FCC RF Test Report

APPLICANT	: LENOVO (BEIJING) LIMITED
EQUIPMENT	: Mobile Phone
BRAND NAME	: Lenovo
MODEL NAME	: Lenovo L70081
FCC ID	: A5MLM21C81
STANDARD	: 47 CFR Part 2, 27
CLASSIFICATION	: PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	: Apr. 02, 2021 ~ May 20, 2021

We, Sporton International (Kunshan) Inc., 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 (Kunshan) Inc., the test report shall not be reproduced except in full.

Jason Jia

Reviewed by: Jason Jia / Supervisor

Alex Wang

Approved by: Alex Wang / Manager

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

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG111226-01E	Rev. 01	Initial issue of report	Jun. 08, 2021

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (5G NR n7, n41, n38)	EIRP < 2Watt		
	§27.50(j)(3)	Equivalent Isotropic Radiated Power (5G NR n77, n78)	EIRP < 1Watt		
3.5	§27.50(j)(4)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §27.53(l)(2)	Conducted Band Edge Measurement (5G NR n77, n78)	< 43+10log10(P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (5G NR n7, n41, n38)	§27.53(m)(4)		
3.8	§2.1051 §27.53(l)(2)	Conducted Spurious Emission (5G NR n77, n78)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (5G NR n7, n41, n38)	< $55+10\log_{10}$(P[Watts])		
3.9	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(l)(2)	Radiated Spurious Emission (5G NR n77, n78)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 16.97 dB at 7632.000 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (5G NR n7, n41, n38)	< $55+10\log_{10}$(P[Watts])		

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

1 General Description

1.1 Applicant

LENOVO (BEIJING) LIMITED

201-H2-6, Floor 2, Building 2, No.6 Shangdi West Road, Haidian District, Beijing, China 100085

1.2 Manufacturer

Lenovo PC HK Limited

23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong, P.R. China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	Lenovo
Model Name	Lenovo L70081
FCC ID	A5MLM21C81
EUT supports Radios application	CDMA/GSM/WCDMA/LTE/5G NR/NFC/GNSS WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ac VHT20/VHT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE
IMEI Code	Conducted: N/A Radiation: 865576050015018
HW Version	DVT2
SW Version	L70081_CN_OPEN_UD_Q00017.0_R_ZUI_12.5.020_ST_210219_qpst
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz
Rx Frequency	5G NR n7 : 2620 MHz ~ 2690 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz
Bandwidth	n7: 5MHz / 10MHz / 15MHz / 20MHz n38 : 20MHz n41: 20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 80MHz / 90MHz / 100MHz n77/n78: 20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 70MHz / 80MHz / 90MHz / 100MHz
SCS	n7: 15kHz n38, n41, n77, n78: 30kHz
Antenna Gain	**Ant. 3:** 5G NR n7: -2.0 dBi 5G NR n38: -2.0 dBi **Ant. 1/3:** 5G NR n41: -2.0 dBi **Ant. 2/4:** 5G NR n77: -0.5 dBi 5G NR n78: -0.5 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. The maximum ERP/EIRP is calculated from max output power and max antenna gain, only the maximum ERP/EIRP is shown in the report.
2. 5G NR n41/n77/n78 support UL MIMO mode, and only supports CP-OFDM modulation in UL MIMO mode, and only the maximum antenna gain show in the report.
3. 5G NR n41/n77/n78 supports HPUE for UL MIMO mode.
4. 5G NR supports SA and NSA mode (refer to the Operation Description). According to the maximum power, perform all test for conducted items of SA mode, and NSA mode verify the worst of SA mode, only record the SA conducted test data in the report.
5. For EN-DC mode and SA mode, the different modes match with different antenna combination. Pre-scanned harmonic for RSE testing, we choice worse case of antenna combination to full test.
6. The EN-DC mode combination could be referred to the OD document.

1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

5G NR n7		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
20	2510.0 ~ 2560.0	19M3G7D	0.2624	19M4W7D	0.2218
Frequency Tolerance (ppm)		0.0023			

5G NR n41/38		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
100	2546.01 ~ 2640.00	98M7G7D	0.2317	97M7W7D	0.1954
Frequency Tolerance (ppm)		0.0029			

5G NR n41_UL MIMO		QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
100	2546.01 ~ 2640.00	97M7G7D	0.3707	97M5W7D	0.3436
Frequency Tolerance (ppm)		0.0022			

5G NR n77		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
100	3750.0 ~ 3930.0	97M9G7D	0.2153	98M1W7D	0.1782
Frequency Tolerance (ppm)		0.0026			

5G NR n77_UL MIMO		QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
100	3750.0 ~ 3930.0	97M3G7D	0.3681	97M9W7D	0.3020
Frequency Tolerance (ppm)		0.0031			

5G NR n78		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
100	3750.0	97M9G7D	0.1945	98M1W7D	0.1459
Frequency Tolerance (ppm)		0.0026			

5G NR n78_UL MIMO		QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
100	3750.0	97M3G7D	0.3467	97M9W7D	0.2877
Frequency Tolerance (ppm)		0.0031			

Note:

1. 5G NR Band n41 overlaps the entire frequency range of Band n38. Therefore, the conducted test results provided in this report covers Band n41 as well as Band n38.
2. 5G NR Band n77 overlaps the entire frequency range of Band n78. Therefore, the test results provided in this report covers Band n77 as well as Band n78.
3. Based on engineering evaluation, only the maximum bandwidth and the worst modulation test results are shown in the report.

1.7 Testing Location

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

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

1.8 Test Software

Item	Site	Manufacturer	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
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

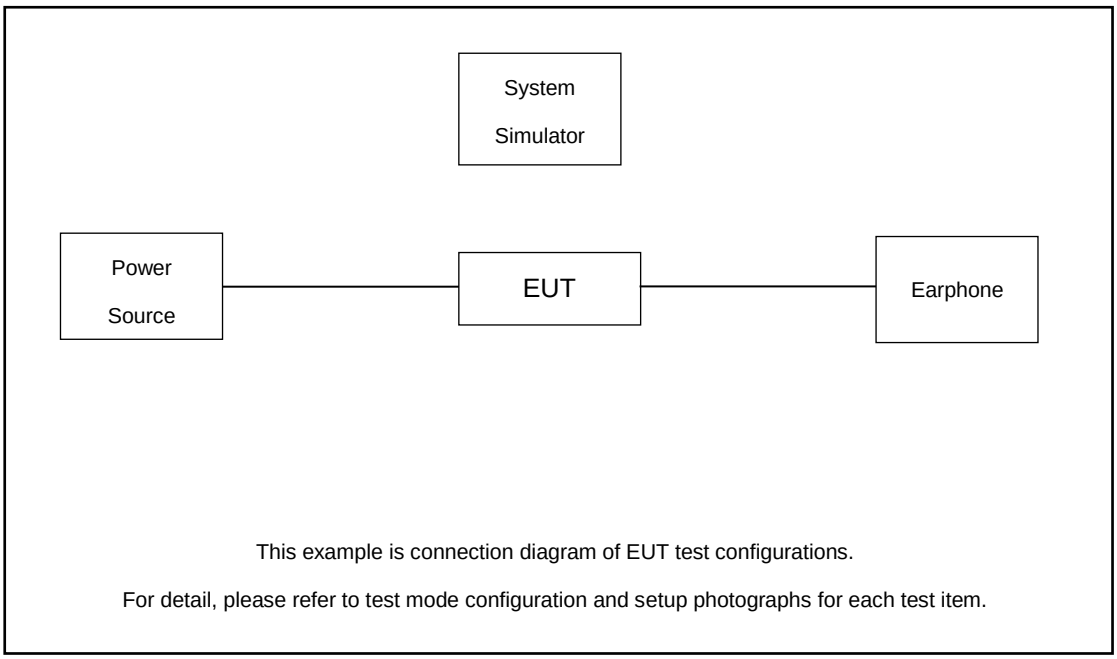
The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.

	X Plane	Y Plane	Z Plane
Orthogonal Planes of EUT			

Test Items	5G NR	Bandwidth (MHz)						Modulation					RB #		Test Channel		
		5	10	15	20	30-90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256 QAM	1	Full	L	M	H
Max. Output Power	n7	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	n38	-	-	-	v	-	-		v	v			v		v	v	v
	n41	-	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	n77	-	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	n78	-	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n7				v	-	-	v	v	v	v	v		v		v	
	n41	-	-	-			v	v	v	v	v	v		v		v	
	n77	-	-	-			v	v	v	v	v	v		v		v	
26dB and 99% Bandwidth	n7				v	-	-		v	v				v		v	
	n41	-	-	-			v		v	v				v		v	
	n77	-	-	-			v		v	v				v		v	
Conducted Band Edge	n7	v	v	v	v	-	-	v	v	v	v	v	v	v	v		v
	n41	-	-	-	v	v	v	v	v	v	v	v	v	v	v		v
	n77	-	-	-	v	v	v	v	v	v	v	v	v	v	v		v

Test Items	5G NR	Bandwidth (MHz)						Modulation					RB #		Test Channel		
		5	10	15	20	30-90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256 QAM	1	Full	L	M	H
Conducted Spurious Emission	n7	v	v	v	v	-	-		v				v		v	v	v
	n41	-	-	-	v	v	v		v				v		v	v	v
	n77	-	-	-	v	v	v		v				v		v	v	v
Frequency Stability	n7				v	-	-		v				v			v	
	n41	-	-	-			v		v				v			v	
	n77	-	-	-			v		v				v			v	
E.R.P / E.I.R.P	n7	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	n38	-	-	-	v	-	-		v	v			v		v	v	v
	n41	-	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	n77	-	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	n78	-	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n7	Worst Case														v	
	n38	Worst Case														v	
	n41	Worst Case														v	
	n77	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. 4. For modulation of CP-OFDM and DFT-s-OFDM , the maximum power of CP-OFDM is lower than DFT-s-OFDM modulation, therefore, we chose higher power (DFT-s-OFDM modulation) to perform all tests and show in the report. 5. Based on engineering evaluation, only the worst modulations test results are shown in the report .																

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.	DC Power Supply	GW	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

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

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 5.02 dB and 10dB attenuator.

Example :

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

= 5.02 + 10 = 15.02 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G NR n7 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	502000	507000	512000
	Frequency	2510	2535	2560
15	Channel	501500	507000	512500
	Frequency	2507.5	2535	2562.5
10	Channel	501000	507000	513000
	Frequency	2505	2535	2565
5	Channel	500500	507000	513500
	Frequency	2502.5	2535	2567.5

5G NR n38 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	516000	519000	522000
	Frequency	2580	2595	2610

5G NR n41 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
100	Channel	509202	518598	528000
	Frequency	2546.01	2592.99	2640
90	Channel	508200	518598	528996
	Frequency	2541	2592.99	2644.98
80	Channel	507204	518598	529998
	Frequency	2536.02	2592.99	2649.99
60	Channel	505200	518598	531996
	Frequency	2526	2592.99	2659.98
50	Channel	504204	518598	532998
	Frequency	2521.02	2592.99	2664.99
40	Channel	503202	518598	534000
	Frequency	2516.01	2592.99	2670
30	Channel	502200	518598	534996
	Frequency	2511	2592.99	2674.98
20	Channel	501204	518598	535998
	Frequency	2506.02	2592.99	2679.99

5G NR n77 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
100	Channel	650000	656000	662000
	Frequency	3750	3840	3930
90	Channel	649668	656000	662334
	Frequency	3745.02	3840	3935.01
80	Channel	649334	656000	662668
	Frequency	3740.01	3840	3940.02
70	Channel	649000	656000	663000
	Frequency	3735	3840	3945
60	Channel	648668	656000	663334
	Frequency	3730.02	3840	3950.01
50	Channel	648334	656000	663668
	Frequency	3725.01	3840	3955.02
40	Channel	648000	656000	664000
	Frequency	3720	3840	3960
30	Channel	647668	656000	664334
	Frequency	3715.02	3840	3965.01
20	Channel	647334	656000	664668
	Frequency	3710.01	3840	3970.02

5G NR n78 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
100	Channel		650000	
	Frequency		3750	
90	Channel	649668	650000	650332
	Frequency	3745.02	3750	3754.98
80	Channel	649334	650000	650666
	Frequency	3740.01	3750	3759.99
70	Channel	649000	650000	651000
	Frequency	3735	3750	3765
60	Channel	648668	650000	651332
	Frequency	3730.02	3750	3769.98
50	Channel	648334	650000	651666
	Frequency	3725.01	3750	3774.99
40	Channel	648000	650000	652000
	Frequency	3720	3750	3780
30	Channel	647668	650000	652332
	Frequency	3715.02	3750	3784.98
20	Channel	647334	650000	652666
	Frequency	3710.01	3750	3789.99

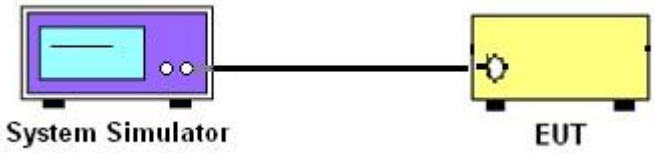
3 Conducted Test Items

3.1 Measuring Instruments

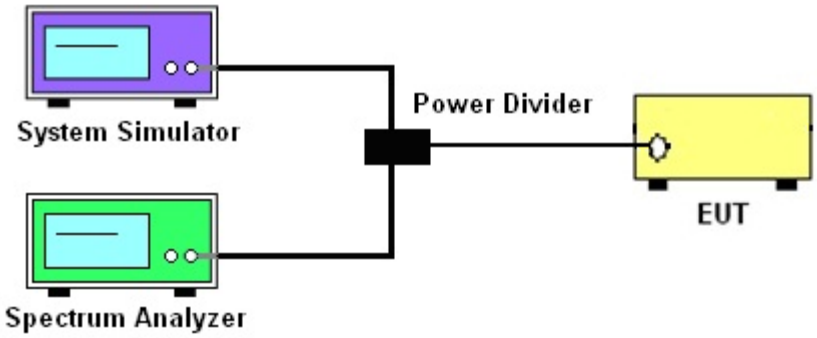
See list of measuring instruments of this test report.

3.2 Test Setup

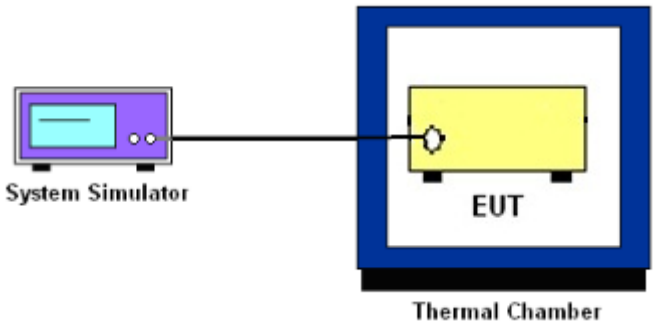
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

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

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

The EIRP of mobile transmitters must not exceed 2 Watts for 5G NR n7, n38 and n41.

The EIRP of mobile transmitters must not exceed 1 Watts for 5G NR n77 and n78.

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

For 5G NR Band n7:

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.

For 5G NR Band n41/n77:

1. The testing follows ANSI C63.26 Section 5.2.6 (PAPR).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set EUT in maximum power output.
4. Set the RBW = 1MHz, VBW = 3MHz, Detector = Peak, Trace mode = max hold, Set span ≥ 2 × OBW in spectrum analyzer.
5. Set the RBW = 1MHz, VBW = 3MHz, Detector = power averaging, Trace mode = max hold, Set span ≥ 2 × OBW in spectrum analyzer.
6. Add [10 log (1/duty cycle)] to the measured maximum power level to compute the average power during continuous transmission.
7. PAPR (dB) = P_{Pk} (dBm) − P_{Avg} (dBm)

   where

   PAPR peak-to-average power ratio, in dB

   P_{Pk} measured peak power level, in dBm

   P_{Avg} measured average power level, in dBm
8. 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.

27.53(l)(2)

For mobile operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz. Compliance with this paragraph is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.

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 5G NR n7/n38/n41, the other 40 dB, and 55 dB have additionally applied same calculation above.

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 5G NR n7/n38/n41:

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 5G NR n7/n38/n41
    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.

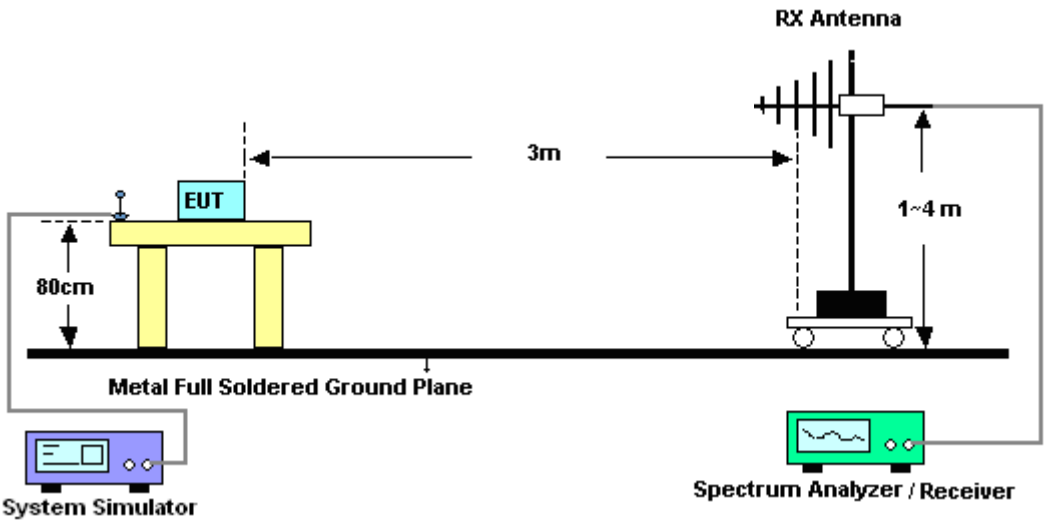
4 Radiated Test Items

4.1 Measuring Instruments

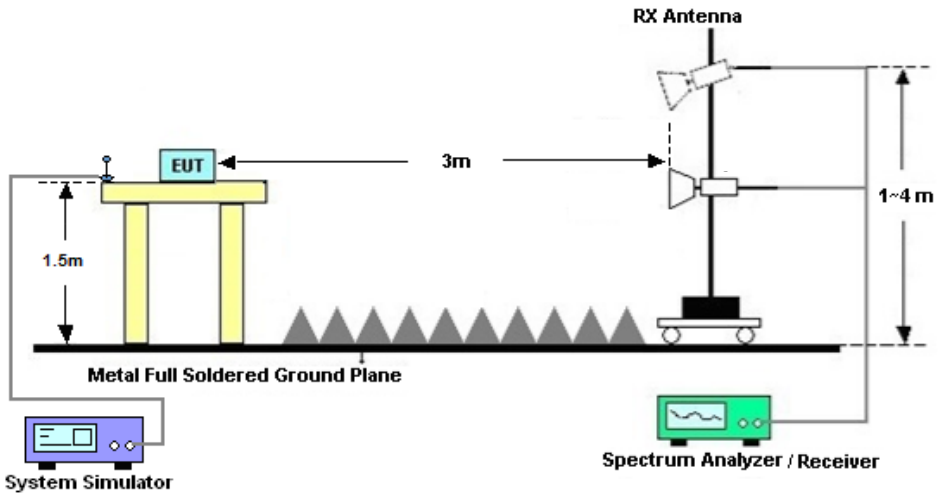
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

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 5G NR n7/n38/n41

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 5G NR n7/n38/n41:
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)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	Nov. 01, 2020	Apr. 02, 2021~ May 20, 2021	Oct. 31, 2021	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 03, 2020	Apr. 02, 2021~ May 20, 2021	Jul. 02, 2021	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44G,MAX 30dB	Apr. 13, 2021	Apr. 28, 2021	Apr. 12, 2022	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	Jun. 08, 2020	Apr. 28, 2021	Jun. 07, 2021	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1356	1GHz~18GHz	Apr. 18, 2021	Apr. 28, 2021	Apr. 17, 2022	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101115	18GHz~40GHz	Jan. 06, 2021	Apr. 28, 2021	Jan. 05, 2022	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 06, 2021	Apr. 28, 2021	Jan. 05, 2022	Radiation (03CH04-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P	2025788	1Ghz-18Ghz	Jan. 06, 2021	Apr. 28, 2021	Jan.05, 2022	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Oct. 14, 2020	Apr. 28, 2021	Oct. 13, 2021	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 07, 2021	Apr. 28, 2021	Jan. 06, 2022	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Apr. 28, 2021	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Apr. 28, 2021	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Apr. 28, 2021	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 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

Conducted Output Power(Average power and EIRP)

5G NR n7 SA:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP (W)		
Channel				502000	507000	512000		L	M	H
Frequency (MHz)				2510	2535	2560				
20	PI/2 BPSK	1	1	23.12	23.22	23.26	-2.00	0.1294	0.1324	0.1337
20	PI/2 BPSK	1	53	23.01	23.13	22.78		0.2460	0.2529	0.2333
20	PI/2 BPSK	1	104	23.06	23.17	23.06	-2.00	0.1276	0.1309	0.1276
20	PI/2 BPSK	50	0	22.55	22.79	22.63		0.2213	0.2339	0.2254
20	PI/2 BPSK	50	28	23.06	23.08	23.04	-2.00	0.1276	0.1282	0.1271
20	PI/2 BPSK	50	56	22.58	22.93	22.63		0.2228	0.2415	0.2254
20	PI/2 BPSK	100	0	22.59	22.89	22.57	-2.00	0.1146	0.1227	0.1140
20	QPSK	1	1	23.17	23.29	23.27		0.2553	0.2624	0.2612
20	QPSK	1	53	23.13	23.13	22.95	-2.00	0.2529	0.2529	0.2427
20	QPSK	1	104	23.11	23.21	23.11		0.2518	0.2576	0.2518
20	QPSK	50	0	22.03	22.13	22.13	-2.00	0.1007	0.1030	0.1030
20	QPSK	50	28	23.12	23.26	23.22		0.2523	0.2606	0.2582
20	QPSK	50	56	22.05	22.31	22.15	-2.00	0.1012	0.1074	0.1035
20	QPSK	100	0	22.21	22.35	22.13		0.2046	0.2113	0.2009
20	16QAM	1	1	21.96	22.56	22.52	-2.00	0.1932	0.2218	0.2198
20	64QAM	1	1	20.56	20.78	20.66		0.1400	0.1472	0.1432
20	256QAM	1	1	18.26	18.85	19.23	-2.00	0.0824	0.0944	0.1030
Channel				501500	507000	512500	Gain	L	M	H
Frequency (MHz)				2507.5	2535	2562.5				
15	QPSK	1	1	22.85	23.11	23.22	-2.00	0.1216	0.1291	0.1324
15	16QAM	1	1	21.82	21.56	22.44		0.0959	0.0904	0.1107
Channel				501000	507000	513000	Gain	L	M	H
Frequency (MHz)				2505	2535	2565				
10	QPSK	1	1	22.93	23.16	23.16	-2.00	0.1239	0.1306	0.1306
10	16QAM	1	1	21.86	22.38	22.12		0.0968	0.1091	0.1028
Channel				500500	507000	513500	Gain	L	M	H
Frequency (MHz)				2502.5	2535	2567.5				
5	QPSK	1	1	23.06	23.12	23.22	-2.00	0.1276	0.1294	0.1324
5	16QAM	1	1	21.85	22.21	22.26		0.0966	0.1050	0.1062

5G NR n38 SA:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP (W)		
Channel				516000	519000	522000		L	M	H
Frequency (MHz)				2580	2595	2610				
20	QPSK	1	1	23.33	23.39	23.40	-2.0	0.1358	0.1377	0.1380
20	16QAM	1	1	21.99	21.92	22.01	-2.0	0.0998	0.0982	0.1002

5G NR n41 SA:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP (W)		
Channel				509202	518598	528000		L	M	H
Frequency (MHz)				2546.01	2592.99	2640				
100	PI/2 BPSK	1	1	23.22	23.29	23.35	-2.00	0.2099	0.2133	0.2163
100	PI/2 BPSK	1	137	22.15	22.26	22.22		0.1641	0.1683	0.1667
100	PI/2 BPSK	1	271	22.41	22.36	22.56		0.1742	0.1722	0.1803
100	PI/2 BPSK	135	0	23.15	23.11	23.09	-2.00	0.2065	0.2046	0.2037
100	PI/2 BPSK	135	69	22.28	22.39	22.33	-2.00	0.1690	0.1734	0.1710
100	PI/2 BPSK	135	138	23.01	23.06	22.99	-2.00	0.2000	0.2023	0.1991
100	PI/2 BPSK	270	0	22.16	22.23	22.25		0.1644	0.1671	0.1679
100	QPSK	1	1	23.59	23.56	23.65	-2.00	0.2286	0.2270	0.2317
100	QPSK	1	137	23.11	23.00	23.06		0.2046	0.1995	0.2023
100	QPSK	1	271	22.75	22.71	22.77		0.1884	0.1866	0.1892
100	QPSK	135	0	23.01	23.06	23.09	-2.00	0.2000	0.2023	0.2037
100	QPSK	135	69	22.55	22.71	22.62	-2.00	0.1799	0.1866	0.1828
100	QPSK	135	138	22.15	22.19	22.33	-2.00	0.1641	0.1656	0.1710
100	QPSK	270	0	22.36	22.57	22.41		0.1722	0.1807	0.1742
100	16QAM	1	1	22.89	22.91	22.88	-2.00	0.1945	0.1954	0.1941
100	64QAM	1	1	21.20	21.16	21.22	-2.00	0.1318	0.1306	0.1324
100	256QAM	1	1	18.99	19.01	19.11	-2.00	0.0793	0.0796	0.0815
Channel				508200	518598	528996	Gain	L	M	H
Frequency (MHz)				2541	2592.99	2644.98				
90	QPSK	1	1	23.22	23.25	23.15	-2.00	0.2099	0.2113	0.2065
90	16QAM	1	1	22.49	22.41	22.32		0.1774	0.1742	0.1706
Channel				507204	518598	529998	Gain	L	M	H
Frequency (MHz)				2536.02	2592.99	2649.99				
80	QPSK	1	1	23.29	23.31	23.33	-2.00	0.2133	0.2143	0.2153
80	16QAM	1	1	22.35	22.29	22.15	-2.00	0.1718	0.1694	0.1641
Channel				505200	518598	531996	Gain	L	M	H
Frequency (MHz)				2526	2592.99	2659.98				
60	QPSK	1	1	23.35	23.11	23.16	-2.00	0.2163	0.2046	0.2070
60	16QAM	1	1	22.33	22.41	22.44		0.1710	0.1742	0.1754
Channel				504204	518598	532998	Gain	L	M	H
Frequency (MHz)				2521.02	2592.99	2664.99				
50	QPSK	1	1	23.22	23.29	23.30	-2.00	0.2099	0.2133	0.2138
50	16QAM	1	1	22.21	22.36	22.39		0.1663	0.1722	0.1734
Channel				503202	518598	534000	Gain	L	M	H
Frequency (MHz)				2516.01	2592.99	2670				
40	QPSK	1	1	23.26	23.23	23.36	-2.00	0.2118	0.2104	0.2168
40	16QAM	1	1	22.19	22.33	22.22		0.1656	0.1710	0.1667
Channel				502200	518598	534996	Gain	L	M	H
Frequency (MHz)				2511	2592.99	2674.98				
30	QPSK	1	1	23.16	23.06	23.19	-2.00	0.2070	0.2023	0.2084
30	16QAM	1	1	22.29	22.41	22.34		0.1694	0.1742	0.1714
Channel				501204	518598	535998	Gain	L	M	H
Frequency (MHz)				2506.02	2592.99	2679.99				
20	QPSK	1	1	23.29	23.34	23.22	-2.00	0.2133	0.2158	0.2099
20	16QAM	1	1	22.10	22.19	22.11	-2.00	0.1622	0.1656	0.1626

5G NR n41 UL MIMO:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP (W)		
Channel				509202	518598	528000		L	M	H
Frequency (MHz)				2546.01	2592.99	2640				
100	QPSK	1	1	24.62	24.64	24.68	-2.00	0.3656	0.3673	0.3707
100	QPSK	1	137	24.36	24.35	24.36		0.3443	0.3436	0.3443
100	QPSK	1	271	24.32	24.01	24.06		0.3412	0.3177	0.3214
100	QPSK	135	0	24.41	23.36	23.46	-2.00	0.3483	0.2735	0.2799
100	QPSK	135	69	24.41	24.16	24.26	-2.00	0.3483	0.3289	0.3365
100	QPSK	135	138	23.55	23.03	23.32	-2.00	0.2858	0.2535	0.2710
100	QPSK	270	0	23.52	23.33	23.22		0.2838	0.2716	0.2649
100	16QAM	1	1	24.35	24.25	24.33	-2.00	0.3436	0.3357	0.3420
100	64QAM	1	1	23.23	22.96	23.06	-2.00	0.2655	0.2495	0.2553
100	256QAM	1	1	20.12	19.68	20.12	-2.00	0.1297	0.1172	0.1297
Channel				508200	518598	528996	Gain	L	M	H
Frequency (MHz)				2541	2592.99	2644.98				
90	QPSK	1	1	24.42	24.19	24.28	-2.00	0.3491	0.3311	0.3381
90	16QAM	1	1	24.22	24.01	24.07		0.3334	0.3177	0.3221
Channel				507204	518598	529998	Gain	L	M	H
Frequency (MHz)				2536.02	2592.99	2649.99				
80	QPSK	1	1	24.44	24.53	24.56	-2.00	0.3508	0.3581	0.3606
80	16QAM	1	1	24.17	24.12	24.21	-2.00	0.3296	0.3258	0.3327
Channel				505200	518598	531996	Gain	L	M	H
Frequency (MHz)				2526	2592.99	2659.98				
60	QPSK	1	1	24.58	24.49	24.33	-2.00	0.3622	0.3548	0.3420
60	16QAM	1	1	24.22	24.16	24.12		0.3334	0.3289	0.3258
Channel				504204	518598	532998	Gain	L	M	H
Frequency (MHz)				2521.02	2592.99	2664.99				
50	QPSK	1	1	24.55	24.58	24.42	-2.00	0.3597	0.3622	0.3491
50	16QAM	1	1	24.23	24.21	24.25		0.3342	0.3327	0.3357
Channel				503202	518598	534000	Gain	L	M	H
Frequency (MHz)				2516.01	2592.99	2670				
40	QPSK	1	1	24.57	24.49	24.46	-2.00	0.3614	0.3548	0.3524
40	16QAM	1	1	24.26	24.17	24.23		0.3365	0.3296	0.3342
Channel				502200	518598	534996	Gain	L	M	H
Frequency (MHz)				2511	2592.99	2674.98				
30	QPSK	1	1	24.48	24.47	24.52	-2.00	0.3540	0.3532	0.3573
30	16QAM	1	1	24.23	24.18	24.19		0.3342	0.3304	0.3311
Channel				501204	518598	535998	Gain	L	M	H
Frequency (MHz)				2506.02	2592.99	2679.99				
20	QPSK	1	1	24.51	24.53	24.49	-2.00	0.3565	0.3581	0.3548
20	16QAM	1	1	24.21	24.19	24.26	-2.00	0.3327	0.3311	0.3365

MIMO Gain = Max.(Ant.1/3)dBi + 3.01dB = -2 + 3.01 = 1.01dBi;

EIRP = MIMO Power + MIMO Gain = 24.62dBm + 1.01dBi = 25.63dBm (0.3656W)

5G NR n77 SA:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP (W)		
Channel				650000	656000	662000		L	M	H
Frequency (MHz)				3750	3840	3930				
100	PI/2 BPSK	1	1	23.41	23.33	23.51	-0.5	0.1954	0.1919	0.2000
100	PI/2 BPSK	1	137	23.11	23.15	23.22		0.2046	0.2065	0.2099
100	PI/2 BPSK	1	271	22.99	23.03	23.12		0.1991	0.2009	0.2051
100	PI/2 BPSK	135	0	23.10	23.16	23.05	-0.5	0.1820	0.1845	0.1799
100	PI/2 BPSK	135	69	23.15	23.22	23.19		0.2065	0.2099	0.2084
100	PI/2 BPSK	135	138	22.89	22.99	22.93		0.1945	0.1991	0.1963
100	PI/2 BPSK	270	0	22.21	22.33	22.26	-0.5	0.1483	0.1524	0.1500
100	QPSK	1	1	23.66	23.71	23.75	-0.5	0.2070	0.2094	0.2113
100	QPSK	1	137	23.23	23.26	23.15		0.2104	0.2118	0.2065
100	QPSK	1	271	23.33	23.18	23.22		0.2153	0.2080	0.2099
100	QPSK	135	0	22.56	22.33	22.41	-0.5	0.1607	0.1524	0.1552
100	QPSK	135	69	22.88	22.75	22.79		0.1941	0.1884	0.1901
100	QPSK	135	138	22.26	22.11	22.29		0.1683	0.1626	0.1694
100	QPSK	270	0	22.41	22.31	22.39	-0.5	0.1552	0.1517	0.1545
100	16QAM	1	1	23.01	22.92	22.99	-0.5	0.1782	0.1746	0.1774
100	64QAM	1	1	21.75	21.66	21.71	-0.5	0.1334	0.1306	0.1321
100	256QAM	1	1	19.03	19.06	19.11	-0.5	0.0713	0.0718	0.0726
Channel				649668	656000	662334	Gain	L	M	H
Frequency (MHz)				3745.02	3840	3935.01				
90	QPSK	1	1	23.41	23.52	23.33	-0.5	0.1954	0.2004	0.1919
90	16QAM	1	1	22.88	22.56	22.59	-0.5	0.1730	0.1607	0.1618
Channel				649334	656000	662668	Gain	L	M	H
Frequency (MHz)				3740.01	3840	3940.02				
80	QPSK	1	1	23.44	23.51	23.59	-0.5	0.1968	0.2000	0.2037
80	QPSK	1	1	22.77	22.62	22.65	-0.5	0.1687	0.1629	0.1641
Channel				649000	656000	663000	Gain	L	M	H
Frequency (MHz)				3735	3840	3945				
70	QPSK	1	1	23.32	23.42	23.49	-0.5	0.1914	0.1959	0.1991
70	16QAM	1	1	22.63	22.59	22.72	-0.5	0.1633	0.1618	0.1667
Channel				648668	656000	663334	Gain	L	M	H
Frequency (MHz)				3730.02	3840	3950.01				
60	QPSK	1	1	23.41	23.26	23.39	-0.5	0.1954	0.1888	0.1945
60	16QAM	1	1	22.55	22.41	22.35	-0.5	0.1603	0.1552	0.1531
Channel				648334	656000	663668	Gain	L	M	H
Frequency (MHz)				3725.01	3840	3955.02				
50	QPSK	1	1	23.39	23.41	23.33	-0.5	0.1945	0.1954	0.1919
50	16QAM	1	1	22.66	22.42	22.55	-0.5	0.1644	0.1556	0.1603
Channel				648000	656000	664000	Gain	L	M	H
Frequency (MHz)				3720	3840	3960				
40	QPSK	1	1	23.46	23.51	23.55	-0.5	0.1977	0.2000	0.2018
40	16QAM	1	1	22.89	22.77	22.81	-0.5	0.1734	0.1687	0.1702
Channel				647668	656000	664334	Gain	L	M	H
Frequency (MHz)				3715.02	3840	3965.01				
30	QPSK	1	1	23.29	23.37	23.30	-0.5	0.1901	0.1936	0.1905
30	16QAM	1	1	22.40	22.35	22.50	-0.5	0.1549	0.1531	0.1585
Channel				647334	656000	664668	Gain	L	M	H
Frequency (MHz)				3710.01	3840	3970.02				
20	QPSK	1	1	23.26	23.51	23.33	-0.5	0.1888	0.2000	0.1919
20	16QAM	1	1	22.41	22.57	22.60	-0.5	0.1552	0.1611	0.1622

5G NR n77 UL MIMO:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP (W)		
Channel				650000	656000	662000		L	M	H
Frequency (MHz)				3750	3840	3930				
100	QPSK	1	1	22.81	22.70	23.15	-0.5	0.3404	0.3319	0.3681
100	QPSK	1	137	22.66	22.60	22.71		0.3289	0.3243	0.3327
100	QPSK	1	271	22.69	22.61	22.75		0.3311	0.3251	0.3357
100	QPSK	135	0	20.95	20.81	20.99	-0.5	0.2218	0.2148	0.2239
100	QPSK	135	69	22.49	22.47	22.51		0.3162	0.3148	0.3177
100	QPSK	135	138	21.03	20.95	20.99		0.2259	0.2218	0.2239
100	QPSK	270	0	20.99	20.90	21.02	-0.5	0.2239	0.2193	0.2254
100	16QAM	1	1	22.29	22.21	22.26	-0.5	0.3020	0.2965	0.2999
100	64QAM	1	1	20.61	20.52	20.66	-0.5	0.2051	0.2009	0.2075
100	256QAM	1	1	17.19	17.13	17.26	-0.5	0.0933	0.0920	0.0948
Channel				649668	656000	662334	Gain	L	M	H
Frequency (MHz)				3745.02	3840	3935.01				
90	QPSK	1	1	22.71	22.52	22.99	-0.5	0.3327	0.3184	0.3548
90	16QAM	1	1	22.15	22.02	22.01	-0.5	0.2924	0.2838	0.2831
Channel				649334	656000	662668	Gain	L	M	H
Frequency (MHz)				3740.01	3840	3940.02				
80	QPSK	1	1	22.66	22.44	22.81	-0.5	0.3289	0.3126	0.3404
80	QPSK	1	1	22.05	22.09	22.11	-0.5	0.2858	0.2884	0.2897
Channel				649000	656000	663000	Gain	L	M	H
Frequency (MHz)				3735	3840	3945				
70	QPSK	1	1	22.61	22.65	22.81	-0.5	0.3251	0.3281	0.3404
70	16QAM	1	1	22.11	22.05	22.15	-0.5	0.2897	0.2858	0.2924
Channel				648668	656000	663334	Gain	L	M	H
Frequency (MHz)				3730.02	3840	3950.01				
60	QPSK	1	1	22.58	22.61	22.87	-0.5	0.3228	0.3251	0.3451
60	16QAM	1	1	22.03	22.06	22.13	-0.5	0.2844	0.2864	0.2911
Channel				648334	656000	663668	Gain	L	M	H
Frequency (MHz)				3725.01	3840	3955.02				
50	QPSK	1	1	22.69	22.62	22.89	-0.5	0.3311	0.3258	0.3467
50	16QAM	1	1	22.12	22.03	22.09	-0.5	0.2904	0.2844	0.2884
Channel				648000	656000	664000	Gain	L	M	H
Frequency (MHz)				3720	3840	3960				
40	QPSK	1	1	22.55	22.50	22.83	-0.5	0.3206	0.3170	0.3420
40	16QAM	1	1	22.19	22.17	22.18	-0.5	0.2951	0.2938	0.2944
Channel				647668	656000	664334	Gain	L	M	H
Frequency (MHz)				3715.02	3840	3965.01				
30	QPSK	1	1	22.52	22.60	22.86	-0.5	0.3184	0.3243	0.3443
30	16QAM	1	1	22.13	22.17	22.11	-0.5	0.2911	0.2938	0.2897
Channel				647334	656000	664668	Gain	L	M	H
Frequency (MHz)				3710.01	3840	3970.02				
20	QPSK	1	1	22.54	22.51	22.99	-0.5	0.3199	0.3177	0.3548
20	16QAM	1	1	22.11	22.06	22.01	-0.5	0.2897	0.2864	0.2831

MIMO Gain = Max.(Ant.2/4)dBi + 3.01dB = -0.5 + 3.01 = 2.51dBi;

EIRP = MIMO Power + MIMO Gain = 22.81dBm + 2.51dBi = 25.32dBm (0.3404W)

5G NR n78 SA:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP (W)		
Channel					650000				M	
Frequency (MHz)					3750					
100	PI/2 BPSK	1	1		23.28				0.1897	
100	PI/2 BPSK	1	137		22.89		-0.5		0.1945	
100	PI/2 BPSK	1	271		22.55				0.1799	
100	PI/2 BPSK	135	0		22.36				0.1535	
100	PI/2 BPSK	135	69		22.77		-0.5		0.1892	
100	PI/2 BPSK	135	138		22.16				0.1644	
100	PI/2 BPSK	270	0		22.41		-0.5		0.1552	
100	QPSK	1	1		23.35				0.1928	
100	QPSK	1	137		22.79		-0.5		0.1901	
100	QPSK	1	271		22.74				0.1879	
100	QPSK	135	0		22.15				0.1462	
100	QPSK	135	69		22.89		-0.5		0.1945	
100	QPSK	135	138		21.99				0.1581	
100	QPSK	270	0		22.06		-0.5		0.1432	
100	16QAM	1	1		22.14		-0.5		0.1459	
100	64QAM	1	1		20.56		-0.5		0.1014	
100	256QAM	1	1		18.42		-0.5		0.0619	
Channel				649668	650000	650332	Gain	L	M	H
Frequency (MHz)				3745.02	3750	3754.98				
90	QPSK	1	1	23.12	23.06	23.22	-0.5	0.1828	0.1803	0.1871
90	16QAM	1	1	21.92	21.82	21.89	-0.5	0.1387	0.1355	0.1377
Channel				649334	650000	650666	Gain	L	M	H
Frequency (MHz)				3740.01	3750	3759.99				
80	QPSK	1	1	23.15	23.09	23.10	-0.5	0.1841	0.1816	0.1820
80	QPSK	1	1	21.98	21.91	21.83	-0.5	0.1406	0.1384	0.1358
Channel				649000	650000	651000	Gain	L	M	H
Frequency (MHz)				3735	3750	3765				
70	QPSK	1	1	23.22	23.08	23.11	-0.5	0.1871	0.1811	0.1824
70	16QAM	1	1	21.83	21.96	21.81	-0.5	0.1358	0.1400	0.1352
Channel				648668	650000	651332	Gain	L	M	H
Frequency (MHz)				3730.02	3750	3769.98				
60	QPSK	1	1	23.29	23.15	23.10	-0.5	0.1901	0.1841	0.1820
60	16QAM	1	1	21.86	21.75	21.85	-0.5	0.1368	0.1334	0.1365
Channel				648334	650000	651666	Gain	L	M	H
Frequency (MHz)				3725.01	3750	3774.99				
50	QPSK	1	1	23.16	23.22	23.19	-0.5	0.1845	0.1871	0.1858
50	16QAM	1	1	21.97	21.93	21.89	-0.5	0.1403	0.1390	0.1377
Channel				648000	650000	652000	Gain	L	M	H
Frequency (MHz)				3720	3750	3780				
40	QPSK	1	1	23.16	23.05	23.09	-0.5	0.1845	0.1799	0.1816
40	16QAM	1	1	21.90	21.79	21.88	-0.5	0.1380	0.1346	0.1374
Channel				647668	650000	652332	Gain	L	M	H
Frequency (MHz)				3715.02	3750	3784.98				
30	QPSK	1	1	23.01	23.11	23.20	-0.5	0.1782	0.1824	0.1862
30	16QAM	1	1	21.73	21.86	21.77	-0.5	0.1327	0.1368	0.1340
Channel				647334	650000	652666	Gain	L	M	H

Frequency (MHz)				3710.01	3750	3789.99				
20	QPSK	1	1	23.00	23.16	23.13	-0.5	0.1778	0.1845	0.1832
20	16QAM	1	1	21.89	21.96	21.85	-0.5	0.1377	0.1400	0.1365

5G NR n78 UL MIMO:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP (W)		
Channel					650000				M	
Frequency (MHz)					3750					
100	QPSK	1	1		22.89				0.3467	
100	QPSK	1	137		22.60		-0.5		0.3243	
100	QPSK	1	271		22.51				0.3177	
100	QPSK	135	0		20.88				0.2183	
100	QPSK	135	69		22.33		-0.5		0.3048	
100	QPSK	135	138		20.85				0.2168	
100	QPSK	270	0		20.86		-0.5		0.2173	
100	16QAM	1	1		22.08		-0.5		0.2877	
100	64QAM	1	1		20.35		-0.5		0.1932	
100	256QAM	1	1		17.12		-0.5		0.0918	
Channel				649668	650000	650332	Gain	L	M	H
Frequency (MHz)				3745.02	3750	3754.98				
90	QPSK	1	1	22.62	22.53	22.74	-0.5	0.3258	0.3192	0.3350
90	16QAM	1	1	21.82	21.75	21.89	-0.5	0.2710	0.2667	0.2754
Channel				649334	650000	650666	Gain	L	M	H
Frequency (MHz)				3740.01	3750	3759.99				
80	QPSK	1	1	22.52	22.56	22.79	-0.5	0.3184	0.3214	0.3388
80	QPSK	1	1	21.80	21.85	21.92	-0.5	0.2698	0.2729	0.2773
Channel				649000	650000	651000	Gain	L	M	H
Frequency (MHz)				3735	3750	3765				
70	QPSK	1	1	22.63	22.45	22.66	-0.5	0.3266	0.3133	0.3289
70	16QAM	1	1	21.86	21.76	21.71	-0.5	0.2735	0.2673	0.2642
Channel				648668	650000	651332	Gain	L	M	H
Frequency (MHz)				3730.02	3750	3769.98				
60	QPSK	1	1	22.59	22.48	22.62	-0.5	0.3236	0.3155	0.3258
60	16QAM	1	1	21.78	21.81	21.99	-0.5	0.2685	0.2704	0.2818
Channel				648334	650000	651666	Gain	L	M	H
Frequency (MHz)				3725.01	3750	3774.99				
50	QPSK	1	1	22.36	22.44	22.55	-0.5	0.3069	0.3126	0.3206
50	16QAM	1	1	21.83	21.77	21.69	-0.5	0.2716	0.2679	0.2630
Channel				648000	650000	652000	Gain	L	M	H
Frequency (MHz)				3720	3750	3780				
40	QPSK	1	1	22.44	22.45	22.59	-0.5	0.3126	0.3133	0.3236
40	16QAM	1	1	21.50	21.66	21.55	-0.5	0.2518	0.2610	0.2547
Channel				647668	650000	652332	Gain	L	M	H
Frequency (MHz)				3715.02	3750	3784.98				
30	QPSK	1	1	22.36	22.39	22.41	-0.5	0.3069	0.3090	0.3105
30	16QAM	1	1	21.76	21.82	21.78	-0.5	0.2673	0.2710	0.2685
Channel				647334	650000	652666	Gain	L	M	H
Frequency (MHz)				3710.01	3750	3789.99				

20	QPSK	1	1	22.22	22.33	22.34	-0.5	0.2972	0.3048	0.3055
20	16QAM	1	1	21.66	21.80	21.74	-0.5	0.2612	0.2698	0.2661

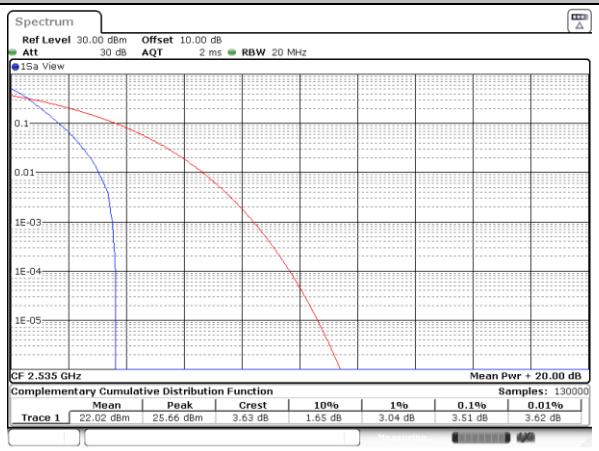
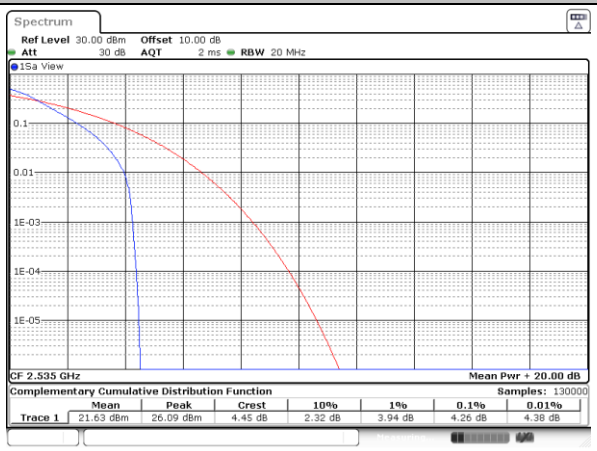
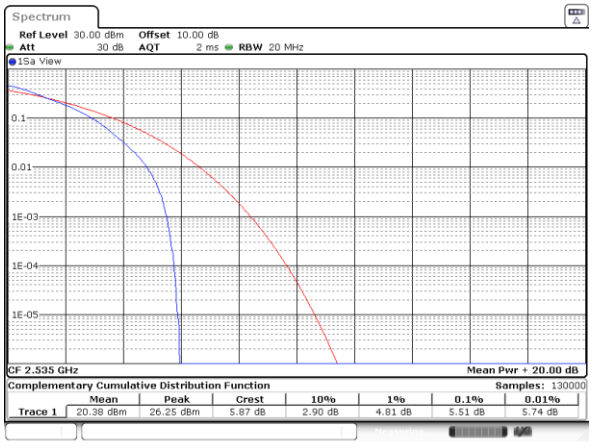
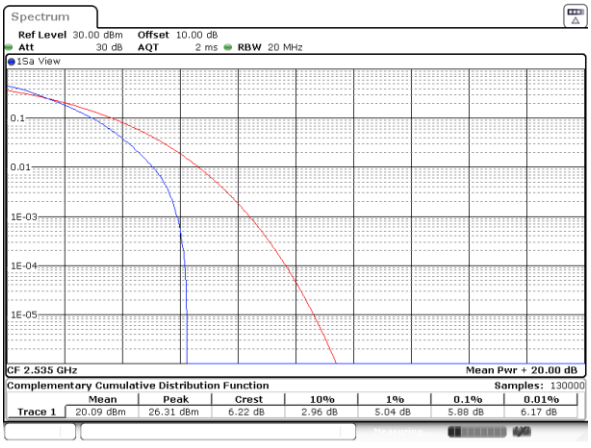
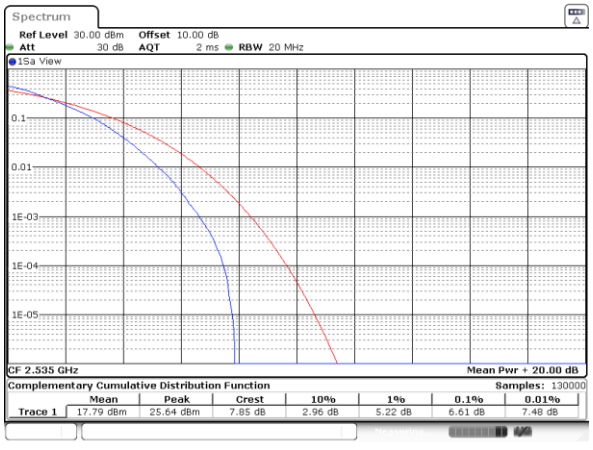
MIMO Gain = Max.(Ant.2/4)dBi + 3.01dB = -0.5 + 3.01 = 2.51dBi;

EIRP = MIMO Power + MIMO Gain = 22.89dBm + 2.51dBi = 25.40dBm (0.3467W)

5G NR n7 SA

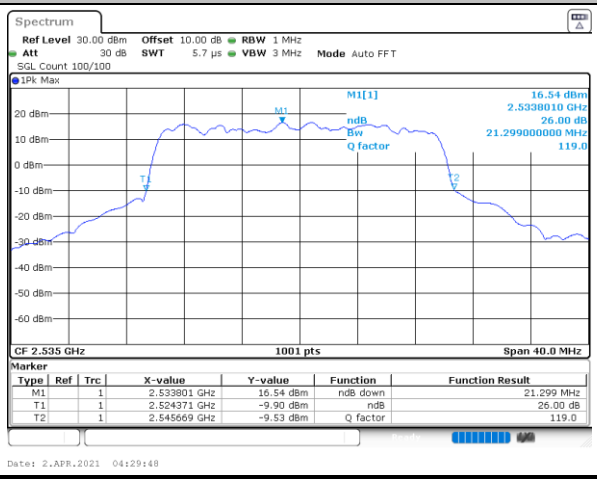
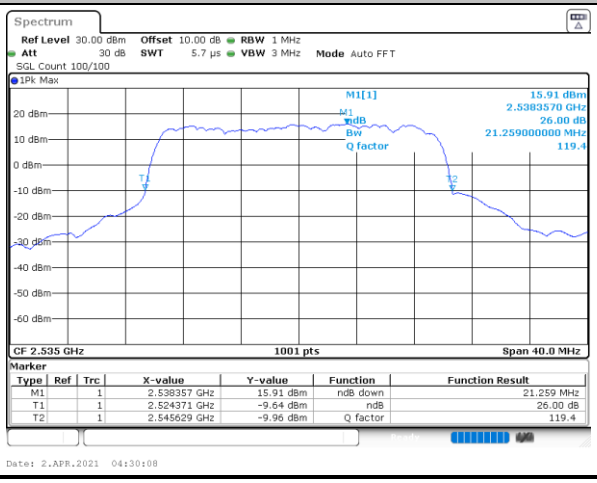
Peak-to-Average Ratio

Mode	FR1 n7 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.51	4.26	5.51	5.88	PASS
Mode	FR1 n7 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.61				PASS

Middle Channel / Full RB	Middle Channel / Full RB
BPSK	**QPSK**
	
16QAM	**64QAM**
	
256QAM	
	

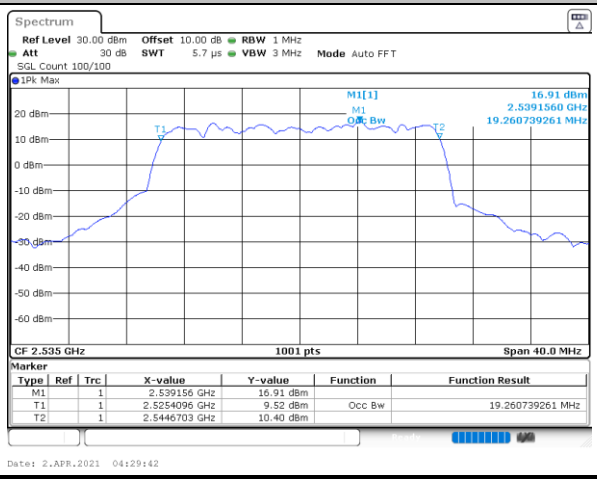
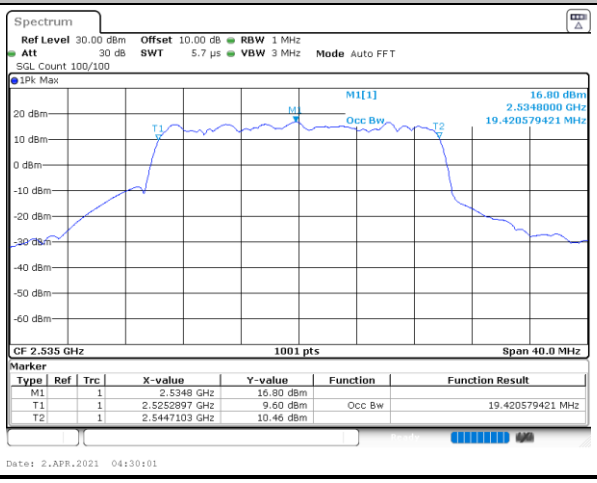
26dB Bandwidth

Mode	FR1 n7 : 26dB BW(MHz) / DFT-S OFDM	
BW	20M	
Mod.	QPSK	16QAM
Middle CH	21.299	21.259

QPSK	16QAM
	

Occupied Bandwidth

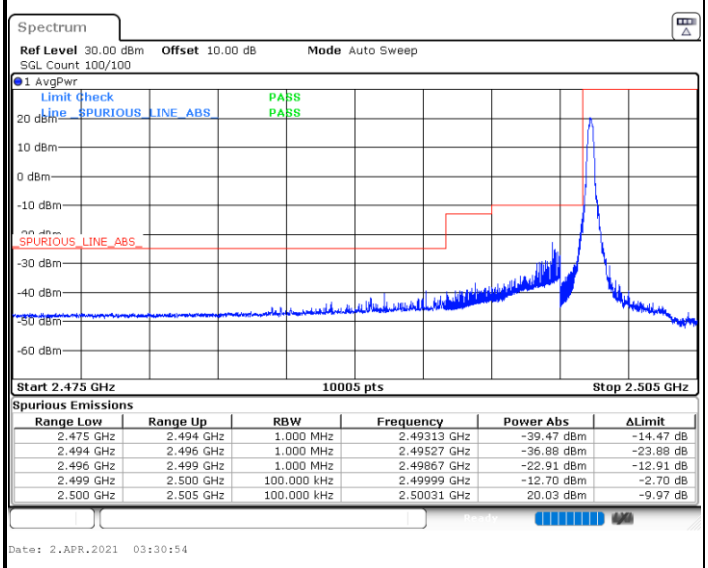
Mode	FR1 n7 : 99%OBW(MHz) / DFT-S OFDM	
BW	20M	
Mod.	QPSK	16QAM
Middle CH	19.26	19.42

QPSK	16QAM
	

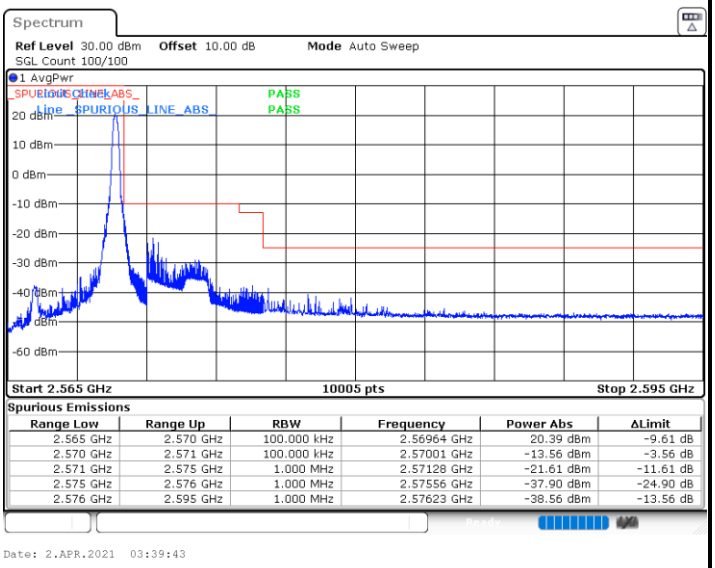
Conducted Band Edge

FR1 n7 / 5MHz / DFT-S OFDM / PI/2 BPSK

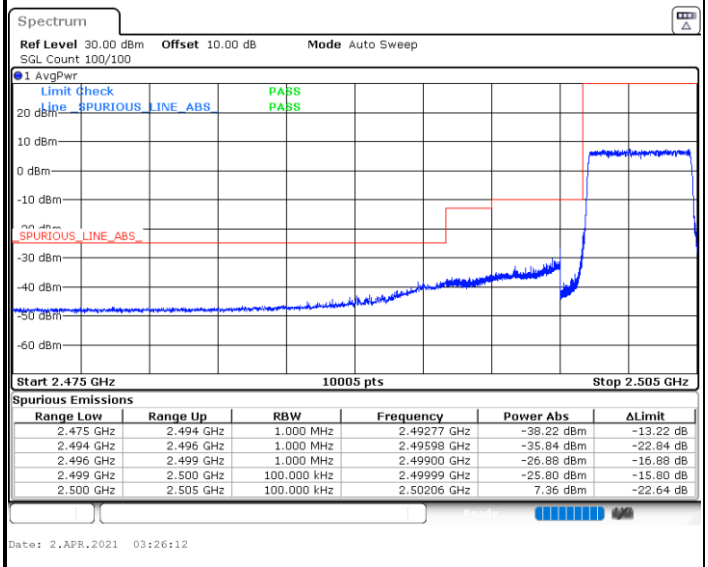
Lowest Band Edge / 1RB0



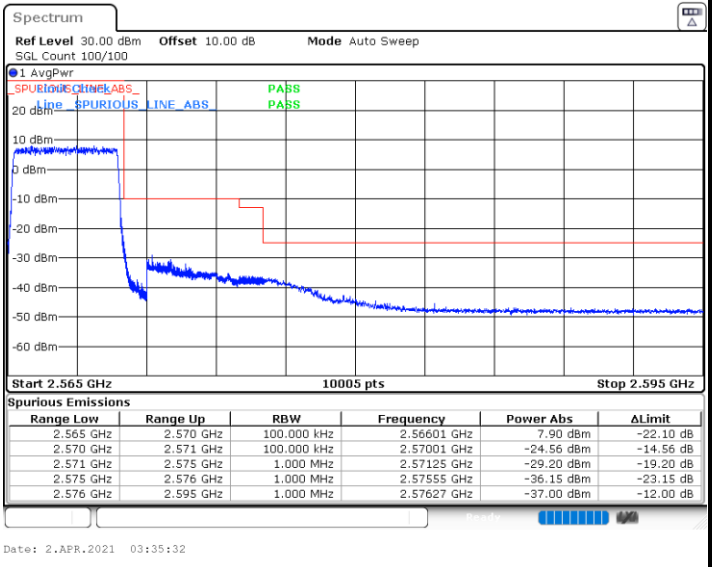
Highest Band Edge / 1RBMAX



Lowest Band Edge / Full RB

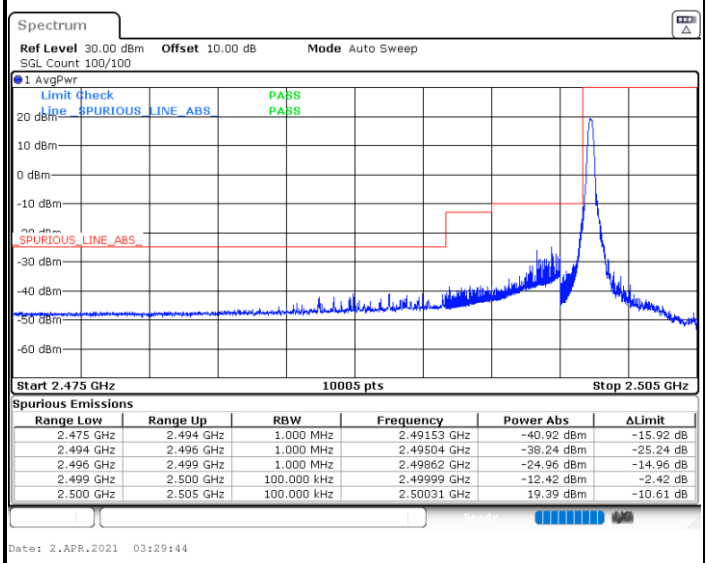


Highest Band Edge / Full RB



FR1 n7 / 5MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

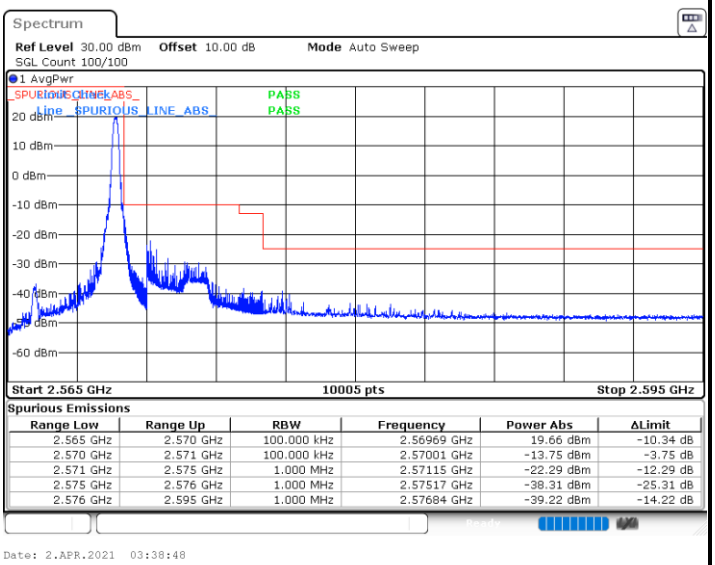


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49153 GHz	-40.92 dBm	-15.92 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49504 GHz	-38.24 dBm	-25.24 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49862 GHz	-24.96 dBm	-14.96 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.49999 GHz	-12.42 dBm	-2.42 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50031 GHz	19.39 dBm	-10.61 dB

Date: 2.APR.2021 03:29:44

Highest Band Edge / 1RBMAX

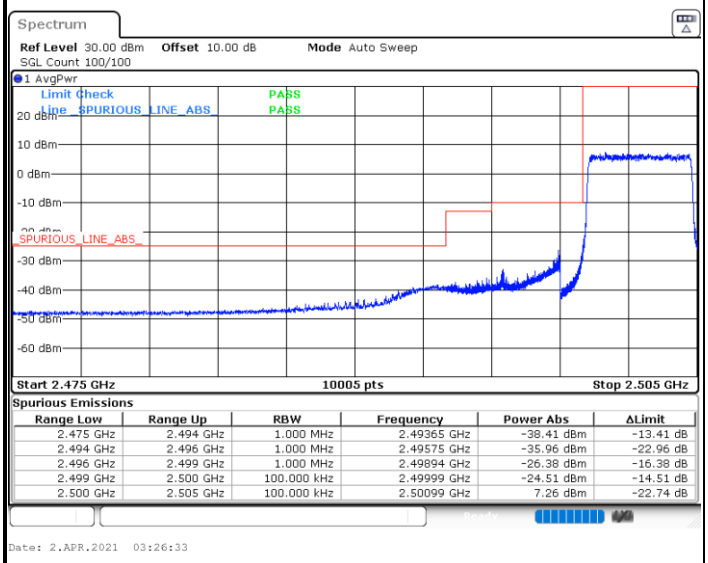


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56969 GHz	19.66 dBm	-10.34 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-13.75 dBm	-3.75 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57115 GHz	-22.29 dBm	-12.29 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57517 GHz	-38.31 dBm	-25.31 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57684 GHz	-39.22 dBm	-14.22 dB

Date: 2.APR.2021 03:38:48

Lowest Band Edge / Full RB

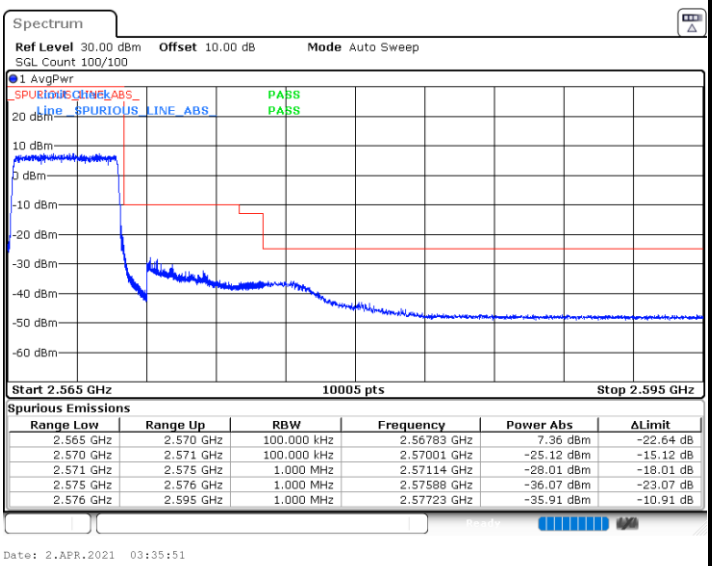


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49365 GHz	-38.41 dBm	-13.41 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49575 GHz	-35.96 dBm	-22.96 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49894 GHz	-26.38 dBm	-16.38 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.49999 GHz	-24.51 dBm	-14.51 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50099 GHz	7.26 dBm	-22.74 dB

Date: 2.APR.2021 03:26:33

Highest Band Edge / Full RB



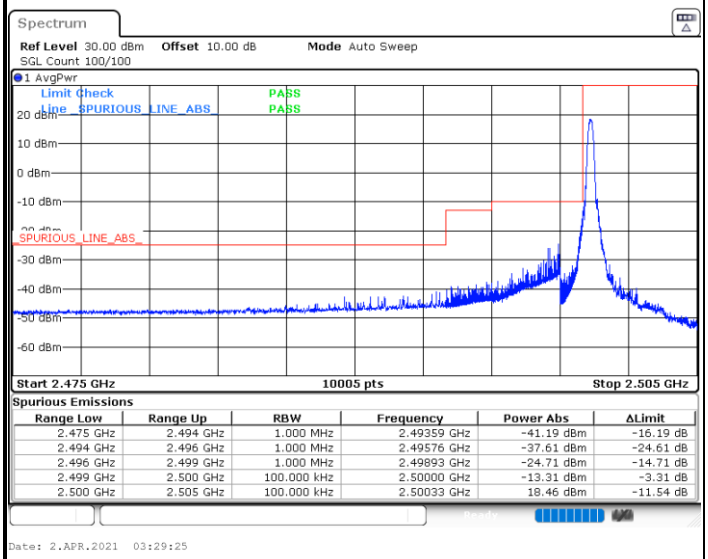
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56783 GHz	7.36 dBm	-22.64 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-25.12 dBm	-15.12 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57114 GHz	-28.01 dBm	-18.01 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57588 GHz	-36.07 dBm	-23.07 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57723 GHz	-35.91 dBm	-10.91 dB

Date: 2.APR.2021 03:35:51

FR1 n7 / 5MHz / DFT-S OFDM / 16Q

Lowest Band Edge / 1RB0

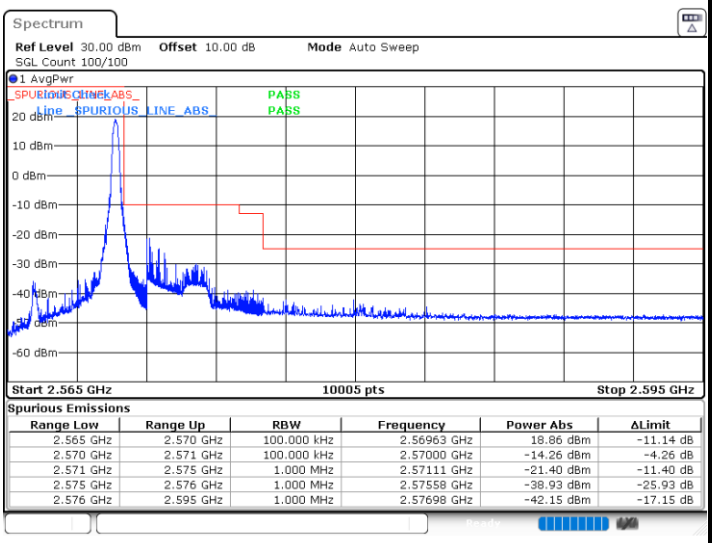


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49359 GHz	-41.19 dBm	-16.19 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49576 GHz	-37.61 dBm	-24.61 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49893 GHz	-24.71 dBm	-14.71 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-13.31 dBm	-3.31 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50033 GHz	18.46 dBm	-11.54 dB

Date: 2.APR.2021 03:29:25

Highest Band Edge / 1RBMAX

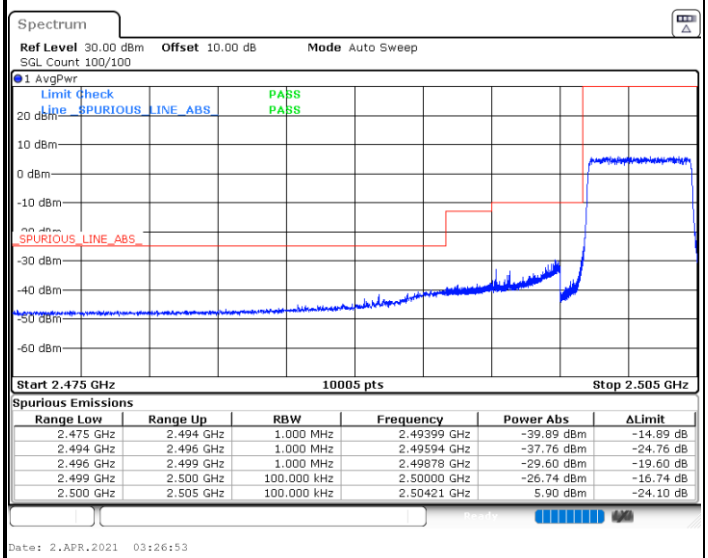


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56963 GHz	18.86 dBm	-11.14 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-14.26 dBm	-4.26 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57111 GHz	-21.40 dBm	-11.40 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57558 GHz	-38.93 dBm	-25.93 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57698 GHz	-42.15 dBm	-17.15 dB

Date: 2.APR.2021 03:38:29

Lowest Band Edge / Full RB

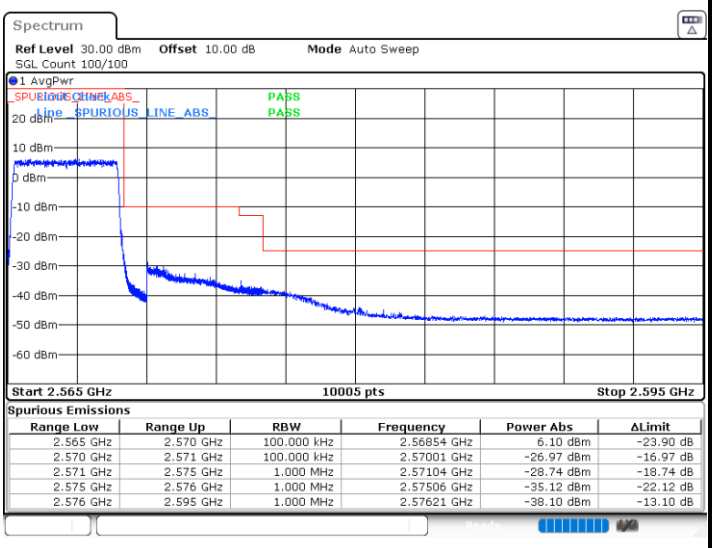


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49399 GHz	-39.89 dBm	-14.89 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49594 GHz	-37.76 dBm	-24.76 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49878 GHz	-29.60 dBm	-19.60 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-26.74 dBm	-16.74 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50421 GHz	5.90 dBm	-24.10 dB

Date: 2.APR.2021 03:26:53

Highest Band Edge / Full RB



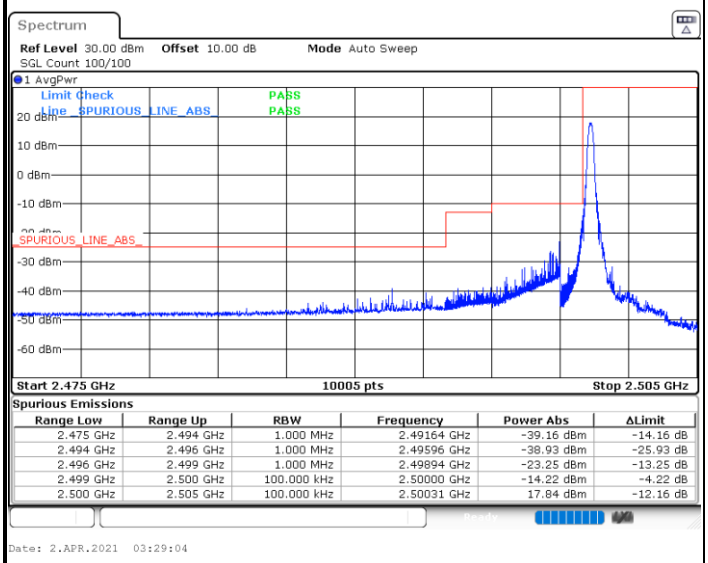
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56854 GHz	6.10 dBm	-23.90 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-26.97 dBm	-16.97 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57104 GHz	-28.74 dBm	-18.74 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57506 GHz	-35.12 dBm	-22.12 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57621 GHz	-38.10 dBm	-13.10 dB

Date: 2.APR.2021 03:36:10

FR1 n7 / 5MHz / DFT-S OFDM / 64Q

Lowest Band Edge / 1RB0

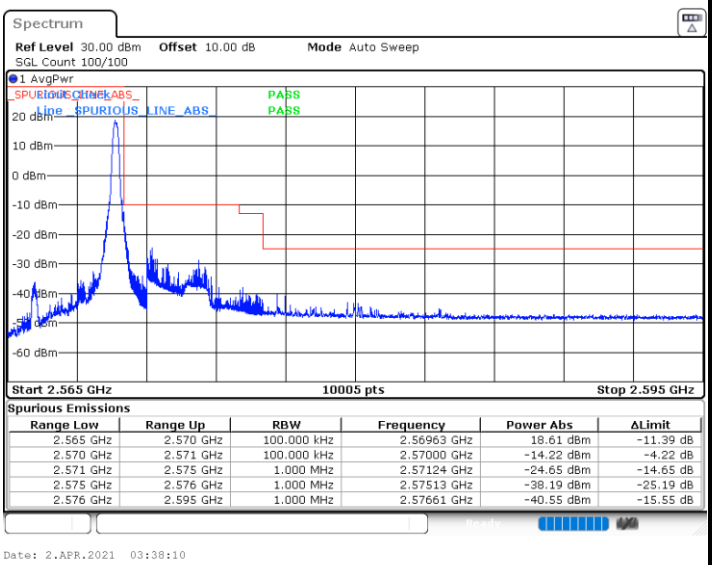


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49164 GHz	-39.16 dBm	-14.16 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49596 GHz	-38.93 dBm	-25.93 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49894 GHz	-23.25 dBm	-13.25 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-14.22 dBm	-4.22 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50031 GHz	17.84 dBm	-12.16 dB

Date: 2.APR.2021 03:29:04

Highest Band Edge / 1RBMAX

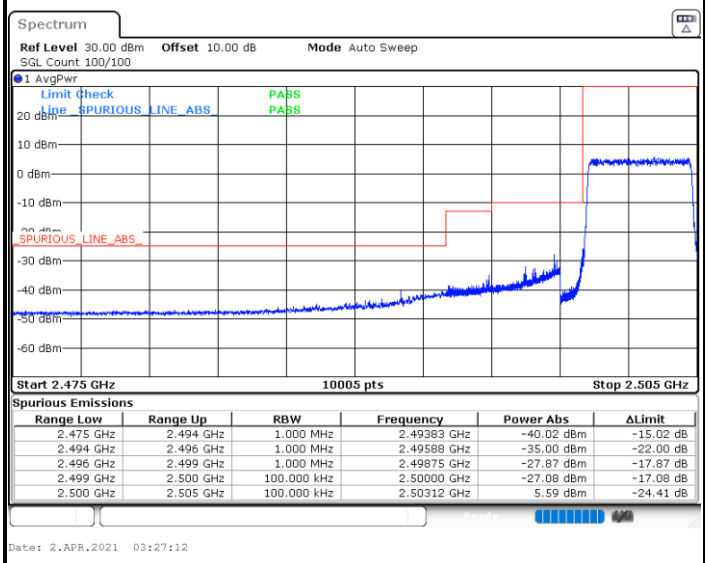


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56963 GHz	18.61 dBm	-11.39 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-14.22 dBm	-4.22 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57124 GHz	-24.65 dBm	-14.65 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57513 GHz	-38.19 dBm	-25.19 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57661 GHz	-40.55 dBm	-15.55 dB

Date: 2.APR.2021 03:38:10

Lowest Band Edge / Full RB

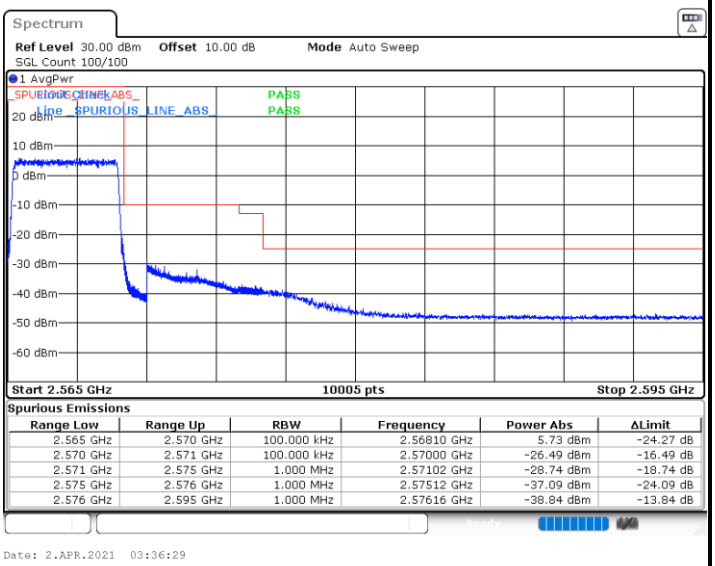


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49383 GHz	-40.02 dBm	-15.02 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49588 GHz	-35.00 dBm	-22.00 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49875 GHz	-27.87 dBm	-17.87 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-27.08 dBm	-17.08 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50312 GHz	5.59 dBm	-24.41 dB

Date: 2.APR.2021 03:27:12

Highest Band Edge / Full RB



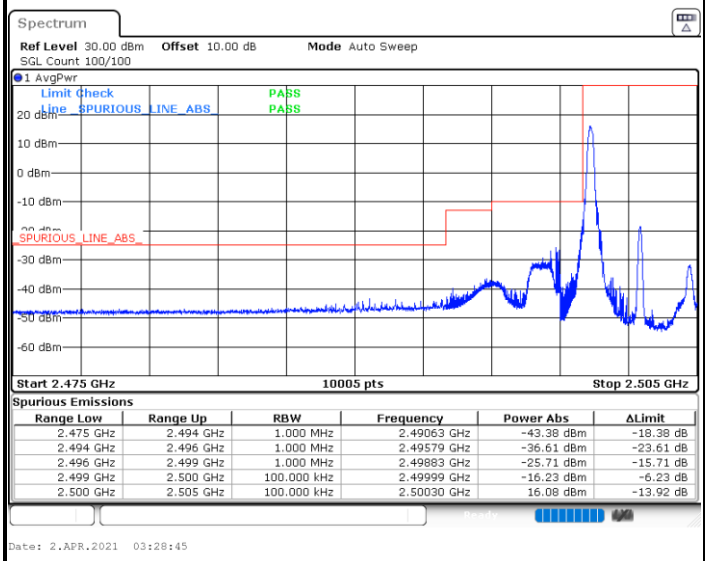
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56810 GHz	5.73 dBm	-24.27 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-26.49 dBm	-16.49 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57102 GHz	-28.74 dBm	-18.74 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57512 GHz	-37.09 dBm	-24.09 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57616 GHz	-38.84 dBm	-13.84 dB

Date: 2.APR.2021 03:36:29

FR1 n7 / 5MHz / DFT-S OFDM / 256Q

Lowest Band Edge / 1RB0

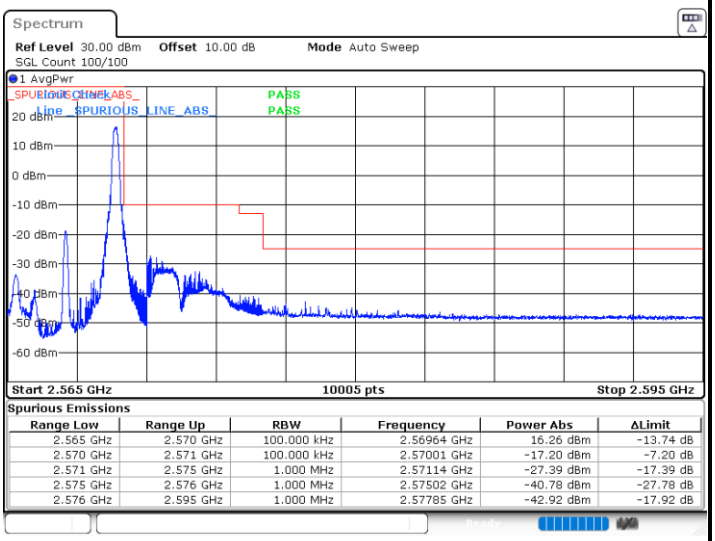


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49063 GHz	-43.38 dBm	-18.38 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49579 GHz	-36.61 dBm	-23.61 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49883 GHz	-25.71 dBm	-15.71 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.49999 GHz	-16.23 dBm	-6.23 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50030 GHz	16.08 dBm	-13.92 dB

Date: 2.APR.2021 03:28:45

Highest Band Edge / 1RBMAX

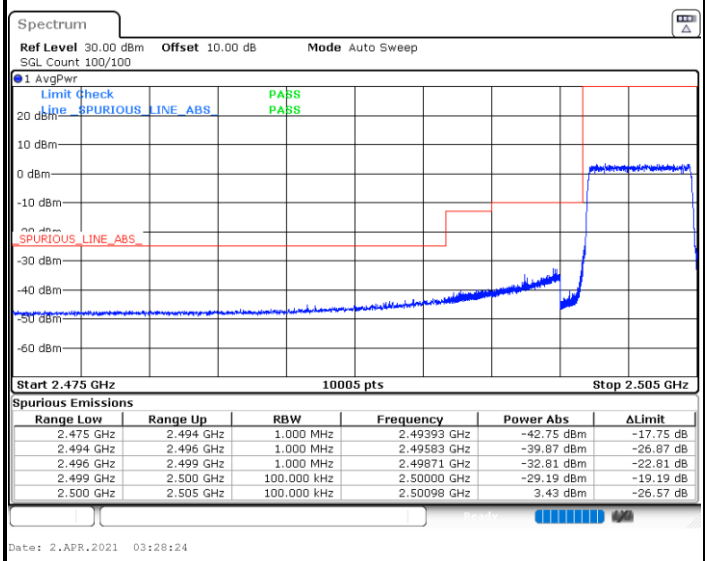


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56964 GHz	16.26 dBm	-13.74 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-17.20 dBm	-7.20 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57114 GHz	-27.39 dBm	-17.39 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57502 GHz	-40.78 dBm	-27.78 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57785 GHz	-42.92 dBm	-17.92 dB

Date: 2.APR.2021 03:37:50

Lowest Band Edge / Full RB

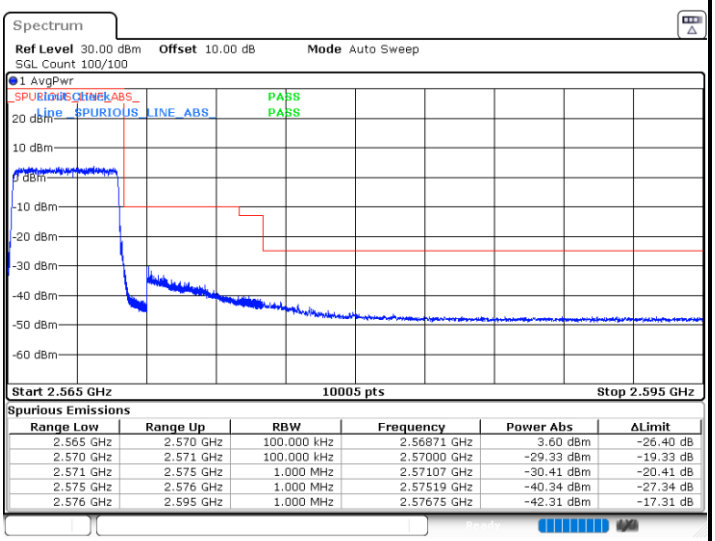


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49393 GHz	-42.75 dBm	-17.75 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49583 GHz	-39.87 dBm	-26.87 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49871 GHz	-32.81 dBm	-22.81 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-29.19 dBm	-19.19 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50098 GHz	3.43 dBm	-26.57 dB

Date: 2.APR.2021 03:28:24

Highest Band Edge / Full RB



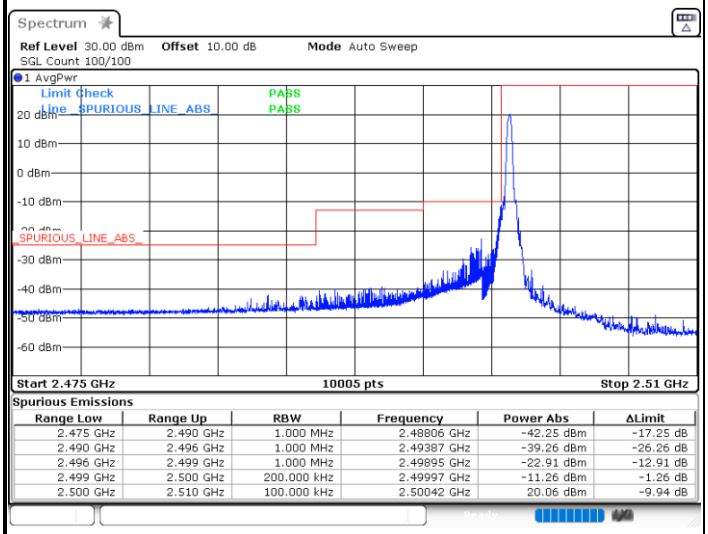
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56871 GHz	3.60 dBm	-26.40 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-29.33 dBm	-19.33 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57107 GHz	-30.41 dBm	-20.41 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57519 GHz	-40.34 dBm	-27.34 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57675 GHz	-42.31 dBm	-17.31 dB

Date: 2.APR.2021 03:37:25

FR1 n7 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

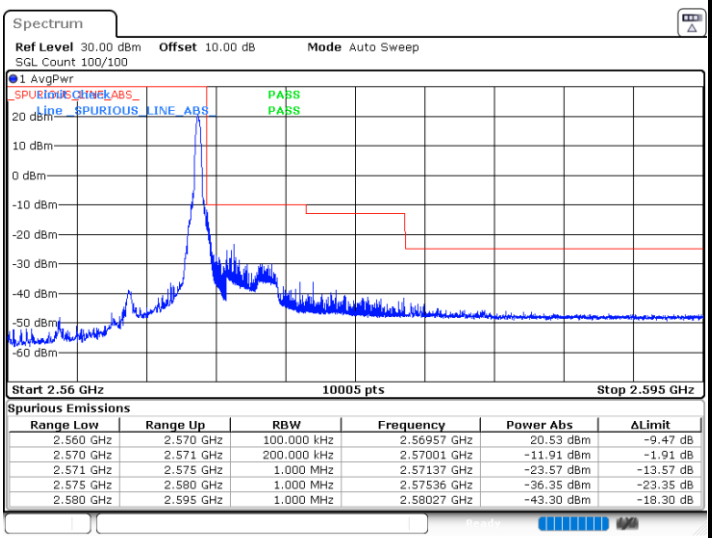


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48806 GHz	-42.25 dBm	-17.25 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49387 GHz	-39.26 dBm	-26.26 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49895 GHz	-22.91 dBm	-12.91 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49997 GHz	-11.26 dBm	-1.26 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50042 GHz	20.06 dBm	-9.94 dB

Date: 2.APR.2021 03:44:52

Highest Band Edge / 1RBMAX

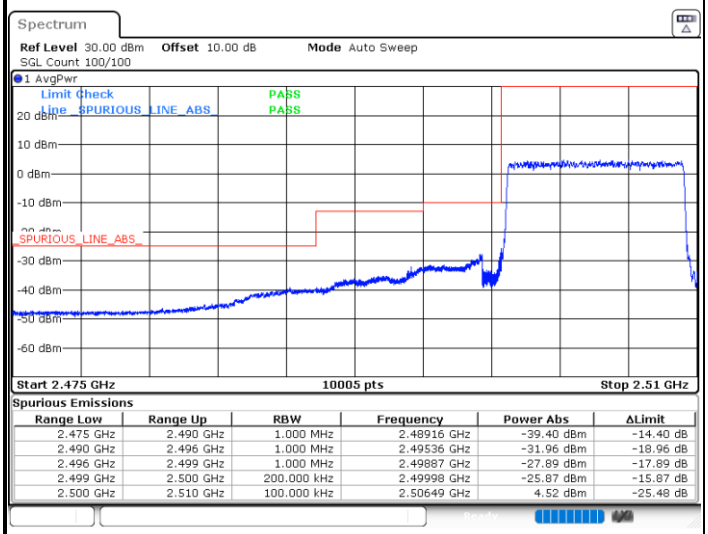


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56957 GHz	20.53 dBm	-9.47 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-11.91 dBm	-1.91 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57137 GHz	-23.57 dBm	-13.57 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57536 GHz	-36.35 dBm	-23.35 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58027 GHz	-43.30 dBm	-18.30 dB

Date: 2.APR.2021 03:53:41

Lowest Band Edge / Full RB

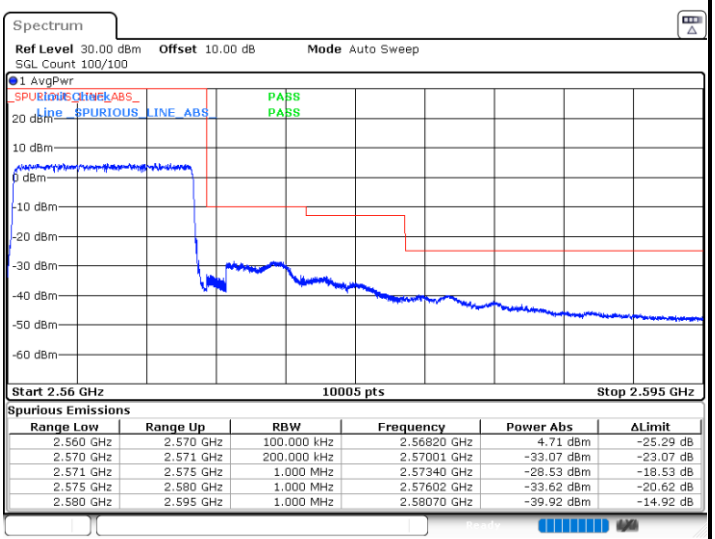


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48916 GHz	-39.40 dBm	-14.40 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49536 GHz	-31.96 dBm	-18.96 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49887 GHz	-27.89 dBm	-17.89 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49998 GHz	-25.87 dBm	-15.87 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50649 GHz	4.52 dBm	-25.48 dB

Date: 2.APR.2021 03:40:35

Highest Band Edge / Full RB



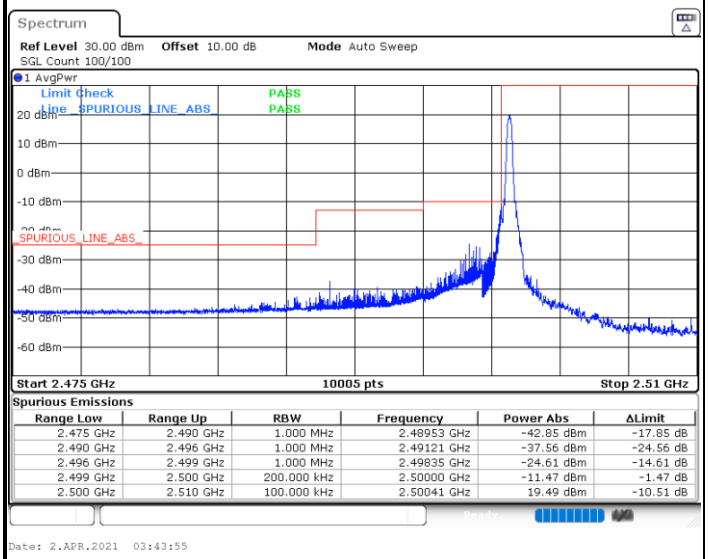
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56820 GHz	4.71 dBm	-25.29 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-33.07 dBm	-23.07 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57340 GHz	-28.53 dBm	-18.53 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57602 GHz	-33.62 dBm	-20.62 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58070 GHz	-39.92 dBm	-14.92 dB

Date: 2.APR.2021 03:49:39

FR1 n7 / 10MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

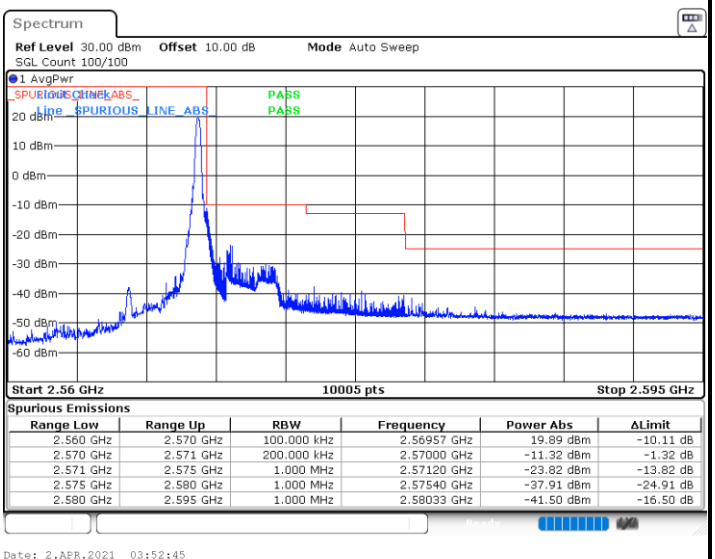


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48953 GHz	-42.85 dBm	-17.85 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49121 GHz	-37.56 dBm	-24.56 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49835 GHz	-24.61 dBm	-14.61 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.50000 GHz	-11.47 dBm	-1.47 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50041 GHz	19.49 dBm	-10.51 dB

Date: 2.APR.2021 03:43:55

Highest Band Edge / 1RBMAX

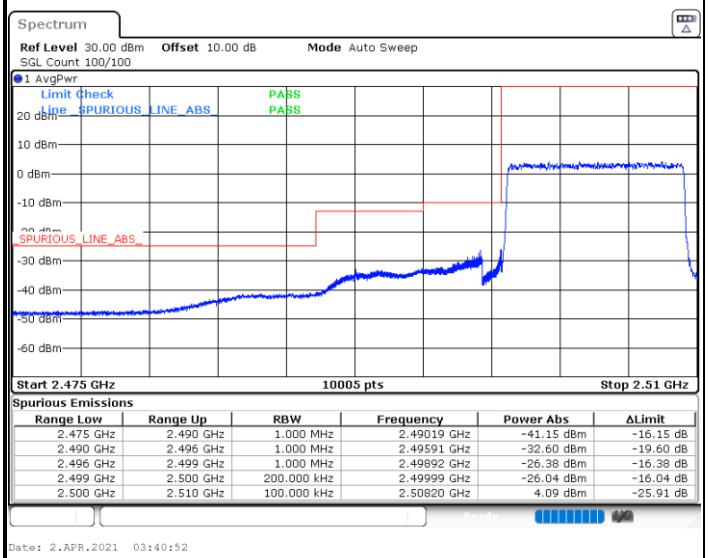


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56957 GHz	19.89 dBm	-10.11 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57000 GHz	-11.32 dBm	-1.32 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57120 GHz	-23.82 dBm	-13.82 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57540 GHz	-37.91 dBm	-24.91 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58033 GHz	-41.50 dBm	-16.50 dB

Date: 2.APR.2021 03:52:45

Lowest Band Edge / Full RB

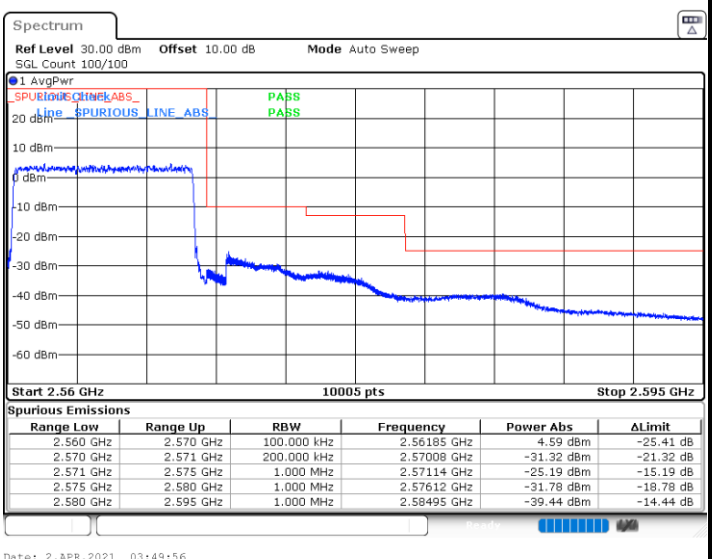


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49019 GHz	-41.15 dBm	-16.15 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49591 GHz	-32.60 dBm	-19.60 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49892 GHz	-26.38 dBm	-16.38 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49999 GHz	-26.04 dBm	-16.04 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50820 GHz	4.09 dBm	-25.91 dB

Date: 2.APR.2021 03:40:52

Highest Band Edge / Full RB



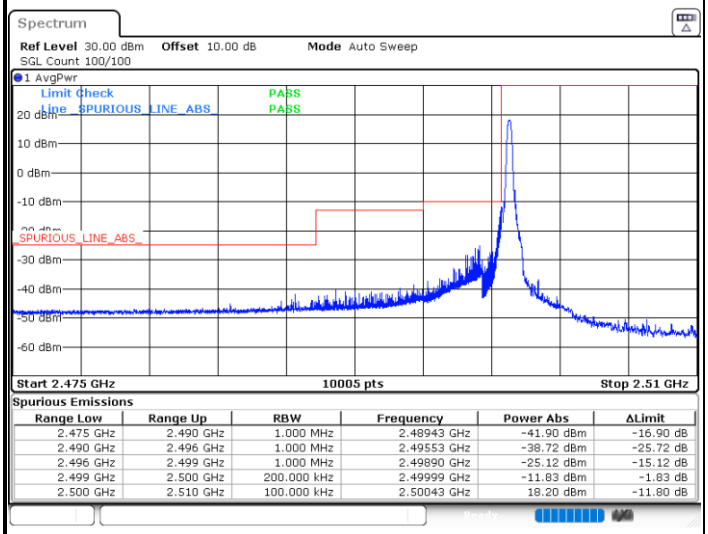
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56185 GHz	4.59 dBm	-25.41 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57008 GHz	-31.32 dBm	-21.32 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57114 GHz	-25.19 dBm	-15.19 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57612 GHz	-31.78 dBm	-18.78 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58495 GHz	-39.44 dBm	-14.44 dB

Date: 2.APR.2021 03:49:56

FR1 n7 / 10MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / 1RB0

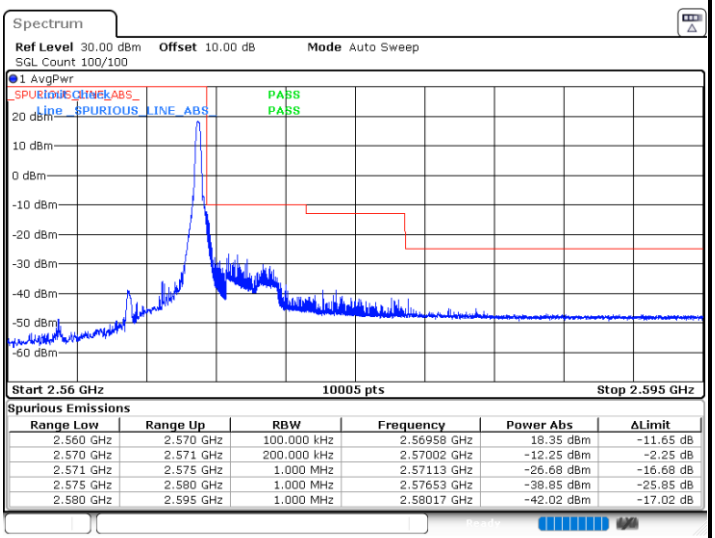


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48943 GHz	-41.90 dBm	-16.90 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49553 GHz	-38.72 dBm	-25.72 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49890 GHz	-25.12 dBm	-15.12 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49999 GHz	-11.83 dBm	-1.83 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50043 GHz	18.20 dBm	-11.80 dB

Date: 2.APR.2021 03:43:24

Highest Band Edge / 1RBMAX

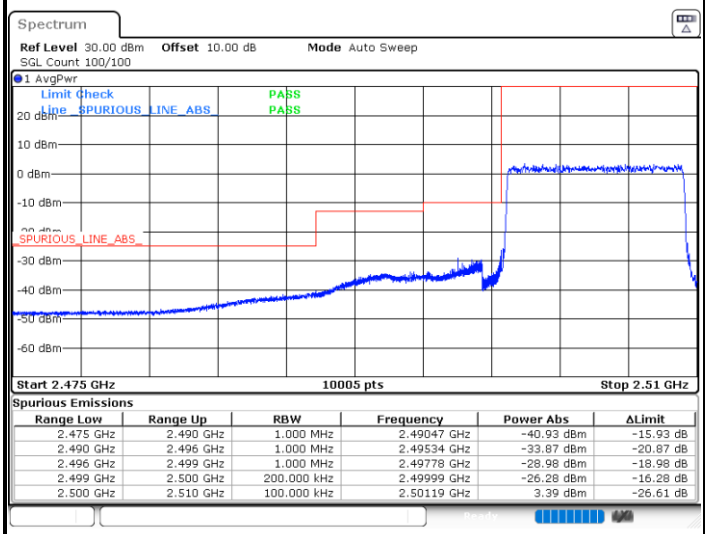


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56958 GHz	18.35 dBm	-11.65 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57002 GHz	-12.25 dBm	-2.25 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57113 GHz	-26.68 dBm	-16.68 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57653 GHz	-38.85 dBm	-25.85 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58017 GHz	-42.02 dBm	-17.02 dB

Date: 2.APR.2021 03:52:28

Lowest Band Edge / Full RB

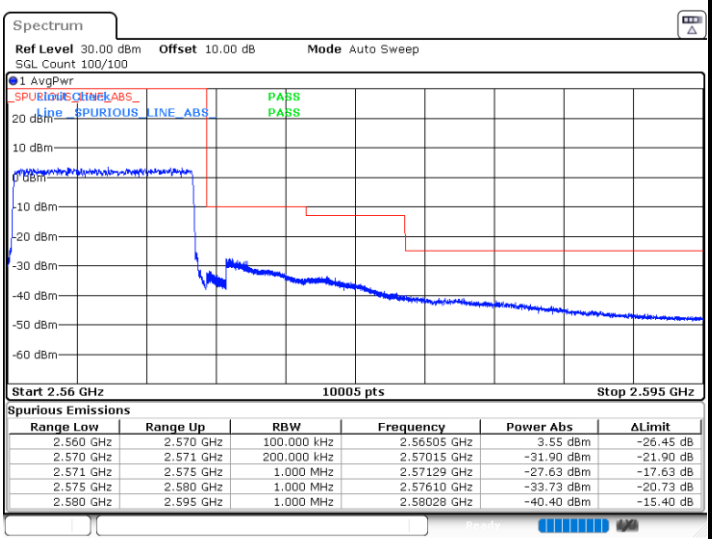


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49047 GHz	-40.93 dBm	-15.93 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49534 GHz	-33.87 dBm	-20.87 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49778 GHz	-28.98 dBm	-18.98 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49999 GHz	-26.28 dBm	-16.28 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50119 GHz	3.39 dBm	-26.61 dB

Date: 2.APR.2021 03:41:09

Highest Band Edge / Full RB



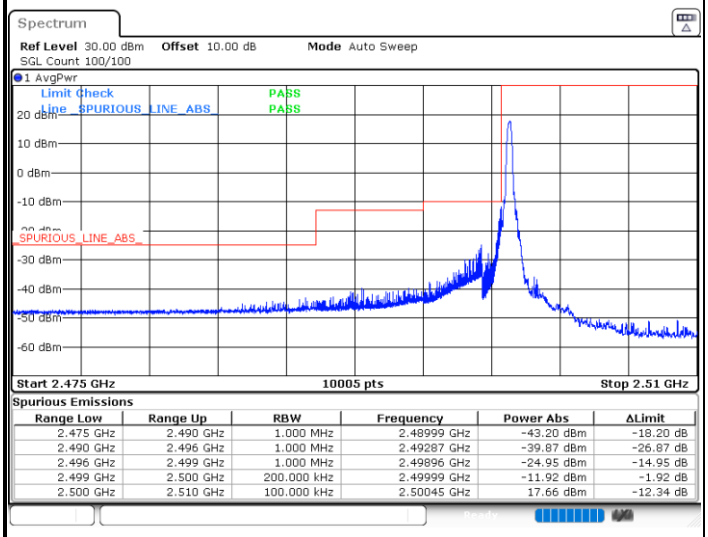
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56505 GHz	3.55 dBm	-26.45 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57015 GHz	-31.90 dBm	-21.90 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57129 GHz	-27.63 dBm	-17.63 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57610 GHz	-33.73 dBm	-20.73 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58028 GHz	-40.40 dBm	-15.40 dB

Date: 2.APR.2021 03:50:15

FR1 n7 / 10MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / 1RB0

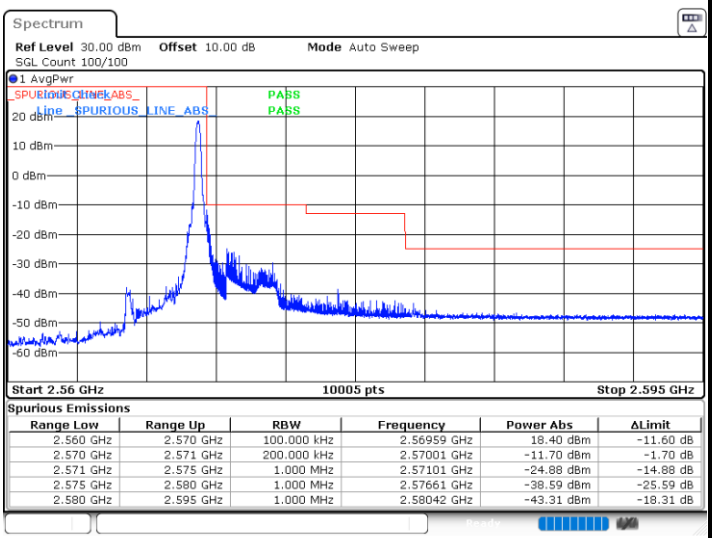


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48999 GHz	-43.20 dBm	-18.20 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49287 GHz	-39.87 dBm	-26.87 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49896 GHz	-24.95 dBm	-14.95 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49999 GHz	-11.92 dBm	-1.92 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50045 GHz	17.66 dBm	-12.34 dB

Date: 2.APR.2021 03:43:06

Highest Band Edge / 1RBMAX

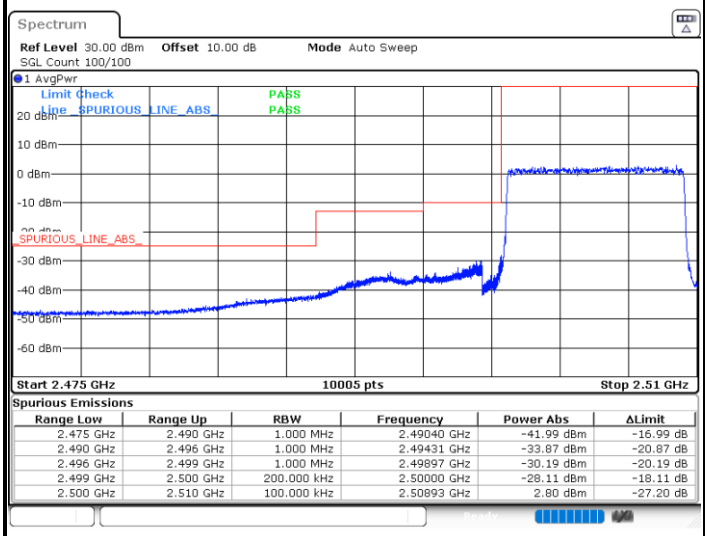


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56959 GHz	18.40 dBm	-11.60 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-11.70 dBm	-1.70 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57101 GHz	-24.88 dBm	-14.88 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57661 GHz	-38.59 dBm	-25.59 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58042 GHz	-43.31 dBm	-18.31 dB

Date: 2.APR.2021 03:52:10

Lowest Band Edge / Full RB

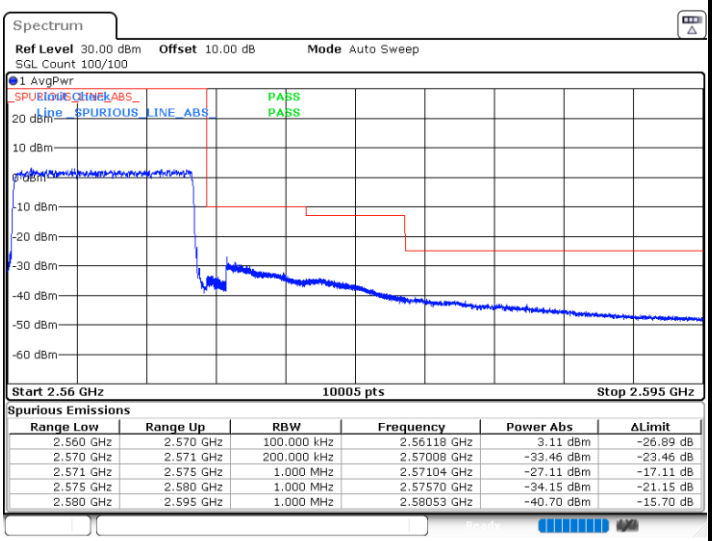


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49040 GHz	-41.99 dBm	-16.99 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49431 GHz	-33.87 dBm	-20.87 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49897 GHz	-30.19 dBm	-20.19 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.50000 GHz	-28.11 dBm	-18.11 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50893 GHz	2.80 dBm	-27.20 dB

Date: 2.APR.2021 03:41:26

Highest Band Edge / Full RB



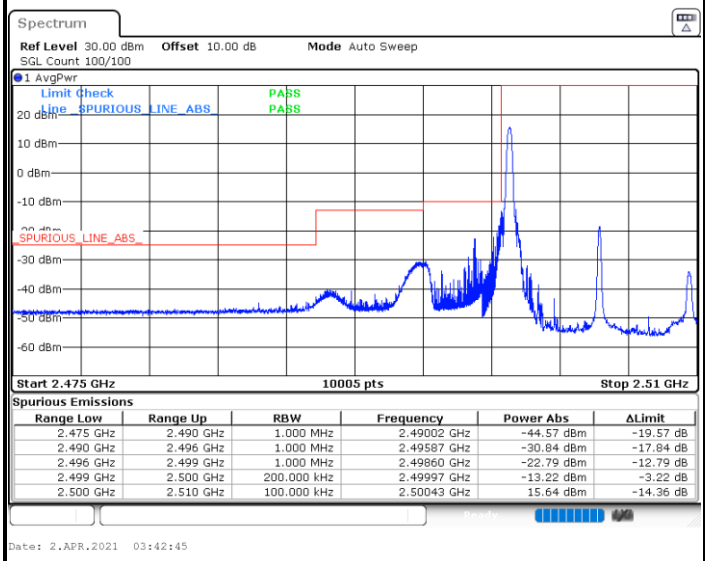
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56118 GHz	3.11 dBm	-26.89 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57008 GHz	-33.46 dBm	-23.46 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57104 GHz	-27.11 dBm	-17.11 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57570 GHz	-34.15 dBm	-21.15 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58053 GHz	-40.70 dBm	-15.70 dB

Date: 2.APR.2021 03:50:32

FR1 n7 / 10MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / 1RB0

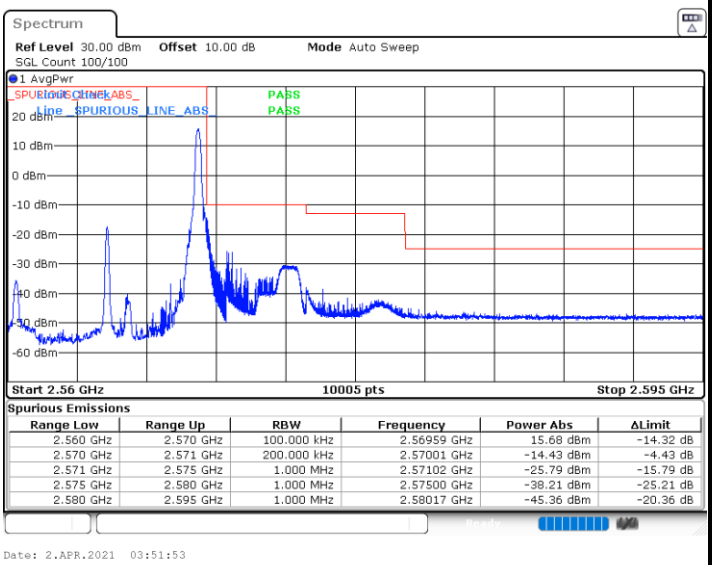


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49002 GHz	-44.57 dBm	-19.57 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49587 GHz	-30.84 dBm	-17.84 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49860 GHz	-22.79 dBm	-12.79 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49997 GHz	-13.22 dBm	-3.22 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50043 GHz	15.64 dBm	-14.36 dB

Date: 2.APR.2021 03:42:45

Highest Band Edge / 1RBMAX

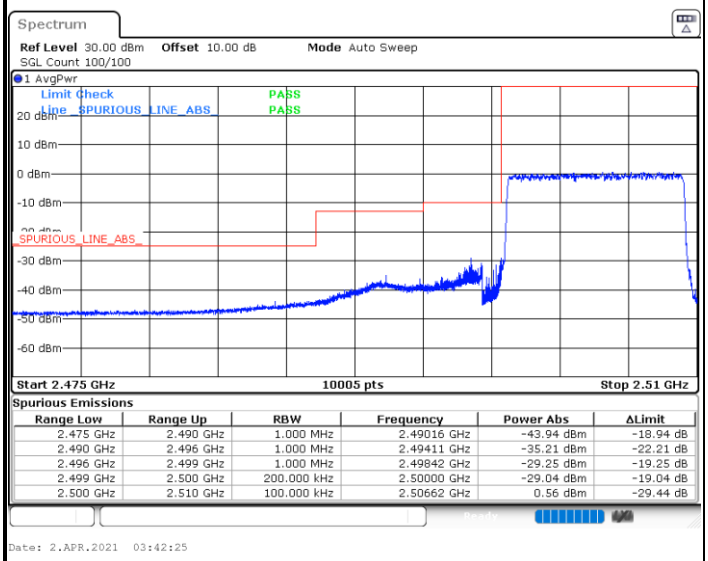


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56959 GHz	15.68 dBm	-14.32 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-14.43 dBm	-4.43 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57102 GHz	-25.79 dBm	-15.79 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57500 GHz	-38.21 dBm	-25.21 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58017 GHz	-45.36 dBm	-20.36 dB

Date: 2.APR.2021 03:51:53

Lowest Band Edge / Full RB

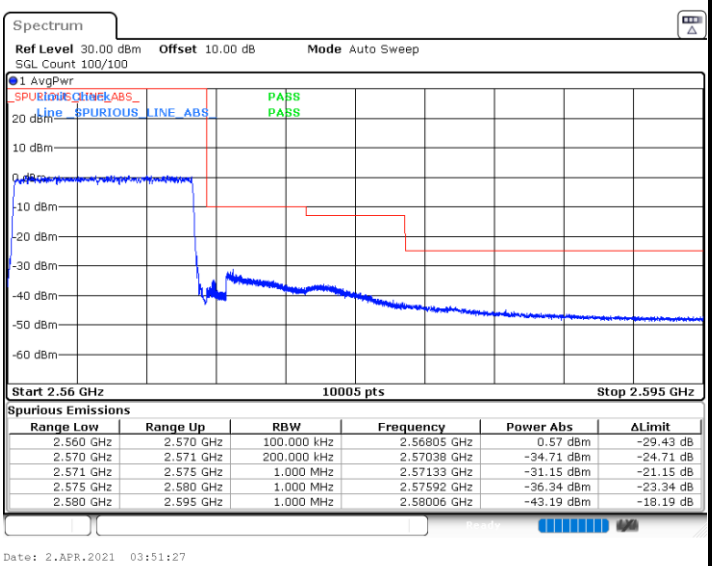


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49016 GHz	-43.94 dBm	-18.94 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49411 GHz	-35.21 dBm	-22.21 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49842 GHz	-29.25 dBm	-19.25 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.50000 GHz	-29.04 dBm	-19.04 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50662 GHz	0.56 dBm	-29.44 dB

Date: 2.APR.2021 03:42:25

Highest Band Edge / Full RB



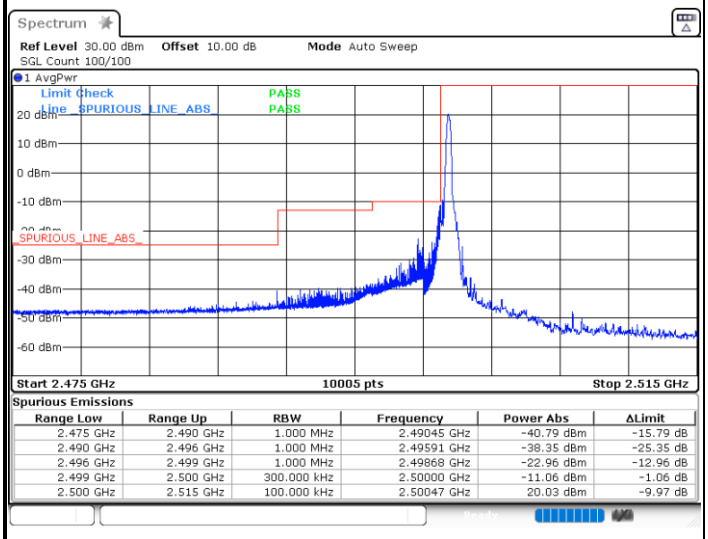
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56805 GHz	0.57 dBm	-29.43 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57038 GHz	-34.71 dBm	-24.71 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57133 GHz	-31.15 dBm	-21.15 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57592 GHz	-36.34 dBm	-23.34 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58006 GHz	-43.19 dBm	-18.19 dB

Date: 2.APR.2021 03:51:27

FR1 n7 / 15MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

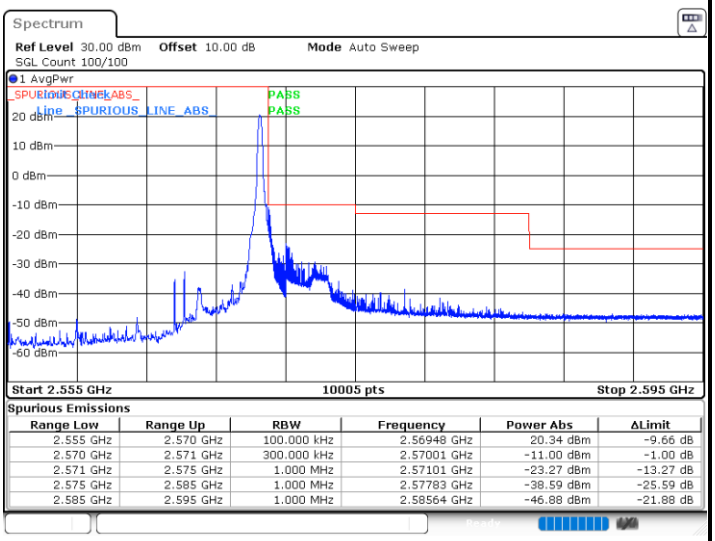


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49045 GHz	-40.79 dBm	-15.79 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49591 GHz	-38.35 dBm	-25.35 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49868 GHz	-22.96 dBm	-12.96 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.50000 GHz	-11.06 dBm	-1.06 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50047 GHz	20.03 dBm	-9.97 dB

Date: 2.APR.2021 03:58:30

Highest Band Edge / 1RBMAX

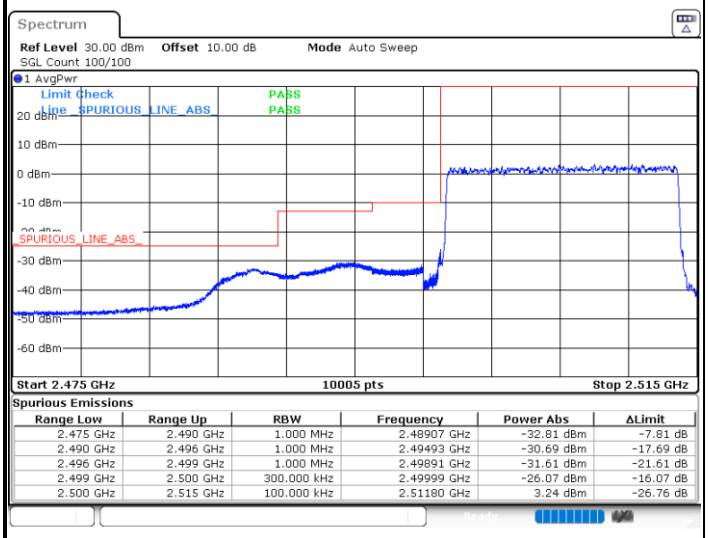


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56948 GHz	20.34 dBm	-9.66 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57001 GHz	-11.00 dBm	-1.00 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57101 GHz	-23.27 dBm	-13.27 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57783 GHz	-38.59 dBm	-25.59 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58564 GHz	-46.88 dBm	-21.88 dB

Date: 2.APR.2021 04:06:48

Lowest Band Edge / Full RB

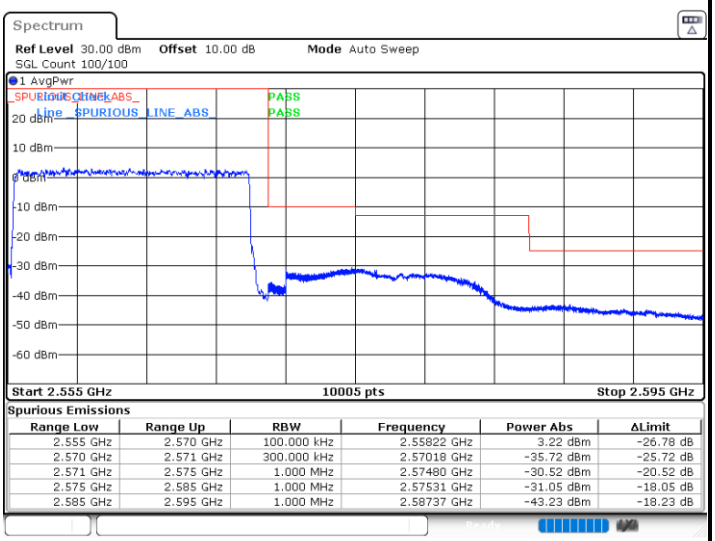


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48907 GHz	-32.81 dBm	-7.81 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49493 GHz	-30.69 dBm	-17.69 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49891 GHz	-31.61 dBm	-21.61 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49999 GHz	-26.07 dBm	-16.07 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.51180 GHz	3.24 dBm	-26.76 dB

Date: 2.APR.2021 03:54:30

Highest Band Edge / Full RB



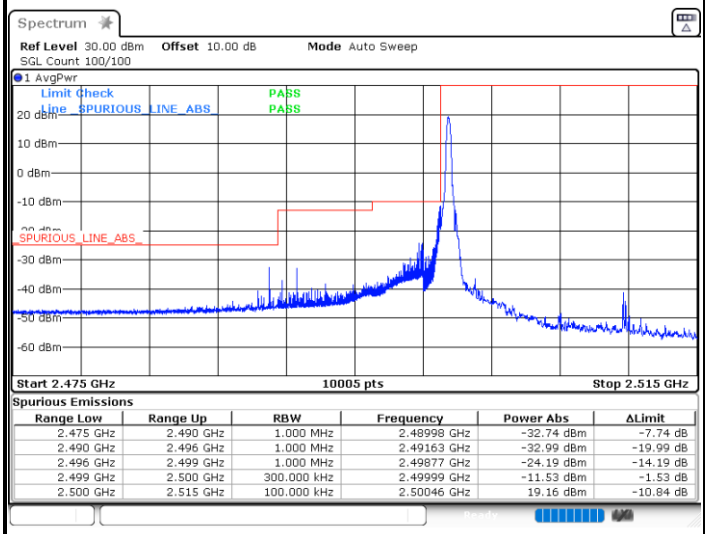
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.55822 GHz	3.22 dBm	-26.78 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57018 GHz	-35.72 dBm	-25.72 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57480 GHz	-30.52 dBm	-20.52 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57531 GHz	-31.05 dBm	-18.05 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58737 GHz	-43.23 dBm	-18.23 dB

Date: 2.APR.2021 04:03:08

FR1 n7 / 15MHz / DFT-s-OFDM / QPSK

Lowest Band Edge / 1RB0

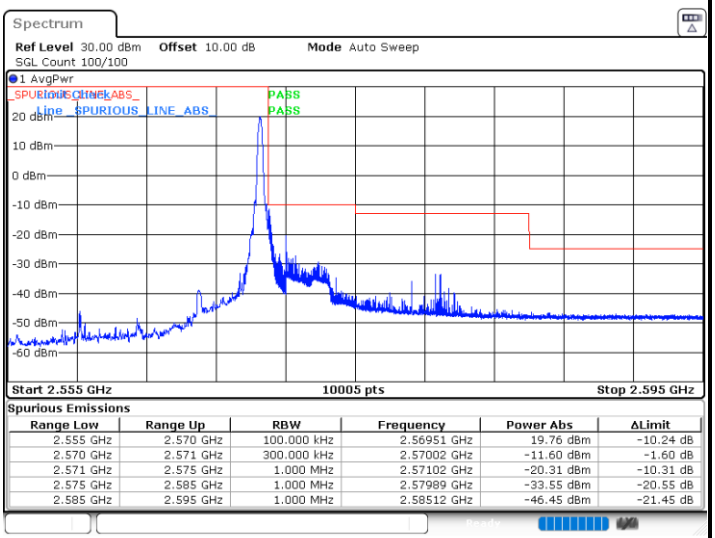


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48998 GHz	-32.74 dBm	-7.74 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49163 GHz	-32.99 dBm	-19.99 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49877 GHz	-24.19 dBm	-14.19 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49999 GHz	-11.53 dBm	-1.53 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50046 GHz	19.16 dBm	-10.84 dB

Date: 2.APR.2021 03:57:41

Highest Band Edge / 1RBMAX

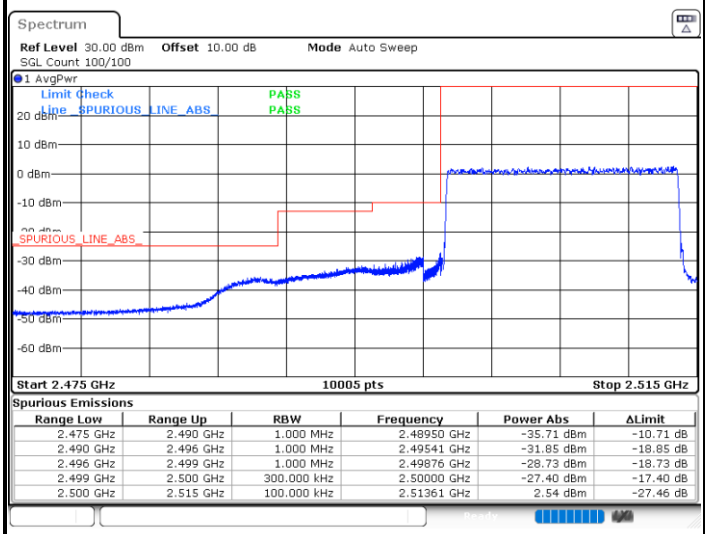


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56951 GHz	19.76 dBm	-10.24 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57002 GHz	-11.60 dBm	-1.60 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57102 GHz	-20.31 dBm	-10.31 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57989 GHz	-33.55 dBm	-20.55 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58512 GHz	-46.45 dBm	-21.45 dB

Date: 2.APR.2021 04:05:49

Lowest Band Edge / Full RB

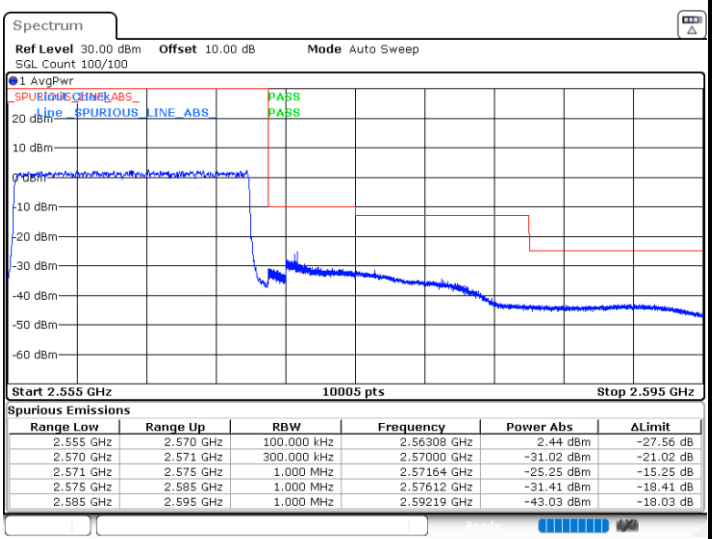


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48950 GHz	-35.71 dBm	-10.71 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49541 GHz	-31.85 dBm	-18.85 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49876 GHz	-28.73 dBm	-18.73 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.50000 GHz	-27.40 dBm	-17.40 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.51361 GHz	2.54 dBm	-27.46 dB

Date: 2.APR.2021 03:54:48

Highest Band Edge / Full RB



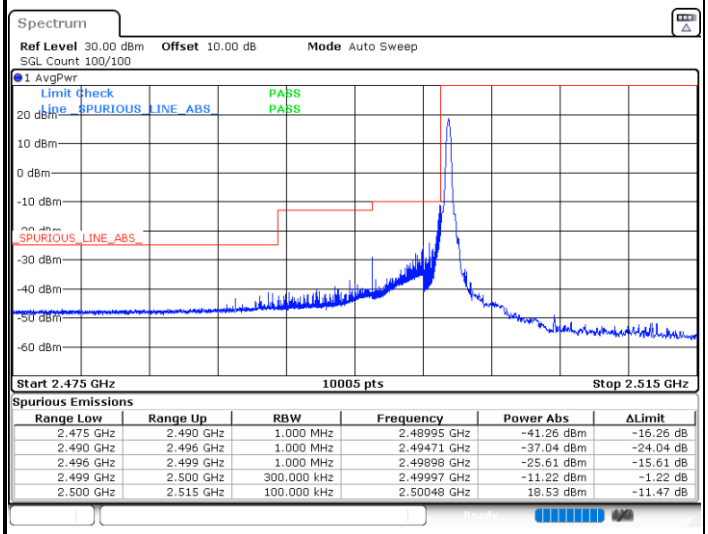
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56308 GHz	2.44 dBm	-27.56 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57000 GHz	-31.02 dBm	-21.02 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57164 GHz	-25.25 dBm	-15.25 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57612 GHz	-31.41 dBm	-18.41 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.59219 GHz	-43.03 dBm	-18.03 dB

Date: 2.APR.2021 04:03:26

FR1 n7 / 15MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / 1RB0

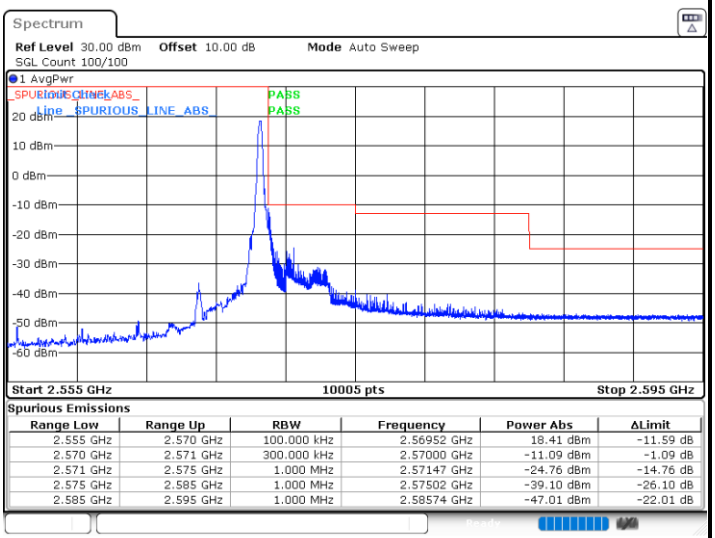


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48995 GHz	-41.26 dBm	-16.26 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49471 GHz	-37.04 dBm	-24.04 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49898 GHz	-25.61 dBm	-15.61 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49997 GHz	-11.22 dBm	-1.22 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50048 GHz	18.53 dBm	-11.47 dB

Date: 2.APR.2021 03:57:15

Highest Band Edge / 1RBMAX

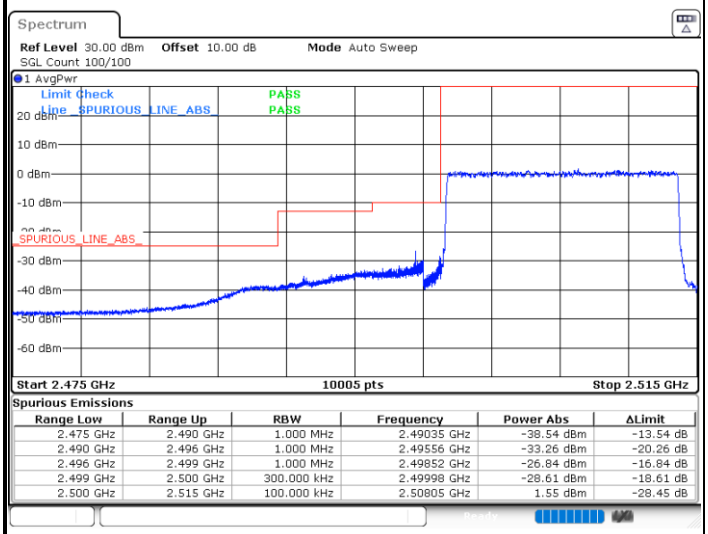


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56952 GHz	18.41 dBm	-11.59 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57000 GHz	-11.09 dBm	-1.09 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57147 GHz	-24.76 dBm	-14.76 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57502 GHz	-39.10 dBm	-26.10 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58574 GHz	-47.01 dBm	-22.01 dB

Date: 2.APR.2021 04:05:31

Lowest Band Edge / Full RB

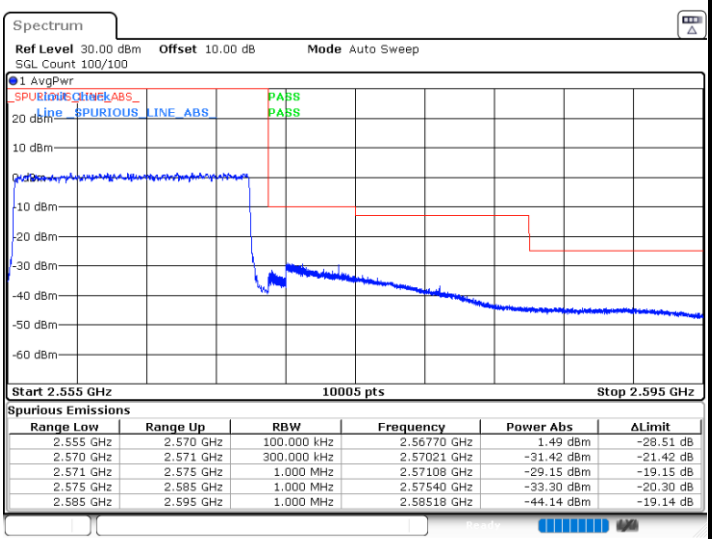


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49035 GHz	-38.54 dBm	-13.54 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49556 GHz	-33.26 dBm	-20.26 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49852 GHz	-26.84 dBm	-16.84 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49998 GHz	-28.61 dBm	-18.61 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50805 GHz	1.55 dBm	-28.45 dB

Date: 2.APR.2021 03:55:06

Highest Band Edge / Full RB



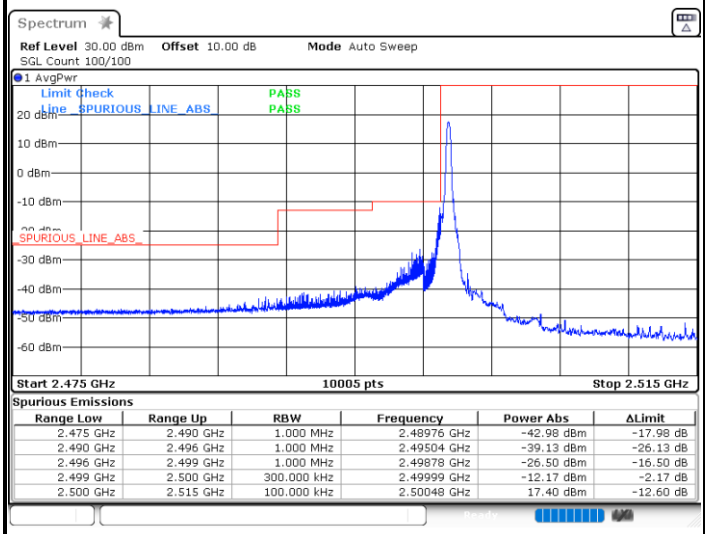
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56770 GHz	1.49 dBm	-28.51 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57021 GHz	-31.42 dBm	-21.42 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57108 GHz	-29.15 dBm	-19.15 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57540 GHz	-33.30 dBm	-20.30 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58518 GHz	-44.14 dBm	-19.14 dB

Date: 2.APR.2021 04:03:42

FR1 n7 / 15MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / 1RB0

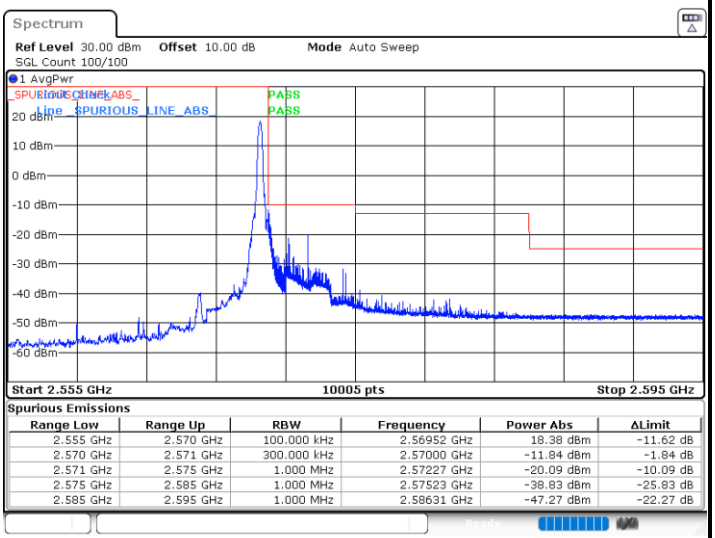


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48976 GHz	-42.98 dBm	-17.98 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49504 GHz	-39.13 dBm	-26.13 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49878 GHz	-26.50 dBm	-16.50 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49999 GHz	-12.17 dBm	-2.17 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50048 GHz	17.40 dBm	-12.60 dB

Date: 2.APR.2021 03:56:58

Highest Band Edge / 1RBMAX

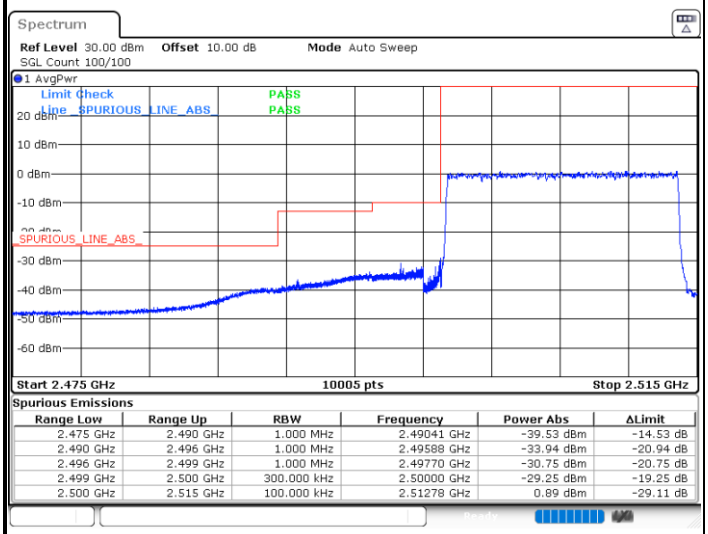


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56952 GHz	18.38 dBm	-11.62 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57000 GHz	-11.84 dBm	-1.84 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57227 GHz	-20.09 dBm	-10.09 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57523 GHz	-38.83 dBm	-25.83 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58631 GHz	-47.27 dBm	-22.27 dB

Date: 2.APR.2021 04:05:14

Lowest Band Edge / Full RB

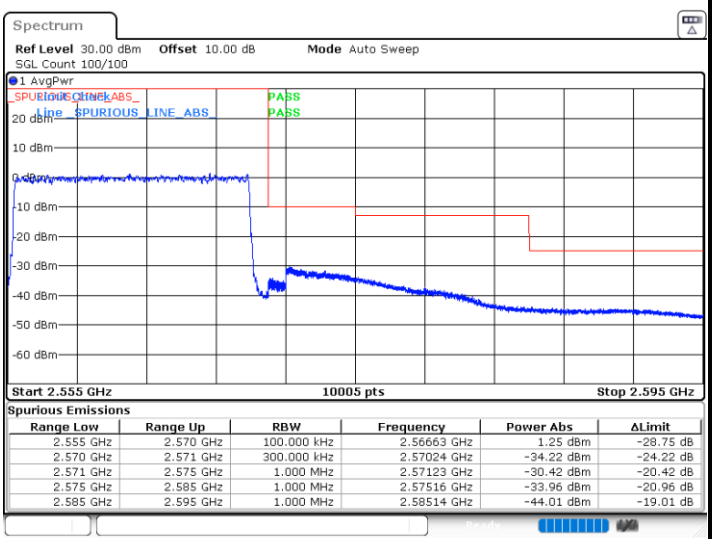


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49041 GHz	-39.53 dBm	-14.53 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49588 GHz	-33.94 dBm	-20.94 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49770 GHz	-30.75 dBm	-20.75 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.50000 GHz	-29.25 dBm	-19.25 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.51278 GHz	0.89 dBm	-29.11 dB

Date: 2.APR.2021 03:55:24

Highest Band Edge / Full RB



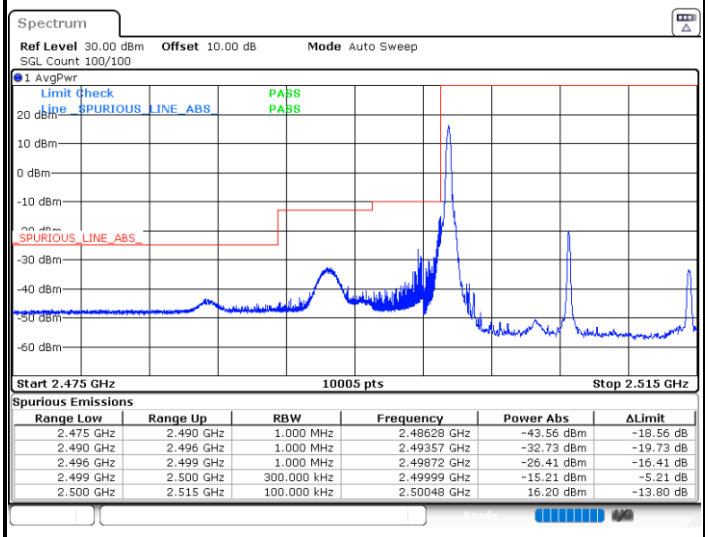
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56663 GHz	1.25 dBm	-28.75 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57024 GHz	-34.22 dBm	-24.22 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57123 GHz	-30.42 dBm	-20.42 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57516 GHz	-33.96 dBm	-20.96 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.58514 GHz	-44.01 dBm	-19.01 dB

Date: 2.APR.2021 04:03:58

FR1 n7 / 15MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / 1RB0

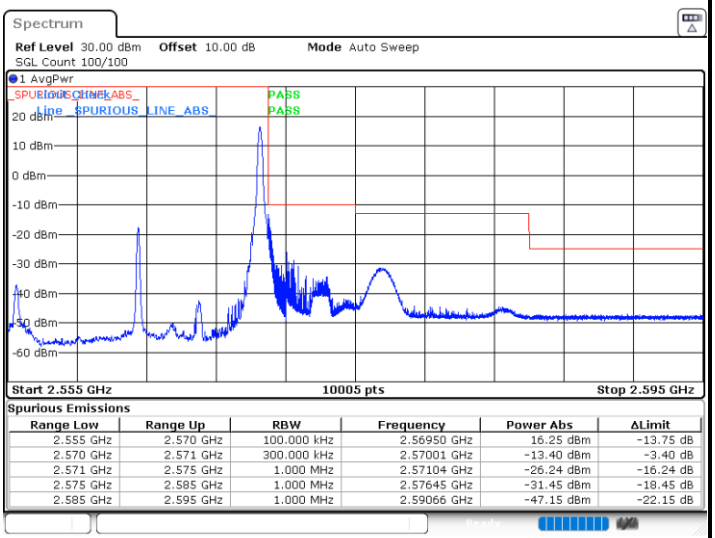


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48628 GHz	-43.56 dBm	-18.56 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49357 GHz	-32.73 dBm	-19.73 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49872 GHz	-26.41 dBm	-16.41 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.49999 GHz	-15.21 dBm	-5.21 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50048 GHz	16.20 dBm	-13.80 dB

Date: 2.APR.2021 03:56:33

Highest Band Edge / 1RBMAX

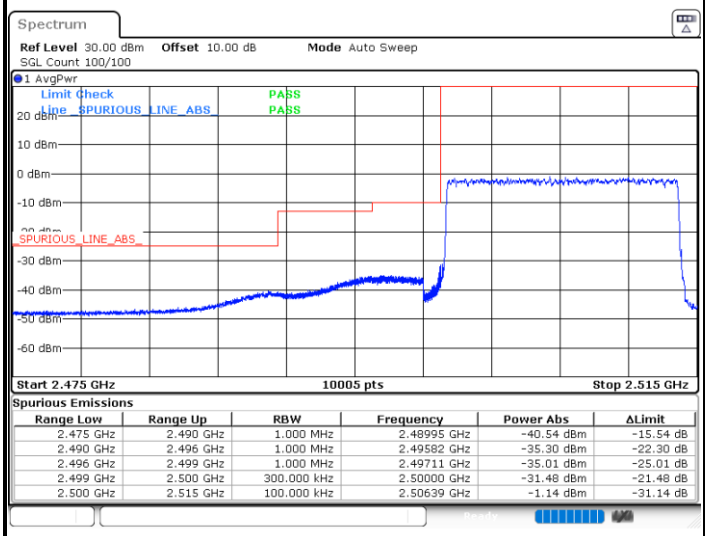


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56950 GHz	16.25 dBm	-13.75 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57001 GHz	-13.40 dBm	-3.40 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57104 GHz	-26.24 dBm	-16.24 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57645 GHz	-31.45 dBm	-18.45 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.59066 GHz	-47.15 dBm	-22.15 dB

Date: 2.APR.2021 04:04:56

Lowest Band Edge / Full RB

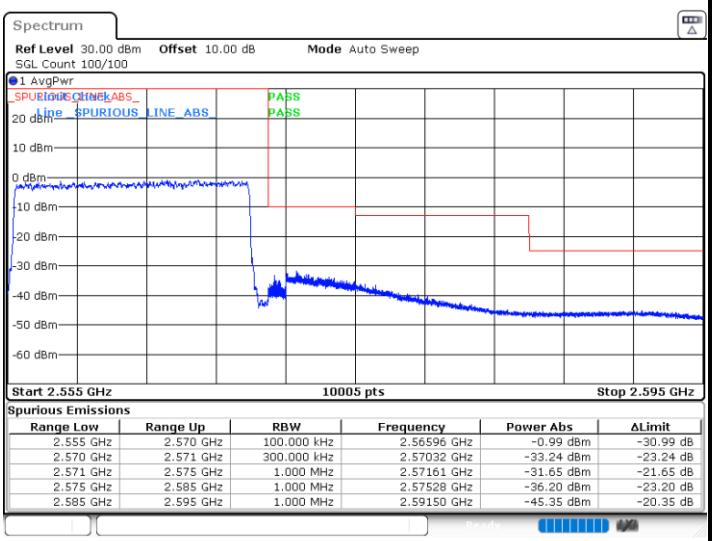


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48995 GHz	-40.54 dBm	-15.54 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49582 GHz	-35.30 dBm	-22.30 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49711 GHz	-35.01 dBm	-25.01 dB
2.499 GHz	2.500 GHz	300.000 kHz	2.50000 GHz	-31.48 dBm	-21.48 dB
2.500 GHz	2.515 GHz	100.000 kHz	2.50639 GHz	-1.14 dBm	-31.14 dB

Date: 2.APR.2021 03:56:14

Highest Band Edge / Full RB



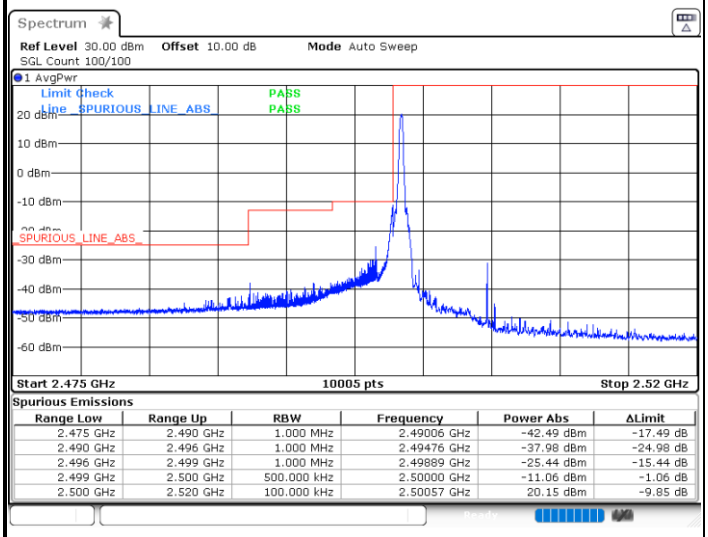
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.555 GHz	2.570 GHz	100.000 kHz	2.56596 GHz	-0.99 dBm	-30.99 dB
2.570 GHz	2.571 GHz	300.000 kHz	2.57032 GHz	-33.24 dBm	-23.24 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57161 GHz	-31.65 dBm	-21.65 dB
2.575 GHz	2.585 GHz	1.000 MHz	2.57528 GHz	-36.20 dBm	-23.20 dB
2.585 GHz	2.595 GHz	1.000 MHz	2.59150 GHz	-45.35 dBm	-20.35 dB

Date: 2.APR.2021 04:04:33

FR1 n7 / 20MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

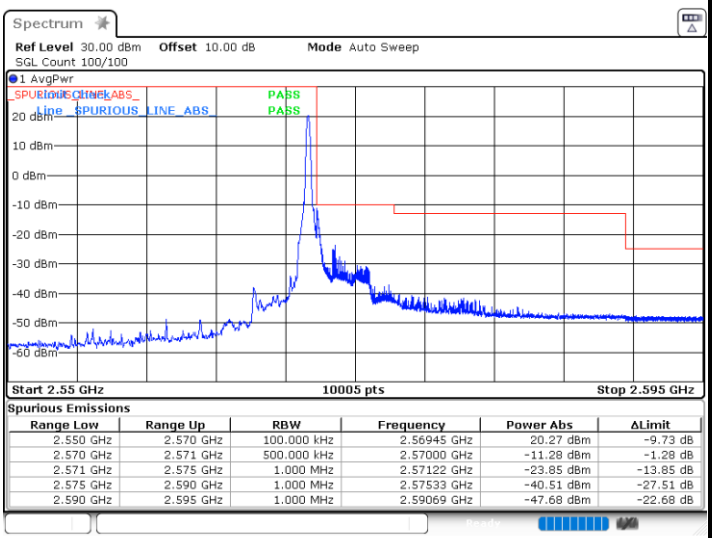


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49006 GHz	-42.49 dBm	-17.49 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49476 GHz	-37.98 dBm	-24.98 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49889 GHz	-25.44 dBm	-15.44 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.50000 GHz	-11.06 dBm	-1.06 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.50057 GHz	20.15 dBm	-9.85 dB

Date: 2.APR.2021 04:19:58

Highest Band Edge / 1RBMAX

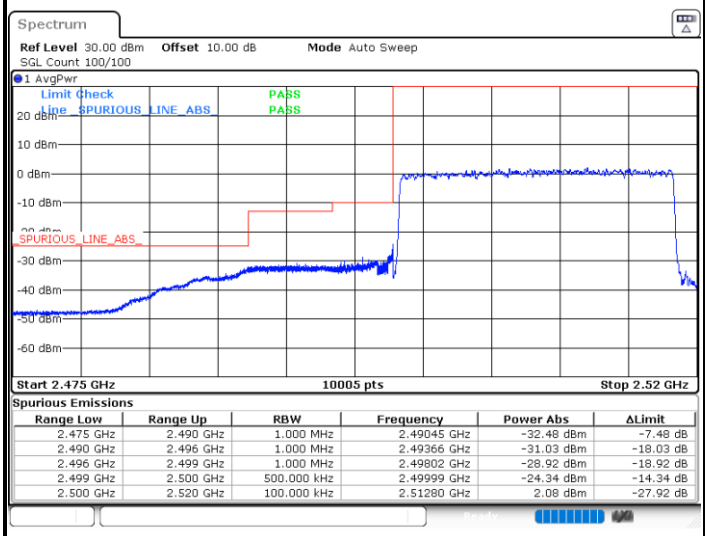


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.550 GHz	2.570 GHz	100.000 kHz	2.56945 GHz	20.27 dBm	-9.73 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57000 GHz	-11.28 dBm	-1.28 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57122 GHz	-23.85 dBm	-13.85 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.57533 GHz	-40.51 dBm	-27.51 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59069 GHz	-47.68 dBm	-22.68 dB

Date: 2.APR.2021 04:35:14

Lowest Band Edge / Full RB

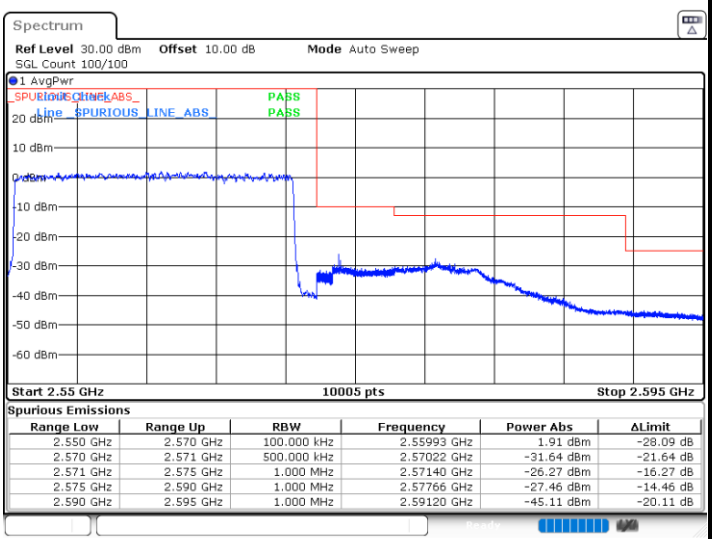


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49045 GHz	-32.48 dBm	-7.48 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49366 GHz	-31.03 dBm	-18.03 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49802 GHz	-28.92 dBm	-18.92 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.49999 GHz	-24.34 dBm	-14.34 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.51280 GHz	2.08 dBm	-27.92 dB

Date: 2.APR.2021 04:07:41

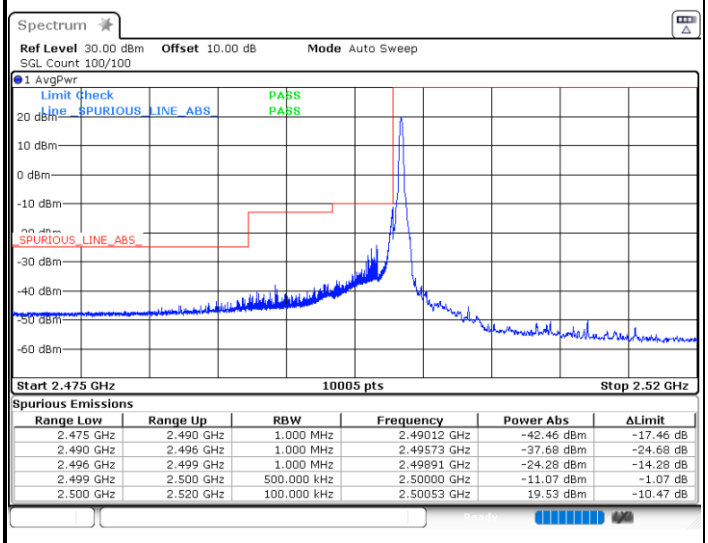
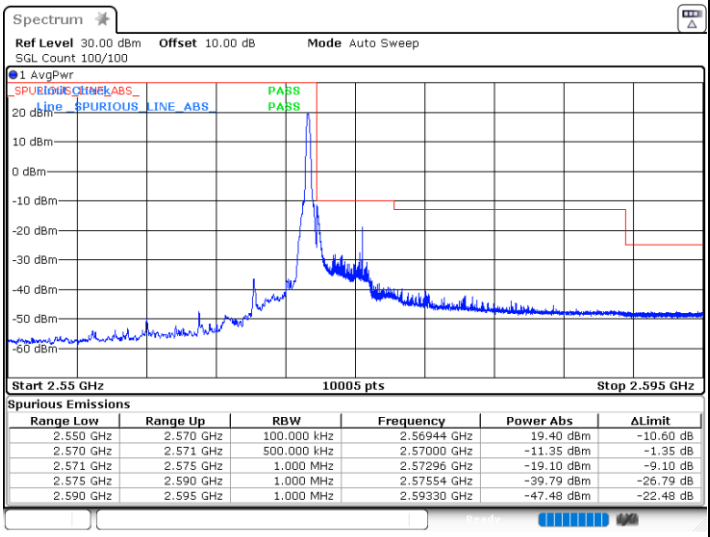
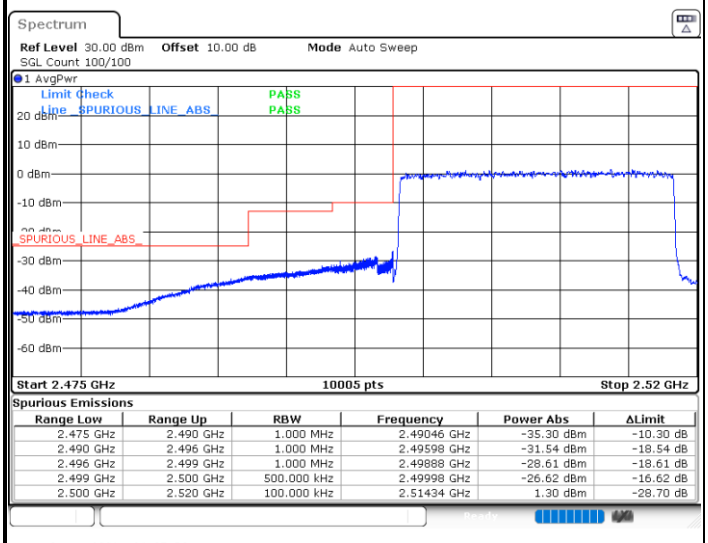
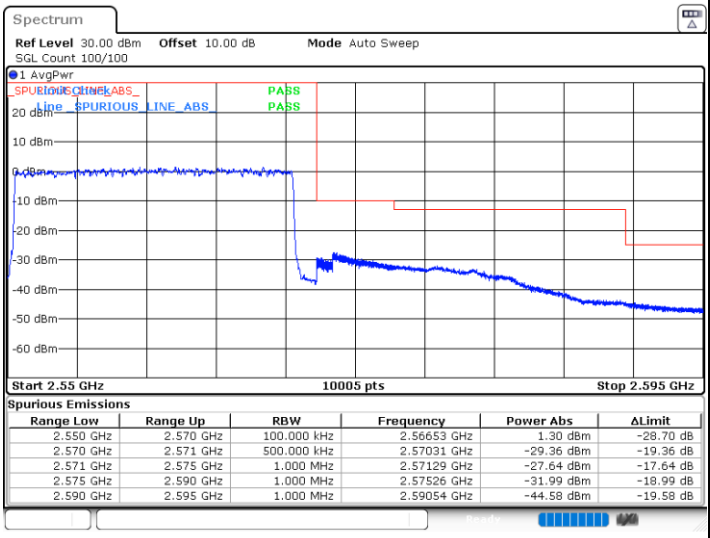
Highest Band Edge / Full RB



Spurious Emissions

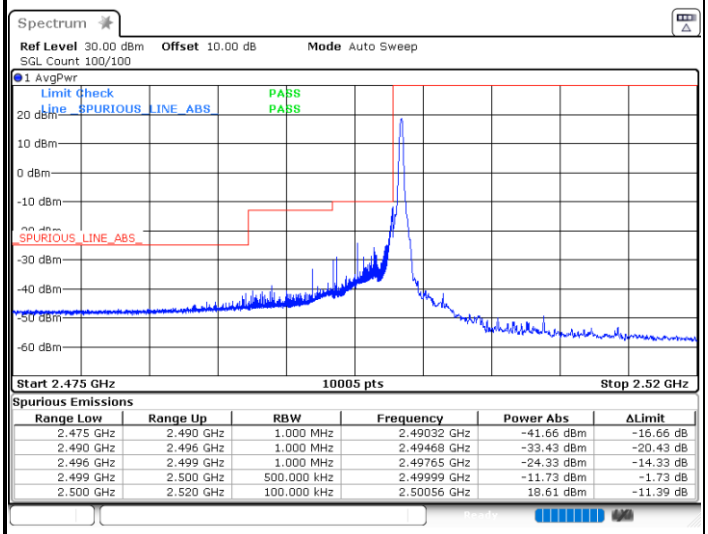
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.550 GHz	2.570 GHz	100.000 kHz	2.55993 GHz	1.91 dBm	-28.09 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57022 GHz	-31.64 dBm	-21.64 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57140 GHz	-26.27 dBm	-16.27 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.57766 GHz	-27.46 dBm	-14.46 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59120 GHz	-45.11 dBm	-20.11 dB

Date: 2.APR.2021 04:33:21

FR1 n7 / 20MHz / DFT-s-OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n7 / 20MHz / DFT-s-OFDM / PI/2 16QAM

Lowest Band Edge / 1RB0

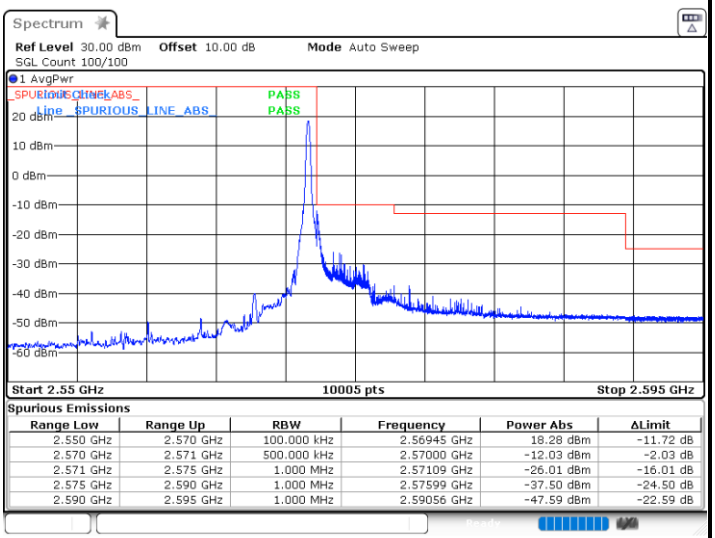


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49032 GHz	-41.66 dBm	-16.66 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49468 GHz	-33.43 dBm	-20.43 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49765 GHz	-24.33 dBm	-14.33 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.49999 GHz	-11.73 dBm	-1.73 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.50056 GHz	18.61 dBm	-11.39 dB

Date: 2.APR.2021 04:14:04

Highest Band Edge / 1RBMAX

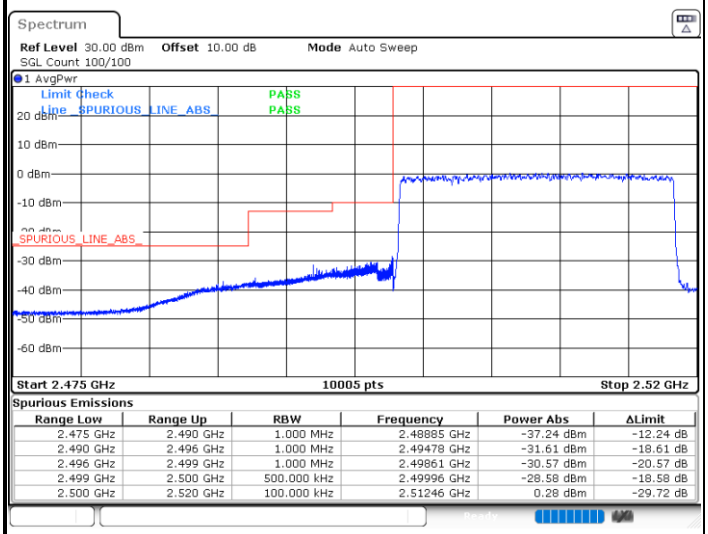


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.550 GHz	2.570 GHz	100.000 kHz	2.56945 GHz	18.28 dBm	-11.72 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57000 GHz	-12.03 dBm	-2.03 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57109 GHz	-26.01 dBm	-16.01 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.57599 GHz	-37.50 dBm	-24.50 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59056 GHz	-47.59 dBm	-22.59 dB

Date: 2.APR.2021 04:37:36

Lowest Band Edge / Full RB

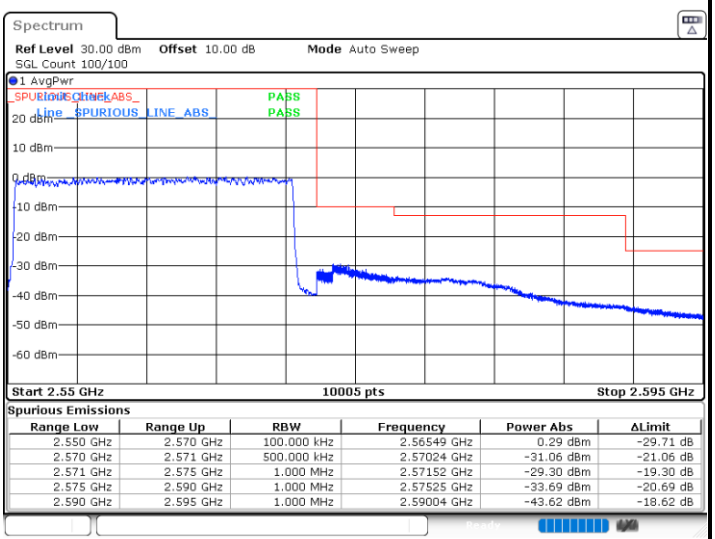


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48885 GHz	-37.24 dBm	-12.24 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49478 GHz	-31.61 dBm	-18.61 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49861 GHz	-30.57 dBm	-20.57 dB
2.499 GHz	2.500 GHz	500.000 kHz	2.49996 GHz	-28.58 dBm	-18.58 dB
2.500 GHz	2.520 GHz	100.000 kHz	2.51246 GHz	0.28 dBm	-29.72 dB

Date: 2.APR.2021 04:08:15

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	2.56549 GHz	0.29 dBm	-29.71 dB
2.570 GHz	2.571 GHz	500.000 kHz	2.57024 GHz	-31.06 dBm	-21.06 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57152 GHz	-29.30 dBm	-19.30 dB
2.575 GHz	2.590 GHz	1.000 MHz	2.57525 GHz	-33.69 dBm	-20.69 dB
2.590 GHz	2.595 GHz	1.000 MHz	2.59004 GHz	-43.62 dBm	-18.62 dB

Date: 2.APR.2021 04:32:10