FCC RF Test Report

APPLICANT	: Xiaomi Communications Co., Ltd.
EQUIPMENT	: Mobile Phone
BRAND NAME	: Xiaomi
MODEL NAME	: 2203129G
FCC ID	: 2AFZZ3129G
STANDARD	: 47 CFR Part 2, 22, 27
CLASSIFICATION	: PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	: Feb. 01, 2022 ~ Mar. 06, 2022

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

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

Jason Jia

Reviewed by: Jason Jia / Supervisor

Alex Wang

Approved by: Alex Wang / Manager

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
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People's Republic of China

TABLE OF CONTENTS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG211306I	Rev. 01	Initial issue of report	Mar. 17, 2022

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (5G NR n5)	ERP < 7 Watt		
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (5G NR n7, n41, n38)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (5G NR n66)	EIRP < 1Watt		
3.5	N/A	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §27.53(h)	Conducted Band Edge Measurement (5G NR n5) (5G NR n66)	< 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 §22.917(a) §27.53(h)	Conducted Spurious Emission (5G NR n5) (5G NR n66)	< 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 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §27.53(h)	Radiated Spurious Emission (5G NR n5) (5G NR n66)	< $43+10\log_{10}$(P[Watts])	PASS	Under limit 31.87 dB at 7576.000 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

Xiaomi Communications Co., Ltd.
#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.2 Manufacturer

Xiaomi Communications Co., Ltd.
#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Phone
Brand Name	Xiaomi
Model Name	2203129G
FCC ID	2AFZZ3129G
IMEI Code	Conducted : 868214060108543/868214060108550 Radiation : 868214060105440/868214060105457
HW Version	P2.1
SW Version	MIUI 13
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz
Rx Frequency	5G NR n5 : 869 MHz ~ 894 MHz 5G NR n7 : 2620 MHz ~ 2690 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 2110 MHz~ 2200 MHz
SCS	n5, n7, n66: 15kHz n38, n41: 30kHz
Bandwidth	n5: 5MHz / 10MHz / 15MHz / 20MHz n7: 5MHz / 10MHz / 15MHz / 20MHz / 25MHz / 30MHz / 40MHz / 50MHz n38 : 20MHz / 30MHz / 40MHz n41: 20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 70MHz / 80MHz / 90MHz / 100MHz n66: 5MHz / 10MHz / 15MHz / 20MHz / 30MHz / 40MHz
Antenna Gain	**<Ant. 0>** 5G NR n5 : -3.84 dBi

	5G NR n7 : -3.56 dBi 5G NR n38 : -3.27 dBi 5G NR n41 : -3.27 dBi 5G NR n66 : -3.86 dBi **<Ant. 1>** 5G NR n5 : -3.60 dBi **<Ant. 3>** 5G NR n7 : -1.0 dBi 5G NR n38 : -1.23 dBi 5G NR n41 : -1.0 dBi 5G NR n66 : -2.75 dBi **<Ant. 4>** 5G NR n7 : -1.17 dBi 5G NR n38 : -0.46 dBi 5G NR n41 : -0.41 dBi 5G NR n66 : -2.53 dBi **<Ant. 5>** 5G NR n7 : -2.32 dBi 5G NR n38 : -1.73 dBi 5G NR n41 : -1.60 dBi 5G NR n66 : -2.87 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Note:

1. The maximum ERP/EIRP is calculated from max output power and antenna gain, only the maximum ERP/EIRP is shown in the report: 5G NR n5/n38/n41 for Ant. 0 and n7/n66 for Ant. 3.
2. 5G NR Bands support SA and NSA mode. The whole testing has assessed SA mode for n38/n41 and NSA mode for n5/n7/n66 by referring to the higher conducted power for conducted test items.
3. For NSA mode of all EN-DC combination, we only show the combination of the maximum power among all NSA combinations in the report.
4. The device supports two PAs for 5G NR n41 and EN DC_7A-n66A, the maximum power of main PA is higher than the other PA, therefore, we chose higher power of main PA to calculate the EIRP and show in the report.
5. The EN-DC mode combination could be referred to the product spec.

1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP Power and Emission Designator

5G NR n5 (EN DC_7A-n5A)		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	**Frequency Range (MHz)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**	**Maximum ERP(W)**	**Emission Designator (99%OBW)**
20	834.0 ~ 839.0	0.0998	19M3G7D	0.0881	19M5W7D

5G NR n7 (EN DC_5A-n7A)		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
50	2525.0 ~ 2545.0	0.2075	48M1G7D	0.1758	48M5W7D
5G NR n38		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
40	2590.02 ~ 2599.98	0.1169	36M0G7D	0.0923	36M0W7D
5G NR n41		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
100	2546.01 ~ 2640.00	0.1172	97M1G7D	0.0916	96M9W7D
5G NR n66 (EN DC_5A-n66A)		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
40	1730.0 ~ 1760.0	0.1614	38M8G7D	0.1380	38M8W7D

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(20M/30M/40M) as well as Band n38(20M/30M/40M).
2. All modulations have been tested, only the worst test results of PSK & QAM are shown in the report.

1.7 Testing Location

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

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

1.8 Test Software

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

1.9 Applicable Standards

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

- 47 CFR Part 2, 22, 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	25	30	40	50	60-100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Full	L	M	H
Max. Output Power	n5	v	v	v	v	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n7	v	v	v	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v	v
	n38	-	-	-	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	v	v	v
	n66	v	v	v	v	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n5				v		-	-	-	-	v	v	v	v	v		v		v	
	n7								v	-	v	v	v	v	v		v		v	
	n41	-	-	-		-				v	v	v	v	v	v		v		v	
	n66					-		v	-	-	v	v	v	v	v		v		v	
26dB and 99% Bandwidth	n5				v	-	-	-	-	-		v	v				v		v	
	n7								v	-		v	v				v		v	
	n41	-	-	-		-		v		v		v	v				v		v	
	n66					-		v	-	-		v	v				v		v	
Conducted Band Edge	n5	v	v	v	v		-	-	-	-	v	v	v	v	v	v	v	v		v
	n7	v	v	v	v	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	v		v
	n66	v	v	v	v	-	v	v	-	-	v	v	v	v	v	v	v	v		v

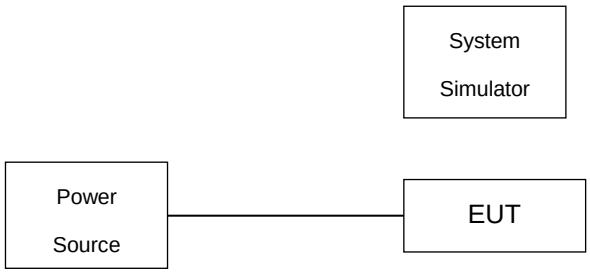
Test Items	5G NR	Bandwidth (MHz)									Modulation					RB #		Test Channel		
		5	10	15	20	25	30	40	50-90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Full	L	M	H
Conducted Spurious Emission	n5	v	v	v	v	-	-	-	-	-		v				v		v	v	v
	n7	v	v	v	v	v	v	v	v	-		v				v		v	v	v
	n41	-	-	-	v	-	v	v	v	v		v				v		v	v	v
	n66	v	v	v	v	-	v	v	-	-		v				v		v	v	v
Frequency Stability	n5				v	-	-	-	-	-		v					v		v	
	n7				v		-	-	-	-		v					v		v	
	n41	-	-	-	v							v					v		v	
	n66				v				-	-		v					v		v	
E.R.P / E.I.R.P	n5	v	v	v	v	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v
	n7	v	v	v	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v
	n38	-	-	-	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	v	v	v
	n66	v	v	v	v	-	v	v	-	-	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n5	Worst Case																	v	
	n7	Worst Case																	v	
	n41	Worst Case																	v	
	n66	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. Based on engineering evaluation, only the worst modulations test results are shown in the report.

2.2 Connection Diagram of Test System

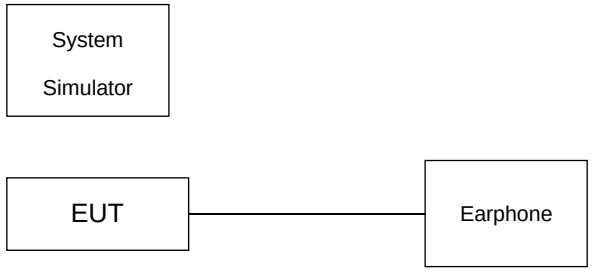
Adapter Mode:



This example is connection diagram of EUT test configurations.

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

Earphone Mode:



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
4.	Earphone	MI	EM023	N/A	N/A	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss 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 2.99 dB and 10dB attenuator.

Example :

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

= 2.99 + 10 = 12.99 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G NR n5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	166800	167300	167800
	Frequency	834	836.5	839
15	Channel	166300	167300	168300
	Frequency	831.5	836.5	841.5
10	Channel	165800	167300	168800
	Frequency	829	836.5	844
5	Channel	165300	167300	169300
	Frequency	826.5	836.5	846.5

5G NR n7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
50	Channel	505000	507000	509000
	Frequency	2525	2535	2545
40	Channel	504000	507000	510000
	Frequency	2520	2535	2550
30	Channel	503000	507000	511000
	Frequency	2515	2535	2555
25	Channel	502500	507000	511500
	Frequency	2512.5	2535	2557.5
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
40	Channel	518004	519000	519996
	Frequency	2590.02	2595	2599.98
30	Channel	517002	519000	520998
	Frequency	2585.01	2595	2604.99
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
70	Channel	506202	518598	531000
	Frequency	2531.01	2592.99	2655
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	2511.0	2592.99	2674.98
20	Channel	501204	518598	535998
	Frequency	2506.02	2592.99	2679.99

5G NR n66 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
40	Channel	346000	349000	352000
	Frequency	1730	1745	1760
30	Channel	345000	349000	353000
	Frequency	1725	1745	1765
20	Channel	344000	349000	354000
	Frequency	1720	1745	1770
15	Channel	343500	349000	354500
	Frequency	1717.5	1745	1772.5
10	Channel	343000	349000	355000
	Frequency	1715	1745	1775
5	Channel	342500	349000	355500
	Frequency	1712.5	1745	1777.5

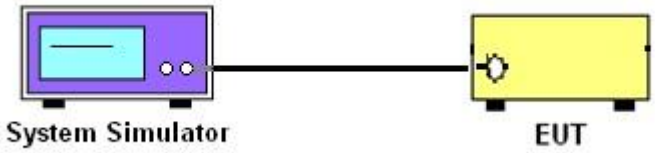
3 Conducted Test Items

3.1 Measuring Instruments

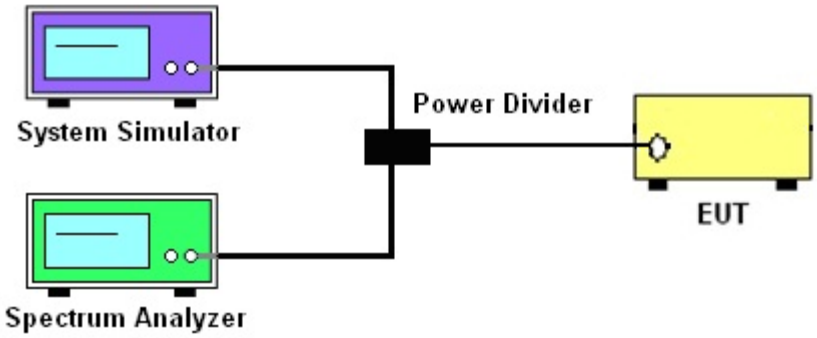
See list of measuring instruments of this test report.

3.2 Test Setup

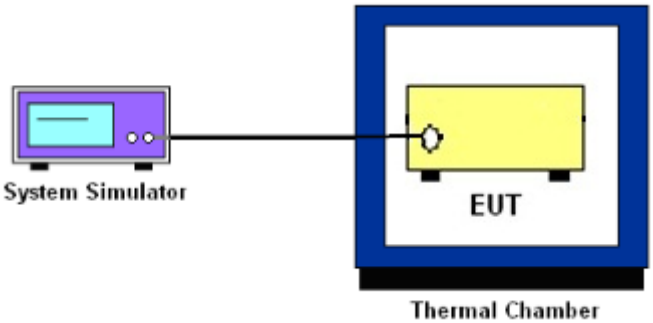
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and ERP/EIRP

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

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

The ERP of mobile transmitters must not exceed 7 Watts for 5G NR n5.

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 n66.

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T – L_C$, $ERP = EIRP - 2.15$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.5.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

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

22.917(a)

For operations in the 824 – 849 MHz band, the FCC limit is 43 + 10log$_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53 (h)

For operations in the 1710 – 1755 MHz band, the FCC limit is 43 + 10log$_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53(m)(4)

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

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. 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.
10. When using the integration method, the starting frequency of the integration shall be centered at one-half of the RBW away from the band edge.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

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

For 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.

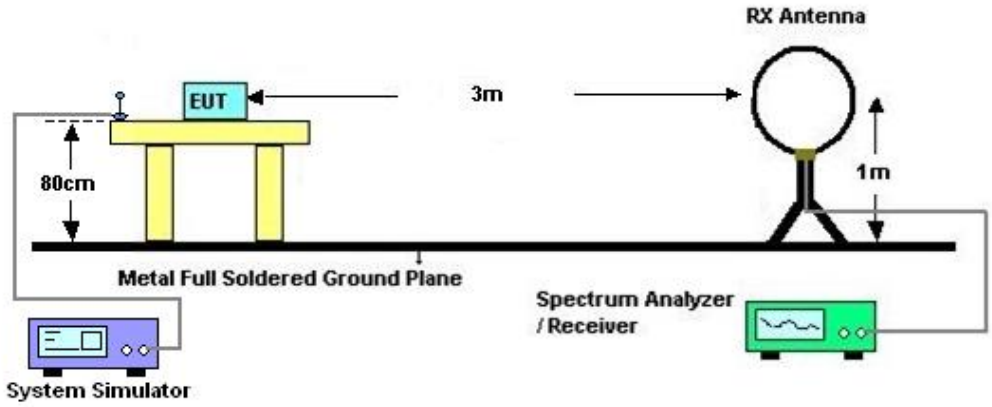
4 Radiated Test Items

4.1 Measuring Instruments

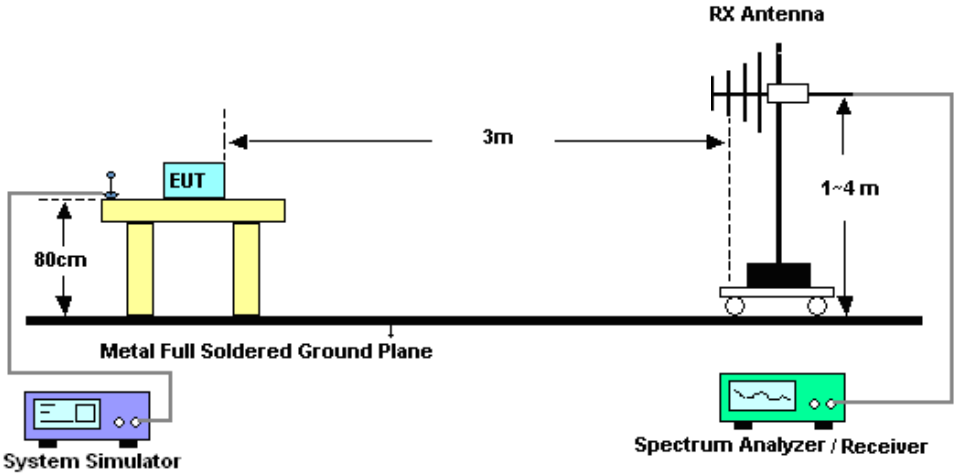
See list of measuring instruments of this test report.

4.2 Test Setup

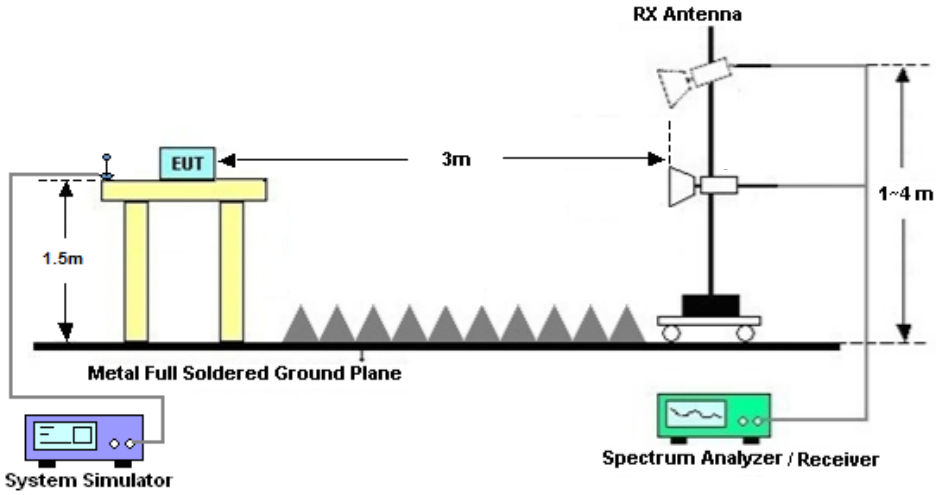
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For 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	Oct. 14, 2021	Feb. 01, 2022~ Mar. 02, 2022	Oct. 13, 2022	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	Aug. 26, 2021	Feb. 01, 2022~ Mar. 02, 2022	Aug. 25, 2022	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 12, 2021	Feb. 01, 2022~ Mar. 02, 2022	Jul. 11, 2022	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44G,MAX 30dB	Apr. 13, 2021	Mar. 06, 2022	Apr. 12, 2022	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 30, 2021	Mar. 06, 2022	Oct. 29, 2022	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 30, 2021	Mar. 06, 2022	May 29, 2022	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1356	1GHz~18GHz	Apr. 18, 2021	Mar. 06, 2022	Apr. 17, 2022	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2022	Mar. 06, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 05, 2022	Mar. 06, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 05, 2022	Mar. 06, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
high gain Amplifier	MITEQ	AMF-7D-00101800-30-10P	2025788	1Ghz-18Ghz	Jul. 30, 2021	Mar. 06, 2022	Jul. 29, 2022	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Oct. 13, 2021	Mar. 06, 2022	Oct. 12, 2022	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Mar. 06, 2022	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Mar. 06, 2022	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Mar. 06, 2022	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required

6 Uncertainty of Evaluation

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

Uncertainty of 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**

---------- THE END ----------

Appendix A. Test Results of Conducted Test

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

Conducted Output Power(Average power and ERP&EIRP)

5G NR n5:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	ERP	ERP	ERP
Channel				166800	167300	167800		L	M	H
Frequency (MHz)				834	836.5	839				
20	PI/2 BPSK	1	1	25.82	25.83	25.83	-3.84	0.0962	0.0964	0.0964
20	QPSK	1	1	25.71	25.92	25.72	-3.84	0.0938	0.0984	0.0940
20	QPSK	1	53	25.63	25.91	25.62	-3.84	0.0920	0.0982	0.0918
20	QPSK	1	104	25.56	25.73	25.53	-3.84	0.0906	0.0942	0.0899
20	QPSK	50	0	25.06	25.06	24.99	-3.84	0.0807	0.0807	0.0794
20	QPSK	50	28	25.92	25.98	25.89	-3.84	0.0984	0.0998	0.0977
20	QPSK	50	56	24.92	24.96	24.93	-3.84	0.0782	0.0789	0.0783
20	QPSK	100	0	25.06	25.11	25.11	-3.84	0.0807	0.0817	0.0817
20	16QAM	1	1	25.33	25.44	25.16	-3.84	0.0859	0.0881	0.0826
20	64QAM	1	1	23.26	23.21	23.44	-3.84	0.0533	0.0527	0.0556
20	256QAM	1	1	21.33	21.35	21.32	-3.84	0.0342	0.0344	0.0341
Channel				166300	167300	168300	Gain	ERP	ERP	ERP
Frequency (MHz)				831.5	836.5	841.5				
15	QPSK	1	1	25.91	25.93	25.86	-3.84	0.0982	0.0986	0.0971
15	16QAM	1	1	25.36	25.26	25.32	-3.84	0.0865	0.0845	0.0857
Channel				165800	167300	168800	Gain	ERP	ERP	ERP
Frequency (MHz)				829	836.5	844				
10	QPSK	1	1	25.96	25.93	25.73	-3.84	0.0993	0.0986	0.0942
10	16QAM	1	1	25.68	25.63	25.26	-3.84	0.0931	0.0920	0.0845
Channel				165300	167300	169300	Gain	ERP	ERP	ERP
Frequency (MHz)				826.5	836.5	846.5				
5	QPSK	1	1	25.94	25.93	25.77	-3.84	0.0989	0.0986	0.0951
5	16QAM	1	1	25.52	25.52	25.53	-3.84	0.0897	0.0897	0.0899

5G NR n7:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP	EIRP	EIRP
Channel				505000	507000	509000		L	M	H
Frequency (MHz)				2525	2535	2545				
50	PI/2 BPSK	1	1	24.13	23.86	23.89	-1.0	0.2056	0.1932	0.1945
50	QPSK	1	1	23.37	23.65	23.34	-1.0	0.1726	0.1841	0.1714
50	QPSK	1	108	23.56	23.60	23.36	-1.0	0.1803	0.1820	0.1722
50	QPSK	1	214	23.44	24.00	24.01	-1.0	0.1754	0.1995	0.2000
50	QPSK	108	0	22.78	23.50	22.69	-1.0	0.1507	0.1778	0.1476
50	QPSK	108	54	23.60	23.85	23.58	-1.0	0.1820	0.1928	0.1811
50	QPSK	108	108	23.52	23.99	24.17	-1.0	0.1786	0.1991	0.2075
50	QPSK	216	0	22.78	23.55	23.11	-1.0	0.1507	0.1799	0.1626
50	16QAM	1	1	22.60	23.27	23.45	-1.0	0.1445	0.1687	0.1758
50	64QAM	1	1	21.01	21.45	21.43	-1.0	0.1002	0.1109	0.1104
50	256QAM	1	1	19.40	19.31	19.28	-1.0	0.0692	0.0678	0.0673
Channel				504000	507000	510000	Gain	EIRP	EIRP	EIRP
Frequency (MHz)				2520	2535	2550				
40	QPSK	1	1	23.81	23.65	23.67	-1.0	0.1910	0.1841	0.1849
40	16QAM	1	1	23.33	23.29	23.21	-1.0	0.1710	0.1694	0.1663
Channel				503000	507000	511000	Gain	EIRP	EIRP	EIRP
Frequency (MHz)				2515	2535	2555				
30	QPSK	1	1	23.87	23.51	23.66	-1.0	0.1936	0.1782	0.1845
30	16QAM	1	1	23.32	23.17	23.21	-1.0	0.1706	0.1648	0.1663
Channel				502500	507000	511500	Gain	EIRP	EIRP	EIRP
Frequency (MHz)				2512.5	2535	2557.5				
25	QPSK	1	1	23.82	23.58	23.60	-1.0	0.1914	0.1811	0.1820
25	16QAM	1	1	23.30	23.21	23.28	-1.0	0.1698	0.1663	0.1690
Channel				502000	507000	512000	Gain	EIRP	EIRP	EIRP
Frequency (MHz)				2510	2535	2560				
20	QPSK	1	1	24.06	23.36	23.86	-1.0	0.2023	0.1722	0.1932
20	16QAM	1	1	23.03	23.21	23.53	-1.0	0.1596	0.1663	0.1791
Channel				501500	507000	512500	Gain	EIRP	EIRP	EIRP
Frequency (MHz)				2507.5	2535	2562.5				
15	QPSK	1	1	22.62	23.12	24.03	-1.0	0.1452	0.1629	0.2009
15	16QAM	1	1	22.49	22.79	23.44	-1.0	0.1409	0.1510	0.1754
Channel				501000	507000	513000	Gain	EIRP	EIRP	EIRP
Frequency (MHz)				2505	2535	2565				
10	QPSK	1	1	22.52	23.06	23.86	-1.0	0.1419	0.1607	0.1932
10	16QAM	1	1	22.36	22.62	23.23	-1.0	0.1368	0.1452	0.1671
Channel				500500	507000	513500	Gain	EIRP	EIRP	EIRP
Frequency (MHz)				2502.5	2535	2567.5				
5	QPSK	1	1	22.66	23.13	23.46	-1.0	0.1466	0.1633	0.1762
5	16QAM	1	1	22.53	22.85	22.92	-1.0	0.1422	0.1531	0.1556

5G NR n38:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	ERP	ERP	ERP
Channel				518004	519000	519996		L	M	H
Frequency (MHz)				2590.02	2595	2599.98				
40	PI/2 BPSK	1	1	23.85	23.68	23.72	-3.27	0.1143	0.1099	0.1109
40	QPSK	1	1	23.95	23.72	23.78	-3.27	0.1169	0.1109	0.1125
40	QPSK	1	53	23.85	23.72	23.82	-3.27	0.1143	0.1109	0.1135
40	QPSK	1	104	23.92	23.62	23.44	-3.27	0.1161	0.1084	0.1040
40	QPSK	50	0	22.75	22.72	22.85	-3.27	0.0887	0.0881	0.0908
40	QPSK	50	28	23.77	23.75	23.85	-3.27	0.1122	0.1117	0.1143
40	QPSK	50	56	22.85	22.79	22.77	-3.27	0.0908	0.0895	0.0891
40	QPSK	100	0	22.79	22.78	22.65	-3.27	0.0895	0.0893	0.0867
40	16QAM	1	1	22.92	22.75	22.82	-3.27	0.0923	0.0887	0.0902
40	64QAM	1	1	21.06	21.05	21.13	-3.27	0.0601	0.0600	0.0611
40	256QAM	1	1	19.26	19.22	19.32	-3.27	0.0397	0.0394	0.0403
Channel				517002	519000	520998	Gain	ERP	ERP	ERP
Frequency (MHz)				2585.01	2595	2604.99				
30	QPSK	1	1	23.79	23.66	23.93	-3.27	0.1127	0.1094	0.1164
30	16QAM	1	1	22.88	22.68	23.02	-3.27	0.0914	0.0873	0.0944
Channel				516000	519000	522000	Gain	ERP	ERP	ERP
Frequency (MHz)				2580	2595	2610				
20	QPSK	1	1	23.83	23.69	23.93	-3.27	0.1138	0.1102	0.1164
20	16QAM	1	1	22.86	22.66	22.96	-3.27	0.0910	0.0869	0.0931

5G NR n41:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	ERP	ERP	ERP
Channel				509202	518598	528000		L	M	H
Frequency (MHz)				2546.01	2592.99	2640				
100	PI/2 BPSK	1	1	23.96	23.35	23.51	-3.27	0.1172	0.1019	0.1057
100	QPSK	1	1	23.85	23.32	23.44	-3.27	0.1143	0.1012	0.1040
100	QPSK	1	137	23.35	23.55	22.92	-3.27	0.1019	0.1067	0.0923
100	QPSK	1	271	23.76	22.96	23.23	-3.27	0.1119	0.0931	0.0991
100	QPSK	135	0	22.62	22.51	22.22	-3.27	0.0861	0.0839	0.0785
100	QPSK	135	69	23.48	23.55	22.95	-3.27	0.1050	0.1067	0.0929
100	QPSK	135	138	22.52	22.22	21.93	-3.27	0.0841	0.0785	0.0735
100	QPSK	270	0	22.59	22.32	22.06	-3.27	0.0855	0.0804	0.0757
100	16QAM	1	1	22.89	22.38	22.53	-3.27	0.0916	0.0815	0.0843
100	64QAM	1	1	21.06	20.65	20.82	-3.27	0.0601	0.0547	0.0569
100	256QAM	1	1	19.16	18.86	18.92	-3.27	0.0388	0.0362	0.0367
Channel				508200	518598	528996	Gain	ERP	ERP	ERP
Frequency (MHz)				2541	2592.99	2644.98				
90	QPSK	1	1	23.79	23.44	23.68	-3.27	0.1127	0.1040	0.1099
90	16QAM	1	1	22.82	22.39	22.69	-3.27	0.0902	0.0817	0.0875
Channel				507204	518598	529998	Gain	ERP	ERP	ERP
Frequency (MHz)				2536.02	2592.99	2649.99				
80	QPSK	1	1	23.79	23.53	23.39	-3.27	0.1127	0.1062	0.1028
80	16QAM	1	1	22.56	22.32	22.32	-3.27	0.0849	0.0804	0.0804
Channel				506202	518598	531000	Gain	ERP	ERP	ERP
Frequency (MHz)				2535	2592.99	2655				
70	QPSK	1	1	23.86	23.70	22.83	-3.27	0.1146	0.1104	0.0904
70	16QAM	1	1	22.98	22.70	22.03	-3.27	0.0935	0.0877	0.0752
Channel				505200	518598	531996	Gain	ERP	ERP	ERP
Frequency (MHz)				2526	2592.99	2659.98				
60	QPSK	1	1	23.93	23.76	23.06	-3.27	0.1164	0.1119	0.0953
60	16QAM	1	1	22.96	22.96	22.06	-3.27	0.0931	0.0931	0.0757
Channel				504204	518598	532998	Gain	ERP	ERP	ERP
Frequency (MHz)				2521.02	2592.99	2664.99				
50	QPSK	1	1	23.92	23.78	23.22	-3.27	0.1161	0.1125	0.0989
50	16QAM	1	1	22.79	22.63	22.32	-3.27	0.0895	0.0863	0.0804
Channel				503202	518598	534000	Gain	ERP	ERP	ERP
Frequency (MHz)				2516.01	2592.99	2670				
40	QPSK	1	1	23.92	23.82	23.19	-3.27	0.1161	0.1135	0.0982
40	16QAM	1	1	23.02	22.78	22.25	-3.27	0.0944	0.0893	0.0791
Channel				502200	518598	534996	Gain	ERP	ERP	ERP
Frequency (MHz)				2511	2592.99	2674.98				
30	QPSK	1	1	23.95	23.68	23.06	-3.27	0.1169	0.1099	0.0953
30	16QAM	1	1	23.06	22.63	22.11	-3.27	0.0953	0.0863	0.0766
Channel				501204	518598	535998	Gain	ERP	ERP	ERP
Frequency (MHz)				2506.02	2592.99	2679.99				
20	QPSK	1	1	23.93	23.59	22.88	-3.27	0.1164	0.1076	0.0914
20	16QAM	1	1	23.11	22.76	21.86	-3.27	0.0964	0.0889	0.0723

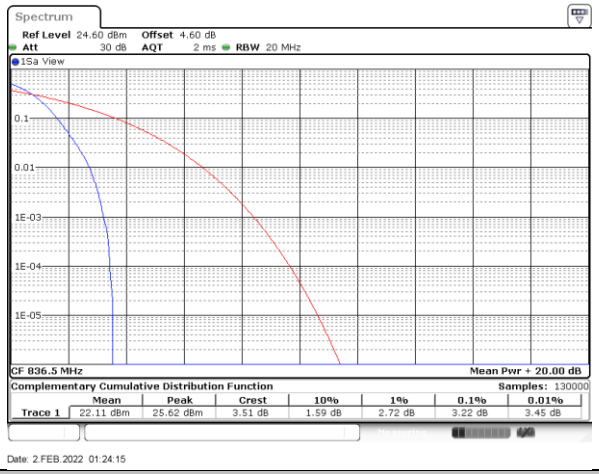
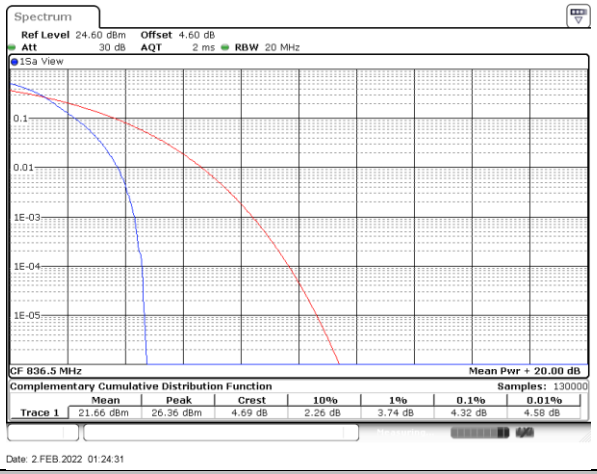
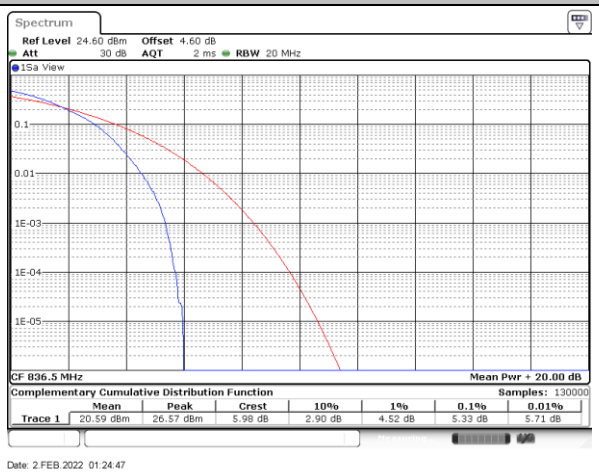
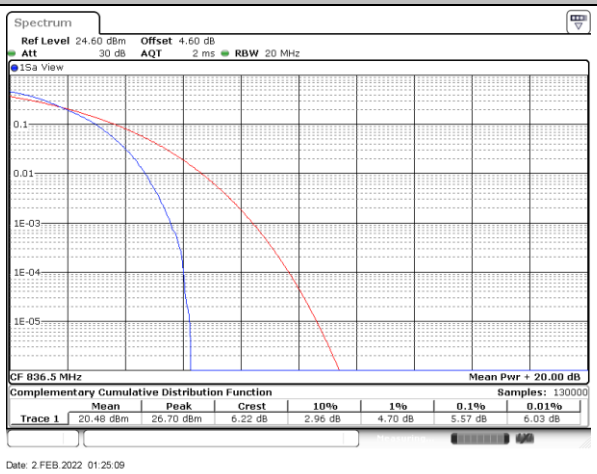
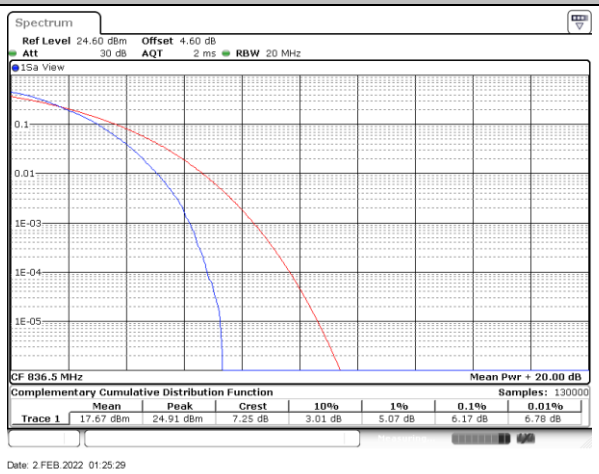
5G NR n66:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	ERP	ERP	ERP
Channel				346000	349000	352000		L	M	H
Frequency (MHz)				1730	1745	1760				
40	PI/2 BPSK	1	1	24.52	24.72	24.81	-2.75	0.1503	0.1574	0.1607
40	QPSK	1	1	24.45	24.29	24.61	-2.75	0.1479	0.1426	0.1535
40	QPSK	1	108	24.50	24.52	23.86	-2.75	0.1496	0.1503	0.1291
40	QPSK	1	214	24.66	23.35	23.12	-2.75	0.1552	0.1148	0.1089
40	QPSK	108	0	23.85	23.75	23.82	-2.75	0.1288	0.1259	0.1279
40	QPSK	108	54	24.75	24.83	24.46	-2.75	0.1585	0.1614	0.1483
40	QPSK	108	108	24.00	23.90	23.37	-2.75	0.1334	0.1303	0.1153
40	QPSK	216	0	23.98	23.96	23.82	-2.75	0.1326	0.1321	0.1279
40	16QAM	1	1	24.10	24.15	24.09	-2.75	0.1365	0.1380	0.1361
40	64QAM	1	1	22.20	22.04	22.25	-2.75	0.0881	0.0849	0.0891
40	256QAM	1	1	20.06	19.89	20.14	-2.75	0.0538	0.0518	0.0548
Channel				345000	349000	353000	Gain	ERP	ERP	ERP
Frequency (MHz)				1725	1745	1765				
30	QPSK	1	1	24.73	24.73	24.53	-2.75	0.1578	0.1578	0.1507
30	16QAM	1	1	24.23	24.26	23.95	-2.75	0.1406	0.1416	0.1318
Channel				344000	349000	354000	Gain	ERP	ERP	ERP
Frequency (MHz)				1720	1745	1770				
20	QPSK	1	1	24.66	24.59	23.33	-2.75	0.1552	0.1528	0.1143
20	16QAM	1	1	24.13	24.13	22.62	-2.75	0.1374	0.1374	0.0971
Channel				343500	349000	354500	Gain	ERP	ERP	ERP
Frequency (MHz)				1717.5	1745	1772.5				
15	QPSK	1	1	24.72	24.79	22.66	-2.75	0.1574	0.1600	0.0979
15	16QAM	1	1	24.23	24.36	22.03	-2.75	0.1406	0.1449	0.0847
Channel				343000	349000	355000	Gain	ERP	ERP	ERP
Frequency (MHz)				1715	1745	1775				
10	QPSK	1	1	24.79	24.76	22.96	-2.75	0.1600	0.1589	0.1050
10	16QAM	1	1	24.36	24.33	22.26	-2.75	0.1449	0.1439	0.0893
Channel				342500	349000	355500	Gain	ERP	ERP	ERP
Frequency (MHz)				1712.5	1745	1777.5				
5	QPSK	1	1	24.69	24.73	22.69	-2.75	0.1563	0.1578	0.0986
5	16QAM	1	1	24.31	24.26	22.13	-2.75	0.1432	0.1416	0.0867

FR1 n5

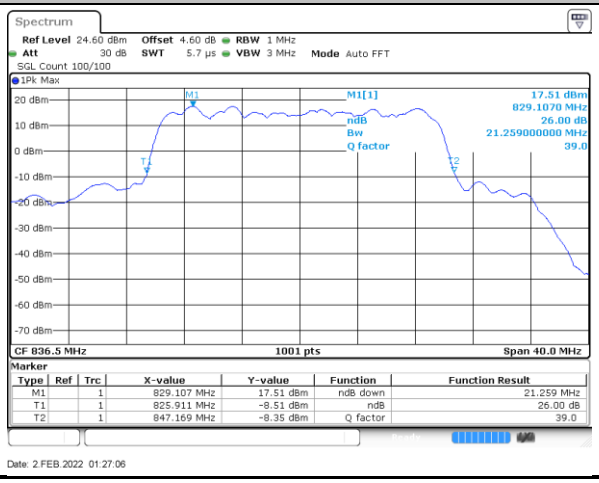
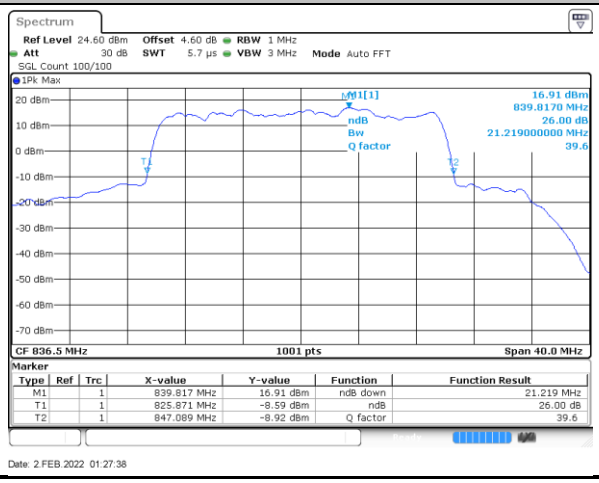
Peak-to-Average Ratio

Mode	FR1 n5 / 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	3.22	4.32	5.33	5.57	PASS
Mode	FR1 n5 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.17				PASS

FR1 n5 / 20MHz / DFT-S OFDM	
Middle Channel / Full RB	**Middle Channel / Full RB**
PI/2 BPSK	**QPSK**
	
16QAM	**64QAM**
	
256QAM	
	

26dB Bandwidth

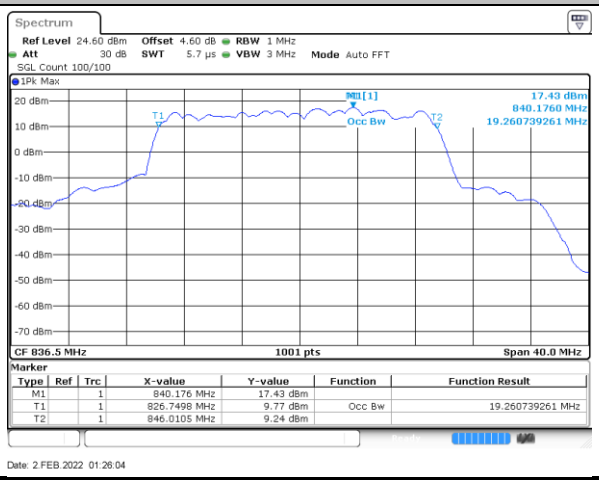
Mode	FR1 n5: 26dB BW(MHz) / DFT-S OFDM							
BW	20MHz							
Mod.	QPSK	16QAM						
Middle CH	21.26	21.22						

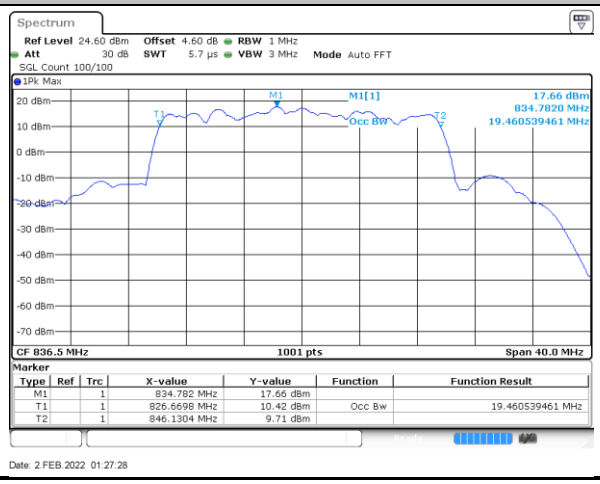
FR1 n5 / 20MHz / DFT-S OFDM	
Middle Channel	
QPSK	16QAM
	

Occupied Bandwidth

Mode	FR1 n5 : 99%OBW(MHz) / DFT-S OFDM							
BW	20MHz							
Mod.	QPSK	16QAM						
Middle CH	19.26	19.46						

FR1 n5 / 20MHz / DFT-S OFDM	
Middle Channel	
QPSK	16QAM

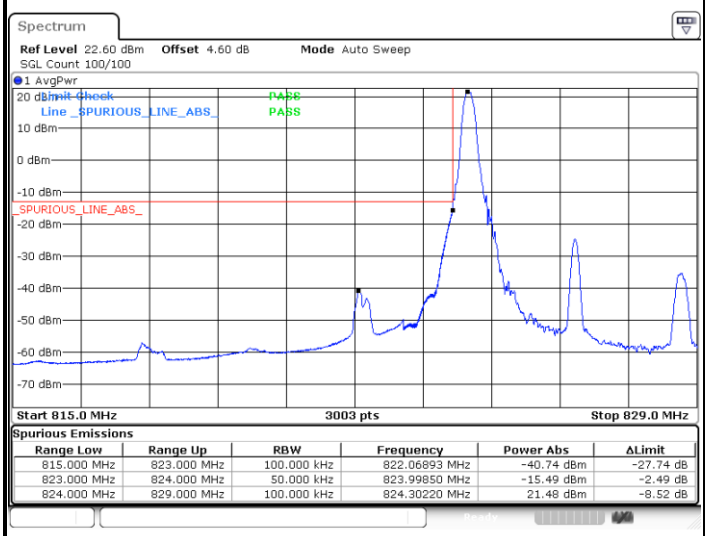




Conducted Band Edge

FR1 n5 / 5MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

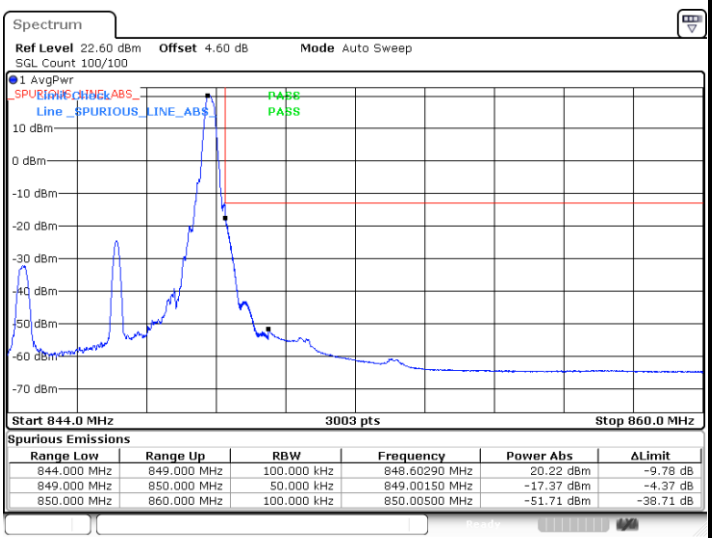


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.06893 MHz	-40.74 dBm	-27.74 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99850 MHz	-15.49 dBm	-2.49 dB
824.000 MHz	829.000 MHz	100.000 kHz	824.30220 MHz	21.48 dBm	-8.52 dB

Date: 2.FEB.2022 21:41:02

Highest Band Edge / 1RBMAX

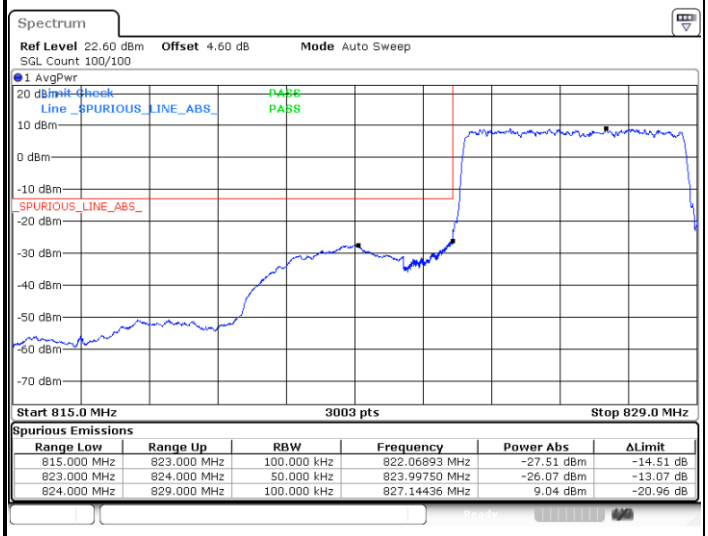


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	848.60290 MHz	20.22 dBm	-9.78 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00150 MHz	-17.37 dBm	-4.37 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-51.71 dBm	-38.71 dB

Date: 2.FEB.2022 21:58:23

Lowest Band Edge / Full RB

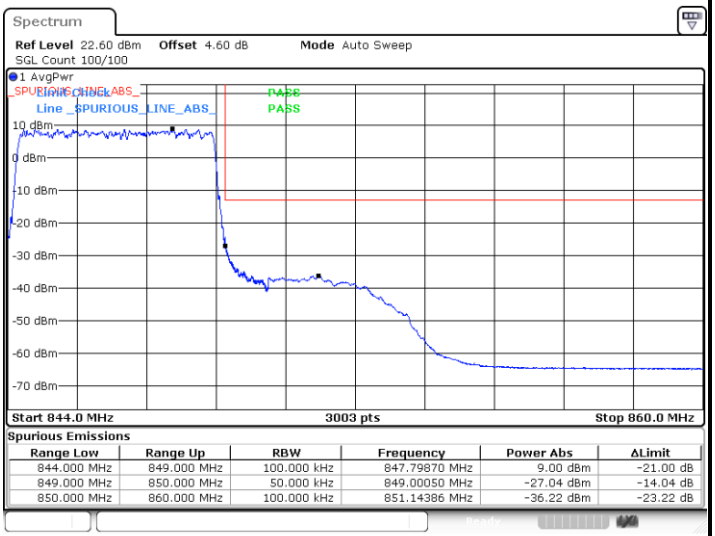


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.06893 MHz	-27.51 dBm	-14.51 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99750 MHz	-26.07 dBm	-13.07 dB
824.000 MHz	829.000 MHz	100.000 kHz	827.14436 MHz	9.04 dBm	-20.96 dB

Date: 2.FEB.2022 21:29:19

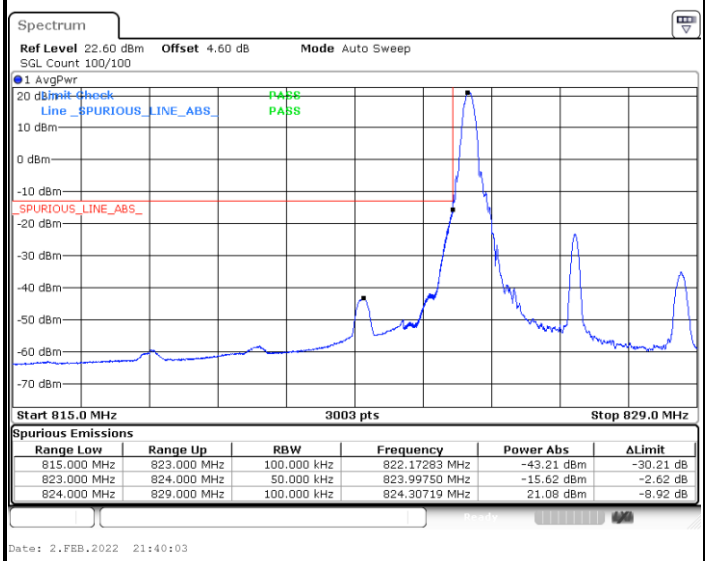
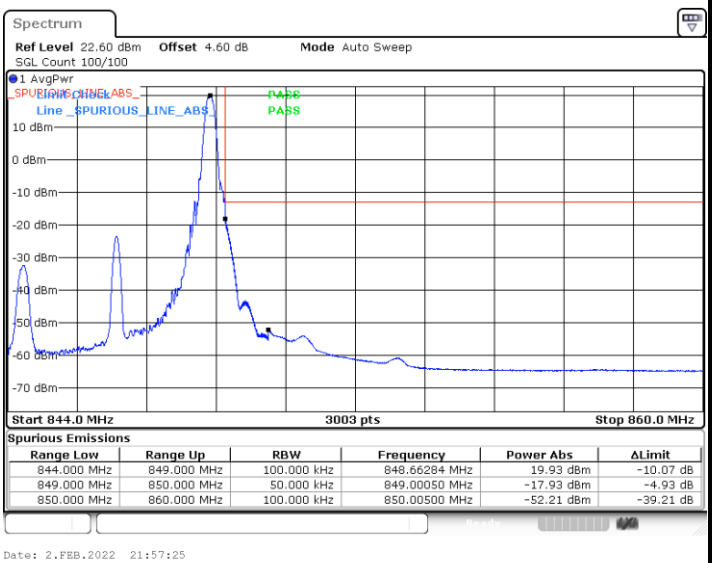
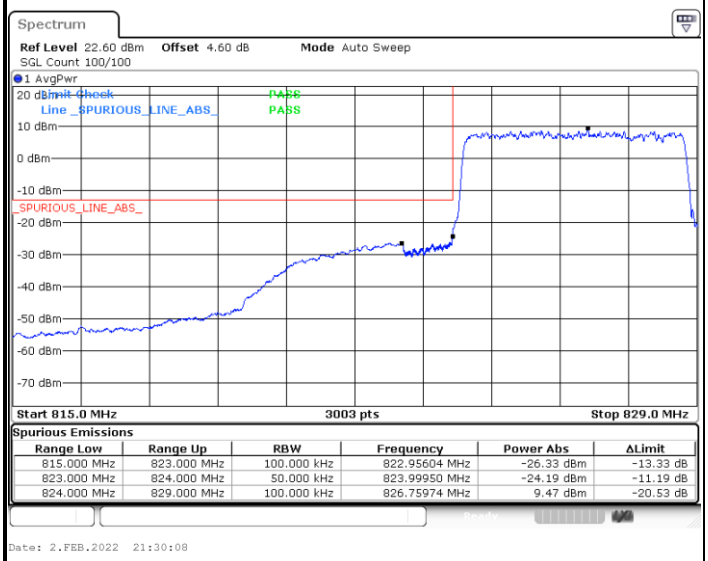
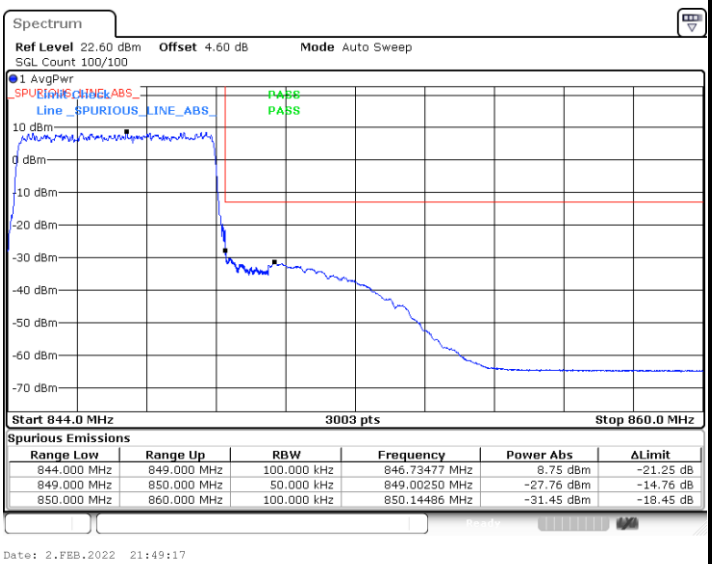
Highest Band Edge / Full RB



Spurious Emissions

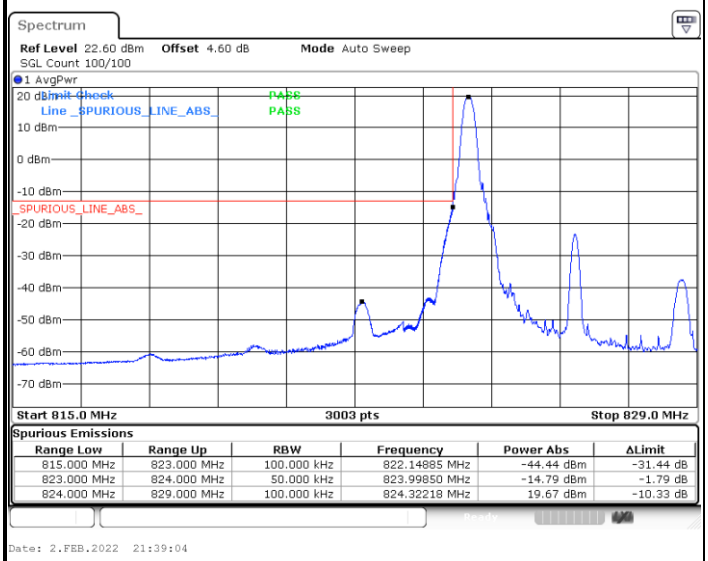
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	847.79870 MHz	9.00 dBm	-21.00 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00050 MHz	-27.04 dBm	-14.04 dB
850.000 MHz	860.000 MHz	100.000 kHz	851.14386 MHz	-36.22 dBm	-23.22 dB

Date: 2.FEB.2022 21:48:27

FR1 n5 / 5MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n5 / 5MHz / DFT-S OFDM / 16Q

Lowest Band Edge / 1RB0

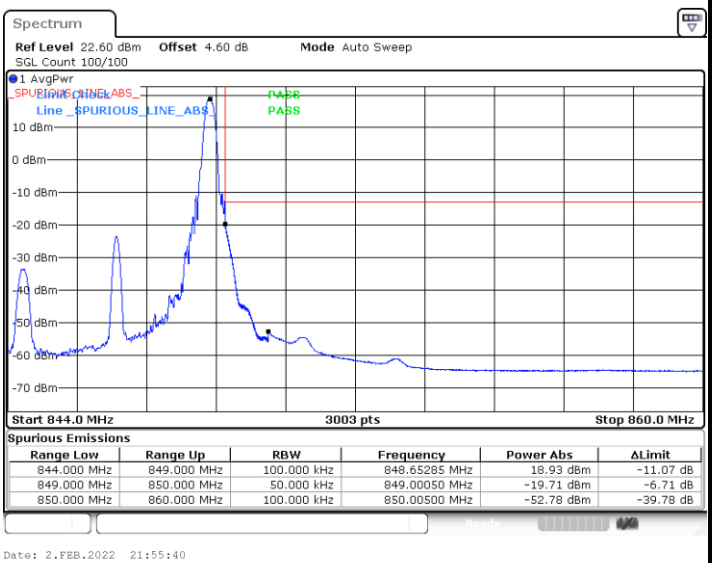


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.14885 MHz	-44.44 dBm	-31.44 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.99850 MHz	-14.79 dBm	-1.79 dB
824.000 MHz	829.000 MHz	100.000 kHz	824.32218 MHz	19.67 dBm	-10.33 dB

Date: 2.FEB.2022 21:39:04

Highest Band Edge / 1RBMAX

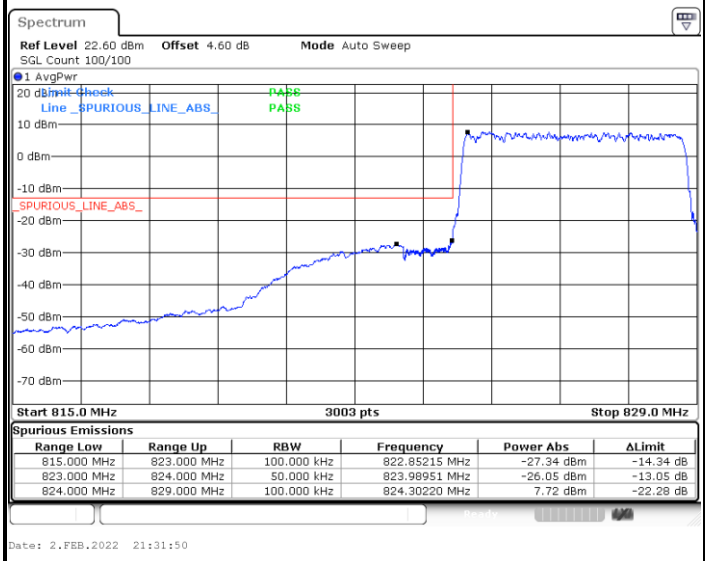


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	848.65285 MHz	18.93 dBm	-11.07 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00050 MHz	-19.71 dBm	-6.71 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-52.78 dBm	-39.78 dB

Date: 2.FEB.2022 21:55:40

Lowest Band Edge / Full RB

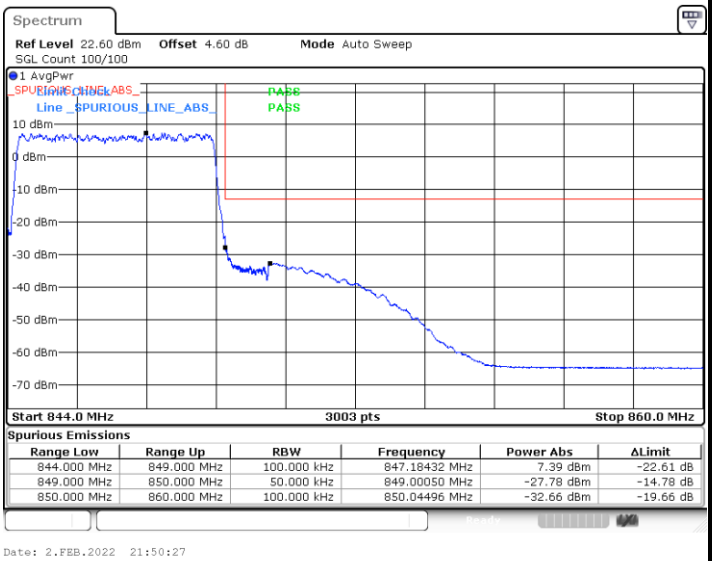


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.85215 MHz	-27.34 dBm	-14.34 dB
823.000 MHz	824.000 MHz	50.000 kHz	823.98951 MHz	-26.05 dBm	-13.05 dB
824.000 MHz	829.000 MHz	100.000 kHz	824.30220 MHz	7.72 dBm	-22.28 dB

Date: 2.FEB.2022 21:31:50

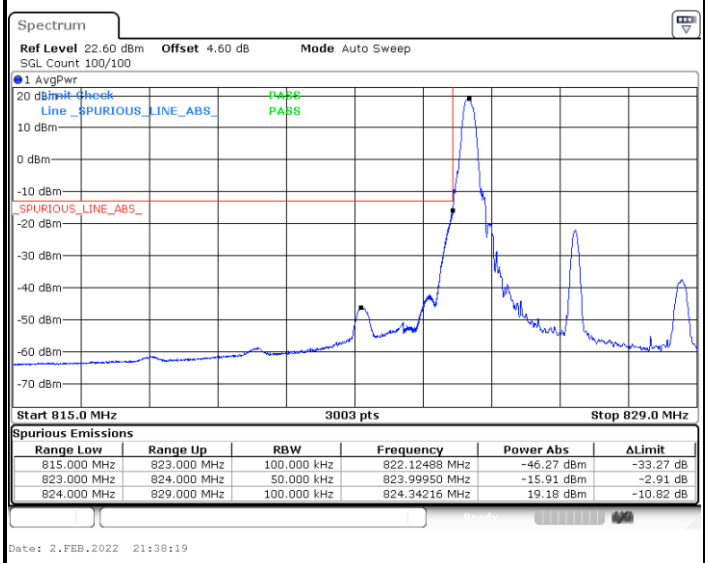
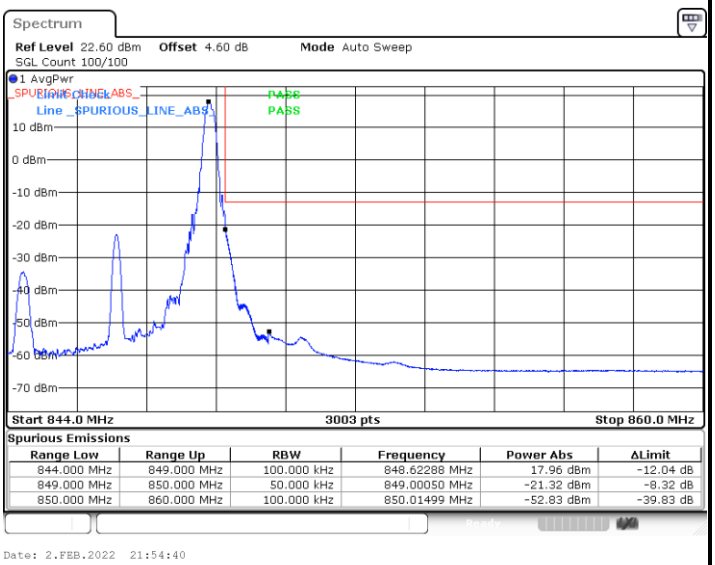
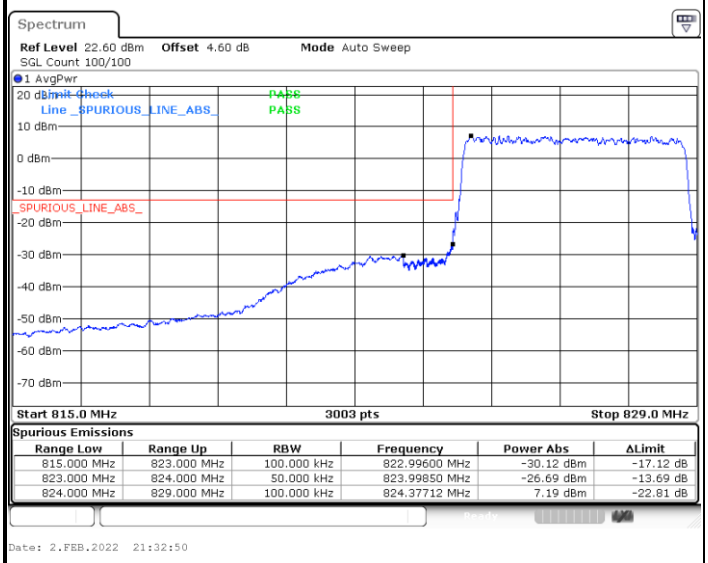
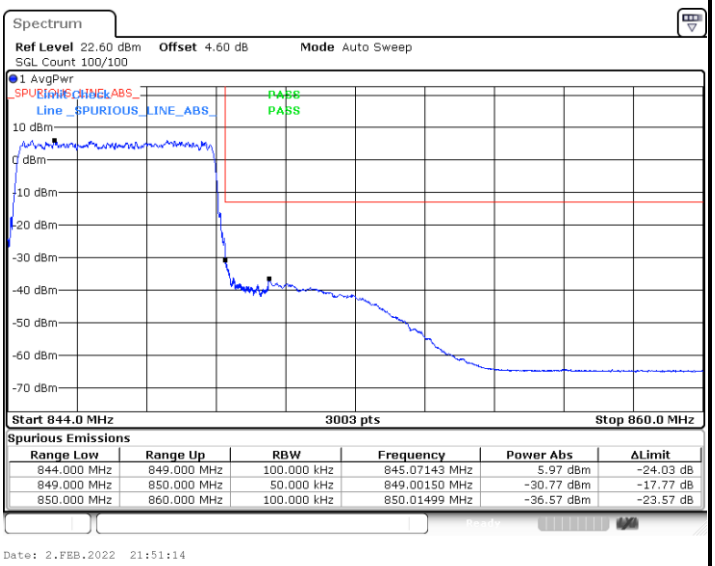
Highest Band Edge / Full RB

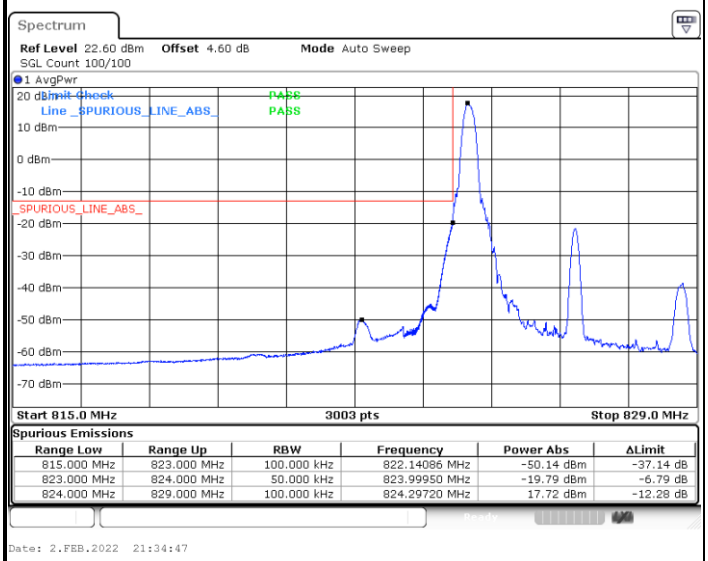
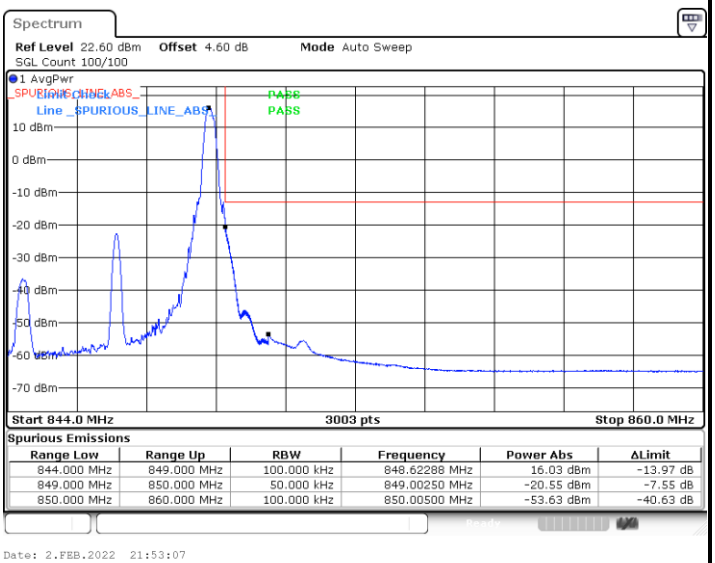
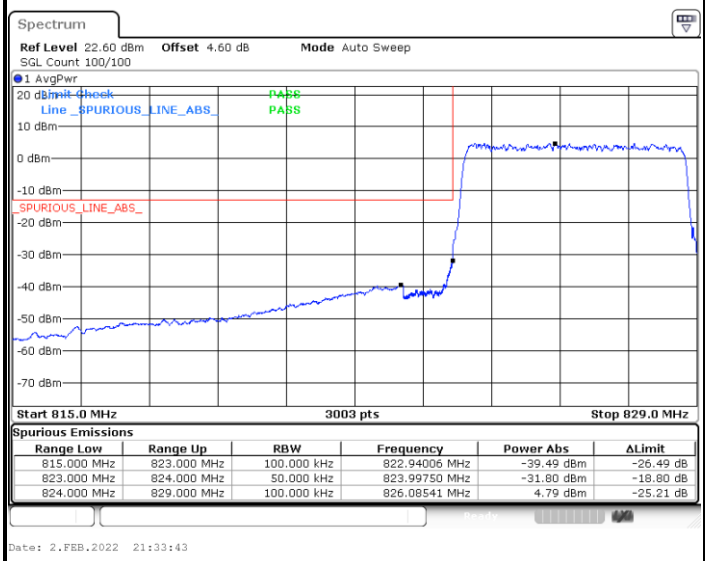
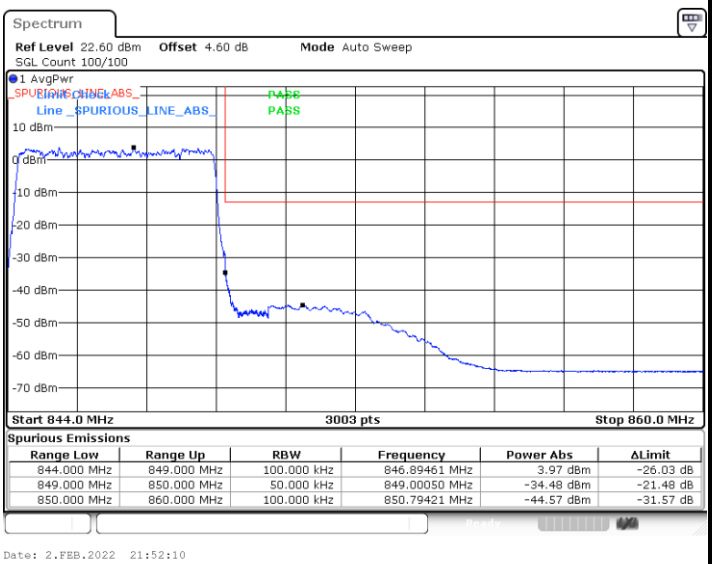


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
844.000 MHz	849.000 MHz	100.000 kHz	847.18432 MHz	7.39 dBm	-22.61 dB
849.000 MHz	850.000 MHz	50.000 kHz	849.00050 MHz	-27.78 dBm	-14.78 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.04496 MHz	-32.66 dBm	-19.66 dB

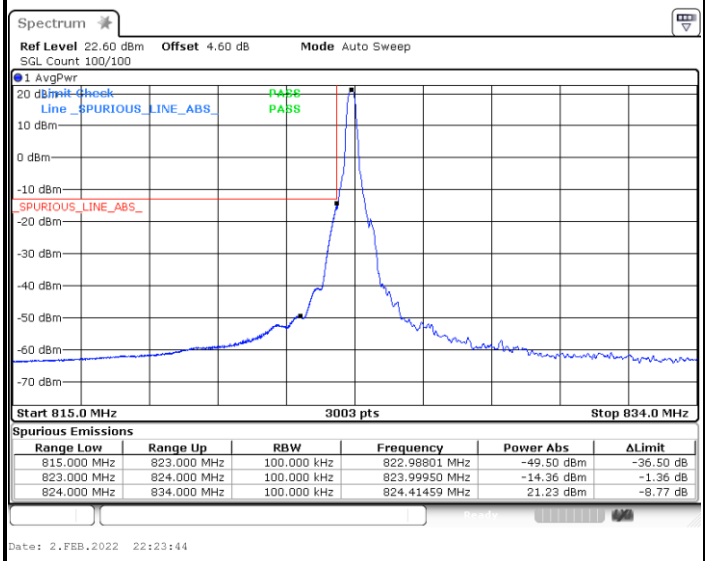
Date: 2.FEB.2022 21:50:27

FR1 n5/ 5MHz / DFT-S OFDM / 64Q	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n5 / 5MHz / DFT-S OFDM / 256Q	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n5 / 10MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

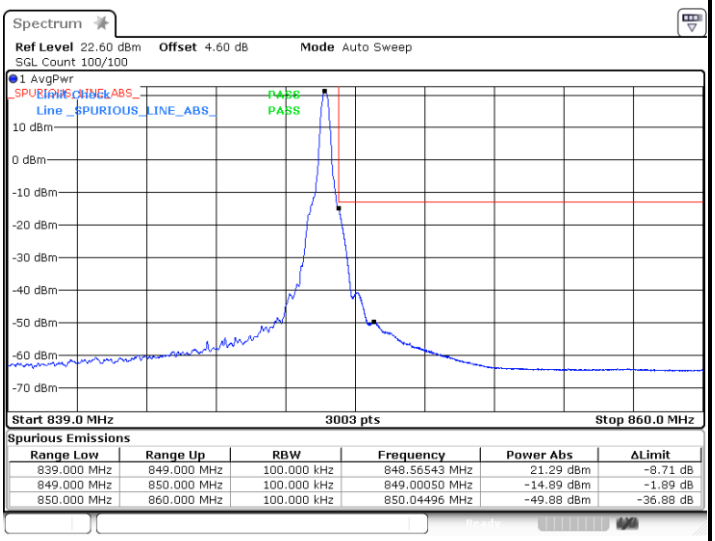


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.98801 MHz	-49.50 dBm	-36.50 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99950 MHz	-14.36 dBm	-1.36 dB
824.000 MHz	834.000 MHz	100.000 kHz	824.41459 MHz	21.23 dBm	-8.77 dB

Date: 2.FEB.2022 22:23:44

Highest Band Edge / 1RBMAX

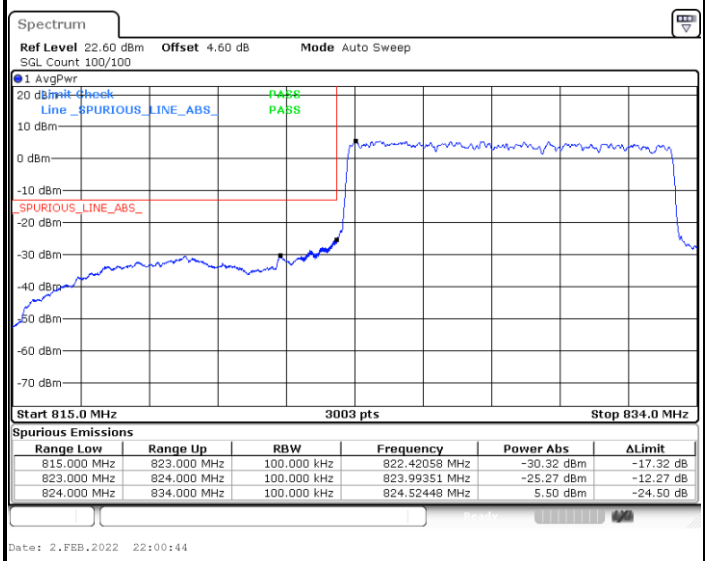


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	848.56543 MHz	21.29 dBm	-8.71 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.00050 MHz	-14.89 dBm	-1.89 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.04496 MHz	-49.88 dBm	-36.88 dB

Date: 2.FEB.2022 22:42:14

Lowest Band Edge / Full RB

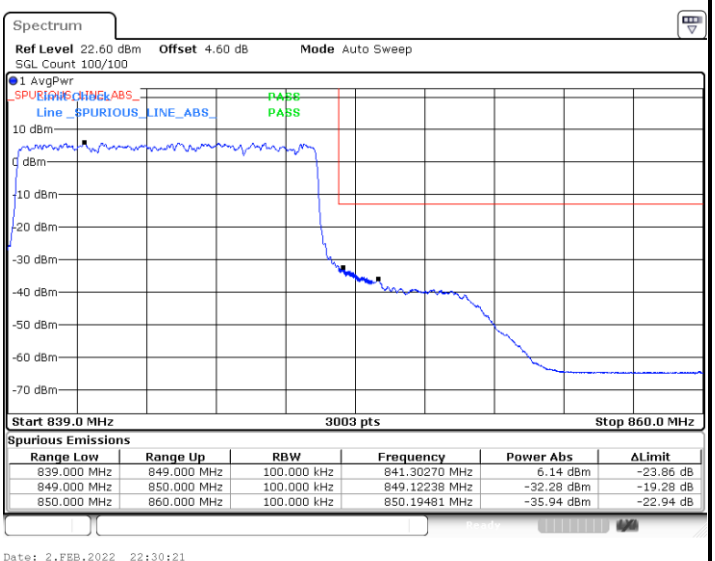


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.42058 MHz	-30.32 dBm	-17.32 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99351 MHz	-25.27 dBm	-12.27 dB
824.000 MHz	834.000 MHz	100.000 kHz	824.52448 MHz	5.50 dBm	-24.50 dB

Date: 2.FEB.2022 22:00:44

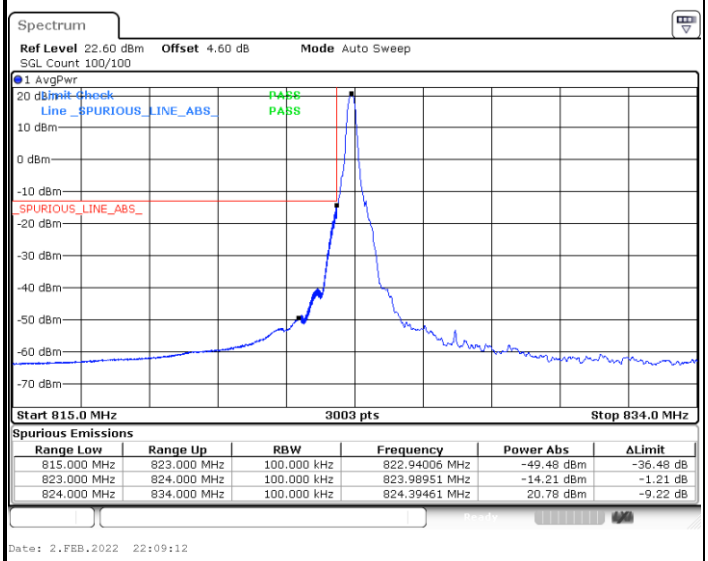
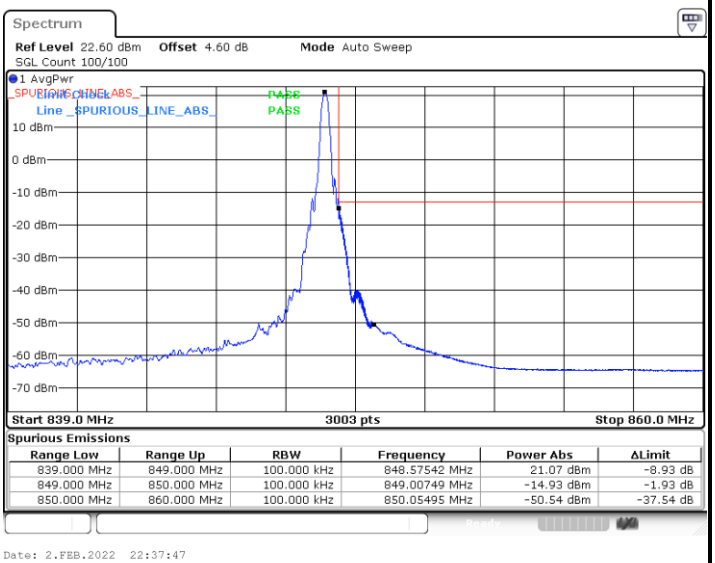
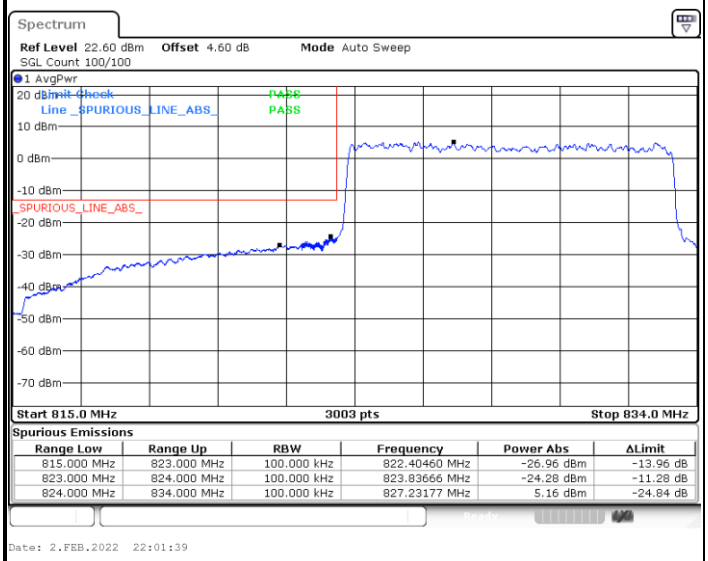
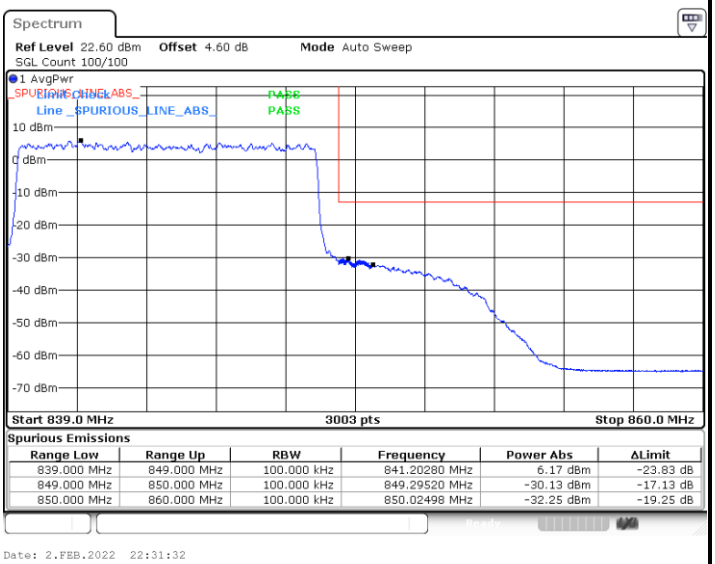
Highest Band Edge / Full RB



Spurious Emissions

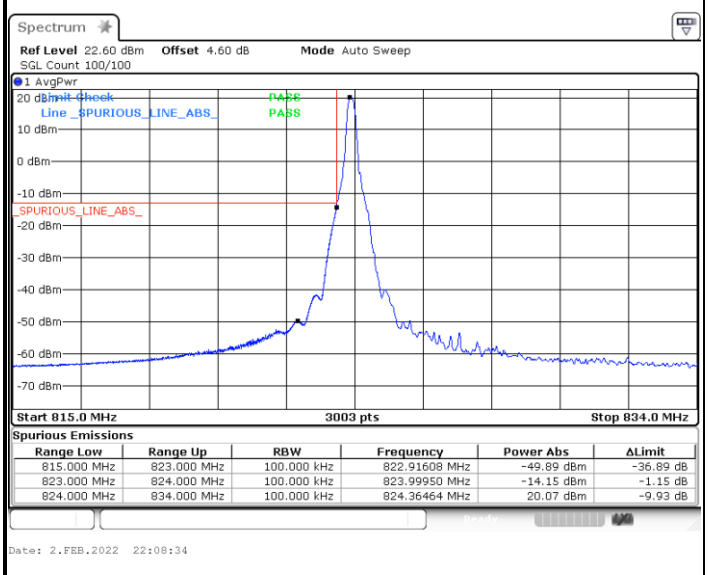
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	841.30270 MHz	6.14 dBm	-23.86 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.12238 MHz	-32.28 dBm	-19.28 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.19481 MHz	-35.94 dBm	-22.94 dB

Date: 2.FEB.2022 22:30:21

FR1 n5 / 10MHz / DFT-s-OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n5/ 10MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / 1RB0

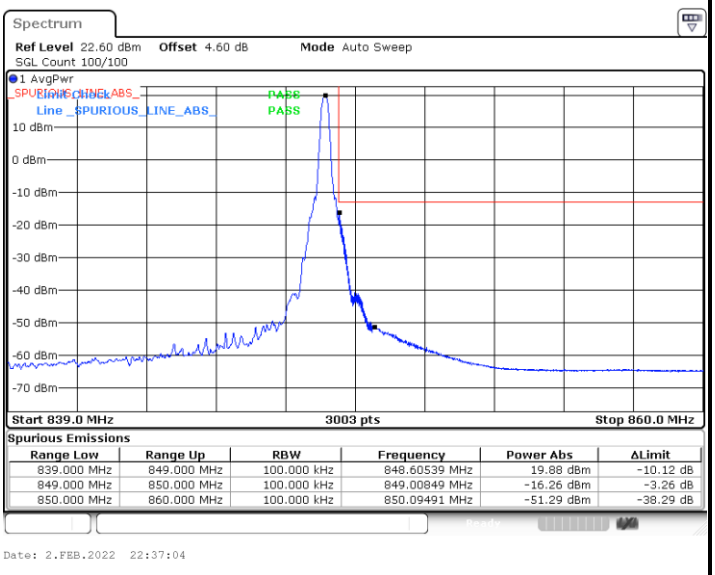


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.91608 MHz	-49.89 dBm	-36.89 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99950 MHz	-14.15 dBm	-1.15 dB
824.000 MHz	834.000 MHz	100.000 kHz	824.36464 MHz	20.07 dBm	-9.93 dB

Date: 2.FEB.2022 22:08:34

Highest Band Edge / 1RBMAX

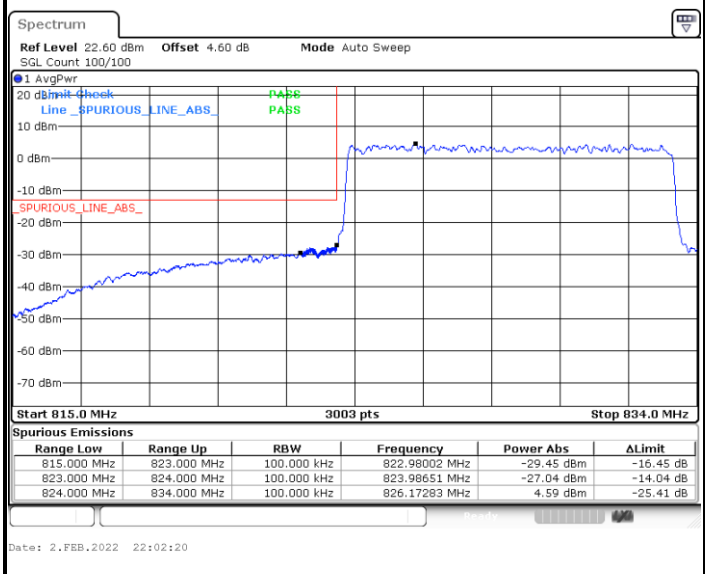


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	848.60539 MHz	19.88 dBm	-10.12 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.00849 MHz	-16.26 dBm	-3.26 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.09491 MHz	-51.29 dBm	-38.29 dB

Date: 2.FEB.2022 22:37:04

Lowest Band Edge / Full RB

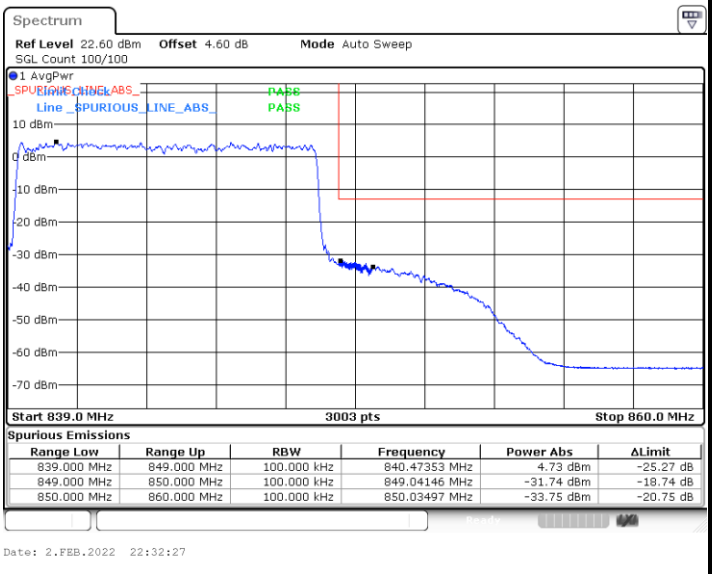


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.98002 MHz	-29.45 dBm	-16.45 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.98651 MHz	-27.04 dBm	-14.04 dB
824.000 MHz	834.000 MHz	100.000 kHz	826.17283 MHz	4.59 dBm	-25.41 dB

Date: 2.FEB.2022 22:02:20

Highest Band Edge / Full RB



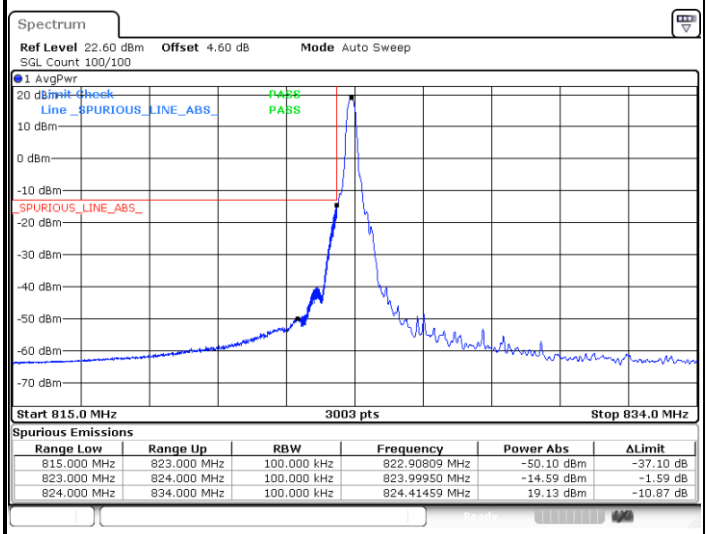
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	840.47353 MHz	4.73 dBm	-25.27 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.04146 MHz	-31.74 dBm	-18.74 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.03497 MHz	-33.75 dBm	-20.75 dB

Date: 2.FEB.2022 22:32:27

FR1 n5 / 10MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / 1RB0

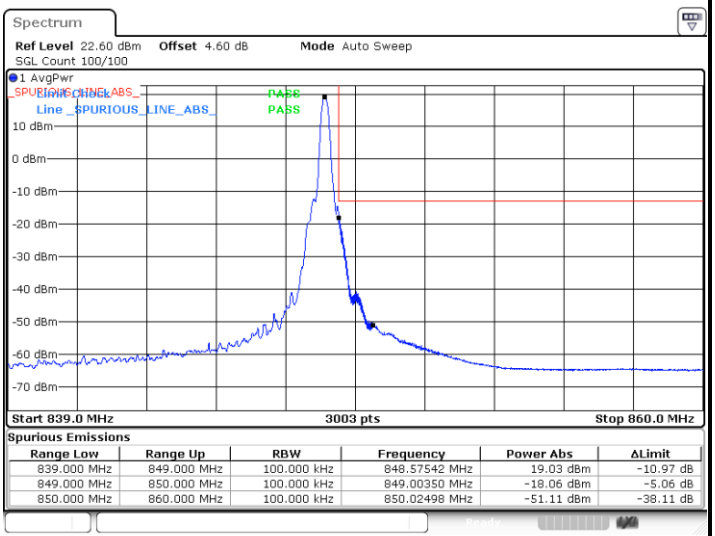


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.90809 MHz	-50.10 dBm	-37.10 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99950 MHz	-14.59 dBm	-1.59 dB
824.000 MHz	834.000 MHz	100.000 kHz	824.41459 MHz	19.13 dBm	-10.87 dB

Date: 2.FEB.2022 22:05:03

Highest Band Edge / 1RBMAX

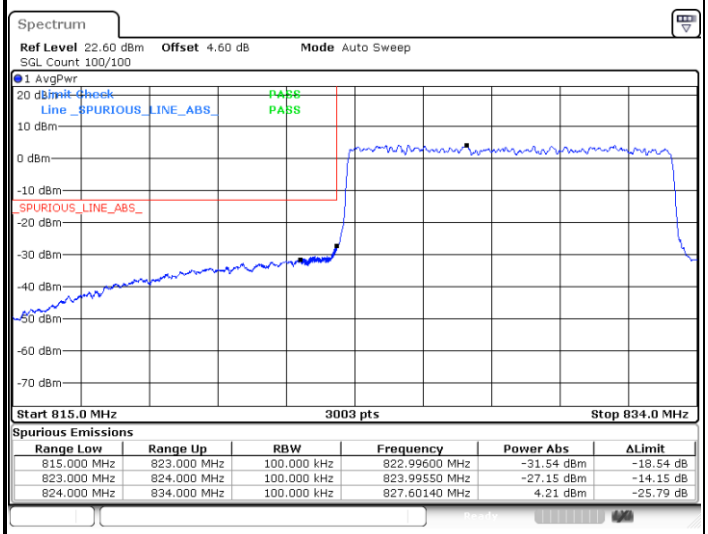


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	848.57542 MHz	19.03 dBm	-10.97 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.00350 MHz	-18.06 dBm	-5.06 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.02498 MHz	-51.11 dBm	-38.11 dB

Date: 2.FEB.2022 22:36:17

Lowest Band Edge / Full RB

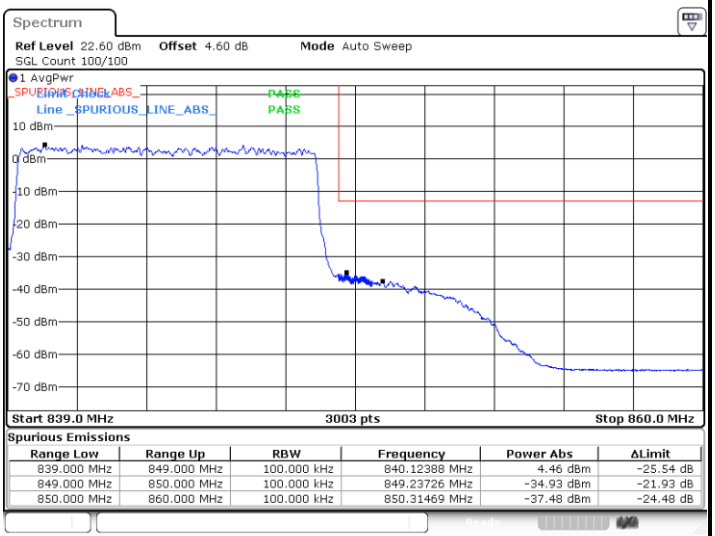


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.99600 MHz	-31.54 dBm	-18.54 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99550 MHz	-27.15 dBm	-14.15 dB
824.000 MHz	834.000 MHz	100.000 kHz	827.60140 MHz	4.21 dBm	-25.79 dB

Date: 2.FEB.2022 22:02:57

Highest Band Edge / Full RB



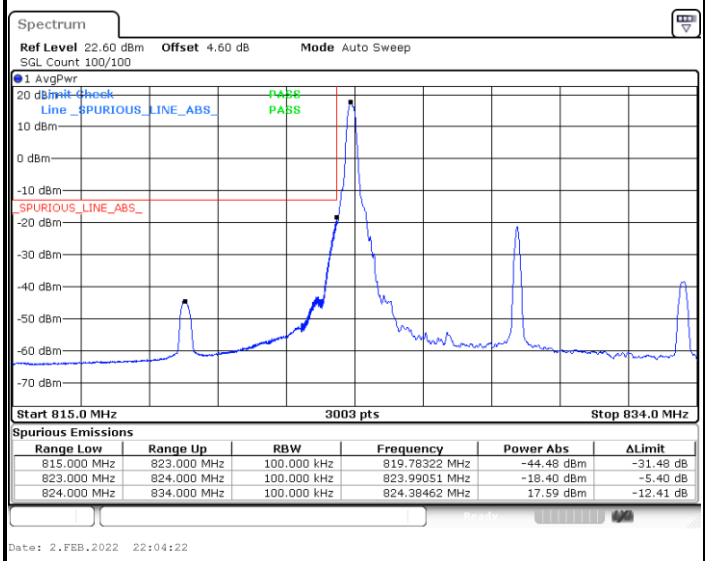
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	840.12388 MHz	4.46 dBm	-25.54 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.23726 MHz	-34.93 dBm	-21.93 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.31469 MHz	-37.48 dBm	-24.48 dB

Date: 2.FEB.2022 22:33:16

FR1 n5 / 10MHz / DFT-s-OFDM / 256QAM

Lowest Band Edge / 1RB0

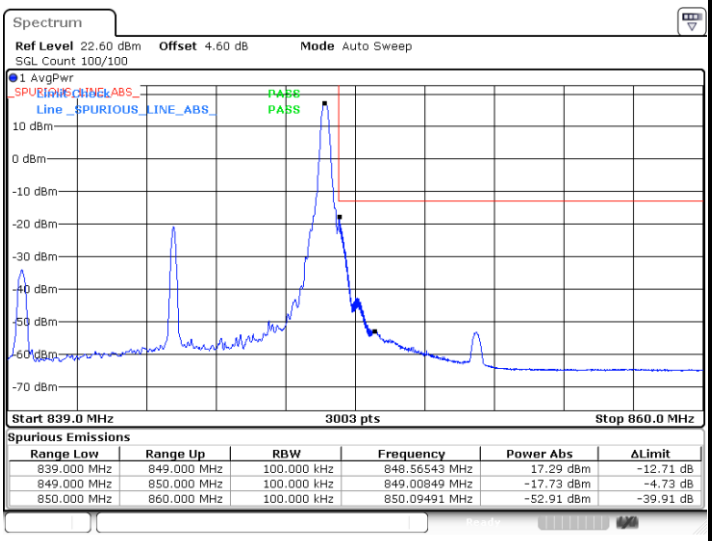


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	819.78322 MHz	-44.48 dBm	-31.48 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99051 MHz	-18.40 dBm	-5.40 dB
824.000 MHz	834.000 MHz	100.000 kHz	824.38462 MHz	17.59 dBm	-12.41 dB

Date: 2.FEB.2022 22:04:22

Highest Band Edge / 1RBMAX

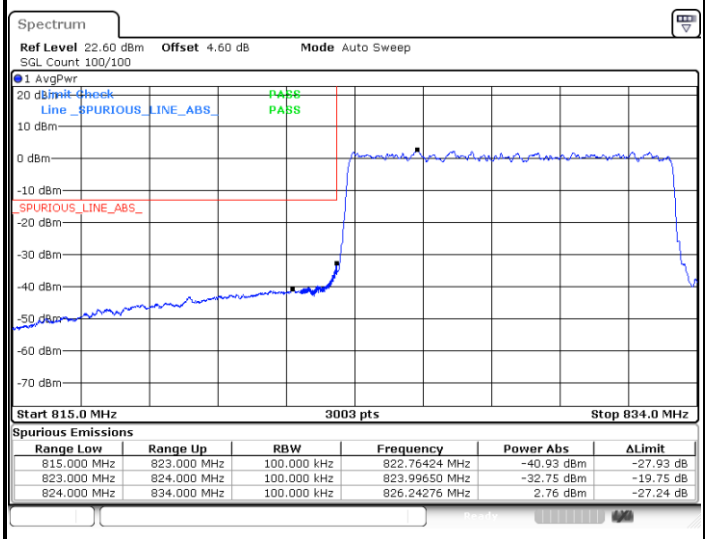


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	848.56543 MHz	17.29 dBm	-12.71 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.00849 MHz	-17.73 dBm	-4.73 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.09491 MHz	-52.91 dBm	-39.91 dB

Date: 2.FEB.2022 22:35:35

Lowest Band Edge / Full RB

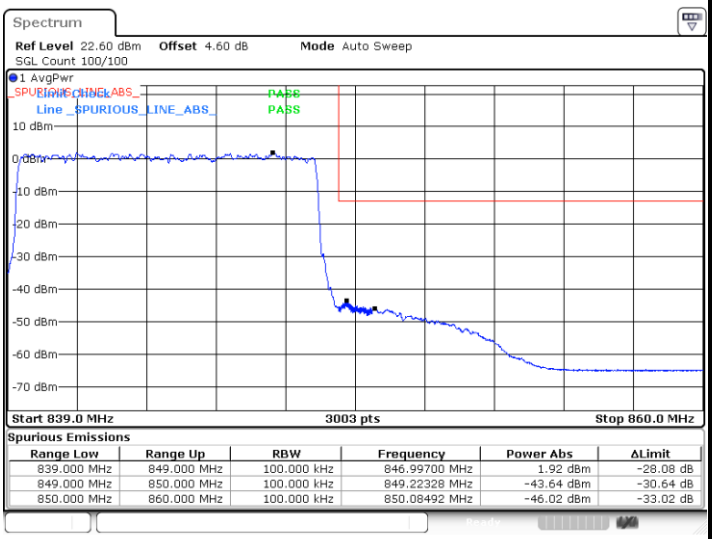


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.76424 MHz	-40.93 dBm	-27.93 dB
823.000 MHz	824.000 MHz	100.000 kHz	823.99650 MHz	-32.75 dBm	-19.75 dB
824.000 MHz	834.000 MHz	100.000 kHz	826.24276 MHz	2.76 dBm	-27.24 dB

Date: 2.FEB.2022 22:03:42

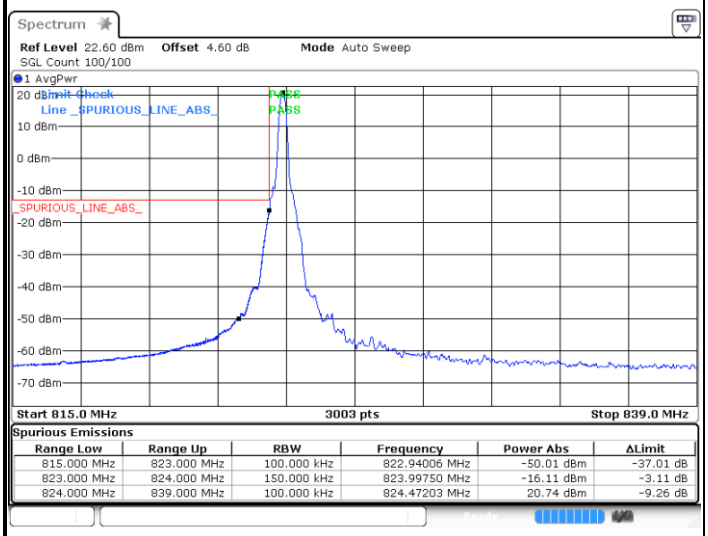
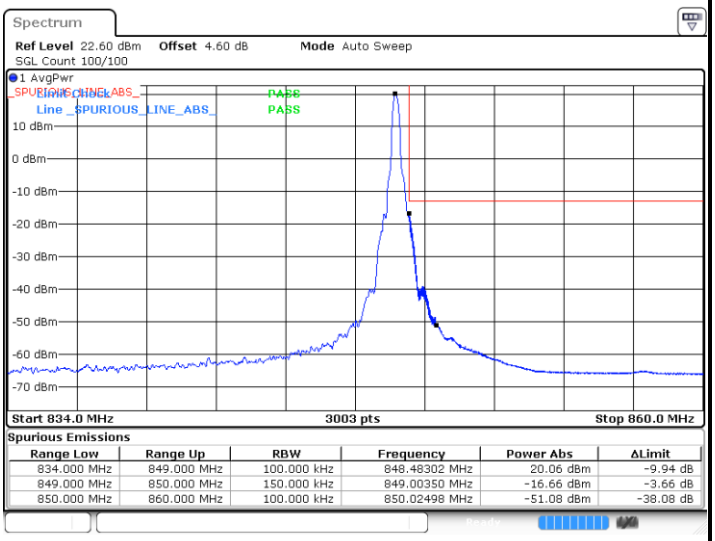
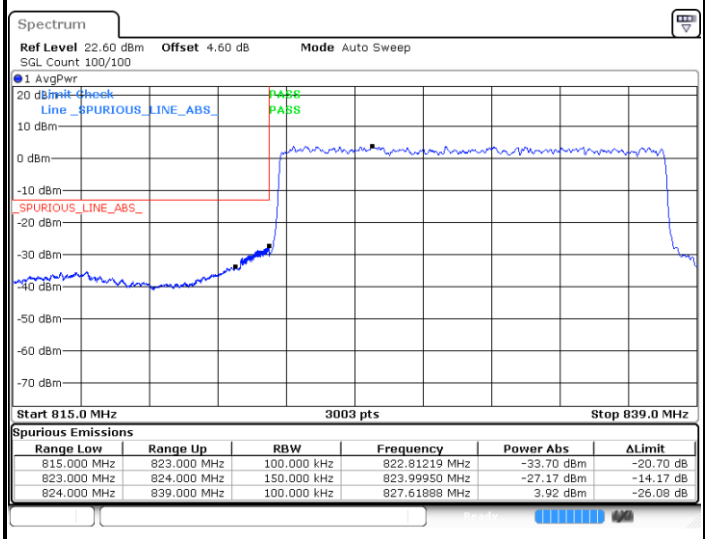
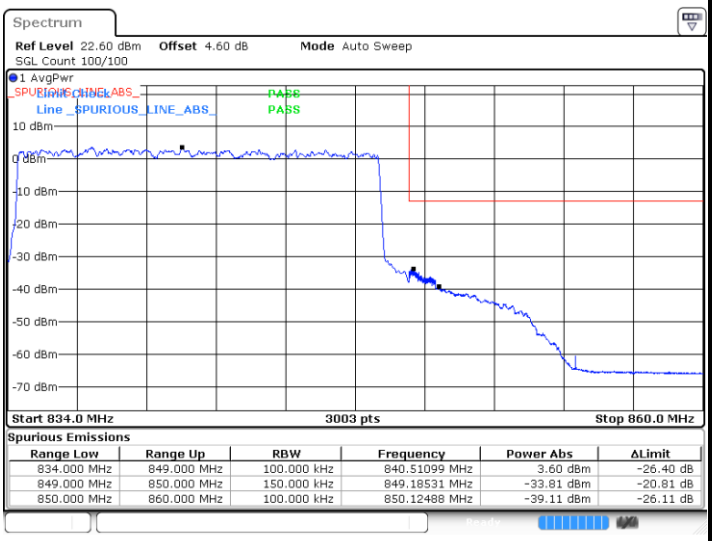
Highest Band Edge / Full RB

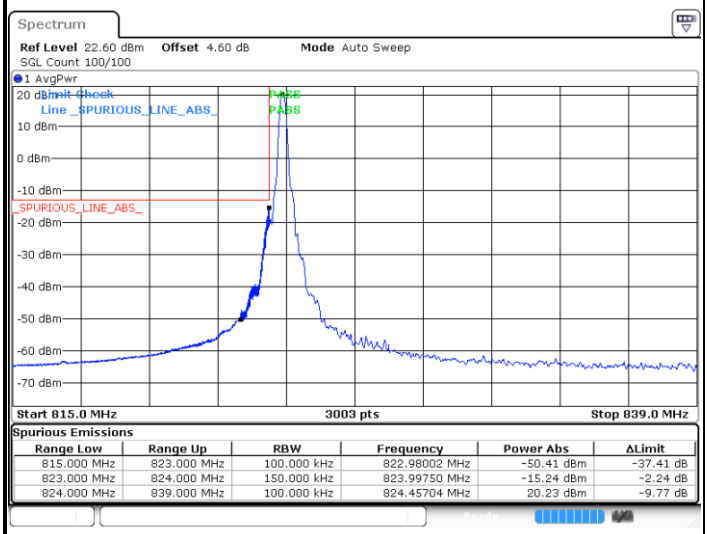
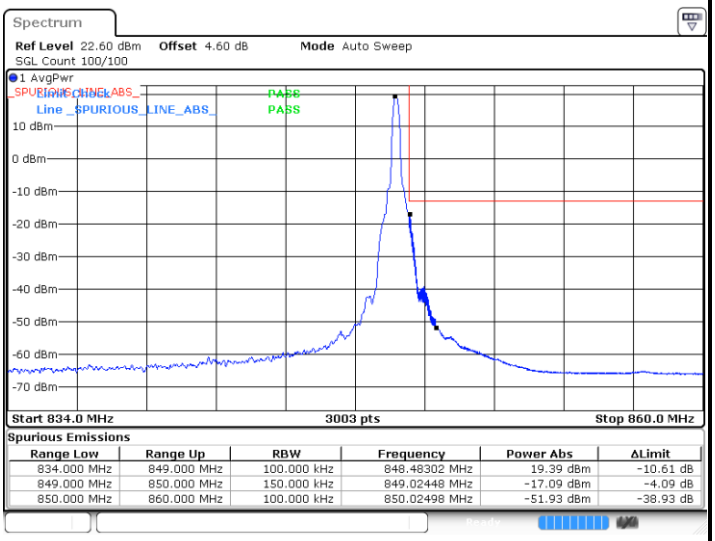
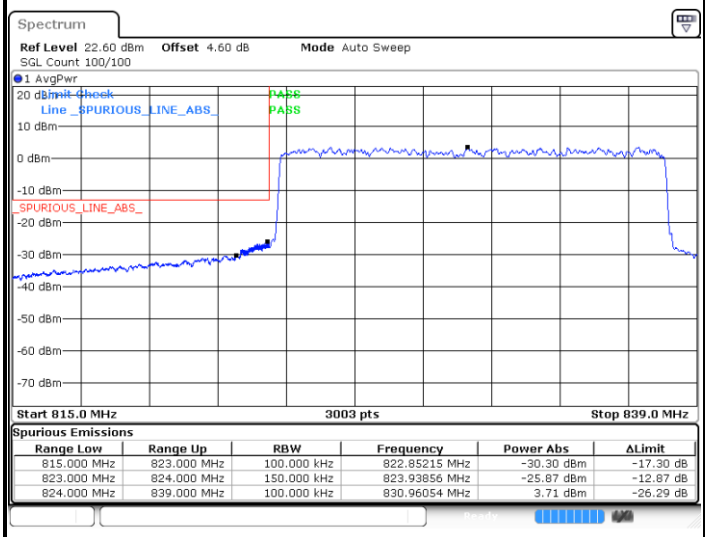
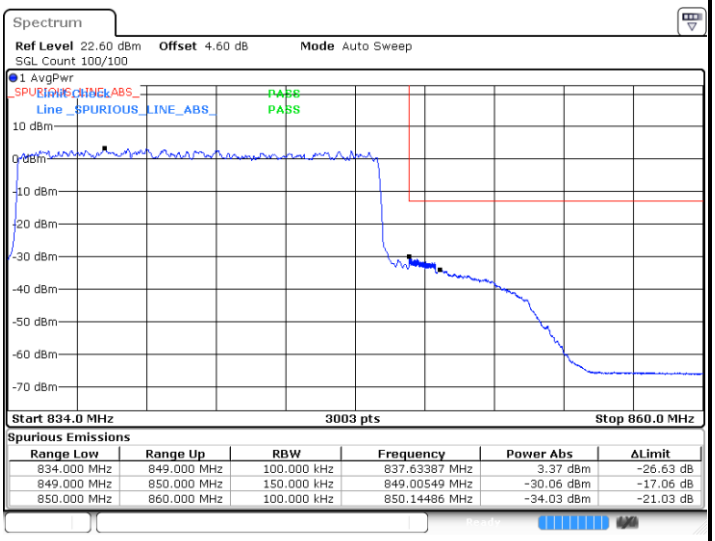


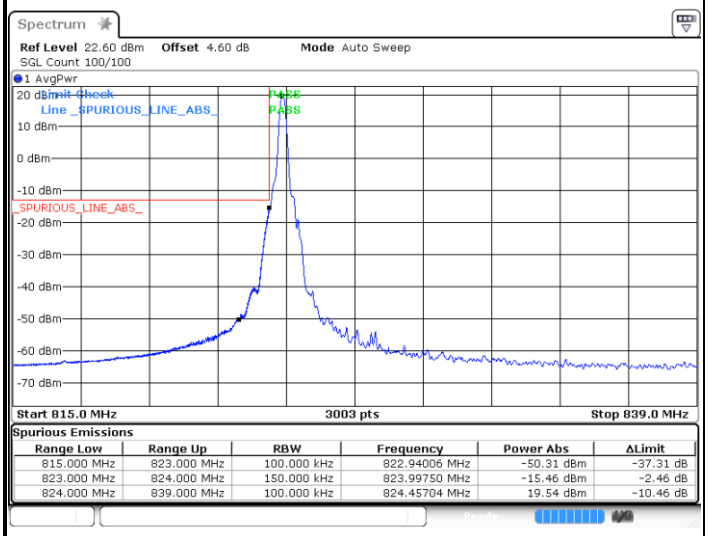
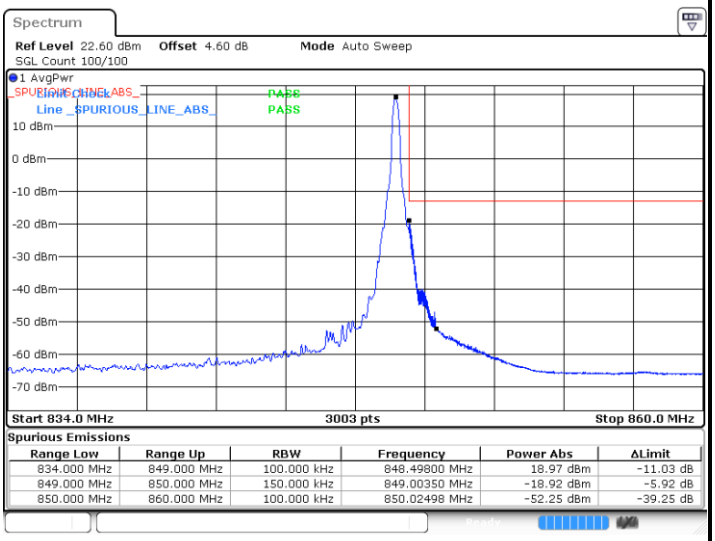
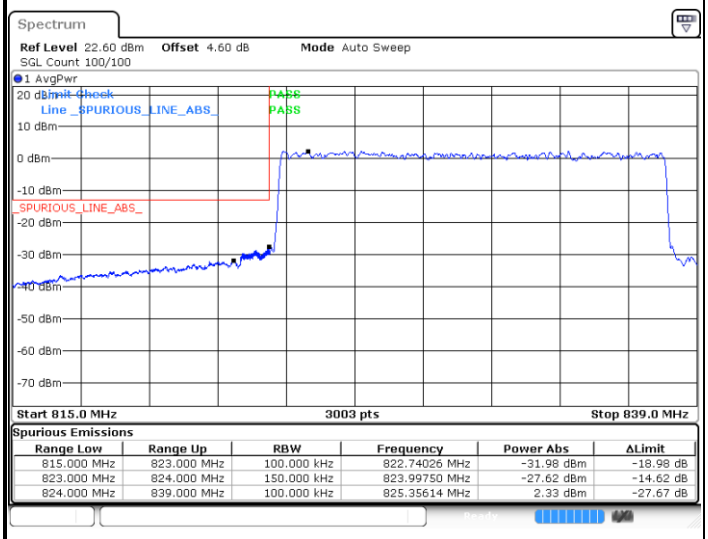
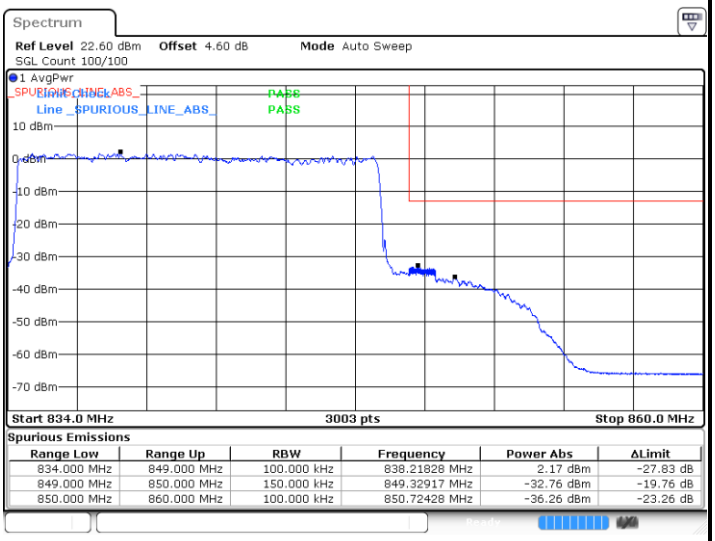
Spurious Emissions

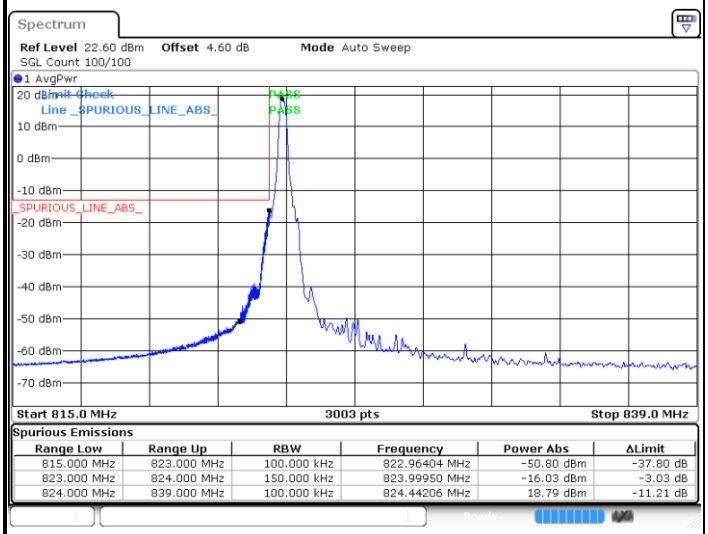
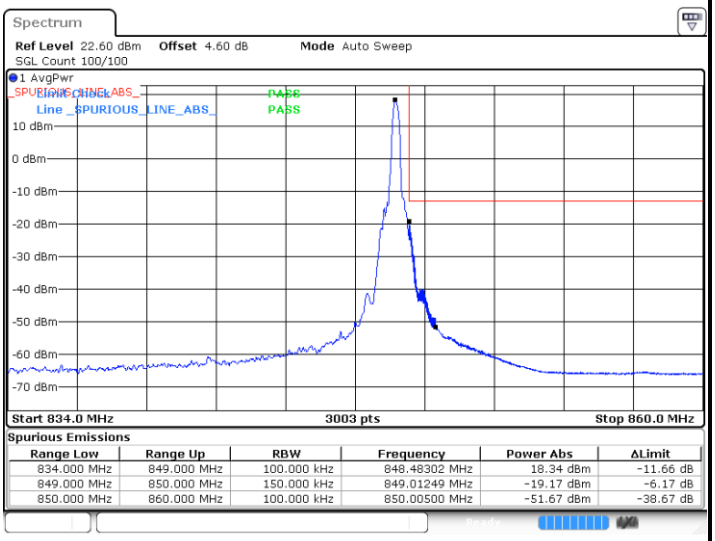
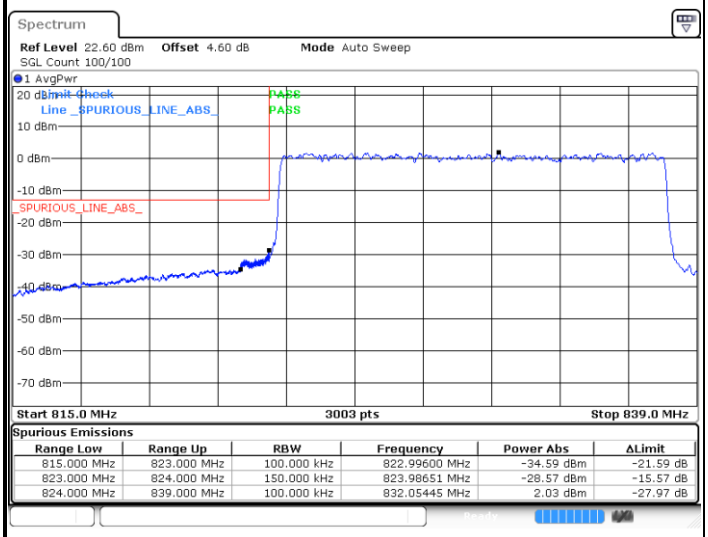
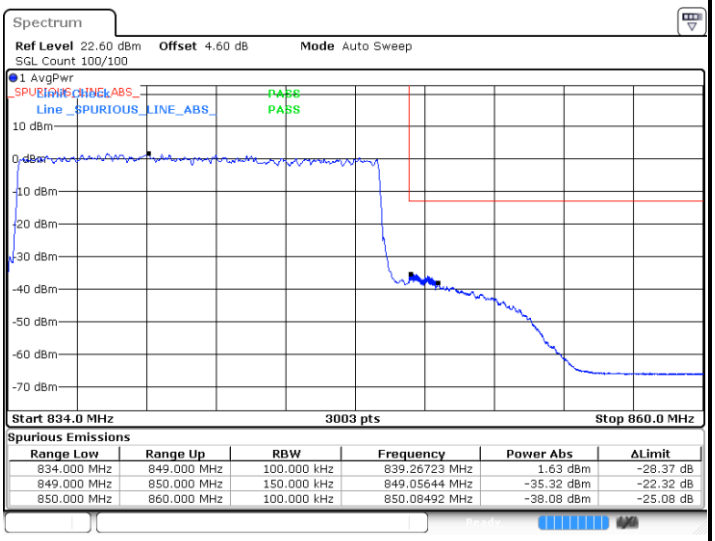
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
839.000 MHz	849.000 MHz	100.000 kHz	846.99700 MHz	1.92 dBm	-28.08 dB
849.000 MHz	850.000 MHz	100.000 kHz	849.22328 MHz	-43.64 dBm	-30.64 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.08492 MHz	-46.02 dBm	-33.02 dB

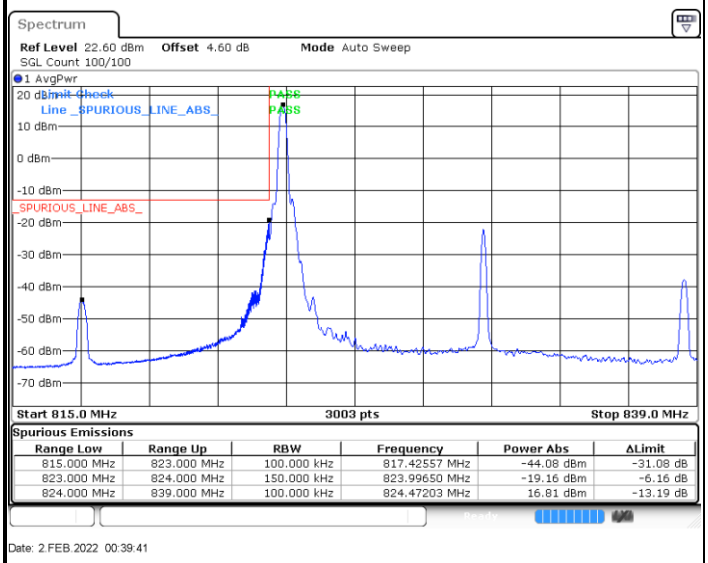
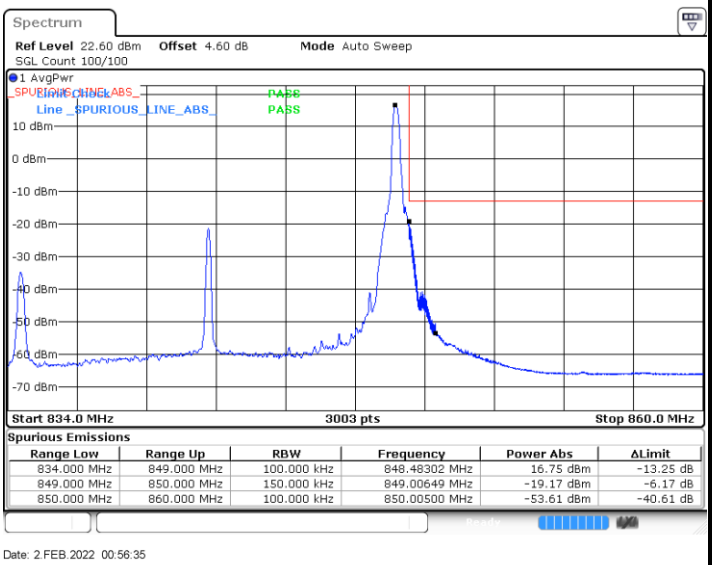
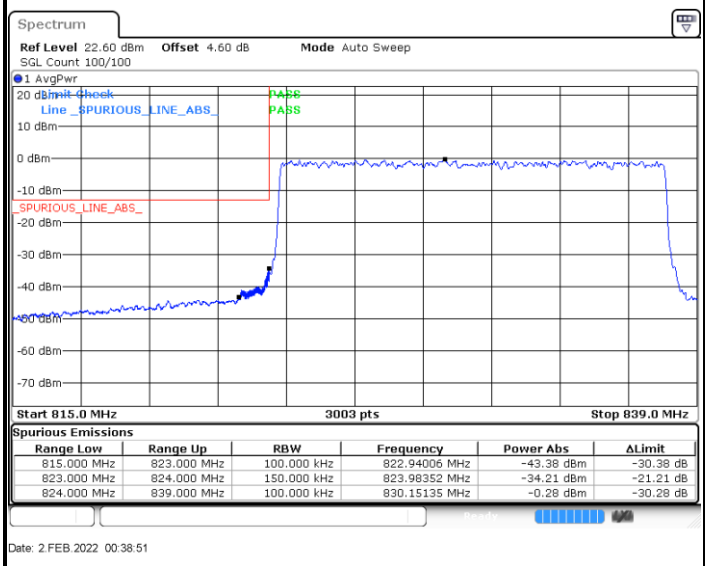
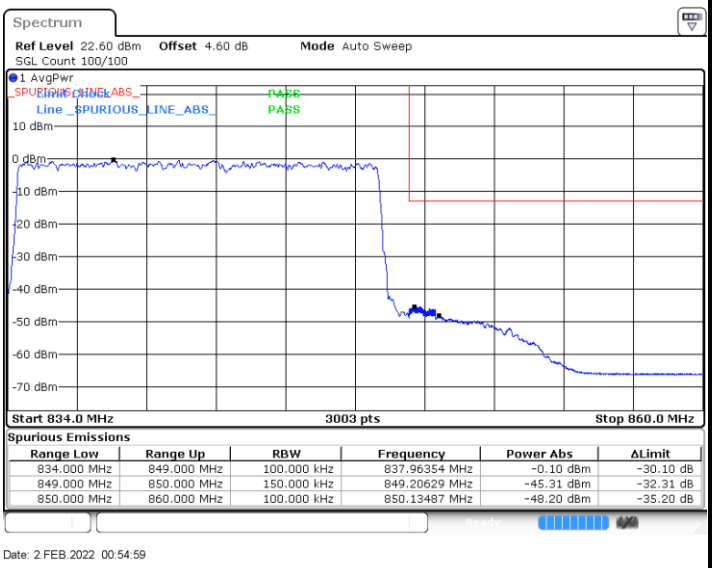
Date: 2.FEB.2022 22:34:25

FR1 n5 / 15MHz / DFT-s-OFDM / PI/2 BPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Date: 2.FEB.2022 00:44:52	Date: 2.FEB.2022 01:00:13
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	
Date: 2.FEB.2022 00:35:00	Date: 2.FEB.2022 00:51:23

FR1 n5/ 15MHz / DFT-s-OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

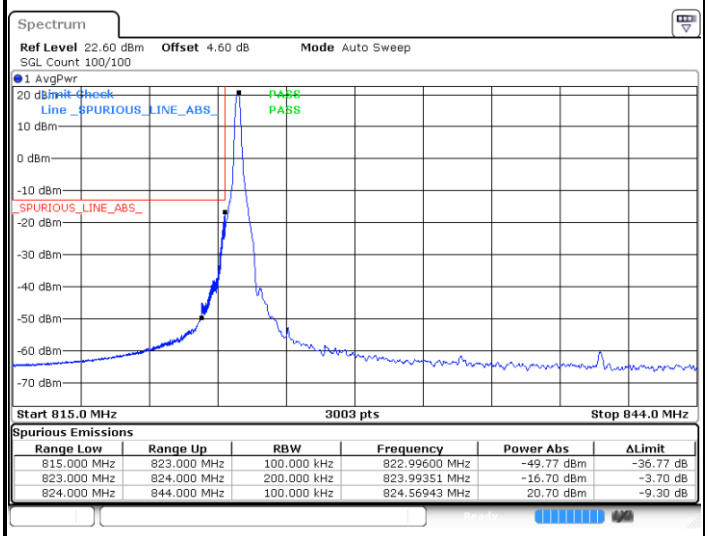
FR1 n5 / 15MHz / DFT-s-OFDM / 16QAM	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n5 / 15MHz / DFT-s-OFDM / 64QAM	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

FR1 n5/ 15MHz / DFT-s-OFDM / 256QAM	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

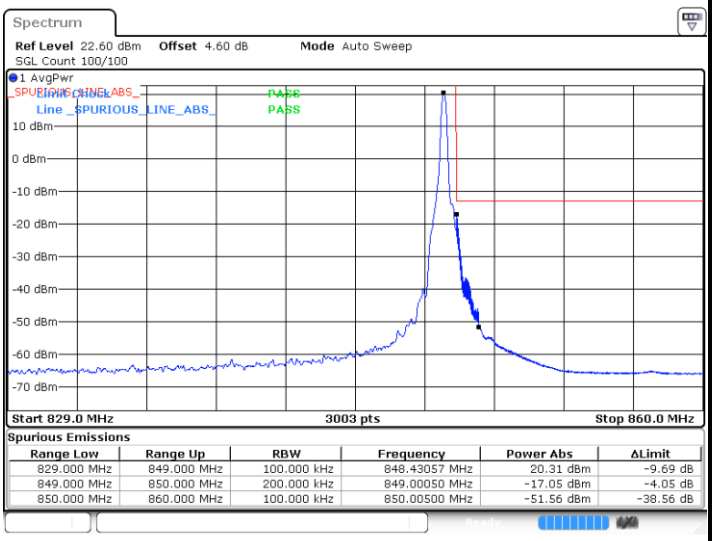
FR1 n5 / 20MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0



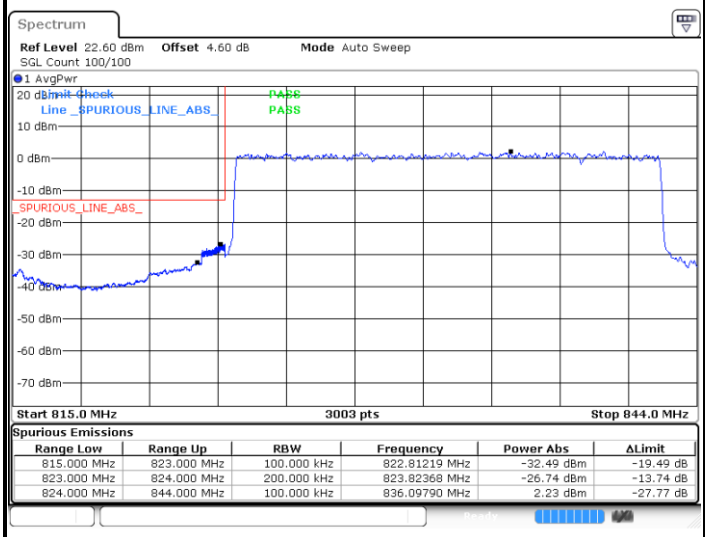
Date: 2.FEB.2022 01:10:07

Highest Band Edge / 1RBMAX



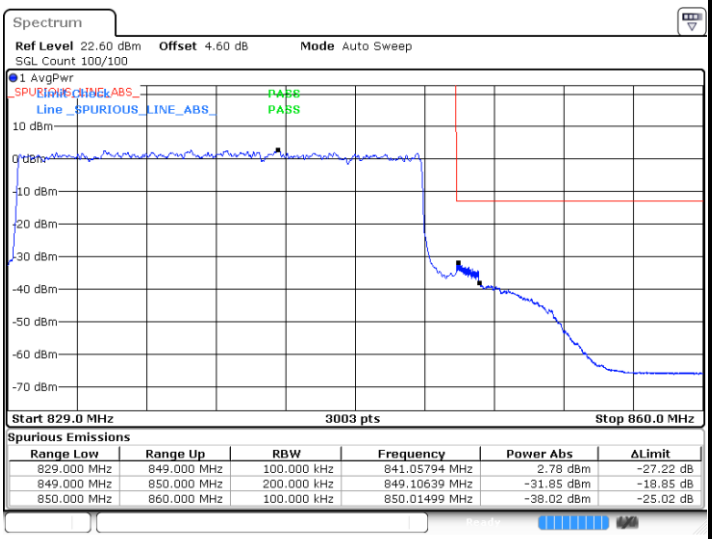
Date: 2.FEB.2022 01:22:29

Lowest Band Edge / Full RB

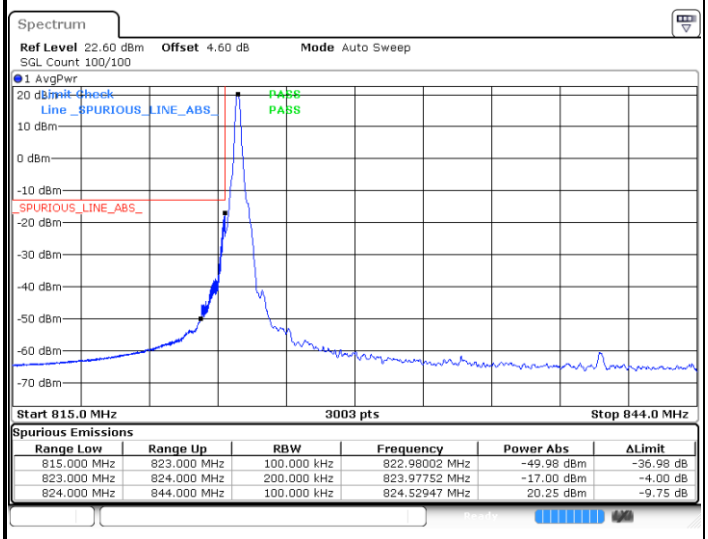
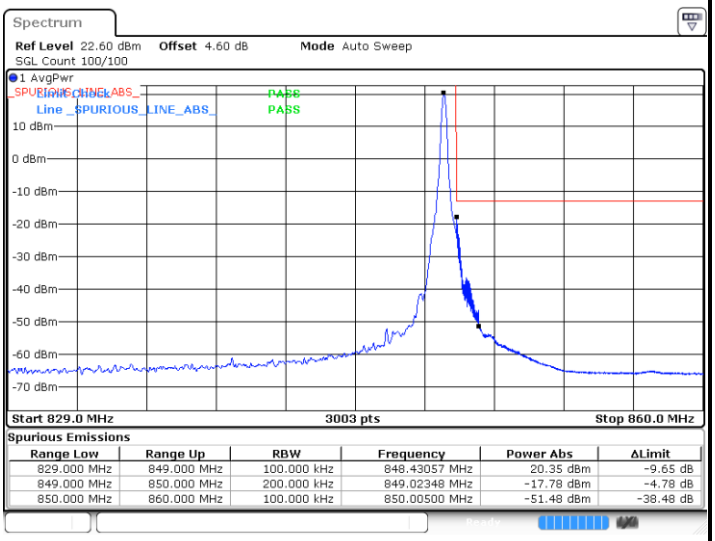
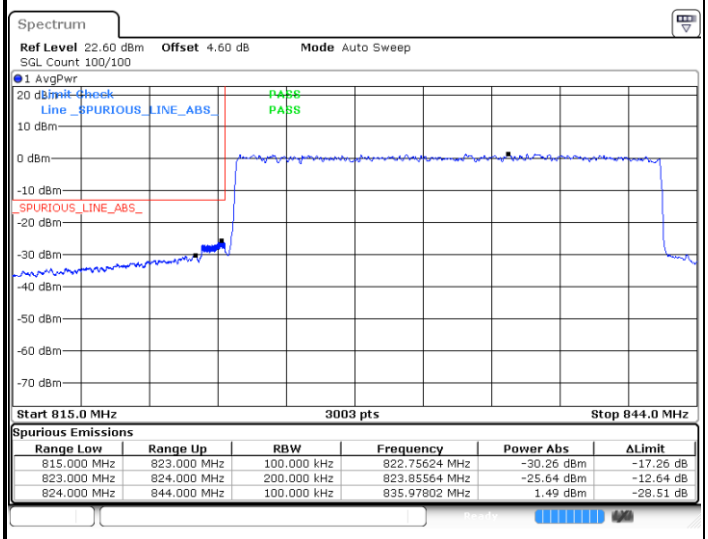
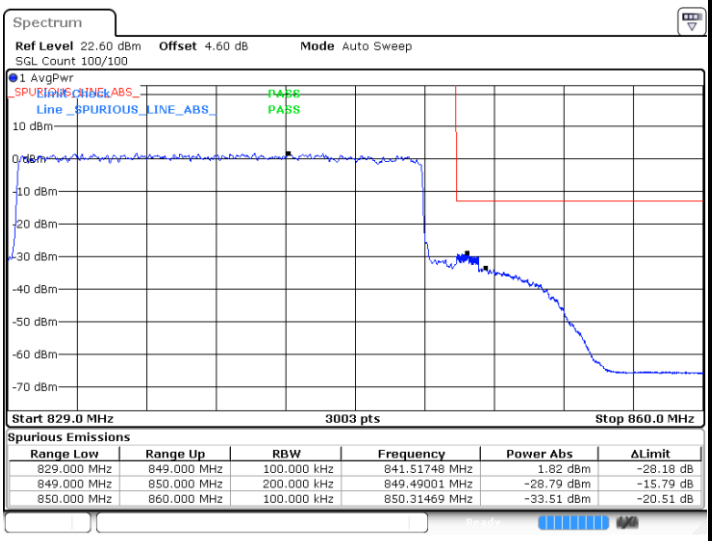


Date: 2.FEB.2022 01:02:50

Highest Band Edge / Full RB

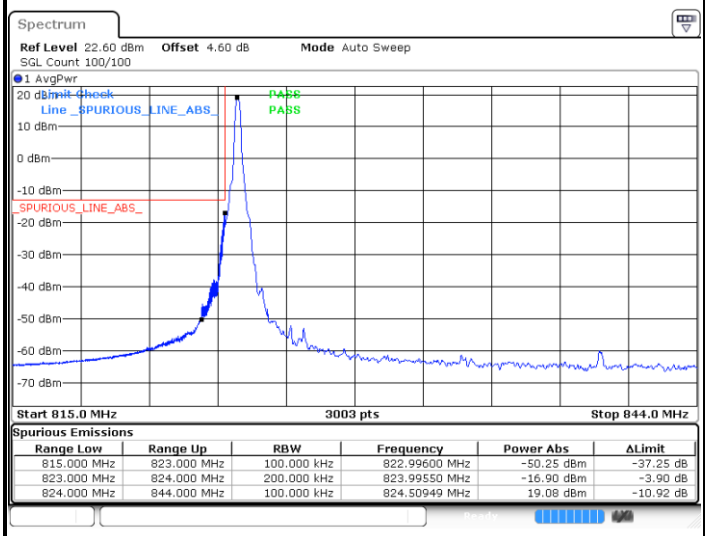


Date: 2.FEB.2022 01:15:13

FR1 n5/ 20MHz / DFT-s-OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Date: 2.FEB.2022 01:09:28	Date: 2.FEB.2022 01:21:42
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	
Date: 2.FEB.2022 01:03:30	Date: 2.FEB.2022 01:15:57

FR1 n5 / 20MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / 1RB0

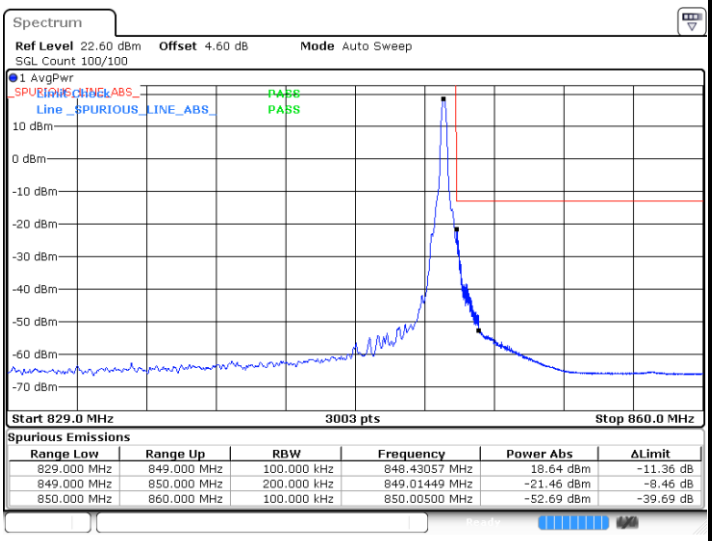


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.99600 MHz	-50.25 dBm	-37.25 dB
823.000 MHz	824.000 MHz	200.000 kHz	823.99550 MHz	-16.90 dBm	-3.90 dB
824.000 MHz	844.000 MHz	100.000 kHz	824.50949 MHz	19.08 dBm	-10.92 dB

Date: 2.FEB.2022 01:08:16

Highest Band Edge / 1RBMAX

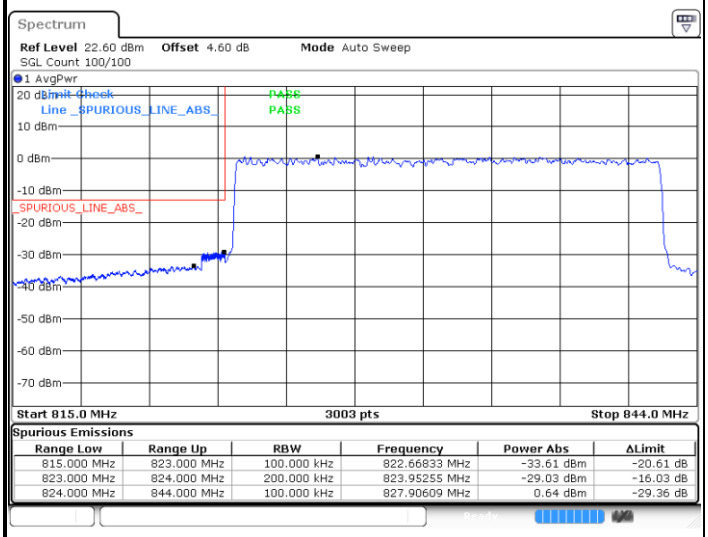


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
829.000 MHz	849.000 MHz	100.000 kHz	848.43057 MHz	18.64 dBm	-11.36 dB
849.000 MHz	850.000 MHz	200.000 kHz	849.01449 MHz	-21.46 dBm	-8.46 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-52.69 dBm	-39.69 dB

Date: 2.FEB.2022 01:20:56

Lowest Band Edge / Full RB

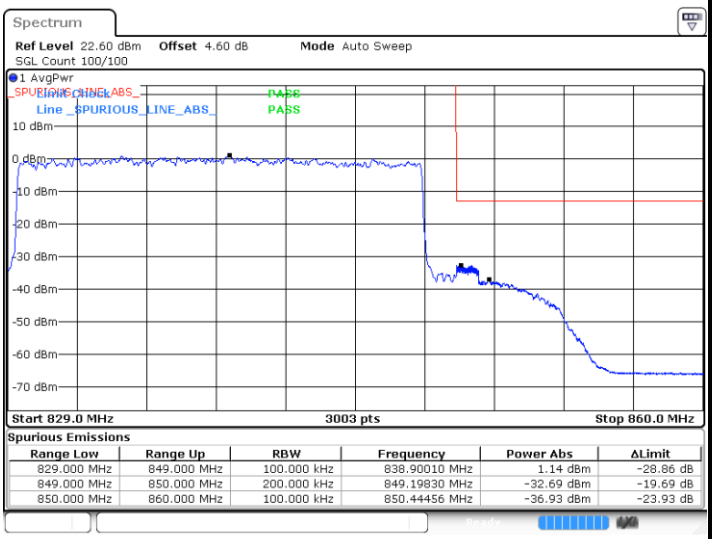


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.66833 MHz	-33.61 dBm	-20.61 dB
823.000 MHz	824.000 MHz	200.000 kHz	823.95255 MHz	-29.03 dBm	-16.03 dB
824.000 MHz	844.000 MHz	100.000 kHz	827.90609 MHz	0.64 dBm	-29.36 dB

Date: 2.FEB.2022 01:04:25

Highest Band Edge / Full RB



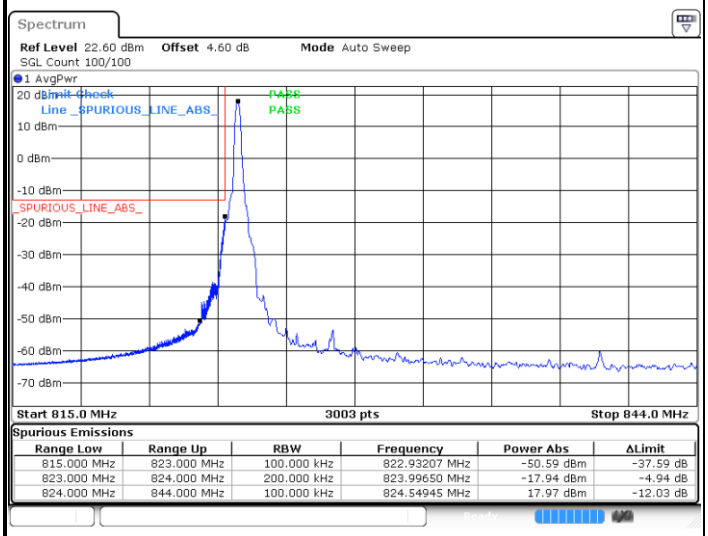
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
829.000 MHz	849.000 MHz	100.000 kHz	838.90010 MHz	1.14 dBm	-28.86 dB
849.000 MHz	850.000 MHz	200.000 kHz	849.19830 MHz	-32.69 dBm	-19.69 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.44456 MHz	-36.93 dBm	-23.93 dB

Date: 2.FEB.2022 01:16:42

FR1 n5 / 20MHz / DFT-s-OFDM / 64QAM

Lowest Band Edge / 1RB0

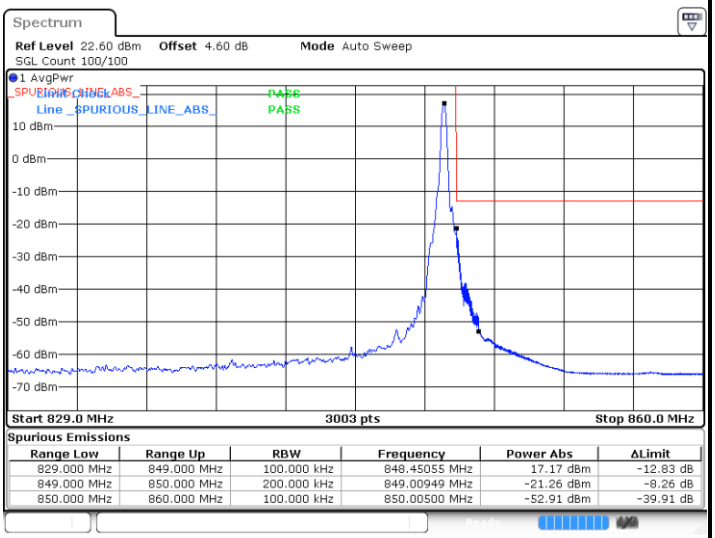


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.93207 MHz	-50.59 dBm	-37.59 dB
823.000 MHz	824.000 MHz	200.000 kHz	823.99650 MHz	-17.94 dBm	-4.94 dB
824.000 MHz	844.000 MHz	100.000 kHz	824.54945 MHz	17.97 dBm	-12.03 dB

Date: 2.FEB.2022 01:07:39

Highest Band Edge / 1RBMAX

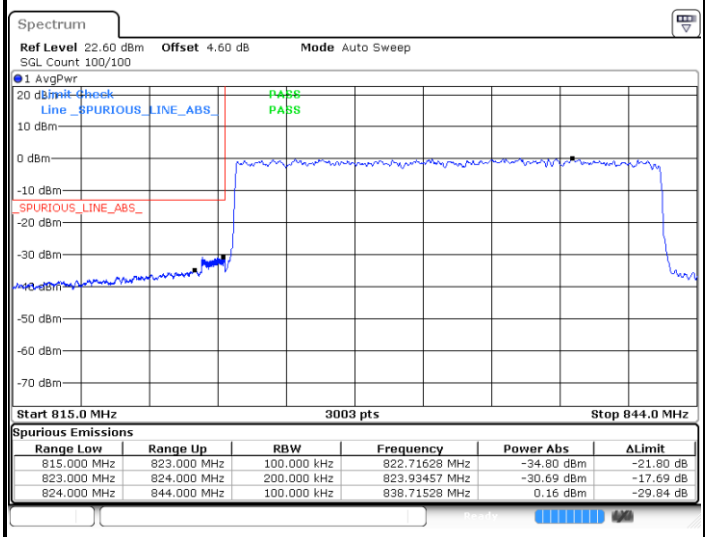


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
829.000 MHz	849.000 MHz	100.000 kHz	848.45055 MHz	17.17 dBm	-12.83 dB
849.000 MHz	850.000 MHz	200.000 kHz	849.00949 MHz	-21.26 dBm	-8.26 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.00500 MHz	-52.91 dBm	-39.91 dB

Date: 2.FEB.2022 01:20:15

Lowest Band Edge / Full RB

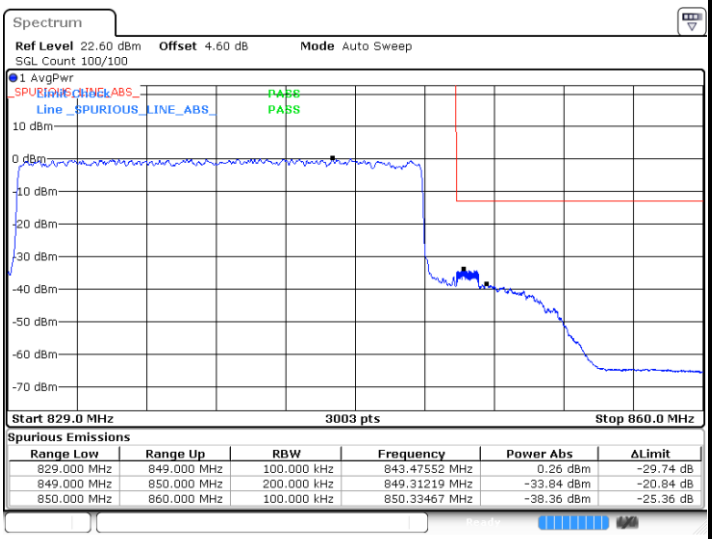


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
815.000 MHz	823.000 MHz	100.000 kHz	822.71628 MHz	-34.80 dBm	-21.80 dB
823.000 MHz	824.000 MHz	200.000 kHz	823.93457 MHz	-30.69 dBm	-17.69 dB
824.000 MHz	844.000 MHz	100.000 kHz	838.71528 MHz	0.16 dBm	-29.84 dB

Date: 2.FEB.2022 01:05:18

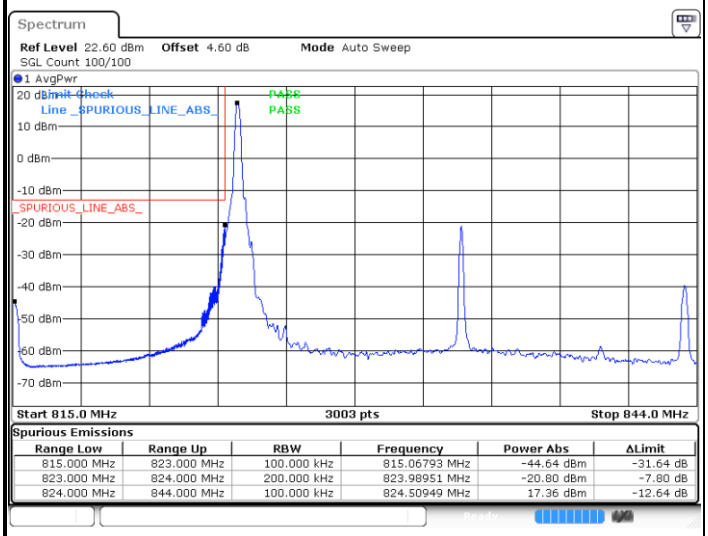
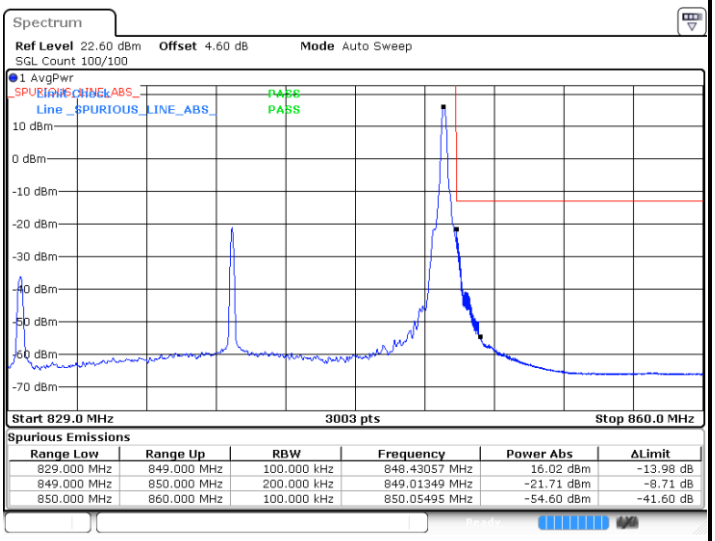
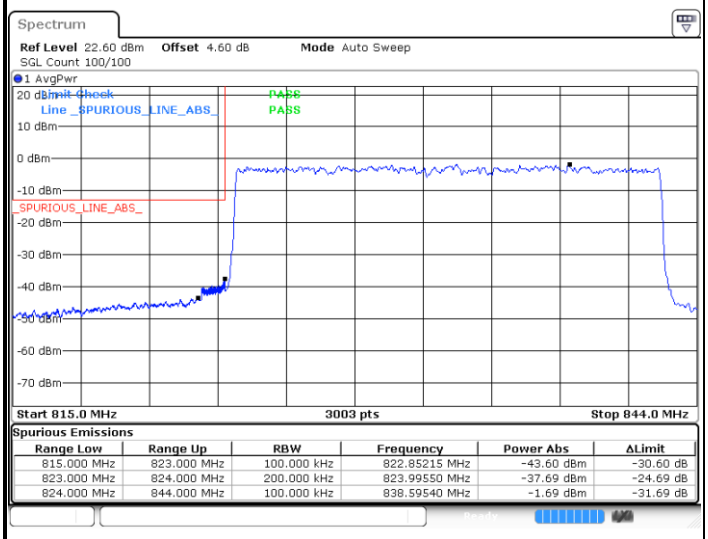
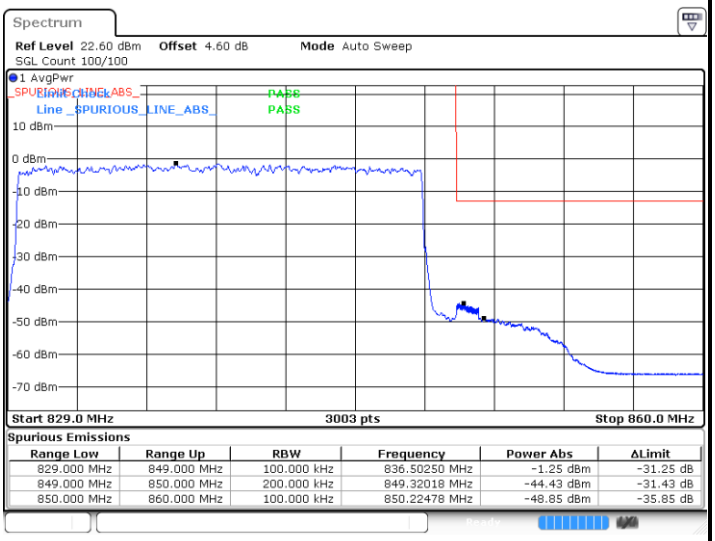
Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
829.000 MHz	849.000 MHz	100.000 kHz	843.47552 MHz	0.26 dBm	-29.74 dB
849.000 MHz	850.000 MHz	200.000 kHz	849.31219 MHz	-33.84 dBm	-20.84 dB
850.000 MHz	860.000 MHz	100.000 kHz	850.33467 MHz	-38.36 dBm	-25.36 dB

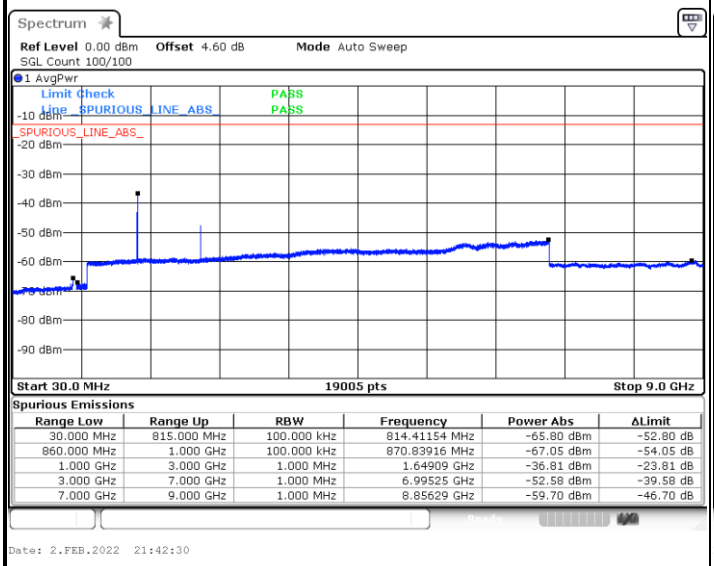
Date: 2.FEB.2022 01:17:24

FR1 n5/ 20MHz / DFT-s-OFDM / 256QAM	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBMAX**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

Conducted Spurious Emission

FR1 n5 / 5MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB1

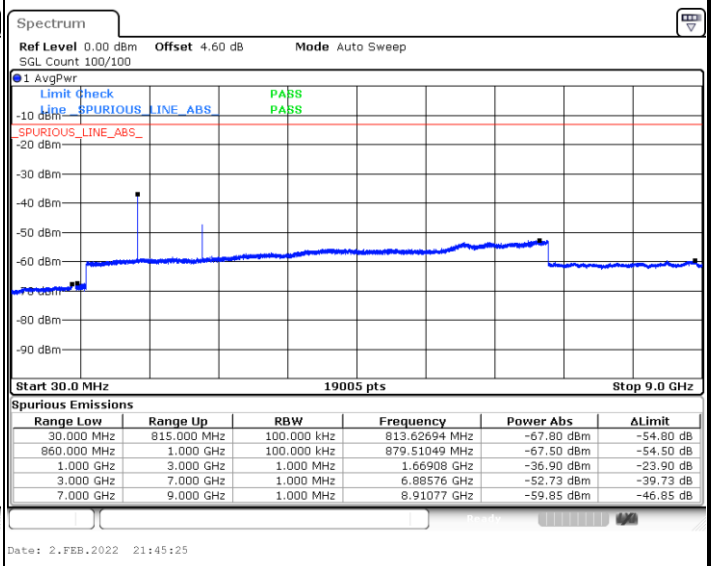


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	814.41154 MHz	-65.80 dBm	-52.80 dB
860.000 MHz	1.000 GHz	100.000 kHz	870.83916 MHz	-67.05 dBm	-54.05 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.64909 GHz	-36.81 dBm	-23.81 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99525 GHz	-52.58 dBm	-39.58 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.85629 GHz	-59.70 dBm	-46.70 dB

Date: 2.FEB.2022 21:42:30

Middle Channel / 1RB1

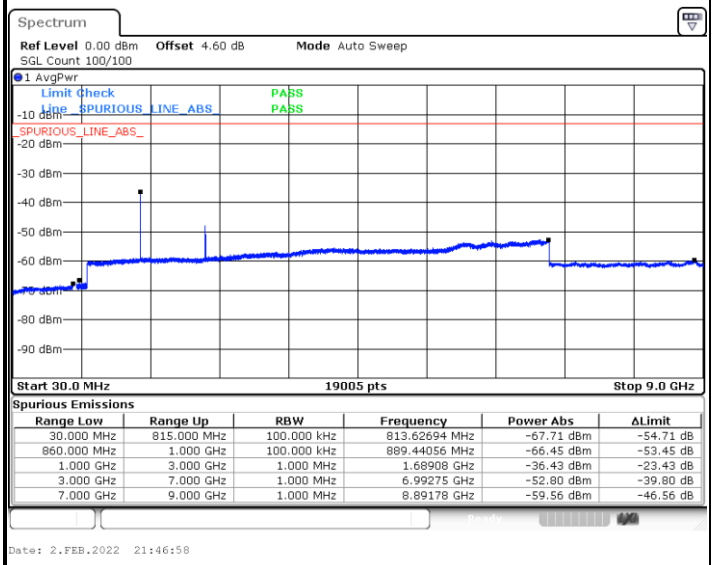


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	813.62694 MHz	-67.80 dBm	-54.80 dB
860.000 MHz	1.000 GHz	100.000 kHz	879.51049 MHz	-67.50 dBm	-54.50 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.66908 GHz	-36.90 dBm	-23.90 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88576 GHz	-52.73 dBm	-39.73 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.91077 GHz	-59.85 dBm	-46.85 dB

Date: 2.FEB.2022 21:45:25

Highest Channel / 1RB1



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	815.000 MHz	100.000 kHz	813.62694 MHz	-67.71 dBm	-54.71 dB
860.000 MHz	1.000 GHz	100.000 kHz	889.44056 MHz	-66.45 dBm	-53.45 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.68908 GHz	-36.43 dBm	-23.43 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99275 GHz	-52.80 dBm	-39.80 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.89178 GHz	-59.56 dBm	-46.56 dB

Date: 2.FEB.2022 21:46:58