FCC RF Test Report

APPLICANT	:	Casa Systems, Inc.
EQUIPMENT	:	Apex Enterprise Femto cell (E-Femto) (B4/B13/B66 Plus N48/N77)
BRAND NAME	:	APEX Femto for Enterprise (eFemto)
MODEL NAME	:	5G2101-48
FCC ID	:	2AO385G2101-48
STANDARD	:	47 CFR Part 2, 96
CLASSIFICATION	:	Citizens Band Category A and B Devices (CBD)
EQUIPMENT TYPE	:	CBSD (Category A)
TEST DATE(S)	:	Nov. 15, 2022 ~ Dec. 01, 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 and shown compliance with the applicable technical standards.

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

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.02

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

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FG282511-01	01	Initial issue of report	Dec. 13, 2022
FG282511-01	02	Add the supported ENDC 66A_n48A, and revise the typo of RSE “4A_n48A”.	Dec. 16, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Reporting only	-
3.3	§96.41	Peak-to-Average Ratio	Pass	-
3.4	§96.41	Maximum E.I.R.P	Pass	-
		Maximum Power Spectral Density	Pass	-
3.5	§2.1049 §96.41	Occupied Bandwidth	Reporting only	-
3.6	§2.1051 §96.41	Conducted Band Edge Measurement	Pass	-
3.7	§2.1051 §96.41	Conducted Spurious Emission	Pass	
3.8	§2.1055	Frequency Stability for Temperature & Voltage	Pass	-
4.4	§2.1051 §96.41	Radiated Spurious Emission	Pass	Under limit 19.84 dB at 10824.00 MHz

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

Casa Systems, Inc.
100 Old River Road Andover MA 01810 USA

1.2 Manufacturer

Casa Systems, Inc.
100 Old River Road Andover MA 01810 USA

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	Apex Enterprise Femto cell (E-Femto) (B4/B13/B66 Plus N48/N77)
Brand Name	APEX Femto for Enterprise (eFemto)
Model Name	5G2101-48
FCC ID	2AO385G2101-48
Tx Frequency	5G NR n48: 3550 MHz ~ 3700 MHz
Rx Frequency	5G NR n48: 3550 MHz ~ 3700 MHz
Bandwidth	20MHz / 30MHz / 40MHz
SCS	30kHz
EN-DC	4A_n48A, 13A_n48A, 66A_n48A
Maximum Conducted Power	External Ant.<3+4>: 26.01 dBm Internal Ant.<3+4>: 27.74 dBm
Antenna Gain	**External Ant. 3:** n48 : 8.0 dBi **External Ant. 4:** n48 : 8.0 dBi **Internal Ant. 3:** n48 : 6.18 dBi **Internal Ant. 4:** n48 : 6.22 dBi
Type of Modulation	5G NR: CP-OFDM (64QAM / 256QAM)
HW Version	V02
SW Version	R1.0
EUT Stage	Production Unit

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. The maximum EIRP is calculated from max output power and max antenna gain, only the maximum EIRP of External Antenna is shown on the report for MIMO mode.
3. 5GNR Tx is non-signaling mode.
4. The base station only support 5GNR full RB.
5. For SISO & MIMO mode, the testing has assessed only MIMO mode by referring to the higher output power. The MIMO mode is completely uncorrelated, so the directional gain is selected the maximum

gain among all antennas.

6. For Internal & External Antenna, they are the same transmitter, thus Conducted items only test Internal antenna port by referring to higher output power, and RSE test both Internal & External Antenna.
7. The Internal Antenna and External Antenna support manual switch, the Internal & External antenna can't work at the same time, thus MIMO mode only support MIMO <Internal Ant.3+4> or MIMO <External Ant.3+4>, not support MIMO <Internal Ant.3/4 + External Ant.3/4>.
8. The UUT supports SA and NSA, RSE has assessed FTM mode "LTE + 5G NR simultaneous transmission" to cover EN-DC test requirements.

1.4 Maximum EIRP Power and Emission Designator

5G NR n48		64QAM / 256QAM	
BW (MHz)	**Frequency Range (MHz)**	**Maximum EIRP (W)**	**Emission Designator (99%OBW)**
20	**3560.01~3690.00**	1.2764	18M3W7D
30	**3564.99~3684.99**	2.2909	27M9W7D
40	**3570.00~3679.98**	2.5177	37M9W7D

Note:

1. Per KDB 940660 D01 Part 96 CBRS v03 Q&A 7, the total output power should be listed as the power **over the entire bandwidth** on the grant.
2. The maximum EIRP limit is 30dBm/10MHz, thus
   the EIRP Limit is 33.01dBm for 20M BW,
   the EIRP Limit is 34.77dBm for 30M BW,
   the EIRP Limit is 36.02dBm for 40M BW.

1.5 Testing Site

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

1.6 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24al

1.7 Applied Standards

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

- ANSI C63.26-2015
- ANSI / TIA-603-E
- 47 CFR Part 2, 96
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 940660 D01 Part 96 CBRS v03
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

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

2 Test Configuration of Equipment Under Test

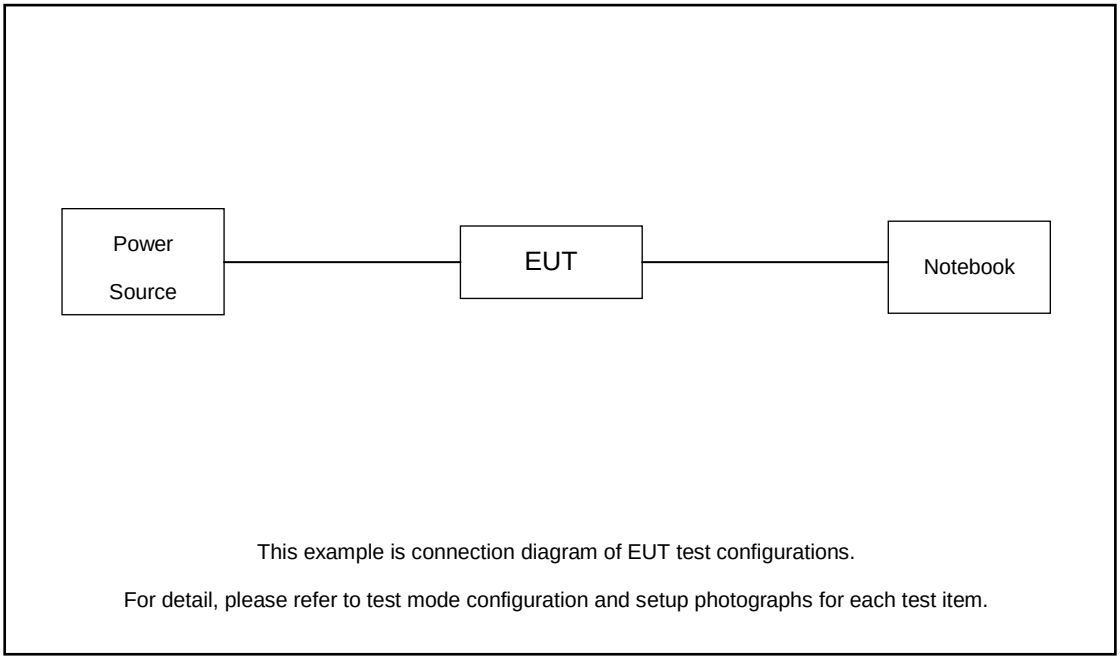
2.1 Test Mode

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

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

Test Items	Band	Bandwidth (MHz)					Modulation			RB #			Test Channel		
		10	15	20	30	40	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	n48	-	-	v	v	v	-	v	v	-	-	v	v	v	v
EIRP Density	n48	-	-	v	v	v	-	v	v	-	-	v	v	v	v
26dB and 99% Bandwidth	n48	-	-	v	v	v	-	v	v	-	-	v		v	
Conducted Band Edge	n48	-	-	v	v	v	-	v	v	-	-	v	v		v
Peak-to-Average Ratio	n48	-	-			v	-	v	v	-	-	v		v	
Conducted Spurious Emission	n48	-	-	v	v	v	-	v	v	-	-	v	v	v	v
E.R.P / E.I.R.P	n48	-	-	v	v	v	-	v	v	-	-	v	v	v	v
Frequency Stability	n48	-	-	v			-		v	-	-			v	
Radiated Spurious Emission	n48	Worst Case												v	
Remark	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. Frequency Stability：Normal Voltage = 12V ； Low Voltage = 11.4V.； High Voltage = 12.6V														

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

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.	Notebook	Lenovo	G480	QDS-BRCM1050I	N/A	Shielded cable DC O/P 1.8m, Unshielded AC I/P cable 1.8m

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 7.8 dB and 10dB attenuator.

Example :

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

= 7.8 + 10 = 17.8 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G NR n48 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
40	Channel	638000	641666	645332
	Frequency	3570	3624.99	3679.98
30	Channel	637666	641666	645666
	Frequency	3564.99	3624.99	3684.99
20	Channel	637334	641666	646000
	Frequency	3560.01	3624.99	3690

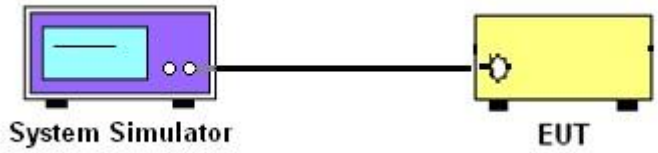
3 Conducted Test Items

3.1 Measuring Instruments

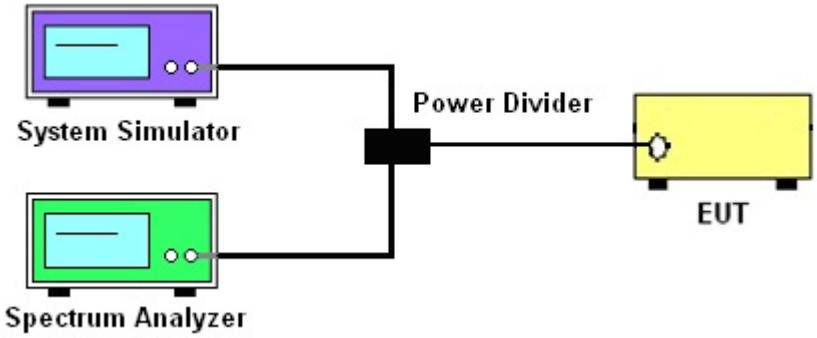
See list of measuring instruments of this test report.

3.1.1 Test Setup

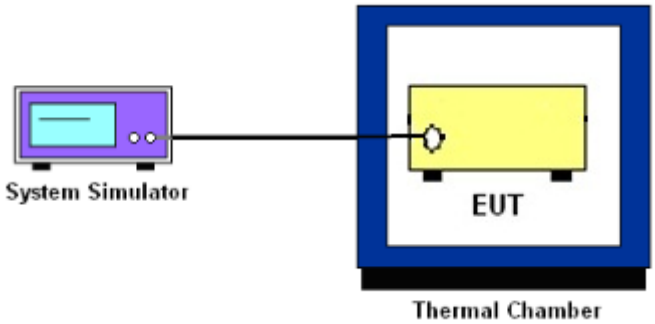
3.1.2 Conducted Output Power



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



3.1.4 Frequency Stability



3.1.5 Test Result of Conducted Test

Please refer to Appendix A.

3.2 Conducted Output Power

3.2.1 Description of the Conducted Output Power 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.

3.2.2 Test Procedures

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

3.3 Peak-to-Average Ratio

3.3.1 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.

3.3.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.2.6

1. The EUT was connected to spectrum and system simulator via a power divider.
2. Set EUT in maximum power output.
3. Set the RBW = 1MHz, VBW = 3MHz, Detector = Peak, Trace mode = max hold, Set span ≥ 2 × OBW in spectrum analyzer.
4. Set the RBW = 1MHz, VBW = 3MHz, Detector = power averaging, Trace mode = max hold, Set span ≥ 2 × OBW in spectrum analyzer.
5. Add [10 log (1/duty cycle)] to the measured maximum power level to compute the average power
   during continuous transmission.
6. 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
7. Record the deviation as Peak to Average Ratio.

3.4 EIRP and PSD

3.4.1 Description of the EIRP Measurement

EIRP and PSD limits for CBRS equipment as below table:

Device		Maximum EIRP (dBm/10 MHz)	Maximum PSD (dBm/MHz)
☐	**End User Device**	23	n/a
Applied	**Category A CBSD**	30	20
☐	**Category B CBSD**	47	37

Remark: Maximum PSD values are radiated. Measurements can be done conducted and add antenna gain back in.

3.4.2 Test Procedures for EIRP

1. Establishing a communications link with the call box (Base station) to measure the Maximum conducted power, the parameters were set to force the EUT transmitting at maximum output power level. Use the average power measurement function to measure total channel power of each channel bandwidth (per ANSI C63.26-2015 Section 5.2.1)

2. Determining ERP and/or EIRP from conducted RF output power measurements (Per ANSI C63.26-2015 Section 5.2.5.5)

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

3.4.3 Test Procedures for EIRP PSD

1. Set instrument center frequency to OBW center frequency.
2. Set span to at least 2 times the OBW.
3. Set the RBW to the specified reference bandwidth (often 1 MHz).
4. Set VBW ≥ 3 × RBW.
5. Detector = RMS (power averaging).
6. Ensure that the number of measurement points in the sweep ≥ 2 × span/RBW.
7. Sweep time = auto couple.
8. Employ trace averaging (RMS) mode over a minimum of 100 traces.
9. Use the peak marker function to determine the maximum amplitude level within the reference bandwidth (PSD).
10. Determine the EIRP by adding the effective antenna gain to the adjusted power level.
11. Add 10 log (1/duty cycle) to the measured power level to compute the average power during continuous transmission.

The testing follows ANSI C63.26-2015 Section 5.2.5.5

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T – L_C$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.5 Occupied Bandwidth

3.5.1 Description of Occupied Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.5.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.4.3 (26dB) and Section 5.4.4 (99OB)

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. 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.
3. 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.
4. Set the detection mode to peak, and the trace mode to max hold.
5. 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)
6. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
7. 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.
8. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.6 Conducted Band Edge

3.6.1 Description of Conducted Band Edge Measurement

Part 96.41 (e) (1) (i)

For CBSD the emission limits outside the fundamental are as follows:

Within 0 MHz to 10 MHz above and below the assigned channel ≤ −13 dBm/MHz

Greater than 10 MHz above and below the assigned channel ≤ −25 dBm/MHz

Part 96.41 (e) (2)

For CBSDs and End User Devices, the conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed −25 dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz

3.6.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured.
3. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Beyond the 1 MHz band from the band edge, RBW=1MHz was used
5. Offset has included the duty factor for LTE Band 48. Duty factor =10 log (1/x), where x is the measured duty cycle.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.7 Conducted Spurious Emission

3.7.1 Description of Conducted Spurious Emission Measurement

96.41 (e)(2)

The conducted power of any emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

3.7.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. 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.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
6. Set spectrum analyzer with RMS detector.
7. Taking the record of maximum spurious emission.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. The limit line is −40dBm/MHz.

3.8 Frequency Stability

3.8.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency

3.8.2 Test Procedures for Temperature Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. 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.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.8.3 Test Procedures for Voltage Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

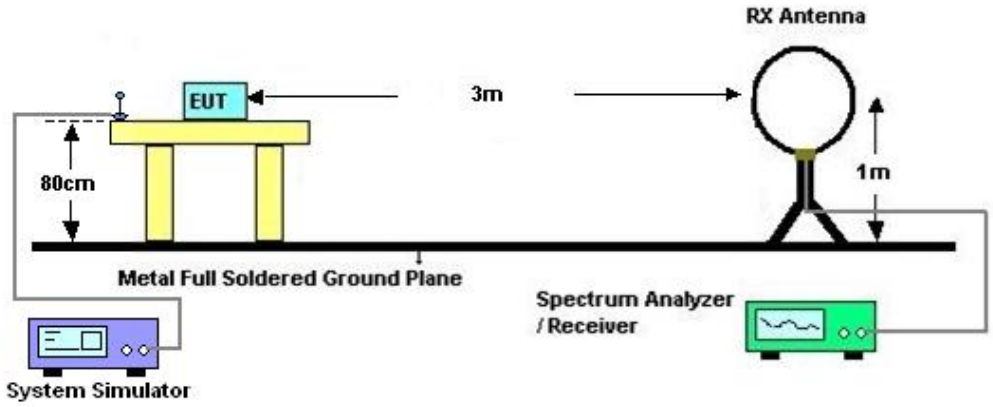
4 Radiated Test Items

4.1 Measuring Instruments

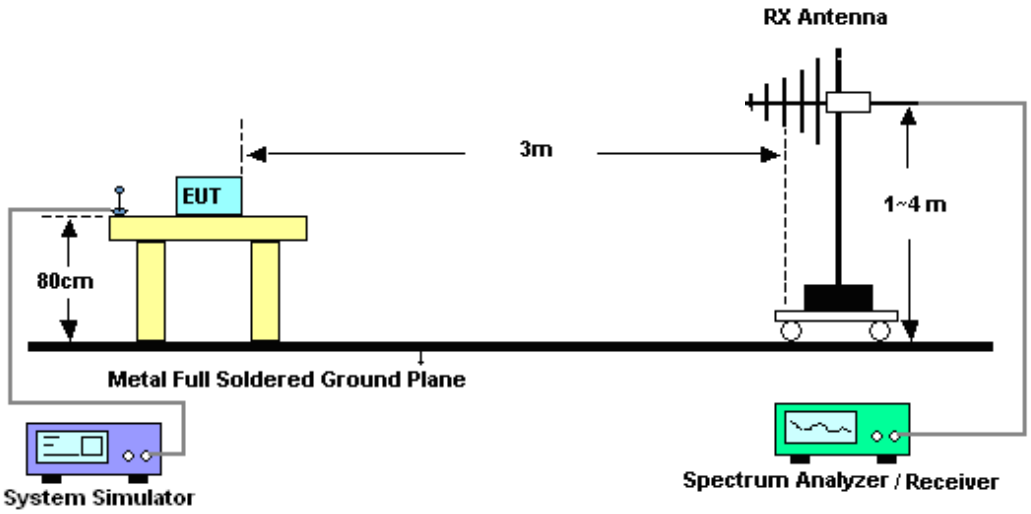
See list of measuring instruments of this test report.

4.2 Test Setup

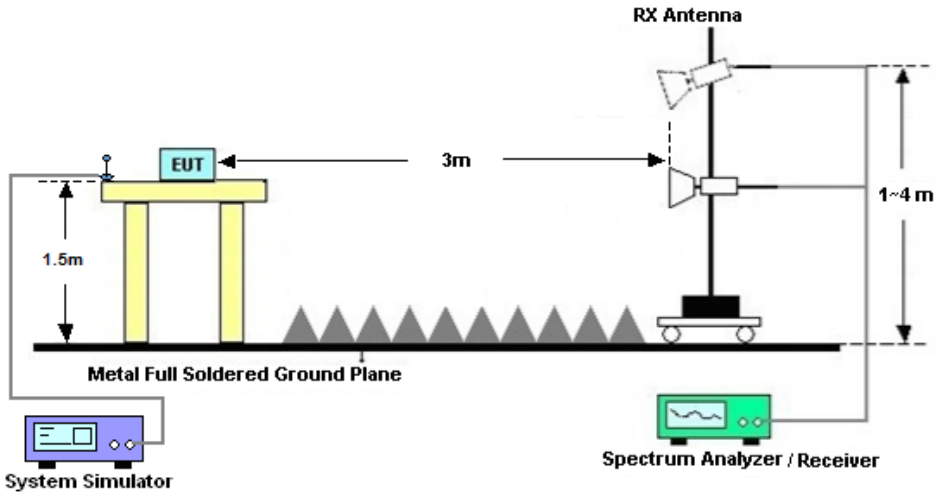
4.2.1 For radiated test below 30MHz



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 Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. 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 -40dBm / MHz.

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

4.4.2 Test Procedures

1. 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.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
5. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
   Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
   EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
   ERP (dBm) = EIRP - 2.15
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
   The limit line is −40dBm/MHz

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. 12, 2022	Nov. 15, 2022~ Nov. 25, 2022	Oct. 11, 2023	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	Nov. 15, 2022~ Nov. 25, 2022	NCR	Conducted (TH01-KS)
Temperature &humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 15, 2022	Nov. 15, 2022~ Nov. 25, 2022	Jul. 14, 2023	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471079	10Hz-44G,MAX 30dB	Oct. 12, 2022	Dec. 01, 2022	Oct. 11, 2023	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 16, 2022	Dec. 01, 2022	Oct. 15, 2023	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	May 24, 2022	Dec. 01, 2022	May 23, 2023	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1284	1GHz~18GHz	Jan. 05, 2022	Dec. 01, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2022	Dec. 01, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 05, 2022	Dec. 01, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
Amplifier	Agilent	8449B	3008A02370	1Ghz-18Ghz	Oct. 12, 2022	Dec. 01, 2022	Oct. 11, 2023	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40GGA	060728	18~40GHz	Jan. 05, 2022	Dec. 01, 2022	Jan. 04, 2023	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Dec. 01, 2022	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Dec. 01, 2022	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Dec. 01, 2022	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required

6 Uncertainty of Evaluation

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 ~ 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 :	Simle Wang	Temperature :	22~23℃
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and EIRP

<Internal Ant 3+4>:

Conducted Power /10MHz				
BW	CH	Modulation	Conducted Power for ANT3 (dBm/10 MHz)	Conducted Power for ANT4 (dBm/10 MHz)
20	637334	64QAM	20.59	20.46
20	641666	64QAM	20.07	20.55
20	646000	64QAM	20.69	20.14
20	637334	256QAM	19.91	19.7
20	641666	256QAM	19.57	19.84
20	646000	256QAM	19.93	19.95
30	637666	64QAM	20.79	20.05
30	641666	64QAM	19.58	19.58
30	645666	64QAM	20.02	19.87
30	637666	256QAM	20.83	20.57
30	641666	256QAM	19.87	19.5
30	645666	256QAM	20.6	19.51
40	638000	64QAM	19.77	19.88
40	641666	64QAM	19.43	19.43
40	645332	64QAM	19.1	19.32
40	638000	256QAM	20.04	20.21
40	641666	256QAM	19.47	19.31
40	645332	256QAM	19.43	19.41

<Internal Ant 3+4>:

EIRP /10MHz								
ANT	BW	CH	Modulation	Conducted Power (dBm/10 MHz)	Gain (dBi)	EIRP (dBm/10 MHz)	Limit (dBm/10 MHz)	Result
3+4	20	637334	64QAM	23.54	6.22	29.76	30	Pass
3+4	20	641666	64QAM	23.33	6.22	29.55		Pass
3+4	20	646000	64QAM	23.43	6.22	29.65		Pass
3+4	20	637334	256QAM	22.82	6.22	29.04		Pass
3+4	20	641666	256QAM	22.72	6.22	28.94		Pass
3+4	20	646000	256QAM	22.95	6.22	29.17		Pass
3+4	30	637666	64QAM	23.45	6.22	29.67		Pass
3+4	30	641666	64QAM	22.59	6.22	28.81		Pass
3+4	30	645666	64QAM	22.96	6.22	29.18		Pass
3+4	30	637666	256QAM	23.71	6.22	29.93		Pass
3+4	30	641666	256QAM	22.70	6.22	28.92		Pass
3+4	30	645666	256QAM	23.10	6.22	29.32		Pass
3+4	40	638000	64QAM	22.84	6.22	29.06		Pass
3+4	40	641666	64QAM	22.44	6.22	28.66		Pass
3+4	40	645332	64QAM	22.22	6.22	28.44		Pass
3+4	40	638000	256QAM	23.14	6.22	29.36		Pass
3+4	40	641666	256QAM	22.40	6.22	28.62		Pass
3+4	40	645332	256QAM	22.43	6.22	28.65		Pass

<External Ant 3+4>:

Conducted Power /10MHz				
BW	**CH**	**Modulation**	**Conducted Power for ANT3 (dBm/10 MHz)**	**Conducted Power for ANT4 (dBm/10 MHz)**
20	**637334**	**64QAM**	18.18	17.8
20	**641666**	**64QAM**	17.59	17.72
20	**646000**	**64QAM**	18.44	17.87
20	**641666**	**256QAM**	18.25	17.74
30	**641666**	**64QAM**	18.1	18.11
40	**641666**	**64QAM**	17.94	18.09

<External Ant 3+4>:

EIRP /10MHz								
ANT	**BW**	**CH**	**Modulation**	**Conducted Power (dBm/10 MHz)**	**Gain (dBi)**	**EIRP (dBm/10 MHz)**	**Limit (dBm/10 MHz)**	**Result**
3+4	**20**	**637334**	**64QAM**	21.00	8.0	29.00	30	Pass
3+4	**20**	**641666**	**64QAM**	20.67	8.0	28.67		Pass
3+4	**20**	**646000**	**64QAM**	21.17	8.0	29.17		Pass
3+4	**20**	**641666**	**256QAM**	21.01	8.0	29.01		Pass
3+4	**30**	**641666**	**64QAM**	21.12	8.0	29.12		Pass
3+4	**40**	**641666**	**64QAM**	21.03	8.0	29.03		Pass

<Internal Ant 3+4>:

Conducted Power / Total channel Bandwidth				
BW	**CH**	**Modulation**	**Conducted Power for ANT3 (dBm)**	**Conducted Power for ANT4 (dBm)**
20	**637334**	**64QAM**	21.04	20.84
20	**641666**	**64QAM**	21.90	21.33
20	**646000**	**64QAM**	21.62	21.25
20	**637334**	**256QAM**	21.54	21.53
20	**641666**	**256QAM**	21.65	21.48
20	**646000**	**256QAM**	21.53	21.14
30	**637666**	**64QAM**	24.47	23.67
30	**641666**	**64QAM**	23.57	23.21
30	**645666**	**64QAM**	23.78	23.54
30	**637666**	**256QAM**	24.63	24.32
30	**641666**	**256QAM**	23.38	23.51
30	**645666**	**256QAM**	24.08	23.64
40	**638000**	**64QAM**	24.48	24.36
40	**641666**	**64QAM**	24.62	24.56
40	**645332**	**64QAM**	24.78	24.21
40	**638000**	**256QAM**	24.81	24.65
40	**641666**	**256QAM**	24.52	24.45
40	**645332**	**256QAM**	24.55	24.14

<Internal Ant 3+4>:

EIRP / Total channel Bandwidth									
ANT	**BW**	**CH**	**Modulation**	**Conducted Power (dBm)**	**Gain (dBi)**	**EIRP (dBm)**	**EIRP (W)**	**EIRP Limit (dBm)**	**Result**
3+4	**20**	**637334**	**64QAM**	23.95	6.22	30.17	1.0399	33.01	Pass
3+4	**20**	**641666**	**64QAM**	24.63	6.22	30.85	1.2162		Pass
3+4	**20**	**646000**	**64QAM**	24.45	6.22	30.67	1.1668		Pass
3+4	**20**	**637334**	**256QAM**	24.55	6.22	30.77	1.1940		Pass
3+4	**20**	**641666**	**256QAM**	24.58	6.22	30.80	1.2023		Pass
3+4	**20**	**646000**	**256QAM**	24.35	6.22	30.57	1.1402		Pass
3+4	**30**	**637666**	**64QAM**	27.10	6.22	33.32	2.1478	34.77	Pass
3+4	**30**	**641666**	**64QAM**	26.40	6.22	32.62	1.8281		Pass
3+4	**30**	**645666**	**64QAM**	26.67	6.22	32.89	1.9454		Pass
3+4	**30**	**637666**	**256QAM**	27.49	6.22	33.71	2.3496		Pass
3+4	**30**	**641666**	**256QAM**	26.46	6.22	32.68	1.8535		Pass
3+4	**30**	**645666**	**256QAM**	26.88	6.22	33.10	2.0417		Pass
3+4	**40**	**638000**	**64QAM**	27.43	6.22	33.65	2.3174	36.02	Pass
3+4	**40**	**641666**	**64QAM**	27.60	6.22	33.82	2.4099		Pass
3+4	**40**	**645332**	**64QAM**	27.51	6.22	33.73	2.3605		Pass
3+4	**40**	**638000**	**256QAM**	27.74	6.22	33.96	2.4889		Pass
3+4	**40**	**641666**	**256QAM**	27.50	6.22	33.72	2.3550		Pass
3+4	**40**	**645332**	**256QAM**	27.36	6.22	33.58	2.2803		Pass

Note: The maximum EIRP limit is 30dBm/10MHz, thus
the EIRP Limit is 33.01dBm for 20M BW,
the EIRP Limit is 34.77dBm for 30M BW,
the EIRP Limit is 36.02dBm for 40M BW.

<External Ant 3+4>:

Conducted Power / Total channel Bandwidth				
BW	**CH**	**Modulation**	**Conducted Power for ANT3 (dBm)**	**Conducted Power for ANT4 (dBm)**
20	**637334**	**64QAM**	19.32	19.27
20	**641666**	**64QAM**	19.78	19.79
20	**646000**	**64QAM**	19.81	19.71
20	**637334**	**256QAM**	20.12	19.98
20	**641666**	**256QAM**	19.88	19.93
20	**646000**	**256QAM**	19.68	19.58
30	**637666**	**64QAM**	21.81	21.92
30	**641666**	**64QAM**	21.42	21.47
30	**645666**	**64QAM**	21.68	21.79
30	**637666**	**256QAM**	22.62	22.56
30	**641666**	**256QAM**	21.82	21.74
30	**645666**	**256QAM**	21.81	21.87
40	**638000**	**64QAM**	22.81	22.71
40	**641666**	**64QAM**	23.02	22.98
40	**645332**	**64QAM**	22.78	22.61
40	**638000**	**256QAM**	22.91	23.02
40	**641666**	**256QAM**	22.86	22.81
40	**645332**	**256QAM**	22.78	22.55

<External Ant 3+4>:

EIRP / Total channel Bandwidth									
ANT	**BW**	**CH**	**Modulation**	**Conducted Power (dBm)**	**Gain (dBi)**	**EIRP (dBm)**	**EIRP (W)**	**EIRP Limit (dBm)**	**Result**
3+4	**20**	**637334**	**64QAM**	22.31	8.0	30.31	1.0740	33.01	Pass
3+4	**20**	**641666**	**64QAM**	22.80	8.0	30.80	1.2023		Pass
3+4	**20**	**646000**	**64QAM**	22.77	8.0	30.77	1.1940		Pass
3+4	**20**	**637334**	**256QAM**	23.06	8.0	31.06	1.2764		Pass
3+4	**20**	**641666**	**256QAM**	22.92	8.0	30.92	1.2359		Pass
3+4	**20**	**646000**	**256QAM**	22.64	8.0	30.64	1.1588		Pass
3+4	**30**	**637666**	**64QAM**	24.88	8.0	32.88	1.9409	34.77	Pass
3+4	**30**	**641666**	**64QAM**	24.46	8.0	32.46	1.7620		Pass
3+4	**30**	**645666**	**64QAM**	24.75	8.0	32.75	1.8836		Pass
3+4	**30**	**637666**	**256QAM**	25.60	8.0	33.60	2.2909		Pass
3+4	**30**	**641666**	**256QAM**	24.79	8.0	32.79	1.9011		Pass
3+4	**30**	**645666**	**256QAM**	24.85	8.0	32.85	1.9275		Pass
3+4	**40**	**638000**	**64QAM**	25.77	8.0	33.77	2.3823	36.02	Pass
3+4	**40**	**641666**	**64QAM**	26.01	8.0	34.01	2.5177		Pass
3+4	**40**	**645332**	**64QAM**	25.71	8.0	33.71	2.3496		Pass
3+4	**40**	**638000**	**256QAM**	25.98	8.0	33.98	2.5003		Pass
3+4	**40**	**641666**	**256QAM**	25.85	8.0	33.85	2.4266		Pass
3+4	**40**	**645332**	**256QAM**	25.68	8.0	33.68	2.3335		Pass

Note: The maximum EIRP limit is 30dBm/10MHz, thus

the EIRP Limit is 33.01dBm for 20M BW,

the EIRP Limit is 34.77dBm for 30M BW,

the EIRP Limit is 36.02dBm for 40M BW.

Conducted and EIRP Power Density

<Internal Ant 3+4>:

Conducted PSD				
BW	CH	Modulation	Conducted PSD for ANT3 (dBm/MHz)	Conducted PSD for ANT4 (dBm/MHz)
20	637334	64QAM	10.82	10.55
20	641666	64QAM	10.12	10.51
20	646000	64QAM	**10.98**	**10.53**
20	637334	256QAM	10.5	10.16
20	641666	256QAM	10.05	10.34
20	646000	256QAM	10.43	10.38
30	637666	64QAM	11.11	10.35
30	641666	64QAM	9.81	9.81
30	645666	64QAM	10.47	10.52
30	637666	256QAM	10.01	10.75
30	641666	256QAM	10.47	9.9
30	645666	256QAM	10.71	9.7
40	638000	64QAM	10.12	10.1
40	641666	64QAM	10.26	9.46
40	645332	64QAM	9.49	9.71
40	638000	256QAM	10.15	10.53
40	641666	256QAM	9.89	9.84
40	645332	256QAM	10.02	9.42

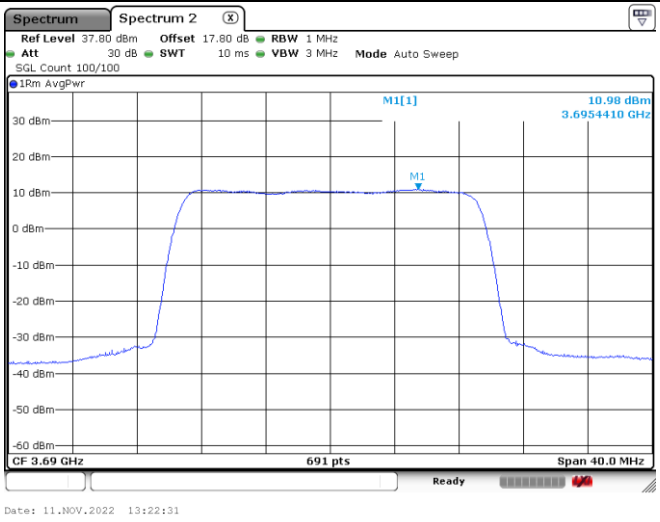
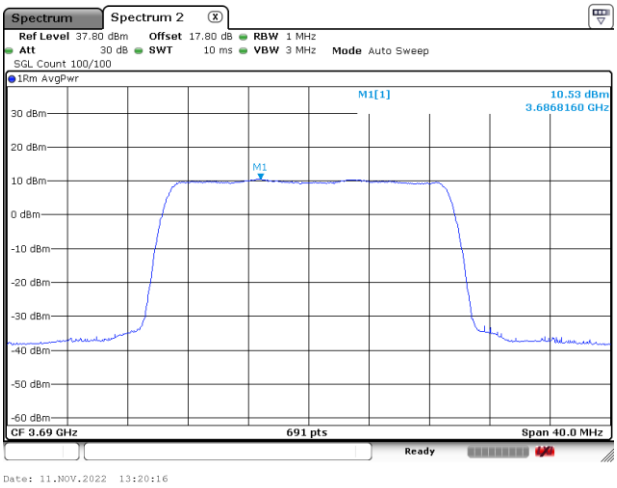
EIRP PSD								
ANT	BW	CH	Modulation	Conducted PSD (dBm/MHz)	Gain (dBi)	EIRP PSD (dBm/MHz)	Limit (dBm/MHz)	Result
3+4	20	637334	64QAM	13.70	6.22	19.92	20	Pass
3+4	20	641666	64QAM	13.33	6.22	19.55		Pass
3+4	20	646000	64QAM	**13.77**	**6.22**	**19.99**		Pass
3+4	20	637334	256QAM	13.34	6.22	19.56		Pass
3+4	20	641666	256QAM	13.21	6.22	19.43		Pass
3+4	20	646000	256QAM	13.42	6.22	19.64		Pass
3+4	30	637666	64QAM	13.76	6.22	19.98		Pass
3+4	30	641666	64QAM	12.82	6.22	19.04		Pass
3+4	30	645666	64QAM	13.51	6.22	19.73		Pass
3+4	30	637666	256QAM	13.41	6.22	19.63		Pass
3+4	30	641666	256QAM	13.20	6.22	19.42		Pass
3+4	30	645666	256QAM	13.24	6.22	19.46		Pass
3+4	40	638000	64QAM	13.12	6.22	19.34		Pass
3+4	40	641666	64QAM	12.89	6.22	19.11		Pass
3+4	40	645332	64QAM	12.61	6.22	18.83		Pass
3+4	40	638000	256QAM	13.35	6.22	19.57		Pass
3+4	40	641666	256QAM	12.88	6.22	19.10		Pass
3+4	40	645332	256QAM	12.74	6.22	18.96		Pass

<External Ant 3+4>:

Conducted PSD				
BW	CH	Modulation	Conducted PSD for ANT3 (dBm/MHz)	Conducted PSD for ANT4 (dBm/MHz)
20	637334	64QAM	9.01	7.96
20	641666	64QAM	8.04	8.17
20	646000	64QAM	9.11	8.4
20	641666	256QAM	8.57	8.11
30	641666	64QAM	8.34	8.36
40	641666	64QAM	8.18	8.48

EIRP PSD								
ANT	BW	CH	Modulation	Conducted PSD (dBm/MHz)	Gain (dBi)	EIRP PSD (dBm/MHz)	Limit (dBm/MHz)	Result
3+4	20	637334	64QAM	11.53	8.0	19.53	20	Pass
3+4	20	641666	64QAM	11.12	8.0	19.12		Pass
3+4	20	646000	64QAM	11.78	8.0	19.78		Pass
3+4	20	641666	256QAM	11.36	8.0	19.36		Pass
3+4	30	641666	64QAM	11.36	8.0	19.36		Pass
3+4	40	641666	64QAM	11.34	8.0	19.34		Pass

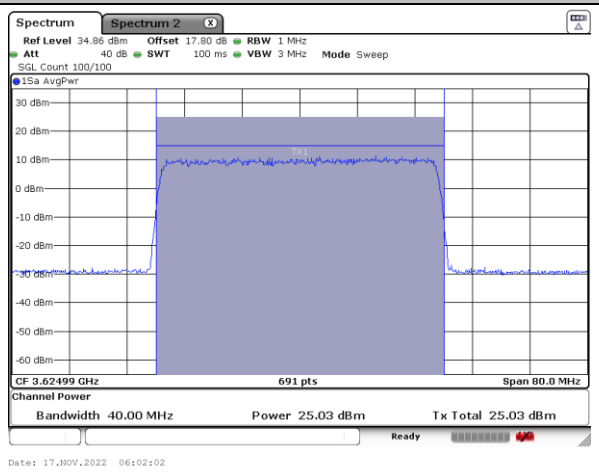
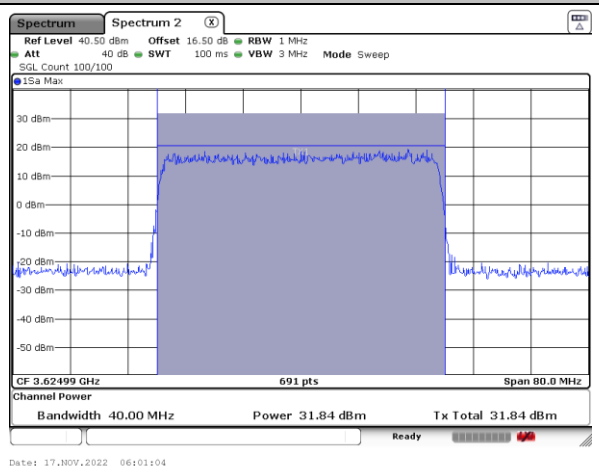
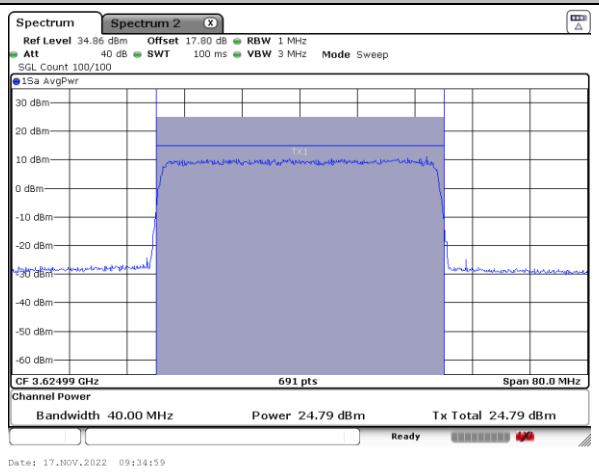
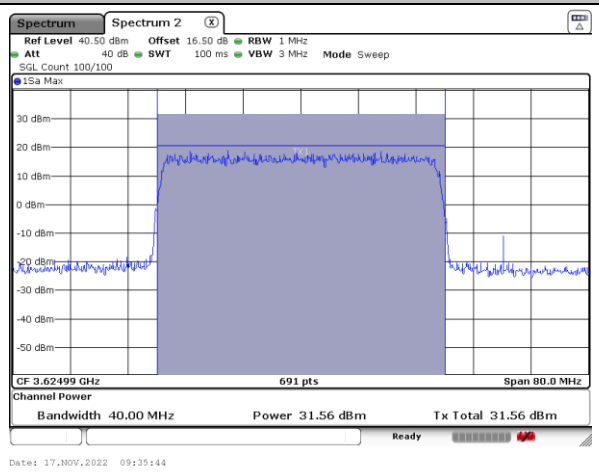
Worst Conducted PSD Plots:

Internal Ant.3	Internal Ant.4
	

MIMO Internal Antenna 3

Peak-to-Average Ratio

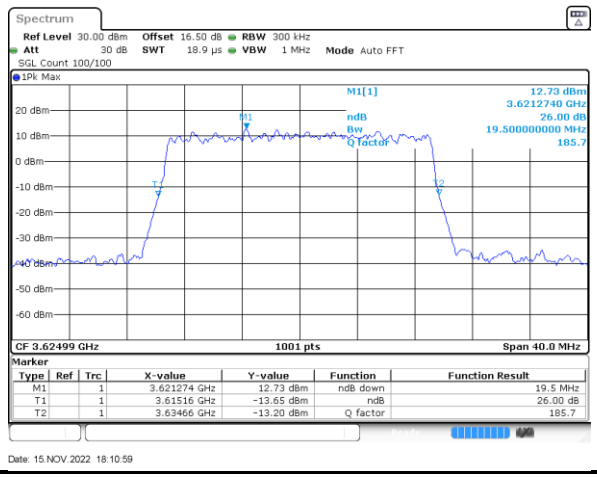
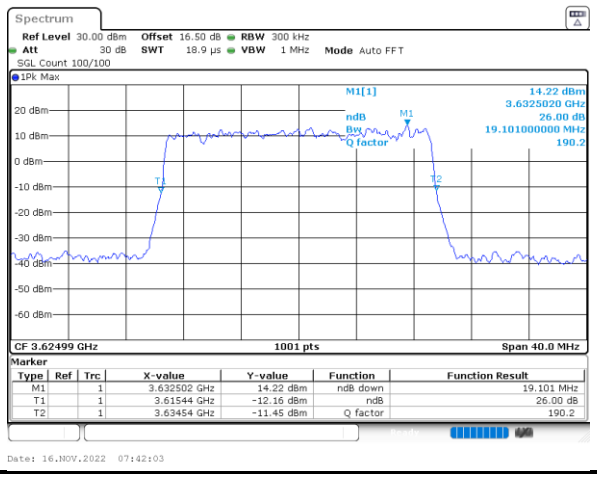
Mode	FR1 Part 96 N48 /40MHz / DFT-S OFDM		
Mod.	40M		Limit: 13dB
RB Size	64QAM	256QAM	Result
Middle CH	6.81	6.77	PASS

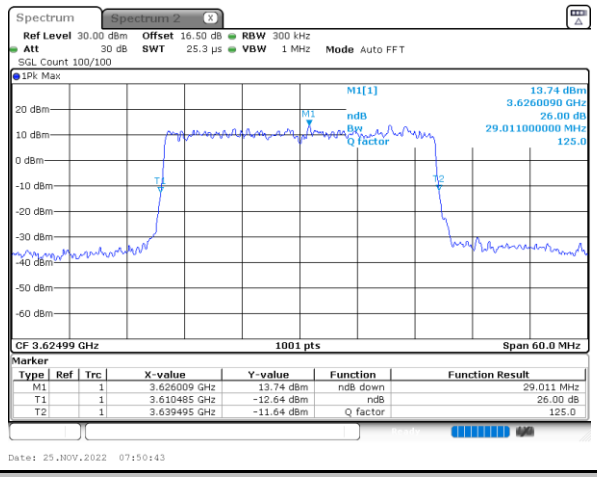
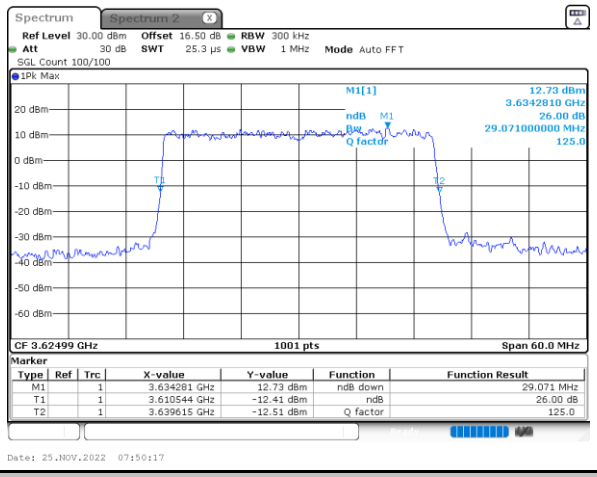
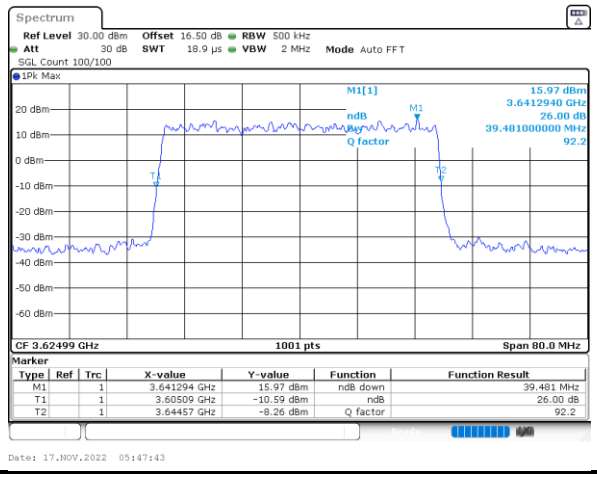
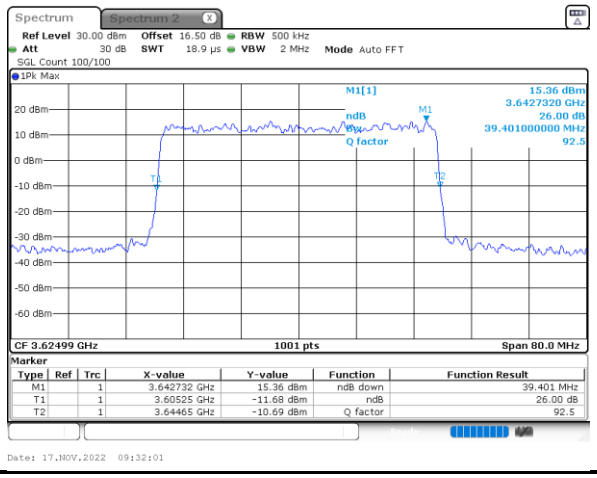
64QAM-Average	64QAM-Peak
	
256QAM- Average	**256QAM-Peak**
	

Note: PAR=Peak-Average.

26dB Bandwidth

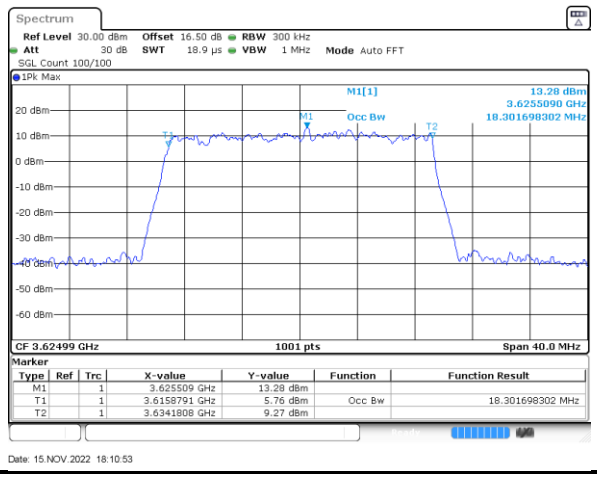
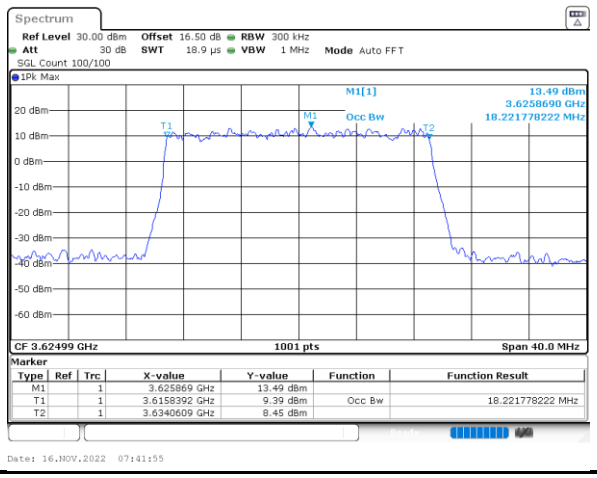
Mode	FR1 Part 96 N48 : 26dB BW(MHz)	
BW	20M	
Mod.	64QAM	256QAM
Middle CH	19.50	19.10
BW	30M	
Mod.	64QAM	256QAM
Middle CH	29.01	29.07
BW	40M	
Mod.	64QAM	256QAM
Middle CH	39.48	39.40

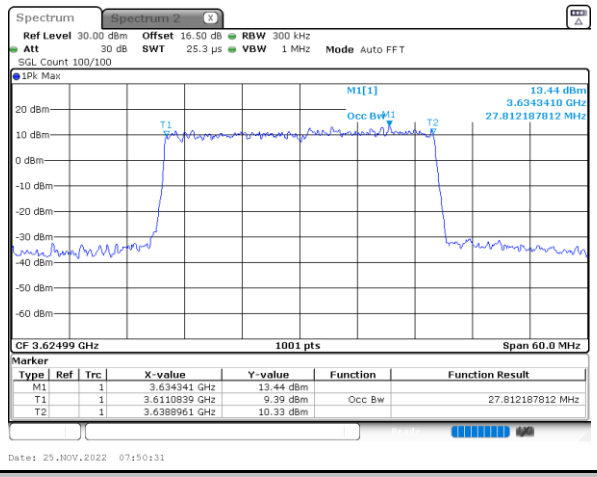
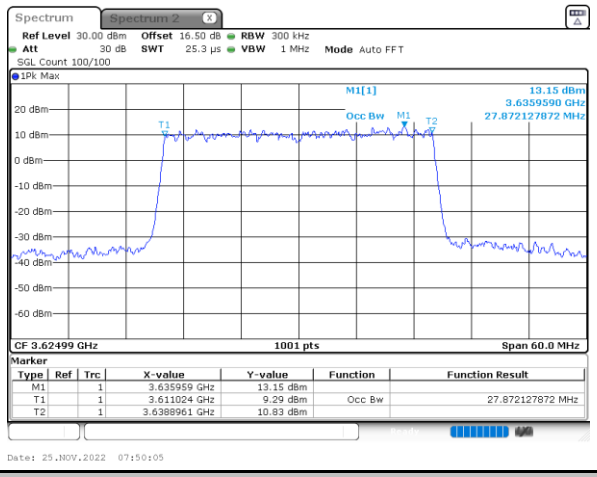
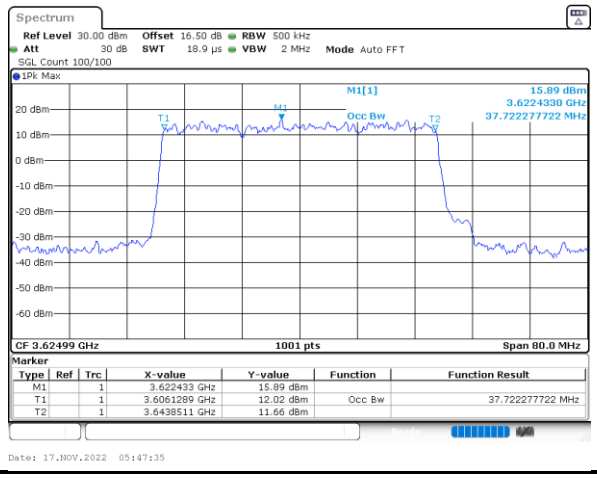
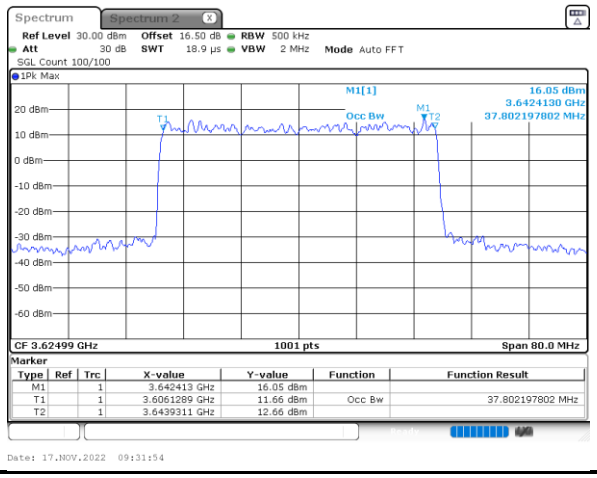
20M	
64QAM	256QAM
	

30M	
64QAM	256QAM
	
40M	
64QAM	256QAM
	

Occupied Bandwidth

Mode	FR1 Part 96 N48: OB BW(MHz)	
BW	20M	
Mod.	64QAM	256QAM
Middle CH	18.30	18.22
BW	30M	
Mod.	64QAM	256QAM
Middle CH	27.81	27.87
BW	40M	
Mod.	64QAM	256QAM
Middle CH	37.72	37.80

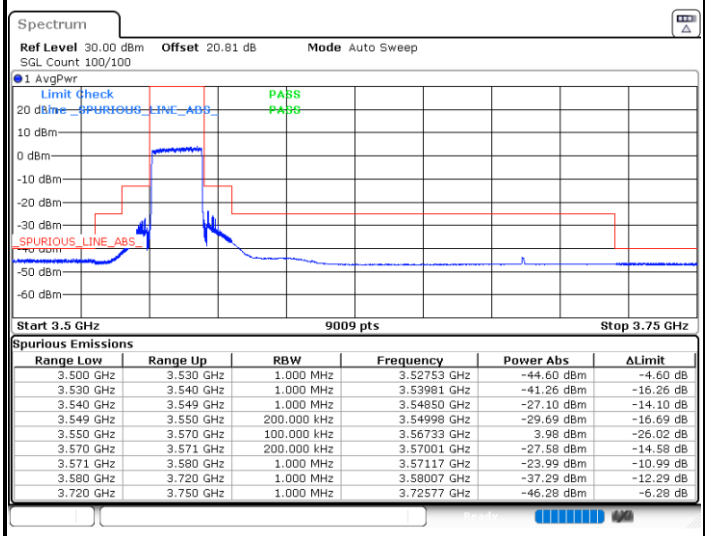
20M	
64QAM	256QAM
	

30M	
64QAM	256QAM
	
40M	
64QAM	256QAM
	

Conducted Band Edge

FR1 Part 96 N48/ 20MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB

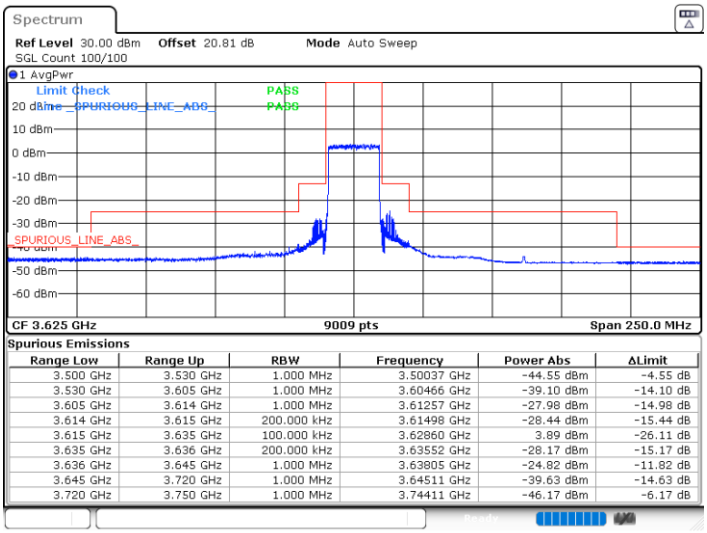


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52753 GHz	-44.60 dBm	-4.60 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53981 GHz	-41.26 dBm	-16.26 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54850 GHz	-27.10 dBm	-14.10 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54998 GHz	-29.69 dBm	-16.69 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.56733 GHz	3.98 dBm	-26.02 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57001 GHz	-27.58 dBm	-14.58 dB
3.571 GHz	3.580 GHz	1.000 MHz	3.57117 GHz	-23.99 dBm	-10.99 dB
3.580 GHz	3.720 GHz	1.000 MHz	3.58007 GHz	-37.29 dBm	-12.29 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72577 GHz	-46.28 dBm	-6.28 dB

Date: 18.NOV.2022 06:41:12

Middle Band Edge / Full RB

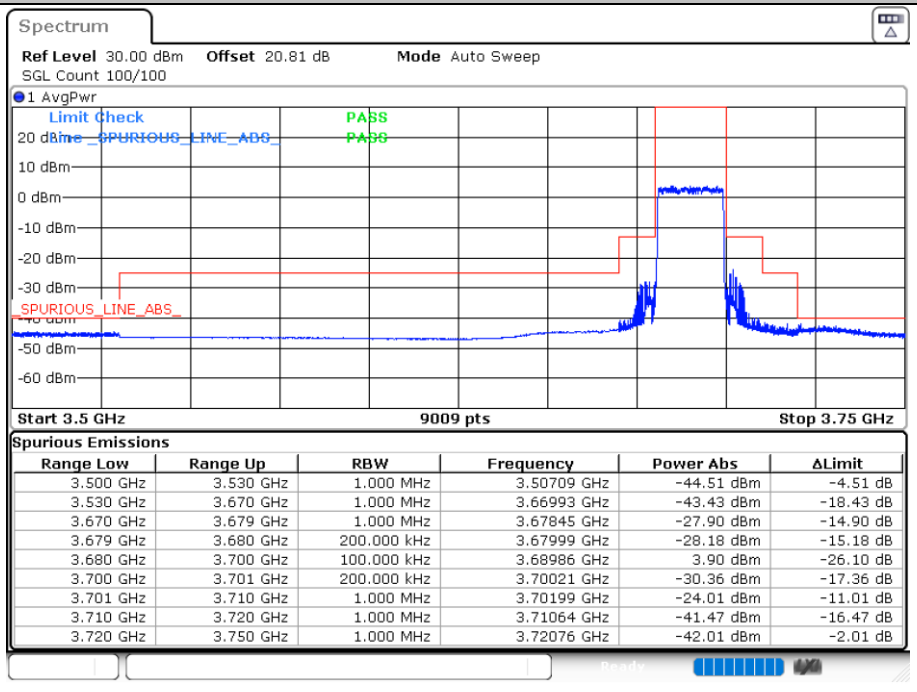


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50037 GHz	-44.55 dBm	-4.55 dB
3.530 GHz	3.605 GHz	1.000 MHz	3.60466 GHz	-39.10 dBm	-14.10 dB
3.605 GHz	3.614 GHz	1.000 MHz	3.61257 GHz	-27.98 dBm	-14.98 dB
3.614 GHz	3.615 GHz	200.000 kHz	3.61498 GHz	-28.44 dBm	-15.44 dB
3.615 GHz	3.635 GHz	100.000 kHz	3.62860 GHz	3.89 dBm	-26.11 dB
3.635 GHz	3.636 GHz	200.000 kHz	3.63552 GHz	-28.17 dBm	-15.17 dB
3.636 GHz	3.645 GHz	1.000 MHz	3.63805 GHz	-24.82 dBm	-11.82 dB
3.645 GHz	3.720 GHz	1.000 MHz	3.64511 GHz	-39.63 dBm	-14.63 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.74411 GHz	-46.17 dBm	-6.17 dB

Date: 18.NOV.2022 06:49:44

Highest Band Edge / Full RB



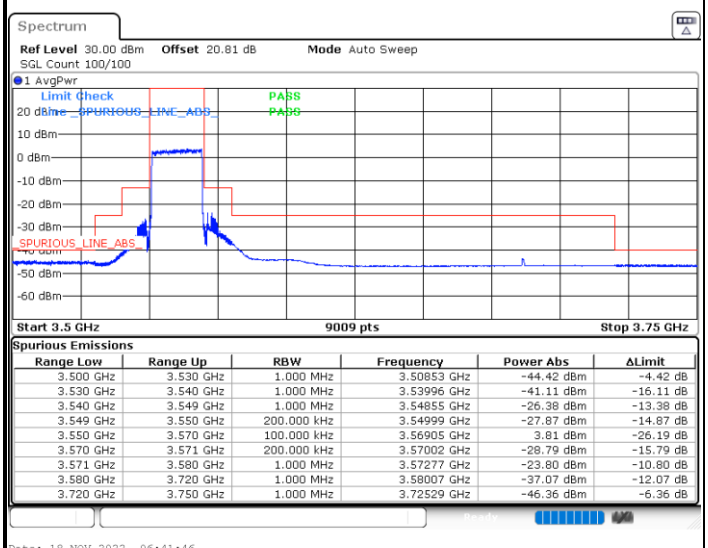
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50709 GHz	-44.51 dBm	-4.51 dB
3.530 GHz	3.670 GHz	1.000 MHz	3.66993 GHz	-43.43 dBm	-18.43 dB
3.670 GHz	3.679 GHz	1.000 MHz	3.67845 GHz	-27.90 dBm	-14.90 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.67999 GHz	-28.18 dBm	-15.18 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.68986 GHz	3.90 dBm	-26.10 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70021 GHz	-30.36 dBm	-17.36 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70199 GHz	-24.01 dBm	-11.01 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71064 GHz	-41.47 dBm	-16.47 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72076 GHz	-42.01 dBm	-2.01 dB

Date: 18.NOV.2022 06:52:53

FR1 Part 96 N48/ 20MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

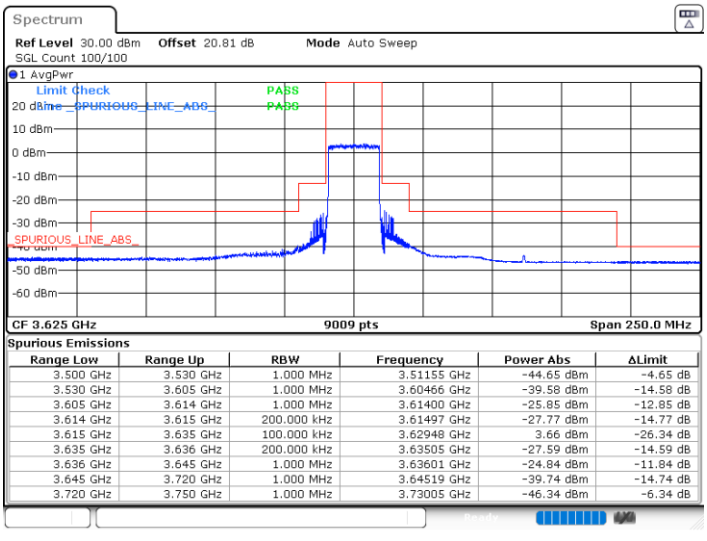


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50853 GHz	-44.42 dBm	-4.42 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53996 GHz	-41.11 dBm	-16.11 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54855 GHz	-26.38 dBm	-13.38 dB
3.549 GHz	3.550 GHz	200.000 kHz	3.54999 GHz	-27.87 dBm	-14.87 dB
3.550 GHz	3.570 GHz	100.000 kHz	3.56905 GHz	3.81 dBm	-26.19 dB
3.570 GHz	3.571 GHz	200.000 kHz	3.57002 GHz	-28.79 dBm	-15.79 dB
3.571 GHz	3.580 GHz	1.000 MHz	3.57277 GHz	-23.80 dBm	-10.80 dB
3.580 GHz	3.720 GHz	1.000 MHz	3.58007 GHz	-37.07 dBm	-12.07 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72529 GHz	-46.36 dBm	-6.36 dB

Date: 18.NOV.2022 06:41:46

Middle Band Edge / Full RB

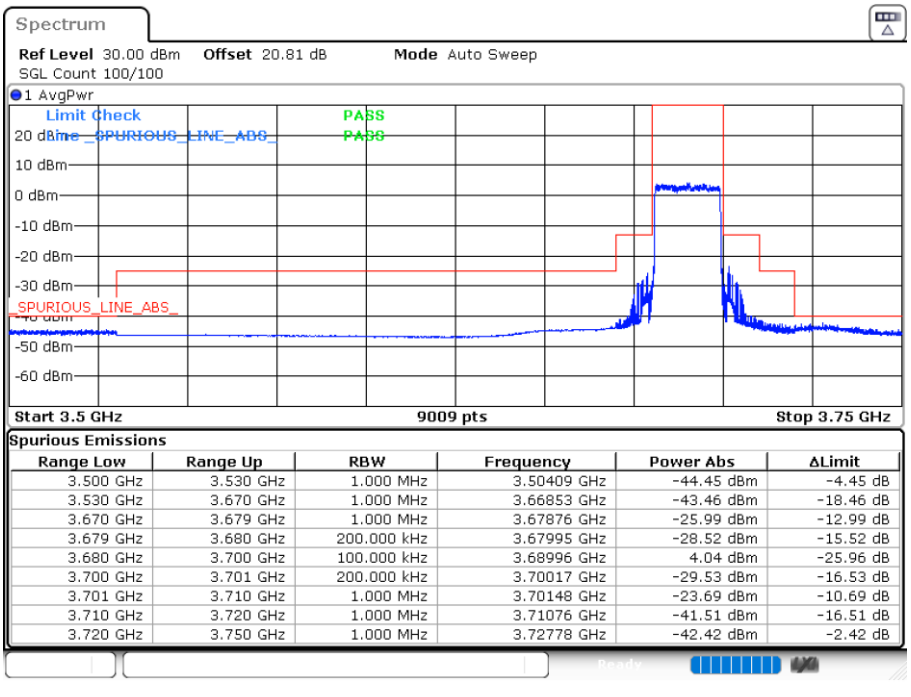


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.51155 GHz	-44.65 dBm	-4.65 dB
3.530 GHz	3.605 GHz	1.000 MHz	3.60466 GHz	-39.58 dBm	-14.58 dB
3.605 GHz	3.614 GHz	1.000 MHz	3.61400 GHz	-25.85 dBm	-12.85 dB
3.614 GHz	3.615 GHz	200.000 kHz	3.61497 GHz	-27.77 dBm	-14.77 dB
3.615 GHz	3.635 GHz	100.000 kHz	3.62948 GHz	3.66 dBm	-26.34 dB
3.635 GHz	3.636 GHz	200.000 kHz	3.63505 GHz	-27.59 dBm	-14.59 dB
3.636 GHz	3.645 GHz	1.000 MHz	3.63601 GHz	-24.84 dBm	-11.84 dB
3.645 GHz	3.720 GHz	1.000 MHz	3.64519 GHz	-39.74 dBm	-14.74 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.73005 GHz	-46.34 dBm	-6.34 dB

Date: 18.NOV.2022 06:49:19

Highest Band Edge / Full RB



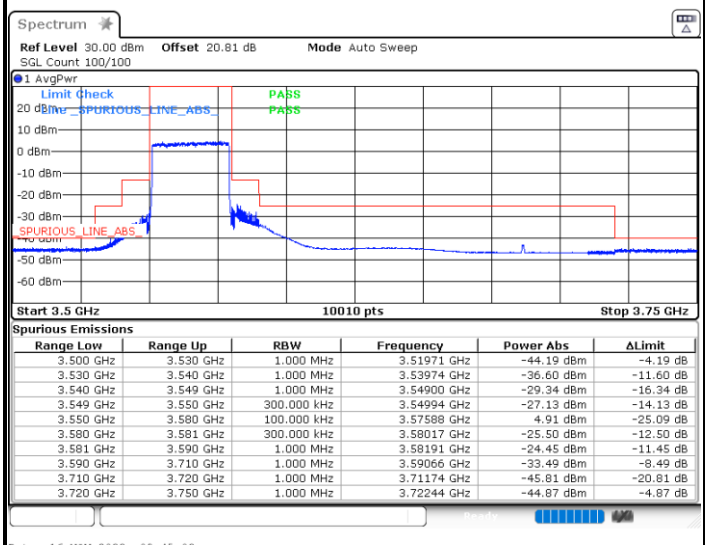
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50409 GHz	-44.45 dBm	-4.45 dB
3.530 GHz	3.670 GHz	1.000 MHz	3.66853 GHz	-43.46 dBm	-18.46 dB
3.670 GHz	3.679 GHz	1.000 MHz	3.67876 GHz	-25.99 dBm	-12.99 dB
3.679 GHz	3.680 GHz	200.000 kHz	3.67995 GHz	-28.52 dBm	-15.52 dB
3.680 GHz	3.700 GHz	100.000 kHz	3.68996 GHz	4.04 dBm	-25.96 dB
3.700 GHz	3.701 GHz	200.000 kHz	3.70017 GHz	-29.53 dBm	-16.53 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70148 GHz	-23.69 dBm	-10.69 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71076 GHz	-41.51 dBm	-16.51 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72778 GHz	-42.42 dBm	-2.42 dB

Date: 18.NOV.2022 06:53:36

FR1 Part 96 N48/ 30MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB

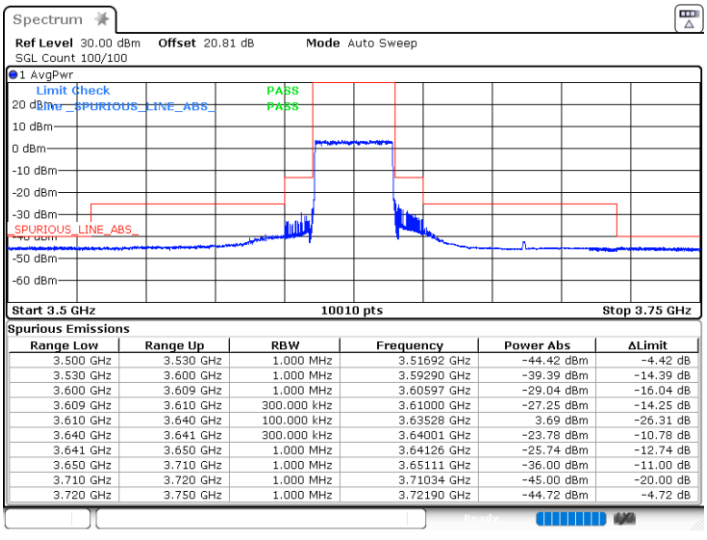


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.51971 GHz	-44.19 dBm	-4.19 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53974 GHz	-36.60 dBm	-11.60 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54900 GHz	-29.34 dBm	-16.34 dB
3.549 GHz	3.550 GHz	300.000 kHz	3.54994 GHz	-27.13 dBm	-14.13 dB
3.550 GHz	3.580 GHz	100.000 kHz	3.57588 GHz	4.91 dBm	-25.09 dB
3.580 GHz	3.581 GHz	300.000 kHz	3.58017 GHz	-25.50 dBm	-12.50 dB
3.581 GHz	3.590 GHz	1.000 MHz	3.58191 GHz	-24.45 dBm	-11.45 dB
3.590 GHz	3.710 GHz	1.000 MHz	3.59066 GHz	-33.49 dBm	-8.49 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71174 GHz	-45.81 dBm	-20.81 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72244 GHz	-44.87 dBm	-4.87 dB

Date: 16.NOV.2022 09:45:02

Middle Band Edge / Full RB

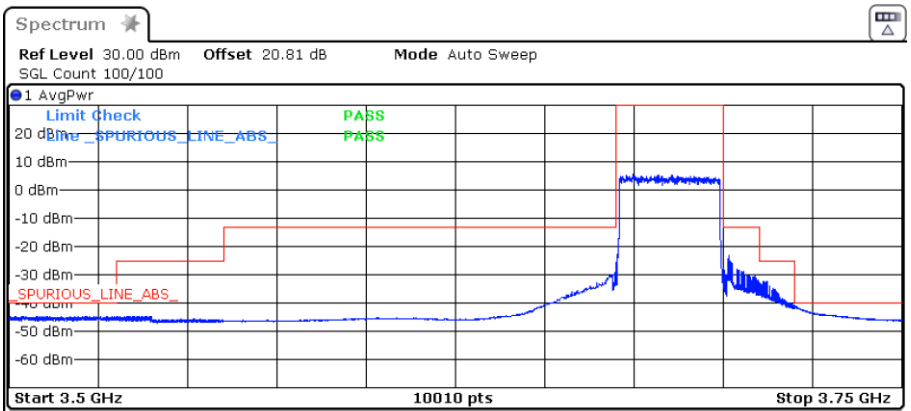


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.51692 GHz	-44.42 dBm	-4.42 dB
3.530 GHz	3.600 GHz	1.000 MHz	3.59290 GHz	-39.39 dBm	-14.39 dB
3.600 GHz	3.609 GHz	1.000 MHz	3.60597 GHz	-29.04 dBm	-16.04 dB
3.609 GHz	3.610 GHz	300.000 kHz	3.61000 GHz	-27.25 dBm	-14.25 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.63528 GHz	3.69 dBm	-26.31 dB
3.640 GHz	3.641 GHz	300.000 kHz	3.64001 GHz	-23.78 dBm	-10.78 dB
3.641 GHz	3.650 GHz	1.000 MHz	3.64126 GHz	-25.74 dBm	-12.74 dB
3.650 GHz	3.710 GHz	1.000 MHz	3.65111 GHz	-36.00 dBm	-11.00 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71034 GHz	-45.00 dBm	-20.00 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72190 GHz	-44.72 dBm	-4.72 dB

Date: 16.NOV.2022 09:40:55

Highest Band Edge / Full RB



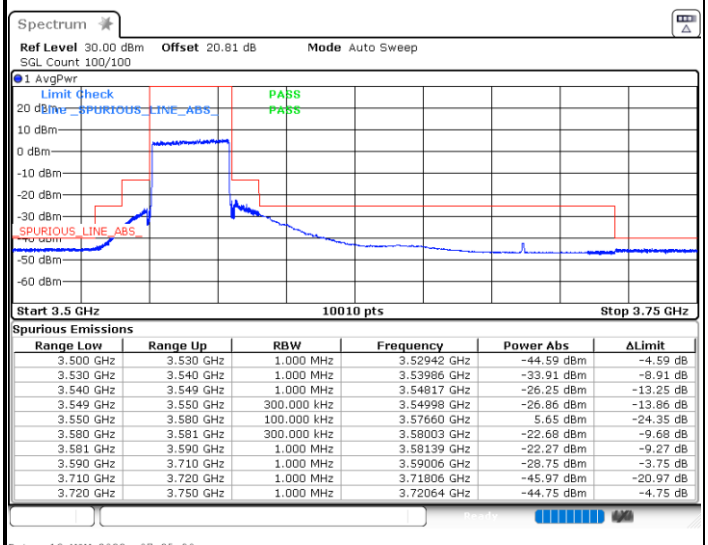
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50910 GHz	-44.67 dBm	-4.67 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53832 GHz	-44.62 dBm	-19.62 dB
3.540 GHz	3.560 GHz	1.000 MHz	3.55170 GHz	-45.73 dBm	-20.73 dB
3.560 GHz	3.669 GHz	1.000 MHz	3.66873 GHz	-29.84 dBm	-16.84 dB
3.669 GHz	3.670 GHz	300.000 kHz	3.66998 GHz	-25.44 dBm	-12.44 dB
3.670 GHz	3.700 GHz	100.000 kHz	3.67472 GHz	5.51 dBm	-24.49 dB
3.700 GHz	3.701 GHz	300.000 kHz	3.70010 GHz	-27.72 dBm	-14.72 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70165 GHz	-23.14 dBm	-10.14 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71203 GHz	-32.25 dBm	-7.25 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72001 GHz	-41.27 dBm	-1.27 dB

Date: 16.NOV.2022 09:49:11

FR1 Part 96 N48/ 30MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

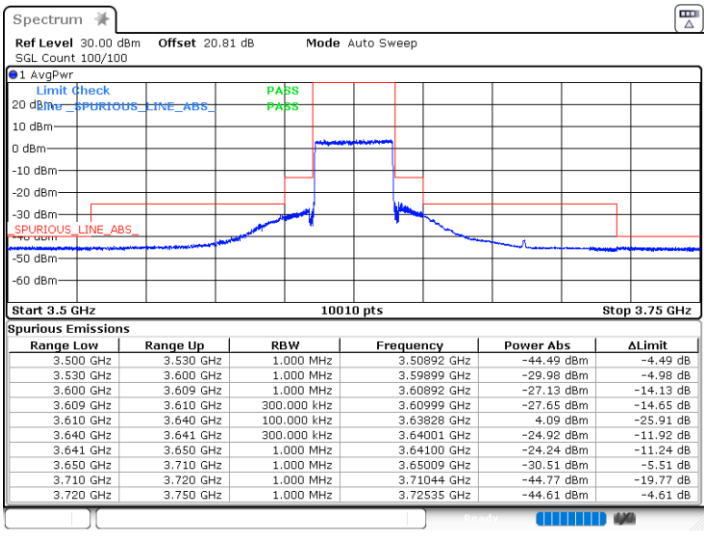


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52942 GHz	-44.59 dBm	-4.59 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53986 GHz	-33.91 dBm	-8.91 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54817 GHz	-26.25 dBm	-13.25 dB
3.549 GHz	3.550 GHz	300.000 kHz	3.54998 GHz	-26.86 dBm	-13.86 dB
3.550 GHz	3.580 GHz	100.000 kHz	3.57660 GHz	5.65 dBm	-24.35 dB
3.580 GHz	3.581 GHz	300.000 kHz	3.58003 GHz	-22.68 dBm	-9.68 dB
3.581 GHz	3.590 GHz	1.000 MHz	3.58139 GHz	-22.27 dBm	-9.27 dB
3.590 GHz	3.710 GHz	1.000 MHz	3.59006 GHz	-28.75 dBm	-3.75 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71806 GHz	-45.97 dBm	-20.97 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72064 GHz	-44.75 dBm	-4.75 dB

Date: 18.NOV.2022 07:25:30

Middle Band Edge / Full RB

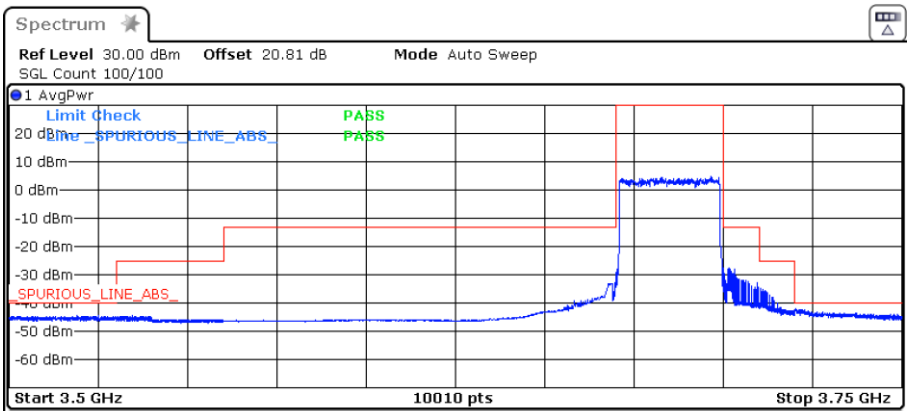


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50892 GHz	-44.49 dBm	-4.49 dB
3.530 GHz	3.600 GHz	1.000 MHz	3.59899 GHz	-29.98 dBm	-4.98 dB
3.600 GHz	3.609 GHz	1.000 MHz	3.60892 GHz	-27.13 dBm	-14.13 dB
3.609 GHz	3.610 GHz	300.000 kHz	3.60999 GHz	-27.65 dBm	-14.65 dB
3.610 GHz	3.640 GHz	100.000 kHz	3.63828 GHz	4.09 dBm	-25.91 dB
3.640 GHz	3.641 GHz	300.000 kHz	3.64001 GHz	-24.92 dBm	-11.92 dB
3.641 GHz	3.650 GHz	1.000 MHz	3.64100 GHz	-24.24 dBm	-11.24 dB
3.650 GHz	3.710 GHz	1.000 MHz	3.65009 GHz	-30.51 dBm	-5.51 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71044 GHz	-44.77 dBm	-19.77 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72535 GHz	-44.61 dBm	-4.61 dB

Date: 18.NOV.2022 07:15:39

Highest Band Edge / Full RB



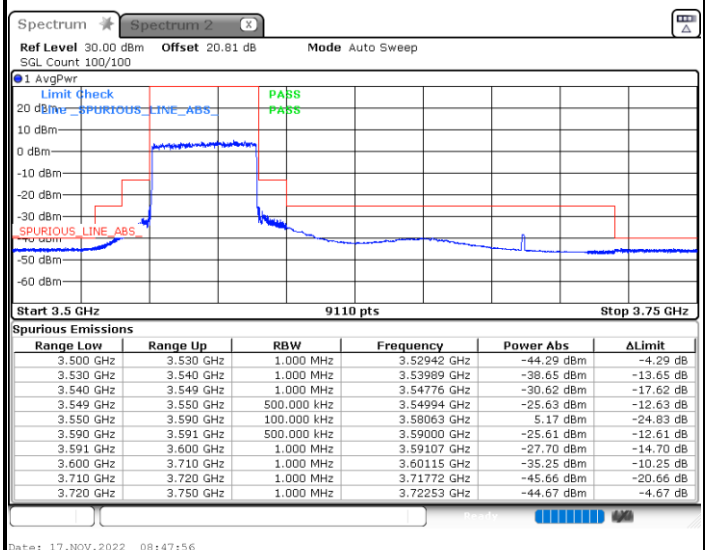
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.51896 GHz	-44.51 dBm	-4.51 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53446 GHz	-44.42 dBm	-19.42 dB
3.540 GHz	3.560 GHz	1.000 MHz	3.55707 GHz	-45.83 dBm	-20.83 dB
3.560 GHz	3.669 GHz	1.000 MHz	3.66786 GHz	-33.03 dBm	-20.03 dB
3.669 GHz	3.670 GHz	300.000 kHz	3.66999 GHz	-29.37 dBm	-16.37 dB
3.670 GHz	3.700 GHz	100.000 kHz	3.69654 GHz	4.64 dBm	-25.36 dB
3.700 GHz	3.701 GHz	300.000 kHz	3.70003 GHz	-27.64 dBm	-14.64 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70151 GHz	-27.74 dBm	-14.74 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71028 GHz	-34.60 dBm	-9.60 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72010 GHz	-42.13 dBm	-2.13 dB

Date: 18.NOV.2022 07:34:43

FR1 Part 96 N48/ 40MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB

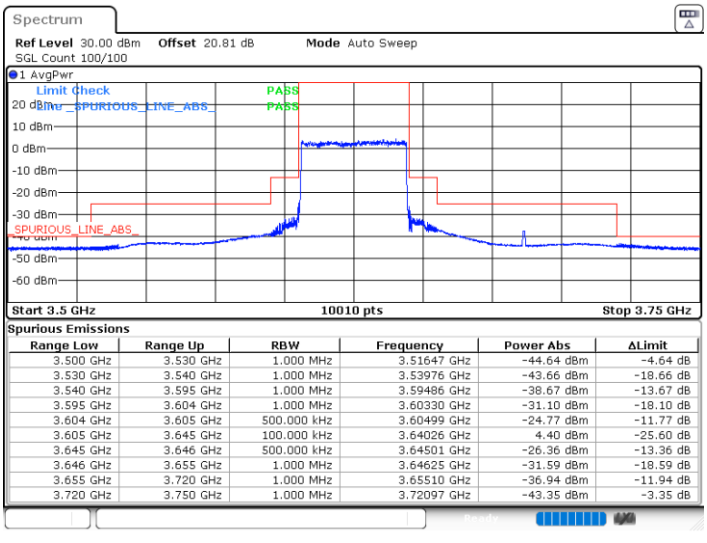


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52942 GHz	-44.29 dBm	-4.29 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53989 GHz	-38.65 dBm	-13.65 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54776 GHz	-30.62 dBm	-17.62 dB
3.549 GHz	3.550 GHz	500.000 kHz	3.54994 GHz	-25.63 dBm	-12.63 dB
3.550 GHz	3.590 GHz	100.000 kHz	3.58063 GHz	5.17 dBm	-24.83 dB
3.590 GHz	3.591 GHz	500.000 kHz	3.59000 GHz	-25.61 dBm	-12.61 dB
3.591 GHz	3.600 GHz	1.000 MHz	3.59107 GHz	-27.70 dBm	-14.70 dB
3.600 GHz	3.710 GHz	1.000 MHz	3.60115 GHz	-35.25 dBm	-10.25 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71772 GHz	-45.66 dBm	-20.66 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72253 GHz	-44.67 dBm	-4.67 dB

Date: 17.NOV.2022 08:47:56

Middle Band Edge / Full RB

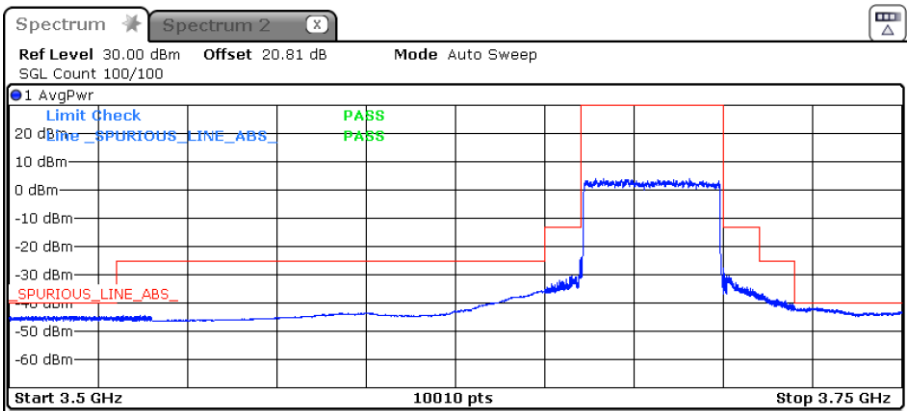


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.51647 GHz	-44.64 dBm	-4.64 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53976 GHz	-43.66 dBm	-18.66 dB
3.540 GHz	3.595 GHz	1.000 MHz	3.59486 GHz	-38.67 dBm	-13.67 dB
3.595 GHz	3.604 GHz	1.000 MHz	3.60330 GHz	-31.10 dBm	-18.10 dB
3.604 GHz	3.605 GHz	500.000 kHz	3.60499 GHz	-24.77 dBm	-11.77 dB
3.605 GHz	3.645 GHz	100.000 kHz	3.64026 GHz	4.40 dBm	-25.60 dB
3.645 GHz	3.646 GHz	500.000 kHz	3.64501 GHz	-26.36 dBm	-13.36 dB
3.646 GHz	3.655 GHz	1.000 MHz	3.64625 GHz	-31.59 dBm	-18.59 dB
3.655 GHz	3.720 GHz	1.000 MHz	3.65510 GHz	-36.94 dBm	-11.94 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72097 GHz	-43.35 dBm	-3.35 dB

Date: 17.NOV.2022 05:48:50

Highest Band Edge / Full RB



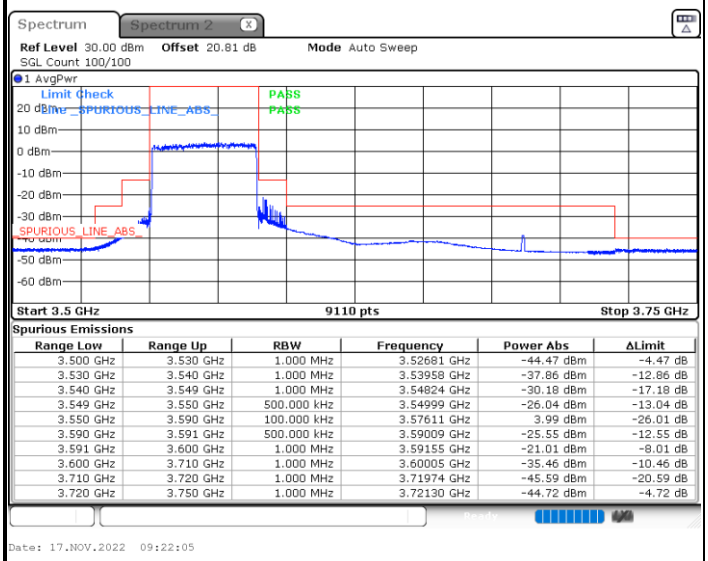
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52645 GHz	-44.63 dBm	-4.63 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53813 GHz	-44.32 dBm	-19.32 dB
3.540 GHz	3.650 GHz	1.000 MHz	3.64896 GHz	-35.79 dBm	-10.79 dB
3.650 GHz	3.659 GHz	1.000 MHz	3.65750 GHz	-30.28 dBm	-17.28 dB
3.659 GHz	3.660 GHz	500.000 kHz	3.65999 GHz	-23.94 dBm	-10.94 dB
3.660 GHz	3.700 GHz	100.000 kHz	3.66645 GHz	4.09 dBm	-25.91 dB
3.700 GHz	3.701 GHz	500.000 kHz	3.70004 GHz	-27.72 dBm	-14.72 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70105 GHz	-30.28 dBm	-17.28 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71082 GHz	-36.99 dBm	-11.99 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72613 GHz	-41.78 dBm	-1.78 dB

Date: 17.NOV.2022 08:41:51

FR1 Part 96 N48/ 40MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

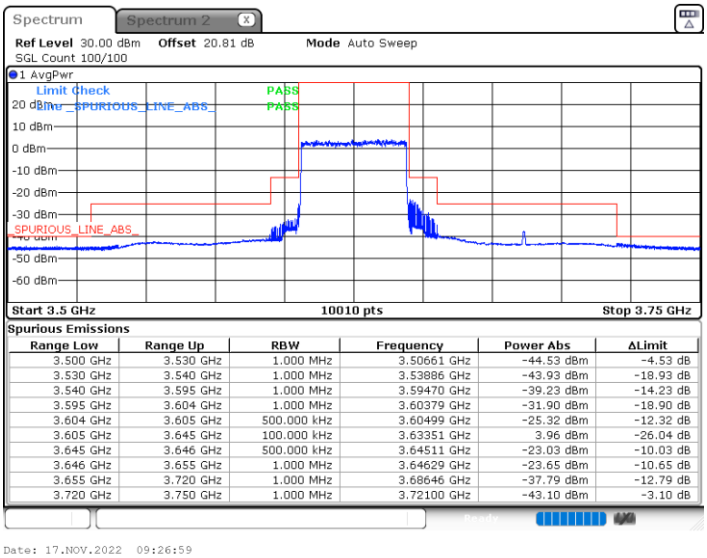


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52681 GHz	-44.47 dBm	-4.47 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53958 GHz	-37.86 dBm	-12.86 dB
3.540 GHz	3.549 GHz	1.000 MHz	3.54824 GHz	-30.18 dBm	-17.18 dB
3.549 GHz	3.550 GHz	500.000 kHz	3.54999 GHz	-26.04 dBm	-13.04 dB
3.550 GHz	3.590 GHz	100.000 kHz	3.57611 GHz	3.99 dBm	-26.01 dB
3.590 GHz	3.591 GHz	500.000 kHz	3.59009 GHz	-25.55 dBm	-12.55 dB
3.591 GHz	3.600 GHz	1.000 MHz	3.59155 GHz	-21.01 dBm	-8.01 dB
3.600 GHz	3.710 GHz	1.000 MHz	3.60005 GHz	-35.46 dBm	-10.46 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71974 GHz	-45.59 dBm	-20.59 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72130 GHz	-44.72 dBm	-4.72 dB

Date: 17.NOV.2022 09:22:05

Middle Band Edge / Full RB

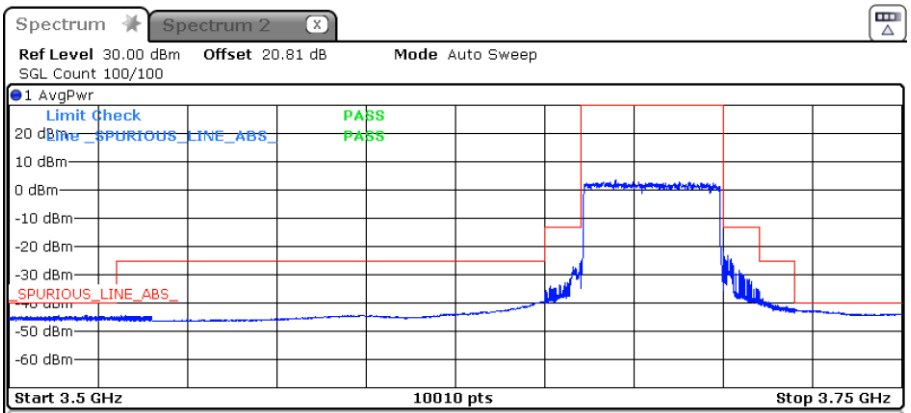


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.50661 GHz	-44.53 dBm	-4.53 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53886 GHz	-43.93 dBm	-18.93 dB
3.540 GHz	3.595 GHz	1.000 MHz	3.59470 GHz	-39.23 dBm	-14.23 dB
3.595 GHz	3.604 GHz	1.000 MHz	3.60379 GHz	-31.90 dBm	-18.90 dB
3.604 GHz	3.605 GHz	500.000 kHz	3.60499 GHz	-25.32 dBm	-12.32 dB
3.605 GHz	3.645 GHz	100.000 kHz	3.63351 GHz	3.96 dBm	-26.04 dB
3.645 GHz	3.646 GHz	500.000 kHz	3.64511 GHz	-23.03 dBm	-10.03 dB
3.646 GHz	3.655 GHz	1.000 MHz	3.64629 GHz	-23.65 dBm	-10.65 dB
3.655 GHz	3.720 GHz	1.000 MHz	3.68646 GHz	-37.79 dBm	-12.79 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72100 GHz	-43.10 dBm	-3.10 dB

Date: 17.NOV.2022 09:26:59

Highest Band Edge / Full RB



Spurious Emissions

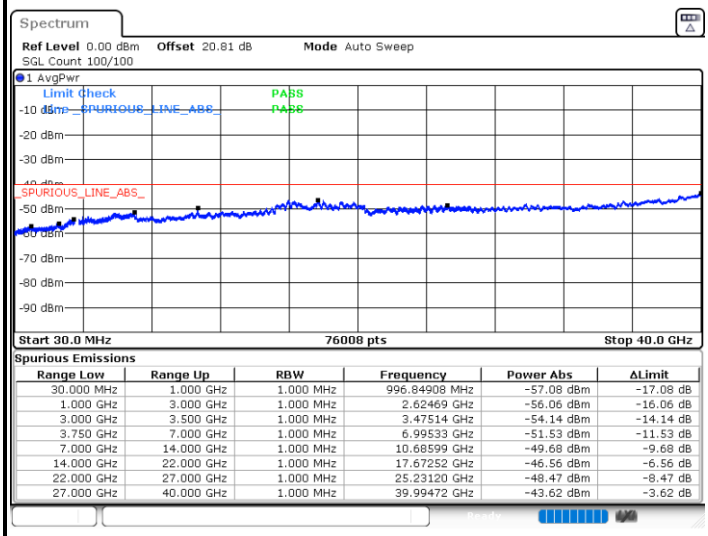
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
3.500 GHz	3.530 GHz	1.000 MHz	3.52129 GHz	-44.34 dBm	-4.34 dB
3.530 GHz	3.540 GHz	1.000 MHz	3.53147 GHz	-44.50 dBm	-19.50 dB
3.540 GHz	3.650 GHz	1.000 MHz	3.64995 GHz	-39.27 dBm	-14.27 dB
3.650 GHz	3.659 GHz	1.000 MHz	3.65783 GHz	-27.31 dBm	-14.31 dB
3.659 GHz	3.660 GHz	500.000 kHz	3.65998 GHz	-25.24 dBm	-12.24 dB
3.660 GHz	3.700 GHz	100.000 kHz	3.66981 GHz	3.45 dBm	-26.55 dB
3.700 GHz	3.701 GHz	500.000 kHz	3.70001 GHz	-22.17 dBm	-9.17 dB
3.701 GHz	3.710 GHz	1.000 MHz	3.70112 GHz	-23.04 dBm	-10.04 dB
3.710 GHz	3.720 GHz	1.000 MHz	3.71005 GHz	-36.05 dBm	-11.05 dB
3.720 GHz	3.750 GHz	1.000 MHz	3.72004 GHz	-42.53 dBm	-2.53 dB

Date: 19.NOV.2022 05:46:38

Conducted Spurious Emission

FR1 Part 96 N48 / 20MHz / DFT-S OFDM / 64QAM

Lowest Channel / FULL

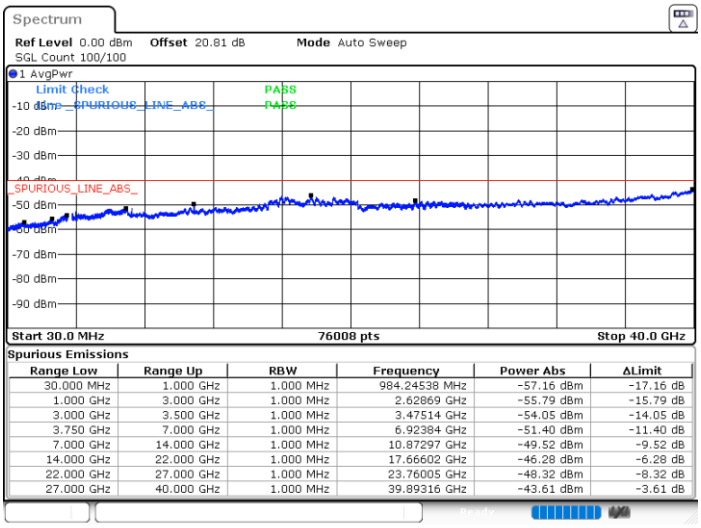


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	996.84908 MHz	-57.08 dBm	-17.08 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.62469 GHz	-56.06 dBm	-16.06 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.47514 GHz	-54.14 dBm	-14.14 dB
3.750 GHz	7.000 GHz	1.000 MHz	6.99533 GHz	-51.53 dBm	-11.53 dB
7.000 GHz	14.000 GHz	1.000 MHz	10.68599 GHz	-49.68 dBm	-9.68 dB
14.000 GHz	22.000 GHz	1.000 MHz	17.67252 GHz	-46.56 dBm	-6.56 dB
22.000 GHz	27.000 GHz	1.000 MHz	25.23120 GHz	-48.47 dBm	-8.47 dB
27.000 GHz	40.000 GHz	1.000 MHz	39.99472 GHz	-43.62 dBm	-3.62 dB

Date: 16.NOV.2022 07:50:05

Middle Channel / FULL

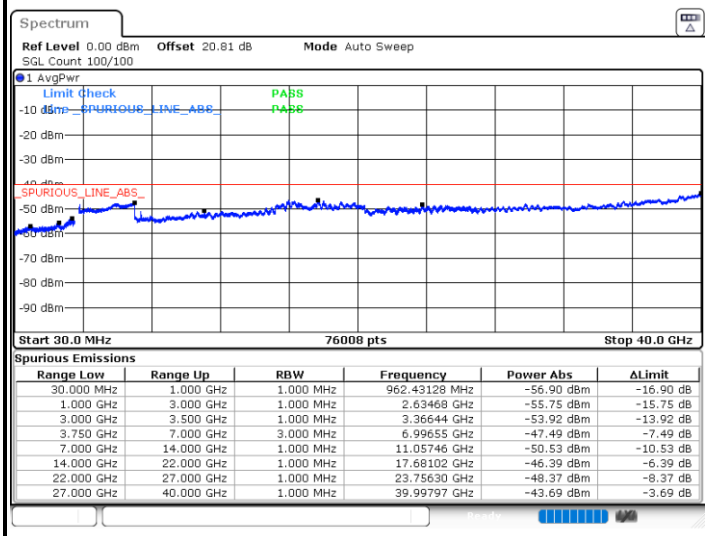


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	984.24538 MHz	-57.16 dBm	-17.16 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.62869 GHz	-55.79 dBm	-15.79 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.47514 GHz	-54.05 dBm	-14.05 dB
3.750 GHz	7.000 GHz	1.000 MHz	6.92384 GHz	-51.40 dBm	-11.40 dB
7.000 GHz	14.000 GHz	1.000 MHz	10.87297 GHz	-49.52 dBm	-9.52 dB
14.000 GHz	22.000 GHz	1.000 MHz	17.66602 GHz	-46.28 dBm	-6.28 dB
22.000 GHz	27.000 GHz	1.000 MHz	23.76005 GHz	-48.32 dBm	-8.32 dB
27.000 GHz	40.000 GHz	1.000 MHz	39.89316 GHz	-43.61 dBm	-3.61 dB

Date: 16.NOV.2022 07:39:14

Highest Channel / FULL



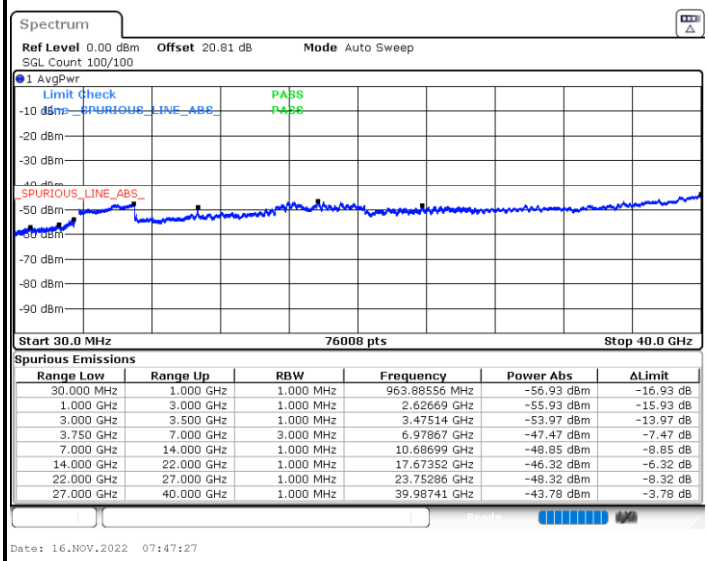
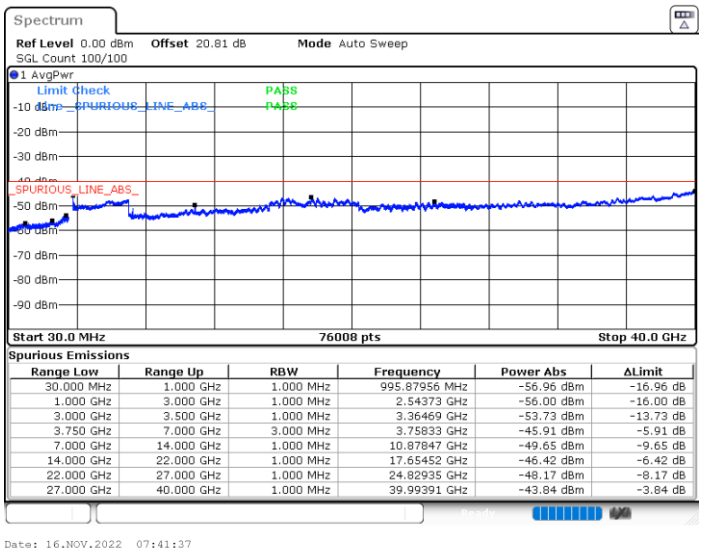
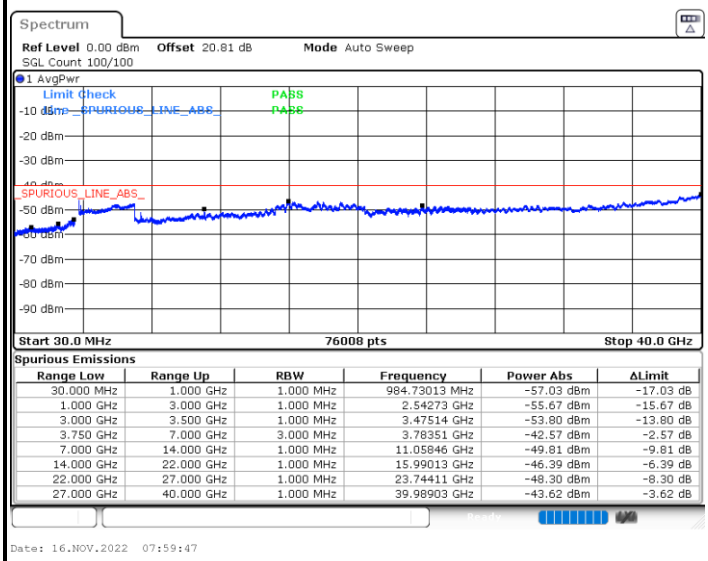
Spurious Emissions

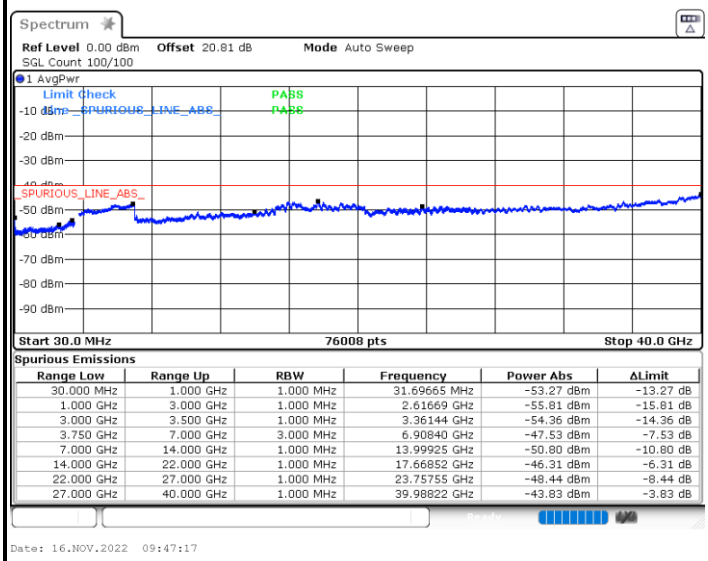
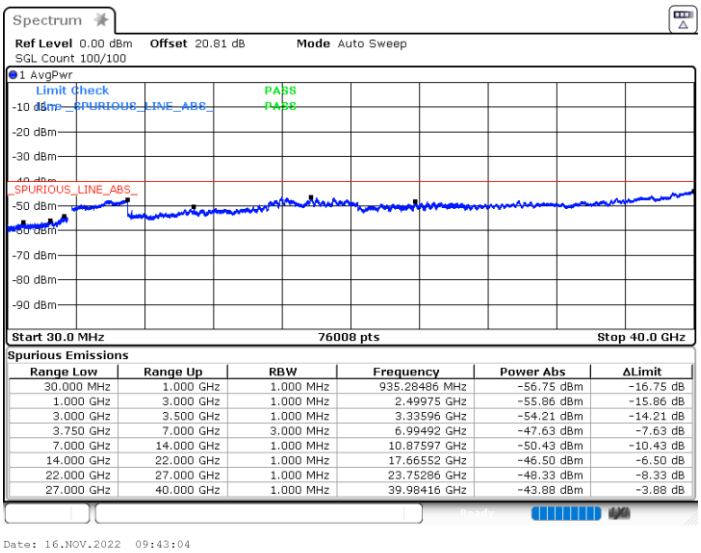
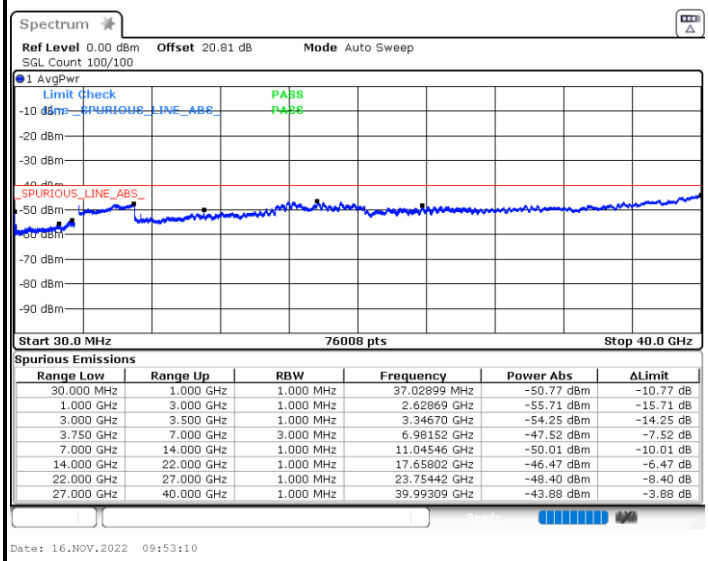
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	962.43128 MHz	-56.90 dBm	-16.90 dB
1.000 GHz	3.000 GHz	1.000 MHz	2.63468 GHz	-55.75 dBm	-15.75 dB
3.000 GHz	3.500 GHz	1.000 MHz	3.36644 GHz	-53.92 dBm	-13.92 dB
3.750 GHz	7.000 GHz	3.000 MHz	6.99655 GHz	-47.49 dBm	-7.49 dB
7.000 GHz	14.000 GHz	1.000 MHz	11.05746 GHz	-50.53 dBm	-10.53 dB
14.000 GHz	22.000 GHz	1.000 MHz	17.68102 GHz	-46.39 dBm	-6.39 dB
22.000 GHz	27.000 GHz	1.000 MHz	23.75630 GHz	-48.37 dBm	-8.37 dB
27.000 GHz	40.000 GHz	1.000 MHz	39.99797 GHz	-43.69 dBm	-3.69 dB

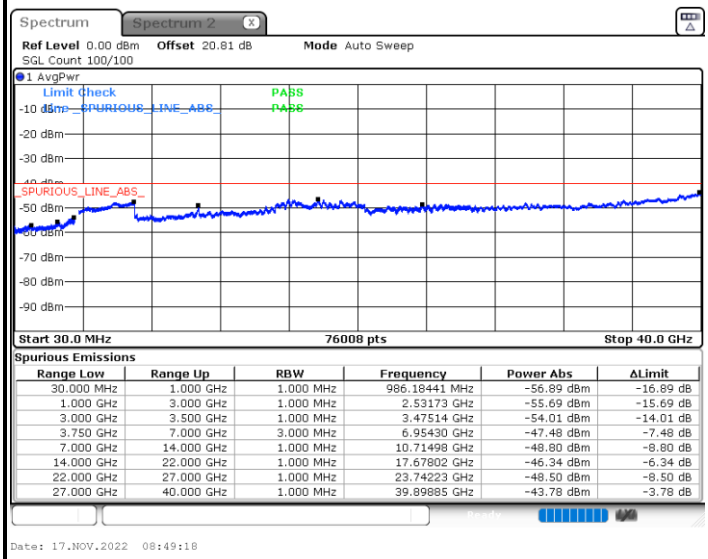
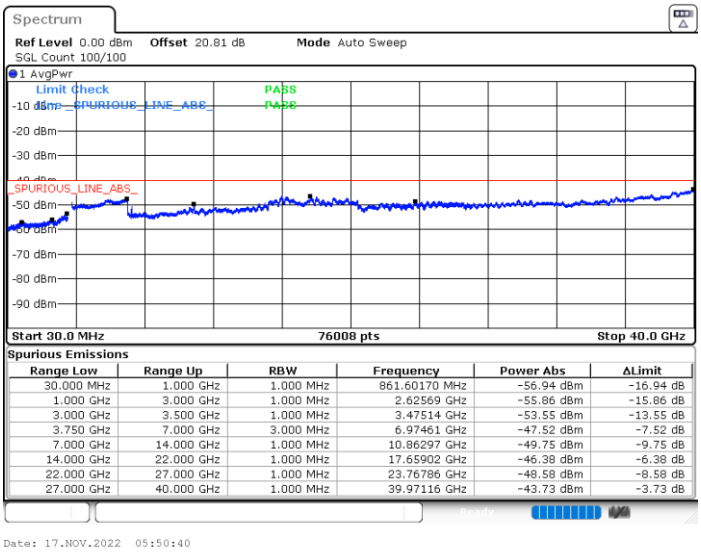
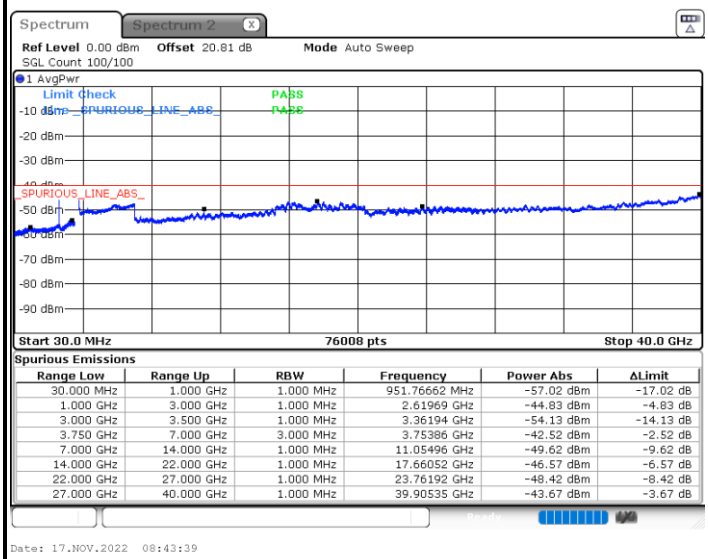
Date: 16.NOV.2022 07:55:11

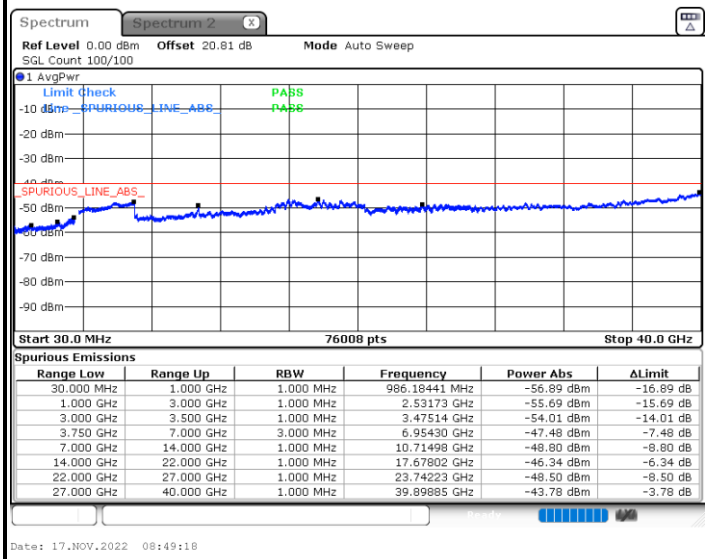
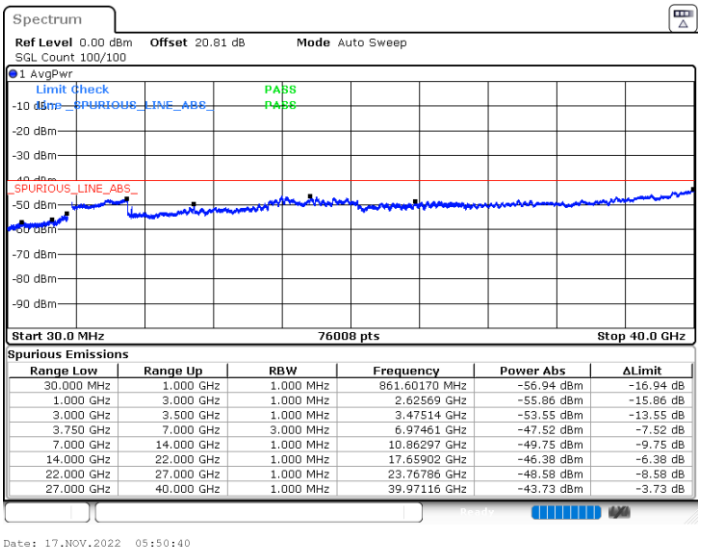
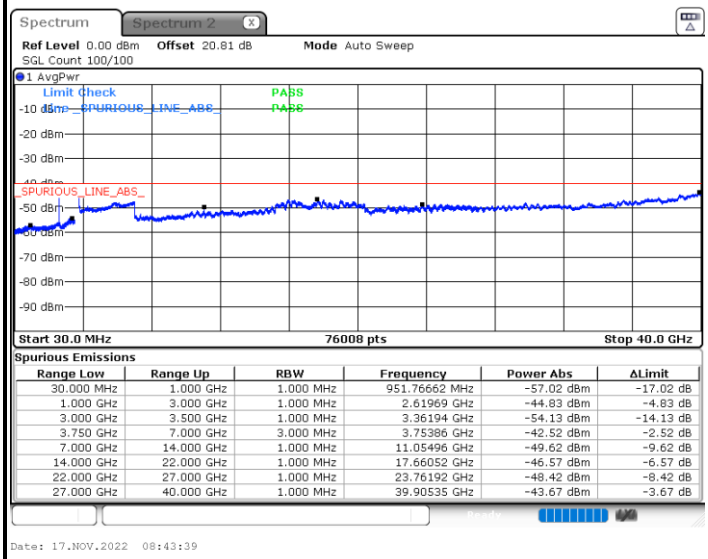
N/A

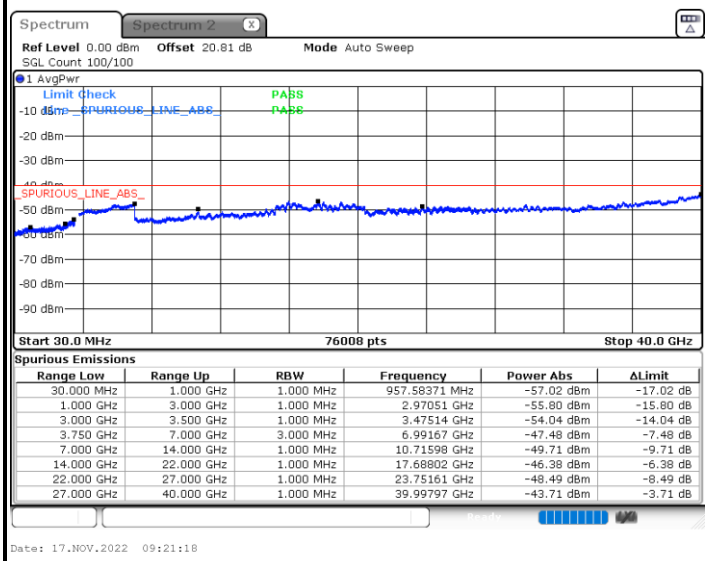
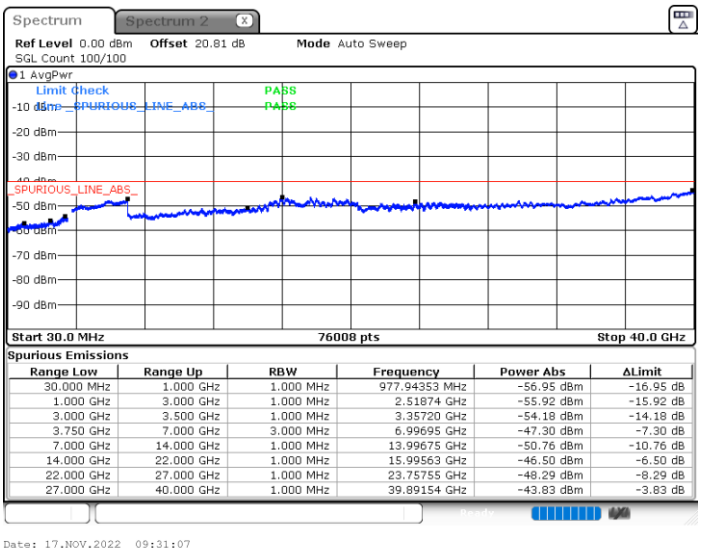
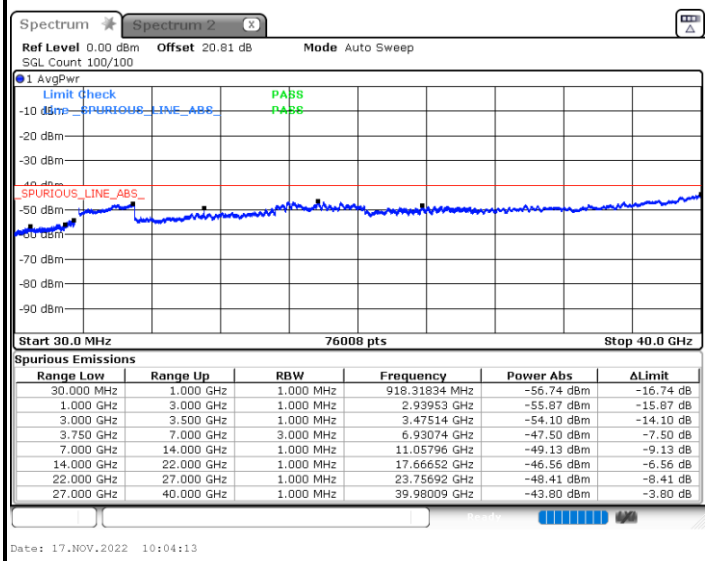
N/A

FR1 Part 96 N48 / 20MHz / DFT-S OFDM / 256QAM	
Lowest Channel / FULL	**Middle Channel / FULL**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 963.88556 MHz | -56.93 dBm | -16.93 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.62669 GHz | -55.93 dBm | -15.93 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.47514 GHz | -53.97 dBm | -13.97 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.97867 GHz | -47.47 dBm | -7.47 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 10.68699 GHz | -48.85 dBm | -8.85 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.67352 GHz | -46.32 dBm | -6.32 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.75286 GHz | -48.32 dBm | -8.32 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.98741 GHz | -43.78 dBm | -3.78 dB Date: 16.NOV.2022 07:47:27	 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 995.87956 MHz | -56.96 dBm | -16.96 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.54373 GHz | -56.00 dBm | -16.00 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.36469 GHz | -53.73 dBm | -13.73 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 3.75833 GHz | -45.91 dBm | -5.91 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 10.87847 GHz | -49.65 dBm | -9.65 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.65452 GHz | -46.42 dBm | -6.42 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 24.82935 GHz | -48.17 dBm | -8.17 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.99391 GHz | -43.84 dBm | -3.84 dB Date: 16.NOV.2022 07:41:37
Highest Channel / FULL	**N/A**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 984.73013 MHz | -57.03 dBm | -17.03 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.54273 GHz | -55.67 dBm | -15.67 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.47514 GHz | -53.80 dBm | -13.80 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 3.78351 GHz | -42.57 dBm | -2.57 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 11.05846 GHz | -49.81 dBm | -9.81 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 15.99013 GHz | -46.39 dBm | -6.39 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.74411 GHz | -48.30 dBm | -8.30 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.98903 GHz | -43.62 dBm | -3.62 dB Date: 16.NOV.2022 07:59:47	**N/A**

FR1 Part 96 N48 / 30MHz / DFT-S OFDM / 64QAM	
Lowest Channel / FULL	**Middle Channel / FULL**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 31.69665 MHz | -53.27 dBm | -13.27 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.61669 GHz | -55.81 dBm | -15.81 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.36144 GHz | -54.36 dBm | -14.36 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.90840 GHz | -47.53 dBm | -7.53 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 13.99925 GHz | -50.80 dBm | -10.80 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.66852 GHz | -46.31 dBm | -6.31 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.75755 GHz | -48.44 dBm | -8.44 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.98822 GHz | -43.83 dBm | -3.83 dB Date: 16.NOV.2022 09:47:17	 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 935.28486 MHz | -56.75 dBm | -16.75 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.49975 GHz | -55.86 dBm | -15.86 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.33596 GHz | -54.21 dBm | -14.21 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.99492 GHz | -47.63 dBm | -7.63 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 10.87597 GHz | -50.43 dBm | -10.43 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.66552 GHz | -46.50 dBm | -6.50 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.75286 GHz | -48.33 dBm | -8.33 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.98416 GHz | -43.88 dBm | -3.88 dB Date: 16.NOV.2022 09:43:04
Highest Channel / FULL	**N/A**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 37.02899 MHz | -50.77 dBm | -10.77 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.62869 GHz | -55.71 dBm | -15.71 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.34670 GHz | -54.25 dBm | -14.25 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.98152 GHz | -47.52 dBm | -7.52 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 11.04546 GHz | -50.01 dBm | -10.01 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.65802 GHz | -46.47 dBm | -6.47 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.75442 GHz | -48.40 dBm | -8.40 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.99309 GHz | -43.88 dBm | -3.88 dB Date: 16.NOV.2022 09:53:10	**N/A**

FR1 Part 96 N48 / 30MHz / DFT-S OFDM / 256QAM	
Lowest Channel / FULL	**Middle Channel / FULL**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 986.18441 MHz | -56.89 dBm | -16.89 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.53173 GHz | -55.69 dBm | -15.69 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.47514 GHz | -54.01 dBm | -14.01 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.95430 GHz | -47.48 dBm | -7.48 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 10.71498 GHz | -48.80 dBm | -8.80 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.67802 GHz | -46.34 dBm | -6.34 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.74223 GHz | -48.50 dBm | -8.50 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.89885 GHz | -43.78 dBm | -3.78 dB Date: 17.NOV.2022 08:49:18	 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 861.60170 MHz | -56.94 dBm | -16.94 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.62569 GHz | -55.86 dBm | -15.86 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.47514 GHz | -53.55 dBm | -13.55 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.97461 GHz | -47.52 dBm | -7.52 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 10.86297 GHz | -49.75 dBm | -9.75 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.65902 GHz | -46.38 dBm | -6.38 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.76786 GHz | -48.58 dBm | -8.58 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.97116 GHz | -43.73 dBm | -3.73 dB Date: 17.NOV.2022 05:50:40
Highest Channel / FULL	**N/A**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 951.76662 MHz | -57.02 dBm | -17.02 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.61969 GHz | -44.83 dBm | -4.83 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.36194 GHz | -54.13 dBm | -14.13 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 3.75386 GHz | -42.52 dBm | -2.52 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 11.05496 GHz | -49.62 dBm | -9.62 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.66052 GHz | -46.57 dBm | -6.57 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.76192 GHz | -48.42 dBm | -8.42 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.90535 GHz | -43.67 dBm | -3.67 dB Date: 17.NOV.2022 08:43:39	**N/A**

FR1 Part 96 N48 / 40MHz / DFT-S OFDM / 64QAM	
Lowest Channel / FULL	**Middle Channel / FULL**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 986.18441 MHz | -56.89 dBm | -16.89 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.53173 GHz | -55.69 dBm | -15.69 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.47514 GHz | -54.01 dBm | -14.01 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.95430 GHz | -47.48 dBm | -7.48 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 10.71498 GHz | -48.80 dBm | -8.80 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.67802 GHz | -46.34 dBm | -6.34 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.74223 GHz | -48.50 dBm | -8.50 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.89885 GHz | -43.78 dBm | -3.78 dB Date: 17.NOV.2022 08:49:18	 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 861.60170 MHz | -56.94 dBm | -16.94 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.62569 GHz | -55.86 dBm | -15.86 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.47514 GHz | -53.55 dBm | -13.55 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.97461 GHz | -47.52 dBm | -7.52 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 10.86297 GHz | -49.75 dBm | -9.75 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.65902 GHz | -46.38 dBm | -6.38 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.76786 GHz | -48.58 dBm | -8.58 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.97116 GHz | -43.73 dBm | -3.73 dB Date: 17.NOV.2022 05:50:40
Highest Channel / FULL	**N/A**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 951.76662 MHz | -57.02 dBm | -17.02 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.61969 GHz | -44.83 dBm | -4.83 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.36194 GHz | -54.13 dBm | -14.13 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 3.75386 GHz | -42.52 dBm | -2.52 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 11.05496 GHz | -49.62 dBm | -9.62 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.66052 GHz | -46.57 dBm | -6.57 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.76192 GHz | -48.42 dBm | -8.42 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.90535 GHz | -43.67 dBm | -3.67 dB Date: 17.NOV.2022 08:43:39	**N/A**

FR1 Part 96 N48 / 40MHz / DFT-S OFDM / 256QAM	
Lowest Channel / FULL	**Middle Channel / FULL**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 957.58371 MHz | -57.02 dBm | -17.02 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.97051 GHz | -55.80 dBm | -15.80 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.47514 GHz | -54.04 dBm | -14.04 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.99167 GHz | -47.48 dBm | -7.48 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 10.71598 GHz | -49.71 dBm | -9.71 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.68802 GHz | -46.38 dBm | -6.38 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.75161 GHz | -48.49 dBm | -8.49 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.99797 GHz | -43.71 dBm | -3.71 dB Date: 17.NOV.2022 09:21:18	 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 977.94353 MHz | -56.95 dBm | -16.95 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.51874 GHz | -55.92 dBm | -15.92 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.35720 GHz | -54.18 dBm | -14.18 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.99695 GHz | -47.30 dBm | -7.30 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 13.99675 GHz | -50.76 dBm | -10.76 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 15.99563 GHz | -46.50 dBm | -6.50 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.75755 GHz | -48.29 dBm | -8.29 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.89154 GHz | -43.83 dBm | -3.83 dB Date: 17.NOV.2022 09:31:07
Highest Channel / FULL	**N/A**
 Spurious Emissions Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit 30.000 MHz | 1.000 GHz | 1.000 MHz | 918.31834 MHz | -56.74 dBm | -16.74 dB 1.000 GHz | 3.000 GHz | 1.000 MHz | 2.93953 GHz | -55.87 dBm | -15.87 dB 3.000 GHz | 3.500 GHz | 1.000 MHz | 3.47514 GHz | -54.10 dBm | -14.10 dB 3.750 GHz | 7.000 GHz | 3.000 MHz | 6.93074 GHz | -47.50 dBm | -7.50 dB 7.000 GHz | 14.000 GHz | 1.000 MHz | 11.05796 GHz | -49.13 dBm | -9.13 dB 14.000 GHz | 22.000 GHz | 1.000 MHz | 17.66652 GHz | -46.56 dBm | -6.56 dB 22.000 GHz | 27.000 GHz | 1.000 MHz | 23.75692 GHz | -48.41 dBm | -8.41 dB 27.000 GHz | 40.000 GHz | 1.000 MHz | 39.98009 GHz | -43.80 dBm | -3.80 dB Date: 17.NOV.2022 10:04:13	**N/A**