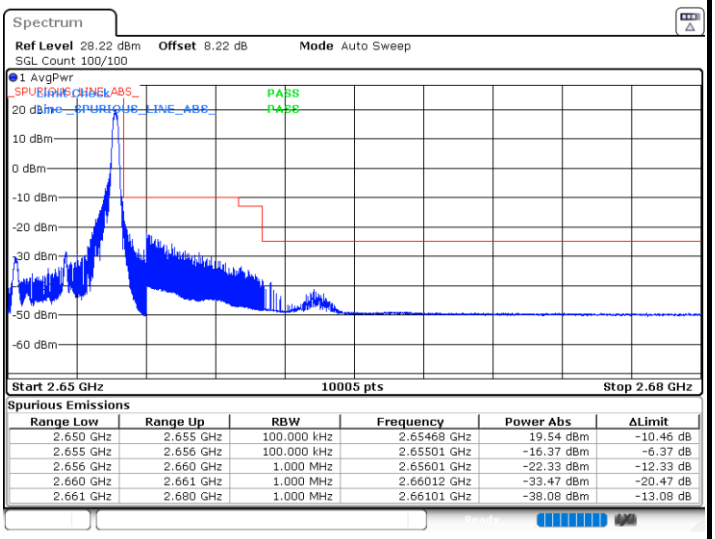


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.529 GHz	1.000 MHz	2.52871 GHz	-39.41 dBm	-14.41 dB
2.529 GHz	2.530 GHz	1.000 MHz	2.52973 GHz	-30.52 dBm	-17.52 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53361 GHz	-22.95 dBm	-12.95 dB
2.534 GHz	2.535 GHz	100.000 kHz	2.53498 GHz	-17.31 dBm	-7.31 dB
2.535 GHz	2.540 GHz	100.000 kHz	2.53531 GHz	19.38 dBm	-10.62 dB

Date: 22.JUN.2022 07:44:07

Highest Band Edge / 1 RB

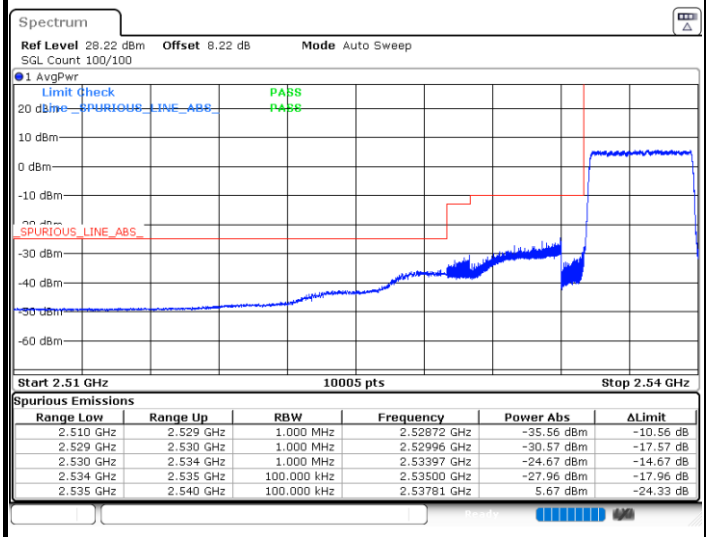


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.650 GHz	2.655 GHz	100.000 kHz	2.65468 GHz	19.54 dBm	-10.46 dB
2.655 GHz	2.656 GHz	100.000 kHz	2.65501 GHz	-16.37 dBm	-6.37 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65601 GHz	-22.33 dBm	-12.33 dB
2.660 GHz	2.661 GHz	1.000 MHz	2.66012 GHz	-33.47 dBm	-20.47 dB
2.661 GHz	2.680 GHz	1.000 MHz	2.66101 GHz	-38.08 dBm	-13.08 dB

Date: 22.JUN.2022 07:53:32

Lowest Band Edge / Full RB

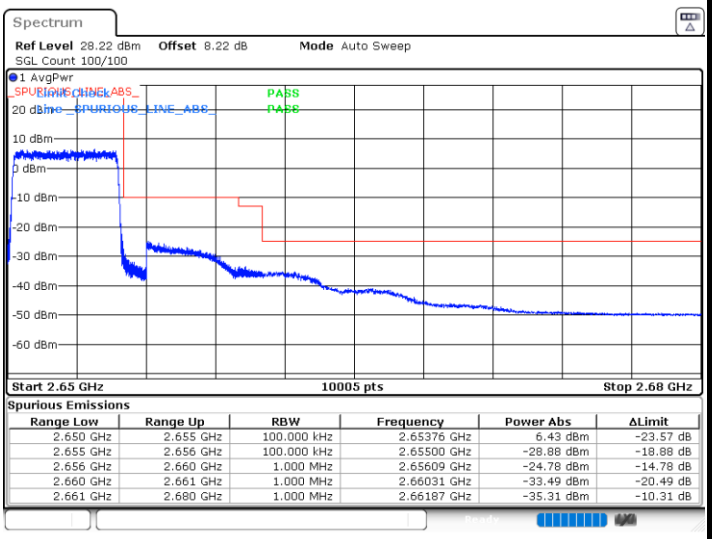


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.529 GHz	1.000 MHz	2.52872 GHz	-35.56 dBm	-10.56 dB
2.529 GHz	2.530 GHz	1.000 MHz	2.52996 GHz	-30.57 dBm	-17.57 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53397 GHz	-24.67 dBm	-14.67 dB
2.534 GHz	2.535 GHz	100.000 kHz	2.53500 GHz	-27.96 dBm	-17.96 dB
2.535 GHz	2.540 GHz	100.000 kHz	2.53781 GHz	5.67 dBm	-24.33 dB

Date: 22.JUN.2022 07:49:24

Highest Band Edge / Full RB



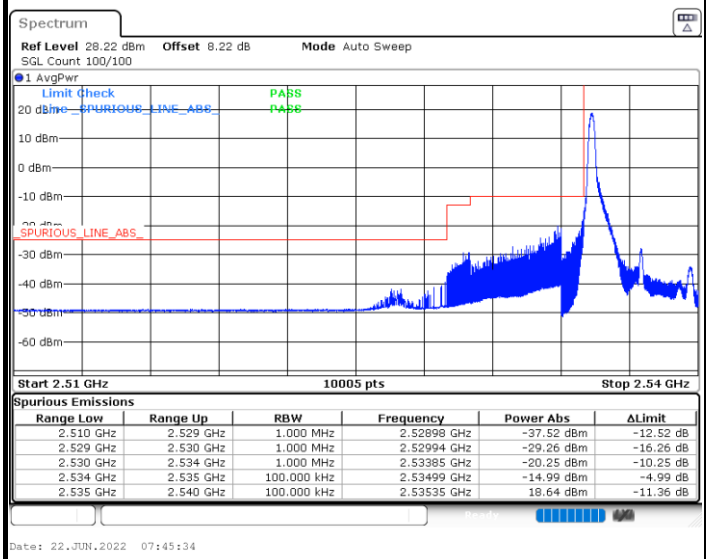
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.650 GHz	2.655 GHz	100.000 kHz	2.65376 GHz	6.43 dBm	-23.57 dB
2.655 GHz	2.656 GHz	100.000 kHz	2.65500 GHz	-28.88 dBm	-18.88 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65609 GHz	-24.78 dBm	-14.78 dB
2.660 GHz	2.661 GHz	1.000 MHz	2.66031 GHz	-33.49 dBm	-20.49 dB
2.661 GHz	2.680 GHz	1.000 MHz	2.66187 GHz	-35.31 dBm	-10.31 dB

Date: 22.JUN.2022 07:50:04

LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB

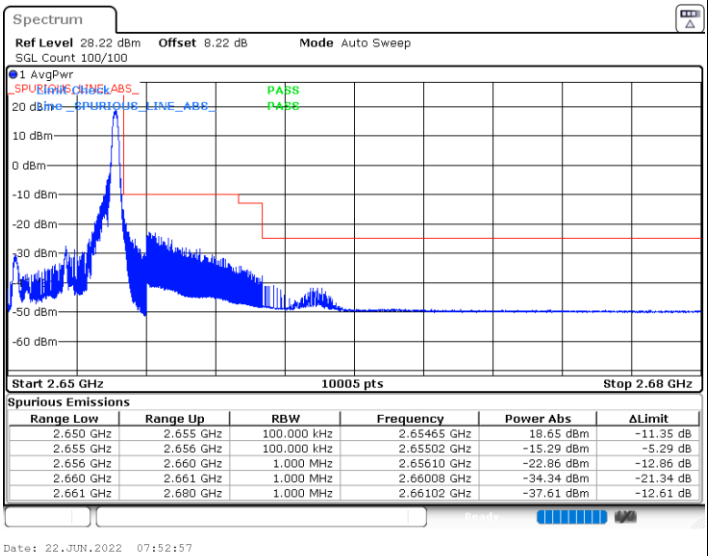


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.529 GHz	1.000 MHz	2.52898 GHz	-37.52 dBm	-12.52 dB
2.529 GHz	2.530 GHz	1.000 MHz	2.52994 GHz	-29.26 dBm	-16.26 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53385 GHz	-20.25 dBm	-10.25 dB
2.534 GHz	2.535 GHz	100.000 kHz	2.53499 GHz	-14.99 dBm	-4.99 dB
2.535 GHz	2.540 GHz	100.000 kHz	2.53535 GHz	18.64 dBm	-11.36 dB

Date: 22.JUN.2022 07:45:34

Highest Band Edge / 1 RB

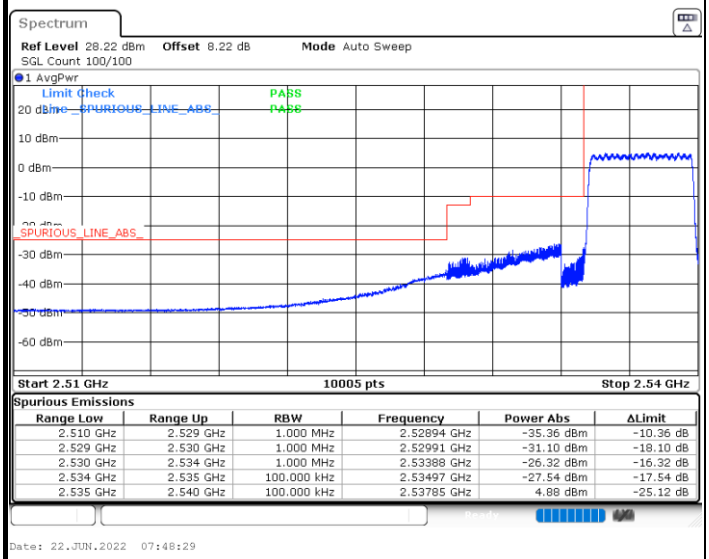


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.650 GHz	2.655 GHz	100.000 kHz	2.65465 GHz	18.65 dBm	-11.35 dB
2.655 GHz	2.656 GHz	100.000 kHz	2.65502 GHz	-15.29 dBm	-5.29 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65610 GHz	-22.86 dBm	-12.86 dB
2.660 GHz	2.661 GHz	1.000 MHz	2.66008 GHz	-34.34 dBm	-21.34 dB
2.661 GHz	2.680 GHz	1.000 MHz	2.66102 GHz	-37.61 dBm	-12.61 dB

Date: 22.JUN.2022 07:52:57

Lowest Band Edge / Full RB

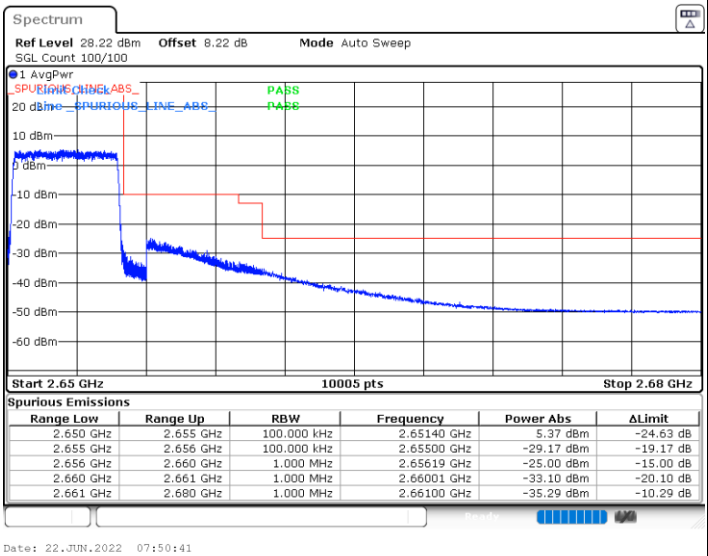


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.529 GHz	1.000 MHz	2.52894 GHz	-35.36 dBm	-10.36 dB
2.529 GHz	2.530 GHz	1.000 MHz	2.52991 GHz	-31.10 dBm	-18.10 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53388 GHz	-26.32 dBm	-16.32 dB
2.534 GHz	2.535 GHz	100.000 kHz	2.53497 GHz	-27.54 dBm	-17.54 dB
2.535 GHz	2.540 GHz	100.000 kHz	2.53785 GHz	4.88 dBm	-25.12 dB

Date: 22.JUN.2022 07:48:29

Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.650 GHz	2.655 GHz	100.000 kHz	2.65140 GHz	5.37 dBm	-24.63 dB
2.655 GHz	2.656 GHz	100.000 kHz	2.65500 GHz	-29.17 dBm	-19.17 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65619 GHz	-25.00 dBm	-15.00 dB
2.660 GHz	2.661 GHz	1.000 MHz	2.66001 GHz	-33.10 dBm	-20.10 dB
2.661 GHz	2.680 GHz	1.000 MHz	2.66100 GHz	-35.29 dBm	-10.29 dB

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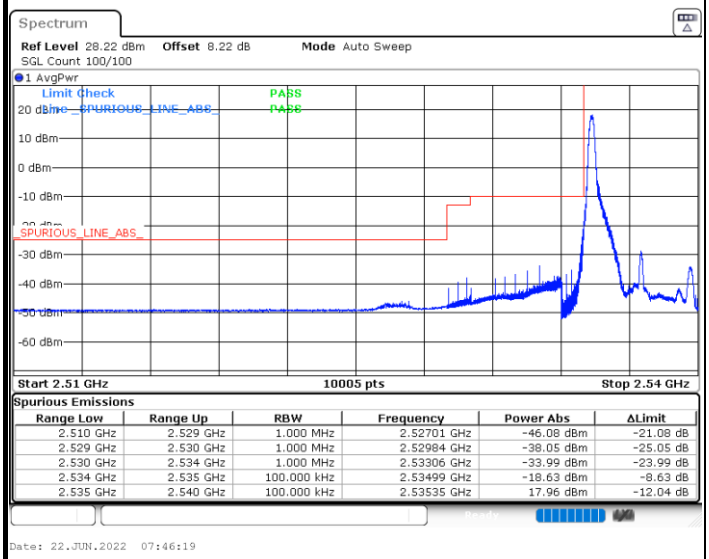
LTE Band 41 / 5MHz / 64QAM

Lowest Band Edge / 1RB

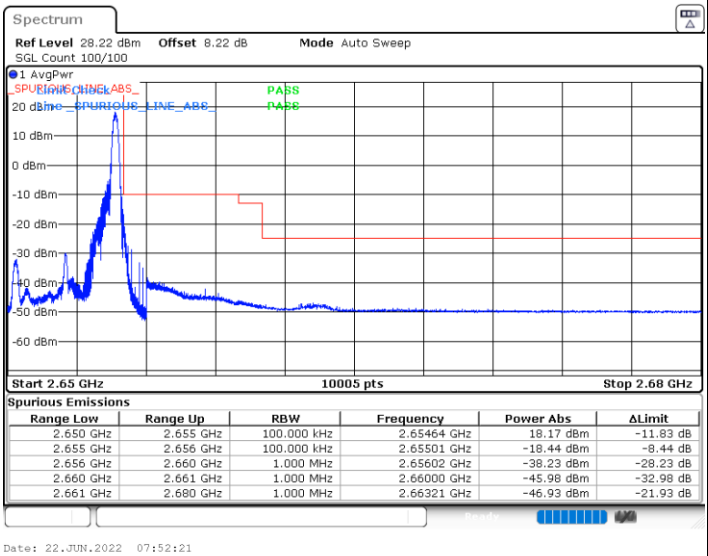


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.529 GHz	1.000 MHz	2.52701 GHz	-46.08 dBm	-21.08 dB
2.529 GHz	2.530 GHz	1.000 MHz	2.52984 GHz	-38.05 dBm	-25.05 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53306 GHz	-33.99 dBm	-23.99 dB
2.534 GHz	2.535 GHz	100.000 kHz	2.53499 GHz	-18.63 dBm	-8.63 dB
2.535 GHz	2.540 GHz	100.000 kHz	2.53535 GHz	17.96 dBm	-12.04 dB

Date: 22.JUN.2022 07:46:19

Highest Band Edge / 1 RB

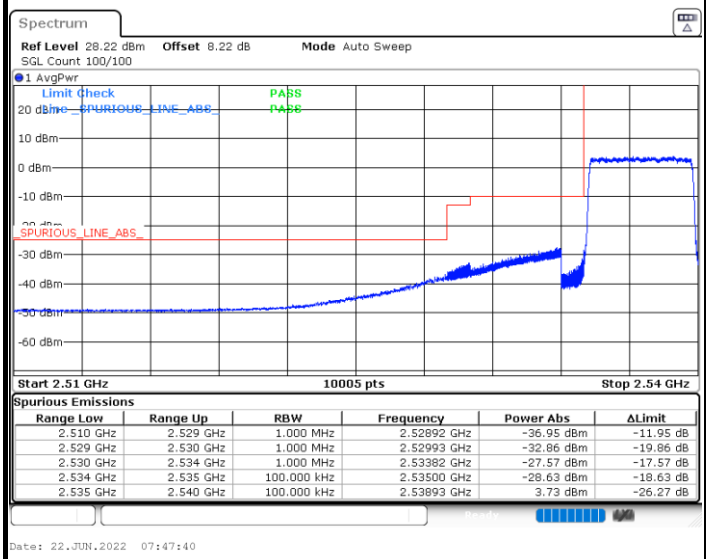


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.650 GHz	2.655 GHz	100.000 kHz	2.65464 GHz	18.17 dBm	-11.83 dB
2.655 GHz	2.656 GHz	100.000 kHz	2.65501 GHz	-18.44 dBm	-8.44 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65602 GHz	-38.23 dBm	-28.23 dB
2.660 GHz	2.661 GHz	1.000 MHz	2.66000 GHz	-45.98 dBm	-32.98 dB
2.661 GHz	2.680 GHz	1.000 MHz	2.66321 GHz	-46.93 dBm	-21.93 dB

Date: 22.JUN.2022 07:52:21

Lowest Band Edge / Full RB

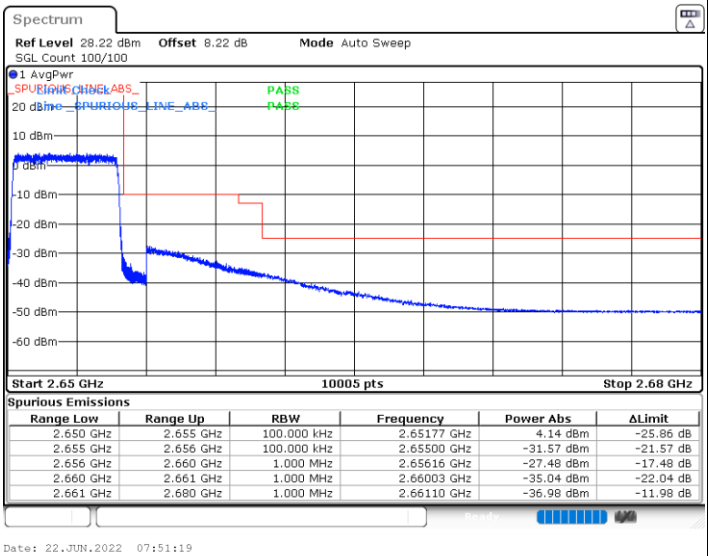


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.529 GHz	1.000 MHz	2.52892 GHz	-36.95 dBm	-11.95 dB
2.529 GHz	2.530 GHz	1.000 MHz	2.52993 GHz	-32.86 dBm	-19.86 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53382 GHz	-27.57 dBm	-17.57 dB
2.534 GHz	2.535 GHz	100.000 kHz	2.53500 GHz	-28.63 dBm	-18.63 dB
2.535 GHz	2.540 GHz	100.000 kHz	2.53893 GHz	3.73 dBm	-26.27 dB

Date: 22.JUN.2022 07:47:40

Highest Band Edge / Full RB



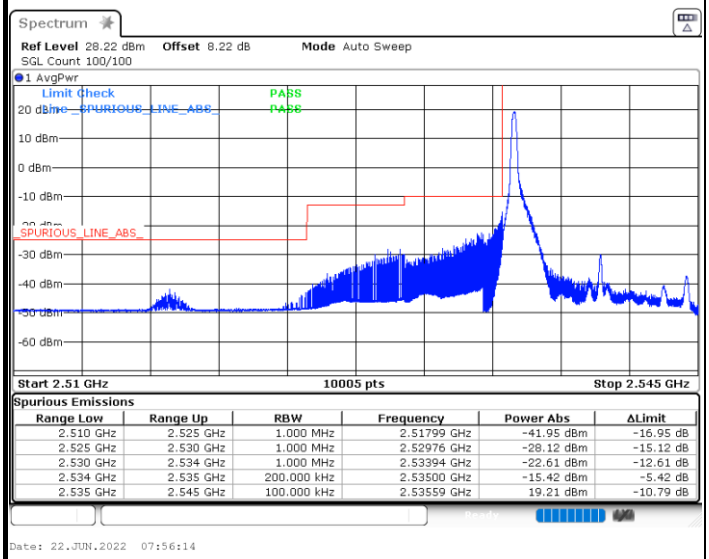
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.650 GHz	2.655 GHz	100.000 kHz	2.65177 GHz	4.14 dBm	-25.86 dB
2.655 GHz	2.656 GHz	100.000 kHz	2.65500 GHz	-31.57 dBm	-21.57 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65616 GHz	-27.48 dBm	-17.48 dB
2.660 GHz	2.661 GHz	1.000 MHz	2.66003 GHz	-35.04 dBm	-22.04 dB
2.661 GHz	2.680 GHz	1.000 MHz	2.66110 GHz	-36.98 dBm	-11.98 dB

Date: 22.JUN.2022 07:51:19

LTE Band 41 / 10MHz / QPSK

Lowest Band Edge / 1 RB

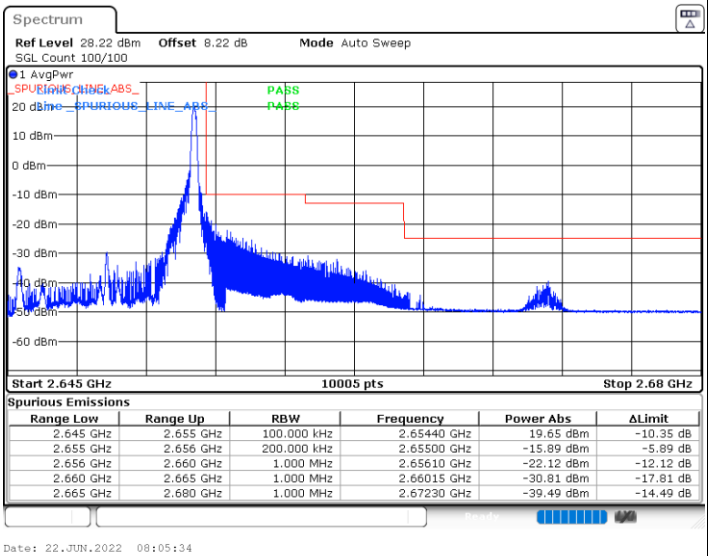


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.525 GHz	1.000 MHz	2.51799 GHz	-41.95 dBm	-16.95 dB
2.525 GHz	2.530 GHz	1.000 MHz	2.52976 GHz	-28.12 dBm	-15.12 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53394 GHz	-22.61 dBm	-12.61 dB
2.534 GHz	2.535 GHz	200.000 kHz	2.53500 GHz	-15.42 dBm	-5.42 dB
2.535 GHz	2.545 GHz	100.000 kHz	2.53559 GHz	19.21 dBm	-10.79 dB

Date: 22.JUN.2022 07:56:14

Highest Band Edge / 1 RB

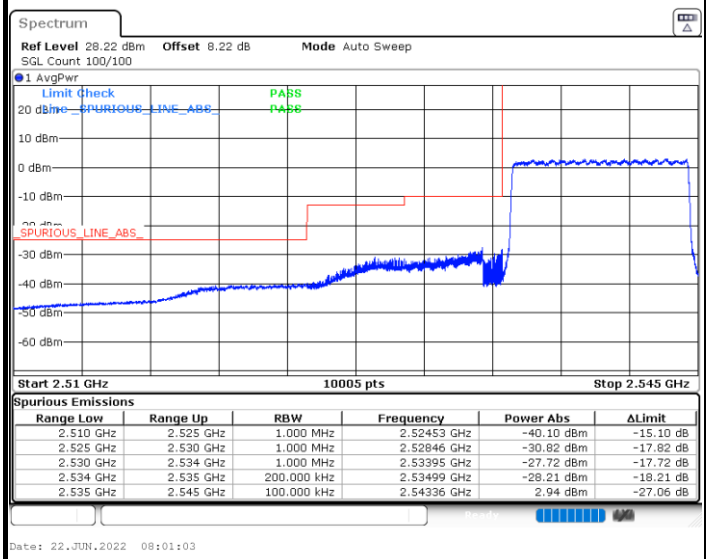


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.645 GHz	2.655 GHz	100.000 kHz	2.65440 GHz	19.65 dBm	-10.35 dB
2.655 GHz	2.656 GHz	200.000 kHz	2.65500 GHz	-15.89 dBm	-5.89 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65610 GHz	-22.12 dBm	-12.12 dB
2.660 GHz	2.665 GHz	1.000 MHz	2.66015 GHz	-30.81 dBm	-17.81 dB
2.665 GHz	2.680 GHz	1.000 MHz	2.67230 GHz	-39.49 dBm	-14.49 dB

Date: 22.JUN.2022 08:05:34

Lowest Band Edge / Full RB

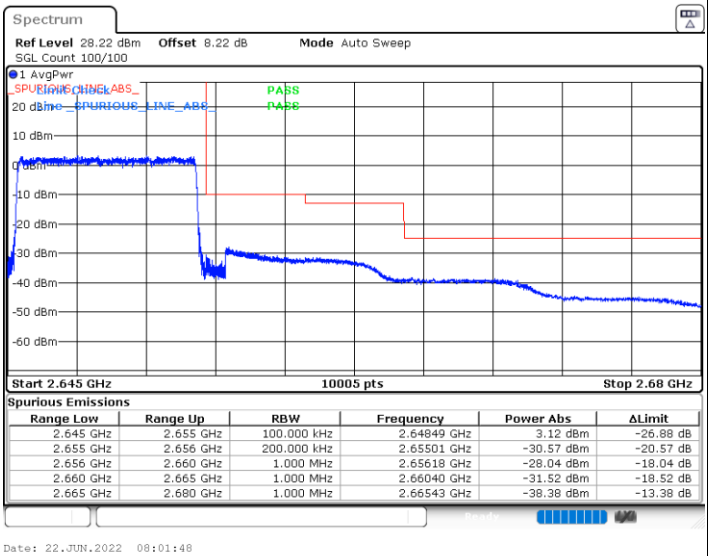


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.525 GHz	1.000 MHz	2.52453 GHz	-40.10 dBm	-15.10 dB
2.525 GHz	2.530 GHz	1.000 MHz	2.52846 GHz	-30.82 dBm	-17.82 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53395 GHz	-27.72 dBm	-17.72 dB
2.534 GHz	2.535 GHz	200.000 kHz	2.53499 GHz	-28.21 dBm	-18.21 dB
2.535 GHz	2.545 GHz	100.000 kHz	2.54336 GHz	2.94 dBm	-27.06 dB

Date: 22.JUN.2022 08:01:03

Highest Band Edge / Full RB



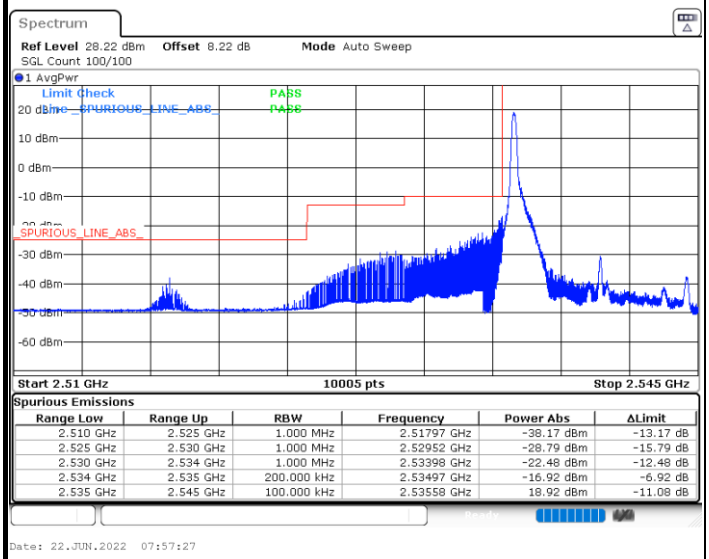
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.645 GHz	2.655 GHz	100.000 kHz	2.64849 GHz	3.12 dBm	-26.88 dB
2.655 GHz	2.656 GHz	200.000 kHz	2.65501 GHz	-30.57 dBm	-20.57 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65618 GHz	-28.04 dBm	-18.04 dB
2.660 GHz	2.665 GHz	1.000 MHz	2.66040 GHz	-31.52 dBm	-18.52 dB
2.665 GHz	2.680 GHz	1.000 MHz	2.66543 GHz	-38.38 dBm	-13.38 dB

Date: 22.JUN.2022 08:01:48

LTE Band 41 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

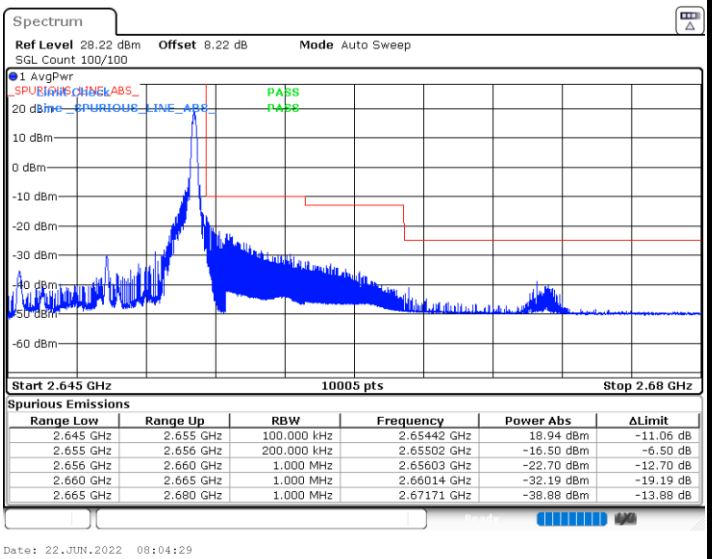


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.525 GHz	1.000 MHz	2.51797 GHz	-38.17 dBm	-13.17 dB
2.525 GHz	2.530 GHz	1.000 MHz	2.52952 GHz	-28.79 dBm	-15.79 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53398 GHz	-22.48 dBm	-12.48 dB
2.534 GHz	2.535 GHz	200.000 kHz	2.53497 GHz	-16.92 dBm	-6.92 dB
2.535 GHz	2.545 GHz	100.000 kHz	2.53558 GHz	18.92 dBm	-11.08 dB

Date: 22.JUN.2022 07:57:27

Highest Band Edge / 1 RB

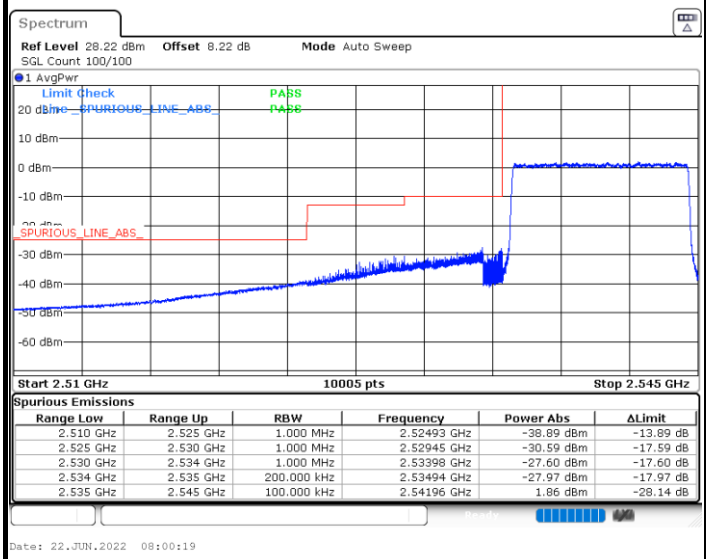


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.645 GHz	2.655 GHz	100.000 kHz	2.65442 GHz	18.94 dBm	-11.06 dB
2.655 GHz	2.656 GHz	200.000 kHz	2.65502 GHz	-16.50 dBm	-6.50 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65603 GHz	-22.70 dBm	-12.70 dB
2.660 GHz	2.665 GHz	1.000 MHz	2.66014 GHz	-32.19 dBm	-19.19 dB
2.665 GHz	2.680 GHz	1.000 MHz	2.67171 GHz	-38.88 dBm	-13.88 dB

Date: 22.JUN.2022 08:04:29

Lowest Band Edge / Full RB

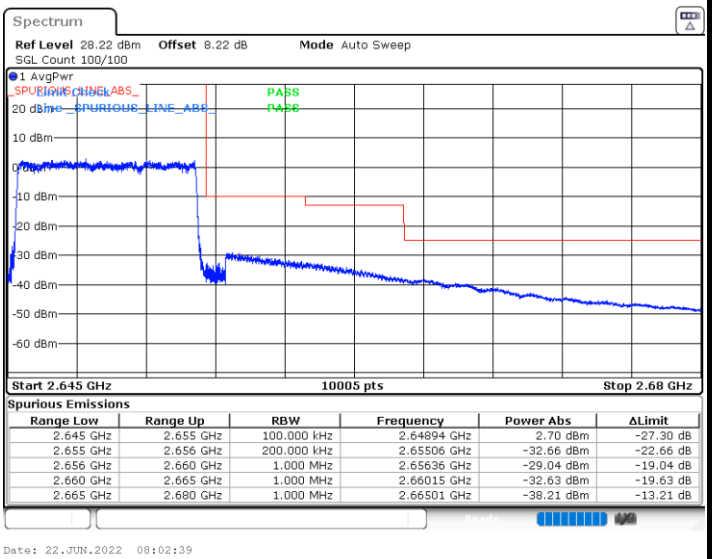


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.525 GHz	1.000 MHz	2.52493 GHz	-38.89 dBm	-13.89 dB
2.525 GHz	2.530 GHz	1.000 MHz	2.52945 GHz	-30.59 dBm	-17.59 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53398 GHz	-27.60 dBm	-17.60 dB
2.534 GHz	2.535 GHz	200.000 kHz	2.53494 GHz	-27.97 dBm	-17.97 dB
2.535 GHz	2.545 GHz	100.000 kHz	2.54196 GHz	1.86 dBm	-28.14 dB

Date: 22.JUN.2022 08:00:19

Highest Band Edge / Full RB



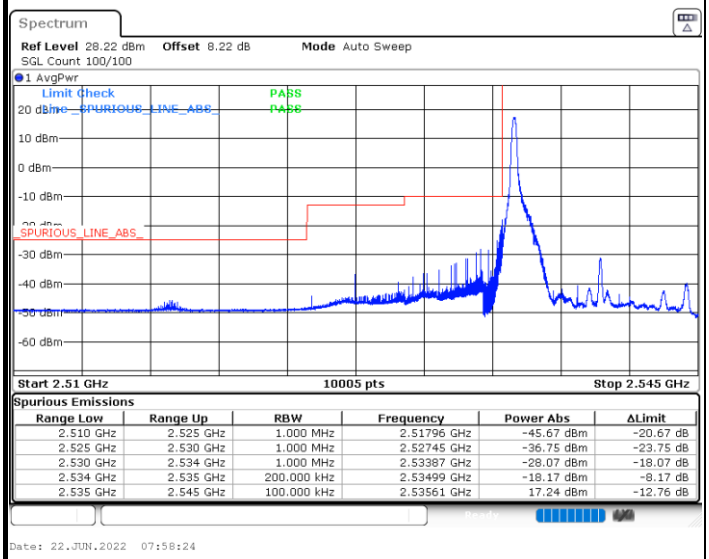
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.645 GHz	2.655 GHz	100.000 kHz	2.64894 GHz	2.70 dBm	-27.30 dB
2.655 GHz	2.656 GHz	200.000 kHz	2.65506 GHz	-32.66 dBm	-22.66 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65636 GHz	-29.04 dBm	-19.04 dB
2.660 GHz	2.665 GHz	1.000 MHz	2.66015 GHz	-32.63 dBm	-19.63 dB
2.665 GHz	2.680 GHz	1.000 MHz	2.66501 GHz	-38.21 dBm	-13.21 dB

Date: 22.JUN.2022 08:02:39

LTE Band 41 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

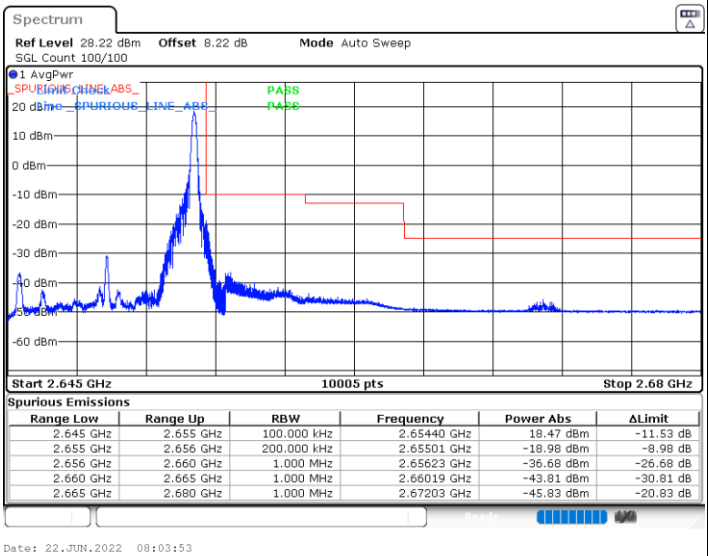


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.525 GHz	1.000 MHz	2.51796 GHz	-45.67 dBm	-20.67 dB
2.525 GHz	2.530 GHz	1.000 MHz	2.52745 GHz	-36.75 dBm	-23.75 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53387 GHz	-28.07 dBm	-18.07 dB
2.534 GHz	2.535 GHz	200.000 kHz	2.53499 GHz	-18.17 dBm	-8.17 dB
2.535 GHz	2.545 GHz	100.000 kHz	2.53561 GHz	17.24 dBm	-12.76 dB

Date: 22.JUN.2022 07:58:24

Highest Band Edge / 1 RB

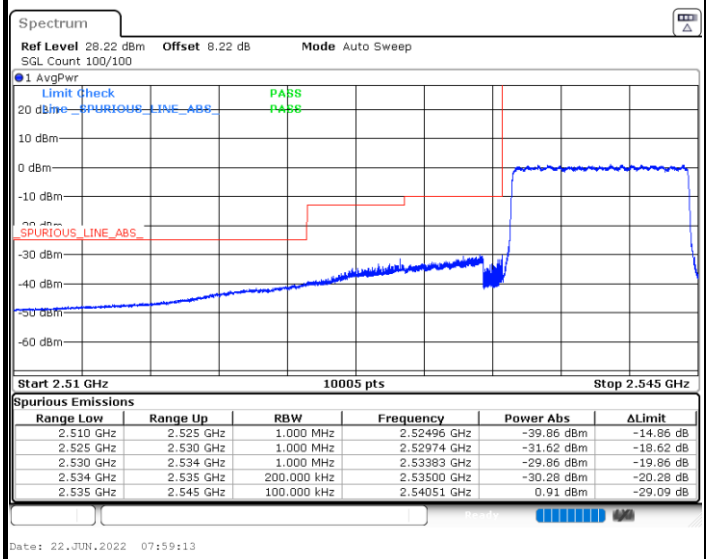


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.645 GHz	2.655 GHz	100.000 kHz	2.65440 GHz	18.47 dBm	-11.53 dB
2.655 GHz	2.656 GHz	200.000 kHz	2.65501 GHz	-18.98 dBm	-8.98 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65623 GHz	-36.68 dBm	-26.68 dB
2.660 GHz	2.665 GHz	1.000 MHz	2.66019 GHz	-43.81 dBm	-30.81 dB
2.665 GHz	2.680 GHz	1.000 MHz	2.67203 GHz	-45.83 dBm	-20.83 dB

Date: 22.JUN.2022 08:03:53

Lowest Band Edge / Full RB

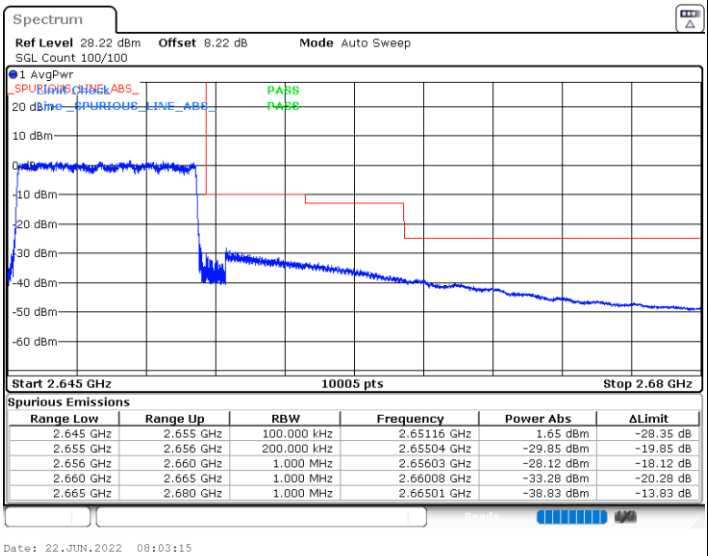


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.525 GHz	1.000 MHz	2.52496 GHz	-39.86 dBm	-14.86 dB
2.525 GHz	2.530 GHz	1.000 MHz	2.52974 GHz	-31.62 dBm	-18.62 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53383 GHz	-29.86 dBm	-19.86 dB
2.534 GHz	2.535 GHz	200.000 kHz	2.53500 GHz	-30.28 dBm	-20.28 dB
2.535 GHz	2.545 GHz	100.000 kHz	2.54051 GHz	0.91 dBm	-29.09 dB

Date: 22.JUN.2022 07:59:13

Highest Band Edge / Full RB



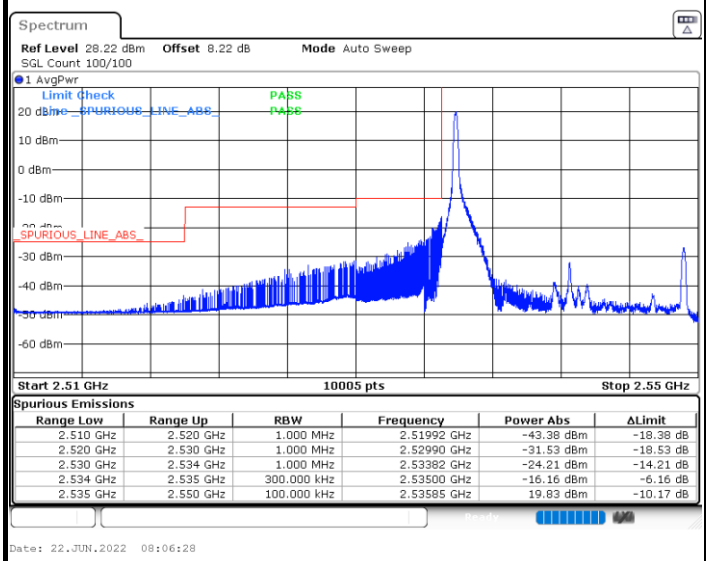
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.645 GHz	2.655 GHz	100.000 kHz	2.65116 GHz	1.65 dBm	-28.35 dB
2.655 GHz	2.656 GHz	200.000 kHz	2.65504 GHz	-29.85 dBm	-19.85 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65603 GHz	-28.12 dBm	-18.12 dB
2.660 GHz	2.665 GHz	1.000 MHz	2.66008 GHz	-33.28 dBm	-20.28 dB
2.665 GHz	2.680 GHz	1.000 MHz	2.66501 GHz	-38.83 dBm	-13.83 dB

Date: 22.JUN.2022 08:03:15

LTE Band 41 / 15MHz / QPSK

Lowest Band Edge / 1 RB

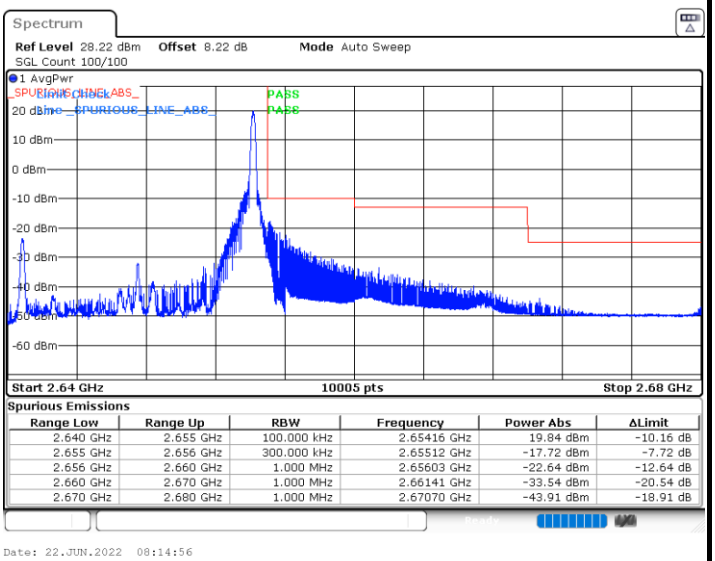


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.520 GHz	1.000 MHz	2.51992 GHz	-43.38 dBm	-18.38 dB
2.520 GHz	2.530 GHz	1.000 MHz	2.52990 GHz	-31.53 dBm	-18.53 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53382 GHz	-24.21 dBm	-14.21 dB
2.534 GHz	2.535 GHz	300.000 kHz	2.53500 GHz	-16.16 dBm	-6.16 dB
2.535 GHz	2.550 GHz	100.000 kHz	2.53585 GHz	19.83 dBm	-10.17 dB

Date: 22.JUN.2022 08:06:28

Highest Band Edge / 1 RB

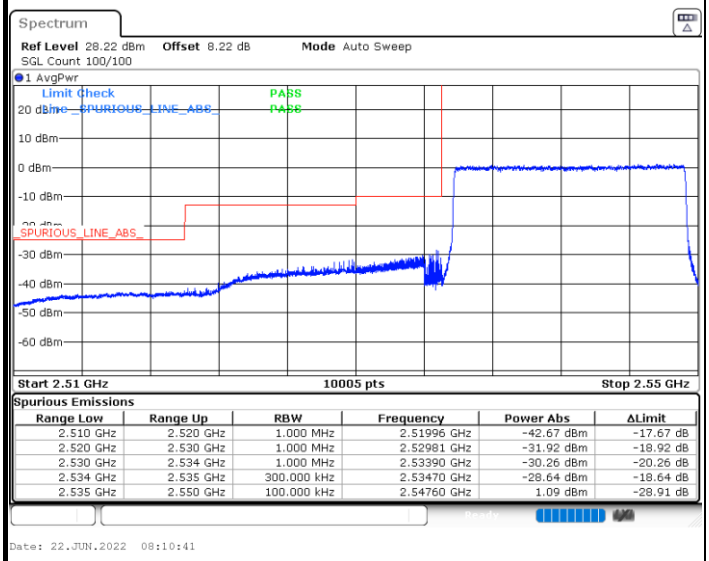


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.640 GHz	2.655 GHz	100.000 kHz	2.65416 GHz	19.84 dBm	-10.16 dB
2.655 GHz	2.656 GHz	300.000 kHz	2.65512 GHz	-17.72 dBm	-7.72 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65603 GHz	-22.64 dBm	-12.64 dB
2.660 GHz	2.670 GHz	1.000 MHz	2.66141 GHz	-33.54 dBm	-20.54 dB
2.670 GHz	2.680 GHz	1.000 MHz	2.67070 GHz	-43.91 dBm	-18.91 dB

Date: 22.JUN.2022 08:14:56

Lowest Band Edge / Full RB

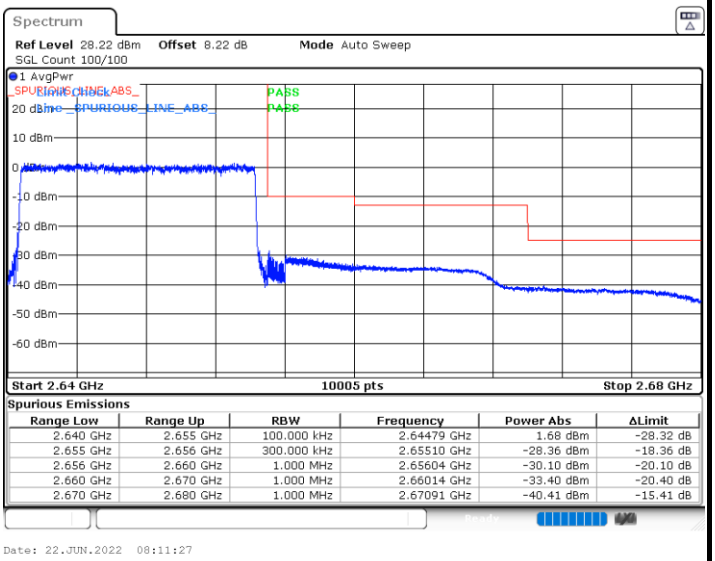


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.520 GHz	1.000 MHz	2.51996 GHz	-42.67 dBm	-17.67 dB
2.520 GHz	2.530 GHz	1.000 MHz	2.52981 GHz	-31.92 dBm	-18.92 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53390 GHz	-30.26 dBm	-20.26 dB
2.534 GHz	2.535 GHz	300.000 kHz	2.53470 GHz	-28.64 dBm	-18.64 dB
2.535 GHz	2.550 GHz	100.000 kHz	2.54760 GHz	1.09 dBm	-28.91 dB

Date: 22.JUN.2022 08:10:41

Highest Band Edge / Full RB



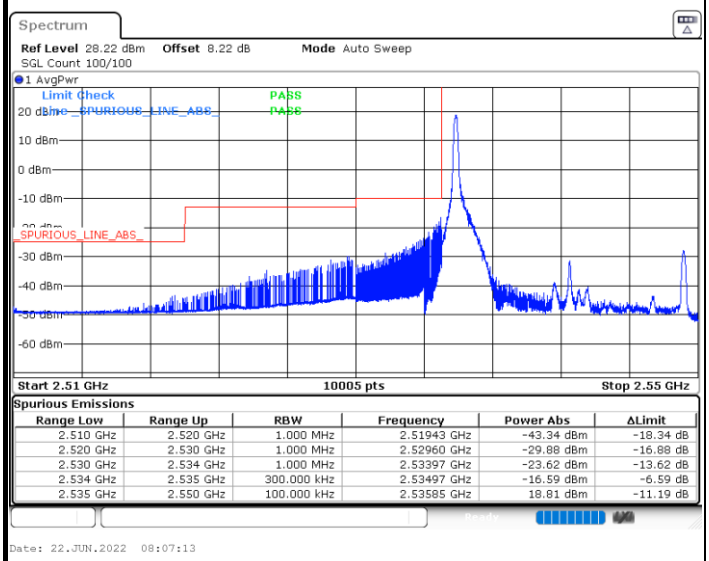
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.640 GHz	2.655 GHz	100.000 kHz	2.64479 GHz	1.68 dBm	-28.32 dB
2.655 GHz	2.656 GHz	300.000 kHz	2.65510 GHz	-28.36 dBm	-18.36 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65604 GHz	-30.10 dBm	-20.10 dB
2.660 GHz	2.670 GHz	1.000 MHz	2.66014 GHz	-33.40 dBm	-20.40 dB
2.670 GHz	2.680 GHz	1.000 MHz	2.67091 GHz	-40.41 dBm	-15.41 dB

Date: 22.JUN.2022 08:11:27

LTE Band 41 / 15MHz / 16QAM

Lowest Band Edge / 1 RB

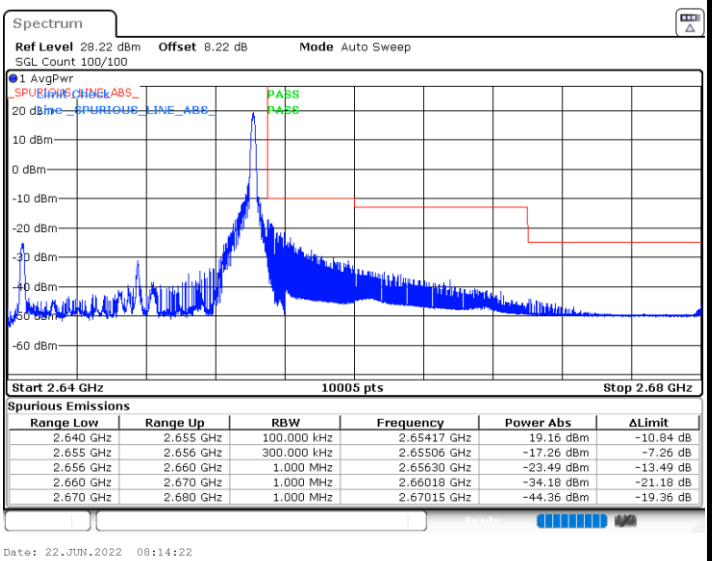


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.520 GHz	1.000 MHz	2.51943 GHz	-43.34 dBm	-18.34 dB
2.520 GHz	2.530 GHz	1.000 MHz	2.52960 GHz	-29.88 dBm	-16.88 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53397 GHz	-23.62 dBm	-13.62 dB
2.534 GHz	2.535 GHz	300.000 kHz	2.53497 GHz	-16.59 dBm	-6.59 dB
2.535 GHz	2.550 GHz	100.000 kHz	2.53585 GHz	18.81 dBm	-11.19 dB

Date: 22.JUN.2022 08:07:13

Highest Band Edge / 1 RB

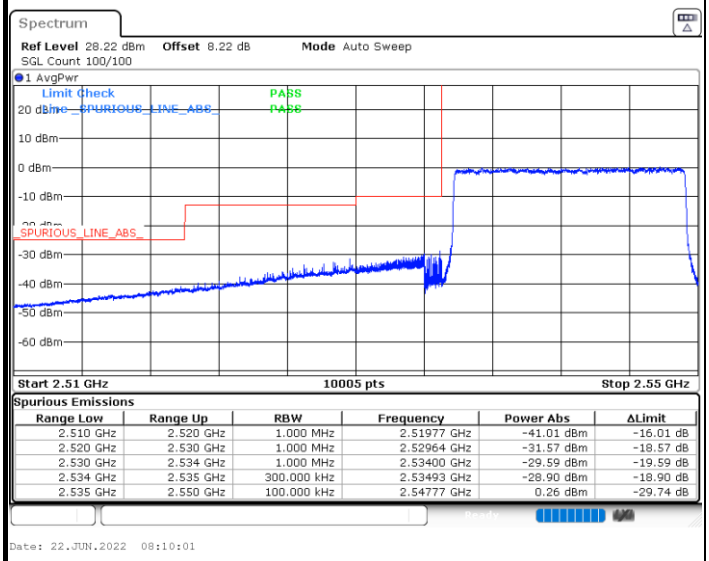


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.640 GHz	2.655 GHz	100.000 kHz	2.65417 GHz	19.16 dBm	-10.84 dB
2.655 GHz	2.656 GHz	300.000 kHz	2.65506 GHz	-17.26 dBm	-7.26 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65630 GHz	-23.49 dBm	-13.49 dB
2.660 GHz	2.670 GHz	1.000 MHz	2.66018 GHz	-34.18 dBm	-21.18 dB
2.670 GHz	2.680 GHz	1.000 MHz	2.67015 GHz	-44.36 dBm	-19.36 dB

Date: 22.JUN.2022 08:14:22

Lowest Band Edge / Full RB

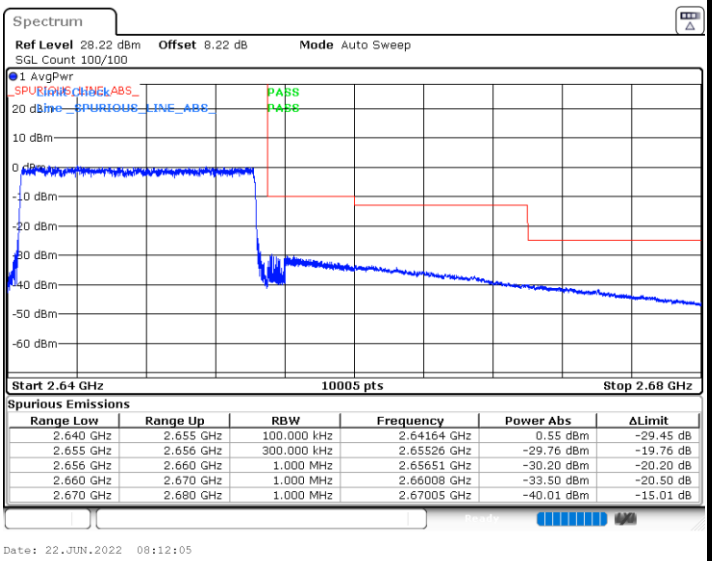


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.520 GHz	1.000 MHz	2.51977 GHz	-41.01 dBm	-16.01 dB
2.520 GHz	2.530 GHz	1.000 MHz	2.52964 GHz	-31.57 dBm	-18.57 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53400 GHz	-29.59 dBm	-19.59 dB
2.534 GHz	2.535 GHz	300.000 kHz	2.53493 GHz	-28.90 dBm	-18.90 dB
2.535 GHz	2.550 GHz	100.000 kHz	2.54777 GHz	0.26 dBm	-29.74 dB

Date: 22.JUN.2022 08:10:01

Highest Band Edge / Full RB



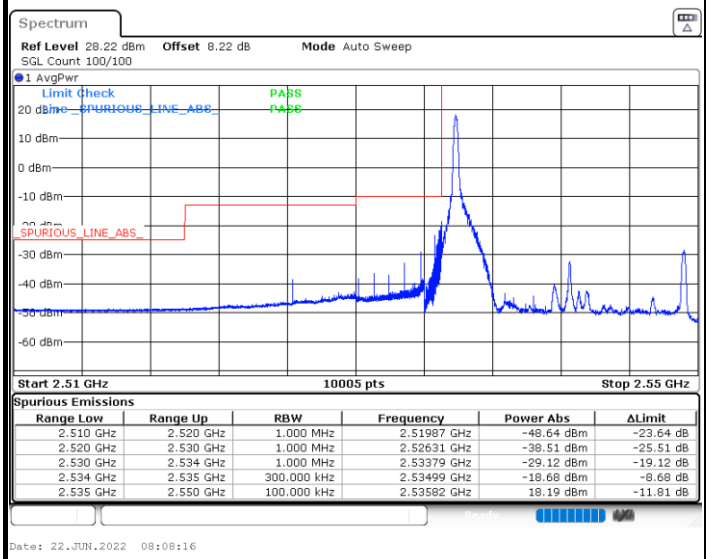
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.640 GHz	2.655 GHz	100.000 kHz	2.64164 GHz	0.55 dBm	-29.45 dB
2.655 GHz	2.656 GHz	300.000 kHz	2.65526 GHz	-29.76 dBm	-19.76 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65651 GHz	-30.20 dBm	-20.20 dB
2.660 GHz	2.670 GHz	1.000 MHz	2.66008 GHz	-33.50 dBm	-20.50 dB
2.670 GHz	2.680 GHz	1.000 MHz	2.67005 GHz	-40.01 dBm	-15.01 dB

Date: 22.JUN.2022 08:12:05

LTE Band 41 / 15MHz / 64QAM

Lowest Band Edge / 1 RB

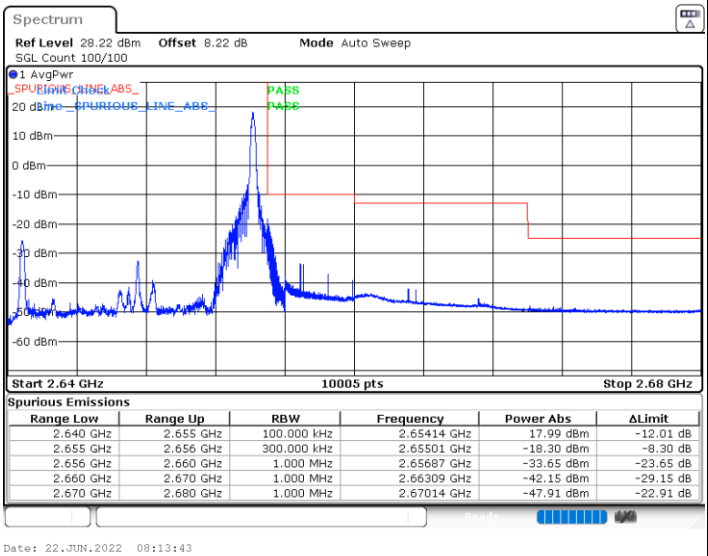


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.520 GHz	1.000 MHz	2.51987 GHz	-48.64 dBm	-23.64 dB
2.520 GHz	2.530 GHz	1.000 MHz	2.52631 GHz	-38.51 dBm	-25.51 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53379 GHz	-29.12 dBm	-19.12 dB
2.534 GHz	2.535 GHz	300.000 kHz	2.53499 GHz	-18.68 dBm	-8.68 dB
2.535 GHz	2.550 GHz	100.000 kHz	2.53582 GHz	18.19 dBm	-11.81 dB

Date: 22.JUN.2022 08:08:16

Highest Band Edge / 1 RB

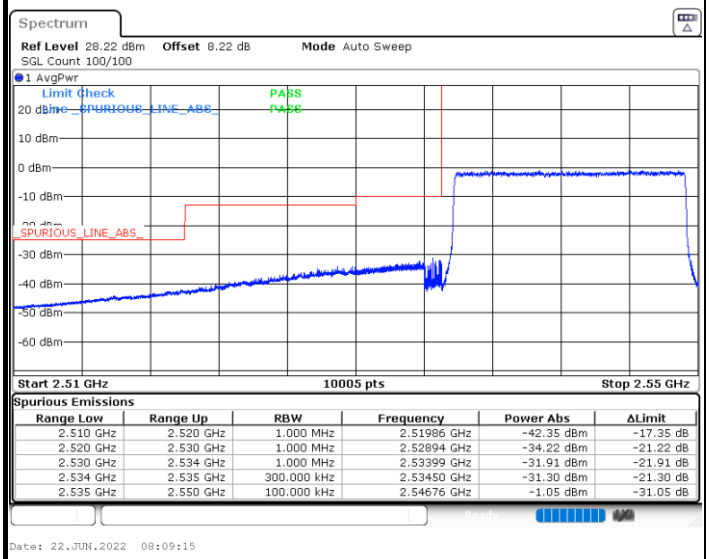


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.640 GHz	2.655 GHz	100.000 kHz	2.65414 GHz	17.99 dBm	-12.01 dB
2.655 GHz	2.656 GHz	300.000 kHz	2.65501 GHz	-18.30 dBm	-8.30 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65687 GHz	-33.65 dBm	-23.65 dB
2.660 GHz	2.670 GHz	1.000 MHz	2.66309 GHz	-42.15 dBm	-29.15 dB
2.670 GHz	2.680 GHz	1.000 MHz	2.67014 GHz	-47.91 dBm	-22.91 dB

Date: 22.JUN.2022 08:13:43

Lowest Band Edge / Full RB

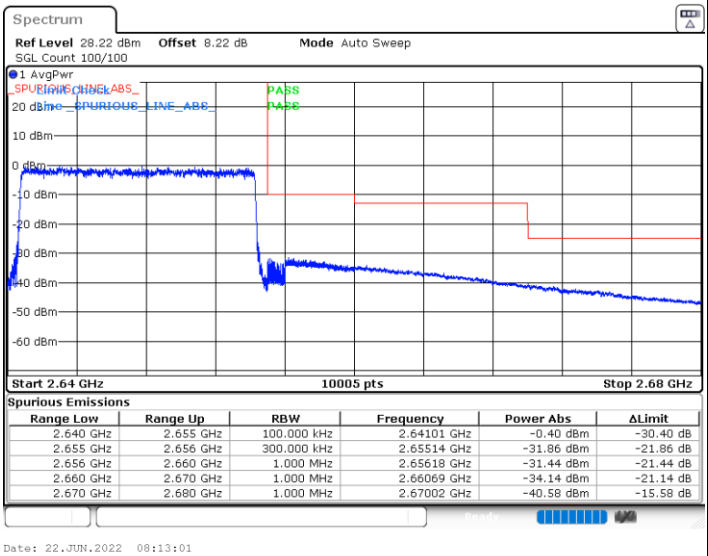


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.520 GHz	1.000 MHz	2.51986 GHz	-42.35 dBm	-17.35 dB
2.520 GHz	2.530 GHz	1.000 MHz	2.52894 GHz	-34.22 dBm	-21.22 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53399 GHz	-31.91 dBm	-21.91 dB
2.534 GHz	2.535 GHz	300.000 kHz	2.53450 GHz	-31.30 dBm	-21.30 dB
2.535 GHz	2.550 GHz	100.000 kHz	2.54676 GHz	-1.05 dBm	-31.05 dB

Date: 22.JUN.2022 08:09:15

Highest Band Edge / Full RB



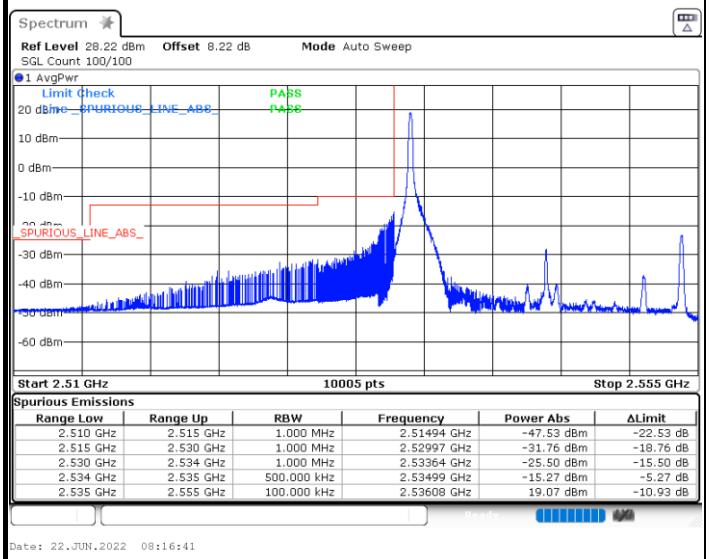
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.640 GHz	2.655 GHz	100.000 kHz	2.64101 GHz	-0.40 dBm	-30.40 dB
2.655 GHz	2.656 GHz	300.000 kHz	2.65514 GHz	-31.86 dBm	-21.86 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65618 GHz	-31.44 dBm	-21.44 dB
2.660 GHz	2.670 GHz	1.000 MHz	2.66069 GHz	-34.14 dBm	-21.14 dB
2.670 GHz	2.680 GHz	1.000 MHz	2.67002 GHz	-40.58 dBm	-15.58 dB

Date: 22.JUN.2022 08:13:01

LTE Band 41 / 20MHz / QPSK

Lowest Band Edge / 1 RB

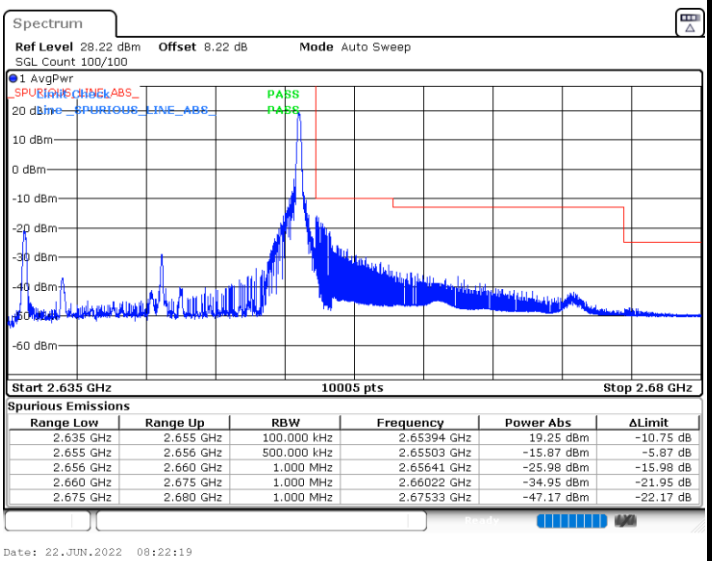


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.515 GHz	1.000 MHz	2.51494 GHz	-47.53 dBm	-22.53 dB
2.515 GHz	2.530 GHz	1.000 MHz	2.52997 GHz	-31.76 dBm	-18.76 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53364 GHz	-25.50 dBm	-15.50 dB
2.534 GHz	2.535 GHz	500.000 kHz	2.53499 GHz	-15.27 dBm	-5.27 dB
2.535 GHz	2.555 GHz	100.000 kHz	2.53608 GHz	19.07 dBm	-10.93 dB

Date: 22.JUN.2022 08:16:41

Highest Band Edge / 1 RB

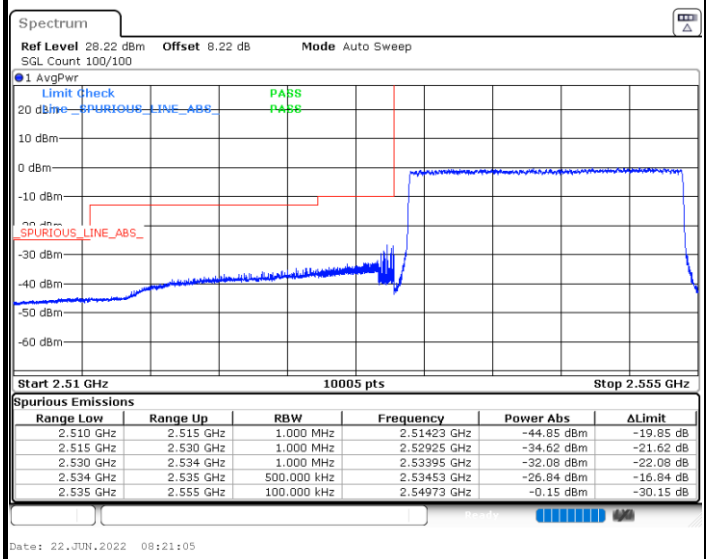


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.635 GHz	2.655 GHz	100.000 kHz	2.65394 GHz	19.25 dBm	-10.75 dB
2.655 GHz	2.656 GHz	500.000 kHz	2.65503 GHz	-15.87 dBm	-5.87 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65641 GHz	-25.98 dBm	-15.98 dB
2.660 GHz	2.675 GHz	1.000 MHz	2.66022 GHz	-34.95 dBm	-21.95 dB
2.675 GHz	2.680 GHz	1.000 MHz	2.67533 GHz	-47.17 dBm	-22.17 dB

Date: 22.JUN.2022 08:22:19

Lowest Band Edge / Full RB

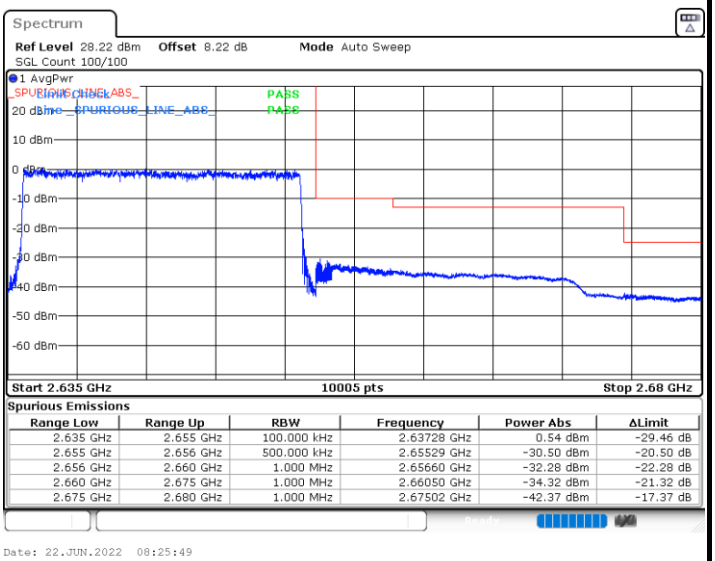


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.515 GHz	1.000 MHz	2.51423 GHz	-44.85 dBm	-19.85 dB
2.515 GHz	2.530 GHz	1.000 MHz	2.52925 GHz	-34.62 dBm	-21.62 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53395 GHz	-32.08 dBm	-22.08 dB
2.534 GHz	2.535 GHz	500.000 kHz	2.53453 GHz	-26.84 dBm	-16.84 dB
2.535 GHz	2.555 GHz	100.000 kHz	2.54973 GHz	-0.15 dBm	-30.15 dB

Date: 22.JUN.2022 08:21:05

Highest Band Edge / Full RB



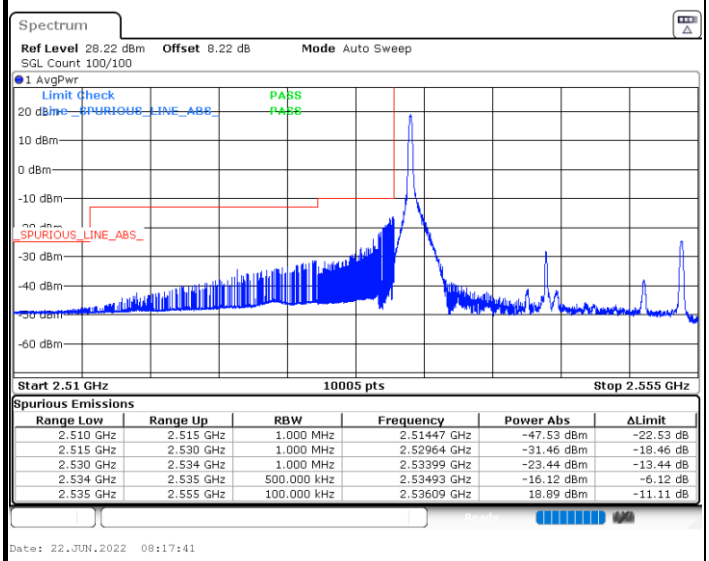
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.635 GHz	2.655 GHz	100.000 kHz	2.63728 GHz	0.54 dBm	-29.46 dB
2.655 GHz	2.656 GHz	500.000 kHz	2.65529 GHz	-30.50 dBm	-20.50 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65660 GHz	-32.28 dBm	-22.28 dB
2.660 GHz	2.675 GHz	1.000 MHz	2.66050 GHz	-34.32 dBm	-21.32 dB
2.675 GHz	2.680 GHz	1.000 MHz	2.67502 GHz	-42.37 dBm	-17.37 dB

Date: 22.JUN.2022 08:25:49

LTE Band 41 / 20MHz / 16QAM

Lowest Band Edge / 1 RB

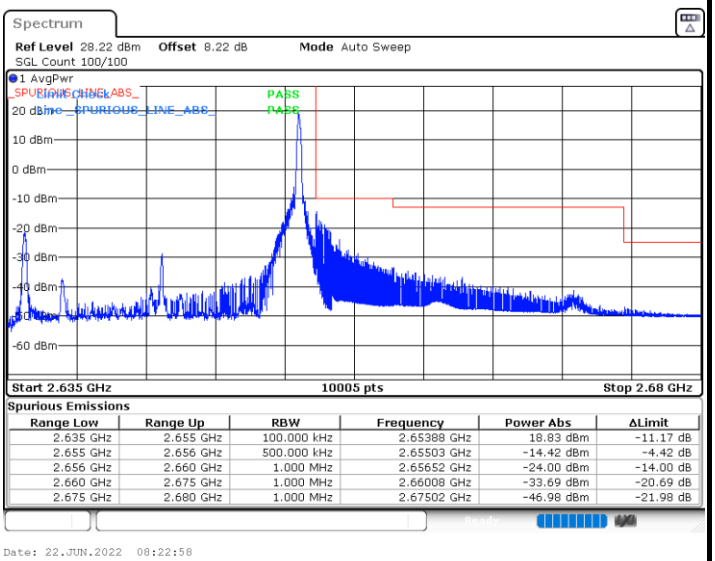


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.515 GHz	1.000 MHz	2.51447 GHz	-47.53 dBm	-22.53 dB
2.515 GHz	2.530 GHz	1.000 MHz	2.52964 GHz	-31.46 dBm	-18.46 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53399 GHz	-23.44 dBm	-13.44 dB
2.534 GHz	2.535 GHz	500.000 kHz	2.53493 GHz	-16.12 dBm	-6.12 dB
2.535 GHz	2.555 GHz	100.000 kHz	2.53609 GHz	18.89 dBm	-11.11 dB

Date: 22.JUN.2022 08:17:41

Highest Band Edge / 1 RB

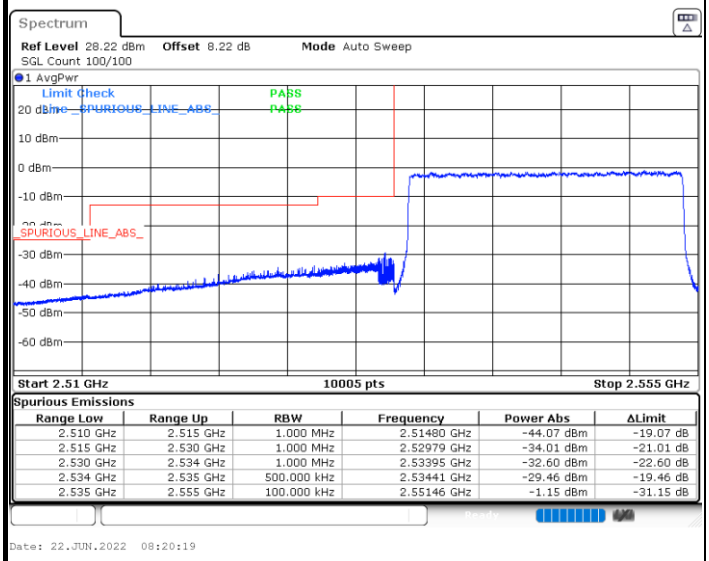


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.635 GHz	2.655 GHz	100.000 kHz	2.65388 GHz	18.83 dBm	-11.17 dB
2.655 GHz	2.656 GHz	500.000 kHz	2.65503 GHz	-14.42 dBm	-4.42 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65652 GHz	-24.00 dBm	-14.00 dB
2.660 GHz	2.675 GHz	1.000 MHz	2.66008 GHz	-33.69 dBm	-20.69 dB
2.675 GHz	2.680 GHz	1.000 MHz	2.67502 GHz	-46.98 dBm	-21.98 dB

Date: 22.JUN.2022 08:22:58

Lowest Band Edge / Full RB

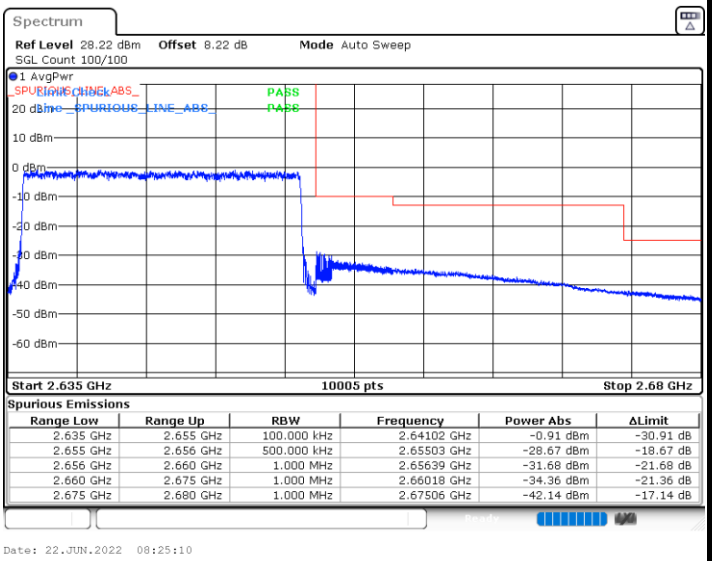


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.515 GHz	1.000 MHz	2.51480 GHz	-44.07 dBm	-19.07 dB
2.515 GHz	2.530 GHz	1.000 MHz	2.52979 GHz	-34.01 dBm	-21.01 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53395 GHz	-32.60 dBm	-22.60 dB
2.534 GHz	2.535 GHz	500.000 kHz	2.53441 GHz	-29.46 dBm	-19.46 dB
2.535 GHz	2.555 GHz	100.000 kHz	2.55146 GHz	-1.15 dBm	-31.15 dB

Date: 22.JUN.2022 08:20:19

Highest Band Edge / Full RB



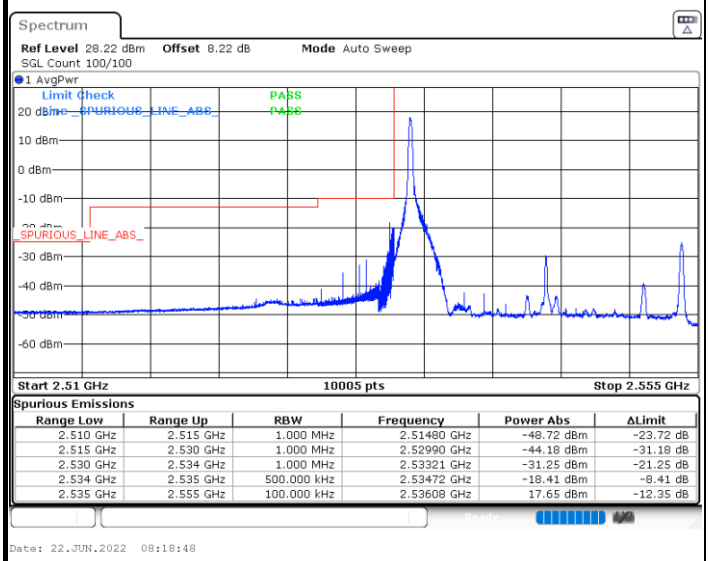
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.635 GHz	2.655 GHz	100.000 kHz	2.64102 GHz	-0.91 dBm	-30.91 dB
2.655 GHz	2.656 GHz	500.000 kHz	2.65503 GHz	-28.67 dBm	-18.67 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65639 GHz	-31.68 dBm	-21.68 dB
2.660 GHz	2.675 GHz	1.000 MHz	2.66018 GHz	-34.36 dBm	-21.36 dB
2.675 GHz	2.680 GHz	1.000 MHz	2.67506 GHz	-42.14 dBm	-17.14 dB

Date: 22.JUN.2022 08:25:10

LTE Band 41 / 20MHz / 64QAM

Lowest Band Edge / 1 RB

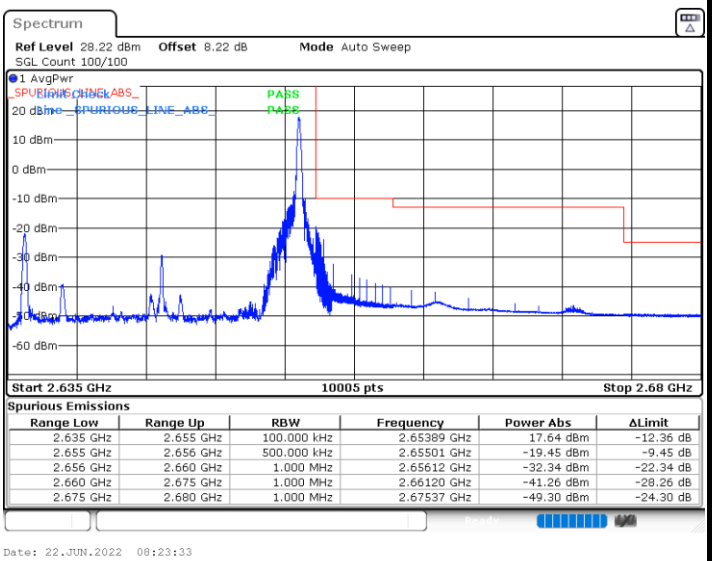


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.515 GHz	1.000 MHz	2.51480 GHz	-48.72 dBm	-23.72 dB
2.515 GHz	2.530 GHz	1.000 MHz	2.52990 GHz	-44.18 dBm	-31.18 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53321 GHz	-31.25 dBm	-21.25 dB
2.534 GHz	2.535 GHz	500.000 kHz	2.53472 GHz	-18.41 dBm	-8.41 dB
2.535 GHz	2.555 GHz	100.000 kHz	2.53608 GHz	17.65 dBm	-12.35 dB

Date: 22.JUN.2022 08:18:48

Highest Band Edge / 1 RB

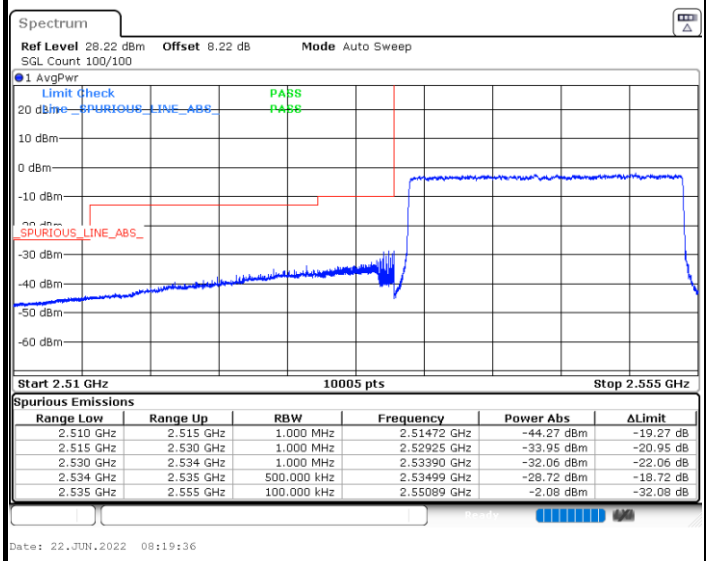


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.635 GHz	2.655 GHz	100.000 kHz	2.65389 GHz	17.64 dBm	-12.36 dB
2.655 GHz	2.656 GHz	500.000 kHz	2.65501 GHz	-19.45 dBm	-9.45 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65612 GHz	-32.34 dBm	-22.34 dB
2.660 GHz	2.675 GHz	1.000 MHz	2.66120 GHz	-41.26 dBm	-28.26 dB
2.675 GHz	2.680 GHz	1.000 MHz	2.67537 GHz	-49.30 dBm	-24.30 dB

Date: 22.JUN.2022 08:23:33

Lowest Band Edge / Full RB

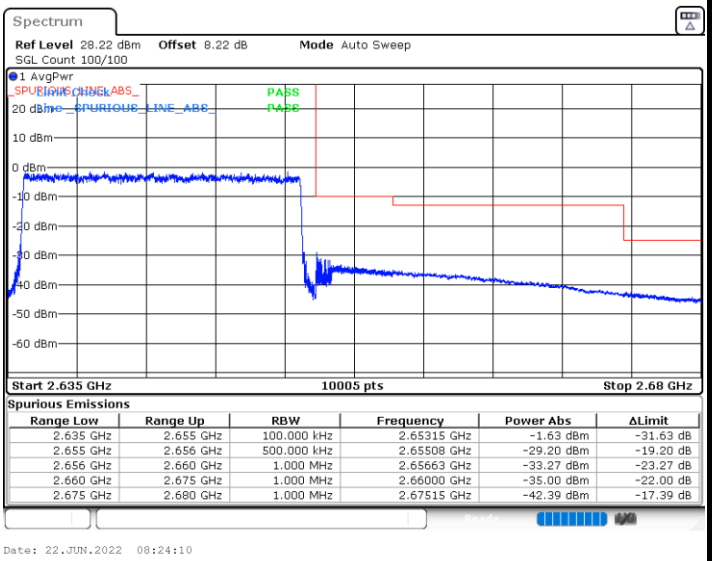


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.510 GHz	2.515 GHz	1.000 MHz	2.51472 GHz	-44.27 dBm	-19.27 dB
2.515 GHz	2.530 GHz	1.000 MHz	2.52925 GHz	-33.95 dBm	-20.95 dB
2.530 GHz	2.534 GHz	1.000 MHz	2.53390 GHz	-32.06 dBm	-22.06 dB
2.534 GHz	2.535 GHz	500.000 kHz	2.53499 GHz	-28.72 dBm	-18.72 dB
2.535 GHz	2.555 GHz	100.000 kHz	2.55089 GHz	-2.08 dBm	-32.08 dB

Date: 22.JUN.2022 08:19:36

Highest Band Edge / Full RB



Spurious Emissions

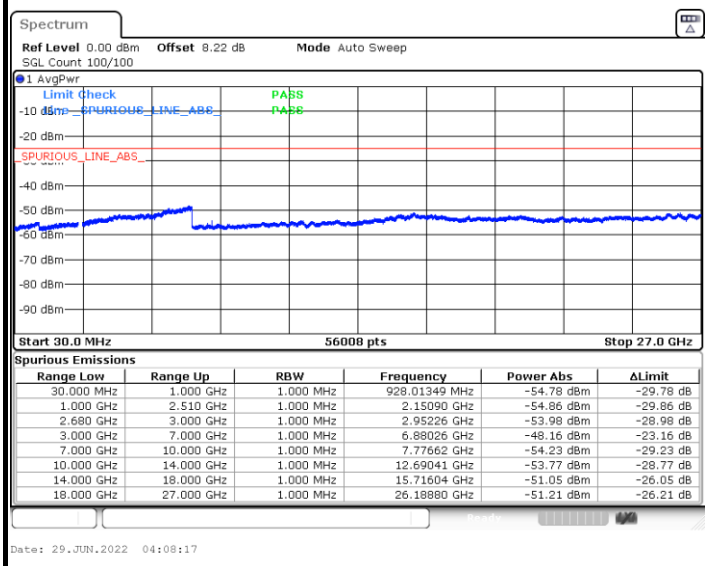
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.635 GHz	2.655 GHz	100.000 kHz	2.65315 GHz	-1.63 dBm	-31.63 dB
2.655 GHz	2.656 GHz	500.000 kHz	2.65508 GHz	-29.20 dBm	-19.20 dB
2.656 GHz	2.660 GHz	1.000 MHz	2.65663 GHz	-33.27 dBm	-23.27 dB
2.660 GHz	2.675 GHz	1.000 MHz	2.66000 GHz	-35.00 dBm	-22.00 dB
2.675 GHz	2.680 GHz	1.000 MHz	2.67515 GHz	-42.39 dBm	-17.39 dB

Date: 22.JUN.2022 08:24:10

Conducted Spurious Emission

LTE Band 41 / 5MHz

Lowest Channel / QPSK

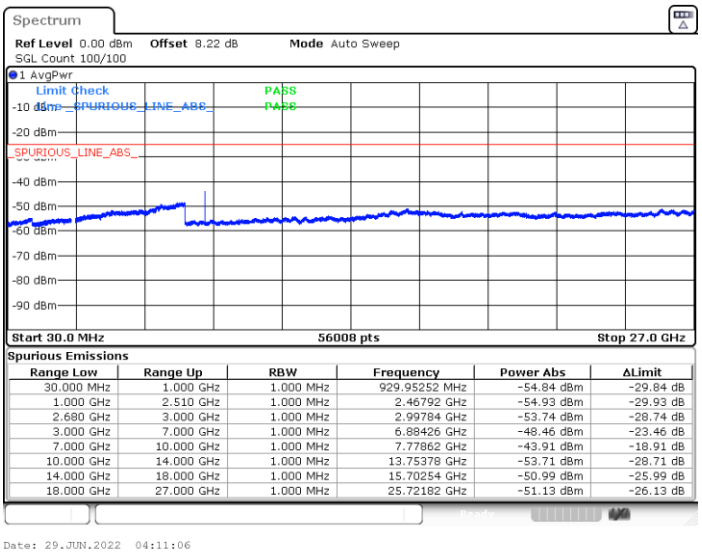


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	928.01349 MHz	-54.78 dBm	-29.78 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.15090 GHz	-54.86 dBm	-29.86 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.95226 GHz	-53.98 dBm	-28.98 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88026 GHz	-48.16 dBm	-23.16 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.77662 GHz	-54.23 dBm	-29.23 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.69041 GHz	-53.77 dBm	-28.77 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.71604 GHz	-51.05 dBm	-26.05 dB
18.000 GHz	27.000 GHz	1.000 MHz	26.18880 GHz	-51.21 dBm	-26.21 dB

Date: 29.JUN.2022 04:08:17

Middle Channel / QPSK

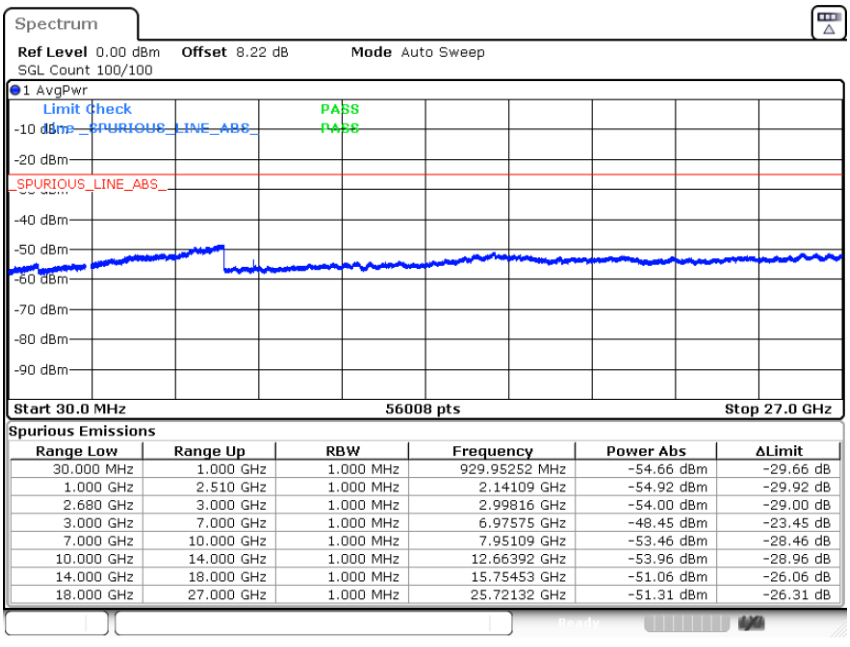


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	929.95252 MHz	-54.84 dBm	-29.84 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.46792 GHz	-54.93 dBm	-29.93 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.99784 GHz	-53.74 dBm	-28.74 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88426 GHz	-48.46 dBm	-23.46 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.77862 GHz	-43.91 dBm	-18.91 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.75378 GHz	-53.71 dBm	-28.71 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.70254 GHz	-50.99 dBm	-25.99 dB
18.000 GHz	27.000 GHz	1.000 MHz	25.72182 GHz	-51.13 dBm	-26.13 dB

Date: 29.JUN.2022 04:11:06

Highest Channel / QPSK



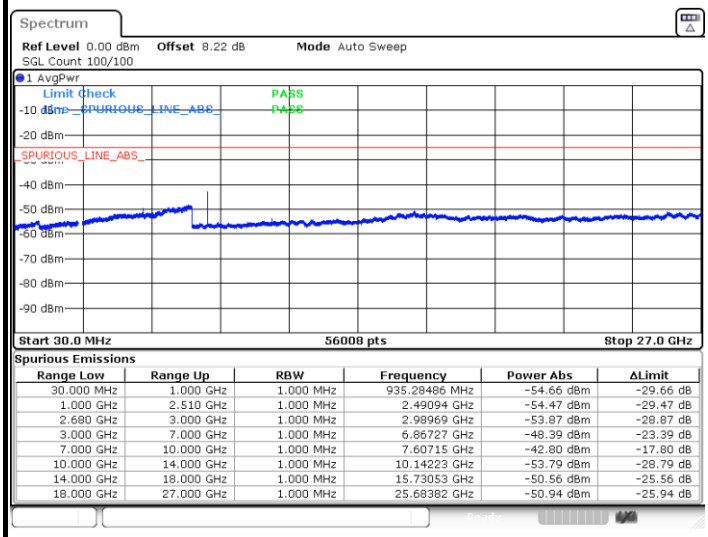
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	929.95252 MHz	-54.66 dBm	-29.66 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.14109 GHz	-54.92 dBm	-29.92 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.99816 GHz	-54.00 dBm	-29.00 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97575 GHz	-48.45 dBm	-23.45 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.95109 GHz	-53.46 dBm	-28.46 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.66392 GHz	-53.96 dBm	-28.96 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.75453 GHz	-51.06 dBm	-26.06 dB
18.000 GHz	27.000 GHz	1.000 MHz	25.72132 GHz	-51.31 dBm	-26.31 dB

Date: 29.JUN.2022 04:14:02

LTE Band 41 / 10MHz

Lowest Channel / QPSK

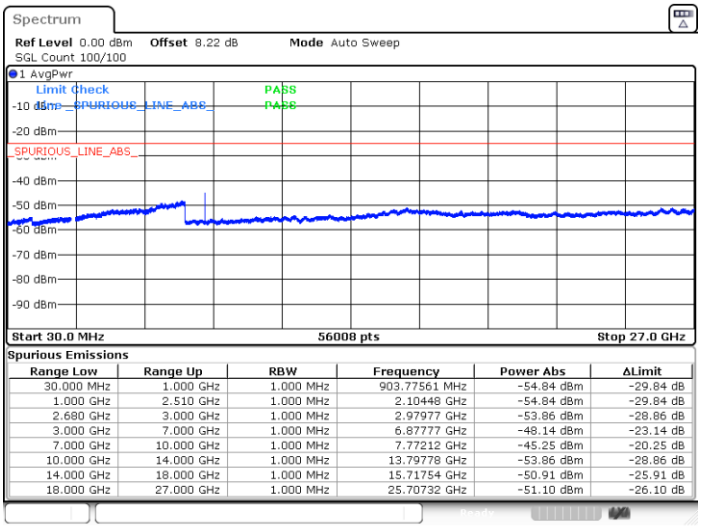


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	935.28486 MHz	-54.66 dBm	-29.66 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.49094 GHz	-54.47 dBm	-29.47 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.98969 GHz	-53.87 dBm	-28.87 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86727 GHz	-48.39 dBm	-23.39 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.60715 GHz	-42.80 dBm	-17.80 dB
10.000 GHz	14.000 GHz	1.000 MHz	10.14223 GHz	-53.79 dBm	-28.79 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.73053 GHz	-50.56 dBm	-25.56 dB
18.000 GHz	27.000 GHz	1.000 MHz	25.68382 GHz	-50.94 dBm	-25.94 dB

Date: 29.JUN.2022 04:17:02

Middle Channel / QPSK

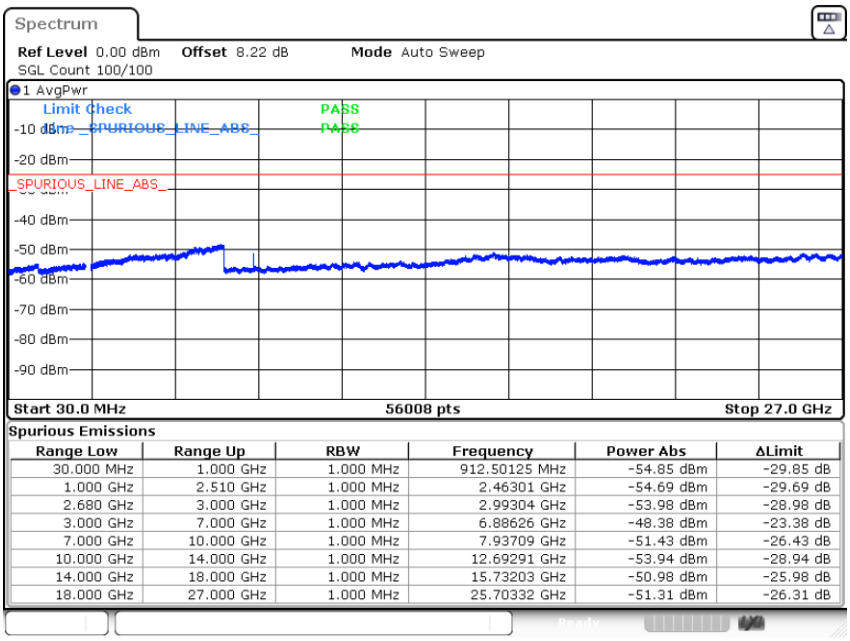


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	903.77561 MHz	-54.84 dBm	-29.84 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.10448 GHz	-54.84 dBm	-29.84 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.97977 GHz	-53.86 dBm	-28.86 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.87777 GHz	-48.14 dBm	-23.14 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.77212 GHz	-45.25 dBm	-20.25 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.79778 GHz	-53.86 dBm	-28.86 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.71754 GHz	-50.91 dBm	-25.91 dB
18.000 GHz	27.000 GHz	1.000 MHz	25.70732 GHz	-51.10 dBm	-26.10 dB

Date: 29.JUN.2022 04:18:13

Highest Channel / QPSK



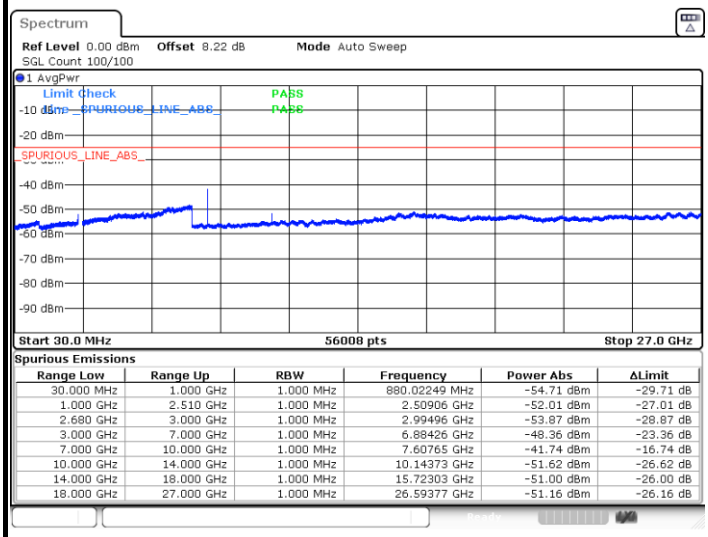
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	912.50125 MHz	-54.85 dBm	-29.85 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.46301 GHz	-54.69 dBm	-29.69 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.99304 GHz	-53.98 dBm	-28.98 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88626 GHz	-48.38 dBm	-23.38 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.93709 GHz	-51.43 dBm	-26.43 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.69291 GHz	-53.94 dBm	-28.94 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.73203 GHz	-50.98 dBm	-25.98 dB
18.000 GHz	27.000 GHz	1.000 MHz	25.70332 GHz	-51.31 dBm	-26.31 dB

Date: 29.JUN.2022 04:22:00

LTE Band 41 / 15MHz

Lowest Channel / QPSK

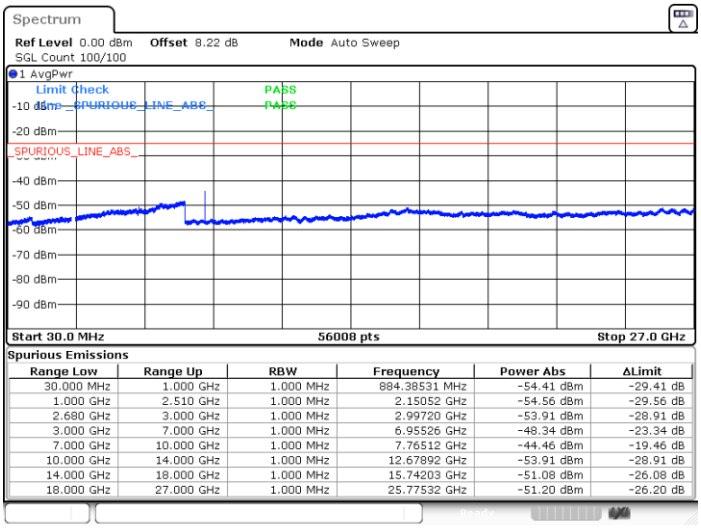


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	880.02249 MHz	-54.71 dBm	-29.71 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.50906 GHz	-52.01 dBm	-27.01 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.99496 GHz	-53.87 dBm	-28.87 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88426 GHz	-48.36 dBm	-23.36 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.60765 GHz	-41.74 dBm	-16.74 dB
10.000 GHz	14.000 GHz	1.000 MHz	10.14373 GHz	-51.62 dBm	-26.62 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.72303 GHz	-51.00 dBm	-26.00 dB
18.000 GHz	27.000 GHz	1.000 MHz	26.59377 GHz	-51.16 dBm	-26.16 dB

Date: 29.JUN.2022 04:23:23

Middle Channel / QPSK

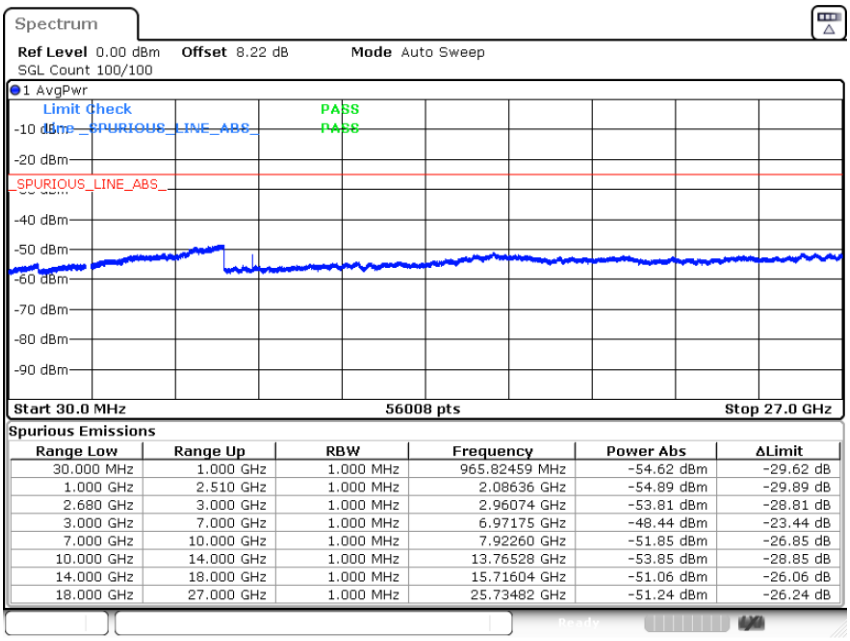


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	884.38531 MHz	-54.41 dBm	-29.41 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.15052 GHz	-54.56 dBm	-29.56 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.99720 GHz	-53.91 dBm	-28.91 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.95526 GHz	-48.34 dBm	-23.34 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.76512 GHz	-44.46 dBm	-19.46 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.67892 GHz	-53.91 dBm	-28.91 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.74203 GHz	-51.08 dBm	-26.08 dB
18.000 GHz	27.000 GHz	1.000 MHz	25.77532 GHz	-51.20 dBm	-26.20 dB

Date: 29.JUN.2022 04:25:49

Highest Channel / QPSK



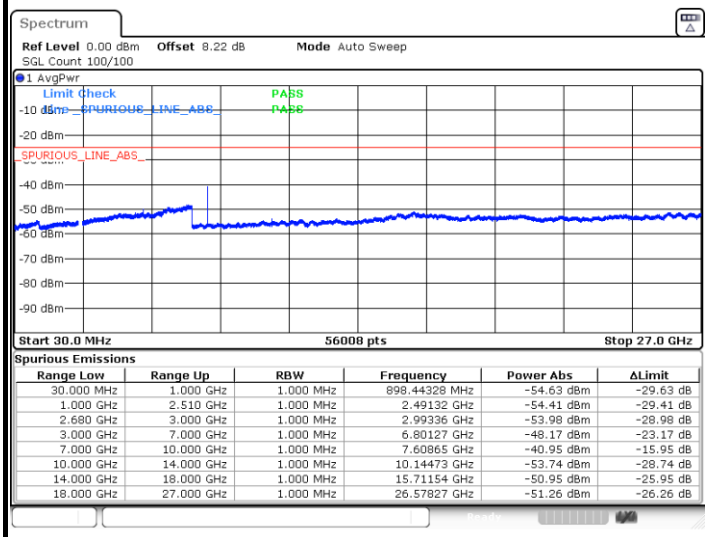
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	965.82459 MHz	-54.62 dBm	-29.62 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.08636 GHz	-54.89 dBm	-29.89 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.96074 GHz	-53.81 dBm	-28.81 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97175 GHz	-48.44 dBm	-23.44 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.92260 GHz	-51.85 dBm	-26.85 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.76528 GHz	-53.85 dBm	-28.85 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.71604 GHz	-51.06 dBm	-26.06 dB
18.000 GHz	27.000 GHz	1.000 MHz	25.73482 GHz	-51.24 dBm	-26.24 dB

Date: 29.JUN.2022 04:27:09

LTE Band 41 / 20MHz

Lowest Channel / QPSK

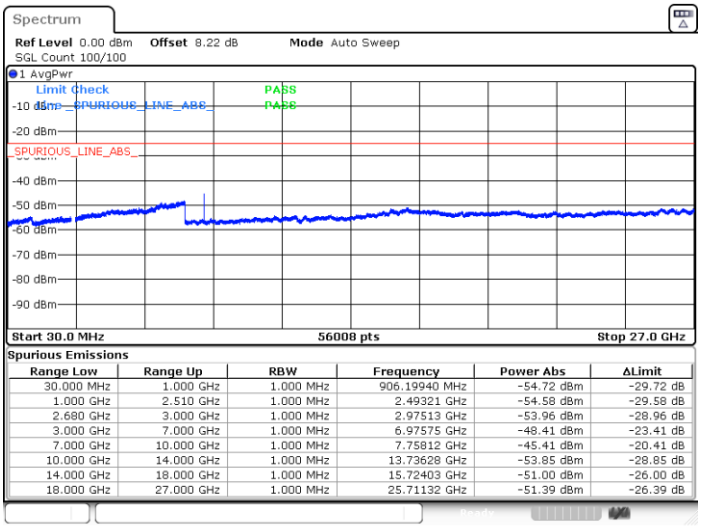


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	898.44328 MHz	-54.63 dBm	-29.63 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.49132 GHz	-54.41 dBm	-29.41 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.99336 GHz	-53.98 dBm	-28.98 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.80127 GHz	-48.17 dBm	-23.17 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.60865 GHz	-40.95 dBm	-15.95 dB
10.000 GHz	14.000 GHz	1.000 MHz	10.14473 GHz	-53.74 dBm	-28.74 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.71154 GHz	-50.95 dBm	-25.95 dB
18.000 GHz	27.000 GHz	1.000 MHz	26.57827 GHz	-51.26 dBm	-26.26 dB

Date: 29.JUN.2022 04:28:48

Middle Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	906.19940 MHz	-54.72 dBm	-29.72 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.49321 GHz	-54.58 dBm	-29.58 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.97513 GHz	-53.96 dBm	-28.96 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97575 GHz	-48.41 dBm	-23.41 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.75812 GHz	-45.41 dBm	-20.41 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.73628 GHz	-53.85 dBm	-28.85 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.72403 GHz	-51.00 dBm	-26.00 dB
18.000 GHz	27.000 GHz	1.000 MHz	25.71132 GHz	-51.39 dBm	-26.39 dB

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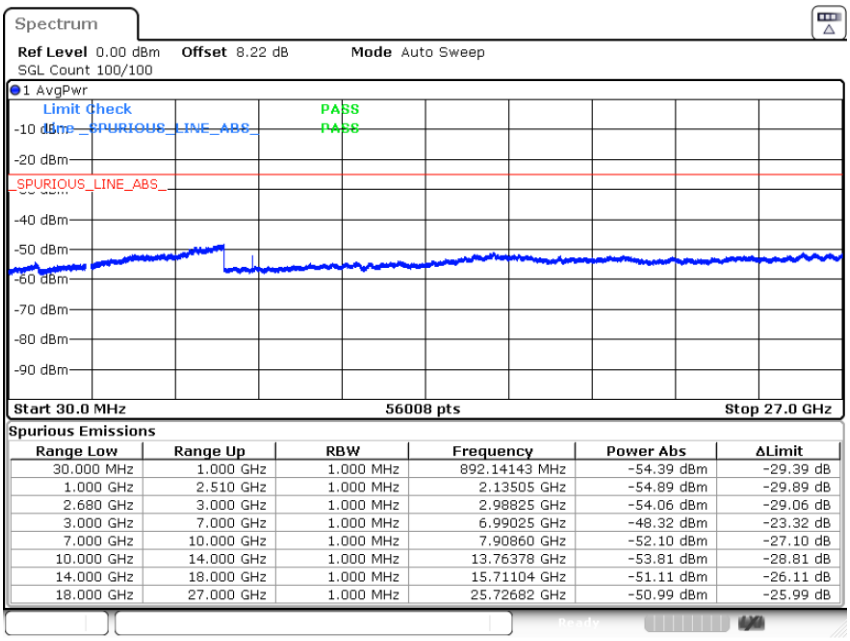
Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	892.14143 MHz	-54.39 dBm	-29.39 dB
1.000 GHz	2.510 GHz	1.000 MHz	2.13505 GHz	-54.89 dBm	-29.89 dB
2.680 GHz	3.000 GHz	1.000 MHz	2.98825 GHz	-54.06 dBm	-29.06 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99025 GHz	-48.32 dBm	-23.32 dB
7.000 GHz	10.000 GHz	1.000 MHz	7.90860 GHz	-52.10 dBm	-27.10 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.76378 GHz	-53.81 dBm	-28.81 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.71104 GHz	-51.11 dBm	-26.11 dB
18.000 GHz	27.000 GHz	1.000 MHz	25.72682 GHz	-50.99 dBm	-25.99 dB

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Frequency Stability

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0034	PASS
40	Normal Voltage	0.0021	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0027	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0031	
-30	Normal Voltage	0.0042	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0011	
20	Battery End Point	0.0036	

Note:

1. Normal Voltage =3.89 V. ; Battery End Point (BEP) =3.45 V. ; Maximum Voltage =4.48 V.

2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Carry Xu	Temperature :	23~25℃
		Relative Humidity :	41~42%

LTE Band 41 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	5168	-46.87	-25	-21.87	-57.08	3.03	13.24	H
	7752	-59.50	-25	-34.50	-68.95	3.56	13.01	H
	10340	-56.09	-25	-31.09	-65.61	3.92	13.44	H
	5168	-52.30	-25	-27.30	-62.51	3.03	13.24	V
	7752	-60.73	-25	-35.73	-70.18	3.56	13.01	V
	10340	-56.45	-25	-31.45	-65.97	3.92	13.44	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.