

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 96
47 CFR FCC Part 2
Report No.: RFBEDW-WTW-P24070638-5
FCC ID: GKRRXLN3
Product: LGA Module
Brand: COMPAL
Model No.: RXL-N3
Received Date: 2024/7/29
Test Date: 2024/8/12 ~ 2024/11/15
Issued Date: 2024/11/22

Applicant: Compal Electronics, Inc.

Address: No.581 & 581-1, Ruiguang Rd., Neihu District, Taipei, (114) Taiwan

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location(1): No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan

Test Location(2): No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

FCC Registration / 788550 / TW0003 for Test Location(1)

Designation Number: 281270 / TW0032 for Test Location(2)

Approved by: _____

Jeremy Lin

, Date: _____

2024/11/22

Jeremy Lin / Project Engineer

This test report consists of 139 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.

Prepared by : Pettie Chen / Senior Specialist



This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Table of Contents

Release Control Record	4
1 Certificate.....	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Supplementary Information	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Antenna Description of EUT	11
3.3 Test Mode Applicability and Tested Channel Detail.....	12
3.3.1 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)	12
3.4 Test Program Used and Operation Descriptions	16
3.5 Connection Diagram of EUT and Peripheral Devices	16
3.6 Configuration of Peripheral Devices and Cable Connections	16
4 Test Instruments	17
4.1 Maximum EIRP	17
4.2 Modulation Characteristics	17
4.3 Peak to Average Ratio	17
4.4 Bandwidth	17
4.5 Conducted Spurious Emissions	17
4.6 Radiated Spurious Emissions below 1GHz	18
4.7 Radiated Spurious Emissions above 1GHz	19
4.8 Frequency Stability	19
5 Limits of Test Items.....	20
5.1 Maximum EIRP	20
5.2 Modulation Characteristics	20
5.3 Peak to Average Ratio	20
5.4 Bandwidth	20
5.5 Conducted Spurious Emissions	20
5.6 Radiated Spurious Emissions below 1GHz	20
5.7 Radiated Spurious Emissions above 1GHz	20
5.8 Frequency Stability	20
6 Test Arrangements.....	21
6.1 Maximum EIRP	21
6.1.1 Test Setup	21
6.1.2 Test Procedure	21
6.2 Modulation Characteristics	22
6.2.1 Test Setup	22
6.2.2 Test Procedure	22
6.3 Peak to Average Ratio	22
6.3.1 Test Setup	22
6.3.2 Test Procedure	22
6.4 Bandwidth	23
6.4.1 Test Setup	23
6.4.2 Test Procedure	23
6.5 Conducted Spurious Emissions	25
6.5.1 Test Setup	25
6.5.2 Test Procedure	25
6.6 Radiated Spurious Emissions below 1GHz	26
6.6.1 Test Setup	26
6.6.2 Test Procedure	27
6.7 Radiated Spurious Emissions above 1GHz	28
6.7.1 Test Setup	28
6.7.2 Test Procedure	28
6.8 Frequency Stability	29

6.8.1	Test Setup	29
6.8.2	Test Procedure	29
7	Test Results of Test Item	30
7.1	Maximum EIRP	30
7.1.1	NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)	30
7.2	Modulation Characteristics	51
7.2.1	NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)	51
7.3	Peak to Average Ratio	52
7.3.1	NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)	52
7.4	Bandwidth	62
7.4.1	NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)	62
7.5	Conducted Spurious Emissions	72
7.5.1	NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)	72
7.6	Radiated Spurious Emissions below 1GHz	122
7.6.1	NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)	122
7.7	Radiated Spurious Emissions above 1GHz	124
7.7.1	NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)	124
7.8	Frequency Stability	133
7.8.1	NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)	133
8	Pictures of Test Arrangements	138
9	Information of the Testing Laboratories	139

Release Control Record

Issue No.	Description	Date Issued
RFBEDW-WTW-P24070638-5	Original release.	2024/11/22

1 Certificate

Product: LGA Module

Brand: COMPAL

Test Model: RXL-N3

Sample Status: Engineering sample

Applicant: Compal Electronics, Inc.

Test Date: 2024/8/12 ~ 2024/11/15

Standard: 47 CFR FCC Part 96
47 CFR FCC Part 2

Measurement Procedure: ANSI/TIA/EIA-603-E 2016
ANSI C63.26-2015
KDB 971168 D01 Power Meas License Digital Systems v03r01
KDB 940660 D01 Part 96 CBRS Eqpt v03
KDB 662911 D01 Multiple Transmitter Output v02r01

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.

2 Summary of Test Results

Standard / Clause	Test Item	Result	Remark
Part 2.1046 Part 96.41(b)	Maximum EIRP	Pass	Meet the requirement of limit.
Part 2.1047	Modulation Characteristics	Pass	Meet the requirement of limit.
Part 2.1046 Part 96.41(b)	Maximum Power Spectral Density	N/A	This device is End User Device.
Part 96.41(g)	Peak to Average Ratio	Pass	Meet the requirement of limit.
Part 2.1049	Bandwidth	Pass	Meet the requirement of limit.
Part 2.1051 Part 96.41(e)	Conducted Spurious Emissions	Pass	Meet the requirement of limit.
Part 2.1053 Part 96.41(e)	Radiated Spurious Emissions below 1GHz	Pass	Minimum passing margin is -6.03 dB at 942.77 MHz
Part 2.1053 Part 96.41(e)	Radiated Spurious Emissions above 1GHz	Pass	Minimum passing margin is -14.03 dB at 14499.96 MHz
Part 2.1055	Frequency Stability	Pass	Meet the requirement of limit.

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:

Parameter	Specification	Uncertainty (±)
Effective Radiated Power and Equivalent Isotropically Radiated Power	-	1.371 dB
Peak to Average Ratio	-	0.920 dB
Bandwidth	-	960 Hz
Conducted Spurious Emissions	-	2.12 dB
Radiated Spurious Emissions below 1GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Radiated Spurious Emissions above 1GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 dB
Frequency Stability	-	0.176 ppm

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	LGA Module
Brand	COMPAL
Test Model	RXL-N3
Status of EUT	Engineering sample
Power Supply Rating	3.8Vdc
EUT Category	End User Device

Note:

1. EUT Overview

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)

Output Power: Full Power

Ant. 0

Bandwidth	TX Frequency Range (MHz)	Modulation	Max. EIRP (W)	Max. EIRP (dBm)	Emission Designator
10 MHz	3555 ~ 3694.98	DFT-S BPSK	0.187	22.72	8M58G7D
		DFT-S QPSK	0.186	22.69	8M57G7D
		DFT-S 16QAM	0.12	20.80	8M58D7W
		DFT-S 64QAM	0.086	19.36	8M58D7W
		CP 256QAM	0.043	16.36	8M58D7W
		CP QPSK	0.133	21.24	8M57G7D
15 MHz	3557.52 ~ 3692.49	DFT-S BPSK	0.177	22.49	12M9G7D
		DFT-S QPSK	0.181	22.57	13M6G7D
		DFT-S 16QAM	0.114	20.55	13M6D7W
		DFT-S 64QAM	0.081	19.11	13M6D7W
		CP 256QAM	0.041	16.14	13M6D7W
		CP QPSK	0.128	21.07	13M6G7D
20 MHz	3560.01 ~ 3690	DFT-S BPSK	0.183	22.63	17M9G7D
		DFT-S QPSK	0.185	22.66	18M2G7D
		DFT-S 16QAM	0.114	20.57	18M2D7W
		DFT-S 64QAM	0.083	19.19	18M2D7W
		CP 256QAM	0.042	16.24	18M2D7W
		CP QPSK	0.13	21.13	18M2G7D
30 MHz	3565.02 ~ 3684.99	DFT-S BPSK	0.071	18.52	26M8G7D
		DFT-S QPSK	0.187	22.73	27M9G7D
		DFT-S 16QAM	0.074	18.71	27M8D7W
		DFT-S 64QAM	0.073	18.62	27M8D7W
		CP 256QAM	0.043	16.34	27M8D7W
		CP QPSK	0.072	18.60	27M9G7D
40 MHz	3570 ~ 3679.98	DFT-S BPSK	0.073	18.66	35M7G7D
		DFT-S QPSK	0.188	22.75	37M9G7D
		DFT-S 16QAM	0.075	18.75	37M9D7W
		DFT-S 64QAM	0.073	18.63	37M9D7W
		CP 256QAM	0.044	16.46	37M9D7W
		CP QPSK	0.073	18.64	37M9G7D

MIMO

Bandwidth	TX Frequency Range (MHz)	Modulation	Max. EIRP (W)	Max. EIRP (dBm)	Emission Designator
10 MHz	3555 ~ 3694.98	BPSK	0.129	21.11	8M58G7D
		QPSK	0.132	21.19	8M57G7D
		16QAM	0.114	20.58	8M58D7W
		64QAM	0.081	19.08	8M58D7W
		256QAM	0.041	16.14	8M58D7W
15 MHz	3557.52 ~ 3692.49	BPSK	0.123	20.89	12M9G7D
		QPSK	0.132	21.19	13M6G7D
		16QAM	0.11	20.41	13M6D7W
		64QAM	0.079	18.97	13M6D7W
		256QAM	0.041	16.11	13M6D7W
20 MHz	3560.01 ~ 3690	BPSK	0.124	20.93	17M9G7D
		QPSK	0.126	21.02	18M2G7D
		16QAM	0.108	20.33	18M2D7W
		64QAM	0.074	18.67	18M2D7W
		256QAM	0.038	15.85	18M2D7W
30 MHz	3565.02 ~ 3684.99	BPSK	0.076	18.79	26M8G7D
		QPSK	0.145	21.61	27M9G7D
		16QAM	0.077	18.89	27M8D7W
		64QAM	0.071	18.54	27M8D7W
		256QAM	0.044	16.40	27M8D7W
40 MHz	3570 ~ 3679.98	BPSK	0.07	18.47	35M7G7D
		QPSK	0.149	21.74	37M9G7D
		16QAM	0.077	18.85	37M9D7W
		64QAM	0.073	18.62	37M9D7W
		256QAM	0.042	16.21	37M9D7W

Output Power: dBm/10 MHz

Ant. 0

Bandwidth	TX Frequency Range (MHz)	Modulation	Max. EIRP (W)	Max. EIRP (dBm)	Emission Designator
10 MHz	3555 ~ 3694.98	DFT-S BPSK	0.187	22.72	8M58G7D
		DFT-S QPSK	0.186	22.69	8M57G7D
		DFT-S 16QAM	0.120	20.80	8M58D7W
		DFT-S 64QAM	0.086	19.36	8M58D7W
		DFT-S 256QAM	0.043	16.36	8M58D7W
		CP QPSK	0.133	21.24	8M57G7D
15 MHz	3557.52 ~ 3692.49	DFT-S BPSK	0.179	22.54	12M9G7D
		DFT-S QPSK	0.182	22.59	13M6G7D
		DFT-S 16QAM	0.112	20.51	13M6D7W
		DFT-S 64QAM	0.081	19.10	13M6D7W
		DFT-S 256QAM	0.042	16.22	13M6D7W
		CP QPSK	0.130	21.13	13M6G7D
20 MHz	3560.01 ~ 3690	DFT-S BPSK	0.178	22.51	17M9G7D
		DFT-S QPSK	0.184	22.65	18M2G7D
		DFT-S 16QAM	0.112	20.50	18M2D7W
		DFT-S 64QAM	0.081	19.09	18M2D7W
		DFT-S 256QAM	0.042	16.19	18M2D7W
		CP QPSK	0.130	21.13	18M2G7D
30 MHz	3565.02 ~ 3684.99	DFT-S BPSK	0.072	18.58	26M8G7D
		DFT-S QPSK	0.174	22.41	27M9G7D
		DFT-S 16QAM	0.073	18.62	27M8D7W
		DFT-S 64QAM	0.073	18.63	27M8D7W
		DFT-S 256QAM	0.044	16.46	27M8D7W
		CP QPSK	0.071	18.54	27M9G7D
40 MHz	3570 ~ 3679.98	DFT-S BPSK	0.073	18.66	35M7G7D
		DFT-S QPSK	0.179	22.53	37M9G7D
		DFT-S 16QAM	0.074	18.69	37M9D7W
		DFT-S 64QAM	0.073	18.63	37M9D7W
		DFT-S 256QAM	0.043	16.33	37M9D7W
		CP QPSK	0.073	18.64	37M9G7D

MIMO

Bandwidth	TX Frequency Range (MHz)	Modulation	Max. EIRP (W)	Max. EIRP (dBm)	Emission Designator
10 MHz	3555 ~ 3694.98	BPSK	0.129	21.11	8M58G7D
		QPSK	0.132	21.19	8M57G7D
		16QAM	0.114	20.58	8M58D7W
		64QAM	0.081	19.08	8M58D7W
		256QAM	0.041	16.14	8M58D7W
15 MHz	3557.52 ~ 3692.49	BPSK	0.121	20.81	12M9G7D
		QPSK	0.127	21.05	13M6G7D
		16QAM	0.107	20.29	13M6D7W
		64QAM	0.078	18.90	13M6D7W
		256QAM	0.041	16.08	13M6D7W
20 MHz	3560.01 ~ 3690	BPSK	0.121	20.82	17M9G7D
		QPSK	0.124	20.92	18M2G7D
		16QAM	0.106	20.24	18M2D7W
		64QAM	0.072	18.59	18M2D7W
		256QAM	0.038	15.78	18M2D7W
30 MHz	3565.02 ~ 3684.99	BPSK	0.074	18.69	26M8G7D
		QPSK	0.141	21.50	27M9G7D
		16QAM	0.075	18.76	27M8D7W
		64QAM	0.070	18.44	27M8D7W
		256QAM	0.043	16.29	27M8D7W
40 MHz	3570 ~ 3679.98	BPSK	0.069	18.40	35M7G7D
		QPSK	0.145	21.62	37M9G7D
		16QAM	0.075	18.74	37M9D7W
		64QAM	0.071	18.51	37M9D7W
		256QAM	0.041	16.12	37M9D7W

2. The EUT uses following accessories.

Item	Brand	Model
Ant	INPAQ	ANT0/1/2/3 GNSS

3. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

NR Band					
Type	External				
Brand	INPAQ				
Band	Freq. Range (MHz)	Peak Gain without cable loss (dBi)			
		Ant. 0 (Main)	Ant. 1 (DRx)	Ant. 2 (DRx)	Ant. 3 (Aux)
NR n48 (Ant 0)	3550 ~3700	0	0	0	0

Ant. No.	Cable Loss (dB)	Cable Length (mm)
Ant. 0	1.5	141.1
Ant. 1	1.3	120.3
Ant. 2	1	78.2
Ant. 3	1.3	121.2

*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.

*For MIMO mode:

- TDD n48 were fixed on Ant. 0+ Ant. 3
- The MIMO mode signal was uncorrelated signal.
- Regarding EIRP calculation that we will use the maximum antenna gain/frequency band as calculation parameters.
Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10})/2]$ dBi.

3.3 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. The antenna of EUT can be used in the following ways: 0 degree/90 degrees. Pre-scan these ways and find the worst case as a representative test condition. 2. Pre-Scan has been conducted to determine the worst-case from all possible combinations of EUT configure mode (1TX or 2TX if available), channel, bandwidth, modulation and RB mode. See below table(s) for details.
Worst Case:	1. 0 degree/90 degrees Worst Condition: 90 degrees

3.3.1 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)

Test Item	EUT Configure Mode	Tested Channel	Channel Bandwidth	Modulation	Mode
Maximum EIRP	1TX, 2TX	637000(3555.00 MHz) 641666(3624.99 MHz) 646332(3694.98 MHz)	10 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		637168(3557.52 MHz) 641666(3624.99 MHz) 646166(3692.49 MHz)	15 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		637334(3560.01 MHz) 641666(3624.99 MHz) 646000(3690.00 MHz)	20 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		637668(3565.02 MHz) 641666(3624.99 MHz) 645666(3684.99 MHz)	30 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
		638000(3570.00 MHz) 641666(3624.99 MHz) 645332(3679.98 MHz)	40 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB Half RB Full RB
Modulation Characteristics	2TX	641666(3624.99 MHz)	40 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	Full RB
Peak to Average Ratio	2TX	637000(3555.00 MHz) 641666(3624.99 MHz) 646332(3694.98 MHz)	10 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB
		637168(3557.52 MHz) 641666(3624.99 MHz) 646166(3692.49 MHz)	15 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB

Test Item	EUT Configure Mode	Tested Channel	Channel Bandwidth	Modulation	Mode
		637334(3560.01 MHz) 641666(3624.99 MHz) 646000(3690.00 MHz)	20 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB

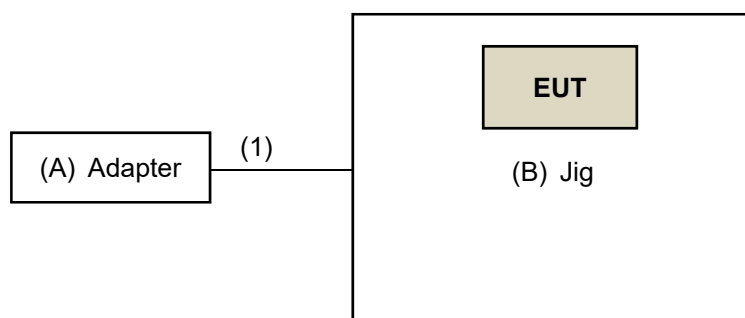
Test Item	EUT Configure Mode	Tested Channel	Channel Bandwidth	Modulation	Mode
Peak to Average Ratio	2TX	637668(3565.02 MHz) 641666(3624.99 MHz) 645666(3684.99 MHz)	30 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB
		638000(3570.00 MHz) 641666(3624.99 MHz) 645332(3679.98 MHz)	40 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	1 RB
Bandwidth	2TX	637000(3555.00 MHz) 641666(3624.99 MHz) 646332(3694.98 MHz)	10 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	Full RB
		637168(3557.52 MHz) 641666(3624.99 MHz) 646166(3692.49 MHz)	15 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	Full RB
		637334(3560.01 MHz) 641666(3624.99 MHz) 646000(3690.00 MHz)	20 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	Full RB
		637668(3565.02 MHz) 641666(3624.99 MHz) 645666(3684.99 MHz)	30 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	Full RB
		638000(3570.00 MHz) 641666(3624.99 MHz) 645332(3679.98 MHz)	40 MHz	BPSK / QPSK / 16QAM / 64QAM / 256QAM	Full RB
Conducted Spurious Emissions	2TX	637000(3555.00 MHz) 641666(3624.99 MHz) 646332(3694.98 MHz)	10 MHz	QPSK	1 RB Full RB
		637168(3557.52 MHz) 641666(3624.99 MHz) 646166(3692.49 MHz)	15 MHz	QPSK	1 RB Full RB
		637334(3560.01 MHz) 641666(3624.99 MHz) 646000(3690.00 MHz)	20 MHz	QPSK	1 RB Full RB
		637668(3565.02 MHz) 641666(3624.99 MHz) 645666(3684.99 MHz)	30 MHz	QPSK	1 RB Full RB
		638000(3570.00 MHz) 641666(3624.99 MHz) 645332(3679.98 MHz)	40 MHz	QPSK	1 RB Full RB
Radiated Spurious Emissions below 1GHz	2TX	641666(3624.99 MHz)	10 MHz	QPSK	1 RB

Test Item	EUT Configure Mode	Tested Channel	Channel Bandwidth	Modulation	Mode
Radiated Spurious Emissions above 1GHz	2TX	637000(3555.00 MHz) 641666(3624.99 MHz) 646332(3694.98 MHz)	10 MHz	QPSK	1 RB
		637334(3560.01 MHz) 641666(3624.99 MHz) 646000(3690.00 MHz)	20 MHz	QPSK	1 RB
		638000(3570.00 MHz) 641666(3624.99 MHz) 645332(3679.98 MHz)	40 MHz	QPSK	1 RB
Frequency Stability (3550MHz to 3700MHz)	2TX	637000(3555.00 MHz) 646332(3694.98 MHz)	10 MHz	BPSK	Full RB
		637168(3557.52 MHz) 646166(3692.49 MHz)	15 MHz	BPSK	Full RB
		637334(3560.01 MHz) 646000(3690.00 MHz)	20 MHz	BPSK	Full RB
		637668(3565.02 MHz) 645666(3684.99 MHz)	30 MHz	BPSK	Full RB
		638000(3570.00 MHz) 645332(3679.98 MHz)	40 MHz	BPSK	Full RB

3.4 Test Program Used and Operation Descriptions

There is no need to controlling software during the test, and the EUT can be paired with the Simulator to test the connection when it is powered on.

3.5 Connection Diagram of EUT and Peripheral Devices



Under Table

Remote Site



(C) UXM 5G
Wireless Test
Platform

3.6 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Adapter	ChenzhouFrecom Electronics Co. Ltd	F24L5-120200SOPAU	NA	NA	Supplied by applicant
B	Jig	Compal	ZYN1	NA	NA	Supplied by applicant
C	UXM 5G Wireless Test Platform	Keysight	E7515B	MY60102115	NA	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	AC Cable	1	1	No	0	Supplied by applicant

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 Maximum EIRP

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer Keysight	N9030B	MY57140938	2024/3/20	2025/3/19
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A
UXM 5G Wireless Test Platform Keysight	E7515B	MY60102115	2024/5/26	2025/5/25

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/8/12 ~ 2024/11/15

4.2 Modulation Characteristics

Refer to section 4.1 to get the tested date and information of the instruments.

4.3 Peak to Average Ratio

Refer to section 4.1 to get the tested date and information of the instruments.

4.4 Bandwidth

Refer to section 4.1 to get the tested date and information of the instruments.

4.5 Conducted Spurious Emissions

Refer to section 4.1 to get the tested date and information of the instruments.

4.6 Radiated Spurious Emissions below 1GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-1213	2023/10/13	2024/10/12
EMI Test Receiver R&S	ESR3	102782	2023/12/7	2024/12/6
Loop Antenna Electro-Metrics	EM-6879	269	2023/9/23	2024/9/22
MXA Signal Analyzer Keysight	N9020B	MY60110513	2023/12/22	2024/12/21
Preamplifier EMCI	EMC330N	980782	2024/1/15	2025/1/14
	EMC001340	980201	2023/9/27	2024/9/26
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201233	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-3000	201235	2024/1/15	2025/1/14
	EMCCFD400-NM-NM-9000	201236(with PAD)	2024/1/15	2025/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MF-7802BS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208674	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 8.
2. Tested Date: 2024/8/12

4.7 Radiated Spurious Emissions above 1GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
EMI Test Receiver R&S	ESR3	102782	2023/12/7	2024/12/6
Horn Antenna RFSPIN	DRH18-E	210103A18E	2023/11/12	2024/11/11
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2023/11/12	2024/11/11
MXA Signal Analyzer Keysight	N9020B	MY60110513	2023/12/22	2024/12/21
Preamplifier EMCI	EMC118A45SE	980808	2023/12/28	2024/12/27
	EMC184045SE	980788	2024/1/15	2025/1/14
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2024/1/15	2025/1/14
	EMC101G-KM-KM-3000	201258	2024/1/15	2025/1/14
	EMC101G-KM-KM-5000	201261	2024/1/15	2025/1/14
	EMC104-SM-SM-1000	210102	2024/1/15	2025/1/14
	EMC104-SM-SM-3000	201231	2024/1/15	2025/1/14
	EMC104-SM-SM-9000	201243	2024/1/15	2025/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MF-7802BS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208674	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 8.
2. Tested Date: 2024/10/28

4.8 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
3-channel DC power supply JIN YIH Technology	ODP3033	ODP30332128138	N/A	N/A
Digital Multimeter Fluke	8050A	4660081	2024/6/14	2025/6/13
PXA Signal Analyzer Keysight	N9030B	MY57140938	2024/3/20	2025/3/19
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A
Temperature & Humidity Chamber Terchy	HRM-120RF	931022	2023/12/19	2024/12/18
UXM 5G Wireless Test Platform Keysight	E7515B	MY60102115	2024/5/26	2025/5/25

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2024/10/8

5 Limits of Test Items

5.1 Maximum EIRP

For NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz):

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

5.2 Modulation Characteristics

A curve or equivalent data which shows that the equipment will meet the modulation requirements of the rules under which the equipment is to be licensed.

5.3 Peak to Average Ratio

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.

5.4 Bandwidth

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.

5.5 Conducted Spurious Emissions

For NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz):

The conducted power of any emission outside the fundamental emission (whether in or outside of the authorized band) shall not exceed -13 dBm/MHz within 0 to B MHz (where B is the bandwidth in MHz of the assigned channel or multiple contiguous channels of the End User Device) above the upper CBSD-assigned channel edge and within 0 to B MHz below the lower CBSD-assigned channel edge. At all frequencies greater than B MHz above the upper CBSD assigned channel edge and less than B MHz below the lower CBSD-assigned channel edge, the conducted power of any end user device emission shall not exceed -25 dBm/MHz.

Additional protection levels: The conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

Note: This device can be implement MIMO function, so the limit of emission mask / conducted emissions needs to be reduced by $10 \cdot \log(\text{NumbersAnt})$ according to FCC KDB 662911 D01 guidance.

5.6 Radiated Spurious Emissions below 1GHz

For NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz):

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

5.7 Radiated Spurious Emissions above 1GHz

For NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz):

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

5.8 Frequency Stability

For NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz):

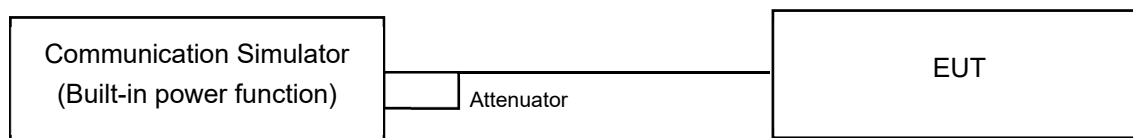
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation (authorized frequency block).

6 Test Arrangements

6.1 Maximum EIRP

6.1.1 Test Setup

Conducted Power Measurement:



6.1.2 Test Procedure

Channel Power Measurement:

The EUT is configured by emulator to set data modulation and maximum power using WWAN technology. The average (rms) power measurement was performed on emulator and power value was measured from power function on emulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

Power 10 MHz Measurement:

The EUT is configured by emulator to set data modulation and maximum power using WWAN technology and link to spectrum analyzer measurements. Set the EUT to transmit under low, middle and high channel and record the power level shown on spectrum analyzer. Power measurements use detector average (rms).

Measurement method refers to ANSI C63.26 section 5.2.4.4.

- Set span to 2 × to 3 × the OBW.
- Set RBW = 1% to 5% of the OBW.
- Set VBW ≥ 3 × RBW.
- Set number of measurement points in sweep ≥ 2 × span / RBW.
- Set Sweep time = auto-couple.
- Detector = power averaging (rms).
- Set sweep trigger to “free run.”
- Trace average at least 100 traces in power averaging (rms) mode.
- Use the Band/Channel Power function to determine the integrated power per 10 MHz bandwidth, according to the 47 CFR FCC Part 96 standard.
- If Duty cycle < 98%, Add 10 log (1/duty cycle) to the measured power level to compute the average power during continuous transmission.

Maximum EIRP / ERP

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

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

$$\text{ERP} = P_{\text{Meas}} + G_T - 2.15$$

where

ERP or EIRP effective radiated power or equivalent isotropically radiated power, respectively

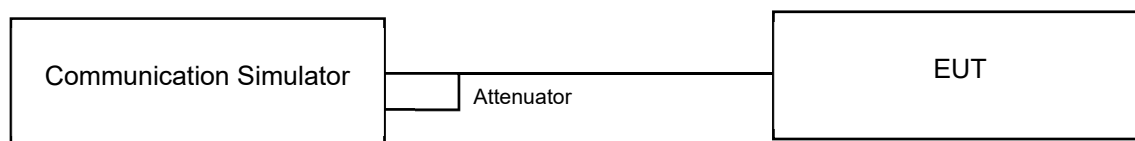
(expressed in the same units as P_{Meas} , e.g., dBm or dBW)

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)

6.2 Modulation Characteristics

6.2.1 Test Setup

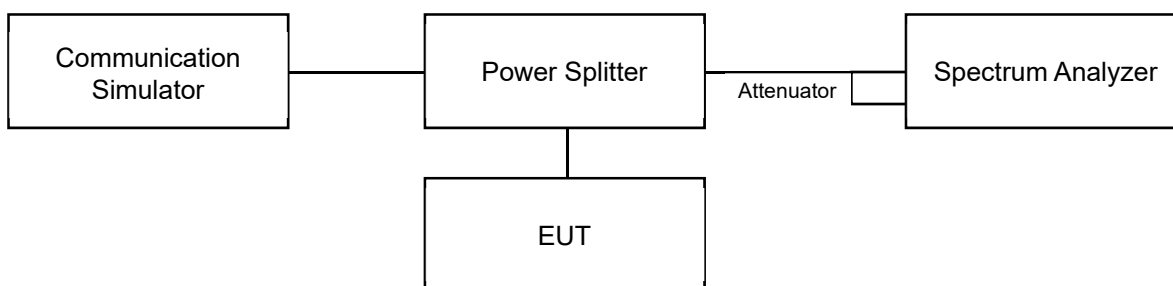


6.2.2 Test Procedure

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.

6.3 Peak to Average Ratio

6.3.1 Test Setup

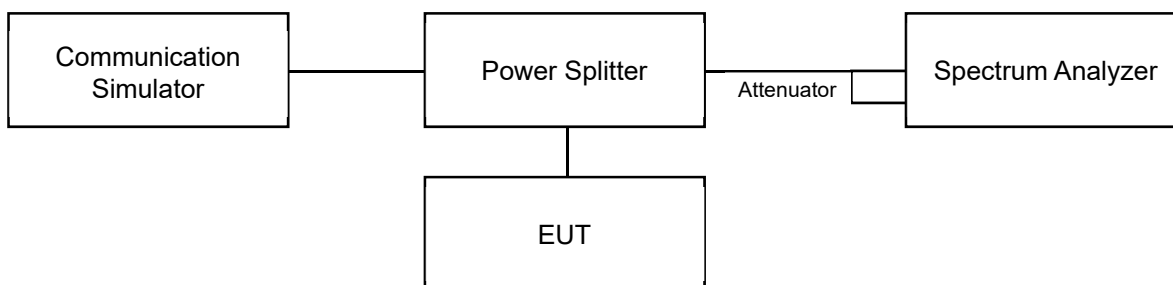


6.3.2 Test Procedure

- 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%.

6.4 Bandwidth

6.4.1 Test Setup



6.4.2 Test Procedure

For the 26 dBc bandwidth measurement method, please refer to section 5.4.3 of ANSI C63.26.

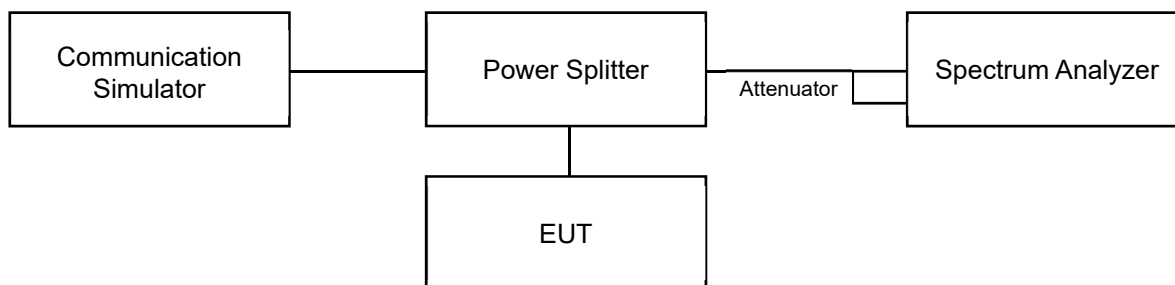
- The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
- The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times$ 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. See guidance provided in 4.2.3.
- 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 following reference values: 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).
- 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.
- Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB amplitude” determined in step f). If a marker is below this “-X dB amplitude” value it should be as close as possible to this value. The OBW is the positive frequency difference between the two markers.
- The OBW shall be reported by providing plot(s) of the measuring instrument display, to include markers depicting the relevant frequency and amplitude information (e.g., marker table). The frequency and amplitude axis and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

For the occupied bandwidth measurement method, please refer to section 5.4.4 of ANSI C63.26.

- a. 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.
- b. The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set $\geq 3 \times$ RBW.
- c. 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. See guidance provided in 4.2.3.
- d. 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.
- e. Set spectrum analyzer detection mode to peak, and the trace mode to max hold.
- f. Determine the reference value by either of the following:
 - g. 1) 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).
 - h. 2) Set the EUT to transmit an unmodulated carrier. Set the spectrum analyzer marker to the level of the carrier.
- i. 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.
- j. If the reference value was determined using an unmodulated carrier, turn the EUT modulation on, then either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise the trace from step f) shall be used for step i).
- k. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB amplitude” determined in step f). If a marker is below this “-X dB amplitude” value it should be as close as possible to this value. The OBW is the positive frequency difference between the two markers. The spectral envelope can cross the “-X dB amplitude” at multiple points. The lowest or highest frequency shall be selected as the frequencies that are the farthest away from the center frequency at which the spectral envelope crosses the “-X dB amplitude.”
- l. The OBW shall be reported by providing plot(s) of the measuring instrument display, to include markers depicting the relevant frequency and amplitude information (e.g., marker table). The frequency and amplitude axis and scale shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

6.5 Conducted Spurious Emissions

6.5.1 Test Setup



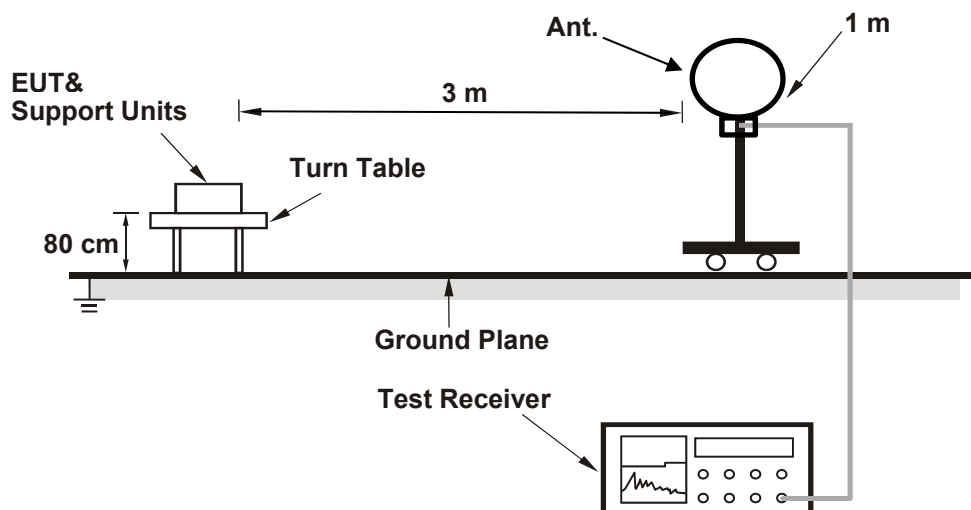
6.5.2 Test Procedure

- a. Measurement refer to ANSI C63.26 section 5.7.
- b. All measurements were done at 3 channels: low, middle and high operational frequency range.
- c. Measuring frequency range is from 9 kHz up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. 20 dB attenuation pad is connected with spectrum.
- d. The fundamental frequency above 1 GHz, the spectrum set RBW = 1 MHz, VBW = 3 MHz, Detector = Average.
- e. The fundamental frequency below 1 GHz, the spectrum set RBW $\geq$ 100 kHz, VBW $\geq$ 3 x RBW, Detector = Average.
- f. Measuring frequency band edge, narrow RBW (no less than 1% of the OBW) is used for conducted emission measurement.
- g. For the emissions measurement method, certain channel BW modes demonstrate compliance by integrating with the smaller RBW allowed by the rule.
For example: Where Reference RBW = 1 MHz and a smaller RBW = 100 kHz is used, worst-case integrated BW power = [Max Measured Value (dBm) with RBW = 100 kHz] + $10 \cdot \log(1000/100)$. To compensate for this integration before comparison to the value, the adjusted reference level offset was increase by 10 dB accordingly.
- a. The device has MIMO function, so the limit of conducted spurious emissions need to be measurement add $10\log(\text{Numbers}_{\text{ANT}})$ according to FCC KDB 662911 D01 guidance. Therefore, the $10\log(\text{Numbers}_{\text{ANT}})$ value is added to the spectrum Ref. level offset during testing.
- b. Record the maximum power value test plot.

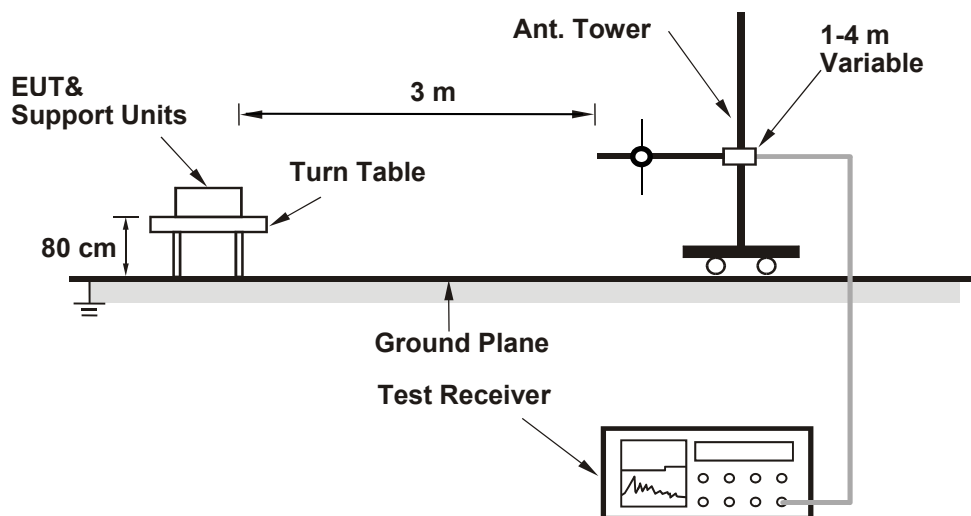
6.6 Radiated Spurious Emissions below 1GHz

6.6.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.6.2 Test Procedure

The EUT is configured to set data modulation and maximum power using WWAN technology.

- a. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) height of turn table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- d. Following ANSI C63.26 section 5.5 and 5.2.7
- e. $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.
- f. $ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$; where D is the measurement distance (in the far field region) in m.

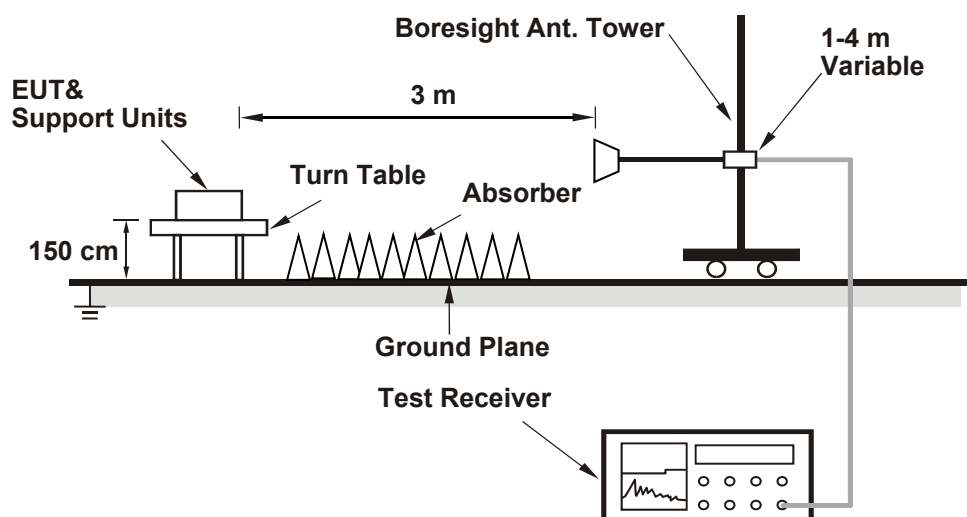
Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz. Set detector = average.
2. The amplitude of spurious emissions in the range 9 kHz to 30 MHz which are attenuated more than 20 dB below the permissible value need not be reported.

6.7 Radiated Spurious Emissions above 1GHz

6.7.1 Test Setup

For radiated emission above 1 GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.7.2 Test Procedure

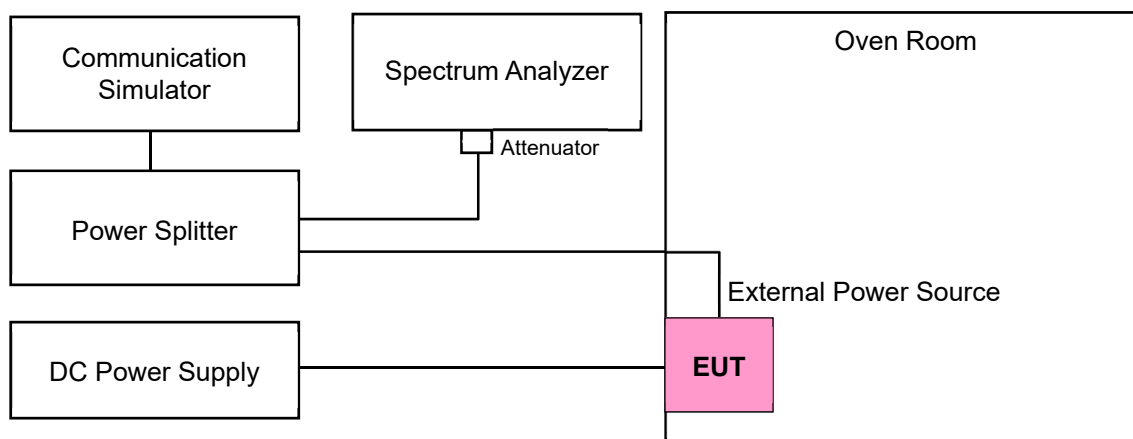
The EUT is configured to set data modulation and maximum power using WWAN technology.

- In the semi-anechoic chamber, EUT placed on the 1.5 m height of turn table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
- Following ANSI C63.26 section 5.5 and 5.2.7
- $EIRP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8$; where D is the measurement distance (in the far field region) in m.
- $ERP (dBm) = E (dB\mu V/m) + 20\log(D) - 104.8 - 2.15$; where D is the measurement distance (in the far field region) in m.

Note: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz. Set detector = average.

6.8 Frequency Stability

6.8.1 Test Setup



6.8.2 Test Procedure

The EUT is configured by emulator to set data modulation and maximum power using WWAN technology.

- 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 DC 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.

7 Test Results of Test Item

7.1 Maximum EIRP

Input Power:	3.8 Vdc	Environmental Conditions:	23°C, 71% RH	Tested By:	James Yang
--------------	---------	---------------------------	--------------	------------	------------

7.1.1 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637000	CH 641666	CH 646332
			3555 MHz	3624.99 MHz	3694.98 MHz
DFT-S BPSK	1	1	22.30	22.72	22.04
DFT-S QPSK	1	1	22.24	22.69	21.98
	1	11	22.14	22.67	21.82
	1	22	22.11	22.56	21.82
	12	0	21.23	21.68	21.00
	12	6	22.01	22.62	21.97
	12	12	21.13	21.65	20.89
	24	0	21.21	21.65	21.00
DFT-S 16 QAM	1	1	20.27	20.80	20.03
DFT-S 64 QAM	1	1	18.86	19.36	18.58
CP 256 QAM	1	1	16.04	16.36	15.74
CP QPSK	1	1	20.75	21.24	20.51

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	22.04	22.72	22.04	22.72	23
DFT-S QPSK	20.89	22.69	20.89	22.69	23
DFT-S 16QAM	20.03	20.80	20.03	20.80	23
DFT-S 64QAM	18.58	19.36	18.58	19.36	23
CP 256QAM	15.74	16.36	15.74	16.36	23
CP QPSK	20.51	21.24	20.51	21.24	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 15 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637168	CH 641666	CH 646166
			3557.52 MHz	3624.99 MHz	3692.49 MHz
DFT-S BPSK	1	1	18.08	22.49	21.89
DFT-S QPSK	1	1	18.01	22.49	21.73
	1	19	21.82	22.44	21.76
	1	36	21.88	22.32	17.70
	18	0	18.00	21.64	20.76
	18	10	22.01	22.57	21.70
	18	20	20.90	21.51	20.78
	36	0	17.99	21.53	17.76
DFT-S 16 QAM	1	1	16.20	20.55	19.73
DFT-S 64 QAM	1	1	16.14	19.11	18.40
CP 256 QAM	1	1	15.67	16.14	15.63
CP QPSK	1	1	16.14	21.07	20.25

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	18.08	22.49	18.08	22.49	23
DFT-S QPSK	17.70	22.57	17.70	22.57	23
DFT-S 16QAM	16.20	20.55	16.20	20.55	23
DFT-S 64QAM	16.14	19.11	16.14	19.11	23
CP 256QAM	15.63	16.14	15.63	16.14	23
CP QPSK	16.14	21.07	16.14	21.07	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 20 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637334	CH 641666	CH 646000
			3560.01 MHz	3624.99 MHz	3690 MHz
DFT-S BPSK	1	1	18.22	22.63	21.91
DFT-S QPSK	1	1	18.12	22.57	21.85
	1	26	21.94	22.53	21.76
	1	49	21.89	22.42	17.76
	25	0	18.09	21.65	20.90
	25	13	22.01	22.66	21.85
	25	26	20.99	21.53	20.80
	50	0	18.13	21.57	17.87
DFT-S 16 QAM	1	1	16.20	20.57	19.88
DFT-S 64 QAM	1	1	16.20	19.19	18.42
CP 256 QAM	1	1	15.73	16.24	15.70
CP QPSK	1	1	16.14	21.13	20.38

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	18.22	22.63	18.22	22.63	23
DFT-S QPSK	17.76	22.66	17.76	22.66	23
DFT-S 16QAM	16.20	20.57	16.20	20.57	23
DFT-S 64QAM	16.20	19.19	16.20	19.19	23
CP 256QAM	15.70	16.24	15.70	16.24	23
CP QPSK	16.14	21.13	16.14	21.13	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 30 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637668	CH 641666	CH 645666
			3565.02 MHz	3624.99 MHz	3684.99 MHz
DFT-S BPSK	1	1	11.66	18.52	11.54
DFT-S QPSK	1	1	11.63	18.56	11.45
	1	39	21.99	22.52	21.80
	1	76	11.59	18.06	11.14
	36	0	11.72	21.63	15.96
	36	21	11.61	22.73	11.42
	36	42	16.20	21.39	11.37
	75	0	11.54	18.02	11.35
DFT-S 16 QAM	1	1	10.72	18.71	10.59
DFT-S 64 QAM	1	1	10.76	18.62	10.74
CP 256 QAM	1	1	10.94	16.34	10.94
CP QPSK	1	1	10.68	18.60	10.66

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	11.54	18.52	11.54	18.52	23
DFT-S QPSK	11.14	22.73	11.14	22.73	23
DFT-S 16QAM	10.59	18.71	10.59	18.71	23
DFT-S 64QAM	10.74	18.62	10.74	18.62	23
CP 256QAM	10.94	16.34	10.94	16.34	23
CP QPSK	10.66	18.60	10.66	18.60	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 40 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 638000	CH 641666	CH 645332
			3570 MHz	3624.99 MHz	3679.98 MHz
DFT-S BPSK	1	1	11.73	18.66	11.67
DFT-S QPSK	1	1	11.67	18.62	11.60
	1	53	22.01	22.55	21.88
	1	104	11.62	18.12	11.21
	50	0	11.76	21.69	16.11
	50	28	11.71	22.75	11.50
	50	56	16.21	21.51	11.45
	100	0	11.68	18.12	11.49
DFT-S 16 QAM	1	1	10.79	18.75	10.69
DFT-S 64 QAM	1	1	10.90	18.63	10.79
CP 256 QAM	1	1	11.03	16.46	10.94
CP QPSK	1	1	10.69	18.64	10.67

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	11.67	18.66	11.67	18.66	23
DFT-S QPSK	11.21	22.75	11.21	22.75	23
DFT-S 16QAM	10.69	18.75	10.69	18.75	23
DFT-S 64QAM	10.79	18.63	10.79	18.63	23
CP 256QAM	10.94	16.46	10.94	16.46	23
CP QPSK	10.67	18.64	10.67	18.64	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

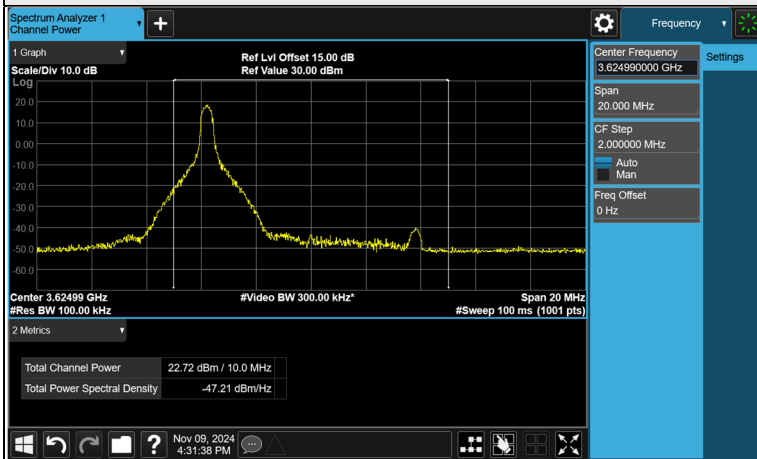
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 10 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637000	CH 641666	CH 646332
			3555 MHz	3624.99 MHz	3694.98 MHz
DFT-S BPSK	1	1	22.30	22.72	22.04
DFT-S QPSK	1	1	22.24	22.69	21.98
	1	11	22.14	22.67	21.82
	1	22	22.11	22.56	21.82
	12	0	21.23	21.68	21.00
	12	6	22.01	22.62	21.97
	12	12	21.13	21.65	20.89
	24	0	21.21	21.65	21.00
DFT-S 16 QAM	1	1	20.27	20.80	20.03
DFT-S 64 QAM	1	1	18.86	19.36	18.58
CP 256 QAM	1	1	16.04	16.36	15.74
CP QPSK	1	1	20.75	21.24	20.51

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	22.04	22.72	22.04	22.72	23
DFT-S QPSK	20.89	22.69	20.89	22.69	23
DFT-S 16QAM	20.03	20.80	20.03	20.80	23
DFT-S 64QAM	18.58	19.36	18.58	19.36	23
CP 256QAM	15.74	16.36	15.74	16.36	23
CP QPSK	20.51	21.24	20.51	21.24	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

Spectrum Plot of Worst Value



QPSK CH 641666 (3624.99 MHz) Ant.0

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 15 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637168	CH 641666	CH 646166
			3557.52 MHz	3624.99 MHz	3692.48 MHz
DFT-S BPSK	1	1	18.15	22.54	21.77
DFT-S QPSK	1	1	18.03	22.51	21.84
	1	19	21.87	22.46	21.66
	1	36	21.74	22.40	17.71
	18	0	18.09	21.57	20.83
	18	10	21.97	22.59	21.81
	18	20	20.91	21.40	20.74
	36	0	16.85	19.53	16.17
DFT-S 16 QAM	1	1	16.09	20.51	19.84
DFT-S 64 QAM	1	1	16.15	19.10	18.28
CP 256 QAM	1	1	15.70	16.22	15.63
CP QPSK	1	1	16.14	21.13	20.37

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	18.15	22.54	18.15	22.54	23
DFT-S QPSK	16.17	22.59	16.17	22.59	23
DFT-S 16QAM	16.09	20.51	16.09	20.51	23
DFT-S 64QAM	16.15	19.10	16.15	19.10	23
CP 256QAM	15.63	16.22	15.63	16.22	23
CP QPSK	16.14	21.13	16.14	21.13	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 20 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637334	CH 641666	CH 646000
			3560.01 MHz	3624.99 MHz	3690 MHz
DFT-S BPSK	1	1	18.21	22.51	21.85
DFT-S QPSK	1	1	18.06	22.49	21.74
	1	26	21.90	22.43	21.61
	1	49	21.76	22.40	17.65
	25	0	17.95	21.53	20.85
	25	13	21.92	22.65	21.77
	25	26	20.95	21.50	20.79
	50	0	15.59	18.00	14.88
DFT-S 16 QAM	1	1	16.20	20.50	19.75
DFT-S 64 QAM	1	1	16.13	19.09	18.39
CP 256 QAM	1	1	15.71	16.19	15.57
CP QPSK	1	1	16.01	21.13	20.28

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	18.21	22.51	18.21	22.51	23
DFT-S QPSK	14.88	22.65	14.88	22.65	23
DFT-S 16QAM	16.20	20.50	16.20	20.50	23
DFT-S 64QAM	16.13	19.09	16.13	19.09	23
CP 256QAM	15.57	16.19	15.57	16.19	23
CP QPSK	16.01	21.13	16.01	21.13	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 30 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 637668	CH 641666	CH 645666
			3565.02 MHz	3624.99 MHz	3684.99 MHz
DFT-S BPSK	1	1	11.68	18.58	11.59
DFT-S QPSK	1	1	11.66	18.59	11.51
	1	39	21.92	22.41	21.85
	1	76	11.60	18.03	11.16
	36	0	10.51	20.21	15.92
	36	21	21.28	20.67	10.00
	36	42	16.55	16.46	9.85
	75	0	7.19	13.54	6.73
DFT-S 16 QAM	1	1	10.79	18.62	10.55
DFT-S 64 QAM	1	1	10.89	18.63	10.65
CP 256 QAM	1	1	11.02	16.46	10.84
CP QPSK	1	1	10.62	18.54	10.60

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	11.59	18.58	11.59	18.58	23
DFT-S QPSK	6.73	22.41	6.73	22.41	23
DFT-S 16QAM	10.55	18.62	10.55	18.62	23
DFT-S 64QAM	10.65	18.63	10.65	18.63	23
CP 256QAM	10.84	16.46	10.84	16.46	23
CP QPSK	10.60	18.54	10.60	18.54	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - Ant 0, Channel Bandwidth: 40 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)		
			CH 638000	CH 641666	CH 645332
			3570 MHz	3624.99 MHz	3679.98 MHz
DFT-S BPSK	1	1	11.72	18.66	11.52
DFT-S QPSK	1	1	11.62	18.50	11.60
	1	53	21.95	22.53	21.87
	1	104	11.60	18.08	11.16
	50	0	9.22	18.11	13.06
	50	28	9.29	19.20	8.41
	50	56	13.86	18.03	8.31
	100	0	6.74	11.54	5.45
DFT-S 16 QAM	1	1	10.73	18.69	10.66
DFT-S 64 QAM	1	1	10.89	18.63	10.72
CP 256 QAM	1	1	11.00	16.33	10.86
CP QPSK	1	1	10.54	18.64	10.65

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
DFT-S BPSK	11.52	18.66	11.52	18.66	23
DFT-S QPSK	5.45	22.53	5.45	22.53	23
DFT-S 16QAM	10.66	18.69	10.66	18.69	23
DFT-S 64QAM	10.72	18.63	10.72	18.63	23
CP 256QAM	10.86	16.33	10.86	16.33	23
CP QPSK	10.54	18.64	10.54	18.64	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 10 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637000			CH 641666			CH 646332		
			3555 MHz			3624.99 MHz			3694.98 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	18.15	17.81	20.99	18.09	18.10	21.11	17.38	17.65	20.53
QPSK	1	1	18.22	17.89	21.07	18.23	18.12	21.19	17.46	17.73	20.61
	1	11	18.23	17.76	21.01	18.22	17.93	21.09	17.35	17.69	20.53
	1	22	18.29	17.88	21.10	18.21	18.09	21.16	17.49	17.78	20.65
	12	0	16.73	16.23	19.50	16.66	16.51	19.60	15.88	16.23	19.07
	12	6	18.21	17.76	21.00	18.14	17.95	21.06	17.28	17.65	20.48
	12	12	16.69	16.26	19.49	16.66	16.39	19.54	15.77	16.09	18.94
	24	0	16.66	16.11	19.40	16.61	16.39	19.51	15.83	16.17	19.01
16QAM	1	1	17.71	17.35	20.54	17.77	17.35	20.58	16.92	17.30	20.12
64QAM	1	1	15.96	15.65	18.82	16.35	15.76	19.08	15.54	15.58	18.57
256QAM	1	1	13.35	12.81	16.10	13.32	12.94	16.14	12.49	12.76	15.64

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	20.53	21.11	20.53	21.11	23
QPSK	18.94	21.19	18.94	21.19	23
16QAM	20.12	20.58	20.12	20.58	23
64QAM	18.57	19.08	18.57	19.08	23
256QAM	15.64	16.14	15.64	16.14	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 15 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637168			CH 641666			CH 646166		
			3557.52 MHz			3624.99 MHz			3692.49 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	13.66	13.20	16.45	18.00	17.75	20.89	17.36	17.65	20.52
QPSK	1	1	13.77	13.25	16.53	18.16	17.79	20.99	17.43	17.69	20.57
	1	19	18.14	17.72	20.95	18.27	18.08	21.19	17.32	17.66	20.50
	1	36	18.21	17.73	20.99	18.06	17.90	20.99	12.66	12.92	15.80
	18	0	13.53	13.12	16.34	16.64	16.39	19.53	15.74	16.09	18.93
	18	10	18.16	17.64	20.92	18.06	17.88	20.98	17.25	17.55	20.41
	18	20	16.56	16.14	19.37	16.51	16.45	19.49	15.79	16.06	18.94
	36	0	13.52	13.16	16.35	16.56	16.26	19.42	12.74	12.93	15.85
16QAM	1	1	13.86	13.16	16.53	17.52	17.28	20.41	16.77	17.27	20.04
64QAM	1	1	13.32	13.19	16.27	16.34	15.54	18.97	15.24	15.40	18.33
256QAM	1	1	13.07	12.63	15.87	13.28	12.91	16.11	12.45	12.63	15.55

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	16.45	20.89	16.45	20.89	23
QPSK	15.80	21.19	15.80	21.19	23
16QAM	16.53	20.41	16.53	20.41	23
64QAM	16.27	18.97	16.27	18.97	23
256QAM	15.55	16.11	15.55	16.11	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 20 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637334			CH 641666			CH 646000		
			3560.01 MHz			3624.99 MHz			3690 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	13.44	12.88	16.18	18.09	17.75	20.93	17.22	17.43	20.34
QPSK	1	1	13.48	12.96	16.24	18.11	17.78	20.96	17.27	17.55	20.42
	1	26	18.20	17.61	20.93	18.15	17.87	21.02	17.02	17.49	20.27
	1	49	18.05	17.48	20.78	18.05	17.92	21.00	12.62	12.89	15.77
	25	0	13.56	12.99	16.29	16.54	16.19	19.38	15.73	16.11	18.93
	25	13	18.02	17.60	20.83	18.06	17.78	20.93	17.20	17.57	20.40
	25	26	16.59	16.07	19.35	16.54	16.31	19.44	15.71	16.06	18.90
	50	0	13.56	13.03	16.31	16.51	16.24	19.39	12.75	13.16	15.97
16QAM	1	1	13.70	12.85	16.31	17.26	17.37	20.33	16.65	17.09	19.89
64QAM	1	1	13.44	13.17	16.32	15.94	15.36	18.67	15.42	15.47	18.46
256QAM	1	1	13.06	12.48	15.79	13.02	12.65	15.85	12.20	12.47	15.35

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	16.18	20.93	16.18	20.93	23
QPSK	15.77	21.02	15.77	21.02	23
16QAM	16.31	20.33	16.31	20.33	23
64QAM	16.32	18.67	16.32	18.67	23
256QAM	15.35	15.85	15.35	15.85	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 30 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637668			CH 641666			CH 645666		
			3565.02 MHz			3624.99 MHz			3684.99 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	8.69	7.80	11.28	16.00	15.55	18.79	8.01	7.54	10.79
QPSK	1	1	8.80	7.87	11.37	16.11	15.60	18.87	8.13	7.66	10.91
	1	39	18.94	18.16	21.58	18.79	18.40	21.61	17.81	17.75	20.79
	1	76	8.53	7.83	11.20	16.13	15.56	18.86	7.82	7.57	10.71
	36	0	8.59	7.96	11.30	17.09	16.74	19.93	13.88	13.62	16.76
	36	21	18.91	17.98	21.48	18.68	18.26	21.49	7.86	7.53	10.71
	36	42	14.57	13.92	17.27	16.07	15.73	18.91	7.89	7.43	10.68
	75	0	8.56	7.85	11.23	16.07	15.73	18.91	7.79	7.90	10.86
16QAM	1	1	8.59	8.14	11.38	16.00	15.75	18.89	8.13	7.76	10.96
64QAM	1	1	8.20	7.94	11.08	15.74	15.31	18.54	7.75	7.61	10.69
256QAM	1	1	8.50	8.03	11.28	13.69	13.06	16.40	8.02	7.71	10.88

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	10.79	18.79	10.79	18.79	23
QPSK	10.68	21.61	10.68	21.61	23
16QAM	10.96	18.89	10.96	18.89	23
64QAM	10.69	18.54	10.69	18.54	23
256QAM	10.88	16.40	10.88	16.40	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 40 MHz, Output Power: Full Power

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 638000			CH 641666			CH 645332		
			3570 MHz			3624.99 MHz			3679.98 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	8.46	7.88	11.19	15.76	15.13	18.47	7.88	7.86	10.88
QPSK	1	1	8.54	7.89	11.24	15.83	15.20	18.54	7.97	7.95	10.97
	1	53	18.90	17.93	21.45	19.09	18.33	21.74	17.90	17.85	20.89
	1	104	8.32	7.57	10.97	15.61	15.32	18.48	7.48	7.44	10.47
	50	0	8.61	7.95	11.30	17.13	16.58	19.87	12.35	12.42	15.40
	50	28	8.66	7.85	11.28	17.05	16.67	19.87	7.81	7.85	10.84
	50	56	13.10	12.36	15.76	17.00	16.61	19.82	7.58	7.75	10.68
	100	0	8.63	7.96	11.32	15.59	15.07	18.35	7.81	7.97	10.90
16QAM	1	1	8.41	7.99	11.22	16.13	15.53	18.85	8.18	8.04	11.12
64QAM	1	1	8.42	7.56	11.02	15.85	15.35	18.62	8.12	7.97	11.06
256QAM	1	1	8.57	7.87	11.24	13.52	12.86	16.21	7.96	7.98	10.98

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	10.88	18.47	10.88	18.47	23
QPSK	10.47	21.74	10.47	21.74	23
16QAM	11.12	18.85	11.12	18.85	23
64QAM	11.02	18.62	11.02	18.62	23
256QAM	10.98	16.21	10.98	16.21	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 10 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637000			CH 641666			CH 646332		
			3555 MHz			3624.99 MHz			3694.98 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	18.15	17.81	20.99	18.09	18.10	21.11	17.38	17.65	20.53
QPSK	1	1	18.22	17.89	21.07	18.23	18.12	21.19	17.46	17.73	20.61
	1	11	18.23	17.76	21.01	18.22	17.93	21.09	17.35	17.69	20.53
	1	22	18.29	17.88	21.10	18.21	18.09	21.16	17.49	17.78	20.65
	12	0	16.73	16.23	19.50	16.66	16.51	19.60	15.88	16.23	19.07
	12	6	18.21	17.76	21.00	18.14	17.95	21.06	17.28	17.65	20.48
	12	12	16.69	16.26	19.49	16.66	16.39	19.54	15.77	16.09	18.94
	24	0	16.66	16.11	19.40	16.61	16.39	19.51	15.83	16.17	19.01
16QAM	1	1	17.71	17.35	20.54	17.77	17.35	20.58	16.92	17.30	20.12
64QAM	1	1	15.96	15.65	18.82	16.35	15.76	19.08	15.54	15.58	18.57
256QAM	1	1	13.35	12.81	16.10	13.32	12.94	16.14	12.49	12.76	15.64

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	20.53	21.11	20.53	21.11	23
QPSK	18.94	21.19	18.94	21.19	23
16QAM	20.12	20.58	20.12	20.58	23
64QAM	18.57	19.08	18.57	19.08	23
256QAM	15.64	16.14	15.64	16.14	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 15 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637168			CH 641666			CH 646166		
			3557.52 MHz			3264.99 MHz			3692.49 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	13.65	13.17	16.43	17.90	17.70	20.81	17.23	17.63	20.44
QPSK	1	1	13.77	13.21	16.51	18.15	17.71	20.95	17.42	17.68	20.56
	1	19	18.01	17.60	20.82	18.13	17.94	21.05	17.29	17.63	20.47
	1	36	18.11	17.62	20.88	17.94	17.90	20.93	12.57	12.88	15.74
	18	0	13.46	13.06	16.27	16.58	16.35	19.48	15.70	16.08	18.90
	18	10	18.08	17.52	20.82	17.91	17.76	20.85	17.20	17.53	20.38
	18	20	16.48	16.00	19.26	16.49	16.39	19.45	15.67	16.01	18.85
	36	0	12.17	11.83	15.01	15.23	14.92	18.09	11.41	11.68	14.56
16QAM	1	1	13.74	13.04	16.41	17.37	17.18	20.29	16.77	17.20	20.00
64QAM	1	1	13.28	13.07	16.19	16.30	15.43	18.90	15.13	15.38	18.27
256QAM	1	1	12.93	12.50	15.73	13.28	12.84	16.08	12.43	12.50	15.48

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	16.43	20.81	16.43	20.81	23
QPSK	14.56	21.05	14.56	21.05	23
16QAM	16.41	20.29	16.41	20.29	23
64QAM	16.19	18.90	16.19	18.90	23
256QAM	15.48	16.08	15.48	16.08	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 20 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637334			CH 641666			CH 646000		
			3560.01 MHz			3624.99 MHz			3690 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	13.30	12.87	16.10	17.98	17.64	20.82	17.18	17.30	20.25
QPSK	1	1	13.48	12.81	16.17	18.06	17.75	20.92	17.21	17.51	20.37
	1	26	18.08	17.58	20.85	18.04	17.76	20.91	16.88	17.48	20.20
	1	49	18.04	17.42	20.75	17.95	17.78	20.88	12.52	12.89	15.72
	25	0	13.52	12.89	16.23	16.49	16.04	19.28	15.73	16.01	18.88
	25	13	17.98	17.58	20.79	17.94	17.73	20.85	17.07	17.49	20.30
	25	26	16.46	15.96	19.23	16.51	16.19	19.36	15.67	15.98	18.84
	50	0	10.97	10.45	13.73	13.91	13.59	16.76	10.15	10.52	13.35
16QAM	1	1	13.61	12.78	16.23	17.20	17.26	20.24	16.65	17.03	19.85
64QAM	1	1	13.30	13.10	16.21	15.81	15.33	18.59	15.31	15.46	18.40
256QAM	1	1	13.05	12.48	15.78	12.96	12.56	15.77	12.05	12.46	15.27

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	16.10	20.82	16.10	20.82	23
QPSK	13.35	20.92	13.35	20.92	23
16QAM	16.23	20.24	16.23	20.24	23
64QAM	16.21	18.59	16.21	18.59	23
256QAM	15.27	15.78	15.27	15.78	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 30 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 637668			CH 641666			CH 645666		
			3565.02 MHz			3624.99 MHz			3684.99 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	8.61	7.72	11.20	15.88	15.48	18.69	7.93	7.46	10.71
QPSK	1	1	8.70	7.80	11.28	15.98	15.47	18.74	8.07	7.58	10.84
	1	39	18.83	18.11	21.50	18.65	18.32	21.50	17.67	17.65	20.67
	1	76	8.41	7.78	11.12	15.99	15.46	18.74	7.75	7.48	10.63
	36	0	7.60	6.89	10.27	16.00	15.56	18.80	12.84	12.57	15.72
	36	21	17.56	16.99	20.29	17.58	17.13	20.37	6.75	6.51	9.64
	36	42	13.48	12.83	16.18	14.87	14.64	17.77	6.73	6.33	9.54
	75	0	4.24	3.35	6.83	11.63	11.18	14.42	3.31	3.02	6.18
16QAM	1	1	8.44	8.05	11.26	15.88	15.61	18.76	8.08	7.63	10.87
64QAM	1	1	8.10	7.84	10.98	15.65	15.20	18.44	7.68	7.53	10.62
256QAM	1	1	8.38	7.89	11.15	13.60	12.94	16.29	7.89	7.57	10.74

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	10.71	18.69	10.71	18.69	23
QPSK	6.18	21.50	6.18	21.50	23
16QAM	10.87	18.76	10.87	18.76	23
64QAM	10.62	18.44	10.62	18.44	23
256QAM	10.74	16.29	10.74	16.29	23

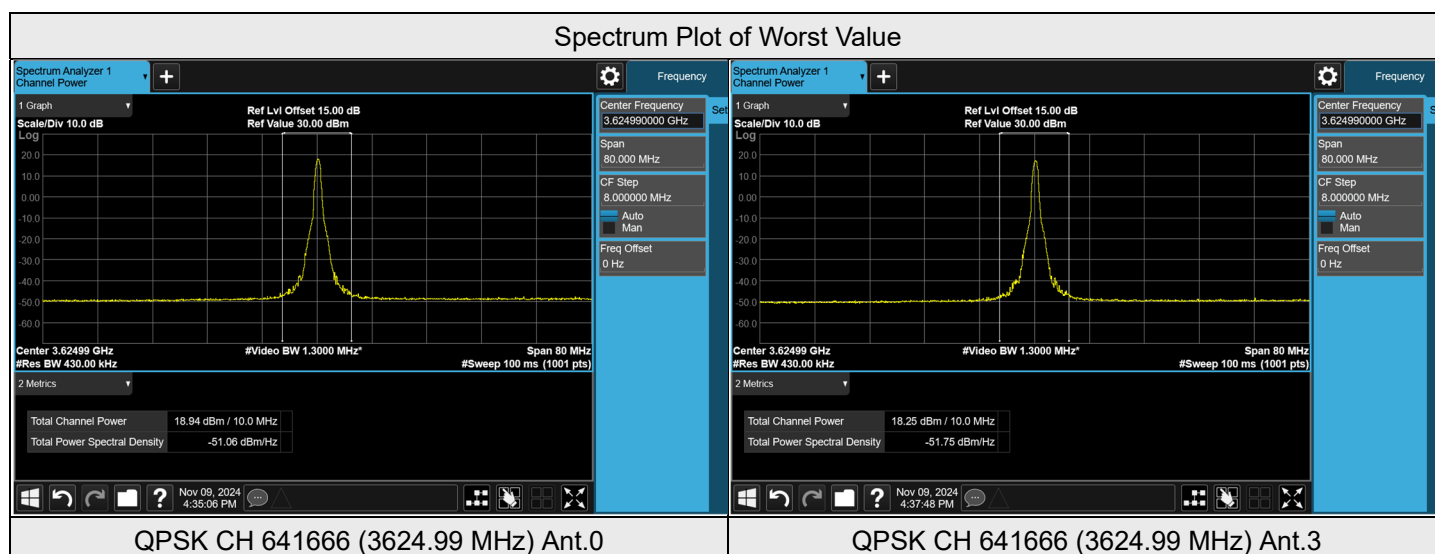
Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO, Channel Bandwidth: 40 MHz, Output Power: dBm/10 MHz

Modulation	RB Size	RB Offset	Measurement Conducted Power (dBm)								
			CH 638000			CH 641666			CH 645332		
			3570 MHz			3624.99 MHz			3679.98 MHz		
			TX 1	TX 2	Total	TX 1	TX 2	Total	TX 1	TX 2	Total
BPSK	1	1	8.39	7.80	11.12	15.69	15.07	18.40	7.78	7.80	10.80
QPSK	1	1	8.47	7.80	11.16	15.77	15.09	18.45	7.91	7.88	10.91
	1	53	18.85	17.87	21.40	18.94	18.25	21.62	17.76	17.78	20.78
	1	104	8.25	7.45	10.88	15.48	15.19	18.35	7.35	7.34	10.36
	50	0	5.85	5.18	8.54	14.26	13.82	17.06	9.58	9.66	12.63
	50	28	5.88	5.06	8.50	14.25	13.78	17.03	4.91	5.06	8.00
	50	56	10.28	9.59	12.96	14.24	13.86	17.06	4.81	4.91	7.87
	100	0	2.93	2.13	5.56	9.83	9.39	12.63	1.97	2.13	5.06
16QAM	1	1	8.36	7.87	11.13	16.01	15.42	18.74	8.09	7.99	11.05
64QAM	1	1	8.35	7.44	10.93	15.73	15.26	18.51	7.97	7.91	10.95
256QAM	1	1	8.50	7.78	11.17	13.44	12.76	16.12	7.86	7.90	10.89

Output Power					
Modulation	Minimum Cond. Power (dBm)	Maximum Cond. Power (dBm)	Minimum EIRP (dBm)	Maximum EIRP (dBm)	EIRP Limit (dBm)
BPSK	10.80	18.40	10.80	18.40	23
QPSK	5.06	21.62	5.06	21.62	23
16QAM	11.05	18.74	11.05	18.74	23
64QAM	10.93	18.51	10.93	18.51	23
256QAM	10.89	16.12	10.89	16.12	23

Note: EIRP (dBm) = Cond. Power (dBm) + Antenna Gain (dBi) + Array Gain (if applicable)

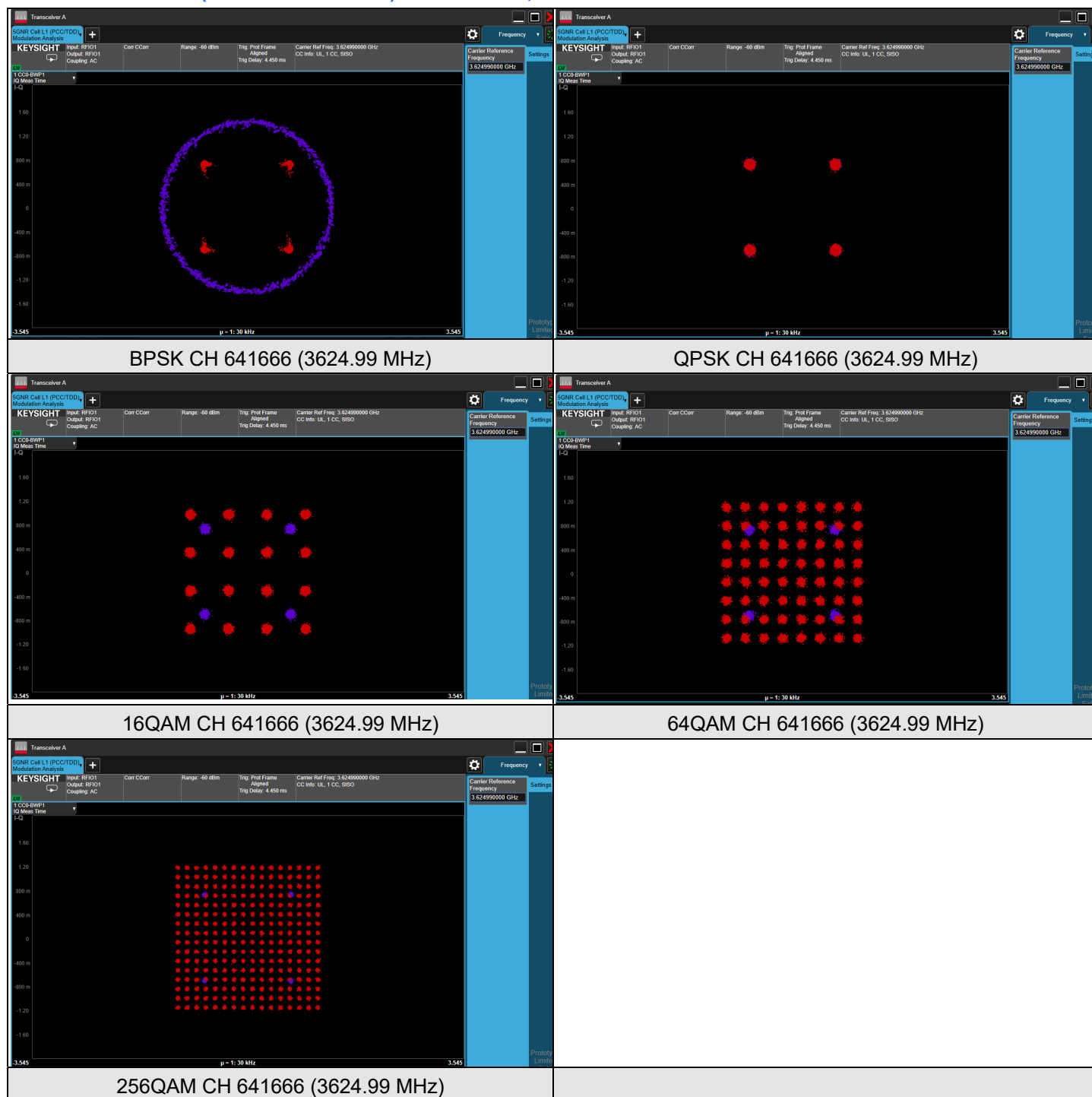


7.2 Modulation Characteristics

Input Power:	3.8 Vdc	Environmental Conditions:	22°C, 73% RH	Tested By:	James Yang
--------------	---------	---------------------------	--------------	------------	------------

7.2.1 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 40 MHz



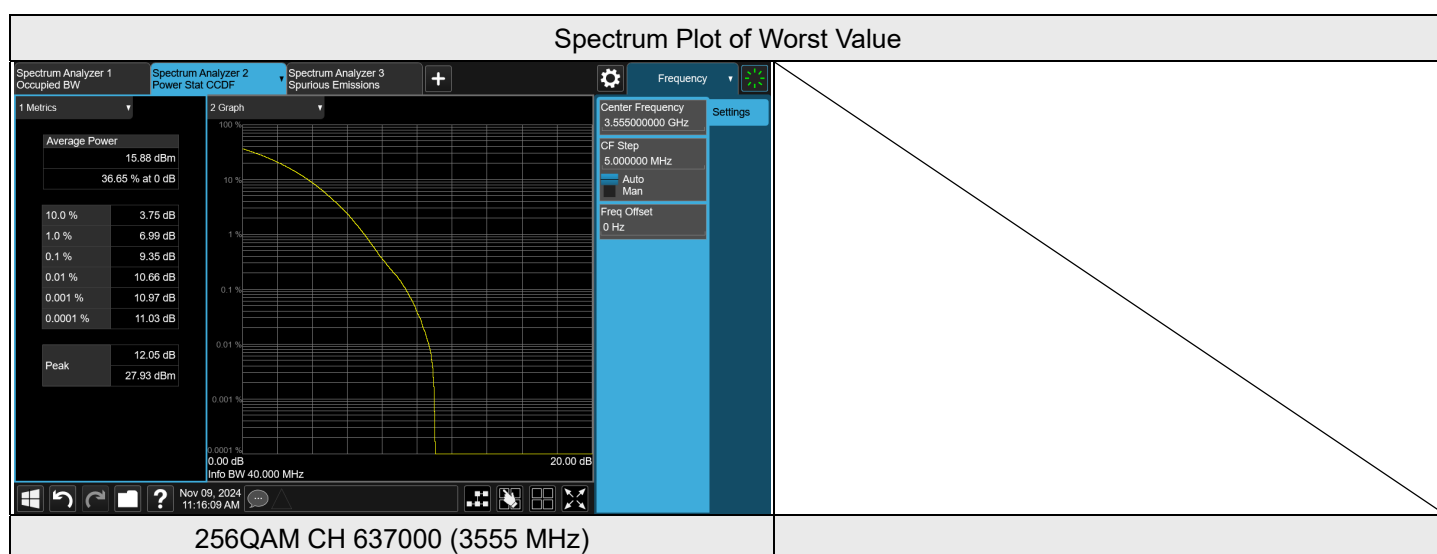
7.3 Peak to Average Ratio

Input Power:	3.8 Vdc	Environmental Conditions:	22°C, 73% RH	Tested By:	James Yang
--------------	---------	---------------------------	--------------	------------	------------

7.3.1 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)

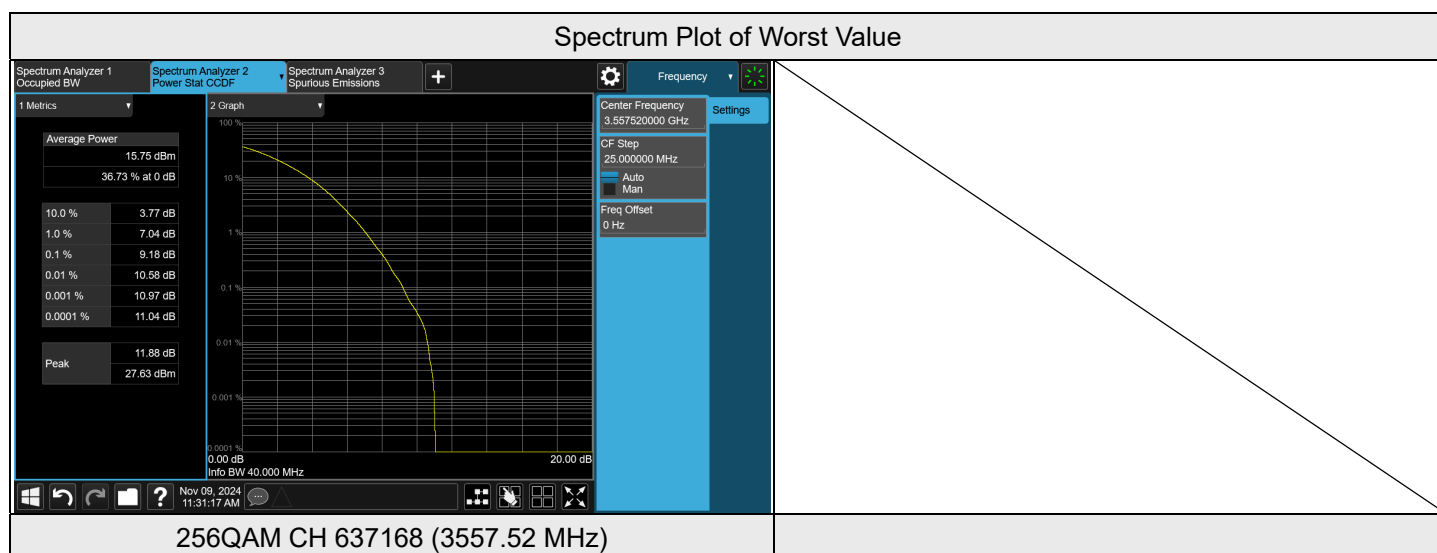
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 10 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 637000	CH 641666	CH 646332
			3555 MHz	3624.99 MHz	3694.98 MHz
BPSK	1	23	4.46	4.04	4.63
	1	0	4.96	4.67	5.16
	24	0	4.19	4.16	4.56
QPSK	1	23	7.33	6.98	7.52
	1	0	8.09	7.6	8.18
	24	0	7.56	6.74	7.42
16QAM	1	23	7.31	7.01	7.96
	1	0	8.16	7.8	8.52
	24	0	7.48	7.29	7.97
64QAM	1	23	7.66	7.28	7.49
	1	0	8.4	8.04	8.19
	24	0	7.69	7.27	7.54
256QAM	1	23	8.67	8.36	8.11
	1	0	9.35	9.02	8.89
	24	0	8.68	8.28	8.16



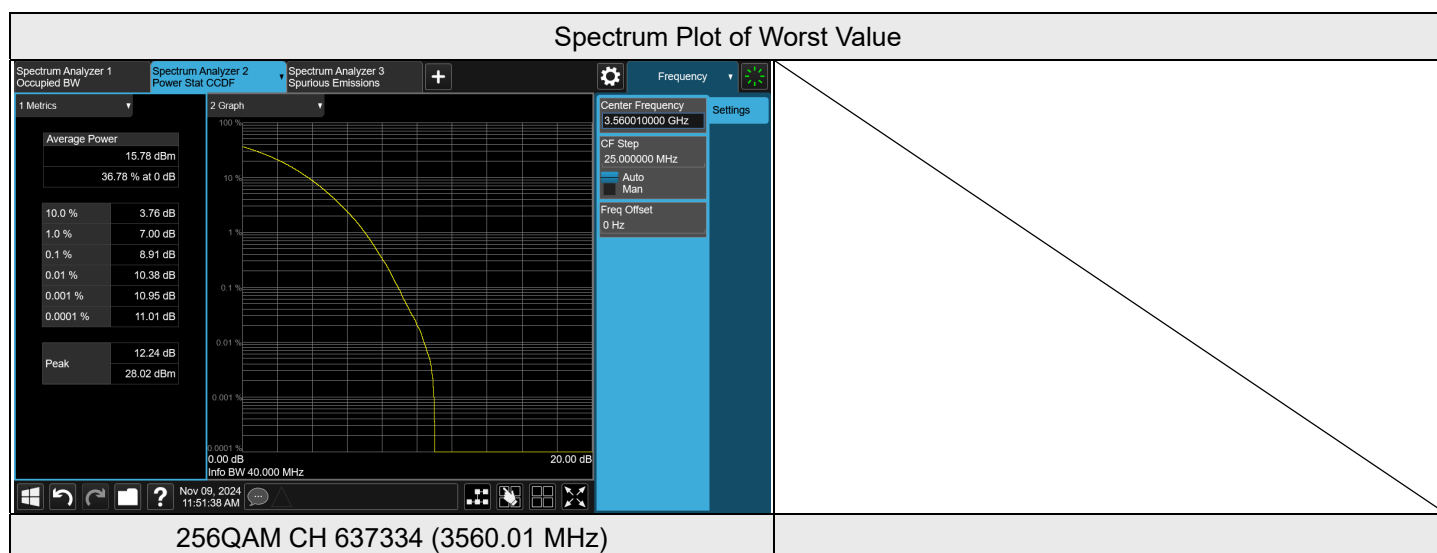
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 15 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 637168	CH 641666	CH 646166
			3557.52 MHz	3624.99 MHz	3692.49 MHz
BPSK	1	37	4.13	4.11	4.47
	1	0	4.84	4.68	5.03
	36	0	4.28	3.92	4.25
QPSK	1	37	7.95	7.45	6.83
	1	0	8.8	7.95	7.34
	38	0	8.16	7.07	6.74
16QAM	1	37	8.41	7.22	6.62
	1	0	8.97	8.1	7.47
	38	0	8.25	7.55	6.81
64QAM	1	37	7.68	7.96	7.22
	1	0	8.51	8.72	7.81
	38	0	7.98	7.85	7.07
256QAM	1	37	8.37	8.47	8.09
	1	0	9.18	8.99	8.9
	38	0	8.3	8.4	8.13



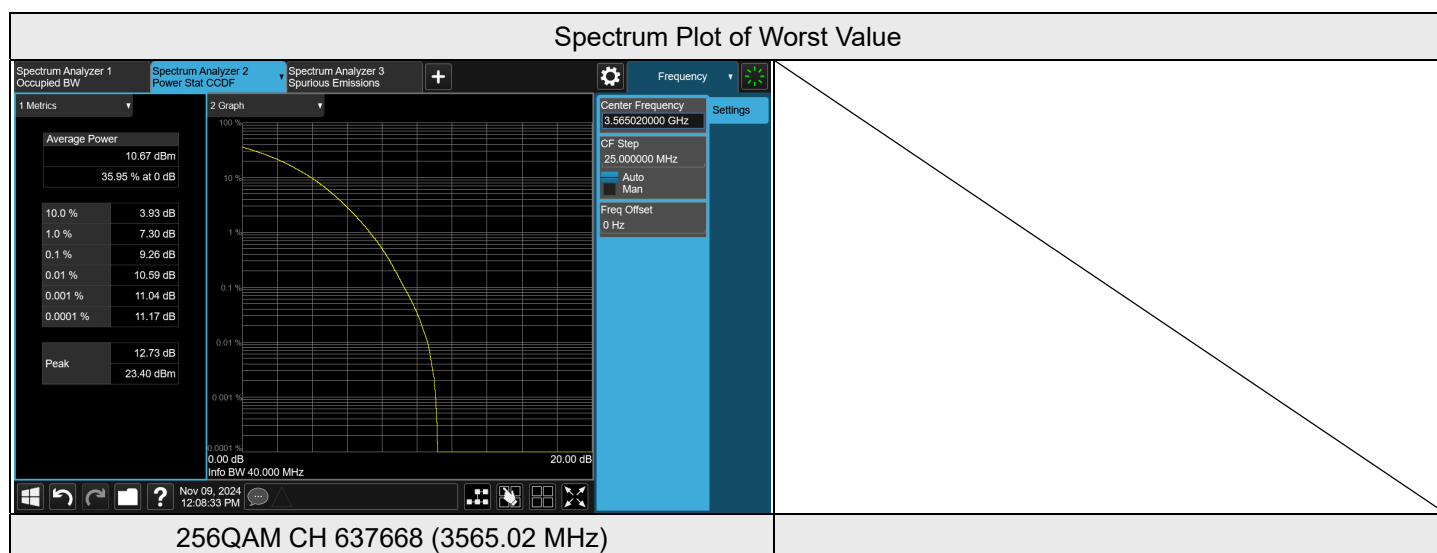
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 20 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 637334	CH 641666	CH 646000
			3560.01 MHz	3624.99 MHz	3690 MHz
BPSK	1	50	4.34	4.24	4.14
	1	0	5.12	4.87	4.99
	50	0	4.45	4.23	4.27
QPSK	1	50	6.45	6.97	6.94
	1	0	6.98	7.76	7.68
	51	0	6.16	6.93	6.88
16QAM	1	50	6.4	7.11	7.33
	1	0	7.11	7.79	7.85
	51	0	6.32	7.23	7.31
64QAM	1	50	7.24	7.26	7.37
	1	0	8.11	7.99	7.91
	51	0	7.32	7.1	7.04
256QAM	1	50	8.41	8.16	8.23
	1	0	8.91	8.67	8.74
	51	0	8.13	7.97	7.87



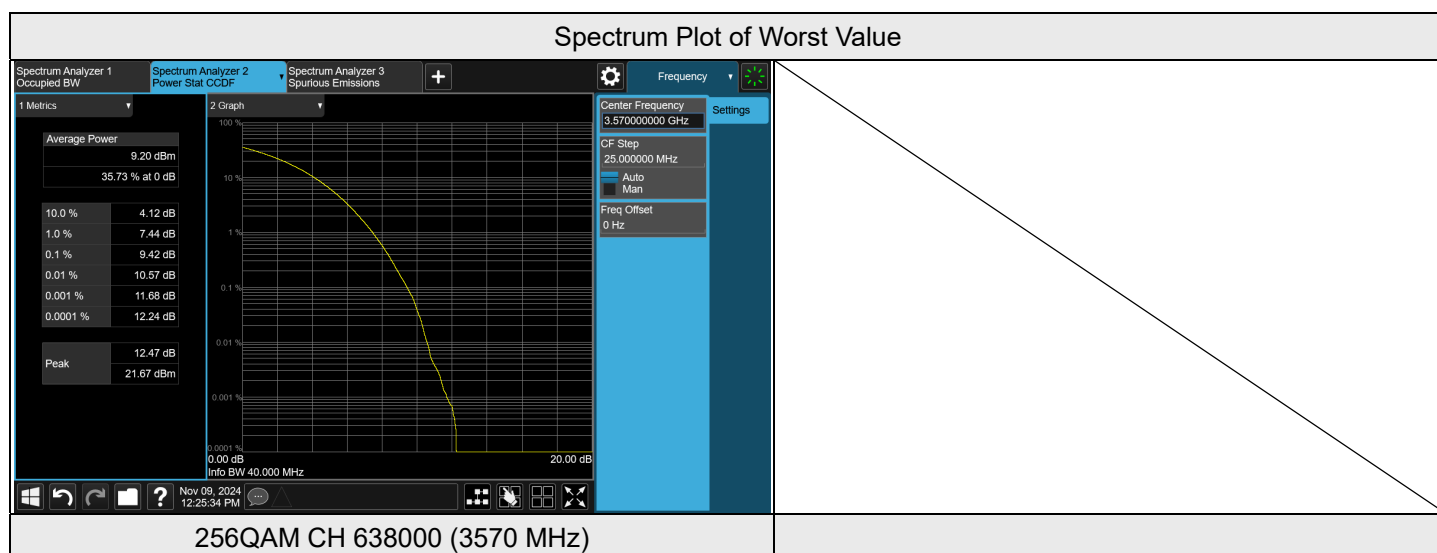
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 30 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 637668	CH 641666	CH 645666
			3565.02 MHz	3624.99 MHz	3684.99 MHz
BPSK	1	77	4.15	4.06	4.09
	1	0	4.77	4.88	4.76
	75	0	4.17	4.27	4.04
QPSK	1	77	7.93	7.22	7.36
	1	0	8.79	8.09	8.12
	78	0	7.99	7.56	7.43
16QAM	1	77	7.97	7.61	7.9
	1	0	8.69	8.29	8.4
	78	0	7.92	7.55	7.87
64QAM	1	77	7.98	7.35	7.42
	1	0	8.62	8.11	8.02
	78	0	7.92	7.29	7.42
256QAM	1	77	8.6	8.01	8.27
	1	0	9.26	8.73	8.95
	78	0	8.55	7.97	8.17



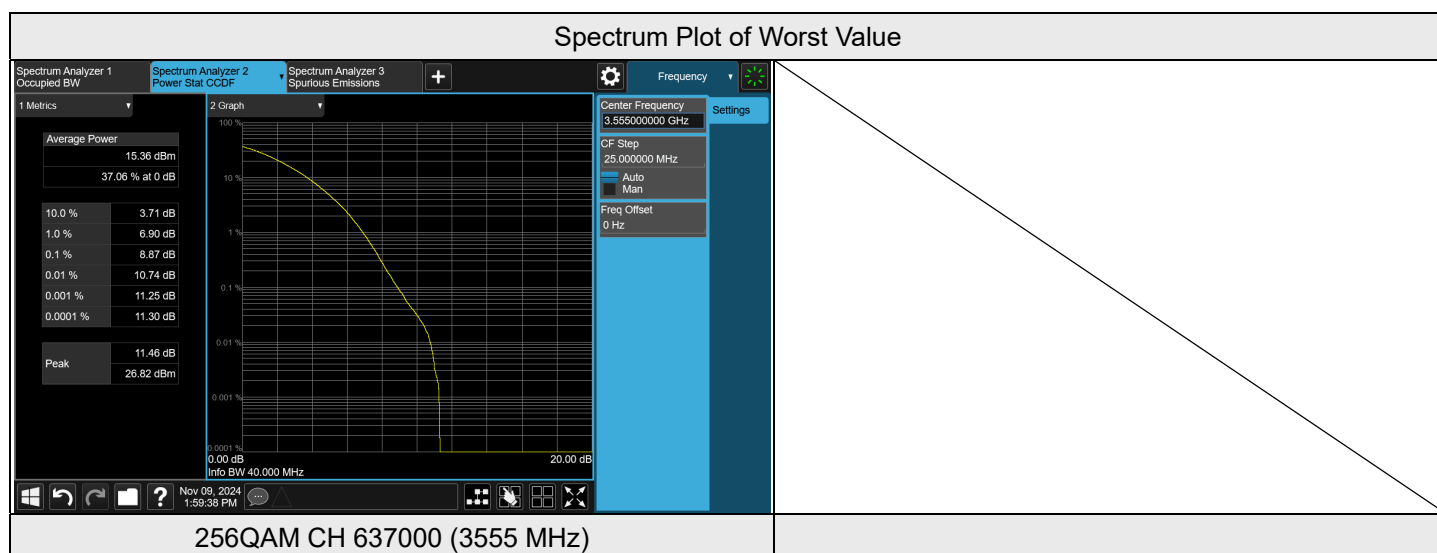
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 40 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 638000	CH 641666	CH 645332
			3570 MHz	3624.99 MHz	3679.98 MHz
BPSK	1	105	4.64	4.76	4.62
	1	0	5.35	5.36	5.31
	100	0	4.69	4.47	4.55
QPSK	1	105	8.09	7.7	7.51
	1	0	8.71	8.33	8.4
	106	0	7.9	7.64	7.77
16QAM	1	105	7.95	7.8	8
	1	0	8.77	8.38	8.61
	106	0	8.17	7.83	7.8
64QAM	1	105	8.6	8.15	8.1
	1	0	9.19	9	8.69
	106	0	8.34	8.23	8.02
256QAM	1	105	8.87	8.4	8.02
	1	0	9.42	9.27	8.83
	106	0	8.89	8.41	8.18



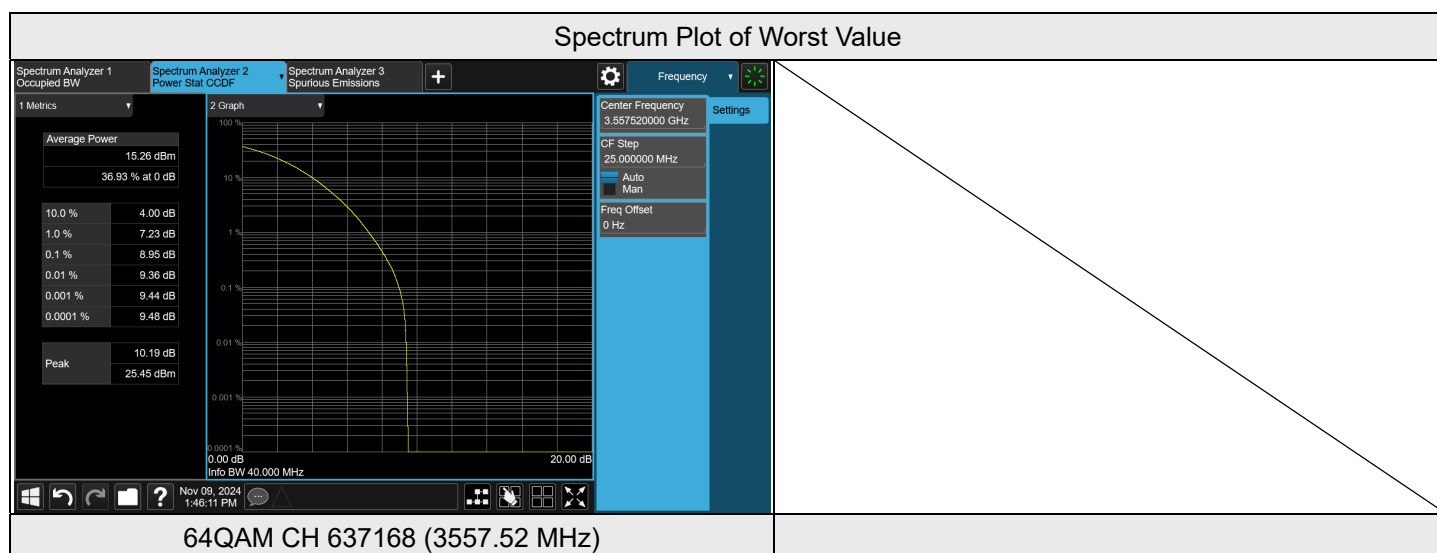
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 10 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 637000	CH 641666	CH 646332
			3555 MHz	3624.99 MHz	3694.98 MHz
BPSK	1	23	4.44	3.94	3.87
	1	0	5.01	4.72	4.67
	24	0	4.21	3.83	4.15
QPSK	1	23	7.07	7.44	7.18
	1	0	7.93	8.05	7.98
	24	0	7.21	7.5	7.28
16QAM	1	23	7.53	7.73	7.46
	1	0	8.11	8.31	8.07
	24	0	7.5	7.61	7.54
64QAM	1	23	7.91	8.15	7.76
	1	0	8.59	8.67	8.49
	24	0	7.94	7.86	7.74
256QAM	1	23	8.17	8.23	7.98
	1	0	8.87	8.8	8.73
	24	0	8.36	7.98	8.21



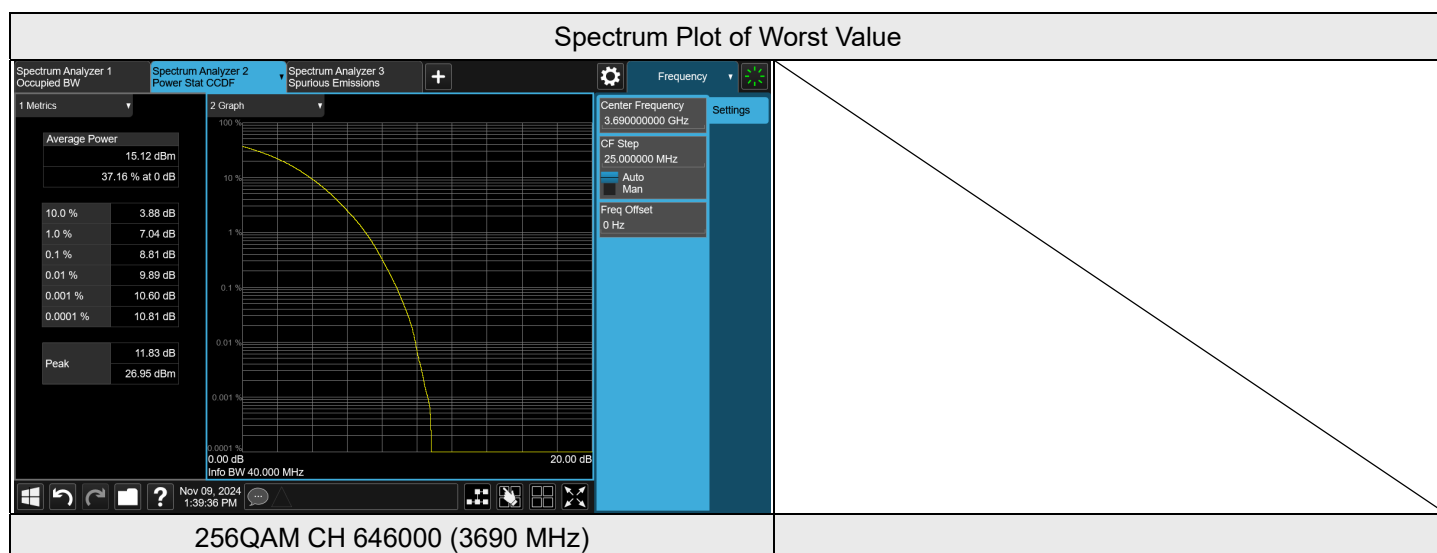
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 15 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 637168	CH 641666	CH 646166
			3557.52 MHz	3624.99 MHz	3692.49 MHz
BPSK	1	37	3.6	3.88	3.28
	1	0	4.36	4.58	4.17
	36	0	3.49	3.81	3.65
QPSK	1	37	6.96	7.33	6.89
	1	0	7.83	8.19	7.63
	38	0	7.15	7.64	6.86
16QAM	1	37	7.31	7.59	7.03
	1	0	7.84	8.26	7.73
	38	0	7.33	7.76	7.16
64QAM	1	37	8.15	7.97	7.08
	1	0	8.95	8.61	7.94
	38	0	8.4	7.85	7.25
256QAM	1	37	8.27	7.78	7.82
	1	0	8.84	8.56	8.49
	38	0	8.1	7.79	7.92



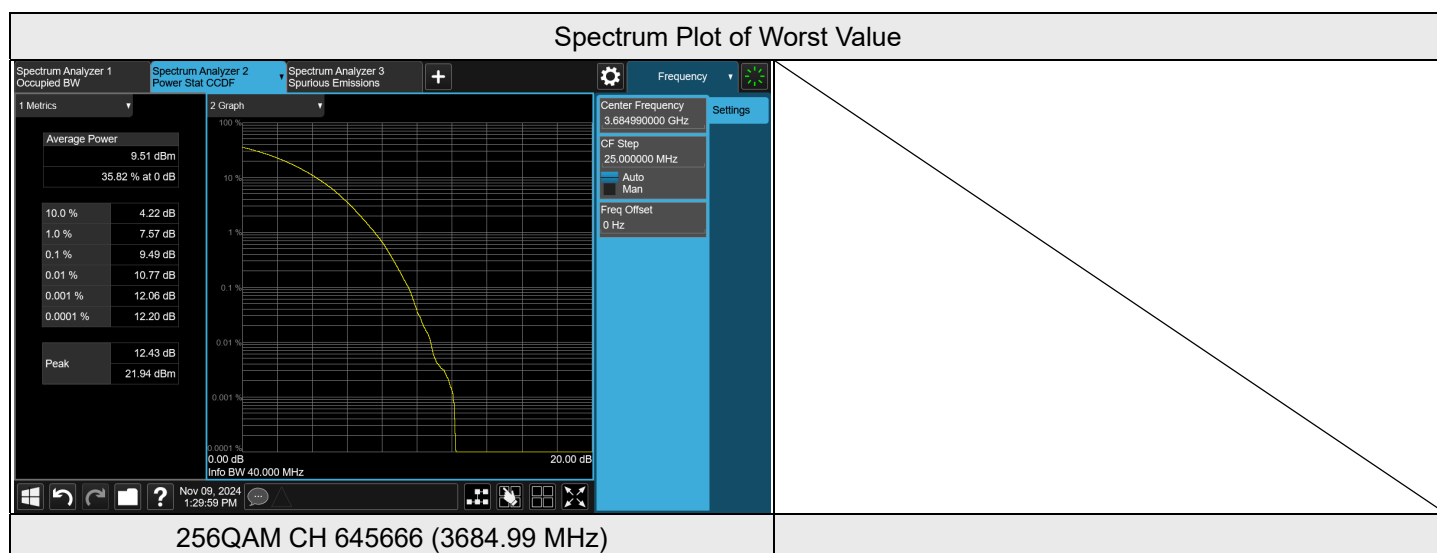
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 20 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 637334	CH 641666	CH 646000
			3560.01 MHz	3624.99 MHz	3690 MHz
BPSK	1	50	3.78	3.84	3.74
	1	0	4.58	4.47	4.24
	50	0	3.73	3.92	3.59
QPSK	1	50	6.6	7.39	6.53
	1	0	7.16	8.08	7.4
	51	0	6.33	7.24	6.87
16QAM	1	50	6.92	7.62	6.95
	1	0	7.46	8.23	7.81
	51	0	6.95	7.73	7.08
64QAM	1	50	7.74	7.77	7.9
	1	0	8.48	8.35	8.48
	51	0	7.62	7.79	7.86
256QAM	1	50	8.12	8.22	8.28
	1	0	8.69	8.74	8.81
	51	0	7.88	8.05	7.99



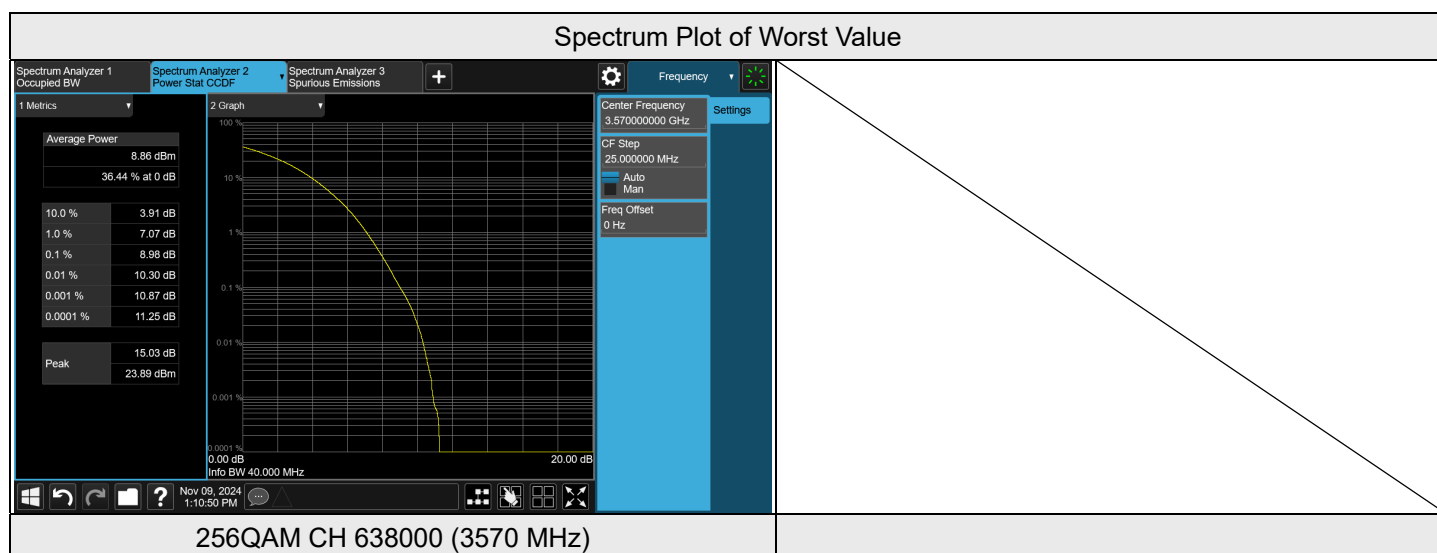
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 30 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 637668	CH 641666	CH 645666
			3565.02 MHz	3624.99 MHz	3684.99 MHz
BPSK	1	77	3.87	3.76	4.3
	1	0	4.45	4.38	5.18
	75	0	3.73	3.5	4.45
QPSK	1	77	7.2	7.36	6.85
	1	0	7.91	8.11	7.44
	78	0	7.07	7.57	6.88
16QAM	1	77	7.29	7.76	7.5
	1	0	7.95	8.27	8.27
	78	0	7.1	7.54	7.57
64QAM	1	77	7.96	7.74	7.86
	1	0	8.54	8.37	8.49
	78	0	7.76	7.81	7.97
256QAM	1	77	8.2	7.83	8.9
	1	0	8.97	8.67	9.49
	78	0	8.41	7.83	8.75



NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 40 MHz

Modulation	RB Size	RB Offset	Peak To Average Ratio (dB)		
			CH 638000	CH 641666	CH 645332
			3570 MHz	3624.99 MHz	3679.98 MHz
BPSK	1	105	4.74	4.41	4.66
	1	0	5.48	5.23	5.36
	100	0	4.71	4.59	4.47
QPSK	1	105	7.46	7.78	7.35
	1	0	8.34	8.29	8.06
	106	0	7.8	7.73	7.5
16QAM	1	105	7.59	7.6	7.71
	1	0	8.35	8.47	8.22
	106	0	7.58	7.96	7.63
64QAM	1	105	7.87	7.92	7.88
	1	0	8.51	8.57	8.49
	106	0	7.68	7.74	7.97
256QAM	1	105	8.46	8.07	8.17
	1	0	8.98	8.59	8.9
	106	0	8.24	7.9	8.15



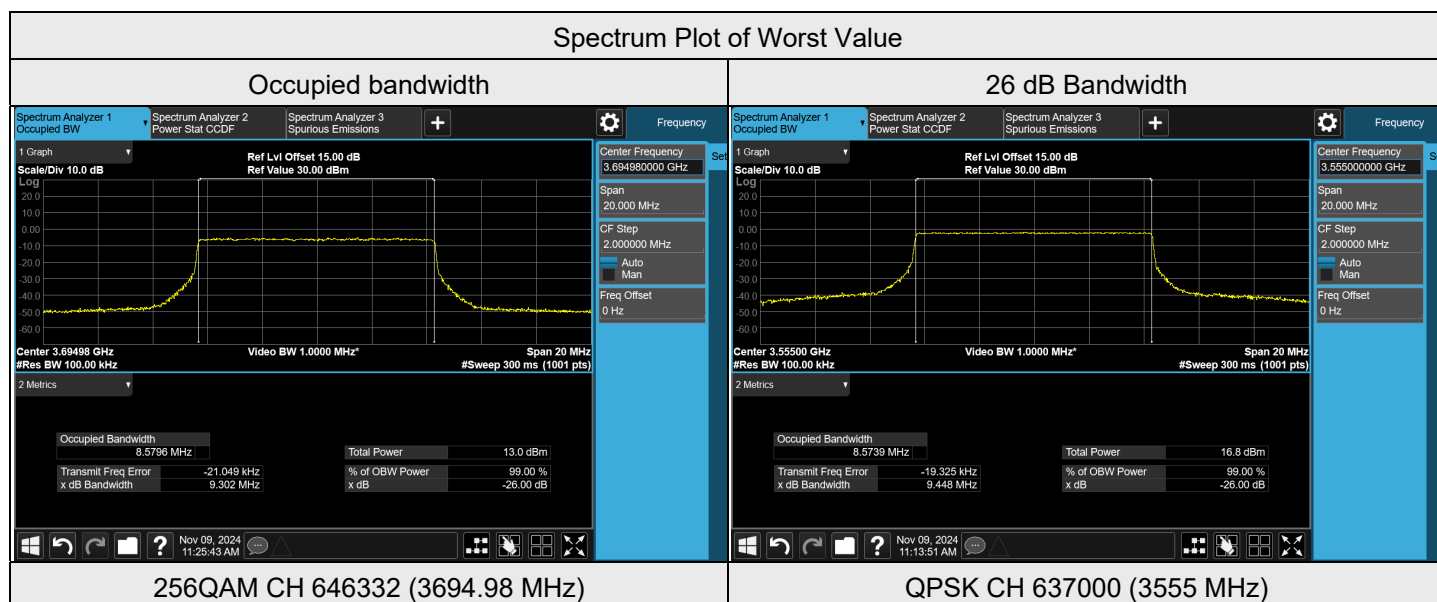
7.4 Bandwidth

Input Power:	3.8 Vdc	Environmental Conditions:	22°C, 73% RH	Tested By:	James Yang
--------------	---------	---------------------------	--------------	------------	------------

7.4.1 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 10 MHz

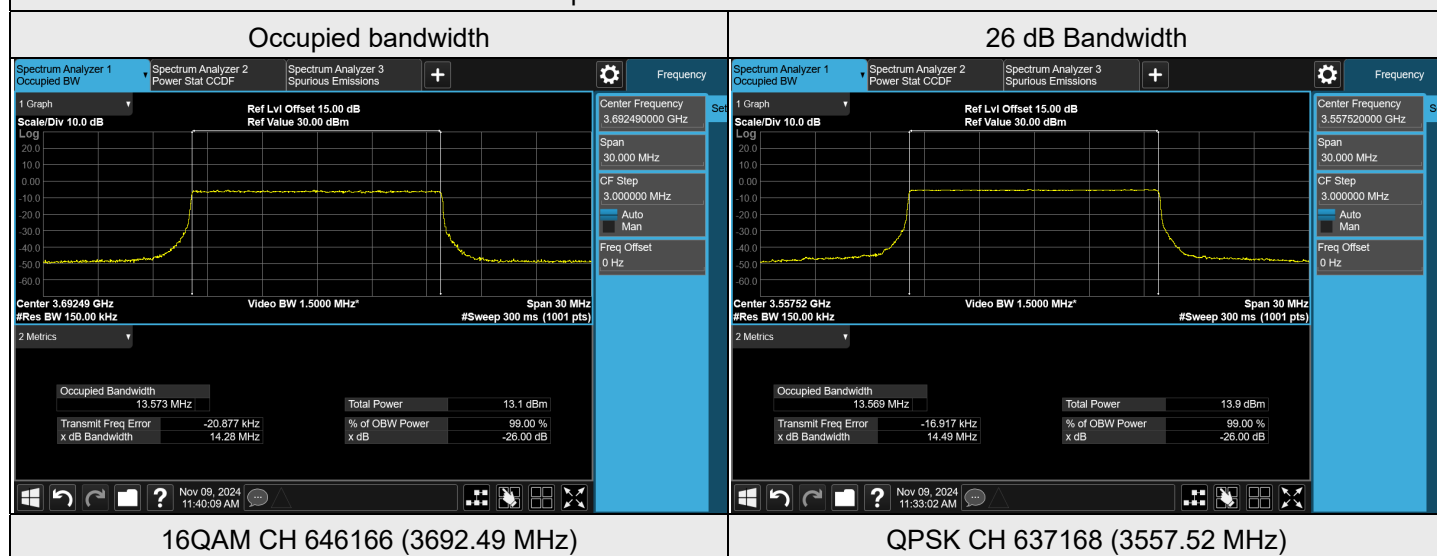
Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	637000	3555	8.5791	9.333
BPSK	641666	3624.99	8.5745	9.322
BPSK	646332	3694.98	8.5701	9.250
QPSK	637000	3555	8.5739	9.448
QPSK	641666	3624.99	8.5733	9.273
QPSK	646332	3694.98	8.5700	9.364
16QAM	637000	3555	8.5763	9.316
16QAM	641666	3624.99	8.5718	9.347
16QAM	646332	3694.98	8.5778	9.329
64QAM	637000	3555	8.5654	9.302
64QAM	641666	3624.99	8.5648	9.274
64QAM	646332	3694.98	8.5639	9.261
256QAM	637000	3555	8.5757	9.162
256QAM	641666	3624.99	8.5754	9.306
256QAM	646332	3694.98	8.5796	9.302



NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 15 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	637168	3557.52	12.852	13.59
BPSK	641666	3624.99	12.875	13.66
BPSK	646166	3692.49	12.874	13.65
QPSK	637168	3557.52	13.569	14.49
QPSK	641666	3624.99	13.566	14.31
QPSK	646166	3692.49	13.568	14.41
16QAM	637168	3557.52	13.571	14.43
16QAM	641666	3624.99	13.570	14.32
16QAM	646166	3692.49	13.573	14.28
64QAM	637168	3557.52	13.570	14.39
64QAM	641666	3624.99	13.564	14.21
64QAM	646166	3692.49	13.571	14.27
256QAM	637168	3557.52	13.566	14.31
256QAM	641666	3624.99	13.567	14.31
256QAM	646166	3692.49	13.572	14.39

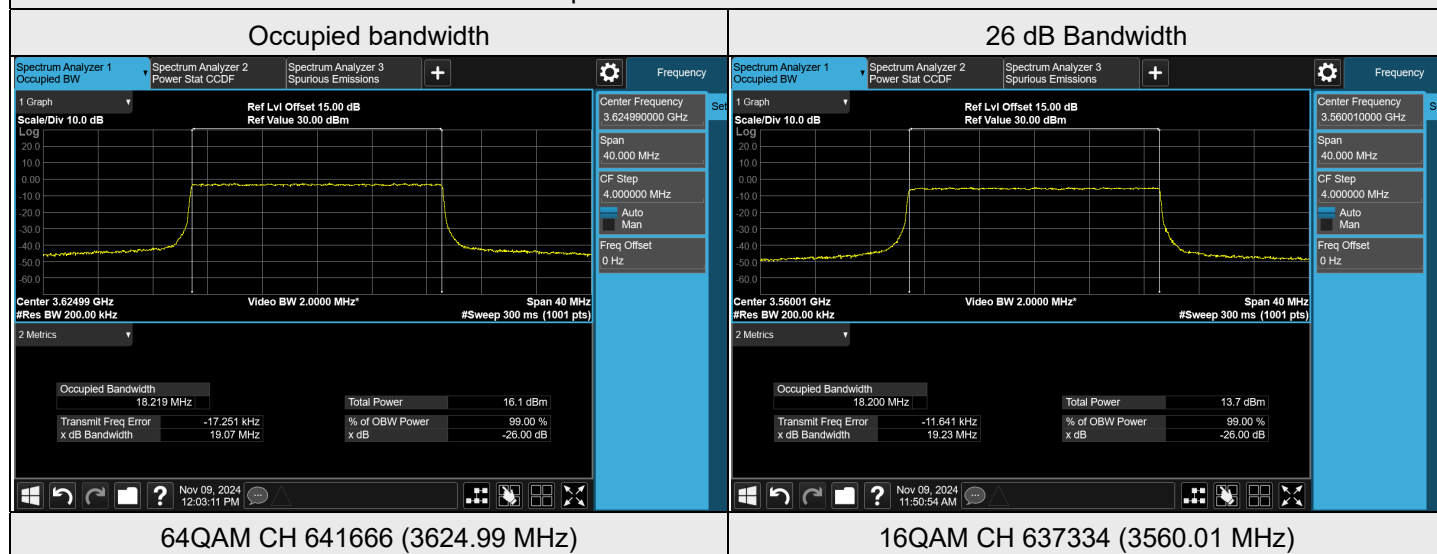
Spectrum Plot of Worst Value



NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	637334	3560.01	17.850	18.67
BPSK	641666	3624.99	17.856	18.65
BPSK	646000	3690	17.841	18.56
QPSK	637334	3560.01	18.196	19.07
QPSK	641666	3624.99	18.196	19.14
QPSK	646000	3690	18.201	19.06
16QAM	637334	3560.01	18.200	19.23
16QAM	641666	3624.99	18.196	19.08
16QAM	646000	3690	18.195	19.10
64QAM	637334	3560.01	18.210	19.08
64QAM	641666	3624.99	18.219	19.07
64QAM	646000	3690	18.213	18.98
256QAM	637334	3560.01	18.206	19.03
256QAM	641666	3624.99	18.203	19.07
256QAM	646000	3690	18.207	19.02

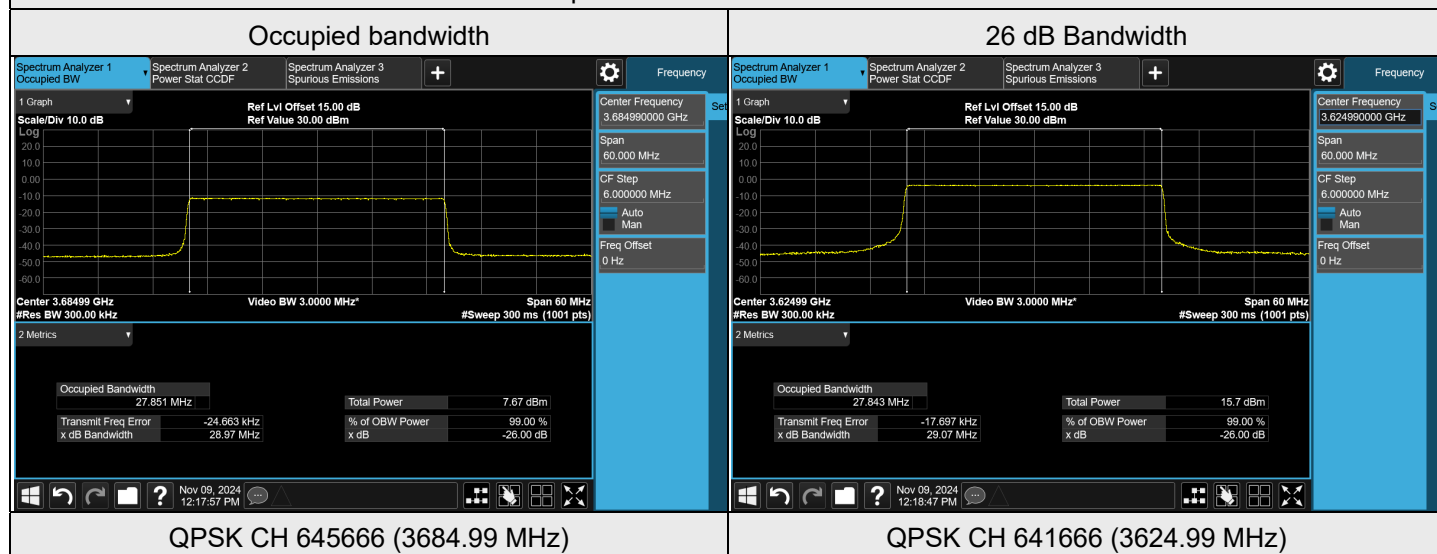
Spectrum Plot of Worst Value



NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 30 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	637668	3565.02	26.781	27.93
BPSK	641666	3624.99	26.779	27.83
BPSK	645666	3684.99	26.787	27.87
QPSK	637668	3565.02	27.842	28.96
QPSK	641666	3624.99	27.843	29.07
QPSK	645666	3684.99	27.851	28.97
16QAM	637668	3565.02	27.823	28.90
16QAM	641666	3624.99	27.798	28.94
16QAM	645666	3684.99	27.830	28.88
64QAM	637668	3565.02	27.845	28.89
64QAM	641666	3624.99	27.827	28.89
64QAM	645666	3684.99	27.837	28.90
256QAM	637668	3565.02	27.829	28.97
256QAM	641666	3624.99	27.836	28.86
256QAM	645666	3684.99	27.837	28.94

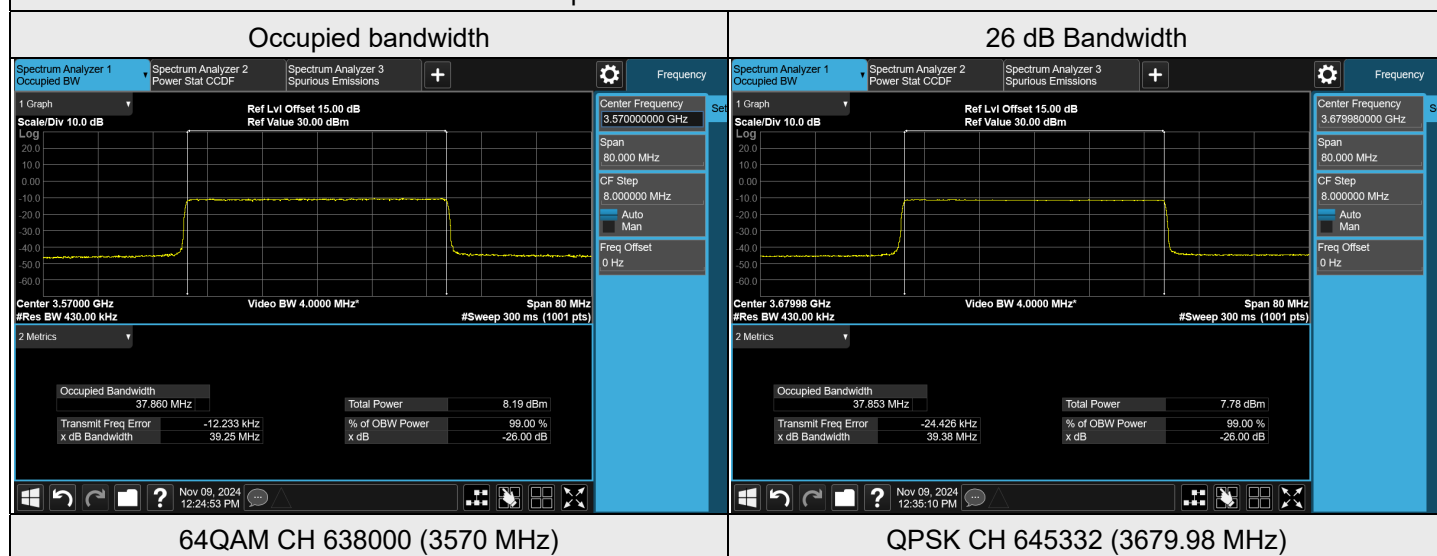
Spectrum Plot of Worst Value



NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 40 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	638000	3570	35.690	37.11
BPSK	641666	3624.99	35.685	37.11
BPSK	645332	3679.98	35.670	37.11
QPSK	638000	3570	37.837	39.28
QPSK	641666	3624.99	37.838	39.26
QPSK	645332	3679.98	37.853	39.38
16QAM	638000	3570	37.835	39.29
16QAM	641666	3624.99	37.829	39.27
16QAM	645332	3679.98	37.842	39.28
64QAM	638000	3570	37.860	39.25
64QAM	641666	3624.99	37.841	39.24
64QAM	645332	3679.98	37.857	39.26
256QAM	638000	3570	37.837	39.21
256QAM	641666	3624.99	37.822	39.22
256QAM	645332	3679.98	37.851	39.26

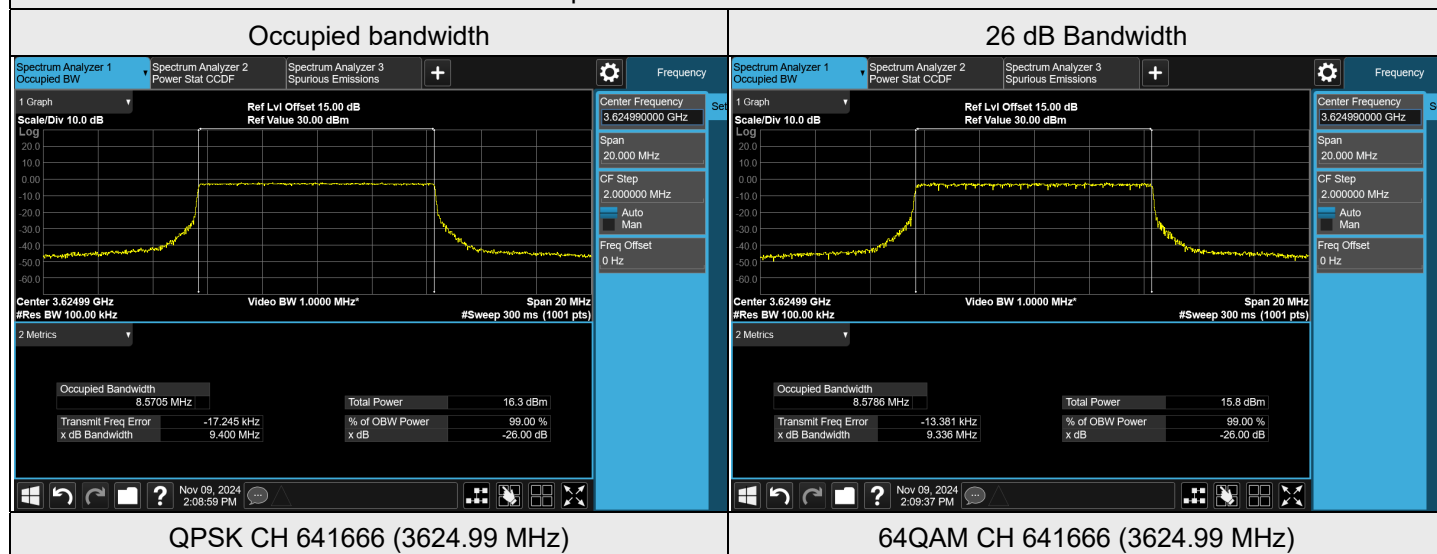
Spectrum Plot of Worst Value



NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 10 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	637000	3555	8.5683	9.195
BPSK	641666	3624.99	8.5730	9.172
BPSK	646332	3694.98	8.5658	9.241
QPSK	637000	3555	8.5706	9.356
QPSK	641666	3624.99	8.5705	9.400
QPSK	646332	3694.98	8.5724	9.282
16QAM	637000	3555	8.5765	9.294
16QAM	641666	3624.99	8.5673	9.291
16QAM	646332	3694.98	8.5707	9.296
64QAM	637000	3555	8.5773	9.391
64QAM	641666	3624.99	8.5786	9.336
64QAM	646332	3694.98	8.5740	9.394
256QAM	637000	3555	8.5583	9.294
256QAM	641666	3624.99	8.5573	9.244
256QAM	646332	3694.98	8.5594	9.194

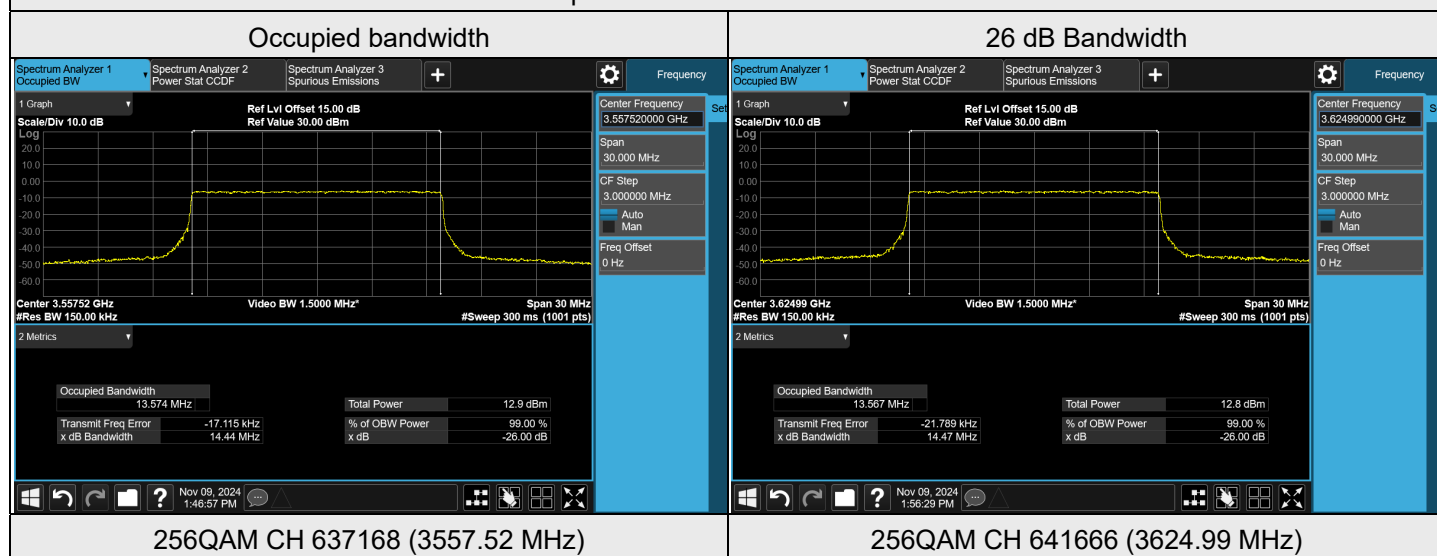
Spectrum Plot of Worst Value



NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 15 MHz

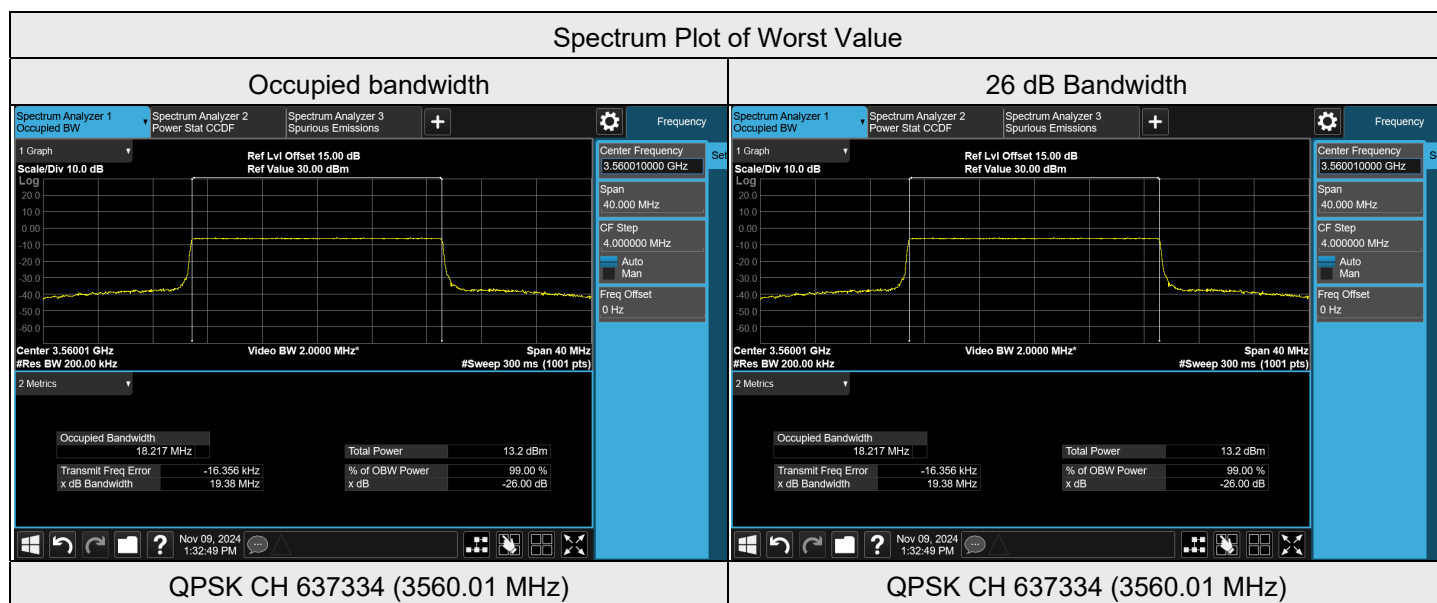
Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	637168	3557.52	12.858	13.58
BPSK	641666	3624.99	12.855	13.54
BPSK	646166	3692.49	12.847	13.54
QPSK	637168	3557.52	13.565	14.38
QPSK	641666	3624.99	13.567	14.46
QPSK	646166	3692.49	13.566	14.42
16QAM	637168	3557.52	13.574	14.46
16QAM	641666	3624.99	13.571	14.47
16QAM	646166	3692.49	13.570	14.38
64QAM	637168	3557.52	13.560	14.25
64QAM	641666	3624.99	13.564	14.32
64QAM	646166	3692.49	13.568	14.46
256QAM	637168	3557.52	13.574	14.44
256QAM	641666	3624.99	13.567	14.47
256QAM	646166	3692.49	13.570	14.45

Spectrum Plot of Worst Value



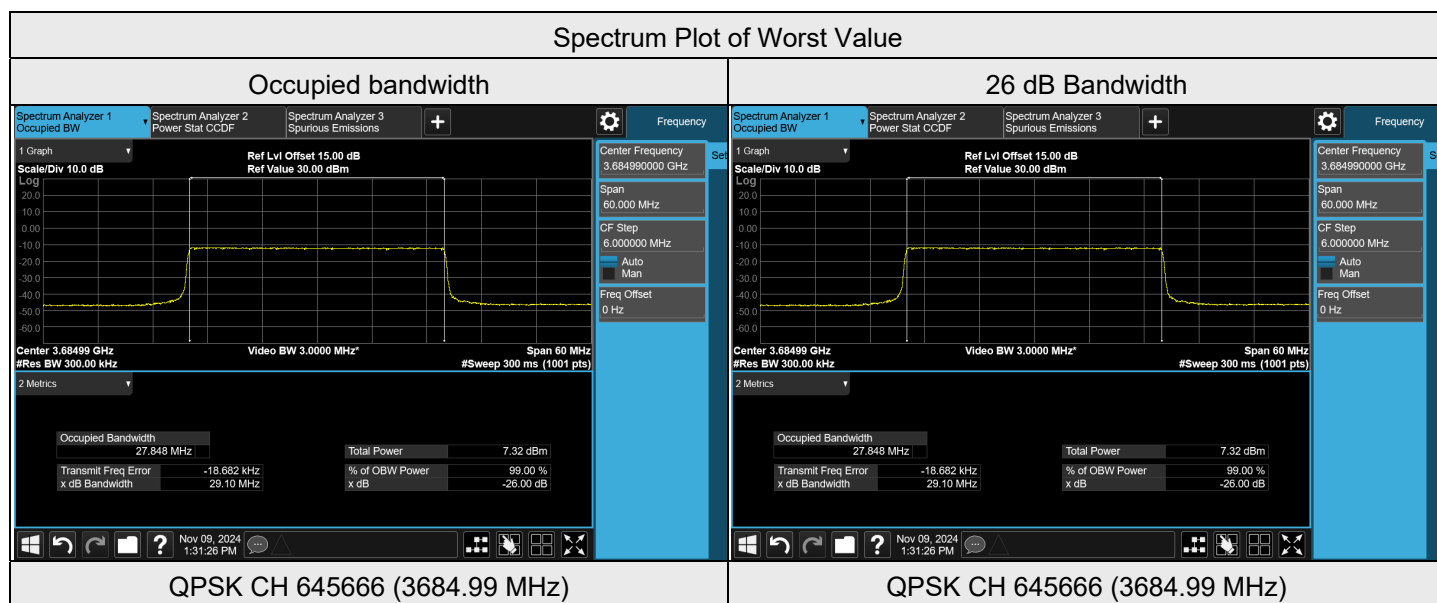
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 20 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	637334	3560.01	17.842	18.61
BPSK	641666	3624.99	17.830	18.61
BPSK	646000	3690	17.837	18.59
QPSK	637334	3560.01	18.217	19.38
QPSK	641666	3624.99	18.203	19.26
QPSK	646000	3690	18.202	19.13
16QAM	637334	3560.01	18.211	19.10
16QAM	641666	3624.99	18.197	19.09
16QAM	646000	3690	18.207	19.13
64QAM	637334	3560.01	18.193	19.02
64QAM	641666	3624.99	18.193	18.99
64QAM	646000	3690	18.201	18.97
256QAM	637334	3560.01	18.204	19.00
256QAM	641666	3624.99	18.207	19.01
256QAM	646000	3690	18.205	18.95



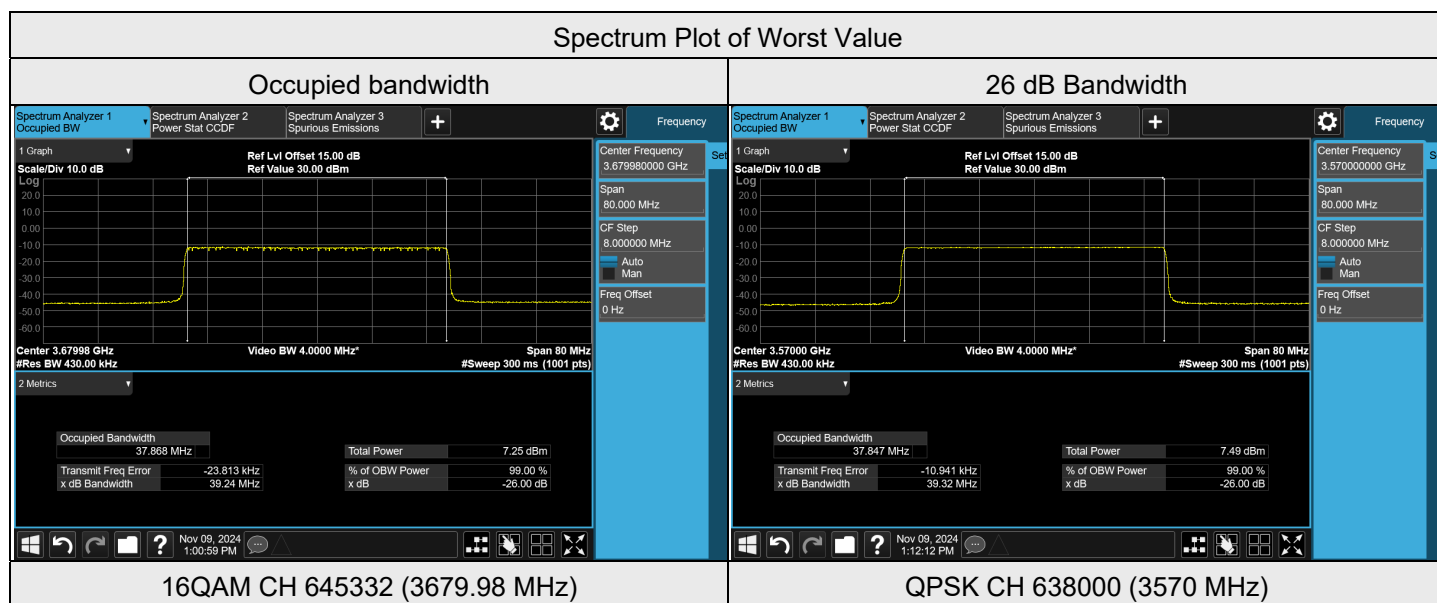
NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 30 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	637668	3565.02	26.763	27.80
BPSK	641666	3624.99	26.764	27.85
BPSK	645666	3684.99	26.743	27.83
QPSK	637668	3565.02	27.841	28.99
QPSK	641666	3624.99	27.838	29.01
QPSK	645666	3684.99	27.848	29.10
16QAM	637668	3565.02	27.834	28.91
16QAM	641666	3624.99	27.834	28.90
16QAM	645666	3684.99	27.833	28.94
64QAM	637668	3565.02	27.824	28.91
64QAM	641666	3624.99	27.830	28.89
64QAM	645666	3684.99	27.830	28.94
256QAM	637668	3565.02	27.827	28.88
256QAM	641666	3624.99	27.828	28.91
256QAM	645666	3684.99	27.833	28.93



NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 3, Channel Bandwidth: 40 MHz

Modulation	Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
BPSK	638000	3570	35.652	37.06
BPSK	641666	3624.99	35.671	37.08
BPSK	645332	3679.98	35.680	37.08
QPSK	638000	3570	37.847	39.32
QPSK	641666	3624.99	37.839	39.32
QPSK	645332	3679.98	37.846	39.31
16QAM	638000	3570	37.841	39.20
16QAM	641666	3624.99	37.827	39.26
16QAM	645332	3679.98	37.868	39.24
64QAM	638000	3570	37.830	39.26
64QAM	641666	3624.99	37.822	39.29
64QAM	645332	3679.98	37.844	39.28
256QAM	638000	3570	37.819	39.22
256QAM	641666	3624.99	37.819	39.28
256QAM	645332	3679.98	37.853	39.25

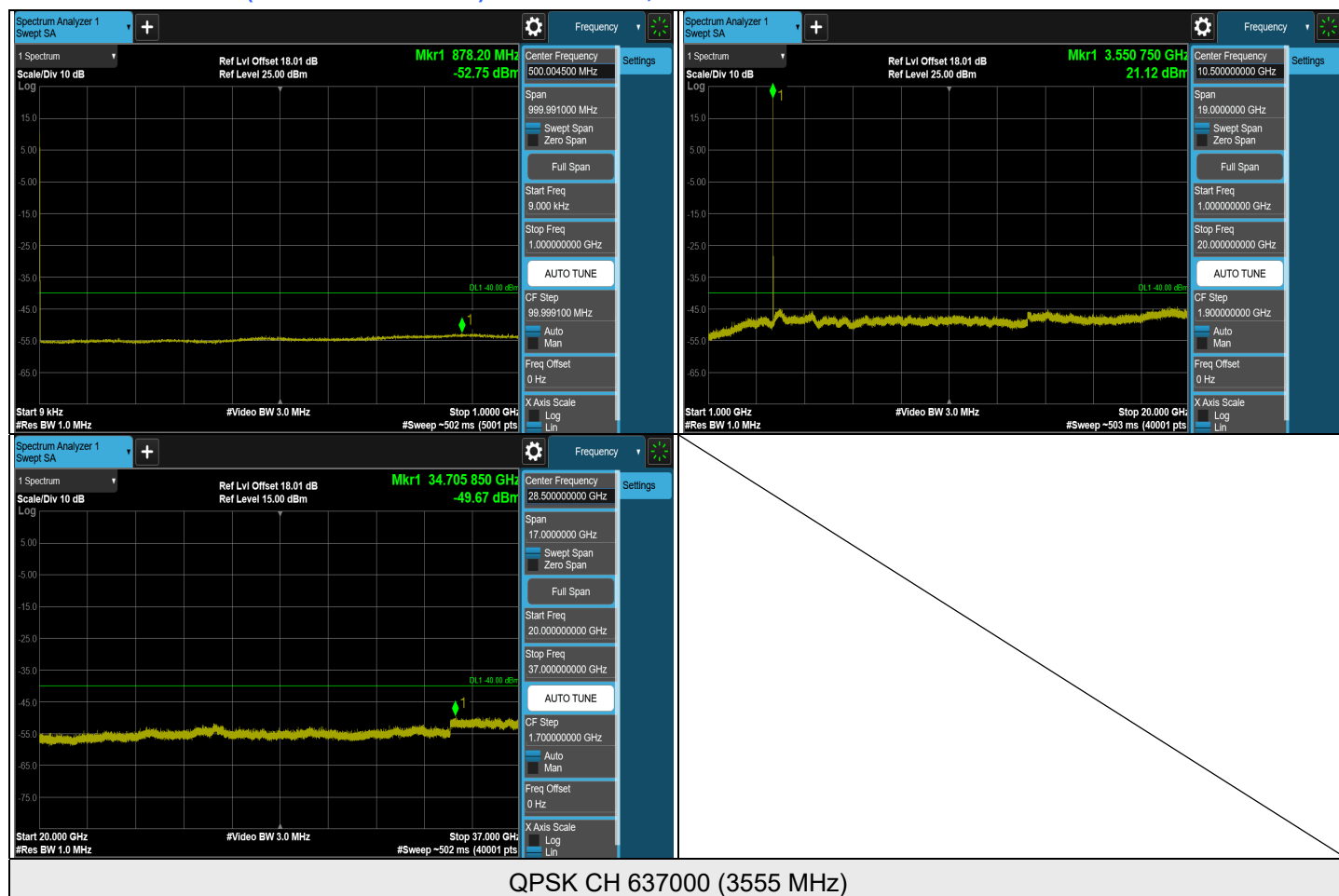


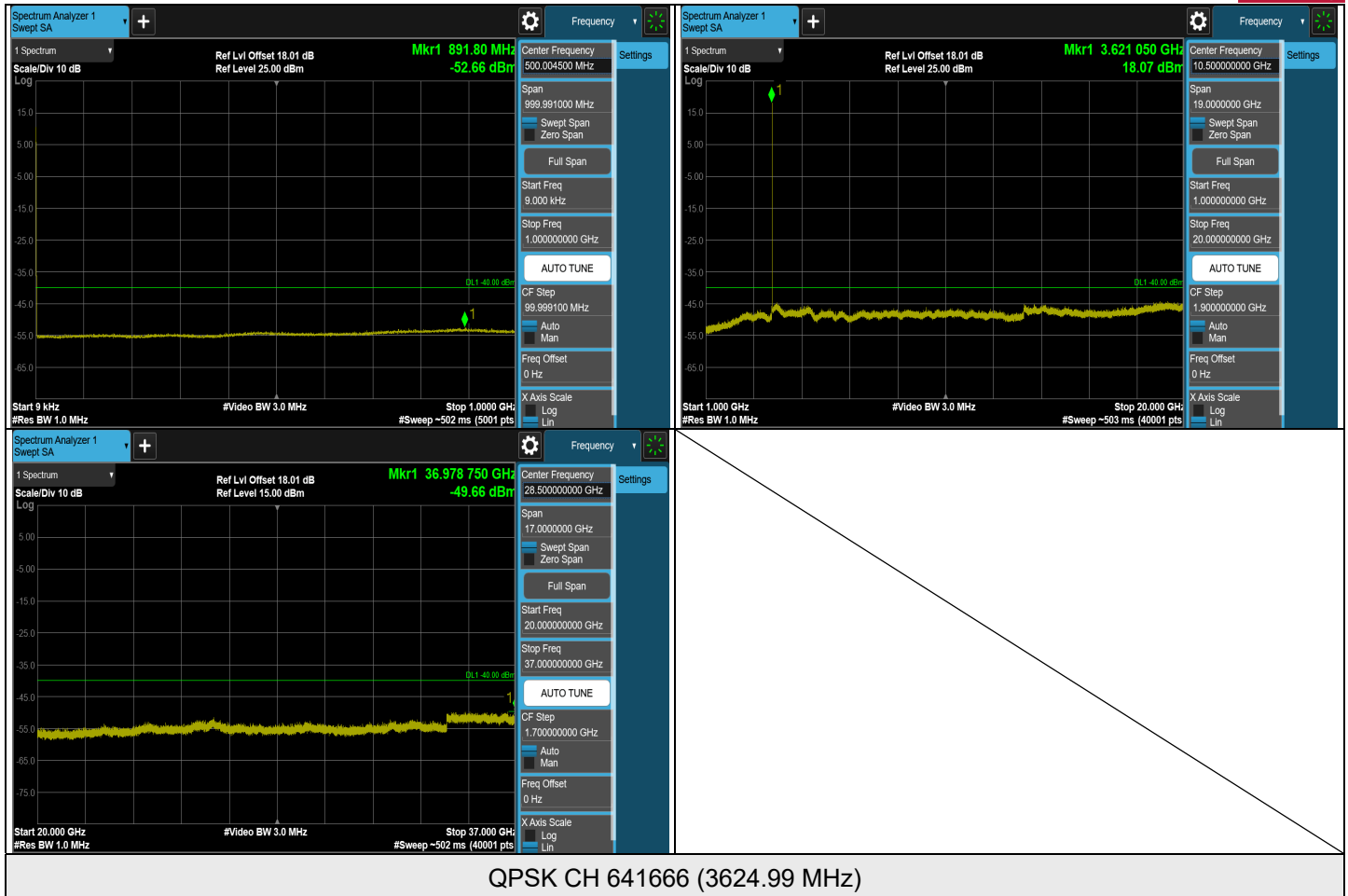
7.5 Conducted Spurious Emissions

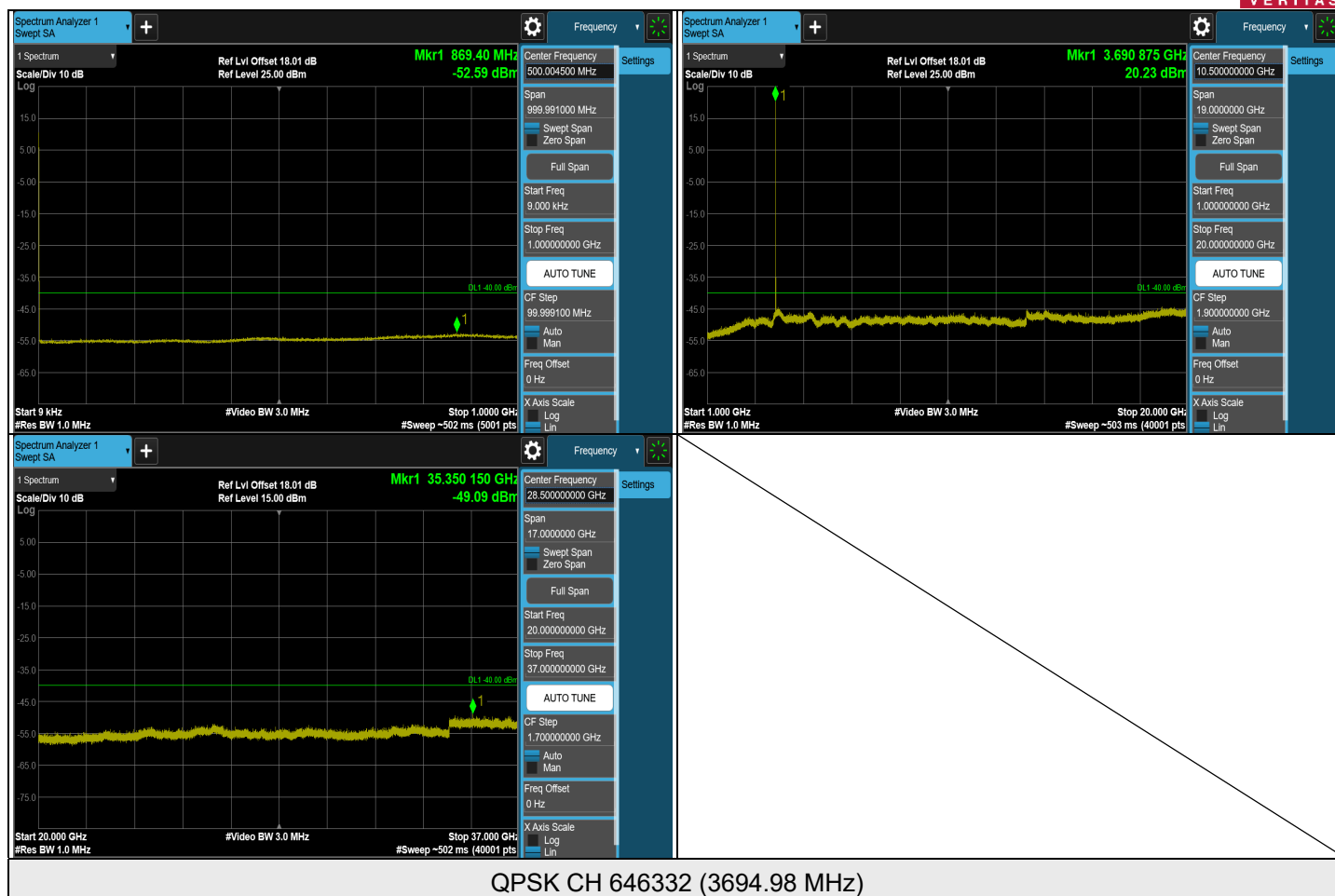
Input Power:	3.8 Vdc	Environmental Conditions:	21°C, 75% RH	Tested By:	James Yang
--------------	---------	---------------------------	--------------	------------	------------

7.5.1 NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz)

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 10 MHz



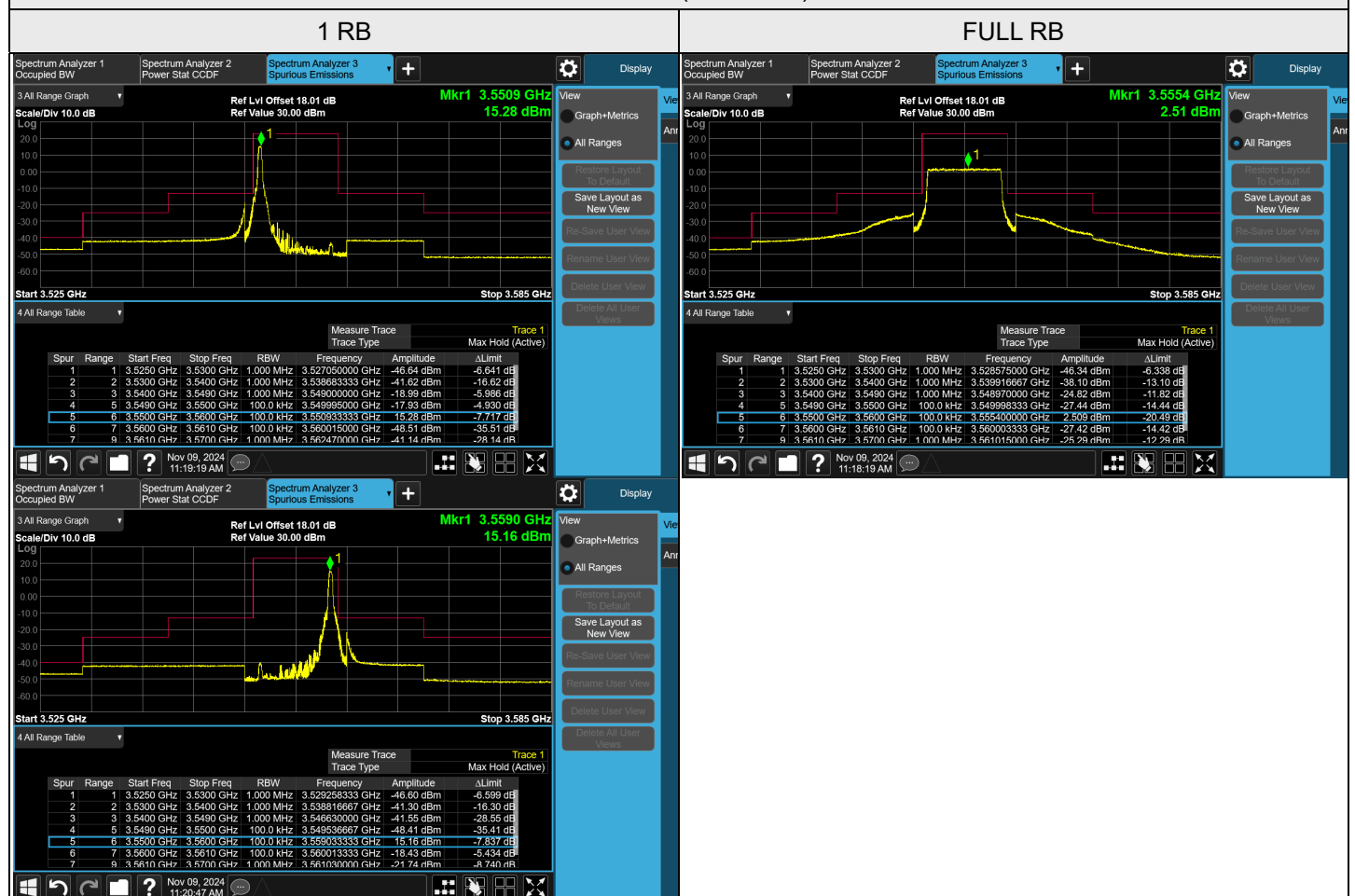




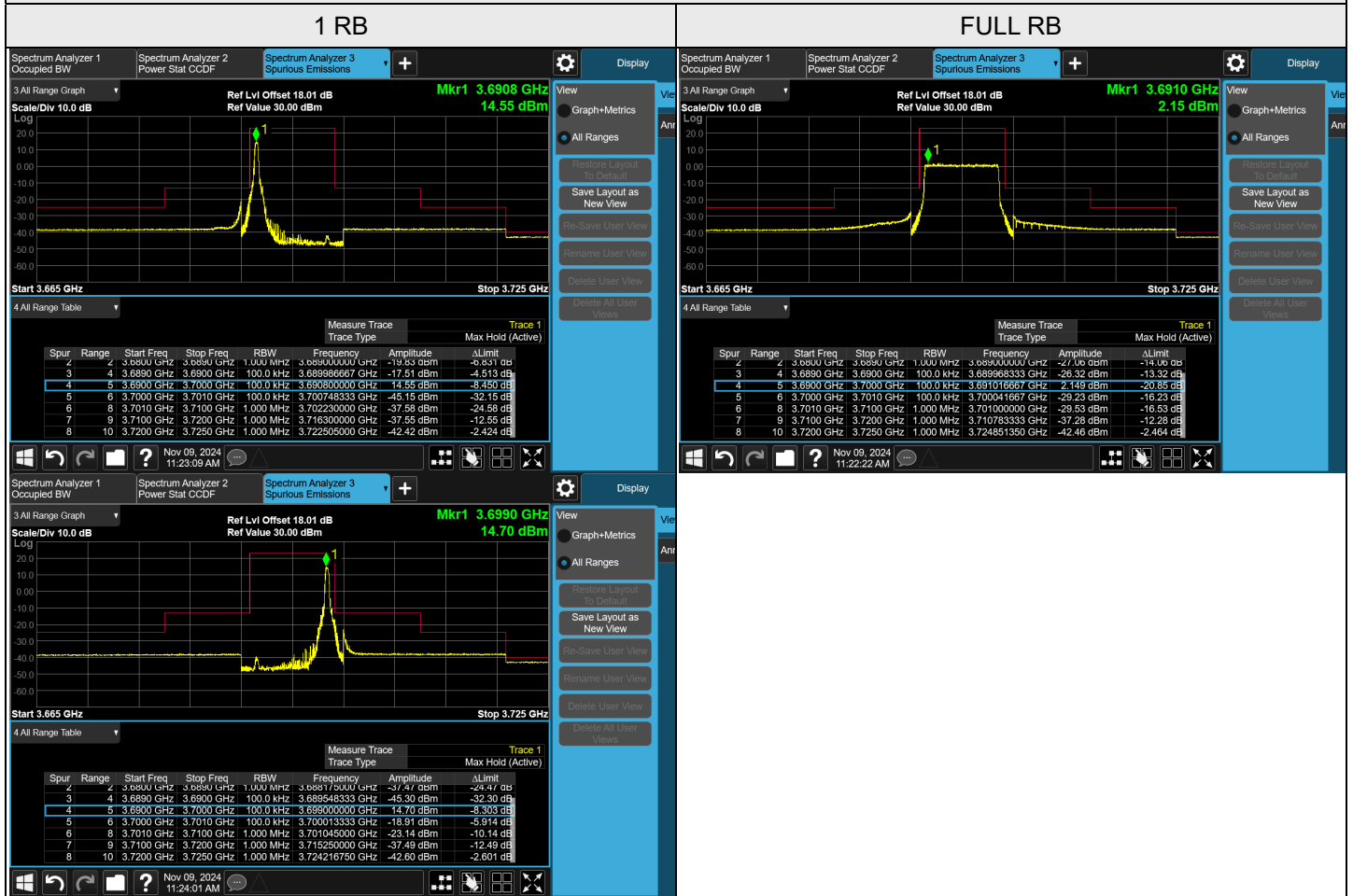
Note: The signal at 9 kHz is IF signal from spectrum analyzer.

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 10 MHz

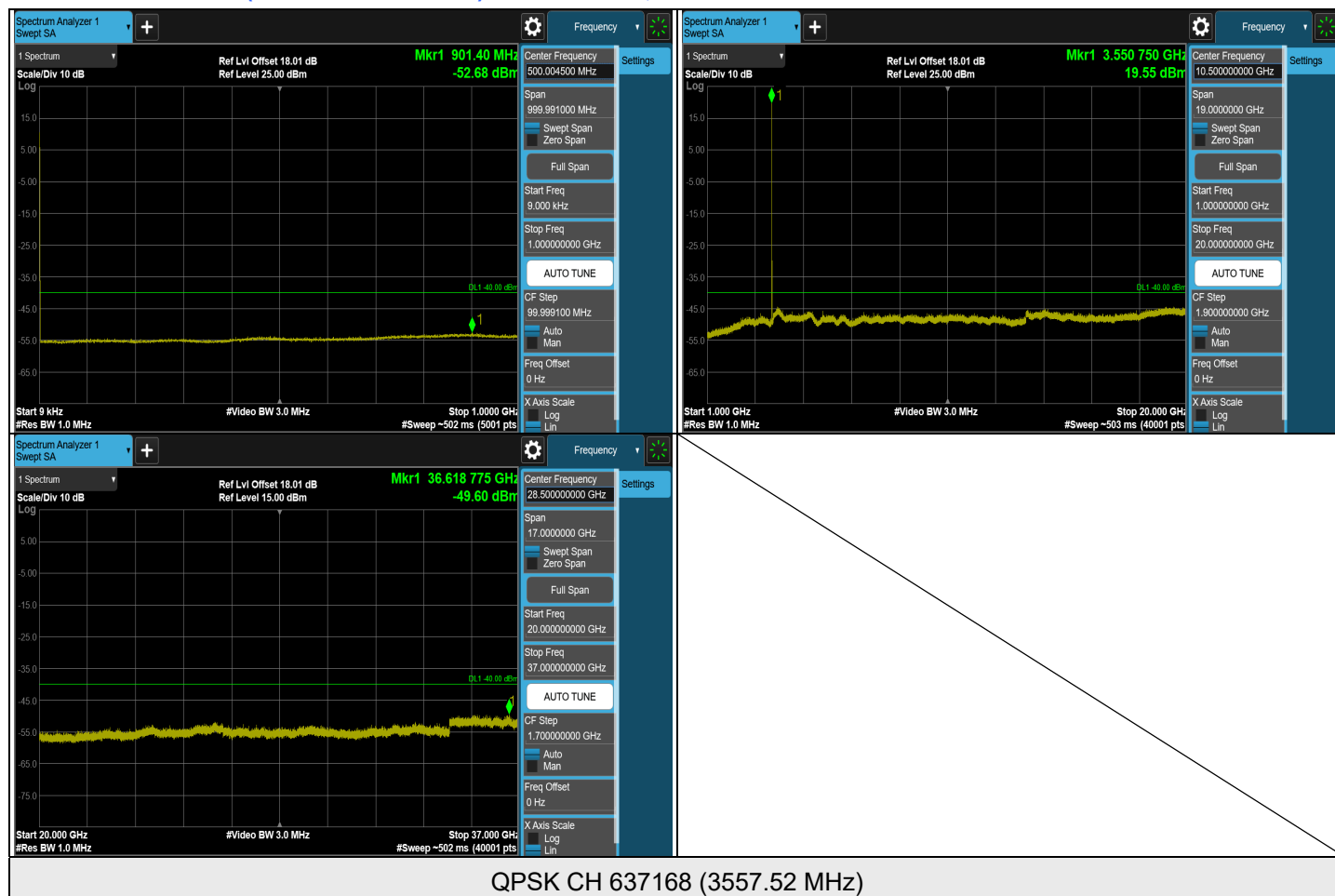
CH 637000 (3555 MHz)

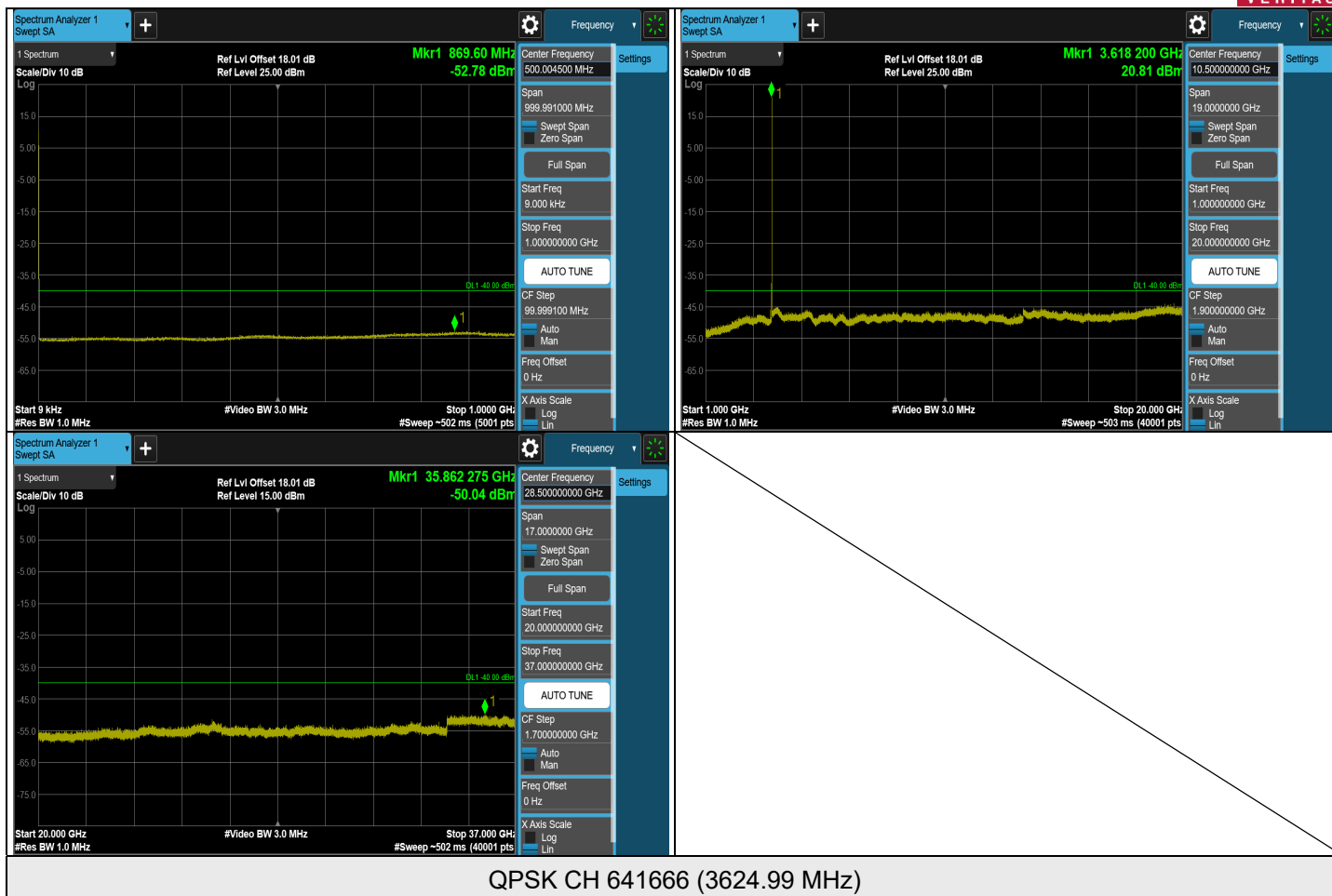


CH 646332 (3694.98 MHz)

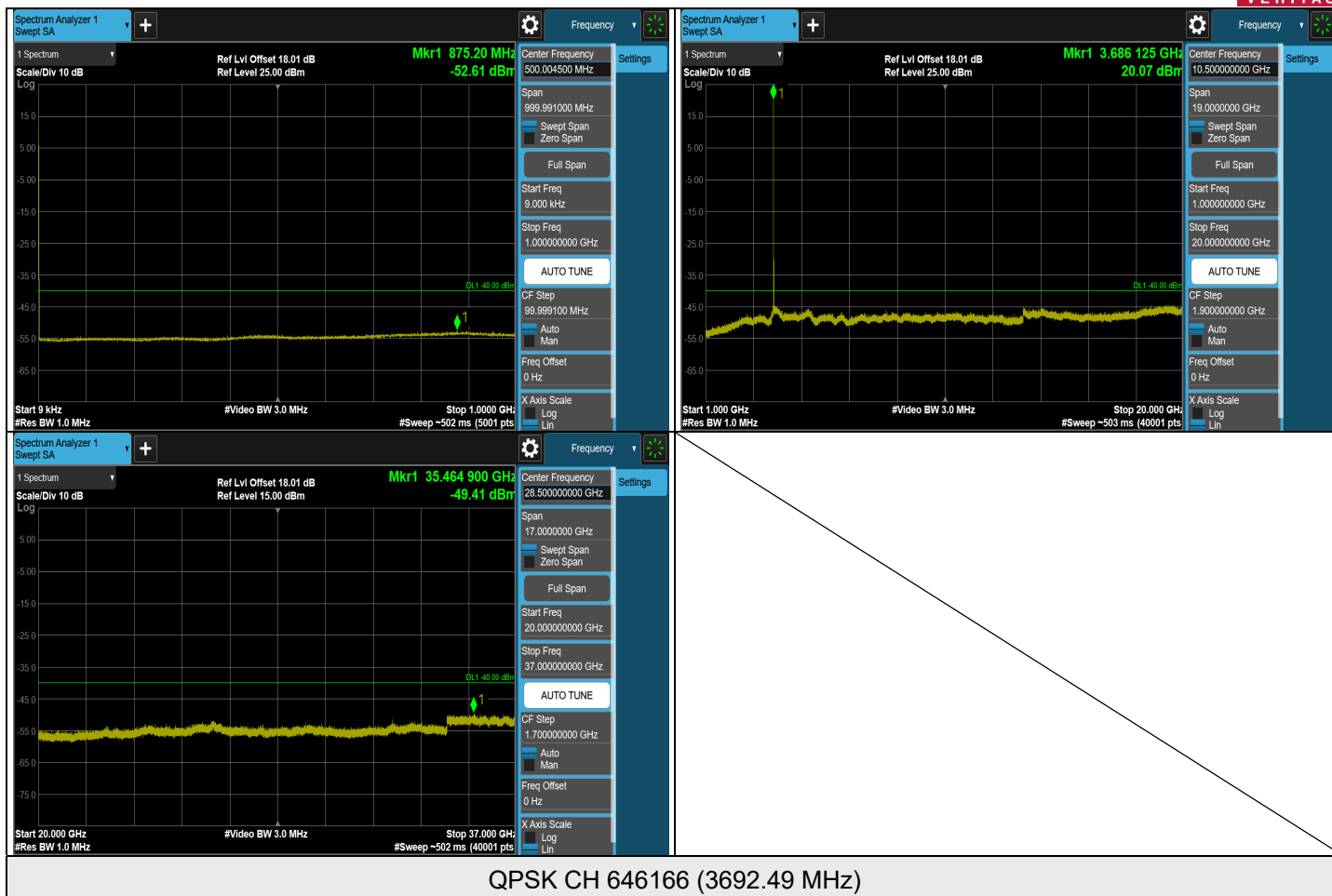


NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 15 MHz





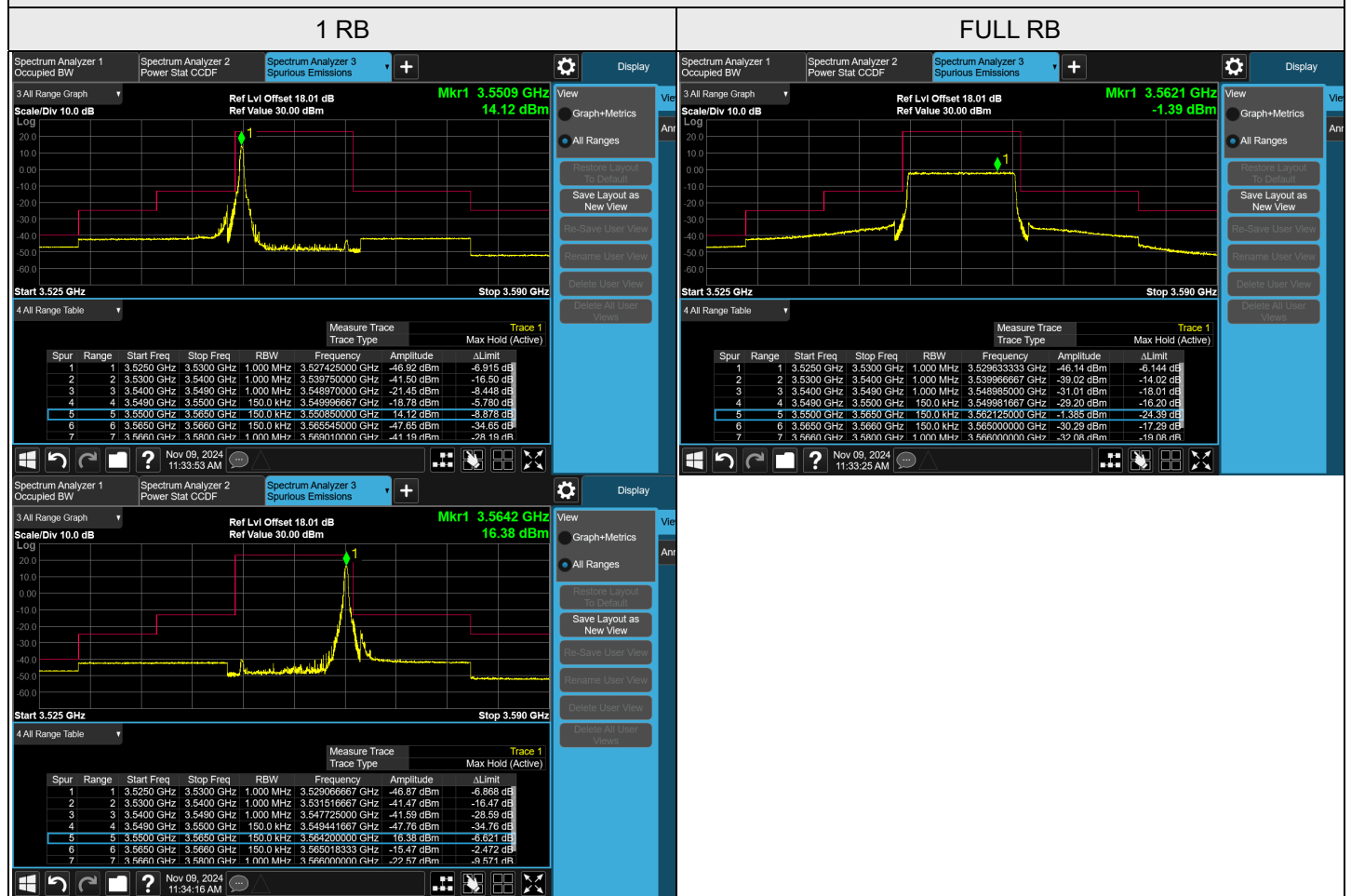
QPSK CH 641666 (3624.99 MHz)



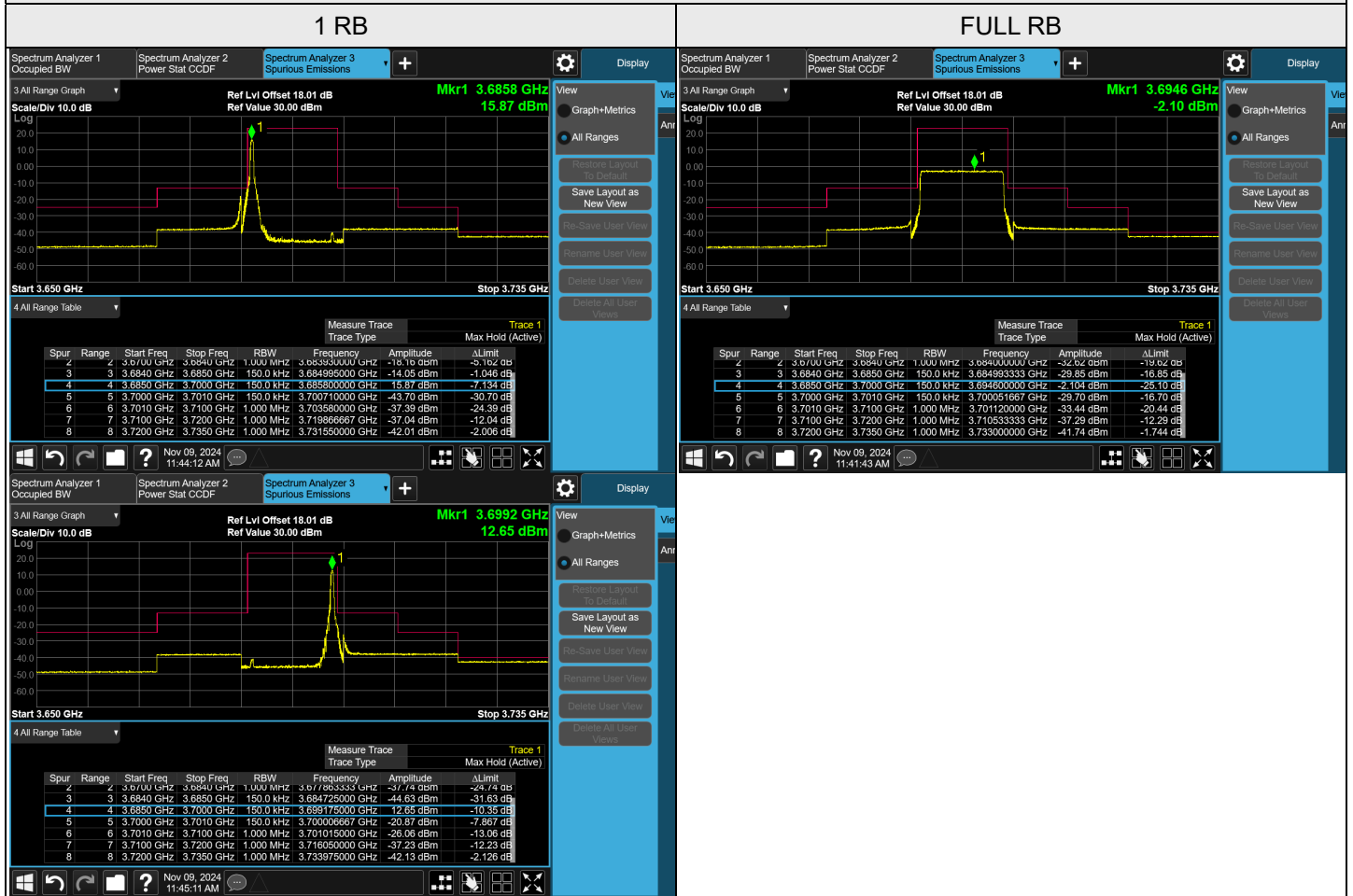
Note: The signal at 9 kHz is IF signal from spectrum analyzer.

NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 15 MHz

CH 637168 (3557.52 MHz)



CH 646166 (3692.49 MHz)



NR n48 SCS 30 kHz (3.55 GHz ~ 3.7 GHz) - MIMO-Ant 0, Channel Bandwidth: 20 MHz

