



FCC RADIO TEST REPORT

FCC ID : 2ABZ2-EF136
Equipment : Smart Phone
Brand Name : ONEPLUS
Model Name : LE2117
Applicant : OnePlus Technology (Shenzhen) Co., Ltd.
18C02, 18C03, 18C04 and 18C05, Shum Yip
Terra Building, Binhe Avenue North, Futian
District, Shenzhen
Manufacturer : OnePlus Technology (Shenzhen) Co., Ltd.
18C02, 18C03, 18C04 and 18C05, Shum Yip
Terra Building, Binhe Avenue North, Futian
District, Shenzhen
Standard : FCC 47 CFR Part 2, 27

The product was received on Dec. 22, 2020 and testing was started from Dec. 29, 2020 and completed on Jan. 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 partial 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
FGO2626-02D	01	Initial issue of report	Feb. 04, 2021



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 (n41)	Pass	
3.3	-	Peak-to-Average Ratio	Pass	-
3.4	§2.1049	Occupied Bandwidth	Reporting only	-
3.5	§2.1051 §27.53 (m)(4)	Conducted Band Edge Measurement (n41)	Pass	-
3.6	§2.1051 §27.53 (m)(4)	Conducted Spurious Emission (n41)	Pass	-
3.7	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Pass	-

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: Lucy Wu

1 General Description

1.1 Product Feature of Equipment Under Test

GSM/CDMA/WCDMA/LTE/5G NR, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac/ax, Wi-Fi 5GHz 802.11a/n/ac/ax, NFC, GNSS, ANT+, and WPC/WPT

Product Specification subjective to this standard	
Antenna Type	WWAN: <Down Antenna>: Coupling type (LDS) Antenna <Upper Antenna>: Coupling type (LDS) Antenna Bluetooth: PIFA Antenna WLAN: <Ant. 4>: PIFA Antenna <Ant. 6>: PIFA Antenna NFC: Loop Antenna BDS/Galileo/GLONASS/GPS/SBAS: PIFA Antenna ANT+: PIFA Antenna WPC/WPT: Loop Antenna
Antenna Gain	<Upper Antenna>: -3 dBi <Down Antenna>: -2 dBi

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, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH05-HY
Test Engineer	Amber Cheng
Temperature	20.3°C
Relative Humidity	59.4%

FCC Designation No.: TW1190

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, 27
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. The TAF code is not including all the FCC KDB listed without accreditation.



2 Test Configuration of Equipment Under Test

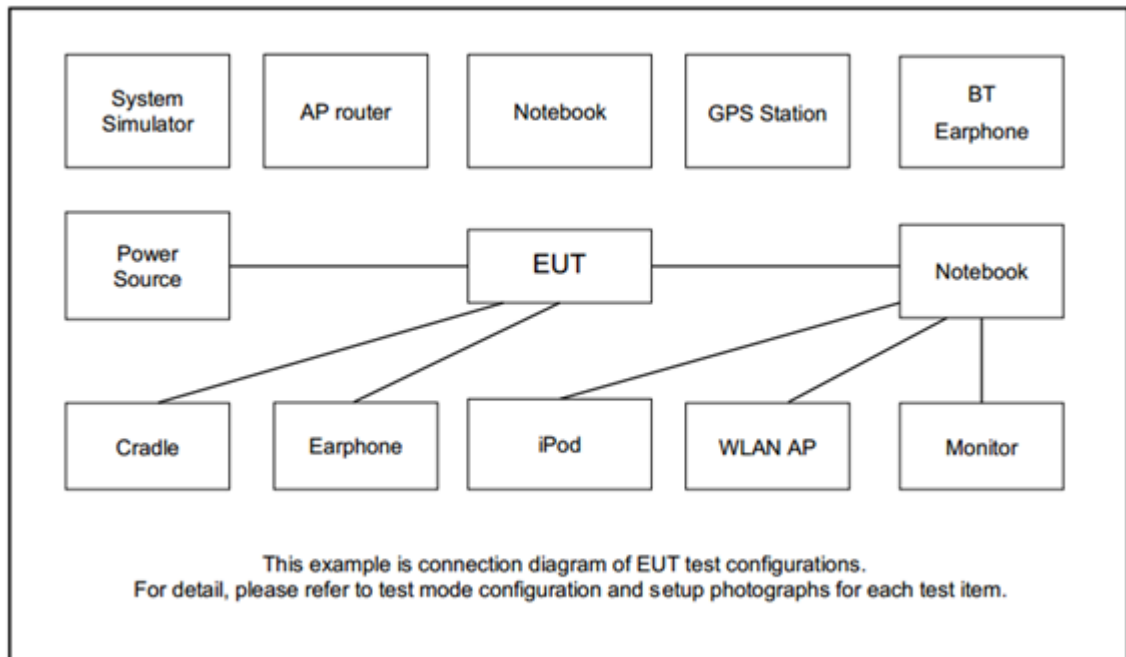
2.1 Test Mode

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.

Test Items	NR Band	Bandwidth (MHz)										Modulation					RB #			Test Channel		
		10	15	20	30	40	50	60	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	n41			v	v	v	v		v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	n41			v								v	v	v	v	v	v		v		v	
26dB and 99% Bandwidth	n41			v	v	v	v		v	v	v	v	v	v	v	v			v		v	
Conducted Band Edge	n41			v	v	v	v		v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	n41			v									v				v			v	v	v
Frequency Stability	n41			v								v							v		v	
E.I.R.P	n41			v	v	v	v		v	v	v	v	v	v	v	v	Max Power					
Remark	1. The mark “v” means that this configuration is chosen for testing 2. The mark “-” means that this bandwidth is not supported. 3. Test combination is EN-DC 2A-n41. 4. All test items were performed with Down Antenna.																					

2.2 Connection Diagram of Test System



2.3 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).

$$= 4.2 + 10 = 14.2 \text{ (dB)}$$

2.4 Frequency List of Low/Middle/High Channels

5G NR Band n41 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	509202	518598	528000
	Frequency	2546.01	2592.99	2640
90	Channel	508200	518598	528996
	Frequency	2541	2592.99	2644.98
80	Channel	507204	518598	529998
	Frequency	2536.02	2592.99	2649.99
50	Channel	504204	518598	532998
	Frequency	2521.02	2592.99	2664.99
40	Channel	503202	518598	534000
	Frequency	2516.01	2592.99	2670
30	Channel	502200	518598	534996
	Frequency	2511.00	2592.99	2674.98
20	Channel	501204	518598	535998
	Frequency	2506.02	2592.99	2679.99

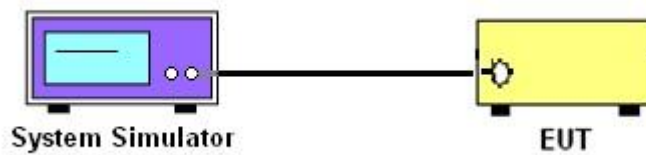
3 Conducted Test Items

3.1 Measuring Instruments

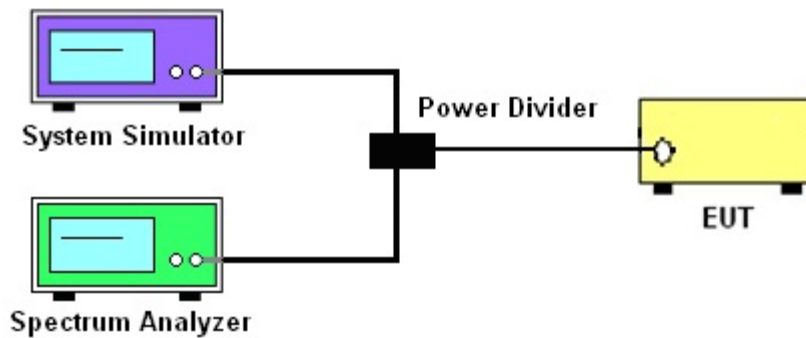
See list of measuring instruments of this test report.

3.1.1 Test Setup

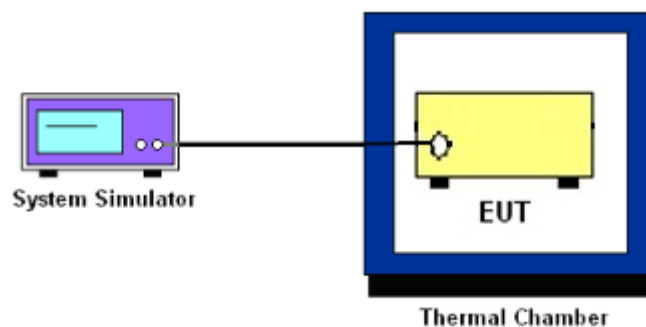
3.1.2 Conducted Output Power



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 EIRP of mobile transmitters must not exceed 2 Watts for 5G NR n41

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 than $43 + 10 \log (P)$ 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 $\geq 1\%$ 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 $43 + 10\log(P)$ dB below the transmitter power P(Watts)

For 5G NR n41

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 n41

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

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 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 $43 + 10\log(P)$ dB below the transmitter power P(Watts)

For 5G NR n41

The limit line is derived from $55 + 10\log(P)$ 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 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	Aug. 19, 2020	Dec. 29, 2020~ Jan. 22, 2021	Aug. 18, 2021	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101906	10Hz~40GHz	May 07, 2020	Dec. 29, 2020~ Jan. 22, 2021	May 06, 2021	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep. 14, 2020	Dec. 29, 2020~ Jan. 22, 2021	Sep. 13, 2021	Conducted (TH05-HY)
Base Station (Measure)	Anritsu	MT8821C	6261849015	LTE(FDD)	Sep. 18, 2020	Dec. 29, 2020~ Jan. 22, 2021	Sep. 17, 2021	Conducted (TH05-HY)
Base Station (Measure)	Anritsu	MT8000A	6261940327	5GNR	Sep. 23, 2020	Dec. 29, 2020~ Jan. 22, 2021	Sep. 22, 2021	Conducted (TH05-HY)



Appendix A. Test Results of Conducted and EIRP Test

Conducted Output Power(Average power) and EIRP

<Down Antenna>

<NSA Mode>

<DFT-s OFDM>

NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	26.53	26.45	26.10	24.55	0.2851		
20	1	49		26.55	26.41	26.12				
20	25	12		26.54	26.50	26.16				
20	1	0		23.13	23.06	22.74				
20	1	50		23.11	23.01	22.72				
20	50	0		23.71	23.62	23.25				
20	1	1	QPSK	26.53	26.48	26.16				
20	1	49		26.53	26.42	26.16				
20	25	12		26.52	26.54	26.13				
20	1	0		23.18	23.11	22.71				
20	1	50		23.15	23.04	22.73				
20	50	0		22.74	22.61	22.24				
20	1	1	16-QAM	25.73	25.64	25.27	23.73	0.2360		
20	1	1	64-QAM	24.22	24.11	23.74				
20	1	1	256-QAM	22.23	22.10	21.75				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
30	1	1	PI/2 BPSK	26.36	26.34	26.15	24.42	0.2767		
30	1	76		26.42	26.28	26.11				
30	36	18		26.40	26.35	26.01				
30	1	0		23.01	22.94	22.76				
30	1	77		22.97	22.89	22.71				
30	75	0		26.01	25.95	25.64				
30	1	1	QPSK	26.39	26.36	26.16				
30	1	76		26.42	26.32	26.11				
30	36	18		26.39	26.36	26.02				
30	1	0		22.99	22.99	22.74				
30	1	77		23.00	22.93	22.71				
30	75	0		25.54	25.47	25.17				
30	1	1	16-QAM	25.48	25.48	25.30	23.48	0.2228		
30	1	1	64-QAM	24.01	23.97	23.71				
30	1	1	256-QAM	21.98	21.85	21.71				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
40	1	1	PI/2 BPSK	26.68	26.60	26.47	24.74	0.2979		
40	1	104		26.70	26.51	26.28				
40	50	25		26.63	26.61	26.25				
40	1	0		23.24	23.24	23.09				
40	1	105		23.36	23.13	22.87				
40	100	0		23.76	23.72	23.42				
40	1	1	QPSK	26.66	26.62	26.48				
40	1	104		26.74	26.50	26.28				
40	50	25		26.65	26.60	26.23				
40	1	0		23.30	23.24	23.11				
40	1	105		23.36	23.17	22.90				
40	100	0		22.78	22.73	22.41				
40	1	1	16-QAM	25.81	25.74	25.64	23.81	0.2404		
40	1	1	64-QAM	24.22	24.36	24.15				
40	1	1	256-QAM	22.31	22.13	22.10				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
50	1	1	PI/2 BPSK	26.61	26.59	26.42	24.74	0.2979		
50	1	131		26.74	26.41	26.22				
50	64	32		26.58	26.56	26.13				
50	1	0		23.24	23.22	23.07				
50	1	132		23.33	23.07	22.87				
50	128	0		23.69	23.68	23.34				
50	1	1	QPSK	26.57	26.56	26.41				
50	1	131		23.35	26.45	26.22				
50	64	32		26.58	26.59	26.17				
50	1	0		23.21	23.22	23.01				
50	1	132		23.30	23.03	22.81				
50	128	0		22.69	22.63	22.30				
50	1	1	16-QAM	25.70	25.78	25.58	23.78	0.2388		
50	1	1	64-QAM	24.28	24.24	24.10				
50	1	1	256-QAM	22.24	22.13	22.01				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
80	1	1	PI/2 BPSK	26.31	26.23	26.17	24.31	0.2698		
80	1	215		26.10	25.98	25.83				
80	108	54		26.26	26.25	26.03				
80	1	0		22.95	22.92	22.76				
80	1	216		22.68	22.61	22.44				
80	216	0		23.41	23.33	23.10				
80	1	1	QPSK	26.24	26.23	26.18				
80	1	215		26.07	26.01	25.76				
80	108	54		26.28	26.25	26.02				
80	1	0		22.88	22.93	22.80				
80	1	216		22.62	22.62	22.43				
80	216	0		22.86	22.80	22.60				
80	1	1	16-QAM	25.33	25.46	25.21	23.46	0.2218		
80	1	1	64-QAM	23.98	23.91	23.85				
80	1	1	256-QAM	21.91	21.87	21.84				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
90	1	1	PI/2 BPSK	26.30	26.30	26.18	24.30	0.2692		
90	1	243		26.27	26.05	25.87				
90	120	60		26.26	26.13	25.96				
90	1	0		22.91	22.89	22.82				
90	1	244		22.87	22.63	22.43				
90	240	0		23.29	23.33	23.11				
90	1	1	QPSK	25.97	26.28	26.18				
90	1	243		26.18	26.03	25.66				
90	120	60		26.23	26.17	25.94				
90	1	0		22.85	22.91	22.81				
90	1	244		22.81	22.68	22.44				
90	240	0		22.80	22.79	22.52				
90	1	1	16-QAM	25.07	25.46	25.20	23.46	0.2218		
90	1	1	64-QAM	23.57	23.98	23.77				
90	1	1	256-QAM	21.90	21.91	21.78				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
100	1	1	PI/2 BPSK	26.27	26.31	26.28	24.37	0.2735		
100	1	271		26.23	26.06	25.87				
100	135	67		26.37	26.15	26.02				
100	1	0		22.89	23.00	22.86				
100	1	272		22.82	22.61	22.50				
100	270	0		23.32	23.30	23.11				
100	1	1	QPSK	25.77	26.25	26.17				
100	1	271		26.08	26.01	25.62				
100	135	67		26.32	26.18	26.00				
100	1	0		22.89	23.01	22.83				
100	1	272		22.83	22.66	22.44				
100	270	0		22.84	22.86	22.61				
100	1	1	16-QAM	24.89	25.33	25.22	23.33	0.2153		
100	1	1	64-QAM	23.28	23.78	23.83				
100	1	1	256-QAM	21.82	21.89	21.97				
Limit	EIRP < 2W			Result			Pass			



<SA Mode>

<DFT-s OFDM>

NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	25.75	26.25	26.36	24.45	0.2786		
20	1	49		26.33	26.25	26.30				
20	25	12		26.45	26.27	26.42				
20	1	0		22.97	22.76	22.83				
20	1	50		22.86	22.74	22.78				
20	50	0		24.45	24.23	24.40				
20	1	1	QPSK	24.64	26.24	25.62				
20	1	49		25.58	26.23	25.36				
20	25	12		25.76	26.24	26.01				
20	1	0		22.97	22.78	22.84				
20	1	50		22.94	22.77	22.77				
20	50	0		24.42	24.29	24.42				
20	1	1	16-QAM	23.82	25.26	24.55	23.26	0.2118		
20	1	1	64-QAM	22.21	23.72	23.17				
20	1	1	256-QAM	20.52	21.88	21.54				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
30	1	1	PI/2 BPSK	25.19	26.41	25.74	24.52	0.2831		
30	1	76		26.13	26.52	25.75				
30	36	18		25.83	26.40	26.02				
30	1	0		22.94	22.98	22.95				
30	1	77		22.91	23.01	22.77				
30	75	0		25.88	25.97	25.85				
30	1	1	QPSK	24.76	25.83	25.23				
30	1	76		26.06	26.21	25.48				
30	36	18		25.91	26.48	25.88				
30	1	0		23.06	22.92	22.92				
30	1	77		23.08	22.94	22.77				
30	75	0		24.46	25.42	24.72				
30	1	1	16-QAM	23.23	24.97	24.03	22.97	0.1982		
30	1	1	64-QAM	21.64	23.55	22.55				
30	1	1	256-QAM	19.71	21.91	20.41				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
40	1	1	PI/2 BPSK	25.40	26.49	26.16	24.59	0.2877		
40	1	104		26.39	26.59	26.18				
40	50	25		25.95	26.16	25.67				
40	1	0		23.07	23.02	22.96				
40	1	105		22.91	23.02	22.90				
40	100	0		24.46	24.51	24.51				
40	1	1	QPSK	24.38	26.27	25.18			23.34	0.2158
40	1	104		25.62	26.54	25.15				
40	50	25		26.34	26.46	26.26				
40	1	0		22.01	23.01	22.73				
40	1	105		22.94	23.03	22.86				
40	100	0		24.45	24.53	24.51				
40	1	1	16-QAM	23.42	25.34	24.27	23.34	0.2158		
40	1	1	64-QAM	21.64	23.90	22.72				
40	1	1	256-QAM	20.13	21.93	20.82				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
50	1	1	PI/2 BPSK	25.71	26.27	26.21	24.34	0.2716		
50	1	131		26.28	26.28	26.19				
50	64	32		26.24	26.20	26.15				
50	1	0		22.71	22.72	22.76				
50	1	132		22.82	22.78	22.74				
50	128	0		24.22	24.26	24.21				
50	1	1	QPSK	24.66	26.21	25.93				
50	1	131		26.18	26.34	25.52				
50	64	32		26.18	26.19	26.11				
50	1	0		22.65	22.77	22.75				
50	1	132		22.82	22.83	22.73				
50	128	0		24.19	24.22	24.18				
50	1	1	16-QAM	23.64	24.92	24.86	22.92	0.1959		
50	1	1	64-QAM	22.05	23.44	23.33				
50	1	1	256-QAM	20.38	21.72	21.74				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
80	1	1	PI/2 BPSK	25.99	25.94	26.03	24.03	0.2529		
80	1	215		25.85	25.92	25.86				
80	108	54		25.92	25.90	26.02				
80	1	0		22.41	22.44	22.48				
80	1	216		22.35	22.50	22.41				
80	216	0		23.98	23.89	24.06				
80	1	1	QPSK	26.02	25.94	25.98				
80	1	215		25.92	25.84	25.94				
80	108	54		25.92	25.86	25.98				
80	1	0		22.45	22.37	22.54				
80	1	216		22.38	22.37	22.41				
80	216	0		23.92	23.90	24.04				
80	1	1	16-QAM	25.06	24.95	25.11	23.11	0.2046		
80	1	1	64-QAM	23.48	23.49	23.62				
80	1	1	256-QAM	21.52	21.48	21.61				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
90	1	1	PI/2 BPSK	25.95	25.92	25.93	23.98	0.2500		
90	1	243		25.81	25.90	25.96				
90	120	60		25.88	25.87	25.92				
90	1	0		22.35	22.45	22.52				
90	1	244		22.35	22.38	22.56				
90	240	0		23.97	23.85	24.08				
90	1	1	QPSK	25.87	25.94	25.98				
90	1	243		25.84	25.94	25.96				
90	120	60		25.91	25.88	25.91				
90	1	0		22.38	22.49	22.39				
90	1	244		22.36	22.43	22.44				
90	240	0		23.95	23.91	24.01				
90	1	1	16-QAM	24.80	23.64	24.93	22.93	0.1963		
90	1	1	64-QAM	23.37	23.41	23.45				
90	1	1	256-QAM	21.35	21.43	21.45				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -2 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
100	1	1	PI/2 BPSK	25.86	25.90	25.88	24	0.2512		
100	1	271		25.85	25.86	25.98				
100	135	67		25.88	25.93	25.98				
100	1	0		22.37	22.39	22.34				
100	1	272		22.28	22.37	22.46				
100	270	0		23.93	23.95	24.02				
100	1	1	QPSK	25.81	25.91	25.92				
100	1	271		25.72	25.88	26.00				
100	135	67		25.93	25.85	25.96				
100	1	0		22.42	22.40	22.37				
100	1	272		22.28	22.41	22.43				
100	270	0		23.94	23.91	24.05				
100	1	1	16-QAM	24.94	24.93	24.96	22.96	0.1977		
100	1	1	64-QAM	23.52	23.46	23.48				
100	1	1	256-QAM	21.33	21.33	21.56				
Limit	EIRP < 2W			Result			Pass			



<Upper Antenna>

<NSA Mode>

<DFT-s OFDM>

NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	24.97	24.60	24.28	21.97	0.1574		
20	1	49		24.85	24.36	24.33				
20	25	12		24.91	24.55	24.35				
20	1	0		21.59	21.18	20.81				
20	1	50		21.43	20.92	20.91				
20	50	0		22.04	21.65	21.44				
20	1	1	QPSK	24.93	24.62	24.25				
20	1	49		24.84	24.37	24.32				
20	25	12		24.94	24.52	24.37				
20	1	0		21.53	21.19	20.84				
20	1	50		21.42	20.98	20.87				
20	50	0		21.06	21.63	20.47				
20	1	1	16-QAM	24.06	23.80	23.38	21.06	0.1276		
20	1	1	64-QAM	22.62	22.27	21.92				
20	1	1	256-QAM	20.56	20.25	19.88				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
30	1	1	PI/2 BPSK	24.79	24.72	24.25	21.83	0.1524		
30	1	76		24.78	24.44	24.35				
30	36	18		24.78	24.60	24.25				
30	1	0		21.41	21.30	20.80				
30	1	77		21.40	21.04	20.95				
30	75	0		24.42	24.21	23.88				
30	1	1	QPSK	24.83	24.72	24.25				
30	1	76		24.80	24.47	24.41				
30	36	18		24.68	24.60	24.27				
30	1	0		21.45	21.30	20.81				
30	1	77		21.42	21.08	21.02				
30	75	0		23.92	23.68	23.38				
30	1	1	16-QAM	23.84	23.81	23.29	20.84	0.1213		
30	1	1	64-QAM	22.43	22.39	21.82				
30	1	1	256-QAM	20.39	20.44	19.77				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	25.01	24.77	24.46	22.01	0.1589
40	1	104		24.96	24.55	24.62		
40	50	25		24.89	24.64	24.38		
40	1	0		21.62	21.38	21.04		
40	1	105		21.57	21.16	21.21		
40	100	0		22.04	21.80	21.54		
40	1	1	QPSK	25.00	24.78	24.44	22.01	0.1589
40	1	104		24.98	24.56	24.61		
40	50	25		24.89	24.69	24.35		
40	1	0		21.60	21.37	21.04		
40	1	105		21.60	21.19	21.20		
40	100	0		21.03	20.78	20.50		
40	1	1	16-QAM	24.27	23.92	23.58	21.27	0.1340
40	1	1	64-QAM	22.72	22.47	22.11		
40	1	1	256-QAM	20.67	20.45	20.04		
Limit	EIRP < 2W			Result			Pass	

NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
50	1	1	PI/2 BPSK	24.83	24.75	24.34	21.83	0.1524
50	1	131		24.81	24.47	24.43		
50	64	32		24.80	24.59	24.15		
50	1	0		21.44	21.30	20.99		
50	1	132		21.38	21.04	21.12		
50	128	0		21.90	21.68	21.31		
50	1	1	QPSK	24.83	24.71	24.36	21.83	0.1524
50	1	131		24.80	24.45	24.35		
50	64	32		24.83	24.57	24.16		
50	1	0		21.41	21.33	20.97		
50	1	132		21.40	21.03	21.01		
50	128	0		20.88	20.64	20.32		
50	1	1	16-QAM	24.01	23.88	23.50	21.01	0.1262
50	1	1	64-QAM	22.43	22.34	22.05		
50	1	1	256-QAM	20.43	20.31	19.96		
Limit	EIRP < 2W			Result			Pass	



NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
80	1	1	PI/2 BPSK	24.38	24.12	23.93	21.42	0.1387		
80	1	215		24.13	23.83	23.79				
80	108	54		24.42	24.12	23.86				
80	1	0		21.01	20.73	20.58				
80	1	216		20.72	20.46	20.43				
80	216	0		21.44	21.15	21.03				
80	1	1	QPSK	24.36	24.08	23.88				
80	1	215		24.10	23.81	23.82				
80	108	54		24.39	24.04	23.85				
80	1	0		21.00	20.66	20.51				
80	1	216		20.73	20.44	20.46				
80	216	0		20.97	20.64	20.52				
80	1	1	16-QAM	23.41	23.26	23.09	20.41	0.1099		
80	1	1	64-QAM	21.99	21.83	21.73				
80	1	1	256-QAM	20.12	19.70	19.50				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
90	1	1	PI/2 BPSK	24.34	24.18	24.05	21.34	0.1361		
90	1	243		24.15	23.91	23.97				
90	120	60		24.26	24.04	23.87				
90	1	0		20.92	20.77	20.63				
90	1	244		20.80	20.47	20.48				
90	240	0		21.43	21.22	20.99				
90	1	1	QPSK	24.30	24.22	23.97				
90	1	243		24.13	23.94	23.91				
90	120	60		24.33	24.06	23.91				
90	1	0		20.94	20.85	20.62				
90	1	244		20.75	20.52	20.51				
90	240	0		20.88	20.61	20.50				
90	1	1	16-QAM	23.54	23.33	23.07	20.54	0.1132		
90	1	1	64-QAM	21.93	21.78	21.56				
90	1	1	256-QAM	19.80	19.87	19.60				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
100	1	1	PI/2 BPSK	24.28	24.20	24.20	21.3	0.1349		
100	1	271		23.99	23.92	23.94				
100	135	67		24.27	24.10	23.84				
100	1	0		20.95	20.85	20.79				
100	1	272		20.59	20.60	20.45				
100	270	0		21.39	21.13	21.00				
100	1	1	QPSK	24.30	24.26	24.20				
100	1	271		24.00	23.91	23.88				
100	135	67		24.26	24.07	23.85				
100	1	0		20.97	20.84	20.79				
100	1	272		20.62	20.52	20.49				
100	270	0		20.90	20.64	20.45				
100	1	1	16-QAM	23.42	23.34	23.28	20.42	0.1102		
100	1	1	64-QAM	22.00	21.88	21.75				
100	1	1	256-QAM	19.86	19.93	19.64				
Limit	EIRP < 2W			Result			Pass			



<SA Mode>

<DFT-s OFDM>

NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	26.16	26.15	26.27	23.33	0.2153		
20	1	49		26.28	26.33	26.23				
20	25	12		26.28	26.20	26.31				
20	1	0		22.87	22.71	22.84				
20	1	50		22.76	22.78	22.75				
20	50	0		24.33	24.17	24.30				
20	1	1	QPSK	25.09	26.17	25.57				
20	1	49		25.99	26.25	25.79				
20	25	12		26.33	26.18	26.23				
20	1	0		22.87	22.67	22.79				
20	1	50		22.79	22.82	22.77				
20	50	0		24.33	24.29	24.32				
20	1	1	16-QAM	24.11	24.65	24.57	21.65	0.1462		
20	1	1	64-QAM	22.44	23.11	22.85				
20	1	1	256-QAM	20.83	21.75	21.61				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
30	1	1	PI/2 BPSK	25.70	26.35	26.05	23.50	0.2239		
30	1	76		26.40	26.50	26.27				
30	36	18		26.30	26.06	26.25				
30	1	0		22.90	22.81	22.93				
30	1	77		22.87	22.96	22.84				
30	75	0		25.80	25.81	25.82				
30	1	1	QPSK	25.16	26.16	23.00				
30	1	76		26.08	26.49	26.10				
30	36	18		26.29	26.32	25.83				
30	1	0		22.81	22.84	22.86				
30	1	77		22.79	22.98	22.82				
30	75	0		24.85	25.37	24.74				
30	1	1	16-QAM	23.47	24.92	23.94	21.92	0.1556		
30	1	1	64-QAM	21.76	23.34	22.23				
30	1	1	256-QAM	20.17	21.78	20.61				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
40	1	1	PI/2 BPSK	25.80	26.42	26.16	23.57	0.2275		
40	1	104		26.30	26.52	26.45				
40	50	25		25.65	24.25	26.50				
40	1	0		22.95	21.66	23.05				
40	1	105		22.82	22.12	22.93				
40	100	0		24.43	24.43	24.50				
40	1	1	QPSK	24.73	26.42	25.14				
40	1	104		25.57	26.57	26.23				
40	50	25		26.38	26.43	25.97				
40	1	0		21.86	20.01	23.03				
40	1	105		22.86	20.48	22.95				
40	100	0		24.38	24.44	24.55				
40	1	1	16-QAM	23.80	25.42	24.15	22.42	0.1746		
40	1	1	64-QAM	21.88	23.91	22.46				
40	1	1	256-QAM	20.42	21.96	21.11				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
50	1	1	PI/2 BPSK	26.25	26.28	26.03	23.42	0.2198		
50	1	131		26.37	26.37	25.95				
50	64	32		26.23	26.23	26.12				
50	1	0		22.75	22.73	22.83				
50	1	132		22.87	22.90	22.74				
50	128	0		24.28	24.26	24.21				
50	1	1	QPSK	25.23	26.35	25.99				
50	1	131		26.37	26.42	25.92				
50	64	32		26.26	26.25	26.18				
50	1	0		22.75	22.80	22.78				
50	1	132		22.88	22.92	22.74				
50	128	0		24.25	24.24	24.27				
50	1	1	16-QAM	24.17	25.32	25.21	22.32	0.1706		
50	1	1	64-QAM	22.48	23.69	23.42				
50	1	1	256-QAM	20.96	21.81	21.89				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
80	1	1	PI/2 BPSK	26.04	26.01	26.14	23.15	0.2065		
80	1	215		25.89	25.94	25.96				
80	108	54		25.99	25.95	26.15				
80	1	0		22.44	22.51	22.60				
80	1	216		22.42	22.45	22.47				
80	216	0		24.02	23.97	24.08				
80	1	1	QPSK	26.00	26.01	26.15				
80	1	215		25.85	25.98	25.99				
80	108	54		25.95	25.87	26.01				
80	1	0		22.45	22.60	22.62				
80	1	216		22.36	22.50	22.43				
80	216	0		24.05	23.98	24.14				
80	1	1	16-QAM	25.06	25.02	25.19	22.19	0.1656		
80	1	1	64-QAM	23.65	23.55	23.63				
80	1	1	256-QAM	21.52	21.38	21.68				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
90	1	1	PI/2 BPSK	25.96	26.06	26.12	23.12	0.2051		
90	1	243		25.90	26.03	26.01				
90	120	60		25.98	25.93	26.01				
90	1	0		22.50	22.60	22.57				
90	1	244		22.43	22.42	22.51				
90	240	0		24.04	24.05	24.08				
90	1	1	QPSK	25.97	26.08	26.05				
90	1	243		25.96	25.98	26.00				
90	120	60		25.97	25.88	26.00				
90	1	0		22.51	22.55	22.62				
90	1	244		22.42	22.55	22.53				
90	240	0		24.01	24.04	24.04				
90	1	1	16-QAM	25.03	25.13	25.20	22.2	0.1660		
90	1	1	64-QAM	23.58	23.62	23.54				
90	1	1	256-QAM	21.48	21.59	21.60				
Limit	EIRP < 2W			Result			Pass			



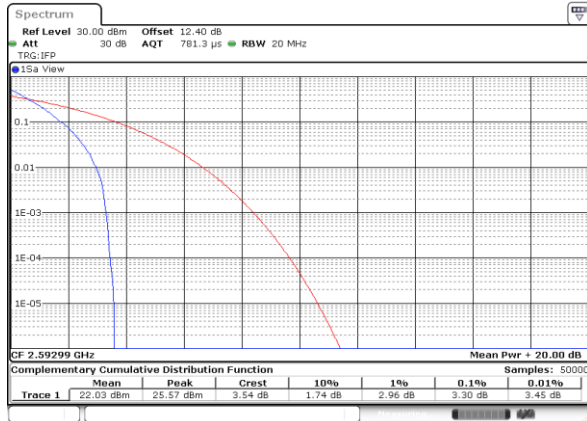
NR n41 Maximum Average Power [dBm] (GT - LC = -3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
100	1	1	PI/2 BPSK	25.95	25.98	25.95	23.11	0.2046		
100	1	271		25.93	25.91	25.95				
100	135	67		25.99	25.92	26.11				
100	1	0		22.47	22.52	22.54				
100	1	272		22.33	22.48	22.48				
100	270	0		23.98	23.98	24.12				
100	1	1	QPSK	25.94	26.02	25.97				
100	1	271		25.83	25.94	26.02				
100	135	67		25.96	25.94	26.06				
100	1	0		22.42	22.44	22.53				
100	1	272		22.34	22.47	22.54				
100	270	0		23.97	23.95	24.05				
100	1	1	16-QAM	24.90	25.05	24.97	22.05	0.1603		
100	1	1	64-QAM	23.54	23.56	23.60				
100	1	1	256-QAM	21.56	21.58	21.67				
Limit	EIRP < 2W			Result			Pass			

**FR1 n41****Peak-to-Average Ratio**

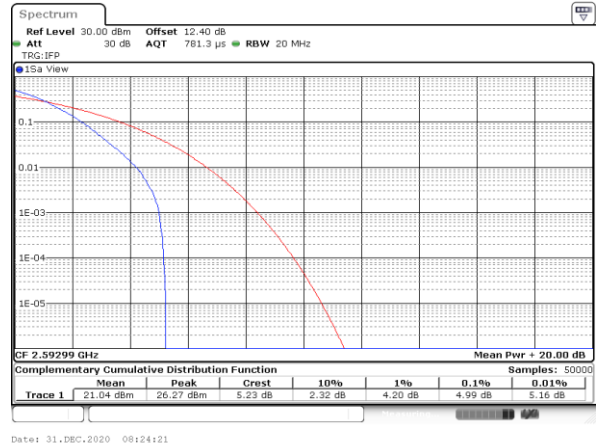
Mode	FR1 n41 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	3.30	4.99	6.17	6.38	PASS
Mode	FR1 n41 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.46				PASS

FR1 n41 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

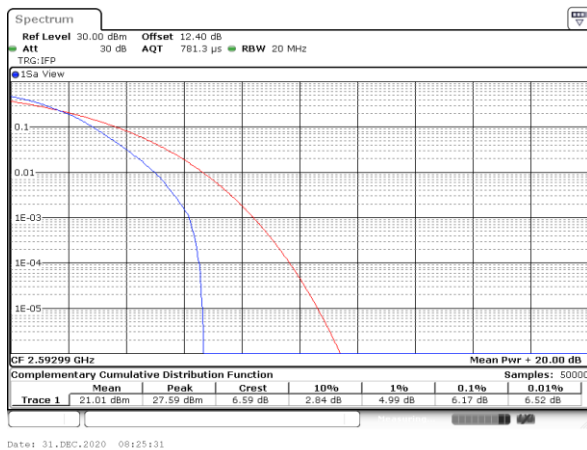
PI/2 BPSK



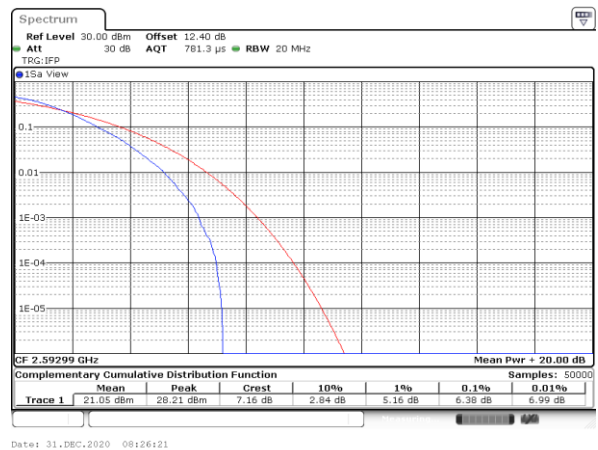
QPSK



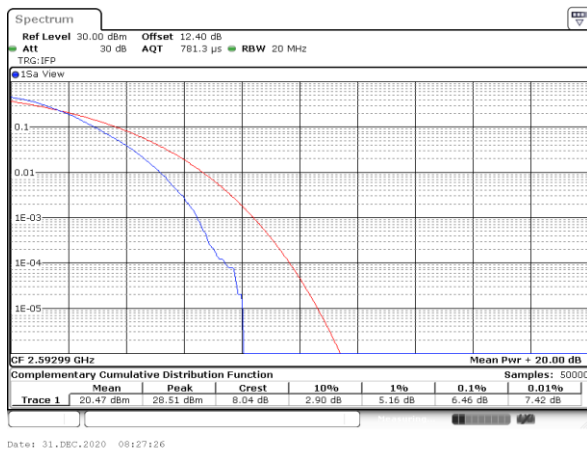
16QAM



64QAM



256QAM



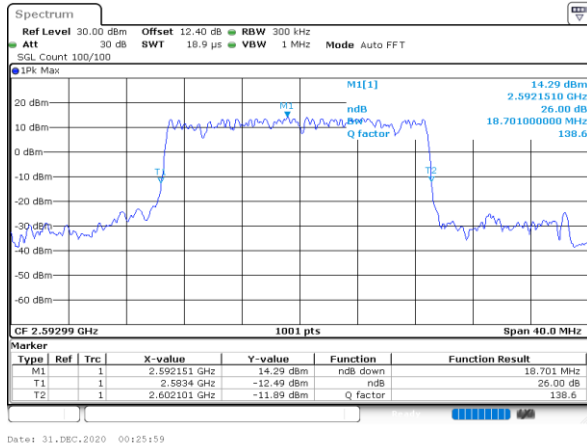
**26dB Bandwidth**

Mode	FR1 n41 : 26dB BW(MHz) / DFT-S OFDM							
BW	20MHz	30MHz	40MHz	50MHz	60MHz	80MHz	90MHz	100MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	18.70	28.83	38.04	48.05	-	79.60	88.65	99.50

Mode	FR1 n41 : 26dB BW(MHz) / CP OFDM							
BW	20MHz		30MHz		40MHz		50MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	19.46	19.62	29.97	30.27	40.28	40.20	49.85	49.65
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	18.98	19.38	30.27	29.97	40.04	40.36	49.85	49.75
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	79.92	79.92	90.27	90.27	100.30	100.50
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	80.08	79.92	90.45	90.27	100.30	100.50

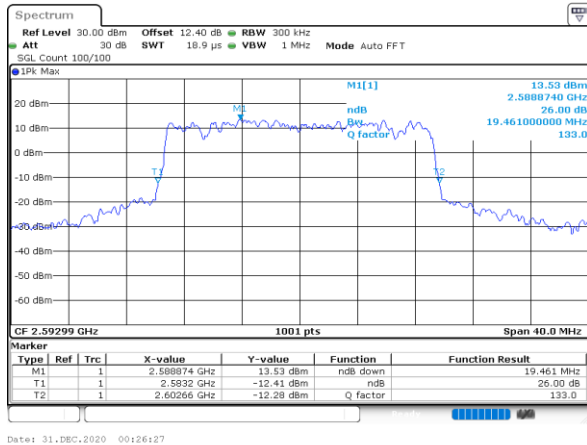
FR1 n41 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

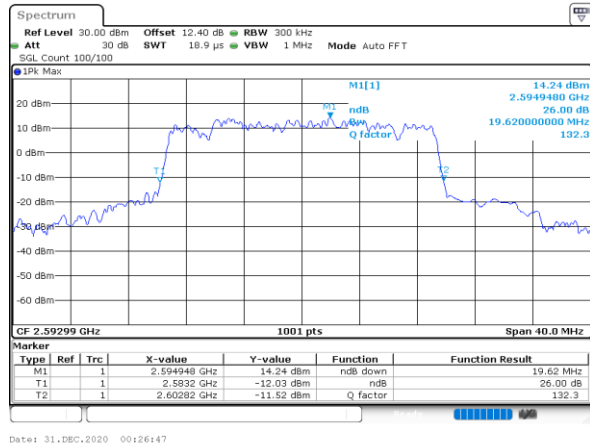


FR1 n41 / 20MHz / CP OFDM / Middle Channel / Full RB

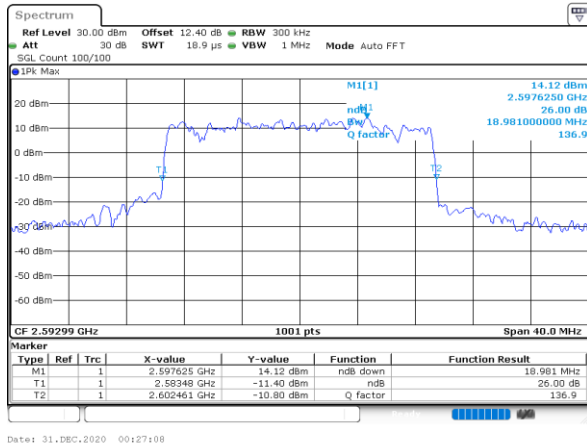
QPSK



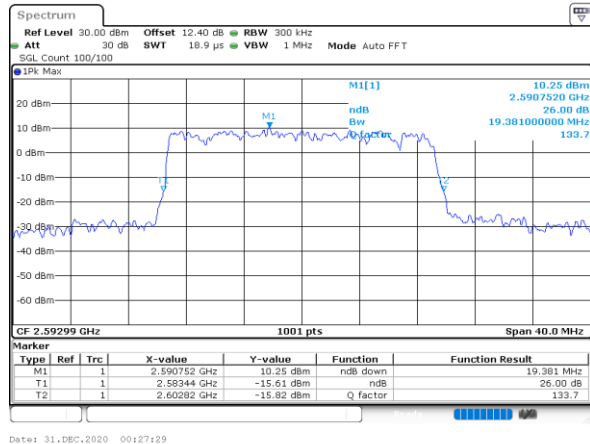
16QAM



64QAM

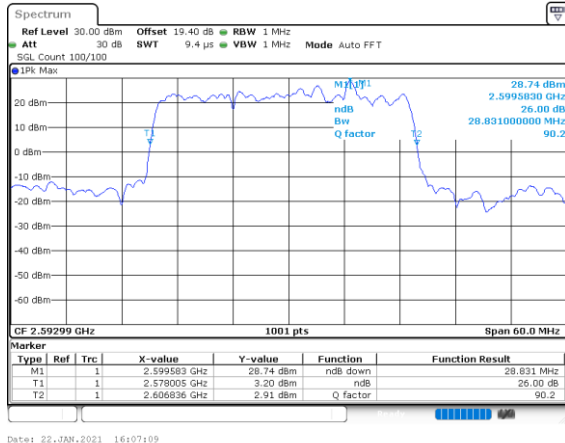


256QAM



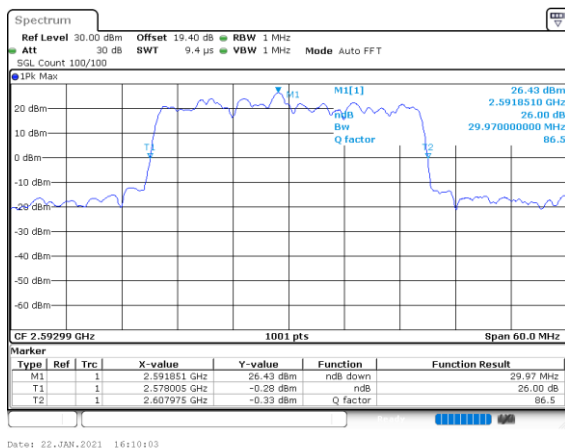
FR1 n41 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

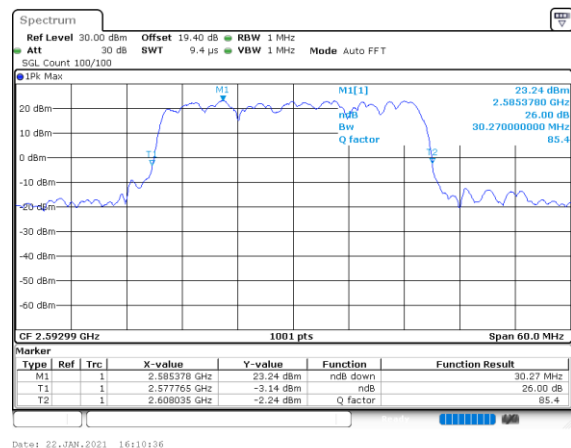


FR1 n41 / 30MHz / CP OFDM / Middle Channel / Full RB

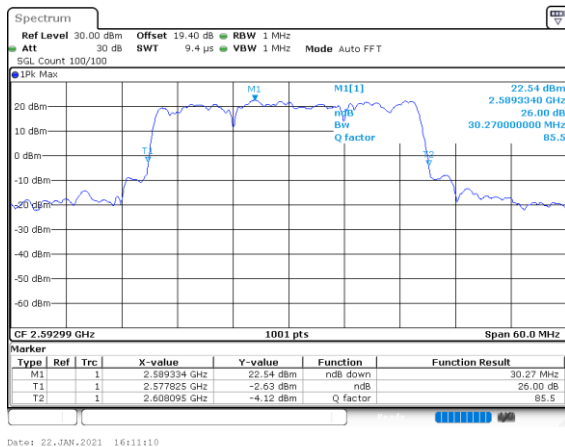
QPSK



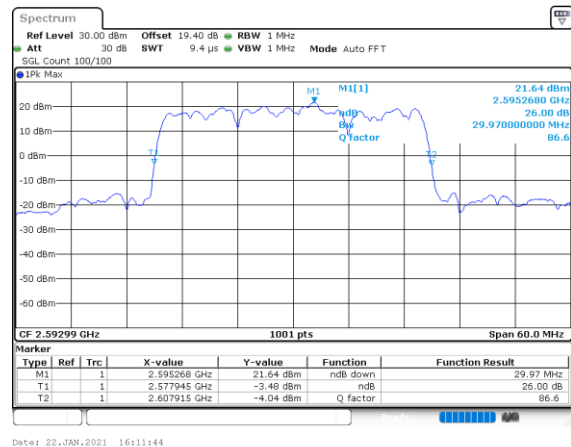
16QAM



64QAM

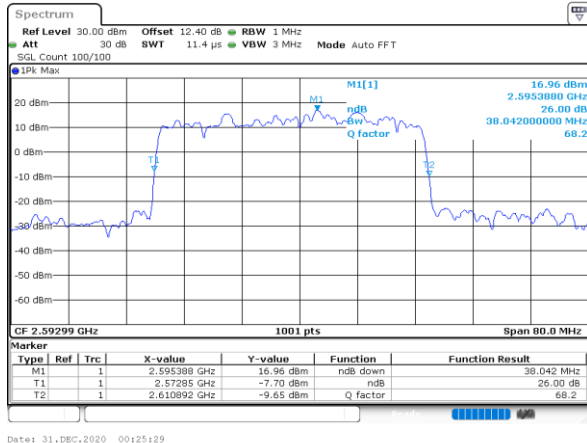


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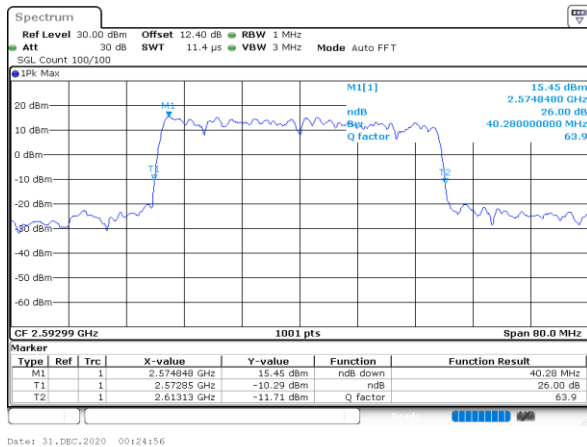
FR1 n41 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

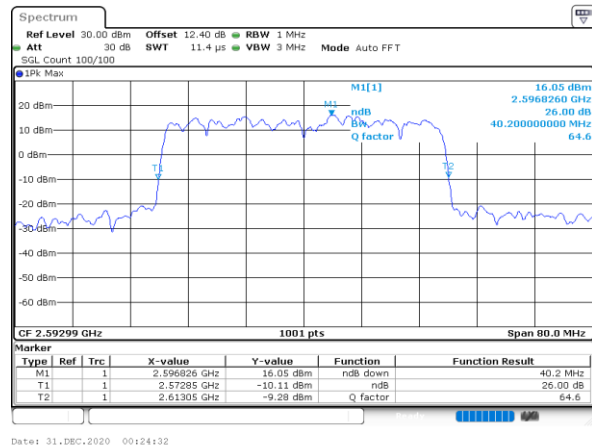


FR1 n41 / 40MHz / CP OFDM / Middle Channel / Full RB

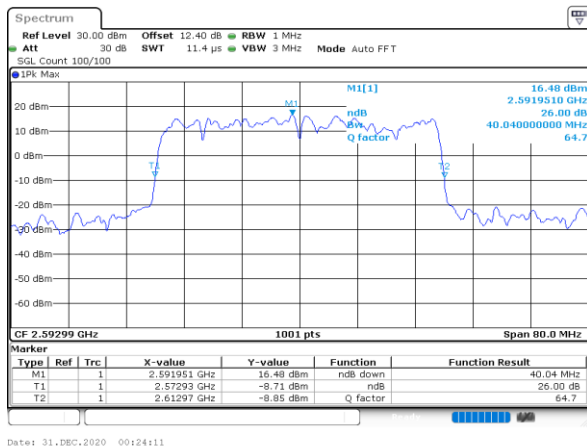
QPSK



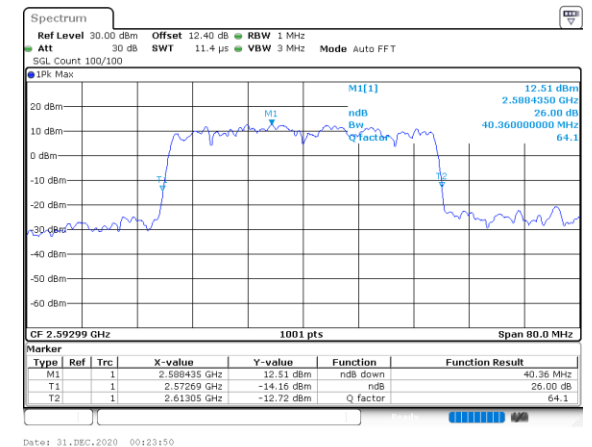
16QAM

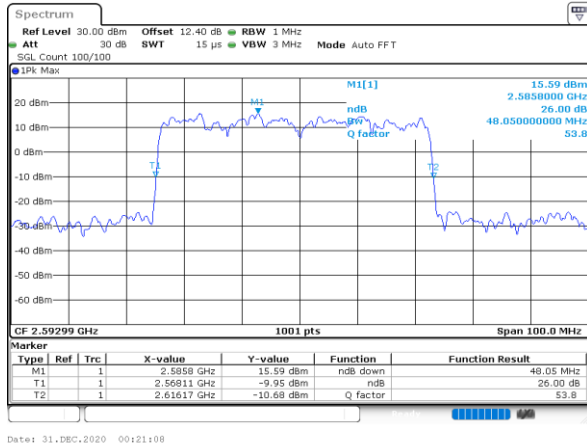
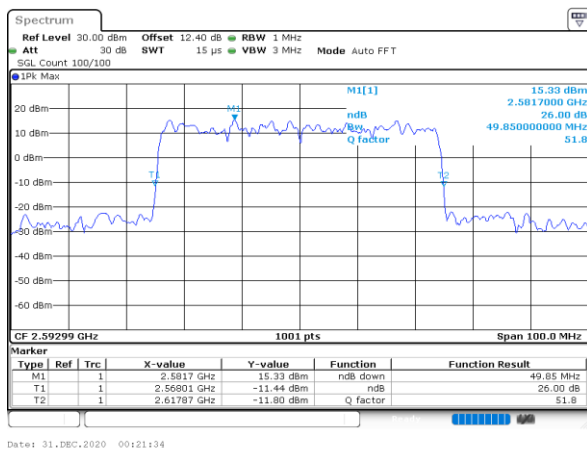
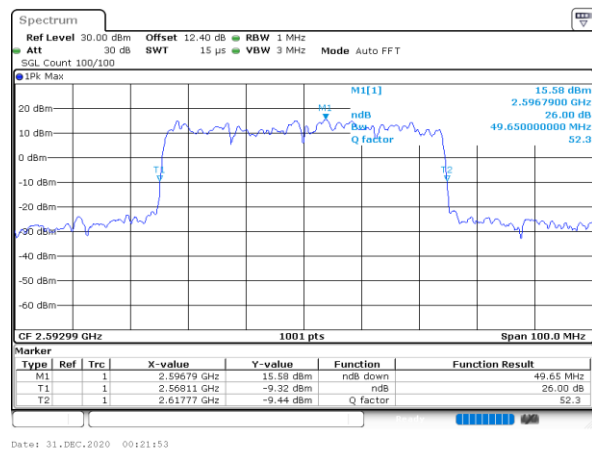
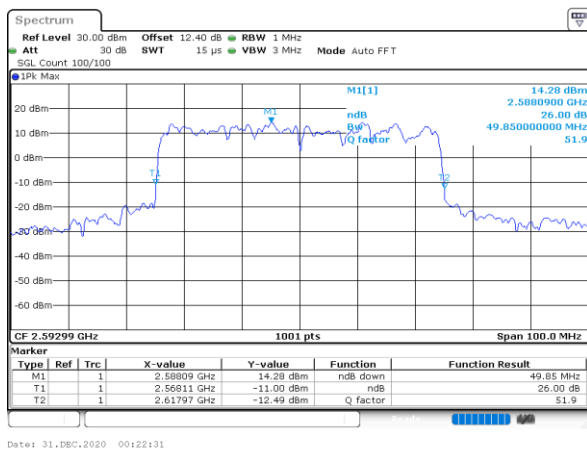
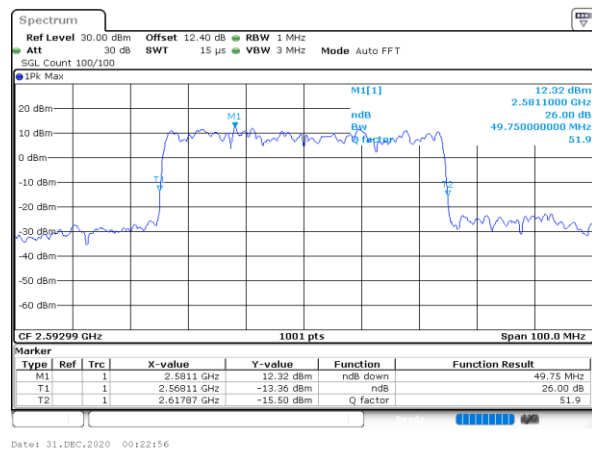


64QAM



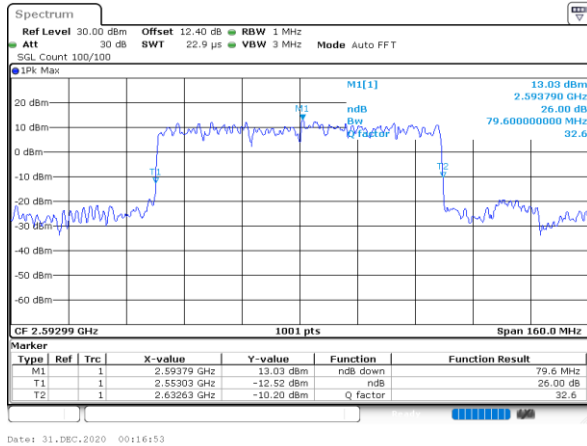
256QAM



FR1 n41 / 50MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n41 / 50MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM


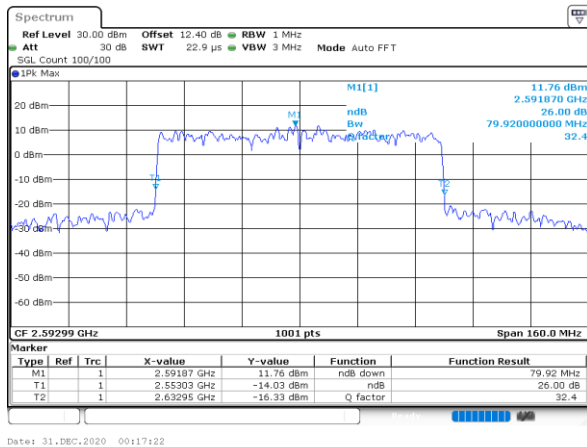
FR1 n41 / 80MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

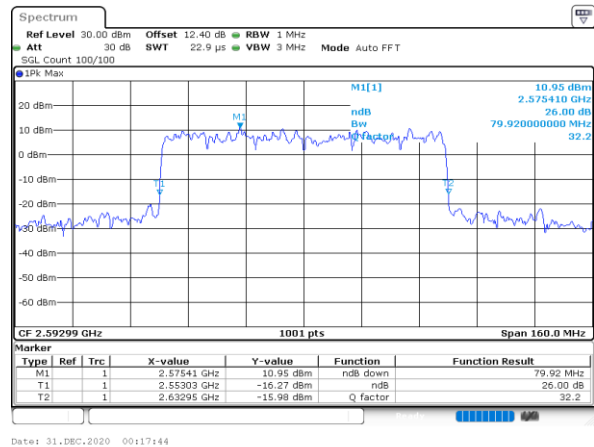


FR1 n41 / 80MHz / CP OFDM / Middle Channel / Full RB

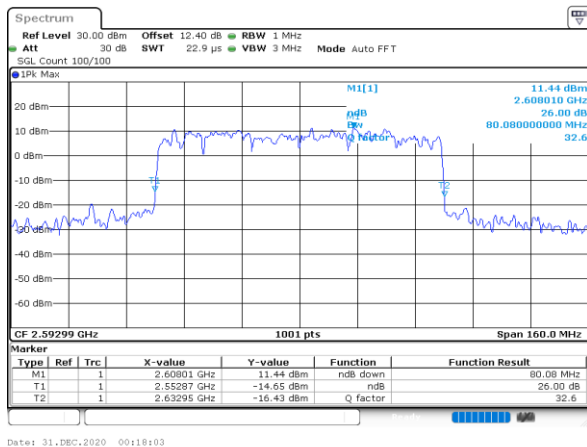
QPSK



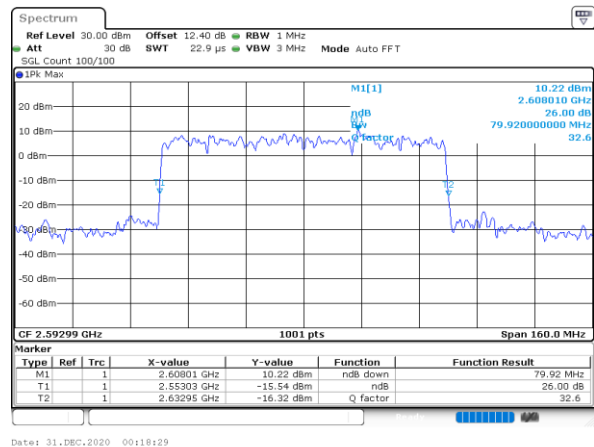
16QAM



64QAM

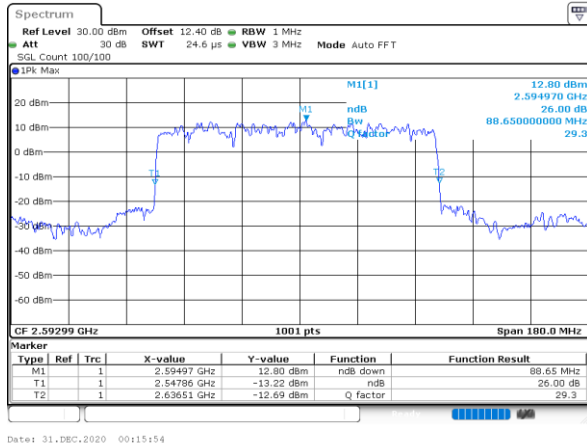


256QAM



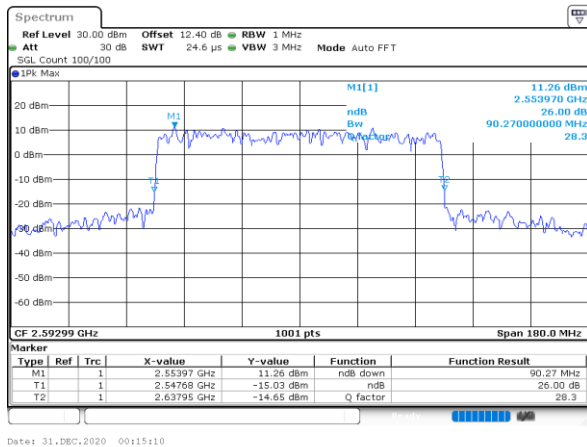
FR1 n41 / 90MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

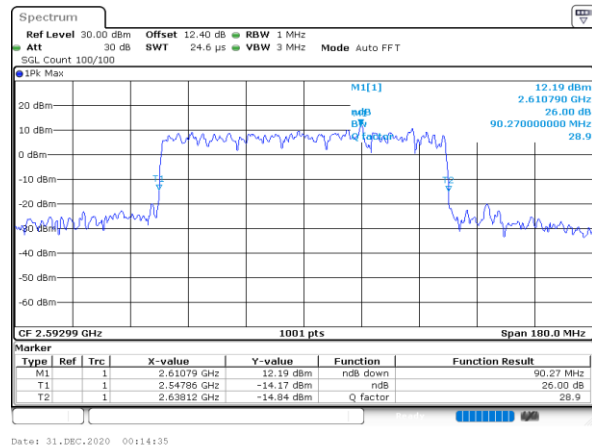


FR1 n41 / 90MHz / CP OFDM / Middle Channel / Full RB

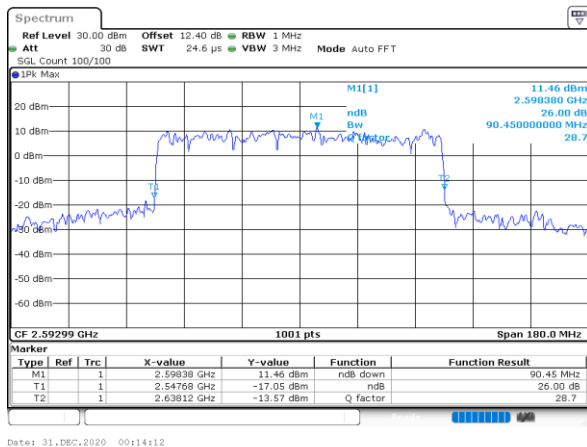
QPSK



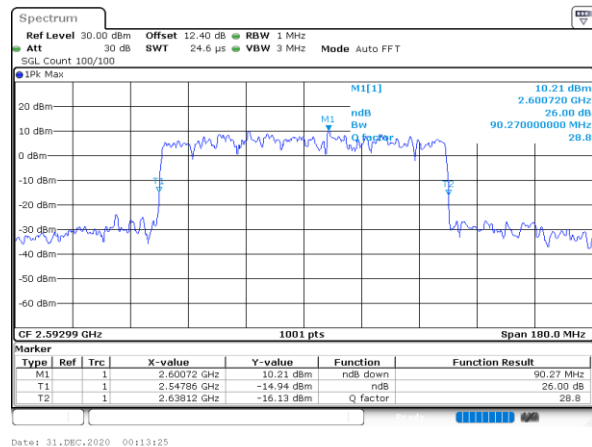
16QAM



64QAM

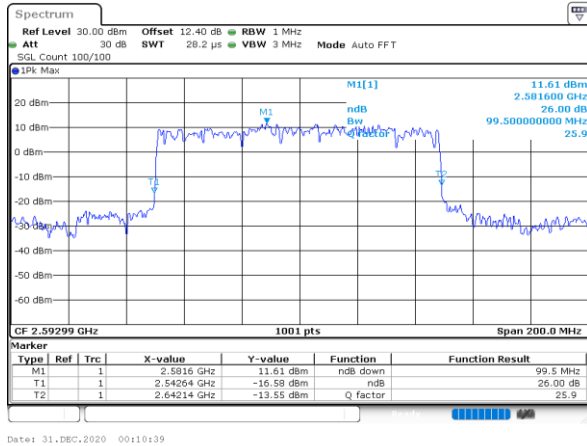


256QAM



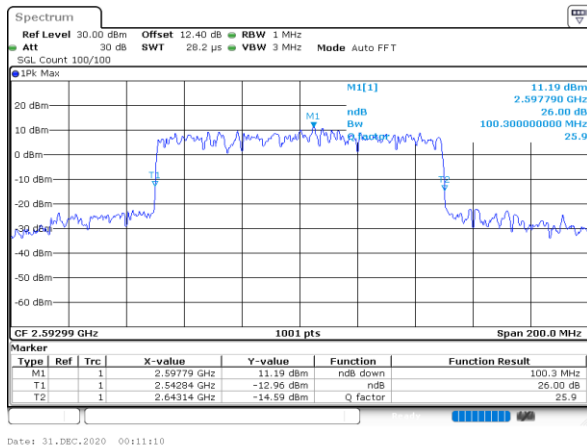
FR1 n41 / 100MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

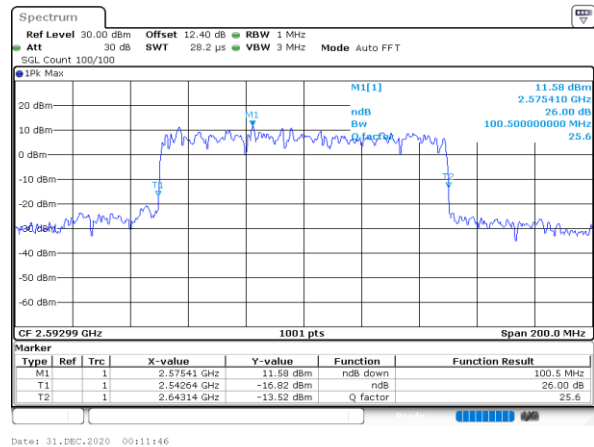


FR1 n41 / 100MHz / CP OFDM / Middle Channel / Full RB

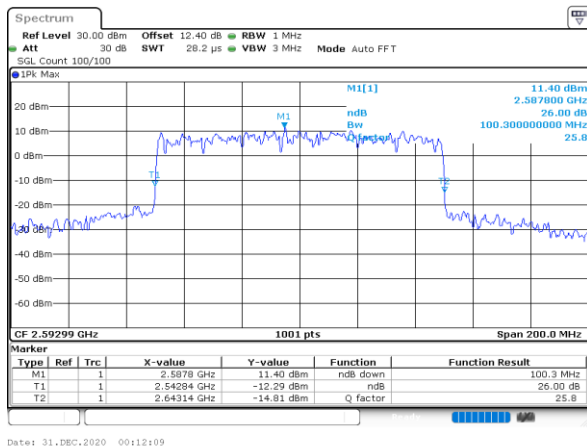
QPSK



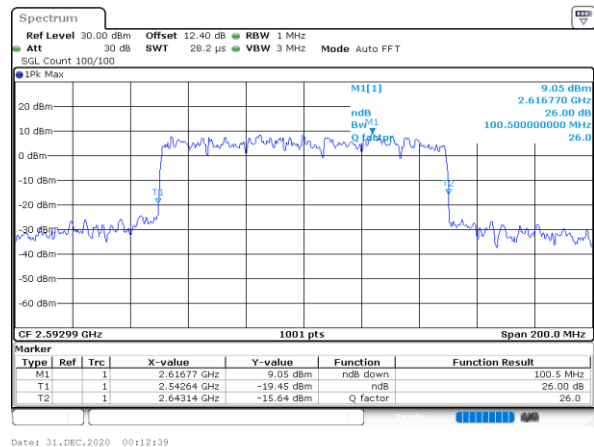
16QAM



64QAM



256QAM



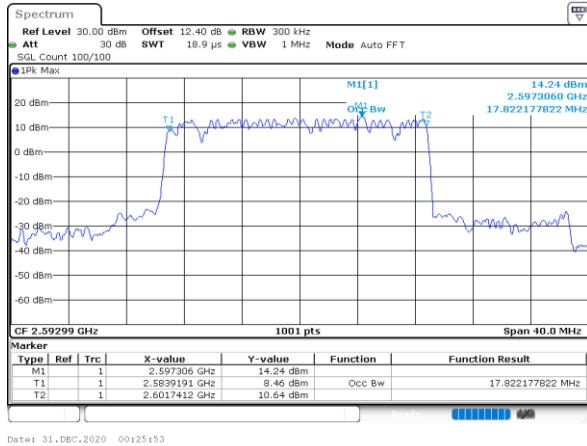
**Occupied Bandwidth**

Mode	FR1 n41 : OB BW(MHz) / DFT-S OFDM							
BW	20MHz	30MHz	40MHz	50MHz	60MHz	80MHz	90MHz	100MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	17.82	27.21	35.96	46.05	-	77.20	85.95	96.50

Mode	FR1 n41 : OB BW(MHz) / CP OFDM							
BW	20MHz		30MHz		40MHz		50MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	18.18	18.30	27.99	28.47	37.96	38.04	47.65	47.65
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	18.22	18.26	28.29	28.11	38.20	38.12	47.35	47.55
BW	60MHz		80MHz		90MHz		100MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	77.20	77.52	87.21	87.21	97.50	96.50
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	77.04	77.36	87.75	87.39	97.30	97.30

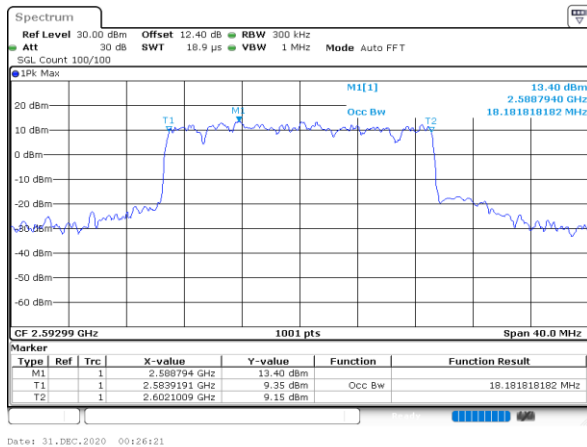
FR1 n41 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

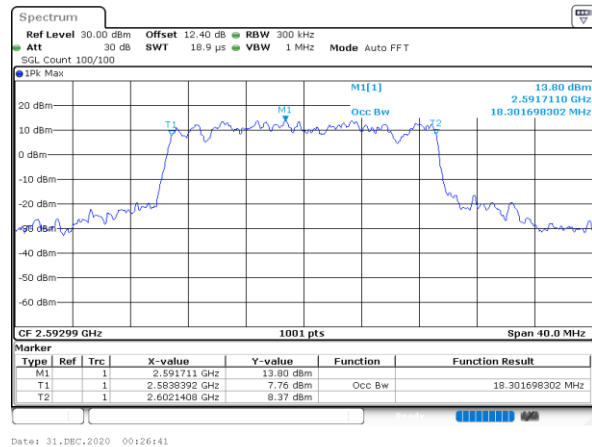


FR1 n41 / 20MHz / CP OFDM / Middle Channel / Full RB

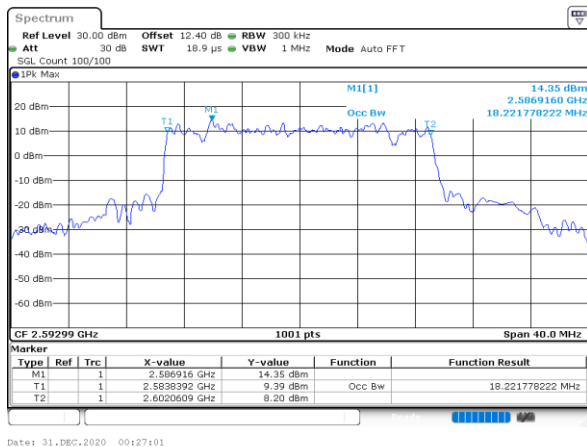
QPSK



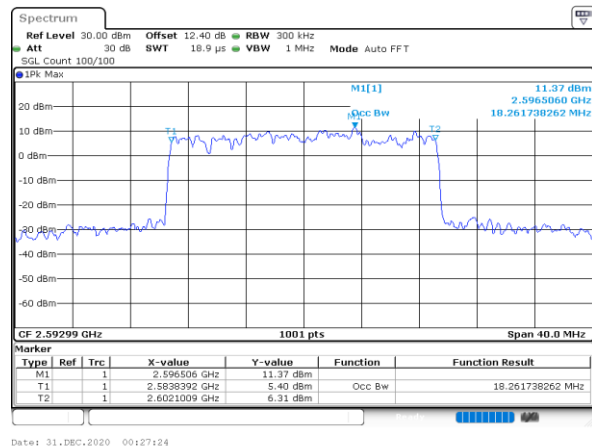
16QAM



64QAM

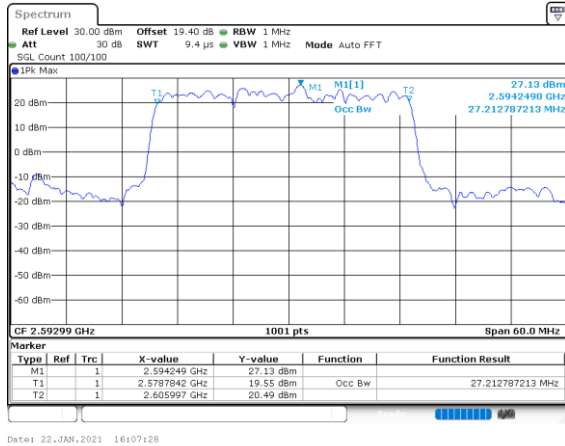


256QAM



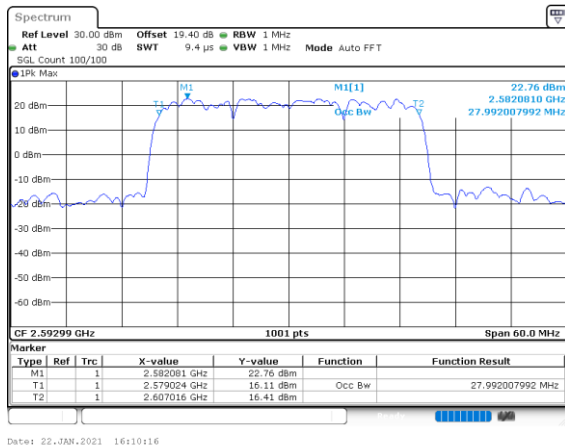
FR1 n41 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

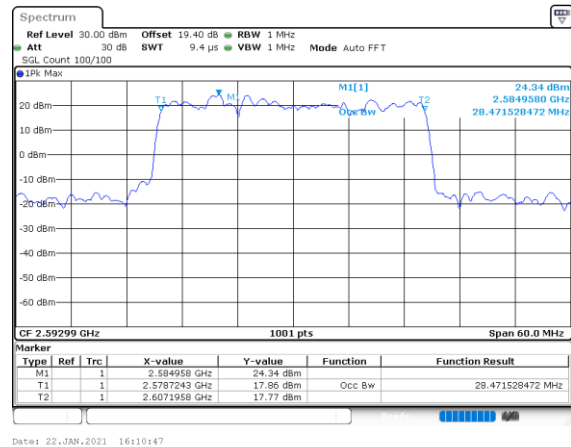


FR1 n41 / 30MHz / CP OFDM / Middle Channel / Full RB

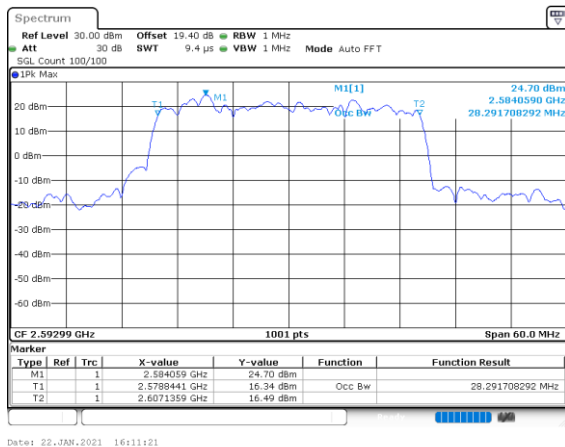
QPSK



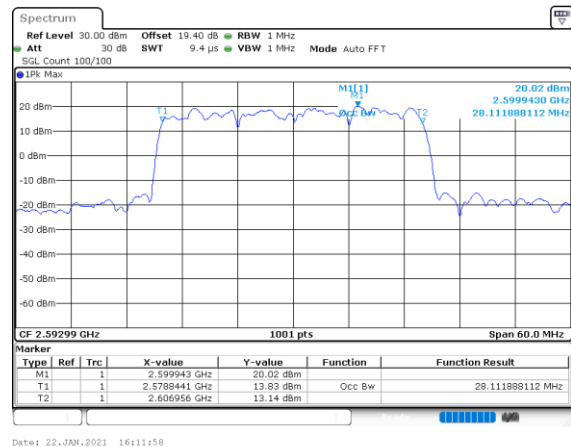
16QAM



64QAM

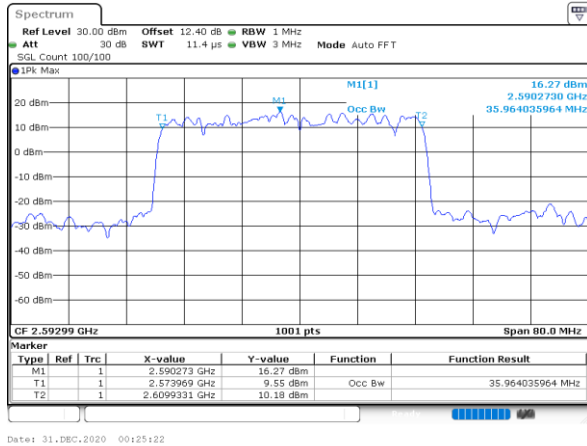


256QAM



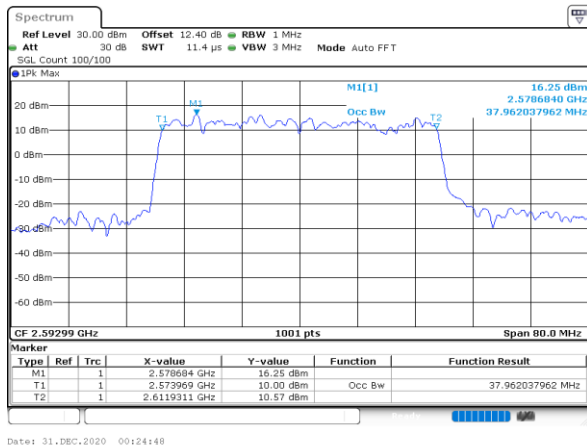
FR1 n41 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

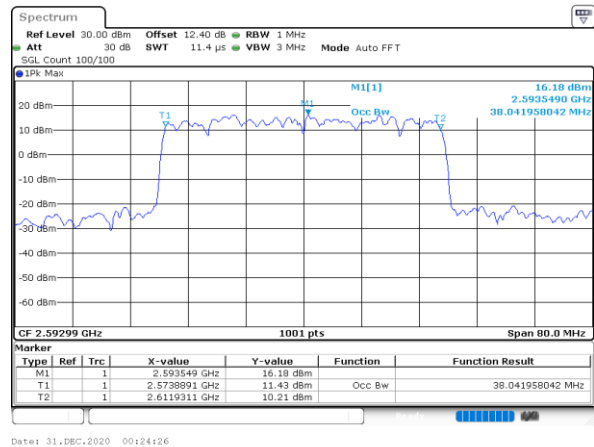


FR1 n41 / 40MHz / CP OFDM / Middle Channel / Full RB

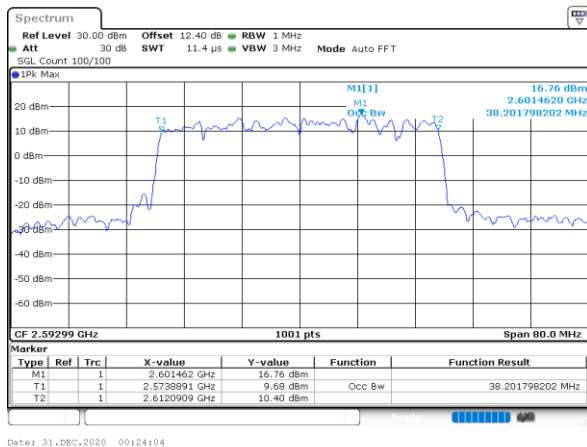
QPSK



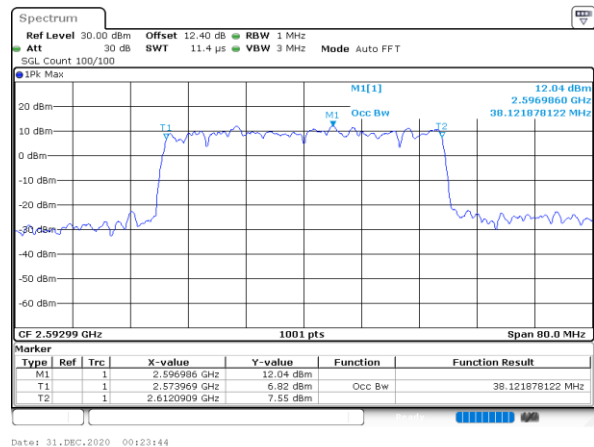
16QAM



64QAM

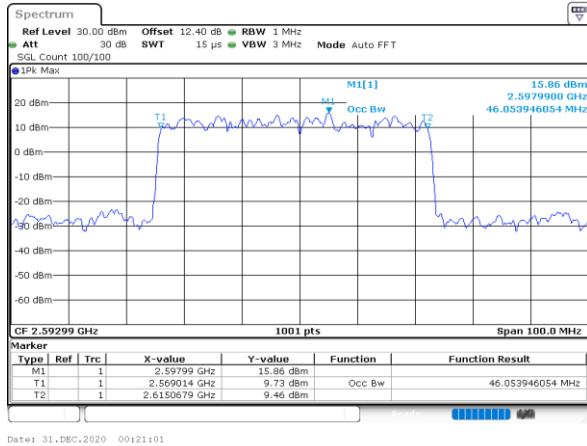


256QAM



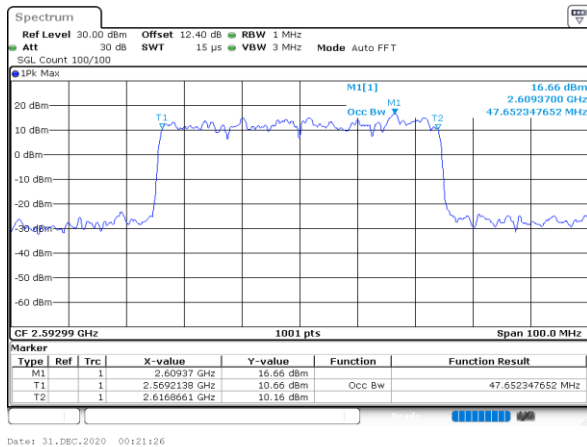
FR1 n41 / 50MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

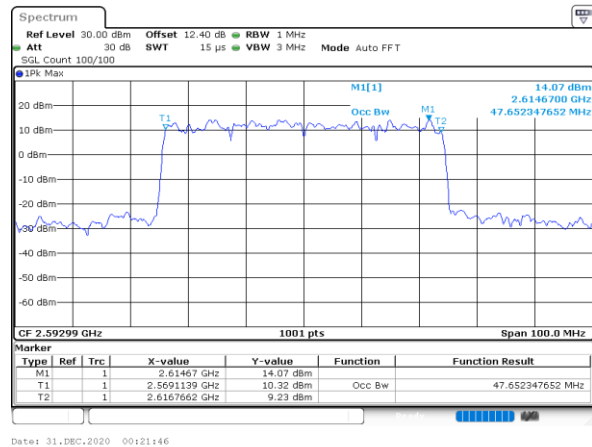


FR1 n41 / 50MHz / CP OFDM / Middle Channel / Full RB

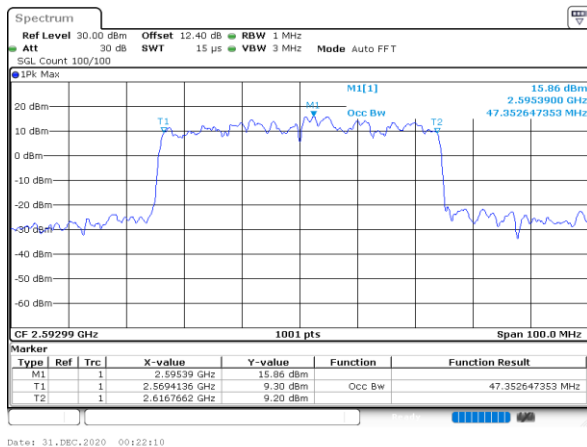
QPSK



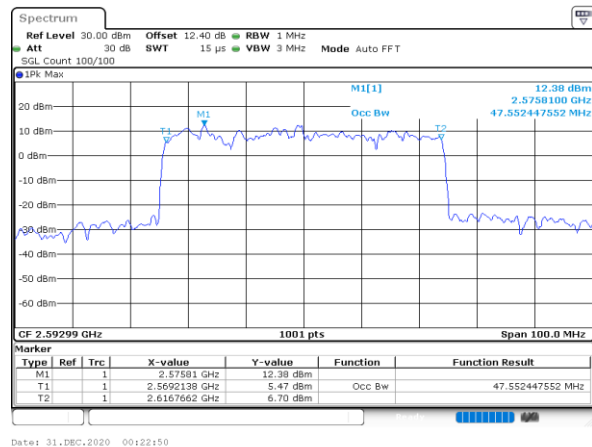
16QAM

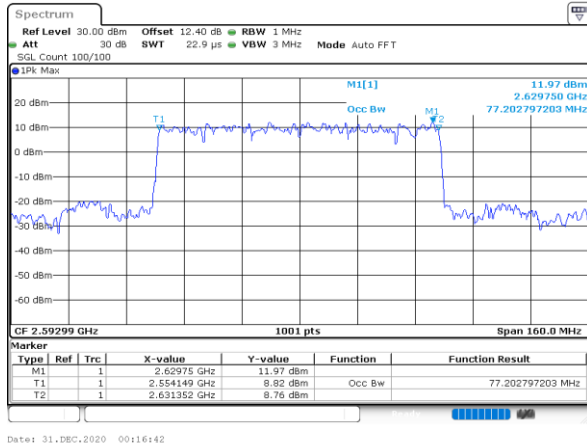
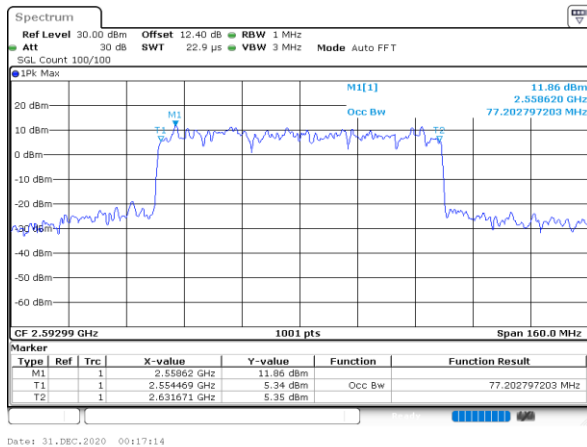
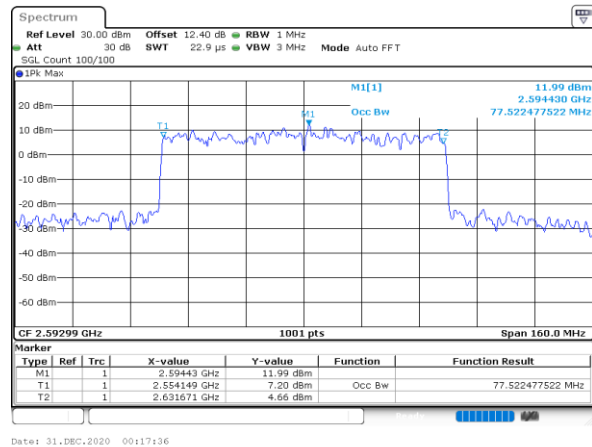
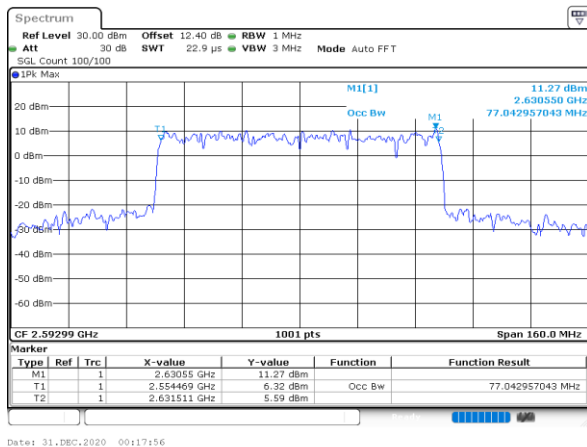
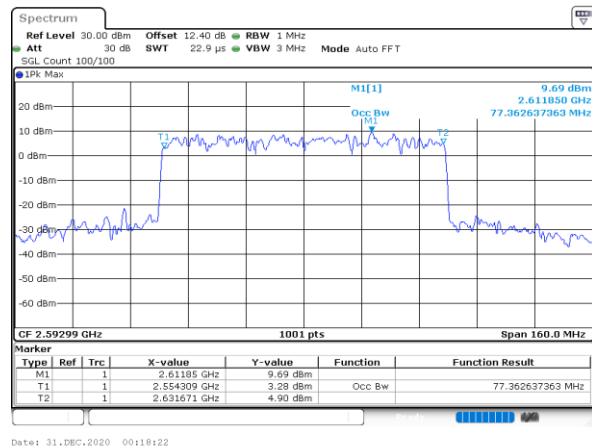


64QAM



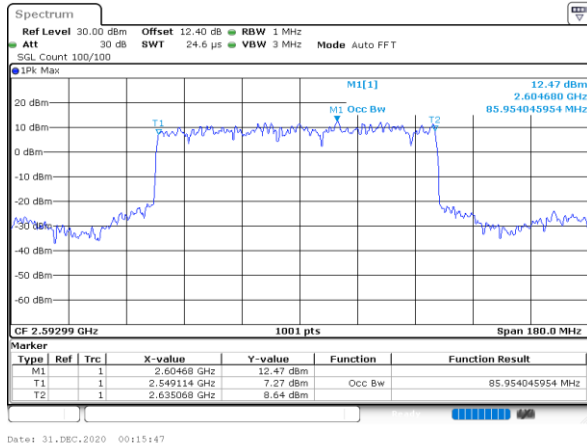
256QAM



FR1 n41 / 80MHz / DFT-S OFDM / Middle Channel / Full RB
PI/2 BPSK

FR1 n41 / 80MHz / CP OFDM / Middle Channel / Full RB
QPSK

16QAM

64QAM

256QAM


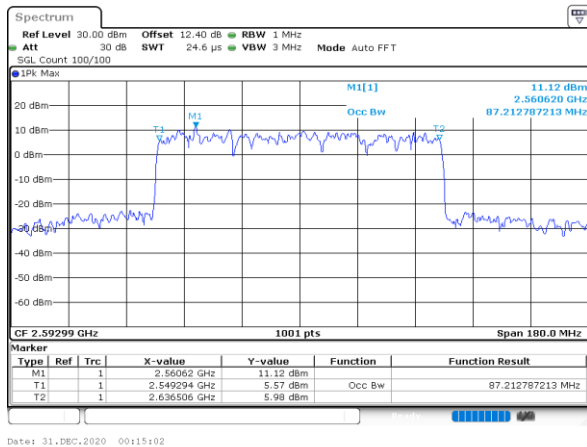
FR1 n41 / 90MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

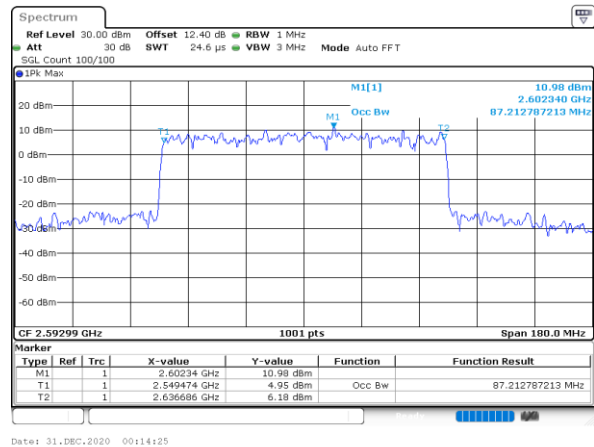


FR1 n41 / 90MHz / CP OFDM / Middle Channel / Full RB

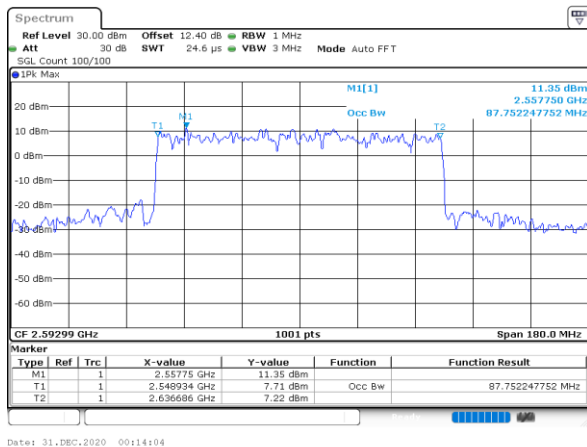
QPSK



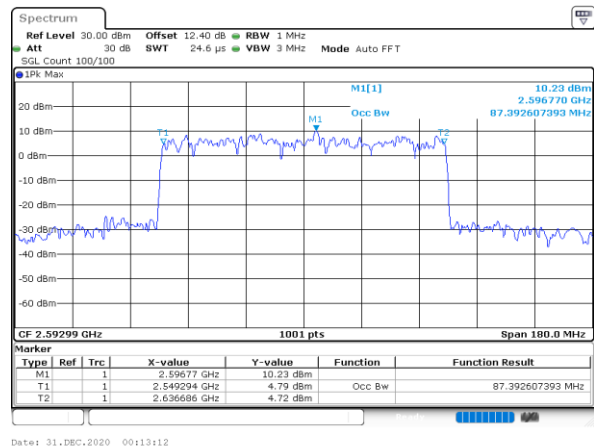
16QAM



64QAM

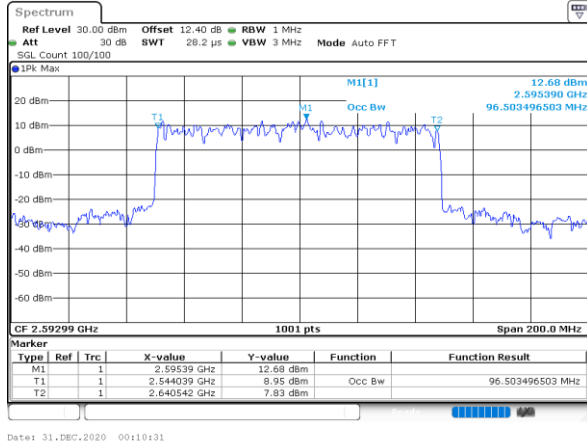


256QAM



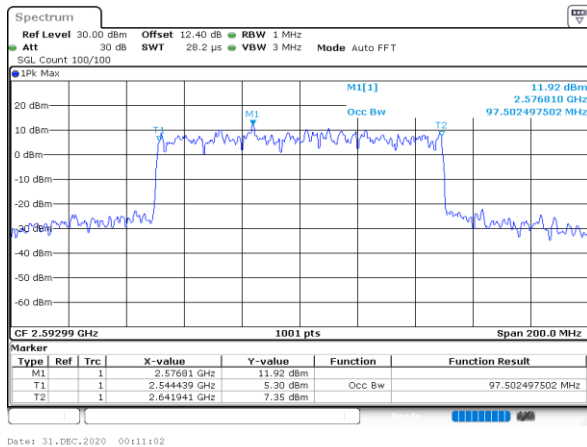
FR1 n41 / 100MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

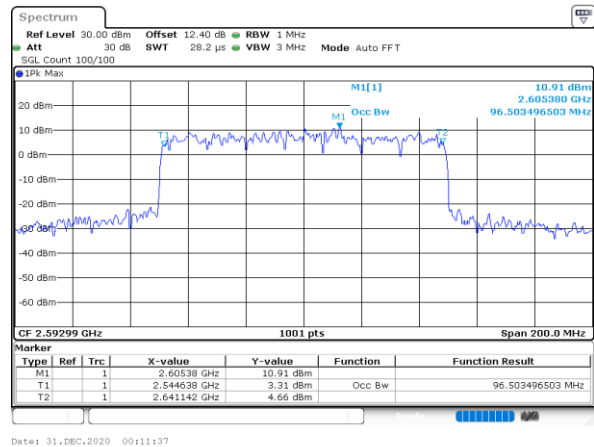


FR1 n41 / 100MHz / CP OFDM / Middle Channel / Full RB

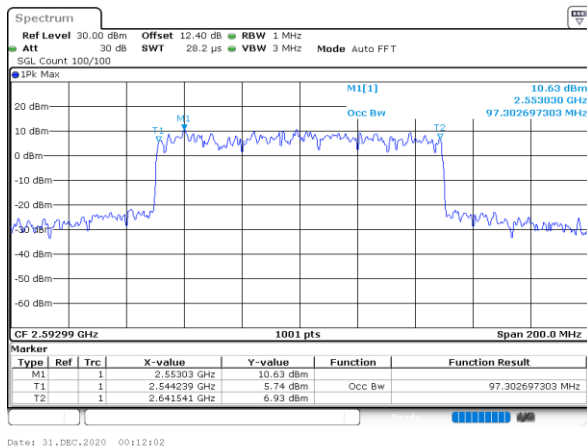
QPSK



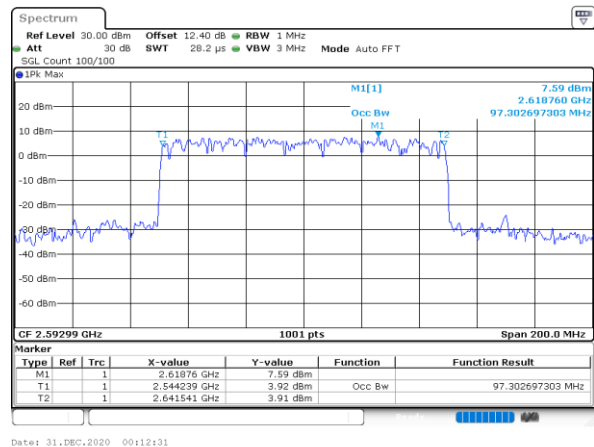
16QAM



64QAM



256QAM

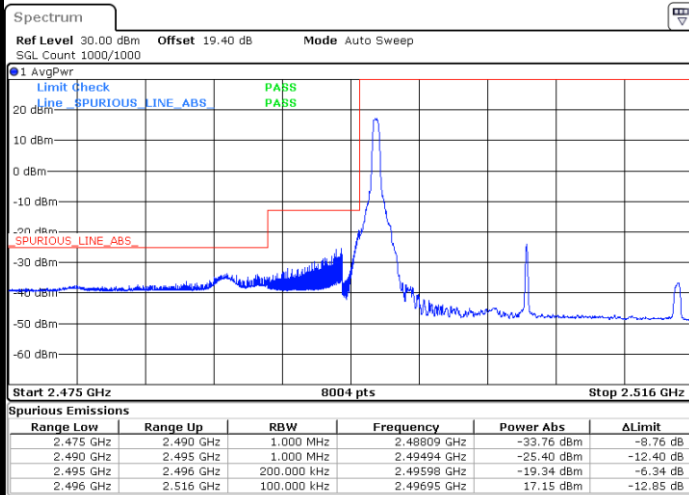


**Conducted Band Edge**

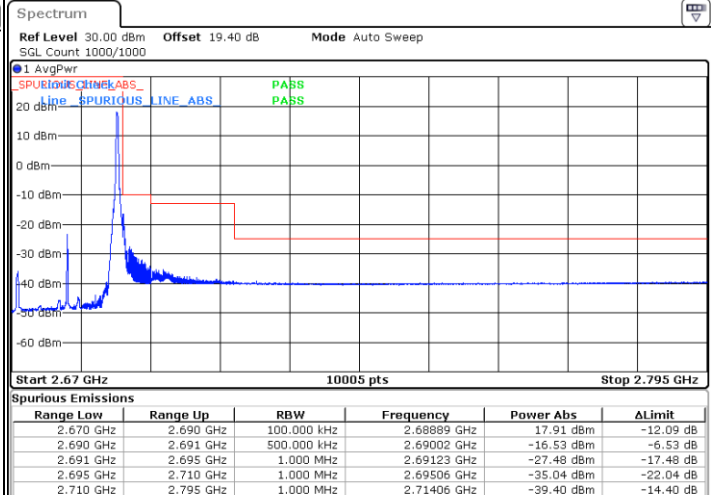
FR1 n41 / 20MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



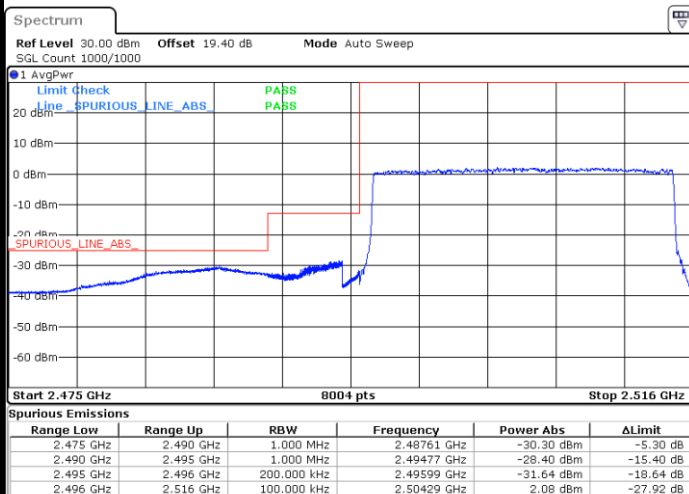
Date: 30.DEC.2020 16:42:11



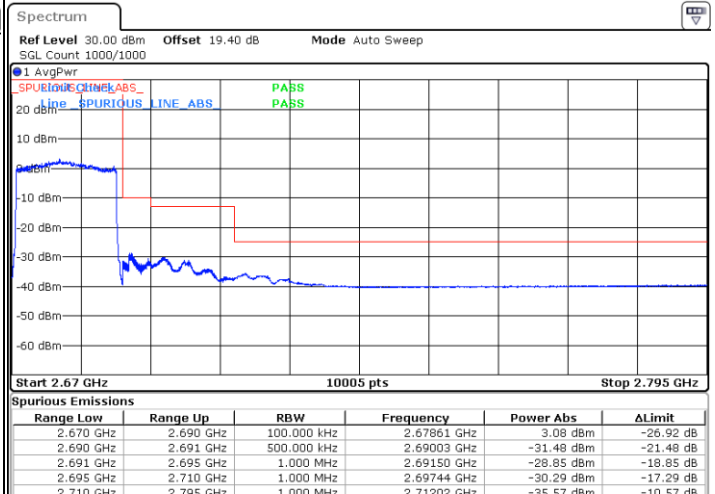
Date: 30.DEC.2020 18:12:21

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 30.DEC.2020 18:26:52



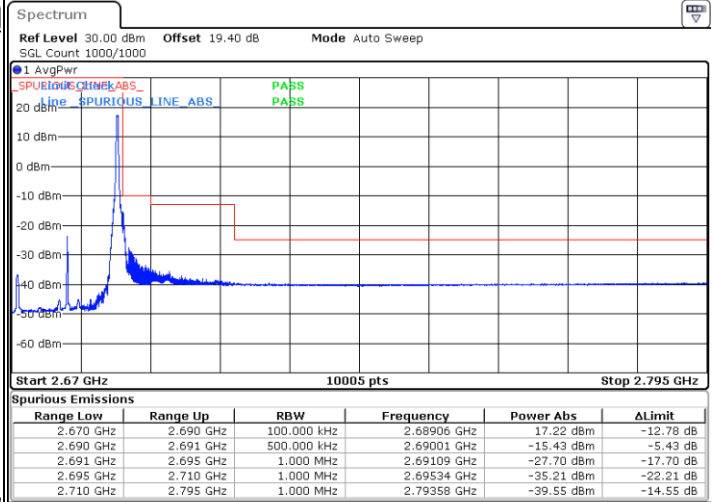
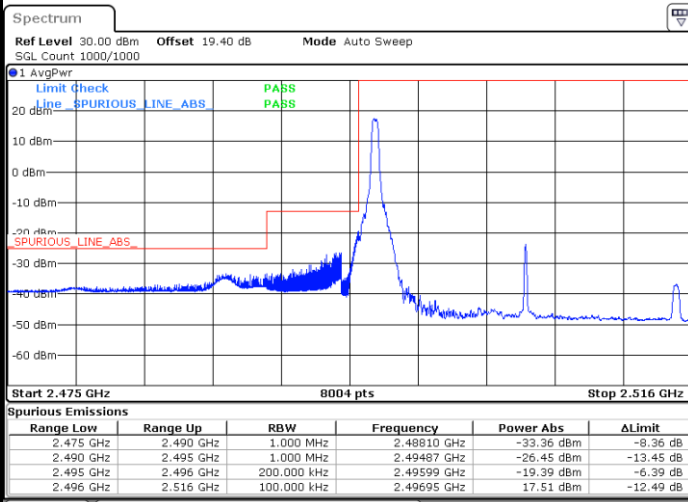
Date: 30.DEC.2020 19:13:42



FR1 n41 / 20MHz / DFT-S OFDM / QPSK

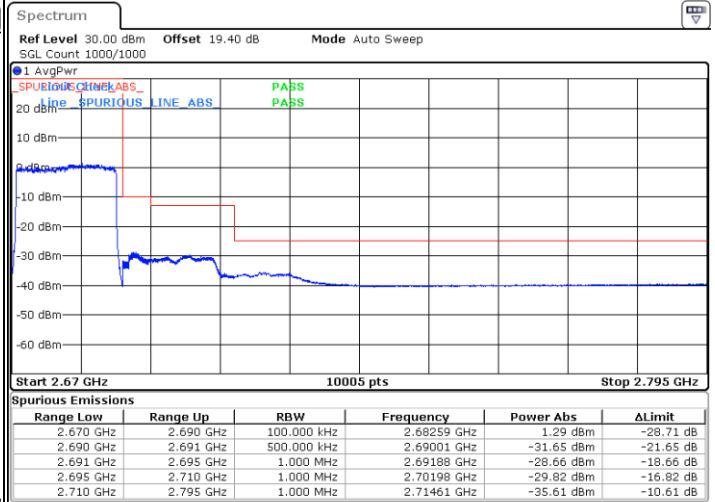
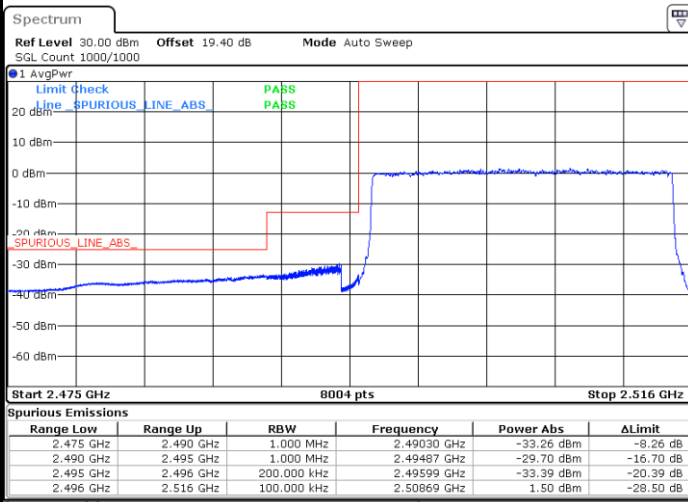
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

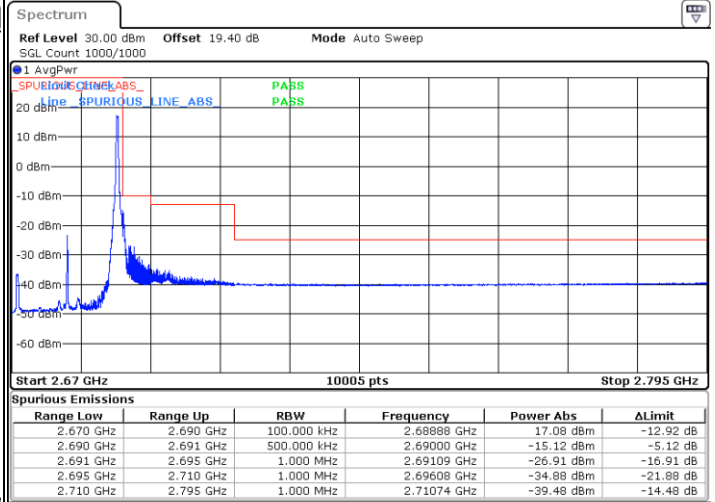
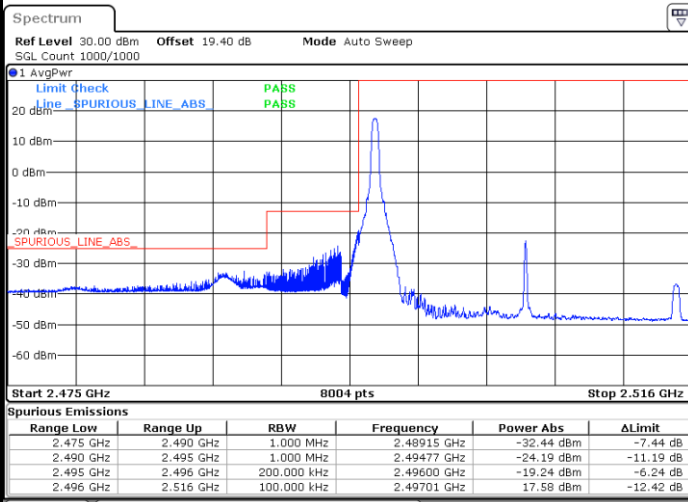




FR1 n41 / 20MHz / DFT-S OFDM / 16QAM

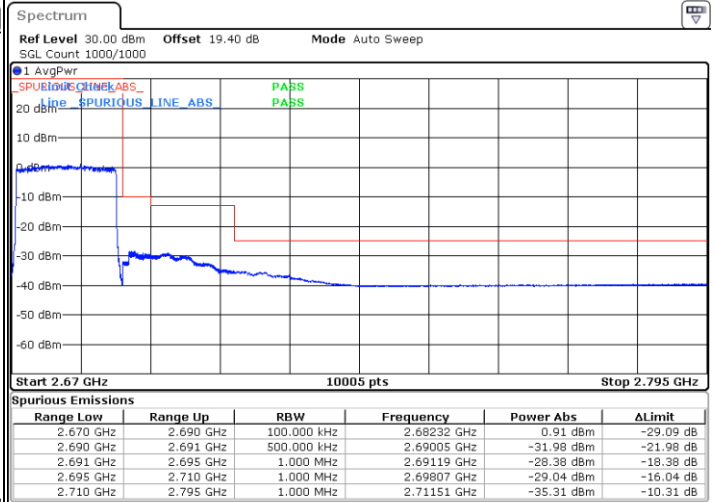
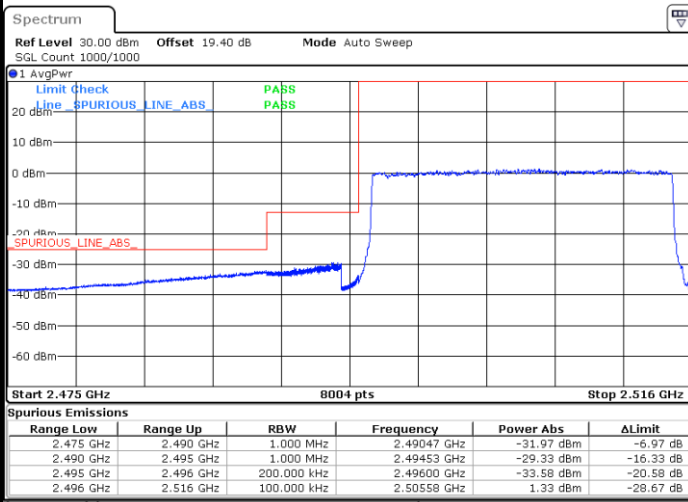
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

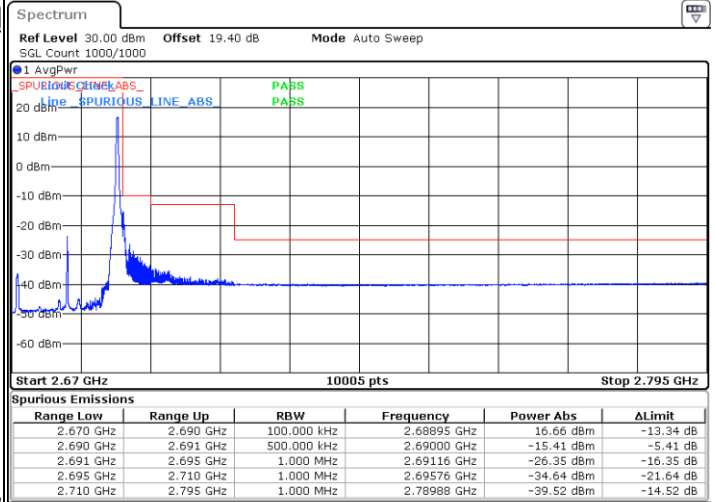
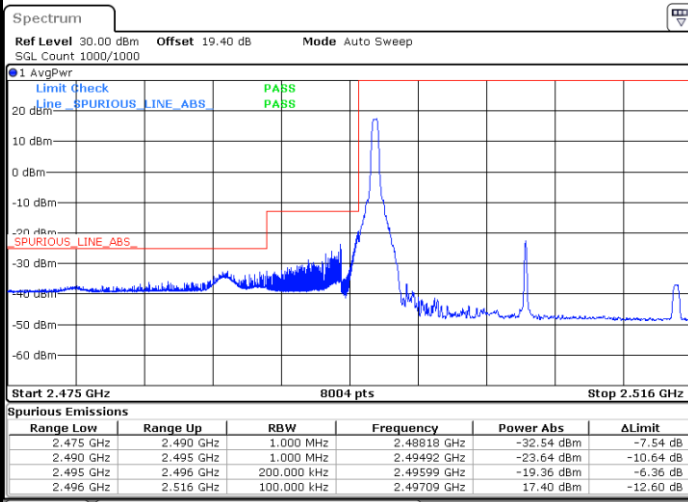




FR1 n41 / 20MHz / DFT-S OFDM / 64QAM

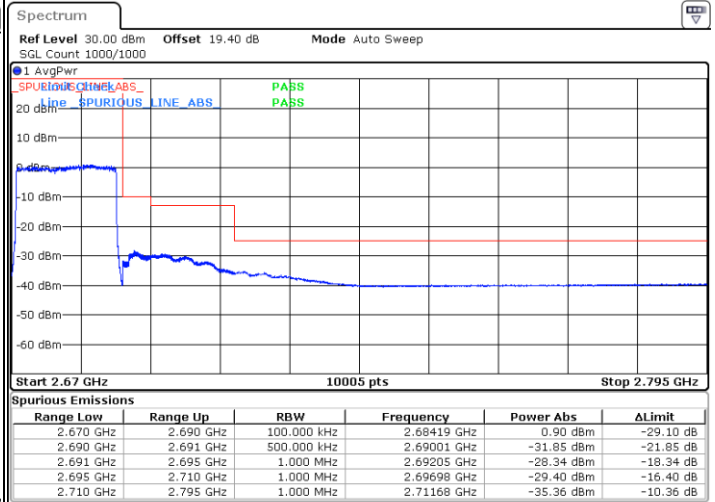
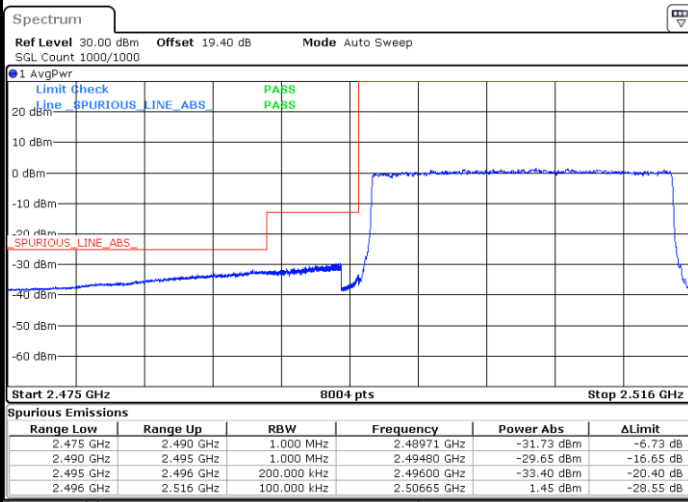
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

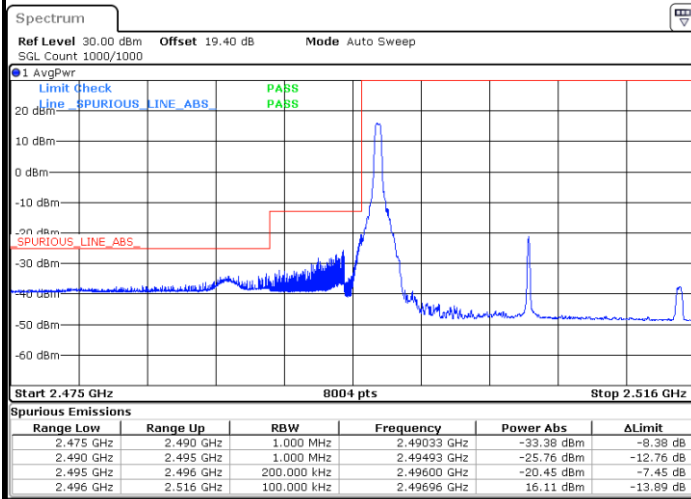
Highest Band Edge / Full RB



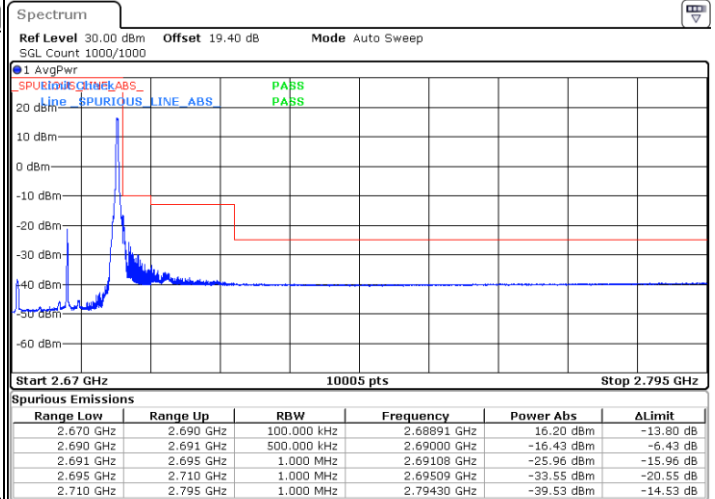


FR1 n41 / 20MHz / DFT-S OFDM / 256QAM

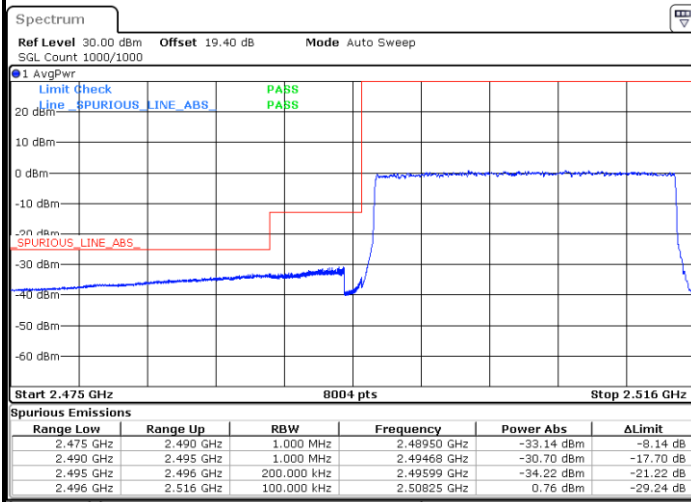
Lowest Band Edge / 1RB0



Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

