

FCC Test Report (Part 96 – NR B48)

Report No.: RFBEDV-WTW-P24110383-1

FCC ID: VUIPR1450-48

Test Model: PR1450-48I

Series Model: PR1450-48E (Refer to item 3.1 for the more details)

Received Date: 2024/11/15

Test Date: 2024/11/26 ~ 2025/3/18

Issued Date: 2025/4/2

Applicant: PEGATRON CORPORATION

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**FCC Registration /
Designation Number:** 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
RFBEDV-WTW-P24110383-1	Original Release	2025/4/2

1 Certificate of Conformity

Product: 5G NR O-RU

Brand: PEGATRON

Test Model: PR1450-48I

Series Model: PR1450-48E (Refer to item 3.1 for the more details)

Sample Status: Engineering Sample

Applicant: PEGATRON CORPORATION

Test Date: 2024/11/26 ~ 2025/3/18

Standards: 47 CFR FCC Part 96

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Vera Huang , **Date:** 2025/4/2
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Approved by : Jeremy Lin , **Date:** 2025/4/2
Jeremy Lin / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 96			
FCC Clause	Test Item	Result	Remarks
2.1046 96.41(b)	Maximum Peak Output Power	Pass	Meet the requirement of limit.
2.1047 96.41(a)	Modulation Characteristics	Pass	Meet the requirement of limit.
2.1046 96.41(b)	Maximum Power Spectral Density	Pass	Meet the requirement of limit.
96.41(g)	Peak to Average Ration	Pass	Meet the requirement of limit.
2.1049	Emission Bandwidth	Pass	Meet the requirement of limit.
2.1055	Frequency Stability	Pass	Meet the requirement of limit.
2.1051 96.41(e)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
2.1053 96.41(e)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -0.12dB at 7110.00MHz and 7380.00MHz.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	2.51 dB
	30 MHz ~ 1 GHz	3.44 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	2.23 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	5G NR O-RU	
Brand	PEGATRON	
Test Model	PR1450-48I	
Series Model	PR1450-48E	
Model Difference	Refer to Note	
Hardware Version	1.1	
Firmware Version	1.0.2.2p2	
Sample Status	Engineering Sample	
Power Supply Rating	Refer to Note	
Modulation Type	QPSK, 16QAM, 64QAM, 256QAM	
Operating Frequency	NR Band 48 (Channel Bandwidth 10MHz)	3555.00MHz ~ 3694.98MHz
	NR Band 48 (Channel Bandwidth 20MHz)	3560.01MHz ~ 3690.00MHz
	NR Band 48 (Channel Bandwidth 40MHz)	3570.00MHz ~ 3679.98MHz

Note:

1. All models are listed as below.

Model	Difference
PR1450-48I	Internal Antenna
PR1450-48E	External Antenna

2. The EUT uses the following support unit.

Item	Brand	Model	Specification
AC Adapter	ASIAN POWER DEVICES	DA-60Z12	AC Input: 100-240V~50-60Hz; 1.5A Max. DC Output: 12.0V; 5.0A; 60.0W DC Output Cable: 1.46m without core
POE	DELTA	ADH-65AR B	AC Input: 100-240V; 50-60 Hz; 2.0 A DC Output: 56.0V; 1.161A; 65.1W
10G LR SFP+ TRANSCEIVER	JESS-LINK	TNP58260BGIB10-A	-
LAN Cable	TUNG-LI	6U423-063	1.5m non-shielded cable without core
FIBER OPTICAL CABLE	JESS-LINK	PK3OPU00WW40-1	10m non-shielded cable without core

* After pretesting, Adapter was the worst case and chosen for final test.

3. The EUT supports the following configuration.

5GNR	FCC 5G FR1	
	1CC_SCS_30kHz	2CC_SCS_30kHz
Bandwidth (MHz)	10/20/40	20+20 / 40+40

4. The following antennas were provided to the EUT.

<Internal antenna>

	Ant. 0	Ant. 1	Ant. 2	Ant. 3
Antenna Type	PIFA	PIFA	PIFA	PIFA
Connector Type	ipex(MHF)	ipex(MHF)	ipex(MHF)	ipex(MHF)
Frequency Range (MHz)	Antenna Gain (dBi)			
3500	8.11	7.92	7.47	8.19
3600	7.99	8.87	7.36	9.21
3700	8.28	8.11	7.51	8.03

Note:

a. Antenna gain with boldface were selected in calculating the directional gain.

Uncorrelated Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/4] = 8.51\text{dBi}$

b. This device operates with Multiple Antennas Using Multiple-input, Multiple-output (MIMO) Technology for uncorrelated Transmission.

c. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

<External antenna>

	Ant. 0	Ant. 1	Ant. 2	Ant. 3
Antenna Type	Dipole	Dipole	Dipole	Dipole
Connector Type	BIG SMA Straight Plug Standard	BIG SMA Straight Plug Standard	BIG SMA Straight Plug Standard	BIG SMA Straight Plug Standard
Frequency Range (MHz)	Antenna Gain (dBi)			
3500	3.78	3.78	3.78	3.78
3600	4.33	4.33	4.33	4.33
3700	3.97	3.97	3.97	3.97

Note:

a. Uncorrelated Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/4] = 4.33\text{dBi}$

b. This device operates with Multiple Antennas Using Multiple-input, Multiple-output (MIMO) Technology for uncorrelated Transmission.

c. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

5. 2CC Antenna configuration: Ant.0+2 / Ant.1+3 for full 2CC bandwidth.

6. The antenna combination: "Ant 0+1" is for lower side frequency (CC0) and the other "Ant 2+3" for higher side frequency (CC1).

7. Due to the RF characteristics of the product, each antenna port in the 2CC will transmit different individual carriers.

8. EUT Overview

Mode A1

NR Band 48				
Bandwidth	Max. EIRP Power (Per 10M Power)			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 10MHz	841.395mW (29.25 dBm/ 10MHz)	809.096mW (29.08 dBm/ 10MHz)	797.995mW (29.02 dBm/ 10MHz)	803.526mW (29.05 dBm/ 10MHz)
Channel Bandwidth 20MHz	916.220mW (29.62 dBm/ 10MHz)	887.156mW (29.48 dBm/ 10MHz)	885.116mW (29.47 dBm/ 10MHz)	887.156mW (29.48 dBm/ 10MHz)
Channel Bandwidth 40MHz	941.890mW (29.74 dBm/ 10MHz)	909.913mW (29.59 dBm/ 10MHz)	922.571mW (29.65 dBm/ 10MHz)	920.450mW (29.64 dBm/ 10MHz)
Bandwidth	Max. EIRP Power (Full power)			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 10MHz	841.395mW (29.25 dBm/ Channel Bandwidth)	809.096mW (29.08 dBm/ Channel Bandwidth)	797.995mW (29.02 dBm/ Channel Bandwidth)	803.526mW (29.05 dBm/ Channel Bandwidth)
Channel Bandwidth 20MHz	1678.804mW (32.25 dBm/ Channel Bandwidth)	1610.646mW (32.07 dBm/ Channel Bandwidth)	1621.810mW (32.10 dBm/ Channel Bandwidth)	1610.646mW (32.07 dBm/ Channel Bandwidth)
Channel Bandwidth 40MHz	3221.069mW (35.08 dBm/ Channel Bandwidth)	3133.286mW (34.96 dBm/ Channel Bandwidth)	3104.560mW (34.92 dBm/ Channel Bandwidth)	3126.079mW (34.95 dBm/ Channel Bandwidth)

NR Band 48				
Bandwidth	Emission Designator			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 10MHz	8M58G7D	8M58D7W	8M58D7W	8M62D7W
Channel Bandwidth 20MHz	18M2G7D	18M2D7W	18M2D7W	18M2D7W
Channel Bandwidth 40MHz	37M8G7D	37M8D7W	37M9D7W	37M9D7W

Mode A2

NR Band 48				
Bandwidth	Max. EIRP Power (Per 10M Power)			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 20MHz+20MHz_Contiguous	851.138mW (29.30 dBm/ 10MHz)	812.831mW (29.10 dBm/ 10MHz)	827.942mW (29.18 dBm/ 10MHz)	826.038mW (29.17 dBm/ 10MHz)
Channel Bandwidth 20MHz+20MHz_Non-Contiguous	933.254mW (29.70 dBm/ 10MHz)	899.498mW (29.54 dBm/ 10MHz)	903.649mW (29.56 dBm/ 10MHz)	909.913mW (29.59 dBm/ 10MHz)
Channel Bandwidth 40MHz+40MHz_Contiguous	877.001mW (29.43 dBm/ 10MHz)	845.279mW (29.27 dBm/ 10MHz)	847.227mW (29.28 dBm/ 10MHz)	845.279mW (29.27 dBm/ 10MHz)
Channel Bandwidth 40MHz+40MHz_Non-Contiguous	905.733mW (29.57 dBm/ 10MHz)	866.962mW (29.38 dBm/ 10MHz)	872.971mW (29.41 dBm/ 10MHz)	868.960mW (29.39 dBm/ 10MHz)
Bandwidth	Max. EIRP Power (Full power)			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 20MHz+20MHz_Contiguous	1563.148mW (31.94 dBm/ Channel Bandwidth)	1524.053mW (31.83 dBm/ Channel Bandwidth)	1492.794mW (31.74 dBm/ Channel Bandwidth)	1492.794mW (31.74 dBm/ Channel Bandwidth)
Channel Bandwidth 20MHz+20MHz_Non-Contiguous	1559.553mW (31.93 dBm/ Channel Bandwidth)	1524.053mW (31.83 dBm/ Channel Bandwidth)	1534.617mW (31.86 dBm/ Channel Bandwidth)	1520.548mW (31.82 dBm/ Channel Bandwidth)
Channel Bandwidth 40MHz+40MHz_Contiguous	3213.661mW (35.07 dBm/ Channel Bandwidth)	3111.716mW (34.93 dBm/ Channel Bandwidth)	3083.188mW (34.89 dBm/ Channel Bandwidth)	3061.963mW (34.86 dBm/ Channel Bandwidth)
Channel Bandwidth 40MHz+40MHz_Non-Contiguous	3213.661mW (35.07 dBm/ Channel Bandwidth)	3118.890mW (34.94 dBm/ Channel Bandwidth)	3104.560mW (34.92 dBm/ Channel Bandwidth)	3111.716mW (34.93 dBm/ Channel Bandwidth)

NR Band 48				
Bandwidth	Emission Designator			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 20MHz+20MHz_Contiguous	36M4G7D	36M4D7W	36M4D7W	36M4D7W
Channel Bandwidth 20MHz+20MHz_Non-Contiguous	36M4G7D	36M4D7W	36M4D7W	36M4D7W
Channel Bandwidth 40MHz+40MHz_Contiguous	75M6G7D	75M6D7W	75M6D7W	75M6D7W
Channel Bandwidth 40MHz+40MHz_Non-Contiguous	75M6G7D	75M6D7W	75M6D7W	75M6D7W

Mode B1

NR Band 48				
Bandwidth	Max. EIRP Power (Per 10M Power)			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 10MHz	321.366mW (25.07 dBm/ 10MHz)	309.030mW (24.90 dBm/ 10MHz)	304.789mW (24.84 dBm/ 10MHz)	306.902mW (24.87 dBm/ 10MHz)
Channel Bandwidth 20MHz	349.945mW (25.44 dBm/ 10MHz)	338.844mW (25.30 dBm/ 10MHz)	338.065mW (25.29 dBm/ 10MHz)	338.844mW (25.30 dBm/ 10MHz)
Channel Bandwidth 40MHz	359.749mW (25.56 dBm/ 10MHz)	347.536mW (25.41 dBm/ 10MHz)	352.371mW (25.47 dBm/ 10MHz)	351.560mW (25.46 dBm/ 10MHz)
Bandwidth	Max. EIRP Power (Full power)			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 10MHz	321.366mW (25.07 dBm/ Channel Bandwidth)	309.030mW (24.90 dBm/ Channel Bandwidth)	304.789mW (24.84 dBm/ Channel Bandwidth)	306.902mW (24.87 dBm/ Channel Bandwidth)
Channel Bandwidth 20MHz	641.210mW (28.07 dBm/ Channel Bandwidth)	615.177mW (27.89 dBm/ Channel Bandwidth)	619.441mW (27.92 dBm/ Channel Bandwidth)	615.177mW (27.89 dBm/ Channel Bandwidth)
Channel Bandwidth 40MHz	1230.269mW (30.90 dBm/ Channel Bandwidth)	1196.741mW (30.78 dBm/ Channel Bandwidth)	1185.769mW (30.74 dBm/ Channel Bandwidth)	1193.988mW (30.77 dBm/ Channel Bandwidth)

NR Band 48				
Bandwidth	Emission Designator			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 10MHz	8M57G7D	8M56D7W	8M57D7W	8M57D7W
Channel Bandwidth 20MHz	18M2G7D	18M2D7W	18M2D7W	18M2D7W
Channel Bandwidth 40MHz	37M9G7D	37M8D7W	37M8D7W	37M9D7W

Mode B2

NR Band 48				
Bandwidth	Max. EIRP Power (Per 10M Power)			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 20MHz+20MHz_Contiguous	325.087mW (25.12 dBm/ 10MHz)	310.456mW (24.92 dBm/ 10MHz)	316.228mW (25.00 dBm/ 10MHz)	315.500mW (24.99 dBm/ 10MHz)
Channel Bandwidth 20MHz+20MHz_Non-Contiguous	356.451mW (25.52 dBm/ 10MHz)	343.558mW (25.36 dBm/ 10MHz)	345.144mW (25.38 dBm/ 10MHz)	347.536mW (25.41 dBm/ 10MHz)
Channel Bandwidth 40MHz+40MHz_Contiguous	334.965mW (25.25 dBm/ 10MHz)	322.849mW (25.09 dBm/ 10MHz)	323.594mW (25.10 dBm/ 10MHz)	322.849mW (25.09 dBm/ 10MHz)
Channel Bandwidth 40MHz+40MHz_Non-Contiguous	345.939mW (25.39 dBm/ 10MHz)	331.131mW (25.20 dBm/ 10MHz)	333.426mW (25.23 dBm/ 10MHz)	331.894mW (25.21 dBm/ 10MHz)
Bandwidth	Max. EIRP Power (Full power)			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 20MHz+20MHz_Contiguous	597.035mW (27.76 dBm/ Channel Bandwidth)	582.103mW (27.65 dBm/ Channel Bandwidth)	570.164mW (27.56 dBm/ Channel Bandwidth)	570.164mW (27.56 dBm/ Channel Bandwidth)
Channel Bandwidth 20MHz+20MHz_Non-Contiguous	595.662mW (27.75 dBm/ Channel Bandwidth)	582.103mW (27.65 dBm/ Channel Bandwidth)	586.138mW (27.68 dBm/ Channel Bandwidth)	580.764mW (27.64 dBm/ Channel Bandwidth)
Channel Bandwidth 40MHz+40MHz_Contiguous	1227.439mW (30.89 dBm/ Channel Bandwidth)	1188.502mW (30.75 dBm/ Channel Bandwidth)	1177.606mW (30.71 dBm/ Channel Bandwidth)	1169.499mW (30.68 dBm/ Channel Bandwidth)
Channel Bandwidth 40MHz+40MHz_Non-Contiguous	1227.439mW (30.89 dBm/ Channel Bandwidth)	1191.242mW (30.76 dBm/ Channel Bandwidth)	1185.769mW (30.74 dBm/ Channel Bandwidth)	1188.502mW (30.75 dBm/ Channel Bandwidth)

NR Band 48				
Bandwidth	Emission Designator			
	QPSK	16QAM	64QAM	256QAM
Channel Bandwidth 20MHz+20MHz_Contiguous	36M4G7D	36M4D7W	36M4D7W	36M4D7W
Channel Bandwidth 20MHz+20MHz_Non-Contiguous	36M4G7D	36M4D7W	36M4D7W	36M4D7W
Channel Bandwidth 40MHz+40MHz_Contiguous	75M6G7D	75M6D7W	75M6D7W	75M6D7W
Channel Bandwidth 40MHz+40MHz_Non-Contiguous	75M6G7D	75M6D7W	75M6D7W	75M6D7W

3.2 Test Mode Applicability and Tested Channel Detail

Test results are presented in the report as below.

The EUT had been pre-tested on the positioned of each 3 axis. The worst case was listed as below.

Test Mode	Test Condition	Worst Case
A1	Internal Antenna_1CC mode	Z-axis
A2	Internal Antenna_2CC mode	Z-axis
B1	External Antenna_1CC mode	X-axis
B2	External Antenna_2CC mode	X-axis

Following channel(s) was (were) selected for the final test as listed below:

Mode A1

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Maximum Output Power	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK / 16QAM / 64QAM / 256QAM
Maximum Power Spectral Density	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK
Modulation Characteristics	638000 to 645332	641666 (3624.99MHz)	40MHz	QPSK / 16QAM / 64QAM / 256QAM
Frequency Stability	637000 to 646332	637000 (3555.00MHz), 646332 (3694.98MHz)	10MHz	QPSK
	637334 to 646000	637334 (3560.01MHz), 646000 (3690.00MHz)	20MHz	QPSK
	638000 to 645332	638000 (3570.00MHz), 645332 (3679.98MHz)	40MHz	QPSK
Occupied Bandwidth	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK / 16QAM / 64QAM / 256QAM

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Peak to Average Ratio	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK / 16QAM / 64QAM / 256QAM
Conducted Emission	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK
Radiated Emission Below 1GHz	638000 to 645332	641666 (3624.99MHz)	40MHz	QPSK
Radiated Emission Above 1GHz	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK

Mode A2

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Maximum Output Power	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
Maximum Power Spectral Density	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK
Frequency Stability	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Occupied Bandwidth	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
Peak to Average Ratio	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Conducted Emission	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK
Radiated Emission Below 1GHz	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz)	20MHz+20MHz_Non-Contiguous	QPSK
Radiated Emission Above 1GHz	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK

Mode B1

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Maximum Output Power	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK / 16QAM / 64QAM / 256QAM
Maximum Power Spectral Density	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK
Frequency Stability	637000 to 646332	637000 (3555.00MHz), 646332 (3694.98MHz)	10MHz	QPSK
	637334 to 646000	637334 (3560.01MHz), 646000 (3690.00MHz)	20MHz	QPSK
	638000 to 645332	638000 (3570.00MHz), 645332 (3679.98MHz)	40MHz	QPSK
Occupied Bandwidth	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK / 16QAM / 64QAM / 256QAM

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Peak to Average Ratio	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK / 16QAM / 64QAM / 256QAM
Conducted Emission	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK
Radiated Emission Below 1GHz	637334 to 646000	641666 (3624.99MHz)	20MHz	QPSK
Radiated Emission Above 1GHz	637000 to 646332	637000 (3555.00MHz), 641666 (3624.99MHz), 646332 (3694.98MHz)	10MHz	QPSK
	637334 to 646000	637334 (3560.01MHz), 641666 (3624.99MHz), 646000 (3690.00MHz)	20MHz	QPSK
	638000 to 645332	638000 (3570.00MHz), 641666 (3624.99MHz), 645332 (3679.98MHz)	40MHz	QPSK

Mode B2

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Maximum Output Power	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
Maximum Power Spectral Density	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK
Frequency Stability	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Occupied Bandwidth	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
Peak to Average Ratio	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK / 16QAM / 64QAM / 256QAM
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK / 16QAM / 64QAM / 256QAM

Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation
Conducted Emission	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK
Radiated Emission Below 1GHz	637334 to 646000	644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK
Radiated Emission Above 1GHz	637334 to 646000	637334 (3560.01MHz) + 638668 (3580.02MHz), 641000 (3615.00MHz) + 642334 (3635.01MHz), 644666 (3669.99MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Contiguous	QPSK
	637334 to 646000	637334 (3560.01MHz) + 639334 (3590.01MHz), 640668 (3610.02MHz) + 642668 (3640.02MHz), 644000 (3660.00MHz) + 646000 (3690.00MHz)	20MHz+20MHz_Non-Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 640668 (3610.02MHz), 640332 (3604.98MHz) + 643000 (3645.00MHz), 642664 (3639.96MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Contiguous	QPSK
	638000 to 645332	638000 (3570.00MHz) + 641334 (3620.01MHz), 640000 (3600.00MHz) + 643334 (3650.01MHz), 641998 (3629.97MHz) + 645332 (3679.98MHz)	40MHz+40MHz_Non-Contiguous	QPSK

Note:

1. For radiated emission below 1GHz, select the worst radiated emission channel (above 1GHz) for final testing.
2. The output power for QPSK, 16QAM, 64QAM, and 256QAM, measured value of is QPSK higher than 16QAM, 64QAM, and 256QAM mode. Therefore, only occupied bandwidth and Peak to average ratio items had been tested under QPSK, 16QAM, 64QAM, and 256QAM modes, the other test items were performed under QPSK mode only.

Test Condition:

Test Item	Environmental Conditions	Input Power	Tested By
Maximum Output Power	25deg. C, 60%RH	120 Vac, 60 Hz	James Yang
Maximum Power Spectral Density	25deg. C, 60%RH	120 Vac, 60 Hz	James Yang
Modulation Characteristics	25deg. C, 60%RH	120 Vac, 60 Hz	James Yang
Frequency Stability	25deg. C, 60%RH	120 Vac, 60 Hz	James Yang
Occupied Bandwidth	25deg. C, 60%RH	120 Vac, 60 Hz	James Yang
Peak To Average Ratio	25deg. C, 60%RH	120 Vac, 60 Hz	James Yang
Conducted Emission	25deg. C, 60%RH	120 Vac, 60 Hz	James Yang
Radiated Emission	21.3deg. C, 76%RH 21.3deg. C, 76.3%RH	120 Vac, 60 Hz	Vincent Chen Greg Lin

3.3 Description of Support Units

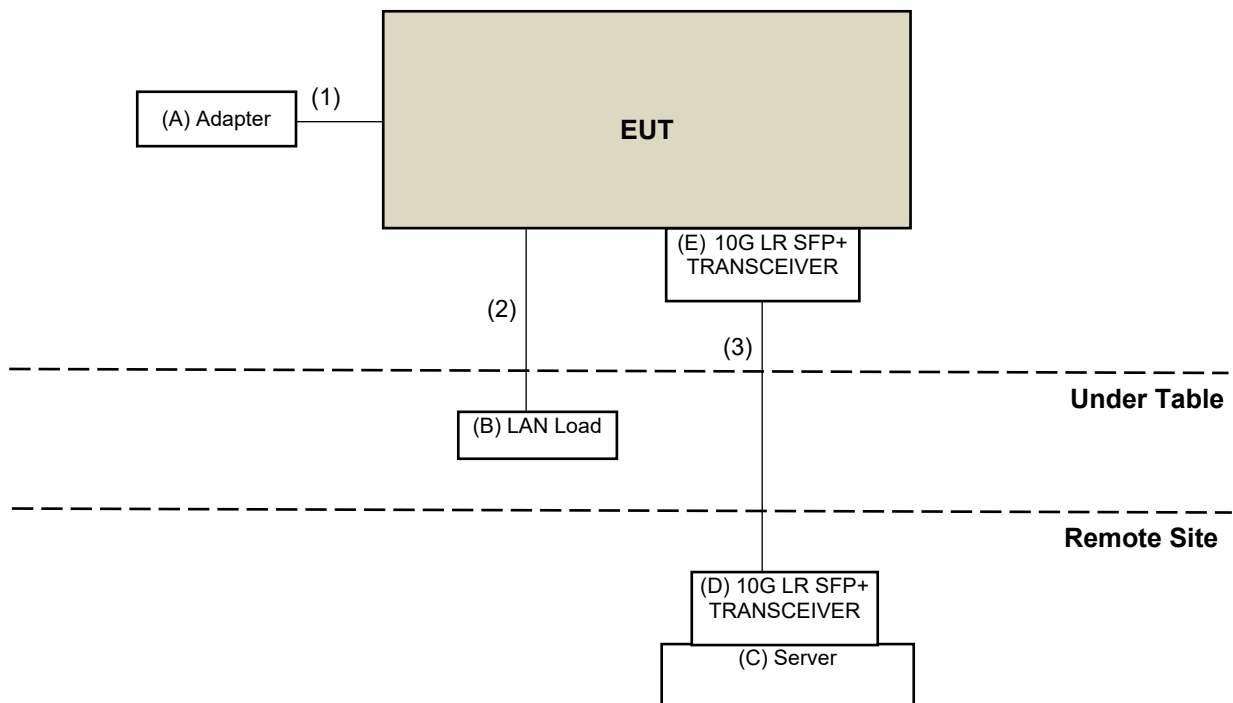
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Adapter	ASIAN POWER DEVICES	DA-60Z12	N/A	N/A	Supplied by applicant
B.	LAN Load	BV	LP-04	N/A	N/A	Provided by Lab
C.	Server	PEGATRON	PG5100	N/A	N/A	Supplied by applicant
D.	10G LR SFP+ TRANSCEIVER	JESS-LINK	TNP58260BGIB10-A	N/A	N/A	Supplied by applicant
E.	10G LR SFP+ TRANSCEIVER	JESS-LINK	TNP58260BGIB10-A	N/A	N/A	Supplied by applicant

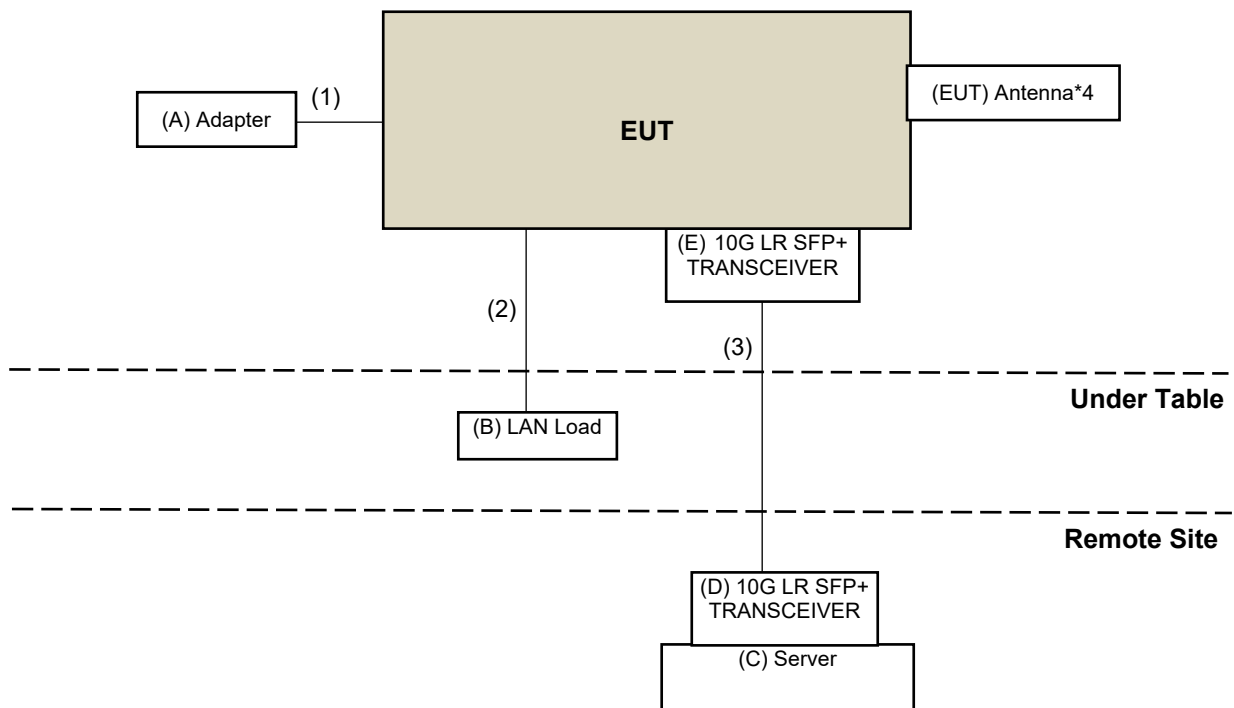
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.46	No	0	Provided by Lab
2.	RJ-45 Cable	1	1.5	No	0	Supplied by applicant
3.	FIBER OPTICAL CABLE	1	10	No	0	Supplied by applicant

3.3.1 Configuration of System under Test

Mode A1, A2



Mode B1, B2



3.4 General Description of Applied Standards and References

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standard:

FCC 47 CFR Part 2

FCC 47 CFR Part 96

ANSI/TIA/EIA-603-E-2016

All test items have been performed and recorded as per the above standards.

References Test Guidance:

KDB 971168 D01 Power Meas License Digital Systems v03r01

KDB 940660 D01 Part 96 CBRS Eqpt v03

All test items have been performed as a reference to the above KDB test guidance.

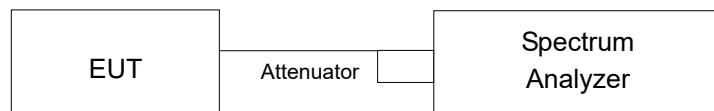
4 Test Types and Results

4.1 Maximum Output Power Measurement

4.1.1 Limits of Maximum Output Power Measurement

Device		Maximum EIRP (dBm/10 MHz)
☐	End User Device	23
☒	Category A CBSD	30
☐	Category B CBSD	47

4.1.2 Test Setup



4.1.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer KEYSIGHT	N9030B	MY57140488	2024/3/6 2025/3/11	2025/3/5 2026/3/10
Radio Communication Analyzer Anritsu	MT8821C	6272278310	2024/6/15	2025/6/14
RF cable	JB200	Cable-OVEN-02	NA	NA
DC-6GHz 20dB 50W Fixed attenuator Woken	MDC9331N-20	0724	2024/7/15	2026/7/14
STANDARD TEMPERATURE & HUMIDITY CHAMBER TERCHY	MHU-225AU	911033	2024/10/29	2025/10/28
AC Power Supply Extech	CFW-105	E000603	NA	NA
Digital Multimeter Fluke	87-III	70360742	2024/7/5	2025/7/4

Note: 1. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1.4 Test Procedures

Conducted output power measurement

- Connect the DUT transmitter output to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- Set span to at least 1.5 times the OBW.
- Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
- Set VBW $\geq 3 \times$ RBW.
- Set number of points in sweep $\geq 2 \times$ span / RBW.
- Sweep time = auto-couple.
- Detector = RMS (power averaging).
- If the EUT can be configured to transmit continuously (i.e., burst duty cycle $\geq 98\%$), then set the trigger to free run.
- If the EUT cannot be configured to transmit continuously (i.e., burst duty cycle $< 98\%$), then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep. Ensure that the sweep time is less than or equal to the transmission burst duration.
- Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band or channel power measurement function, with the band/channel limits set equal to the OBW band edges. If the instrument does not have a band or channel power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.
- For per 10MHz method, channel power integrating bandwidth 10MHz is used for bandwidth 10M, 20M, and 40M. For full power method, channel power integrating bandwidth 10MHz is used for bandwidth 10M, integrating bandwidth 20MHz is used for bandwidth 20M, integrating bandwidth 40MHz is used for bandwidth 40M.

Maximum EIRP

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively
(expressed in the same units as P_{Meas} , e.g., dBm or dBW)

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

G_T gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP)

4.1.5 Deviation from Test Standard

No deviation.

4.1.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.1.7 Test Results

Mode A1

Conducted Output Power and EIRP Power (dBm/10MHz)

Bandwidth	Frequency (MHz)	Modulation	Antenna				Total	EIRP (dBm/10MHz)	Verdict
			0	1	2	3			
10M	3555	QPSK	14.53	14.55	14.64	14.54	20.59	29.10	PASS
		16QAM	14.51	14.37	14.47	14.50	20.48	28.99	PASS
		64QAM	14.50	14.50	14.48	14.29	20.46	28.97	PASS
		256QAM	14.35	14.28	14.64	14.49	20.46	28.97	PASS
	3624.99	QPSK	14.80	14.72	14.64	14.73	20.74	29.25	PASS
		16QAM	14.50	14.61	14.55	14.53	20.57	29.08	PASS
		64QAM	14.35	14.51	14.39	14.71	20.51	29.02	PASS
		256QAM	14.30	14.54	14.57	14.66	20.54	29.05	PASS
	3694.98	QPSK	14.72	14.73	14.40	14.60	20.64	29.15	PASS
		16QAM	14.40	14.51	14.31	14.65	20.49	29.00	PASS
		64QAM	14.49	14.59	14.30	14.45	20.48	28.99	PASS
		256QAM	14.48	14.50	14.37	14.47	20.48	28.99	PASS
20M	3560.01	QPSK	14.97	15.08	15.02	15.06	21.05	29.56	PASS
		16QAM	14.75	14.95	14.96	14.86	20.90	29.41	PASS
		64QAM	14.80	14.86	14.86	14.95	20.89	29.40	PASS
		256QAM	14.73	15.01	14.88	14.93	20.91	29.42	PASS
	3624.99	QPSK	15.08	15.13	15.10	15.05	21.11	29.62	PASS
		16QAM	15.01	14.94	14.93	14.91	20.97	29.48	PASS
		64QAM	14.92	14.88	15.00	14.94	20.96	29.47	PASS
		256QAM	14.85	15.08	15.03	14.85	20.97	29.48	PASS
	3690	QPSK	15.03	15.00	15.08	15.05	21.06	29.57	PASS
		16QAM	14.95	14.90	15.00	14.85	20.95	29.46	PASS
		64QAM	14.82	14.79	14.87	14.96	20.88	29.39	PASS
		256QAM	14.79	14.85	14.87	14.81	20.85	29.36	PASS
40M	3570	QPSK	15.19	15.20	15.17	15.22	21.22	29.73	PASS
		16QAM	15.11	14.98	15.12	14.98	21.07	29.58	PASS
		64QAM	15.23	14.98	15.15	15.12	21.14	29.65	PASS
		256QAM	15.19	14.99	15.06	14.99	21.08	29.59	PASS
	3624.99	QPSK	15.20	15.22	15.26	15.17	21.23	29.74	PASS
		16QAM	15.02	15.17	15.01	15.02	21.08	29.59	PASS
		64QAM	15.04	15.07	15.09	14.99	21.07	29.58	PASS
		256QAM	15.09	15.07	15.17	15.12	21.13	29.64	PASS
	3679.98	QPSK	14.19	14.22	14.27	14.11	20.22	28.73	PASS
		16QAM	14.10	14.13	14.18	14.04	20.13	28.64	PASS
		64QAM	14.14	14.13	14.16	13.93	20.11	28.62	PASS
		256QAM	14.09	14.03	14.06	14.01	20.07	28.58	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/4] = 8.51\text{dBi}$
- EIRP (dBm/10MHz) = Total Conducted Output Power (dBm/10MHz) + Directional Gain

Full Conducted Output Power and Full EIRP Power (dBm/Channel Bandwidth)

Bandwidth	Frequency (MHz)	Modulation	Antenna				Total	EIRP (dBm/Channel Bandwidth)	Verdict
			0	1	2	3			
10M	3555	QPSK	14.53	14.55	14.64	14.54	20.59	29.10	PASS
		16QAM	14.51	14.37	14.47	14.50	20.48	28.99	PASS
		64QAM	14.50	14.50	14.48	14.29	20.46	28.97	PASS
		256QAM	14.35	14.28	14.64	14.49	20.46	28.97	PASS
	3624.99	QPSK	14.80	14.72	14.64	14.73	20.74	29.25	PASS
		16QAM	14.50	14.61	14.55	14.53	20.57	29.08	PASS
		64QAM	14.35	14.51	14.39	14.71	20.51	29.02	PASS
		256QAM	14.30	14.54	14.57	14.66	20.54	29.05	PASS
	3694.98	QPSK	14.72	14.73	14.40	14.60	20.64	29.15	PASS
		16QAM	14.40	14.51	14.31	14.65	20.49	29.00	PASS
		64QAM	14.49	14.59	14.30	14.45	20.48	28.99	PASS
		256QAM	14.48	14.50	14.37	14.47	20.48	28.99	PASS
20M	3560.01	QPSK	17.46	17.53	17.44	17.59	23.53	32.04	PASS
		16QAM	17.34	17.29	17.21	17.35	23.32	31.83	PASS
		64QAM	17.40	17.38	17.25	17.51	23.41	31.92	PASS
		256QAM	17.38	17.39	17.34	17.36	23.39	31.90	PASS
	3624.99	QPSK	17.55	17.49	17.62	17.48	23.56	32.07	PASS
		16QAM	17.47	17.26	17.52	17.40	23.43	31.94	PASS
		64QAM	17.39	17.36	17.48	17.26	23.39	31.90	PASS
		256QAM	17.30	17.33	17.57	17.42	23.43	31.94	PASS
	3690	QPSK	17.72	17.70	17.68	17.76	23.74	32.25	PASS
		16QAM	17.61	17.49	17.45	17.59	23.56	32.07	PASS
		64QAM	17.67	17.65	17.45	17.52	23.59	32.10	PASS
		256QAM	17.54	17.49	17.45	17.69	23.56	32.07	PASS
40M	3570	QPSK	20.58	20.58	20.51	20.54	26.57	35.08	PASS
		16QAM	20.50	20.45	20.41	20.35	26.45	34.96	PASS
		64QAM	20.33	20.38	20.39	20.46	26.41	34.92	PASS
		256QAM	20.53	20.33	20.46	20.34	26.44	34.95	PASS
	3624.99	QPSK	20.30	20.37	20.35	20.26	26.34	34.85	PASS
		16QAM	20.15	20.18	20.15	20.02	26.15	34.66	PASS
		64QAM	20.14	20.20	20.27	20.10	26.20	34.71	PASS
		256QAM	20.22	20.13	20.10	20.09	26.16	34.67	PASS
	3679.98	QPSK	19.50	19.57	19.46	19.51	25.53	34.04	PASS
		16QAM	19.27	19.40	19.22	19.36	25.33	33.84	PASS
		64QAM	19.28	19.33	19.39	19.41	25.37	33.88	PASS
		256QAM	19.34	19.45	19.25	19.30	25.36	33.87	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G^1/10} + 10^{G^2/10} + \dots + 10^{G^N/10})/4] = 8.51 \text{dBi}$
- EIRP (dBm/Channel Bandwidth) = Total Conducted Output Power (dBm/Channel Bandwidth) + Directional Gain

Mode A2

Conducted Output Power and EIRP Power (dBm/10MHz)

Bandwidth	Frequency (MHz)	Modulation	Antenna						Total	EIRP (dBm/10MHz)	Verdict
			0	2	0+2 Total	1	3	1+3 Total			
20M+20M Contiguous	3560.01+3580.02	QPSK	14.91	14.82	17.88	14.66	14.67	17.68	20.79	29.30	PASS
		16QAM	14.79	14.60	17.71	14.46	14.41	17.45	20.59	29.10	PASS
		64QAM	14.72	14.63	17.69	14.66	14.58	17.63	20.67	29.18	PASS
		256QAM	14.79	14.70	17.76	14.48	14.59	17.55	20.66	29.17	PASS
	3615.00+3635.01	QPSK	14.68	14.71	17.71	14.55	14.70	17.64	20.68	29.19	PASS
		16QAM	14.59	14.60	17.61	14.37	14.51	17.45	20.54	29.05	PASS
		64QAM	14.55	14.47	17.52	14.47	14.63	17.56	20.55	29.06	PASS
		256QAM	14.40	14.52	17.47	14.34	14.42	17.39	20.44	28.95	PASS
	3669.99+3690.00	QPSK	14.72	14.52	17.63	14.59	14.68	17.65	20.65	29.16	PASS
		16QAM	14.36	14.34	17.36	14.51	14.69	17.61	20.50	29.01	PASS
		64QAM	14.44	14.41	17.44	14.58	14.54	17.57	20.51	29.02	PASS
		256QAM	14.41	14.47	17.45	14.50	14.73	17.63	20.55	29.06	PASS
20M+20M Non-Contiguous	3560.01+3590.01	QPSK	15.15	15.18	18.18	15.20	15.16	18.19	21.19	29.70	PASS
		16QAM	15.03	14.97	18.01	14.94	15.11	18.04	21.03	29.54	PASS
		64QAM	15.01	15.01	18.02	15.13	14.95	18.05	21.05	29.56	PASS
		256QAM	15.06	15.15	18.12	15.04	14.99	18.03	21.08	29.59	PASS
	3610.02+3640.02	QPSK	14.80	14.93	17.88	15.03	14.96	18.01	20.95	29.46	PASS
		16QAM	14.68	14.84	17.77	14.87	14.75	17.82	20.81	29.32	PASS
		64QAM	14.66	14.78	17.73	14.90	14.66	17.79	20.77	29.28	PASS
		256QAM	14.58	14.51	17.56	14.81	14.83	17.83	20.71	29.22	PASS
	3660.00+3690.00	QPSK	15.26	15.27	18.28	14.68	14.75	17.73	21.02	29.53	PASS
		16QAM	15.19	15.15	18.18	14.31	14.36	17.35	20.79	29.30	PASS
		64QAM	14.97	15.12	18.06	14.49	14.68	17.60	20.84	29.35	PASS
		256QAM	15.09	15.19	18.15	14.38	14.46	17.43	20.82	29.33	PASS
40M+40M Contiguous	3570.00+3610.02	QPSK	15.41	15.50	18.47	14.16	14.34	17.26	20.92	29.43	PASS
		16QAM	15.29	15.27	18.29	14.09	14.16	17.14	20.76	29.27	PASS
		64QAM	15.35	15.22	18.30	14.10	14.18	17.15	20.77	29.28	PASS
		256QAM	15.28	15.22	18.26	14.15	14.18	17.18	20.76	29.27	PASS
	3604.98+3645.00	QPSK	14.61	14.56	17.60	14.63	14.59	17.62	20.62	29.13	PASS
		16QAM	14.46	14.43	17.46	14.37	14.46	17.43	20.45	28.96	PASS
		64QAM	14.56	14.47	17.53	14.39	14.53	17.47	20.51	29.02	PASS
		256QAM	14.41	14.46	17.45	14.41	14.25	17.34	20.40	28.91	PASS
	3639.96+3679.98	QPSK	15.02	14.86	17.95	14.38	14.44	17.42	20.70	29.21	PASS
		16QAM	14.95	14.82	17.90	14.27	14.37	17.33	20.63	29.14	PASS
		64QAM	14.88	14.86	17.88	14.22	14.34	17.29	20.61	29.12	PASS
		256QAM	14.80	14.88	17.85	14.18	14.24	17.22	20.56	29.07	PASS
40M+40M Non-Contiguous	3570.00+3620.01	QPSK	15.47	14.96	18.23	14.34	14.35	17.36	20.83	29.34	PASS
		16QAM	15.29	14.81	18.07	14.08	13.94	17.02	20.59	29.10	PASS
		64QAM	15.16	14.76	17.97	14.01	14.04	17.04	20.54	29.05	PASS
		256QAM	15.22	14.71	17.98	14.20	14.25	17.24	20.64	29.15	PASS
	3600.00+3650.01	QPSK	14.74	14.63	17.70	14.35	14.25	17.31	20.52	29.03	PASS
		16QAM	14.44	14.34	17.40	14.27	14.32	17.31	20.36	28.87	PASS
		64QAM	14.56	14.44	17.51	14.05	14.09	17.08	20.31	28.82	PASS
		256QAM	14.53	14.35	17.45	14.08	14.20	17.15	20.31	28.82	PASS
	3629.97+3679.98	QPSK	15.26	15.22	18.25	14.80	14.84	17.83	21.06	29.57	PASS
		16QAM	15.04	15.03	18.05	14.60	14.72	17.67	20.87	29.38	PASS
		64QAM	15.21	15.02	18.13	14.59	14.66	17.64	20.90	29.41	PASS
		256QAM	15.02	15.15	18.10	14.60	14.65	17.64	20.88	29.39	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/4] = 8.51\text{dBi}$
- EIRP (dBm/10MHz) = Total Conducted Output Power (dBm/10MHz) + Directional Gain

Full Conducted Output Power and Full EIRP Power (dBm/Channel Bandwidth)

Bandwidth	Frequency (MHz)	Modulation	Antenna						Total	EIRP (dBm/Channel Bandwidth)	Verdict
			0	2	0+2 Total	1	3	1+3 Total			
20M+20M Contiguous	3560.01+3580.02	QPSK	17.44	17.27	20.37	17.47	17.44	20.47	23.43	31.94	PASS
		16QAM	17.39	17.23	20.32	17.32	17.25	20.30	23.32	31.83	PASS
		64QAM	17.21	17.18	20.21	17.22	17.24	20.24	23.23	31.74	PASS
		256QAM	17.36	17.11	20.25	17.20	17.16	20.19	23.23	31.74	PASS
	3615.00+3635.01	QPSK	17.37	17.40	20.40	17.32	17.30	20.32	23.37	31.88	PASS
		16QAM	17.23	17.10	20.18	17.19	17.13	20.17	23.18	31.69	PASS
		64QAM	17.15	17.18	20.18	17.19	17.19	20.20	23.20	31.71	PASS
		256QAM	17.15	17.24	20.21	17.16	17.04	20.11	23.17	31.68	PASS
	3669.99+3690.00	QPSK	17.29	17.21	20.26	17.24	17.29	20.28	23.28	31.79	PASS
		16QAM	17.09	17.12	20.12	17.13	17.29	20.22	23.18	31.69	PASS
		64QAM	17.01	16.96	20.00	17.08	17.13	20.12	23.07	31.58	PASS
		256QAM	17.05	17.18	20.13	17.11	17.15	20.14	23.14	31.65	PASS
20M+20M Non-Contiguous	3560.01+3590.01	QPSK	17.76	17.80	20.79	16.46	16.51	19.50	23.20	31.71	PASS
		16QAM	17.66	17.73	20.71	16.38	16.32	19.36	23.10	31.61	PASS
		64QAM	17.55	17.60	20.59	16.31	16.27	19.30	23.00	31.51	PASS
		256QAM	17.67	17.69	20.69	16.25	16.42	19.35	23.08	31.59	PASS
	3610.02+3640.02	QPSK	17.36	17.22	20.30	17.32	17.41	20.38	23.35	31.86	PASS
		16QAM	17.07	17.17	20.13	17.11	17.16	20.15	23.15	31.66	PASS
		64QAM	17.19	17.19	20.20	17.16	17.20	20.19	23.21	31.72	PASS
		256QAM	17.25	17.15	20.21	16.96	17.19	20.09	23.16	31.67	PASS
	3660.00+3690.00	QPSK	17.62	17.56	20.60	17.20	17.22	20.22	23.42	31.93	PASS
		16QAM	17.58	17.29	20.45	17.13	17.18	20.17	23.32	31.83	PASS
		64QAM	17.60	17.42	20.52	17.14	17.14	20.15	23.35	31.86	PASS
		256QAM	17.43	17.41	20.43	17.08	17.23	20.17	23.31	31.82	PASS
40M+40M Contiguous	3570.00+3610.02	QPSK	21.07	20.06	23.60	20.96	19.97	23.50	26.56	35.07	PASS
		16QAM	20.65	20.85	23.76	19.83	19.83	22.84	26.34	34.85	PASS
		64QAM	20.67	20.71	23.70	19.97	19.77	22.88	26.32	34.83	PASS
		256QAM	20.81	20.86	23.85	19.77	19.63	22.71	26.33	34.84	PASS
	3604.98+3645.00	QPSK	20.38	20.44	23.42	20.62	20.67	23.66	26.55	35.06	PASS
		16QAM	20.47	20.37	23.43	20.35	20.39	23.38	26.42	34.93	PASS
		64QAM	20.28	20.28	23.29	20.35	20.54	23.46	26.38	34.89	PASS
		256QAM	20.23	20.20	23.23	20.47	20.41	23.45	26.35	34.86	PASS
	3639.96+3679.98	QPSK	20.43	20.51	23.48	19.90	19.97	22.95	26.23	34.74	PASS
		16QAM	20.16	20.30	23.24	19.76	19.86	22.82	26.05	34.56	PASS
		64QAM	20.26	20.22	23.25	19.83	19.98	22.92	26.10	34.61	PASS
		256QAM	20.25	20.33	23.30	19.75	19.92	22.85	26.09	34.60	PASS
40M+40M Non-Contiguous	3570.00+3620.01	QPSK	20.77	20.77	23.78	19.99	19.99	23.00	26.42	34.93	PASS
		16QAM	20.59	20.45	23.53	19.86	19.79	22.84	26.21	34.72	PASS
		64QAM	20.79	20.70	23.76	19.81	19.77	22.80	26.31	34.82	PASS
		256QAM	20.81	20.70	23.77	19.71	19.74	22.74	26.29	34.80	PASS
	3600.00+3650.01	QPSK	20.21	20.15	23.19	20.09	19.87	22.99	26.10	34.61	PASS
		16QAM	20.13	20.03	23.09	19.94	19.78	22.87	25.99	34.50	PASS
		64QAM	19.99	20.18	23.10	19.69	19.78	22.75	25.93	34.44	PASS
		256QAM	19.99	20.18	23.10	19.83	19.92	22.89	26.00	34.51	PASS
	3629.97+3679.98	QPSK	20.70	20.75	23.74	20.35	20.34	23.36	26.56	35.07	PASS
		16QAM	20.63	20.64	23.65	20.24	20.11	23.19	26.43	34.94	PASS
		64QAM	20.58	20.60	23.60	20.23	20.13	23.19	26.41	34.92	PASS
		256QAM	20.53	20.60	23.58	20.27	20.19	23.24	26.42	34.93	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/4] = 8.51 \text{ dBi}$
- EIRP (dBm/Channel Bandwidth) = Total Conducted Output Power (dBm/Channel Bandwidth) + Directional Gain

Mode B1

Conducted Output Power and EIRP Power (dBm/10MHz)

Bandwidth	Frequency (MHz)	Modulation	Antenna				Total	EIRP (dBm/10MHz)	Verdict
			0	1	2	3			
10M	3555	QPSK	14.53	14.55	14.64	14.54	20.59	24.92	PASS
		16QAM	14.51	14.37	14.47	14.50	20.48	24.81	PASS
		64QAM	14.50	14.50	14.48	14.29	20.46	24.79	PASS
		256QAM	14.35	14.28	14.64	14.49	20.46	24.79	PASS
	3624.99	QPSK	14.80	14.72	14.64	14.73	20.74	25.07	PASS
		16QAM	14.50	14.61	14.55	14.53	20.57	24.90	PASS
		64QAM	14.35	14.51	14.39	14.71	20.51	24.84	PASS
		256QAM	14.30	14.54	14.57	14.66	20.54	24.87	PASS
	3694.98	QPSK	14.72	14.73	14.40	14.60	20.64	24.97	PASS
		16QAM	14.40	14.51	14.31	14.65	20.49	24.82	PASS
		64QAM	14.49	14.59	14.30	14.45	20.48	24.81	PASS
		256QAM	14.48	14.50	14.37	14.47	20.48	24.81	PASS
20M	3560.01	QPSK	14.97	15.08	15.02	15.06	21.05	25.38	PASS
		16QAM	14.75	14.95	14.96	14.86	20.90	25.23	PASS
		64QAM	14.80	14.86	14.86	14.95	20.89	25.22	PASS
		256QAM	14.73	15.01	14.88	14.93	20.91	25.24	PASS
	3624.99	QPSK	15.08	15.13	15.10	15.05	21.11	25.44	PASS
		16QAM	15.01	14.94	14.93	14.91	20.97	25.30	PASS
		64QAM	14.92	14.88	15.00	14.94	20.96	25.29	PASS
		256QAM	14.85	15.08	15.03	14.85	20.97	25.30	PASS
	3690	QPSK	15.03	15.00	15.08	15.05	21.06	25.39	PASS
		16QAM	14.95	14.90	15.00	14.85	20.95	25.28	PASS
		64QAM	14.82	14.79	14.87	14.96	20.88	25.21	PASS
		256QAM	14.79	14.85	14.87	14.81	20.85	25.18	PASS
40M	3570	QPSK	15.19	15.20	15.17	15.22	21.22	25.55	PASS
		16QAM	15.11	14.98	15.12	14.98	21.07	25.40	PASS
		64QAM	15.23	14.98	15.15	15.12	21.14	25.47	PASS
		256QAM	15.19	14.99	15.06	14.99	21.08	25.41	PASS
	3624.99	QPSK	15.20	15.22	15.26	15.17	21.23	25.56	PASS
		16QAM	15.02	15.17	15.01	15.02	21.08	25.41	PASS
		64QAM	15.04	15.07	15.09	14.99	21.07	25.40	PASS
		256QAM	15.09	15.07	15.17	15.12	21.13	25.46	PASS
	3679.98	QPSK	14.19	14.22	14.27	14.11	20.22	24.55	PASS
		16QAM	14.10	14.13	14.18	14.04	20.13	24.46	PASS
		64QAM	14.14	14.13	14.16	13.93	20.11	24.44	PASS
		256QAM	14.09	14.03	14.06	14.01	20.07	24.40	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/4] = 4.33\text{dBi}$
- EIRP (dBm/10MHz) = Total Conducted Output Power (dBm/10MHz) + Antenna Gain

Full Conducted Output Power and Full EIRP Power (dBm/Channel Bandwidth)

Bandwidth	Frequency (MHz)	Modulation	Antenna				Total	EIRP (dBm/Channel Bandwidth)	Verdict
			0	1	2	3			
10M	3555	QPSK	14.53	14.55	14.64	14.54	20.59	24.92	PASS
		16QAM	14.51	14.37	14.47	14.50	20.48	24.81	PASS
		64QAM	14.50	14.50	14.48	14.29	20.46	24.79	PASS
		256QAM	14.35	14.28	14.64	14.49	20.46	24.79	PASS
	3624.99	QPSK	14.80	14.72	14.64	14.73	20.74	25.07	PASS
		16QAM	14.50	14.61	14.55	14.53	20.57	24.90	PASS
		64QAM	14.35	14.51	14.39	14.71	20.51	24.84	PASS
		256QAM	14.30	14.54	14.57	14.66	20.54	24.87	PASS
	3694.98	QPSK	14.72	14.73	14.40	14.60	20.64	24.97	PASS
		16QAM	14.40	14.51	14.31	14.65	20.49	24.82	PASS
		64QAM	14.49	14.59	14.30	14.45	20.48	24.81	PASS
		256QAM	14.48	14.50	14.37	14.47	20.48	24.81	PASS
20M	3560.01	QPSK	17.46	17.53	17.44	17.59	23.53	27.86	PASS
		16QAM	17.34	17.29	17.21	17.35	23.32	27.65	PASS
		64QAM	17.40	17.38	17.25	17.51	23.41	27.74	PASS
		256QAM	17.38	17.39	17.34	17.36	23.39	27.72	PASS
	3624.99	QPSK	17.55	17.49	17.62	17.48	23.56	27.89	PASS
		16QAM	17.47	17.26	17.52	17.40	23.43	27.76	PASS
		64QAM	17.39	17.36	17.48	17.26	23.39	27.72	PASS
		256QAM	17.30	17.33	17.57	17.42	23.43	27.76	PASS
	3690	QPSK	17.72	17.70	17.68	17.76	23.74	28.07	PASS
		16QAM	17.61	17.49	17.45	17.59	23.56	27.89	PASS
		64QAM	17.67	17.65	17.45	17.52	23.59	27.92	PASS
		256QAM	17.54	17.49	17.45	17.69	23.56	27.89	PASS
40M	3570	QPSK	20.58	20.58	20.51	20.54	26.57	30.90	PASS
		16QAM	20.50	20.45	20.41	20.35	26.45	30.78	PASS
		64QAM	20.33	20.38	20.39	20.46	26.41	30.74	PASS
		256QAM	20.53	20.33	20.46	20.34	26.44	30.77	PASS
	3624.99	QPSK	20.30	20.37	20.35	20.26	26.34	30.67	PASS
		16QAM	20.15	20.18	20.15	20.02	26.15	30.48	PASS
		64QAM	20.14	20.20	20.27	20.10	26.20	30.53	PASS
		256QAM	20.22	20.13	20.10	20.09	26.16	30.49	PASS
	3679.98	QPSK	19.50	19.57	19.46	19.51	25.53	29.86	PASS
		16QAM	19.27	19.40	19.22	19.36	25.33	29.66	PASS
		64QAM	19.28	19.33	19.39	19.41	25.37	29.70	PASS
		256QAM	19.34	19.45	19.25	19.30	25.36	29.69	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G_1/10} + 10^{G_2/10} + \dots + 10^{G_N/10})/4] = 4.33\text{dBi}$
- EIRP (dBm/Channel Bandwidth) = Total Conducted Output Power (dBm/Channel Bandwidth) + Antenna Gain

Mode B2

Conducted Output Power and EIRP Power (dBm/10MHz)

Bandwidth	Frequency (MHz)	Modulation	Antenna						Total	EIRP (dBm/10MHz)	Verdict
			0	2	0+2 Total	1	3	1+3 Total			
20M+20M Contiguous	3560.01+3580.02	QPSK	14.91	14.82	17.88	14.66	14.67	17.68	20.79	25.12	PASS
		16QAM	14.79	14.60	17.71	14.46	14.41	17.45	20.59	24.92	PASS
		64QAM	14.72	14.63	17.69	14.66	14.58	17.63	20.67	25.00	PASS
		256QAM	14.79	14.70	17.76	14.48	14.59	17.55	20.66	24.99	PASS
	3615.00+3635.01	QPSK	14.68	14.71	17.71	14.55	14.70	17.64	20.68	25.01	PASS
		16QAM	14.59	14.60	17.61	14.37	14.51	17.45	20.54	24.87	PASS
		64QAM	14.55	14.47	17.52	14.47	14.63	17.56	20.55	24.88	PASS
		256QAM	14.40	14.52	17.47	14.34	14.42	17.39	20.44	24.77	PASS
	3669.99+3690.00	QPSK	14.72	14.52	17.63	14.59	14.68	17.65	20.65	24.98	PASS
		16QAM	14.36	14.34	17.36	14.51	14.69	17.61	20.50	24.83	PASS
		64QAM	14.44	14.41	17.44	14.58	14.54	17.57	20.51	24.84	PASS
		256QAM	14.41	14.47	17.45	14.50	14.73	17.63	20.55	24.88	PASS
20M+20M Non-Contiguous	3560.01+3590.01	QPSK	15.15	15.18	18.18	15.20	15.16	18.19	21.19	25.52	PASS
		16QAM	15.03	14.97	18.01	14.94	15.11	18.04	21.03	25.36	PASS
		64QAM	15.01	15.01	18.02	15.13	14.95	18.05	21.05	25.38	PASS
		256QAM	15.06	15.15	18.12	15.04	14.99	18.03	21.08	25.41	PASS
	3610.02+3640.02	QPSK	14.80	14.93	17.88	15.03	14.96	18.01	20.95	25.28	PASS
		16QAM	14.68	14.84	17.77	14.87	14.75	17.82	20.81	25.14	PASS
		64QAM	14.66	14.78	17.73	14.90	14.66	17.79	20.77	25.10	PASS
		256QAM	14.58	14.51	17.56	14.81	14.83	17.83	20.71	25.04	PASS
	3660.00+3690.00	QPSK	15.26	15.27	18.28	14.68	14.75	17.73	21.02	25.35	PASS
		16QAM	15.19	15.15	18.18	14.31	14.36	17.35	20.79	25.12	PASS
		64QAM	14.97	15.12	18.06	14.49	14.68	17.60	20.84	25.17	PASS
		256QAM	15.09	15.19	18.15	14.38	14.46	17.43	20.82	25.15	PASS
40M+40M Contiguous	3570.00+3610.02	QPSK	15.41	15.50	18.47	14.16	14.34	17.26	20.92	25.25	PASS
		16QAM	15.29	15.27	18.29	14.09	14.16	17.14	20.76	25.09	PASS
		64QAM	15.35	15.22	18.30	14.10	14.18	17.15	20.77	25.10	PASS
		256QAM	15.28	15.22	18.26	14.15	14.18	17.18	20.76	25.09	PASS
	3604.98+3645.00	QPSK	14.61	14.56	17.60	14.63	14.59	17.62	20.62	24.95	PASS
		16QAM	14.46	14.43	17.46	14.37	14.46	17.43	20.45	24.78	PASS
		64QAM	14.56	14.47	17.53	14.39	14.53	17.47	20.51	24.84	PASS
		256QAM	14.41	14.46	17.45	14.41	14.25	17.34	20.40	24.73	PASS
	3639.96+3679.98	QPSK	15.02	14.86	17.95	14.38	14.44	17.42	20.70	25.03	PASS
		16QAM	14.95	14.82	17.90	14.27	14.37	17.33	20.63	24.96	PASS
		64QAM	14.88	14.86	17.88	14.22	14.34	17.29	20.61	24.94	PASS
		256QAM	14.80	14.88	17.85	14.18	14.24	17.22	20.56	24.89	PASS
40M+40M Non-Contiguous	3570.00+3620.01	QPSK	15.47	14.96	18.23	14.34	14.35	17.36	20.83	25.16	PASS
		16QAM	15.29	14.81	18.07	14.08	13.94	17.02	20.59	24.92	PASS
		64QAM	15.16	14.76	17.97	14.01	14.04	17.04	20.54	24.87	PASS
		256QAM	15.22	14.71	17.98	14.20	14.25	17.24	20.64	24.97	PASS
	3600.00+3650.01	QPSK	14.74	14.63	17.70	14.35	14.25	17.31	20.52	24.85	PASS
		16QAM	14.44	14.34	17.40	14.27	14.32	17.31	20.36	24.69	PASS
		64QAM	14.56	14.44	17.51	14.05	14.09	17.08	20.31	24.64	PASS
		256QAM	14.53	14.35	17.45	14.08	14.20	17.15	20.31	24.64	PASS
	3629.97+3679.98	QPSK	15.26	15.22	18.25	14.80	14.84	17.83	21.06	25.39	PASS
		16QAM	15.04	15.03	18.05	14.60	14.72	17.67	20.87	25.20	PASS
		64QAM	15.21	15.02	18.13	14.59	14.66	17.64	20.90	25.23	PASS
		256QAM	15.02	15.15	18.10	14.60	14.65	17.64	20.88	25.21	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G^1/10} + 10^{G^2/10} + \dots + 10^{G^N/10})/4] = 4.33\text{dBi}$
- EIRP (dBm/10MHz) = Total Conducted Output Power (dBm/10MHz) + Antenna Gain

Full Conducted Output Power and Full EIRP Power (dBm/Channel Bandwidth)

Bandwidth	Frequency (MHz)	Modulation	Antenna						Total	EIRP (dBm/Channel Bandwidth)	Verdict
			0	2	0+2 Total	1	3	1+3 Total			
20M+20M Contiguous	3560.01+3580.02	QPSK	17.44	17.27	20.37	17.47	17.44	20.47	23.43	27.76	PASS
		16QAM	17.39	17.23	20.32	17.32	17.25	20.30	23.32	27.65	PASS
		64QAM	17.21	17.18	20.21	17.22	17.24	20.24	23.23	27.56	PASS
		256QAM	17.36	17.11	20.25	17.20	17.16	20.19	23.23	27.56	PASS
	3615.00+3635.01	QPSK	17.37	17.40	20.40	17.32	17.30	20.32	23.37	27.70	PASS
		16QAM	17.23	17.10	20.18	17.19	17.13	20.17	23.18	27.51	PASS
		64QAM	17.15	17.18	20.18	17.19	17.19	20.20	23.20	27.53	PASS
		256QAM	17.15	17.24	20.21	17.16	17.04	20.11	23.17	27.50	PASS
	3669.99+3690.00	QPSK	17.29	17.21	20.26	17.24	17.29	20.28	23.28	27.61	PASS
		16QAM	17.09	17.12	20.12	17.13	17.29	20.22	23.18	27.51	PASS
		64QAM	17.01	16.96	20.00	17.08	17.13	20.12	23.07	27.40	PASS
		256QAM	17.05	17.18	20.13	17.11	17.15	20.14	23.14	27.47	PASS
20M+20M Non-Contiguous	3560.01+3590.01	QPSK	17.76	17.80	20.79	16.46	16.51	19.50	23.20	27.53	PASS
		16QAM	17.66	17.73	20.71	16.38	16.32	19.36	23.10	27.43	PASS
		64QAM	17.55	17.60	20.59	16.31	16.27	19.30	23.00	27.33	PASS
		256QAM	17.67	17.69	20.69	16.25	16.42	19.35	23.08	27.41	PASS
	3610.02+3640.02	QPSK	17.36	17.22	20.30	17.32	17.41	20.38	23.35	27.68	PASS
		16QAM	17.07	17.17	20.13	17.11	17.16	20.15	23.15	27.48	PASS
		64QAM	17.19	17.19	20.20	17.16	17.20	20.19	23.21	27.54	PASS
		256QAM	17.25	17.15	20.21	16.96	17.19	20.09	23.16	27.49	PASS
	3660.00+3690.00	QPSK	17.62	17.56	20.60	17.20	17.22	20.22	23.42	27.75	PASS
		16QAM	17.58	17.29	20.45	17.13	17.18	20.17	23.32	27.65	PASS
		64QAM	17.60	17.42	20.52	17.14	17.14	20.15	23.35	27.68	PASS
		256QAM	17.43	17.41	20.43	17.08	17.23	20.17	23.31	27.64	PASS
40M+40M Contiguous	3570.00+3610.02	QPSK	21.07	20.06	23.60	20.96	19.97	23.50	26.56	30.89	PASS
		16QAM	20.65	20.85	23.76	19.83	19.83	22.84	26.34	30.67	PASS
		64QAM	20.67	20.71	23.70	19.97	19.77	22.88	26.32	30.65	PASS
		256QAM	20.81	20.86	23.85	19.77	19.63	22.71	26.33	30.66	PASS
	3604.98+3645.00	QPSK	20.38	20.44	23.42	20.62	20.67	23.66	26.55	30.88	PASS
		16QAM	20.47	20.37	23.43	20.35	20.39	23.38	26.42	30.75	PASS
		64QAM	20.28	20.28	23.29	20.35	20.54	23.46	26.38	30.71	PASS
		256QAM	20.23	20.20	23.23	20.47	20.41	23.45	26.35	30.68	PASS
	3639.96+3679.98	QPSK	20.43	20.51	23.48	19.90	19.97	22.95	26.23	30.56	PASS
		16QAM	20.16	20.30	23.24	19.76	19.86	22.82	26.05	30.38	PASS
		64QAM	20.26	20.22	23.25	19.83	19.98	22.92	26.10	30.43	PASS
		256QAM	20.25	20.33	23.30	19.75	19.92	22.85	26.09	30.42	PASS
40M+40M Non-Contiguous	3570.00+3620.01	QPSK	20.77	20.77	23.78	19.99	19.99	23.00	26.42	30.75	PASS
		16QAM	20.59	20.45	23.53	19.86	19.79	22.84	26.21	30.54	PASS
		64QAM	20.79	20.70	23.76	19.81	19.77	22.80	26.31	30.64	PASS
		256QAM	20.81	20.70	23.77	19.71	19.74	22.74	26.29	30.62	PASS
	3600.00+3650.01	QPSK	20.21	20.15	23.19	20.09	19.87	22.99	26.10	30.43	PASS
		16QAM	20.13	20.03	23.09	19.94	19.78	22.87	25.99	30.32	PASS
		64QAM	19.99	20.18	23.10	19.69	19.78	22.75	25.93	30.26	PASS
		256QAM	19.99	20.18	23.10	19.83	19.92	22.89	26.00	30.33	PASS
	3629.97+3679.98	QPSK	20.70	20.75	23.74	20.35	20.34	23.36	26.56	30.89	PASS
		16QAM	20.63	20.64	23.65	20.24	20.11	23.19	26.43	30.76	PASS
		64QAM	20.58	20.60	23.60	20.23	20.13	23.19	26.41	30.74	PASS
		256QAM	20.53	20.60	23.58	20.27	20.19	23.24	26.42	30.75	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/4] = 4.33\text{dB}$
- EIRP (dBm/Channel Bandwidth) = Total Conducted Output Power (dBm/Channel Bandwidth) + Antenna Gain

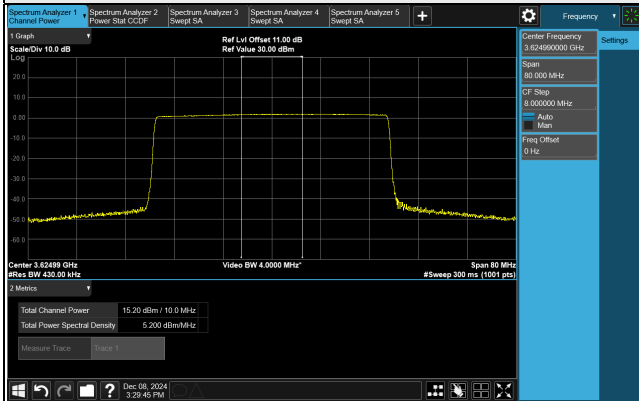
Mode A1, B1

Conducted Output Power and EIRP Power (dBm/10MHz)

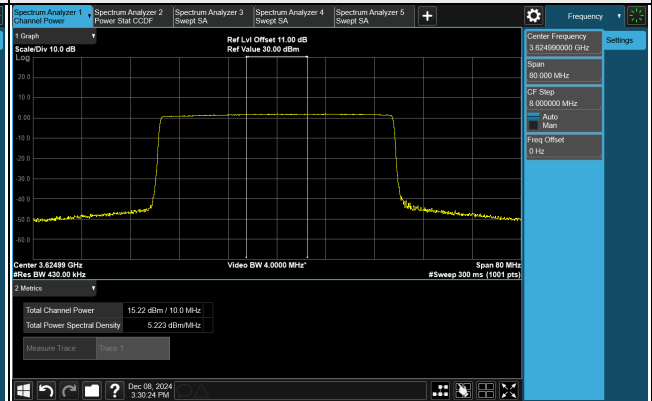
Spectrum Plot of Worst Value

40MHz / QPSK

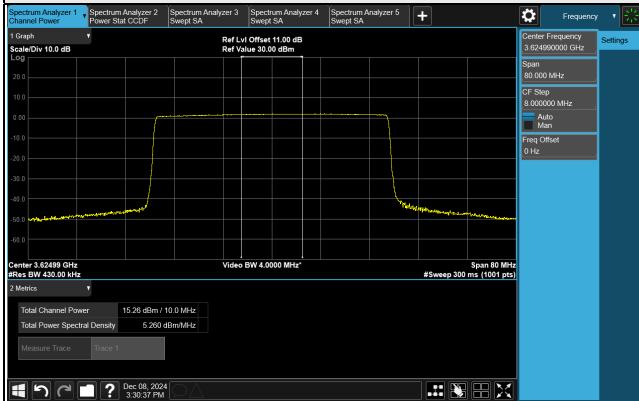
Ant.0



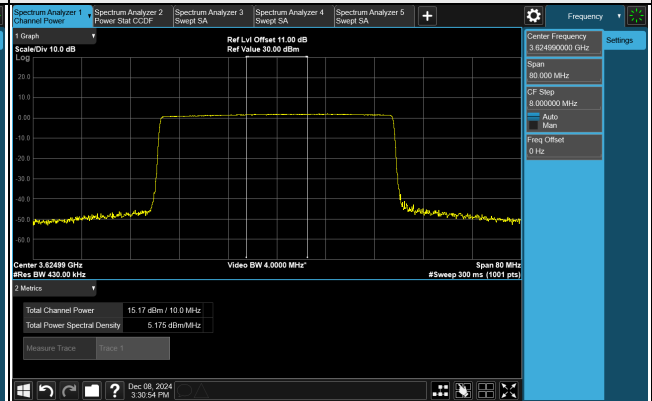
Ant.1



Ant.2



Ant.3



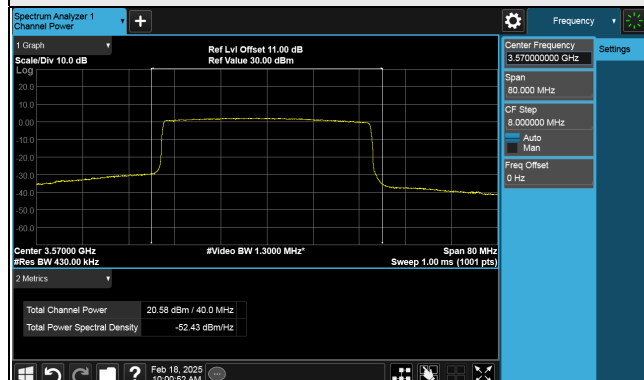
Mode A1, B1

Full Conducted Output Power and Full EIRP Power (dBm/Channel Bandwidth)

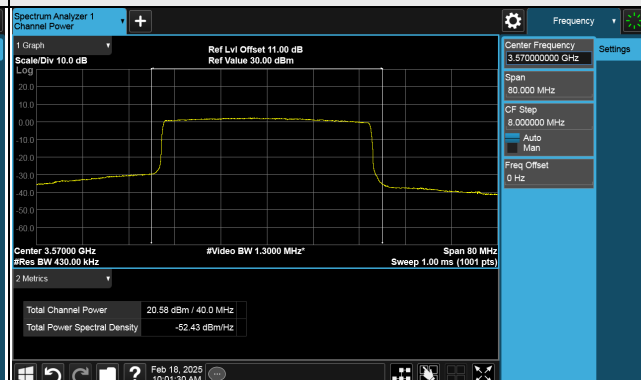
Spectrum Plot of Worst Value

40MHz / QPSK

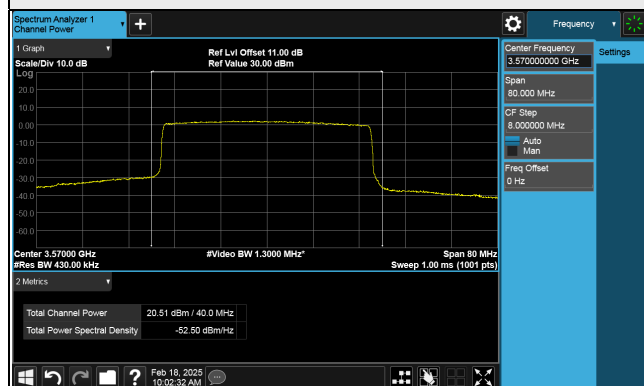
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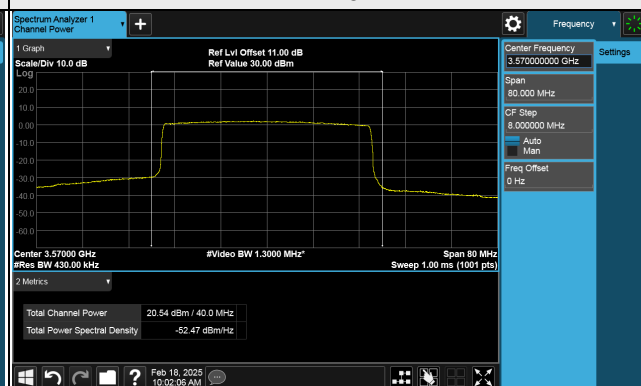
Ant.1



Ant.2



Ant.3



Mode A2, B2

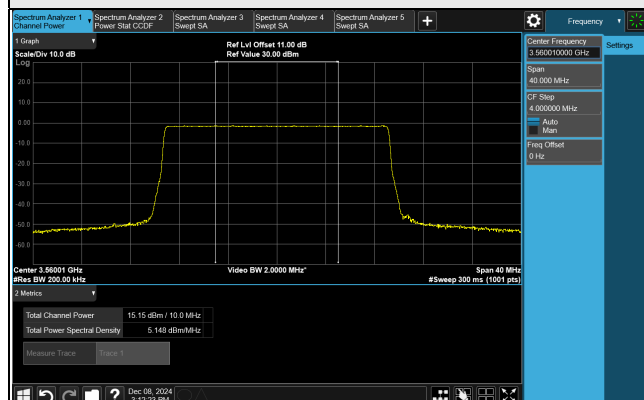
Conducted Output Power and EIRP Power (dBm/10MHz)

Spectrum Plot of Worst Value

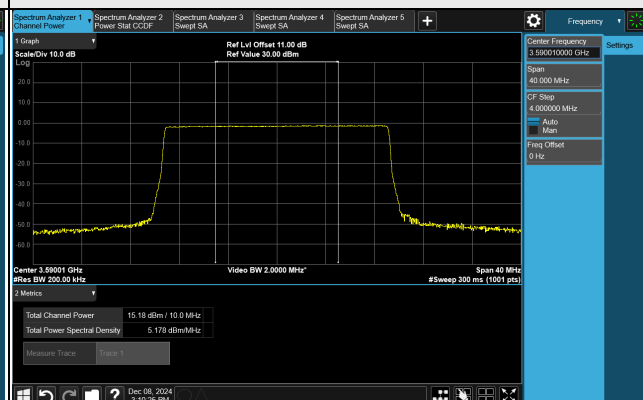
20MHz+20MHz_Non-Contiguous / QPSK

3560.01 MHz+3590.01 MHz

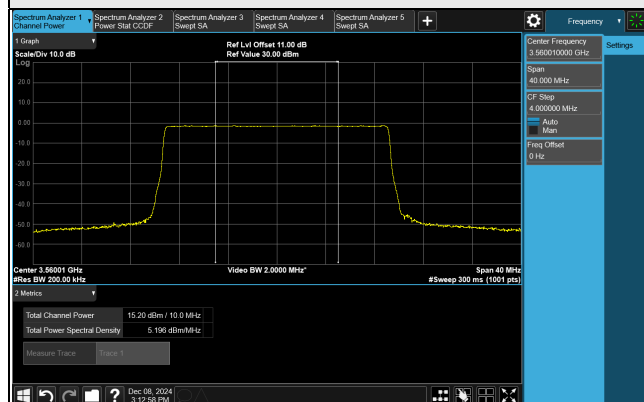
Ant.0



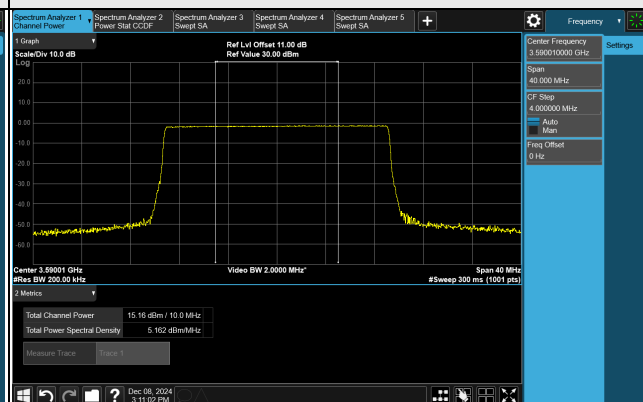
Ant.2



Ant.1



Ant.3



Mode A2, B2

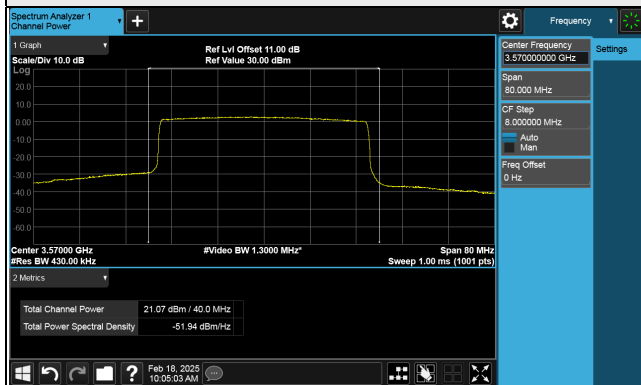
Full Conducted Output Power and Full EIRP Power (dBm/Channel Bandwidth)

Spectrum Plot of Worst Value

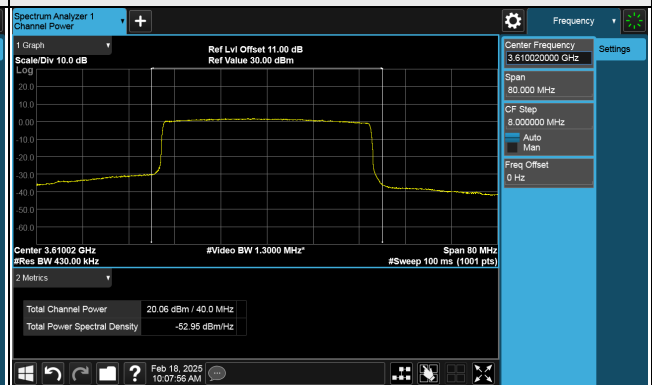
40M+40M Contiguous / QPSK

3570.00 MHz+3610.02 MHz

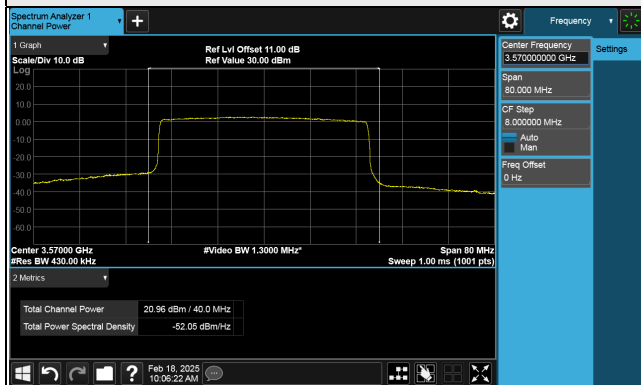
Ant.0



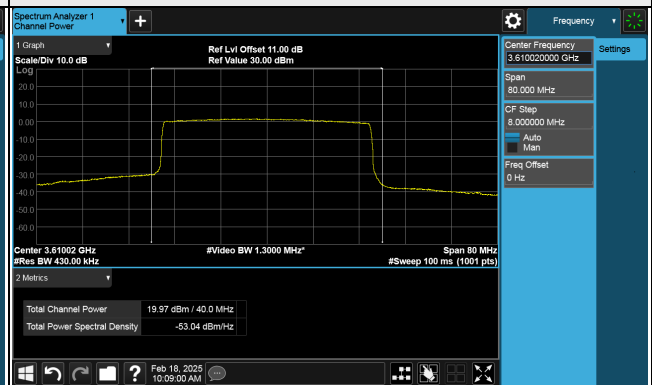
Ant.2



Ant.1



Ant.3

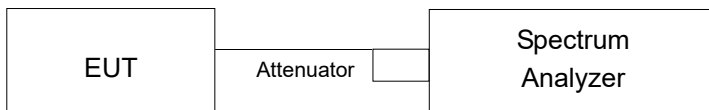


4.2 Maximum Power Spectral Density Measurement

4.2.1 Limits of Maximum Power Spectral Density Measurement

Device		Maximum PSD (dBm/MHz)
☐	End User Device	n/a
☒	Category A CBSD	20
☐	Category B CBSD	37

4.2.2 Test Setup



4.2.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.2.4 Test Procedure

- Connect the transmitter to the spectrum analyzer via coaxial cable while ensuring proper impedance matching.
- Set instrument center frequency to OBW center frequency.
- Set span to $2 \times$ to $3 \times$ the OBW.
- Set the RBW to the specified reference bandwidth (often 1 MHz).
- Set VBW $\geq 3 \times$ RBW.
- Detector = RMS (power averaging).
- Ensure that the number of measurement points in the sweep $\geq 2 \times$ span/RBW.
- Sweep time = auto couple.
- Employ trace averaging (RMS) mode over a minimum of 100 traces.
- Use the peak marker function to determine the maximum amplitude level within the reference bandwidth (PSD).

4.2.5 Deviation from Test Standard

No deviation.

4.2.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.7 Test Results

Mode A1

Power Spectral Density (dBm/MHz)

Bandwidth	Frequency (MHz)	Modulation	Antenna				Total	EIRP (dBm/MHz)	Verdict
			0	1	2	3			
10M	3555	QPSK	5.38	5.20	5.34	5.34	11.34	19.85	PASS
		16QAM	5.23	5.12	5.25	5.09	11.19	19.70	PASS
		64QAM	5.16	5.17	5.38	4.96	11.19	19.70	PASS
		256QAM	5.21	5.20	5.07	5.09	11.16	19.67	PASS
	3624.99	QPSK	5.45	5.50	5.16	5.55	11.44	19.95	PASS
		16QAM	5.23	5.24	5.11	5.27	11.23	19.74	PASS
		64QAM	5.14	5.16	4.88	5.30	11.14	19.65	PASS
		256QAM	5.18	5.36	4.93	5.41	11.24	19.75	PASS
	3694.98	QPSK	5.23	5.19	5.15	5.25	11.23	19.74	PASS
		16QAM	5.09	5.28	5.13	5.19	11.19	19.70	PASS
		64QAM	5.10	5.28	5.14	5.30	11.23	19.74	PASS
		256QAM	5.21	5.23	5.13	5.23	11.22	19.73	PASS
20M	3560.01	QPSK	5.04	5.11	5.06	5.07	11.09	19.60	PASS
		16QAM	4.81	4.93	4.84	5.00	10.92	19.43	PASS
		64QAM	4.97	4.97	4.90	4.90	10.96	19.47	PASS
		256QAM	4.98	5.06	4.88	4.86	10.97	19.48	PASS
	3624.99	QPSK	5.21	5.20	5.25	5.18	11.23	19.74	PASS
		16QAM	5.02	5.00	5.02	5.09	11.05	19.56	PASS
		64QAM	5.03	5.09	5.11	4.99	11.08	19.59	PASS
		256QAM	5.06	4.97	5.05	4.97	11.03	19.54	PASS
	3690	QPSK	5.35	5.30	5.32	5.33	11.35	19.86	PASS
		16QAM	5.27	5.17	5.14	5.27	11.23	19.74	PASS
		64QAM	5.28	5.18	5.12	5.17	11.21	19.72	PASS
		256QAM	5.16	5.21	5.13	5.24	11.21	19.72	PASS
40M	3570	QPSK	5.39	5.28	5.33	5.26	11.34	19.85	PASS
		16QAM	5.31	5.15	5.14	5.15	11.21	19.72	PASS
		64QAM	5.21	5.07	5.22	5.11	11.17	19.68	PASS
		256QAM	5.15	5.10	5.13	5.06	11.13	19.64	PASS
	3624.99	QPSK	5.10	5.17	5.13	5.11	11.15	19.66	PASS
		16QAM	4.88	5.01	5.08	4.97	11.01	19.52	PASS
		64QAM	4.96	5.10	4.98	4.89	11.00	19.51	PASS
		256QAM	5.04	5.07	4.95	5.00	11.04	19.55	PASS
	3679.98	QPSK	4.37	4.33	4.38	4.30	10.37	18.88	PASS
		16QAM	4.32	4.28	4.28	4.20	10.29	18.80	PASS
		64QAM	4.19	4.21	4.32	4.25	10.26	18.77	PASS
		256QAM	4.31	4.26	4.32	4.12	10.27	18.78	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/4] = 8.51\text{dBi}$
- EIRP Power Spectral Density (dBm/MHz) = Total Power Spectral Density (dBm/MHz) + Directional Gain

Mode A2

Power Spectral Density (dBm/MHz)

Bandwidth	Frequency (MHz)	Modulation	Antenna						Total	EIRP (dBm/ MHz)	Verdict
			0	2	0+2 Total	1	3	1+3 Total			
20M+20M Contiguous	3560.01+ 3580.02	QPSK	5.21	5.27	8.25	4.66	4.73	7.71	11.00	19.51	PASS
		16QAM	5.31	5.17	8.25	4.64	4.54	7.60	10.95	19.46	PASS
		64QAM	5.16	5.06	8.12	4.47	4.59	7.54	10.85	19.36	PASS
		256QAM	5.12	5.20	8.17	4.51	4.58	7.56	10.88	19.39	PASS
	3615.00+ 3635.01	QPSK	5.02	4.95	8.00	4.85	5.05	7.96	10.99	19.50	PASS
		16QAM	4.94	4.95	7.96	4.88	4.70	7.80	10.89	19.40	PASS
		64QAM	4.92	4.87	7.91	4.77	4.81	7.80	10.86	19.37	PASS
		256QAM	5.05	4.84	7.96	4.84	4.84	7.85	10.91	19.42	PASS
	3669.99+ 3690.00	QPSK	5.45	5.31	8.39	5.08	5.23	8.17	11.29	19.80	PASS
		16QAM	5.21	5.18	8.21	5.00	5.04	8.03	11.13	19.64	PASS
		64QAM	5.12	5.12	8.13	4.97	5.08	8.04	11.09	19.60	PASS
		256QAM	5.14	5.36	8.26	4.99	4.98	8.00	11.14	19.65	PASS
20M+20M Non-Contiguous	3560.01+ 3590.01	QPSK	5.32	5.28	8.31	4.26	4.33	7.31	10.85	19.36	PASS
		16QAM	5.19	5.18	8.20	4.17	4.20	7.20	10.73	19.24	PASS
		64QAM	5.23	5.20	8.23	4.17	4.26	7.23	10.76	19.27	PASS
		256QAM	5.10	5.06	8.09	4.01	4.27	7.15	10.66	19.17	PASS
	3610.02+ 3640.02	QPSK	5.11	4.93	8.03	5.27	5.33	8.31	11.18	19.69	PASS
		16QAM	4.85	4.85	7.86	5.17	5.03	8.11	11.00	19.51	PASS
		64QAM	4.75	4.78	7.78	5.27	5.06	8.18	10.99	19.50	PASS
		256QAM	4.97	4.73	7.86	5.27	5.11	8.20	11.05	19.56	PASS
	3660.00+ 3690.00	QPSK	5.61	5.05	8.35	5.58	5.03	8.32	11.35	19.86	PASS
		16QAM	5.32	5.40	8.37	4.99	5.12	8.07	11.23	19.74	PASS
		64QAM	5.60	5.34	8.48	4.97	4.95	7.97	11.24	19.75	PASS
		256QAM	5.46	5.40	8.44	5.01	5.00	8.02	11.24	19.75	PASS
40M+40M Contiguous	3570.00+ 3610.02	QPSK	5.50	5.48	8.50	4.64	4.66	7.66	11.11	19.62	PASS
		16QAM	5.28	5.21	8.26	4.43	4.42	7.44	10.88	19.39	PASS
		64QAM	5.37	5.20	8.30	4.29	4.38	7.35	10.86	19.37	PASS
		256QAM	5.32	5.18	8.26	4.40	4.31	7.37	10.85	19.36	PASS
	3604.98+ 3645.00	QPSK	5.21	5.23	8.23	4.99	4.90	7.96	11.11	19.62	PASS
		16QAM	5.16	5.10	8.14	4.90	4.62	7.77	10.97	19.48	PASS
		64QAM	5.15	4.98	8.08	4.82	4.66	7.75	10.93	19.44	PASS
		256QAM	5.04	5.00	8.03	4.68	4.78	7.74	10.90	19.41	PASS
	3639.96+ 3679.98	QPSK	5.42	5.39	8.42	4.63	4.81	7.73	11.10	19.61	PASS
		16QAM	5.20	5.22	8.22	4.57	4.56	7.58	10.92	19.43	PASS
		64QAM	5.10	5.19	8.16	4.50	4.55	7.54	10.87	19.38	PASS
		256QAM	5.18	5.27	8.24	4.50	4.53	7.53	10.91	19.42	PASS
40M+40M Non-Contiguous	3570.00+ 3620.01	QPSK	5.63	5.49	8.57	4.50	4.66	7.59	11.12	19.63	PASS
		16QAM	5.35	5.21	8.29	4.44	4.30	7.38	10.87	19.38	PASS
		64QAM	5.44	5.15	8.31	4.36	4.31	7.35	10.86	19.37	PASS
		256QAM	5.39	5.39	8.40	4.25	4.33	7.30	10.90	19.41	PASS
	3600.00+ 3650.01	QPSK	5.03	5.07	8.06	5.37	5.22	8.31	11.20	19.71	PASS
		16QAM	4.97	5.00	8.00	5.18	4.88	8.04	11.03	19.54	PASS
		64QAM	4.82	4.97	7.91	5.28	5.11	8.21	11.07	19.58	PASS
		256QAM	4.94	4.97	7.97	5.03	5.14	8.10	11.04	19.55	PASS
	3629.97+ 3679.98	QPSK	5.34	5.28	8.32	5.10	5.12	8.12	11.23	19.74	PASS
		16QAM	5.17	5.08	8.14	4.87	4.99	7.94	11.05	19.56	PASS
		64QAM	5.25	5.21	8.24	4.98	4.98	7.99	11.13	19.64	PASS
		256QAM	5.11	5.20	8.17	4.93	4.99	7.97	11.08	19.59	PASS

Note:

1. Uncorrelated Directional gain = $10 \log[(10^{G_1/10} + 10^{G_2/10} + \dots + 10^{G_N/10})/4] = 8.51\text{dB}$
2. EIRP Power Spectral Density (dBm/MHz) = Total Power Spectral Density (dBm/MHz) + Directional Gain

Mode B1

Power Spectral Density (dBm/MHz)

Bandwidth	Frequency (MHz)	Modulation	Antenna				Total	EIRP (dBm/MHz)	Verdict
			0	1	2	3			
10M	3555	QPSK	5.38	5.20	5.34	5.34	11.34	15.67	PASS
		16QAM	5.23	5.12	5.25	5.09	11.19	15.52	PASS
		64QAM	5.16	5.17	5.38	4.96	11.19	15.52	PASS
		256QAM	5.21	5.20	5.07	5.09	11.16	15.49	PASS
	3624.99	QPSK	5.45	5.50	5.16	5.55	11.44	15.77	PASS
		16QAM	5.23	5.24	5.11	5.27	11.23	15.56	PASS
		64QAM	5.14	5.16	4.88	5.30	11.14	15.47	PASS
		256QAM	5.18	5.36	4.93	5.41	11.24	15.57	PASS
	3694.98	QPSK	5.23	5.19	5.15	5.25	11.23	15.56	PASS
		16QAM	5.09	5.28	5.13	5.19	11.19	15.52	PASS
		64QAM	5.10	5.28	5.14	5.30	11.23	15.56	PASS
		256QAM	5.21	5.23	5.13	5.23	11.22	15.55	PASS
20M	3560.01	QPSK	5.04	5.11	5.06	5.07	11.09	15.42	PASS
		16QAM	4.81	4.93	4.84	5.00	10.92	15.25	PASS
		64QAM	4.97	4.97	4.90	4.90	10.96	15.29	PASS
		256QAM	4.98	5.06	4.88	4.86	10.97	15.30	PASS
	3624.99	QPSK	5.21	5.20	5.25	5.18	11.23	15.56	PASS
		16QAM	5.02	5.00	5.02	5.09	11.05	15.38	PASS
		64QAM	5.03	5.09	5.11	4.99	11.08	15.41	PASS
		256QAM	5.06	4.97	5.05	4.97	11.03	15.36	PASS
	3690	QPSK	5.35	5.30	5.32	5.33	11.35	15.68	PASS
		16QAM	5.27	5.17	5.14	5.27	11.23	15.56	PASS
		64QAM	5.28	5.18	5.12	5.17	11.21	15.54	PASS
		256QAM	5.16	5.21	5.13	5.24	11.21	15.54	PASS
40M	3570	QPSK	5.39	5.28	5.33	5.26	11.34	15.67	PASS
		16QAM	5.31	5.15	5.14	5.15	11.21	15.54	PASS
		64QAM	5.21	5.07	5.22	5.11	11.17	15.50	PASS
		256QAM	5.15	5.10	5.13	5.06	11.13	15.46	PASS
	3624.99	QPSK	5.10	5.17	5.13	5.11	11.15	15.48	PASS
		16QAM	4.88	5.01	5.08	4.97	11.01	15.34	PASS
		64QAM	4.96	5.10	4.98	4.89	11.00	15.33	PASS
		256QAM	5.04	5.07	4.95	5.00	11.04	15.37	PASS
	3679.98	QPSK	4.37	4.33	4.38	4.30	10.37	14.70	PASS
		16QAM	4.32	4.28	4.28	4.20	10.29	14.62	PASS
		64QAM	4.19	4.21	4.32	4.25	10.26	14.59	PASS
		256QAM	4.31	4.26	4.32	4.12	10.27	14.60	PASS

Note:

- Uncorrelated Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/4] = 4.33\text{dBi}$
- EIRP Power Spectral Density (dBm/MHz) = Total Power Spectral Density (dBm/MHz) + Antenna Gain

Mode B2

Power Spectral Density (dBm/MHz)

Bandwidth	Frequency (MHz)	Modulation	Antenna						Total	EIRP (dBm/ MHz)	Verdict
			0	2	0+2 Total	1	3	1+3 Total			
20M+20M Contiguous	3560.01+ 3580.02	QPSK	5.21	5.27	8.25	4.66	4.73	7.71	11.00	15.33	PASS
		16QAM	5.31	5.17	8.25	4.64	4.54	7.60	10.95	15.28	PASS
		64QAM	5.16	5.06	8.12	4.47	4.59	7.54	10.85	15.18	PASS
		256QAM	5.12	5.20	8.17	4.51	4.58	7.56	10.88	15.21	PASS
	3615.00+ 3635.01	QPSK	5.02	4.95	8.00	4.85	5.05	7.96	10.99	15.32	PASS
		16QAM	4.94	4.95	7.96	4.88	4.70	7.80	10.89	15.22	PASS
		64QAM	4.92	4.87	7.91	4.77	4.81	7.80	10.86	15.19	PASS
		256QAM	5.05	4.84	7.96	4.84	4.84	7.85	10.91	15.24	PASS
	3669.99+ 3690.00	QPSK	5.45	5.31	8.39	5.08	5.23	8.17	11.29	15.62	PASS
		16QAM	5.21	5.18	8.21	5.00	5.04	8.03	11.13	15.46	PASS
		64QAM	5.12	5.12	8.13	4.97	5.08	8.04	11.09	15.42	PASS
		256QAM	5.14	5.36	8.26	4.99	4.98	8.00	11.14	15.47	PASS
20M+20M Non-Contiguous	3560.01+ 3590.01	QPSK	5.32	5.28	8.31	4.26	4.33	7.31	10.85	15.18	PASS
		16QAM	5.19	5.18	8.20	4.17	4.20	7.20	10.73	15.06	PASS
		64QAM	5.23	5.20	8.23	4.17	4.26	7.23	10.76	15.09	PASS
		256QAM	5.10	5.06	8.09	4.01	4.27	7.15	10.66	14.99	PASS
	3610.02+ 3640.02	QPSK	5.11	4.93	8.03	5.27	5.33	8.31	11.18	15.51	PASS
		16QAM	4.85	4.85	7.86	5.17	5.03	8.11	11.00	15.33	PASS
		64QAM	4.75	4.78	7.78	5.27	5.06	8.18	10.99	15.32	PASS
		256QAM	4.97	4.73	7.86	5.27	5.11	8.20	11.05	15.38	PASS
	3660.00+ 3690.00	QPSK	5.61	5.05	8.35	5.58	5.03	8.32	11.35	15.68	PASS
		16QAM	5.32	5.40	8.37	4.99	5.12	8.07	11.23	15.56	PASS
		64QAM	5.60	5.34	8.48	4.97	4.95	7.97	11.24	15.57	PASS
		256QAM	5.46	5.40	8.44	5.01	5.00	8.02	11.24	15.57	PASS
40M+40M Contiguous	3570.00+ 3610.02	QPSK	5.50	5.48	8.50	4.64	4.66	7.66	11.11	15.44	PASS
		16QAM	5.28	5.21	8.26	4.43	4.42	7.44	10.88	15.21	PASS
		64QAM	5.37	5.20	8.30	4.29	4.38	7.35	10.86	15.19	PASS
		256QAM	5.32	5.18	8.26	4.40	4.31	7.37	10.85	15.18	PASS
	3604.98+ 3645.00	QPSK	5.21	5.23	8.23	4.99	4.90	7.96	11.11	15.44	PASS
		16QAM	5.16	5.10	8.14	4.90	4.62	7.77	10.97	15.30	PASS
		64QAM	5.15	4.98	8.08	4.82	4.66	7.75	10.93	15.26	PASS
		256QAM	5.04	5.00	8.03	4.68	4.78	7.74	10.90	15.23	PASS
	3639.96+ 3679.98	QPSK	5.42	5.39	8.42	4.63	4.81	7.73	11.10	15.43	PASS
		16QAM	5.20	5.22	8.22	4.57	4.56	7.58	10.92	15.25	PASS
		64QAM	5.10	5.19	8.16	4.50	4.55	7.54	10.87	15.20	PASS
		256QAM	5.18	5.27	8.24	4.50	4.53	7.53	10.91	15.24	PASS
40M+40M Non-Contiguous	3570.00+ 3620.01	QPSK	5.63	5.49	8.57	4.50	4.66	7.59	11.12	15.45	PASS
		16QAM	5.35	5.21	8.29	4.44	4.30	7.38	10.87	15.20	PASS
		64QAM	5.44	5.15	8.31	4.36	4.31	7.35	10.86	15.19	PASS
		256QAM	5.39	5.39	8.40	4.25	4.33	7.30	10.90	15.23	PASS
	3600.00+ 3650.01	QPSK	5.03	5.07	8.06	5.37	5.22	8.31	11.20	15.53	PASS
		16QAM	4.97	5.00	8.00	5.18	4.88	8.04	11.03	15.36	PASS
		64QAM	4.82	4.97	7.91	5.28	5.11	8.21	11.07	15.40	PASS
		256QAM	4.94	4.97	7.97	5.03	5.14	8.10	11.04	15.37	PASS
	3629.97+ 3679.98	QPSK	5.34	5.28	8.32	5.10	5.12	8.12	11.23	15.56	PASS
		16QAM	5.17	5.08	8.14	4.87	4.99	7.94	11.05	15.38	PASS
		64QAM	5.25	5.21	8.24	4.98	4.98	7.99	11.13	15.46	PASS
		256QAM	5.11	5.20	8.17	4.93	4.99	7.97	11.08	15.41	PASS

Note:

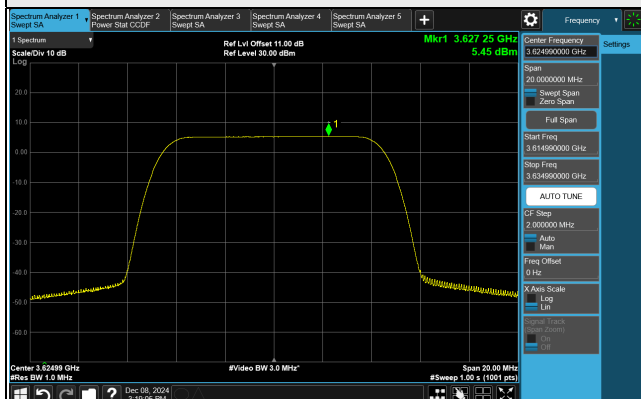
- Uncorrelated Directional gain = $10 \log[(10^{G^1/10} + 10^{G^2/10} + \dots + 10^{G^N/10})/4] = 4.33\text{dBi}$
- EIRP Power Spectral Density (dBm/MHz) = Total Power Spectral Density (dBm/MHz) + Antenna Gain

Mode A1, B1

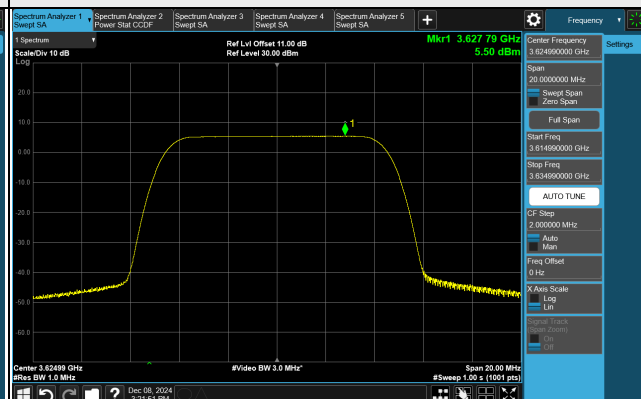
Spectrum Plot of Worst Value

10MHz / QPSK

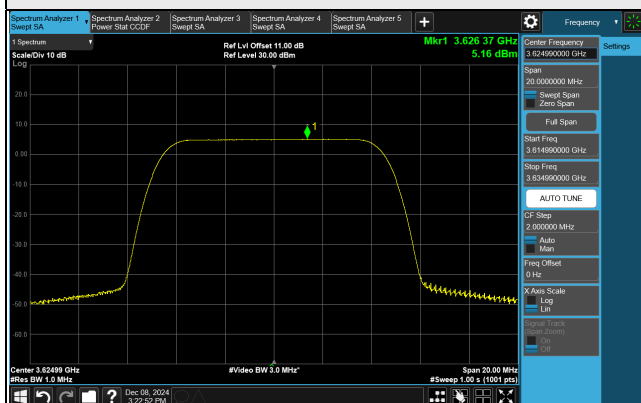
Ant.0



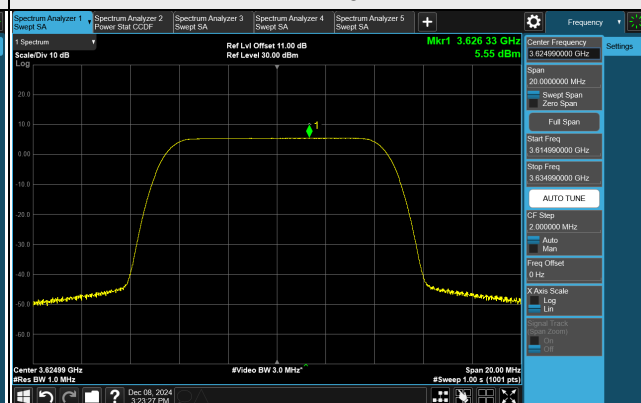
Ant.1



Ant.2



Ant.3



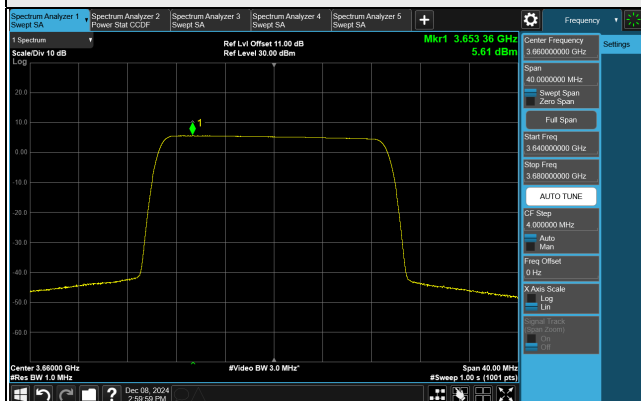
Mode A2, B2

Spectrum Plot of Worst Value

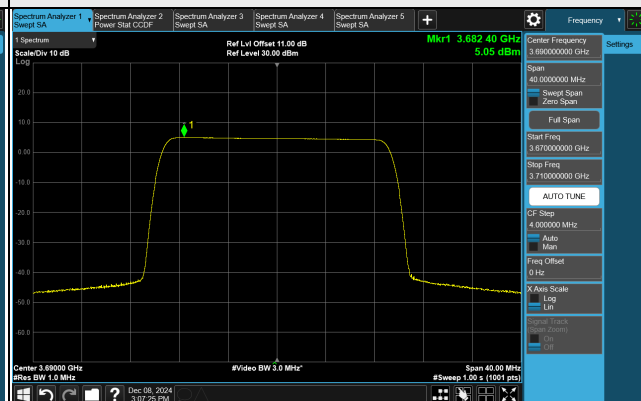
20MHz+20MHz_Non-Contiguous / QPSK

3660.00 MHz+3690.00 MHz

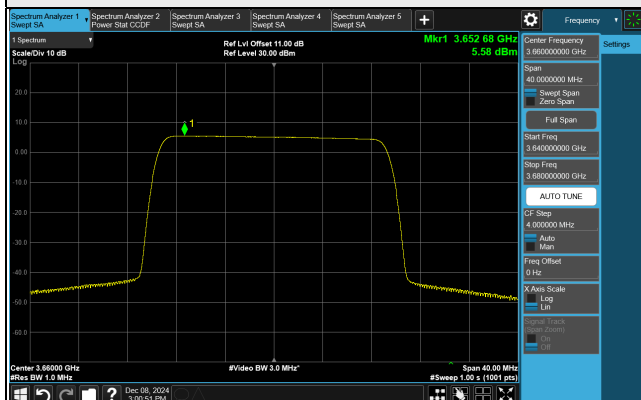
Ant.0



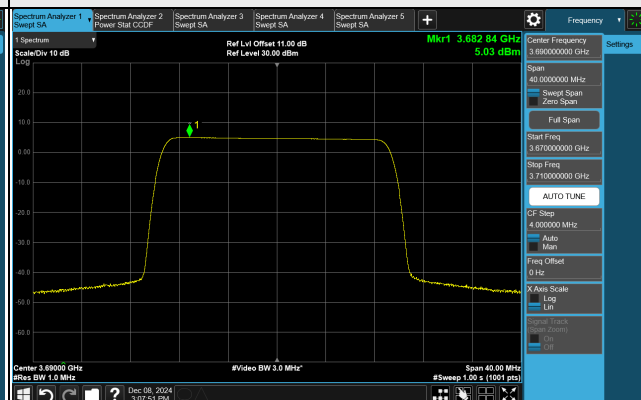
Ant.2



Ant.1



Ant.3



4.3 Modulation Characteristics Measurement

4.3.1 Limits of Modulation Characteristics

N/A

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.3.4 Deviation from Test Standard

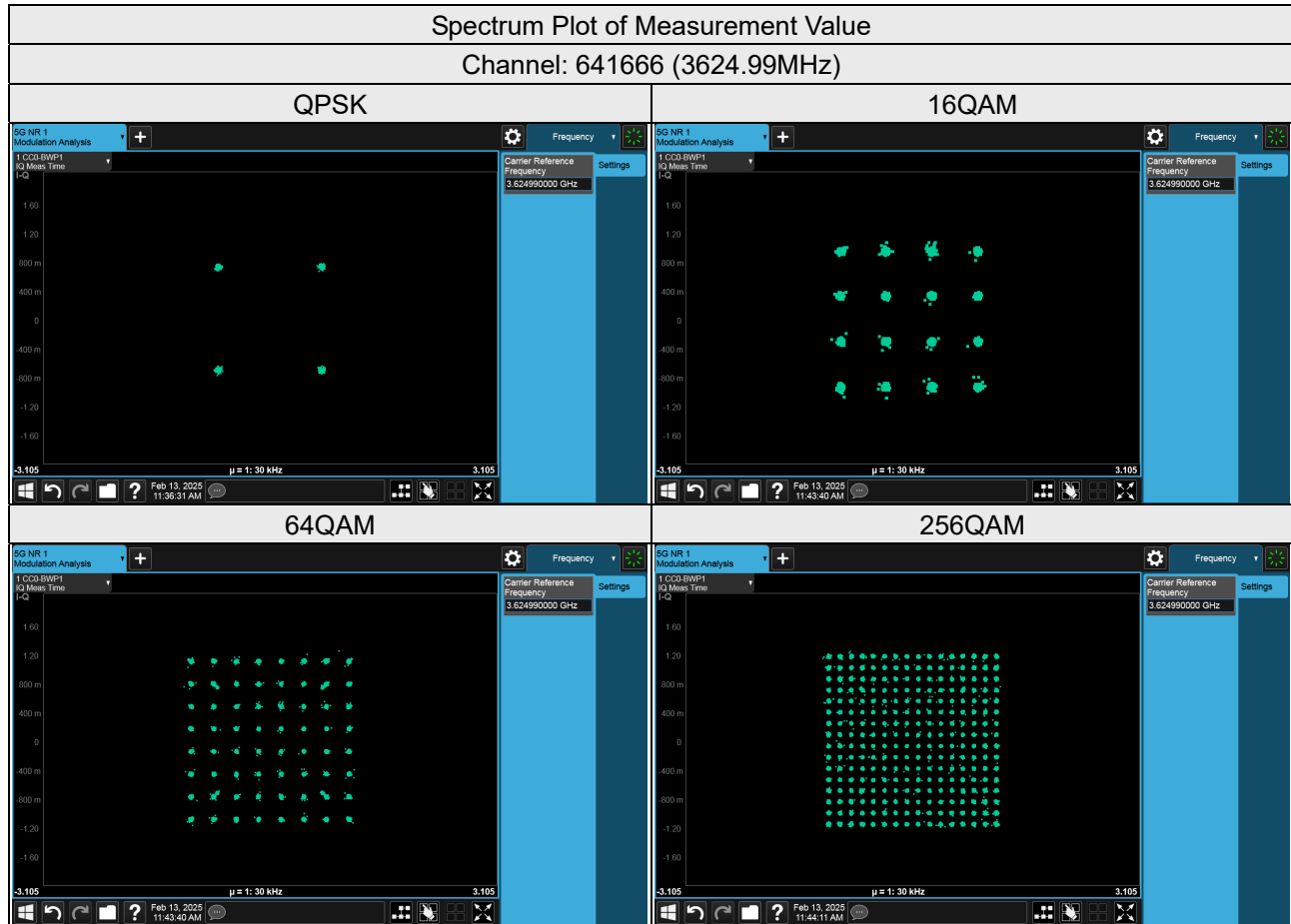
No deviation.

4.3.5 EUT Operating Conditions

Connect the EUT to Communication Simulator via the antenna connector, the frequency band is set as EUT supported Modulation and Channels, the EUT output is matched with 50 ohm load, the waveform quality and constellation of the EUT was tested.

4.3.6 Test Results

Mode A1

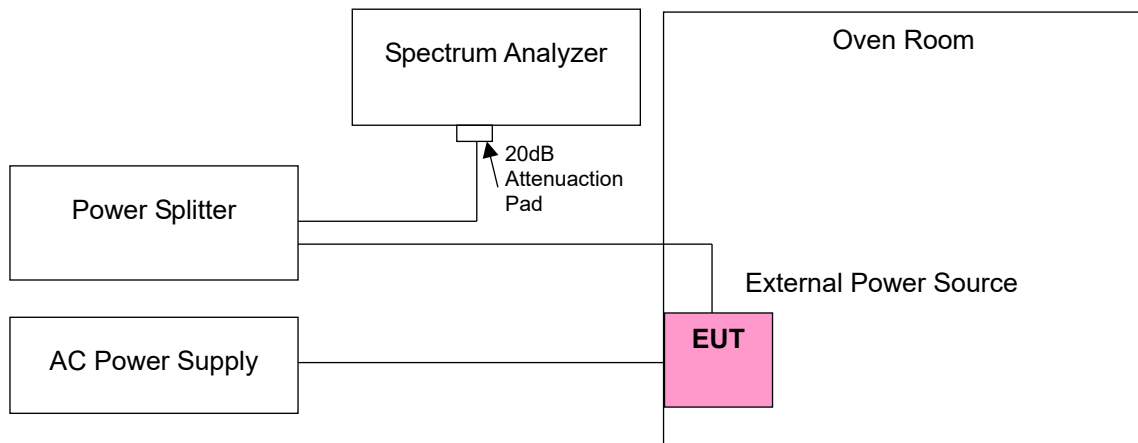


4.4 Frequency Stability Measurement

4.4.1 Limits of Frequency Stability Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer KEYSIGHT	N9030B	MY57140488	2024/3/6	2025/3/5
STANDARD TEMPERATURE & HUMIDITY CHAMBER TERCHY	MHU-225AU	911033	2024/10/29	2025/10/28
Three-phase coupling / decoupling network TESEQ	CDN 3063	4006	2024/3/7	2025/3/6
AC Power Supply Extech	CFW-105	E000603	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.4.4 Test Procedure

- Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- EUT is connected the external power supply to control the AC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

Note: The frequency error was recorded frequency error from the communication simulator.

4.4.5 Test Results

Mode A1

Antenna 0

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3554.999996	-0.001125	3694.999999	-0.000271
108	3555.000003	0.000844	3694.999995	-0.001353
138	3555.000002	0.000563	3694.999997	-0.000812

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3555.000002	0.000563	3694.999997	-0.000812
-20	3555.000005	0.001406	3695.000005	0.001353
-10	3554.999995	-0.001406	3694.999997	-0.000812
0	3555.000004	0.001125	3694.999998	-0.000541
10	3554.999995	-0.001406	3695.000004	0.001083
20	3555.000003	0.000844	3694.999997	-0.000812
30	3554.999995	-0.001406	3694.999998	-0.000541
40	3554.999997	-0.000844	3695.000003	0.000812
50	3554.999999	-0.000281	3695.000002	0.000541
60	3555.000004	0.001125	3695.000001	0.000271

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.000003	0.000843	3689.999998	-0.000542
108	3560.000003	0.000843	3689.999996	-0.001084
138	3559.999995	-0.001404	3690.000003	0.000813

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.000005	0.001404	3690.000003	0.000813
-20	3560.000003	0.000843	3690.000001	0.000271
-10	3560.000001	0.000281	3689.999997	-0.000813
0	3559.999996	-0.001124	3690.000002	0.000542
10	3560.000005	0.001404	3689.999998	-0.000542
20	3560.000004	0.001124	3689.999998	-0.000542
30	3560.000005	0.001404	3689.999996	-0.001084
40	3560.000002	0.000562	3690.000004	0.001084
50	3560.000004	0.001124	3689.999995	-0.001355
60	3560.000002	0.000562	3689.999998	-0.000542

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000004	0.001120	3679.980002	0.000543
108	3570.000002	0.000560	3679.980005	0.001359
138	3570.000003	0.000840	3679.979996	-0.001087

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3570.000005	0.001401	3679.979995	-0.001359
-20	3569.999995	-0.001401	3679.979996	-0.001087
-10	3570.000005	0.001401	3679.980001	0.000272
0	3570.000002	0.000560	3679.979998	-0.000543
10	3570.000001	0.000280	3679.979996	-0.001087
20	3570.000002	0.000560	3679.980001	0.000272
30	3569.999999	-0.000280	3679.980004	0.001087
40	3570.000005	0.001401	3679.979999	-0.000272
50	3569.999995	-0.001401	3679.980003	0.000815
60	3569.999997	-0.000840	3679.979997	-0.000815

Antenna 1

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3555.000005	0.001406	3694.999999	-0.000271
108	3554.999996	-0.001125	3695.000005	0.001353
138	3554.999995	-0.001406	3695.000003	0.000812

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3555.000004	0.001125	3694.999995	-0.001353
-20	3554.999996	-0.001125	3694.999997	-0.000812
-10	3554.999997	-0.000844	3694.999999	-0.000271
0	3555.000001	0.000281	3695.000002	0.000541
10	3554.999997	-0.000844	3694.999995	-0.001353
20	3554.999997	-0.000844	3695.000004	0.001083
30	3555.000001	0.000281	3694.999995	-0.001353
40	3554.999998	-0.000563	3694.999995	-0.001353
50	3554.999996	-0.001125	3695.000001	0.000271
60	3555.000001	0.000281	3695.000005	0.001353

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.000001	0.000281	3689.999996	-0.001084
108	3559.999995	-0.001404	3690.000003	0.000813
138	3559.999999	-0.000281	3689.999996	-0.001084

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3559.999998	-0.000562	3689.999995	-0.001355
-20	3560.000003	0.000843	3690.000005	0.001355
-10	3559.999997	-0.000843	3690.000005	0.001355
0	3559.999998	-0.000562	3690.000005	0.001355
10	3559.999997	-0.000843	3690.000004	0.001084
20	3560.000002	0.000562	3689.999996	-0.001084
30	3560.000003	0.000843	3689.999996	-0.001084
40	3559.999995	-0.001404	3689.999999	-0.000271
50	3559.999997	-0.000843	3689.999995	-0.001355
60	3560.000002	0.000562	3689.999995	-0.001355

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3569.999999	-0.000280	3679.980005	0.001359
108	3570.000003	0.000840	3679.980002	0.000543
138	3570.000005	0.001401	3679.980001	0.000272

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3569.999997	-0.000840	3679.979999	-0.000272
-20	3570.000001	0.000280	3679.979997	-0.000815
-10	3569.999999	-0.000280	3679.980002	0.000543
0	3570.000005	0.001401	3679.980003	0.000815
10	3569.999995	-0.001401	3679.980005	0.001359
20	3569.999996	-0.001120	3679.980004	0.001087
30	3569.999998	-0.000560	3679.979999	-0.000272
40	3569.999997	-0.000840	3679.979996	-0.001087
50	3569.999999	-0.000280	3679.980001	0.000272
60	3570.000002	0.000560	3679.980003	0.000815

Antenna 2

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3555.000005	0.001406	3694.999998	-0.000541
108	3554.999996	-0.001125	3694.999995	-0.001353
138	3554.999999	-0.000281	3695.000003	0.000812

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3555.000001	0.000281	3694.999998	-0.000541
-20	3555.000003	0.000844	3694.999996	-0.001083
-10	3554.999995	-0.001406	3695.000001	0.000271
0	3555.000004	0.001125	3694.999999	-0.000271
10	3554.999998	-0.000563	3695.000001	0.000271
20	3555.000002	0.000563	3694.999999	-0.000271
30	3555.000002	0.000563	3694.999997	-0.000812
40	3554.999997	-0.000844	3694.999997	-0.000812
50	3555.000002	0.000563	3695.000005	0.001353
60	3555.000004	0.001125	3694.999995	-0.001353

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3559.999996	-0.001124	3690.000003	0.000813
108	3559.999997	-0.000843	3690.000004	0.001084
138	3560.000004	0.001124	3690.000004	0.001084

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3559.999995	-0.001404	3690.000001	0.000271
-20	3559.999998	-0.000562	3690.000002	0.000542
-10	3559.999998	-0.000562	3690.000001	0.000271
0	3559.999999	-0.000281	3689.999995	-0.001355
10	3560.000001	0.000281	3690.000005	0.001355
20	3559.999999	-0.000281	3689.999997	-0.000813
30	3559.999998	-0.000562	3690.000003	0.000813
40	3560.000003	0.000843	3690.000002	0.000542
50	3560.000001	0.000281	3689.999999	-0.000271
60	3560.000004	0.001124	3690.000002	0.000542

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000003	0.000840	3679.980001	0.000272
108	3570.000005	0.001401	3679.979995	-0.001359
138	3570.000004	0.001120	3679.979999	-0.000272

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3569.999996	-0.001120	3679.979996	-0.001087
-20	3569.999999	-0.000280	3679.980004	0.001087
-10	3569.999999	-0.000280	3679.979997	-0.000815
0	3569.999999	-0.000280	3679.980002	0.000543
10	3569.999998	-0.000560	3679.979995	-0.001359
20	3570.000005	0.001401	3679.980005	0.001359
30	3570.000002	0.000560	3679.980004	0.001087
40	3570.000004	0.001120	3679.979995	-0.001359
50	3569.999995	-0.001401	3679.980001	0.000272
60	3570.000003	0.000840	3679.980005	0.001359

Antenna 3

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3555.000001	0.000281	3695.000002	0.000541
108	3555.000001	0.000281	3695.000002	0.000541
138	3555.000003	0.000844	3695.000003	0.000812

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3554.999997	-0.000844	3695.000004	0.001083
-20	3555.000005	0.001406	3694.999995	-0.001353
-10	3554.999996	-0.001125	3694.999999	-0.000271
0	3554.999997	-0.000844	3695.000004	0.001083
10	3554.999997	-0.000844	3694.999995	-0.001353
20	3554.999997	-0.000844	3695.000002	0.000541
30	3555.000005	0.001406	3695.000004	0.001083
40	3554.999995	-0.001406	3695.000002	0.000541
50	3555.000002	0.000563	3695.000004	0.001083
60	3555.000002	0.000563	3695.000002	0.000541

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.000003	0.000843	3690.000003	0.000813
108	3560.000001	0.000281	3689.999997	-0.000813
138	3559.999998	-0.000562	3690.000004	0.001084

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3559.999998	-0.000562	3689.999995	-0.001355
-20	3559.999999	-0.000281	3690.000003	0.000813
-10	3560.000005	0.001404	3690.000004	0.001084
0	3560.000002	0.000562	3689.999997	-0.000813
10	3559.999998	-0.000562	3690.000004	0.001084
20	3560.000003	0.000843	3689.999997	-0.000813
30	3560.000005	0.001404	3690.000001	0.000271
40	3559.999999	-0.000281	3690.000001	0.000271
50	3559.999995	-0.001404	3690.000001	0.000271
60	3559.999995	-0.001404	3690.000004	0.001084

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3569.999995	-0.001401	3679.979999	-0.000272
108	3569.999997	-0.000840	3679.980002	0.000543
138	3569.999998	-0.000560	3679.979999	-0.000272

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3569.999998	-0.000560	3679.979998	-0.000543
-20	3569.999999	-0.000280	3679.980004	0.001087
-10	3569.999995	-0.001401	3679.980002	0.000543
0	3569.999999	-0.000280	3679.979998	-0.000543
10	3569.999997	-0.000840	3679.980004	0.001087
20	3570.000005	0.001401	3679.980001	0.000272
30	3569.999995	-0.001401	3679.980005	0.001359
40	3570.000005	0.001401	3679.979996	-0.001087
50	3569.999997	-0.000840	3679.979998	-0.000543
60	3570.000002	0.000560	3679.980002	0.000543

Mode A2
Antenna 0

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.010004	0.001124	3669.990005	0.001362
108	3560.010004	0.001124	3669.990001	0.000272
138	3560.010005	0.001404	3669.990003	0.000817

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.010005	0.001404	3669.989997	-0.000817
-20	3560.009995	-0.001404	3669.990002	0.000545
-10	3560.009998	-0.000562	3669.989999	-0.000272
0	3560.009995	-0.001404	3669.989997	-0.000817
10	3560.010003	0.000843	3669.990001	0.000272
20	3560.010002	0.000562	3669.989999	-0.000272
30	3560.010004	0.001124	3669.989997	-0.000817
40	3560.009996	-0.001124	3669.990004	0.001090
50	3560.009998	-0.000562	3669.989997	-0.000817
60	3560.010002	0.000562	3669.990005	0.001362

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.010002	0.000562	3660.000004	0.001093
108	3560.010005	0.001404	3660.000001	0.000273
138	3560.010001	0.000281	3659.999999	-0.000273

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.010004	0.001124	3660.000003	0.000820
-20	3560.010002	0.000562	3660.000004	0.001093
-10	3560.010002	0.000562	3660.000005	0.001366
0	3560.010001	0.000281	3659.999996	-0.001093
10	3560.010002	0.000562	3659.999995	-0.001366
20	3560.010001	0.000281	3659.999996	-0.001093
30	3560.010001	0.000281	3660.000004	0.001093
40	3560.009997	-0.000843	3660.000001	0.000273
50	3560.010002	0.000562	3660.000001	0.000273
60	3560.010004	0.001124	3660.000002	0.000546

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000003	0.000840	3639.959999	-0.000275
108	3569.999996	-0.001120	3639.959996	-0.001099
138	3569.999995	-0.001401	3639.959995	-0.001374

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3569.999999	-0.000280	3639.960005	0.001374
-20	3570.000005	0.001401	3639.960004	0.001099
-10	3569.999996	-0.001120	3639.960001	0.000275
0	3570.000001	0.000280	3639.959997	-0.000824
10	3570.000004	0.001120	3639.960001	0.000275
20	3569.999997	-0.000840	3639.959995	-0.001374
30	3570.000003	0.000840	3639.960005	0.001374
40	3569.999996	-0.001120	3639.960001	0.000275
50	3570.000002	0.000560	3639.960001	0.000275
60	3570.000003	0.000840	3639.959999	-0.000275

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000003	0.000840	3629.969999	-0.000275
108	3569.999997	-0.000840	3629.969997	-0.000826
138	3570.000004	0.001120	3629.970002	0.000551

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3570.000001	0.000280	3629.970005	0.001377
-20	3569.999999	-0.000280	3629.969999	-0.000275
-10	3570.000002	0.000560	3629.970001	0.000275
0	3569.999998	-0.000560	3629.969998	-0.000551
10	3569.999996	-0.001120	3629.970002	0.000551
20	3570.000002	0.000560	3629.969996	-0.001102
30	3570.000001	0.000280	3629.969995	-0.001377
40	3570.000003	0.000840	3629.970005	0.001377
50	3570.000002	0.000560	3629.970002	0.000551
60	3569.999999	-0.000280	3629.970004	0.001102

Antenna 1

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.010003	0.000843	3669.989996	-0.001090
108	3560.009999	-0.000281	3669.989995	-0.001362
138	3560.010002	0.000562	3669.990001	0.000272

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.010005	0.001404	3669.990005	0.001362
-20	3560.010005	0.001404	3669.990005	0.001362
-10	3560.009997	-0.000843	3669.989995	-0.001362
0	3560.009999	-0.000281	3669.989998	-0.000545
10	3560.010002	0.000562	3669.989996	-0.001090
20	3560.010003	0.000843	3669.990004	0.001090
30	3560.009998	-0.000562	3669.989996	-0.001090
40	3560.009998	-0.000562	3669.990004	0.001090
50	3560.010002	0.000562	3669.990005	0.001362
60	3560.009996	-0.001124	3669.990001	0.000272

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.010003	0.000843	3660.000005	0.001366
108	3560.009999	-0.000281	3659.999999	-0.000273
138	3560.009998	-0.000562	3659.999999	-0.000273

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.009999	-0.000281	3659.999996	-0.001093
-20	3560.009995	-0.001404	3659.999996	-0.001093
-10	3560.010003	0.000843	3659.999997	-0.000820
0	3560.010001	0.000281	3659.999998	-0.000546
10	3560.009996	-0.001124	3659.999999	-0.000273
20	3560.009995	-0.001404	3660.000002	0.000546
30	3560.010001	0.000281	3660.000005	0.001366
40	3560.010004	0.001124	3660.000001	0.000273
50	3560.010003	0.000843	3659.999999	-0.000273
60	3560.010005	0.001404	3659.999997	-0.000820

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3569.999999	-0.000280	3639.959995	-0.001374
108	3569.999995	-0.001401	3639.959996	-0.001099
138	3570.000002	0.000560	3639.960005	0.001374

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3570.000001	0.000280	3639.960002	0.000549
-20	3570.000003	0.000840	3639.960002	0.000549
-10	3570.000001	0.000280	3639.959998	-0.000549
0	3570.000001	0.000280	3639.959998	-0.000549
10	3569.999999	-0.000280	3639.960001	0.000275
20	3569.999996	-0.001120	3639.959996	-0.001099
30	3569.999997	-0.000840	3639.960001	0.000275
40	3570.000005	0.001401	3639.960005	0.001374
50	3569.999995	-0.001401	3639.960002	0.000549
60	3569.999997	-0.000840	3639.959998	-0.000549

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000001	0.000280	3629.969997	-0.000826
108	3570.000002	0.000560	3629.970005	0.001377
138	3570.000003	0.000840	3629.969997	-0.000826

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3569.999998	-0.000560	3629.969995	-0.001377
-20	3570.000003	0.000840	3629.969999	-0.000275
-10	3569.999995	-0.001401	3629.969995	-0.001377
0	3569.999999	-0.000280	3629.970004	0.001102
10	3569.999999	-0.000280	3629.969998	-0.000551
20	3570.000004	0.001120	3629.969995	-0.001377
30	3570.000003	0.000840	3629.970005	0.001377
40	3570.000002	0.000560	3629.970005	0.001377
50	3569.999995	-0.001401	3629.969998	-0.000551
60	3570.000002	0.000560	3629.969995	-0.001377

Antenna 2

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3580.020002	0.000559	3690.000005	0.001355
108	3580.019999	-0.000279	3690.000001	0.000271
138	3580.020004	0.001117	3689.999995	-0.001355

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3580.019999	-0.000279	3690.000005	0.001355
-20	3580.020004	0.001117	3689.999998	-0.000542
-10	3580.019996	-0.001117	3690.000003	0.000813
0	3580.020005	0.001397	3689.999995	-0.001355
10	3580.020003	0.000838	3690.000002	0.000542
20	3580.020002	0.000559	3690.000004	0.001084
30	3580.020005	0.001397	3689.999998	-0.000542
40	3580.020002	0.000559	3690.000002	0.000542
50	3580.020004	0.001117	3689.999997	-0.000813
60	3580.020001	0.000279	3689.999997	-0.000813

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3590.009997	-0.000836	3689.999998	-0.000542
108	3590.009996	-0.001114	3690.000004	0.001084
138	3590.010003	0.000836	3689.999999	-0.000271

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3590.009998	-0.000557	3689.999996	-0.001084
-20	3590.009999	-0.000279	3690.000001	0.000271
-10	3590.010002	0.000557	3690.000001	0.000271
0	3590.010001	0.000279	3689.999996	-0.001084
10	3590.010003	0.000836	3689.999995	-0.001355
20	3590.010005	0.001393	3690.000005	0.001355
30	3590.010005	0.001393	3690.000004	0.001084
40	3590.009996	-0.001114	3690.000003	0.000813
50	3590.009998	-0.000557	3689.999999	-0.000271
60	3590.009998	-0.000557	3690.000001	0.000271

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3610.019998	-0.000554	3679.980002	0.000543
108	3610.019996	-0.001108	3679.980005	0.001359
138	3610.019996	-0.001108	3679.979995	-0.001359

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3610.019996	-0.001108	3679.980002	0.000543
-20	3610.019998	-0.000554	3679.980003	0.000815
-10	3610.019999	-0.000277	3679.979999	-0.000272
0	3610.020004	0.001108	3679.979996	-0.001087
10	3610.020001	0.000277	3679.980002	0.000543
20	3610.020002	0.000554	3679.980003	0.000815
30	3610.019995	-0.001385	3679.980002	0.000543
40	3610.019997	-0.000831	3679.980001	0.000272
50	3610.019996	-0.001108	3679.979999	-0.000272
60	3610.020004	0.001108	3679.980001	0.000272

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3620.010002	0.000552	3679.980001	0.000272
108	3620.010003	0.000829	3679.980004	0.001087
138	3620.010004	0.001105	3679.979996	-0.001087

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3620.010005	0.001381	3679.979997	-0.000815
-20	3620.010002	0.000552	3679.980005	0.001359
-10	3620.010003	0.000829	3679.979997	-0.000815
0	3620.009995	-0.001381	3679.979998	-0.000543
10	3620.009999	-0.000276	3679.979995	-0.001359
20	3620.009997	-0.000829	3679.980003	0.000815
30	3620.009999	-0.000276	3679.980001	0.000272
40	3620.010004	0.001105	3679.979998	-0.000543
50	3620.010001	0.000276	3679.980004	0.001087
60	3620.009995	-0.001381	3679.979995	-0.001359

Antenna 3

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3580.020003	0.000838	3690.000002	0.000542
108	3580.019996	-0.001117	3690.000005	0.001355
138	3580.019996	-0.001117	3690.000001	0.000271

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3580.020001	0.000279	3689.999999	-0.000271
-20	3580.020005	0.001397	3689.999997	-0.000813
-10	3580.019999	-0.000279	3689.999995	-0.001355
0	3580.019995	-0.001397	3689.999995	-0.001355
10	3580.019996	-0.001117	3690.000002	0.000542
20	3580.019995	-0.001397	3690.000005	0.001355
30	3580.019996	-0.001117	3690.000005	0.001355
40	3580.020004	0.001117	3690.000003	0.000813
50	3580.020002	0.000559	3689.999999	-0.000271
60	3580.020005	0.001397	3690.000002	0.000542

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3590.010002	0.000557	3690.000001	0.000271
108	3590.009998	-0.000557	3689.999995	-0.001355
138	3590.010004	0.001114	3690.000002	0.000542

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3590.009997	-0.000836	3689.999997	-0.000813
-20	3590.010005	0.001393	3690.000005	0.001355
-10	3590.009995	-0.001393	3689.999998	-0.000542
0	3590.009995	-0.001393	3689.999997	-0.000813
10	3590.009995	-0.001393	3690.000002	0.000542
20	3590.010004	0.001114	3690.000004	0.001084
30	3590.010001	0.000279	3689.999996	-0.001084
40	3590.010001	0.000279	3690.000001	0.000271
50	3590.010001	0.000279	3689.999998	-0.000542
60	3590.010002	0.000557	3689.999998	-0.000542

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3610.019997	-0.000831	3679.979998	-0.000543
108	3610.020002	0.000554	3679.980002	0.000543
138	3610.020005	0.001385	3679.979995	-0.001359

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3610.019997	-0.000831	3679.980003	0.000815
-20	3610.019995	-0.001385	3679.980002	0.000543
-10	3610.020005	0.001385	3679.979995	-0.001359
0	3610.020003	0.000831	3679.979997	-0.000815
10	3610.019995	-0.001385	3679.979996	-0.001087
20	3610.020002	0.000554	3679.980001	0.000272
30	3610.020003	0.000831	3679.979995	-0.001359
40	3610.019999	-0.000277	3679.980005	0.001359
50	3610.020003	0.000831	3679.980003	0.000815
60	3610.019997	-0.000831	3679.979996	-0.001087

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3620.009998	-0.000552	3679.980004	0.001087
108	3620.010005	0.001381	3679.980002	0.000543
138	3620.010005	0.001381	3679.980001	0.000272

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3620.010001	0.000276	3679.980005	0.001359
-20	3620.010001	0.000276	3679.980005	0.001359
-10	3620.010005	0.001381	3679.980005	0.001359
0	3620.009997	-0.000829	3679.979998	-0.000543
10	3620.009998	-0.000552	3679.979998	-0.000543
20	3620.010005	0.001381	3679.979998	-0.000543
30	3620.010001	0.000276	3679.979997	-0.000815
40	3620.010001	0.000276	3679.979999	-0.000272
50	3620.009996	-0.001105	3679.980001	0.000272
60	3620.010004	0.001105	3679.979997	-0.000815

Mode B1

Antenna 0

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3555.000001	0.000281	3694.999996	-0.001083
108	3554.999998	-0.000563	3695.000001	0.000271
138	3555.000002	0.000563	3694.999999	-0.000271

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3554.999996	-0.001125	3694.999998	-0.000541
-20	3554.999997	-0.000844	3695.000004	0.001083
-10	3555.000005	0.001406	3694.999998	-0.000541
0	3554.999997	-0.000844	3695.000005	0.001353
10	3554.999995	-0.001406	3695.000002	0.000541
20	3555.000001	0.000281	3695.000005	0.001353
30	3555.000003	0.000844	3694.999995	-0.001353
40	3555.000001	0.000281	3694.999998	-0.000541
50	3554.999996	-0.001125	3694.999997	-0.000812
60	3554.999999	-0.000281	3695.000001	0.000271

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.000002	0.000562	3689.999998	-0.000542
108	3560.000005	0.001404	3690.000003	0.000813
138	3559.999997	-0.000843	3690.000005	0.001355

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.000003	0.000843	3690.000003	0.000813
-20	3560.000004	0.001124	3690.000003	0.000813
-10	3559.999996	-0.001124	3690.000001	0.000271
0	3560.000004	0.001124	3689.999996	-0.001084
10	3560.000004	0.001124	3690.000002	0.000542
20	3559.999996	-0.001124	3690.000001	0.000271
30	3560.000003	0.000843	3690.000002	0.000542
40	3559.999996	-0.001124	3689.999996	-0.001084
50	3560.000002	0.000562	3689.999995	-0.001355
60	3559.999999	-0.000281	3689.999995	-0.001355

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000002	0.000560	3679.980005	0.001359
108	3570.000001	0.000280	3679.979996	-0.001087
138	3570.000002	0.000560	3679.980001	0.000272

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3569.999997	-0.000840	3679.980001	0.000272
-20	3570.000002	0.000560	3679.980005	0.001359
-10	3569.999996	-0.001120	3679.979998	-0.000543
0	3569.999999	-0.000280	3679.980005	0.001359
10	3569.999996	-0.001120	3679.979996	-0.001087
20	3570.000001	0.000280	3679.979997	-0.000815
30	3569.999996	-0.001120	3679.979996	-0.001087
40	3570.000004	0.001120	3679.980004	0.001087
50	3569.999999	-0.000280	3679.979995	-0.001359
60	3570.000001	0.000280	3679.980002	0.000543

Antenna 1

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3555.000001	0.000281	3695.000001	0.000271
108	3554.999995	-0.001406	3695.000002	0.000541
138	3555.000003	0.000844	3695.000002	0.000541

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3554.999996	-0.001125	3695.000003	0.000812
-20	3555.000004	0.001125	3694.999999	-0.000271
-10	3555.000004	0.001125	3695.000001	0.000271
0	3555.000003	0.000844	3694.999998	-0.000541
10	3555.000001	0.000281	3695.000001	0.000271
20	3555.000002	0.000563	3695.000003	0.000812
30	3554.999995	-0.001406	3695.000005	0.001353
40	3555.000001	0.000281	3694.999995	-0.001353
50	3554.999997	-0.000844	3694.999999	-0.000271
60	3555.000003	0.000844	3694.999999	-0.000271

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.000003	0.000843	3690.000005	0.001355
108	3560.000001	0.000281	3690.000001	0.000271
138	3559.999997	-0.000843	3690.000002	0.000542

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3559.999999	-0.000281	3689.999999	-0.000271
-20	3559.999996	-0.001124	3689.999996	-0.001084
-10	3559.999998	-0.000562	3689.999996	-0.001084
0	3559.999995	-0.001404	3689.999997	-0.000813
10	3559.999997	-0.000843	3689.999998	-0.000542
20	3559.999995	-0.001404	3689.999995	-0.001355
30	3559.999998	-0.000562	3689.999998	-0.000542
40	3560.000004	0.001124	3689.999998	-0.000542
50	3560.000001	0.000281	3690.000001	0.000271
60	3560.000004	0.001124	3690.000005	0.001355

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000001	0.000280	3679.979999	-0.000272
108	3569.999997	-0.000840	3679.980003	0.000815
138	3570.000002	0.000560	3679.979995	-0.001359

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3569.999996	-0.001120	3679.979997	-0.000815
-20	3570.000003	0.000840	3679.980003	0.000815
-10	3569.999997	-0.000840	3679.979999	-0.000272
0	3569.999997	-0.000840	3679.980005	0.001359
10	3570.000005	0.001401	3679.980002	0.000543
20	3569.999997	-0.000840	3679.979998	-0.000543
30	3570.000002	0.000560	3679.979998	-0.000543
40	3569.999996	-0.001120	3679.980002	0.000543
50	3570.000002	0.000560	3679.979996	-0.001087
60	3569.999997	-0.000840	3679.980005	0.001359

Antenna 2

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3555.000005	0.001406	3694.999998	-0.000541
108	3555.000004	0.001125	3694.999997	-0.000812
138	3554.999996	-0.001125	3695.000002	0.000541

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3555.000003	0.000844	3694.999996	-0.001083
-20	3555.000001	0.000281	3694.999997	-0.000812
-10	3554.999997	-0.000844	3695.000005	0.001353
0	3555.000004	0.001125	3694.999995	-0.001353
10	3554.999999	-0.000281	3694.999996	-0.001083
20	3555.000002	0.000563	3695.000004	0.001083
30	3555.000004	0.001125	3694.999997	-0.000812
40	3554.999999	-0.000281	3695.000001	0.000271
50	3554.999996	-0.001125	3694.999999	-0.000271
60	3555.000003	0.000844	3695.000001	0.000271

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3559.999998	-0.000562	3690.000003	0.000813
108	3559.999997	-0.000843	3690.000004	0.001084
138	3559.999998	-0.000562	3689.999998	-0.000542

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3559.999999	-0.000281	3689.999997	-0.000813
-20	3560.000004	0.001124	3689.999995	-0.001355
-10	3559.999999	-0.000281	3689.999997	-0.000813
0	3560.000001	0.000281	3690.000002	0.000542
10	3560.000005	0.001404	3690.000001	0.000271
20	3560.000004	0.001124	3689.999997	-0.000813
30	3560.000002	0.000562	3689.999995	-0.001355
40	3560.000001	0.000281	3689.999998	-0.000542
50	3559.999997	-0.000843	3690.000005	0.001355
60	3560.000005	0.001404	3689.999998	-0.000542

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000004	0.001120	3679.979998	-0.000543
108	3570.000004	0.001120	3679.979996	-0.001087
138	3569.999995	-0.001401	3679.980004	0.001087

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3569.999995	-0.001401	3679.979999	-0.000272
-20	3569.999999	-0.000280	3679.980005	0.001359
-10	3570.000005	0.001401	3679.980003	0.000815
0	3570.000004	0.001120	3679.980003	0.000815
10	3569.999996	-0.001120	3679.979997	-0.000815
20	3569.999997	-0.000840	3679.980001	0.000272
30	3569.999995	-0.001401	3679.979996	-0.001087
40	3570.000004	0.001120	3679.980005	0.001359
50	3570.000005	0.001401	3679.979996	-0.001087
60	3570.000003	0.000840	3679.980005	0.001359

Antenna 3

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3554.999996	-0.001125	3695.000005	0.001353
108	3555.000005	0.001406	3694.999996	-0.001083
138	3554.999999	-0.000281	3694.999995	-0.001353

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 10MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3554.999998	-0.000563	3695.000001	0.000271
-20	3555.000001	0.000281	3695.000001	0.000271
-10	3555.000003	0.000844	3694.999995	-0.001353
0	3554.999997	-0.000844	3694.999998	-0.000541
10	3554.999997	-0.000844	3695.000005	0.001353
20	3555.000005	0.001406	3694.999996	-0.001083
30	3555.000001	0.000281	3695.000001	0.000271
40	3554.999995	-0.001406	3695.000003	0.000812
50	3555.000001	0.000281	3694.999997	-0.000812
60	3554.999998	-0.000563	3694.999996	-0.001083

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.000004	0.001124	3690.000001	0.000271
108	3559.999995	-0.001404	3690.000002	0.000542
138	3560.000002	0.000562	3690.000002	0.000542

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3559.999995	-0.001404	3689.999998	-0.000542
-20	3559.999999	-0.000281	3690.000001	0.000271
-10	3559.999996	-0.001124	3689.999995	-0.001355
0	3559.999998	-0.000562	3689.999999	-0.000271
10	3560.000002	0.000562	3690.000002	0.000542
20	3559.999997	-0.000843	3690.000001	0.000271
30	3560.000005	0.001404	3689.999995	-0.001355
40	3560.000002	0.000562	3690.000003	0.000813
50	3560.000005	0.001404	3689.999996	-0.001084
60	3559.999996	-0.001124	3690.000002	0.000542

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3569.999997	-0.000840	3679.979996	-0.001087
108	3569.999996	-0.001120	3679.980003	0.000815
138	3570.000003	0.000840	3679.980004	0.001087

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3570.000004	0.001120	3679.980002	0.000543
-20	3569.999997	-0.000840	3679.980001	0.000272
-10	3570.000001	0.000280	3679.980001	0.000272
0	3569.999999	-0.000280	3679.979995	-0.001359
10	3569.999996	-0.001120	3679.979997	-0.000815
20	3569.999995	-0.001401	3679.980003	0.000815
30	3570.000005	0.001401	3679.979999	-0.000272
40	3570.000003	0.000840	3679.980005	0.001359
50	3569.999999	-0.000280	3679.979995	-0.001359
60	3570.000001	0.000280	3679.980002	0.000543

Mode B2
Antenna 0

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.010004	0.001124	3669.989997	-0.000817
108	3560.010002	0.000562	3669.990001	0.000272
138	3560.010005	0.001404	3669.990004	0.001090

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.010002	0.000562	3669.990002	0.000545
-20	3560.010004	0.001124	3669.989997	-0.000817
-10	3560.010002	0.000562	3669.989997	-0.000817
0	3560.010001	0.000281	3669.989996	-0.001090
10	3560.009998	-0.000562	3669.990004	0.001090
20	3560.009997	-0.000843	3669.989997	-0.000817
30	3560.010002	0.000562	3669.990002	0.000545
40	3560.009996	-0.001124	3669.989999	-0.000272
50	3560.010004	0.001124	3669.990002	0.000545
60	3560.010002	0.000562	3669.990003	0.000817

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.009999	-0.000281	3660.000005	0.001366
108	3560.010003	0.000843	3659.999996	-0.001093
138	3560.010005	0.001404	3659.999999	-0.000273

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.010002	0.000562	3660.000003	0.000820
-20	3560.009996	-0.001124	3659.999999	-0.000273
-10	3560.010005	0.001404	3659.999997	-0.000820
0	3560.009995	-0.001404	3660.000001	0.000273
10	3560.010002	0.000562	3659.999998	-0.000546
20	3560.009997	-0.000843	3660.000005	0.001366
30	3560.010004	0.001124	3659.999997	-0.000820
40	3560.010001	0.000281	3659.999996	-0.001093
50	3560.009995	-0.001404	3659.999999	-0.000273
60	3560.009996	-0.001124	3659.999999	-0.000273

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3569.999997	-0.000840	3639.960005	0.001374
108	3569.999997	-0.000840	3639.959998	-0.000549
138	3569.999998	-0.000560	3639.960002	0.000549

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3570.000003	0.000840	3639.960003	0.000824
-20	3570.000002	0.000560	3639.960005	0.001374
-10	3570.000001	0.000280	3639.960005	0.001374
0	3569.999998	-0.000560	3639.960001	0.000275
10	3570.000003	0.000840	3639.960003	0.000824
20	3570.000003	0.000840	3639.960001	0.000275
30	3570.000002	0.000560	3639.960003	0.000824
40	3570.000002	0.000560	3639.960003	0.000824
50	3569.999995	-0.001401	3639.960005	0.001374
60	3569.999999	-0.000280	3639.960004	0.001099

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000003	0.000840	3629.970003	0.000826
108	3569.999995	-0.001401	3629.970004	0.001102
138	3570.000000	0.000000	3629.969995	-0.001377

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3570.000001	0.000280	3629.969996	-0.001102
-20	3569.999997	-0.000840	3629.969996	-0.001102
-10	3570.000004	0.001120	3629.969999	-0.000275
0	3569.999999	-0.000280	3629.970005	0.001377
10	3570.000001	0.000280	3629.969997	-0.000826
20	3569.999999	-0.000280	3629.969997	-0.000826
30	3569.999996	-0.001120	3629.969995	-0.001377
40	3570.000002	0.000560	3629.969995	-0.001377
50	3570.000003	0.000840	3629.969998	-0.000551
60	3569.999995	-0.001401	3629.970003	0.000826

Antenna 1

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.010003	0.000843	3669.989999	-0.000272
108	3560.010001	0.000281	3669.989999	-0.000272
138	3560.010004	0.001124	3669.990003	0.000817

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.010001	0.000281	3669.990005	0.001362
-20	3560.010002	0.000562	3669.989997	-0.000817
-10	3560.009997	-0.000843	3669.990002	0.000545
0	3560.010005	0.001404	3669.990004	0.001090
10	3560.010004	0.001124	3669.990005	0.001362
20	3560.009995	-0.001404	3669.989996	-0.001090
30	3560.010002	0.000562	3669.989999	-0.000272
40	3560.010002	0.000562	3669.990002	0.000545
50	3560.010005	0.001404	3669.990003	0.000817
60	3560.009995	-0.001404	3669.989997	-0.000817

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3560.010005	0.001404	3660.000003	0.000820
108	3560.010005	0.001404	3659.999995	-0.001366
138	3560.009995	-0.001404	3659.999999	-0.000273

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3560.010001	0.000281	3659.999997	-0.000820
-20	3560.009998	-0.000562	3660.000001	0.000273
-10	3560.009995	-0.001404	3660.000004	0.001093
0	3560.010004	0.001124	3659.999998	-0.000546
10	3560.010005	0.001404	3660.000001	0.000273
20	3560.010001	0.000281	3659.999996	-0.001093
30	3560.010002	0.000562	3659.999995	-0.001366
40	3560.010003	0.000843	3659.999999	-0.000273
50	3560.009996	-0.001124	3660.000001	0.000273
60	3560.009996	-0.001124	3659.999998	-0.000546

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3569.999998	-0.000560	3639.959997	-0.000824
108	3569.999999	-0.000280	3639.960004	0.001099
138	3569.999996	-0.001120	3639.960002	0.000549

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3570.000002	0.000560	3639.959998	-0.000549
-20	3570.000002	0.000560	3639.959998	-0.000549
-10	3569.999995	-0.001401	3639.959998	-0.000549
0	3570.000005	0.001401	3639.960001	0.000275
10	3569.999999	-0.000280	3639.959999	-0.000275
20	3569.999995	-0.001401	3639.960004	0.001099
30	3569.999996	-0.001120	3639.959996	-0.001099
40	3569.999998	-0.000560	3639.959998	-0.000549
50	3569.999995	-0.001401	3639.960004	0.001099
60	3570.000001	0.000280	3639.960002	0.000549

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3570.000004	0.001120	3629.970005	0.001377
108	3569.999997	-0.000840	3629.970002	0.000551
138	3569.999995	-0.001401	3629.969996	-0.001102

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3570.000003	0.000840	3629.970002	0.000551
-20	3570.000002	0.000560	3629.970003	0.000826
-10	3570.000002	0.000560	3629.970004	0.001102
0	3569.999998	-0.000560	3629.969999	-0.000275
10	3570.000004	0.001120	3629.970002	0.000551
20	3570.000001	0.000280	3629.969995	-0.001377
30	3569.999996	-0.001120	3629.969998	-0.000551
40	3569.999999	-0.000280	3629.969999	-0.000275
50	3570.000001	0.000280	3629.969997	-0.000826
60	3569.999997	-0.000840	3629.969996	-0.001102

Antenna 2

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3580.019995	-0.001397	3690.000001	0.000271
108	3580.019995	-0.001397	3689.999997	-0.000813
138	3580.019995	-0.001397	3689.999999	-0.000271

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3580.020004	0.001117	3689.999995	-0.001355
-20	3580.020005	0.001397	3690.000001	0.000271
-10	3580.019996	-0.001117	3689.999995	-0.001355
0	3580.019995	-0.001397	3690.000002	0.000542
10	3580.020001	0.000279	3690.000005	0.001355
20	3580.019997	-0.000838	3690.000004	0.001084
30	3580.019996	-0.001117	3690.000004	0.001084
40	3580.019996	-0.001117	3689.999998	-0.000542
50	3580.019995	-0.001397	3689.999996	-0.001084
60	3580.020002	0.000559	3689.999995	-0.001355

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3590.010004	0.001114	3690.000003	0.000813
108	3590.010001	0.000279	3689.999997	-0.000813
138	3590.010003	0.000836	3690.000001	0.000271

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3590.010003	0.000836	3689.999998	-0.000542
-20	3590.009997	-0.000836	3689.999998	-0.000542
-10	3590.009998	-0.000557	3689.999996	-0.001084
0	3590.009996	-0.001114	3689.999998	-0.000542
10	3590.010002	0.000557	3689.999996	-0.001084
20	3590.010002	0.000557	3690.000002	0.000542
30	3590.010002	0.000557	3690.000004	0.001084
40	3590.010001	0.000279	3689.999995	-0.001355
50	3590.009998	-0.000557	3689.999995	-0.001355
60	3590.009997	-0.000836	3689.999996	-0.001084

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3610.019996	-0.001108	3679.979998	-0.000543
108	3610.020002	0.000554	3679.980001	0.000272
138	3610.020005	0.001385	3679.979995	-0.001359

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3610.020003	0.000831	3679.979998	-0.000543
-20	3610.020004	0.001108	3679.980003	0.000815
-10	3610.019995	-0.001385	3679.979999	-0.000272
0	3610.020003	0.000831	3679.979995	-0.001359
10	3610.020002	0.000554	3679.979998	-0.000543
20	3610.019998	-0.000554	3679.979995	-0.001359
30	3610.019996	-0.001108	3679.979997	-0.000815
40	3610.019996	-0.001108	3679.979995	-0.001359
50	3610.020003	0.000831	3679.980005	0.001359
60	3610.020004	0.001108	3679.979999	-0.000272

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3620.010004	0.001105	3679.980003	0.000815
108	3620.009995	-0.001381	3679.980003	0.000815
138	3620.009998	-0.000552	3679.980001	0.000272

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3620.010003	0.000829	3679.980004	0.001087
-20	3620.009997	-0.000829	3679.979997	-0.000815
-10	3620.010005	0.001381	3679.979997	-0.000815
0	3620.010002	0.000552	3679.979998	-0.000543
10	3620.009999	-0.000276	3679.979998	-0.000543
20	3620.009997	-0.000829	3679.980004	0.001087
30	3620.010001	0.000276	3679.980001	0.000272
40	3620.009998	-0.000552	3679.979999	-0.000272
50	3620.010005	0.001381	3679.980002	0.000543
60	3620.010001	0.000276	3679.979999	-0.000272

Antenna 3

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3580.019998	-0.000559	3689.999999	-0.000271
108	3580.020001	0.000279	3690.000001	0.000271
138	3580.020003	0.000838	3689.999997	-0.000813

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3580.019995	-0.001397	3689.999996	-0.001084
-20	3580.020005	0.001397	3690.000004	0.001084
-10	3580.020005	0.001397	3690.000005	0.001355
0	3580.020002	0.000559	3689.999997	-0.000813
10	3580.019996	-0.001117	3690.000005	0.001355
20	3580.020004	0.001117	3690.000004	0.001084
30	3580.019995	-0.001397	3689.999996	-0.001084
40	3580.020003	0.000838	3689.999999	-0.000271
50	3580.020002	0.000559	3689.999998	-0.000542
60	3580.020001	0.000279	3689.999995	-0.001355

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3590.009998	-0.000557	3690.000001	0.000271
108	3590.009996	-0.001114	3689.999998	-0.000542
138	3590.009995	-0.001393	3690.000004	0.001084

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 20MHz+20MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3590.009998	-0.000557	3690.000001	0.000271
-20	3590.010004	0.001114	3689.999997	-0.000813
-10	3590.010004	0.001114	3690.000001	0.000271
0	3590.010003	0.000836	3689.999995	-0.001355
10	3590.010003	0.000836	3690.000003	0.000813
20	3590.009998	-0.000557	3689.999996	-0.001084
30	3590.010003	0.000836	3689.999997	-0.000813
40	3590.009999	-0.000279	3689.999998	-0.000542
50	3590.010005	0.001393	3690.000002	0.000542
60	3590.009998	-0.000557	3690.000005	0.001355

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3610.019996	-0.001108	3679.980002	0.000543
108	3610.019999	-0.000277	3679.979995	-0.001359
138	3610.019999	-0.000277	3679.979999	-0.000272

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3610.019996	-0.001108	3679.979995	-0.001359
-20	3610.020003	0.000831	3679.979997	-0.000815
-10	3610.020003	0.000831	3679.979999	-0.000272
0	3610.020001	0.000277	3679.979996	-0.001087
10	3610.020005	0.001385	3679.980003	0.000815
20	3610.020001	0.000277	3679.980005	0.001359
30	3610.020005	0.001385	3679.979995	-0.001359
40	3610.019999	-0.000277	3679.979997	-0.000815
50	3610.020004	0.001108	3679.979996	-0.001087
60	3610.019997	-0.000831	3679.980002	0.000543

Frequency Error vs. Voltage

Voltage (Vac)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
120	3620.009998	-0.000552	3679.979998	-0.000543
108	3620.010005	0.001381	3679.980002	0.000543
138	3620.010001	0.000276	3679.980002	0.000543

Note: The applicant defined the normal working voltage is from 108Vac to 138Vac.

Frequency Error vs. Temperature

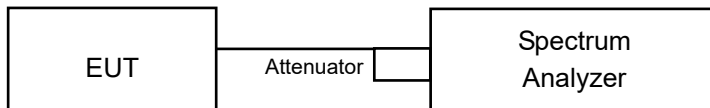
Temp. (°C)	NR Band 48, Channel Bandwidth: 40MHz+40MHz_Non-Continuous			
	Low Channel		High Channel	
	Frequency (MHz)	Frequency Error (ppm)	Frequency (MHz)	Frequency Error (ppm)
-30	3620.010004	0.001105	3679.979995	-0.001359
-20	3620.009995	-0.001381	3679.979999	-0.000272
-10	3620.009995	-0.001381	3679.979999	-0.000272
0	3620.009998	-0.000552	3679.979996	-0.001087
10	3620.010003	0.000829	3679.979998	-0.000543
20	3620.010001	0.000276	3679.979999	-0.000272
30	3620.009995	-0.001381	3679.980002	0.000543
40	3620.009997	-0.000829	3679.979996	-0.001087
50	3620.010002	0.000552	3679.979998	-0.000543
60	3620.010004	0.001105	3679.980004	0.001087

4.5 Emission Bandwidth Measurement

4.5.1 Limits of Emission Bandwidth Measurement

According to FCC 47 CFR part 2.1049, the occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5% of the total mean power radiated by a given emission.

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.5.4 Test Procedure

Occupied Bandwidth & 26dBc Bandwidth

- The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times \text{RBW}$.
- Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
NOTE—Step 1), step 2), and step 3) may require iteration to adjust within the specified tolerances.
- The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target “-X dB” requirement, i.e., if the requirement calls for measuring the -26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
- Set spectrum analyzer detection mode to peak, and the trace mode to max hold.
- Determine the reference value by either of the following:
 - 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).
 - Set the EUT to transmit an unmodulated carrier. Set the spectrum analyzer marker to the level of the carrier.
- Determine the “-X dB amplitude” as equal to (Reference Value - X). Alternatively, this calculation can be performed on the spectrum analyzer using the delta-marker measurement function.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.5.7 Test Result

Mode A1

Occupied Bandwidth

NR Band 48, Channel Bandwidth 10MHz									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	8.5731	8.5736	8.5751	8.6227	8.5743	8.5729	8.5721	8.6205
641666	3624.99	8.5724	8.5757	8.5740	8.5789	8.5719	8.5803	8.5762	8.5674
646332	3694.98	8.5738	8.5729	8.5756	8.5754	8.5740	8.5761	8.5694	8.5736
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	8.5734	8.5758	8.5723	8.6191	8.5731	8.5725	8.5688	8.6100
641666	3624.99	8.5747	8.5671	8.5768	8.5718	8.5739	8.5768	8.5766	8.5681
646332	3694.98	8.5741	8.5745	8.5741	8.5762	8.5738	8.5745	8.5730	8.5776
NR Band 48, Channel Bandwidth 20MHz									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	18.195	18.198	18.200	18.193	18.195	18.195	18.198	18.192
641666	3624.99	18.196	18.192	18.196	18.196	18.197	18.195	18.206	18.189
646000	3690.00	18.204	18.205	18.207	18.203	18.200	18.208	18.213	18.200
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	18.192	18.198	18.204	18.199	18.195	18.199	18.202	18.197
641666	3624.99	18.196	18.192	18.188	18.199	18.198	18.194	18.199	18.192
646000	3690.00	18.203	18.210	18.211	18.206	18.200	18.214	18.209	18.209

NR Band 48, Channel Bandwidth 40MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	37.783	37.789	37.790	37.797	37.783	37.785	37.795	37.795
641666	3624.99	37.771	37.767	37.777	37.778	37.767	37.763	37.761	37.777
645332	3679.98	37.835	37.842	37.830	37.846	37.843	37.837	37.830	37.853
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	37.783	37.781	37.791	37.787	37.782	37.789	37.777	37.789
641666	3624.99	37.766	37.765	37.763	37.781	37.768	37.769	37.781	37.776
645332	3679.98	37.840	37.838	37.851	37.847	37.834	37.838	37.843	37.840

Spectrum Plot of Worst Value



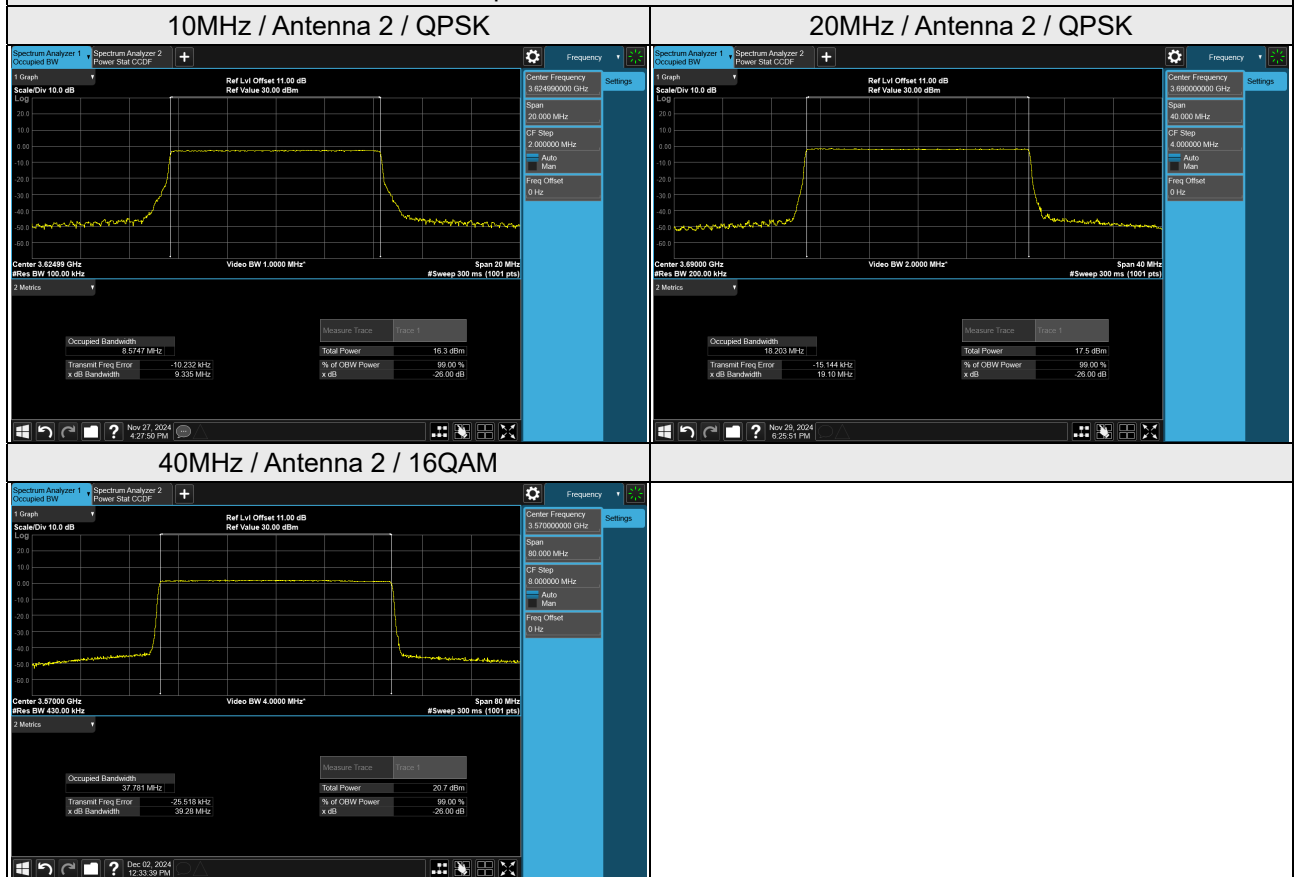
26dB Bandwidth

NR Band 48, Channel Bandwidth 10MHz									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	9.269	9.251	9.257	9.305	9.265	9.279	9.195	9.283
641666	3624.99	9.248	9.288	9.262	9.270	9.250	9.300	9.261	9.215
646332	3694.98	9.263	9.295	9.213	9.222	9.291	9.268	9.253	9.274
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	9.284	9.264	9.218	9.291	9.256	9.271	9.222	9.282
641666	3624.99	9.335	9.245	9.245	9.238	9.329	9.310	9.248	9.228
646332	3694.98	9.265	9.286	9.288	9.225	9.250	9.287	9.231	9.218
NR Band 48, Channel Bandwidth 20MHz									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	19.03	19.04	19.04	19.06	19.04	19.02	19.00	18.98
641666	3624.99	19.00	19.06	19.03	19.00	19.01	19.03	19.01	19.00
646000	3690.00	19.05	19.09	19.04	19.04	19.05	19.03	18.99	19.06
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	19.03	19.00	19.02	18.98	19.07	19.06	19.08	19.05
641666	3624.99	19.01	19.04	18.99	19.00	18.99	19.03	19.05	19.01
646000	3690.00	19.10	19.03	19.02	19.00	19.03	19.10	19.03	19.06

NR Band 48, Channel Bandwidth 40MHz

Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	39.27	39.23	39.24	39.24	39.24	39.22	39.23	39.23
641666	3624.99	39.23	39.27	39.24	39.24	39.24	39.22	39.23	39.22
645332	3679.98	39.23	39.24	39.22	39.24	39.26	39.24	39.22	39.25
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	39.25	39.28	39.24	39.23	39.23	39.27	39.20	39.23
641666	3624.99	39.27	39.22	39.22	39.24	39.24	39.22	39.23	39.24
645332	3679.98	39.25	39.26	39.25	39.25	39.25	39.23	39.25	39.24

Spectrum Plot of Worst Value



Mode A2

Occupied Bandwidth

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	18.196	18.196	18.195	18.198	18.196	18.198	18.195	18.198
641000+ 642334	3615.00+ 3635.01	18.193	18.195	18.197	18.198	18.194	18.196	18.193	18.197
644666+ 646000	3669.99+ 3690.00	18.192	18.191	18.197	18.194	18.194	18.192	18.198	18.195
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	18.200	18.199	18.199	18.199	18.200	18.201	18.197	18.198
641000+ 642334	3615.00+ 3635.01	18.197	18.196	18.197	18.197	18.195	18.196	18.197	18.197
644666+ 646000	3669.99+ 3690.00	18.198	18.197	18.202	18.200	18.201	18.201	18.200	18.200

Total:

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Antenna 0 + 2			
		QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	36.396	36.395	36.394	36.397
641000+ 642334	3615.00+ 3635.01	36.390	36.391	36.394	36.395
644666+ 646000	3669.99+ 3690.00	36.390	36.388	36.399	36.394
Channel	Frequency (MHz)	Antenna 1 + 3			
		QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	36.396	36.399	36.392	36.396
641000+ 642334	3615.00+ 3635.01	36.389	36.392	36.390	36.394
644666+ 646000	3669.99+ 3690.00	36.395	36.393	36.398	36.395

NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	18.196	18.196	18.197	18.196	18.197	18.196	18.197	18.197
640668+ 642668	3610.02+ 3640.02	18.200	18.197	18.194	18.197	18.200	18.200	18.198	18.196
644000+ 646000	3660.00+ 3690.00	18.192	18.185	18.192	18.183	18.191	18.188	18.190	18.192
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	18.193	18.196	18.195	18.195	18.193	18.198	18.199	18.194
640668+ 642668	3610.02+ 3640.02	18.196	18.194	18.195	18.195	18.198	18.193	18.194	18.196
644000+ 646000	3660.00+ 3690.00	18.202	18.203	18.202	18.197	18.204	18.203	18.201	18.204

Total:

NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Antenna 0 + 2			
		QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	36.389	36.392	36.392	36.391
640668+ 642668	3610.02+ 3640.02	36.396	36.391	36.389	36.392
644000+ 646000	3660.00+ 3690.00	36.394	36.388	36.394	36.380
Channel	Frequency (MHz)	Antenna 1 + 3			
		QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	36.390	36.394	36.396	36.391
640668+ 642668	3610.02+ 3640.02	36.398	36.393	36.392	36.392
644000+ 646000	3660.00+ 3690.00	36.395	36.391	36.391	36.396

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	37.782	37.783	37.783	37.781	37.785	37.784	37.788	37.784
640332+ 643000	3604.98+ 3645.00	37.808	37.809	37.806	37.809	37.811	37.809	37.808	37.809
642664+ 645332	3639.96+ 3679.98	37.757	37.758	37.757	37.757	37.760	37.759	37.757	37.575
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	37.768	37.790	37.787	37.789	37.787	37.788	37.787	37.784
640332+ 643000	3604.98+ 3645.00	37.789	37.791	37.787	37.789	37.789	37.789	37.783	37.786
642664+ 645332	3639.96+ 3679.98	37.791	37.790	37.790	37.794	37.794	37.783	37.793	37.795

Total:

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous						
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)				
		Antenna 0 + 2				
		QPSK	16QAM	64QAM	256QAM	
638000+ 640668	3570.00+ 3610.02	75.550	75.573	75.570	75.570	
640332+ 643000	3604.98+ 3645.00	75.597	75.600	75.593	75.598	
642664+ 645332	3639.96+ 3679.98	75.548	75.548	75.547	75.551	
Channel	Frequency (MHz)	Antenna 1 + 3				
		QPSK	16QAM	64QAM	256QAM	
		QPSK	16QAM	64QAM	256QAM	
638000+ 640668	3570.00+ 3610.02	75.572	75.572	75.575	75.568	
640332+ 643000	3604.98+ 3645.00	75.600	75.598	75.591	75.595	
642664+ 645332	3639.96+ 3679.98	75.554	75.542	75.550	75.370	

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	37.783	37.783	37.784	37.788	37.785	37.781	37.787	37.786
640000+ 643334	3600.00+ 3650.01	37.821	37.817	37.819	37.819	37.819	37.820	37.815	37.823
641998+ 645332	3629.97+ 3679.98	37.776	37.769	37.765	37.762	37.766	37.763	37.768	37.763
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	37.789	37.790	37.790	37.787	37.788	37.781	37.787	37.781
640000+ 643334	3600.00+ 3650.01	37.799	37.796	37.800	37.799	37.798	37.802	37.802	37.801
641998+ 645332	3629.97+ 3679.98	37.790	37.789	37.790	37.794	37.792	37.796	37.791	37.792

Total:

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Antenna 0 + 2			
		QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	75.572	75.573	75.574	75.575
640000+ 643334	3600.00+ 3650.01	75.620	75.613	75.619	75.618
641998+ 645332	3629.97+ 3679.98	75.566	75.558	75.555	75.556
Channel	Frequency (MHz)	Antenna 1 + 3			
		QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	75.573	75.562	75.574	75.567
640000+ 643334	3600.00+ 3650.01	75.617	75.622	75.617	75.624
641998+ 645332	3629.97+ 3679.98	75.558	75.559	75.559	75.555

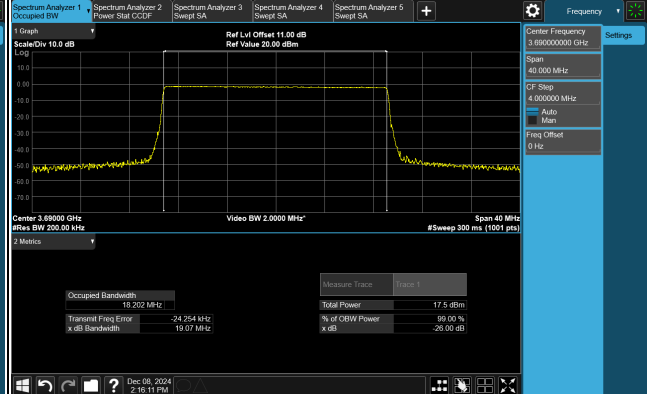
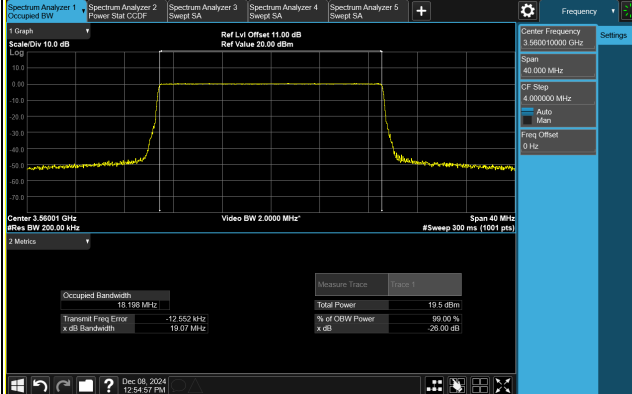
Spectrum Plot of Worst Value

20MHz+20MHz_Contiguous / Antenna 0 / 256QAM

20MHz+20MHz_Contiguous / Antenna 2 / 64QAM

3560.01MHz + 3580.02MHz

3669.99MHz + 3690.00MHz

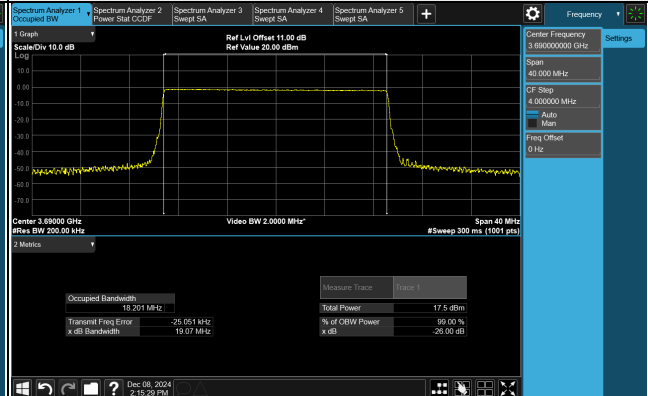
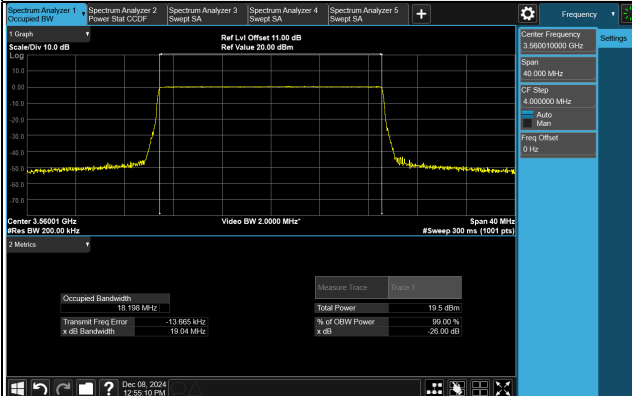


20MHz+20MHz_Contiguous / Antenna 1 / 256QAM

20MHz+20MHz_Contiguous / Antenna 3 / QPSK

3560.01MHz + 3580.02MHz

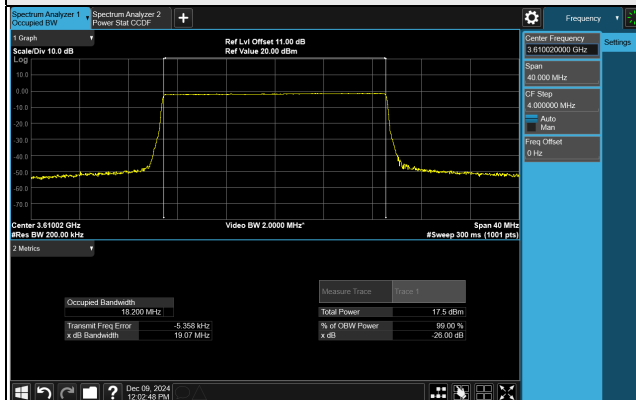
3669.99MHz + 3690.00MHz



Spectrum Plot of Worst Value

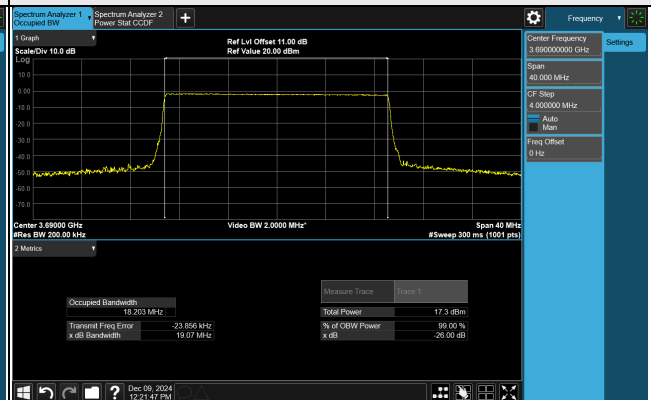
20MHz+20MHz_Non-Contiguous / Antenna 0 / QPSK

3610.02MHz + 3640.02MHz



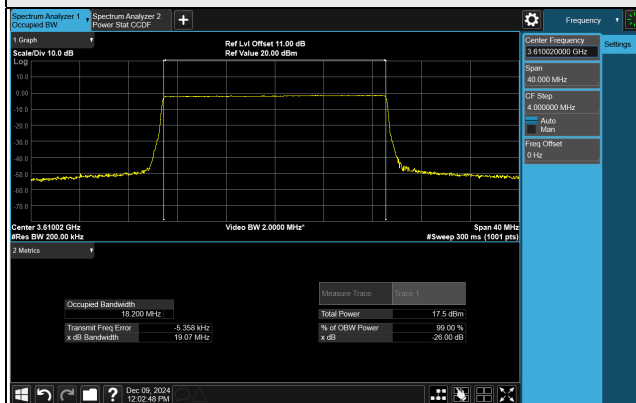
20MHz+20MHz_Non-Contiguous / Antenna 2 / 16QAM

3660.00MHz + 3690.00MHz



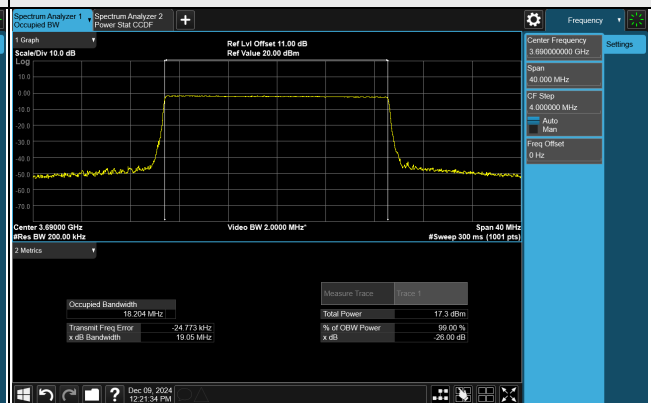
20MHz+20MHz_Non-Contiguous / Antenna 1 / QPSK

3610.02MHz + 3640.02MHz



20MHz+20MHz_Non-Contiguous / Antenna 3 / QPSK

3660.00MHz + 3690.00MHz



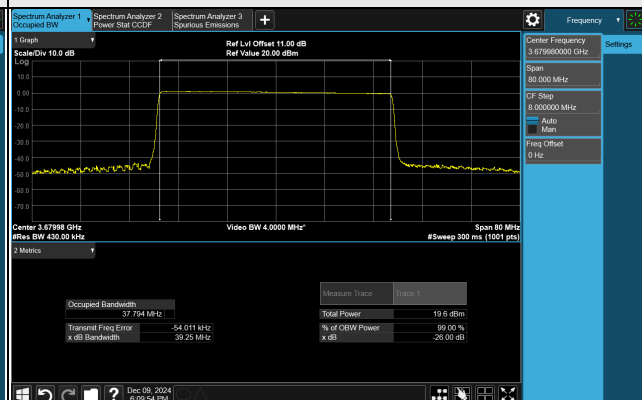
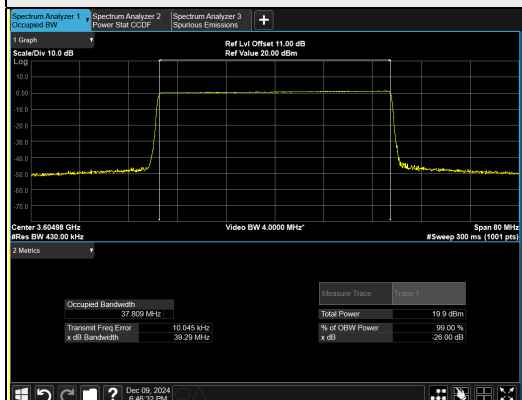
Spectrum Plot of Worst Value

40MHz+40MHz_Contiguous / Antenna 0 / 16QAM

40MHz+40MHz_Contiguous / Antenna 2 / 256QAM

3604.98MHz + 3645.00MHz

3639.96MHz + 3679.98MHz

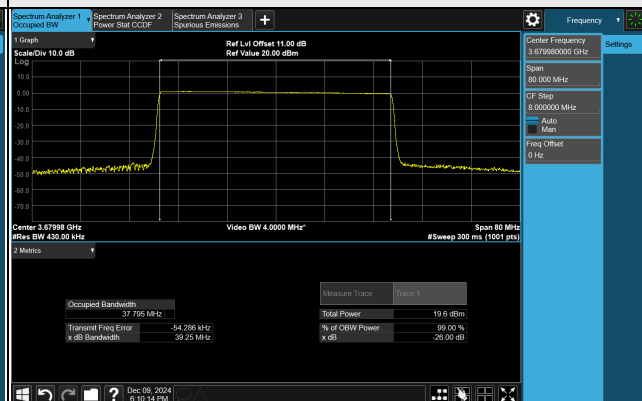
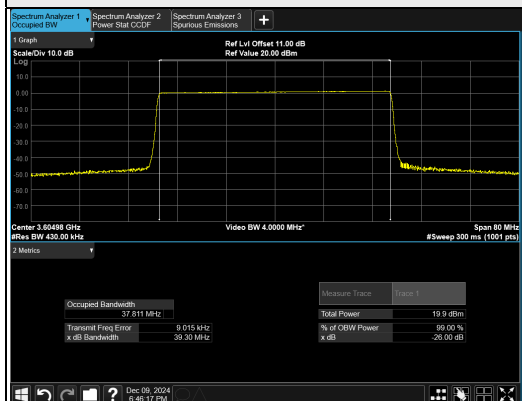


40MHz+40MHz_Contiguous / Antenna 1 / QPSK

40MHz+40MHz_Contiguous / Antenna 3 / 256QAM

3604.98MHz + 3645.00MHz

3639.96MHz + 3679.98MHz



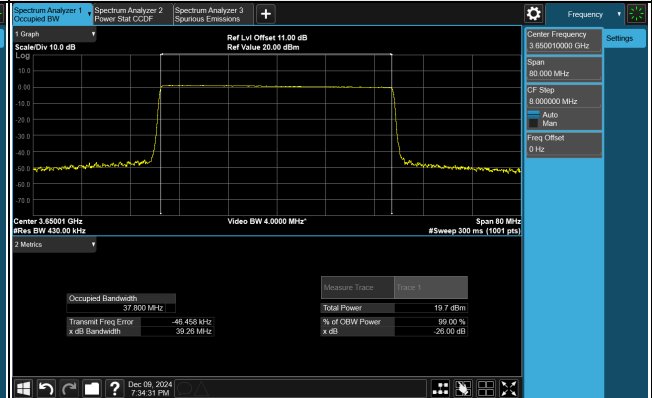
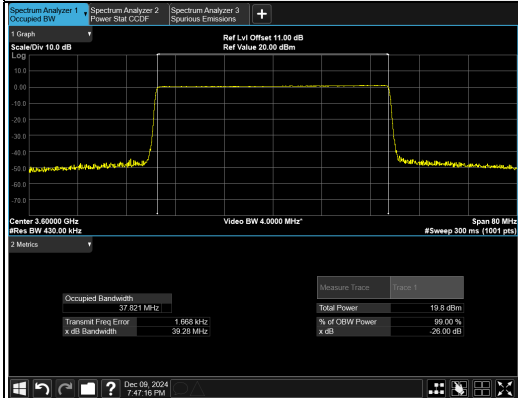
Spectrum Plot of Worst Value

40MHz+40MHz_Non-Contiguous / Antenna 0 / QPSK

40MHz+40MHz_Non-Contiguous / Antenna 2 / 64QAM

3600.00MHz + 3650.01MHz

3600.00MHz + 3650.01MHz

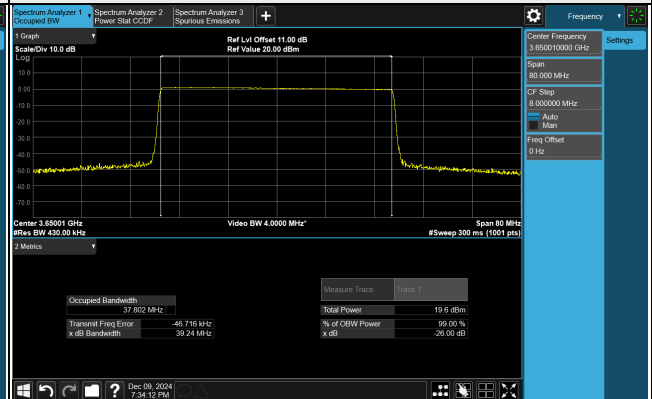
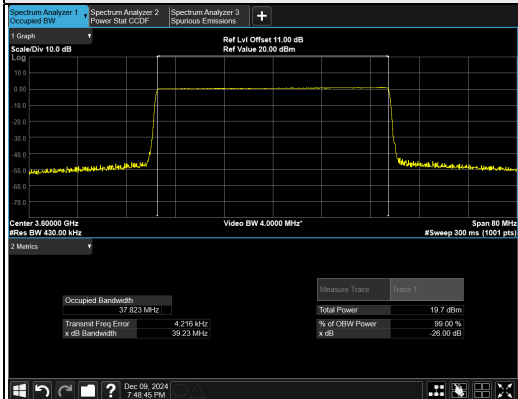


40MHz+40MHz_Non-Contiguous / Antenna 1 / 256QAM

40MHz+40MHz_Non-Contiguous / Antenna 3 / 16QAM

3600.00MHz + 3650.01MHz

3600.00MHz + 3650.01MHz



26dB Bandwidth

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	19.05	19.00	19.06	19.07	19.07	19.04	19.04	19.04
641000+ 642334	3615.00+ 3635.01	19.02	19.06	19.06	19.04	18.97	19.03	19.01	19.01
644666+ 646000	3669.99+ 3690.00	18.98	19.04	19.04	18.96	19.04	18.97	19.09	19.08
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	19.03	19.01	19.06	19.06	19.04	19.05	19.00	19.05
641000+ 642334	3615.00+ 3635.01	19.03	19.08	19.09	19.10	19.08	19.08	19.09	19.10
644666+ 646000	3669.99+ 3690.00	18.95	19.01	19.07	18.93	19.07	19.05	19.09	19.04

Total:

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous					
Channel	Frequency (MHz)	26dB Bandwidth (MHz)			
		Antenna 0 + 2			
		QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	38.08	38.01	38.12	38.13
641000+ 642334	3615.00+ 3635.01	38.05	38.14	38.15	38.14
644666+ 646000	3669.99+ 3690.00	37.93	38.05	38.11	37.89
Channel	Frequency (MHz)	Antenna 1 + 3			
		QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	38.11	38.09	38.04	38.09
641000+ 642334	3615.00+ 3635.01	38.05	38.11	38.10	38.11
644666+ 646000	3669.99+ 3690.00	38.11	38.02	38.18	38.12

NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	19.13	19.05	19.09	19.05	19.07	19.08	19.11	19.06
640668+ 642668	3610.02+ 3640.02	19.07	19.05	19.04	19.03	19.02	19.04	19.03	19.03
644000+ 646000	3660.00+ 3690.00	18.97	18.98	18.97	19.04	19.01	19.04	19.05	19.03
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	19.06	19.00	19.01	19.02	19.00	18.99	19.03	19.03
640668+ 642668	3610.02+ 3640.02	19.00	19.03	19.03	19.01	19.05	19.01	19.01	19.04
644000+ 646000	3660.00+ 3690.00	18.99	19.07	19.09	18.96	19.05	19.07	19.05	19.05

Total:

NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		Antenna 0 + 2				
		QPSK	16QAM	64QAM	256QAM	
637334+ 639334	3560.01+ 3590.01	38.19	38.05	38.10	38.07	
640668+ 642668	3610.02+ 3640.02	38.07	38.08	38.07	38.04	
644000+ 646000	3660.00+ 3690.00	37.96	38.05	38.06	38.00	
Channel	Frequency (MHz)	Antenna 1 + 3				
		QPSK	16QAM	64QAM	256QAM	
		QPSK	16QAM	64QAM	256QAM	
637334+ 639334	3560.01+ 3590.01	38.07	38.07	38.14	38.09	
640668+ 642668	3610.02+ 3640.02	38.07	38.05	38.04	38.07	
644000+ 646000	3660.00+ 3690.00	38.06	38.11	38.10	38.08	

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	39.29	39.26	39.25	39.25	39.26	39.28	39.25	39.25
640332+ 643000	3604.98+ 3645.00	39.26	39.29	39.25	39.27	39.30	39.27	39.28	39.25
642664+ 645332	3639.96+ 3679.98	39.24	9.25	39.24	39.26	39.25	39.24	39.25	39.24
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	39.25	39.26	39.25	39.27	39.27	39.25	39.26	39.27
640332+ 643000	3604.98+ 3645.00	39.24	39.25	39.25	39.24	39.26	39.25	39.24	39.25
642664+ 645332	3639.96+ 3679.98	39.26	39.25	39.24	39.25	39.25	39.24	39.24	39.25

Total:

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous					
Channel	Frequency (MHz)	26dB Bandwidth (MHz)			
		Antenna 0 + 2			
		QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	78.54	78.52	78.50	78.52
640332+ 643000	3604.98+ 3645.00	78.50	78.54	78.50	78.51
642664+ 645332	3639.96+ 3679.98	78.50	48.50	78.48	78.51
Channel	Frequency (MHz)	Antenna 1 + 3			
		QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	78.53	78.53	78.51	78.52
640332+ 643000	3604.98+ 3645.00	78.56	78.52	78.52	78.50
642664+ 645332	3639.96+ 3679.98	78.50	78.48	78.49	78.49

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	39.26	39.24	39.27	39.24	39.24	39.27	39.25	39.25
640000+ 643334	3600.00+ 3650.01	39.28	39.23	39.23	39.20	39.26	39.22	39.28	39.23
641998+ 645332	3629.97+ 3679.98	39.24	39.24	39.27	39.24	39.24	39.26	39.24	39.26
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	39.23	39.27	39.29	39.22	39.28	39.25	39.27	39.25
640000+ 643334	3600.00+ 3650.01	39.24	39.24	39.26	39.25	39.25	39.24	39.25	39.24
641998+ 645332	3629.97+ 3679.98	39.27	39.25	39.24	39.25	39.25	39.25	39.25	39.24

Total:

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		Antenna 0 + 2				
		QPSK	16QAM	64QAM	256QAM	
638000+ 641334	3570.00+ 3620.01	78.49	78.51	78.56	78.46	
640000+ 643334	3600.00+ 3650.01	78.52	78.47	78.49	78.45	
641998+ 645332	3629.97+ 3679.98	78.51	78.49	78.51	78.49	
Channel	Frequency (MHz)	Antenna 1 + 3				
		QPSK	16QAM	64QAM	256QAM	
		QPSK	16QAM	64QAM	256QAM	
638000+ 641334	3570.00+ 3620.01	78.52	78.52	78.52	78.50	
640000+ 643334	3600.00+ 3650.01	78.51	78.46	78.53	78.47	
641998+ 645332	3629.97+ 3679.98	78.49	78.51	78.49	78.50	

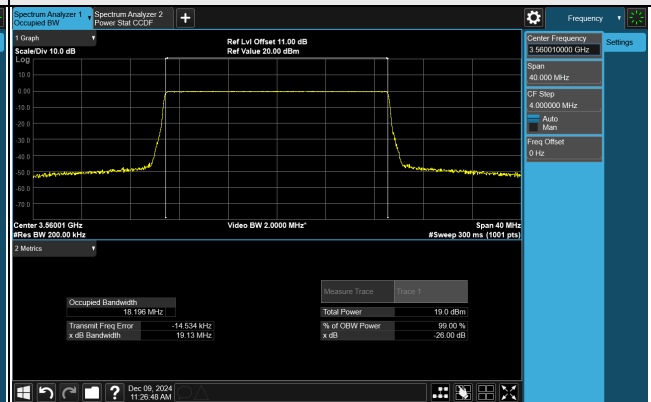
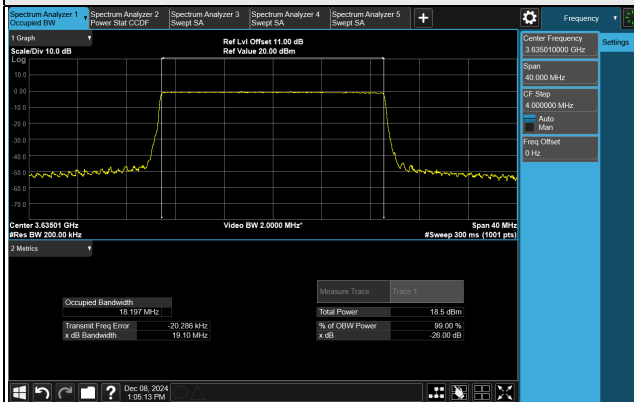
Spectrum Plot of Worst Value

20MHz+20MHz_Contiguous / Antenna 3 / 256QAM

20MHz+20MHz_Non-Contiguous / Antenna 0 / QPSK

3615.00MHz + 3635.01MHz

3560.01MHz + 3590.01MHz

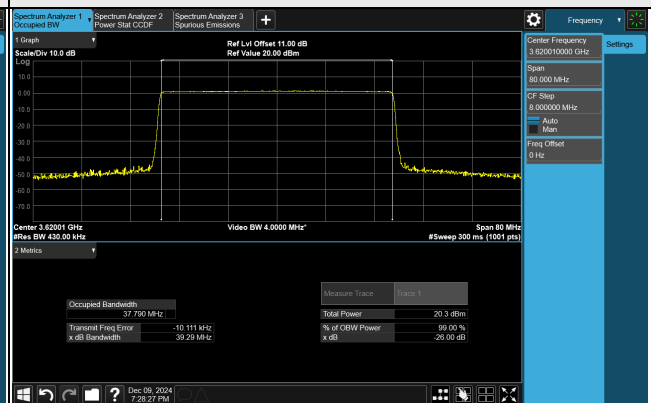
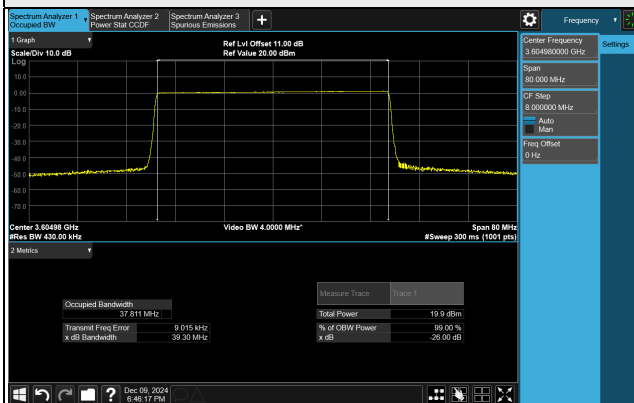


40MHz+40MHz_Contiguous / Antenna 1 / QPSK

40MHz+40MHz_Non-Contiguous / Antenna 2 / 64QAM

3604.98MHz + 3645.00MHz

3570.00MHz + 3620.01MHz



Mode B1
Occupied Bandwidth

NR Band 48, Channel Bandwidth 10MHz									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	8.5595	8.5622	8.5597	8.5580	8.5651	8.5615	8.5574	8.5592
641666	3624.99	8.5599	8.5619	8.5602	8.5682	8.5628	8.5593	8.5544	8.5561
646332	3694.98	8.5605	8.5607	8.5657	8.5606	8.5603	8.5603	8.5615	8.5616
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	8.5607	8.5616	8.5589	8.5564	8.5594	8.5594	8.5586	8.5607
641666	3624.99	8.5560	8.5635	8.5588	8.5585	8.5510	8.5606	8.5571	8.5620
646332	3694.98	8.5631	8.5637	8.5546	8.5536	8.5563	8.5607	8.5564	8.5601
NR Band 48, Channel Bandwidth 20MHz									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	18.207	18.203	18.201	18.199	18.209	18.201	18.206	18.209
641666	3624.99	18.203	18.197	18.193	18.197	18.199	18.198	18.192	18.192
646000	3690.00	18.202	18.194	18.195	18.201	18.200	8.197	18.200	18.210
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	18.202	18.201	18.202	18.201	18.201	18.201	18.209	18.207
641666	3624.99	18.199	18.202	18.189	18.196	18.195	18.193	18.199	18.197
646000	3690.00	18.203	18.194	18.203	18.199	18.197	18.202	18.202	18.195

NR Band 48, Channel Bandwidth 40MHz

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	37.840	37.840	37.835	37.841	37.832	37.839	37.828	37.836
641666	3624.99	37.783	37.766	37.781	37.787	37.788	37.786	37.778	37.777
645332	3679.98	37.798	37.803	37.798	37.805	37.797	37.808	37.796	37.797
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	37.832	37.838	37.834	37.847	37.846	37.833	37.833	37.833
641666	3624.99	37.784	37.784	37.773	37.772	37.767	37.772	37.774	37.780
645332	3679.98	37.784	37.792	37.812	37.797	37.799	37.804	37.807	37.803

Spectrum Plot of Worst Value



26dB Bandwidth

NR Band 48, Channel Bandwidth 10MHz									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	9.254	9.219	9.220	9.223	9.268	9.221	9.218	9.171
641666	3624.99	9.168	9.095	9.134	9.153	9.190	9.253	9.151	9.111
646332	3694.98	9.303	9.167	9.219	9.218	9.130	9.243	9.254	9.210
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	9.184	9.255	9.201	9.157	9.202	9.222	9.202	9.211
641666	3624.99	9.220	9.178	9.167	9.256	9.228	9.273	9.069	9.187
646332	3694.98	9.210	9.138	9.267	9.309	9.218	9.235	9.210	9.267
NR Band 48, Channel Bandwidth 20MHz									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	19.15	19.03	19.09	19.14	19.11	19.05	19.16	19.06
641666	3624.99	19.03	18.99	19.06	19.01	19.06	19.02	19.01	19.08
646000	3690.00	19.08	19.05	19.07	19.08	19.06	19.04	19.09	19.03
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	19.08	19.16	19.12	19.05	19.08	19.14	19.12	19.05
641666	3624.99	18.97	19.09	19.06	19.16	19.08	19.09	19.03	19.07
646000	3690.00	19.06	19.22	19.07	19.02	19.07	18.95	19.04	19.15

NR Band 48, Channel Bandwidth 40MHz

Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	39.27	39.33	39.32	39.30	39.26	39.27	39.26	39.31
641666	3624.99	39.27	39.24	39.24	39.22	39.23	39.24	39.23	39.20
645332	3679.98	39.24	39.24	39.20	39.26	39.29	39.23	39.24	39.22
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	39.32	39.27	39.26	39.33	39.30	39.30	39.26	39.30
641666	3624.99	39.22	39.26	39.24	39.23	39.26	39.24	39.21	39.21
645332	3679.98	39.25	39.25	39.23	39.23	39.25	39.26	39.24	39.27

Spectrum Plot of Worst Value



Mode B2

Occupied Bandwidth

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	18.199	18.206	18.208	18.203	18.201	18.204	18.203	18.198
641000+ 642334	3615.00+ 3635.01	18.202	18.200	18.194	18.194	18.199	18.203	18.197	18.200
644666+ 646000	3669.99+ 3690.00	18.200	18.195	18.204	18.197	18.201	18.199	18.197	18.195
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	18.202	18.202	18.200	18.200	18.202	18.192	18.202	18.195
641000+ 642334	3615.00+ 3635.01	18.192	18.193	18.198	18.192	18.191	18.198	18.191	18.193
644666+ 646000	3669.99+ 3690.00	18.198	18.192	18.198	18.196	18.196	18.197	18.199	18.202

Total:

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Antenna 0 + 2			
		QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	36.401	36.408	36.408	36.403
641000+ 642334	3615.00+ 3635.01	36.394	36.393	36.392	36.386
644666+ 646000	3669.99+ 3690.00	36.398	36.387	36.402	36.393
Channel	Frequency (MHz)	Antenna 1 + 3			
		QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	36.403	36.396	36.405	36.393
641000+ 642334	3615.00+ 3635.01	36.390	36.401	36.388	36.393
644666+ 646000	3669.99+ 3690.00	36.397	36.396	36.396	36.397

NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	18.204	18.200	18.203	18.206	18.205	18.206	18.203	18.200
640668+ 642668	3610.02+ 3640.02	18.203	18.192	18.198	18.201	18.195	18.204	18.196	18.201
644000+ 646000	3660.00+ 3690.00	18.201	18.195	18.200	18.199	18.199	18.201	18.197	18.196
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	18.193	18.197	18.199	18.196	18.194	18.199	18.203	18.200
640668+ 642668	3610.02+ 3640.02	18.191	18.190	18.189	18.198	18.194	18.198	18.192	18.191
644000+ 646000	3660.00+ 3690.00	18.203	18.190	18.198	18.200	18.194	18.200	18.199	18.202

Total:

NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Antenna 0 + 2			
		QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	36.397	36.397	36.402	36.402
640668+ 642668	3610.02+ 3640.02	36.394	36.382	36.387	36.399
644000+ 646000	3660.00+ 3690.00	36.404	36.385	36.398	36.399
Channel	Frequency (MHz)	Antenna 1 + 3			
		QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	36.399	36.405	36.406	36.400
640668+ 642668	3610.02+ 3640.02	36.389	36.402	36.388	36.392
644000+ 646000	3660.00+ 3690.00	36.393	36.401	36.396	36.398

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	37.835	37.841	37.828	37.829	37.829	37.827	37.830	37.839
640332+ 643000	3604.98+ 3645.00	37.781	37.791	37.788	37.791	37.791	37.792	37.796	37.791
642664+ 645332	3639.96+ 3679.98	37.778	37.777	37.779	37.786	37.788	37.792	37.774	37.786
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	37.794	37.780	37.788	37.803	37.795	37.805	37.801	37.785
640332+ 643000	3604.98+ 3645.00	37.795	37.791	37.788	37.800	37.793	37.788	37.798	37.795
642664+ 645332	3639.96+ 3679.98	37.811	37.805	37.803	37.803	37.812	37.823	37.804	37.806

Total:

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Antenna 0 + 2			
		QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	75.629	75.621	75.616	75.632
640332+ 643000	3604.98+ 3645.00	75.576	75.582	75.576	75.591
642664+ 645332	3639.96+ 3679.98	75.589	75.582	75.582	75.589
Channel	Frequency (MHz)	Antenna 1 + 3			
		QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	75.624	75.632	75.631	75.624
640332+ 643000	3604.98+ 3645.00	75.584	75.580	75.594	75.586
642664+ 645332	3639.96+ 3679.98	75.600	75.615	75.578	75.592

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous									
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	37.829	37.830	37.823	37.834	37.832	37.825	37.832	37.829
640000+ 643334	3600.00+ 3650.01	37.792	37.790	37.799	37.787	37.791	37.794	37.793	37.794
641998+ 645332	3629.97+ 3679.98	37.776	37.782	37.790	37.776	37.773	37.764	37.764	37.763
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	37.793	37.790	37.779	37.788	37.785	37.789	37.786	37.780
640000+ 643334	3600.00+ 3650.01	37.803	37.796	37.802	37.807	37.795	37.806	37.804	37.806
641998+ 645332	3629.97+ 3679.98	37.803	37.809	37.805	37.813	37.809	37.808	37.799	37.800

Total:

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
		Antenna 0 + 2			
		QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	75.622	75.620	75.602	75.622
640000+ 643334	3600.00+ 3650.01	75.595	75.586	75.601	75.594
641998+ 645332	3629.97+ 3679.98	75.579	75.591	75.595	75.589
Channel	Frequency (MHz)	Antenna 1 + 3			
		QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	75.617	75.614	75.618	75.609
640000+ 643334	3600.00+ 3650.01	75.586	75.600	75.597	75.600
641998+ 645332	3629.97+ 3679.98	75.582	75.572	75.563	75.563

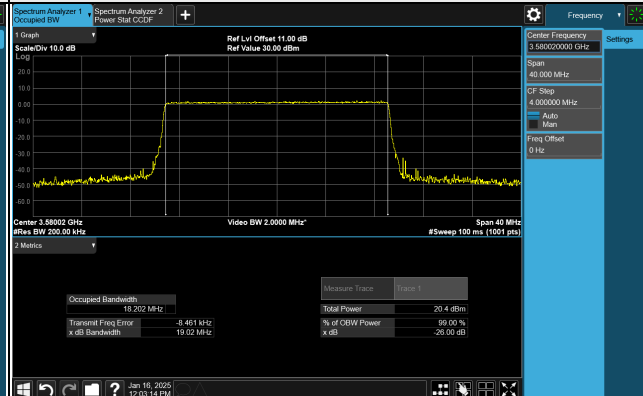
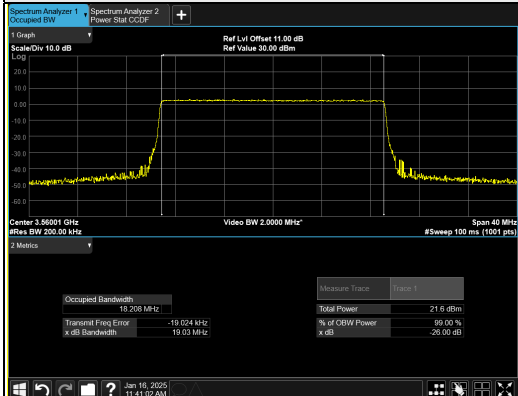
Spectrum Plot of Worst Value

20MHz+20MHz_Contiguous / Antenna 0 / 64QAM

20MHz+20MHz_Contiguous / Antenna 2 / QPSK

3560.01MHz + 3580.02MHz

3560.01MHz + 3580.02MHz

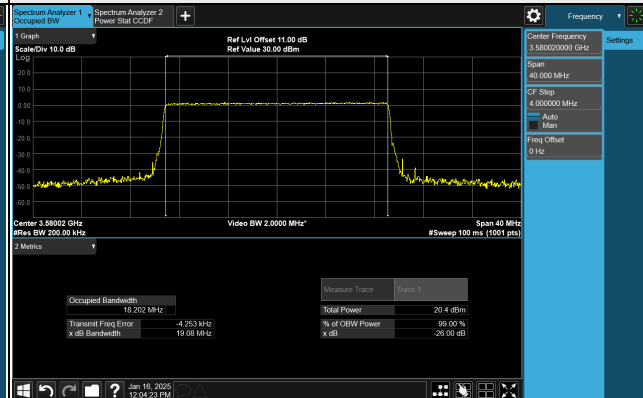
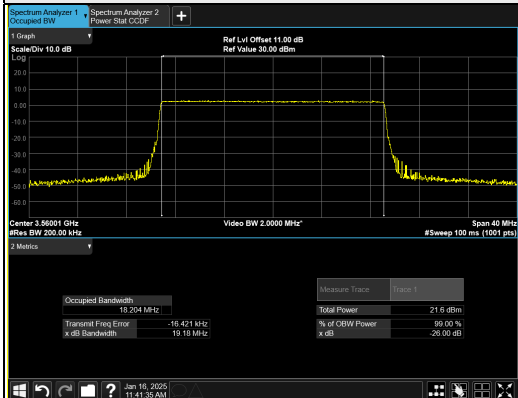


20MHz+20MHz_Contiguous / Antenna 1 / 16QAM

20MHz+20MHz_Contiguous / Antenna 3 / QPSK

3560.01MHz + 3580.02MHz

3560.01MHz + 3580.02MHz



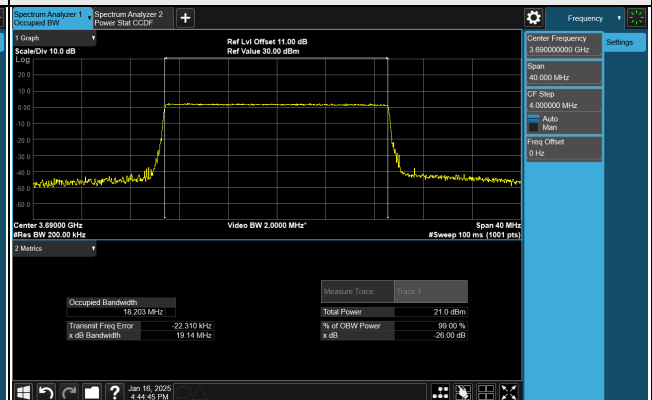
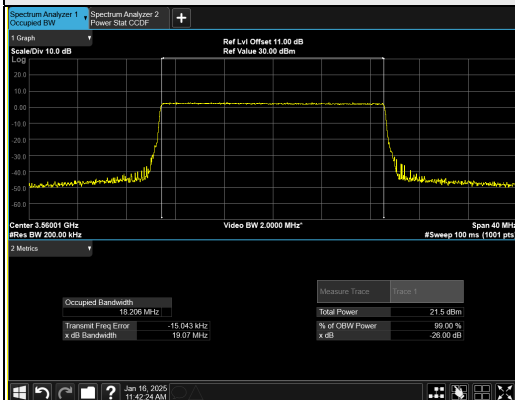
Spectrum Plot of Worst Value

20MHz+20MHz_Non-Contiguous / Antenna 0 / 256QAM

20MHz+20MHz_Non-Contiguous / Antenna 2 / QPSK

3560.01MHz + 3590.01MHz

3660.00MHz + 3690.00MHz

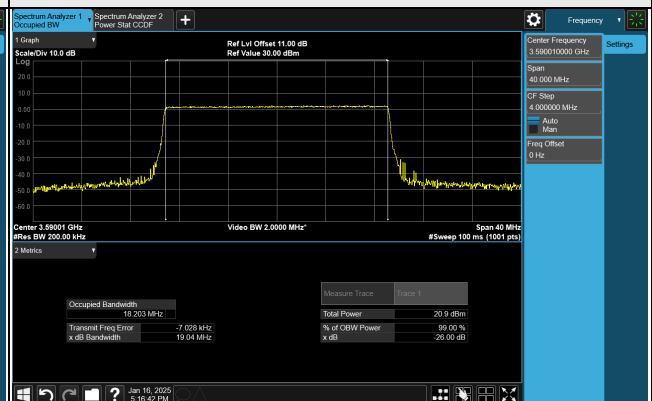
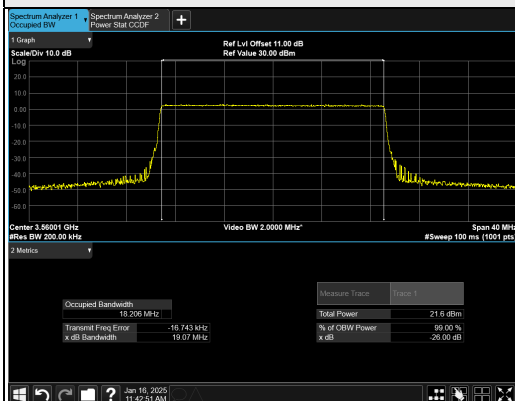


20MHz+20MHz_Non-Contiguous / Antenna 1 / 16QAM

20MHz+20MHz_Non-Contiguous / Antenna 3 / 64QAM

3560.01MHz + 3590.01MHz

3560.01MHz + 3590.01MHz



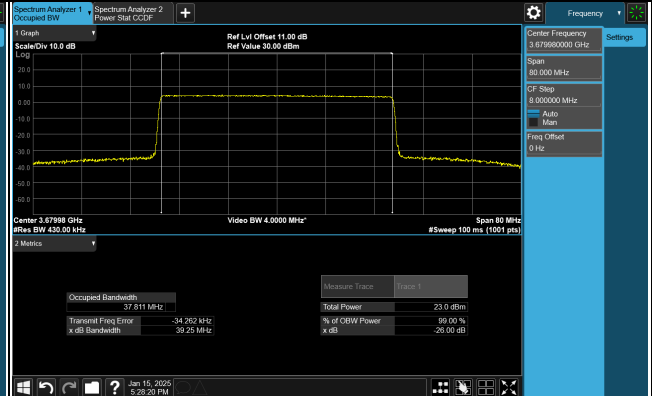
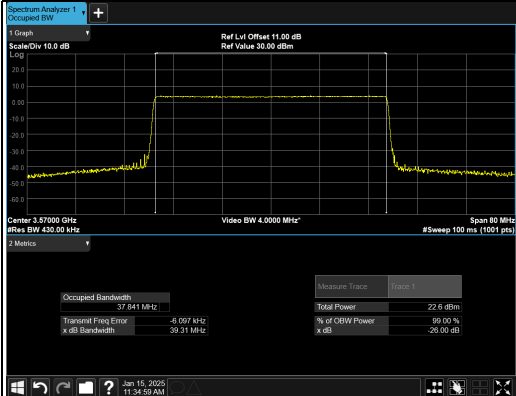
Spectrum Plot of Worst Value

40MHz+40MHz_Contiguous / Antenna 0 / 16QAM

40MHz+40MHz_Contiguous / Antenna 2 / QPSK

3570.00MHz + 3610.02MHz

3639.96MHz + 3679.98MHz

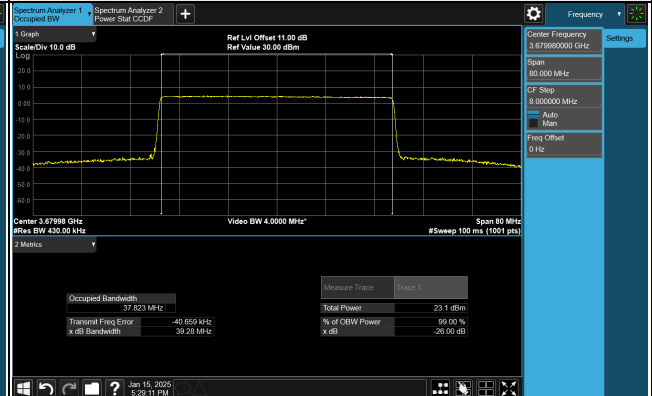
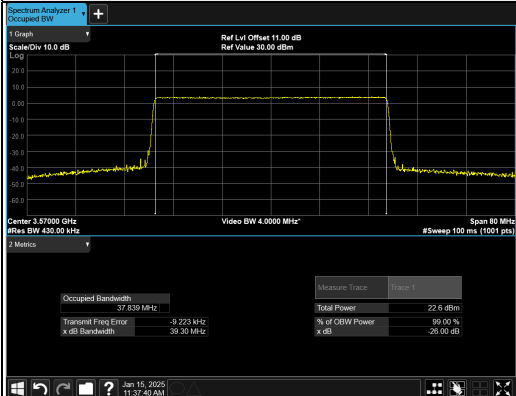


40MHz+40MHz_Contiguous / Antenna 1 / 256QAM

40MHz+40MHz_Contiguous / Antenna 3 / 16QAM

3570.00MHz + 3610.02MHz

3639.96MHz + 3679.98MHz



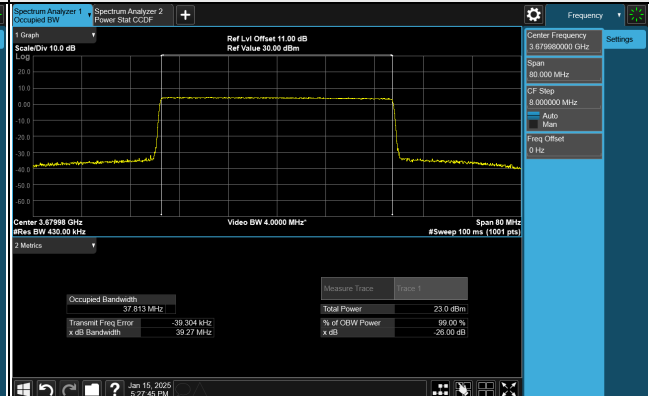
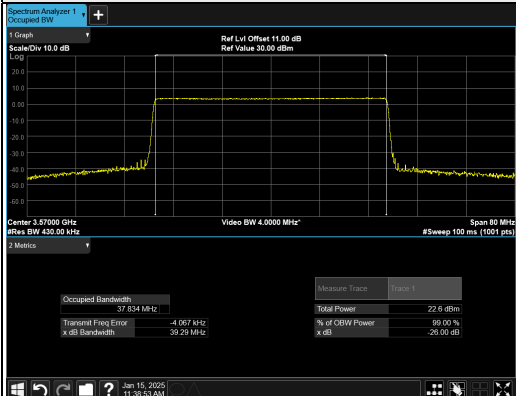
Spectrum Plot of Worst Value

40MHz+40MHz_Non-Contiguous / Antenna 0 / 256QAM

40MHz+40MHz_Non-Contiguous / Antenna 2 / 256QAM

3570.00MHz + 3620.01MHz

3629.97MHz + 3679.98MHz

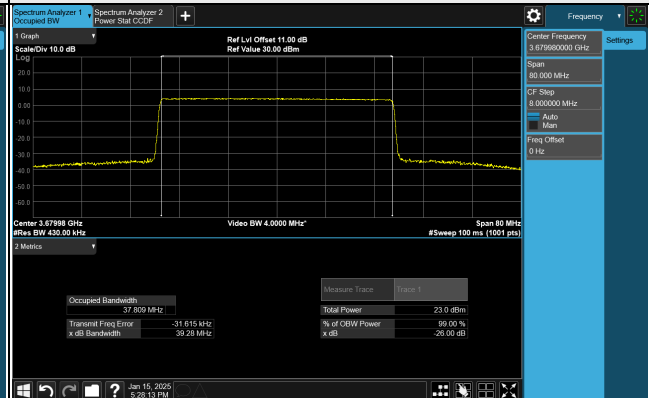
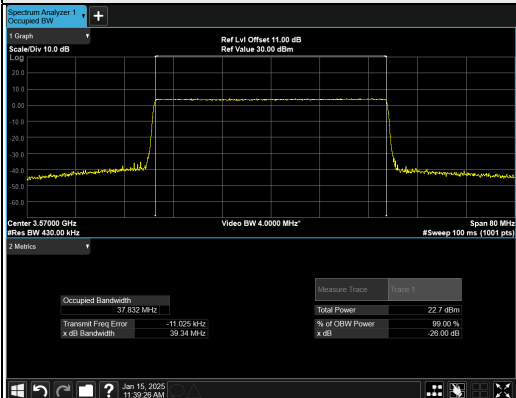


40MHz+40MHz_Non-Contiguous / Antenna 1 / QPSK

40MHz+40MHz_Non-Contiguous / Antenna 3 / QPSK

3570.00MHz + 3620.01MHz

3629.97MHz + 3679.98MHz



26dB Bandwidth

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	19.16	19.13	19.03	19.04	19.15	19.18	19.03	19.01
641000+ 642334	3615.00+ 3635.01	19.09	19.03	19.09	19.05	19.03	19.05	18.99	18.96
644666+ 646000	3669.99+ 3690.00	19.05	18.99	19.02	19.04	19.08	19.00	19.12	18.95
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	19.02	19.03	19.01	19.01	19.08	19.01	19.08	19.07
641000+ 642334	3615.00+ 3635.01	19.08	19.01	19.08	19.01	19.02	19.05	19.10	18.97
644666+ 646000	3669.99+ 3690.00	19.21	19.02	19.02	19.15	19.08	19.06	18.99	19.07

Total:

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		Antenna 0 + 2				
		QPSK	16QAM	64QAM	256QAM	
637334+ 638668	3560.01+ 3580.02	38.18	38.16	38.04	38.05	
641000+ 642334	3615.00+ 3635.01	38.17	38.04	38.17	38.06	
644666+ 646000	3669.99+ 3690.00	38.26	38.01	38.04	38.19	
Channel	Frequency (MHz)	Antenna 1 + 3				
		QPSK	16QAM	64QAM	256QAM	
		QPSK	16QAM	64QAM	256QAM	
637334+ 638668	3560.01+ 3580.02	38.23	38.19	38.11	38.08	
641000+ 642334	3615.00+ 3635.01	38.05	38.10	38.09	37.93	
644666+ 646000	3669.99+ 3690.00	38.16	38.06	38.11	38.02	

NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	19.02	19.15	19.09	19.07	19.07	19.07	19.06	19.12
640668+ 642668	3610.02+ 3640.02	19.08	19.01	19.01	19.04	19.02	19.12	19.02	18.98
644000+ 646000	3660.00+ 3690.00	19.05	19.05	19.05	19.02	19.06	19.05	19.06	19.01
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	19.06	19.08	19.09	19.03	19.09	19.05	19.04	19.02
640668+ 642668	3610.02+ 3640.02	19.05	19.00	19.04	19.04	19.03	19.03	19.11	19.05
644000+ 646000	3660.00+ 3690.00	19.14	19.02	19.14	19.18	19.14	19.07	19.12	19.14

Total:

NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		Antenna 0 + 2				
		QPSK	16QAM	64QAM	256QAM	
637334+ 639334	3560.01+ 3590.01	38.08	38.23	38.18	38.10	
640668+ 642668	3610.02+ 3640.02	38.13	38.01	38.05	38.08	
644000+ 646000	3660.00+ 3690.00	38.19	38.07	38.19	38.20	
Channel	Frequency (MHz)	Antenna 1 + 3				
		QPSK	16QAM	64QAM	256QAM	
		QPSK	16QAM	64QAM	256QAM	
637334+ 639334	3560.01+ 3590.01	38.16	38.12	38.10	38.14	
640668+ 642668	3610.02+ 3640.02	38.05	38.15	38.13	38.03	
644000+ 646000	3660.00+ 3690.00	38.20	38.12	38.18	38.15	

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	39.27	39.31	39.26	39.23	39.26	39.27	39.27	39.30
640332+ 643000	3604.98+ 3645.00	39.23	39.27	39.25	39.26	39.25	39.24	39.25	39.25
642664+ 645332	3639.96+ 3679.98	39.26	39.24	39.24	39.25	39.24	39.27	39.25	39.26
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	39.33	39.24	39.32	39.26	39.29	39.24	39.22	39.23
640332+ 643000	3604.98+ 3645.00	39.26	39.29	39.23	39.24	39.24	39.25	39.24	39.24
642664+ 645332	3639.96+ 3679.98	39.25	39.28	39.25	39.25	39.24	39.28	39.24	39.23

Total:

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		Antenna 0 + 2				
		QPSK	16QAM	64QAM	256QAM	
638000+ 640668	3570.00+ 3610.02	78.60	78.55	78.58	78.49	
640332+ 643000	3604.98+ 3645.00	78.49	78.56	78.48	78.50	
642664+ 645332	3639.96+ 3679.98	78.51	78.52	78.49	78.50	
Channel	Frequency (MHz)	Antenna 1 + 3				
		QPSK	16QAM	64QAM	256QAM	
		QPSK	16QAM	64QAM	256QAM	
638000+ 640668	3570.00+ 3610.02	78.55	78.51	78.49	78.53	
640332+ 643000	3604.98+ 3645.00	78.49	78.49	78.49	78.49	
642664+ 645332	3639.96+ 3679.98	78.48	78.55	78.49	78.49	

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous									
Channel	Frequency (MHz)	26dB Bandwidth (MHz)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	39.25	39.25	39.25	39.29	39.34	39.24	39.27	39.27
640000+ 643334	3600.00+ 3650.01	39.23	39.24	39.30	39.28	39.22	39.31	39.23	39.22
641998+ 645332	3629.97+ 3679.98	39.27	39.22	39.21	39.22	39.28	39.23	39.21	39.24
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	39.25	39.24	39.28	39.25	39.29	39.28	39.26	39.23
640000+ 643334	3600.00+ 3650.01	39.23	39.29	39.25	39.26	39.23	39.24	39.28	39.24
641998+ 645332	3629.97+ 3679.98	39.26	39.25	39.27	39.27	39.28	39.22	39.27	39.24

Total:

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous						
Channel	Frequency (MHz)	26dB Bandwidth (MHz)				
		Antenna 0 + 2				
		QPSK	16QAM	64QAM	256QAM	
638000+ 641334	3570.00+ 3620.01	78.50	78.49	78.53	78.54	
640000+ 643334	3600.00+ 3650.01	78.46	78.53	78.55	78.54	
641998+ 645332	3629.97+ 3679.98	78.53	78.47	78.48	78.49	
Channel	Frequency (MHz)	Antenna 1 + 3				
		QPSK	16QAM	64QAM	256QAM	
638000+ 641334	3570.00+ 3620.01	78.63	78.52	78.53	78.50	
640000+ 643334	3600.00+ 3650.01	78.45	78.55	78.51	78.46	
641998+ 645332	3629.97+ 3679.98	78.56	78.45	78.48	78.48	

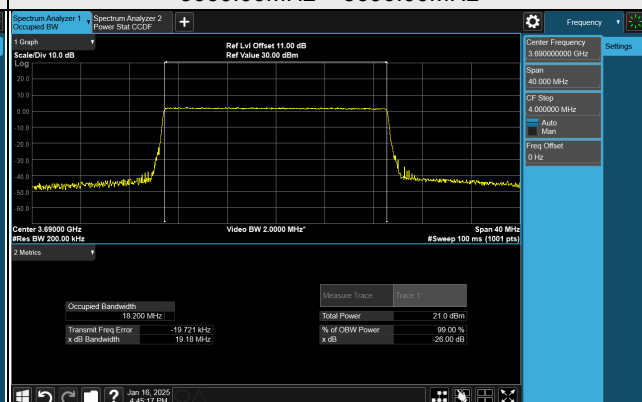
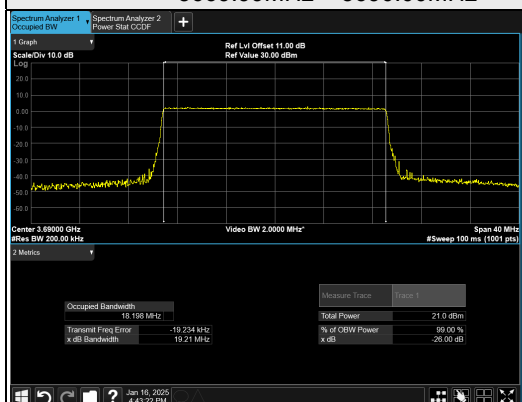
Spectrum Plot of Worst Value

20MHz+20MHz_Contiguous / Antenna 0 / QPSK

20MHz+20MHz_Non-Contiguous / Antenna 2 / 256QAM

3669.99MHz + 3690.00MHz

3660.00MHz + 3690.00MHz

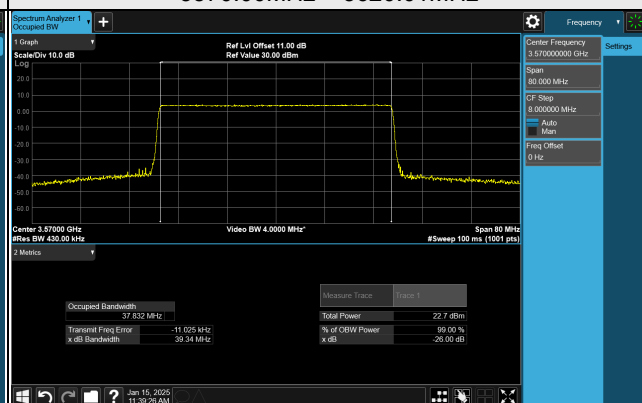
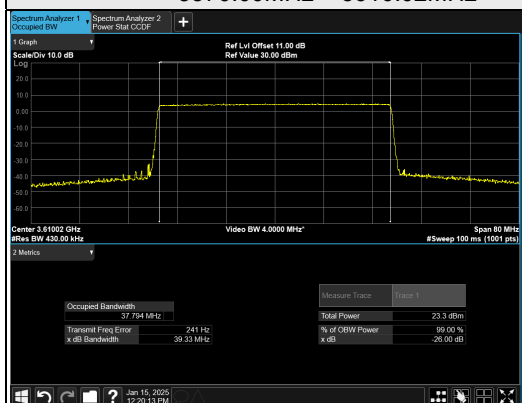


40MHz+40MHz_Contiguous / Antenna 2 / QPSK

40MHz+40MHz_Non-Contiguous / Antenna 1 / QPSK

3570.00MHz + 3610.02MHz

3570.00MHz + 3620.01MHz

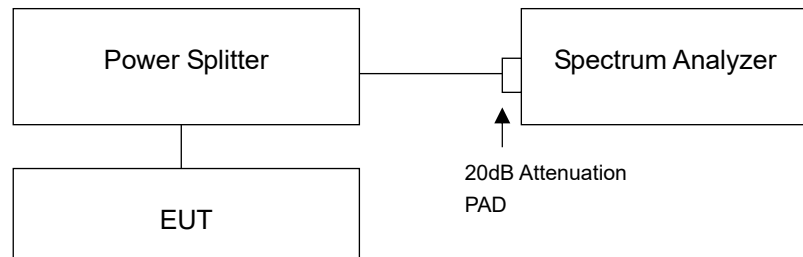


4.6 Peak to Average Ratio Measurement

4.6.1 Limits of Peak to Average Ratio Measurement

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.

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.6.4 Test Procedures

- Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
- Set the number of counts to a value that stabilizes the measured CCDF curve;
- Record the maximum PAPR level associated with a probability of 0.1%.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.6.7 Test Results

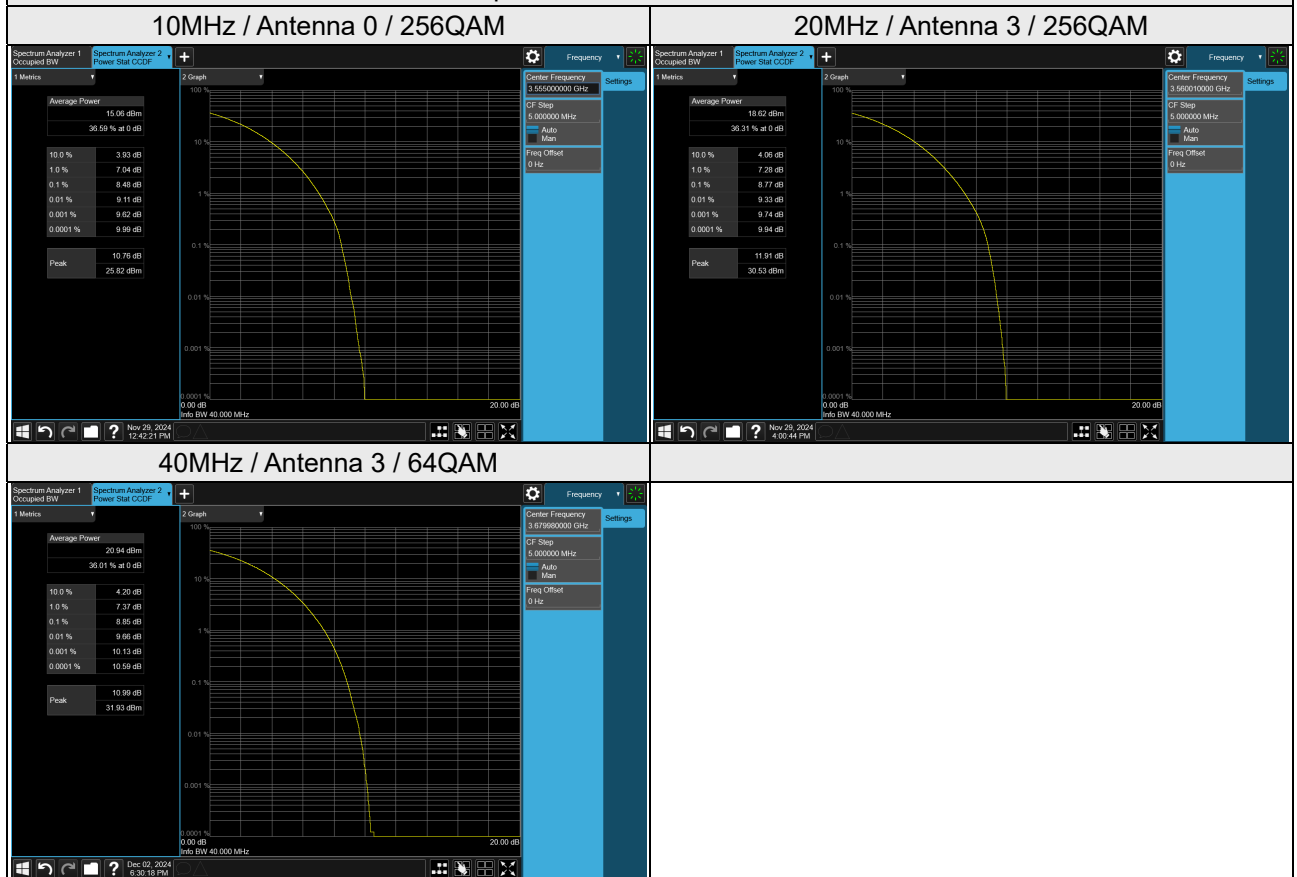
Mode A1

NR Band 48, Channel Bandwidth 10MHz									
Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	7.66	7.34	7.55	8.48	7.42	7.49	7.54	8.34
641666	3624.99	7.49	7.62	7.50	7.45	7.60	7.47	7.35	7.43
646332	3694.98	7.59	7.53	7.50	7.65	7.56	7.61	7.38	7.49
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	7.67	7.58	7.36	8.46	7.40	7.35	7.41	8.21
641666	3624.99	7.38	7.44	7.64	7.45	7.40	7.69	7.32	7.45
646332	3694.98	7.53	7.48	7.88	7.43	7.51	7.52	7.61	7.77
NR Band 48, Channel Bandwidth 20MHz									
Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	8.62	8.55	8.45	8.58	8.37	8.43	8.40	8.38
641666	3624.99	8.27	8.44	8.26	8.29	8.50	8.42	8.31	8.57
646000	3690.00	8.38	8.52	8.41	8.46	8.38	8.69	8.41	8.57
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	8.49	8.41	8.30	8.30	8.31	8.51	8.57	8.77
641666	3624.99	8.54	8.36	8.65	8.34	8.58	8.62	8.49	8.37
646000	3690.00	8.54	8.25	8.61	8.63	8.58	8.55	8.24	8.60

NR Band 48, Channel Bandwidth 40MHz

Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	8.41	8.01	8.01	7.89	8.28	8.03	8.16	8.09
641666	3624.99	8.22	8.16	8.42	8.19	8.40	8.23	8.14	8.73
645332	3679.98	8.27	8.33	8.19	8.19	7.96	8.05	8.23	8.69
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	8.05	8.24	8.18	8.17	8.33	8.20	8.00	8.05
641666	3624.99	8.22	8.24	8.30	8.28	8.42	8.52	8.17	8.21
645332	3679.98	8.06	8.13	8.31	8.16	8.32	8.31	8.85	8.38

Spectrum Plot of Worst Value



Mode A2

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous									
Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	8.07	8.49	8.30	8.42	8.53	8.38	8.29	8.42
641000+ 642334	3615.00+ 3635.01	8.63	8.48	8.83	8.68	8.47	8.66	8.42	8.70
644666+ 646000	3669.99+ 3690.00	8.57	8.71	8.70	8.58	8.52	8.38	8.31	8.55
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	8.31	8.45	8.48	8.55	8.26	8.54	8.59	8.43
641000+ 642334	3615.00+ 3635.01	8.42	8.83	8.47	8.76	8.59	8.49	8.43	8.42
644666+ 646000	3669.99+ 3690.00	8.57	8.34	8.64	8.49	8.52	8.48	9.03	8.78
NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous									
Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	8.41	8.37	8.45	8.31	8.38	8.43	8.54	8.31
640668+ 642668	3610.02+ 3640.02	8.62	8.40	8.45	8.91	8.44	8.64	8.80	8.45
644000+ 646000	3660.00+ 3690.00	8.49	8.62	8.41	8.40	8.40	8.62	8.65	8.73
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	8.23	8.38	8.77	8.31	8.59	8.48	8.57	8.56
640668+ 642668	3610.02+ 3640.02	8.26	8.62	8.42	8.29	8.34	8.73	8.42	8.43
644000+ 646000	3660.00+ 3690.00	8.50	8.44	8.39	8.32	8.48	8.36	8.65	8.45

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous

Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	8.52	8.66	8.33	8.51	8.41	8.63	8.37	8.51
640332+ 643000	3604.98+ 3645.00	8.50	8.45	8.29	8.55	8.54	8.45	8.47	8.25
642664+ 645332	3639.96+ 3679.98	8.95	8.68	8.44	8.39	8.93	8.62	8.41	8.55
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	8.41	8.68	8.62	8.48	8.42	8.62	8.40	8.50
640332+ 643000	3604.98+ 3645.00	8.73	8.64	8.54	8.63	8.38	8.51	8.42	8.63
642664+ 645332	3639.96+ 3679.98	8.75	8.71	8.74	8.70	8.82	8.47	8.65	8.48

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous

Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	8.46	8.61	8.74	8.49	8.45	8.35	8.49	8.44
640000+ 643334	3600.00+ 3650.01	8.29	8.47	8.42	8.25	8.45	8.39	8.52	8.70
641998+ 645332	3629.97+ 3679.98	8.52	8.37	8.38	8.66	8.51	8.51	8.80	8.39
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	8.44	8.43	8.33	8.30	8.45	8.57	8.72	8.66
640000+ 643334	3600.00+ 3650.01	8.40	8.45	8.55	8.50	8.75	8.58	8.61	8.54
641998+ 645332	3629.97+ 3679.98	8.56	8.58	8.69	8.51	8.46	8.87	8.56	8.67

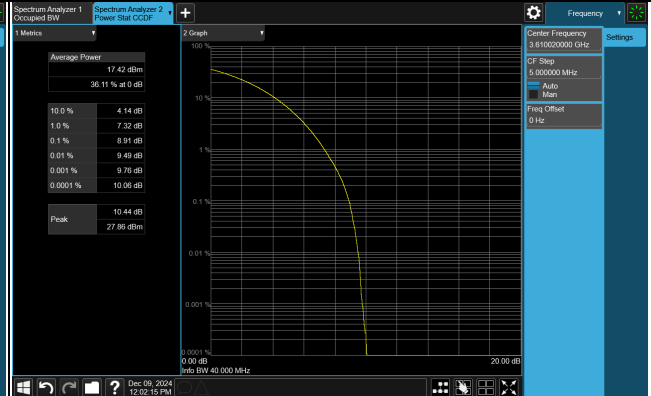
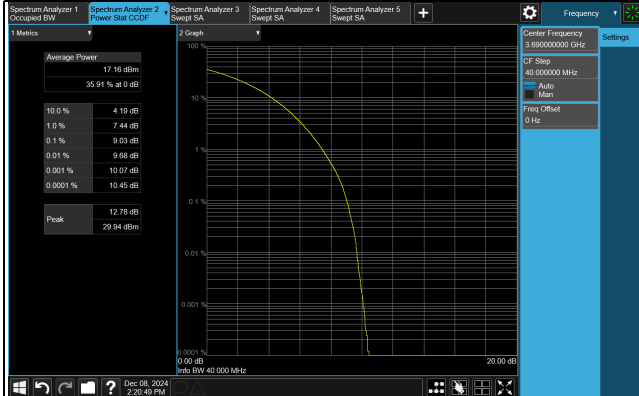
Spectrum Plot of Worst Value

20MHz+20MHz_Contiguous / Antenna 3 / 64QAM

20MHz+20MHz_Non-Contiguous / Antenna 0 / 256QAM

3669.99MHz + 3690.00MHz

3610.02MHz + 3640.02MHz

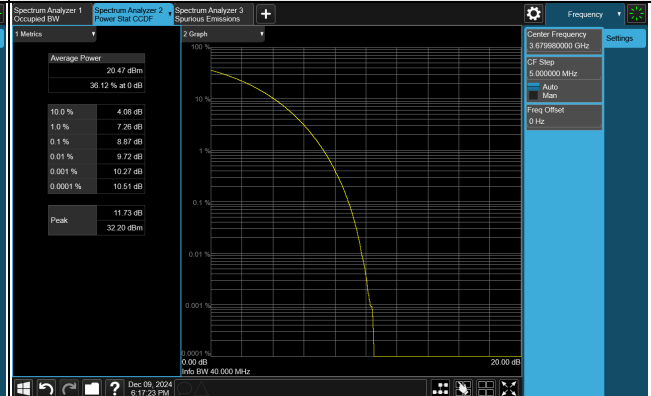
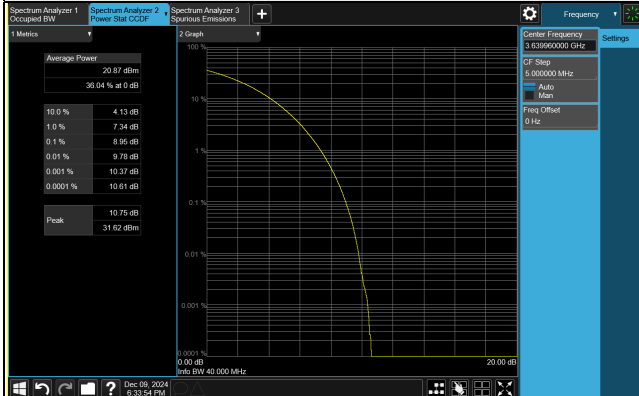


40MHz+40MHz_Contiguous / Antenna 0 / QPSK

40MHz+40MHz_Non-Contiguous / Antenna 3 / 16QAM

3639.96MHz + 3679.98MHz

3629.97MHz + 3679.98MHz



Mode B1

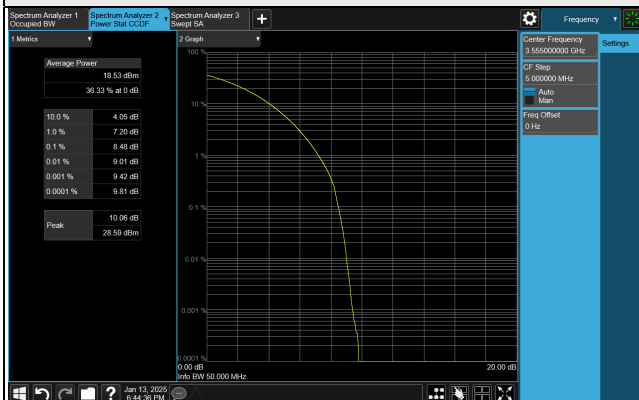
NR Band 48, Channel Bandwidth 10MHz									
Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	8.09	8.16	8.12	8.27	8.34	8.39	8.23	8.14
641666	3624.99	8.11	8.14	8.15	8.14	8.12	8.09	8.15	8.26
646332	3694.98	8.37	8.04	8.17	8.23	8.17	8.26	8.15	8.29
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637000	3555.00	8.13	8.48	8.06	8.20	8.18	8.19	8.22	8.29
641666	3624.99	8.23	8.19	8.14	8.19	8.25	8.33	8.20	8.14
646332	3694.98	8.24	8.34	8.12	8.22	8.34	8.26	8.17	8.38
NR Band 48, Channel Bandwidth 20MHz									
Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	8.30	8.12	8.21	8.04	8.25	8.17	8.08	8.12
641666	3624.99	8.36	8.27	8.19	7.98	8.24	8.22	8.53	8.06
646000	3690.00	8.23	8.31	8.24	8.10	8.17	8.27	8.21	8.18
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334	3560.01	8.42	8.09	8.09	8.10	8.03	8.14	8.18	8.04
641666	3624.99	8.33	8.18	8.18	8.26	8.28	8.24	8.30	8.06
646000	3690.00	8.27	8.18	8.18	8.26	8.27	8.13	8.21	8.34

NR Band 48, Channel Bandwidth 40MHz

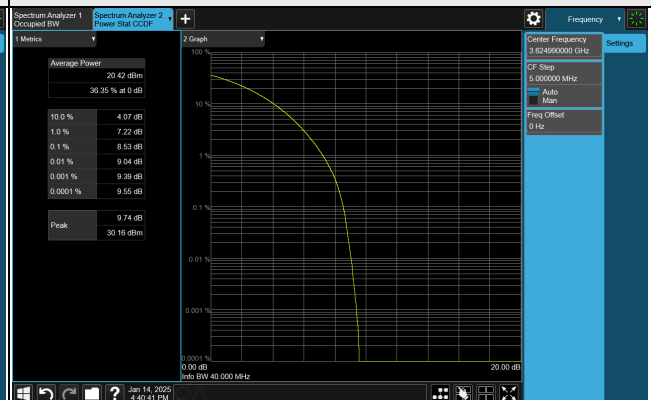
Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	7.95	8.09	8.21	8.02	7.98	8.16	8.17	8.05
641666	3624.99	8.31	8.59	8.35	8.26	8.31	8.31	8.25	8.24
645332	3679.98	8.00	8.34	8.21	8.15	8.38	8.22	8.24	8.13
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000	3570.00	8.22	7.85	8.00	7.92	7.92	8.22	7.92	8.04
641666	3624.99	8.55	8.10	8.22	8.08	8.41	8.17	8.16	8.23
645332	3679.98	8.20	8.16	8.14	8.53	8.16	8.14	8.21	8.35

Spectrum Plot of Worst Value

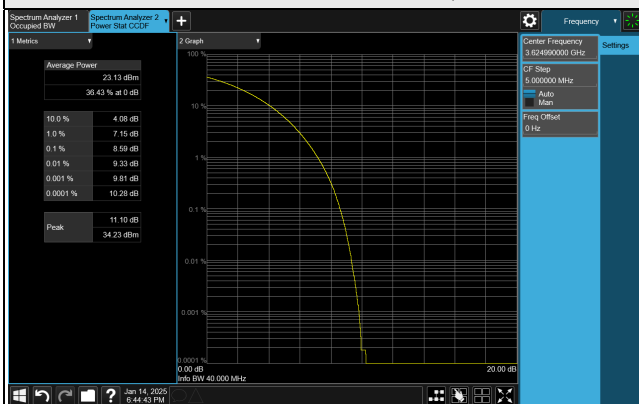
10MHz / Antenna 2 / 16QAM



20MHz / Antenna 1 / 64QAM



40MHz / Antenna 0 / 16QAM



Mode B2

NR Band 48, Channel Bandwidth 20MHz+20MHz_Contiguous									
Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	8.48	8.08	8.05	8.10	8.16	8.33	8.10	8.32
641000+ 642334	3615.00+ 3635.01	8.04	8.16	8.03	8.15	8.22	8.34	8.22	8.26
644666+ 646000	3669.99+ 3690.00	8.32	8.29	8.26	8.30	8.14	8.28	8.31	8.20
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 638668	3560.01+ 3580.02	8.22	8.32	8.24	8.25	7.81	8.20	8.14	8.33
641000+ 642334	3615.00+ 3635.01	8.26	8.13	8.28	8.14	8.21	8.24	8.29	8.20
644666+ 646000	3669.99+ 3690.00	8.13	8.28	8.27	8.23	8.15	8.22	8.24	8.29
NR Band 48, Channel Bandwidth 20MHz+20MHz_Non-Contiguous									
Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	8.07	8.32	8.21	8.36	8.08	8.08	8.03	8.11
640668+ 642668	3610.02+ 3640.02	8.17	8.39	8.41	8.42	8.33	8.25	8.33	8.37
644000+ 646000	3660.00+ 3690.00	8.22	8.21	8.25	8.26	8.12	8.11	8.14	8.00
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
637334+ 639334	3560.01+ 3590.01	8.36	8.38	8.23	8.30	8.21	8.15	7.99	8.28
640668+ 642668	3610.02+ 3640.02	8.13	8.54	8.32	8.15	8.23	8.28	8.34	8.21
644000+ 646000	3660.00+ 3690.00	8.14	8.25	8.05	8.26	8.10	8.14	8.11	8.23

NR Band 48, Channel Bandwidth 40MHz+40MHz_Contiguous

Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	7.86	8.07	8.02	7.80	7.89	7.92	7.94	8.03
640332+ 643000	3604.98+ 3645.00	8.18	8.28	8.39	8.36	8.42	8.57	8.22	8.28
642664+ 645332	3639.96+ 3679.98	8.38	8.22	8.02	8.47	8.46	8.26	8.21	8.28
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 640668	3570.00+ 3610.02	8.34	8.35	8.36	8.38	8.31	8.23	8.39	8.31
640332+ 643000	3604.98+ 3645.00	8.20	8.25	8.41	8.43	8.45	8.48	8.43	8.42
642664+ 645332	3639.96+ 3679.98	8.18	8.06	8.30	8.40	8.20	8.13	8.13	8.26

NR Band 48, Channel Bandwidth 40MHz+40MHz_Non-Contiguous

Channel	Frequency (MHz)	Peak To Average Ratio (dB)							
		Antenna 0				Antenna 1			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	8.01	8.00	7.91	8.16	7.78	7.93	7.86	8.00
640000+ 643334	3600.00+ 3650.01	8.19	8.07	8.44	8.21	7.98	8.28	8.34	8.11
641998+ 645332	3629.97+ 3679.98	8.22	8.29	8.35	8.25	8.44	8.24	8.28	8.38
Channel	Frequency (MHz)	Antenna 2				Antenna 3			
		QPSK	16QAM	64QAM	256QAM	QPSK	16QAM	64QAM	256QAM
638000+ 641334	3570.00+ 3620.01	8.29	8.46	8.40	8.33	8.33	8.46	8.36	8.60
640000+ 643334	3600.00+ 3650.01	8.12	8.26	8.39	8.30	8.32	8.20	8.27	8.21
641998+ 645332	3629.97+ 3679.98	8.25	8.25	8.18	8.19	8.19	8.17	8.13	8.23

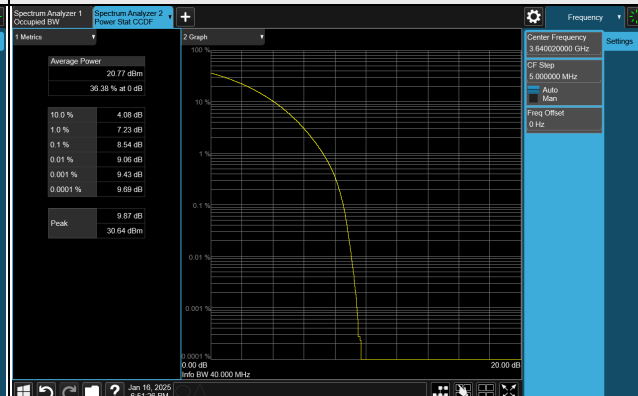
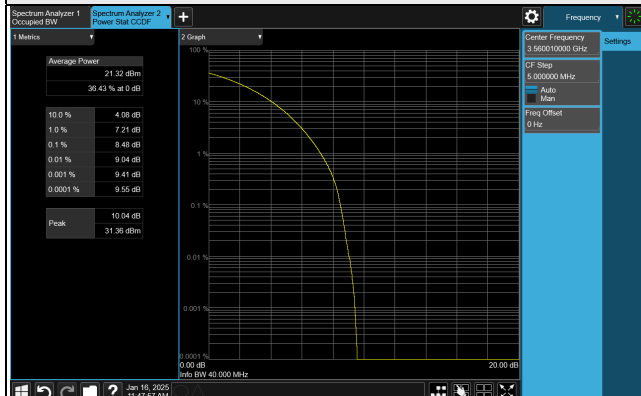
Spectrum Plot of Worst Value

20MHz+20MHz_Contiguous / Antenna 0 / QPSK

20MHz+20MHz_Non-Contiguous / Antenna 2 / 16QAM

3560.01MHz + 3580.02MHz

3610.02MHz + 3640.02MHz

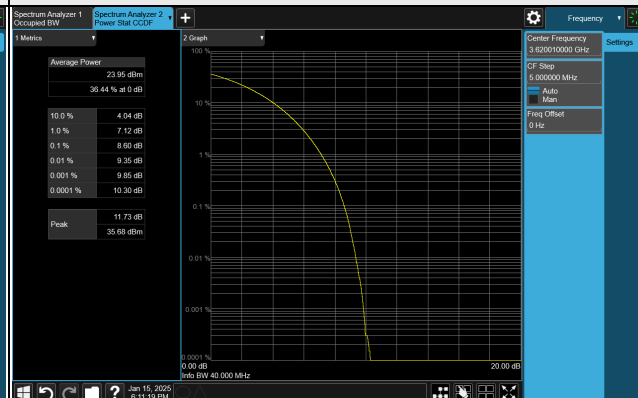
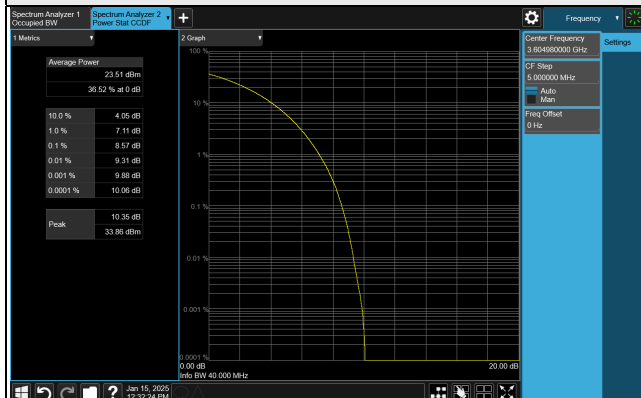


40MHz+40MHz_Contiguous / Antenna 1 / 16QAM

40MHz+40MHz_Non-Contiguous / Antenna 3 / 256QAM

3604.98MHz + 3645.00MHz

3570.00MHz + 3620.01MHz

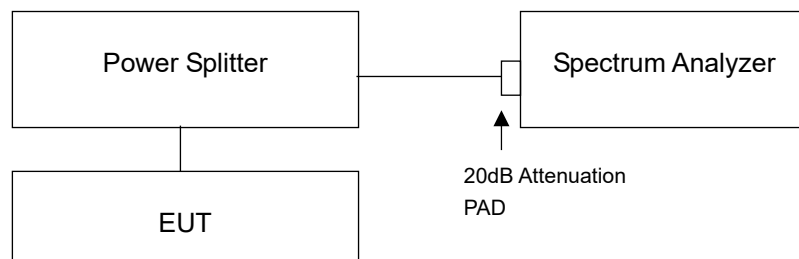


4.7 Conducted Spurious Emissions

4.7.1 Limits of Conducted Spurious Emissions Measurement

Power of any emissions outside the Fundamental	Limit
Within 0-10MHz above the Assigned Channel	-13 dBm/MHz
Within 0-10MHz below the Assigned Channel	
Greater than 10MHz above the Assigned Channel	-25 dBm/MHz
Greater than 10MHz below the Assigned Channel	
Power of any emission below 3530MHz	-40 dBm/MHz
Power of any emission above 3720MHz	

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.7.4 Test Procedure

- The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- Measuring frequency range are from 9 kHz to 40GHz. 20dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement. Detector = Average.
- Measuring frequency band edge, 20dB attenuation pad is connected with spectrum. 1% of the fundamental emission bandwidth is used for conducted emission measurement.
- Offset value = attenuate + cable loss + factor
attenuation (10dB) + cable loss (1dB) + $10 \cdot \log(4)$ = 17.02dB

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Conditions

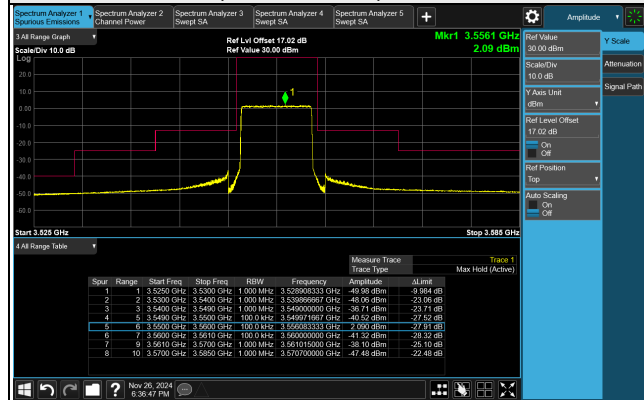
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.7.7 Test Results

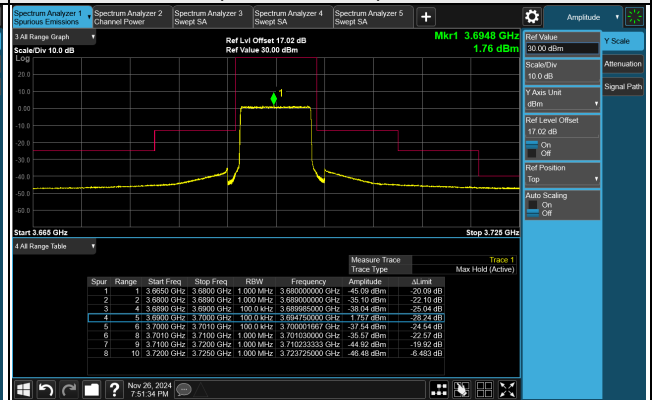
Mode A1
Antenna 0

NR Band 48, Channel Bandwidth 10MHz

Channel 637000 (3555.00MHz)



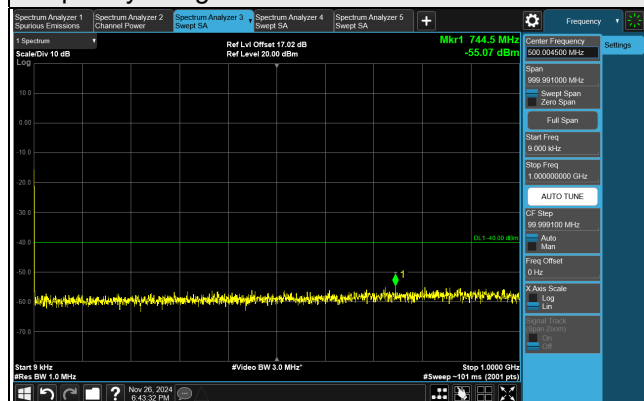
Channel 646332 (3694.98MHz)



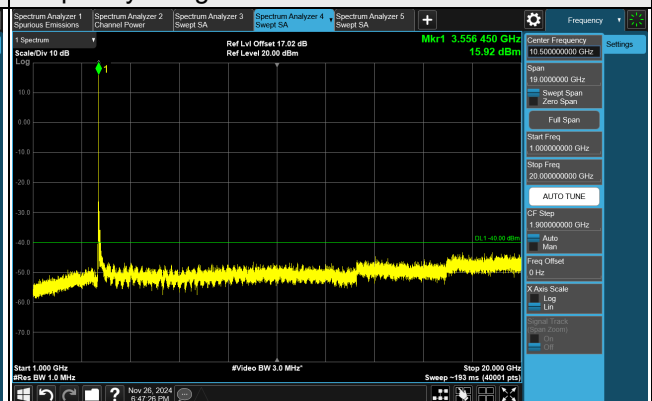
NR Band 48, Channel Bandwidth 10MHz

Channel 637000 (3555.00MHz)

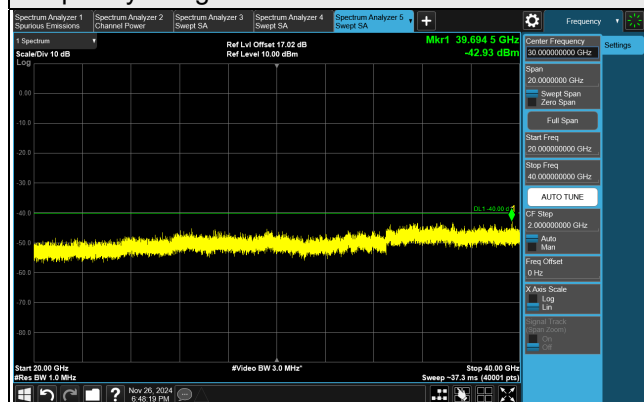
Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz



Frequency Range : 20GHz ~ 40GHz

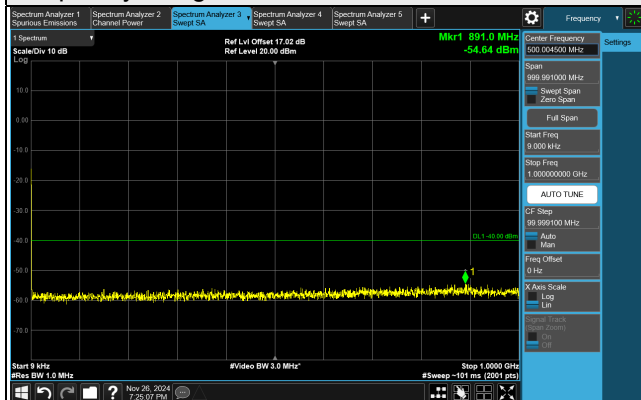


Note: The signal at 9 kHz is IF signal from spectrum analyzer.

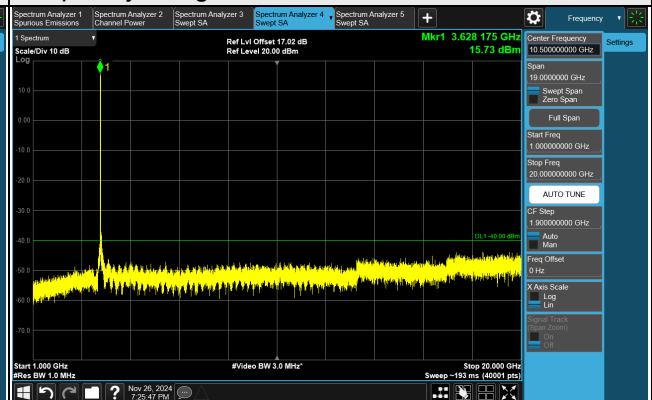
NR Band 48, Channel Bandwidth 10MHz

Channel 641666 (3624.99MHz)

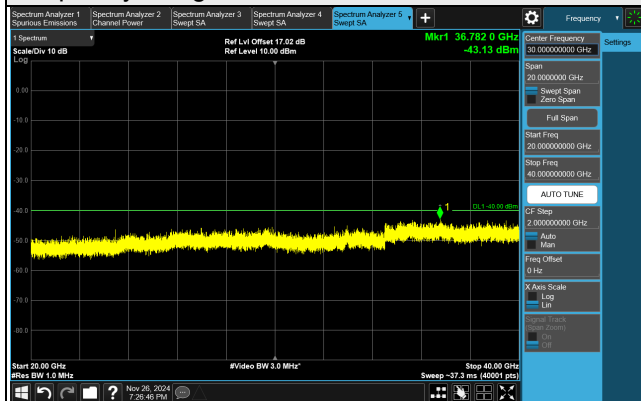
Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz



Frequency Range : 20GHz ~ 40GHz

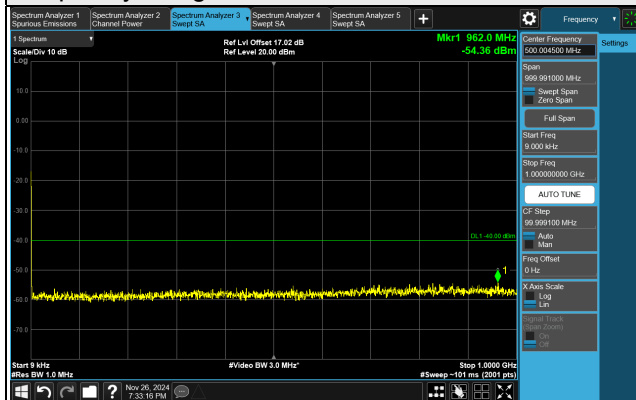


Note: The signal at 9 kHz is IF signal from spectrum analyzer.

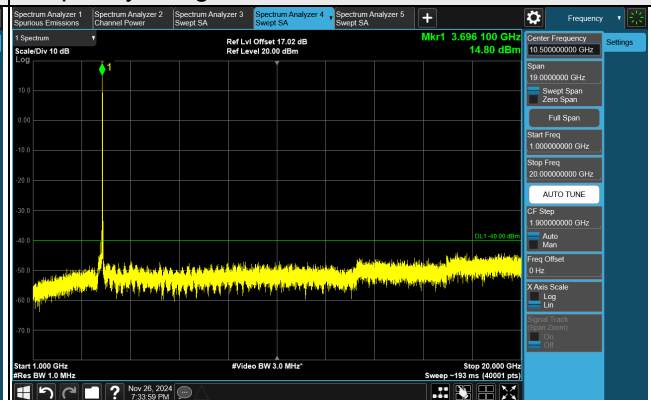
NR Band 48, Channel Bandwidth 10MHz

Channel 646332 (3694.98MHz)

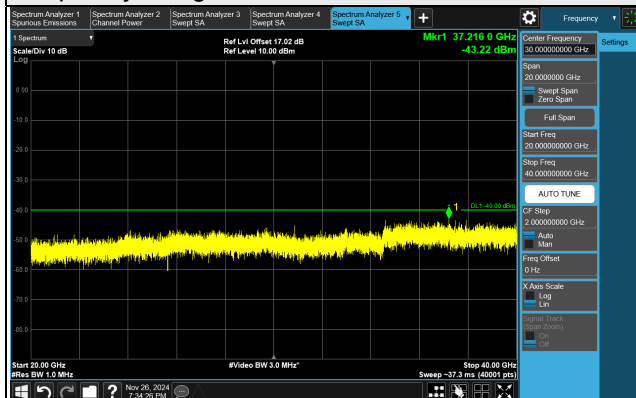
Frequency Range : 9kHz ~ 1GHz



Frequency Range : 1GHz ~ 20GHz



Frequency Range : 20GHz ~ 40GHz



Note: The signal at 9 kHz is IF signal from spectrum analyzer.