FCC RF Test Report

APPLICANT	: Motorola Mobility LLC
EQUIPMENT	: Mobile Cellular Phone
BRAND NAME	: Motorola
MODEL NAME	: XT2347-2
FCC ID	: IHDT56AN2
STANDARD	: 47 CFR Part 2, 27(M)
CLASSIFICATION	: PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	: Jul. 28, 2023 ~ Jul. 29, 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

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG352602-01D	Rev. 01	Initial issue of report	Aug. 01, 2023

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 7)	EIRP < 2Watt		-
3.5	N/A	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	-	Report Only	-
3.7	§2.1051 §27.53(m)(4)	Conducted Band Edge Measurement (Band 7)	§27.53(m)(4)	PASS	-
3.8	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7)	< $55+10\log_{10}$(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 7)	< $55+10\log_{10}$(P[Watts])	PASS	Under limit 25.98 dB at 10122.36 MHz

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

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

1.2 Manufacturer

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

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2347-2
FCC ID	IHDT56AN2
IMEI Code	Conducted: 350162390024796/350162390024804 Radiation: 350162390019713/350162390019721
HW Version	DVT2
SW Version	T3TC33.12
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 7 : 2500 MHz ~ 2570 MHz
Rx Frequency	LTE Band 7 : 2620 MHz ~ 2690 MHz
Bandwidth	LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 7 : 22.97 dBm
Antenna Gain	**<Ant.1>:** LTE Band 7 : -2.9 dBi **<Ant.4>:** LTE Band 7 : -3.4 dBi
Type of Modulation	QPSK / 16QAM / 64QAM / 256QAM

Note: Only the test data of EN-DC mode for Ant.4 was performed in this report, all the other test results could be referred to spot check report.

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 7		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	2510.0 ~ 2560.0	0.0906	18M0G7D	0.0678	17M9W7D

Note: All modulations have been tested, and only the worst test results of PSK & QAM are shown in the report.

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.**
	03CH01-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH01-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(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(Salcomp)	**Model Name**	MC-331
AC Adapter 1(EU)	**Brand Name**	Motorola(Salcomp)	**Model Name**	MC-332
AC Adapter 1(UK)	**Brand Name**	Motorola(Salcomp)	**Model Name**	MC-333
AC Adapter 1(AR)	**Brand Name**	Motorola(Salcomp)	**Model Name**	MC-336
AC Adapter 1(BR)	**Brand Name**	Motorola(Salcomp)	**Model Name**	MC-337
AC Adapter 1(CHILE)	**Brand Name**	Motorola(Salcomp)	**Model Name**	MC-339
AC Adapter 2(US)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-331
AC Adapter 2(EU)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-332
AC Adapter 2(AR)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-336
AC Adapter 2(BR)	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-337
AC Adapter 2(BR Local)	**Brand Name**	Motorola(Cliptech)	**Model Name**	MC-337
AC Adapter 3(US)	**Brand Name**	Motorola(AOHAI)	**Model Name**	MC-331
AC Adapter 3(EU)	**Brand Name**	Motorola(AOHAI)	**Model Name**	MC-332
AC Adapter 3(UK)	**Brand Name**	Motorola(AOHAI)	**Model Name**	MC-333
Battery 1	**Brand Name**	Motorola(sunwoda)	**Model Name**	QB50
Battery 2	**Brand Name**	Motorola(cosmx)	**Model Name**	QB50
Bluetooth Earphone	**Brand Name**	Motorola(SGW)	**Model Name**	Moto earbuds 135
USB Cable 1	**Brand Name**	Motorola(Juwei)	**Model Name**	JWUB1580-T03H
USB Cable 2	**Brand Name**	Motorola(Saibao)	**Model Name**	STN-A121A
USB Cable 3	**Brand Name**	Motorola(ISHENG)	**Model Name**	SC18D38574

2 Test Configuration of Equipment Under Test

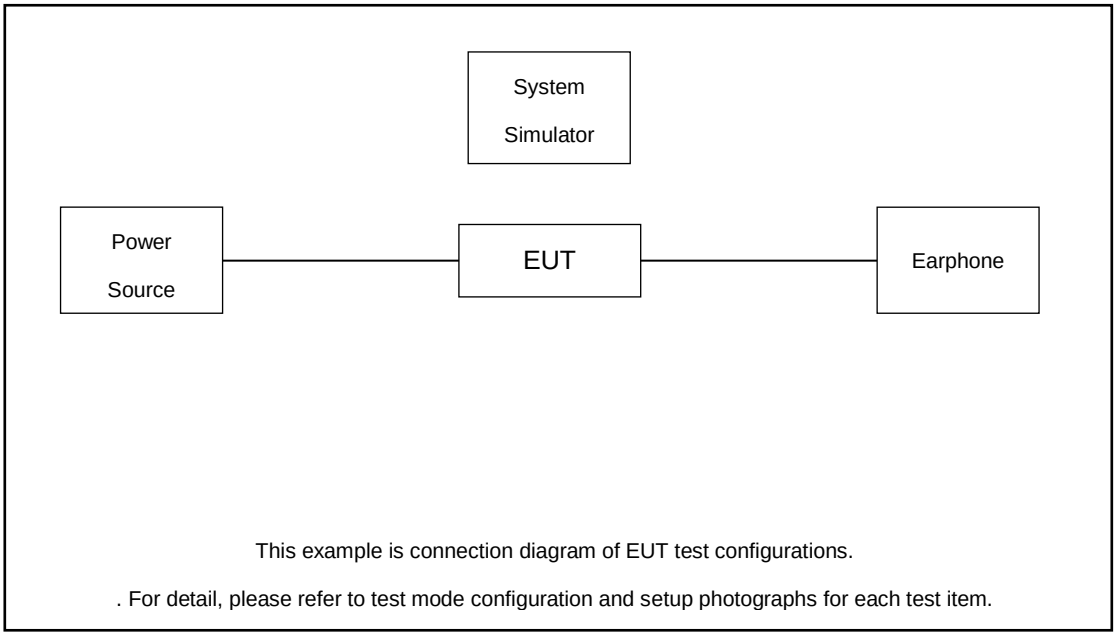
2.1 Test Mode

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	256QAM	1	Half	Full	L	M	H
Max. Output Power	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	7	-	-				v	v	v	v		v		v		v	
26dB and 99% Bandwidth	7	-	-				v	v	v					v		v	
Conducted Band Edge	7	-	-	v	v	v	v	v	v	v		v		v	v		v
Conducted Spurious Emission	7	-	-	v	v	v	v	v				v			v	v	v
Frequency Stability	7	-	-		v			v						v		v	
E.I.R.P.	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	7	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
3.	Earphone	Apple	MC690ZP/A	N/A	Shielded, 1.0m	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss 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 5 dB and 10dB attenuator.

Example :

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

= 5 + 10 = 15 (dB)

2.5 Frequency List of Low/Middle/High Channels

LTE Band 7 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

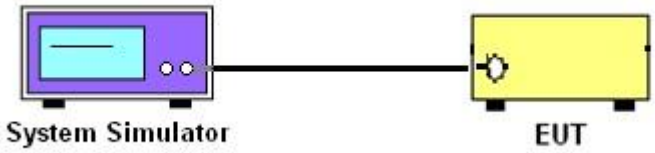
3 Conducted Test Items

3.1 Measuring Instruments

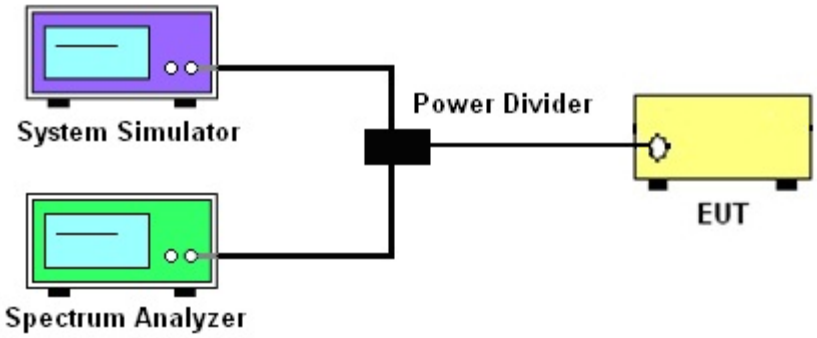
See list of measuring instruments of this test report.

3.2 Test Setup

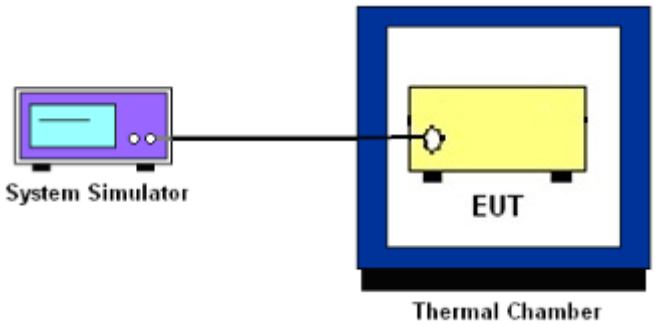
3.2.1 Conducted Output Power



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 7.

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 or a narrower RBW was used and the measured power was integrated over the full required measurement bandwidth of 1 MHz.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.
   Example:
   The limit line is derived from 43 + 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 7, 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 7:

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 7
    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.

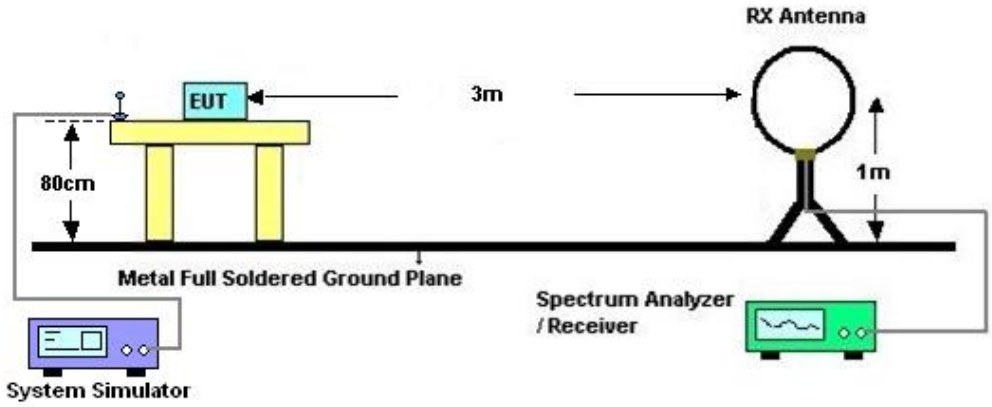
4 Radiated Test Items

4.1 Measuring Instruments

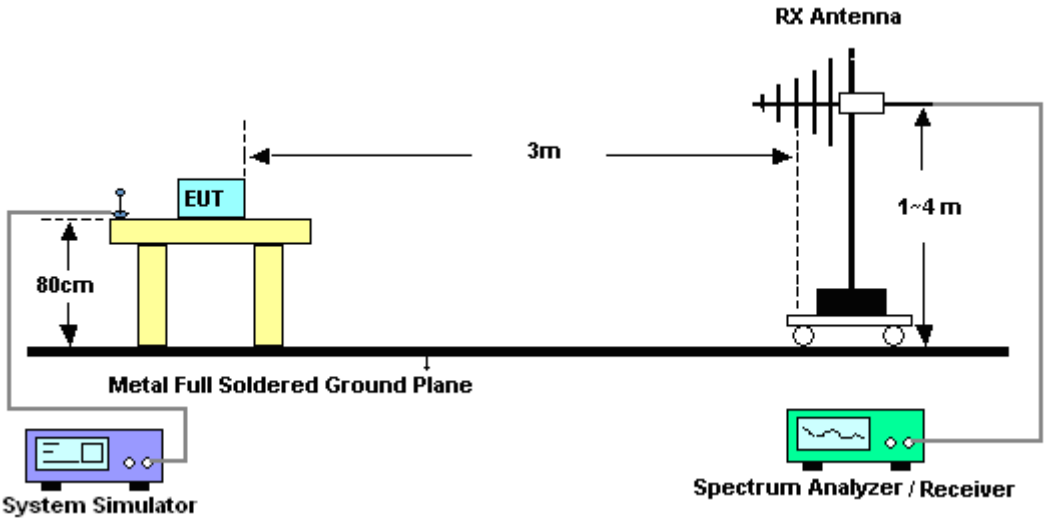
See list of measuring instruments of this test report.

4.2 Test Setup

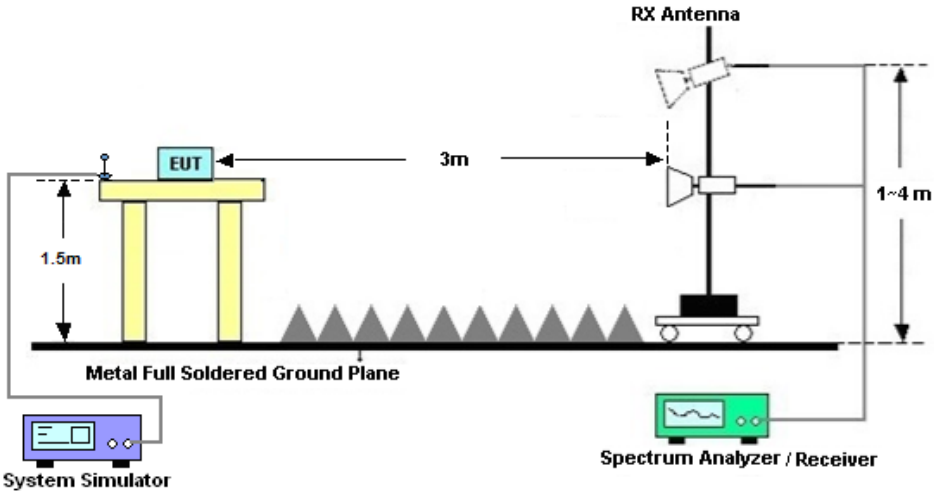
4.2.1 For radiated test below 30MHz



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 7:
    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	101078	10Hz~40GHz	Apr. 06, 2023	Jul. 29, 2023	Apr. 05, 2024	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2022	Jul. 29, 2023	Dec. 24, 2023	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 05, 2023	Jul. 29, 2023	Jul. 04, 2024	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 26, 2022	Jul. 28, 2023	Dec. 25, 2023	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Jul. 28, 2023	Jul. 27, 2024	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 19, 2022	Jul. 28, 2023	Oct. 18, 2023	Radiation (03CH01-SZ
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Sep. 28, 2021	Jul. 28, 2023	Sep. 27, 2023	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 08, 2023	Jul. 28, 2023	Jul. 07, 2024	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 08, 2023	Jul. 28, 2023	Apr. 07, 2024	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 04, 2023	Jul. 28, 2023	Apr. 03, 2024	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1	1943528	1GHz~18GHz	Oct. 19, 2022	Jul. 28, 2023	Oct. 18, 2023	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 07, 2023	Jul. 28, 2023	Jul. 06, 2024	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	Nov. 10, 2022	Jul. 28, 2023	Nov. 09, 2023	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jul. 28, 2023	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jul. 28, 2023	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required

6 Measurement Uncertainty

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

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±1.34 dB
Conducted Emissions	±1.34 dB
Occupied Channel Bandwidth	±0.13 %

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.48 dB

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

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

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

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

Appendix A. Test Results of Conducted Test

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

Conducted Output Power(Average power)

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	22.83	22.97	22.85
20	QPSK	1	49	22.73	22.95	22.73
20	QPSK	1	99	22.72	22.89	22.81
20	QPSK	50	0	21.80	21.91	21.81
20	QPSK	50	24	21.75	21.90	21.80
20	QPSK	50	50	21.70	21.82	21.74
20	QPSK	100	0	21.82	21.88	21.78
20	16QAM	1	0	21.58	21.71	21.62
20	16QAM	1	49	21.59	21.70	21.58
20	16QAM	1	99	21.56	21.66	21.59
20	16QAM	50	0	20.40	20.49	20.40
20	16QAM	50	24	20.42	20.57	20.43
20	16QAM	50	50	20.40	20.55	20.40
20	16QAM	100	0	20.59	20.77	20.57
20	64QAM	1	0	20.44	20.55	20.45
20	64QAM	1	49	20.46	20.52	20.42
20	64QAM	1	99	20.46	20.46	20.44
20	64QAM	50	0	19.25	19.43	19.36
20	64QAM	50	24	19.28	19.47	19.30
20	64QAM	50	50	19.33	19.41	19.28
20	64QAM	100	0	19.45	19.68	19.46
20	256QAM	1	0	17.15	17.42	17.24
20	256QAM	1	49	17.18	17.42	17.25
20	256QAM	1	99	17.18	17.36	17.16
20	256QAM	50	0	17.34	17.58	17.44
20	256QAM	50	24	17.14	17.39	17.35
20	256QAM	50	50	17.21	17.45	17.20
20	256QAM	100	0	17.19	17.34	17.16
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	22.67	22.82	22.72
15	QPSK	1	37	22.58	22.74	22.61
15	QPSK	1	74	22.48	22.70	22.58

15	QPSK	36	0	21.65	21.71	21.59
15	QPSK	36	20	21.51	21.67	21.59
15	QPSK	36	39	21.50	21.60	21.62
15	QPSK	75	0	21.65	21.64	21.56
15	16QAM	1	0	21.34	21.46	21.38
15	16QAM	1	37	21.42	21.58	21.40
15	16QAM	1	74	21.42	21.52	21.37
15	16QAM	36	0	20.25	20.34	20.20
15	16QAM	36	20	20.21	20.32	20.29
15	16QAM	36	39	20.38	20.42	20.33
15	16QAM	75	0	20.61	20.75	20.53
15	64QAM	1	0	20.49	20.48	20.39
15	64QAM	1	37	20.43	20.50	20.45
15	64QAM	1	74	20.49	20.38	20.49
15	64QAM	36	0	19.23	19.45	19.36
15	64QAM	36	20	19.31	19.50	19.25
15	64QAM	36	39	19.31	19.34	19.27
15	64QAM	75	0	19.45	19.70	19.39
15	256QAM	1	0	17.14	17.47	17.17
15	256QAM	1	37	17.13	17.46	17.25
15	256QAM	1	74	17.15	17.37	17.08
15	256QAM	36	0	17.32	17.60	17.38
15	256QAM	36	20	17.13	17.36	17.28
15	256QAM	36	39	17.17	17.40	17.23
15	256QAM	75	0	17.11	17.32	17.10
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.58	22.86	22.74
10	QPSK	1	25	22.55	22.70	22.52
10	QPSK	1	49	22.56	22.77	22.56
10	QPSK	25	0	21.62	21.74	21.66
10	QPSK	25	12	21.50	21.67	21.62
10	QPSK	25	25	21.56	21.61	21.57
10	QPSK	50	0	21.69	21.65	21.60
10	16QAM	1	0	21.47	21.51	21.38
10	16QAM	1	25	21.44	21.50	21.36
10	16QAM	1	49	21.44	21.44	21.36
10	16QAM	25	0	20.15	20.30	20.20
10	16QAM	25	12	20.22	20.45	20.27
10	16QAM	25	25	20.41	20.34	20.32
10	16QAM	50	0	20.55	20.71	20.59
10	64QAM	1	0	20.39	20.48	20.36
10	64QAM	1	25	20.42	20.57	20.44
10	64QAM	1	49	20.42	20.43	20.46
10	64QAM	25	0	19.28	19.48	19.28

10	64QAM	25	12	19.23	19.50	19.34
10	64QAM	25	25	19.36	19.34	19.20
10	64QAM	50	0	19.44	19.67	19.37
10	256QAM	1	0	17.13	17.36	17.21
10	256QAM	1	25	17.09	17.46	17.28
10	256QAM	1	49	17.11	17.41	17.21
10	256QAM	25	0	17.30	17.62	17.38
10	256QAM	25	12	17.17	17.40	17.30
10	256QAM	25	25	17.24	17.46	17.22
10	256QAM	50	0	17.13	17.36	17.09
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	22.61	22.82	22.62
5	QPSK	1	12	22.50	22.76	22.60
5	QPSK	1	24	22.56	22.67	22.70
5	QPSK	12	0	21.59	21.79	21.68
5	QPSK	12	7	21.59	21.73	21.57
5	QPSK	12	13	21.54	21.63	21.61
5	QPSK	25	0	21.61	21.65	21.56
5	16QAM	1	0	21.46	21.60	21.45
5	16QAM	1	12	21.48	21.46	21.35
5	16QAM	1	24	21.36	21.48	21.35
5	16QAM	12	0	20.27	20.29	20.29
5	16QAM	12	7	20.27	20.45	20.22
5	16QAM	12	13	20.36	20.35	20.38
5	16QAM	25	0	20.61	20.74	20.57
5	64QAM	1	0	20.37	20.53	20.38
5	64QAM	1	12	20.47	20.49	20.43
5	64QAM	1	24	20.38	20.41	20.35
5	64QAM	12	0	19.19	19.35	19.31
5	64QAM	12	7	19.27	19.39	19.25
5	64QAM	12	13	19.31	19.43	19.22
5	64QAM	25	0	19.50	19.67	19.38
5	256QAM	1	0	17.18	17.40	17.19
5	256QAM	1	12	17.15	17.36	17.28
5	256QAM	1	24	17.19	17.41	17.09
5	256QAM	12	0	17.38	17.62	17.48
5	256QAM	12	7	17.18	17.41	17.36
5	256QAM	12	13	17.20	17.45	17.17
5	256QAM	25	0	17.10	17.26	17.20

EIRP

LTE Band 7 (GT - LC = -3.40 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	22.61	22.82	22.62
Conducted Power (Watts)	0.1824	0.1914	0.1828
EIRP(dBm)	19.21	19.42	19.22
EIRP(Watts)	0.0834	0.0875	0.0836

LTE Band 7 (GT - LC = -3.40 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	22.58	22.86	22.74	22.67	22.82	22.72	22.83	22.97	22.85
Conducted Power (Watts)	0.1811	0.1932	0.1879	0.1849	0.1914	0.1871	0.1919	0.1982	0.1928
EIRP(dBm)	19.18	19.46	19.34	19.27	19.42	19.32	19.43	19.57	19.45
EIRP(Watts)	0.0828	0.0883	0.0859	0.0845	0.0875	0.0855	0.0877	0.0906	0.0881

LTE Band 7 (GT - LC = -3.40 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	21.46	21.60	21.45
Conducted Power (Watts)	0.1400	0.1445	0.1396
EIRP(dBm)	18.06	18.20	18.05
EIRP(Watts)	0.0640	0.0661	0.0638

LTE Band 7 (GT - LC = -3.40 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	21.47	21.51	21.38	21.42	21.58	21.40	21.58	21.71	21.62
Conducted Power (Watts)	0.1403	0.1416	0.1374	0.1387	0.1439	0.1380	0.1439	0.1483	0.1452
EIRP(dBm)	18.07	18.11	17.98	18.02	18.18	18.00	18.18	18.31	18.22
EIRP(Watts)	0.0641	0.0647	0.0628	0.0634	0.0658	0.0631	0.0658	0.0678	0.0664

LTE Band 7 (GT - LC = -3.40 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	20.37	20.53	20.38
Conducted Power (Watts)	0.1089	0.1130	0.1091
EIRP(dBm)	16.97	17.13	16.98
EIRP(Watts)	0.0498	0.0516	0.0499

LTE Band 7 (GT - LC = -3.40 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	20.42	20.57	20.44	20.43	20.50	20.45	20.44	20.55	20.45
Conducted Power (Watts)	0.1102	0.1140	0.1107	0.1104	0.1122	0.1109	0.1107	0.1135	0.1109
EIRP(dBm)	17.02	17.17	17.04	17.03	17.10	17.05	17.04	17.15	17.05
EIRP(Watts)	0.0504	0.0521	0.0506	0.0505	0.0513	0.0507	0.0506	0.0519	0.0507

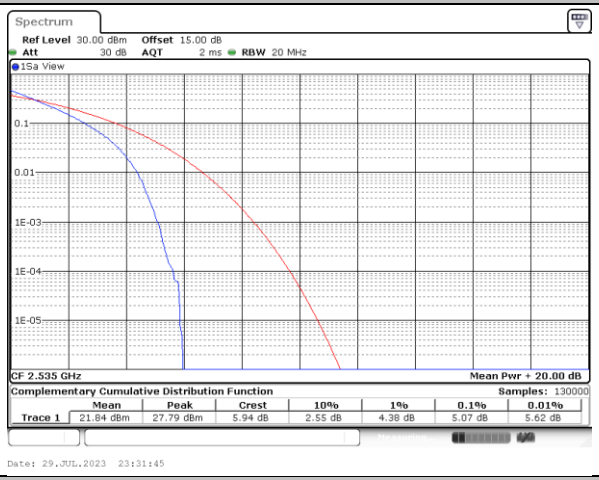
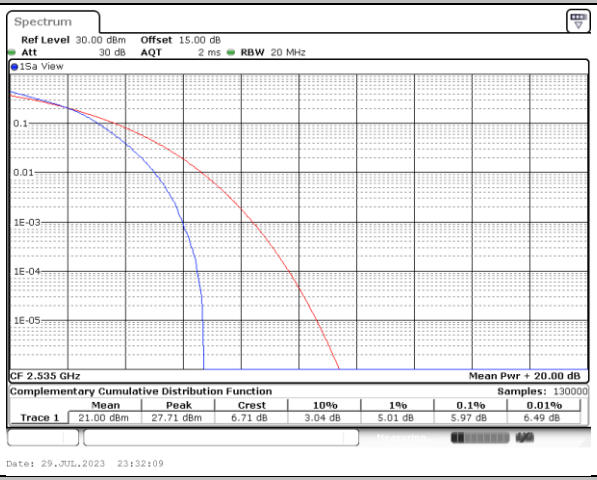
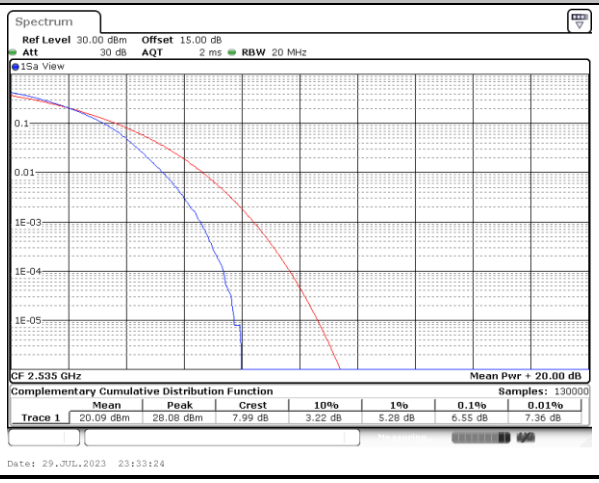
LTE Band 7 (GT - LC = -3.40 dB) 256QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	17.38	17.62	17.48
Conducted Power (Watts)	0.0547	0.0578	0.0560
EIRP(dBm)	13.98	14.22	14.08
EIRP(Watts)	0.0250	0.0264	0.0256

LTE Band 7 (GT - LC = -3.40 dB) 256QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	17.30	17.62	17.38	17.32	17.60	17.38	17.34	17.58	17.44
Conducted Power (Watts)	0.0537	0.0578	0.0547	0.0540	0.0575	0.0547	0.0542	0.0573	0.0555
EIRP(dBm)	13.90	14.22	13.98	13.92	14.20	13.98	13.94	14.18	14.04
EIRP(Watts)	0.0245	0.0264	0.0250	0.0247	0.0263	0.0250	0.0248	0.0262	0.0254

EN_DC_7A_n5A

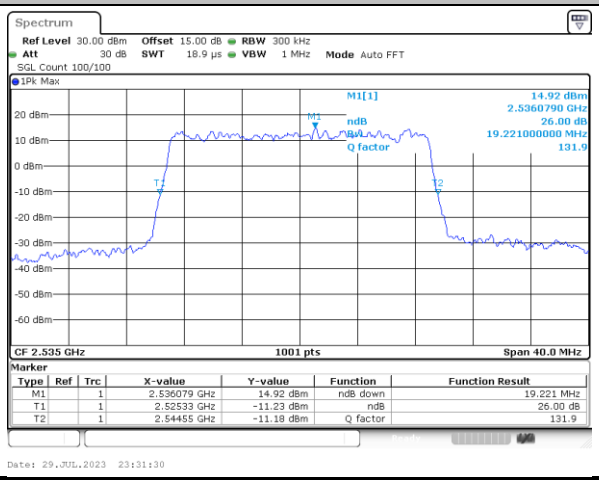
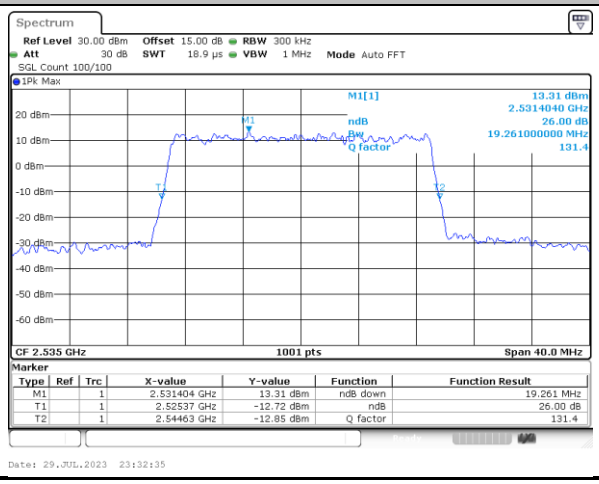
Peak-to-Average Ratio

Mode	NSA_DC_7A_n5A / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.07	5.97	6.55	PASS

NSA_DC_7A_n5A / 20MHz / QPSK	NSA_DC_7A_n5A / 20MHz / 16QAM
Middle Channel / Full RB	Middle Channel / Full RB
	
NSA_DC_7A_n5A / 20MHz / 64QAM	
Middle Channel / Full RB	
	

26dB Bandwidth

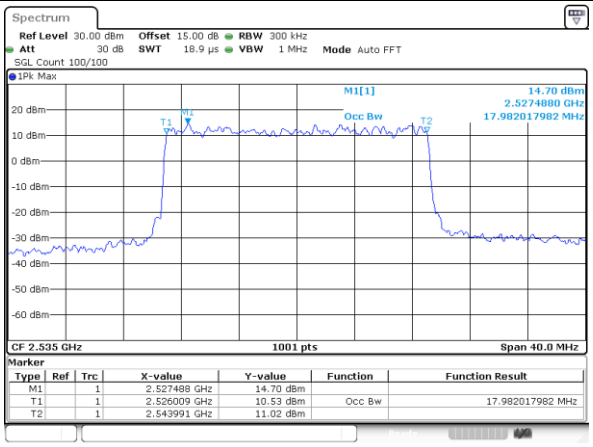
Mode	NSA_DC_7A_n5A : 26dB BW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	19.22	19.26

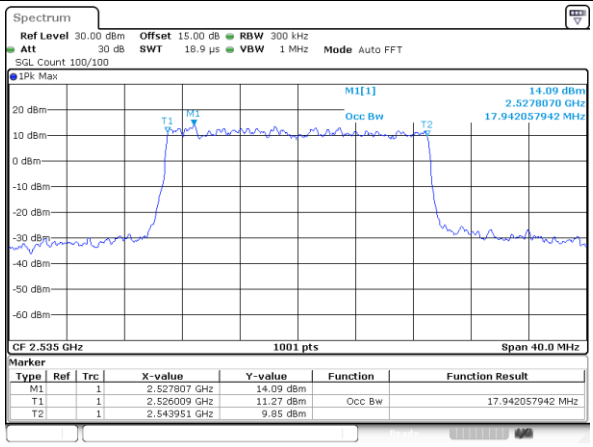
NSA_DC_7A_n5A	
Middle Channel / 20MHz / QPSK	Middle Channel / 20MHz / 16QAM
	

Occupied Bandwidth

Mode	NSA_DC_7A_n5A : 99%OBW(MHz)	
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	17.98	17.94

NSA_DC_7A_n5A	
Middle Channel / 20MHz / QPSK	Middle Channel / 20MHz / 16QAM

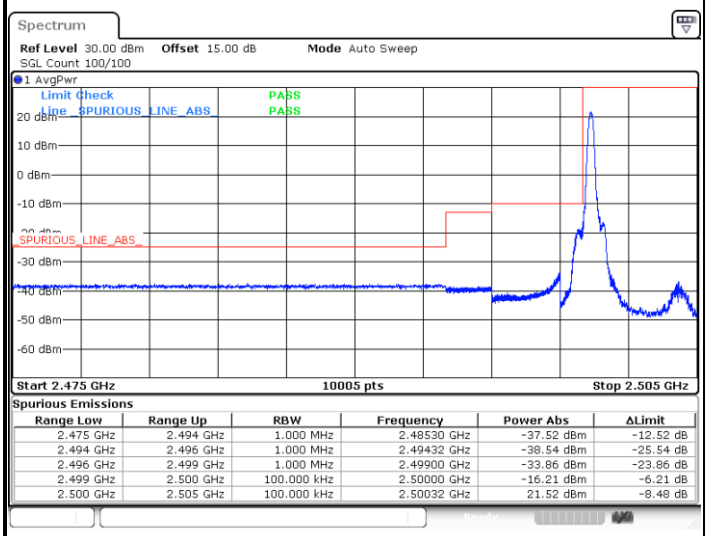




Conducted Band Edge

NSA_DC_7A_n5A / 5MHz / QPSK

Lowest Band Edge / 1 RB

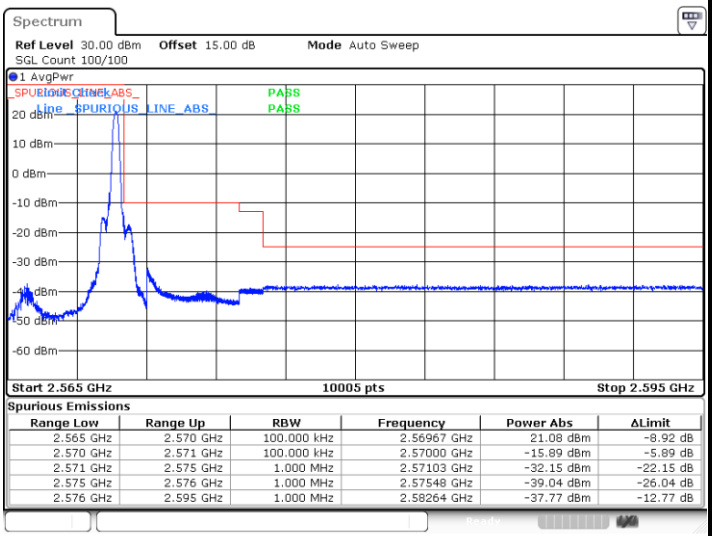


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.48530 GHz	-37.52 dBm	-12.52 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49432 GHz	-38.54 dBm	-25.54 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49900 GHz	-33.86 dBm	-23.86 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-16.21 dBm	-6.21 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50032 GHz	21.52 dBm	-8.48 dB

Date: 29.JUL.2023 21:58:27

Highest Band Edge / 1 RB

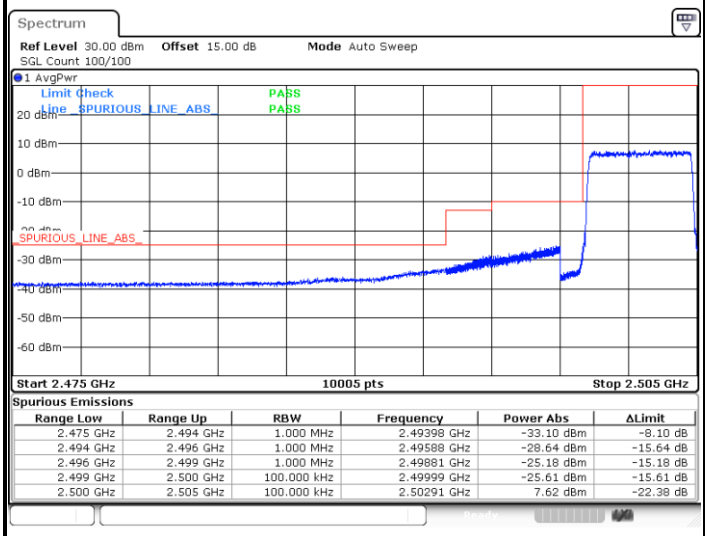


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56967 GHz	21.08 dBm	-8.92 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-15.89 dBm	-5.89 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57103 GHz	-32.15 dBm	-22.15 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57548 GHz	-39.04 dBm	-26.04 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.58264 GHz	-37.77 dBm	-12.77 dB

Date: 29.JUL.2023 22:15:22

Lowest Band Edge / Full RB

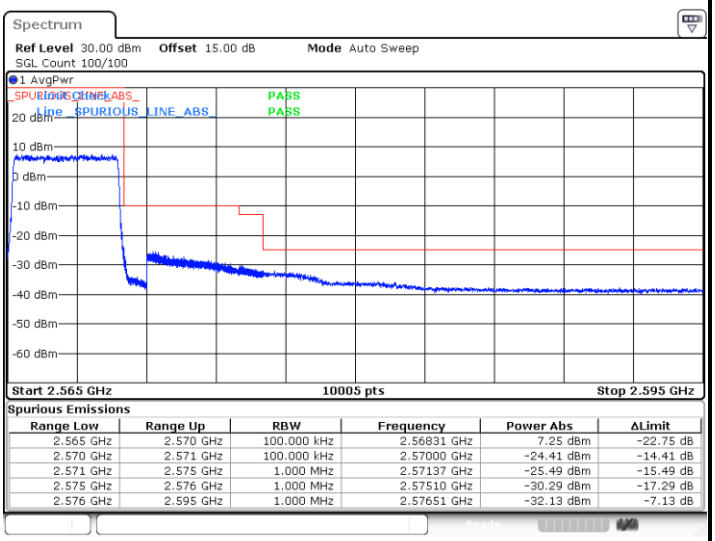


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49398 GHz	-33.10 dBm	-8.10 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49588 GHz	-28.64 dBm	-15.64 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49881 GHz	-25.18 dBm	-15.18 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.49999 GHz	-25.61 dBm	-15.61 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50291 GHz	7.62 dBm	-22.38 dB

Date: 29.JUL.2023 22:02:15

Highest Band Edge / Full RB



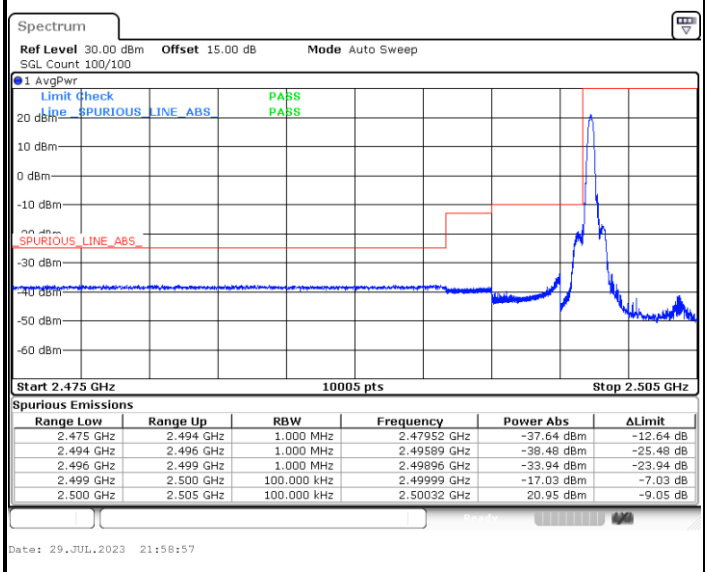
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56831 GHz	7.25 dBm	-22.75 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-24.41 dBm	-14.41 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57137 GHz	-25.49 dBm	-15.49 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57510 GHz	-30.29 dBm	-17.29 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57651 GHz	-32.13 dBm	-7.13 dB

Date: 29.JUL.2023 22:15:55

NSA_DC_7A_n5A / 5MHz / 16QAM

Lowest Band Edge / 1RB

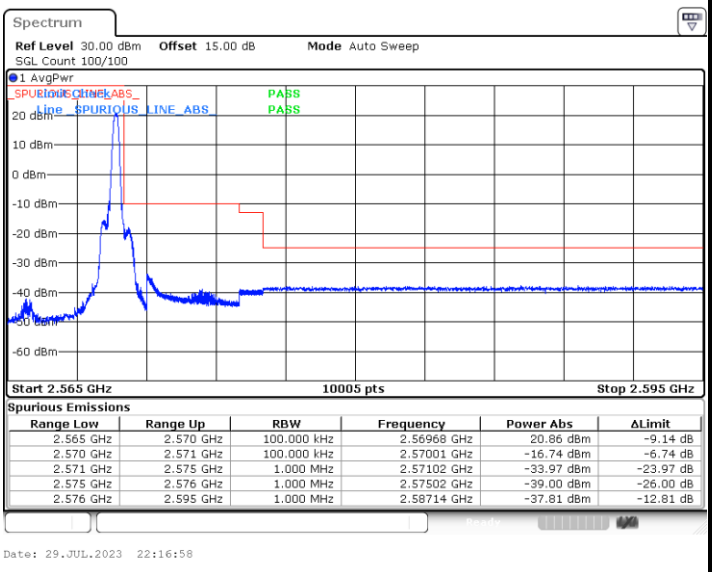


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.47952 GHz	-37.64 dBm	-12.64 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49589 GHz	-38.48 dBm	-25.48 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49896 GHz	-33.94 dBm	-23.94 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.49999 GHz	-17.03 dBm	-7.03 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50032 GHz	20.95 dBm	-9.05 dB

Date: 29.JUL.2023 21:58:57

Highest Band Edge / 1 RB

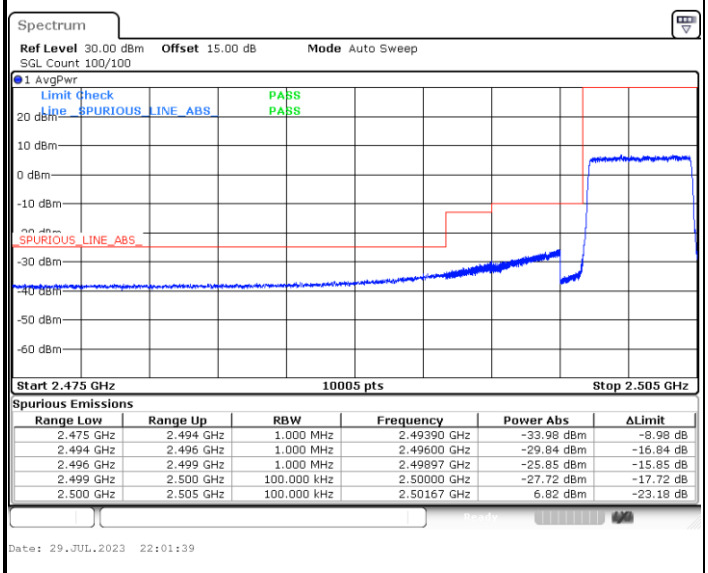


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56968 GHz	20.86 dBm	-9.14 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-16.74 dBm	-6.74 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57102 GHz	-33.97 dBm	-23.97 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57502 GHz	-39.00 dBm	-26.00 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.58714 GHz	-37.81 dBm	-12.81 dB

Date: 29.JUL.2023 22:16:58

Lowest Band Edge / Full RB

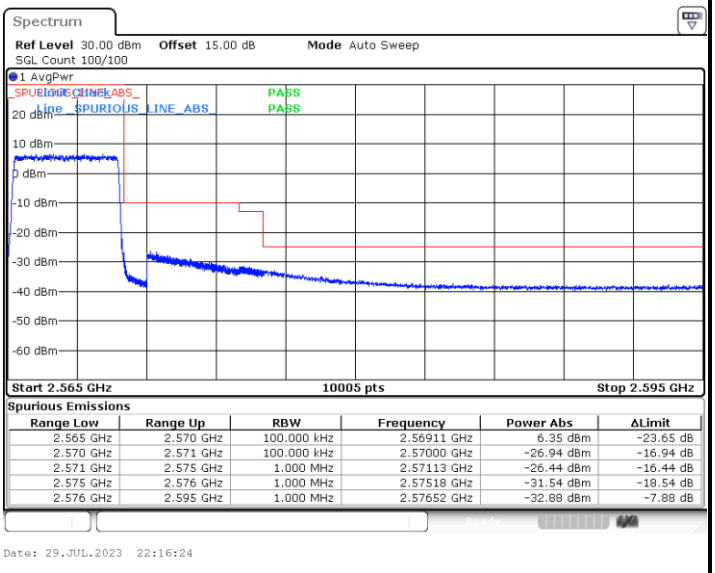


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49390 GHz	-33.98 dBm	-8.98 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49600 GHz	-29.84 dBm	-16.84 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49897 GHz	-25.85 dBm	-15.85 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-27.72 dBm	-17.72 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50167 GHz	6.82 dBm	-23.18 dB

Date: 29.JUL.2023 22:01:39

Highest Band Edge / Full RB



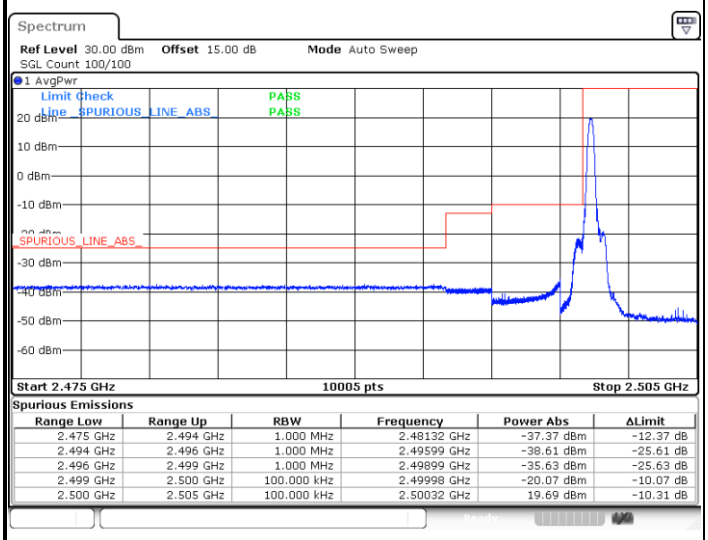
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56911 GHz	6.35 dBm	-23.65 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-26.94 dBm	-16.94 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57113 GHz	-26.44 dBm	-16.44 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57518 GHz	-31.54 dBm	-18.54 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57652 GHz	-32.88 dBm	-7.88 dB

Date: 29.JUL.2023 22:16:24

NSA_DC_7A_n5A / 5MHz / 64QAM

Lowest Band Edge / 1RB

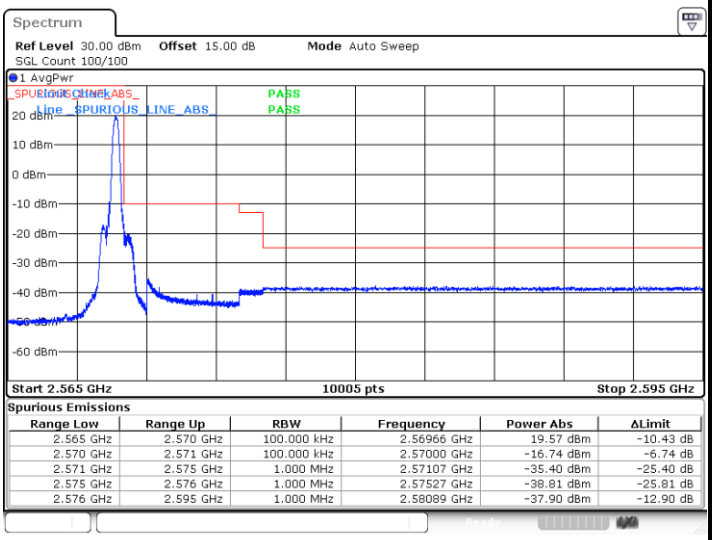


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.48132 GHz	-37.37 dBm	-12.37 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49599 GHz	-38.61 dBm	-25.61 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49899 GHz	-35.63 dBm	-25.63 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.49998 GHz	-20.07 dBm	-10.07 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50032 GHz	19.69 dBm	-10.31 dB

Date: 29.JUL.2023 22:00:22

Highest Band Edge / 1 RB

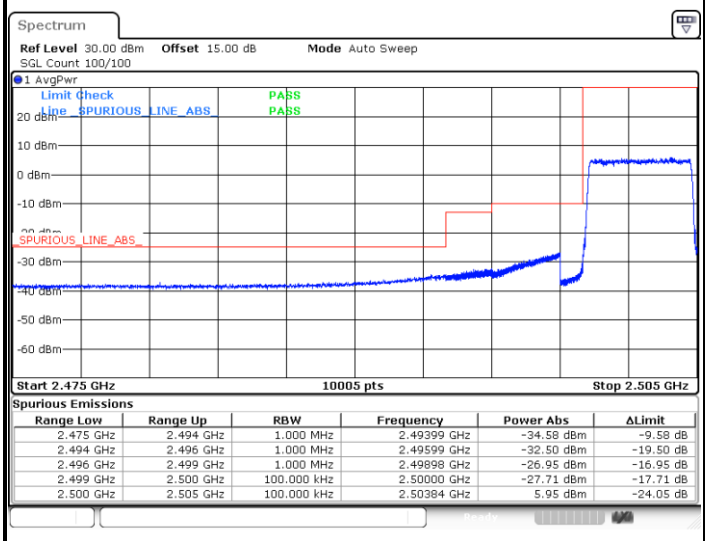


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56966 GHz	19.57 dBm	-10.43 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-16.74 dBm	-6.74 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57107 GHz	-35.40 dBm	-25.40 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57527 GHz	-38.81 dBm	-25.81 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.58089 GHz	-37.90 dBm	-12.90 dB

Date: 29.JUL.2023 22:17:49

Lowest Band Edge / Full RB

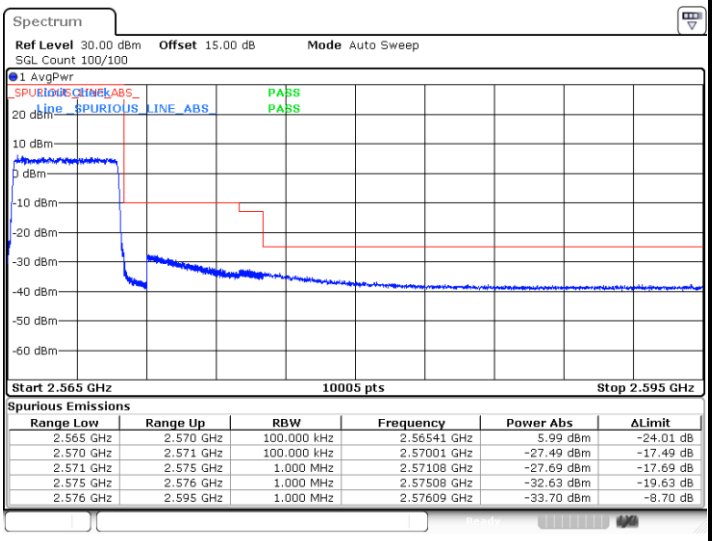


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49399 GHz	-34.58 dBm	-9.58 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49599 GHz	-32.50 dBm	-19.50 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49898 GHz	-26.95 dBm	-16.95 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-27.71 dBm	-17.71 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50384 GHz	5.95 dBm	-24.05 dB

Date: 29.JUL.2023 22:01:08

Highest Band Edge / Full RB



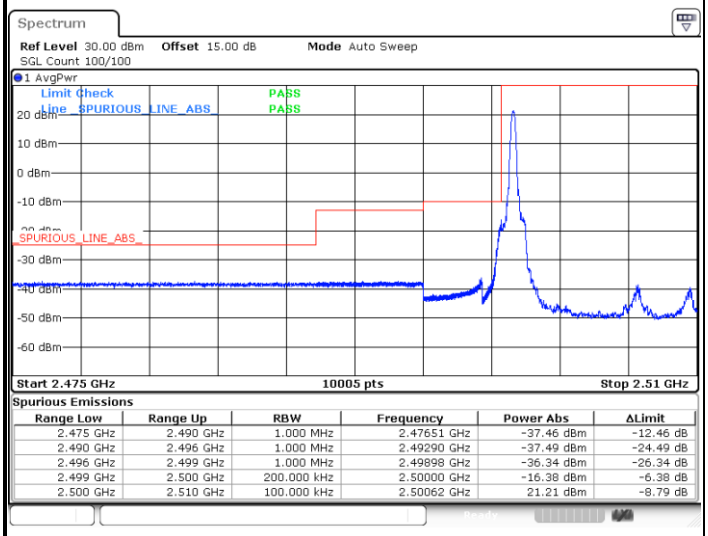
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56541 GHz	5.99 dBm	-24.01 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-27.49 dBm	-17.49 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57108 GHz	-27.69 dBm	-17.69 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57508 GHz	-32.63 dBm	-19.63 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57609 GHz	-33.70 dBm	-8.70 dB

Date: 29.JUL.2023 22:18:24

NSA_DC_7A_n5A / 10MHz / QPSK

Lowest Band Edge / 1 RB

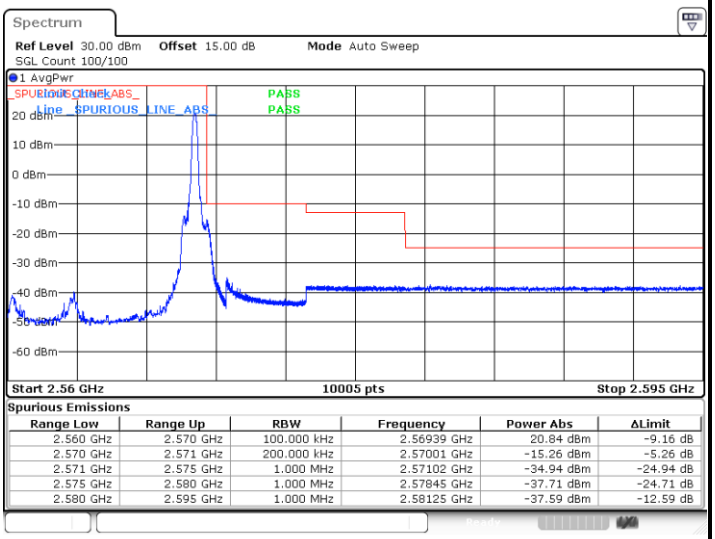


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.47651 GHz	-37.46 dBm	-12.46 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49290 GHz	-37.49 dBm	-24.49 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49898 GHz	-36.34 dBm	-26.34 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.50000 GHz	-16.38 dBm	-6.38 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50062 GHz	21.21 dBm	-8.79 dB

Date: 29.JUL.2023 22:33:37

Highest Band Edge / 1 RB

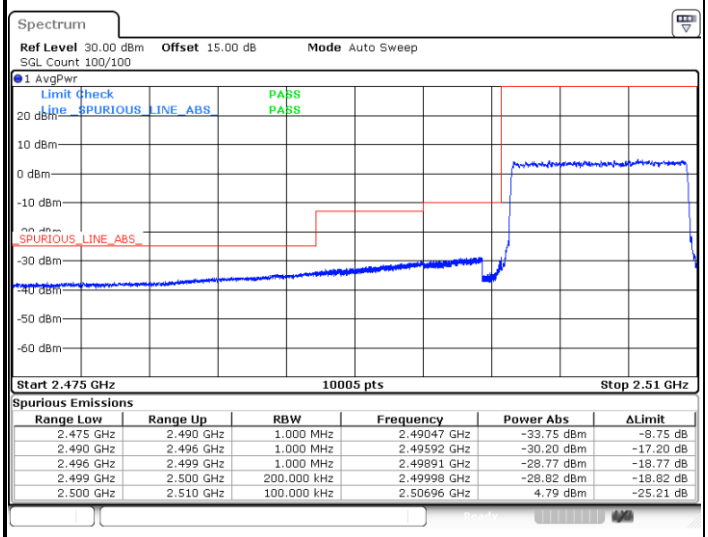


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56939 GHz	20.84 dBm	-9.16 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-15.26 dBm	-5.26 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57102 GHz	-34.94 dBm	-24.94 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57845 GHz	-37.71 dBm	-24.71 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58125 GHz	-37.59 dBm	-12.59 dB

Date: 29.JUL.2023 23:07:03

Lowest Band Edge / Full RB

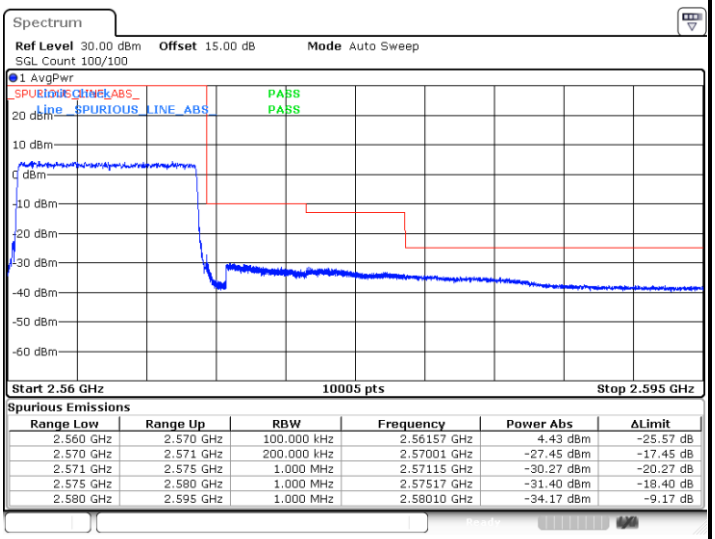


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49047 GHz	-33.75 dBm	-8.75 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49592 GHz	-30.20 dBm	-17.20 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49891 GHz	-28.77 dBm	-18.77 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49998 GHz	-28.82 dBm	-18.82 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50696 GHz	4.79 dBm	-25.21 dB

Date: 29.JUL.2023 23:05:51

Highest Band Edge / Full RB



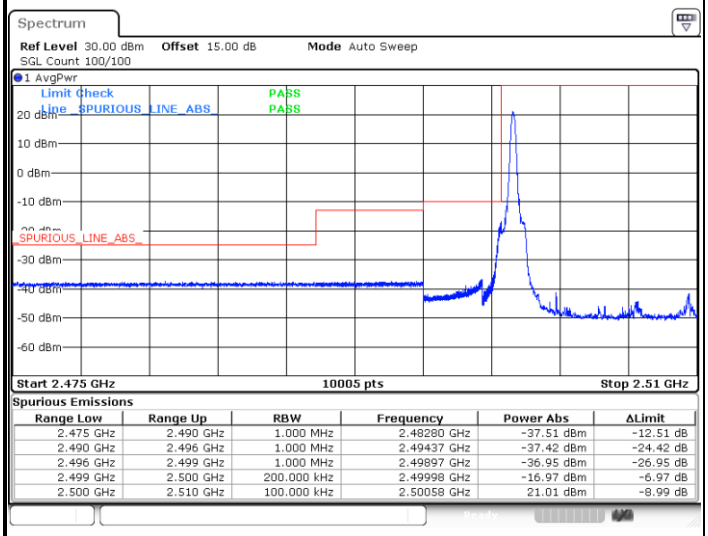
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56157 GHz	4.43 dBm	-25.57 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-27.45 dBm	-17.45 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57115 GHz	-30.27 dBm	-20.27 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57517 GHz	-31.40 dBm	-18.40 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58010 GHz	-34.17 dBm	-9.17 dB

Date: 29.JUL.2023 23:06:31

NSA_DC_7A_n5A / 10MHz / 16QAM

Lowest Band Edge / 1RB

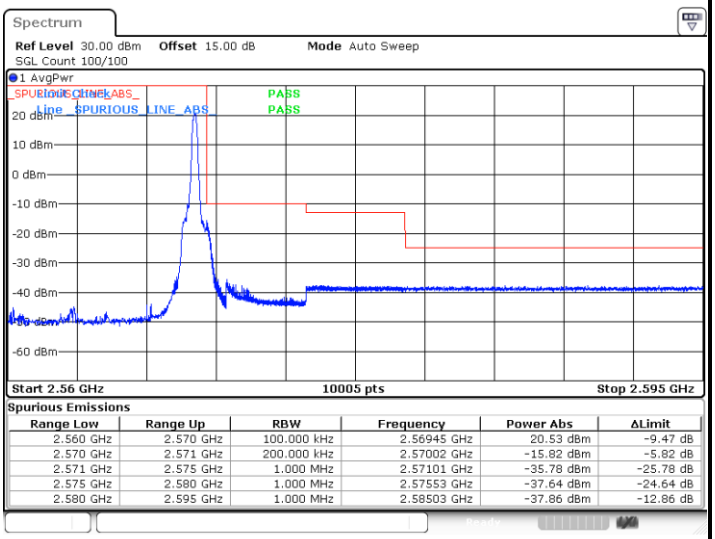


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48280 GHz	-37.51 dBm	-12.51 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49437 GHz	-37.42 dBm	-24.42 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49897 GHz	-36.95 dBm	-26.95 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49998 GHz	-16.97 dBm	-6.97 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50058 GHz	21.01 dBm	-8.99 dB

Date: 29.JUL.2023 22:32:18

Highest Band Edge / 1 RB

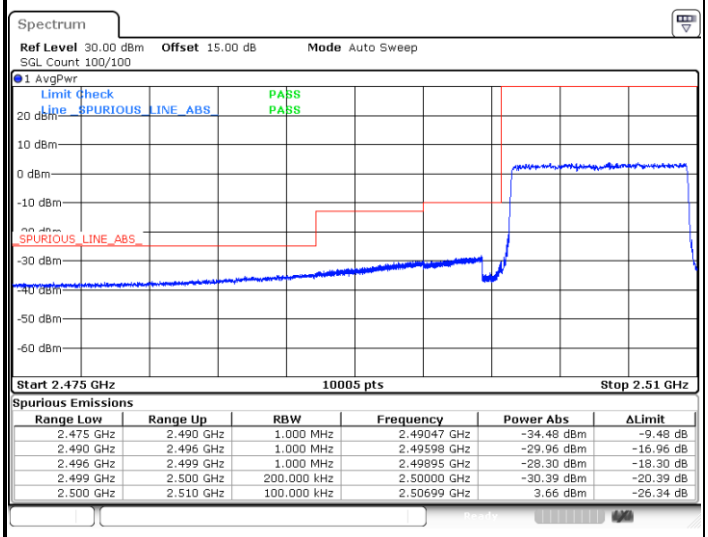


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56945 GHz	20.53 dBm	-9.47 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57002 GHz	-15.82 dBm	-5.82 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57101 GHz	-35.78 dBm	-25.78 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57553 GHz	-37.64 dBm	-24.64 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58503 GHz	-37.86 dBm	-12.86 dB

Date: 29.JUL.2023 23:07:33

Lowest Band Edge / Full RB

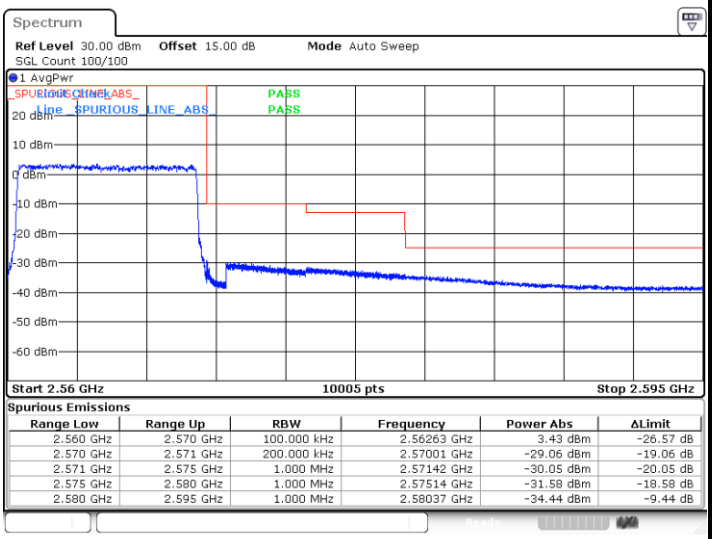


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49047 GHz	-34.48 dBm	-9.48 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49598 GHz	-29.96 dBm	-16.96 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49895 GHz	-28.30 dBm	-18.30 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.50000 GHz	-30.39 dBm	-20.39 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50699 GHz	3.66 dBm	-26.34 dB

Date: 29.JUL.2023 23:05:26

Highest Band Edge / Full RB



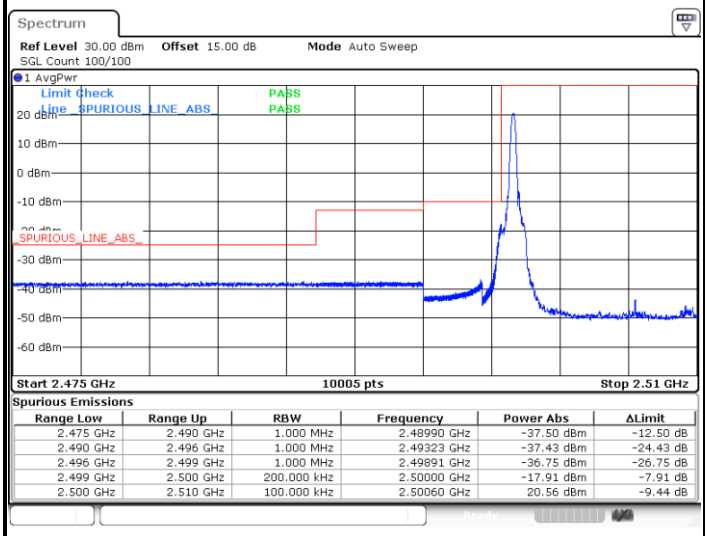
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56263 GHz	3.43 dBm	-26.57 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-29.06 dBm	-19.06 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57142 GHz	-30.05 dBm	-20.05 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57514 GHz	-31.58 dBm	-18.58 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58037 GHz	-34.44 dBm	-9.44 dB

Date: 29.JUL.2023 23:08:03

NSA_DC_7A_n5A / 10MHz / 64QAM

Lowest Band Edge / 1RB

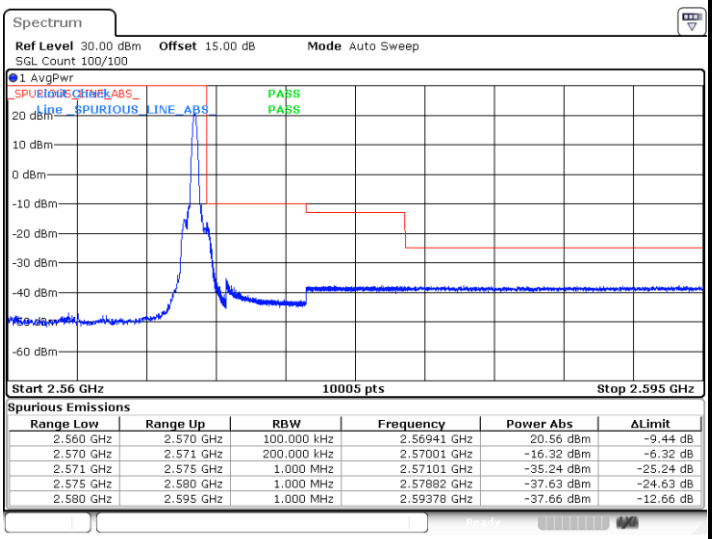


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48990 GHz	-37.50 dBm	-12.50 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49323 GHz	-37.43 dBm	-24.43 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49891 GHz	-36.75 dBm	-26.75 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.50000 GHz	-17.91 dBm	-7.91 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50060 GHz	20.56 dBm	-9.44 dB

Date: 29.JUL.2023 22:31:38

Highest Band Edge / 1 RB

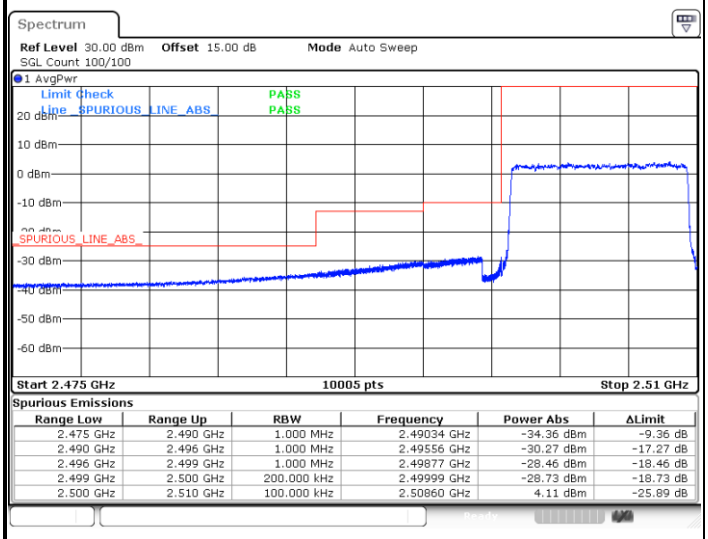


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56941 GHz	20.56 dBm	-9.44 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-16.32 dBm	-6.32 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57101 GHz	-35.24 dBm	-25.24 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57882 GHz	-37.63 dBm	-24.63 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.59378 GHz	-37.66 dBm	-12.66 dB

Date: 29.JUL.2023 23:09:06

Lowest Band Edge / Full RB

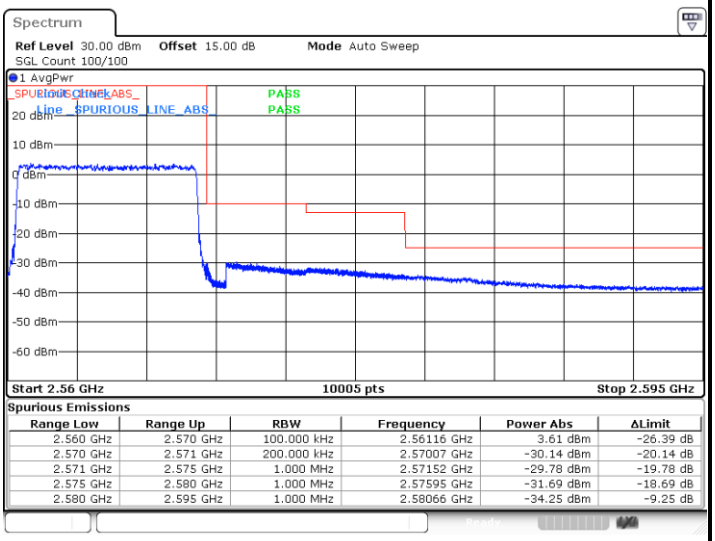


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49034 GHz	-34.36 dBm	-9.36 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49556 GHz	-30.27 dBm	-17.27 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49877 GHz	-28.46 dBm	-18.46 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49999 GHz	-28.73 dBm	-18.73 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50860 GHz	4.11 dBm	-25.89 dB

Date: 29.JUL.2023 23:04:56

Highest Band Edge / Full RB



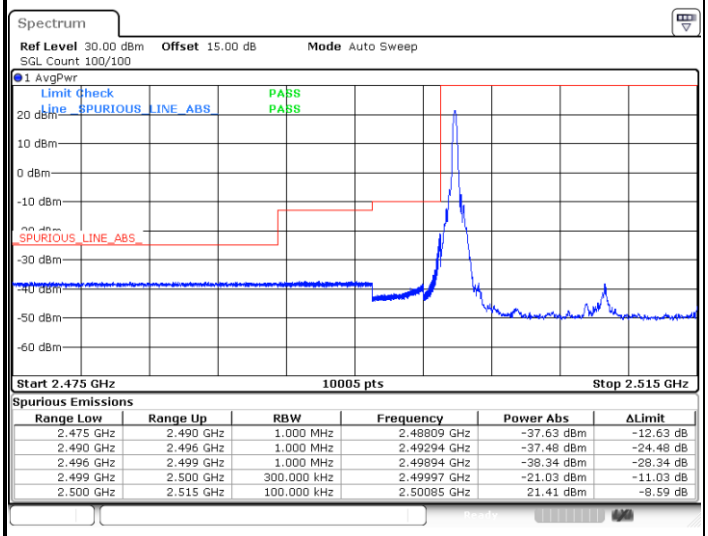
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56116 GHz	3.61 dBm	-26.39 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57007 GHz	-30.14 dBm	-20.14 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57152 GHz	-29.78 dBm	-19.78 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57595 GHz	-31.69 dBm	-18.69 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58066 GHz	-34.25 dBm	-9.25 dB

Date: 29.JUL.2023 23:08:30

NSA_DC_7A_n5A / 15MHz / QPSK

Lowest Band Edge / 1 RB

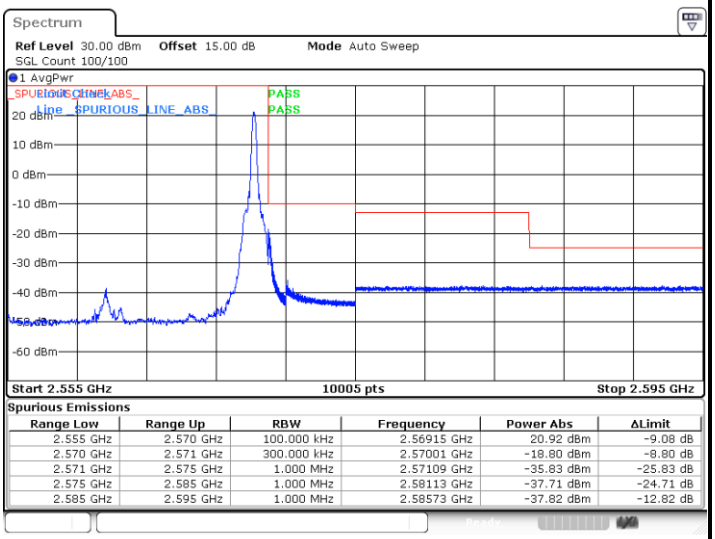


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48809 GHz	-37.63 dBm	-12.63 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49294 GHz	-37.48 dBm	-24.48 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49894 GHz	-38.34 dBm	-28.34 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49997 GHz	-21.03 dBm	-11.03 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50085 GHz	21.41 dBm	-8.59 dB

Date: 29.JUL.2023 22:52:16

Highest Band Edge / 1 RB

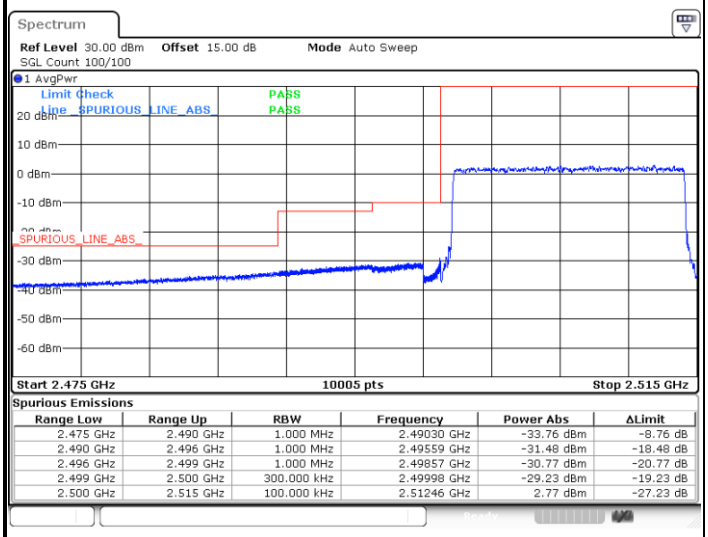


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56915 GHz	20.92 dBm	-9.08 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57001 GHz	-18.80 dBm	-8.80 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57109 GHz	-35.83 dBm	-25.83 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.58113 GHz	-37.71 dBm	-24.71 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58573 GHz	-37.82 dBm	-12.82 dB

Date: 29.JUL.2023 22:58:02

Lowest Band Edge / Full RB

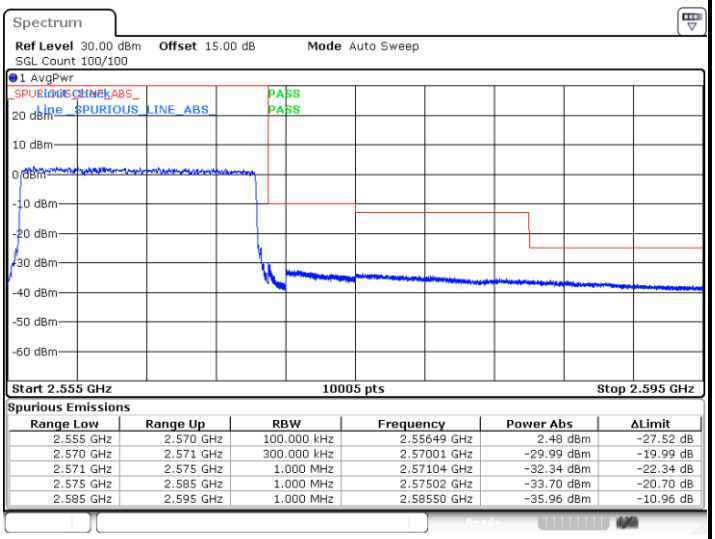


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49030 GHz	-33.76 dBm	-8.76 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49559 GHz	-31.48 dBm	-18.48 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49857 GHz	-30.77 dBm	-20.77 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49998 GHz	-29.23 dBm	-19.23 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.51246 GHz	2.77 dBm	-27.23 dB

Date: 29.JUL.2023 22:52:52

Highest Band Edge / Full RB



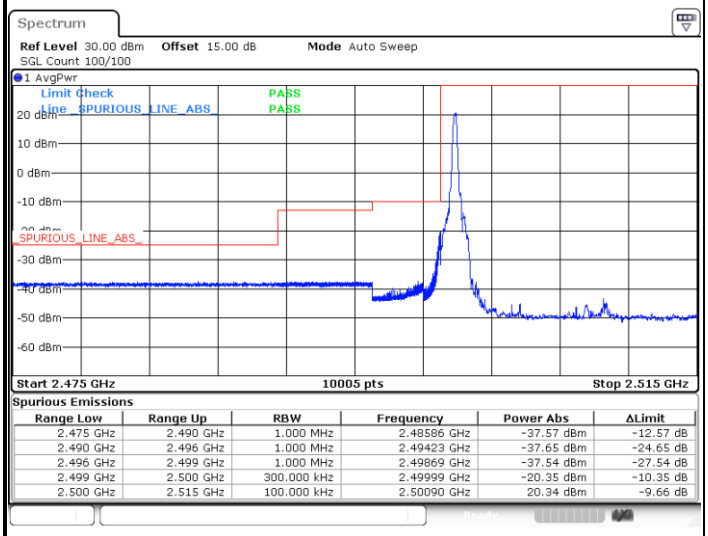
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.55649 GHz	2.48 dBm	-27.52 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57001 GHz	-29.99 dBm	-19.99 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57104 GHz	-32.34 dBm	-22.34 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57502 GHz	-33.70 dBm	-20.70 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58550 GHz	-35.96 dBm	-10.96 dB

Date: 29.JUL.2023 22:59:39

NSA_DC_7A_n5A / 15MHz / 16QAM

Lowest Band Edge / 1RB

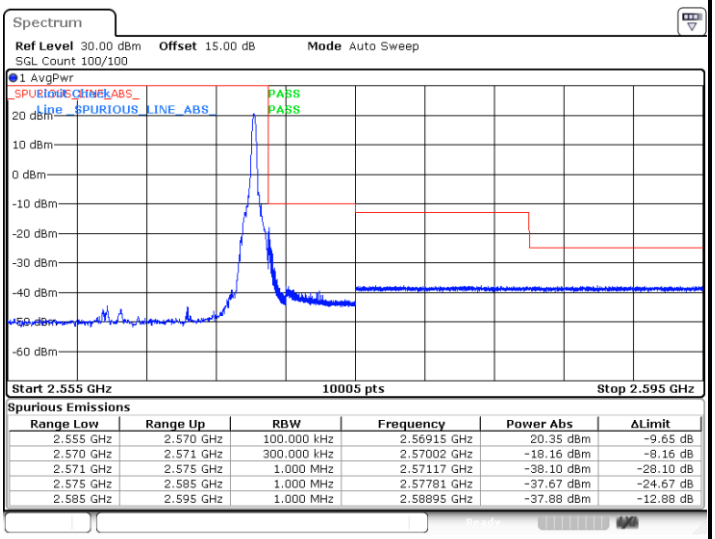


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48586 GHz	-37.57 dBm	-12.57 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49423 GHz	-37.65 dBm	-24.65 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49869 GHz	-37.54 dBm	-27.54 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49999 GHz	-20.35 dBm	-10.35 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50090 GHz	20.34 dBm	-9.66 dB

Date: 29.JUL.2023 22:55:55

Highest Band Edge / 1 RB

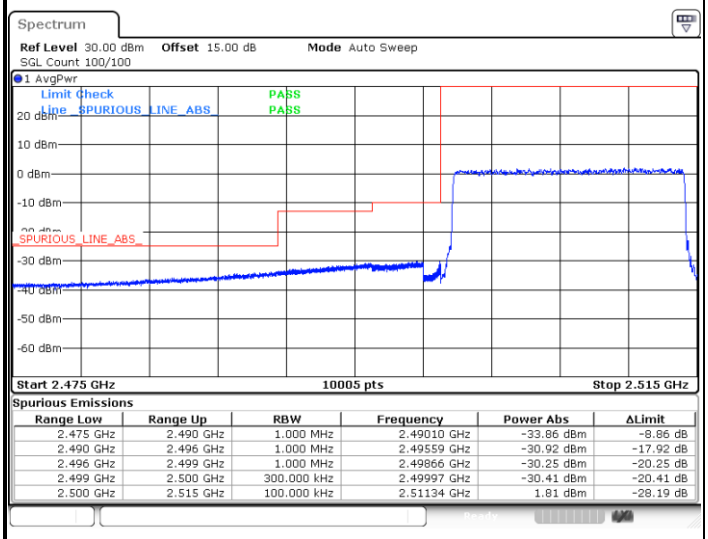


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56915 GHz	20.35 dBm	-9.65 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57002 GHz	-18.16 dBm	-8.16 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57117 GHz	-38.10 dBm	-28.10 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57781 GHz	-37.67 dBm	-24.67 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58895 GHz	-37.88 dBm	-12.88 dB

Date: 29.JUL.2023 23:00:44

Lowest Band Edge / Full RB

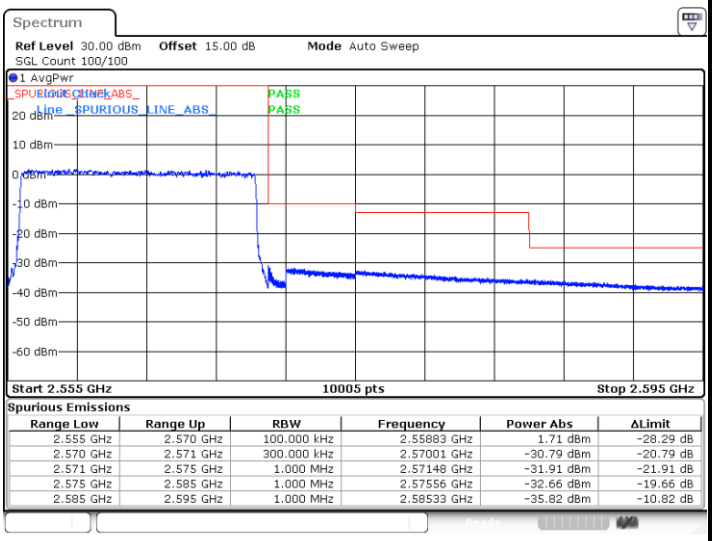


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49010 GHz	-33.86 dBm	-8.86 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49559 GHz	-30.92 dBm	-17.92 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49866 GHz	-30.25 dBm	-20.25 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49997 GHz	-30.41 dBm	-20.41 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.51134 GHz	1.81 dBm	-28.19 dB

Date: 29.JUL.2023 22:53:49

Highest Band Edge / Full RB



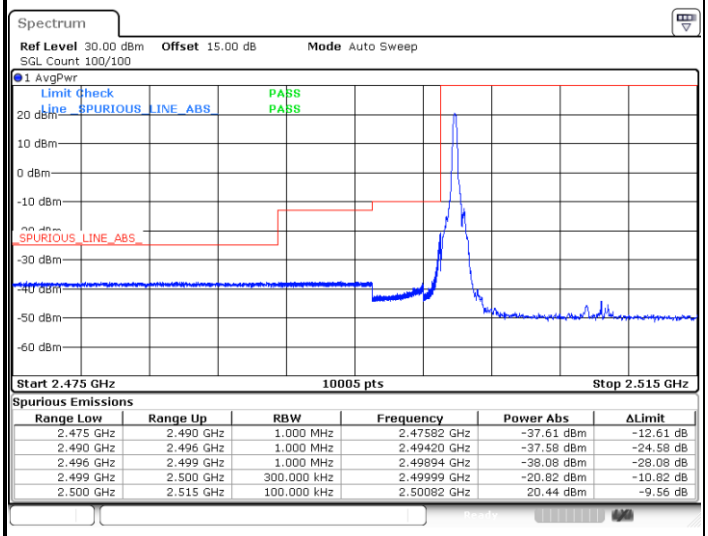
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.55883 GHz	1.71 dBm	-28.29 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57001 GHz	-30.79 dBm	-20.79 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57148 GHz	-31.91 dBm	-21.91 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57556 GHz	-32.66 dBm	-19.66 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58533 GHz	-35.82 dBm	-10.82 dB

Date: 29.JUL.2023 23:00:13

NSA_DC_7A_n5A / 15MHz / 64QAM

Lowest Band Edge / 1RB

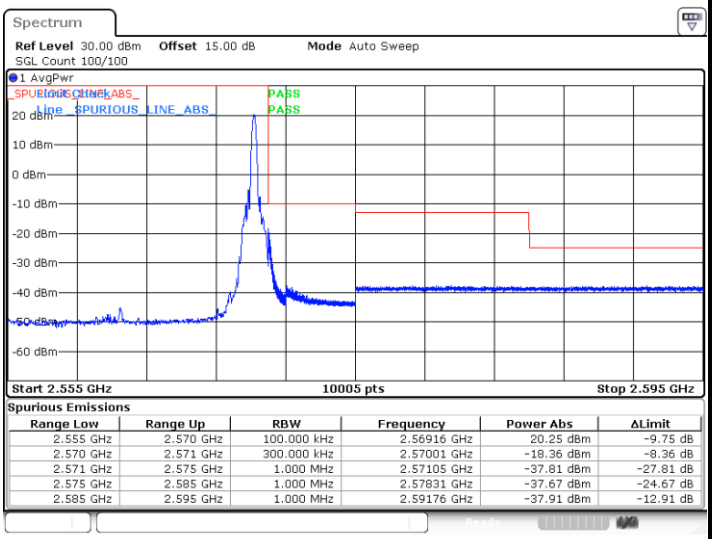


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.47582 GHz	-37.61 dBm	-12.61 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49420 GHz	-37.58 dBm	-24.58 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49894 GHz	-38.08 dBm	-28.08 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49999 GHz	-20.82 dBm	-10.82 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50082 GHz	20.44 dBm	-9.56 dB

Date: 29.JUL.2023 22:55:26

Highest Band Edge / 1 RB

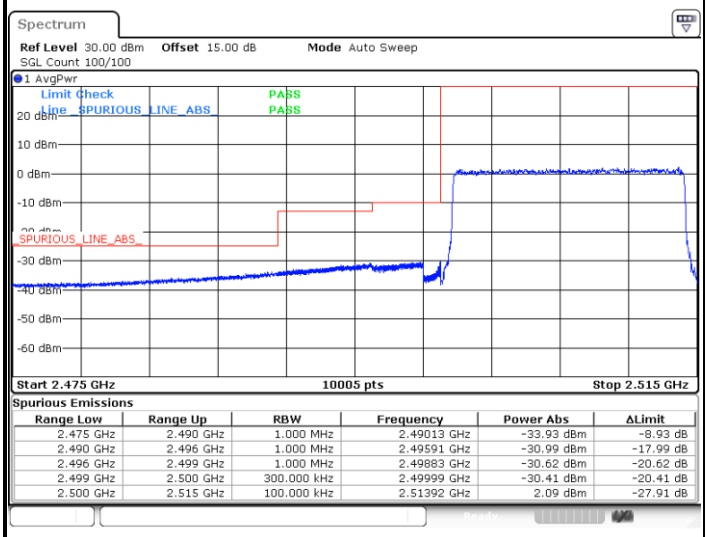


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56916 GHz	20.25 dBm	-9.75 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57001 GHz	-18.36 dBm	-8.36 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57105 GHz	-37.81 dBm	-27.81 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57831 GHz	-37.67 dBm	-24.67 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.59176 GHz	-37.91 dBm	-12.91 dB

Date: 29.JUL.2023 23:02:13

Lowest Band Edge / Full RB

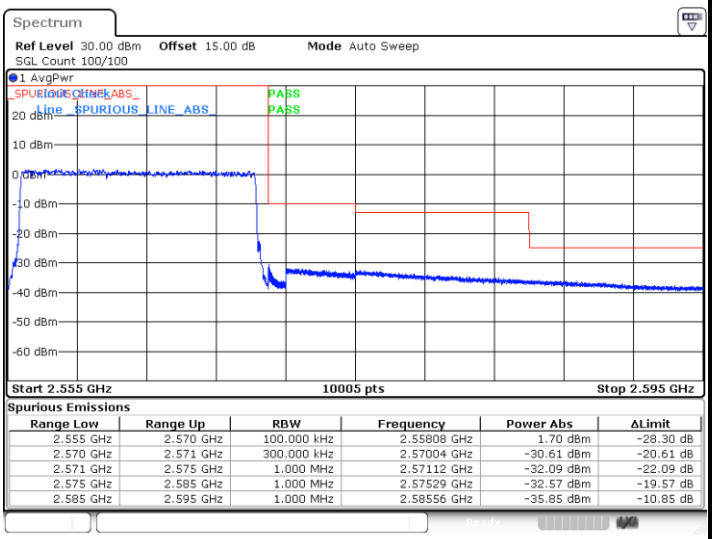


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49013 GHz	-33.93 dBm	-8.93 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49591 GHz	-30.99 dBm	-17.99 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49883 GHz	-30.62 dBm	-20.62 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49999 GHz	-30.41 dBm	-20.41 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.51392 GHz	2.09 dBm	-27.91 dB

Date: 29.JUL.2023 22:54:53

Highest Band Edge / Full RB



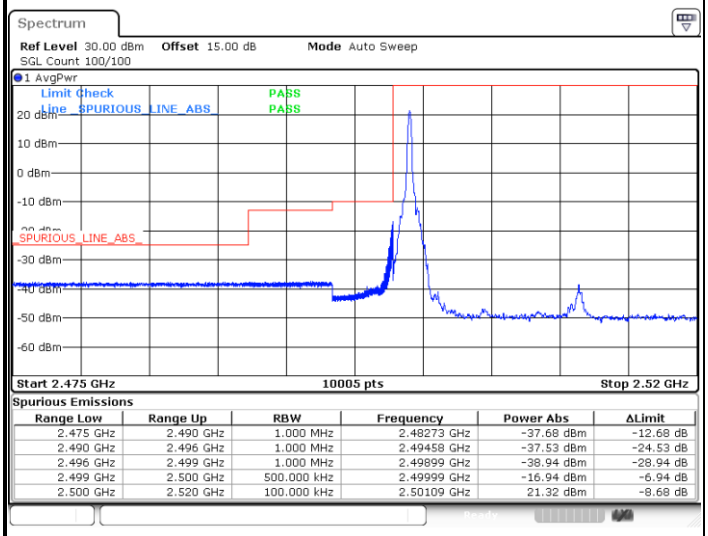
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.55808 GHz	1.70 dBm	-28.30 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57004 GHz	-30.61 dBm	-20.61 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57112 GHz	-32.09 dBm	-22.09 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57529 GHz	-32.57 dBm	-19.57 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58556 GHz	-35.85 dBm	-10.85 dB

Date: 29.JUL.2023 23:01:43

NSA_DC_7A_n5A / 20MHz / QPSK

Lowest Band Edge / 1 RB

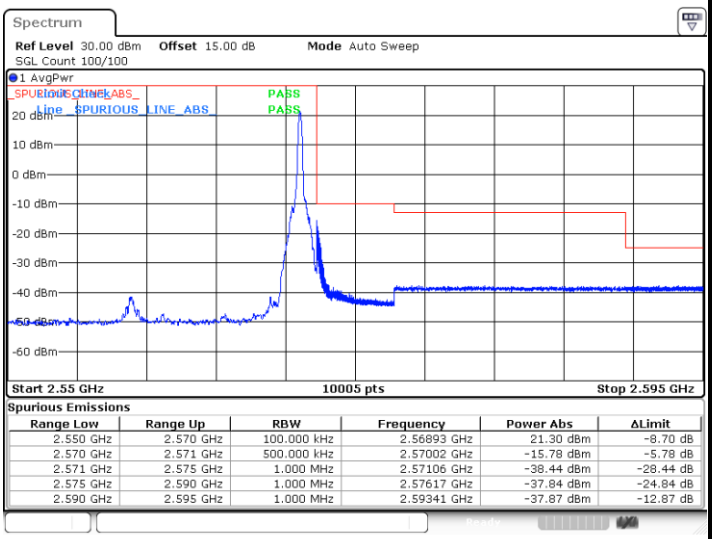


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48273 GHz	-37.68 dBm	-12.68 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49458 GHz	-37.53 dBm	-24.53 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49899 GHz	-38.94 dBm	-28.94 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.49999 GHz	-16.94 dBm	-6.94 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.50109 GHz	21.32 dBm	-8.68 dB

Date: 29.JUL.2023 23:17:05

Highest Band Edge / 1 RB

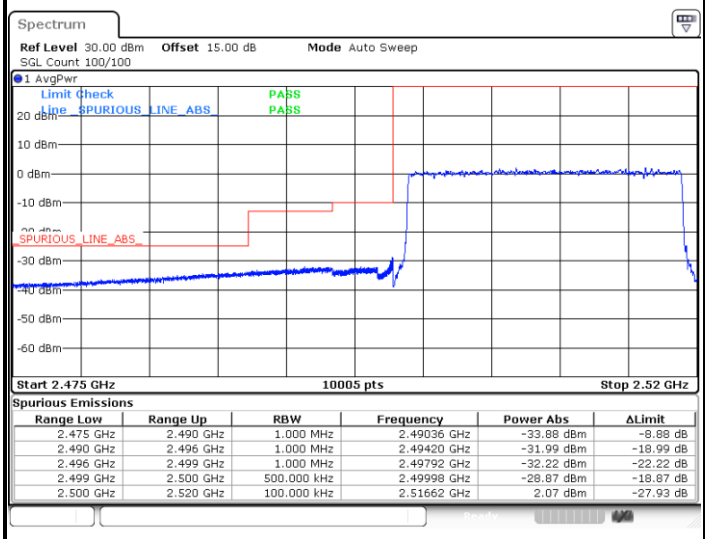


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.550 GHz	2.570 GHz	100.000 kHz	2.56893 GHz	21.30 dBm	-8.70 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57002 GHz	-15.78 dBm	-5.78 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57106 GHz	-38.44 dBm	-28.44 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.57617 GHz	-37.84 dBm	-24.84 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59341 GHz	-37.87 dBm	-12.87 dB

Date: 29.JUL.2023 23:27:05

Lowest Band Edge / Full RB

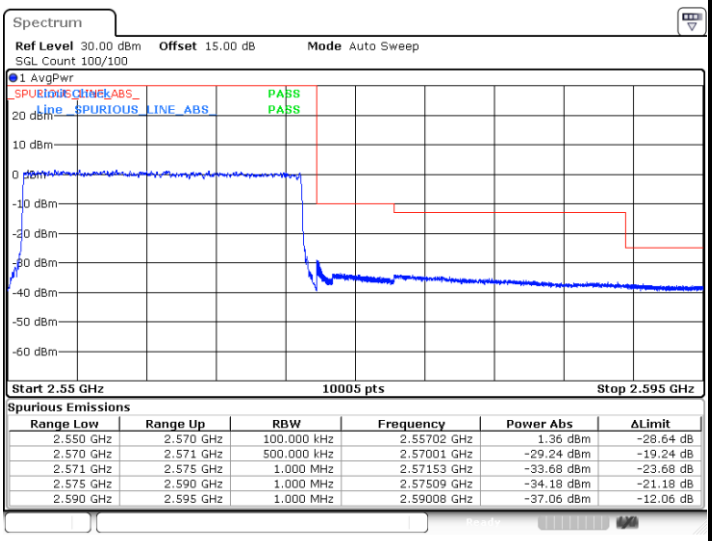


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49036 GHz	-33.88 dBm	-8.88 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49420 GHz	-31.99 dBm	-18.99 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49792 GHz	-32.22 dBm	-22.22 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.49998 GHz	-28.87 dBm	-18.87 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.51662 GHz	2.07 dBm	-27.93 dB

Date: 29.JUL.2023 23:18:42

Highest Band Edge / Full RB



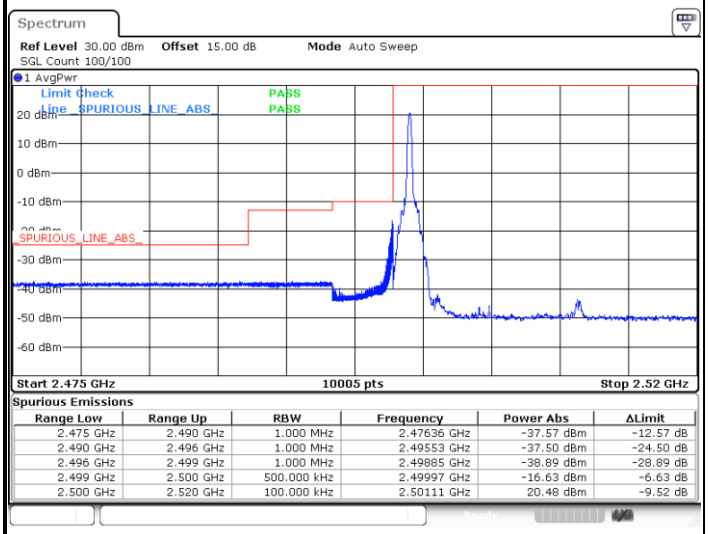
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.550 GHz	2.570 GHz	100.000 kHz	2.55702 GHz	1.36 dBm	-28.64 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57001 GHz	-29.24 dBm	-19.24 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57153 GHz	-33.68 dBm	-23.68 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.57509 GHz	-34.18 dBm	-21.18 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59008 GHz	-37.06 dBm	-12.06 dB

Date: 29.JUL.2023 23:27:36

NSA_DC_7A_n5A / 20MHz / 16QAM

Lowest Band Edge / 1RB

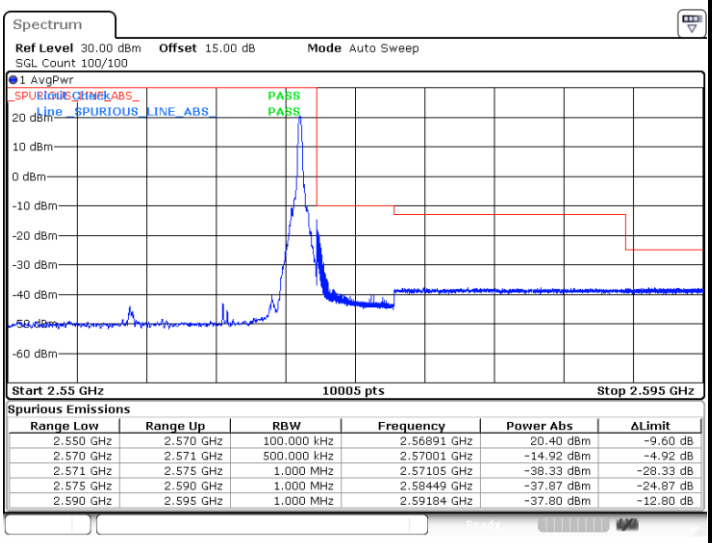


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.47636 GHz	-37.57 dBm	-12.57 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49553 GHz	-37.50 dBm	-24.50 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49885 GHz	-38.89 dBm	-28.89 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.49997 GHz	-16.63 dBm	-6.63 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.50111 GHz	20.48 dBm	-9.52 dB

Date: 29.JUL.2023 23:20:46

Highest Band Edge / 1 RB

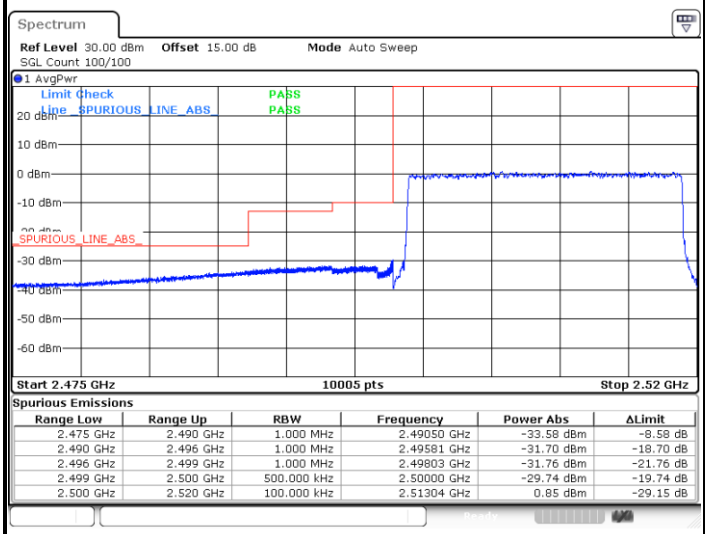


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.550 GHz	2.570 GHz	100.000 kHz	2.56891 GHz	20.40 dBm	-9.60 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57001 GHz	-14.92 dBm	-4.92 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57105 GHz	-38.33 dBm	-28.33 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.58449 GHz	-37.87 dBm	-24.87 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59184 GHz	-37.80 dBm	-12.80 dB

Date: 29.JUL.2023 23:26:09

Lowest Band Edge / Full RB

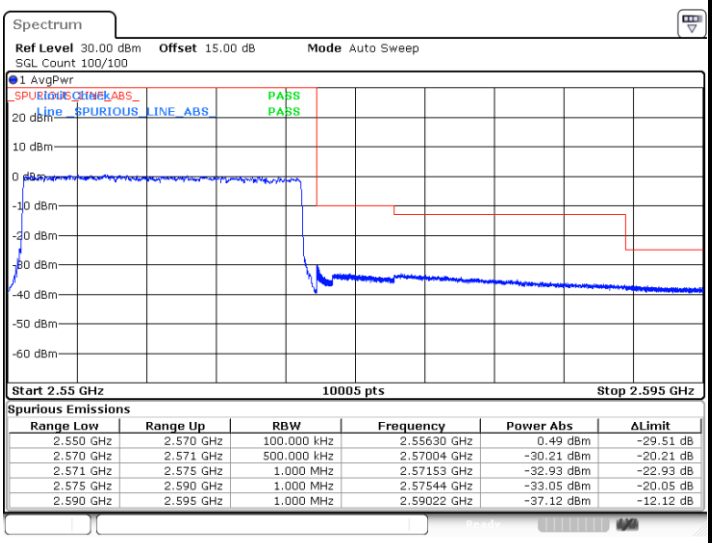


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49050 GHz	-33.58 dBm	-8.58 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49581 GHz	-31.70 dBm	-18.70 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49803 GHz	-31.76 dBm	-21.76 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.50000 GHz	-29.74 dBm	-19.74 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.51304 GHz	0.85 dBm	-29.15 dB

Date: 29.JUL.2023 23:20:14

Highest Band Edge / Full RB



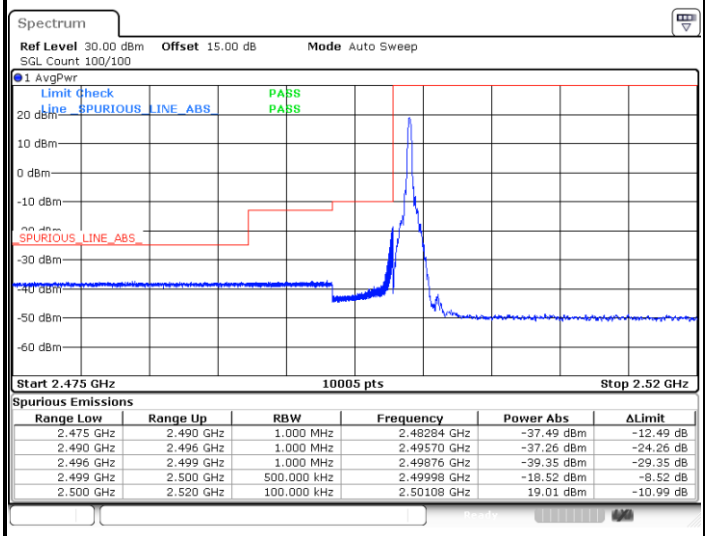
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.550 GHz	2.570 GHz	100.000 kHz	2.55630 GHz	0.49 dBm	-29.51 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57004 GHz	-30.21 dBm	-20.21 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57153 GHz	-32.93 dBm	-22.93 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.57544 GHz	-33.05 dBm	-20.05 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59022 GHz	-37.12 dBm	-12.12 dB

Date: 29.JUL.2023 23:25:39

NSA_DC_7A_n5A / 20MHz / 64QAM

Lowest Band Edge / 1RB

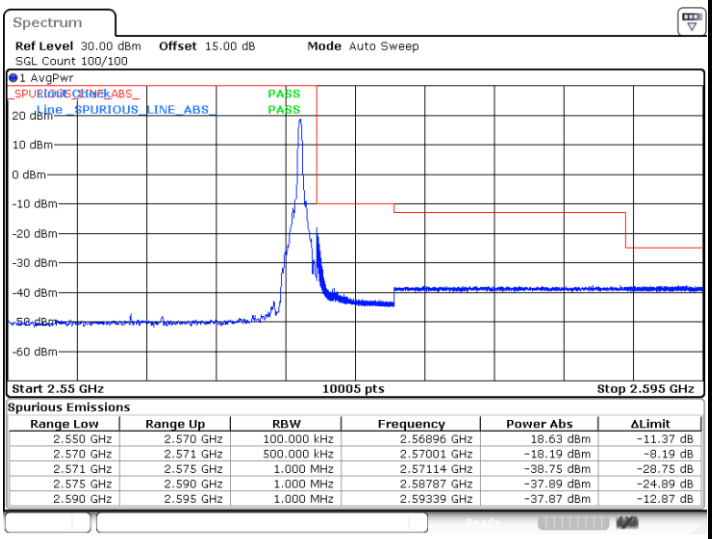


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48284 GHz	-37.49 dBm	-12.49 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49570 GHz	-37.26 dBm	-24.26 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49876 GHz	-39.35 dBm	-29.35 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.49998 GHz	-18.52 dBm	-8.52 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.50108 GHz	19.01 dBm	-10.99 dB

Date: 29.JUL.2023 23:21:24

Highest Band Edge / 1 RB

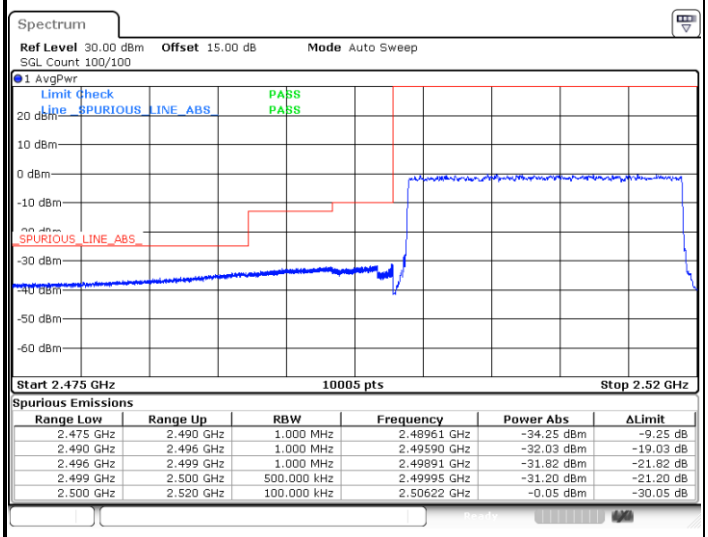


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.550 GHz	2.570 GHz	100.000 kHz	2.56896 GHz	18.63 dBm	-11.37 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57001 GHz	-18.19 dBm	-8.19 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57114 GHz	-38.75 dBm	-28.75 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.58787 GHz	-37.89 dBm	-24.89 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59339 GHz	-37.87 dBm	-12.87 dB

Date: 29.JUL.2023 23:23:48

Lowest Band Edge / Full RB

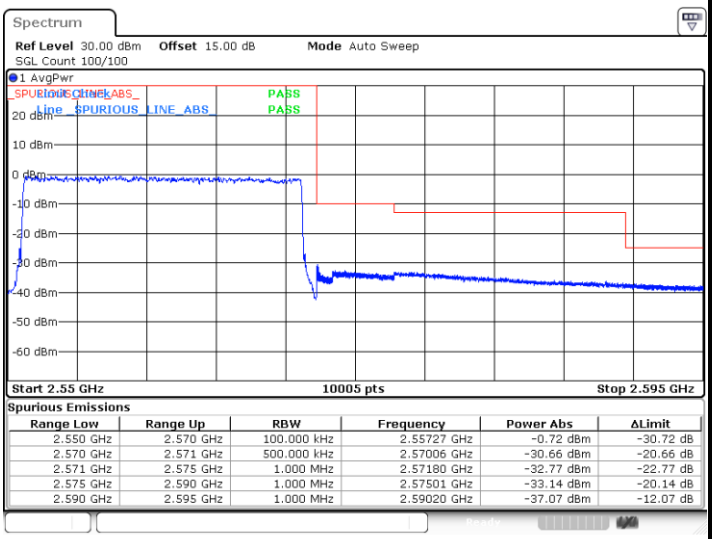


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48961 GHz	-34.25 dBm	-9.25 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49590 GHz	-32.03 dBm	-19.03 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49891 GHz	-31.82 dBm	-21.82 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.49995 GHz	-31.20 dBm	-21.20 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.50622 GHz	-0.05 dBm	-30.05 dB

Date: 29.JUL.2023 23:21:59

Highest Band Edge / Full RB



Spurious Emissions

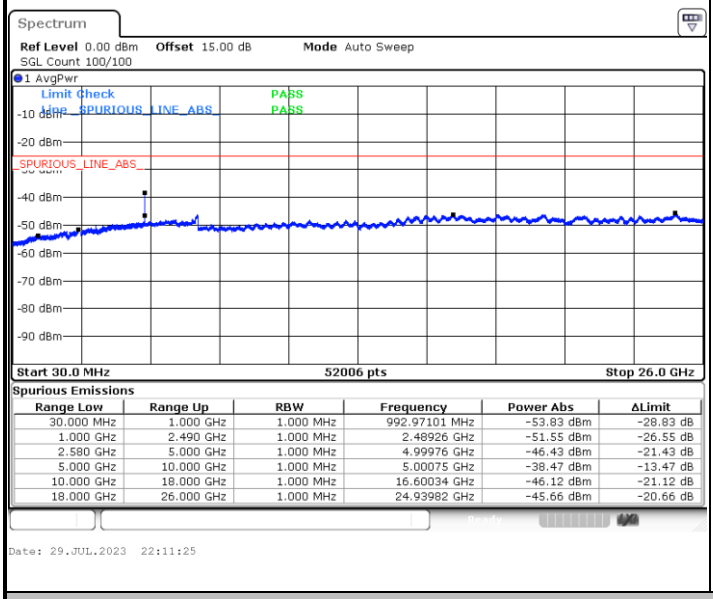
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.550 GHz	2.570 GHz	100.000 kHz	2.55727 GHz	-0.72 dBm	-30.72 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57006 GHz	-30.66 dBm	-20.66 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57180 GHz	-32.77 dBm	-22.77 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.57501 GHz	-33.14 dBm	-20.14 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59020 GHz	-37.07 dBm	-12.07 dB

Date: 29.JUL.2023 23:23:11

Conducted Spurious Emission

NSA_DC_7A_n5A / 5MHz

Lowest Channel / QPSK

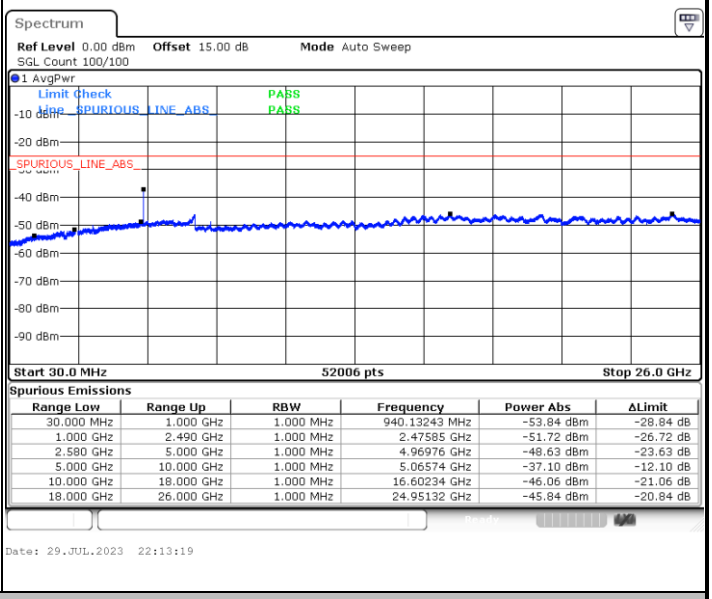


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	992.97101 MHz	-53.83 dBm	-28.83 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48926 GHz	-51.55 dBm	-26.55 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.99976 GHz	-46.43 dBm	-21.43 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.00075 GHz	-38.47 dBm	-13.47 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.60034 GHz	-46.12 dBm	-21.12 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.93982 GHz	-45.66 dBm	-20.66 dB

Date: 29.JUL.2023 22:11:25

Middle Channel / QPSK

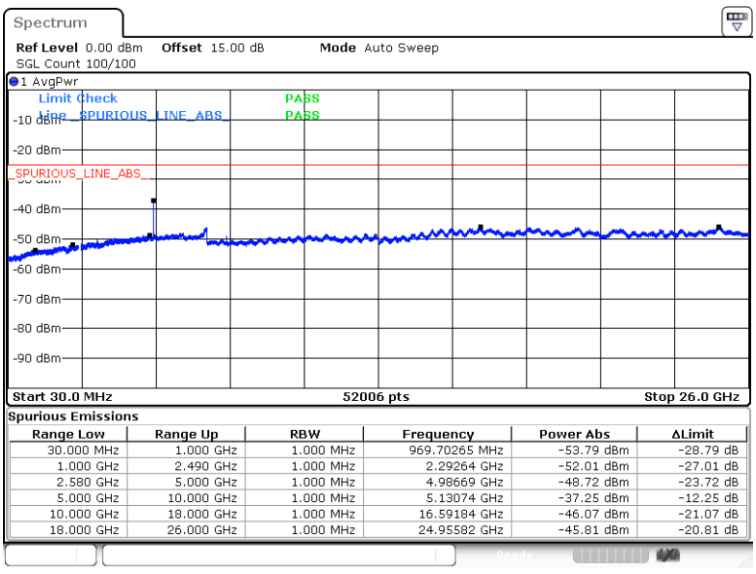


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	940.13243 MHz	-53.84 dBm	-28.84 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.47585 GHz	-51.72 dBm	-26.72 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.96976 GHz	-48.63 dBm	-23.63 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.06574 GHz	-37.10 dBm	-12.10 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.60234 GHz	-46.06 dBm	-21.06 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.95132 GHz	-45.84 dBm	-20.84 dB

Date: 29.JUL.2023 22:13:19

Highest Channel / QPSK



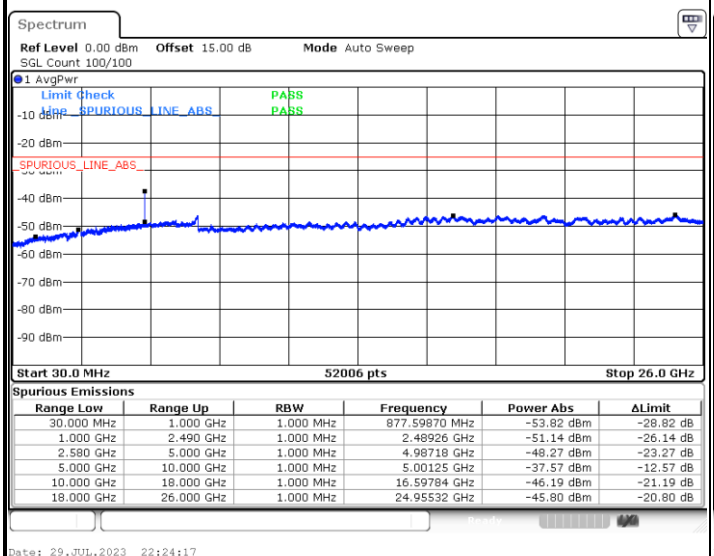
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	969.70265 MHz	-53.79 dBm	-28.79 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.29264 GHz	-52.01 dBm	-27.01 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.98669 GHz	-48.72 dBm	-23.72 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.13074 GHz	-37.25 dBm	-12.25 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.59184 GHz	-46.07 dBm	-21.07 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.95582 GHz	-45.81 dBm	-20.81 dB

Date: 29.JUL.2023 22:14:33

NSA_DC_7A_n5A / 10MHz

Lowest Channel / QPSK

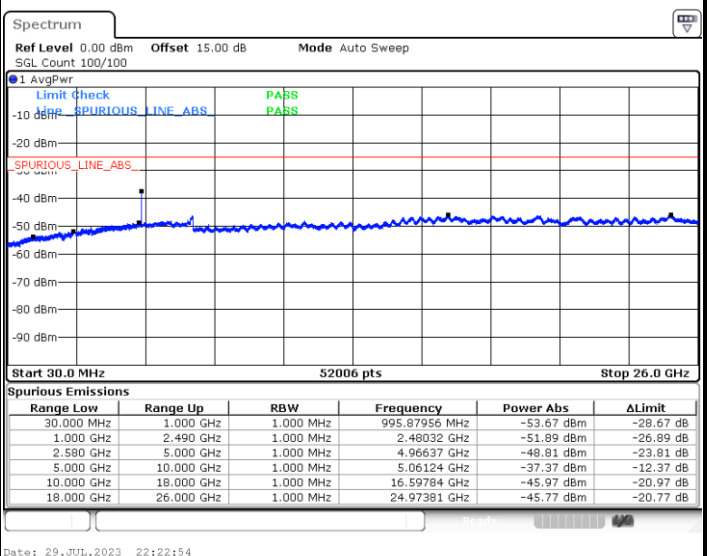


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	877.59870 MHz	-53.82 dBm	-28.82 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48926 GHz	-51.14 dBm	-26.14 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.98718 GHz	-48.27 dBm	-23.27 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.00125 GHz	-37.57 dBm	-12.57 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.59784 GHz	-46.19 dBm	-21.19 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.95532 GHz	-45.80 dBm	-20.80 dB

Date: 29.JUL.2023 22:24:17

Middle Channel / QPSK

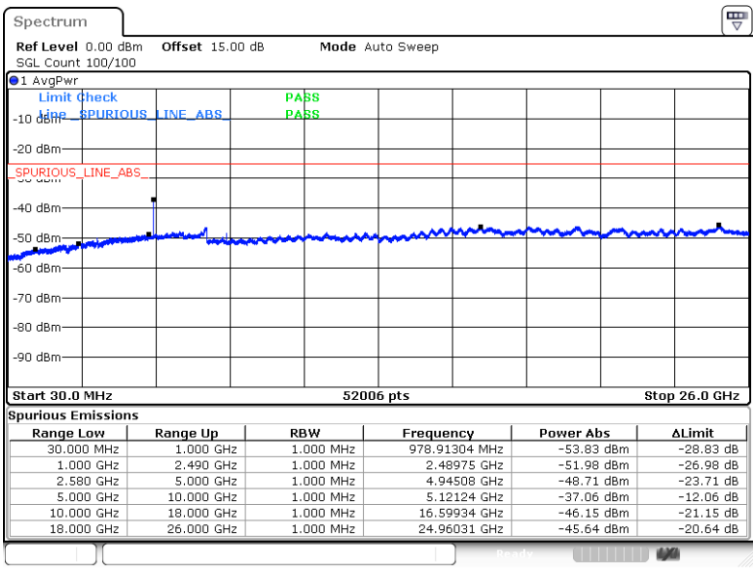


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	995.87956 MHz	-53.67 dBm	-28.67 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48032 GHz	-51.89 dBm	-26.89 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.96637 GHz	-48.81 dBm	-23.81 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.06124 GHz	-37.37 dBm	-12.37 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.59784 GHz	-45.97 dBm	-20.97 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.97381 GHz	-45.77 dBm	-20.77 dB

Date: 29.JUL.2023 22:22:54

Highest Channel / QPSK



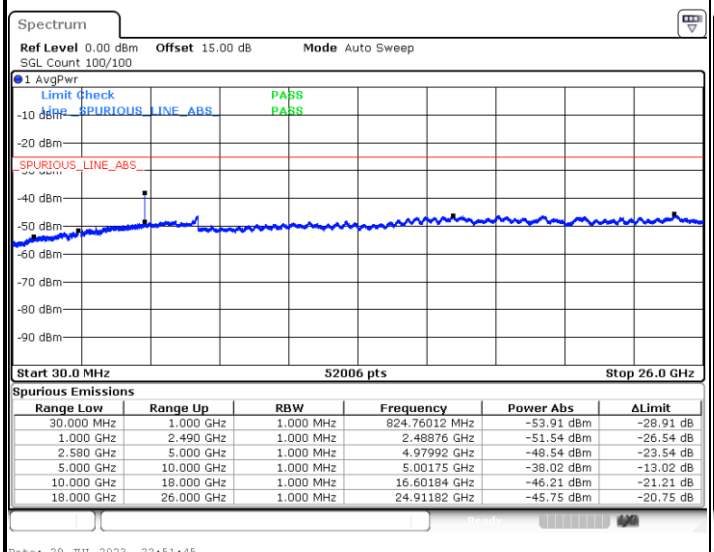
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	978.91304 MHz	-53.83 dBm	-28.83 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48975 GHz	-51.98 dBm	-26.98 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.94508 GHz	-48.71 dBm	-23.71 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.12124 GHz	-37.06 dBm	-12.06 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.59934 GHz	-46.15 dBm	-21.15 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.96031 GHz	-45.64 dBm	-20.64 dB

Date: 29.JUL.2023 22:25:23

NSA_DC_7A_n5A / 15MHz

Lowest Channel / QPSK

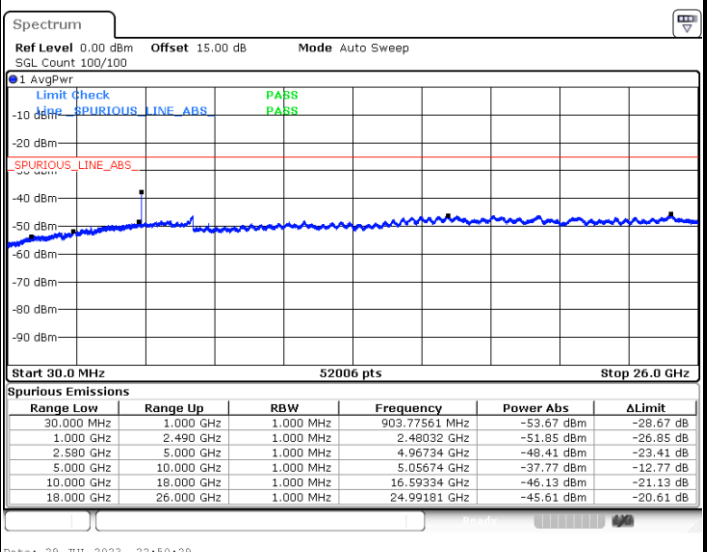


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	824.76012 MHz	-53.91 dBm	-28.91 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48876 GHz	-51.54 dBm	-26.54 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.97992 GHz	-48.54 dBm	-23.54 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.00175 GHz	-38.02 dBm	-13.02 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.60184 GHz	-46.21 dBm	-21.21 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.91182 GHz	-45.75 dBm	-20.75 dB

Date: 29.JUL.2023 22:51:45

Middle Channel / QPSK

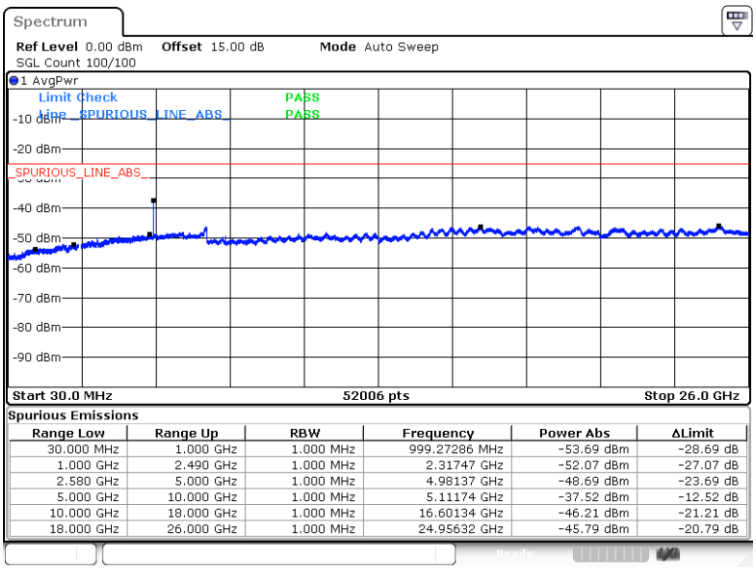


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	903.77561 MHz	-53.67 dBm	-28.67 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48032 GHz	-51.85 dBm	-26.85 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.96734 GHz	-48.41 dBm	-23.41 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.05674 GHz	-37.77 dBm	-12.77 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.59334 GHz	-46.13 dBm	-21.13 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.99181 GHz	-45.61 dBm	-20.61 dB

Date: 29.JUL.2023 22:50:29

Highest Channel / QPSK



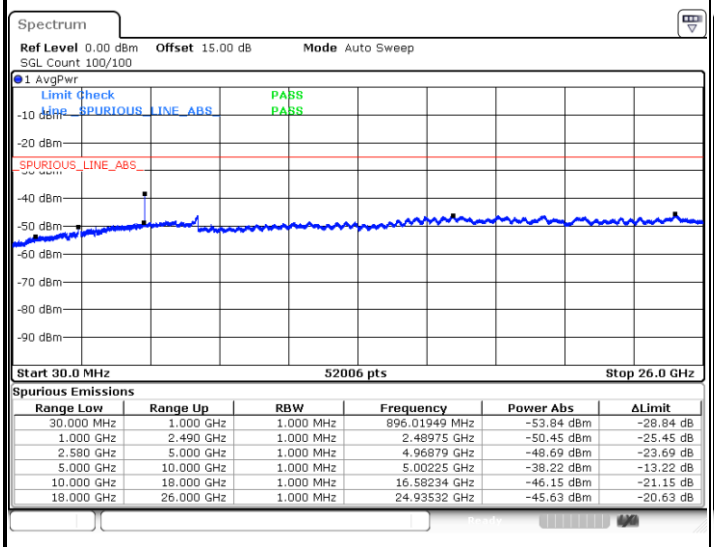
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	999.27286 MHz	-53.69 dBm	-28.69 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.31747 GHz	-52.07 dBm	-27.07 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.98137 GHz	-48.69 dBm	-23.69 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.11174 GHz	-37.52 dBm	-12.52 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.60134 GHz	-46.21 dBm	-21.21 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.95632 GHz	-45.79 dBm	-20.79 dB

Date: 29.JUL.2023 22:59:04

NSA_DC_7A_n5A / 20MHz

Lowest Channel / QPSK

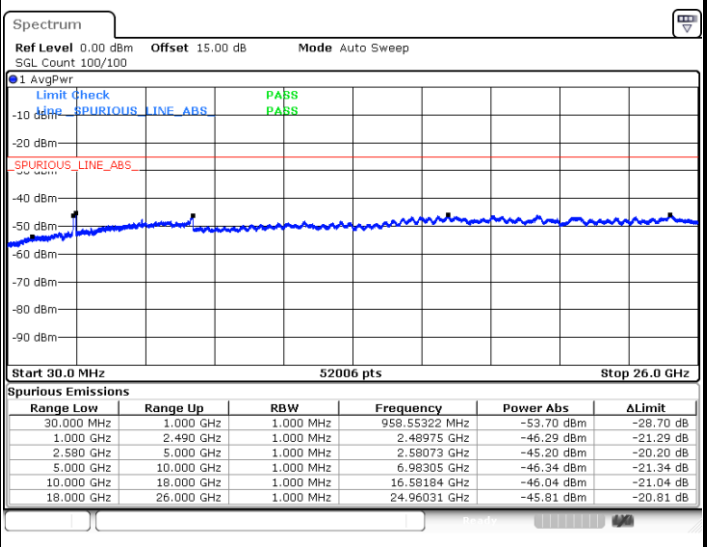


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	896.01949 MHz	-53.84 dBm	-28.84 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48975 GHz	-50.45 dBm	-25.45 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.96879 GHz	-48.69 dBm	-23.69 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.00225 GHz	-38.22 dBm	-13.22 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.58234 GHz	-46.15 dBm	-21.15 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.93532 GHz	-45.63 dBm	-20.63 dB

Date: 29.JUL.2023 23:18:02

Middle Channel / QPSK

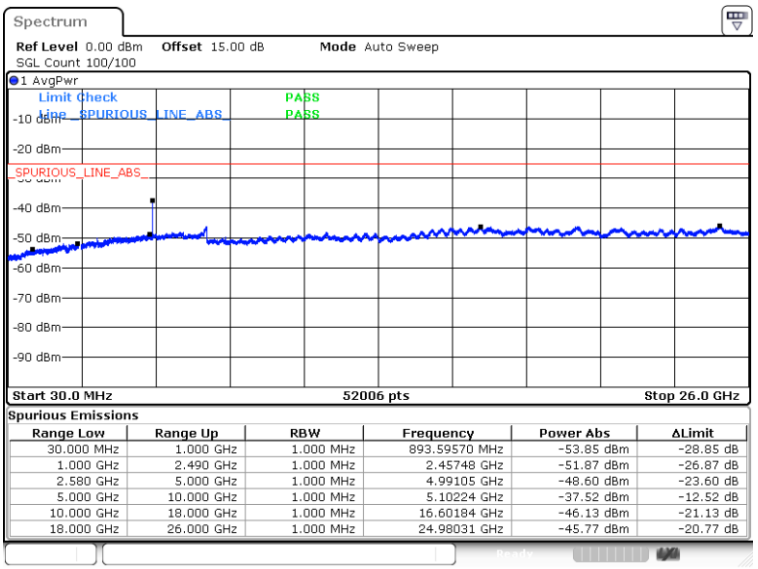


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	958.55322 MHz	-53.70 dBm	-28.70 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.48975 GHz	-46.29 dBm	-21.29 dB
2.580 GHz	5.000 GHz	1.000 MHz	2.58073 GHz	-45.20 dBm	-20.20 dB
5.000 GHz	10.000 GHz	1.000 MHz	6.98305 GHz	-46.34 dBm	-21.34 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.58184 GHz	-46.04 dBm	-21.04 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.96031 GHz	-45.81 dBm	-20.81 dB

Date: 29.JUL.2023 23:35:06

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	893.59570 MHz	-53.85 dBm	-28.85 dB
1.000 GHz	2.490 GHz	1.000 MHz	2.45748 GHz	-51.87 dBm	-26.87 dB
2.580 GHz	5.000 GHz	1.000 MHz	4.99105 GHz	-48.60 dBm	-23.60 dB
5.000 GHz	10.000 GHz	1.000 MHz	5.10224 GHz	-37.52 dBm	-12.52 dB
10.000 GHz	18.000 GHz	1.000 MHz	16.60184 GHz	-46.13 dBm	-21.13 dB
18.000 GHz	26.000 GHz	1.000 MHz	24.98031 GHz	-45.77 dBm	-20.77 dB

Date: 29.JUL.2023 23:28:52

Frequency Stability

Test Conditions		NSA_DC_7A_n5A (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0020	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0024	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0022	

Note:

1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.40 V. ; Maximum Voltage = 4.50 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Zhaohui Liang	Temperature :	22~25℃
		Relative Humidity :	48~52%

EN-DC_7A_n5A / 10MHz + 20MHz / QPSK / ANT 4+0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
LTE B7 Middle	5061.18	-55.35	-25	-30.35	-79.42	-60.91	7.14	12.70	H
	7591.77	-54.82	-25	-29.82	-81.45	-58.12	8.30	11.60	H
	10122.36	-51.76	-25	-26.76	-82.72	-53.28	10.48	12.00	H
	5061.18	-55.48	-25	-30.48	-80.76	-61.04	7.14	12.70	V
	7591.77	-55.17	-25	-30.17	-81.8	-58.47	8.30	11.60	V
	10122.36	-50.98	-25	-25.98	-82.99	-52.50	10.48	12.00	V
5G NR n5 Middle	1654.5	-63.26	-13	-50.26	-75.39	-66.51	4.00	9.40	H
	2481.75	-57.83	-13	-44.83	-77.08	-61.40	4.88	10.60	H
	3309	-56.55	-13	-43.55	-77.70	-61.48	5.52	12.60	H
	1654.5	-62.54	-13	-49.54	-75.31	-65.79	4.00	9.40	V
	2481.75	-56.73	-13	-43.73	-76.30	-60.30	4.88	10.60	V
	3309	-55.89	-13	-42.89	-77.74	-60.82	5.52	12.60	V

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