FCC RADIO TEST REPORT

FCC ID	:	**IHDT56YU2**
Equipment	:	**Mobile Cellular Phone**
Brand Name	:	**Motorola**
Model Name	:	**XT2063-3**
Applicant	:	**Motorola Mobility LLC** **222 W, Merchandise Mart Plaza, Chicago IL 60654 USA**
Manufacturer	:	**Motorola Mobility LLC** **222 W, Merchandise Mart Plaza, Chicago IL 60654 USA**
Standard	:	**FCC 47 CFR Part 2, 27**

The product was received on Mar. 30, 2020 and testing was started from Aug. 21, 2020 and completed on Aug. 26, 2020. 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

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FG012201-11	01	Initial issue of report MOTO PCMCR no. PLCM-1211/PLCM1237	Sep. 04, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Reporting only	-
	§27.50 (h)(2)	Equivalent Isotropic Radiated Power (n7)	Pass	
3.3	-	Peak-to-Average Ratio	Reporting only	-
3.4	§2.1049	Occupied Bandwidth	Reporting only	-
3.5	§2.1051 §27.53 (m)(4)	Conducted Band Edge Measurement (n7)	Pass	-
3.6	§2.1051 §27.53 (m)(4)	Conducted Spurious Emission (n7)	Pass	-
3.7	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Pass	-
4.2	§2.1051 §27.53 (m)(4)	Radiated Spurious Emission (n7)	Pass	Under limit 16.04 dB at 7650.000 MHz
Note: This report was adding 5G NR n7 by SW.				

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: Yimin Ho

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature		
Equipment	Mobile Cellular Phone	
Brand Name	Motorola	
Model Name	XT2063-3	
FCC ID	IHDT56YU2	
IMEI Code	**Conducted :**	IMEI 1: 353585110029538 IMEI 2: 353585110029546
	Radiation :	IMEI 1: 353585110029512 IMEI 2: 353585110029520
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/GNSS/NFC/FM WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE	
HW Version	DVT2	
EUT Stage	Identical Prototype	

Remark: The above EUT's information was declared by manufacturer.

Accessory List		
AC Adapter 1 (US)	Brand Name :	Motorola
	Model Name :	SC-51
	Manufacturer :	Chenyang
AC Adapter 1 (EU)	Brand Name :	Motorola
	Model Name :	SC-52
	Manufacturer :	Chenyang
AC Adapter 1 (UK)	Brand Name :	Motorola
	Model Name :	SC-53UK
	Manufacturer :	Chenyang
AC Adapter 1 (AU)	Brand Name :	Motorola
	Model Name :	SC 55AU
	Manufacturer :	Chenyang
AC Adapter 1 (AR)	Brand Name :	Motorola
	Model Name :	SC-56
	Manufacturer :	Chenyang
AC Adapter 2 (US)	Brand Name :	Motorola
	Model Name :	SC 51
	Manufacturer :	Acbel
AC Adapter 2 (EU)	Brand Name :	Motorola
	Model Name :	SC-52
	Manufacturer :	Acbel
AC Adapter 2 (AR)	Brand Name :	Motorola
	Model Name :	SC-56
	Manufacturer :	Acbel

Accessory List		
AC Adapter 3 (Chile)	Brand Name :	Motorola
	Model Name :	SC-52
	Manufacturer :	Salom
AC Adapter 3 (BR)	Brand Name :	Motorola
	Model Name :	SC-57
	Manufacturer :	Salom
AC Adapter 3 (BR Local Build)	Brand Name :	Motorola
	Model Name :	SC-57
	Manufacturer :	Flex/Salom
AC Adapter 4 (IN)	Brand Name :	Motorola
	Model Name :	SC-54
	Manufacturer :	Salom
AC Adapter 5 (BR Local Build)	Brand Name :	Motorola
	Model Name :	SC-57
	Manufacturer :	Cliptech/Tenpao
Battery	Brand Name :	Motorola
	Model Name :	LR50
Earphone 1	Brand Name :	Motorola
	Model Name :	SH38C37773
Earphone 2	Brand Name :	Motorola
	Model Name :	SH38C44959
USB Cable 1	Brand Name :	Motorola
	Model Name :	SC18C24367
	Manufacturer :	Saibao
USB Cable 2	Brand Name :	Motorola
	Model Name :	SC18C24368
	Manufacturer :	Luxshare
USB Cable 3	Brand Name :	Motorola
	Model Name :	SC18C28955
	Manufacturer :	I SHENG

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n7: 2502.5 MHz ~ 2567.5 MHz
Rx Frequency	5G NR n7: 2502.5 MHz ~ 2567.5 MHz
Bandwidth	5G NR n7: 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna <CP-OFDM>	5G NR n7 : 22.56 dBm
Maximum Output Power to Antenna <DFT-s-OFDM>	5G NR n7 : 23.99 dBm
Antenna Type	Fixed Internal Antenna
Antenna Gain	5G NR n7 : 2.55 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

1.3 Modification of EUT

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

1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, 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 and Howard Lin
Temperature	20 ~ 25 ℃
Relative Humidity	50 ~ 55 %

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH15-HY
Test Engineer	Leo Lee, Mancy Chou, and Bigshow Wang
Temperature	21.3 ~ 23.4 ℃
Relative Humidity	55 ~ 61 %

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190 and TW0007

1.5 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, 27
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- 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. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

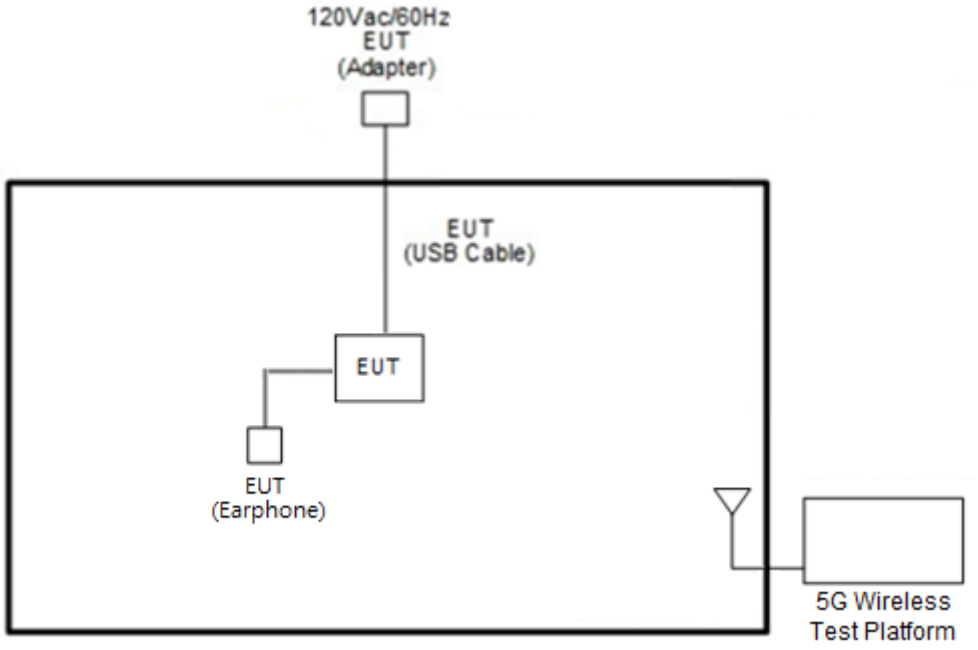
2.1 Test Mode

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 (Z plane with Accessory) were recorded in this report.

Test Items	NR Band	Bandwidth (MHz)						Modulation					RB #			Test Channel		
		5	10	15	20	40	50	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	n7	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n7				v	-	-	v	v	v	v	v			v		v	
26dB and 99% Bandwidth	n7	v	v	v	v	-	-	v	v	v	v	v			v		v	
Conducted Band Edge	n7	v	v	v	v	-	-	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	n7	v	v	v	v	-	-		v				v			v	v	v
Frequency Stability	n7				v	-	-		v						v		v	
E.I.R.P	n7	v	v	v	v	-	-	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	n7	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. 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. 5. Test combination is EN-DC B5-n7 and EN-DC B66-n7. 6. All the radiated test cases were performed with USB Cable 1, Adapter 1, and Earphone 1.																	

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	5G Wireless Test Platform	Keysight	E7515B	NA	N/A	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

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

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 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 Band n7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	502000	507000	512000
	Frequency	2510	2535	2560
15	Channel	501500	507000	512500
	Frequency	2507.5	2535	2562.5
10	Channel	501000	507000	513000
	Frequency	2505	2535	2565
5	Channel	500500	507000	513500
	Frequency	2502.5	2535	2567.5

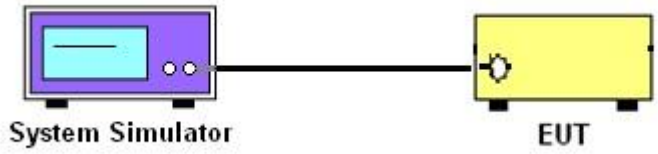
3 Conducted Test Items

3.1 Measuring Instruments

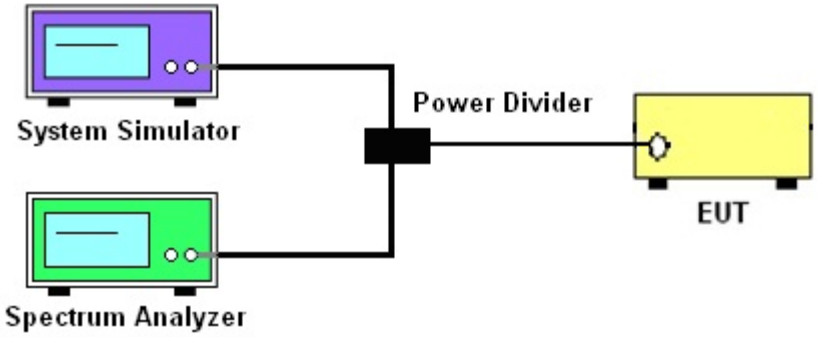
See list of measuring instruments of this test report.

3.1.1 Test Setup

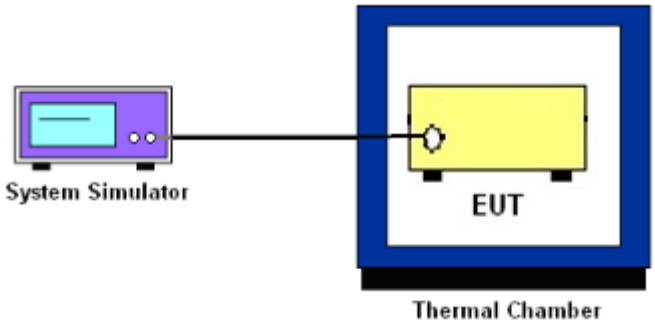
3.1.2 Conducted Output Power



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 EIRP of mobile transmitters must not exceed 2 Watts for 5G NR n7

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

27.53(m)(4)

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

3.5.2 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)
   For 5G NR n7
   The other 40 dB, and 55 dB have additionally applied same calculation above.

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.

For 5G NR n7

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th 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)

   For 5G NR n7

   The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

3.7 Frequency Stability

3.7.1 Description of Frequency Stability Measurement

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.

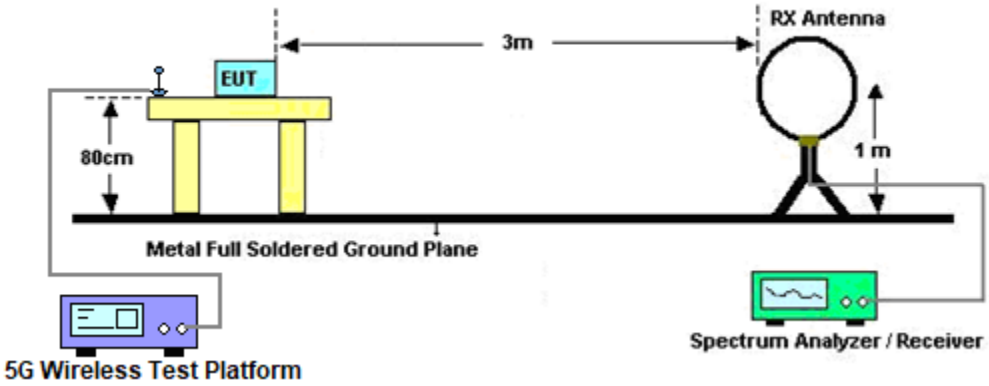
4 Radiated Test Items

4.1 Measuring Instruments

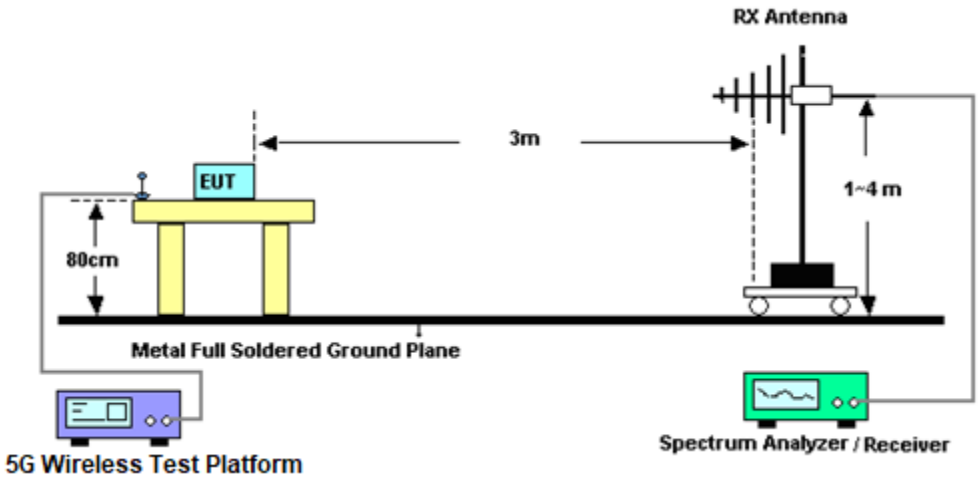
See list of measuring instruments of this test report.

4.1.1 Test Setup

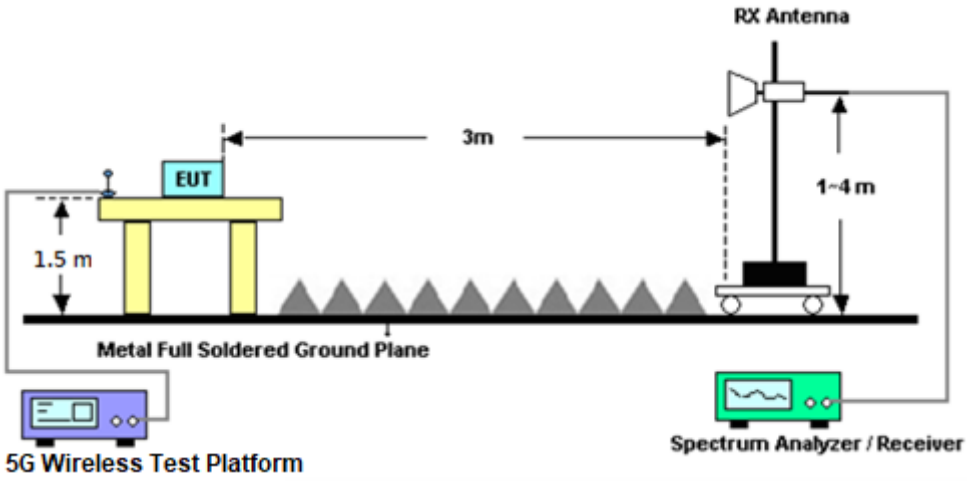
For radiated emissions below 30MHz



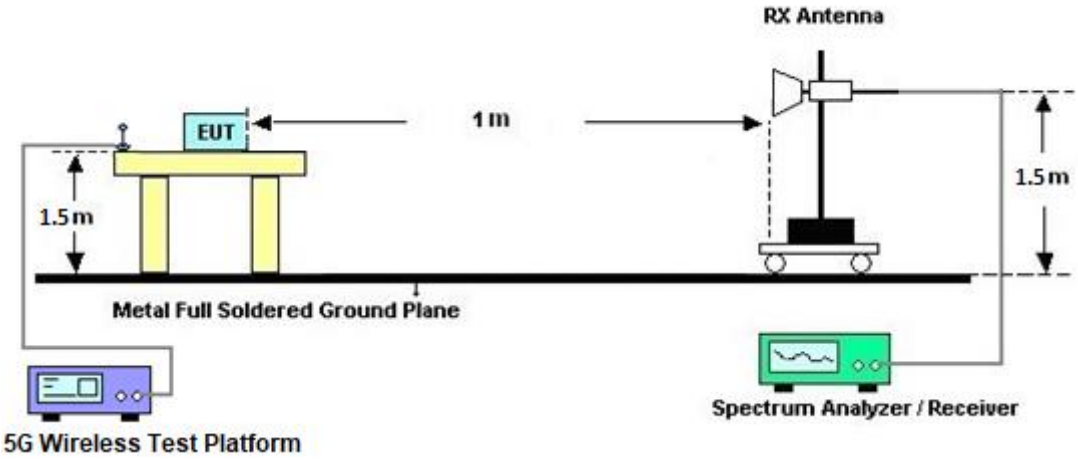
For radiated test from 30MHz to 1GHz



For radiated test 1GHz ~ 18GHz



For radiated emissions 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.

For LTE Band 7

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

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

4.2.2 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)

    For LTE Band 7

    The limit line is derived from 55 + 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
Programmable Power Supply	GW Instek	PSS-2005	EL883644	Voltage:0~20V; Current:0~5A	Oct. 15, 2019	Aug. 24, 2020 ~ Aug. 26, 2020	Oct. 14, 2020	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101397	10Hz~40GHz	Nov. 15, 2019	Aug. 24, 2020 ~ Aug. 26, 2020	Nov. 14, 2020	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃~90℃	Sep. 02, 2019	Aug. 24, 2020 ~ Aug. 26, 2020	Sep. 01, 2020	Conducted (TH05-HY)
Base Station (Measure)	Anritsu	MT8821C	6262044657	LTE(FDD)	Jan. 16, 2020	Aug. 24, 2020 ~ Aug. 26, 2020	Jan. 15, 2021	Conducted (TH05-HY)
Base Station (Measure)	Anritsu	MT8000A	6262012917	5GNR	Jan. 20, 2020	Aug. 24, 2020 ~ Aug. 26, 2020	Jan. 19, 2021	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 09, 2020	Aug. 21, 2020	Jan. 08, 2021	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL6111D&00800N1D01N-06	41912&05	30MHz to 1GHz	Feb. 09, 2020	Aug. 21, 2020	Feb. 08, 2021	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 27, 2019	Aug. 21, 2020	Dec. 26, 2020	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1620	1-18GHz	Oct. 28, 2019	Aug. 21, 2020	Oct. 27, 2020	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Dec. 10, 2019	Aug. 21, 2020	Dec. 09, 2020	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	1710001800055006	1GHz~18GHz	May 07, 2020	Aug. 21, 2020	May 06, 2021	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 23, 2019	Aug. 21, 2020	Aug. 22, 2020	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 13, 2019	Aug. 21, 2020	Dec. 12, 2020	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Nov. 01, 2019	Aug. 21, 2020	Oct. 31, 2020	Radiation (03CH15-HY
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	May 04, 2020	Aug. 21, 2020	May 03, 2021	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Aug. 21, 2020	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Aug. 21, 2020	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24(k5)	RK-000451	N/A	N/A	Aug. 21, 2020	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY36980/4	30M-18G	Apr. 14, 2020	Aug. 21, 2020	Apr. 13, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9838/4PE	30M-18G	Apr. 14, 2020	Aug. 21, 2020	Apr. 13, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY37710/4	30M-18G	Apr. 17, 2020	Aug. 21, 2020	Apr. 16, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 25, 2020	Aug. 21, 2020	Feb. 24, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 25, 2020	Aug. 21, 2020	Feb. 24, 2021	Radiation (03CH15-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN4	1.53G Low Pass	Jul. 03, 2020	Aug. 21, 2020	Jul. 02, 2021	Radiation (03CH15-HY)
Filter	Wainwright	WHKX12-1080-1200-15000-60ST	SN5	1.2GHz High Pass Filter	Jul. 01, 2020	Aug. 21, 2020	Jun. 30, 2021	Radiation (03CH15-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN4	3GHz High Pass Filter	Sep. 17, 2019	Aug. 21, 2020	Sep. 16, 2020	Radiation (03CH15-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN6	6.75GHz High Pass Filter	Jul. 03, 2020	Aug. 21, 2020	Jul. 02, 2021	Radiation (03CH15-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	Aug. 27, 2019	Aug. 21, 2020	Aug. 26, 2020	Radiation (03CH15-HY)

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))	**3.06**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.63**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.16**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

NR n7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	1	PI/2 BPSK	23.72	23.63	23.50
5	1	23		23.73	23.52	23.40
5	12	6		23.72	23.68	23.53
5	1	0		23.31	23.15	23.09
5	1	24		23.34	23.08	23.05
5	25	0		23.36	23.28	23.13
5	1	1	QPSK	23.59	23.36	23.47
5	1	23		23.49	23.45	23.39
5	12	6		23.67	23.45	23.52
5	1	0		22.63	22.51	22.59
5	1	24		22.73	22.58	22.58
5	25	0		22.82	22.65	22.72
5	1	1	16-QAM	22.92	22.71	22.68
5	1	1	64-QAM	21.21	21.09	21.17
5	1	1	256-QAM	19.05	19.08	18.98

NR n7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	1	PI/2 BPSK	23.72	23.70	23.55
10	1	50		23.72	23.45	23.47
10	25	12		23.88	23.71	23.71
10	1	0		23.29	23.22	23.13
10	1	51		23.34	23.06	23.04
10	50	0		23.41	23.22	23.26
10	1	1	QPSK	23.64	23.60	23.55
10	1	50		23.71	23.44	23.46
10	25	12		23.84	23.64	23.72
10	1	0		22.79	22.66	22.61
10	1	51		22.83	22.49	22.55
10	50	0		22.91	22.75	22.78
10	1	1	16-QAM	22.92	22.85	22.76
10	1	1	64-QAM	21.25	21.30	21.07
10	1	1	256-QAM	18.94	19.10	18.96

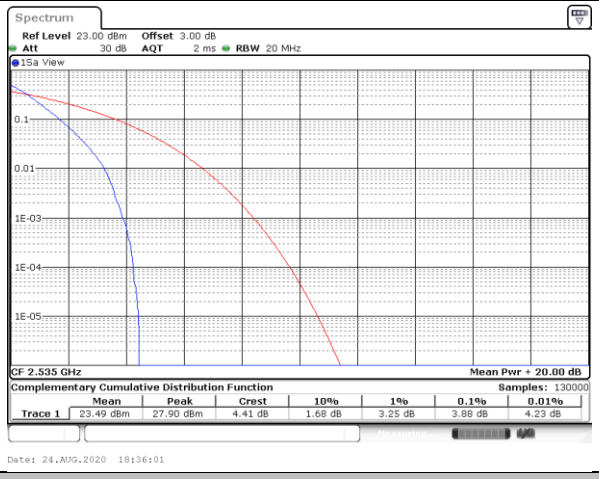
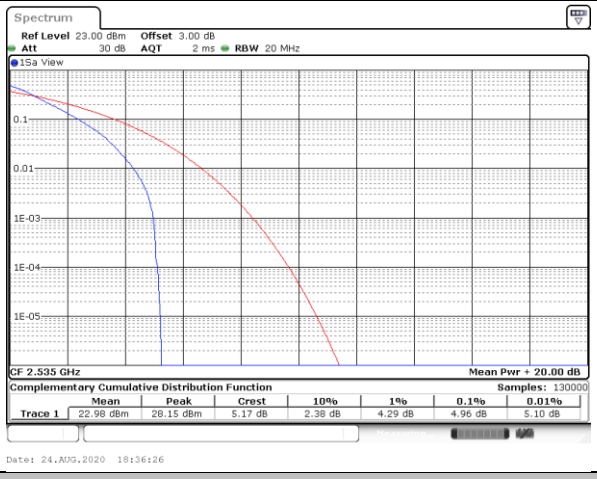
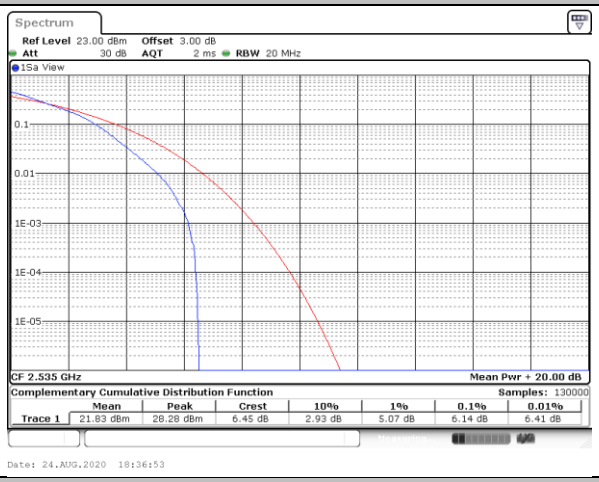
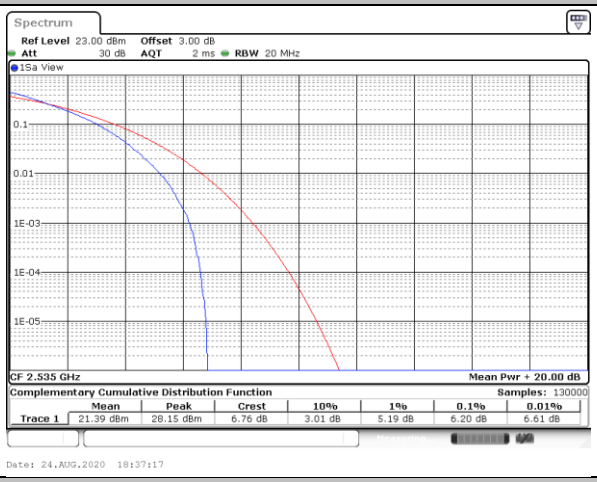
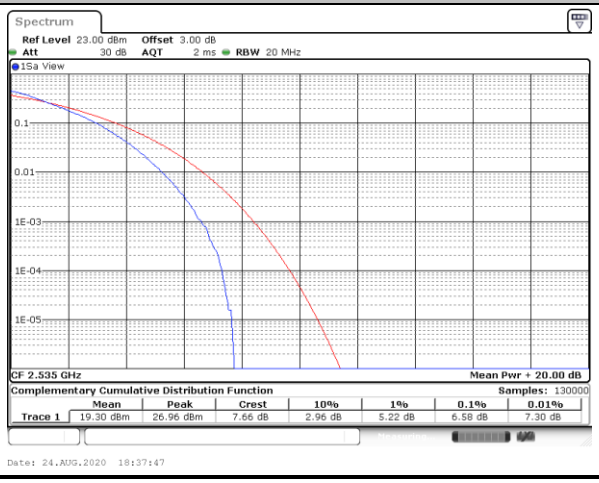
NR n7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	1	PI/2 BPSK	23.85	23.72	23.60
15	1	77		23.96	23.55	23.54
15	36	18		23.88	23.70	23.72
15	1	0		23.46	23.34	23.19
15	1	78		23.58	23.18	23.14
15	75	0		23.54	23.32	23.30
15	1	1	QPSK	23.80	23.79	23.59
15	1	77		23.91	23.61	23.52
15	36	18		23.90	23.74	23.72
15	1	0		22.92	22.87	22.68
15	1	78		22.99	22.71	22.68
15	75	0		22.99	22.84	22.75
15	1	1	16-QAM	23.03	23.13	22.83
15	1	1	64-QAM	21.41	21.38	21.13
15	1	1	256-QAM	19.03	19.11	18.91

NR n7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	1	PI/2 BPSK	23.78	23.86	23.62
20	1	104		23.88	23.61	23.56
20	50	25		23.95	23.80	23.68
20	1	0		23.36	23.39	23.19
20	1	105		23.55	23.15	23.13
20	100	0		23.59	23.39	23.32
20	1	1	QPSK	23.77	23.80	23.59
20	1	104		23.85	23.55	23.49
20	50	25		23.99	23.77	23.71
20	1	0		22.87	22.90	22.70
20	1	105		23.00	22.64	22.64
20	100	0		23.03	22.87	22.85
20	1	1	16-QAM	22.98	23.01	22.83
20	1	1	64-QAM	21.31	21.48	21.22
20	1	1	256-QAM	18.96	19.08	18.66

FR1 n7

Peak-to-Average Ratio

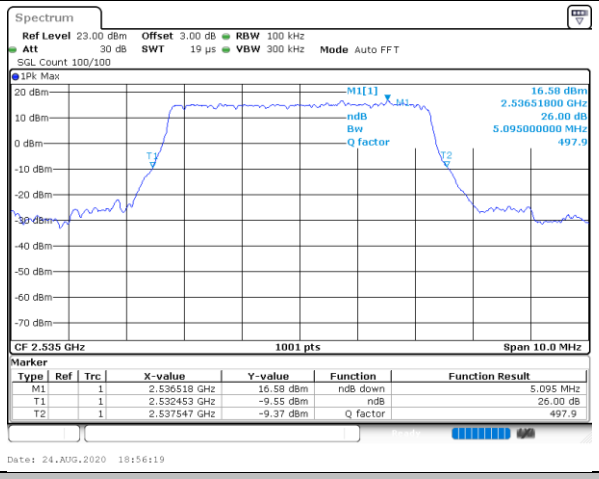
Mode	FR1 n7 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.88	4.96	6.14	6.20	PASS
Mode	FR1 n7 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.58				PASS

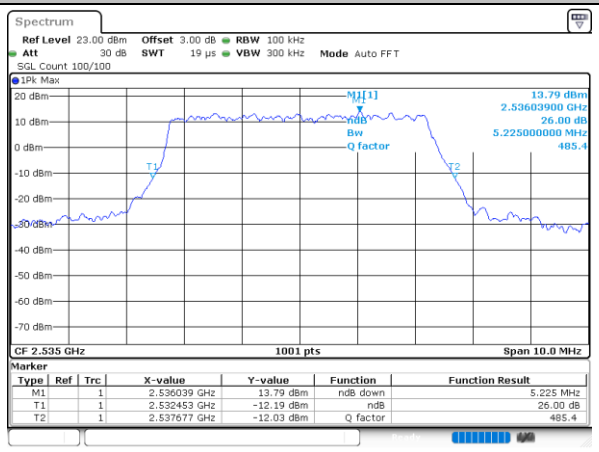
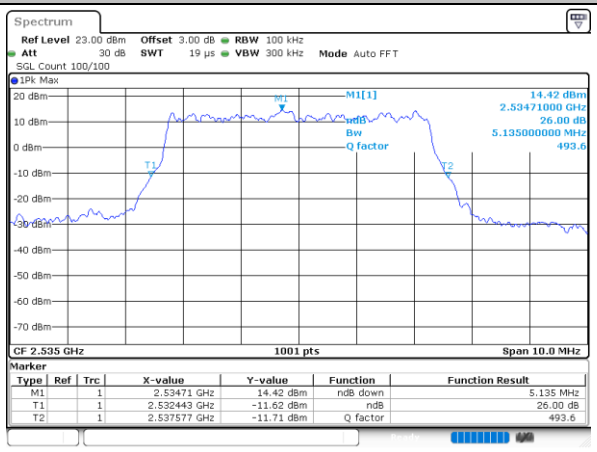
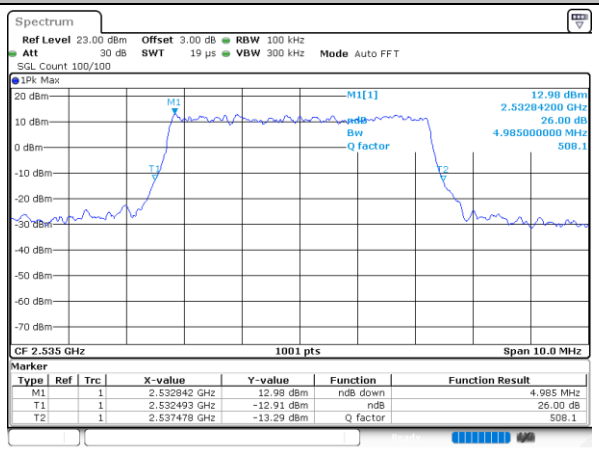
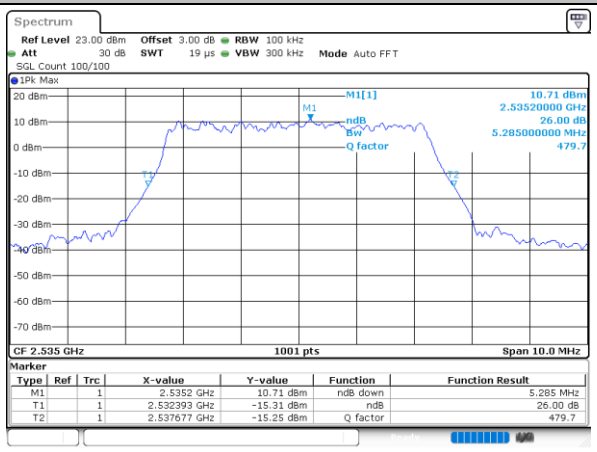
FR1 n7 / 20MHz / DFT-S OFDM / Middle Channel / Full RB	
PI/2 BPSK	**QPSK**
	
16QAM	**64QAM**
	
256QAM	
	

26dB Bandwidth

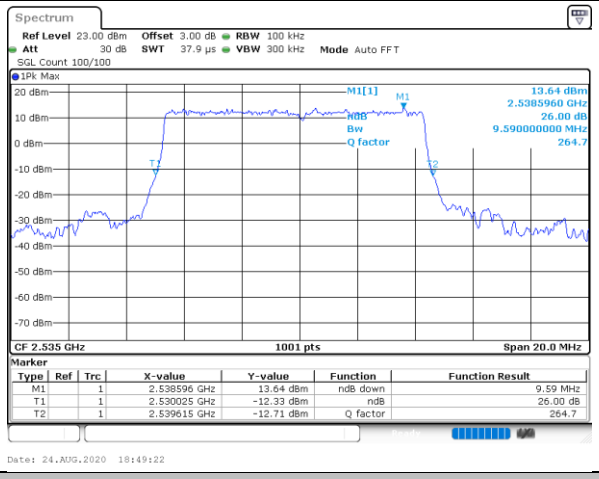
Mode	FR1 n7 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	5.10		9.59		14.33		19.02	

Mode	FR1 n7 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	5.23	5.14	9.97	9.89	15.11	15.11	20.02	19.86
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.99	5.29	9.81	9.97	14.96	15.14	19.98	20.18

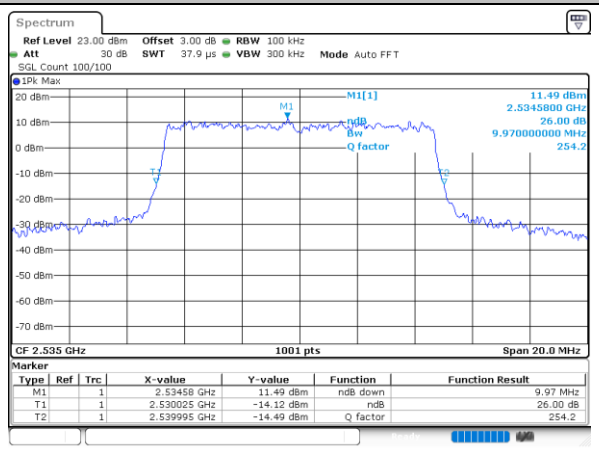
FR1 n7 / 5MHz / DFT-S OFDM / Middle Channel	
PI/2 BPSK	
	

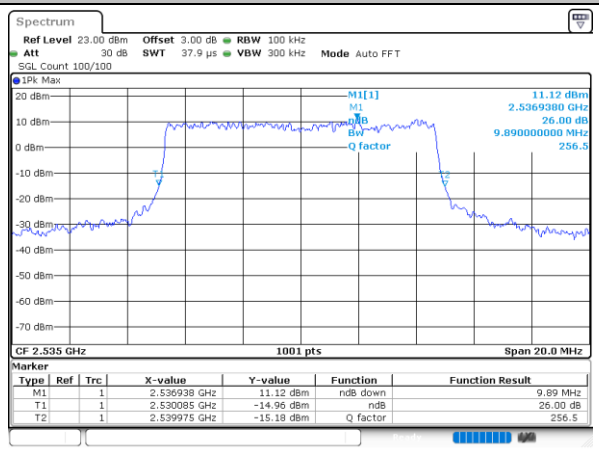
FR1 n7 / 5MHz / CP OFDM / Middle Channel	
QPSK	16QAM
	
64QAM	256QAM
	

FR1 n7 / 10MHz / DFT-S OFDM / Middle Channel	
PI/2 BPSK	

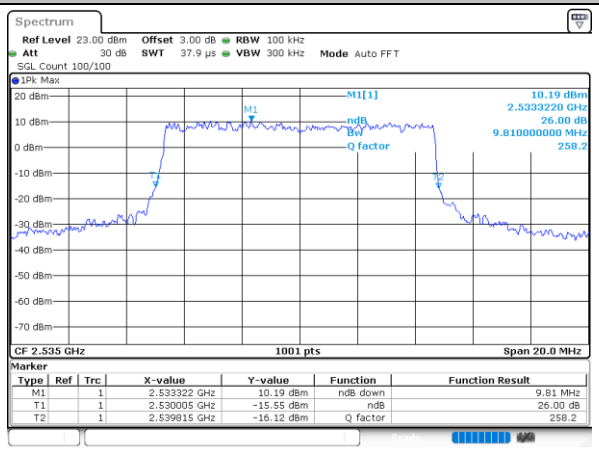


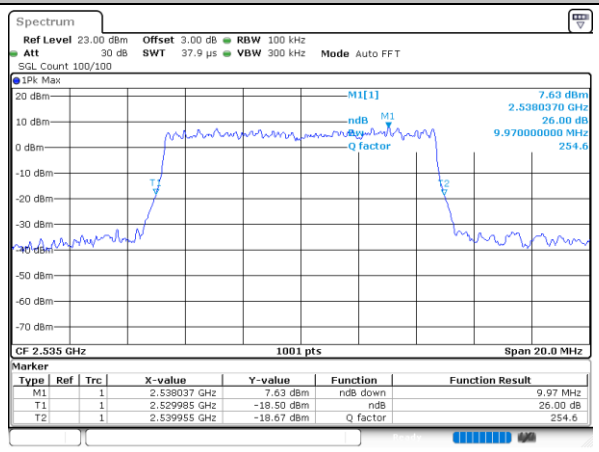
FR1 n7 / 10MHz / CP OFDM / Middle Channel	
QPSK	16QAM





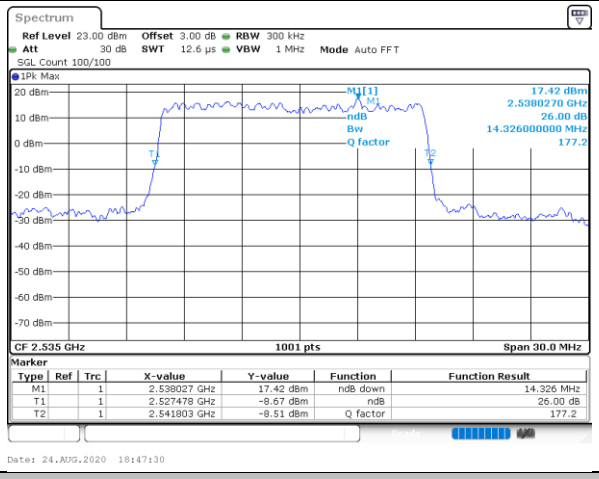
64QAM	256QAM





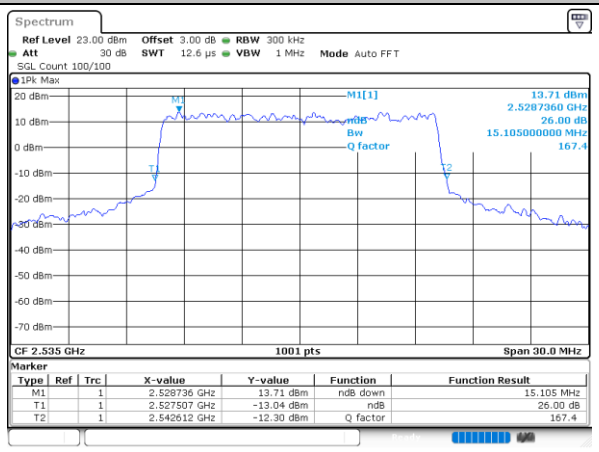
FR1 n7 / 15MHz / DFT-S OFDM / Middle Channel

PI/2 BPSK

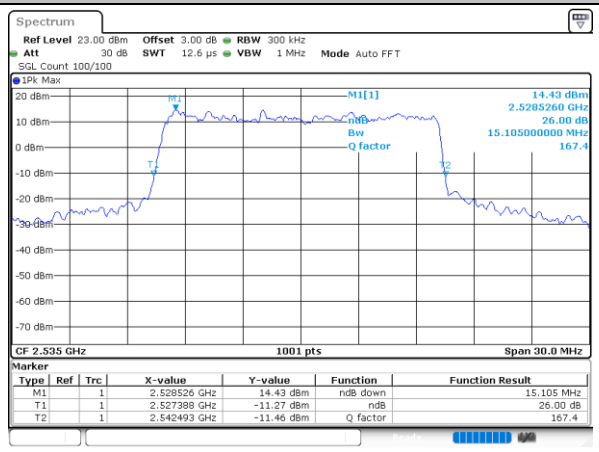


FR1 n7 / 15MHz / CP OFDM / Middle Channel

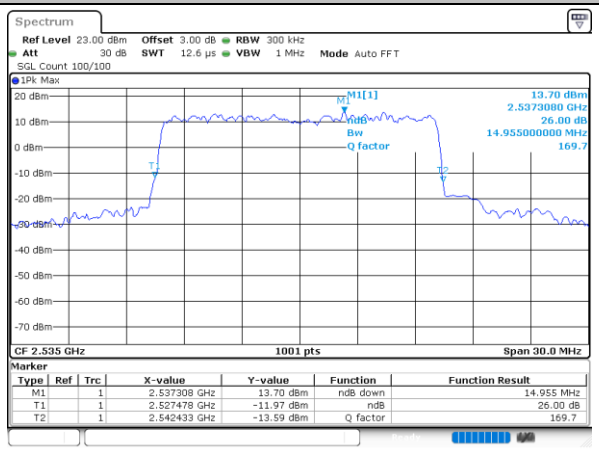
QPSK



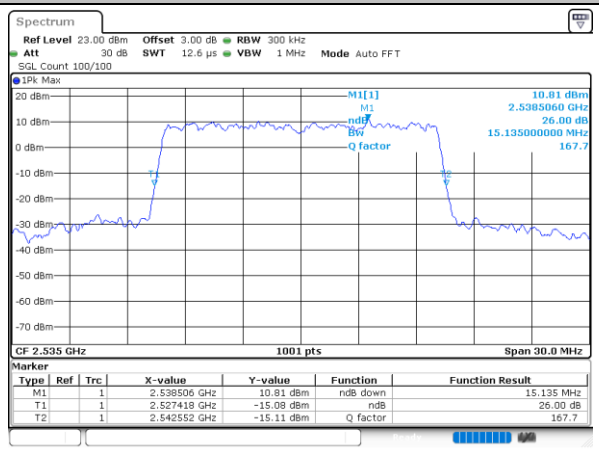
16QAM



64QAM

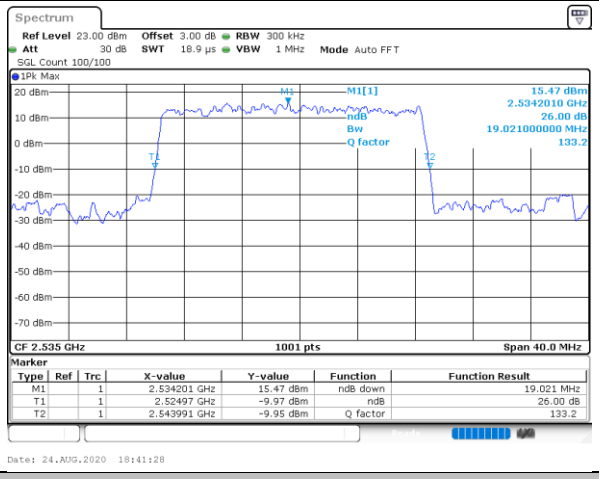


256QAM



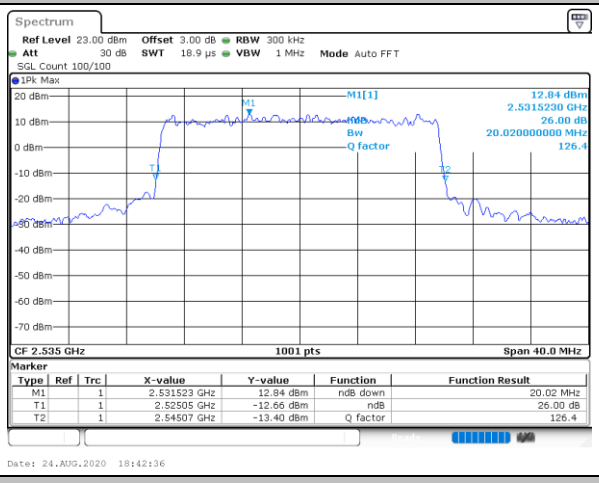
FR1 n7 / 20MHz / DFT-S OFDM / Middle Channel

PI/2 BPSK

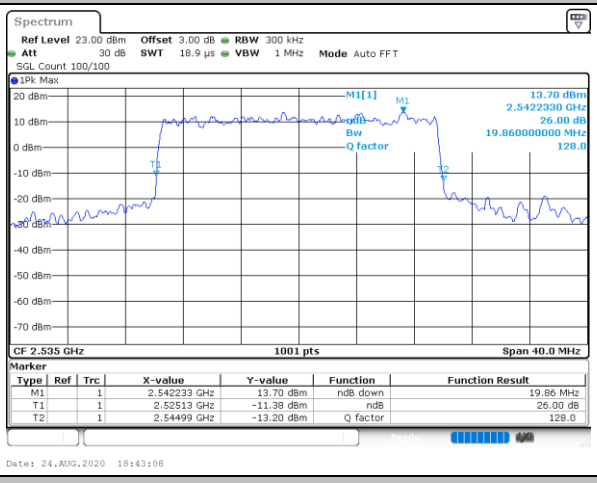


FR1 n7 / 20MHz / CP OFDM

QPSK



16QAM



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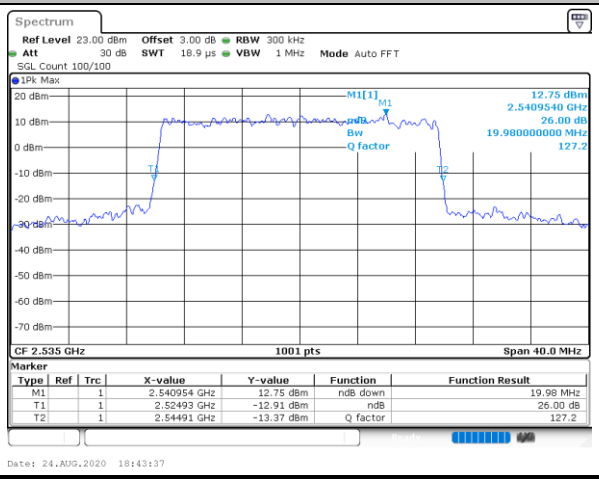
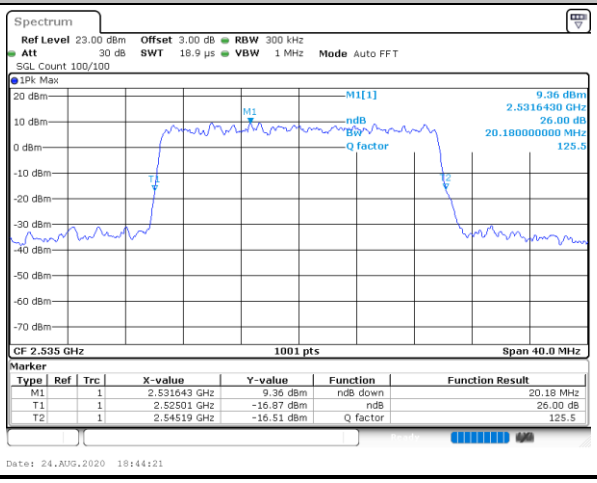


256QAM

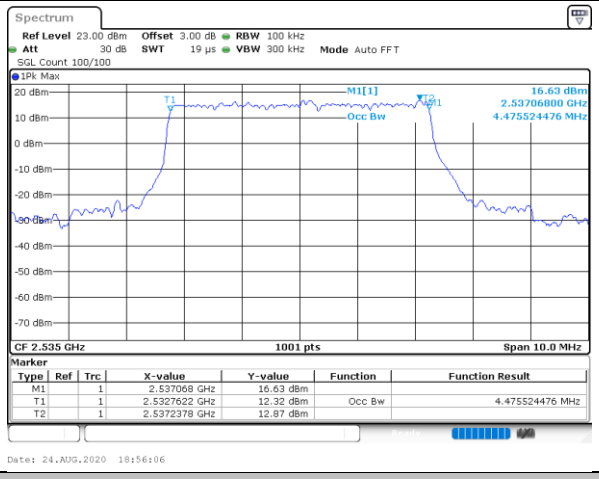


Occupied Bandwidth

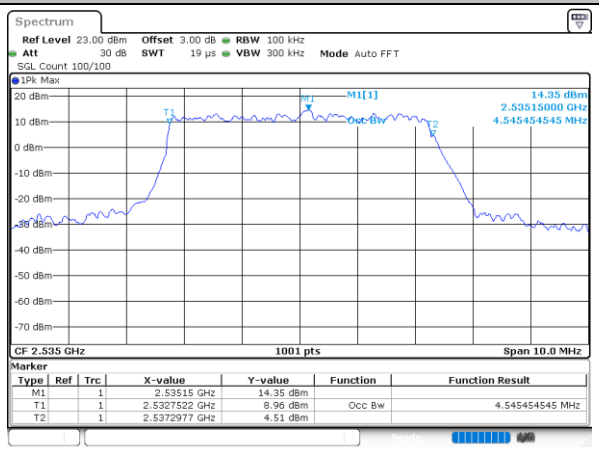
Mode	FR1 n7 : 99%OBW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK		PI/2 BPSK		PI/2 BPSK		PI/2 BPSK	
Middle CH	4.48		8.89		13.49		17.94	

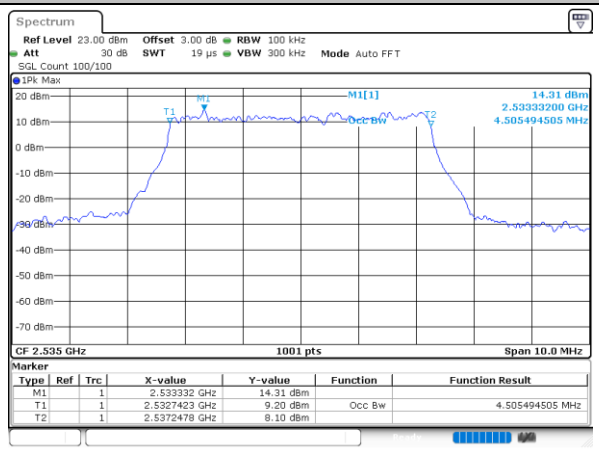
Mode	FR1 n7 : 99%OBW (MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.55	4.51	9.27	9.27	14.18	14.15	18.98	18.98
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	4.51	4.50	9.25	9.27	14.18	14.18	18.98	18.90

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

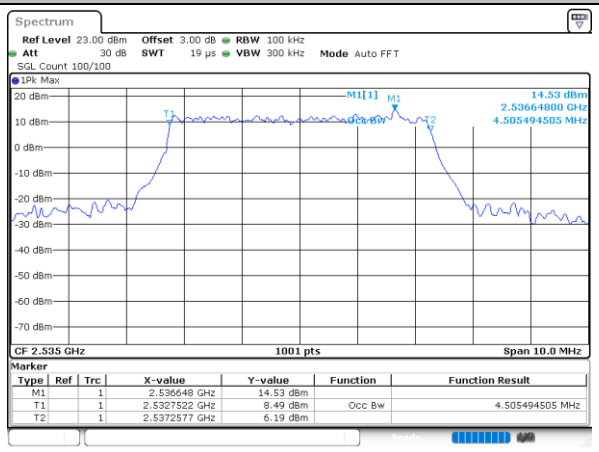


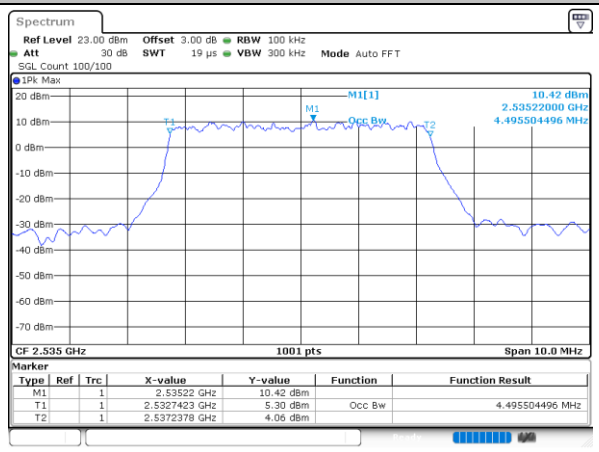
FR1 n7 / 5MHz / CP OFDM	
QPSK	16QAM





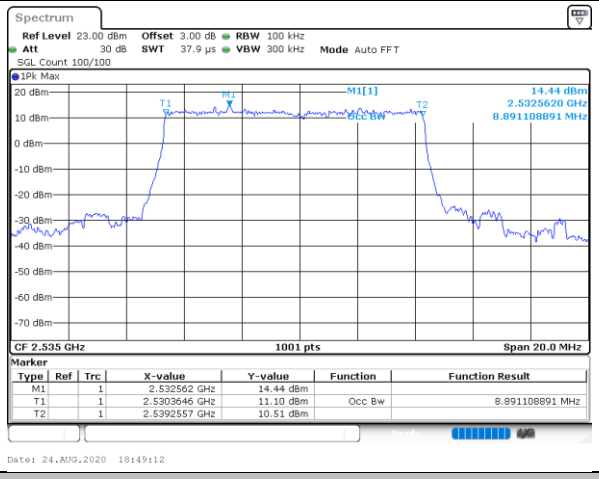
64QAM	256QAM





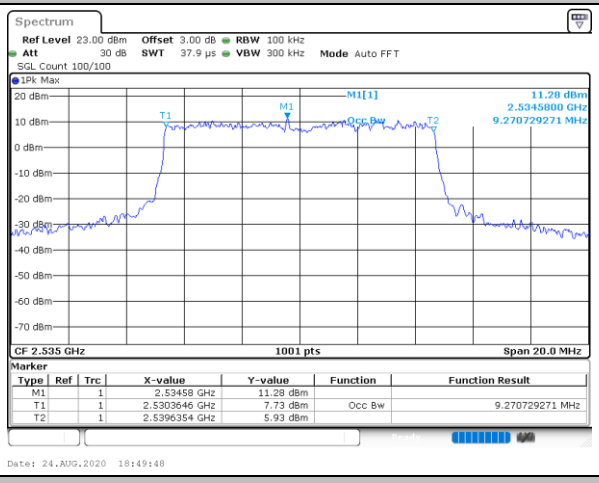
FR1 n7 / 10MHz / DFT-S OFDM / Middle Channel

PI/2 BPSK

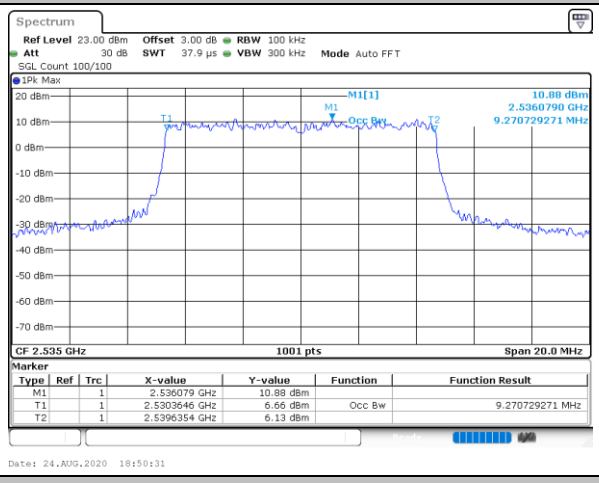


FR1 n7 / 10MHz / CP OFDM

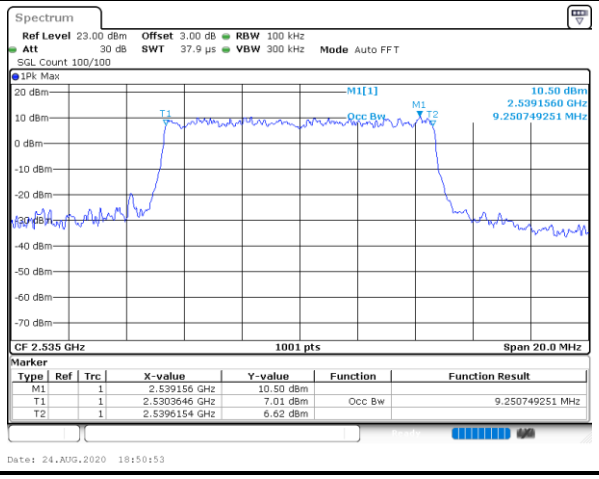
QPSK



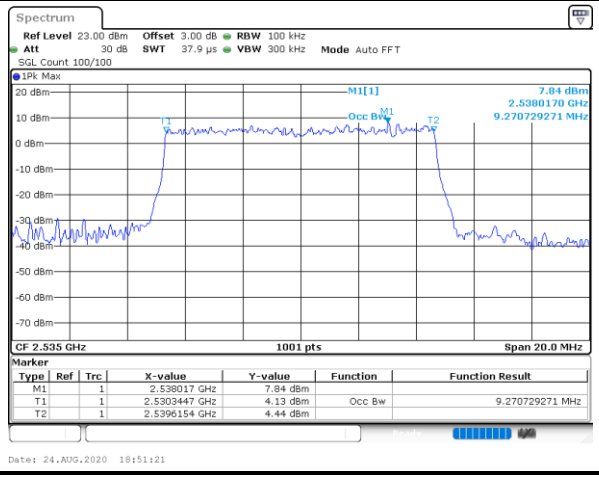
16QAM



64QAM

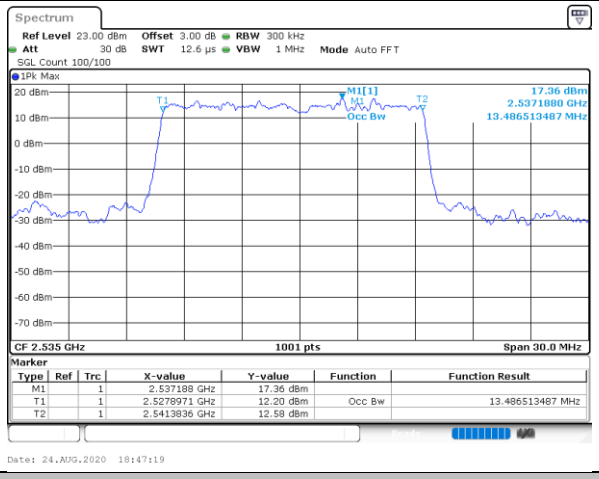


256QAM



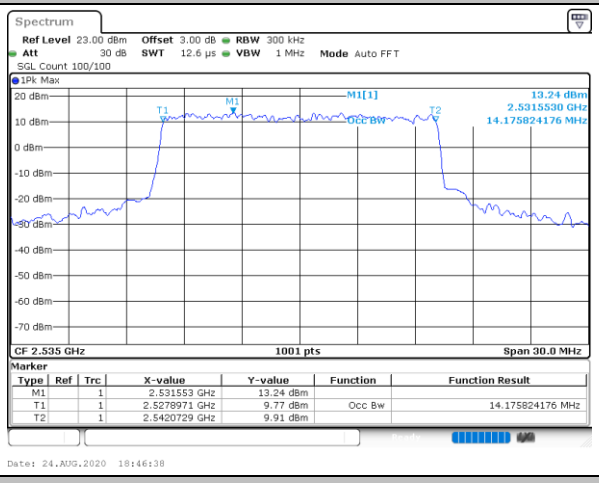
FR1 n7 / 15MHz / DFT-S OFDM / Middle Channel

PI/2 BPSK

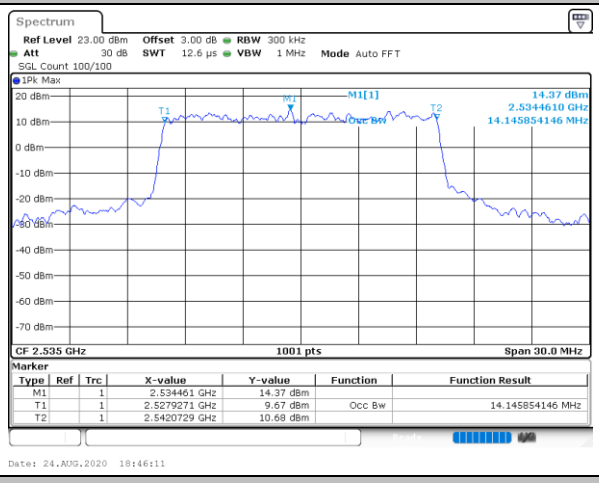


FR1 n7 / 15MHz / CP OFDM

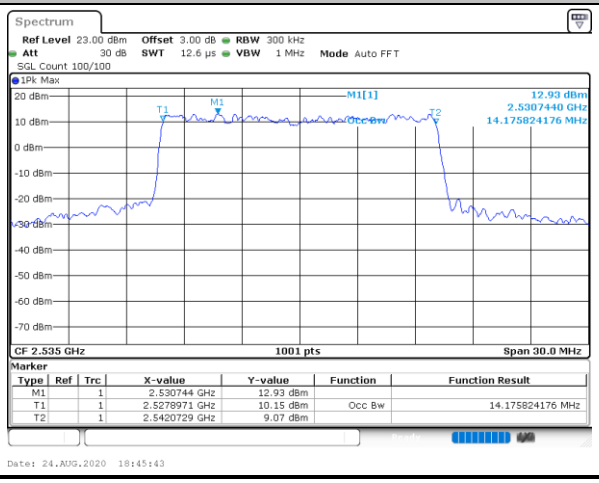
QPSK



16QAM



64QAM



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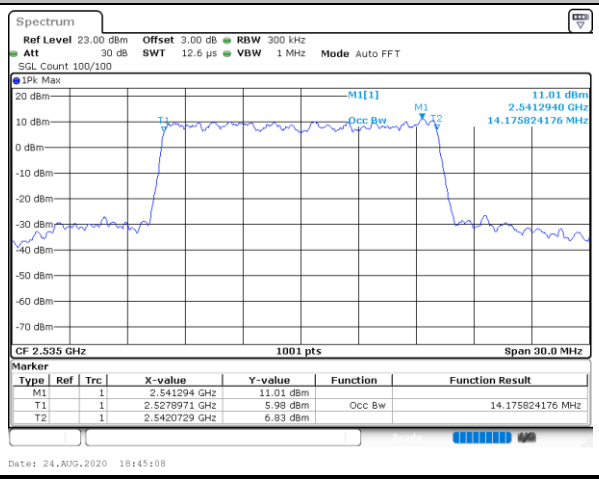
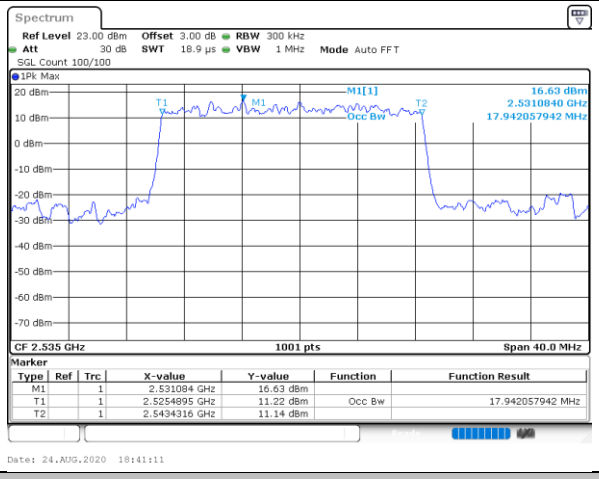


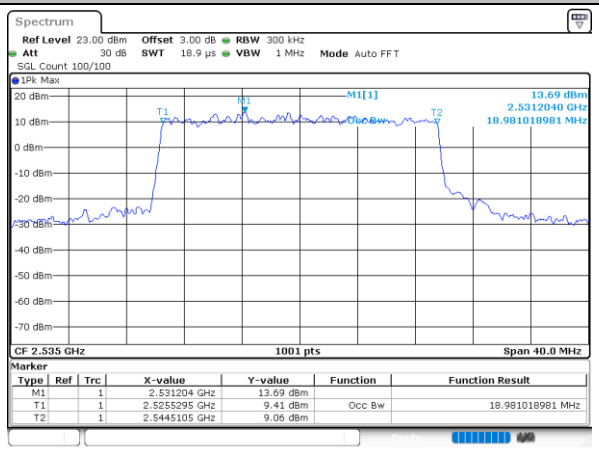
FR1 n7 / 20MHz / DFT-S OFDM / Middle Channel

PI/2 BPSK

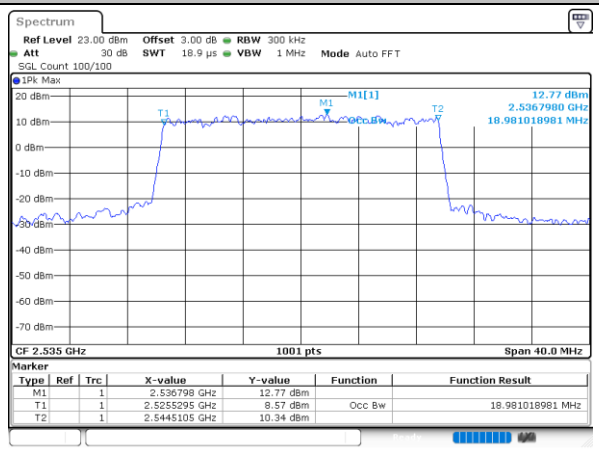


FR1 n7 / 20MHz / CP OFDM

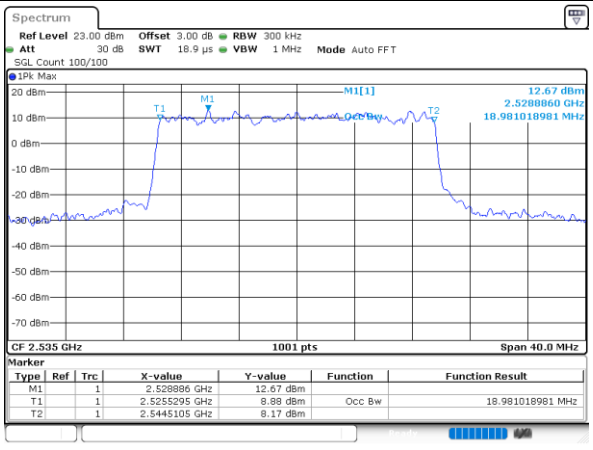
QPSK



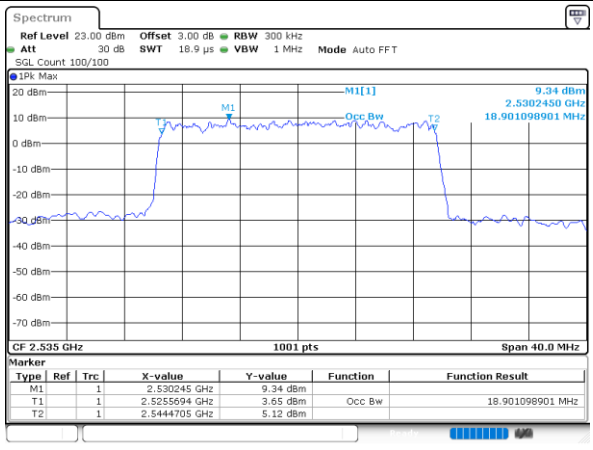
16QAM



64QAM



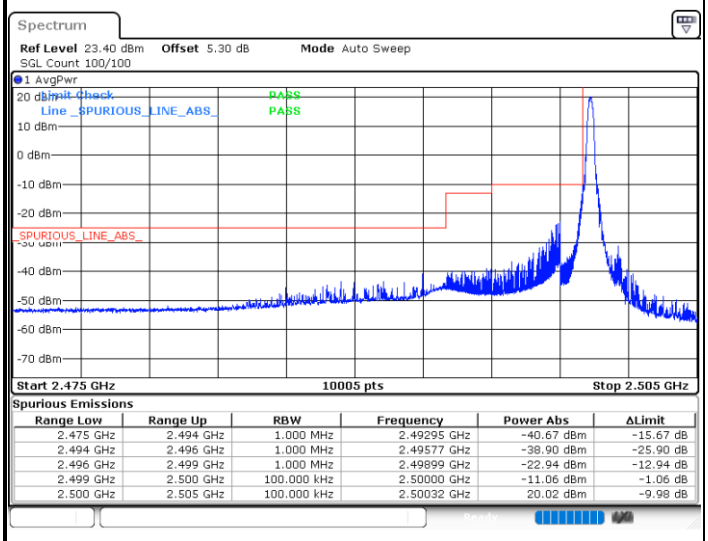
256QAM



Conducted Band Edge

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

Lowest Band Edge / 1RB0

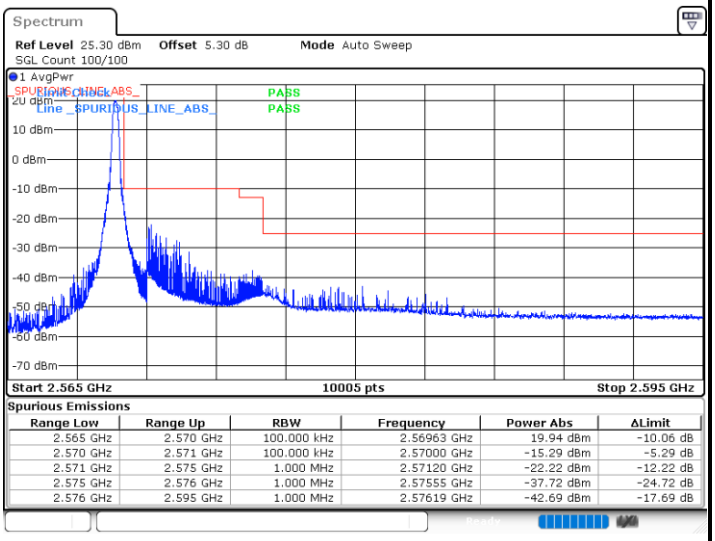


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49295 GHz	-40.67 dBm	-15.67 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49577 GHz	-38.90 dBm	-25.90 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49899 GHz	-22.94 dBm	-12.94 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-11.06 dBm	-1.06 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50032 GHz	20.02 dBm	-9.98 dB

Date: 25.AUG.2020 10:23:00

Highest Band Edge / 1RBmax



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56963 GHz	19.94 dBm	-10.06 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-15.29 dBm	-5.29 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57120 GHz	-22.22 dBm	-12.22 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57555 GHz	-37.72 dBm	-24.72 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57619 GHz	-42.69 dBm	-17.69 dB

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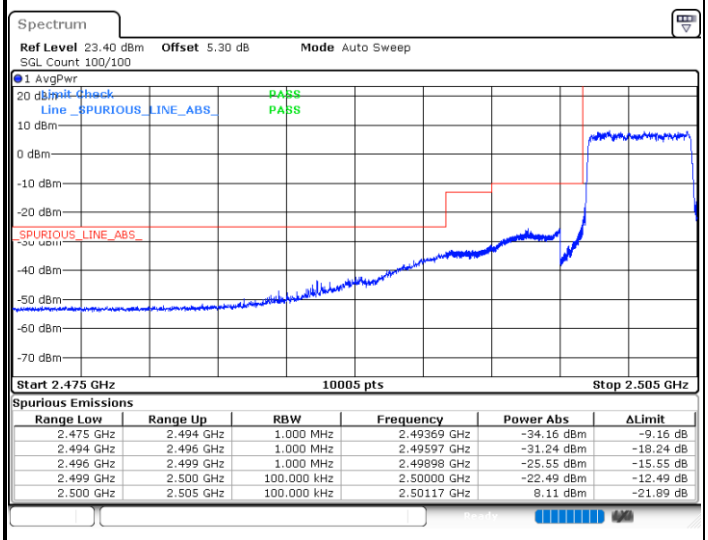
Lowest Band Edge / Full RB

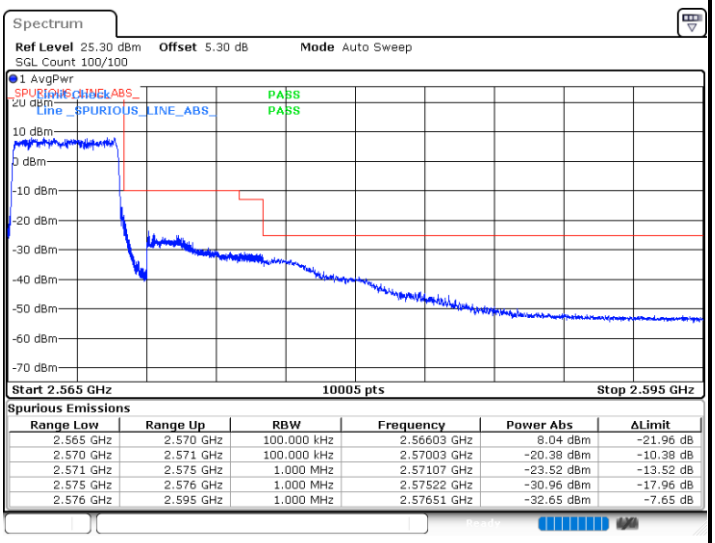


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49369 GHz	-34.16 dBm	-9.16 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49597 GHz	-31.24 dBm	-18.24 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49898 GHz	-25.55 dBm	-15.55 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-22.49 dBm	-12.49 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50117 GHz	8.11 dBm	-21.89 dB

Date: 25.AUG.2020 10:49:52

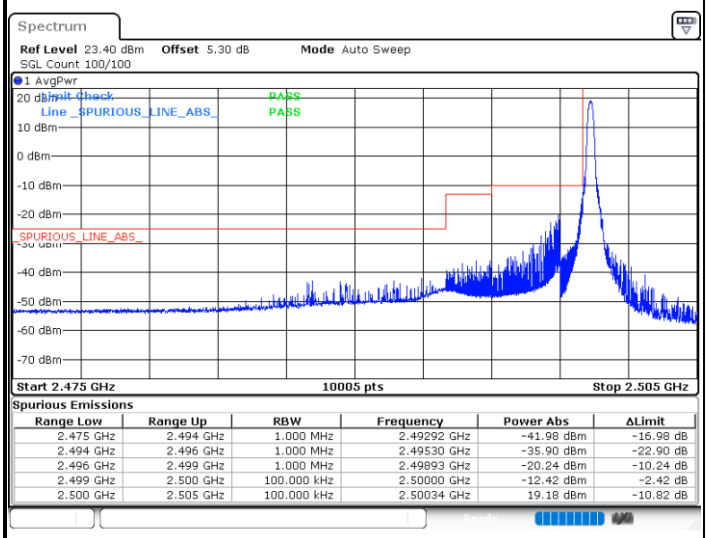
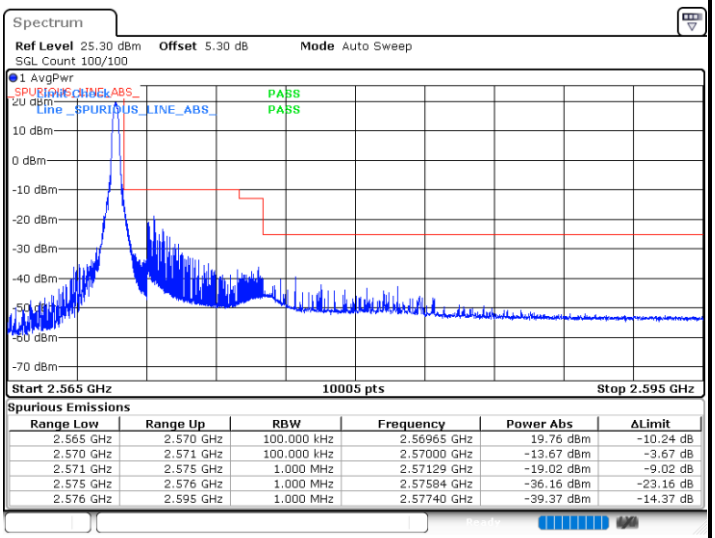
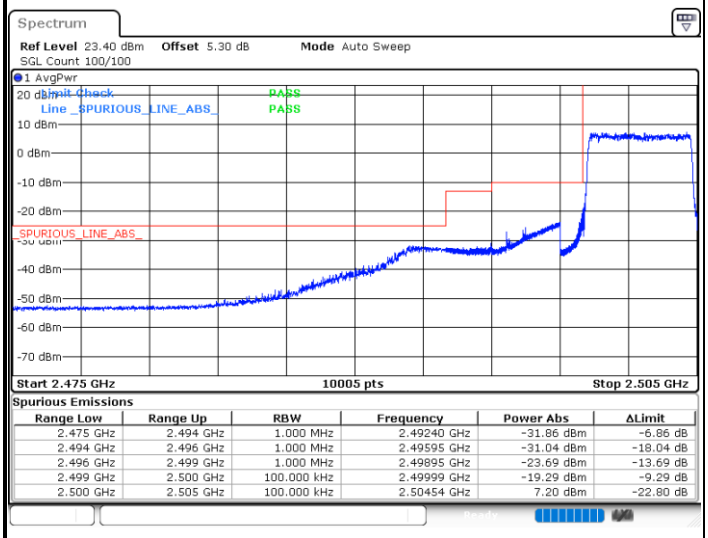
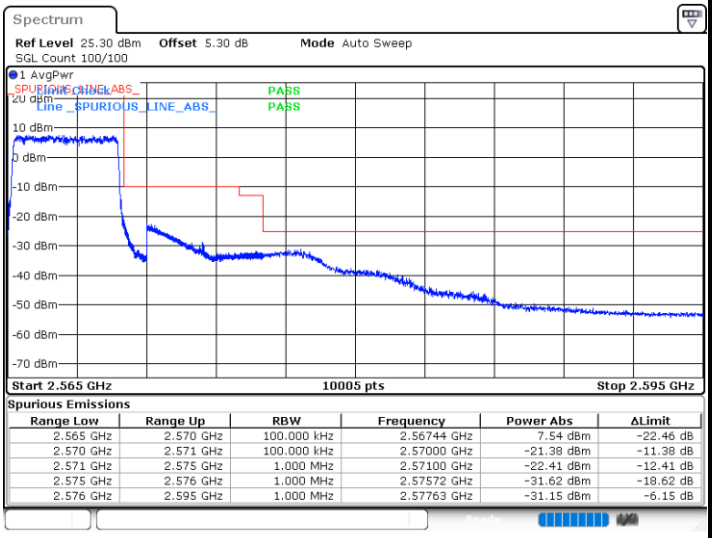
Highest Band Edge / Full RB



Spurious Emissions

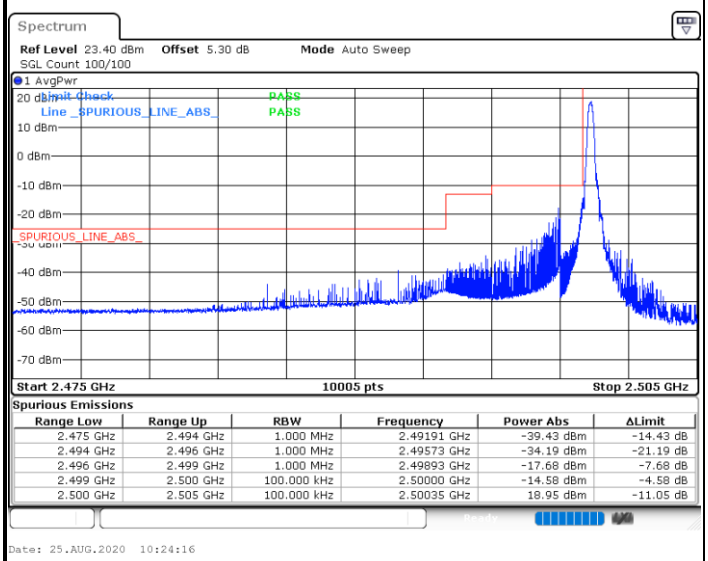
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56603 GHz	8.04 dBm	-21.96 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57003 GHz	-20.38 dBm	-10.38 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57107 GHz	-23.52 dBm	-13.52 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57522 GHz	-30.96 dBm	-17.96 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57651 GHz	-32.65 dBm	-7.65 dB

Date: 25.AUG.2020 11:53:58

FR1 n7 / 5MHz / DFT-S OFDM / QPSK	
Lowest Band Edge / 1RB0	**Highest Band Edge / 1RBmax**
	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**
	

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

Lowest Band Edge / 1RB0

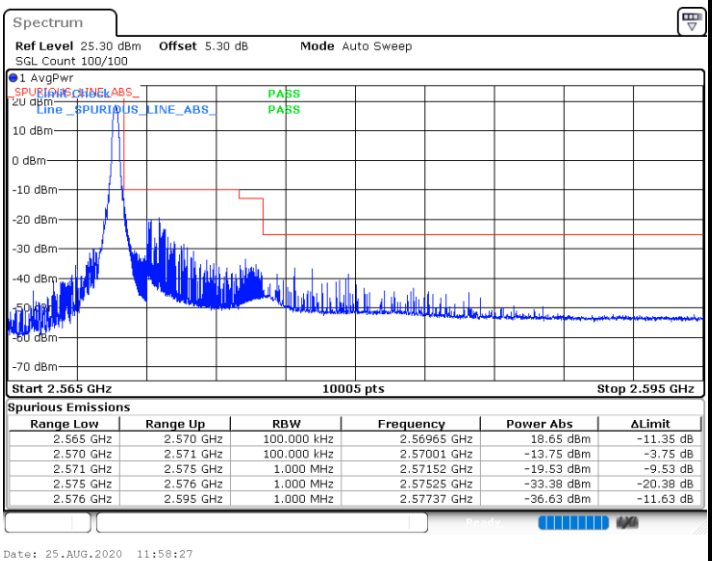


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49191 GHz	-39.43 dBm	-14.43 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49573 GHz	-34.19 dBm	-21.19 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49893 GHz	-17.68 dBm	-7.68 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-14.58 dBm	-4.58 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50035 GHz	18.95 dBm	-11.05 dB

Date: 25.AUG.2020 10:24:16

Highest Band Edge / 1RBmax



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56965 GHz	18.65 dBm	-11.35 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-13.75 dBm	-3.75 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57152 GHz	-19.53 dBm	-9.53 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57525 GHz	-33.38 dBm	-20.38 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57737 GHz	-36.63 dBm	-11.63 dB

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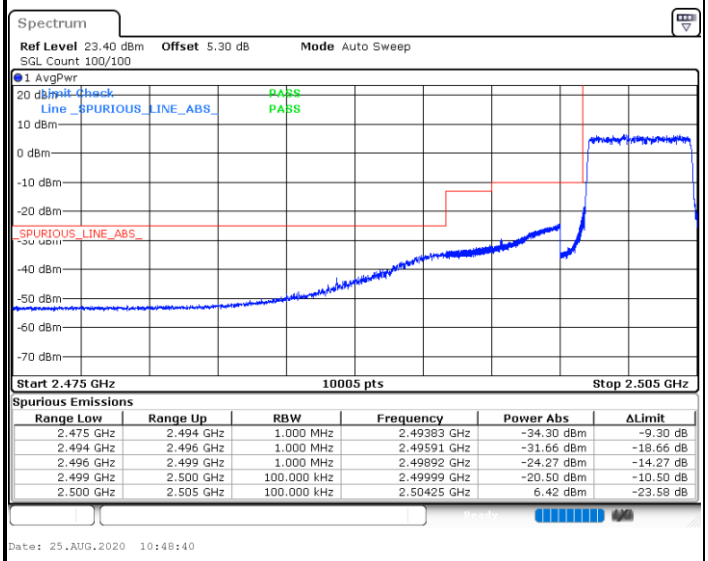
Lowest Band Edge / Full RB

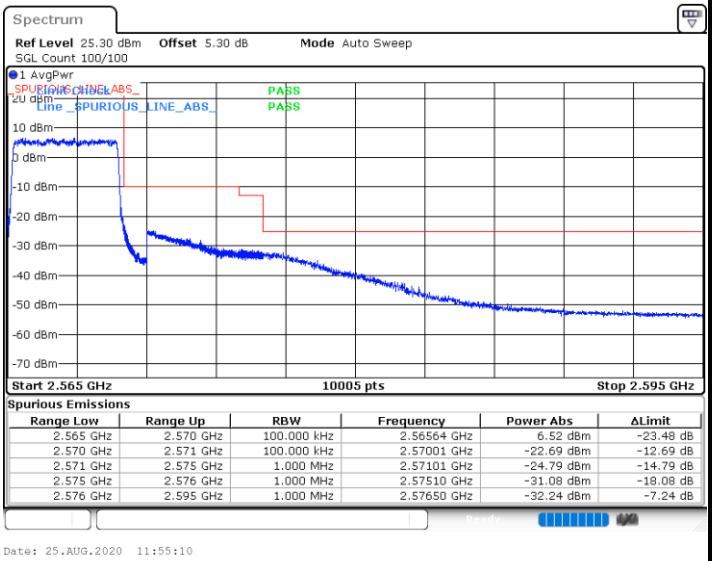


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49383 GHz	-34.30 dBm	-9.30 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49591 GHz	-31.66 dBm	-18.66 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49892 GHz	-24.27 dBm	-14.27 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.49999 GHz	-20.50 dBm	-10.50 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50425 GHz	6.42 dBm	-23.58 dB

Date: 25.AUG.2020 10:48:40

Highest Band Edge / Full RB



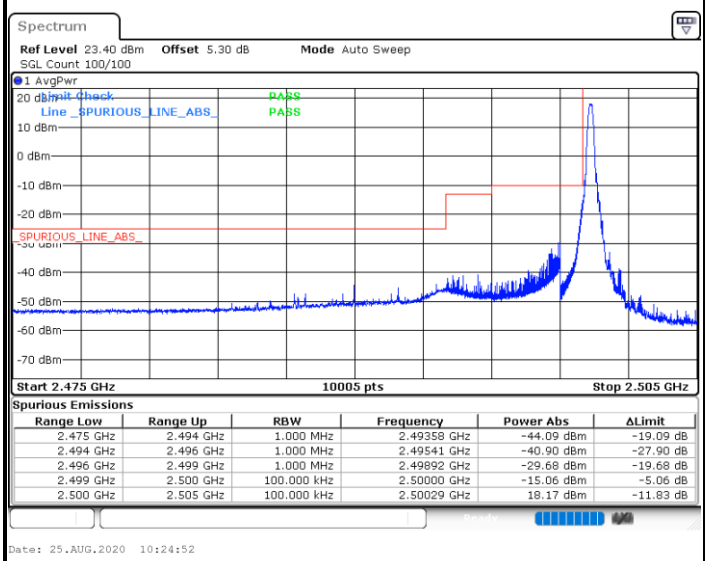
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56564 GHz	6.52 dBm	-23.48 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-22.69 dBm	-12.69 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57101 GHz	-24.79 dBm	-14.79 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57510 GHz	-31.08 dBm	-18.08 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57650 GHz	-32.24 dBm	-7.24 dB

Date: 25.AUG.2020 11:55:10

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

Lowest Band Edge / 1RB0

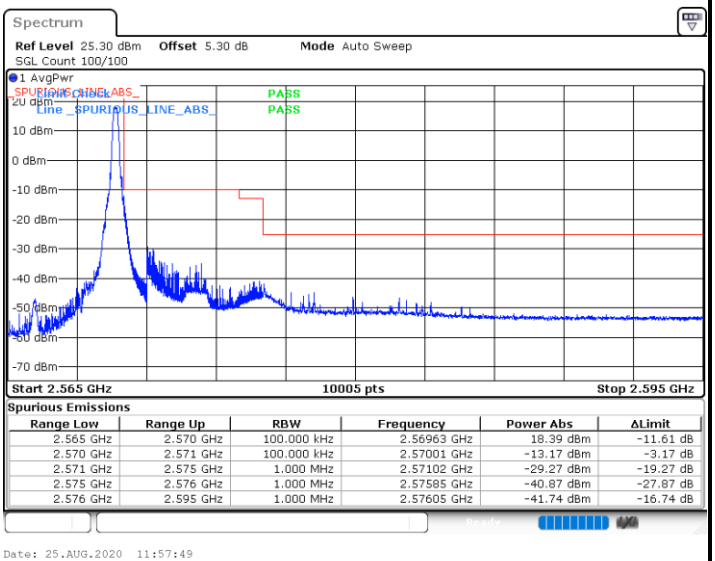


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49358 GHz	-44.09 dBm	-19.09 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49541 GHz	-40.90 dBm	-27.90 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49892 GHz	-29.68 dBm	-19.68 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-15.06 dBm	-5.06 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50029 GHz	18.17 dBm	-11.83 dB

Date: 25.AUG.2020 10:24:52

Highest Band Edge / 1RBmax

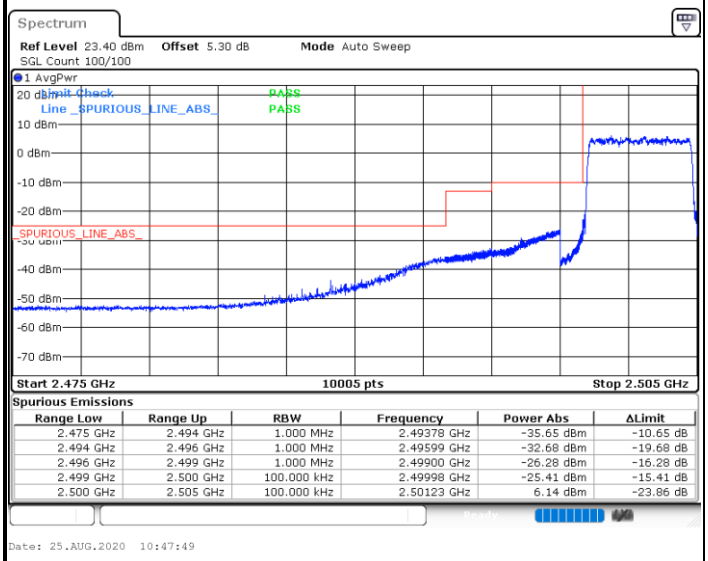


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56963 GHz	18.39 dBm	-11.61 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-13.17 dBm	-3.17 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57102 GHz	-29.27 dBm	-19.27 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57585 GHz	-40.87 dBm	-27.87 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57605 GHz	-41.74 dBm	-16.74 dB

Date: 25.AUG.2020 11:57:49

Lowest Band Edge / Full RB

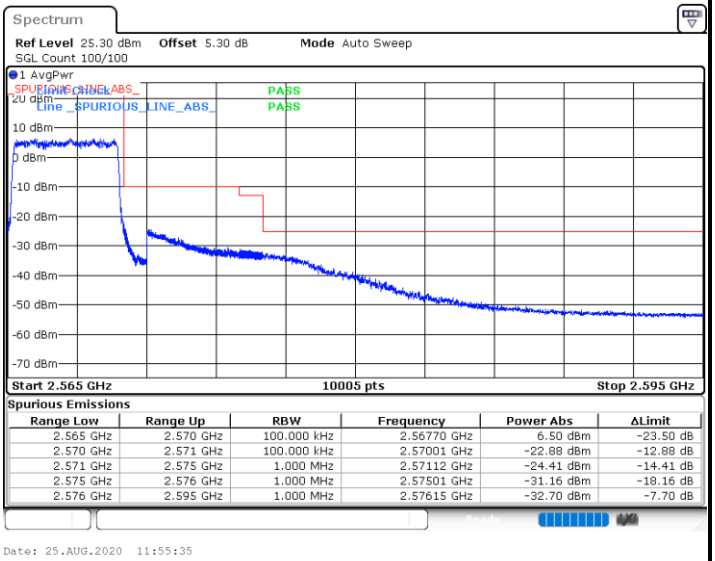


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49378 GHz	-35.65 dBm	-10.65 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49599 GHz	-32.68 dBm	-19.68 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49900 GHz	-26.28 dBm	-16.28 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.49998 GHz	-25.41 dBm	-15.41 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50123 GHz	6.14 dBm	-23.86 dB

Date: 25.AUG.2020 10:47:49

Highest Band Edge / Full RB



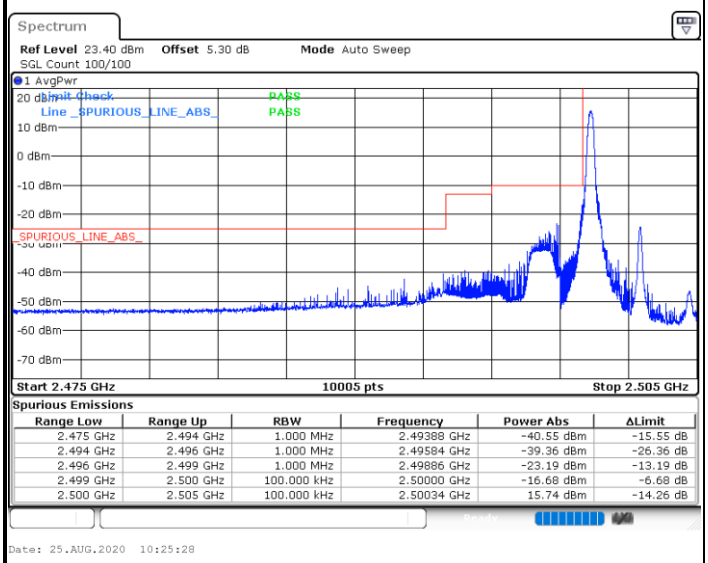
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56770 GHz	6.50 dBm	-23.50 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57001 GHz	-22.88 dBm	-12.88 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57112 GHz	-24.41 dBm	-14.41 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57501 GHz	-31.16 dBm	-18.16 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57615 GHz	-32.70 dBm	-7.70 dB

Date: 25.AUG.2020 11:55:35

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

Lowest Band Edge / 1RB0

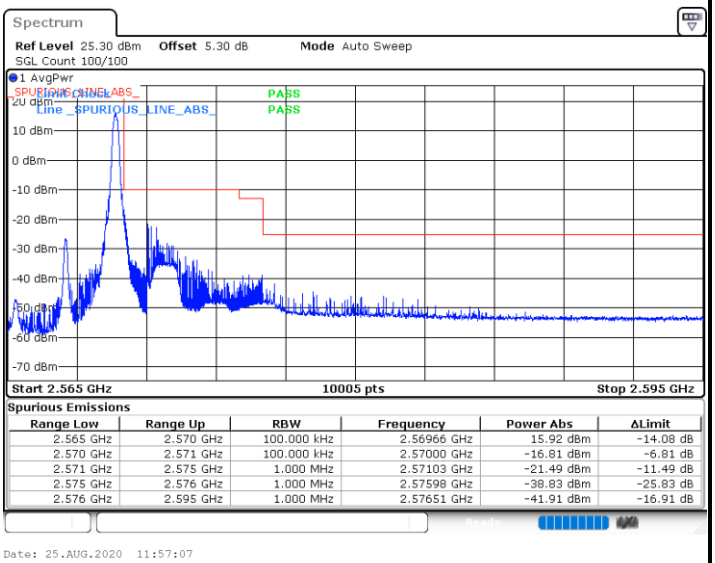


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49388 GHz	-40.55 dBm	-15.55 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49584 GHz	-39.36 dBm	-26.36 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49886 GHz	-23.19 dBm	-13.19 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-16.68 dBm	-6.68 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50034 GHz	15.74 dBm	-14.26 dB

Date: 25.AUG.2020 10:25:28

Highest Band Edge / 1RBmax

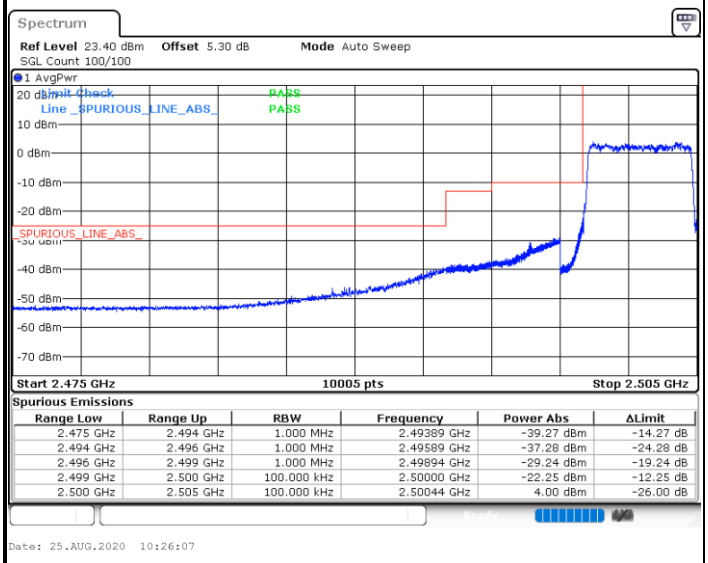


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56966 GHz	15.92 dBm	-14.08 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-16.81 dBm	-6.81 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57103 GHz	-21.49 dBm	-11.49 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57598 GHz	-38.83 dBm	-25.83 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57651 GHz	-41.91 dBm	-16.91 dB

Date: 25.AUG.2020 11:57:07

Lowest Band Edge / Full RB

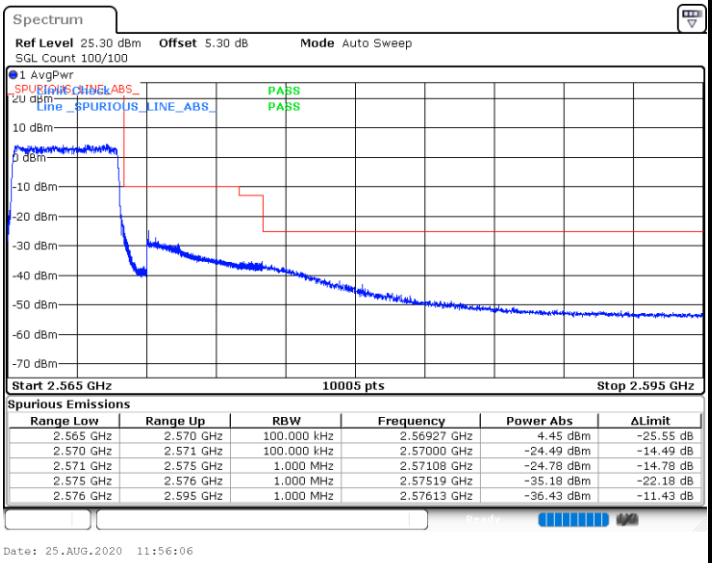


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.494 GHz	1.000 MHz	2.49389 GHz	-39.27 dBm	-14.27 dB
2.494 GHz	2.496 GHz	1.000 MHz	2.49589 GHz	-37.28 dBm	-24.28 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49894 GHz	-29.24 dBm	-19.24 dB
2.499 GHz	2.500 GHz	100.000 kHz	2.50000 GHz	-22.25 dBm	-12.25 dB
2.500 GHz	2.505 GHz	100.000 kHz	2.50044 GHz	4.00 dBm	-26.00 dB

Date: 25.AUG.2020 10:26:07

Highest Band Edge / Full RB

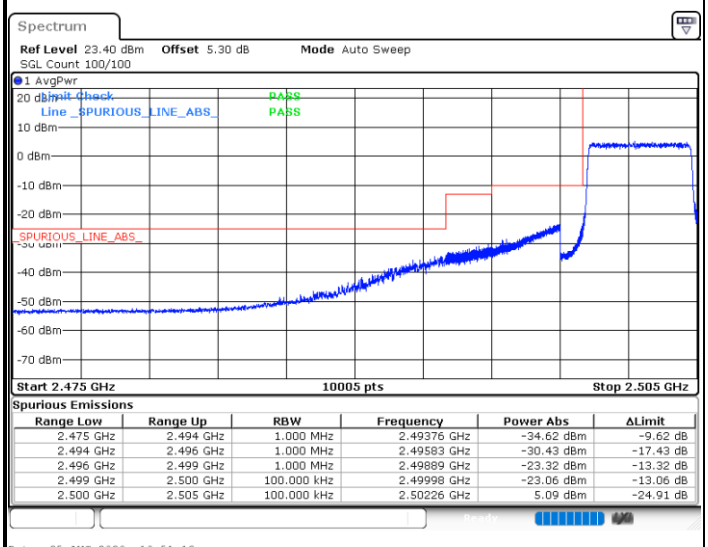


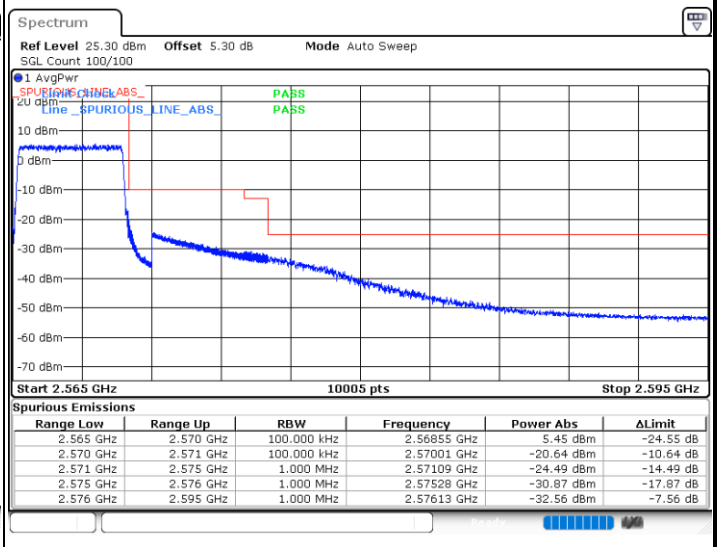
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.565 GHz	2.570 GHz	100.000 kHz	2.56927 GHz	4.45 dBm	-25.55 dB
2.570 GHz	2.571 GHz	100.000 kHz	2.57000 GHz	-24.49 dBm	-14.49 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57108 GHz	-24.78 dBm	-14.78 dB
2.575 GHz	2.576 GHz	1.000 MHz	2.57519 GHz	-35.18 dBm	-22.18 dB
2.576 GHz	2.595 GHz	1.000 MHz	2.57613 GHz	-36.43 dBm	-11.43 dB

Date: 25.AUG.2020 11:56:06

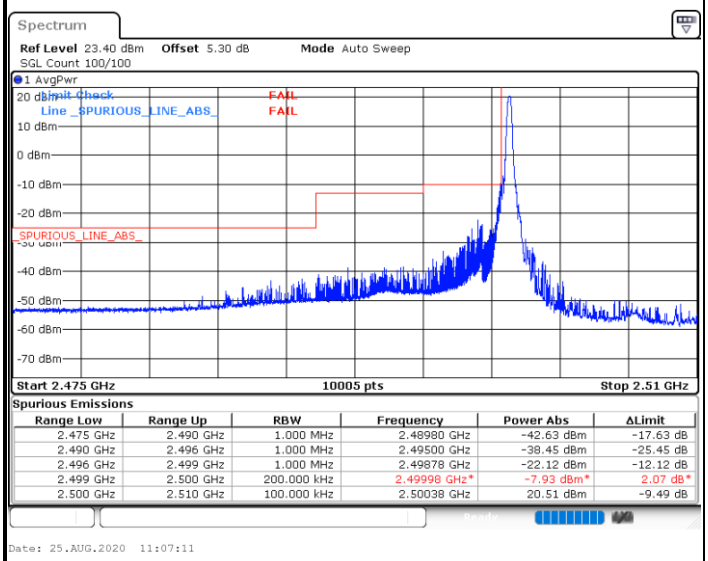
FR1 n7 / 5MHz / CP OFDM / QPSK	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**





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

Lowest Band Edge / 1RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48980 GHz	-42.63 dBm	-17.63 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49500 GHz	-38.45 dBm	-25.45 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49878 GHz	-22.12 dBm	-12.12 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49998 GHz*	-7.93 dBm*	2.07 dB*
2.500 GHz	2.510 GHz	100.000 kHz	2.50038 GHz	20.51 dBm	-9.49 dB

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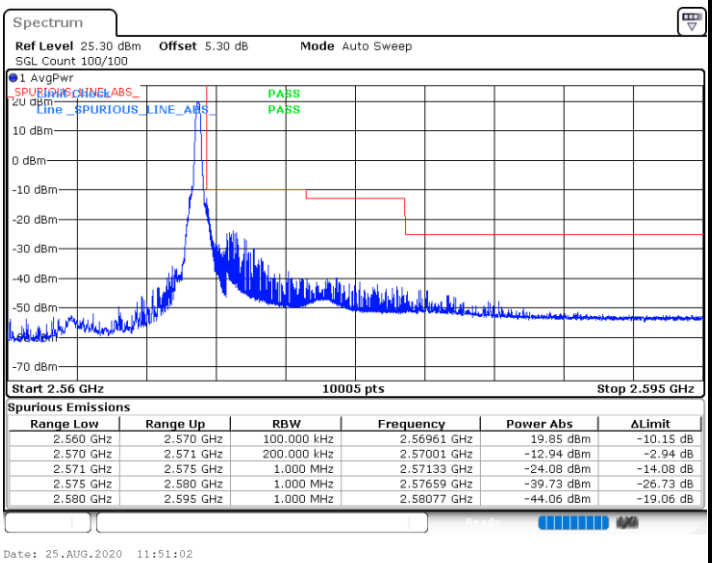
Highest Band Edge / 1RBmax



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56961 GHz	19.85 dBm	-10.15 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-12.94 dBm	-2.94 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57133 GHz	-24.08 dBm	-14.08 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57659 GHz	-39.73 dBm	-26.73 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58077 GHz	-44.06 dBm	-19.06 dB

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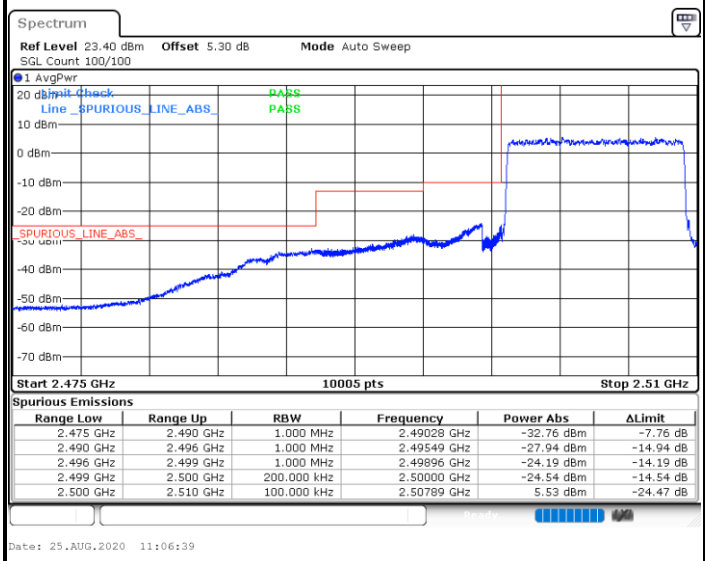
Lowest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49028 GHz	-32.76 dBm	-7.76 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49549 GHz	-27.94 dBm	-14.94 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49896 GHz	-24.19 dBm	-14.19 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.50000 GHz	-24.54 dBm	-14.54 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50789 GHz	5.53 dBm	-24.47 dB

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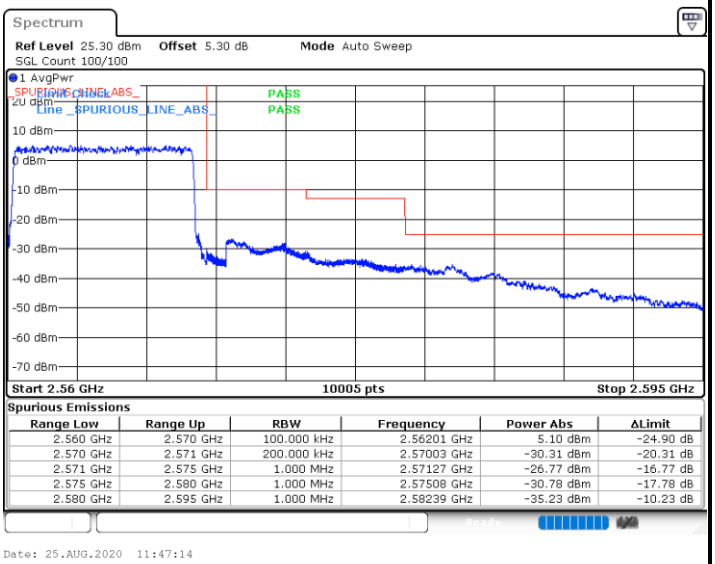
Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56201 GHz	5.10 dBm	-24.90 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57003 GHz	-30.31 dBm	-20.31 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57127 GHz	-26.77 dBm	-16.77 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57508 GHz	-30.78 dBm	-17.78 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58239 GHz	-35.23 dBm	-10.23 dB

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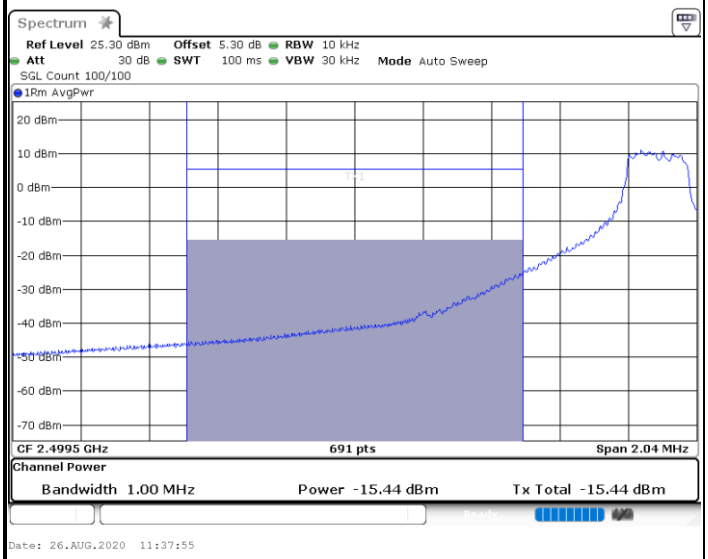
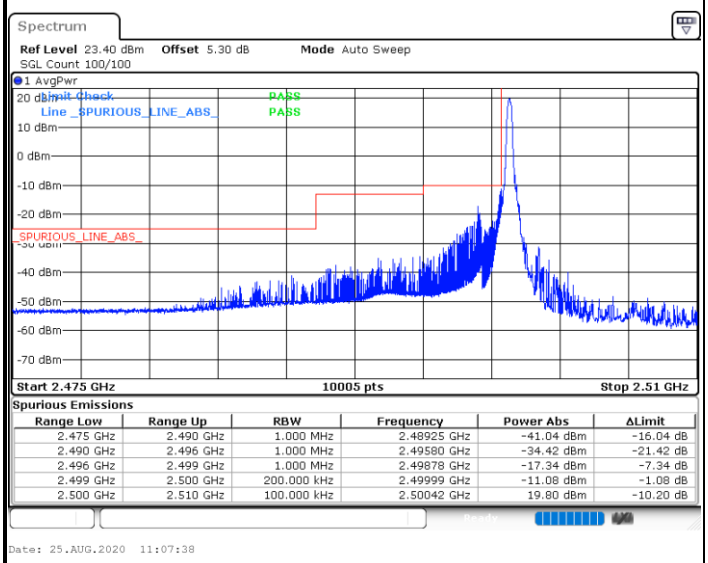
FR1 n7 / 10MHz / DFT-s-OFDM / PI/2 BPSK	
Lowest Band Edge / 1RB0	
Channel Power -15.44dBm < -10dBm (Pass)	
	

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

Lowest Band Edge / 1RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48925 GHz	-41.04 dBm	-16.04 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49580 GHz	-34.42 dBm	-21.42 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49878 GHz	-17.34 dBm	-7.34 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49999 GHz	-11.08 dBm	-1.08 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50042 GHz	19.80 dBm	-10.20 dB

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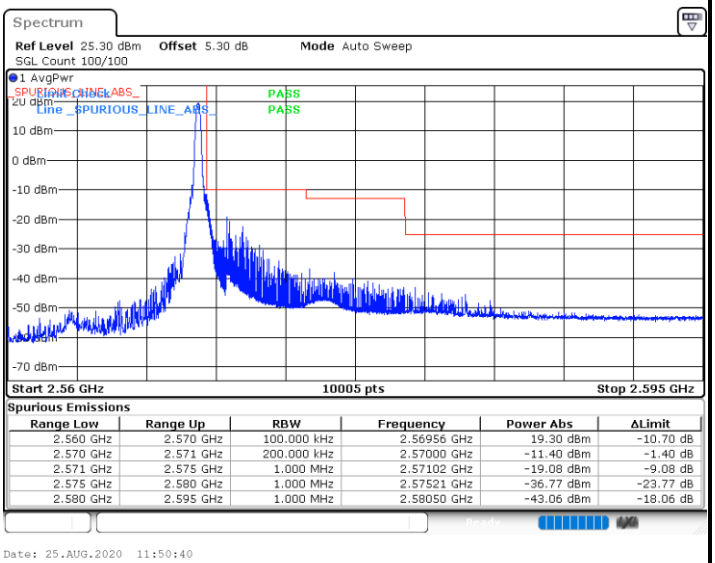
Highest Band Edge / 1RBmax



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56956 GHz	19.30 dBm	-10.70 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57000 GHz	-11.40 dBm	-1.40 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57102 GHz	-19.08 dBm	-9.08 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57521 GHz	-36.77 dBm	-23.77 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58050 GHz	-43.06 dBm	-18.06 dB

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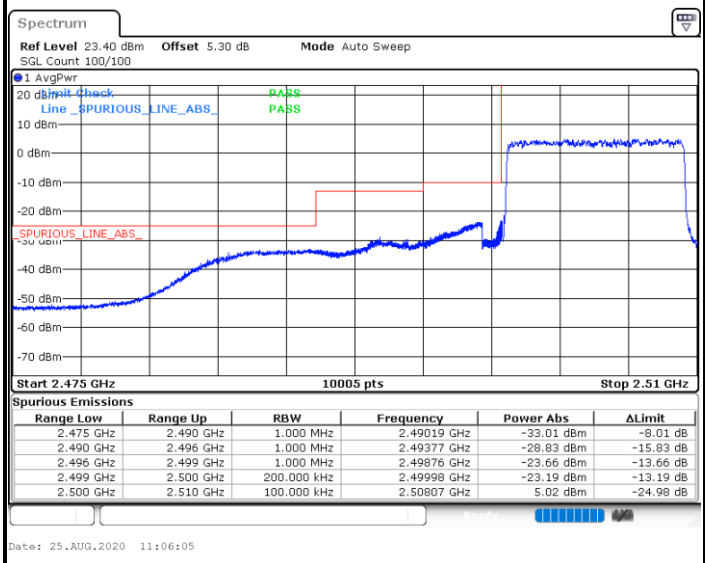
Lowest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49019 GHz	-33.01 dBm	-8.01 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49377 GHz	-28.83 dBm	-15.83 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49876 GHz	-23.66 dBm	-13.66 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49998 GHz	-23.19 dBm	-13.19 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50807 GHz	5.02 dBm	-24.98 dB

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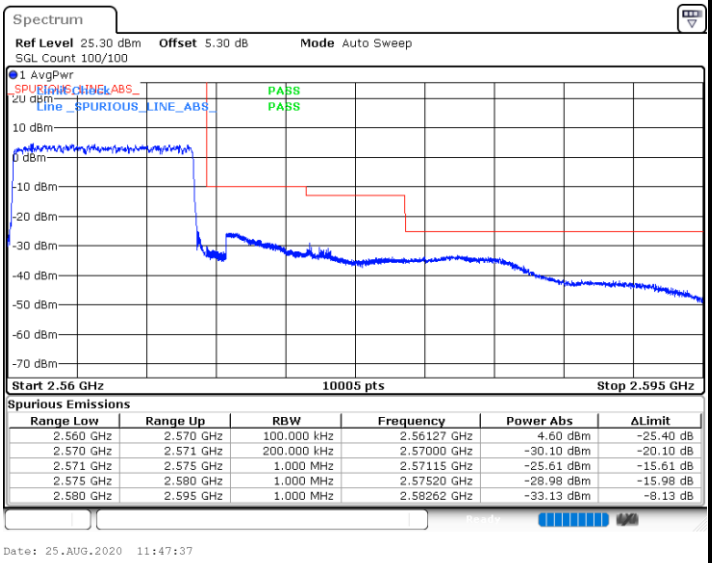
Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56127 GHz	4.60 dBm	-25.40 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57000 GHz	-30.10 dBm	-20.10 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57115 GHz	-25.61 dBm	-15.61 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57520 GHz	-28.98 dBm	-15.98 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58262 GHz	-33.13 dBm	-8.13 dB

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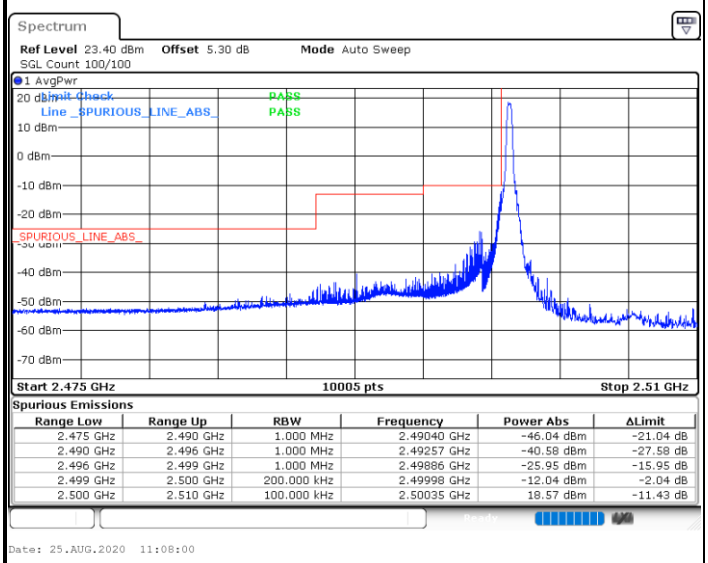
FR1 n7 / 10MHz / DFT-s-OFDM / 16QAM

Lowest Band Edge / 1RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49040 GHz	-46.04 dBm	-21.04 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49257 GHz	-40.58 dBm	-27.58 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49886 GHz	-25.95 dBm	-15.95 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49998 GHz	-12.04 dBm	-2.04 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50035 GHz	18.57 dBm	-11.43 dB

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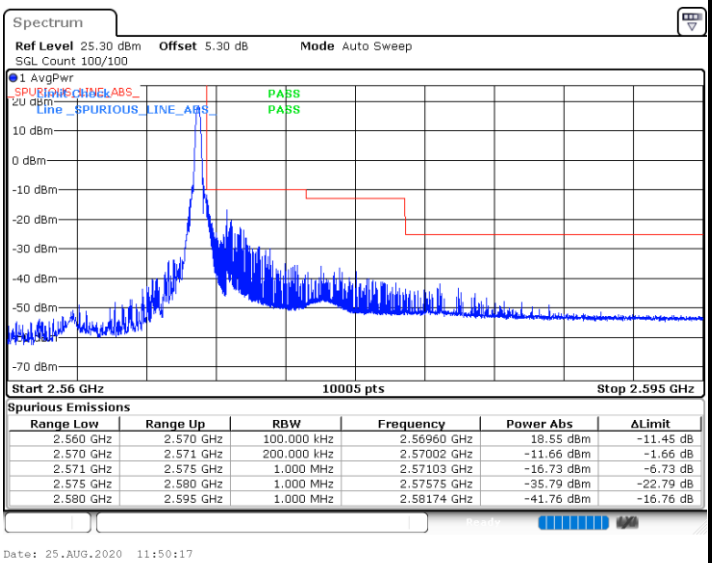
Highest Band Edge / 1RBmax



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56960 GHz	18.55 dBm	-11.45 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57002 GHz	-11.66 dBm	-1.66 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57103 GHz	-16.73 dBm	-6.73 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57575 GHz	-35.79 dBm	-22.79 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58174 GHz	-41.76 dBm	-16.76 dB

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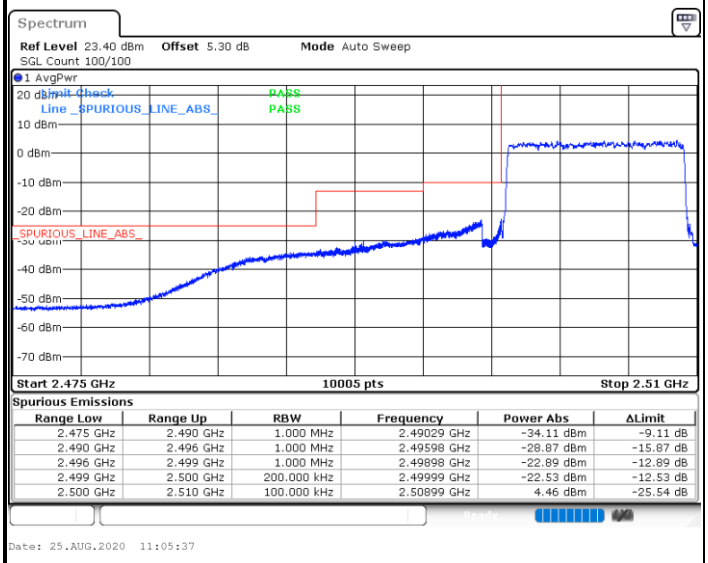
Lowest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49029 GHz	-34.11 dBm	-9.11 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49598 GHz	-28.87 dBm	-15.87 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49898 GHz	-22.89 dBm	-12.89 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49999 GHz	-22.53 dBm	-12.53 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50899 GHz	4.46 dBm	-25.54 dB

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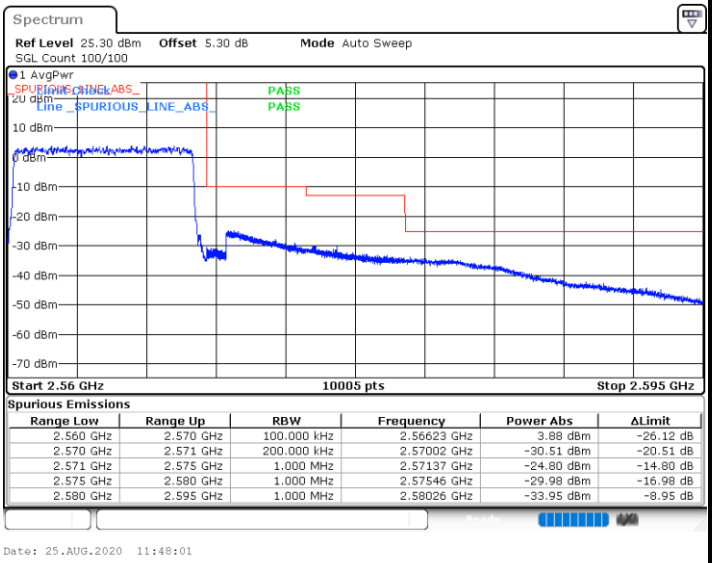
Highest Band Edge / Full RB



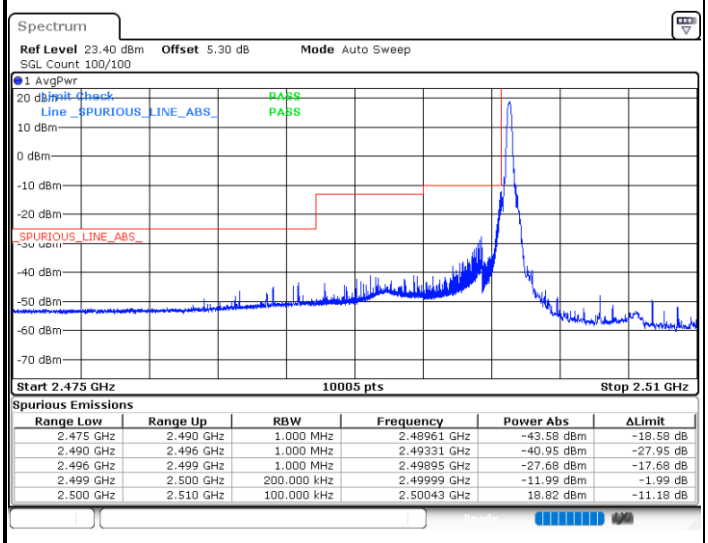
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56623 GHz	3.88 dBm	-26.12 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57002 GHz	-30.51 dBm	-20.51 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57137 GHz	-24.80 dBm	-14.80 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57546 GHz	-29.98 dBm	-16.98 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58026 GHz	-33.95 dBm	-8.95 dB

Date: 25.AUG.2020 11:48:01

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

Lowest Band Edge / 1RB0



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48961 GHz	-43.58 dBm	-18.58 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49331 GHz	-40.95 dBm	-27.95 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49895 GHz	-27.68 dBm	-17.68 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49999 GHz	-11.99 dBm	-1.99 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50043 GHz	18.82 dBm	-11.18 dB

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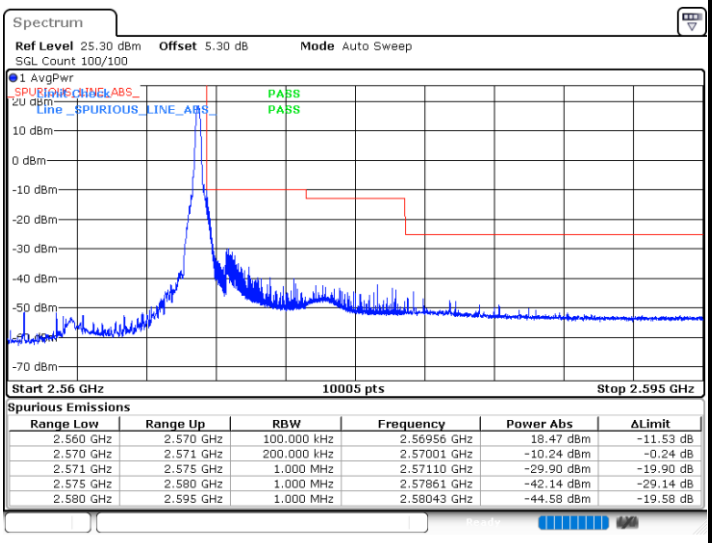
Highest Band Edge / 1RBmax



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56956 GHz	18.47 dBm	-11.53 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57001 GHz	-10.24 dBm	-0.24 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57110 GHz	-29.90 dBm	-19.90 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57861 GHz	-42.14 dBm	-29.14 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58043 GHz	-44.58 dBm	-19.58 dB

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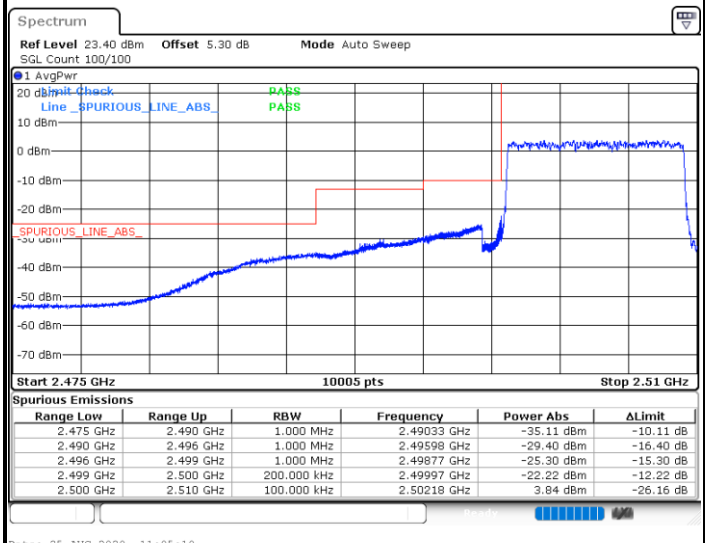
Lowest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49033 GHz	-35.11 dBm	-10.11 dB
2.490 GHz	2.496 GHz	1.000 MHz	2.49598 GHz	-29.40 dBm	-16.40 dB
2.496 GHz	2.499 GHz	1.000 MHz	2.49877 GHz	-25.30 dBm	-15.30 dB
2.499 GHz	2.500 GHz	200.000 kHz	2.49997 GHz	-22.22 dBm	-12.22 dB
2.500 GHz	2.510 GHz	100.000 kHz	2.50218 GHz	3.84 dBm	-26.16 dB

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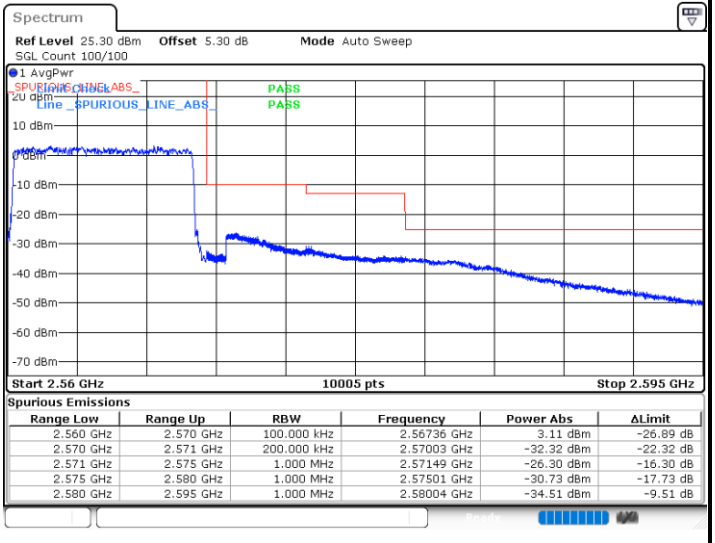
Highest Band Edge / Full RB



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.560 GHz	2.570 GHz	100.000 kHz	2.56736 GHz	3.11 dBm	-26.89 dB
2.570 GHz	2.571 GHz	200.000 kHz	2.57003 GHz	-32.32 dBm	-22.32 dB
2.571 GHz	2.575 GHz	1.000 MHz	2.57149 GHz	-26.30 dBm	-16.30 dB
2.575 GHz	2.580 GHz	1.000 MHz	2.57501 GHz	-30.73 dBm	-17.73 dB
2.580 GHz	2.595 GHz	1.000 MHz	2.58004 GHz	-34.51 dBm	-9.51 dB

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