



FCC RADIO TEST REPORT

FCC ID : UZ7MC345A
Equipment : Mobile Computer
Brand Name : ZEBRA
Model Name : MC345A
Applicant : Zebra Technologies Corporation
3 Overlook Point, Lincolnshire, IL 60069 USA
Manufacturer : Zebra Technologies Corporation
3 Overlook Point, Lincolnshire, IL 60069 USA
Standard : FCC 47 CFR Part 2, 96

The product was received on Oct. 25, 2024 and testing was performed from Nov. 06, 2024 to Dec. 25, 2024. 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 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 from 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 333, Taiwan (R.O.C.)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test	5
1.2 Product Specification of Equipment Under Test	8
1.3 Modification of EUT	8
1.4 Testing Location	9
1.5 Applied Standards	9
2 Test Configuration of Equipment Under Test	10
2.1 Test Mode.....	10
2.2 Connection Diagram of Test System	11
2.3 Support Unit used in test configuration	12
2.4 Measurement Results Explanation Example	12
2.5 Frequency List of Low/Middle/High Channels.....	13
3 Conducted Test Items.....	16
3.1 Measuring Instruments.....	16
3.2 Conducted Output Power	17
3.3 Peak-to-Average Ratio	18
3.4 EIRP	19
3.5 Occupied Bandwidth	20
3.6 Conducted Band Edge	21
3.7 Conducted Spurious Emission	22
3.8 Frequency Stability	23
4 Radiated Test Items	24
4.1 Measuring Instruments.....	24
4.2 Test Setup	24
4.3 Test Result of Radiated Test.....	25
4.4 Radiated Spurious Emission	26
5 List of Measuring Equipment.....	27
6 Measurement Uncertainty	28
Appendix A. Test Results of Conducted Test	
Appendix B. Test Results of Radiated Test	
Appendix C. Test Setup Photographs	



History of this test report

Report No.	Version	Description	Issue Date
FG4O2228E	01	Initial issue of report	Jan. 15, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
3.3	§96.41	Peak-to-Average Ratio	Pass	-
3.4	§96.41	Effective Isotropic Radiated Power	Pass	-
3.5	§2.1049 §96.41	Occupied Bandwidth	Pass	-
3.6	§2.1051 §96.41	Conducted Band Edge Measurement	Pass	-
3.7	§2.1051 §96.41	Conducted Spurious Emission	Pass	-
3.8	§2.1055	Frequency Stability for Temperature & Voltage	Pass	-
4.4	§2.1051 §96.41	Radiated Spurious Emission	Pass	1.01 dB under the limit at 7105.00 MHz

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Keven Cheng

Report Producer: Ming Chen



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Computer
Brand Name	ZEBRA
Model Name	MC345A
FCC ID	UZ7MC345A
Sample 1	SKU 9 (Brick+SE5800+38 Keypad)
Sample 2	SKU 10 (Gun+SE4770+29 Keypad)
Sample 3	SKU 11 (Gun+SE5500+47 Keypad)
EUT supports Radios application	WCDMA/HSPA/LTE/5G NR/NFC WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE
HW Version	EV
SW Version	14-10-10.00-UG-U00-PRD-NEM-04
MFD	14SEP24
EUT Stage	Identical Prototype

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

Stage	MC34 WWAN SKU list				
Configuration	SKU3	SKU6	SKU9	SKU10	SKU11
WW/WL	WWAN	WWAN	WWAN	WWAN	WWAN
Form Factor	FA	FA	FA	FA	FA
SKU	Prem	Prem+	Prem+	Prem	Prem+
Brick / Gun	Gun	Gun	Brick	Gun	Gun
DDR size	6GB	6GB	6GB	6GB	6GB
UFS size	64GB	128GB	128GB	64GB	128GB
Scan engine	SE5500	SE5800	SE5800	SE4770	SE5500
FF Camera	None	5MP (PN)	5MP (PN)	None	5MP (PN)
RF Camera		13MP (PN)	13MP (PN)		13MP (PN)
Keypad	47	47	38	29	47
Battery	7000mAh	7000mAh	7000mAh	7000mAh	7000mAh
Region (ROW or NA)	NA	NA	NA	NA	NA



Support band and evaluated information	
Supported band	n48, n77, n78
Evaluated and Tested band	n48, n77
Band covered information	Wider operating frequency band range covers narrower one when the power is worse as follows: ■ n77 cover n78 (Part96)

TDD band Power Class				
	SISO PC3	MIMO PC3		
N48	V			
N77	V	V		
N78	V	V		

Specification of Accessories				
Adapter USB Wall Charger	Brand Name	Zebra	Model Number	PWR-WUA5V12W0US
Battery 1 Standard Battery (7000mAh)	Brand Name	Zebra	Model Number	BT-000375
			Manufacturer	TWS
Battery 2 Standard Battery (7000mAh)	Brand Name	Zebra	Model Number	BT-000375
			Manufacturer	Inventus
Battery 3 BLE Battery (7000mAh)	Brand Name	Zebra	Model Number	BT-000444
Battery 4 BLE Battery (7000mAh)	Brand Name	Zebra	Model Number	BT-000375
Type C USB Cable	Brand Name	Zebra	Model Number	CBL-TC5X-USBC2A-01
USB Cable Cup	Brand Name	Zebra	Model Number	CBL-MC33-USBCCHG-01
Soft Holster for Gun Type	Brand Name	Zebra	Model Number	SG-MC3021212-01R
Soft Holster for Brick Type	Brand Name	Zebra	Model Number	SG-MC3X-SHLSTB-01
USB-C PTT Headset	Brand Name	Zebra	Model Number	HDST-USBC-PTT1-01
USB-C to 3.5mm adapter	Brand Name	Zebra	Model Number	ADP-USBC-35MM1-01
3.5mm To Quick Disconnect (QD) Adapter Cable	Brand Name	Zebra	Model Number	ADP-35M-QDCBL1-01
3.5mm PTT Headset	Brand Name	Zebra	Model Number	HDST-35MM-PTT1-01
3.5mm PTT HS2100 Headset	Brand Name	Zebra	Model Number	HS2100
Quick Disconnect (QD) Cable	Brand Name	Zebra	Model Number	CBL-HS2100-QDC1-01

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx/Rx Frequency	5G NR n48: 3550.0 MHz ~3700.0 MHz 5G NR n77: 3300.0 MHz ~4200.0 MHz 5G NR n78: 3300.0 MHz ~3800.0 MHz
Bandwidth	5G NR n48: 10 MHz / 15 MHz / 20 MHz / 30 MHz / 40 MHz 5G NR n77: 10 MHz / 15 MHz / 20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 70MHz / 80MHz / 90MHz / 100MHz 5G NR n78: 10 MHz / 15 MHz / 20MHz / 30MHz / 40MHz / 50MHz / 60MHz / 70MHz / 80MHz / 90MHz / 100MHz
Maximum Output Power to Antenna	<SISO Mode> 5G NR n48: 23.36 dBm 5G NR n77: 21.80 dBm 5G NR n78: 21.39 dBm <MIMO Mode> 5G NR n77: 20.53 dBm 5G NR n78: 20.01 dBm
Antenna Type / Antenna Gain	<Ant. 3>: PIFA Antenna 5G NR n77: -2.08 dBi 5G NR n78: -2.08 dBi <Ant. 4>: PIFA Antenna 5G NR n77: -2.55 dBi 5G NR n78: -2.55 dBi <Ant. 8>: PIFA Antenna 5G NR n48: -1.32 dBi 5G NR n77: -1.32 dBi 5G NR n78: -1.32 dBi <Ant. 9>: PIFA Antenna 5G NR n77: -1.7 dBi 5G NR n78: -1.7 dBi
Type of Modulation	PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

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

1.3 Modification of EUT

No modifications made to the EUT during the testing.

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 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH03-HY
Test Engineer	Mike Yeh
Temperature (°C)	20.9~23.8
Relative Humidity (%)	51~58

Test Site	Sporton International Inc. Wensan Laboratory.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH21-HY (TAF Code: 3786)
Test Engineer	Fred Tseng, Ray Lung and Sky Chang
Temperature (°C)	18~26
Relative Humidity (%)	50~70
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.

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

FCC Designation No.: TW1190 and TW3786

1.5 Applied Standards

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

- ♦ ANSI C63.26-2015
- ♦ FCC 47 CFR Part 2, 96
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and only the worst case emissions were reported in this report.

Modulation Type	Modulation	Modulation Type	Modulation
A	DFT-s-OFDM pi/2 BPSK	N/A	N/A
B	DFT-s-OFDM QPSK	F	CP-OFDM QPSK
C	DFT-s-OFDM 16QAM	G	CP-OFDM 16QAM
D	DFT-s-OFDM 64QAM	H	CP-OFDM 64QAM
E	DFT-s-OFDM 256QAM	I	CP-OFDM 256QAM

<SISO Mode>

Test Item	Modulation Type	Bandwidth	RB Size	Channel
Conducted Power	A, B, C, D, E	All	1, Half, Full	L, M, H
EIRP	A, B, C, D, E	All	1, Half, Full	L, M, H
PAR	A, B, C, D, E	20 MHz	Outer_Full	M
Bandwidth	A,F,G,H,I	All	Outer_Full	M
Mask	A, B, C, D, E,F	All	Outer_1RB Outer_Full	L, M, H
CSE	B	10 MHz	Inner_1RB	L, M, H
Frequency Stability	A	20 MHz	Outer_Full	M
RSE	A	100 MHz	Inner_1RB	L, M, H

Remark:

1. Evaluated all the transmitter signal and reporting worst-case configuration among all modulation types.
2. 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.
3. All the radiated test cases were performed with Battery 1 Standard Battery (7000mAh).
4. One representative bandwidth is selected to perform PAR and frequency stability.
5. Device 5G NR support SA &NSA Mode, are verified and the worst case is SA mode. Therefore, the report only performed SA test results.
6. For 5G NR N77/78 support Antenna 8 (Main Ant.) and Antenna 3&4&9 (SRS Ant.);Radiated Spurious Emission is full test. Conducted test items are verified and the worst case is Antenna 8 Therefore, the report only performed Antenna 8 test results.

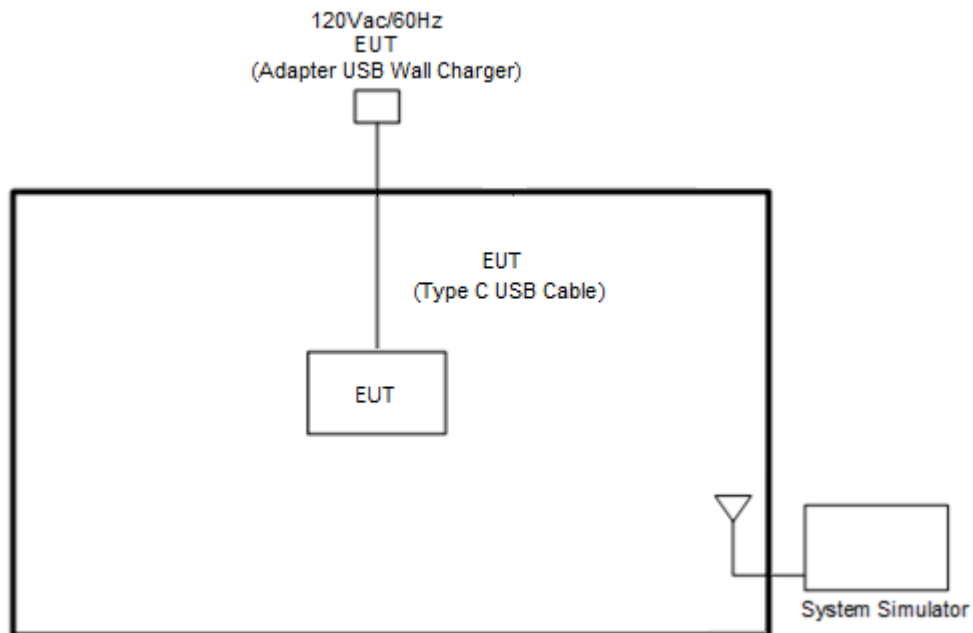
<MIMO Mode>

Test Item	Modulation Type	Bandwidth	RB Size	Channel
Conducted Power	F,G,H,I	All	1, Half, Full	L, M, H
EIRP	F,G,H,I	All	1, Half, Full	L, M, H
PAR	F,G,H,I	20 MHz	Outer_Full	M
Bandwidth	F,G,H,I	All	Outer_Full	M
Mask	F,G,H,I	All	Outer_1RB Outer_Full	L, M, H
CSE	F	10 MHz	Inner_1RB	L, M, H
Frequency Stability	F	20 MHz	Outer_Full	M
RSE	F	Maximum or less	Inner_1RB	L, M, H

Remark:

1. Evaluated all the transmitter signal and reporting worst-case configuration among all modulation types.
2. 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.
3. All the radiated test cases were performed with Battery 1 Standard Battery (7000mAh).
4. One representative bandwidth is selected to perform PAR and frequency stability.
5. Device 5G NR support SA &NSA Mode, are verified and the worst case is SA mode. Therefore, the report only performed SA test results.

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m

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 :

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.2 + 10 = 14.2 \text{ (dB)}\end{aligned}$$



2.5 Frequency List of Low/Middle/High Channels

5G NR n48 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	638000	641666	645332
	Frequency	3570	3624.99	3679.98
30	Channel	637668	641666	645666
	Frequency	3565.02	3624.99	3684.99
20	Channel	637334	641666	646000
	Frequency	3560.01	3624.99	3690
15	Channel	637168	641666	646166
	Frequency	3557.52	3624.99	3692.49
10	Channel	637000	641666	646332
	Frequency	3555	3624.99	3694.98



5G NR n77 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	640000	641666	643332
	Frequency	3600	3624.99	3649.98
90	Channel	639668	641666	643666
	Frequency	3595.02	3624.99	3654.99
80	Channel	639334	641666	644000
	Frequency	3590.01	3624.99	3660
70	Channel	639000	641666	644332
	Frequency	3585	3624.99	3664.98
60	Channel	638668	641666	644666
	Frequency	3580.02	3624.99	3669.99
50	Channel	638334	641666	645000
	Frequency	3575.01	3624.99	3675
40	Channel	638000	641666	645332
	Frequency	3570	3624.99	3679.98
30	Channel	637666	641666	645666
	Frequency	3564.99	3624.99	3684.99
20	Channel	637334	641666	646000
	Frequency	3560.01	3624.99	3690
15	Channel	637168	641666	646166
	Frequency	3557.52	3624.99	3692.49
10	Channel	637000	641666	646332
	Frequency	3555	3624.99	3694.98

5G NR n78 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	640000	641666	643332
	Frequency	3600	3624.99	3649.98
90	Channel	639668	641666	643666
	Frequency	3595.02	3624.99	3654.99
80	Channel	639334	641666	644000
	Frequency	3590.01	3624.99	3660
70	Channel	639000	641666	644332
	Frequency	3585	3624.99	3664.98
60	Channel	638668	641666	644666
	Frequency	3580.02	3624.99	3669.99
50	Channel	638334	641666	645000
	Frequency	3575.01	3624.99	3675
40	Channel	638000	641666	645332
	Frequency	3570	3624.99	3679.98
30	Channel	637666	641666	645666
	Frequency	3564.99	3624.99	3684.99
20	Channel	637334	641666	646000
	Frequency	3560.01	3624.99	3690
15	Channel	637168	641666	646166
	Frequency	3557.52	3624.99	3692.49
10	Channel	637000	641666	646332
	Frequency	3555	3624.99	3694.98

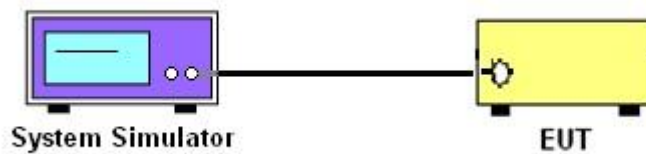
3 Conducted Test Items

3.1 Measuring Instruments

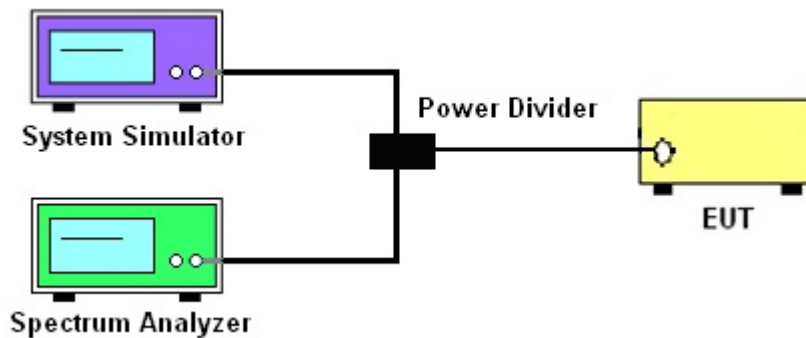
See list of measuring instruments of this test report.

3.1.1 Test Setup

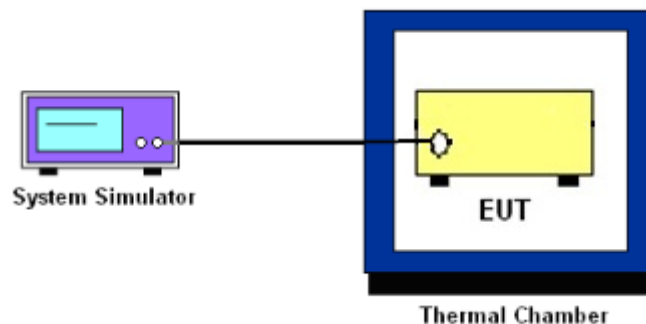
3.1.2 Conducted Output Power



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



3.1.4 Frequency Stability



3.1.5 Test Result of Conducted Test

Please refer to Appendix A.



3.2 Conducted Output Power

3.2.1 Description of the Conducted Output Power Measurement

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

3.2.2 Test Procedures

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



3.3 Peak-to-Average Ratio

3.3.1 Description of the PAR Measurement

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

3.3.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.2.6

1. The EUT was connected to spectrum and system simulator via a power divider.
2. Set 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 EIRP

3.4.1 Description of the EIRP Measurement

The EIRP of mobile transmitters must not exceed 23 dBm /10 megahertz for 5G NR n48, n77, n78.

The testing follows ANSI C63.26-2015 Section 5.2.5.5

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - LC$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

Device	Maximum EIRP (dBm/10 MHz)	Maximum PSD (dBm/MHz)
End User Device	23	n/a

Remark:

1. Total channel power is complied with EIRP limit 23dBm/10MHz.
2. The MIMO mode is completely uncorrelated, so the directional gain is selected the maximum gain among all antennas.

3.4.2 Test Procedures

The testing follows procedure in Section 5.2 of ANSI C63.26-2015 and KDB 940660 D01 Part 96 CBRS Eqpt v03 Section 3.2(b)(2)

Determine the EIRP by adding the effective antenna gain to the measured average conducted power level.

3.5 Occupied Bandwidth

3.5.1 Description of Occupied Bandwidth Measurement

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

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

The occupied bandwidth shall not exceed the equipment's channel bandwidth, which is declared by the manufacturer.

3.5.2 Test Procedures

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

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency.
The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
3. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
4. Set the detection mode to peak, and the trace mode to max hold.
5. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace.
(this is the reference value)
6. Determine the "-26 dB down amplitude" as equal to (Reference Value – X).
7. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the "-X dB down amplitude" determined in step 6. If a marker is below this "-X dB down amplitude" value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
8. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.6 Conducted Band Edge

3.6.1 Description of Conducted Band Edge Measurement

The conducted power of any End User Device emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0 to B megahertz (where B is the bandwidth in megahertz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B megahertz below the lower CBSD-assigned channel edge. At all frequencies greater than B megahertz above the upper CBSD assigned channel edge and less than B megahertz below the lower CBSD-assigned channel edge, the conducted power of any End User Device emission shall not exceed -25 dBm/MHz. Notwithstanding the emission limits in this paragraph, the Adjacent Channel Leakage Ratio for End User Devices shall be at least 30 dB.

3.6.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured.
3. Set RBW $\geq 1\%$ 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. For MIMO mode, add additional MIMO factor $10\log(\text{NTX}=2) = 3.01\text{dB}$ into the spectrum analyzer offset.

For Adjacent Channel Leakage Ratio (ACLR) measurement,

1. The Adjacent Channel Leakage Ratio (ACLR) is the ratio of the average power in the assigned aggregated channel bandwidth to the average power over the equivalent adjacent channel bandwidth.
2. The option ACLR of spectrum analyzer is used and measures the ACLR ratio by setting equivalent channel bandwidth.
3. The measured ACLR ratio shall be at least 30 dB.



3.7 Conducted Spurious Emission

3.7.1 Description of Conducted Spurious Emission Measurement

96.41 (e)(2)

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

3.7.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
6. Set spectrum analyzer with RMS detector.
7. Taking the record of maximum spurious emission.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. The limit line is -40dBm/MHz.
10. For MIMO mode, add additional MIMO factor $10\log(\text{NTX}=2) = 3.01\text{dB}$ into the spectrum analyzer offset.

3.8 Frequency Stability

3.8.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block.

3.8.2 Test Procedures for Temperature Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.8.3 Test Procedures for Voltage Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

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

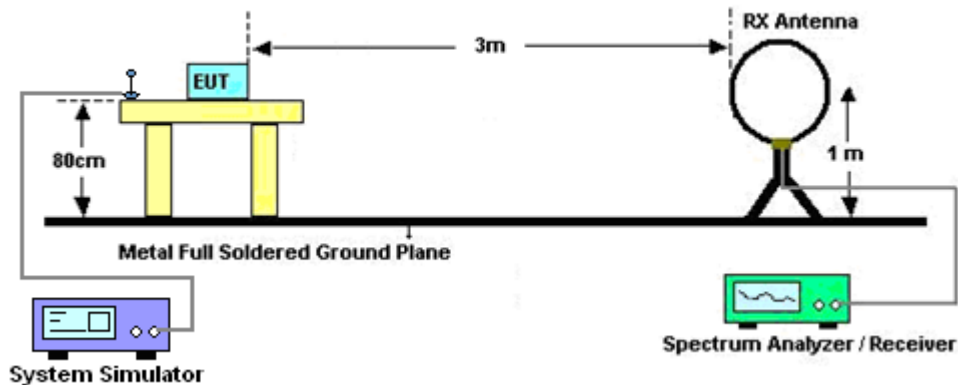
4 Radiated Test Items

4.1 Measuring Instruments

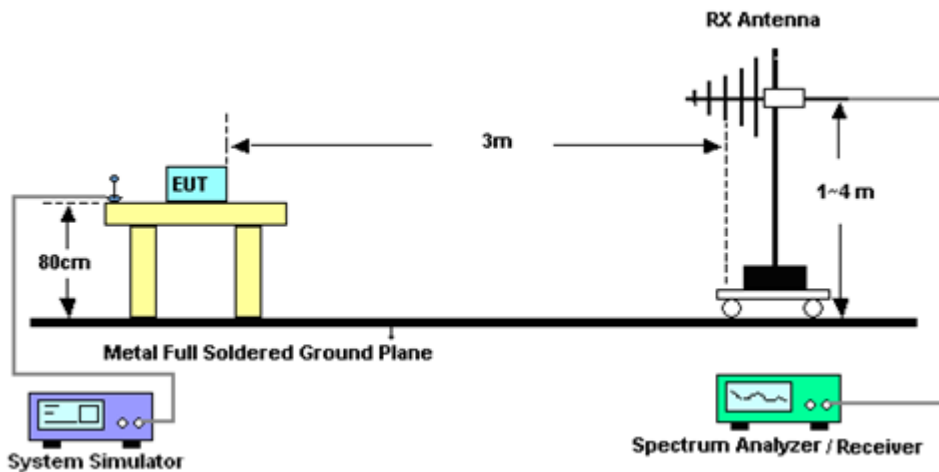
See list of measuring instruments of this test report.

4.2 Test Setup

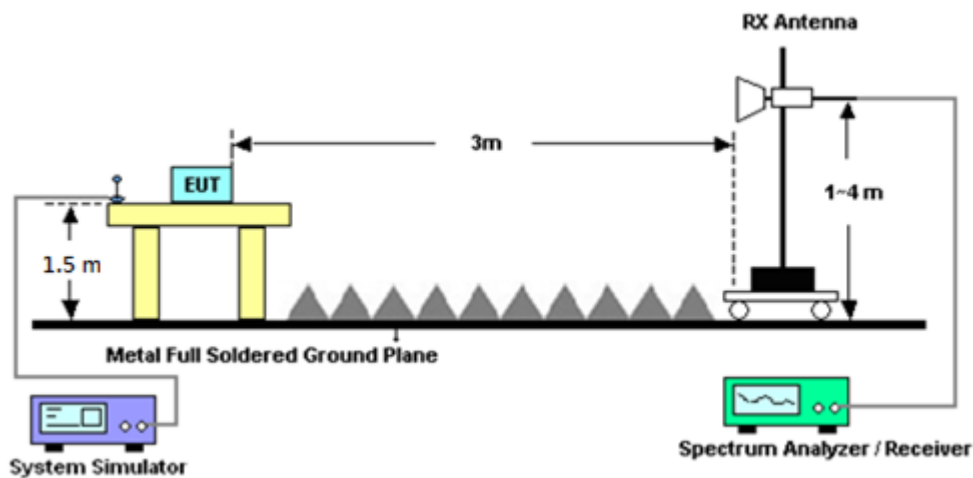
For radiated emissions below 30MHz



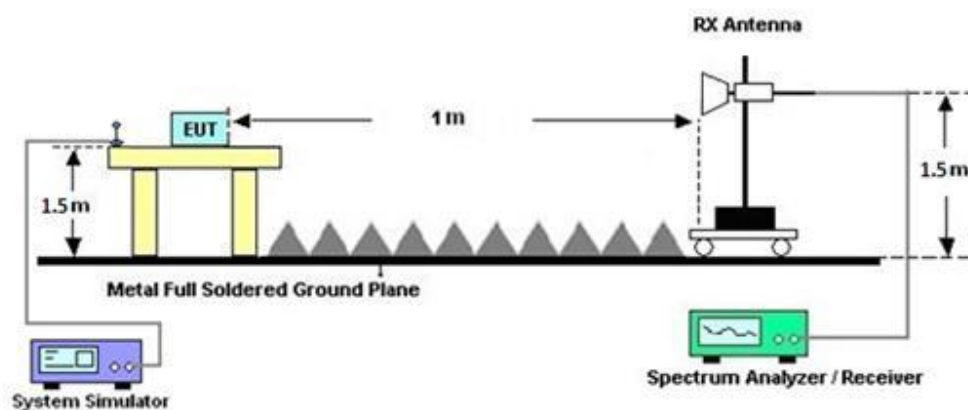
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



4.3 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 adequate comparison measurement 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.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least -40dBm / MHz .

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

4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI C63.26-2015 section 5.5.4 Radiated measurement using the field strength method.

1. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
5. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
6. To convert spectrum reading E(dBuV/m) to EIRP(dBm)
$$\text{EIRP(dBm)} = \text{Level (dBuV/m)} + 20\log(d) - 104.77$$
, where d is the distance at which field strength limit is specified in the rules.
7.
$$\text{Field Strength Level (dBm)} = \text{Spectrum Reading (dBm)} + \text{Antenna Factor} + \text{Cable Loss} + \text{Read Level} - \text{Preamp Factor}.$$
8.
$$\text{ERP (dBm)} = \text{EIRP (dBm)} - 2.15$$
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.



5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
LOOP Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Aug. 29, 2024	Nov. 19, 2024~ Dec. 25, 2024	Aug. 28, 2025	Radiation (03CH21-HY)
Bilog Antenna	TESEQ & WOKEN	CBL 6111D & 00800N1D01N-06	41912 & 05	30MHz~1GHz	Feb. 04, 2024	Nov. 19, 2024~ Dec. 25, 2024	Feb. 03, 2025	Radiation (03CH21-HY)
Double Ridged Guide Horn Antenna	RFSPIN	DRH18-E	LE2C03A18E N	1GHz~18GHz	Jul. 11, 2024	Nov. 19, 2024~ Dec. 25, 2024	Jul. 10, 2025	Radiation (03CH21-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	1224	18GHz~40GHz	Jun. 24, 2024	Nov. 19, 2024~ Dec. 25, 2024	Jun. 23, 2025	Radiation (03CH21-HY)
Amplifier	SONOMA	310N	421580	30MHz~1GHz	Jul. 14, 2024	Nov. 19, 2024~ Dec. 25, 2024	Jul. 13, 2025	Radiation (03CH21-HY)
Amplifier	EMEC	EM01G18GA	060876	1GHz~18GHz	Sep. 27, 2024	Nov. 19, 2024~ Dec. 25, 2024	Sep. 26, 2025	Radiation (03CH21-HY)
Preamplifier	EMEC	EM18G40G	060873	18GHz~40GHz	Sep. 02, 2024	Nov. 19, 2024~ Dec. 25, 2024	Sep. 01, 2025	Radiation (03CH21-HY)
Spectrum Analyzer	Keysight	N9010B	MY62170358	10Hz~44GHz	Sep. 06, 2024	Nov. 19, 2024~ Dec. 25, 2024	Sep. 05, 2025	Radiation (03CH21-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 06, 2024	Nov. 19, 2024~ Dec. 25, 2024	Mar. 05, 2025	Radiation (03CH21-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804397/2,80 4612/2,8039 54/2	30MHz~40GHz	Aug. 12, 2024	Nov. 19, 2024~ Dec. 25, 2024	Aug. 11, 2025	Radiation (03CH21-HY)
Hygrometer	TECPEL	DTM-303A	TP211568	N/A	Oct. 21, 2024	Nov. 19, 2024~ Dec. 25, 2024	Oct. 20, 2025	Radiation (03CH21-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Nov. 19, 2024~ Dec. 25, 2024	N/A	Radiation (03CH21-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Nov. 19, 2024~ Dec. 25, 2024	N/A	Radiation (03CH21-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Nov. 19, 2024~ Dec. 25, 2024	N/A	Radiation (03CH21-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Nov. 19, 2024~ Dec. 25, 2024	N/A	Radiation (03CH21-HY)
DC Power Supply	GW Instek	PSS-2005	EL890089	1V~20V 0.5A~5A	Feb. 19, 2024	Nov. 06, 2024~ Dec. 25, 2024	Feb. 18, 2025	Conducted (TH03-HY)
Signal Analyzer	Rohde & Schwarz	FSV3044	101049	10Hz~44GHz	Oct. 07, 2024	Nov. 06, 2024~ Dec. 25, 2024	Oct. 06, 2025	Conducted (TH03-HY)
Temperature Chamber	ESPEC	LHU-113	1012005860	-20℃~85℃	Dec. 13, 2023	Nov. 06, 2024~ Dec. 09, 2024	Dec. 12, 2024	Conducted (TH03-HY)
Temperature Chamber	ESPEC	LHU-113	1012005860	-20℃~85℃	Dec. 10, 2024	Dec. 11, 2024~ Dec. 25, 2024	Dec. 09, 2025	Conducted (TH03-HY)
Hygrometer	TECPEL	DTM-303B	TP200886	NA	Mar. 14, 2024	Nov. 06, 2024~ Dec. 25, 2024	Mar. 13, 2025	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8821C	6262116725	LTE	Oct. 17, 2024	Nov. 06, 2024~ Dec. 25, 2024	Oct. 16, 2025	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8000A	6262148275	FR1	Oct. 20, 2024	Nov. 06, 2024~ Dec. 25, 2024	Oct. 19, 2025	Conducted (TH03-HY)
Coupler	MVE	MVE-4816-10	A400024	N/A	Jun. 27, 2024	Nov. 06, 2024~ Dec. 25, 2024	Jun. 26, 2025	Conducted (TH03-HY)
RF Cable	MVE	MCBL-LL403P. 50	E80002C	9KHz~40GHz	Aug. 23, 2024	Nov. 06, 2024~ Dec. 25, 2024	Aug. 22, 2025	Conducted (TH03-HY)
Software 1	Sporton	FCC 5GNR_FSV30 44_20231106	N/A	Conducted Test Item	N/A	Nov. 06, 2024~ Dec. 25, 2024	N/A	Conducted (TH03-HY)



6 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.141 dB
---	----------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.330 dB
---	----------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.680 dB
---	----------



Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power) and ERP/EIRP

<SISO Mode>

NR n48 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
10	1	1	PI/2 BPSK	23.19	23.13	23.02	21.92	0.1556		
10	1	22		23.00	23.12	23.11				
10	12	6		23.21	23.24	23.17				
10	1	0		22.55	22.58	22.65				
10	1	23		22.46	22.77	22.48				
10	24	0		15.02	15.08	15.16				
10	1	1	QPSK	22.96	23.21	23.01				
10	1	22		22.98	23.12	22.91				
10	12	6		23.03	23.19	23.06				
10	1	0		22.11	22.03	21.98				
10	1	23		21.94	22.13	21.97				
10	24	0		14.98	15.21	15.05				
10	1	1	16-QAM	22.27	22.30	22.19	20.98	0.1253		
10	1	1	64-QAM	20.46	20.76	20.60				
10	1	1	256-QAM	18.22	18.66	18.22				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n48 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
15	1	1	PI/2 BPSK	23.02	23.26	23.05	22.03	0.1596		
15	1	36		23.05	23.23	23.00				
15	18	9		23.25	23.28	23.04				
15	1	0		22.78	22.72	22.48				
15	1	37		22.45	22.65	22.45				
15	36	0		15.24	15.22	15.13				
15	1	1	QPSK	23.03	23.21	23.13				
15	1	36		23.09	23.11	23.02				
15	18	9		23.35	23.27	23.09				
15	1	0		22.19	22.15	22.00				
15	1	37		21.98	22.15	21.81				
15	36	0		15.07	15.15	15.16				
15	1	1	16-QAM	22.23	22.42	22.44	21.12	0.1294		
15	1	1	64-QAM	20.78	20.71	20.58				
15	1	1	256-QAM	18.24	18.36	18.27				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n48 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	23.04	23.08	22.96	22.04	0.1600		
20	1	49		22.96	23.24	22.89				
20	25	12		23.14	23.19	23.06				
20	1	0		22.55	22.62	22.45				
20	1	50		22.44	22.64	22.42				
20	50	0		15.02	15.12	14.94				
20	1	1	QPSK	23.18	23.02	23.04				
20	1	49		22.95	23.13	22.80				
20	25	12		23.15	23.36	23.08				
20	1	0		21.94	22.11	21.94				
20	1	50		22.11	22.20	21.88				
20	50	0		15.07	15.25	15.05				
20	1	1	16-QAM	22.28	22.34	22.01	21.02	0.1265		
20	1	1	64-QAM	20.49	20.71	20.69				
20	1	1	256-QAM	18.22	18.26	18.30				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n48 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
30	1	1	PI/2 BPSK	23.22	23.30	23.23	22	0.1585		
30	1	76		23.01	23.21	23.15				
30	36	18		23.18	23.14	23.32				
30	1	0		22.65	22.65	22.61				
30	1	77		22.53	22.79	22.40				
30	75	0		15.08	15.31	15.15				
30	1	1	QPSK	23.20	23.30	23.23				
30	1	76		22.94	23.04	23.06				
30	36	18		23.17	23.16	23.17				
30	1	0		22.38	22.40	22.21				
30	1	77		22.00	22.20	22.04				
30	75	0		15.15	15.21	15.09				
30	1	1	16-QAM	22.39	22.43	22.38	21.11	0.1291		
30	1	1	64-QAM	20.66	20.99	20.69				
30	1	1	256-QAM	18.31	18.43	18.38				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n48 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
40	1	1	PI/2 BPSK	23.17	23.16	23.15	21.98	0.1578		
40	1	104		23.30	23.28	23.09				
40	50	25		23.25	23.20	23.18				
40	1	0		22.67	22.59	22.57				
40	1	105		22.67	22.85	22.55				
40	100	0		15.11	15.19	15.08				
40	1	1	QPSK	23.12	23.19	22.94				
40	1	104		23.14	23.26	22.98				
40	50	25		23.12	23.14	23.14				
40	1	0		22.30	22.10	22.09				
40	1	105		22.48	22.29	22.09				
40	100	0		15.12	15.26	15.01				
40	1	1	16-QAM	22.54	22.51	22.35	21.22	0.1324		
40	1	1	64-QAM	20.74	20.84	20.50				
40	1	1	256-QAM	18.64	18.29	18.14				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
10	1	1	PI/2 BPSK	21.47	21.49	21.61	20.38	0.1091		
10	1	22		21.44	21.52	21.57				
10	12	6		21.52	21.62	21.70				
10	1	0		17.95	17.94	18.11				
10	1	23		17.95	18.03	18.05				
10	24	0		12.95	13.04	13.10				
10	1	1	QPSK	21.42	21.51	21.55				
10	1	22		21.41	21.51	21.54				
10	12	6		21.59	21.64	21.65				
10	1	0		17.92	18.05	18.05				
10	1	23		17.90	18.02	18.05				
10	24	0		12.46	12.60	12.59				
10	1	1	16-QAM	20.41	20.58	20.65	19.33	0.0857		
10	1	1	64-QAM	19.03	19.08	19.15				
10	1	1	256-QAM	17.06	17.08	17.16				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
15	1	1	PI/2 BPSK	21.50	21.50	21.58	20.4	0.1096		
15	1	36		21.51	21.59	21.58				
15	18	9		21.60	21.68	21.68				
15	1	0		17.98	18.04	18.04				
15	1	37		18.01	18.09	18.03				
15	36	0		13.05	13.10	13.12				
15	1	1	QPSK	21.47	21.49	21.55				
15	1	36		21.51	21.58	21.56				
15	18	9		21.64	21.67	21.72				
15	1	0		17.98	17.98	18.02				
15	1	37		17.98	18.05	18.01				
15	36	0		12.59	12.64	12.66				
15	1	1	16-QAM	20.47	20.46	20.50	19.18	0.0828		
15	1	1	64-QAM	19.07	19.05	19.15				
15	1	1	256-QAM	17.04	17.07	17.14				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	21.64	21.62	21.61	20.4	0.1096		
20	1	49		21.52	21.61	21.56				
20	25	12		21.65	21.72	21.69				
20	1	0		18.01	18.10	18.05				
20	1	50		18.01	18.03	18.01				
20	50	0		13.07	13.12	13.09				
20	1	1	QPSK	21.64	21.63	21.61				
20	1	49		21.53	21.61	21.59				
20	25	12		21.65	21.68	21.70				
20	1	0		18.08	18.07	18.05				
20	1	50		18.00	18.00	18.05				
20	50	0		12.57	12.62	12.66				
20	1	1	16-QAM	20.60	20.74	20.42	19.42	0.0875		
20	1	1	64-QAM	19.16	19.19	19.22				
20	1	1	256-QAM	17.20	17.17	17.11				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
30	1	1	PI/2 BPSK	21.53	21.63	21.67	20.39	0.1094		
30	1	76		21.47	21.66	21.70				
30	36	18		21.58	21.71	21.71				
30	1	0		18.09	18.10	18.15				
30	1	77		17.96	18.12	18.15				
30	75	0		13.03	13.12	13.12				
30	1	1	QPSK	21.59	21.60	21.67				
30	1	76		21.45	21.68	21.67				
30	36	18		21.62	21.66	21.69				
30	1	0		18.11	18.14	18.13				
30	1	77		17.95	18.12	18.13				
30	75	0		12.55	12.66	12.73				
30	1	1	16-QAM	20.41	20.59	20.57	19.27	0.0845		
30	1	1	64-QAM	19.23	19.14	19.25				
30	1	1	256-QAM	17.10	17.17	17.19				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
40	1	1	PI/2 BPSK	21.78	21.72	21.73	20.48	0.1117		
40	1	104		21.60	21.72	21.64				
40	50	25		21.67	21.74	21.68				
40	1	0		18.33	18.14	18.30				
40	1	105		18.07	18.19	18.12				
40	100	0		13.10	13.18	13.10				
40	1	1	QPSK	21.80	21.67	21.66				
40	1	104		21.60	21.71	21.66				
40	50	25		21.64	21.71	21.67				
40	1	0		18.30	18.15	18.11				
40	1	105		18.11	18.11	18.09				
40	100	0		12.56	12.67	12.62				
40	1	1	16-QAM	20.75	20.63	20.50	19.43	0.0877		
40	1	1	64-QAM	19.40	19.19	19.16				
40	1	1	256-QAM	17.39	17.24	17.23				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
50	1	1	PI/2 BPSK	21.43	21.42	21.28	20.2	0.1047		
50	1	131		21.23	21.32	21.15				
50	64	32		21.33	21.50	21.37				
50	1	0		17.94	17.87	17.76				
50	1	132		17.68	17.78	17.67				
50	128	0		12.78	12.92	12.83				
50	1	1	QPSK	21.40	21.38	21.25				
50	1	131		21.15	21.30	21.16				
50	64	32		21.37	21.52	21.36				
50	1	0		17.94	17.90	17.77				
50	1	132		17.67	17.80	17.63				
50	128	0		12.39	12.42	12.32				
50	1	1	16-QAM	20.26	20.40	20.24	19.08	0.0809		
50	1	1	64-QAM	18.96	18.92	18.84				
50	1	1	256-QAM	16.93	16.91	16.83				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
60	1	1	PI/2 BPSK	21.44	21.30	21.30	20.15	0.1035		
60	1	160		21.35	21.35	21.30				
60	81	40		21.39	21.47	21.42				
60	1	0		17.96	17.86	17.78				
60	1	161		17.85	17.83	17.78				
60	162	0		12.87	12.92	12.80				
60	1	1	QPSK	21.45	21.30	21.31				
60	1	160		21.36	21.33	21.28				
60	81	40		21.37	21.46	21.41				
60	1	0		17.91	17.72	17.79				
60	1	161		17.87	17.80	17.74				
60	162	0		12.41	12.41	12.35				
60	1	1	16-QAM	20.28	20.07	20.01	18.96	0.0787		
60	1	1	64-QAM	19.01	18.75	18.73				
60	1	1	256-QAM	16.98	16.81	16.85				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
70	1	1	PI/2 BPSK	21.36	21.33	21.33	20.18	0.1042		
70	1	187		21.18	21.36	21.39				
70	90	45		21.38	21.40	21.48				
70	1	0		17.92	17.79	17.73				
70	1	188		17.65	17.81	17.82				
70	180	0		12.79	12.82	12.89				
70	1	1	QPSK	21.34	21.30	21.28				
70	1	187		21.16	21.29	21.33				
70	90	45		21.34	21.43	21.50				
70	1	0		17.86	17.78	17.79				
70	1	188		17.67	17.78	17.81				
70	180	0		12.33	12.38	12.43				
70	1	1	16-QAM	20.29	20.30	20.15	18.98	0.0791		
70	1	1	64-QAM	18.97	18.82	18.90				
70	1	1	256-QAM	16.90	16.86	16.83				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
80	1	1	PI/2 BPSK	21.32	21.30	21.23	20.13	0.1030		
80	1	215		21.24	21.32	21.37				
80	108	54		21.41	21.42	21.41				
80	1	0		17.83	17.74	17.72				
80	1	216		17.72	17.77	17.78				
80	216	0		12.83	12.83	12.83				
80	1	1	QPSK	21.28	21.30	21.26				
80	1	215		21.22	21.31	21.30				
80	108	54		21.43	21.44	21.45				
80	1	0		17.82	17.77	17.71				
80	1	216		17.71	17.76	17.78				
80	216	0		12.35	12.44	12.34				
80	1	1	16-QAM	20.12	20.25	20.05	18.93	0.0782		
80	1	1	64-QAM	18.82	18.83	18.69				
80	1	1	256-QAM	16.84	16.82	16.78				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
90	1	1	PI/2 BPSK	21.31	21.26	21.24	20.18	0.1042		
90	1	243		21.18	21.31	21.41				
90	120	60		21.31	21.42	21.50				
90	1	0		17.78	17.71	17.68				
90	1	244		17.65	17.83	17.90				
90	243	0		12.76	12.88	12.89				
90	1	1	QPSK	21.28	21.21	21.27				
90	1	243		21.17	21.32	21.46				
90	120	60		21.31	21.38	21.50				
90	1	0		17.77	17.75	17.70				
90	1	244		17.65	17.77	17.92				
90	243	0		12.26	12.41	12.43				
90	1	1	16-QAM	20.17	20.07	20.11	18.85	0.0767		
90	1	1	64-QAM	18.90	18.80	18.88				
90	1	1	256-QAM	16.76	16.82	16.84				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n77_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
100	1	1	PI/2 BPSK	21.27	21.29	21.28	20.21	0.1050		
100	1	271		21.35	21.46	21.44				
100	135	67		21.37	21.42	21.53				
100	1	0		17.77	17.72	17.76				
100	1	272		17.79	17.94	17.90				
100	270	0		12.78	12.82	12.86				
100	1	1	QPSK	21.26	21.26	21.25				
100	1	271		21.35	21.45	21.29				
100	135	67		21.36	21.41	21.46				
100	1	0		17.77	17.73	17.73				
100	1	272		17.87	17.92	17.89				
100	270	0		12.37	12.44	12.42				
100	1	1	16-QAM	20.17	20.23	20.10	18.91	0.0778		
100	1	1	64-QAM	18.89	18.80	18.72				
100	1	1	256-QAM	16.84	16.70	16.80				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
10	1	1	PI/2 BPSK	21.23	20.22	20.45	19.94	0.0986		
10	1	22		21.21	20.30	20.53				
10	12	6		21.26	20.34	20.56				
10	1	0		16.75	16.74	16.96				
10	1	23		17.39	16.66	16.96				
10	24	0		11.55	11.61	11.99				
10	1	1	QPSK	20.41	20.22	20.42				
10	1	22		20.37	20.30	20.48				
10	12	6		20.51	20.28	20.61				
10	1	0		16.73	16.67	17.03				
10	1	23		16.66	16.63	17.01				
10	24	0		11.24	11.24	11.60				
10	1	1	16-QAM	19.89	19.22	19.27	18.57	0.0719		
10	1	1	64-QAM	18.65	17.69	17.89				
10	1	1	256-QAM	15.85	15.70	16.06				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
15	1	1	PI/2 BPSK	20.42	20.31	20.53	20.02	0.1005		
15	1	36		20.37	20.34	20.57				
15	18	9		20.47	21.29	20.61				
15	1	0		16.86	16.72	16.81				
15	1	37		16.79	16.76	16.99				
15	36	0		11.79	11.74	12.06				
15	1	1	QPSK	20.44	20.27	20.46				
15	1	36		20.35	21.26	20.55				
15	18	9		21.34	20.40	20.65				
15	1	0		16.84	16.69	16.98				
15	1	37		16.75	16.72	16.99				
15	36	0		11.34	11.28	11.62				
15	1	1	16-QAM	20.15	19.18	19.28	18.83	0.0764		
15	1	1	64-QAM	18.93	17.80	17.84				
15	1	1	256-QAM	16.78	15.78	16.07				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	20.51	20.31	20.40	20.07	0.1016		
20	1	49		20.40	20.34	20.57				
20	25	12		20.57	20.36	20.54				
20	1	0		16.90	16.74	17.31				
20	1	50		16.79	16.79	17.47				
20	50	0		11.84	11.75	12.00				
20	1	1	QPSK	20.46	20.28	20.37				
20	1	49		20.40	20.32	20.52				
20	25	12		21.39	20.32	20.56				
20	1	0		16.90	16.67	16.81				
20	1	50		16.80	16.68	17.01				
20	50	0		11.42	11.28	11.60				
20	1	1	16-QAM	19.42	19.11	19.19	18.1	0.0646		
20	1	1	64-QAM	18.13	17.78	17.79				
20	1	1	256-QAM	16.00	15.75	15.91				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
30	1	1	PI/2 BPSK	20.48	20.39	20.49	19.34	0.0859		
30	1	76		20.36	20.44	20.66				
30	36	18		20.46	20.41	20.53				
30	1	0		16.93	16.79	16.95				
30	1	77		16.70	16.83	17.16				
30	75	0		11.77	11.76	11.96				
30	1	1	QPSK	20.44	20.35	20.45				
30	1	76		20.32	20.40	20.63				
30	36	18		20.44	20.38	20.54				
30	1	0		16.86	16.82	16.96				
30	1	77		16.75	16.83	17.09				
30	75	0		11.31	11.35	11.55				
30	1	1	16-QAM	19.46	19.36	19.39	18.14	0.0652		
30	1	1	64-QAM	17.92	17.90	17.98				
30	1	1	256-QAM	15.89	15.83	16.02				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
40	1	1	PI/2 BPSK	20.61	20.36	20.52	19.29	0.0849		
40	1	104		20.39	20.50	20.59				
40	50	25		20.41	20.46	20.49				
40	1	0		17.08	16.89	16.93				
40	1	105		16.90	16.96	17.04				
40	100	0		11.78	11.78	11.94				
40	1	1	QPSK	20.59	20.35	20.53				
40	1	104		20.32	20.51	20.60				
40	50	25		20.36	20.48	20.49				
40	1	0		16.99	16.78	16.93				
40	1	105		16.79	16.95	17.02				
40	100	0		11.41	11.37	11.49				
40	1	1	16-QAM	19.35	19.31	19.47	18.15	0.0653		
40	1	1	64-QAM	18.10	17.94	17.89				
40	1	1	256-QAM	16.11	15.88	16.02				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
50	1	1	PI/2 BPSK	20.26	20.10	20.13	18.94	0.0783		
50	1	131		19.88	20.17	20.23				
50	64	32		20.15	20.26	20.21				
50	1	0		16.67	16.45	16.56				
50	1	132		16.32	16.58	16.69				
50	128	0		11.46	11.55	11.59				
50	1	1	QPSK	20.25	20.03	20.08				
50	1	131		19.87	20.15	20.19				
50	64	32		20.15	20.26	20.20				
50	1	0		16.66	16.46	16.54				
50	1	132		16.35	16.58	16.63				
50	128	0		11.02	11.13	11.12				
50	1	1	16-QAM	19.10	18.85	18.92	17.78	0.0600		
50	1	1	64-QAM	17.83	17.41	17.48				
50	1	1	256-QAM	15.74	15.48	15.55				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
60	1	1	PI/2 BPSK	20.25	19.98	19.93	18.99	0.0793		
60	1	160		20.05	20.20	20.31				
60	81	40		20.17	20.14	20.29				
60	1	0		16.63	16.46	16.42				
60	1	161		16.45	16.62	16.81				
60	162	0		11.49	11.55	11.64				
60	1	1	QPSK	20.24	19.96	19.92				
60	1	160		20.06	20.21	20.21				
60	81	40		20.21	20.14	20.25				
60	1	0		16.69	16.40	16.33				
60	1	161		16.43	16.61	16.67				
60	162	0		11.07	11.17	11.20				
60	1	1	16-QAM	19.14	18.82	18.81	17.82	0.0605		
60	1	1	64-QAM	17.69	17.42	17.45				
60	1	1	256-QAM	15.70	15.44	15.46				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
70	1	1	PI/2 BPSK	20.32	20.08	20.06	19	0.0794		
70	1	187		19.96	20.07	20.28				
70	90	45		20.12	20.22	20.29				
70	1	0		16.73	16.52	16.46				
70	1	188		16.37	16.57	16.76				
70	180	0		11.49	11.50	11.58				
70	1	1	QPSK	20.21	20.09	20.01				
70	1	187		19.93	20.11	20.25				
70	90	45		20.15	20.20	20.24				
70	1	0		16.66	16.50	16.48				
70	1	188		16.34	16.50	16.71				
70	180	0		11.04	11.14	11.22				
70	1	1	16-QAM	19.03	18.90	18.97	17.71	0.0590		
70	1	1	64-QAM	17.63	17.60	17.59				
70	1	1	256-QAM	15.61	15.56	15.60				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
80	1	1	PI/2 BPSK	21.05	20.08	20.00	19.75	0.0944		
80	1	215		20.95	20.13	20.25				
80	108	54		21.07	20.21	20.22				
80	1	0		17.59	16.51	16.35				
80	1	216		17.33	16.53	16.71				
80	216	0		12.30	11.56	11.58				
80	1	1	QPSK	20.22	20.04	20.04				
80	1	215		20.98	20.17	20.27				
80	108	54		20.25	20.21	20.22				
80	1	0		17.30	16.54	16.47				
80	1	216		16.42	16.57	16.75				
80	216	0		11.10	11.14	11.13				
80	1	1	16-QAM	19.17	18.96	18.92	17.85	0.0610		
80	1	1	64-QAM	17.79	17.66	17.60				
80	1	1	256-QAM	15.61	15.57	15.53				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
90	1	1	PI/2 BPSK	20.31	19.98	20.04	19.03	0.0800		
90	1	243		20.02	20.21	20.34				
90	120	60		20.13	20.23	20.27				
90	1	0		16.68	16.48	16.44				
90	1	244		16.49	16.63	16.82				
90	243	0		11.47	11.48	11.64				
90	1	1	QPSK	20.19	19.98	20.06				
90	1	243		20.02	20.17	20.35				
90	120	60		20.14	20.17	20.29				
90	1	0		16.66	16.39	16.45				
90	1	244		16.43	16.66	16.84				
90	243	0		11.02	11.10	11.18				
90	1	1	16-QAM	18.89	18.78	18.91	17.59	0.0574		
90	1	1	64-QAM	17.68	17.43	17.59				
90	1	1	256-QAM	15.63	15.56	15.48				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.

NR n78_Part96 Maximum Average Power [dBm] (GT - LC = -1.32 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
100	1	1	PI/2 BPSK	20.16	20.03	19.99	18.95	0.0785		
100	1	271		20.13	20.25	20.27				
100	135	67		20.20	20.19	20.24				
100	1	0		16.59	16.47	16.49				
100	1	272		16.58	16.71	16.88				
100	270	0		11.48	11.48	11.60				
100	1	1	QPSK	20.14	19.95	19.93				
100	1	271		20.14	20.25	20.26				
100	135	67		20.21	20.15	20.19				
100	1	0		16.60	16.45	16.38				
100	1	272		16.54	16.72	16.86				
100	270	0		11.09	11.11	11.19				
100	1	1	16-QAM	19.10	18.82	18.88	17.78	0.0600		
100	1	1	64-QAM	17.85	17.51	17.49				
100	1	1	256-QAM	15.73	15.51	15.46				
Limit	EIRP < 23dBm/10MHz			Result			Pass			

Total EIRP power is less than partial EIRP limit 23 dBm/10MHz.



<MIMO Mode>

Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
10	1	1	QPSK	17.23	17.23	17.25	17.16	17.41	17.38	20.21	20.33	20.33	19.21	0.0834
10	1	22		17.10	17.25	17.48	17.11	17.34	17.56	20.12	20.31	20.53		
10	12	6		17.13	17.14	17.23	17.13	17.32	17.50	20.14	20.24	20.38		
10	1	0		15.15	15.20	15.37	14.93	15.19	15.39	18.05	18.21	18.39		
10	1	23		15.06	15.19	15.31	15.02	15.25	15.38	18.05	18.23	18.36		
10	24	0		7.53	7.61	7.67	7.53	7.75	7.99	10.54	10.69	10.84		
10	1	1	16-QAM	16.68	16.66	16.63	16.70	16.92	16.98	19.70	19.80	19.82	18.50	0.0708
10	1	1	64-QAM	15.18	15.22	15.20	14.80	15.04	15.38	18.00	18.14	18.30		
10	1	1	256-QAM	11.96	12.20	12.32	12.08	12.05	12.26	15.03	15.14	15.30		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
15	1	1	QPSK	17.23	17.38	17.32	17.06	17.34	17.37	20.16	20.37	20.36	19.13	0.0818
15	1	36		17.36	17.27	17.32	17.30	17.30	17.55	20.34	20.30	20.45		
15	19	9		17.21	17.28	17.25	17.30	17.45	17.45	20.27	20.38	20.36		
15	1	0		15.19	15.13	15.32	15.17	15.14	15.24	18.19	18.15	18.29		
15	1	37		15.36	15.23	15.27	15.63	15.35	15.43	18.51	18.30	18.36		
15	38	0		7.67	7.54	7.69	7.63	7.78	7.91	10.66	10.67	10.81		
15	1	1	16-QAM	16.61	16.65	16.58	16.62	16.85	17.05	19.63	19.76	19.83	18.51	0.0710
15	1	1	64-QAM	15.32	15.14	15.24	15.00	15.07	15.24	18.17	18.12	18.25		
15	1	1	256-QAM	12.23	12.23	12.33	12.01	12.07	12.22	15.13	15.16	15.29		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
20	1	1	QPSK	17.33	17.34	17.28	17.38	17.38	17.38	20.37	20.37	20.34	19.07	0.0807
20	1	49		17.21	17.31	17.33	17.34	17.29	17.42	20.29	20.31	20.39		
20	25	12		17.24	17.23	17.21	17.30	17.27	17.30	20.28	20.26	20.27		
20	1	0		15.32	15.29	15.41	15.29	15.36	15.37	18.32	18.34	18.40		
20	1	50		15.17	15.19	15.26	15.35	15.24	15.43	18.27	18.23	18.36		
20	51	0		7.59	7.65	7.72	7.69	7.74	7.85	10.65	10.71	10.80		
20	1	1	16-QAM	16.70	16.70	16.61	17.04	17.07	16.96	19.88	19.90	19.80	18.58	0.0721
20	1	1	64-QAM	15.37	15.34	15.33	15.18	15.12	15.23	18.29	18.24	18.29		
20	1	1	256-QAM	12.43	12.34	12.16	12.14	12.09	12.44	15.30	15.23	15.31		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
30	1	1	QPSK	17.11	17.36	17.33	17.35	17.25	17.31	20.24	20.32	20.33	19.15	0.0822
30	1	76		17.18	17.27	17.43	17.34	17.34	17.48	20.27	20.32	20.47		
30	39	19		17.18	17.23	17.27	17.33	17.31	17.49	20.27	20.28	20.39		
30	1	0		15.12	15.25	15.32	15.18	15.16	15.31	18.16	18.22	18.33		
30	1	77		15.11	15.35	15.37	15.24	15.26	15.62	18.19	18.32	18.51		
30	78	0		7.50	7.64	7.77	7.68	7.73	7.89	10.60	10.70	10.84		
30	1	1	16-QAM	16.89	16.72	16.73	16.78	16.97	16.95	19.85	19.86	19.85	18.54	0.0714
30	1	1	64-QAM	15.07	15.26	15.32	15.20	14.97	15.14	18.15	18.13	18.24		
30	1	1	256-QAM	12.08	12.31	12.39	12.27	12.06	12.17	15.19	15.20	15.29		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
40	1	1	QPSK	17.57	17.45	17.46	17.38	17.36	17.26	20.49	20.42	20.37	19.17	0.0826
40	1	104		17.34	17.47	17.39	17.35	17.34	17.48	20.36	20.42	20.45		
40	53	26		17.22	17.25	17.13	17.36	17.44	17.36	20.30	20.36	20.26		
40	1	0		15.44	15.42	15.43	15.36	15.23	15.22	18.41	18.34	18.34		
40	1	105		15.20	15.34	15.25	15.26	15.24	15.47	18.24	18.30	18.37		
40	106	0		7.57	7.60	7.52	7.75	7.72	7.83	10.67	10.67	10.69		
40	1	1	16-QAM	16.83	16.75	16.79	16.94	16.95	16.98	19.90	19.86	19.90	18.58	0.0721
40	1	1	64-QAM	15.53	15.48	15.50	15.27	15.18	15.20	18.41	18.34	18.36		
40	1	1	256-QAM	12.53	12.48	12.46	12.33	12.20	12.18	15.44	15.35	15.33		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
50	1	1	QPSK	17.16	16.82	14.67	17.14	17.06	13.54	20.16	19.95	17.15	18.84	0.0766
50	1	131		16.80	17.14	14.32	16.73	17.07	13.74	19.78	20.12	17.05		
50	67	33		16.88	17.01	14.31	17.09	17.21	13.55	20.00	20.12	16.96		
50	1	0		15.10	15.00	12.62	14.97	15.06	11.66	18.05	18.04	15.18		
50	1	132		14.79	14.97	12.35	14.73	15.13	11.54	17.77	18.06	14.97		
50	133	0		7.41	7.45	4.95	7.40	7.65	4.05	10.42	10.56	7.53		
50	1	1	16-QAM	16.64	16.49	14.12	16.72	16.48	13.29	19.69	19.50	16.74	18.37	0.0687
50	1	1	64-QAM	15.10	14.99	12.76	14.82	15.11	11.63	17.97	18.06	15.24		
50	1	1	256-QAM	12.16	10.03	9.56	11.85	9.16	8.65	15.02	12.63	12.14		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
60	1	1	QPSK	17.12	17.04	16.85	17.07	17.17	17.04	20.11	20.12	19.96	18.80	0.0759
60	1	160		17.06	16.98	16.97	17.06	16.94	17.19	20.07	19.97	20.09		
60	81	40		16.88	17.00	16.98	17.11	17.17	16.98	20.01	20.10	19.99		
60	1	0		15.05	14.99	14.84	14.99	14.97	14.92	18.03	17.99	17.89		
60	1	161		15.00	14.97	14.88	14.81	14.92	15.19	17.92	17.96	18.05		
60	162	0		7.47	7.38	7.36	7.50	7.58	7.50	10.50	10.49	10.44		
60	1	1	16-QAM	16.71	16.60	16.58	16.41	16.72	16.63	19.57	19.67	19.62	18.35	0.0684
60	1	1	64-QAM	15.04	15.02	14.71	15.11	14.79	15.01	18.09	17.92	17.87		
60	1	1	256-QAM	11.94	12.07	11.79	12.07	11.86	12.00	15.02	14.98	14.91		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
70	1	1	QPSK	17.02	17.10	17.17	16.87	17.05	17.13	19.96	20.09	20.16	18.84	0.0766
70	1	187		16.92	17.01	17.10	16.90	16.75	17.13	19.92	19.89	20.13		
70	95	47		16.85	17.05	16.96	16.91	17.14	16.97	19.89	20.11	19.98		
70	1	0		15.07	14.92	15.03	14.95	14.89	15.09	18.02	17.92	18.07		
70	1	188		14.91	15.00	15.05	14.83	14.91	15.22	17.88	17.97	18.15		
70	189	0		7.27	7.48	7.52	7.40	7.52	7.65	10.35	10.51	10.60		
70	1	1	16-QAM	16.52	16.46	16.45	16.69	16.65	16.43	19.62	19.57	19.45	18.30	0.0676
70	1	1	64-QAM	15.08	14.92	15.19	14.86	14.76	14.90	17.98	17.85	18.06		
70	1	1	256-QAM	12.11	12.10	12.08	11.86	11.79	11.93	15.00	14.96	15.02		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
80	1	1	QPSK	17.17	16.86	16.99	16.99	16.95	16.95	20.09	19.92	19.98	18.77	0.0753
80	1	215		16.92	16.81	16.84	16.94	16.99	17.07	19.94	19.91	19.97		
80	109	54		16.92	16.98	16.96	17.01	17.04	16.92	19.98	20.02	19.95		
80	1	0		14.99	14.81	14.89	14.94	15.02	14.92	17.98	17.93	17.92		
80	1	216		14.97	14.99	14.95	14.88	14.94	15.09	17.94	17.98	18.03		
80	217	0		7.34	7.43	7.26	7.48	7.51	7.54	10.42	10.48	10.41		
80	1	1	16-QAM	16.50	16.62	16.65	16.68	16.58	16.48	19.60	19.61	19.58	18.29	0.0675
80	1	1	64-QAM	15.22	14.70	14.66	14.76	15.09	14.98	18.01	17.91	17.83		
80	1	1	256-QAM	11.86	11.88	11.95	11.98	11.85	11.87	14.93	14.88	14.92		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
90	1	1	QPSK	17.01	16.99	16.87	17.17	17.05	16.98	20.10	20.03	19.94	18.78	0.0755
90	1	243		16.74	17.09	16.92	16.94	16.98	16.93	19.85	20.05	19.94		
90	123	61		16.79	17.06	17.07	16.91	17.06	17.03	19.86	20.07	20.06		
90	1	0		14.93	14.93	15.02	14.88	15.01	14.88	17.92	17.98	17.96		
90	1	244		14.90	15.11	15.10	15.02	14.87	15.22	17.97	18.00	18.17		
90	245	0		7.21	7.41	7.35	7.41	7.50	7.56	10.32	10.47	10.47		
90	1	1	16-QAM	16.88	16.31	16.24	16.61	16.88	16.18	19.76	19.61	19.22	18.44	0.0698
90	1	1	64-QAM	14.84	14.98	14.95	15.06	14.78	14.68	17.96	17.89	17.83		
90	1	1	256-QAM	11.87	11.93	12.04	11.95	11.94	11.71	14.92	14.95	14.89		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n77 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
100	1	1	QPSK	16.96	16.82	16.93	17.16	16.99	16.83	20.07	19.92	19.89	18.88	0.0773
100	1	271		16.99	17.15	17.23	17.05	17.10	17.15	20.03	20.14	20.20		
100	137	68		16.89	17.01	16.98	16.94	17.02	16.97	19.93	20.03	19.99		
100	1	0		15.00	14.87	14.93	14.96	15.04	14.72	17.99	17.97	17.84		
100	1	272		14.96	15.11	15.00	15.01	14.97	15.08	18.00	18.05	18.05		
100	273	0		7.32	7.43	7.41	7.47	7.55	7.41	10.41	10.50	10.42		
100	1	1	16-QAM	16.70	16.33	16.45	16.44	16.51	16.55	19.58	19.43	19.51	18.26	0.0670
100	1	1	64-QAM	14.95	15.03	14.95	15.01	14.94	14.68	17.99	18.00	17.83		
100	1	1	256-QAM	11.87	11.78	11.68	11.97	12.14	11.89	14.93	14.97	14.80		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



FCC RADIO TEST REPORT

Report No. : FG402228E

Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
10	1	1	QPSK	16.17	16.02	16.17	17.37	17.45	17.46	19.82	19.80	19.87	18.59	0.0723
10	1	22		16.11	15.98	16.28	17.26	17.46	17.44	19.73	19.79	19.91		
10	12	6		16.11	15.96	16.23	17.22	17.44	17.32	19.71	19.77	19.82		
10	1	0		14.18	13.96	14.26	15.23	15.42	15.41	17.75	17.76	17.88		
10	1	23		14.06	13.93	14.22	15.22	15.35	15.25	17.69	17.71	17.78		
10	24	0		6.53	6.45	6.69	7.62	7.82	7.88	10.12	10.20	10.34		
10	1	1	16-QAM	15.68	15.64	15.82	16.72	16.94	16.86	19.24	19.35	19.38	18.06	0.0640
10	1	1	64-QAM	14.03	13.81	14.02	15.17	15.44	15.40	17.65	17.71	17.77		
10	1	1	256-QAM	10.97	10.89	11.18	12.24	12.37	12.44	14.66	14.70	14.87		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
15	1	1	QPSK	16.17	16.02	16.27	17.39	17.60	17.29	19.83	19.89	19.82	18.64	0.0731
15	1	36		16.03	16.12	16.37	17.51	17.65	17.40	19.84	19.96	19.93		
15	19	9		16.10	16.00	16.16	17.33	17.46	17.37	19.77	19.80	19.82		
15	1	0		14.20	13.97	14.01	15.23	15.28	15.28	17.76	17.68	17.70		
15	1	37		14.04	14.10	14.29	15.39	15.51	15.38	17.78	17.87	17.88		
15	38	0		6.58	6.47	6.74	7.57	7.79	7.74	10.11	10.19	10.28		
15	1	1	16-QAM	15.74	15.64	15.64	16.81	16.93	16.98	19.32	19.34	19.37	18.05	0.0638
15	1	1	64-QAM	14.09	13.91	14.24	15.31	15.37	15.14	17.75	17.71	17.72		
15	1	1	256-QAM	11.07	10.98	11.25	12.30	12.34	12.20	14.74	14.72	14.76		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



FCC RADIO TEST REPORT

Report No. : FG402228E

Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
20	1	1	QPSK	16.22	15.98	16.06	17.46	17.54	17.22	19.89	19.84	19.69	18.64	0.0731
20	1	49		16.09	16.07	16.30	17.66	17.58	17.39	19.96	19.90	19.89		
20	25	12		16.11	16.07	16.18	17.37	17.41	17.33	19.80	19.80	19.80		
20	1	0		14.24	14.00	14.08	15.30	15.29	15.23	17.81	17.70	17.70		
20	1	50		14.07	14.05	14.20	15.41	15.53	15.35	17.80	17.86	17.82		
20	51	0		6.56	6.36	6.66	7.68	7.78	7.79	10.17	10.14	10.27		
20	1	1	16-QAM	15.68	15.49	15.68	16.78	16.89	16.73	19.28	19.26	19.25	17.96	0.0625
20	1	1	64-QAM	14.10	13.96	13.99	15.35	15.51	15.24	17.78	17.81	17.67		
20	1	1	256-QAM	11.39	10.95	11.08	12.15	12.43	12.29	14.80	14.76	14.74		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
30	1	1	QPSK	16.24	16.09	16.24	17.49	17.52	17.21	19.92	19.87	19.76	18.66	0.0735
30	1	76		15.95	16.03	16.42	17.40	17.54	17.45	19.75	19.86	19.98		
30	39	19		16.05	16.04	16.10	17.35	17.45	17.26	19.76	19.81	19.73		
30	1	0		14.13	14.03	14.21	15.25	15.35	15.36	17.74	17.75	17.83		
30	1	77		13.93	13.99	14.45	15.35	15.49	15.54	17.71	17.81	18.04		
30	78	0		6.46	6.47	6.69	7.62	7.86	7.75	10.09	10.23	10.26		
30	1	1	16-QAM	15.73	15.62	15.70	16.84	16.84	16.87	19.33	19.28	19.33	18.01	0.0632
30	1	1	64-QAM	14.02	14.00	14.25	15.30	15.39	15.20	17.72	17.76	17.76		
30	1	1	256-QAM	11.12	11.20	11.14	12.35	12.10	12.34	14.79	14.68	14.79		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
40	1	1	QPSK	16.32	16.37	16.21	17.57	17.55	17.34	20.00	20.01	19.82	18.69	0.0740
40	1	104		16.19	16.18	16.32	17.52	17.43	17.44	19.92	19.86	19.93		
40	53	26		16.03	16.09	16.03	17.48	17.36	17.23	19.83	19.78	19.68		
40	1	0		14.25	14.10	14.16	15.41	15.34	15.28	17.88	17.77	17.77		
40	1	105		14.22	14.14	14.28	15.38	15.36	15.45	17.85	17.80	17.91		
40	106	0		6.60	6.51	6.52	7.72	7.79	7.70	10.21	10.21	10.16		
40	1	1	16-QAM	15.94	15.80	15.81	16.98	17.07	16.81	19.50	19.49	19.35	18.18	0.0658
40	1	1	64-QAM	14.18	14.01	14.08	15.54	15.33	15.30	17.92	17.73	17.74		
40	1	1	256-QAM	11.24	11.12	11.15	12.48	12.36	12.32	14.91	14.79	14.78		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
50	1	1	QPSK	16.01	15.80	15.76	17.19	17.20	16.98	19.65	19.57	19.42	18.33	0.0681
50	1	131		15.77	15.72	15.77	17.07	17.01	16.94	19.48	19.42	19.40		
50	67	33		15.82	15.78	15.75	17.15	17.24	16.84	19.55	19.58	19.34		
50	1	0		14.00	13.77	13.73	14.98	14.96	14.86	17.53	17.42	17.34		
50	1	132		13.71	13.84	13.77	14.90	14.97	14.90	17.36	17.45	17.38		
50	133	0		6.20	6.20	6.27	7.47	7.54	7.35	9.89	9.93	9.85		
50	1	1	16-QAM	15.70	15.33	15.36	16.44	16.61	16.40	19.10	19.03	18.92	17.78	0.0600
50	1	1	64-QAM	13.92	13.60	13.66	15.16	15.05	14.95	17.59	17.40	17.36		
50	1	1	256-QAM	10.95	10.76	10.68	12.08	12.07	11.90	14.56	14.47	14.34		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
60	1	1	QPSK	16.05	13.58	15.73	17.13	14.33	17.12	19.63	16.98	19.49	18.42	0.0695
60	1	160		15.81	13.80	16.09	17.01	13.96	17.28	19.46	16.89	19.74		
60	81	40		15.92	13.82	15.85	17.25	14.19	16.97	19.65	17.02	19.46		
60	1	0		13.93	11.60	13.75	14.99	12.33	14.98	17.50	14.99	17.42		
60	1	161		13.78	11.63	13.90	14.94	11.81	15.12	17.41	14.73	17.56		
60	162	0		6.28	4.12	6.27	7.56	4.62	7.43	9.98	7.39	9.90		
60	1	1	16-QAM	15.70	13.22	15.28	16.62	13.68	16.51	19.19	16.47	18.95	17.87	0.0612
60	1	1	64-QAM	13.86	11.49	13.62	15.04	12.36	15.03	17.50	14.96	17.39		
60	1	1	256-QAM	10.94	8.51	10.69	12.07	9.47	11.97	14.55	12.03	14.39		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
70	1	1	QPSK	16.03	15.73	15.62	17.11	17.11	17.39	19.61	19.48	19.60	18.29	0.0675
70	1	187		15.70	15.75	15.86	17.05	16.87	17.12	19.44	19.36	19.55		
70	95	47		15.76	15.82	15.97	17.01	17.15	17.07	19.44	19.55	19.57		
70	1	0		13.97	13.72	5.92	15.05	15.03	10.06	17.55	17.43	11.48		
70	1	188		13.55	13.79	14.04	14.99	14.94	15.14	17.34	17.41	17.64		
70	189	0		6.12	6.16	6.36	7.36	7.45	7.60	9.79	9.86	10.03		
70	1	1	16-QAM	15.64	15.44	15.31	16.64	16.57	16.71	19.18	19.05	19.08	17.86	0.0611
70	1	1	64-QAM	13.81	13.54	13.54	14.99	15.06	15.34	17.45	17.38	17.54		
70	1	1	256-QAM	10.90	8.49	10.81	12.06	9.52	12.27	14.53	12.05	14.61		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
80	1	1	QPSK	16.06	15.70	15.69	17.25	17.15	17.18	19.71	19.50	19.51	18.39	0.0690
80	1	215		15.64	15.92	15.89	17.09	17.02	17.21	19.44	19.52	19.61		
80	109	54		15.79	15.73	15.92	17.06	17.20	17.03	19.48	19.54	19.52		
80	1	0		13.90	13.65	13.59	14.93	15.00	15.11	17.46	17.39	17.43		
80	1	216		13.62	13.85	13.91	15.05	14.92	15.18	17.40	17.43	17.60		
80	217	0		6.19	6.30	6.29	7.42	7.46	7.50	9.86	9.93	9.95		
80	1	1	16-QAM	15.61	15.35	15.25	16.69	16.64	16.61	19.19	19.05	18.99	17.87	0.0612
80	1	1	64-QAM	13.79	13.58	13.53	15.01	15.08	15.09	17.45	17.40	17.39		
80	1	1	256-QAM	10.81	10.69	10.73	12.10	12.07	12.16	14.51	14.44	14.51		
Limit	EIRP < 23dBm/10MHz			Result									Pass	



Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
90	1	1	QPSK	16.03	15.81	15.71	17.25	17.16	16.97	19.69	19.55	19.40	18.37	0.0687
90	1	243		15.62	15.78	15.98	17.14	16.91	17.25	19.46	19.39	19.67		
90	123	61		15.64	15.74	15.81	17.00	17.20	17.13	19.38	19.54	19.53		
90	1	0		13.87	13.66	13.67	15.05	15.09	15.08	17.51	17.44	17.44		
90	1	244		13.61	13.89	14.09	15.09	14.93	15.14	17.42	17.45	17.66		
90	245	0		6.08	6.15	6.36	7.37	7.46	7.51	9.78	9.86	9.98		
90	1	1	16-QAM	15.63	15.39	15.27	16.58	16.64	16.40	19.14	19.07	18.88	17.82	0.0605
90	1	1	64-QAM	13.80	13.59	13.53	15.00	15.14	15.02	17.45	17.44	17.35		
90	1	1	256-QAM	10.91	10.66	10.59	12.03	12.18	12.00	14.52	14.50	14.36		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

Part96 NR n78 Maximum Average Power [dBm], DG = -1.32 dBi														
BW	RB	RB	Mod	Antenna 8			Antenna 9			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
100	1	1	QPSK	15.95	15.75	15.82	17.26	17.31	16.99	19.66	19.61	19.45	18.34	0.0682
100	1	271		15.71	15.87	15.88	17.19	17.09	17.06	19.52	19.53	19.52		
100	137	68		15.77	15.80	15.81	17.03	17.12	17.00	19.46	19.52	19.46		
100	1	0		13.96	13.78	13.62	15.01	15.14	14.86	17.53	17.52	17.29		
100	1	272		13.72	13.92	13.99	15.01	14.95	15.09	17.42	17.48	17.59		
100	273	0		6.14	6.26	6.28	7.46	7.49	7.40	9.86	9.93	9.89		
100	1	1	16-QAM	15.62	15.42	15.23	16.57	16.62	16.37	19.13	19.07	18.85	17.81	0.0604
100	1	1	64-QAM	13.88	13.60	13.56	15.04	15.17	14.91	17.51	17.47	17.30		
100	1	1	256-QAM	10.86	10.63	10.67	12.06	12.17	11.94	14.51	14.48	14.36		
Limit	EIRP < 23dBm/10MHz			Result									Pass	

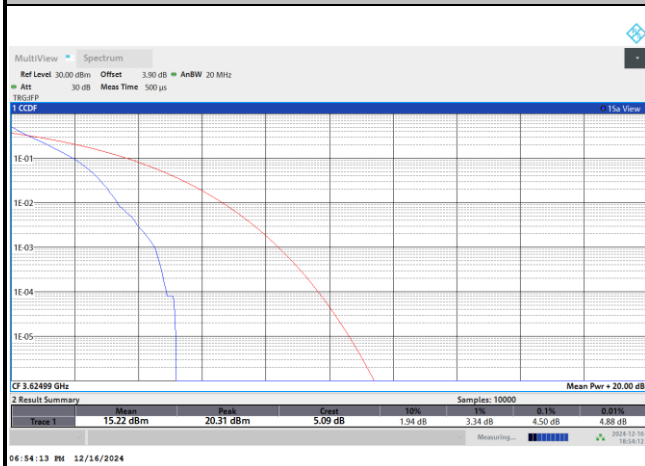
**FR1 n48****Peak-to-Average Ratio**

Mode	FR1 n48 / 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	4.50	4.86	5.90	5.92	PASS
Mode	FR1 n48 / 20MHz / DFT-S OFDM				
Mod.	256QAM				Limit: 13dB
RB Size	Full RB				Result
Middle CH	6.42				PASS

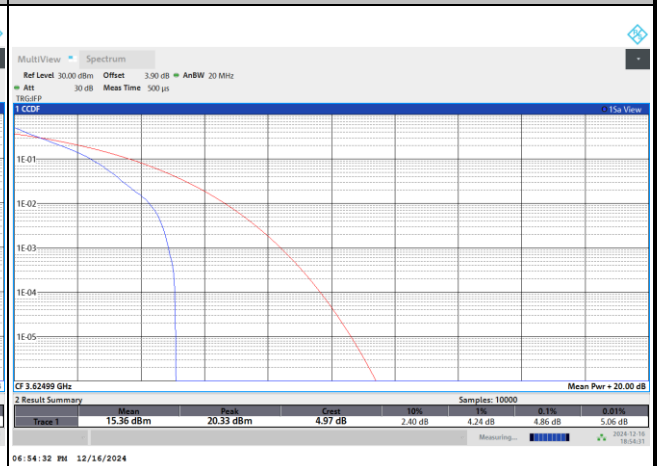


FR1 n48 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

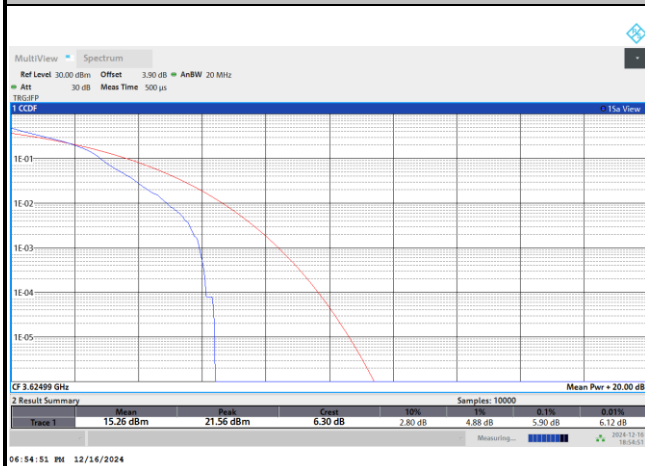
PI/2 BPSK



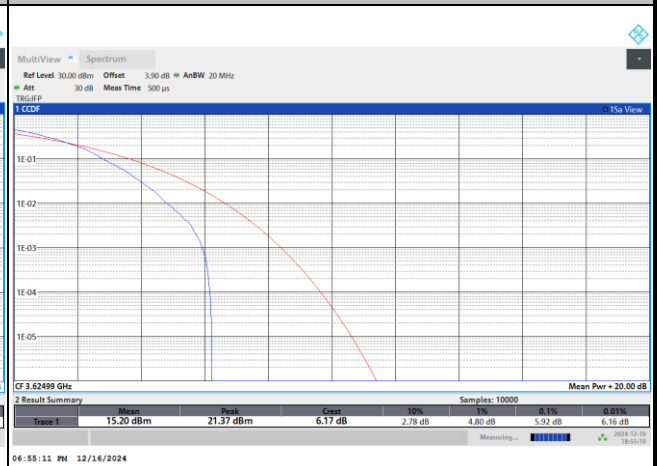
QPSK



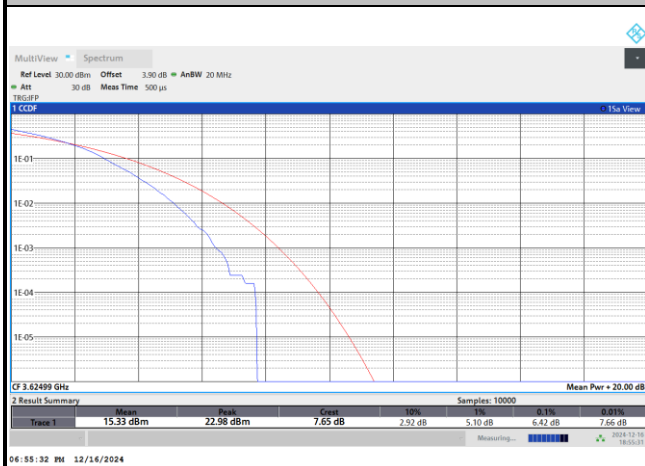
16QAM



64QAM



256QAM



**26dB Bandwidth**

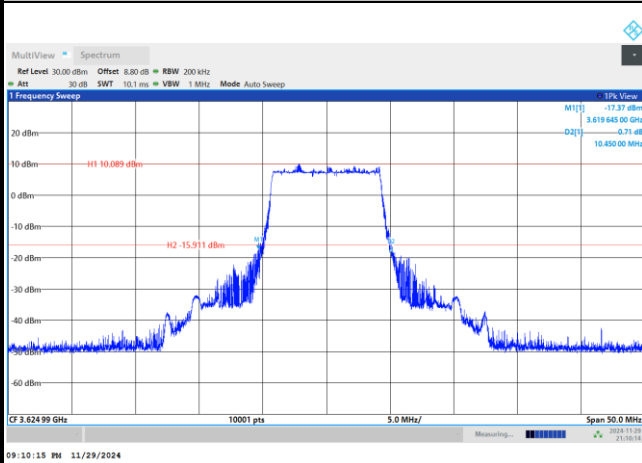
Mode	FR1 n48 : 26dB BW(MHz) / DFT-S OFDM							
BW	10MHz	15MHz	20MHz	30MHz	40MHz	50MHz	60MHz	70MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	10.44	14.42	20.04	31.40	39.82	-	-	-
BW	80MHz	90MHz	100MHz					
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK					
Middle CH	-	-	-					

Mode	FR1 n48 : 26dB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		30MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	10.28	10.19	15.20	15.15	21.18	20.56	32.38	32.99
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	11.39	10.28	15.16	15.21	20.42	20.41	30.68	33.21
BW	40MHz		50MHz		60MHz		70MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	42.47	43.22	-	-	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	41.16	42.55	-	-	-	-	-	-
BW	80MHz		90MHz		100MHz			
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM		
Middle CH	-	-	-	-	-	-		
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM		
Middle CH	-	-	-	-	-	-		



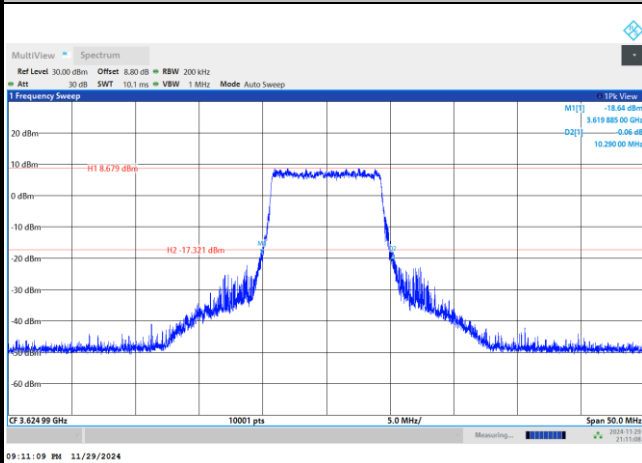
FR1 n48 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

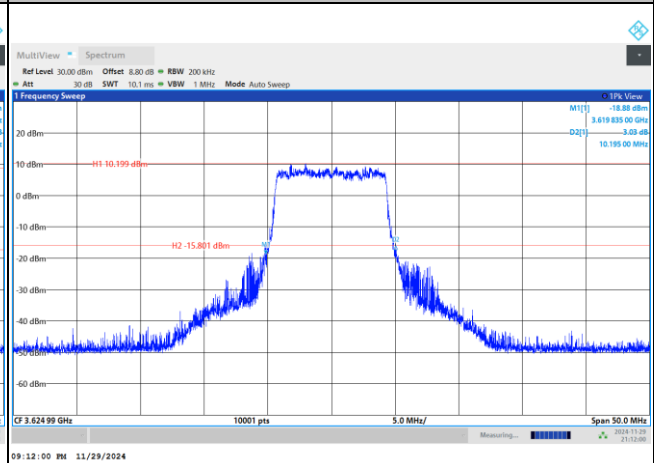


FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

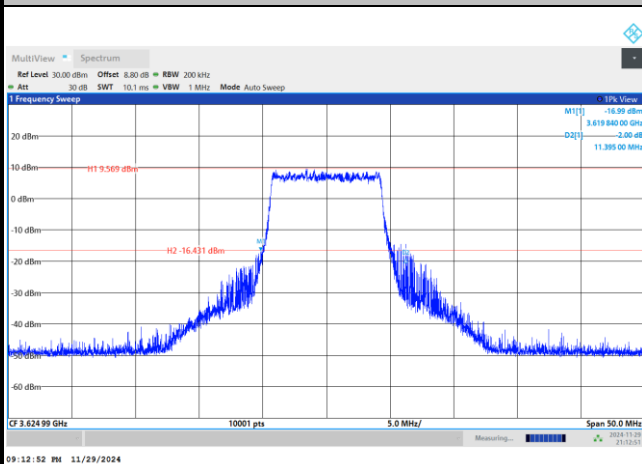
QPSK



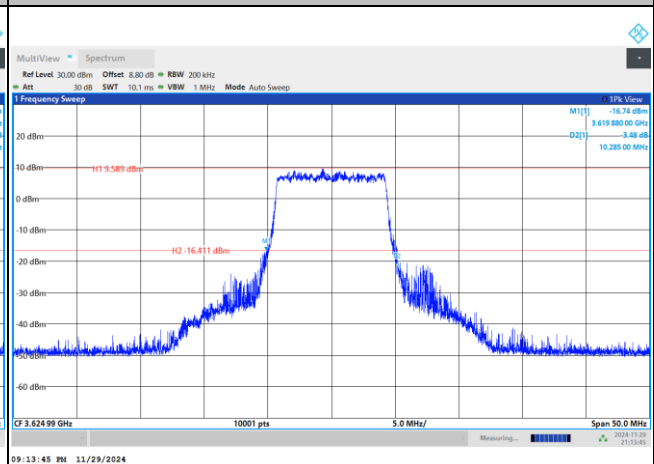
16QAM



64QAM



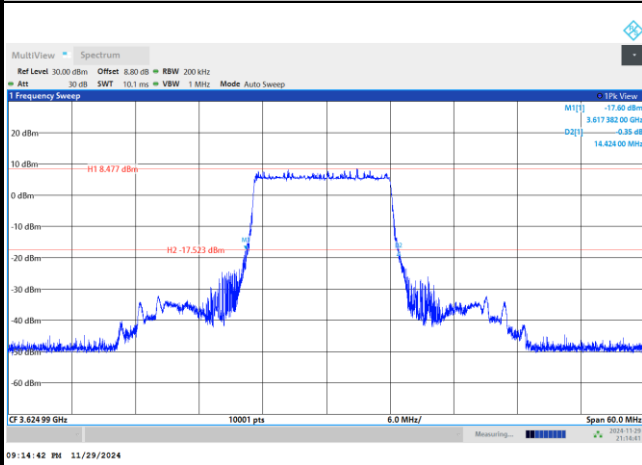
256QAM





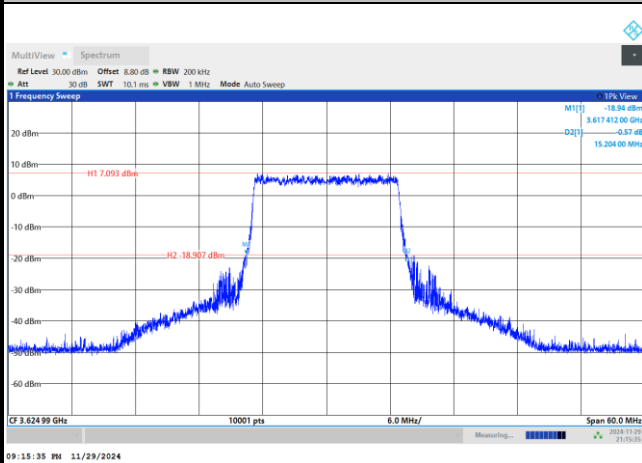
FR1 n48 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

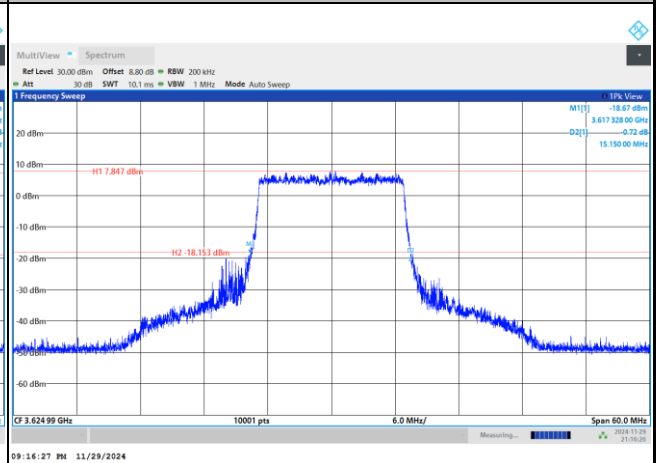


FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

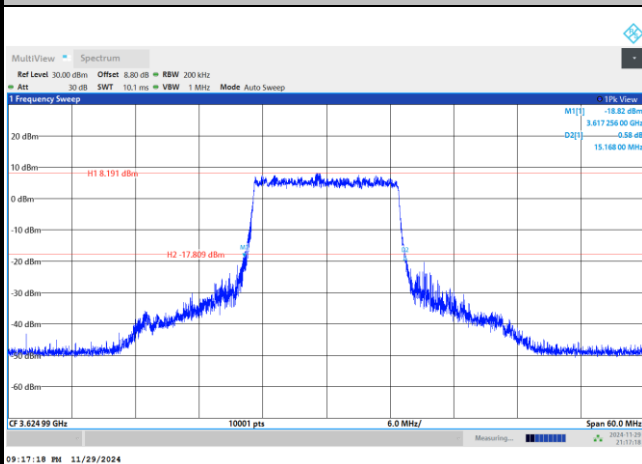
QPSK



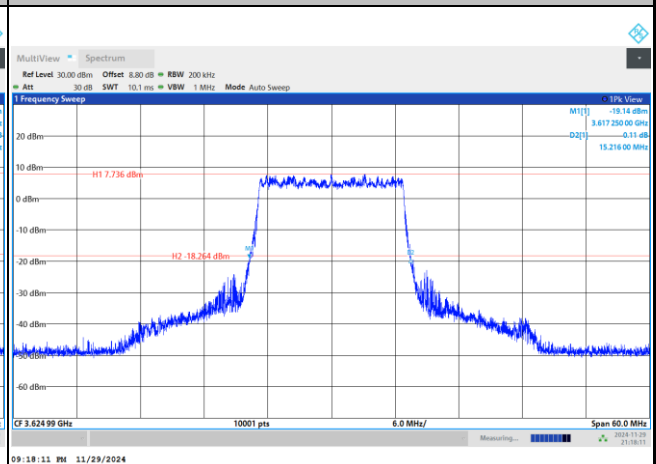
16QAM



64QAM



256QAM

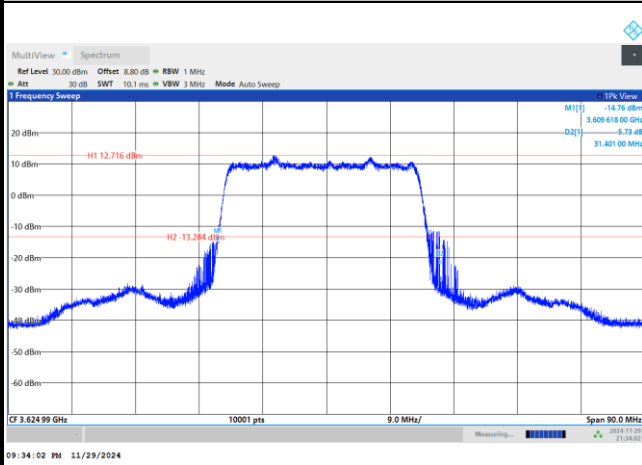






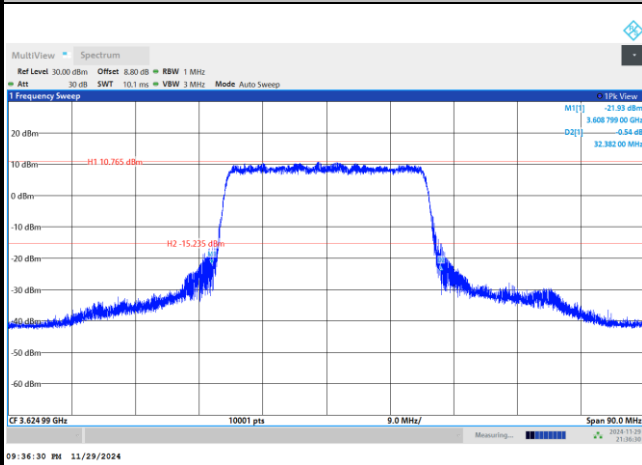
FR1 n48 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

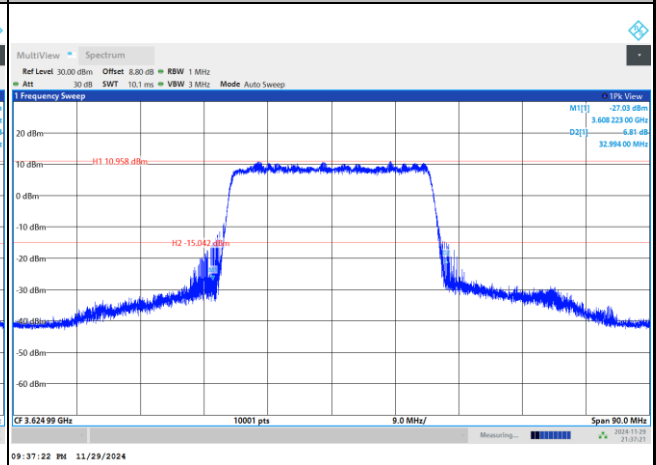


FR1 n48 / 30MHz / CP OFDM / Middle Channel / Full RB

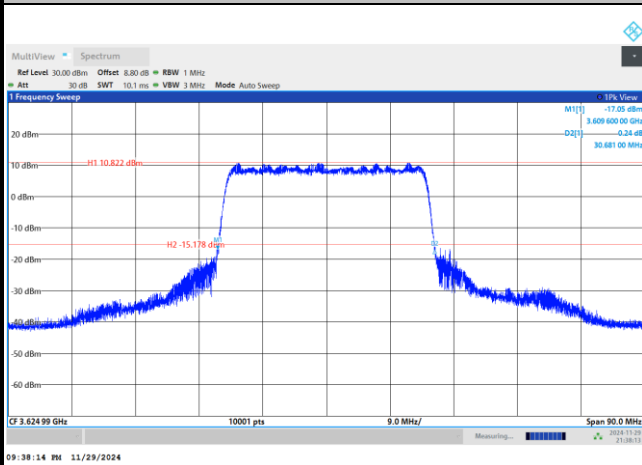
QPSK



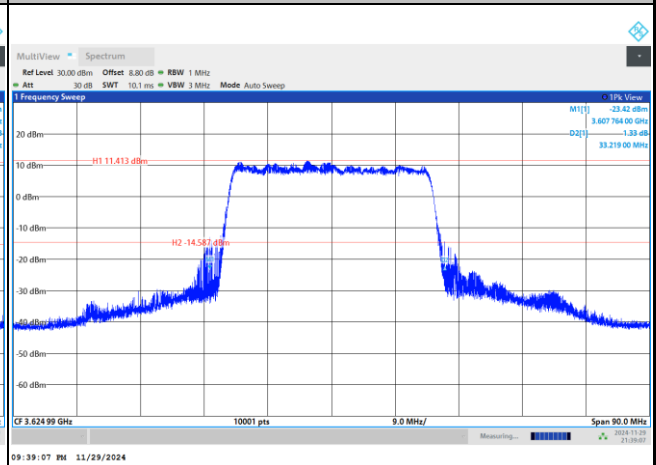
16QAM



64QAM



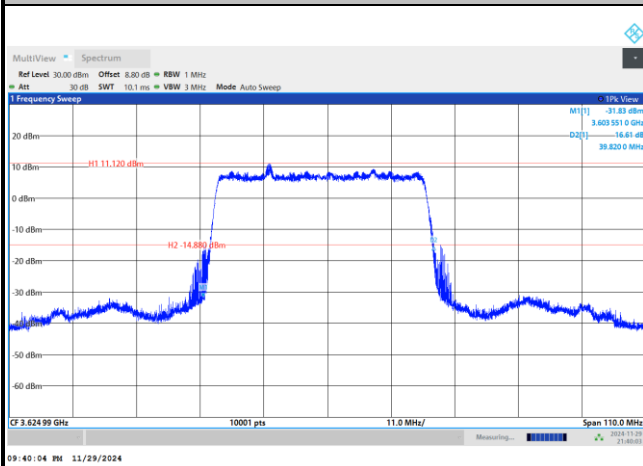
256QAM





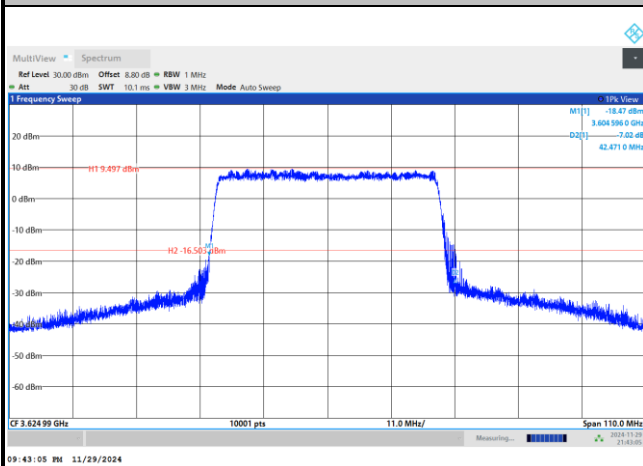
FR1 n48 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

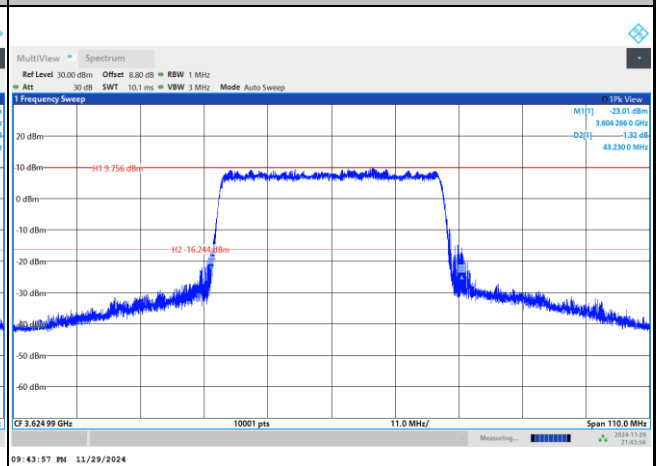


FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

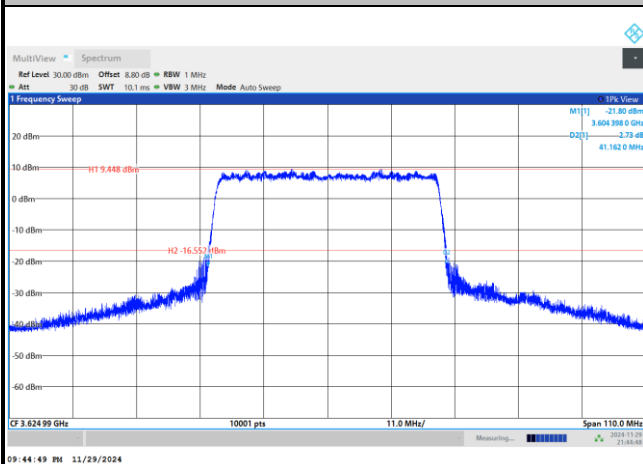
QPSK



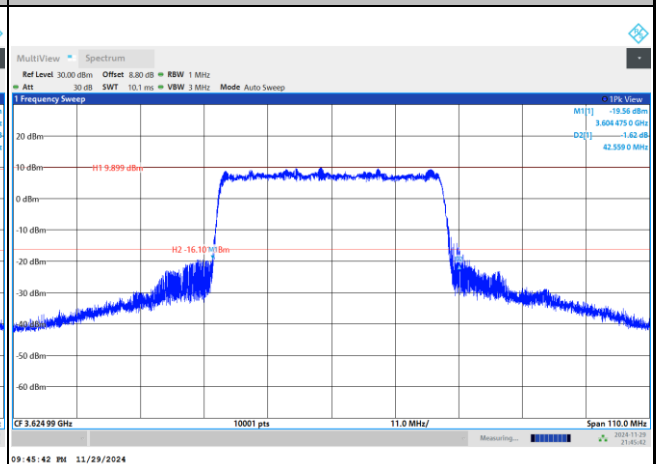
16QAM



64QAM



256QAM



**Occupied Bandwidth**

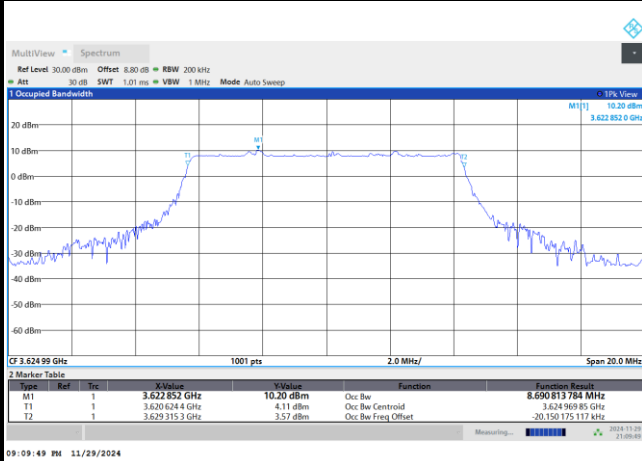
Mode	FR1 n48 : OB BW(MHz) / DFT-S OFDM							
BW	10MHz	15MHz	20MHz	30MHz	40MHz	50MHz	60MHz	70MHz
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK
Middle CH	8.69	12.91	18.03	27.24	35.89	-	-	-
BW	80MHz	90MHz	100MHz					
Mod.	PI/2 BPSK	PI/2 BPSK	PI/2 BPSK					
Middle CH	-	-	-					

Mode	FR1 n48 : OB BW(MHz) / CP OFDM							
BW	10MHz		15MHz		20MHz		30MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	8.66	8.71	13.64	13.66	18.34	18.35	28.21	28.19
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	8.71	8.68	13.61	13.61	18.35	18.38	28.17	28.23
BW	40MHz		50MHz		60MHz		70MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	38.05	38.09	-	-	-	-	-	-
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	38.18	38.27	-	-	-	-	-	-
BW	80MHz		90MHz		100MHz			
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM		
Middle CH	-	-	-	-	-	-		
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM		
Middle CH	-	-	-	-	-	-		



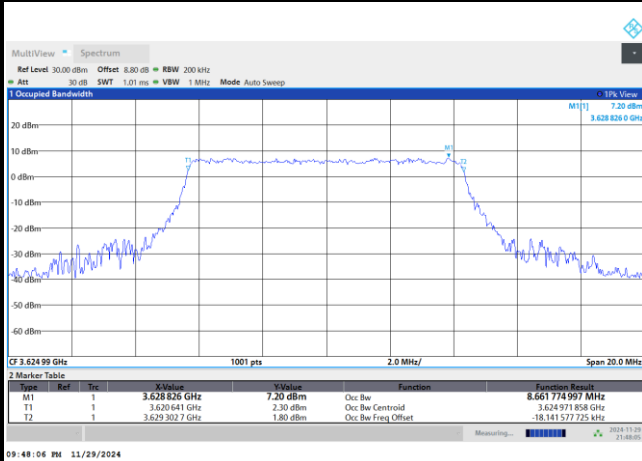
FR1 n48 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

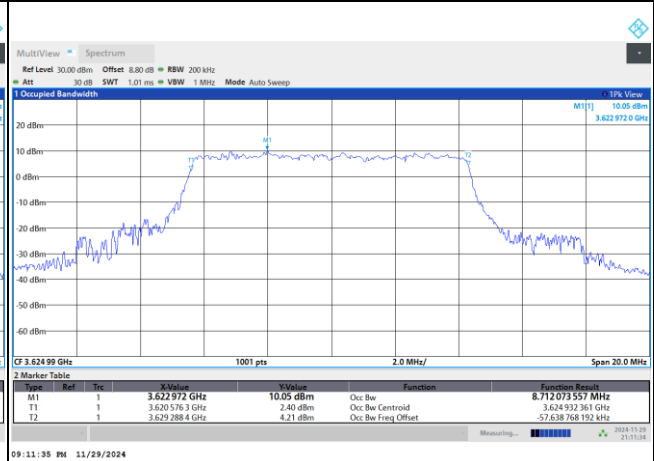


FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

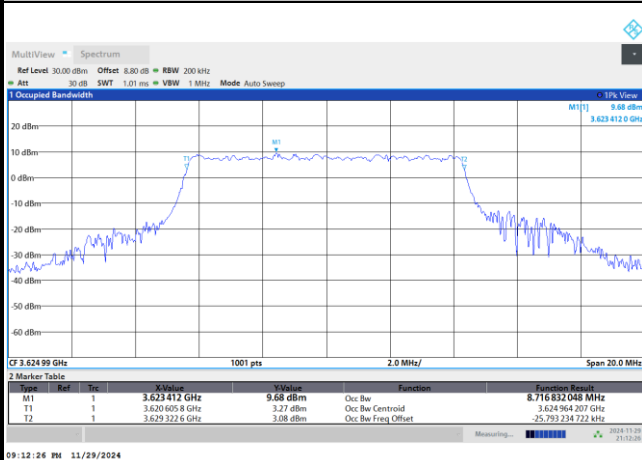
QPSK



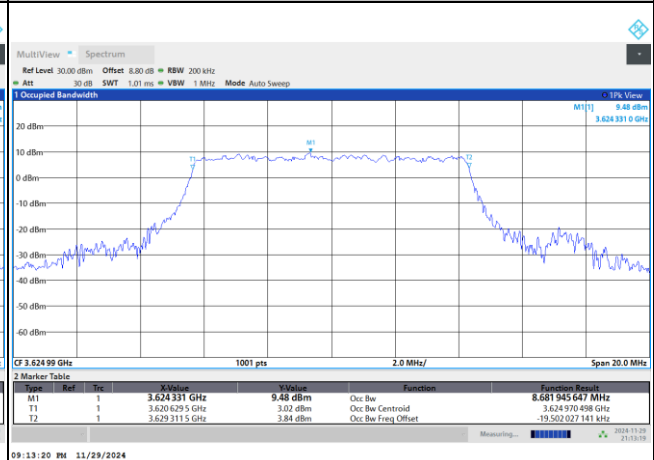
16QAM



64QAM



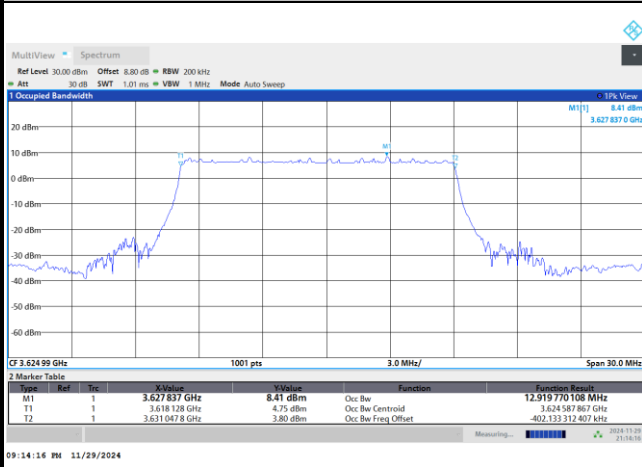
256QAM





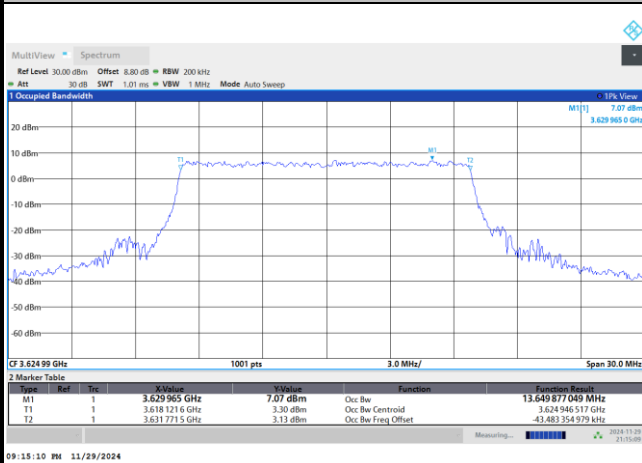
FR1 n48 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

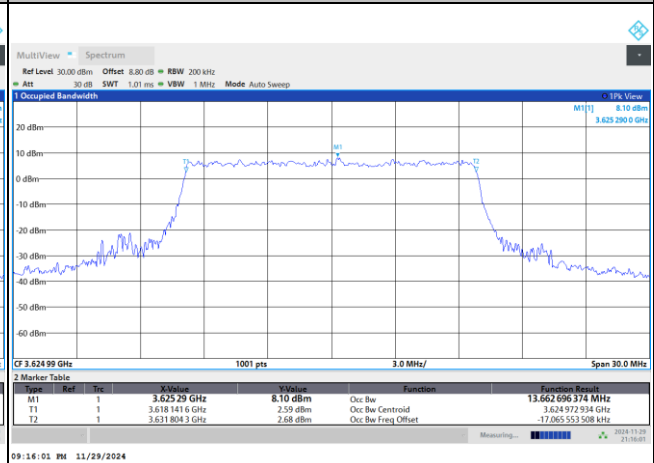


FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

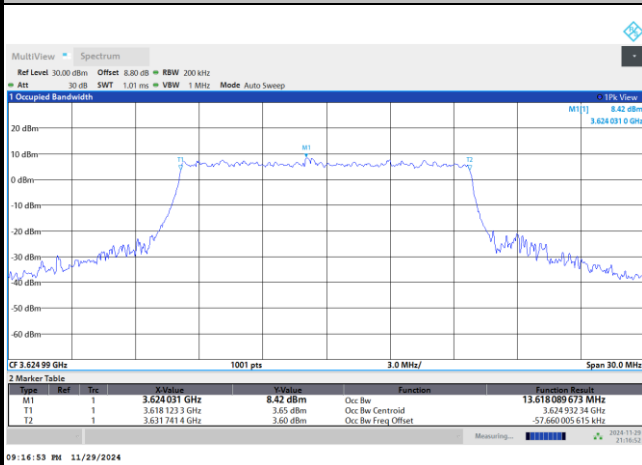
QPSK



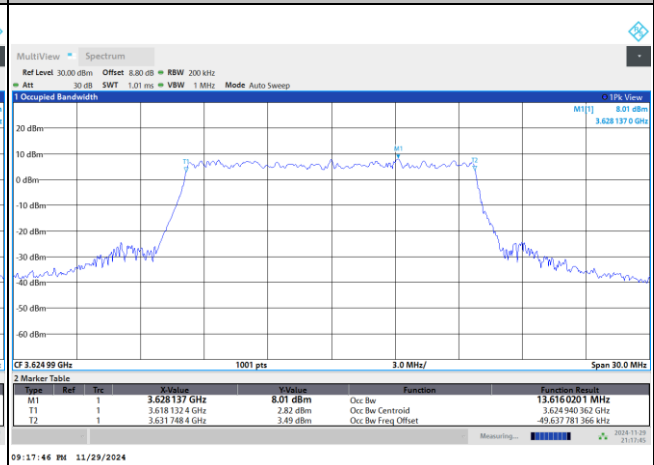
16QAM



64QAM



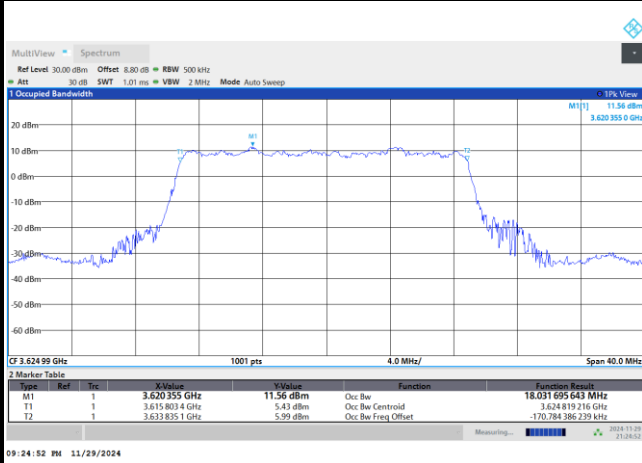
256QAM





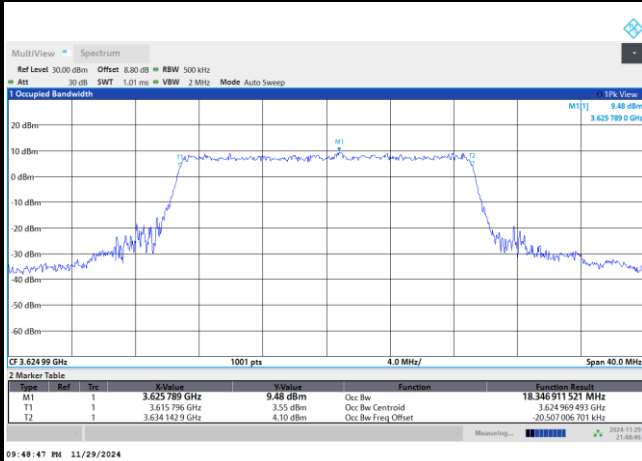
FR1 n48 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

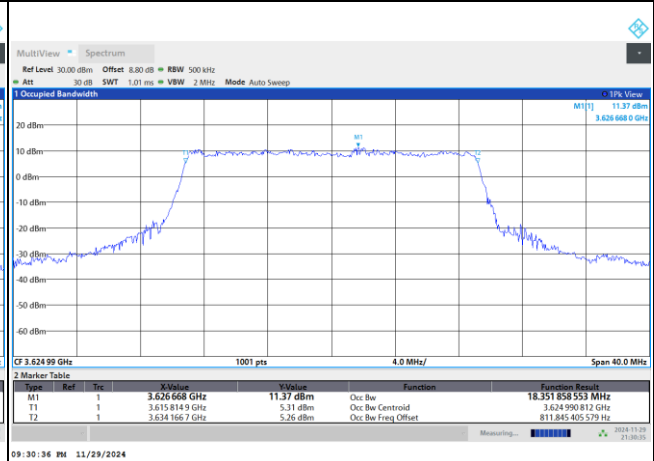


FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

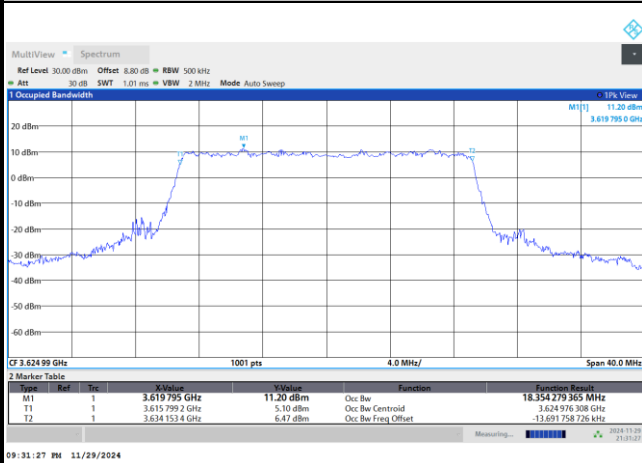
QPSK



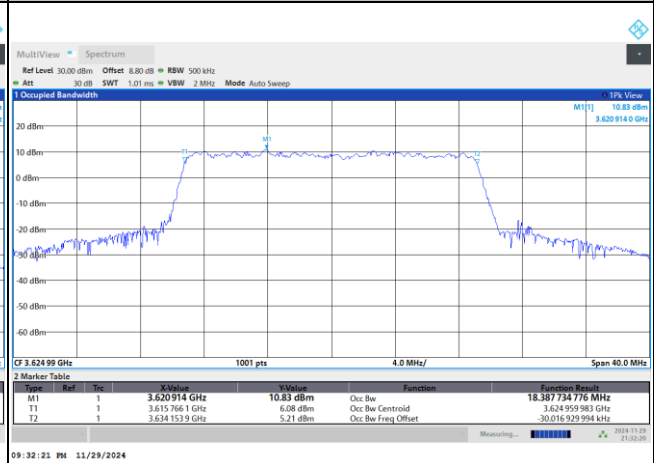
16QAM



64QAM



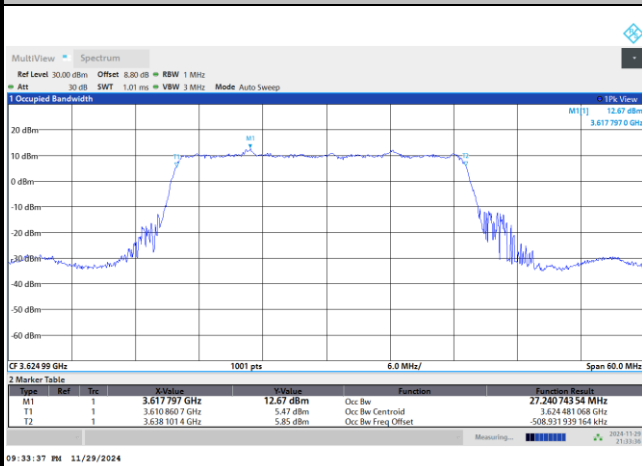
256QAM





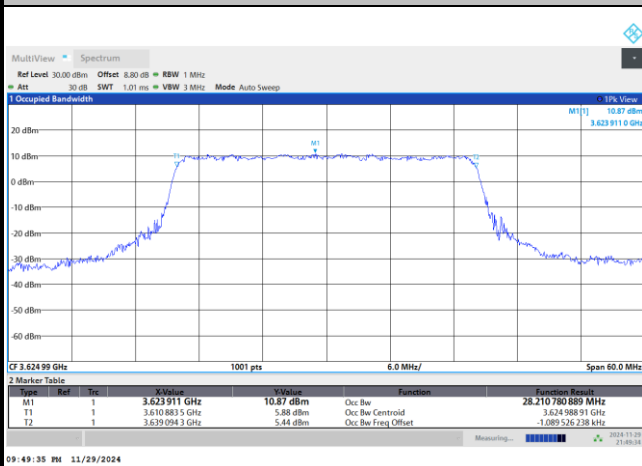
FR1 n48 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

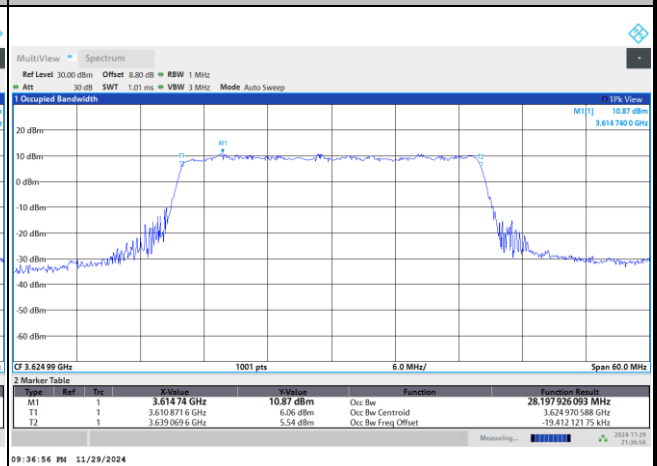


FR1 n48 / 30MHz / CP OFDM / Middle Channel / Full RB

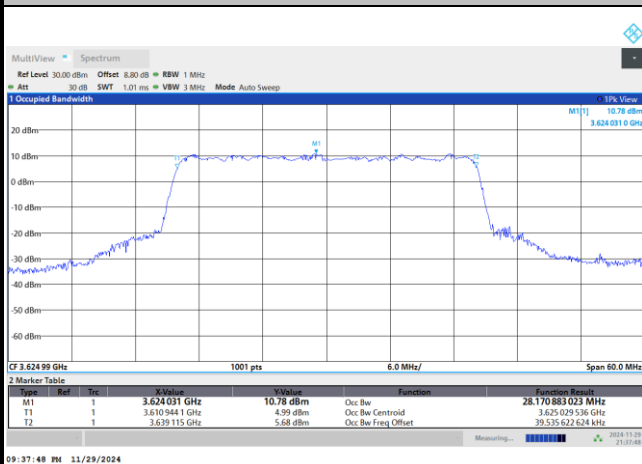
QPSK



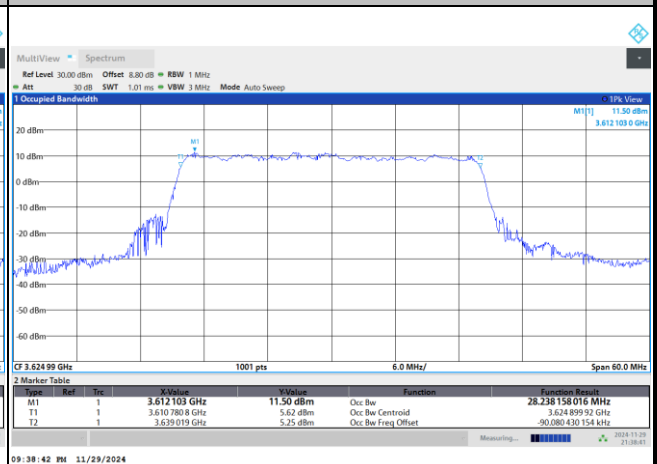
16QAM



64QAM



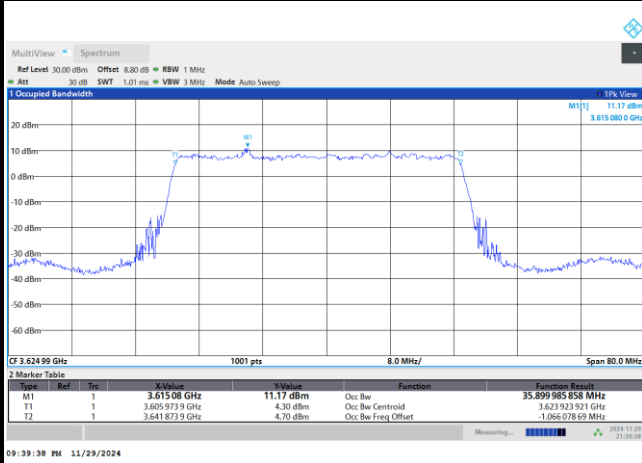
256QAM





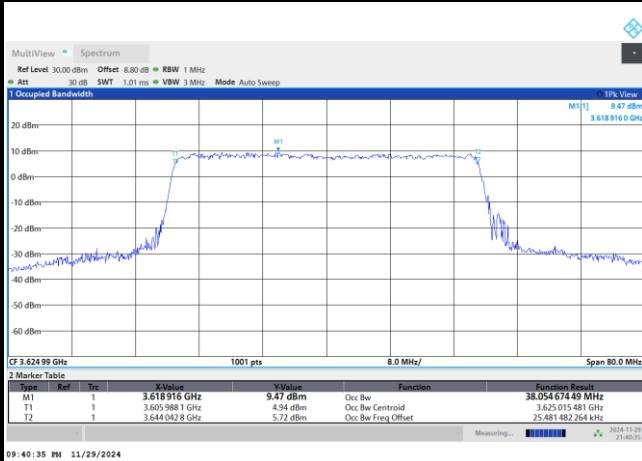
FR1 n48 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

PI/2 BPSK

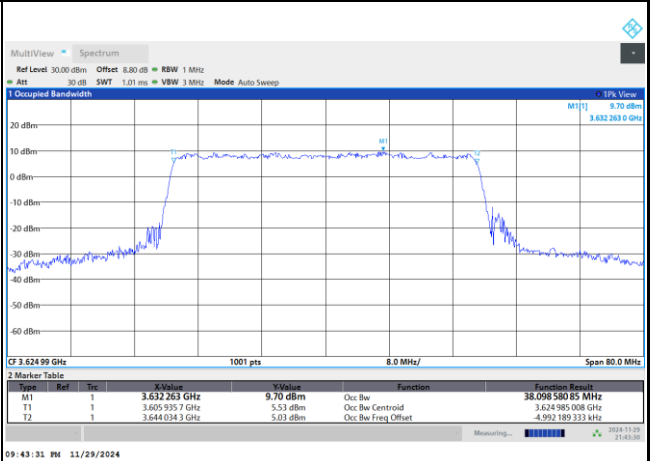


FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

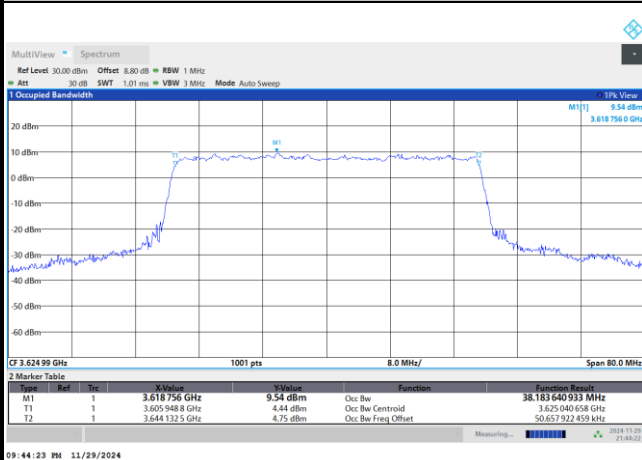
QPSK



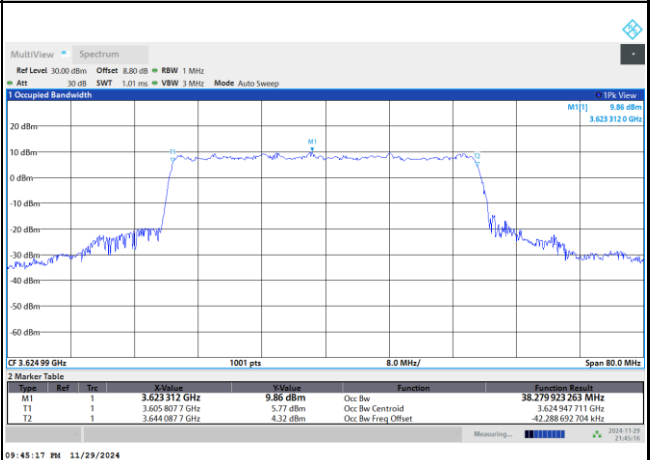
16QAM



64QAM

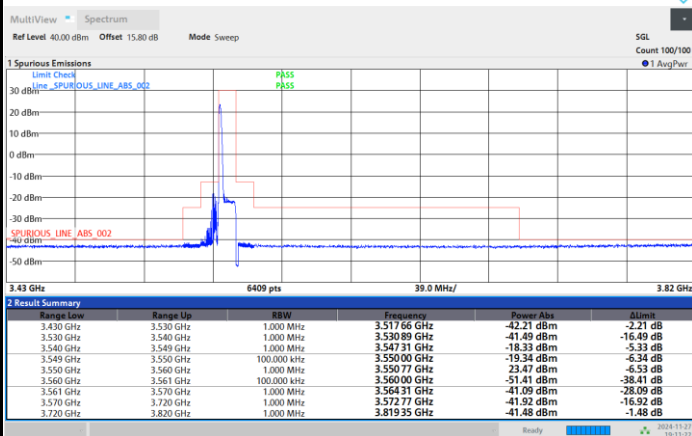


256QAM

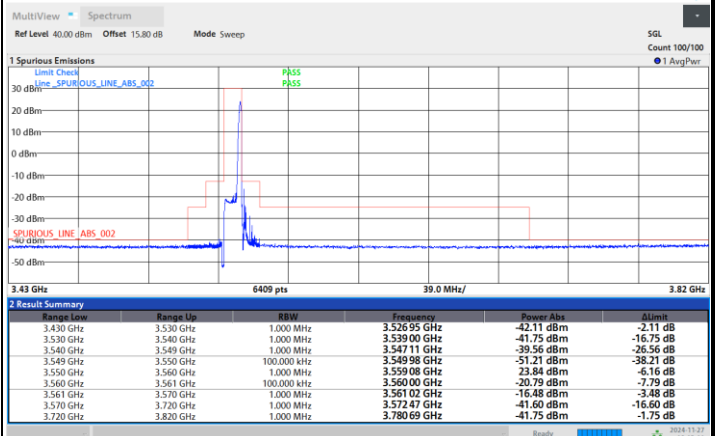


**Unwanted Emission (MASK)**

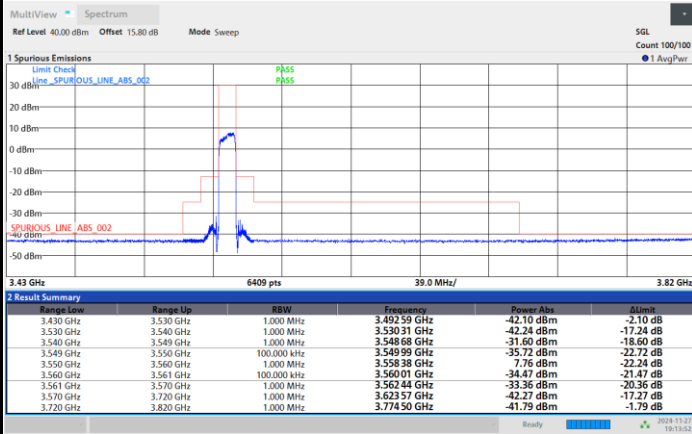
FR1 n48 / 10MHz / DFT-S OFDM / PI/2 BPSK

Lowest Channel**1RB0**

07:11:23 PM 11/27/2024

1RBmax

07:13:12 PM 11/27/2024

Full RB

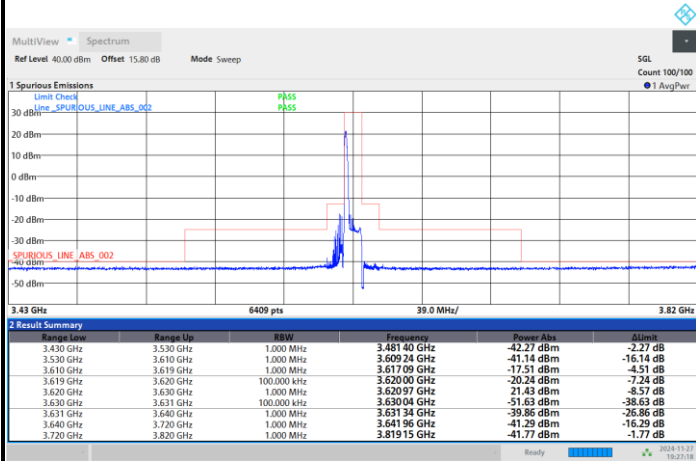
07:13:53 PM 11/27/2024



FR1 n48 / 10MHz / DFT-S OFDM / PI/2 BPSK

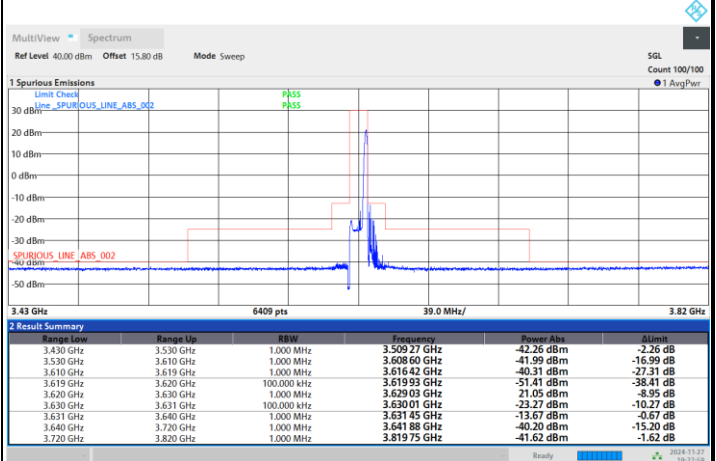
Middle Channel

1RB0



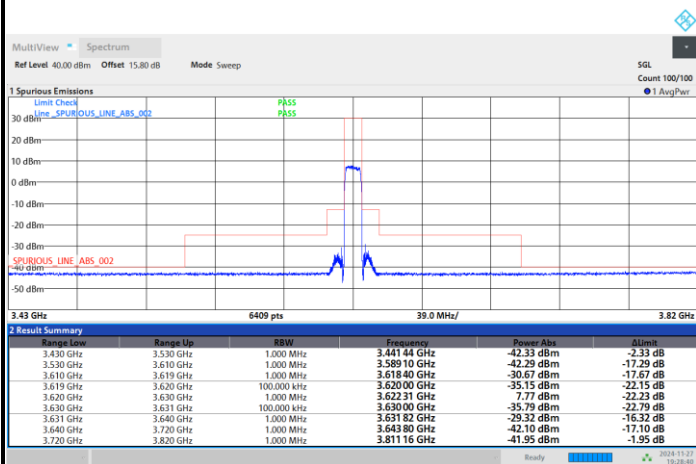
07:27:19 PM 11/27/2024

1RBmax



07:28:00 PM 11/27/2024

Full RB



07:28:41 PM 11/27/2024