FCC RADIO TEST REPORT

FCC ID	:	**H8N-ASK-NCQ1338**
Equipment	:	**Verizon Internet Gateway**
Brand Name	:	**Verizon Internet Gateway**
Model Name	:	**ASK-NCQ1338**
Applicant	:	**Askey Computer Corporation 10F, NO.119, JIANKANG RD., ZHONGHE DIST., NEW TAIPEI CITY 23585, TAIWAN, R.O.C.**
Manufacturer	:	**Askey Computer Corporation 10F, NO.119, JIANKANG RD., ZHONGHE DIST., NEW TAIPEI CITY 23585, TAIWAN, R.O.C.**
Standard	:	**FCC 47 CFR Part 2, 22(H), 24(E), 27**

The product was received on Feb. 25, 2021 and testing was started from Feb. 26, 2021 and completed on Mar. 22, 2021. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in 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. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

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History of this test report

Report No.	Version	Description	Issued Date
FG110616B	01	Initial issue of report	Apr. 09, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	5G NR Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Reporting only	-
	§22.913 (a)(2)	Effective Radiated Power (n5)	Pass	
	§24.232 (c) §27.50 (j)(3)	Equivalent Isotropic Radiated Power (n2) (n77)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (n66)		
3.3	§24.232 (d) §27.50 (d)(5) §27.50 (j)(4)	Peak-to-Average Ratio	Pass	-
3.4	§2.1049	Occupied Bandwidth	Reporting only	-
3.5	§2.1051 §22.917 (a) §24.238 (a) §27.53 (h) §27.53 (l)(2)	Conducted Band Edge Measurement (n2) (n5) (n66) (n77)	Pass	-
3.6	§2.1051 §22.917 (a) §24.238 (a) §27.53 (h) §27.53 (l)(2)	Conducted Spurious Emission (n2) (n5) (n66) (n77)	Pass	-
3.7	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	Pass	-
4.2	§2.1051 §22.917 (a) §24.238 (a) §27.53 (h) §27.53 (l)(2)	Radiated Spurious Emission (n2) (n5) (n66) (n77)	Pass	Under limit 22.31 dB at 15164.000 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.

Reviewed by: Wii Chang

Report Producer: Celery Wei

1 General Description

1.1 Product Feature of Equipment Under Test

LTE, 5G NR, Bluetooth-LE, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax and GNSS

Product Specification subjective to this standard	
Antenna Type	WWAN: Fixed internal PIFA antenna WLAN : Fixed internal Dipole antenna Bluetooth-LE: Fixed internal Dipole antenna GPS: Fixed internal Dipole antenna
Antenna Gain	**<Ant. 0>:** 5G NR n2: 3.4 dBi 5G NR n5: 0.4 dBi 5G NR n66: 3.8 dBi 5G NR n77: 4.4 dBi **<Ant. 1>:** 5G NR n2: 3.5 dBi 5G NR n5: 1.1 dBi 5G NR n66: 3.3 dBi 5G NR n77: 4.5 dBi **<Ant. 2>:** 5G NR n2: 1.3 dBi 5G NR n5: -1.1 dBi 5G NR n66: 2.1 dBi 5G NR n77: 3.9 dBi **<Ant. 3>:** 5G NR n2: 2.0 dBi 5G NR n5: 0.4 dBi 5G NR n66: 2.8 dBi 5G NR n77: 3.4 dBi

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.2 Modification of EUT

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

1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	TH05-HY
Test Engineer	Ivy Yeh
Temperature	22~25°C
Relative Humidity	53~66%

Test Site	Sporton International Inc. Wensan Laboratory	
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333101, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855	
Test Site No.	**Sporton Site No. (TAF Code: 3786)**	
	03CH12-HY	03CH13-HY
Test Engineer	Jack Cheng, Lance Chiang, Chuan Chu	Daniel Lee, Jacky Hong, Wilson Wu
Temperature	20.7~26.5℃	20~25℃
Relative Humidity	58.6~67.7%	50~60%

Note:

1. The test site complies with ANSI C63.4 2014 requirement.
2. The Radiation Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.

FCC designation No.: TW1190 and TW0007

1.4 Applicable 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
- FCC 47 CFR Part 2, 22(H), 24(E), 27
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- FCC KDB 414788 D01 Radiated Test Site 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.
3. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

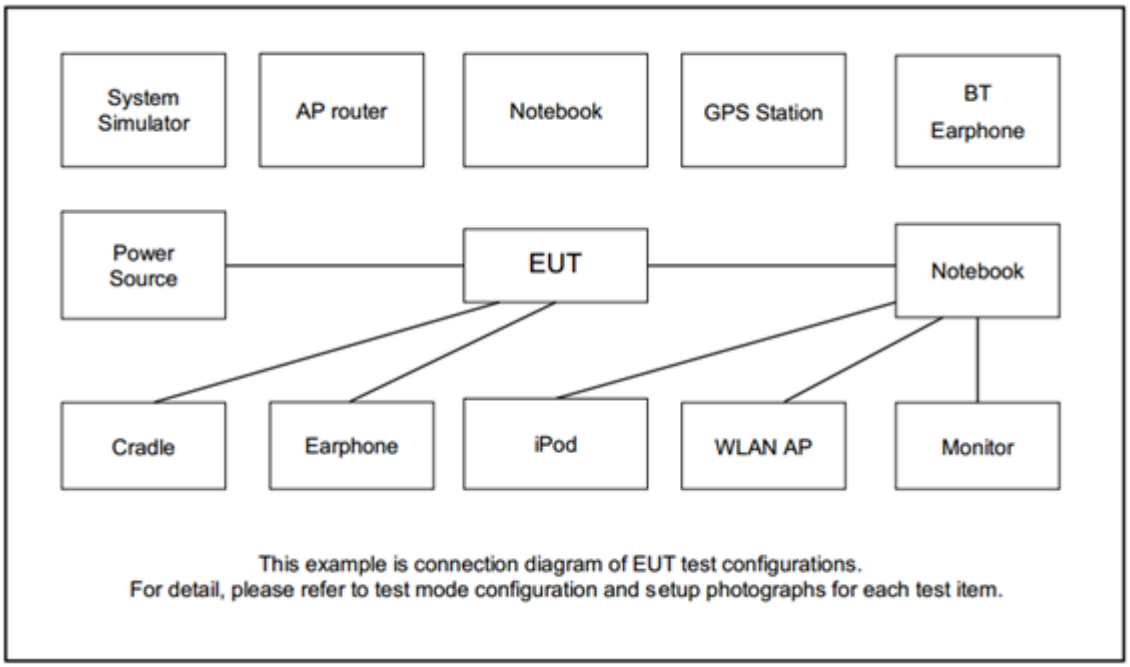
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (For Ant. 0: Y plane for EN-DC 2A_n5A / EN-DC 48A_n5A / EN-DC 66A_n5A / EN-DC 2A_n66A; For Ant. 3: Y Plane for EN-DC 13A_n5A / EN-DC 13A_n2A / EN-DC 66A_n2A, Z plane for EN-DC 2A_n77A/ EN-DC 5A_n77A / EN-DC 13A_n77A/ EN-DC 66A_n77A) were recorded in this report.

Test Items	NR Band	Bandwidth (MHz)										Modulation					RB #			Test Channel		
		5	10	15	20	40	50	60	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	n2	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	v
	n5	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
	n77				v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n2				v	-	-	-	-	-	-	v	v	v	v	v			v		v	
	n5				v	-	-	-	-	-	-	v	v	v	v	v			v		v	
	n66				v	-	-	-	-	-	-	v	v	v	v	v			v		v	
	n77				v	-	-	-	-	-	-	v	v	v	v	v	v		v		v	
26dB and 99% Bandwidth	n2	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v			v		v	
	n5	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v			v		v	
	n66	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v			v		v	
	n77				v	v	v	v	v	v	v	v	v	v	v	v			v		v	
Conducted Band Edge	n2	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v	v		v	v		v
	n5	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
	n77				v	v	v	v	v	v	v	v	v	v	v	v	v			v		v
Conducted Spurious Emission	n2	v				-	-	-	-	-	-		v				v			v	v	v
	n5	v				-	-	-	-	-	-		v				v			v	v	v
	n66	v				-	-	-	-	-	-		v				v			v	v	v
	n77				v	-	-	-	-	-	-		v				v			v	v	v
Frequency Stability	n2	v				-	-	-	-	-	-		v				v				v	
	n5				v	-	-	-	-	-	-	v							v		v	
	n66				v	-	-	-	-	-	-	v							v		v	
	n77				v	-	-	-	-	-	-	v							v		v	
E.R.P / E.I.R.P	n2	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v	Max Power					
	n5	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v						
	n66	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v						
	n77				v	v	v	v	v	v	v	v	v	v	v	v						

Test Items	NR Band	Bandwidth (MHz)										Modulation					RB #			Test Channel		
		5	10	15	20	40	50	60	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Radiated Spurious Emission	n2	Worst Case																		v	v	v
	n5	Worst Case																		v	v	v
	n66	Worst Case																		v	v	v
	n77	Worst Case																		v	v	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. Test combination is EN-DC 2A_n5A / EN-DC 13A_n5A / EN-DC 48A_n5A / EN-DC 66A_n25A / EN-DC 5A_n2A / EN-DC 13A_n2A / EN-DC 66A_n2A / EN-DC 2A_n66A / EN-DC 5A_n66A / EN-DC 13A_n66A / EN-DC 2A_n77A/ EN-DC 5A_n77A / EN-DC 13A_n77A/ EN-DC 66A_n77A. 5. For radiated measurement, pre-scanned in two modes, DFT-s OFDM and CP OFDM. The worst cases (DFT-s OFDM) were recorded in this report, and the worst modes of FR1 and LTE for simultaneous transmission were verified and compliant.																					

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	5G Wireless Test Platform	Keysight	MT8000A	N/A	N/A	Unshielded,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 4.2 dB and 10dB attenuator.

Example :

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

= 4.2 + 10 = 14.2 (dB)

2.5 Frequency List of Low/Middle/High Channels

5G NR n2 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	372000	376000	380000
	Frequency	1860	1880	1900
15	Channel	371500	376000	380500
	Frequency	1857.5	1880	1902.5
10	Channel	371000	376000	381000
	Frequency	1855	1880	1905
5	Channel	370500	376000	381500
	Frequency	1852.5	1880	1907.5

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 n66 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	344000	346500	349000
	Frequency	1720	1732.5	1745
15	Channel	343500	346500	349500
	Frequency	1717.5	1732.5	1747.5
10	Channel	343000	346500	350000
	Frequency	1715	1732.5	1750
5	Channel	342500	346500	350500
	Frequency	1712.5	1732.5	1752.5

5G NR Band n77 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	650000	656000	662000
	Frequency	3750	3840	3930
90	Channel	649668	656000	662332
	Frequency	3745.02	3840	3934.98
80	Channel	649334	656000	662666
	Frequency	3740.01	3840	3939.99
60	Channel	648668	656000	663332
	Frequency	3730.02	3840	3949.98
50	Channel	648334	656000	663666
	Frequency	3725.01	3840	3954.99
40	Channel	648000	656000	664000
	Frequency	3720	3840	3960
20	Channel	647334	656000	664666
	Frequency	3710.01	3840	3969.99

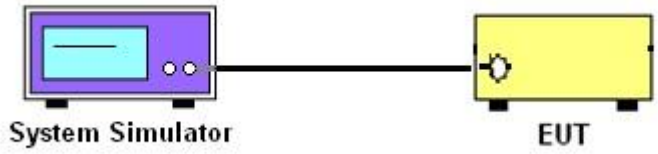
3 Conducted Test Items

3.1 Measuring Instruments

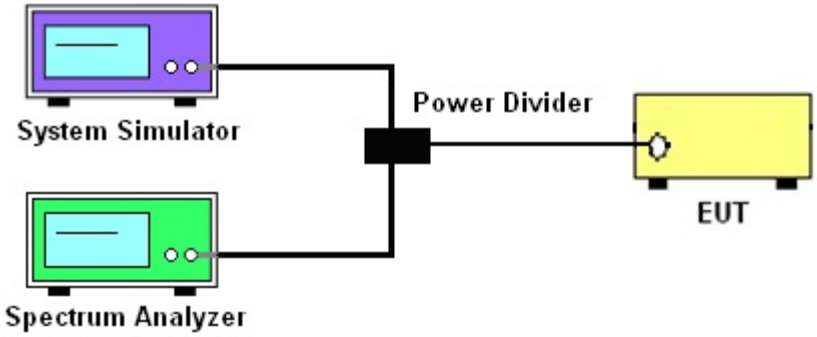
See list of measuring instruments of this test report.

3.1.1 Test Setup

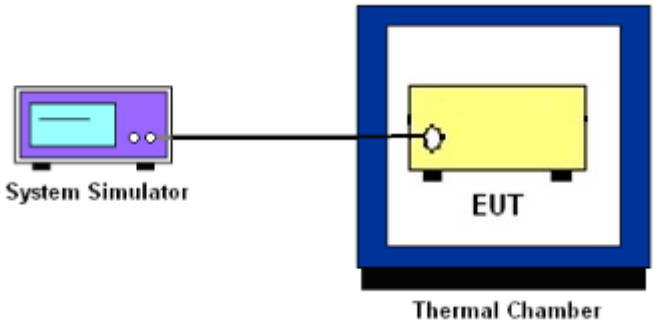
3.1.2 Conducted Output Power



3.1.3 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 and EIRP

3.2.1 Description of the Conducted Output Power Measurement and EIRP Measurement

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

The 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 n2 and n77

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

3.2.2 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 the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
3. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
4. Record the deviation as Peak to Average Ratio.

3.4 Occupied Bandwidth

3.4.1 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.

3.4.2 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.

3.5 Conducted Band Edge

3.5.1 Description of Conducted Band Edge Measurement

22.917(a)

For operations in the 824 – 849 MHz band, the FCC limit is 43 + 10log10(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.

24.238 (a)

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is 43 + 10log10(P[Watts]) dB below the transmitter power P(Watts) in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the 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, 1755-1780 MHz, the FCC limit is 43 + 10log10(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.

3.5.2 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. Set spectrum analyzer with RMS detector.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. Checked that all the results comply with the emission limit line.
   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)

3.6 Conducted Spurious Emission

3.6.1 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.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10^{th} harmonic.

3.6.2 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 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 derived from 43 + 10log(P)dB below the transmitter power P(Watts)

3.7 Frequency Stability

3.7.1 Description of Frequency Stability Measurement

22.355

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.

24.235 & 27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

3.7.2 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.

3.7.3 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 20±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.

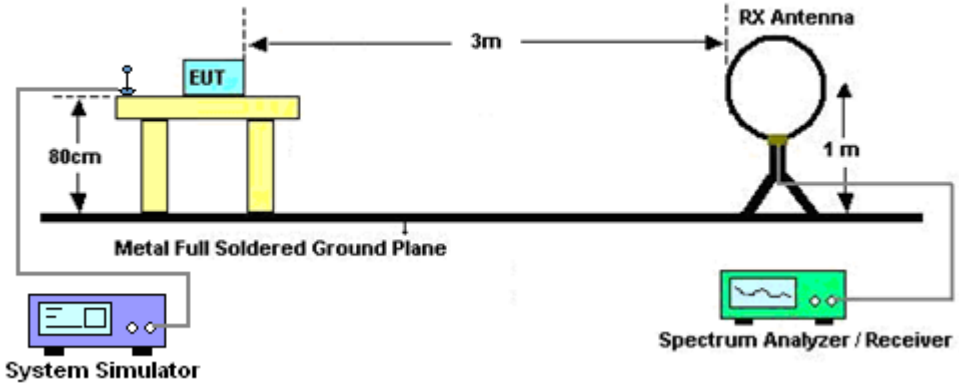
4 Radiated Test Items

4.1 Measuring Instruments

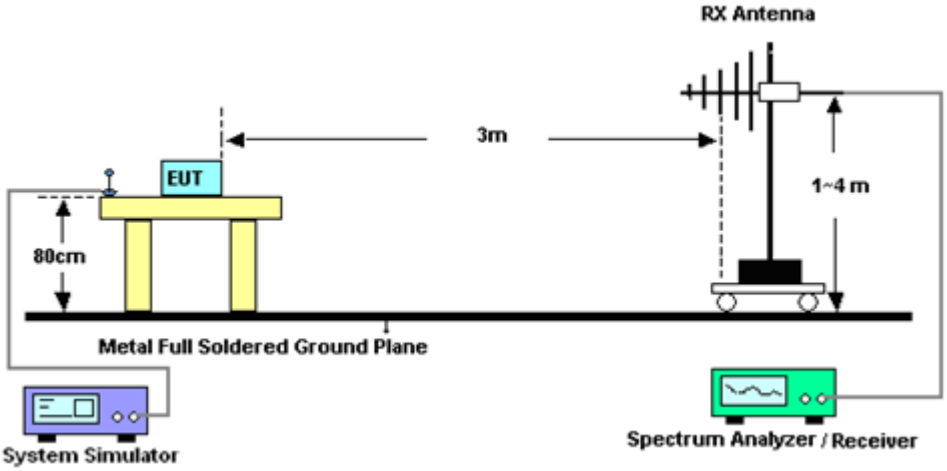
See list of measuring instruments of this test report.

4.1.1 Test Setup

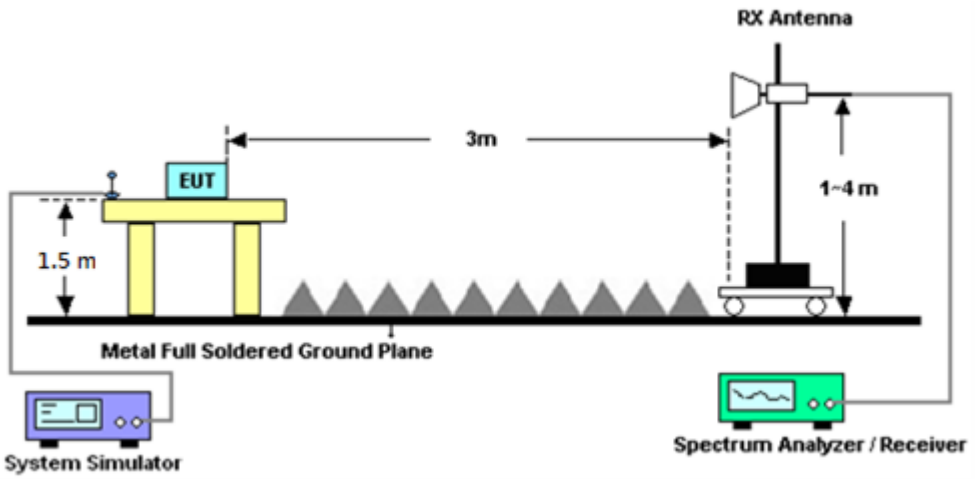
For radiated test below 30MHz



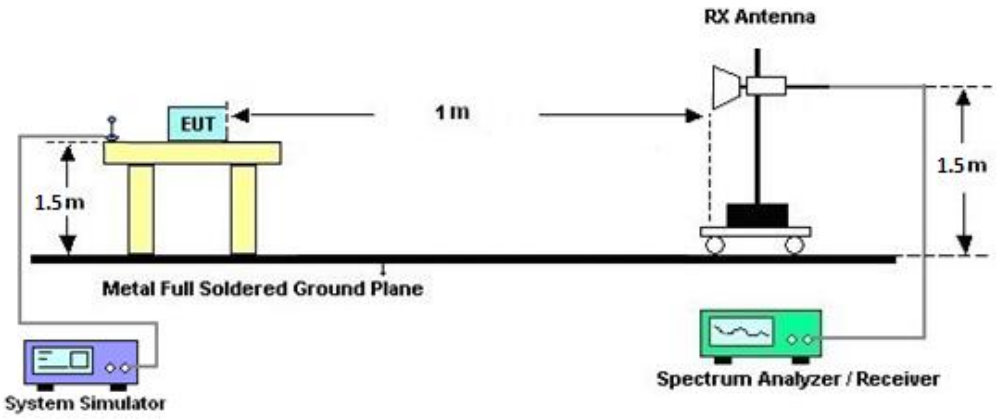
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



4.1.2 Test Result of Radiated Test

Please refer to Appendix B.

Note:

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.

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

4.2 Radiated Spurious Emission Measurement

4.2.1 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 43 + 10 log (P) dB.

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

4.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was 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 one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. 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)
    EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
    ERP (dBm) = EIRP - 2.15

5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jul. 14, 2020	Mar. 12, 2021~ Mar. 31, 2021	Jul. 13, 2021	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	40103&07	30MHz to 1GHz	Apr. 29, 2020	Mar. 12, 2021~ Mar. 31, 2021	Apr. 28, 2021	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	35419 & 03	30MHz to 1GHz	Apr. 29, 2020	Mar. 12, 2021~ Mar. 31, 2021	Apr. 28, 2021	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz ~ 18GHz	May 20, 2020	Mar. 12, 2021~ Mar. 31, 2021	May 19, 2021	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Jul. 15, 2020	Mar. 12, 2021~ Mar. 31, 2021	Jul. 14, 2021	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Dec. 11, 2020	Mar. 12, 2021~ Mar. 31, 2021	Dec. 10, 2021	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170980	18GHz~40GHz	Jan. 11, 2021	Mar. 12, 2021~ Mar. 31, 2021	Jan. 10, 2022	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 16, 2020	Mar. 12, 2021~ Mar. 31, 2021	Dec. 15, 2021	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590074	1GHz~18GHz	May 19, 2020	Mar. 12, 2021~ Mar. 31, 2021	May 18, 2021	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Oct. 28, 2020	Mar. 12, 2021~ Mar. 31, 2021	Oct. 27, 2021	Radiation (03CH13-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 11, 2020	Mar. 12, 2021~ Mar. 31, 2021	Dec. 10, 2021	Radiation (03CH13-HY)
Signal Generator	Anritsu	MG3694C	163401	0.1Hz~40GHz	Jan. 31, 2021	Mar. 12, 2021~ Mar. 31, 2021	Jan. 30, 2022	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 20, 2020	Mar. 12, 2021~ Mar. 31, 2021	Mar. 19, 2021	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 18, 2021	Mar. 12, 2021~ Mar. 31, 2021	Mar. 17, 2022	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Mar. 12, 2021~ Mar. 31, 2021	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Mar. 12, 2021~ Mar. 31, 2021	N/A	Radiation (03CH13-HY)
Software	Audix	E3 6.2009-8-24	RK-000992	N/A	N/A	Mar. 12, 2021~ Mar. 31, 2021	N/A	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30M-18G	Feb. 10, 2021	Mar. 12, 2021~ Mar. 31, 2021	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	804793/4	30M-18G	Feb. 10, 2021	Mar. 12, 2021~ Mar. 31, 2021	Feb. 09, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Feb. 22, 2021	Mar. 12, 2021~ Mar. 31, 2021	Feb. 21, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30M~40GHz	Mar. 11, 2021	Mar. 12, 2021~ Mar. 31, 2021	Mar. 10, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30M-18G	Feb. 10, 2021	Mar. 12, 2021~ Mar. 31, 2021	Feb. 09, 2022	Radiation (03CH13-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Mar. 12, 2021~ Mar. 31, 2021	Mar. 10, 2022	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-1080 -1200-15000-6 0SS	SN3	1.2GHz High Pass Filter	Jul. 02, 2020	Mar. 12, 2021~ Mar. 31, 2021	Jul. 01, 2021	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-2700 -3000-18000-6 0SS	SN2	3GHz High Pass Filter	Jul. 13, 2020	Mar. 12, 2021~ Mar. 31, 2021	Jul. 12, 2021	Radiation (03CH13-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Mar. 20, 2021~ Mar. 22, 2021	Jan. 03, 2022	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	40103 & 07	30MHz~1GHz	Apr. 29, 2020	Mar. 20, 2021~ Mar. 22, 2021	Apr. 28, 2021	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1328	1GHz~18GHz	Nov. 23, 2020	Mar. 20, 2021~ Mar. 22, 2021	Nov. 22, 2021	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1212	1GHz~18GHz	May 20, 2020	Mar. 20, 2021~ Mar. 22, 2021	May 19, 2021	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	00993	18GHz~40GHz	Dec. 19, 2020	Mar. 20, 2021~ Mar. 22, 2021	Dec. 18, 2021	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA917057 6	18GHz~40GHz	May 22, 2020	Mar. 20, 2021~ Mar. 22, 2021	May 21, 2021	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 25, 2020	Mar. 20, 2021~ Mar. 22, 2021	Mar. 24, 2021	Radiation (03CH12-HY)
Preamplifier	E-INSTRUME NT TECH LTD.	ERA-100M-18 G-56-01-A70	EC1900249	1GHz-18GHz	Dec. 05, 2020	Mar. 20, 2021~ Mar. 22, 2021	Dec. 04, 2021	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY57280120	1GHz~26.5GHz	Jul. 20, 2020	Mar. 20, 2021~ Mar. 22, 2021	Jul. 19, 2021	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 11, 2020	Mar. 20, 2021~ Mar. 22, 2021	Dec. 10, 2021	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Jan. 15, 2021	Mar. 20, 2021~ Mar. 22, 2021	Jan. 14, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Mar. 20, 2021~ Mar. 22, 2021	Mar. 10, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 11, 2020	Mar. 20, 2021~ Mar. 22, 2021	Dec. 10, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 22, 2021	Mar. 20, 2021~ Mar. 22, 2021	Feb. 21, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 22, 2021	Mar. 20, 2021~ Mar. 22, 2021	Feb. 22, 2022	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Mar. 20, 2021~ Mar. 22, 2021	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Mar. 20, 2021~ Mar. 22, 2021	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Mar. 20, 2021~ Mar. 22, 2021	N/A	Radiation (03CH12-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Filter	Wainwright	WLKS1200-12SS	SN2	1.2GHz Low Pass Filter	Mar. 17, 2021	Mar. 20, 2021~ Mar. 22, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN2	3GHz High Pass Filter	Jul. 14, 2020	Mar. 20, 2021~ Mar. 22, 2021	Jul. 13, 2021	Radiation (03CH12-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN2	6.75GHz High Pass Filter	Mar. 17, 2021	Mar. 20, 2021~ Mar. 22, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890001	50Hz~60Hz	Oct. 05, 2020	Feb. 26, 2021~ Mar. 17, 2021	Oct. 04, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101907	10Hz~40GHz	May 14, 2020	Feb. 26, 2021~ Mar. 17, 2021	May 13, 2021	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SU-241	92003713	-30℃ ~95℃	May 15, 2020	Feb. 26, 2021~ Mar. 17, 2021	May 14, 2021	Conducted (TH05-HY)
Hygrometer	Testo	34893241	608-H1	NA	Mar. 03, 2021	Feb. 26, 2021~ Mar. 17, 2021	Mar. 02, 2022	Conducted (TH05-HY)
Base Station (Measure)	Anritsu	MT8821C	6261849015	LTE	Sep. 18, 2020	Feb. 26, 2021~ Mar. 17, 2021	Sep. 17, 2021	Conducted (TH05-HY)
Base Station (Measure)	Anritsu	MT8000A	6261940327	FR1	Sep. 23, 2020	Feb. 26, 2021~ Mar. 17, 2021	Sep. 22, 2021	Conducted (TH05-HY)

6 Uncertainty of Evaluation

<03CH12-HY>:

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.07**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.21**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.80**

<03CH13-HY>:

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.10**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.12**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.77**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power) and ERP/EIRP

NR n2 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	25.66	25.69	25.55	29.09	0.8110
5	1	23		25.38	25.60	25.51		
5	12	6		25.43	25.68	25.61		
5	1	0		25.14	25.39	25.08		
5	1	24		24.53	25.41	25.09		
5	25	0		25.20	25.44	25.12		
5	1	1	QPSK	25.55	25.61	25.46		
5	1	23		25.28	25.62	25.42		
5	12	6		25.52	25.67	25.58		
5	1	0		24.45	24.89	24.55		
5	1	24		24.28	24.87	24.59		
5	25	0		24.75	24.91	24.60		
5	1	1	16-QAM	24.73	24.95	24.65	28.35	0.6839
5	1	1	64-QAM	23.17	23.35	23.05		
5	1	1	256-QAM	20.88	21.11	20.75		
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	25.60	25.61	25.56	29.08	0.8091
10	1	50		24.77	25.67	25.43		
10	25	12		25.16	25.64	25.63		
10	1	0		24.59	25.41	24.89		
10	1	51		24.29	25.49	25.11		
10	50	0		25.02	25.43	25.23		
10	1	1	QPSK	25.60	25.68	25.54		
10	1	50		24.72	25.63	25.46		
10	25	12		25.11	25.67	25.58		
10	1	0		24.77	24.86	24.71		
10	1	51		24.33	24.85	24.55		
10	50	0		24.59	25.01	24.70		
10	1	1	16-QAM	24.85	24.94	24.75	28.34	0.6823
10	1	1	64-QAM	23.21	23.34	23.08		
10	1	1	256-QAM	20.98	21.13	20.82		
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	25.53	25.60	25.23	29.08	0.8091
15	1	77		24.51	25.68	25.51		
15	36	18		24.90	25.65	25.67		
15	1	0		25.12	25.03	24.87		
15	1	78		24.22	25.44	25.04		
15	75	0		24.97	25.47	25.22		
15	1	1	QPSK	25.51	25.66	25.17		
15	1	77		24.44	25.65	25.51		
15	36	18		24.81	25.64	25.67		
15	1	0		24.64	24.80	24.62		
15	1	78		23.91	24.89	24.48		
15	75	0		24.41	25.01	24.80		
15	1	1	16-QAM	24.78	24.88	24.35	28.28	0.6730
15	1	1	64-QAM	23.14	23.26	23.14		
15	1	1	256-QAM	20.97	21.07	20.99		
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	25.45	25.22	25.67	29.08	0.8091
20	1	104		24.42	25.67	25.57		
20	50	25		24.42	25.61	25.51		
20	1	0		25.14	24.37	25.45		
20	1	105		24.81	24.42	25.13		
20	100	0		24.99	24.47	25.22		
20	1	1	QPSK	25.50	25.07	25.60		
20	1	104		24.94	25.67	25.50		
20	50	25		24.70	25.68	25.49		
20	1	0		24.63	24.73	24.81		
20	1	105		24.59	24.94	24.58		
20	100	0		24.35	24.95	24.75		
20	1	1	16-QAM	24.70	24.34	24.94	28.34	0.6823
20	1	1	64-QAM	23.16	23.26	23.25		
20	1	1	256-QAM	20.88	20.93	21.04		
Limit	EIRP < 2W			Result			Pass	

NR n5 Maximum Average Power [dBm] (GT - LC = 1.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
5	1	1	PI/2 BPSK	25.41	25.33	25.04	27.11	0.5140
5	1	23		25.32	25.11	24.91		
5	12	6		25.38	25.40	24.38		
5	1	0		24.95	24.82	24.34		
5	1	24		24.90	24.67	23.91		
5	25	0		24.92	24.94	24.41		
5	1	1	QPSK	25.35	25.19	24.87		
5	1	23		25.20	24.97	24.74		
5	12	6		25.33	25.30	24.73		
5	1	0		24.36	24.29	24.01		
5	1	24		24.31	24.12	23.77		
5	25	0		24.44	24.41	23.98		
5	1	1	16-QAM	24.59	24.40	24.05	26.29	0.4256
5	1	1	64-QAM	22.91	22.79	22.49		
5	1	1	256-QAM	20.67	20.51	20.25		
Limit	ERP < 7W			Result			Pass	

NR n5 Maximum Average Power [dBm] (GT - LC = 1.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
10	1	1	PI/2 BPSK	25.30	25.16	24.97	24.86	0.3062
10	1	50		25.24	25.15	24.17		
10	25	12		25.29	25.23	25.10		
10	1	0		24.61	24.77	24.05		
10	1	51		24.43	24.82	22.76		
10	50	0		24.94	24.83	24.30		
10	1	1	QPSK	25.14	25.12	24.13		
10	1	50		25.18	24.98	24.76		
10	25	12		25.30	25.31	25.03		
10	1	0		24.25	24.22	23.96		
10	1	51		24.33	24.11	23.99		
10	50	0		24.39	24.33	24.05		
10	1	1	16-QAM	24.40	24.31	24.10	23.95	0.2483
10	1	1	64-QAM	22.67	22.62	22.50		
10	1	1	256-QAM	20.40	20.41	20.20		
Limit	ERP < 7W			Result			Pass	

NR n5 Maximum Average Power [dBm] (GT - LC = 1.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
15	1	1	PI/2 BPSK	25.38	25.40	25.21	24.95	0.3126
15	1	77		25.37	25.26	25.04		
15	36	18		25.31	25.33	25.20		
15	1	0		24.82	24.38	24.74		
15	1	78		24.73	24.34	24.64		
15	75	0		24.86	24.43	24.73		
15	1	1	QPSK	25.24	25.13	25.15		
15	1	77		25.31	25.21	24.90		
15	36	18		25.27	25.25	25.12		
15	1	0		24.31	24.26	24.18		
15	1	78		24.32	24.30	24.09		
15	75	0		24.38	24.39	24.23		
15	1	1	16-QAM	24.44	24.47	24.32	24.02	0.2523
15	1	1	64-QAM	23.18	22.85	22.70		
15	1	1	256-QAM	20.55	20.49	20.44		
Limit	ERP < 7W			Result			Pass	

NR n5 Maximum Average Power [dBm] (GT - LC = 1.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
20	1	1	PI/2 BPSK	25.16	25.26	25.25	24.92	0.3105
20	1	104		24.84	24.81	24.01		
20	50	25		25.37	25.21	25.24		
20	1	0		24.85	24.88	24.78		
20	1	105		24.78	23.82	23.95		
20	100	0		24.82	24.85	24.80		
20	1	1	QPSK	25.14	25.22	25.13		
20	1	104		25.18	24.33	24.91		
20	50	25		25.27	25.20	25.18		
20	1	0		24.21	24.33	24.20		
20	1	105		24.23	24.18	24.12		
20	100	0		24.32	24.35	24.26		
20	1	1	16-QAM	22.68	24.36	24.35	23.91	0.2460
20	1	1	64-QAM	22.77	22.78	22.64		
20	1	1	256-QAM	20.43	20.44	20.36		
Limit	ERP < 7W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 3.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	25.69	25.65	25.33	29.19	0.8299
5	1	23		25.68	25.60	25.48		
5	12	6		25.61	25.62	25.50		
5	1	0		25.00	25.05	24.92		
5	1	24		25.23	25.06	24.89		
5	25	0		25.30	25.17	25.01		
5	1	1	QPSK	25.62	25.40	25.27		
5	1	23		25.48	25.43	25.34		
5	12	6		25.60	25.55	25.43		
5	1	0		24.66	24.51	24.36		
5	1	24		24.55	25.52	24.42		
5	25	0		24.80	24.63	24.48		
5	1	1	16-QAM	24.78	24.62	24.45	28.28	0.6730
5	1	1	64-QAM	23.08	22.96	22.82		
5	1	1	256-QAM	20.92	20.66	20.56		
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 3.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	25.61	25.59	25.20	29.18	0.8279
10	1	50		25.60	25.55	25.44		
10	25	12		25.68	25.64	25.44		
10	1	0		24.98	25.20	24.68		
10	1	51		25.34	25.21	24.99		
10	50	0		25.40	25.19	25.05		
10	1	1	QPSK	25.60	25.57	25.15		
10	1	50		25.63	25.51	25.36		
10	25	12		25.65	25.66	25.48		
10	1	0		24.82	24.60	24.50		
10	1	51		24.72	24.55	24.46		
10	50	0		24.90	24.70	24.54		
10	1	1	16-QAM	24.78	24.65	25.08	28.58	0.7211
10	1	1	64-QAM	23.25	22.93	22.94		
10	1	1	256-QAM	21.03	20.78	20.67		
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 3.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	25.69	25.63	25.42	29.19	0.8299
15	1	77		25.66	25.66	25.40		
15	36	18		25.68	25.62	25.44		
15	1	0		25.13	25.20	24.88		
15	1	78		25.28	25.21	24.85		
15	75	0		25.35	25.36	25.05		
15	1	1	QPSK	25.66	25.68	25.50		
15	1	77		25.55	25.63	25.31		
15	36	18		25.60	25.67	25.14		
15	1	0		24.80	24.90	24.61		
15	1	78		24.60	24.68	24.33		
15	75	0		24.84	24.87	24.48		
15	1	1	16-QAM	24.96	24.93	24.73	28.46	0.7015
15	1	1	64-QAM	23.38	23.31	23.03		
15	1	1	256-QAM	21.05	21.10	20.78		
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 3.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	25.60	25.69	25.54	29.19	0.8299
20	1	104		25.57	25.53	25.38		
20	50	25		25.68	25.61	24.84		
20	1	0		24.79	25.29	25.01		
20	1	105		25.22	25.13	24.94		
20	100	0		25.29	25.19	25.01		
20	1	1	QPSK	25.53	25.66	25.50		
20	1	104		25.53	24.51	25.32		
20	50	25		25.67	25.60	25.20		
20	1	0		24.88	24.70	24.55		
20	1	105		24.70	24.53	24.45		
20	100	0		24.85	24.72	24.54		
20	1	1	16-QAM	24.85	24.78	24.64	28.35	0.6839
20	1	1	64-QAM	23.18	23.14	23.00		
20	1	1	256-QAM	21.03	20.83	20.77		
Limit	EIRP < 1W			Result			Pass	

NR n77 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	25.77	25.51	25.60	29.34	0.8590
20	1	49		25.84	25.74	25.83		
20	25	12		25.86	25.70	25.76		
20	1	0		25.40	25.31	25.30		
20	1	50		25.45	25.26	25.44		
20	50	0		25.88	25.71	25.72		
20	1	1	QPSK	25.77	25.69	25.63		
20	1	49		25.86	25.25	25.75		
20	25	12		25.92	25.67	25.73		
20	1	0		25.38	25.34	25.24		
20	1	50		25.47	25.23	25.34		
20	50	0		25.94	25.70	25.74		
20	1	1	16-QAM	25.90	25.90	25.82	29.30	0.8511
20	1	1	64-QAM	25.85	25.71	25.63		
20	1	1	256-QAM	24.13	24.10	24.12		
Limit	EIRP < 1W			Result			Pass	

NR n77 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	26.25	25.91	25.77	29.65	0.9226
40	1	104		26.13	25.81	25.96		
40	50	25		26.11	25.93	25.79		
40	1	0		25.63	25.53	25.42		
40	1	105		25.73	25.40	25.62		
40	100	0		26.21	25.94	25.88		
40	1	1	QPSK	26.00	25.90	25.77		
40	1	104		26.03	25.72	25.93		
40	50	25		26.14	25.94	25.77		
40	1	0		25.58	25.54	25.35		
40	1	105		25.63	25.46	25.58		
40	100	0		26.16	25.81	25.89		
40	1	1	16-QAM	26.10	26.04	25.94	29.50	0.8913
40	1	1	64-QAM	25.92	26.00	25.66		
40	1	1	256-QAM	24.36	24.33	24.14		
Limit	EIRP < 1W			Result			Pass	

NR n77 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
50	1	1	PI/2 BPSK	25.52	25.53	25.56	29.20	0.8318
50	1	131		24.70	25.50	25.67		
50	64	32		25.80	25.69	25.72		
50	1	0		25.12	25.09	25.15		
50	1	132		25.27	25.14	25.21		
50	128	0		25.72	25.59	25.67		
50	1	1	QPSK	25.50	25.45	25.51		
50	1	131		25.66	25.50	25.65		
50	64	32		25.78	25.65	25.70		
50	1	0		25.11	25.05	25.12		
50	1	132		25.27	25.06	25.54		
50	128	0		25.70	25.59	25.67		
50	1	1	16-QAM	25.69	25.67	25.65	29.09	0.8110
50	1	1	64-QAM	25.60	25.48	25.51		
50	1	1	256-QAM	24.00	23.89	23.97		
Limit	EIRP < 1W			Result			Pass	

NR n77 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
60	1	1	PI/2 BPSK	25.31	25.31	25.09	28.99	0.7925
60	1	160		25.53	25.20	25.14		
60	81	40		25.54	25.35	25.22		
60	1	0		25.04	24.82	24.72		
60	1	161		25.11	24.81	24.79		
60	162	0		25.56	25.33	25.18		
60	1	1	QPSK	25.43	25.24	25.14		
60	1	160		25.58	25.19	25.07		
60	81	40		25.59	25.33	25.19		
60	1	0		25.00	24.78	24.74		
60	1	161		25.05	24.79	24.70		
60	162	0		25.55	25.33	25.15		
60	1	1	16-QAM	25.65	25.47	25.31	29.05	0.8035
60	1	1	64-QAM	25.37	25.24	25.14		
60	1	1	256-QAM	23.82	23.72	23.61		
Limit	EIRP < 1W			Result			Pass	

NR n77 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
80	1	1	PI/2 BPSK	25.50	25.35	25.32	28.90	0.7762
80	1	215		25.44	25.22	25.09		
80	108	54		25.49	25.40	25.21		
80	1	0		25.04	24.94	24.90		
80	1	216		25.07	24.82	24.69		
80	216	0		25.46	25.36	25.17		
80	1	1	QPSK	25.33	25.31	25.31		
80	1	215		25.46	25.18	25.06		
80	108	54		25.49	25.37	25.28		
80	1	0		24.93	24.89	24.94		
80	1	216		25.13	24.81	24.72		
80	216	0		25.49	25.37	25.21		
80	1	1	16-QAM	25.51	25.47	25.54	28.94	0.7834
80	1	1	64-QAM	25.27	25.31	25.47		
80	1	1	256-QAM	23.81	23.81	23.66		
Limit	EIRP < 1W			Result			Pass	

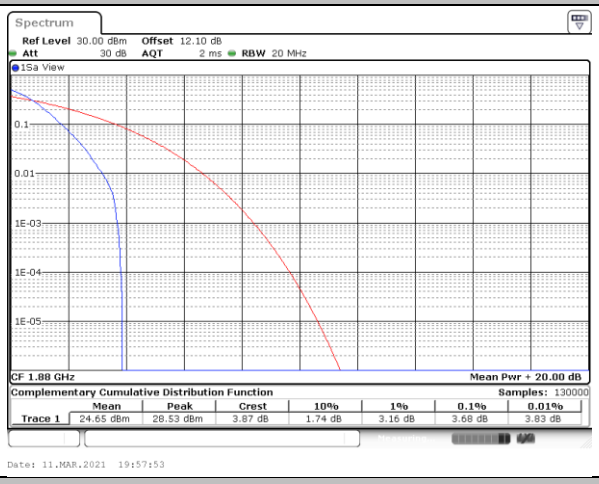
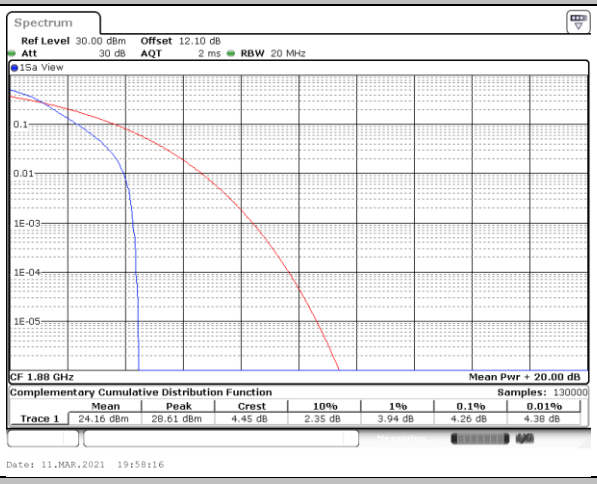
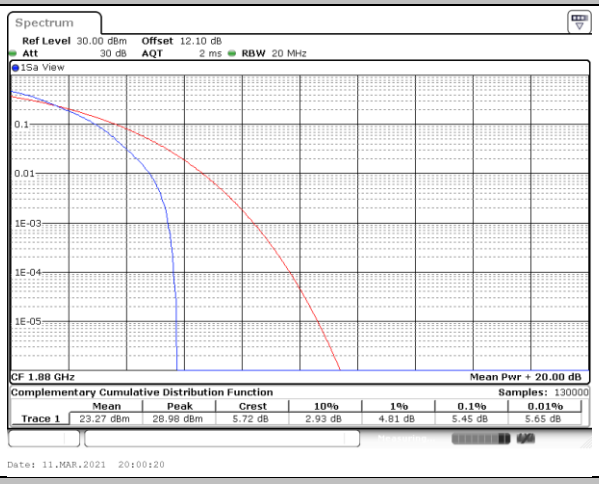
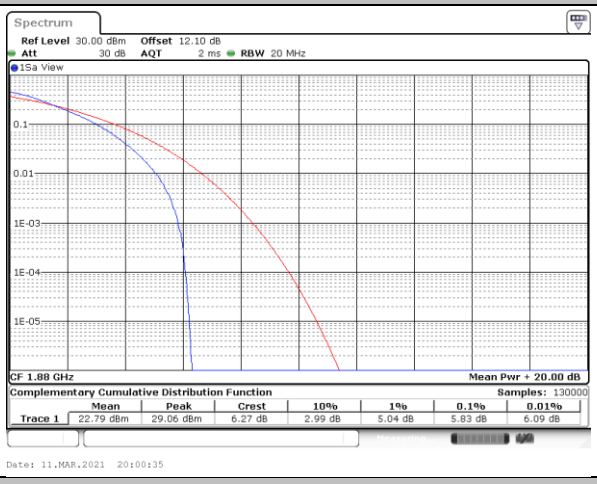
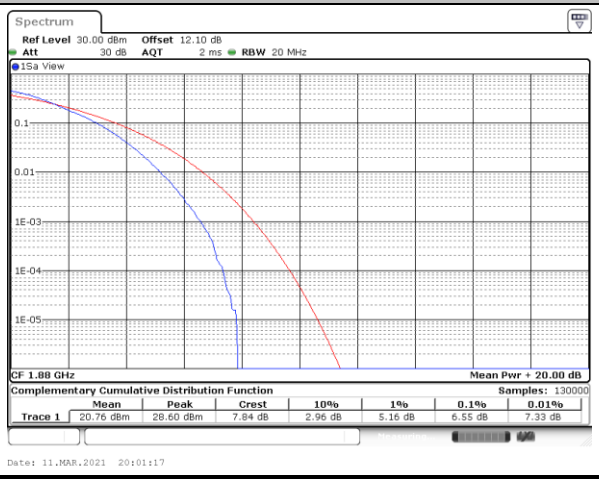
NR n77 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
90	1	1	PI/2 BPSK	25.38	25.34	25.34	29.01	0.7962
90	1	243		25.61	25.32	25.11		
90	120	60		25.43	25.37	25.26		
90	1	0		25.03	25.00	24.90		
90	1	244		25.19	24.91	24.64		
90	240	0		25.49	25.36	25.23		
90	1	1	QPSK	25.37	25.35	25.31		
90	1	243		25.59	25.29	25.08		
90	120	60		25.52	25.35	25.24		
90	1	0		24.94	24.92	24.93		
90	1	244		25.20	24.88	24.64		
90	240	0		25.49	25.38	25.23		
90	1	1	16-QAM	25.55	25.57	25.53	28.97	0.7889
90	1	1	64-QAM	25.51	25.49	25.41		
90	1	1	256-QAM	23.74	23.69	23.68		
Limit	EIRP < 1W			Result			Pass	

NR n77 Maximum Average Power [dBm] (GT - LC = 3.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
100	1	1	PI/2 BPSK	25.37	25.41	25.21	28.97	0.7889
100	1	271		25.46	25.31	25.19		
100	135	67		25.55	25.40	25.21		
100	1	0		25.00	24.95	24.82		
100	1	272		25.08	24.93	24.78		
100	270	0		25.51	25.34	25.23		
100	1	1	QPSK	25.35	25.31	25.20		
100	1	271		25.44	25.30	25.13		
100	135	67		25.57	25.32	25.27		
100	1	0		24.96	24.93	24.77		
100	1	272		25.07	24.91	24.81		
100	270	0		25.54	25.37	25.18		
100	1	1	16-QAM	25.60	25.51	25.46	29.00	0.7943
100	1	1	64-QAM	25.58	25.42	25.21		
100	1	1	256-QAM	23.78	23.70	23.63		
Limit	EIRP < 1W			Result			Pass	

FR1 n2

Peak-to-Average Ratio

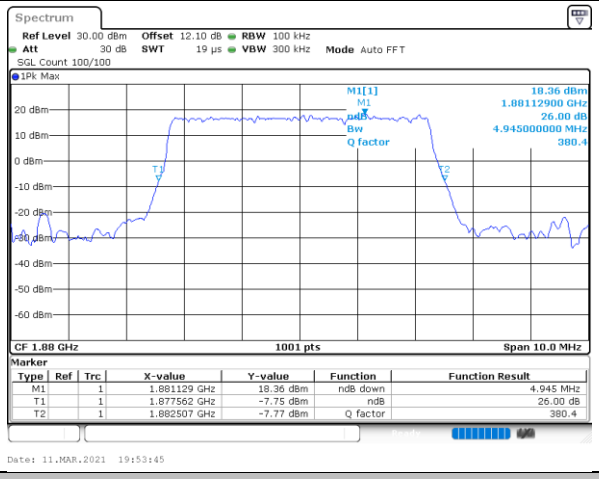
Mode	FR1 n2 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.68	4.26	5.45	5.83	PASS
Mode	FR1 n2 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.55				PASS

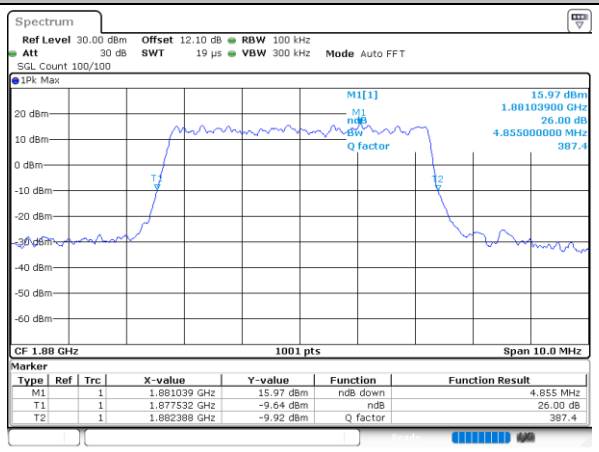
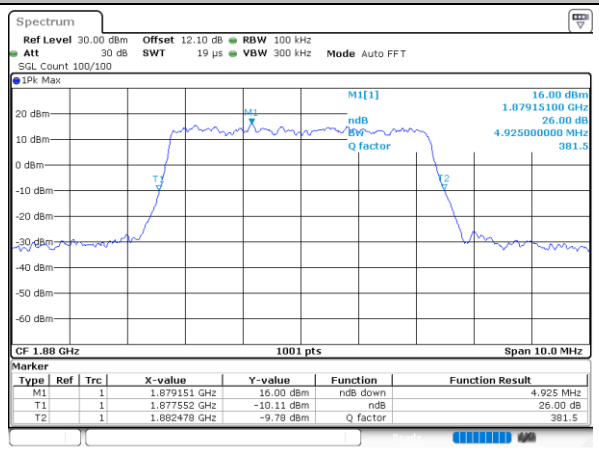
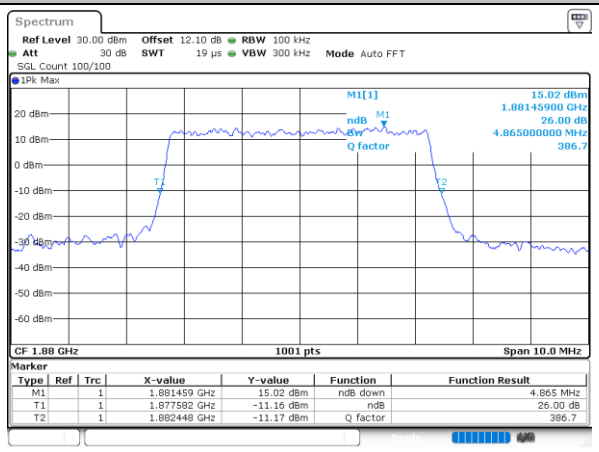
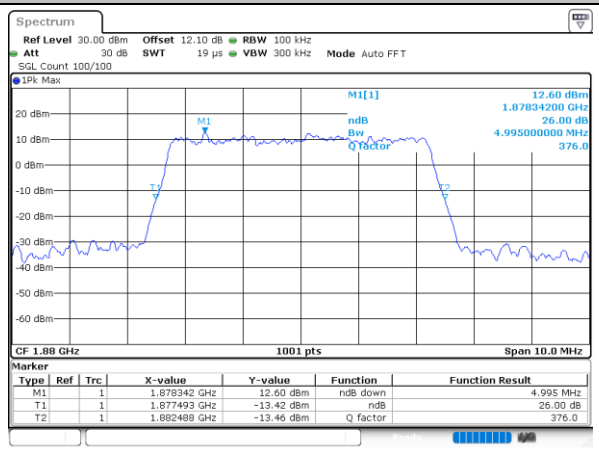
FR1 n2 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	QPSK
	
16QAM	64QAM
	
256QAM	
	

26dB Bandwidth

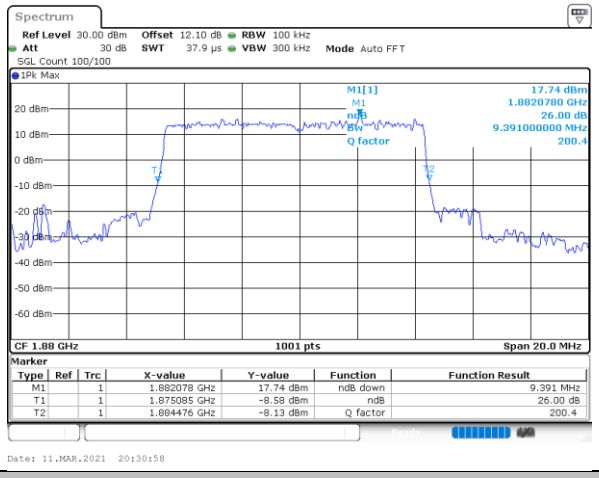
Mode	FR1 n2 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.95		9.39		14.18		18.62	

Mode	FR1 n2 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.86	4.93	9.91	9.87	14.96	14.87	19.74	19.74
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.87	5.00	9.77	9.79	15.05	14.93	19.74	19.78

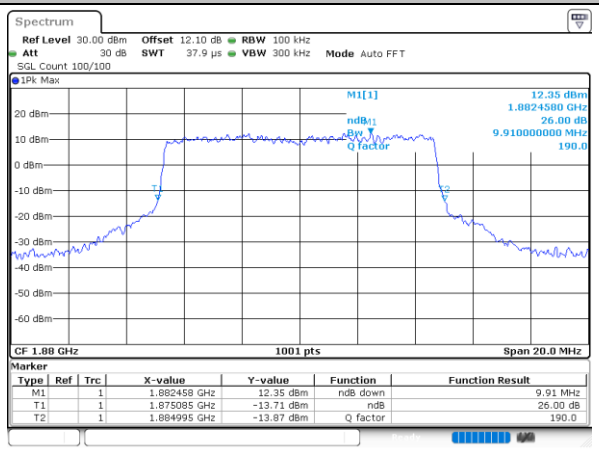
FR1 n2 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

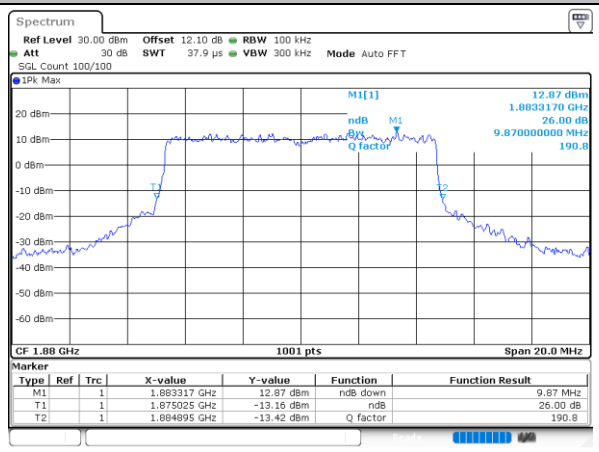
FR1 n2 / 5MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

FR1 n2 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	

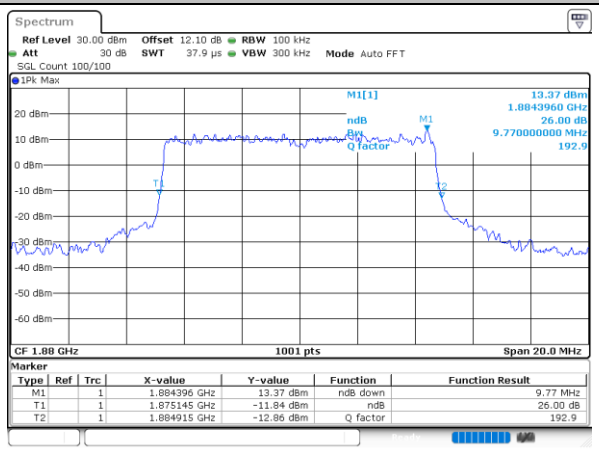


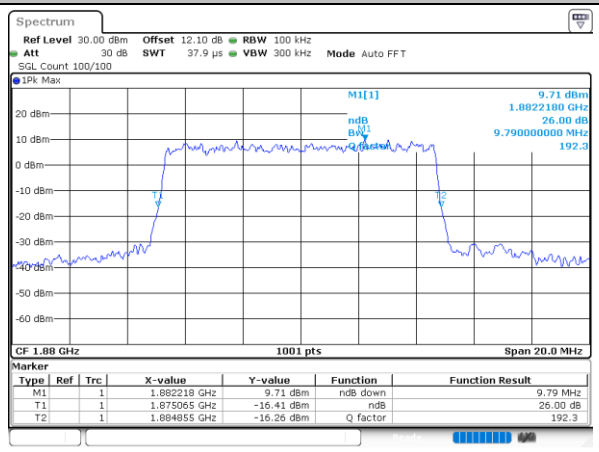
FR1 n2 / 10MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM





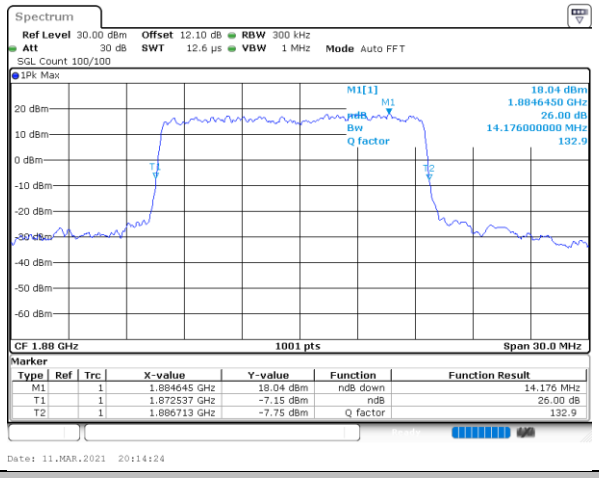
64QAM	256QAM





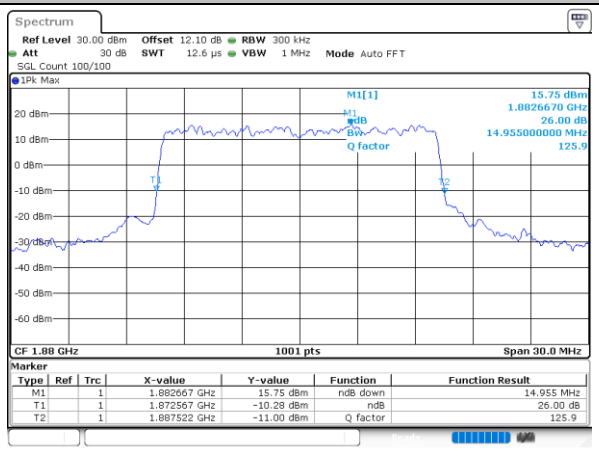
FR1 n2 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

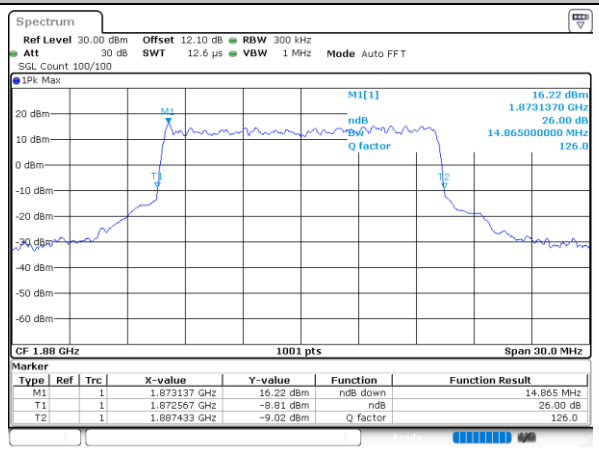


FR1 n2 / 15MHz / CP OFDM / Middle Channel / Full RB

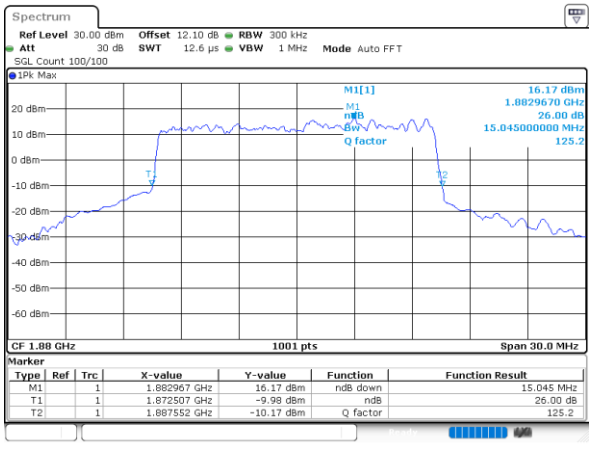
QPSK



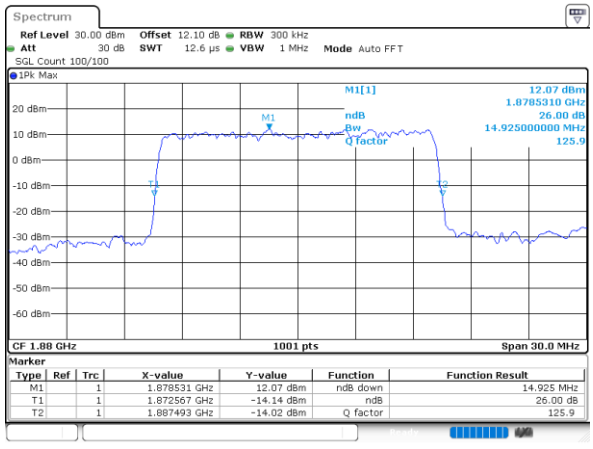
16QAM



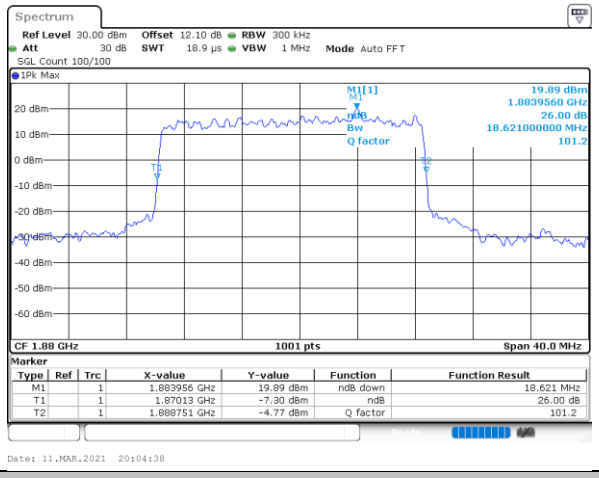
64QAM



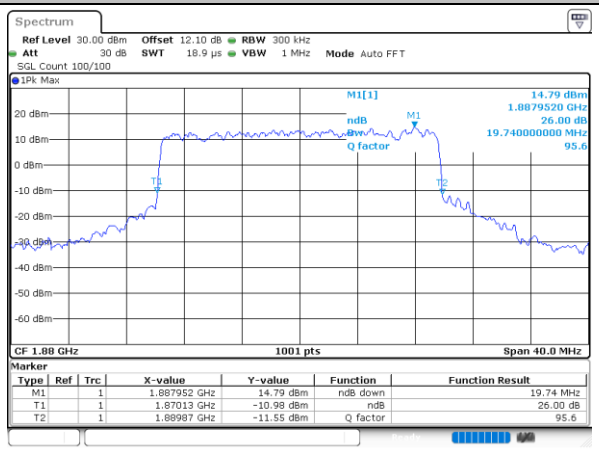
256QAM

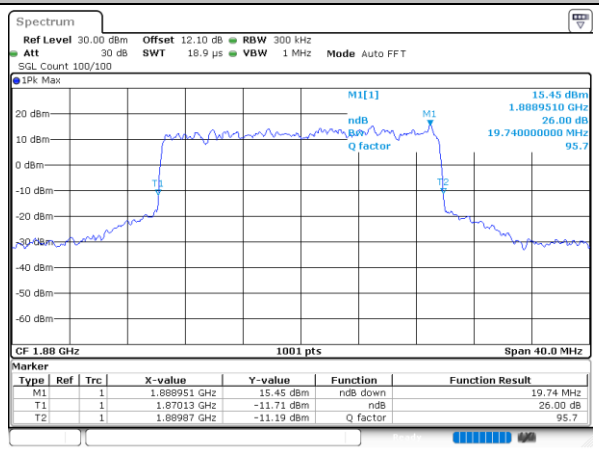


FR1 n2 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	

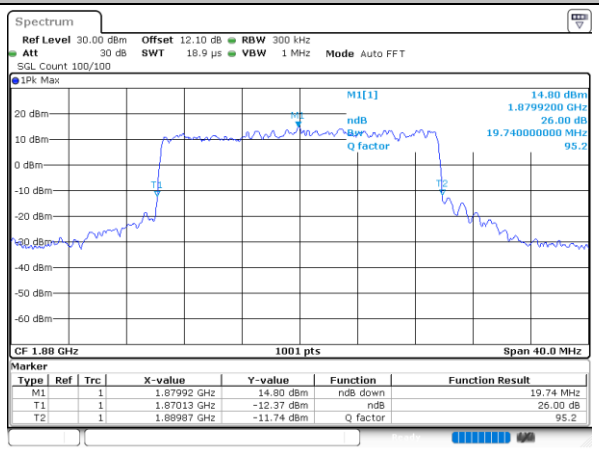


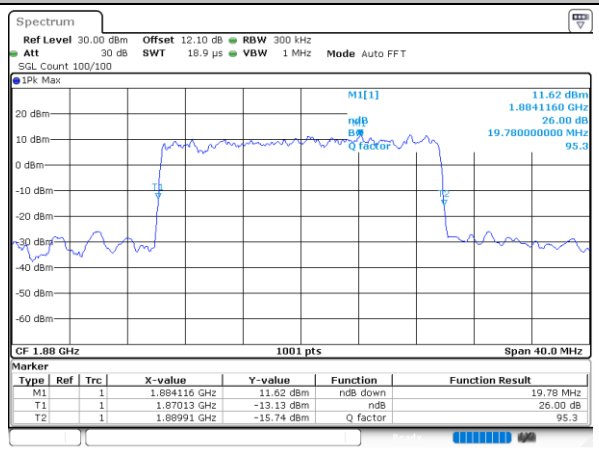
FR1 n2 / 20MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM





64QAM	256QAM

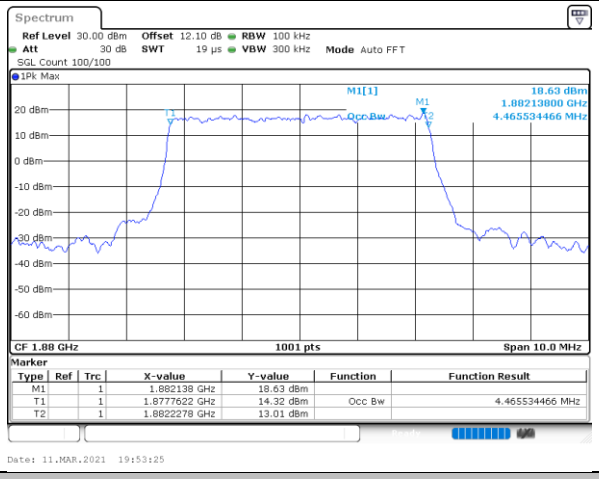


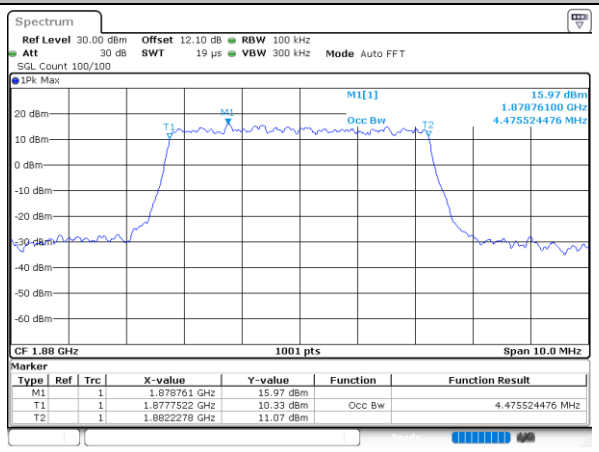
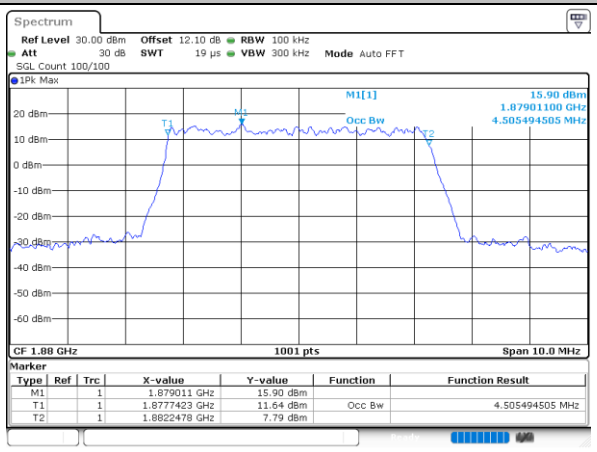
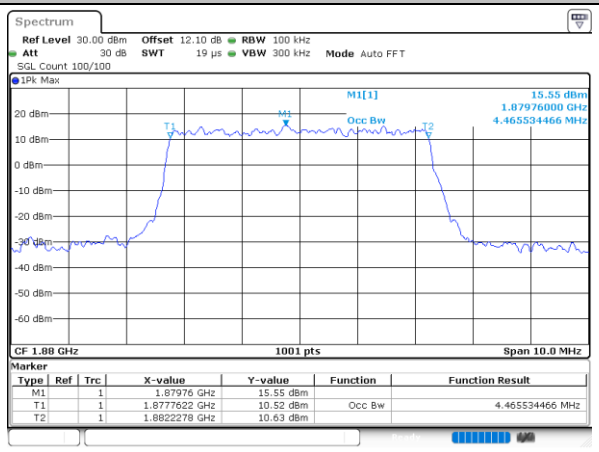
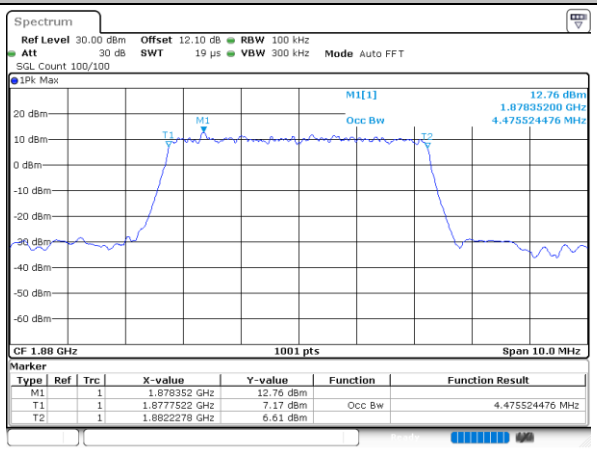


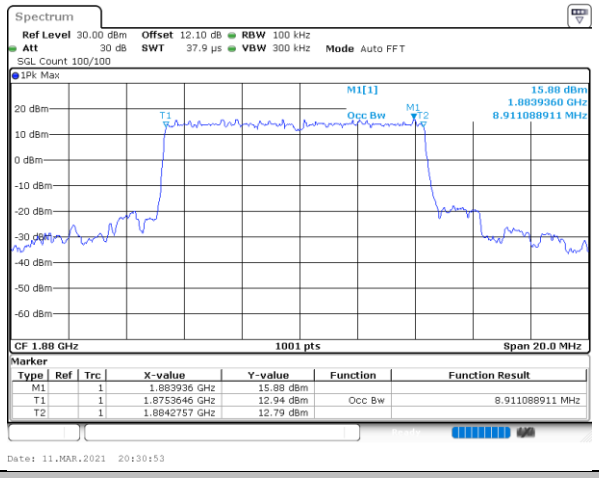
Occupied Bandwidth

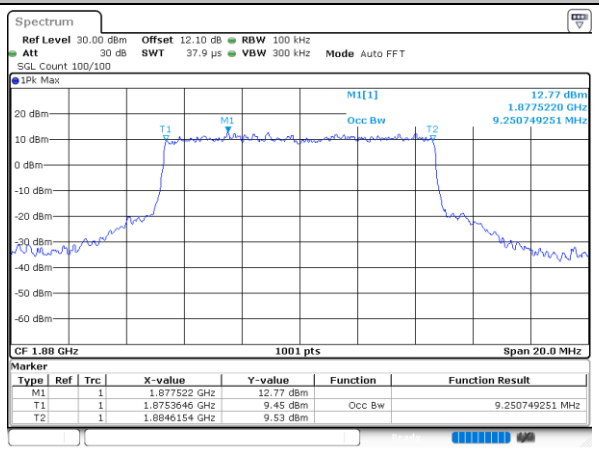
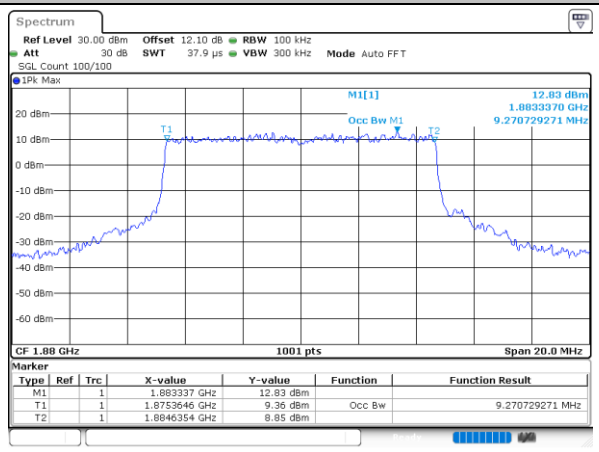
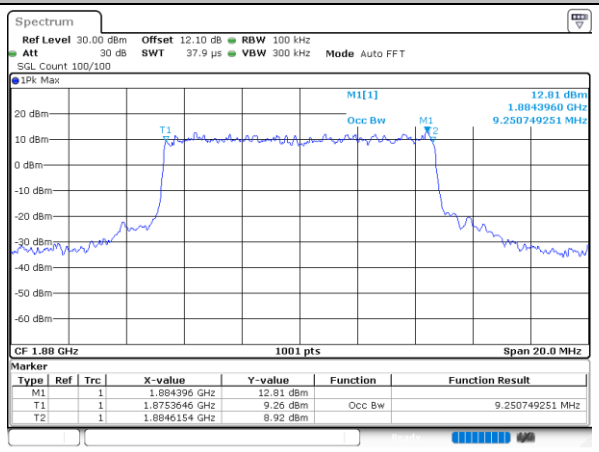
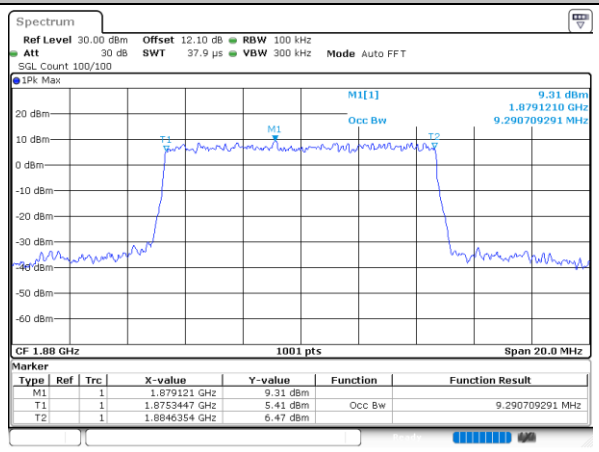
Mode	FR1 n2 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.47		8.91		13.46		17.90	

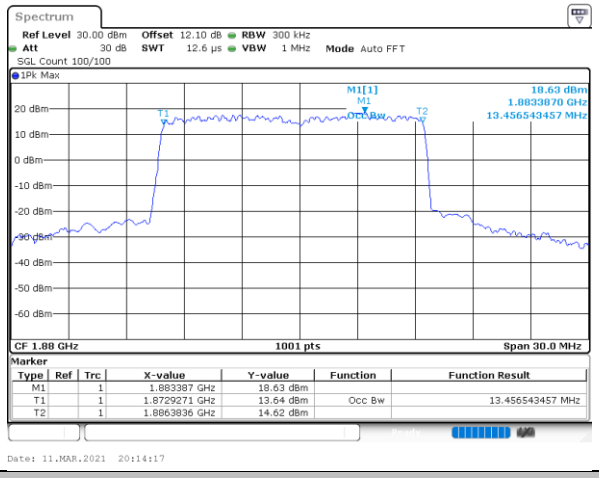
Mode	FR1 n2 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.48	4.51	9.25	9.27	14.15	14.15	18.94	19.02
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.47	4.48	9.25	9.29	14.12	14.15	18.94	18.86

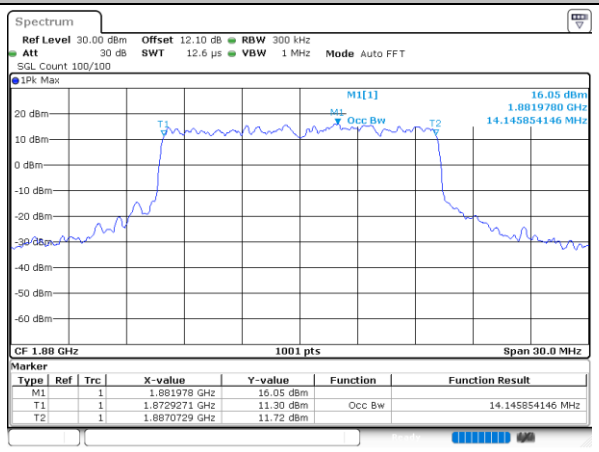
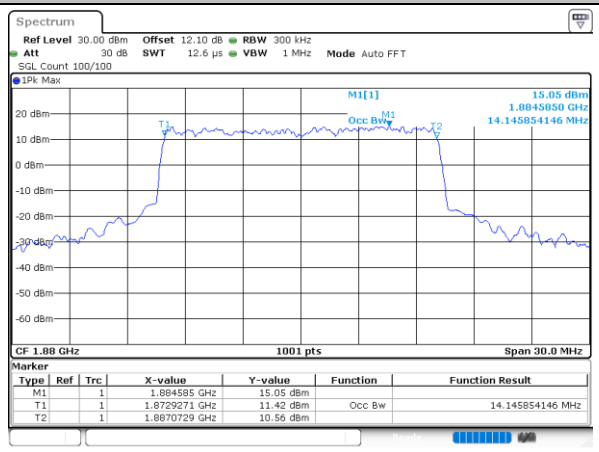
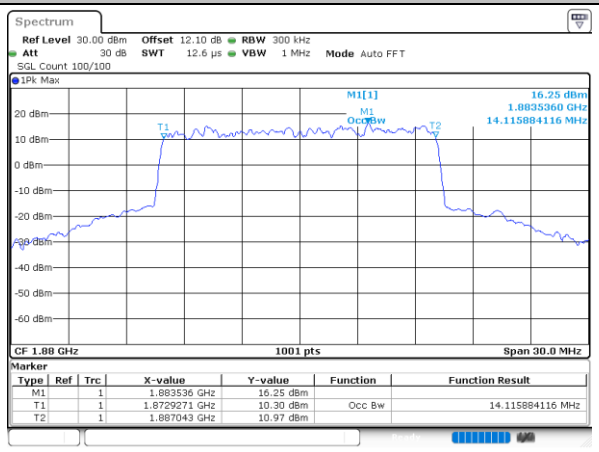
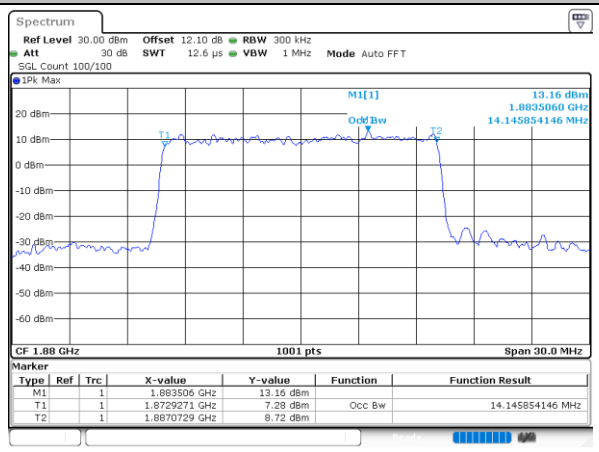
FR1 n2 / 5MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n2 / 5MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

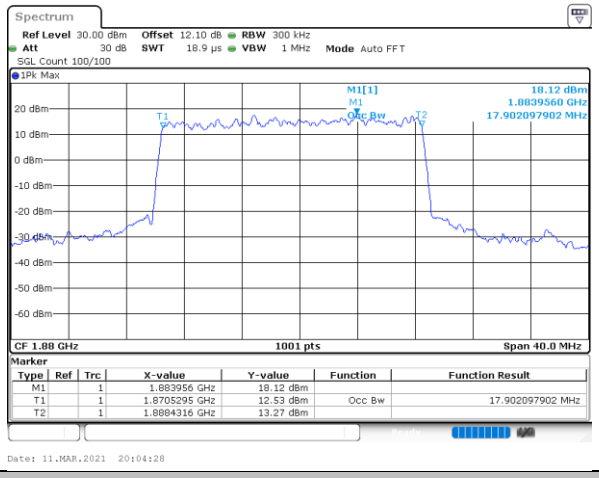
FR1 n2 / 10MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

FR1 n2 / 10MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

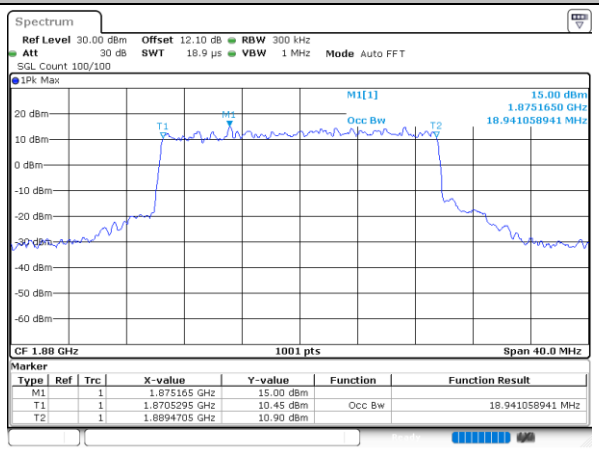
FR1 n2 / 15MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	
	

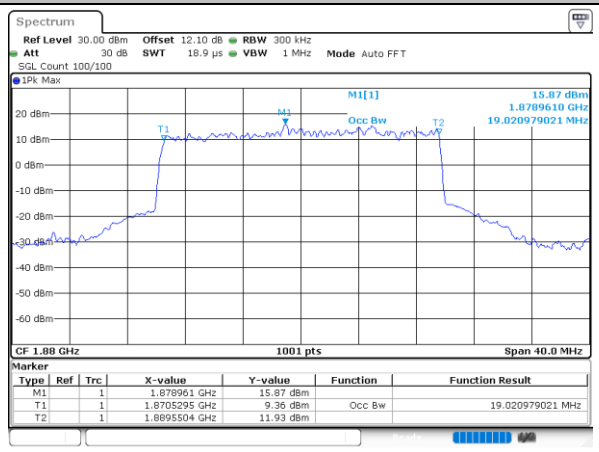
FR1 n2 / 15MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM
	
64QAM	256QAM
	

FR1 n2 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	

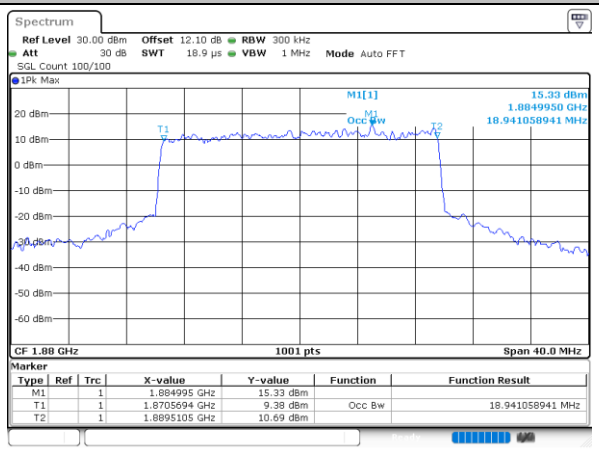


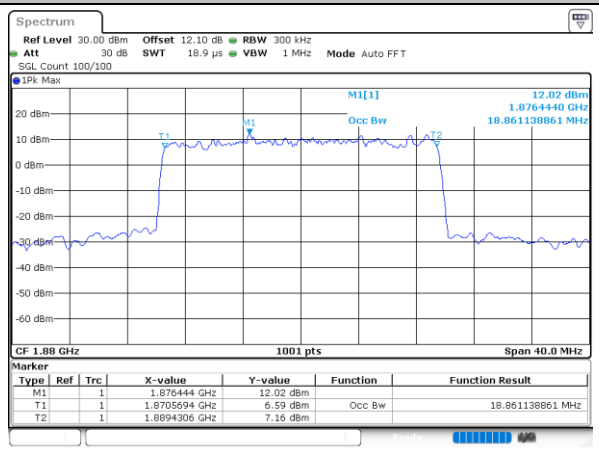
FR1 n2 / 20MHz / CP OFDM / Middle Channel / Full RB	
QPSK	16QAM





64QAM	256QAM

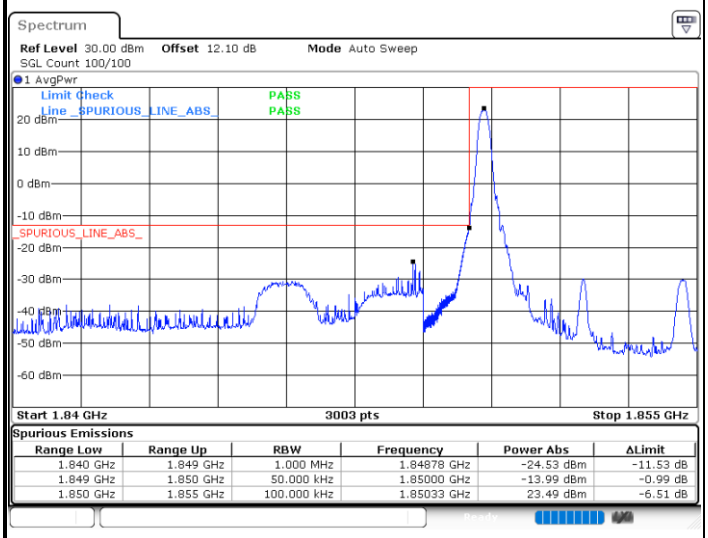




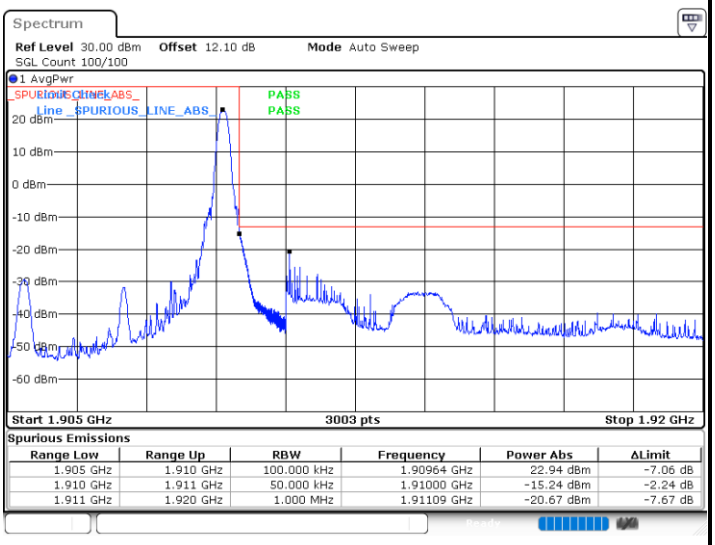
Conducted Band Edge

FR1 n2 / 5MHz / DFT-S OFDM / PI/2 BPSK

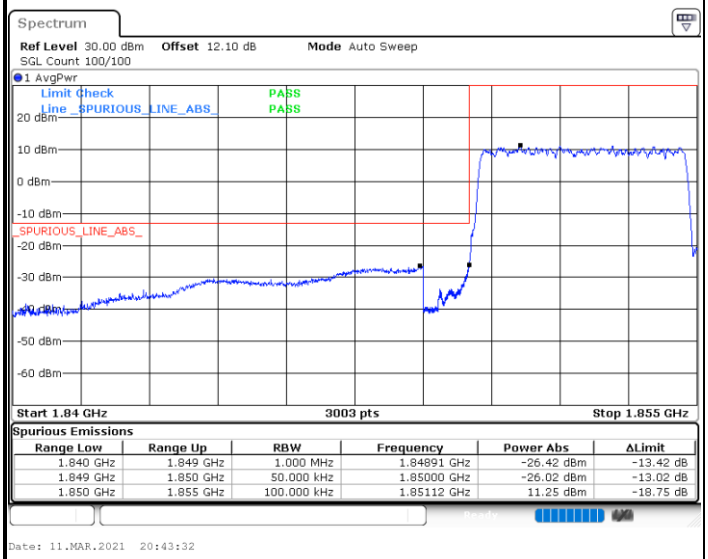
Lowest Band Edge / 1RB0



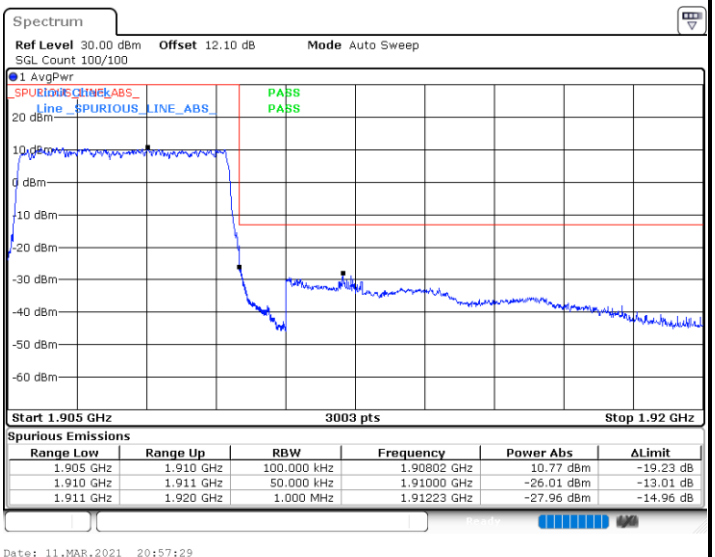
Highest Band Edge / 1RBmax

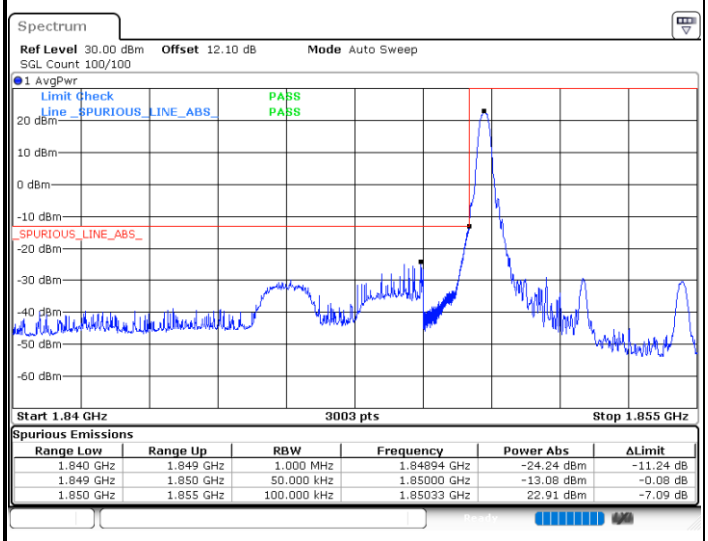
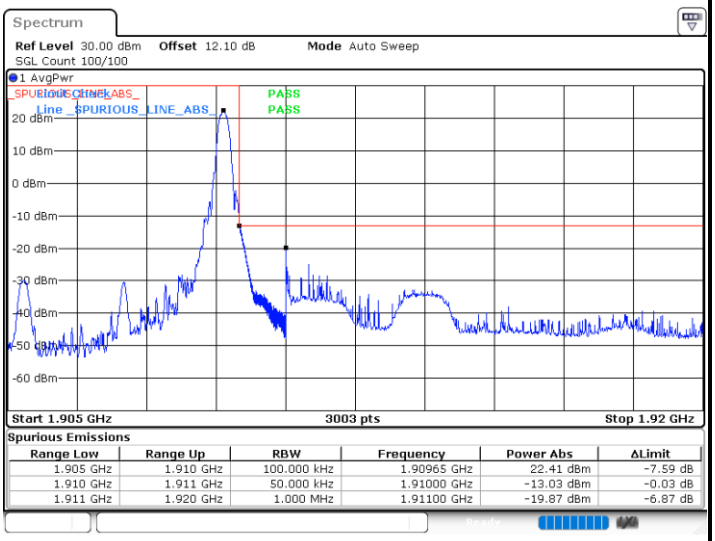
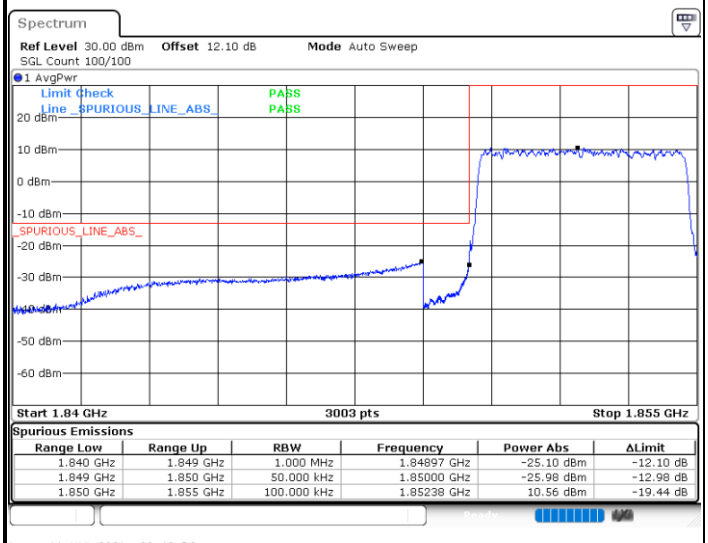
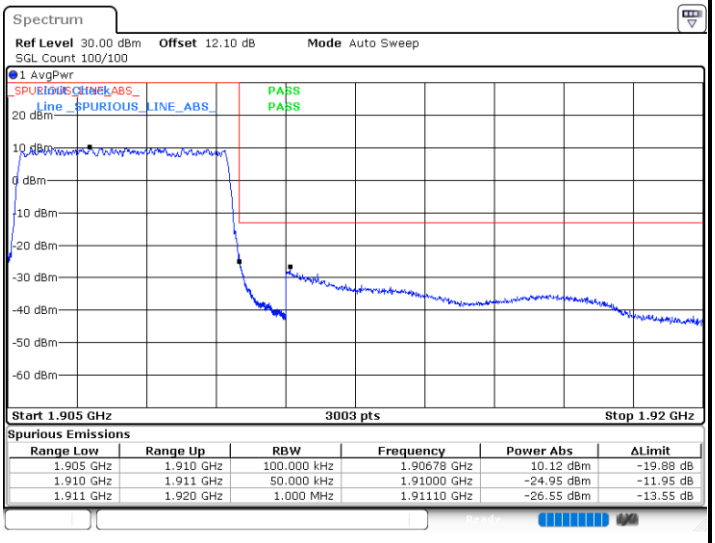


Lowest Band Edge / Full RB



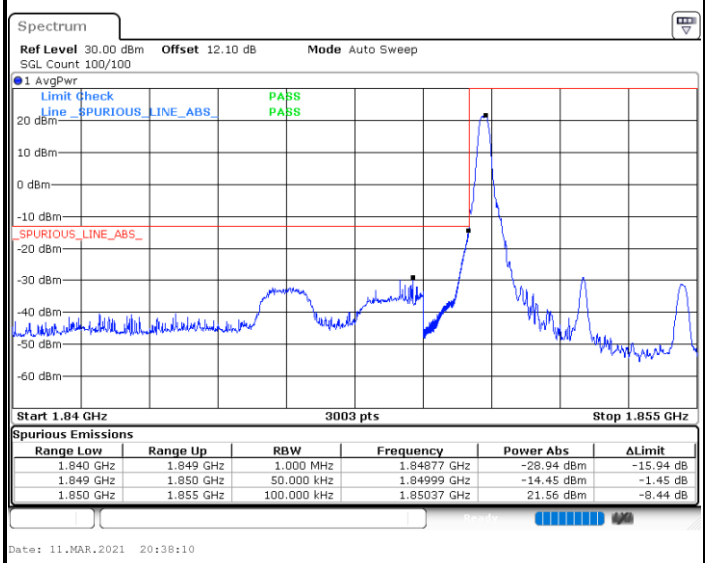
Highest Band Edge / Full RB



FR1 n2 / 5MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

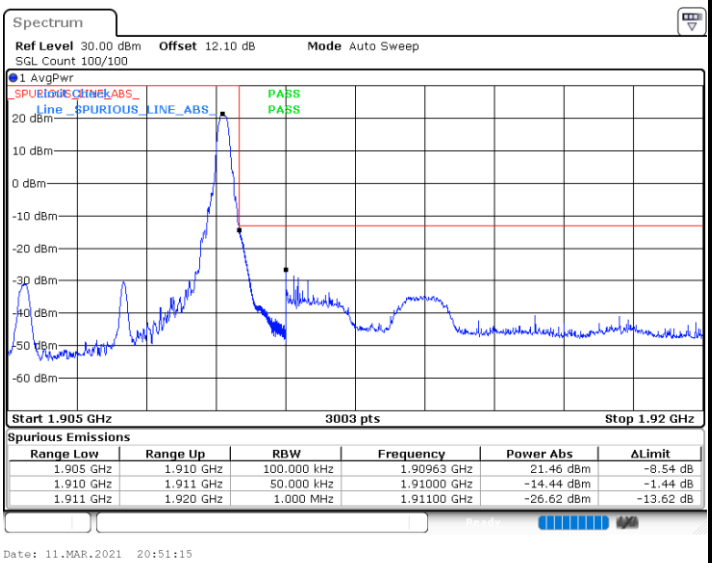
FR1 n2 / 5MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0



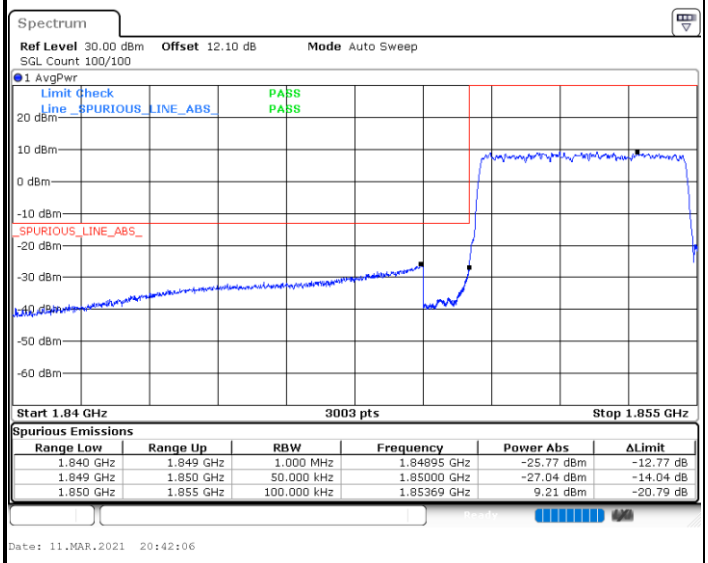
Date: 11.MAR.2021 20:38:10

Highest Band Edge / 1RBmax



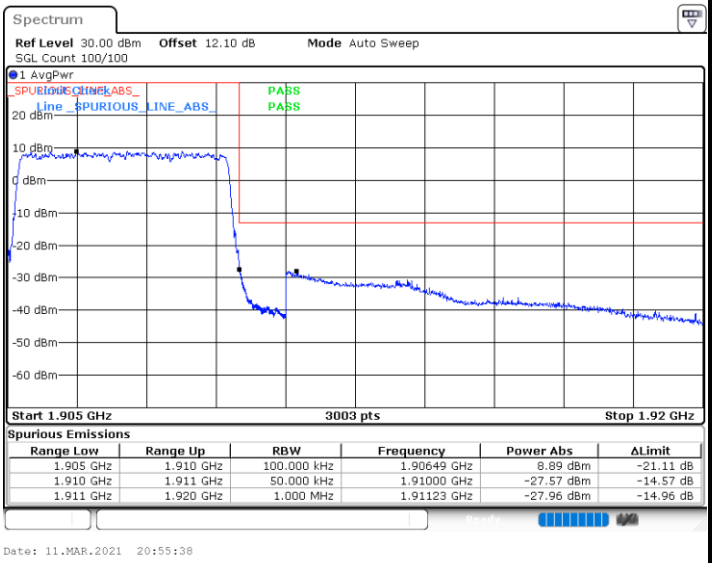
Date: 11.MAR.2021 20:51:15

Lowest Band Edge / Full RB



Date: 11.MAR.2021 20:42:06

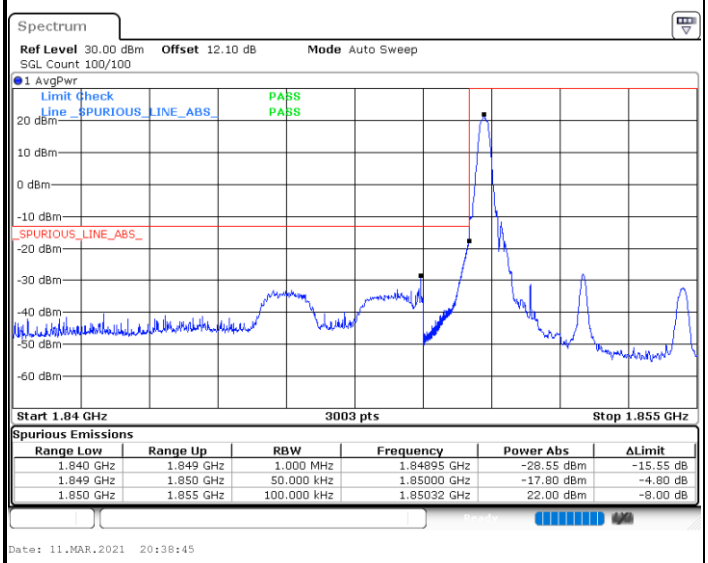
Highest Band Edge / Full RB



Date: 11.MAR.2021 20:55:38

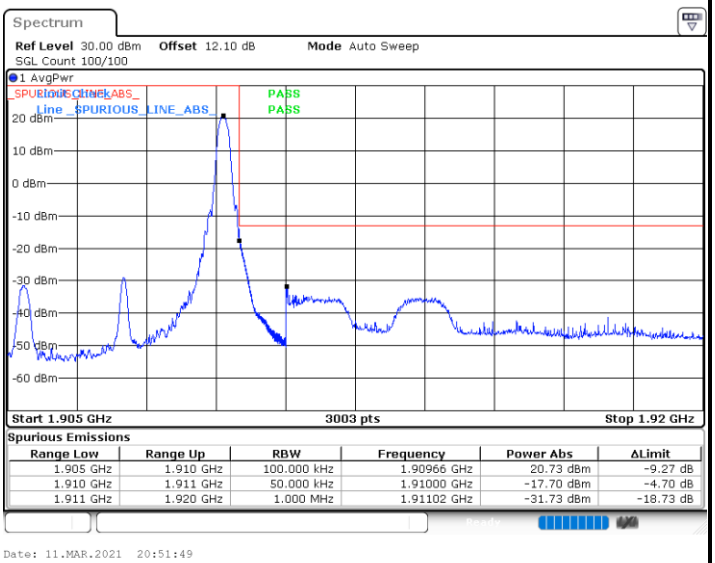
FR1 n2 / 5MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0



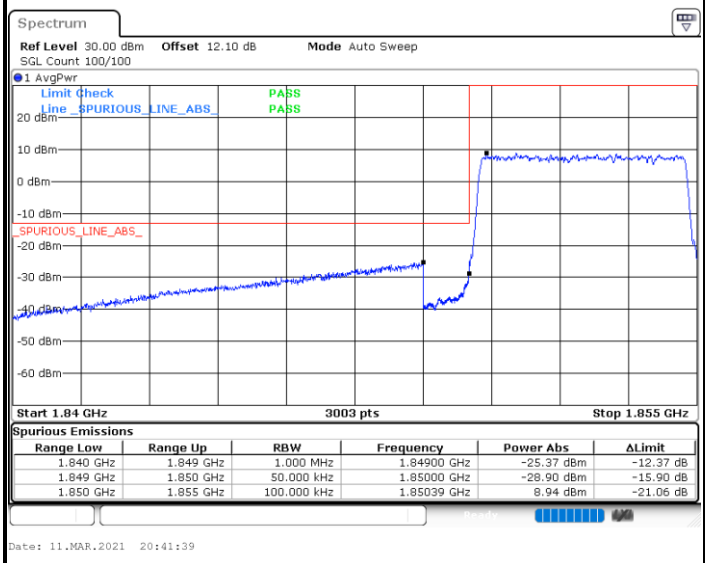
Date: 11.MAR.2021 20:38:45

Highest Band Edge / 1RBmax



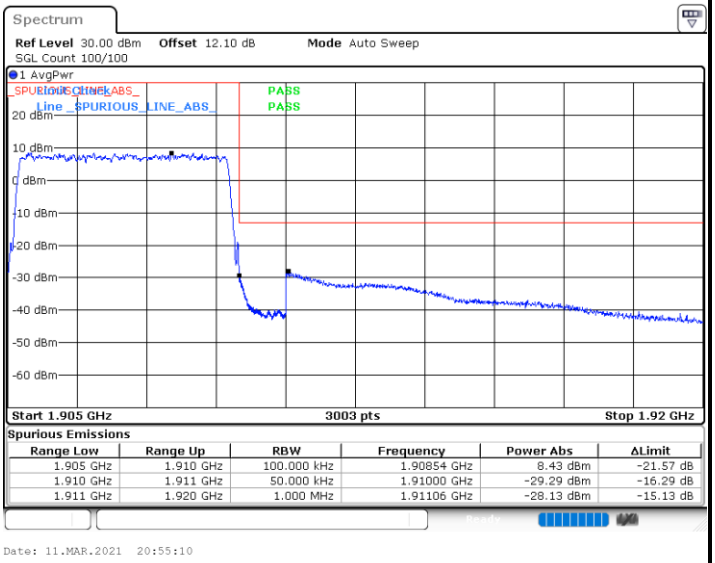
Date: 11.MAR.2021 20:51:49

Lowest Band Edge / Full RB

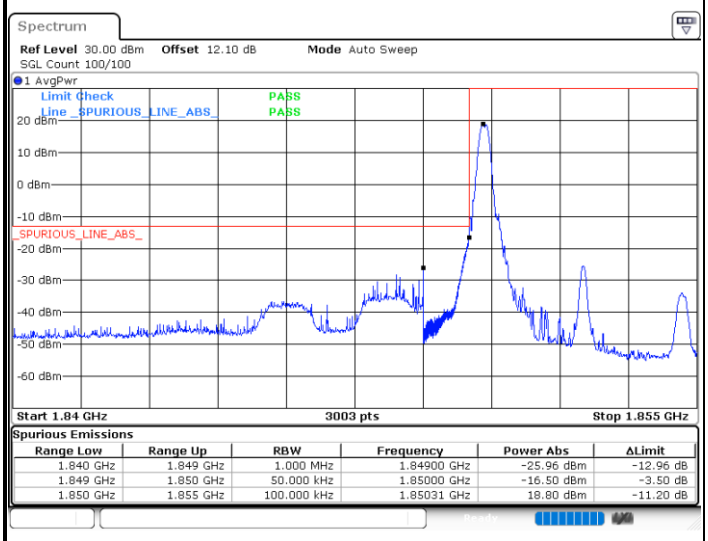
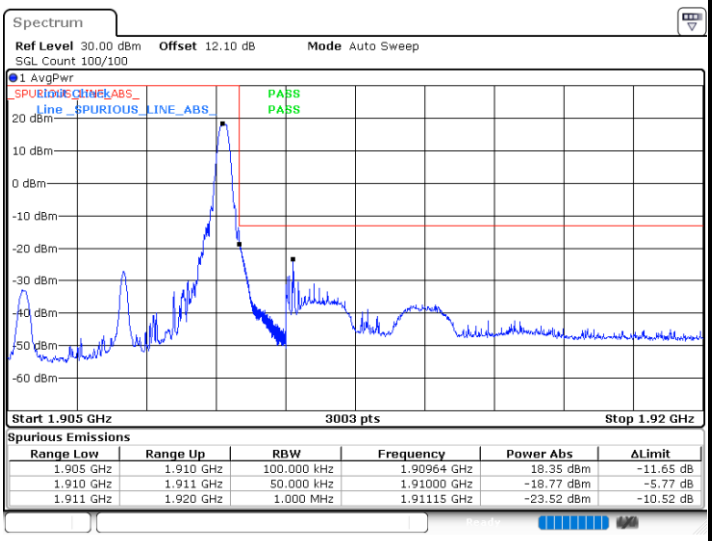
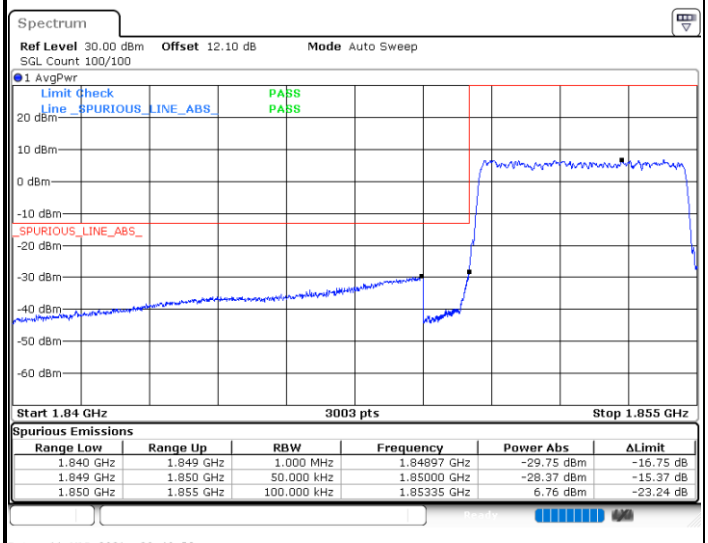
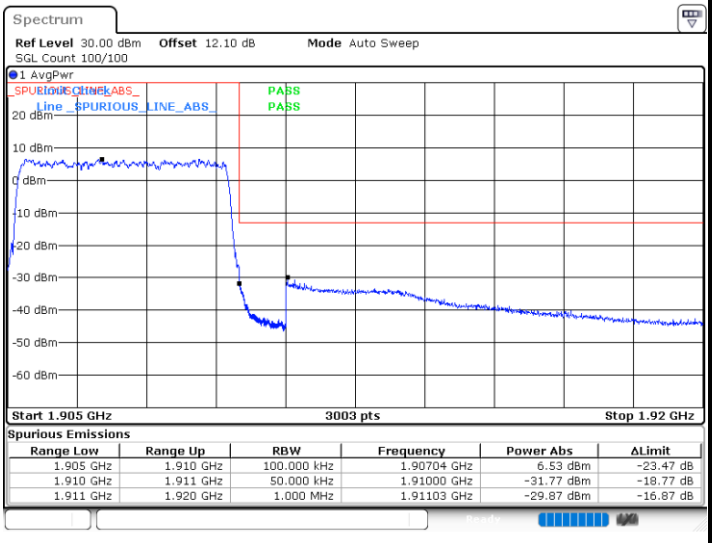


Date: 11.MAR.2021 20:41:39

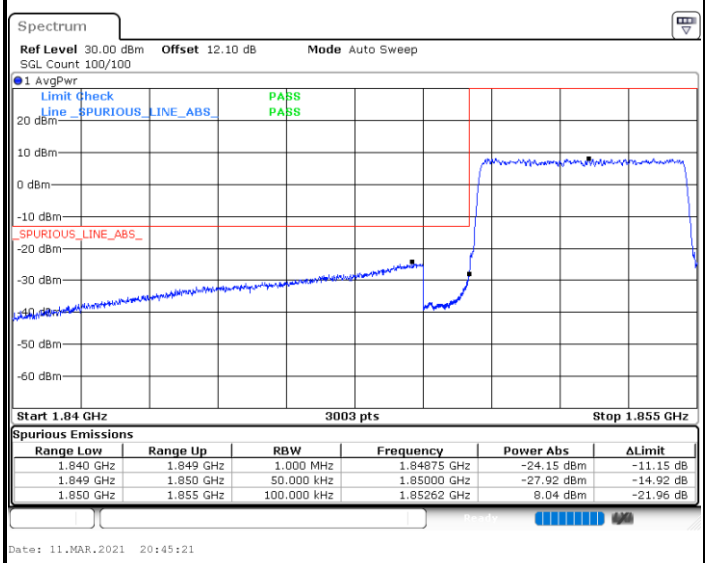
Highest Band Edge / Full RB

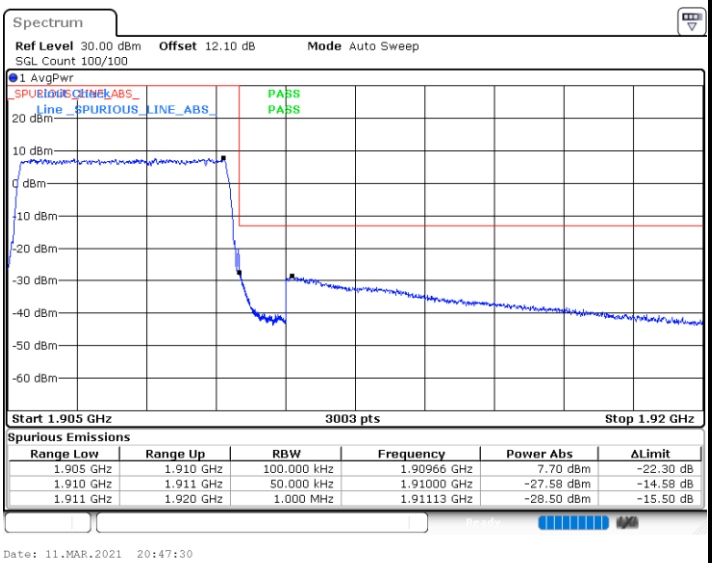


Date: 11.MAR.2021 20:55:10

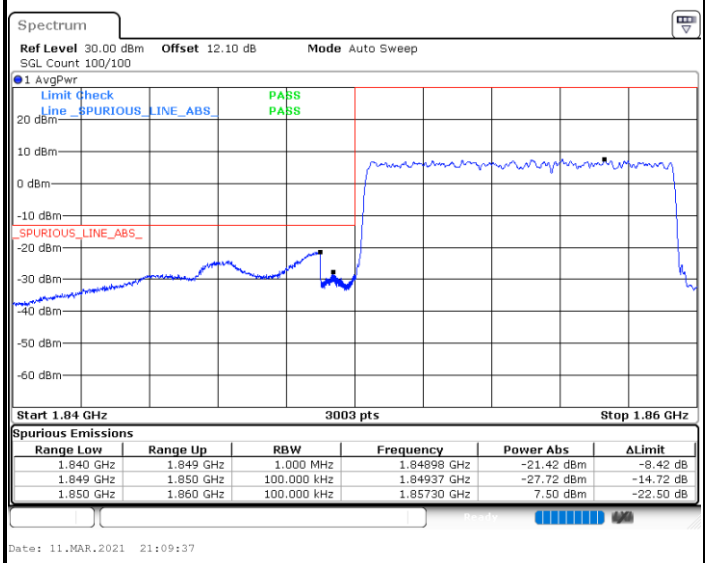
FR1 n2 / 5MHz / DFT-S OFDM / 256QAM	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

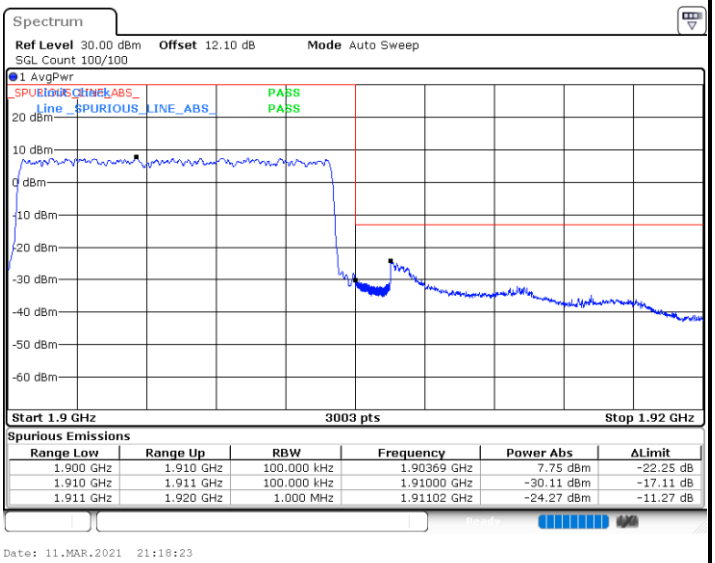
FR1 n2 / 5MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



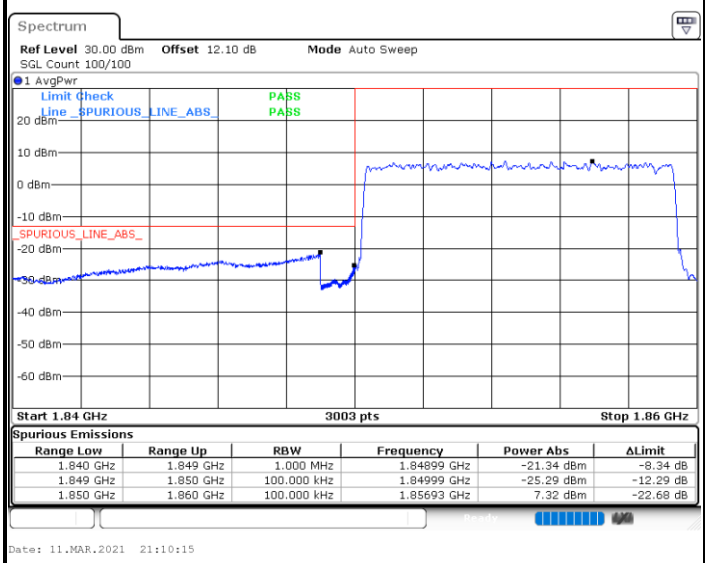


FR1 n2 / 10MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**





FR1 n2 / 10MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84899 GHz	-21.34 dBm	-8.34 dB
1.849 GHz	1.850 GHz	100.000 kHz	1.84999 GHz	-25.29 dBm	-12.29 dB
1.850 GHz	1.860 GHz	100.000 kHz	1.85693 GHz	7.32 dBm	-22.68 dB

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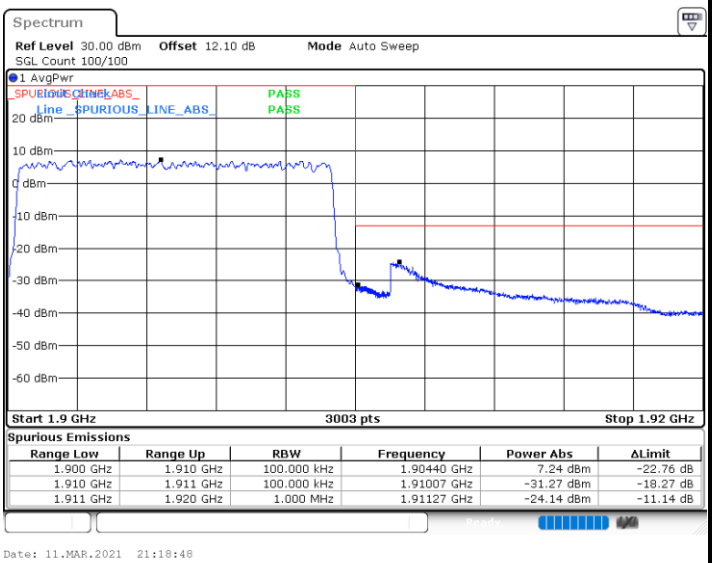

Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.900 GHz	1.910 GHz	100.000 kHz	1.90440 GHz	7.24 dBm	-22.76 dB
1.910 GHz	1.911 GHz	100.000 kHz	1.91007 GHz	-31.27 dBm	-18.27 dB
1.911 GHz	1.920 GHz	1.000 MHz	1.91127 GHz	-24.14 dBm	-11.14 dB

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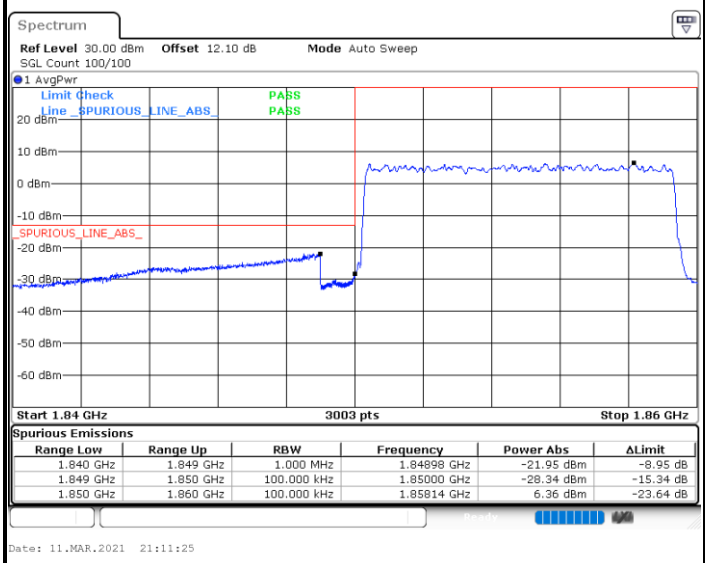
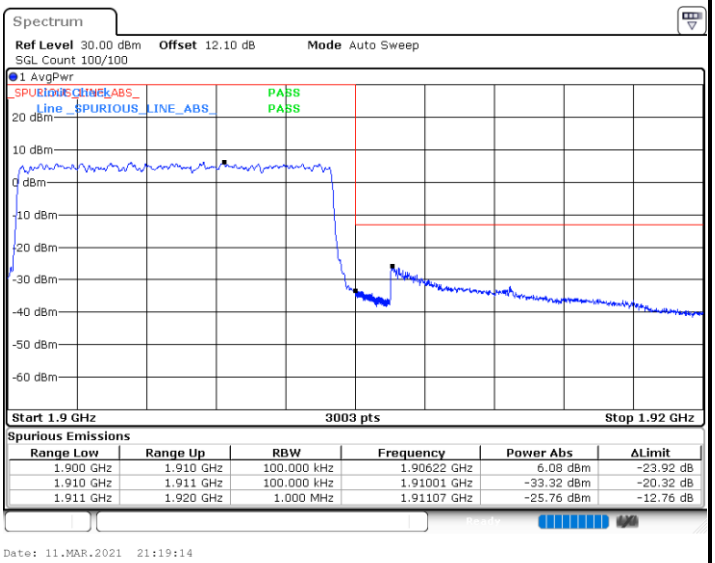
FR1 n2 / 10MHz / DFT-s-OFDM / 16QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84898 GHz	-21.95 dBm	-8.95 dB
1.849 GHz	1.850 GHz	100.000 kHz	1.85000 GHz	-28.34 dBm	-15.34 dB
1.850 GHz	1.860 GHz	100.000 kHz	1.85814 GHz	6.36 dBm	-23.64 dB

Date: 11.MAR.2021 21:11:25

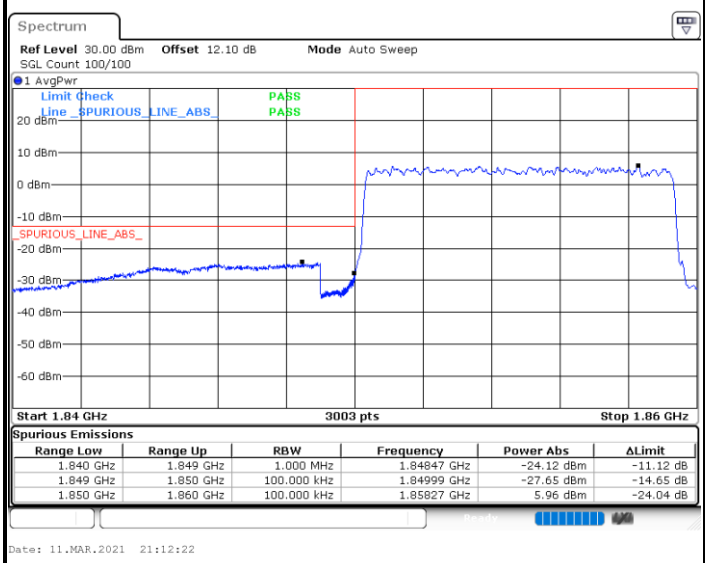


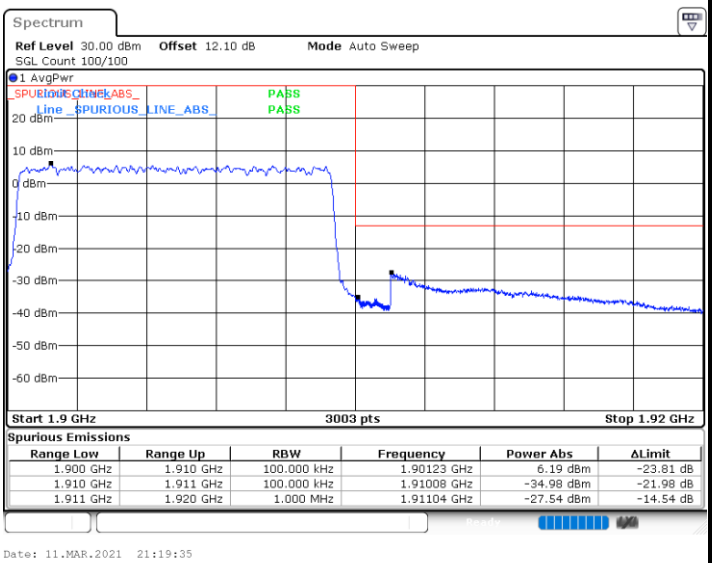
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.900 GHz	1.910 GHz	100.000 kHz	1.90622 GHz	6.08 dBm	-23.92 dB
1.910 GHz	1.911 GHz	100.000 kHz	1.91001 GHz	-33.32 dBm	-20.32 dB
1.911 GHz	1.920 GHz	1.000 MHz	1.91107 GHz	-25.76 dBm	-12.76 dB

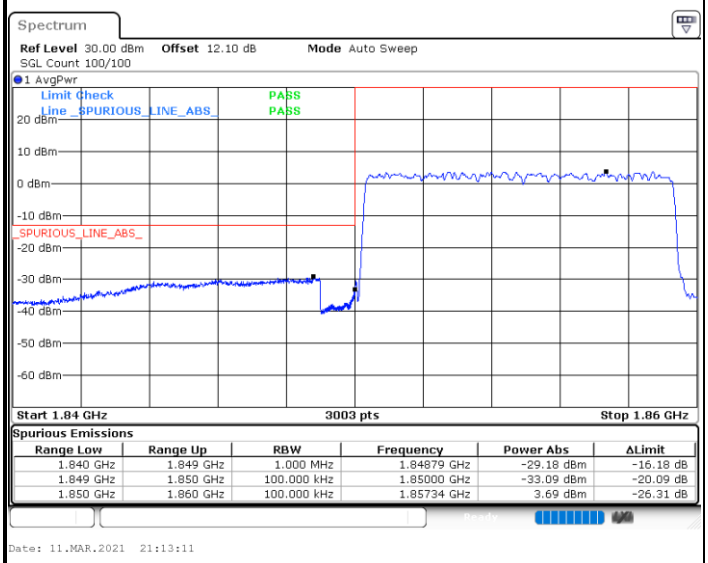
Date: 11.MAR.2021 21:19:14

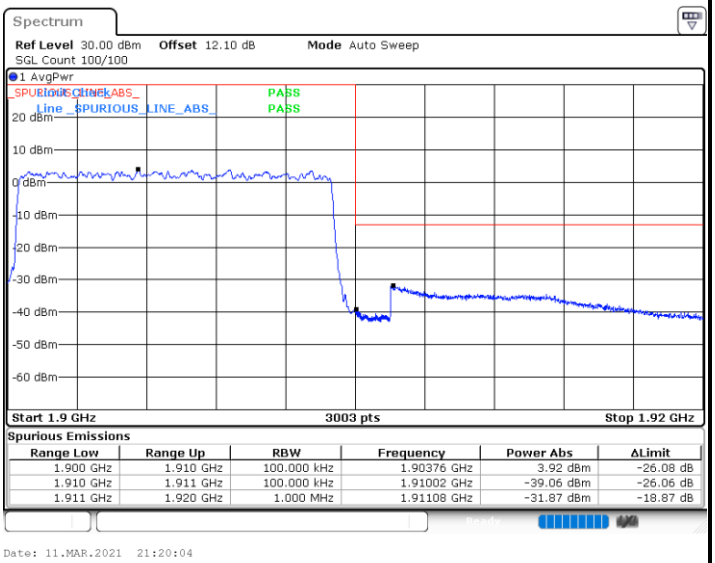
FR1 n2 / 10MHz / DFT-s-OFDM / 64QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



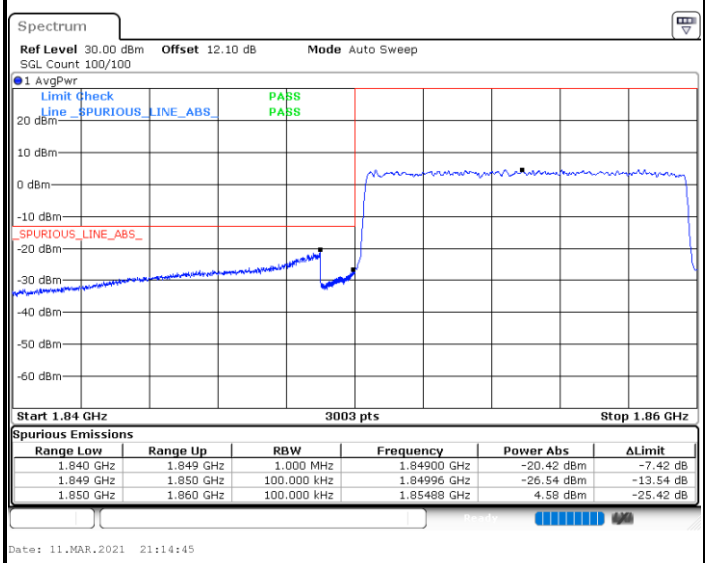


FR1 n2 / 10MHz / DFT-s-OFDM / 256QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**





FR1 n2 / 10MHz / CP OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84900 GHz	-20.42 dBm	-7.42 dB
1.849 GHz	1.850 GHz	100.000 kHz	1.84996 GHz	-26.54 dBm	-13.54 dB
1.850 GHz	1.860 GHz	100.000 kHz	1.85488 GHz	4.58 dBm	-25.42 dB

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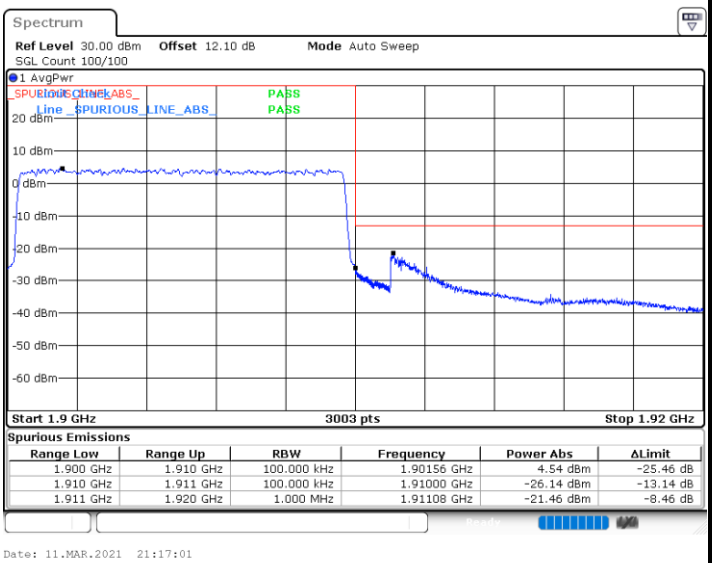
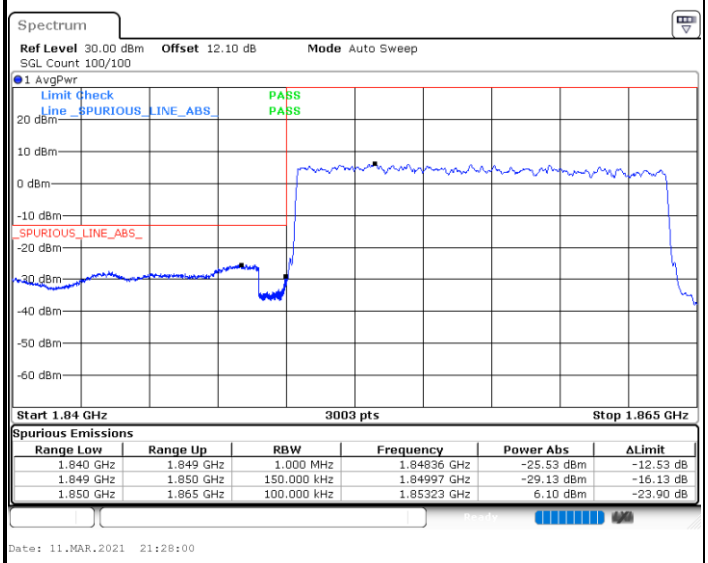


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.900 GHz	1.910 GHz	100.000 kHz	1.90156 GHz	4.54 dBm	-25.46 dB
1.910 GHz	1.911 GHz	100.000 kHz	1.91000 GHz	-26.14 dBm	-13.14 dB
1.911 GHz	1.920 GHz	1.000 MHz	1.91108 GHz	-21.46 dBm	-8.46 dB

Date: 11.MAR.2021 21:17:01

FR1 n2 / 15MHz / DFT-s-OFDM / PI/2 BPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84836 GHz	-25.53 dBm	-12.53 dB
1.849 GHz	1.850 GHz	150.000 kHz	1.84997 GHz	-29.13 dBm	-16.13 dB
1.850 GHz	1.865 GHz	100.000 kHz	1.85323 GHz	6.10 dBm	-23.90 dB

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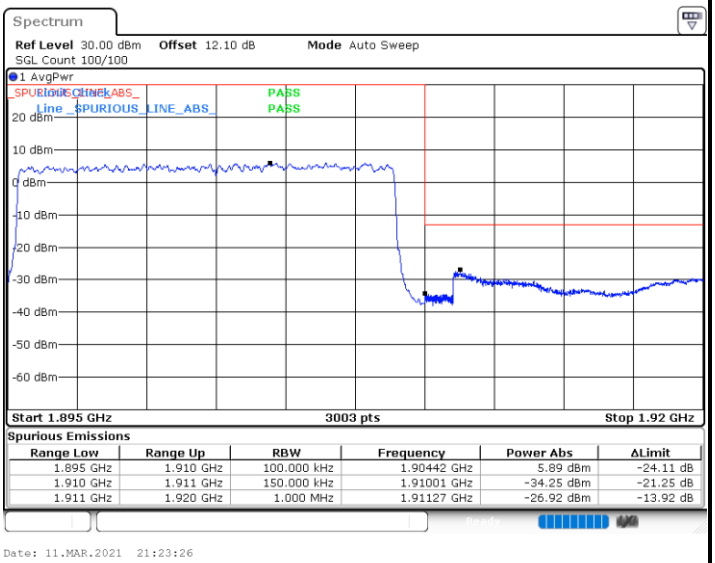
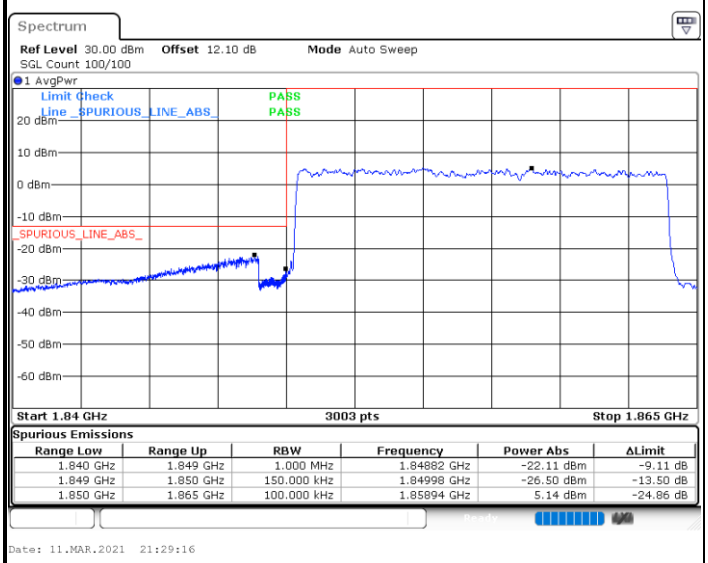


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.895 GHz	1.910 GHz	100.000 kHz	1.90442 GHz	5.89 dBm	-24.11 dB
1.910 GHz	1.911 GHz	150.000 kHz	1.91001 GHz	-34.25 dBm	-21.25 dB
1.911 GHz	1.920 GHz	1.000 MHz	1.91127 GHz	-26.92 dBm	-13.92 dB

Date: 11.MAR.2021 21:23:26

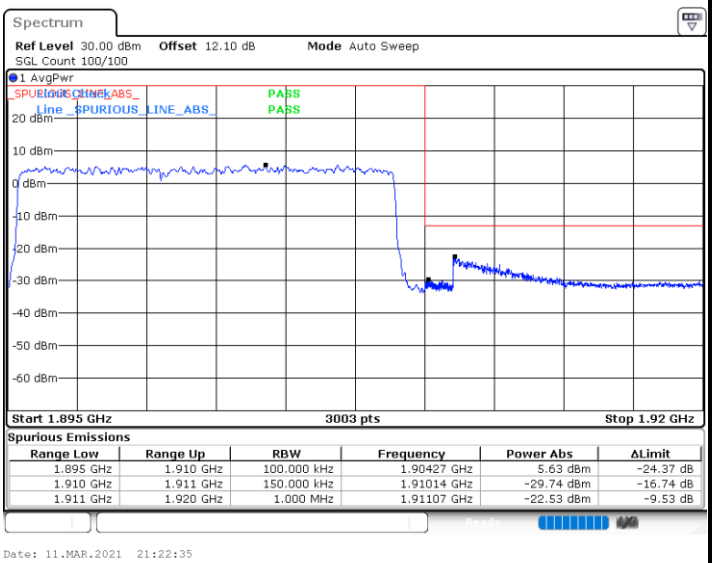
FR1 n2 / 15MHz / DFT-s-OFDM / QPSK / Full RB	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84882 GHz	-22.11 dBm	-9.11 dB
1.849 GHz	1.850 GHz	150.000 kHz	1.84998 GHz	-26.50 dBm	-13.50 dB
1.850 GHz	1.865 GHz	100.000 kHz	1.85894 GHz	5.14 dBm	-24.86 dB

Date: 11.MAR.2021 21:29:16

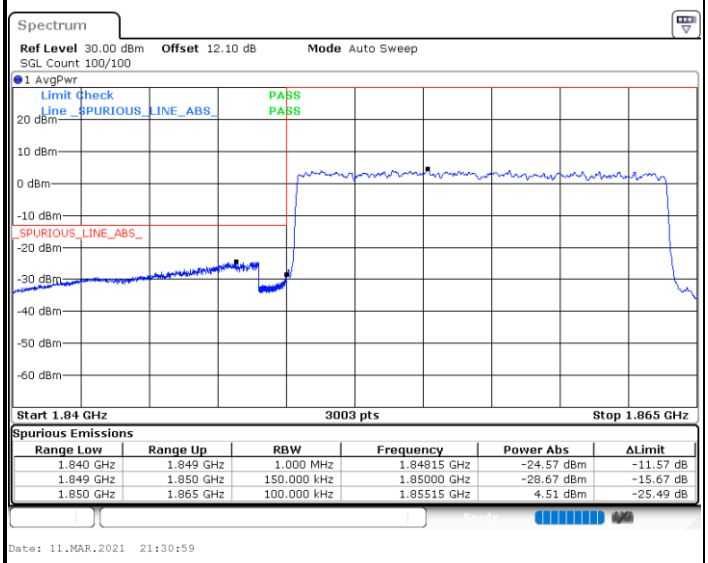


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.895 GHz	1.910 GHz	100.000 kHz	1.90427 GHz	5.63 dBm	-24.37 dB
1.910 GHz	1.911 GHz	150.000 kHz	1.91014 GHz	-29.74 dBm	-16.74 dB
1.911 GHz	1.920 GHz	1.000 MHz	1.91107 GHz	-22.53 dBm	-9.53 dB

Date: 11.MAR.2021 21:22:35

FR1 n2 / 15MHz / DFT-s-OFDM / 16QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84815 GHz	-24.57 dBm	-11.57 dB
1.849 GHz	1.850 GHz	150.000 kHz	1.85000 GHz	-28.67 dBm	-15.67 dB
1.850 GHz	1.865 GHz	100.000 kHz	1.85515 GHz	4.51 dBm	-25.49 dB

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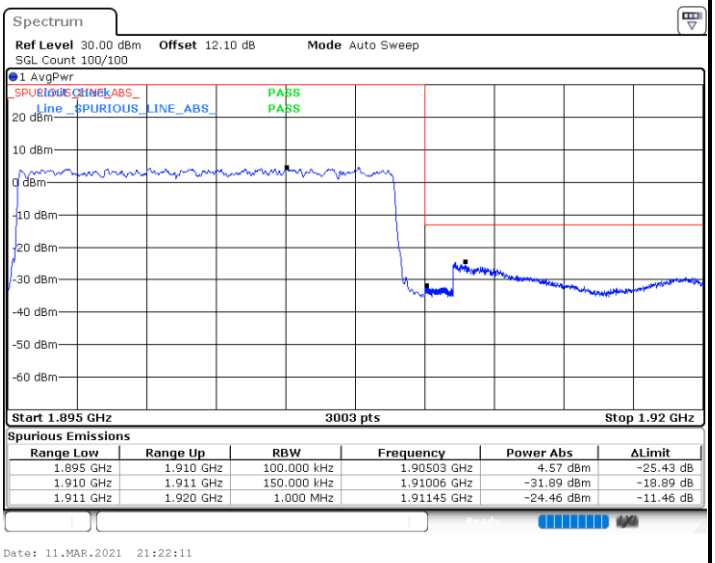
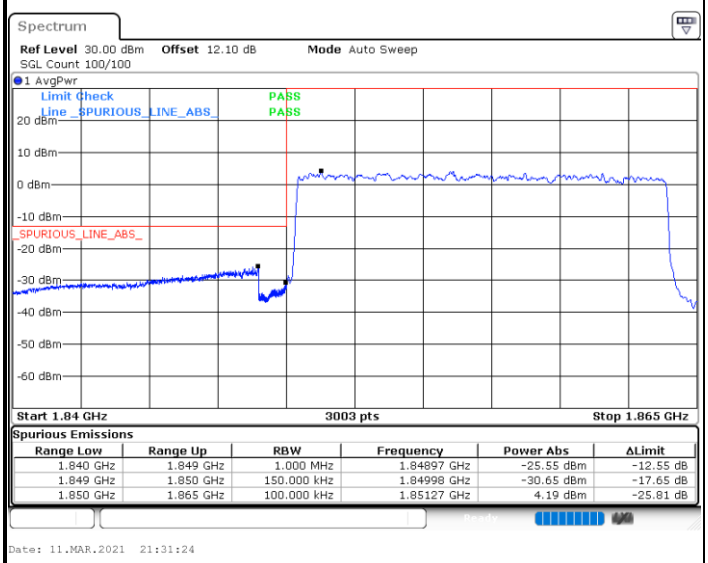


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.895 GHz	1.910 GHz	100.000 kHz	1.90503 GHz	4.57 dBm	-25.43 dB
1.910 GHz	1.911 GHz	150.000 kHz	1.91006 GHz	-31.89 dBm	-18.89 dB
1.911 GHz	1.920 GHz	1.000 MHz	1.91145 GHz	-24.46 dBm	-11.46 dB

Date: 11.MAR.2021 21:22:11

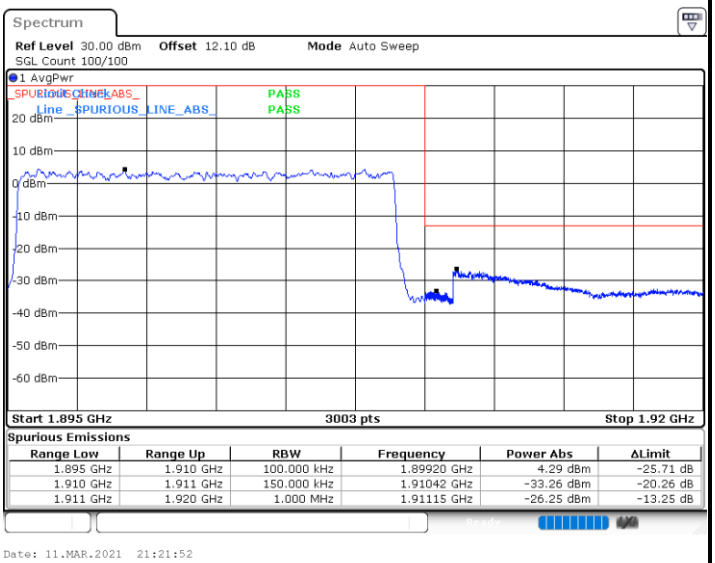
FR1 n2 / 15MHz / DFT-s-OFDM / 64QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84897 GHz	-25.55 dBm	-12.55 dB
1.849 GHz	1.850 GHz	150.000 kHz	1.84998 GHz	-30.65 dBm	-17.65 dB
1.850 GHz	1.865 GHz	100.000 kHz	1.85127 GHz	4.19 dBm	-25.81 dB

Date: 11.MAR.2021 21:31:24

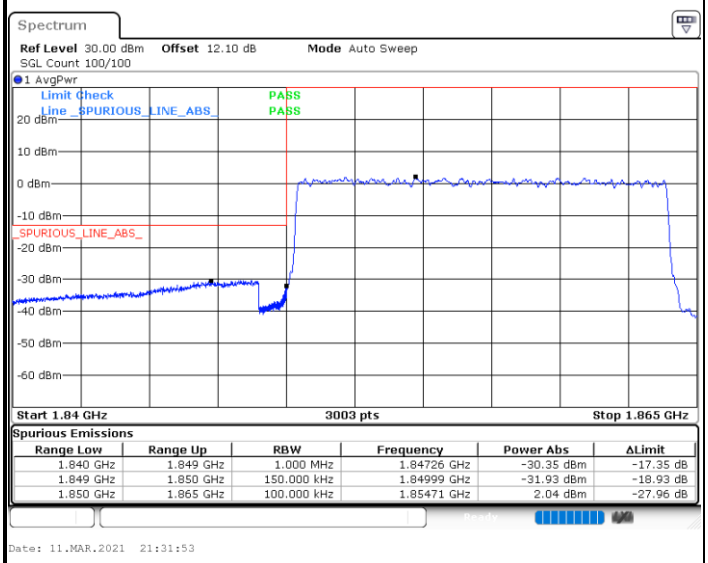


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.895 GHz	1.910 GHz	100.000 kHz	1.89920 GHz	4.29 dBm	-25.71 dB
1.910 GHz	1.911 GHz	150.000 kHz	1.91042 GHz	-33.26 dBm	-20.26 dB
1.911 GHz	1.920 GHz	1.000 MHz	1.91115 GHz	-26.25 dBm	-13.25 dB

Date: 11.MAR.2021 21:21:52

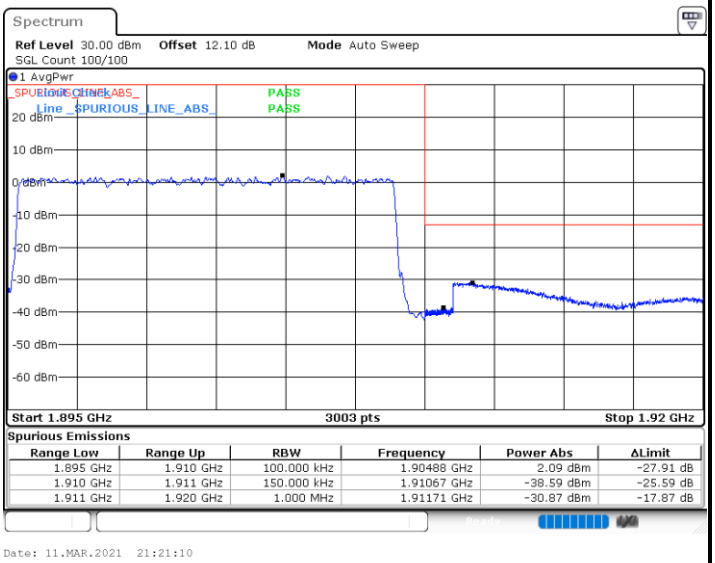
FR1 n2 / 15MHz / DFT-s-OFDM / 256QAM / Full RB	
Lowest Band Edge	**Highest Band Edge**



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.840 GHz	1.849 GHz	1.000 MHz	1.84726 GHz	-30.35 dBm	-17.35 dB
1.849 GHz	1.850 GHz	150.000 kHz	1.84999 GHz	-31.93 dBm	-18.93 dB
1.850 GHz	1.865 GHz	100.000 kHz	1.85471 GHz	2.04 dBm	-27.96 dB

Date: 11.MAR.2021 21:31:53



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
1.895 GHz	1.910 GHz	100.000 kHz	1.90488 GHz	2.09 dBm	-27.91 dB
1.910 GHz	1.911 GHz	150.000 kHz	1.91067 GHz	-38.59 dBm	-25.59 dB
1.911 GHz	1.920 GHz	1.000 MHz	1.91171 GHz	-30.87 dBm	-17.87 dB

Date: 11.MAR.2021 21:21:10