Sverige

Accred. no. 10363
Testing
ISO/IEC 17025

Report On

FCC Testing of the Ericsson AIR 6449 B77D NR, KRD 901 206/2 (3700-3980 MHz) Base Station in accordance with FCC CFR 47 Part 2 and FCC CFR 47 Part 27

COMMERCIAL-IN-CONFIDENCE

FCC: TA8BKRD901206

PREPARED BY	APPROVED BY	DATED
Maggie Whiting Key Account Manager	Steve Scarfe Authorised Signatory	08 June 2021

Document 75952122 Report 01 Issue 3 **June 2021**

CONTENTS

Section **Page No**

SECTION 1

REPORT INFORMATION

1.1 REPORT DETAILS

Manufacturer	Ericsson
Address	Torshamnsgatan 23 Kista SE-16480 Stockholm Sweden
Product Name & Product Number	AIR 6449 B77D & KRD 901 206/2
Serial Number(s)	E23C810762
Software Version	CXP 203 00039/1 R50C22
Hardware Version	R1F
Non-Tested Variant (See Section 1.10 Additional Information)	KRD 901 206/21 KRD 901 206/1 KRD 901 206/11
Test Specification/Issue/Date	FCC CFR 47 Part 2: 2019 FCC CFR 47 Part 27: 2019
Test Plan	2_12022-HRB 105 601-249 Uen AIR 6449 B77D PRA3 FCC Test Plan V1.8
Start of Test	26 April 2021
Finish of Test	04 June 2021
Name of Engineer(s)	Raj Kumar Kallem
Related Document(s)	KDB 971168 D01 v02r02 KDB 662911 D01 v02r01

This Report has been up issued to Issue 3 and should be read in place of Issue 2. This Report has been up issued to correct the Rule Parts used in Sections 2.3 and 2.4.

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate compliance with FCC Part 2 and FCC Part 27 The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);

K. Rajkumar

Raj Kumar Kallem

1.2 BRIEF SUMMARY OF RESULTS

A brief summary of results for each configuration, in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 27 is shown below.

Section	Specification Clause		Test Description	Result
	FCC CFR 47 Part 2	FCC CFR 47 Part 27		
2.1	2.1046	27.50	Maximum Peak Output Power and Peak to Average Ratio - Conducted	Pass
2.2	2.1049	27.53	Occupied Bandwidth	Pass
2.3	2.1051	27.53 (l)	Band Edge	Pass
2.4	2.1051	27.53 (l)	Transmitter Spurious Emissions	Pass
2.5	2.1055	27.54	Frequency Stability	Pass
2.6	2.1053	27.53	Radiated Spurious Emissions	Pass*

* - Testing for Radiated Spurious Emissions are recorded in the following reports

- FCC Part 15B – TUV SUD Test Report reference Document 75950239-03 Issue 3
- FCC Part 27 – Intertek Test Report reference 2104082STO-001

1.3 CONFIGURATION DESCRIPTION

Configuration	No. Of carriers	Power per Port (dBm)	Carrier Bandwidth	Carrier Frequency Configuration (MHz)		
				Bottom	Middle	Top
1 Rural 8W/MHz	1	34	20 MHz- SCS 30kHz	3710.01	3840.00	3969.99
2 Rural 8W/MHz	1	37	80 MHz- SCS 30kHz	3740.01	3840.00	3939.99
3 Rural 8W/MHz	1	37	60 MHz- SCS 30kHz	3729.99	3840.00	3950.01
4 Type 1 Rural 8W/MHz	2	34	20 MHz- SCS 30kHz	3710.01+3890.01	3750.00+3930.00 (non-contiguous)	3969.99+3789.99
			40 MHz- SCS 30kHz	3720.00+3879.99	3760.02+3920.01 (non-contiguous)	3960.00+3800.01
4 Type 2-Band Edge Rural 8W/MHz			20 MHz- SCS 30kHz	3710.01+3729.99	n/a	3969.99+3950.01
			40 MHz- SCS 30kHz	3720.00+3759.99	n/a	3960.00+3920.01
4 Type 3-OBW Rural 8W/MHz			20 MHz- SCS 30kHz	n/a	3830.01+3849.99	n/a
			40 MHz- SCS 30kHz	n/a	3819.99+3860.01	n/a
5 Type 1 Non-Rural 4W/MHz	1	31	20 MHz- SCS 30kHz	3710.01	3840.00	3969.99
		34	40 MHz- SCS 30kHz	3720.00	3840.00	3960.00
		36	60 MHz- SCS 30kHz	3729.99	3840.00	3950.01
		37	80 MHz- SCS 30kHz	3740.01	3840.00	3939.99
		37	100 MHz- SCS 30kHz	3750.00	3840.00	3930
5 Type 2- Band Edge Non-Rural 4W/MHz	1	37	80 MHz- SCS 30kHz	3740.01	n/a	3939.99
			100 MHz- SCS 30kHz	3750.00	n/a	3930.00
5 Type 3-OBW Non-Rural 4W/MHz	1	37	80 MHz- SCS 30kHz	n/a	3800.01	n/a
			100 MHz- SCS 30kHz	n/a	3790.02	n/a
6 Type 1 Non-Rural 4W/MHz	2	28	20 MHz- SCS 30kHz	-	3750.00+3930.00 (non-contiguous)	-
		31	40 MHz- SCS 30kHz	-	3760.02+3920.01 (non-contiguous)	-
		37	60 MHz- SCS 30kHz	3730.02+3870.00	3770.01+3909.99 (non-contiguous)	3949.98+3810
			80 MHz- SCS 30kHz	3740.01+3860.01	3780.00+3900.00 (non-contiguous)	3939.99+3819.99
			100 MHz- SCS 30kHz	3750.00+3849.99	3790.02+3890.01	3930.00+3830.01
6 Type 2 - Band Edge Non-Rural 4W/MHz			60 MHz- SCS 30kHz	3729.99+3789.99	-	3950.00+3890.01
			80 MHz- SCS 30kHz	3740.01+3819.99	-	3939.99+3860.01
			100 MHz- SCS 30kHz	3750.00+3849.99	-	3930.00+3830.01
6 **T**ype 3 - OBW Non-Rural 4W/MHz			60 MHz- SCS 30kHz	n/a	3810.00+3870.00	n/a
			80 MHz- SCS 30kHz	n/a	3800.01+3879.99	n/a
			100 MHz- SCS 30kHz	n/a	3790.02+3890.01	n/a

1.4 DECLARATION OF BUILD STATUS

Technical Description: *(Please provide a brief description of the intended use of the equipment)*	Antenna Integrated Radio Unit
Manufacturer:	Ericsson AB
Model:	AIR 6449 B77D
Part Number:	KRD 901 206/2* (with un-security software and RDNB board for testing purpose) KRD 901 206/21 (with security software and RDNB board for testing purpose) KRD 901 206/1 (with un-security software and antenna) KRD 901 206/11** (with security software and antenna) Note*: Tests have been performed on this unit. Note**: This will be the marketed, sold unit.
Hardware Version:	R1F
Software Version:	CXP2020620/1, R50C22
FCC ID (if applicable)	TA8BKRD901206
IC ID (if applicable)	N/A

Intentional Radiators

<table>
<tr><td>Technology</td><td>NR</td></tr>
<tr><td>Frequency Band (MHz)</td><td>3700 to 3980 MHz</td></tr>
<tr><td>Conducted Declared Output Power</td><td>Max output power: 320W
Max output power limitation of 4W/MHz PSD (Non-rural)
Max output power limitation of 8W/MHz PSD (rural)
<table><tr><th>Carrier setup</th><th>Non- rural (4W PSD)</th><th>Rural (8W/MHz)</th></tr><tr><td>1x 100MHz</td><td>1 x 320W</td><td>1 x 320W</td></tr><tr><td>2x 100Mhz C & NC</td><td>Max total 320W</td><td>Max total 320W</td></tr><tr><td>1x 80MHz</td><td>1 x 320W</td><td>1 x 320W</td></tr><tr><td>2 x 80MHz C & NC</td><td>Max total 320W</td><td>Max total 320W</td></tr><tr><td>1 x 60 MHz*</td><td>1 x 240W</td><td>1 x 320W</td></tr><tr><td>2 x 60MHz C & NC</td><td>Max total 320W</td><td>Max total 320W</td></tr><tr><td>1 x 40 MHz*</td><td>1 x 160W</td><td>1 x 320W</td></tr><tr><td>2 x 40 MHz C*</td><td>2 x 160W</td><td>Max total 320W</td></tr><tr><td>2 x 40 MHz NC*</td><td>2 x 160W</td><td>N/A</td></tr><tr><td>1 x 20 MHz*</td><td>1 x 80W</td><td>1 x 160W</td></tr><tr><td>2 x 20 MHz C*</td><td>1 x 80W</td><td>2 x 160W</td></tr><tr><td>2 x 20 MHz NC*</td><td>2 x 80W</td><td>N/A</td></tr></table>C=contiguous, NC=Non contiguous
*Testing is performed on the highest power for these configurations.</td></tr>
<tr><td>Antenna Gain (dBi)</td><td>25.65 dBi</td></tr>
<tr><td>Supported Bandwidth(s) (MHz)</td><td>20, 40, 60, 80, 100 MHz, SCS: 30 kHz</td></tr>
<tr><td>Modulation Scheme(s)</td><td>QPSK, 16QAM, 64QAM, 256QAM</td></tr>
</table>

ITU Emission Designator	(18M3W7D) (37M9W7D) (57M8W7D) (77M9W7D) (97M4W7D) (197MW7D) Max carrier aggregation of 2x100MHz
Bottom Frequency (MHz)	3700 MHz
Middle Frequency (MHz)	3840 MHz
Top Frequency (MHz)	3980 MHz
Duty Cycle	75%
Maximum number of NR carriers	2

Un-intentional Radiators

Highest frequency generated or used in the device or on which the device operates or tunes	CPRI 25,78 GHz
Lowest frequency generated or used in the device or on which the device operates or tunes	-
Class A Digital Device (Use in commercial, industrial or business environment) ☐ Class B Digital Device (Use in residential environment only) ☒	

DC Power Source

Nominal voltage:	-48	V
Extreme upper voltage:	-58,5	V
Extreme lower voltage:	-36	V
Max current:	50	A

Temperature

Minimum temperature:	-40	°C
Maximum temperature:	+55	°C

Antenna Characteristics

Antenna connector ☐			State impedance	N/A	Ohm
Temporary antenna connector ☒			State impedance	50	Ohm
Integral antenna ☒	Type:	AAS (Advanced antenna system)	Gain	25.65 dBi	dBi
External antenna ☐	Type:	N/A	Gain	N/A	dBi
For external antenna only: Standard Antenna Jack ☐ If yes, describe how user is prohibited from changing antenna (if not professional installed): Equipment is only ever professionally installed ☐ Non-standard Antenna Jack ☐					

I hereby declare that the information supplied is correct and complete.

Faysal Pirmohamed

Name: Faysal Pirmohamed

Position held: Regulatory Engineer

Date: 2021-05-25

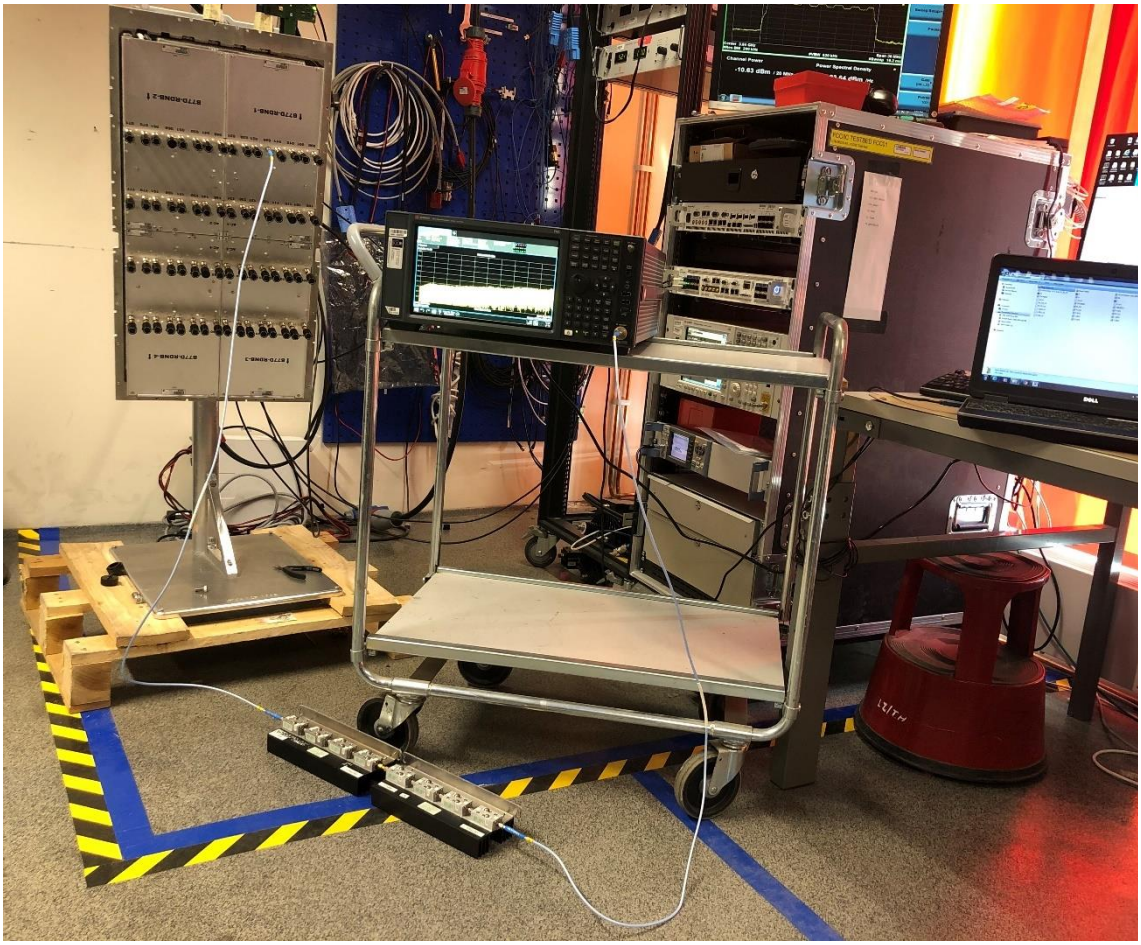
No responsibility will be accepted by TÜV SÜD UK Limited as to the accuracy of the information declared in this document by the manufacturer.

1.5 PRODUCT INFORMATION

1.5.1 Technical Description

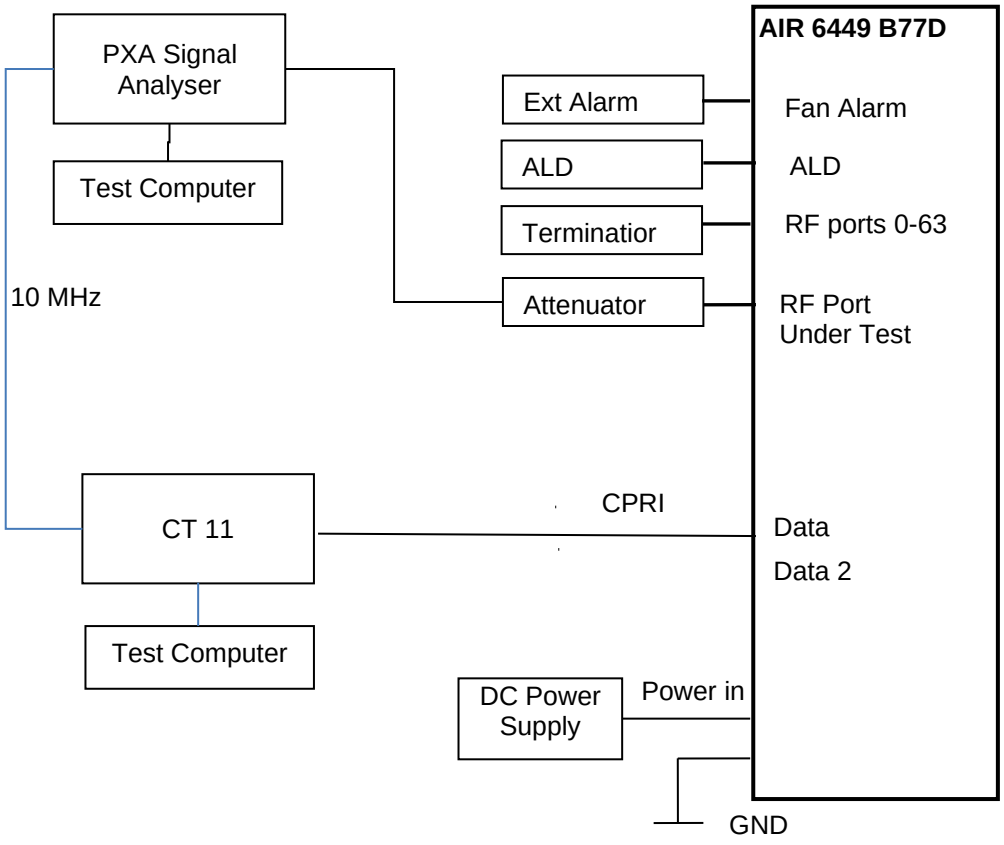
The Equipment Under Test (EUT) AIR 6449 B77D is an Ericsson AB Radio Unit working in the public mobile service (3700-3980 MHz) band which provides communication connections to (3700-3980 MHz) network. The AIR 6449 B77D operates from a -48V DC supply.

The Equipment Under Test (EUT) is shown in the photograph below. A full technical description can be found in the Manufacturer's documentation.



Equipment Under Test

1.6 TEST SETUP



1.7 TEST CONDITIONS

For all tests the EUT was set up in accordance with the relevant test standard and to represent typical operating conditions. Tests were applied with the EUT situated as described in the Test Method for each Test.

The EUT was powered from a -48V DC supply.

FCC Measurement Facility Registration Number
563983 Ericsson Test Laboratory, Kista
Postal Address: Erisson AB, Isafjordsgatan 10, Stockholm, SE-16 440, Sweden

Under our group Swedac Accreditation, TÜV SÜD Sverige conducted the following tests at Kista, Sweden

Test Name	Name of Engineer(s)
Maximum Peak Output Power and Peak to Average Ratio - Conducted	Raj Kumar Kallem
Occupied Bandwidth	Raj Kumar Kallem
Band Edge	Raj Kumar Kallem
Transmitter Spurious Emissions	Raj Kumar Kallem
Frequency Stability	Raj Kumar Kallem

1.8 DEVIATION FROM THE STANDARD

The testing has been carried out in accordance with FCC Part 27:2019, however this version of the Rule Parts does not cover 3700-3980 MHz (Band 77D) and therefore we referred to the current version of FCC Part 27, which is available on the e-CFR website, in which Clause 27.5 (m) refers to the Band 77 frequency band covered by this testing. All testing has been carried out in accordance with FCC Part 27:2019 and the methods defined in ANSI C63.26.

No other deviations from the applicable test standard were made during testing

1.9 MODIFICATION RECORD

No modifications were made to the EUT during testing.

1.10 ADDITIONAL INFORMATION

The AIR 6449 B77D was equipped with an RDNB-board to enable testing on each RF path/antenna port. The RDNB-board is replacing the AAS Antenna during the testing and only used in testing purpose. The RDNB-board has 64 identical ports, to expedite the testing that was required on performing all tests on all ports, the Carrier Output Power was initially performed on all ports (Middle channel only) and then the port with the highest output power was selected to perform the other tests for Bottom, Middle and Top channel in each bandwidth listed. The rationale for this can be seen in the TUV SUD Document FCC and ISED Test Plan Rationale for Base Station Equipment.

The Test Plan is based on the TUV SUD Document FCC and ISED Test Plan Rationale for Base Station Equipment.
Pre-testing was performed in accordance with the Test Plan to establish the worst-case Port, modulation schemes and bandwidths for both Non-Rural (4W PSD) and Rural (8W PSD) power levels.
The worst case modulation was 16QAM.
The port with the highest power was Port 3.
The worst-case Bandwidth for Non-Rural was 80 MHz.
The worst-case Bandwidth for Rural was 40 MHz.
These worst-case results are presented in this report to demonstrate compliance.

Testing has been performed at the highest applicable power level for each configuration. In addition to show compliance to the Non Rural limits defined in the FCC Rules for the lower power configurations 5 and 6 are chosen to be representative. Limited testing has been performed on Carrier Power, CCDF & PSD, as shown in the Test Plan.

Ericsson have provided the following details about the variants of the AIR 6449 B77D.
KRD 901 206/2* (with un-security software and RDNB board for testing purpose)
KRD 901 206/21 (with security software and RDNB board for testing purpose)
KRD 901 206/1 (with un-security software and antenna)
KRD 901 206/11** (with security software and antenna)
Note*: Tests have been performed on this unit.
Note**: This will be the marketed, sold unit.

Therefore, KRD 901 206/1 is equivalent to KRD 901 206/11 in radiated radio performance terms, and KRD 901 206/2 is equivalent to KRD 901 206/21 in conducted radio performance terms, as such no extra testing is required to prove conformity.

Testing shows Regulatory Compliance for the AIR 6449 B77D, KRD 901 206/2, NR.

Testing for Radiated Spurious Emissions are recorded in the following reports

- FCC Part 15B – TUV SUD Test Report reference Document 75950239-03 Issue 3
- FCC Part 27 – Intertek Test Report reference 2104082STO-001.

SECTION 2

TEST DETAILS

2.1 MAXIMUM PEAK OUTPUT POWER AND PEAK TO AVERAGE RATIO - CONDUCTED

2.1.1 Specification Reference

FCC CFR 47 Part 27, Clause 27.50
FCC CFR 47 Part 2, Clause 2.1046

2.1.2 Date of Test and Modification State

06, 07, 11 & 12 May 2021- Modification State 0

2.1.3 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.4 Environmental Conditions

Ambient Temperature	22.5 - 37.8°C
Relative Humidity	18.5 - 22.7%

2.1.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, clause 5.2.1 and summed in accordance with FCC KDB 662911 D01.

2.1.6 Test Results

Configuration 1

Maximum Output Power 34.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position B				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	20.00 MHz 30 kHz SCS	9.27	33.54	21.41	51.60	39.47

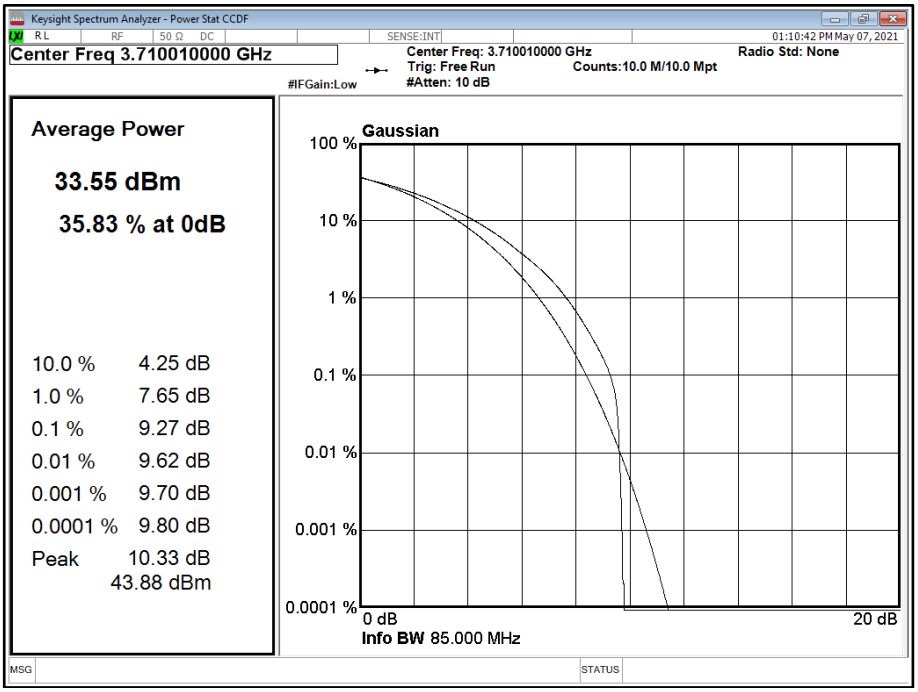
Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

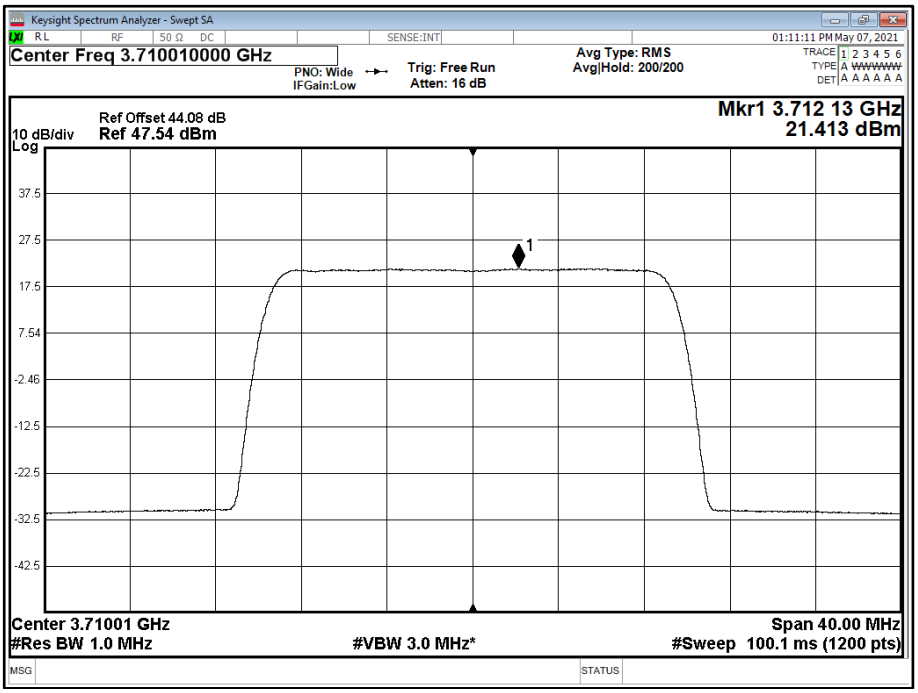
Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
39.47	25.65	65.12	3280	65.15

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.00 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.00 MHz 30 kHz SCS - Channel Position B



Configuration 1

Maximum Output Power 34.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position M				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	20.00 MHz 30 kHz SCS	9.32	33.54	21.25	51.60	39.31

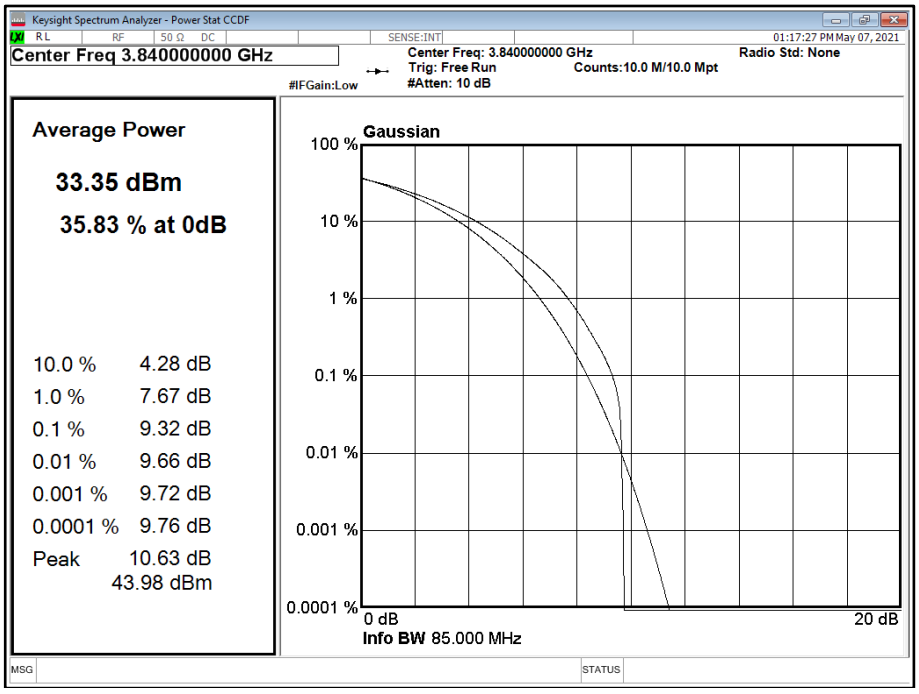
Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

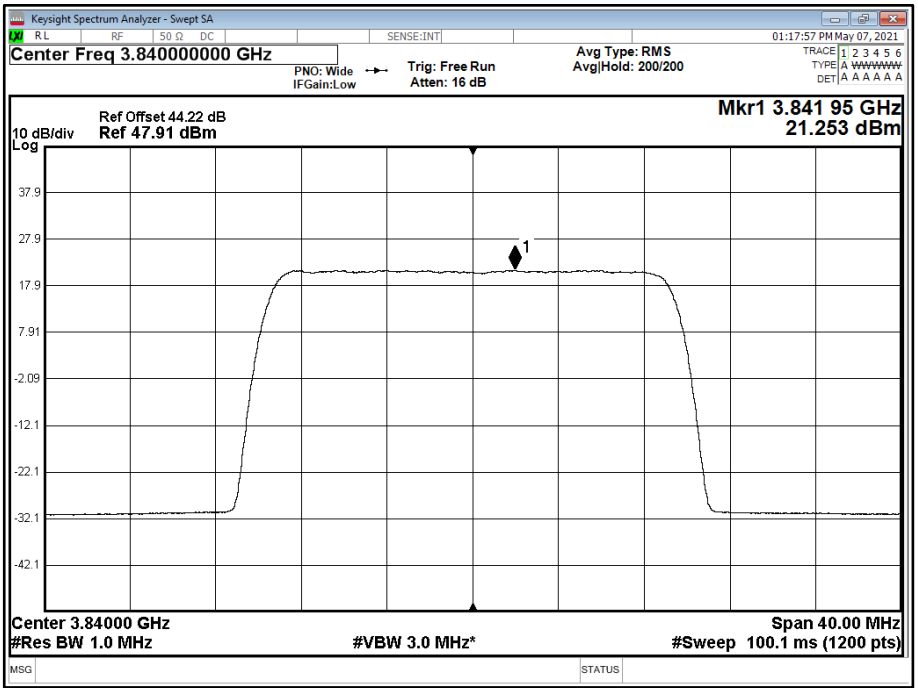
Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
39.31	25.65	64.96	3280	65.15

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.00 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.00 MHz 30 kHz SCS - Channel Position M



Configuration 1

Maximum Output Power 34.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD Channel Position T				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	20.00 MHz 30 kHz SCS	9.48	33.25	21.39	51.31	39.45

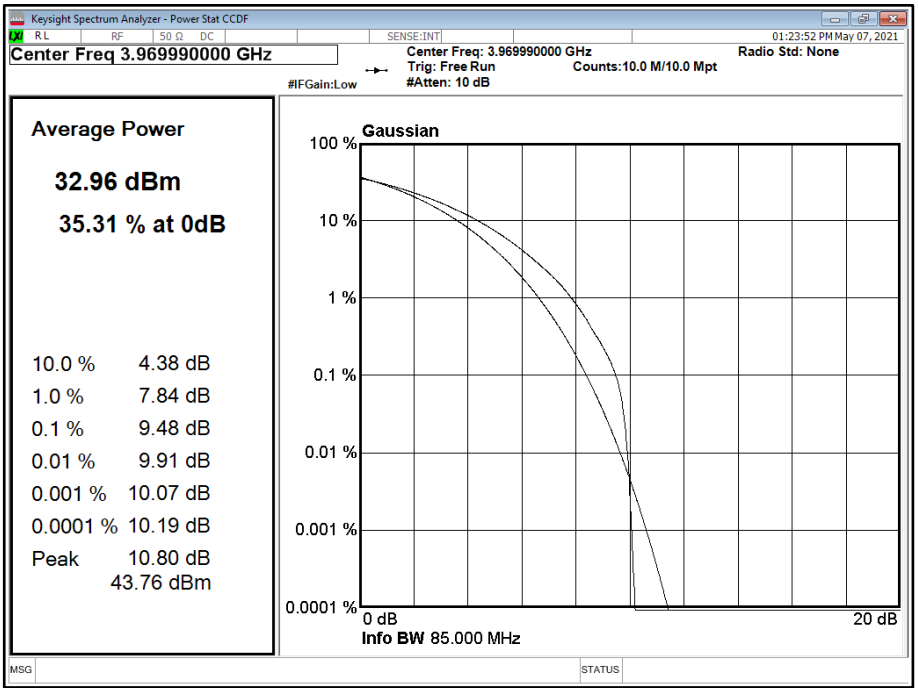
Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

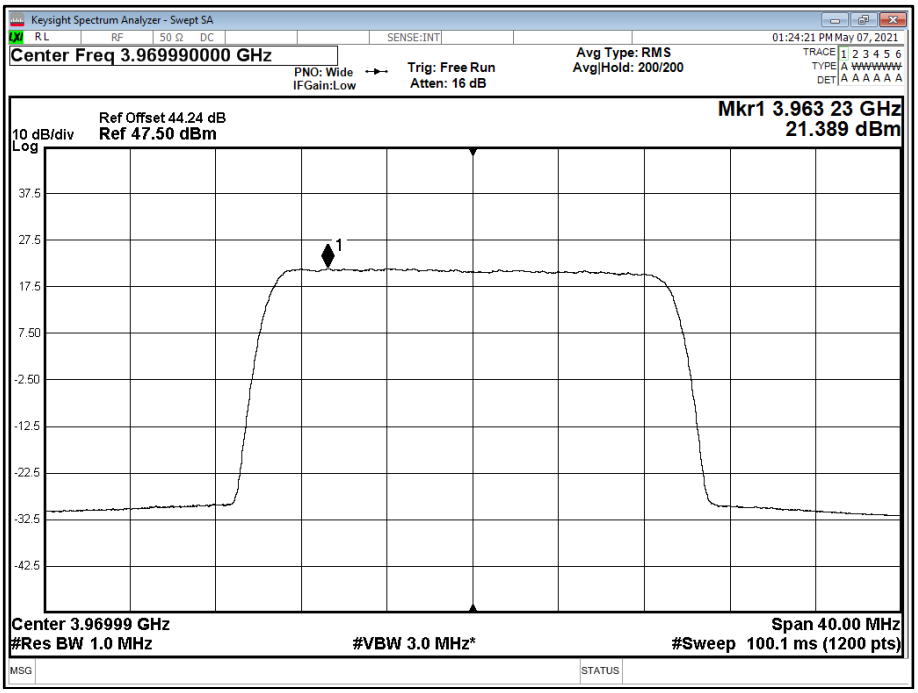
Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
39.45	25.65	65.10	3280	65.15

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.00 MHz 30 kHz SCS - Channel Position T



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.00 MHz 30 kHz SCS - Channel Position T



Configuration 2

Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position B				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	40.0 MHz 30 kHz SCS	8.89	36.34	21.22	54.40	39.28

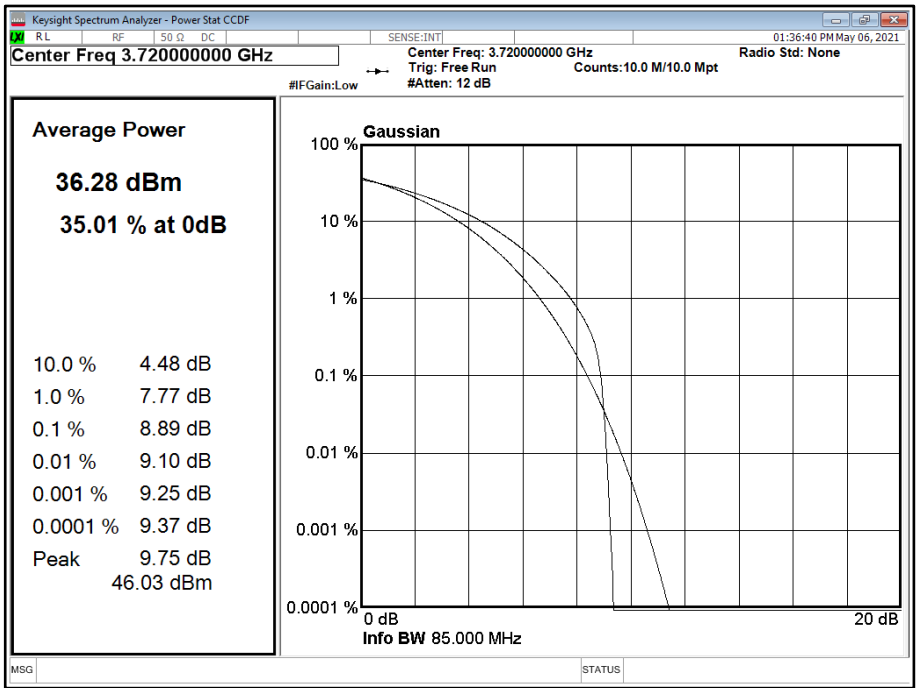
Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

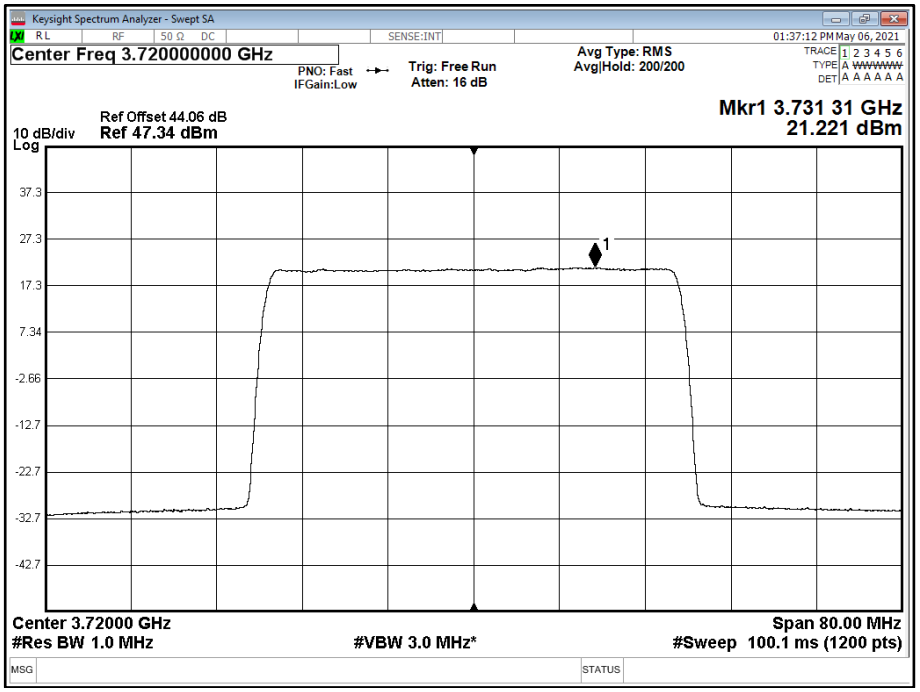
Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
39.28	25.65	64.93	3280	65.15

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position B



Configuration 2

Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD		
			Channel Position M		
			PAR (dB)	Average Power/PSD	
				dBm	dBm/MHz
0	64QAM	40.0 MHz 30 kHz SCS	8.62	36.52	21.40
1	64QAM	40.0 MHz 30 kHz SCS	8.77	36.60	21.42
2	64QAM	40.0 MHz 30 kHz SCS	8.87	36.50	21.30
3	64QAM	40.0 MHz 30 kHz SCS	8.79	36.72	21.32
4	64QAM	40.0 MHz 30 kHz SCS	8.80	36.40	21.24
5	64QAM	40.0 MHz 30 kHz SCS	8.55	36.42	21.26
6	64QAM	40.0 MHz 30 kHz SCS	8.69	36.22	21.12
7	64QAM	40.0 MHz 30 kHz SCS	8.76	36.45	21.34
8	64QAM	40.0 MHz 30 kHz SCS	8.68	36.51	21.29
9	64QAM	40.0 MHz 30 kHz SCS	8.76	36.36	21.17
10	64QAM	40.0 MHz 30 kHz SCS	8.66	36.48	21.24
11	64QAM	40.0 MHz 30 kHz SCS	8.65	36.56	21.32
12	64QAM	40.0 MHz 30 kHz SCS	8.60	36.66	21.35
13	64QAM	40.0 MHz 30 kHz SCS	8.85	36.64	21.39
14	64QAM	40.0 MHz 30 kHz SCS	8.75	36.52	21.33
15	64QAM	40.0 MHz 30 kHz SCS	8.71	36.55	21.33
16	64QAM	40.0 MHz 30 kHz SCS	8.50	36.44	21.27
17	64QAM	40.0 MHz 30 kHz SCS	8.67	36.49	21.31
18	64QAM	40.0 MHz 30 kHz SCS	8.75	36.58	21.16
19	64QAM	40.0 MHz 30 kHz SCS	8.71	36.70	21.30
20	64QAM	40.0 MHz 30 kHz SCS	8.62	36.29	21.15
21	64QAM	40.0 MHz 30 kHz SCS	8.60	36.58	21.28
22	64QAM	40.0 MHz 30 kHz SCS	8.98	36.22	21.11
23	64QAM	40.0 MHz 30 kHz SCS	8.60	36.55	21.25
24	64QAM	40.0 MHz 30 kHz SCS	8.60	36.52	21.26
25	64QAM	40.0 MHz 30 kHz SCS	8.63	36.36	21.11
26	64QAM	40.0 MHz 30 kHz SCS	8.64	36.38	21.26
27	64QAM	40.0 MHz 30 kHz SCS	8.57	36.49	21.22
28	64QAM	40.0 MHz 30 kHz SCS	8.65	36.47	21.24
29	64QAM	40.0 MHz 30 kHz SCS	8.67	36.28	21.36
30	64QAM	40.0 MHz 30 kHz SCS	8.78	36.38	21.27
31	64QAM	40.0 MHz 30 kHz SCS	8.66	36.69	21.30
32	64QAM	40.0 MHz 30 kHz SCS	8.65	36.34	21.38
33	64QAM	40.0 MHz 30 kHz SCS	8.55	36.57	21.52
34	64QAM	40.0 MHz 30 kHz SCS	8.64	36.33	21.35
35	64QAM	40.0 MHz 30 kHz SCS	8.58	36.43	21.25
36	64QAM	40.0 MHz 30 kHz SCS	8.76	36.30	21.08
37	64QAM	40.0 MHz 30 kHz SCS	8.67	36.62	21.28
38	64QAM	40.0 MHz 30 kHz SCS	8.73	36.40	21.10
39	64QAM	40.0 MHz 30 kHz SCS	8.70	36.46	21.21
40	64QAM	40.0 MHz 30 kHz SCS	8.72	36.48	21.25
41	64QAM	40.0 MHz 30 kHz SCS	8.73	36.37	21.15
42	64QAM	40.0 MHz 30 kHz SCS	8.79	36.26	21.10
43	64QAM	40.0 MHz 30 kHz SCS	8.61	36.45	21.24
44	64QAM	40.0 MHz 30 kHz SCS	8.56	36.53	21.32
45	64QAM	40.0 MHz 30 kHz SCS	8.67	36.50	21.25
46	64QAM	40.0 MHz 30 kHz SCS	8.51	36.37	21.15
47	64QAM	40.0 MHz 30 kHz SCS	8.55	36.68	21.38
48	64QAM	40.0 MHz 30 kHz SCS	8.88	36.56	21.42
49	64QAM	40.0 MHz 30 kHz SCS	8.68	36.59	21.35
50	64QAM	40.0 MHz 30 kHz SCS	8.59	36.66	21.44
51	64QAM	40.0 MHz 30 kHz SCS	8.75	36.65	21.63
52	64QAM	40.0 MHz 30 kHz SCS	8.69	36.44	21.16
53	64QAM	40.0 MHz 30 kHz SCS	8.63	36.54	21.38
54	64QAM	40.0 MHz 30 kHz SCS	8.55	36.50	21.14

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD		
			Channel Position M		
			PAR (dB)	Average Power/PSD	
				dBm	dBm/MHz
55	64QAM	40.0 MHz 30 kHz SCS	8.50	36.26	21.24
56	64QAM	40.0 MHz 30 kHz SCS	8.76	36.38	21.31
57	64QAM	40.0 MHz 30 kHz SCS	8.61	36.59	21.25
58	64QAM	40.0 MHz 30 kHz SCS	8.64	36.48	21.27
59	64QAM	40.0 MHz 30 kHz SCS	8.70	36.45	21.14
60	64QAM	40.0 MHz 30 kHz SCS	8.64	36.56	21.26
61	64QAM	40.0 MHz 30 kHz SCS	8.53	36.45	21.25
62	64QAM	40.0 MHz 30 kHz SCS	8.56	36.49	21.30
63	64QAM	40.0 MHz 30 kHz SCS	8.62	36.46	21.39
Summed Total for all 64 Ports				54.54	39.34

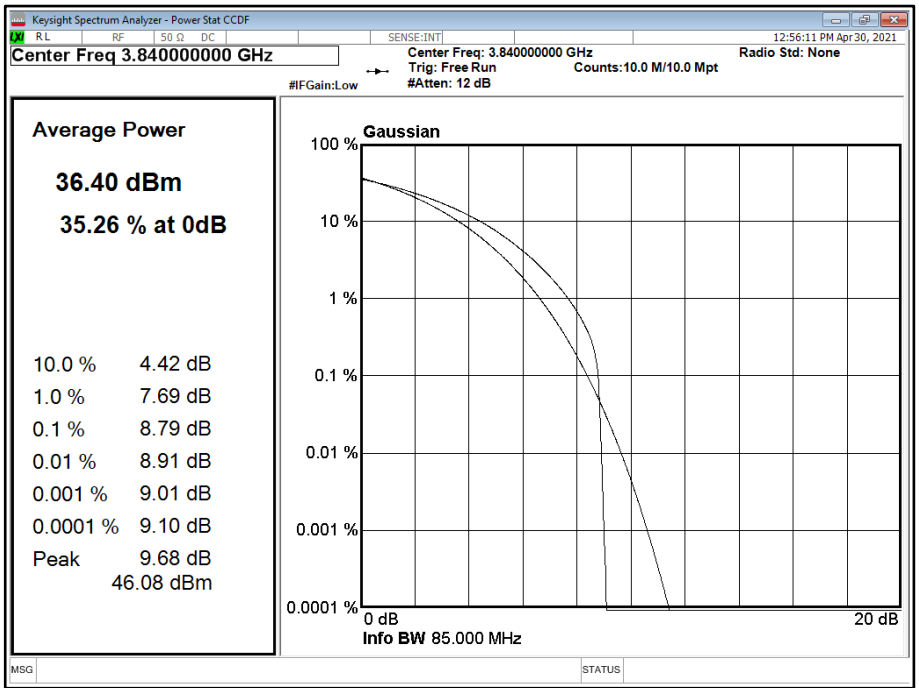
Remarks

The plot results presented are the measured worst case and represent typical performance for all bands and antenna ports, plot data performance is on file and available on request.

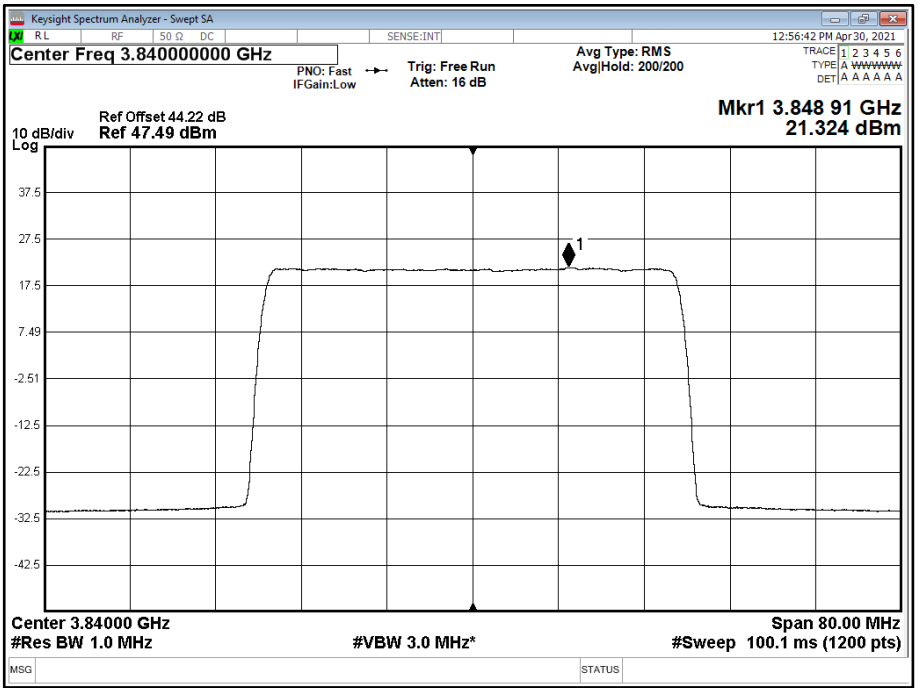
Calculations:
Maximum Total Power (EIRP) = Summed Power on all 64 Ports + Antenna Gain.

Summed PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
39.34	25.65	64.99	3280	65.15

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position M



Configuration 2

Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position T				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	40.0 MHz 30 kHz SCS	9.12	35.76	20.69	53.82	38.75

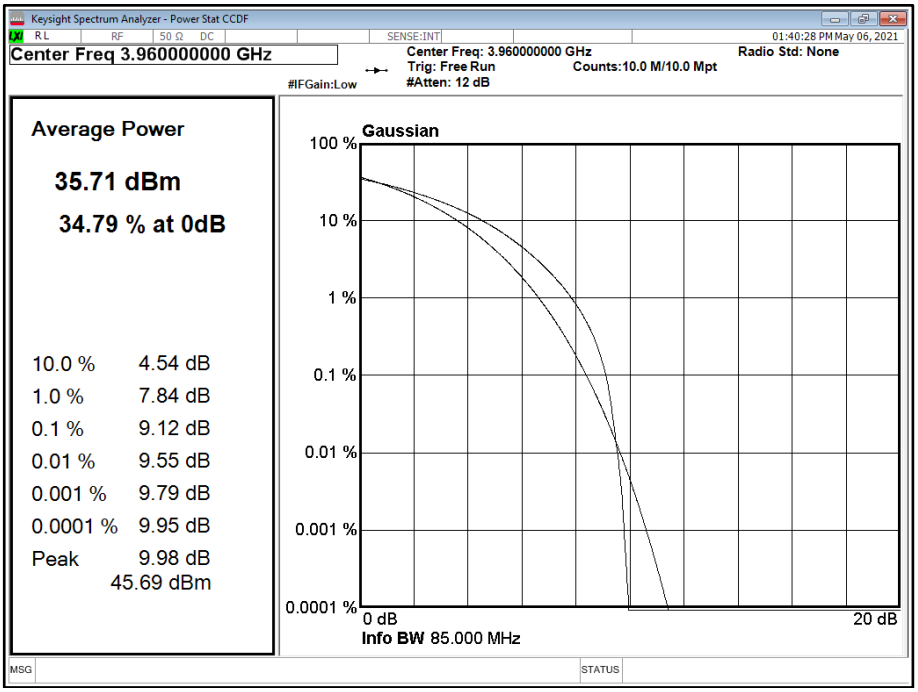
Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

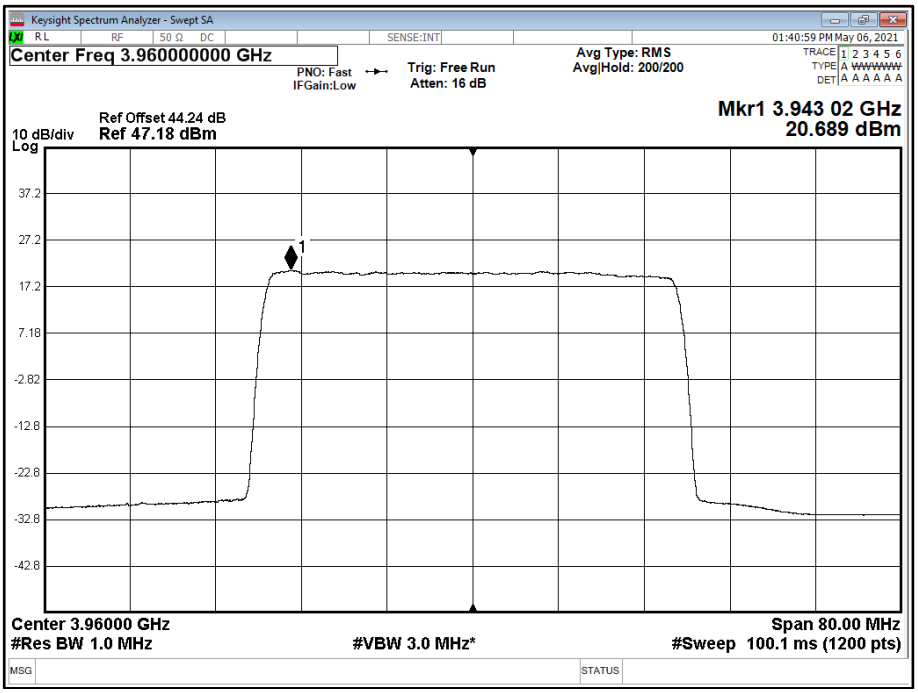
Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
38.75	25.65	64.40	3280	65.15

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position T



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position T



Configuration 3

Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position B				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	60.0 MHz 30 kHz SCS	8.88	36.69	19.34	54.75	37.40

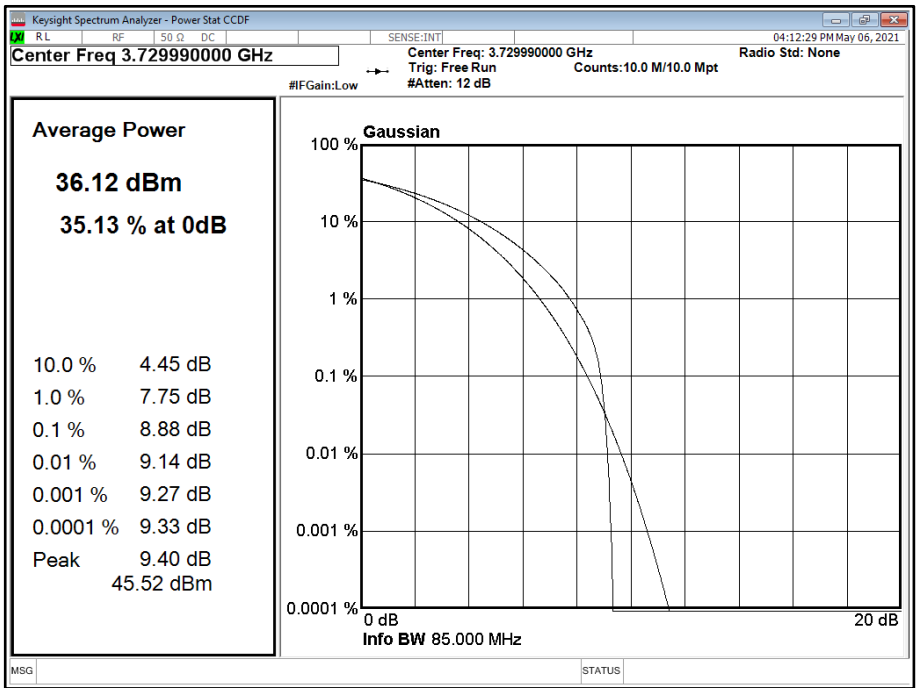
Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

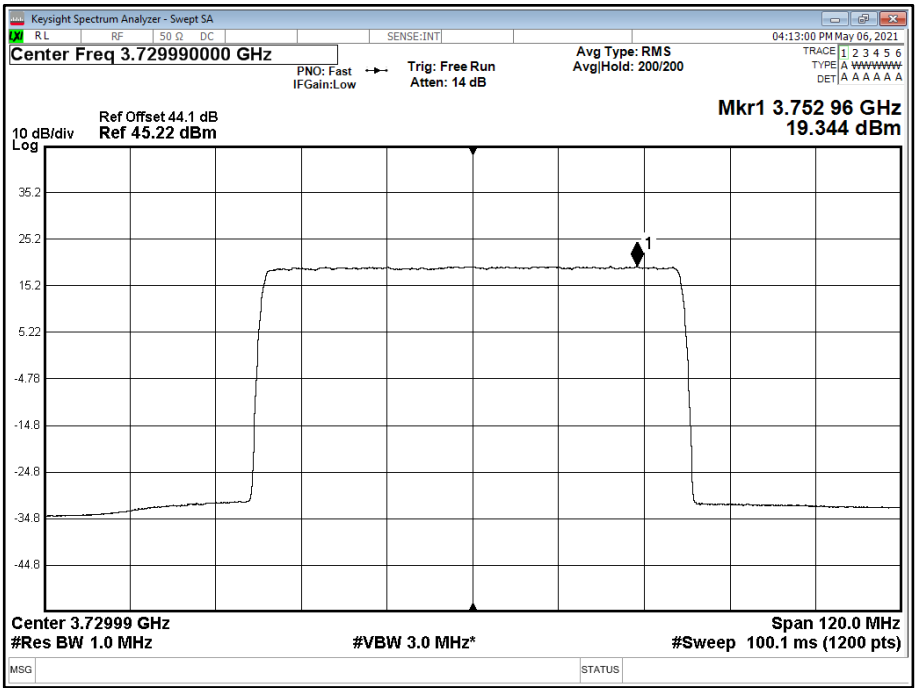
Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
37.40	25.65	63.05	3280	65.15

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position B



Configuration 3

Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD Channel Position M				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	60.0 MHz 30 kHz SCS	8.87	36.52	19.53	54.58	37.59

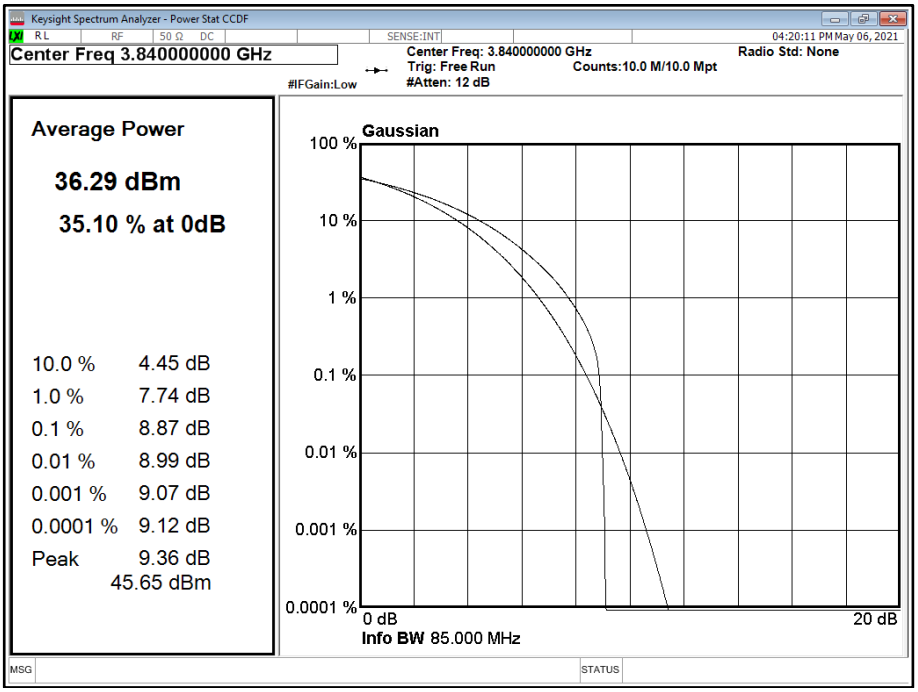
Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

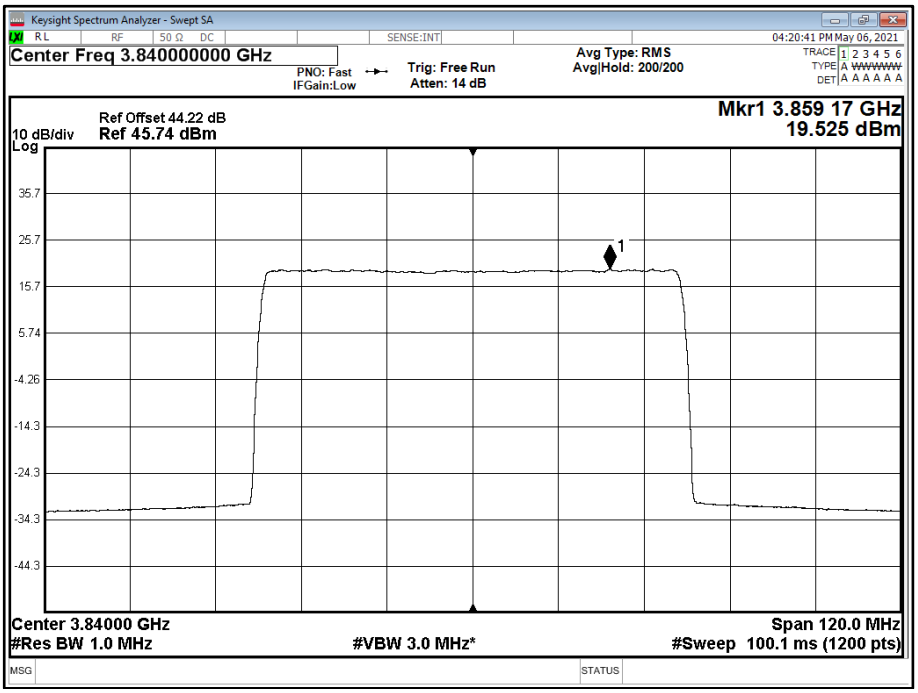
Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
37.59	25.65	63.24	3280	65.15

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position M



Configuration 3

Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position T				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	60.0 MHz 30 kHz SCS	8.72	36.23	19.53	54.29	37.59

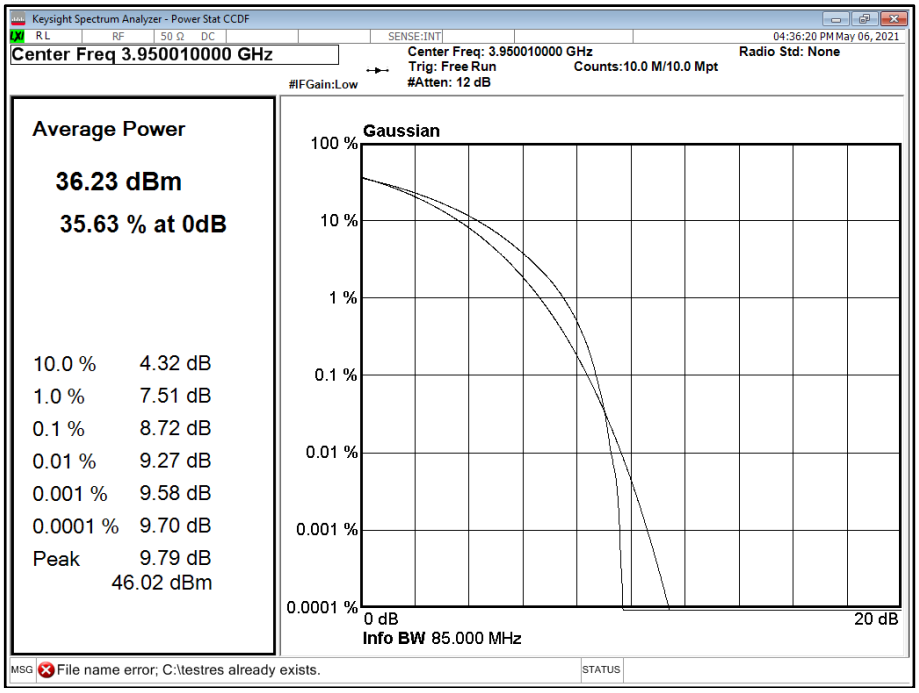
Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

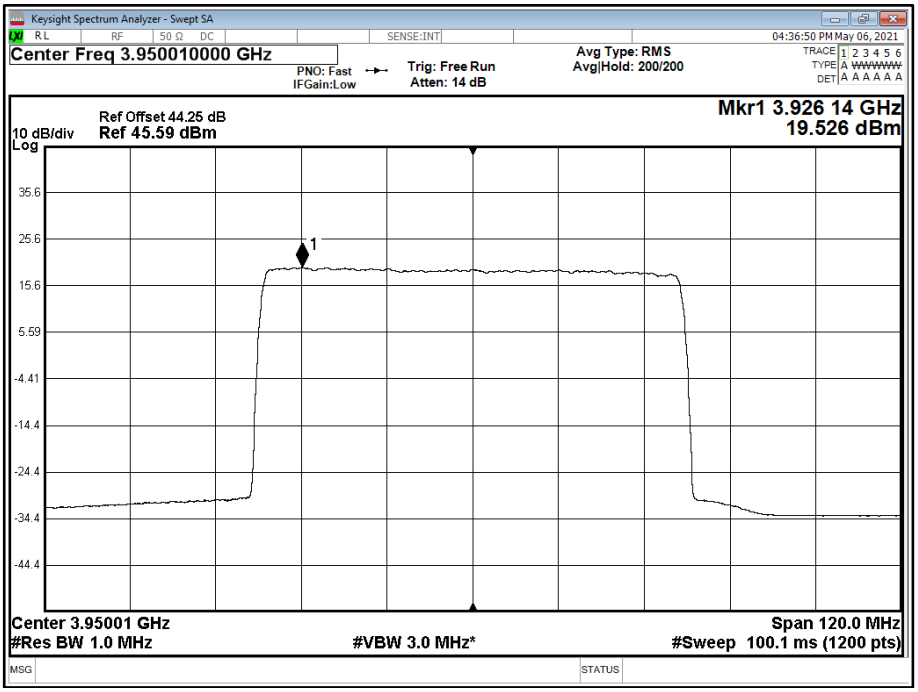
Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
37.59	25.65	63.24	3280	65.15

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position T



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position T



Configuration 4

Maximum Output Power 34.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD Channel Position B				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0- 63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	20.00 MHz 30 kHz SCS	-	33.24	18.23	51.30	36.29
3	64QAM	40.00 MHz 30 kHz SCS	-	33.40	15.41	51.46	33.47

Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

NR Carrier Bandwidth	Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
20.0 MHz 30 kHz SCS	36.29	25.65	61.94	3280	65.15
40.0 MHz 30 kHz SCS	33.17	25.65	59.12	3280	65.15

Configuration 4

Maximum Output Power 34.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position M				
			PAR (dB)	Average Power/PSD		Total Power/PSD Port A + B	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	20.00 MHz 30 kHz SCS	-	33.36	18.47	51.42	36.53
3	64QAM	40.0 MHz 30 kHz SCS	-	33.45	15.33	51.51	33.39

Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

NR Carrier Bandwidth	Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
20.0 MHz 30 kHz SCS	36.53	25.65	62.18	3280	65.15
40.0 MHz 30 kHz SCS	33.39	25.65	59.04	3280	65.15

Configuration 4

Maximum Output Power 34.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position T				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3.00	64QAM	20.00 MHz 30 kHz SCS	-	33.17	18.61	51.23	36.67
3.00	64QAM	40.0 MHz 30 kHz SCS	-	33.37	15.55	51.43	33.61

Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

NR Carrier Bandwidth	Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
20.0 MHz 30 kHz SCS	36.67	25.65	52.32	3280	65.15
40.0 MHz 30 kHz SCS	33.61	25.65	59.26	3280	65.15

Configuration 5

Maximum Output Power 20 MHz 31.00 dBm, 40 MHz 34.00 dBm, 60 MHz 36.00 dBm, 80 MHz & 100 MHz 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position B				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	20.0 MHz 30 kHz SCS	9.24	30.60	18.22	48.66	36.28
3	64QAM	40.0 MHz 30 kHz SCS	9.32	33.44	18.21	51.50	36.27
3	64QAM	60.0 MHz 30 kHz SCS	9.34	35.42	18.18	53.48	35.26
3	64QAM	80.0 MHz 30 kHz SCS	8.77	36.50	17.31	54.56	35.37
3	64QAM	100.0 MHz 30 kHz SCS	8.82	36.14	16.37	54.20	34.43

Remarks

For PSD measurements in a 1 MHz bandwidth, measurements were made in accordance with ANSI C63.26 Clause 5.7.2(a). A resolution bandwidth of at least 1 % of the emission bandwidth was chosen in conjunction with an Integration Bandwidth of 1 MHz. An RMS detector was used with a single slow sweep utilised. The highest PSD was established over the entire emission bandwidth for the port with the highest output power and the result recorded. The measured results were summed in accordance with FCC KDB 662911 to account for 64 port MIMO operation – see calculations below.

Calculations:

Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})

Where N_{ANT} refers to the number of Ports.

Maximum Total Power (EIRP) = Power (port 3) + Antenna Gain +10log(64)

NR Carrier Bandwidth	Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
20.0 MHz 30 kHz SCS	36.28	25.65	61.93	1640	62.15
40.0 MHz 30 kHz SCS	36.27	25.65	61.92	1640	62.15
60.0 MHz 30 kHz SCS	35.26	25.65	61.89	1640	62.15
80.0 MHz 30 kHz SCS	35.37	25.65	61.02	1640	62.15
100.0 MHz 30 kHz SCS	34.43	25.65	60.08	1640	62.15

Configuration 5

Maximum Output Power 20 MHz 31.00 dBm, 40 MHz 34.00 dBm, 60 MHz 36.00 dBm, 80 MHz & 100 MHz 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD Channel Position M				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	20.0 MHz 30 kHz SCS	9.26	30.58	18.05	48.64	36.11
3	64QAM	40.0 MHz 30 kHz SCS	9.39	33.50	17.95	51.56	36.01
3	64QAM	60.0 MHz 30 kHz SCS	9.40	35.64	18.13	53.70	36.19
3	64QAM	80.0 MHz 30 kHz SCS	8.57	36.48	18.04	54.54	36.10
3	64QAM	100.0 MHz 30 kHz SCS	8.80	36.70	16.34	54.76	34.40

Remarks

For PSD measurements in a 1 MHz bandwidth, measurements were made in accordance with ANSI C63.26 Clause 5.7.2(a). A resolution bandwidth of at least 1 % of the emission bandwidth was chosen in conjunction with an Integration Bandwidth of 1 MHz. An RMS detector was used with a single slow sweep utilised. The highest PSD was established over the entire emission bandwidth for the port with the highest output power and the result recorded. The measured results were summed in accordance with FCC KDB 662911 to account for 64 port MIMO operation – see calculations below.

Calculations:

Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})

Where N_{ANT} refers to the number of Ports.

Maximum Total Power (EIRP) = Power (port 3) + Antenna Gain +10log(64)

NR Carrier Bandwidth	Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
20.0 MHz 30 kHz SCS	36.11	25.65	61.76	1640	62.15
40.0 MHz 30 kHz SCS	36.01	25.65	61.66	1640	62.15
60.0 MHz 30 kHz SCS	36.19	25.65	61.84	1640	62.15
80.0 MHz 30 kHz SCS	36.10	25.65	61.75	1640	62.15
100.0 MHz 30 kHz SCS	34.40	25.65	60.05	1640	62.15

Configuration 5

Maximum Output Power 20 MHz 31.00 dBm, 40 MHz 34.00 dBm, 60 MHz 36.00 dBm, 80 MHz & 100 MHz 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position T				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	20.0 MHz 30 kHz SCS	9.42	30.17	18.04	48.23	36.10
3	64QAM	40.0 MHz 30 kHz SCS	9.16	33.12	17.93	51.18	35.99
3	64QAM	60.0 MHz 30 kHz SCS	9.29	35.22	18.24	53.28	36.30
3	64QAM	80.0 MHz 30 kHz SCS	8.89	36.15	17.31	54.21	35.37
3	64QAM	100.0 MHz 30 kHz SCS	9.17	36.21	16.26	54.27	34.32

Remarks

For PSD measurements in a 1 MHz bandwidth, measurements were made in accordance with ANSI C63.26 Clause 5.7.2(a). A resolution bandwidth of at least 1 % of the emission bandwidth was chosen in conjunction with an Integration Bandwidth of 1 MHz. An RMS detector was used with a single slow sweep utilised. The highest PSD was established over the entire emission bandwidth for the port with the highest output power and the result recorded. The measured results were summed in accordance with FCC KDB 662911 to account for 64 port MIMO operation – see calculations below.

Calculations:

Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})

Where N_{ANT} refers to the number of Ports.

Maximum Total Power (EIRP) = Power (port 3) + Antenna Gain +10log(64)

NR Carrier Bandwidth	Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
20.0 MHz 30 kHz SCS	36.10	25.65	61.75	1640	62.15
40.0 MHz 30 kHz SCS	35.99	25.65	61.64	1640	62.15
60.0 MHz 30 kHz SCS	36.30	25.65	61.95	1640	62.15
80.0 MHz 30 kHz SCS	35.37	25.65	61.02	1640	62.15
100.0 MHz 30 kHz SCS	34.32	25.65	59.97	1640	62.15

Configuration 6

Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position B				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	60.0 MHz 30 kHz SCS	-	36.25	16.00	54.31	34.06
3	64QAM	80.0 MHz 30 kHz SCS	-	36.29	14.92	54.35	32.98
3	64QAM	100.0 MHz 30 kHz SCS	-	36.06	13.80	54.12	31.86

Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

NR Carrier Bandwidth	Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
60.0 MHz 30 kHz SCS	34.06	25.65	59.71	1640	62.15
80.0 MHz 30 kHz SCS	32.98	25.65	58.63	1640	62.15
100.0 MHz 30 kHz SCS	31.86	25.65	57.51	1640	62.15

Configuration 6

Maximum Output Power 20 MHz 28.00 dBm, 40 MHz 31.00 dBm, 60 MHz, 80 MHz & 100 MHz 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position M				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	20.0 MHz 30 kHz SCS	-	30.26	15.42	48.32	33.48
3	64QAM	40.0 MHz 30 kHz SCS	-	33.19	15.44	51.25	33.50
3	64QAM	60.0 MHz 30 kHz SCS	-	36.31	16.18	54.37	34.24
3	64QAM	80.0 MHz 30 kHz SCS	-	36.34	15.15	54.40	33.21
3	64QAM	100.0 MHz 30 kHz SCS	-	36.17	13.94	54.23	32.00

Remarks

Calculations:
Total Power = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

NR Carrier Bandwidth	Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
20.0 MHz 30 kHz SCS	33.48	25.65	59.13	1640	62.15
40.0 MHz 30 kHz SCS	33.50	25.65	59.15	1640	62.15
60.0 MHz 30 kHz SCS	34.24	25.65	59.89	1640	62.15
80.0 MHz 30 kHz SCS	33.21	25.65	58.86	1640	62.15
100.0 MHz 30 kHz SCS	32.00	25.65	57.65	1640	62.15

Configuration 6

Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD				
			Channel Position T				
			PAR (dB)	Average Power/PSD		Total Power/PSD Ports 0-63	
				dBm	dBm/MHz	dBm	dBm/MHz
3	64QAM	60.0 MHz 30 kHz SCS	-	36.37	16.05	54.43	34.11
3	64QAM	80.0 MHz 30 kHz SCS	-	36.28	15.19	54.34	33.25
3	64QAM	100.0 MHz 30 kHz SCS	-	36.10	13.83	54.16	31.89

Remarks

Calculations:
Total Power/PSD = Measured Output Power (port 3, worst case) + 10log (N_{ANT})
Where N_{ANT} refers to the number of Ports.

Maximum Total Power (EIRP) = Total Power (port 3) + Antenna Gain +10log(64)

NR Carrier Bandwidth	Total Power PSD (dBm/MHz)	Declared Antenna Gain (dBi)	Total EIRP (dBm/MHz)	EIRP Limit (W/MHz)	EIRP Limit (dBm/MHz)
60.0 MHz 30 kHz SCS	34.11	25.65	59.76	1640	62.15
80.0 MHz 30 kHz SCS	33.25	25.65	58.90	1640	62.15
100.0 MHz 30 kHz SCS	31.89	25.65	57.54	1640	62.15

Limit	
Peak Power	Rural ≤ 3280 W/MHz or ≤+65.15 dBm Non-Rural ≤ 1640 W/MHz or ≤+62.15 dBm
Peak to Average Ratio	13 dB

2.2 OCCUPIED BANDWIDTH

2.2.1 Specification Reference

FCC CFR 47 Part 27, Clause 27.53
FCC CFR 47 Part 2, Clause 2.1049

2.2.1 Date of Test and Modification State

06, 07, 11, 12 and 20 May 2021- Modification State 0

2.2.2 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.2.3 Environmental Conditions

Ambient Temperature	22.5 - 37.8°C
Relative Humidity	18.5 - 22.7%

2.2.4 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, Clause 4.3.

Power bandwidth (99 %) measurement procedure
Subclause 5.4.4 of ANSI C63.26-2015 is applicable (wherein the recommendation is to use the 99 % power bandwidth function of a spectrum analyser).

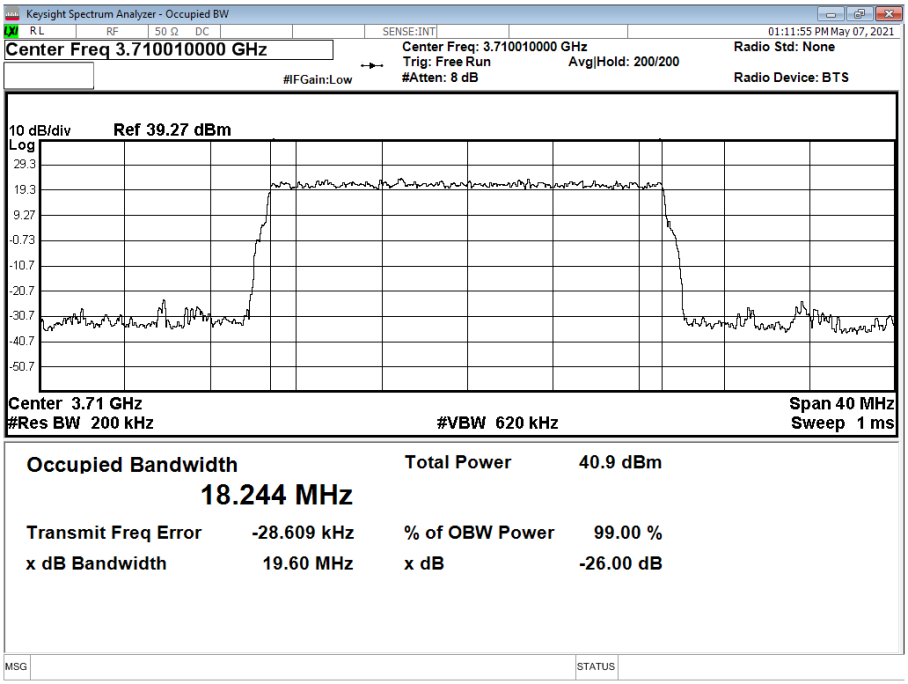
2.2.5 Test Results

Configuration 1

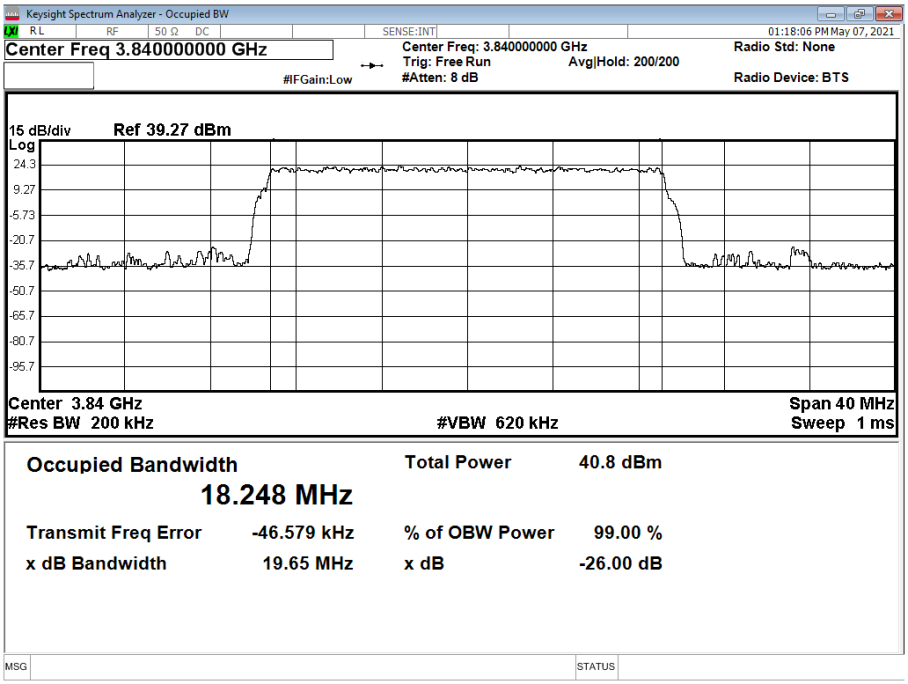
Maximum Output Power 34.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	20.00 MHz 30 kHz SCS	18,243.93	19,595.77	18,247.93	19,653.65	18,258.59	19,648.23

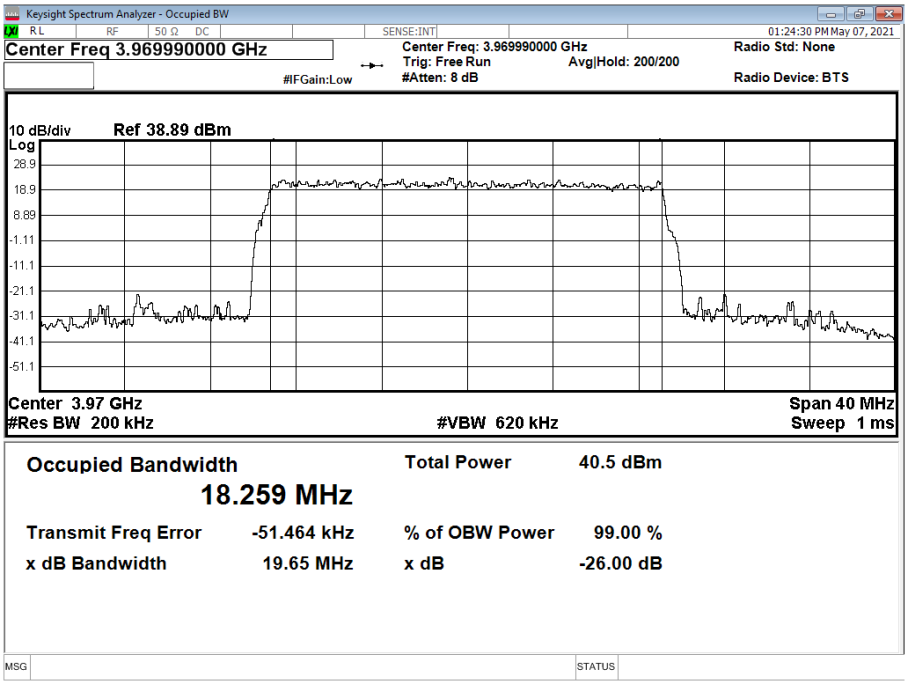
Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position T

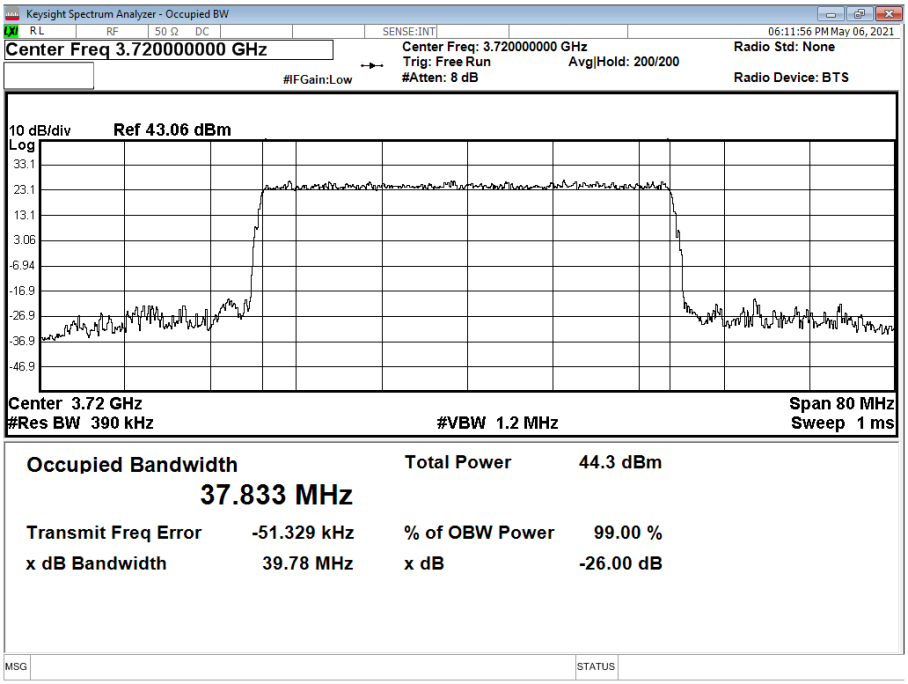


Configuration 2

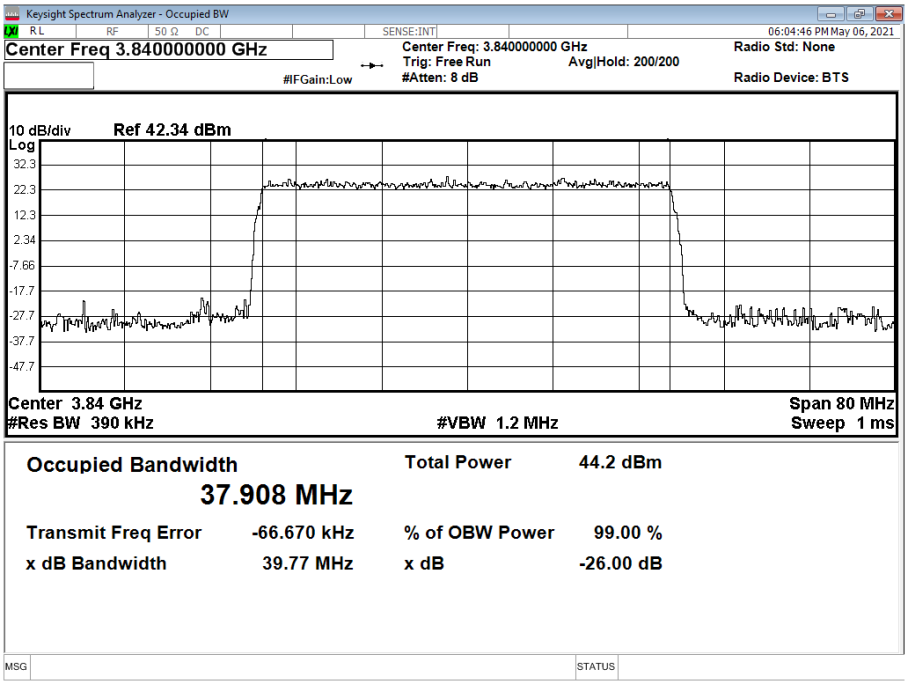
Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	40.00 MHz 30kHz SCS	37,833.08	39,781.27	37,908.36	39,770.64	37,889.66	39,636.72

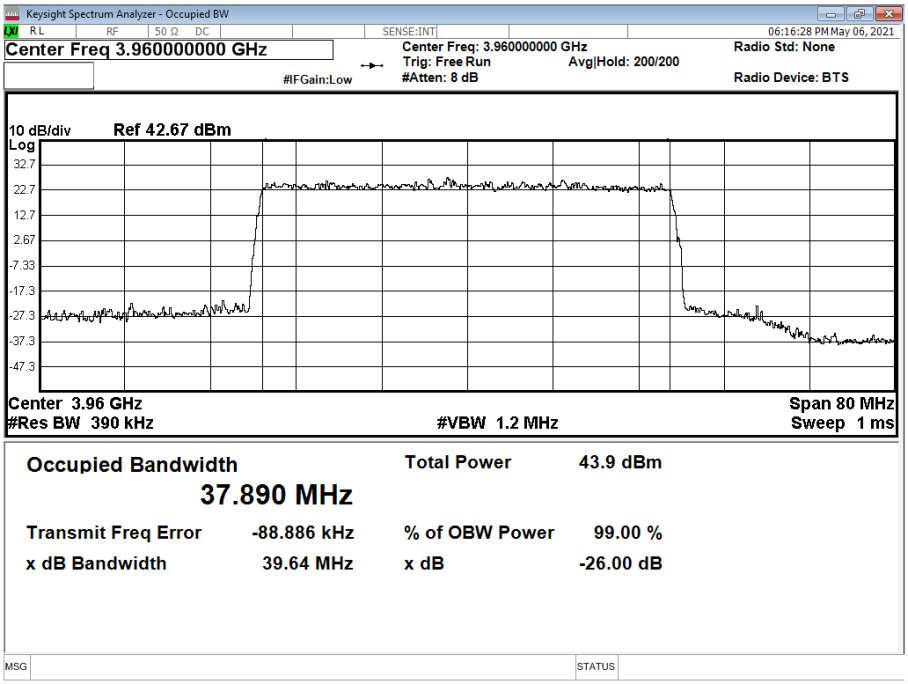
Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position T

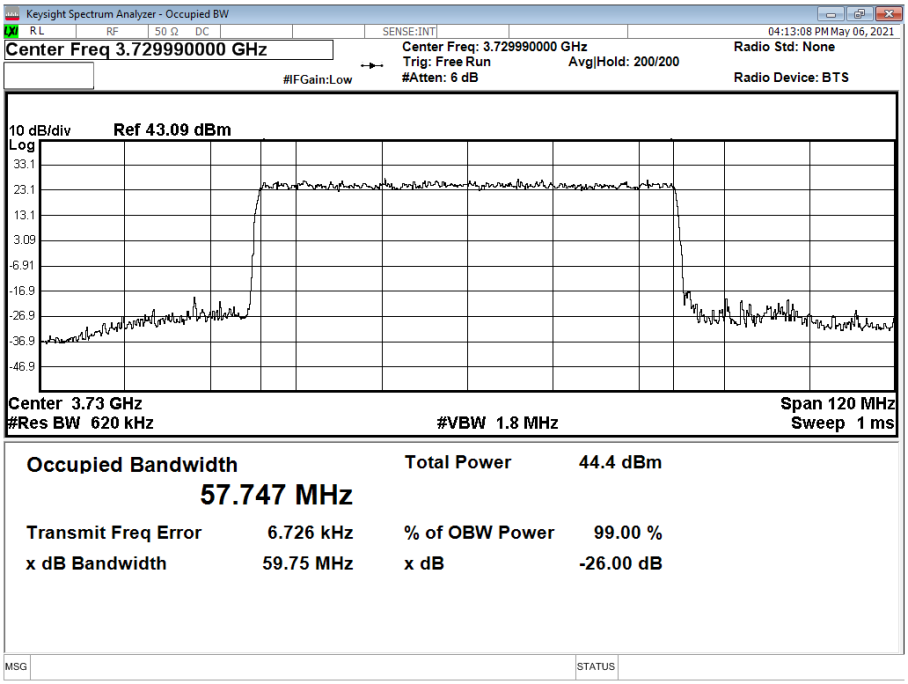


Configuration 3

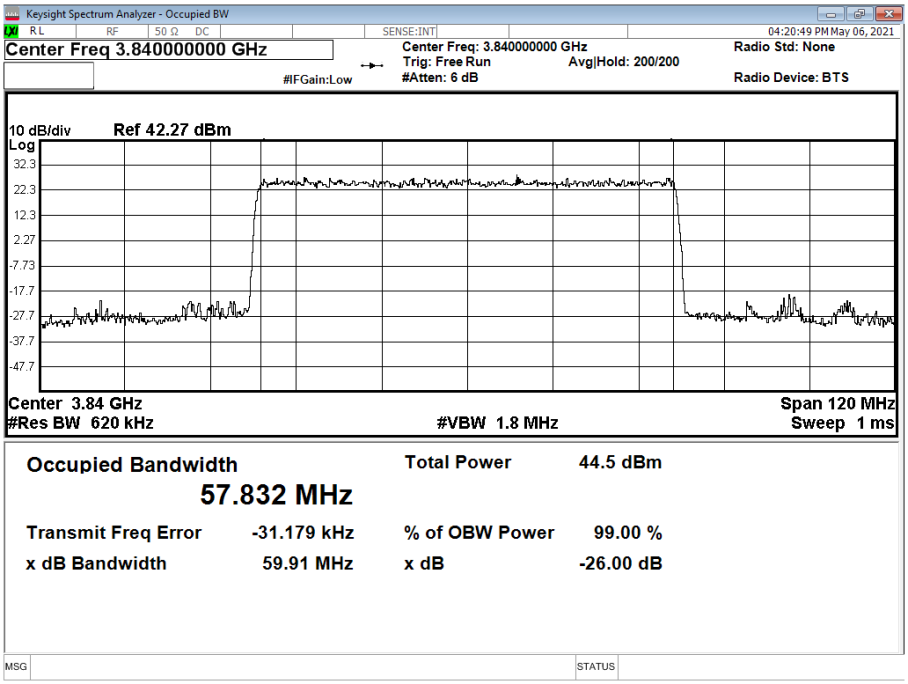
Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	60.00 MHz 30kHz SCS	57,747.21	59,749.74	57,831.66	59,909.08	57,664.66	59,926.38

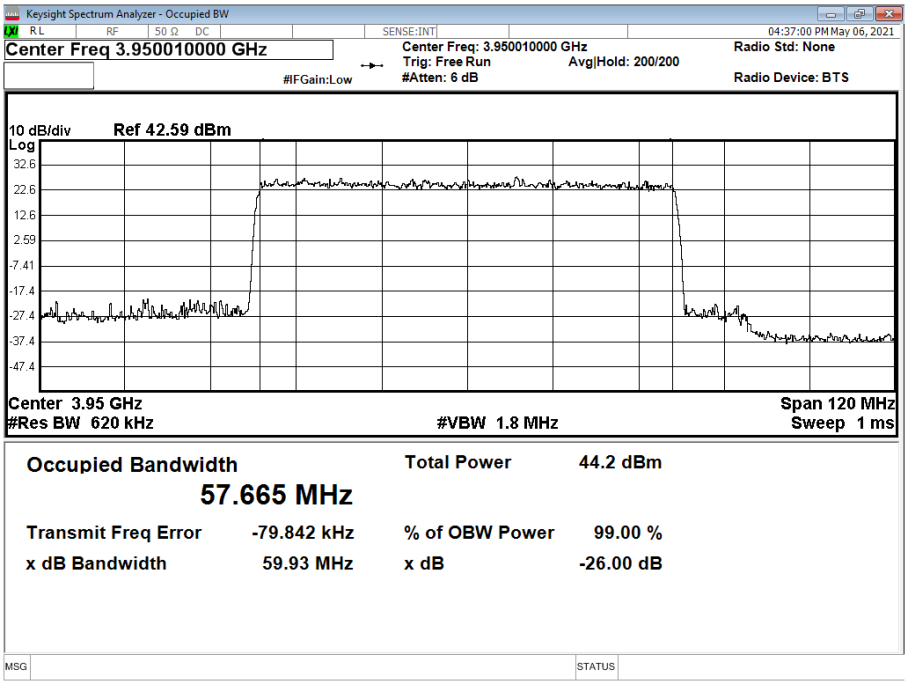
Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position T

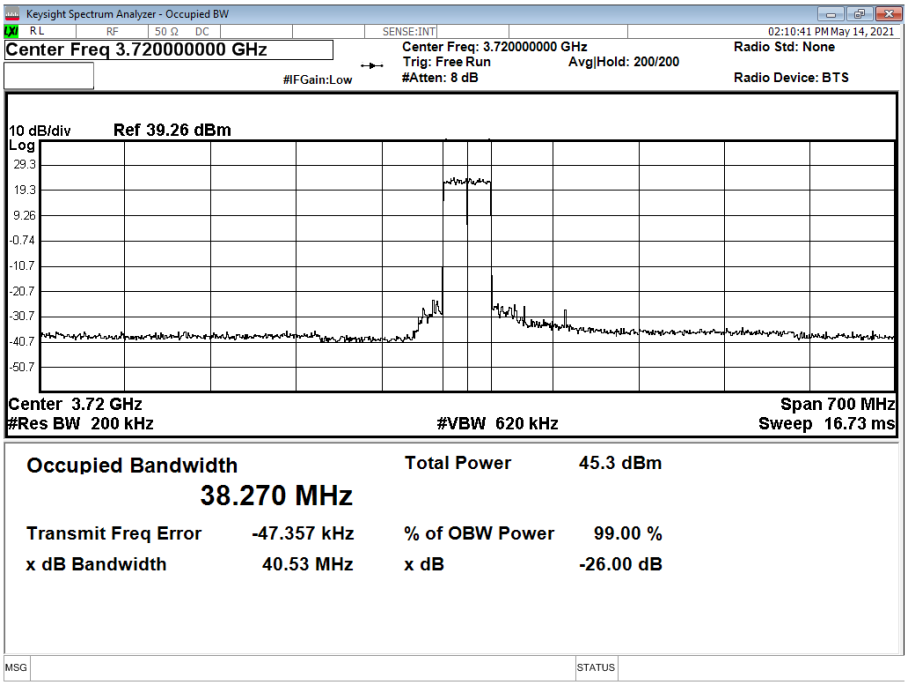


Configuration 4

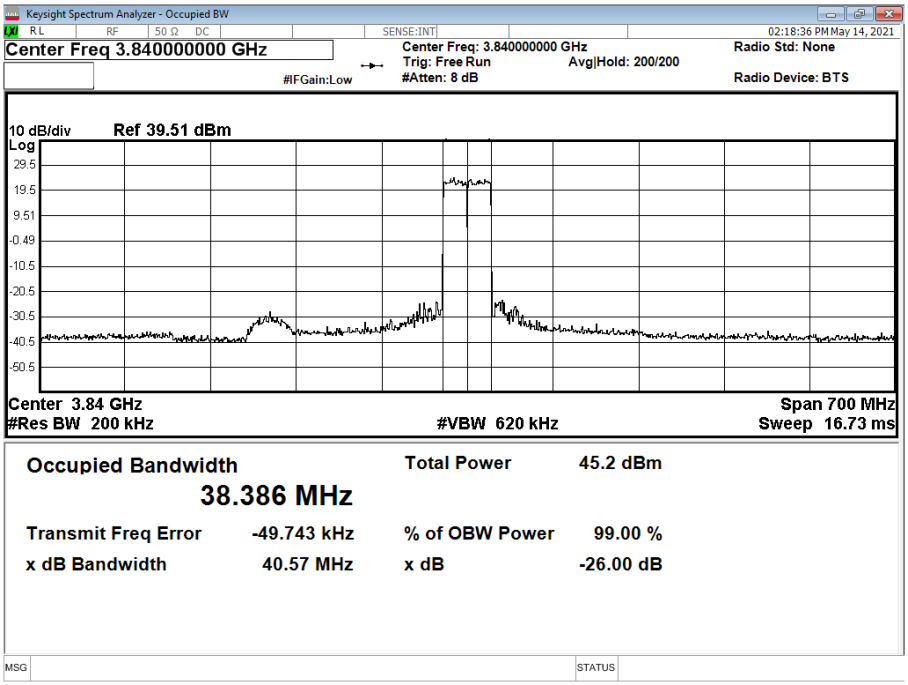
Maximum Output Power 34.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	2 x 20.00 MHz 30kHz SCS	38,269.73	40,533.74	38,385.90	40,574.95	38,343.53	40,532.89

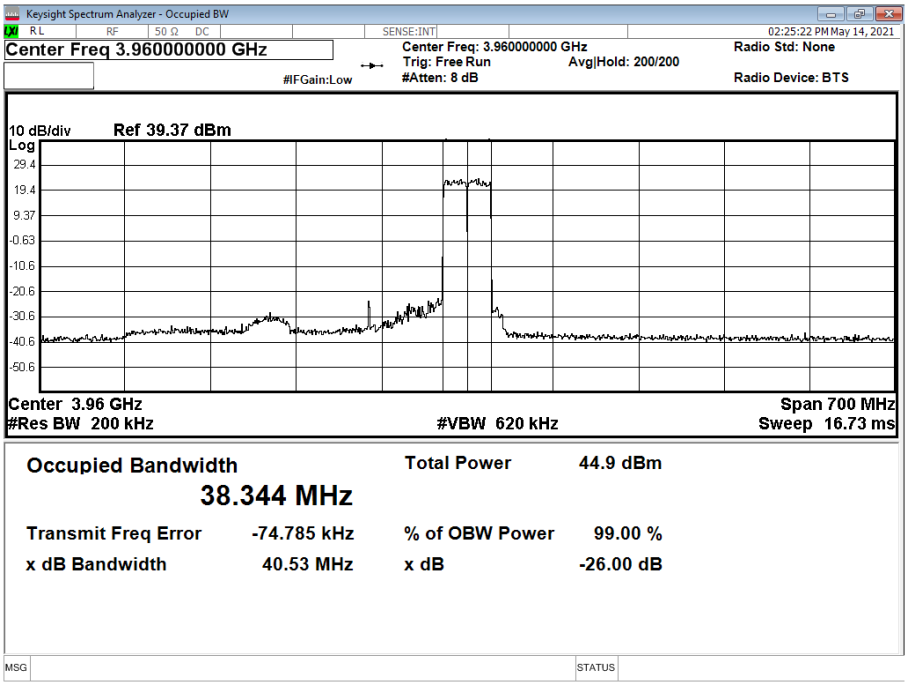
Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 20.0 MHz 30 kHz SCS - Channel Position T

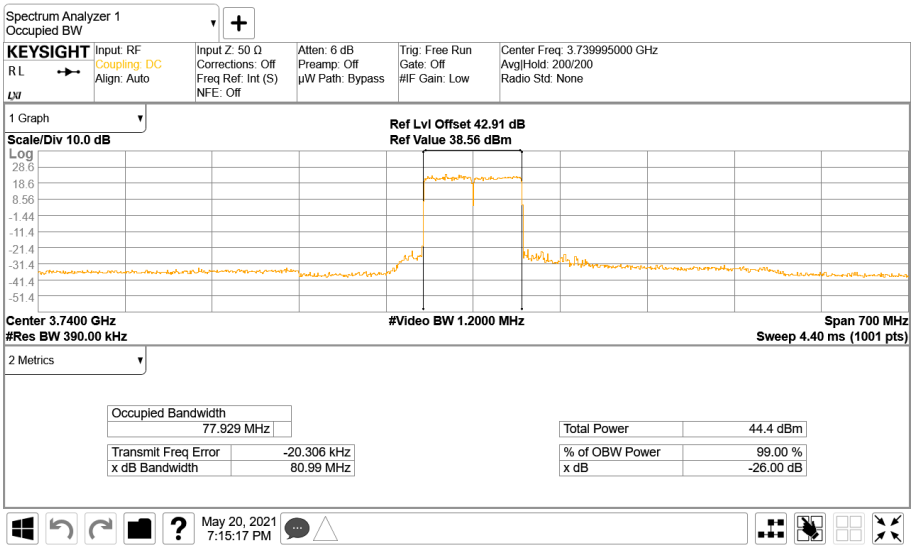


Configuration 4

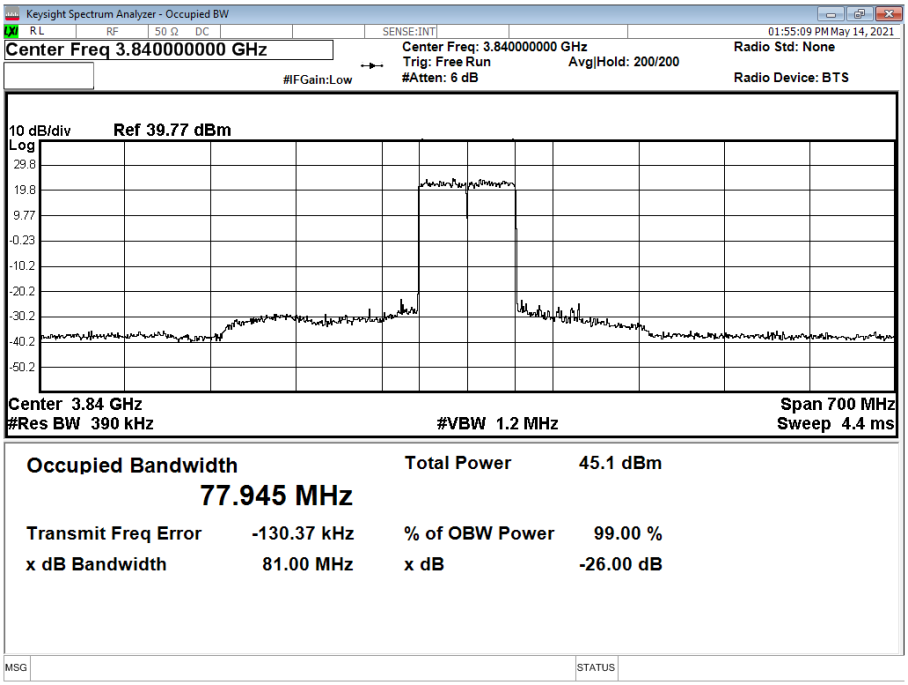
Maximum Output Power 34.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	2 x 40.00 MHz 30kHz SCS	77,929.16	80,994.76	77,945.30	80,999.96	77,694.65	80,657.15

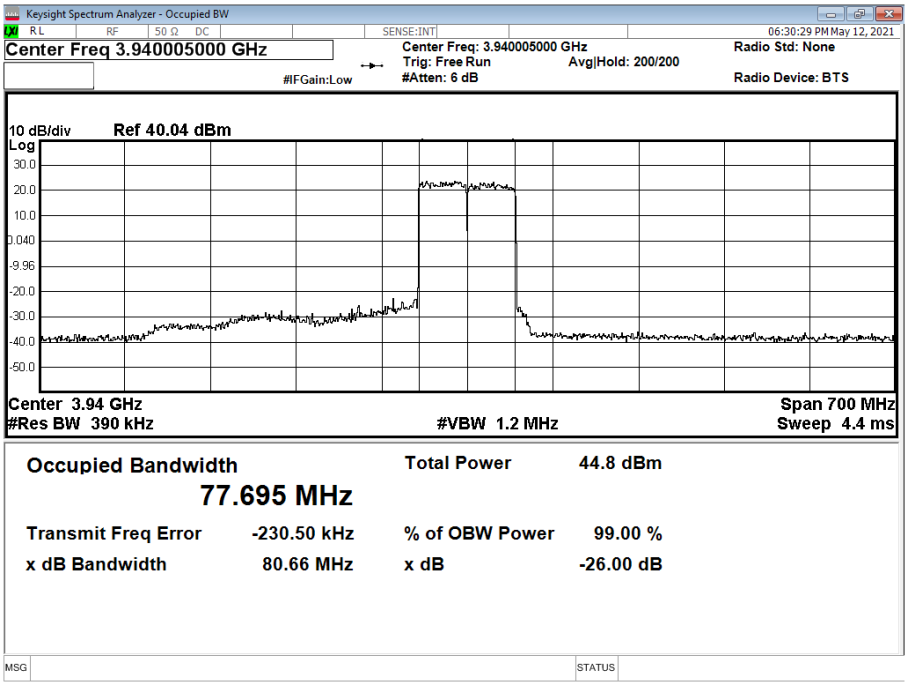
Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 40.0 MHz 30 kHz SCS - Channel Position T

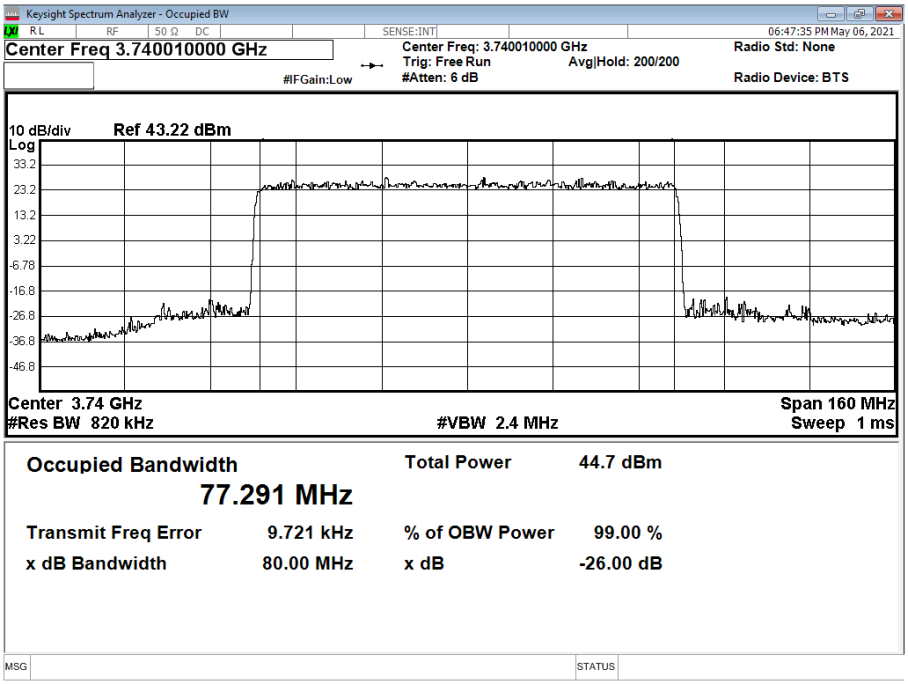


Configuration 5

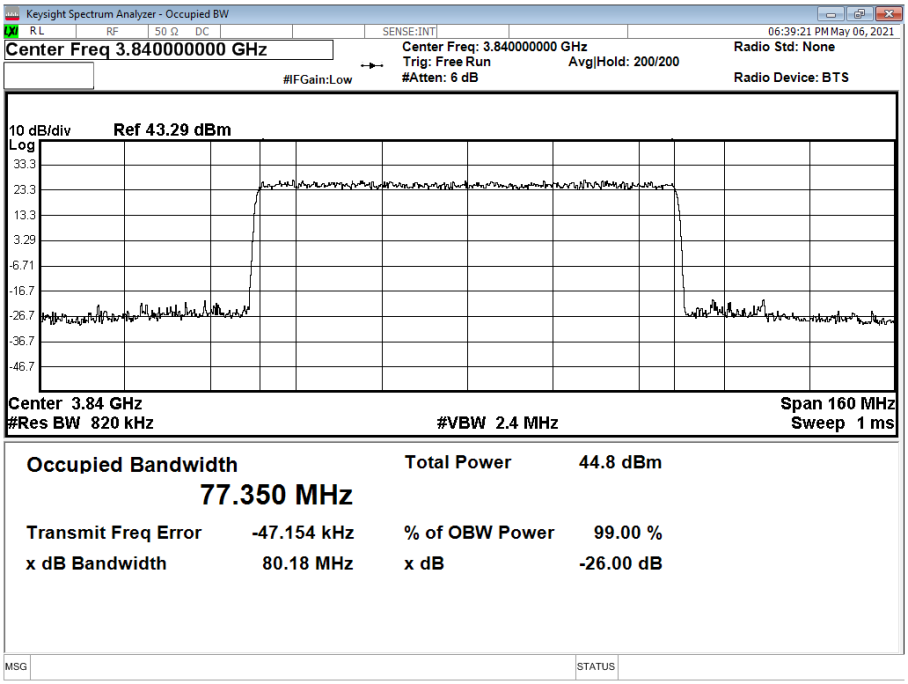
Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	80.00 MHz 30kHz SCS	77,290.83	80,000.09	77,349.83	80,181.45	77,210.17	80,006.78

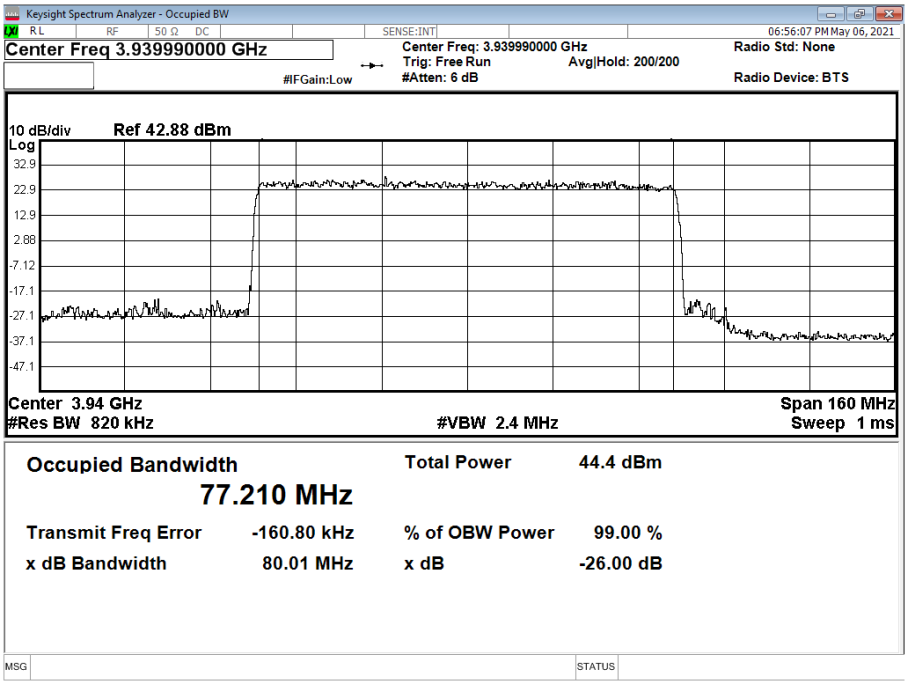
Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 80.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 80.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 80.0 MHz 30 kHz SCS - Channel Position T

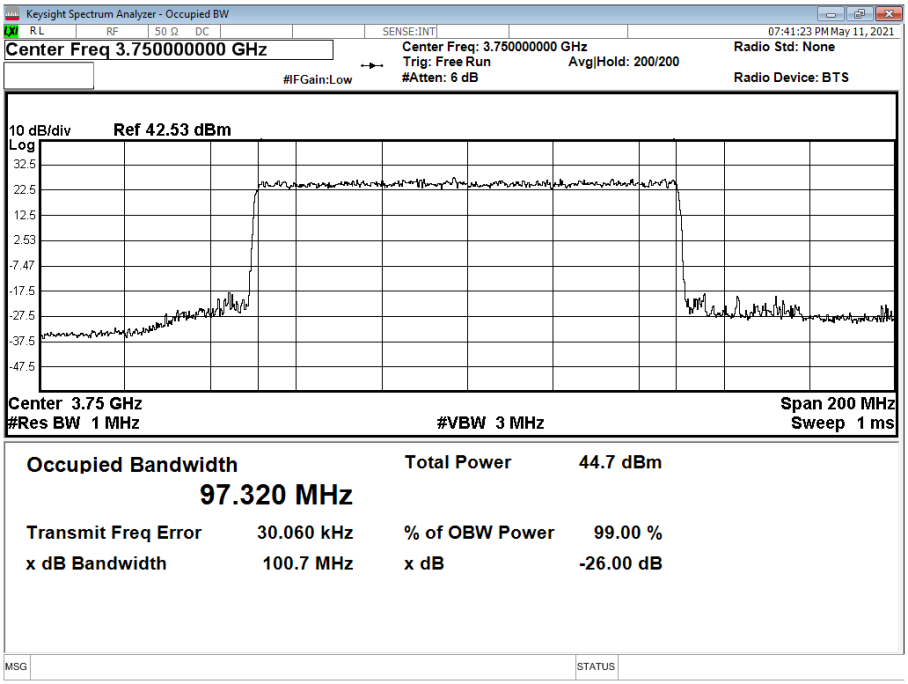


Configuration 5

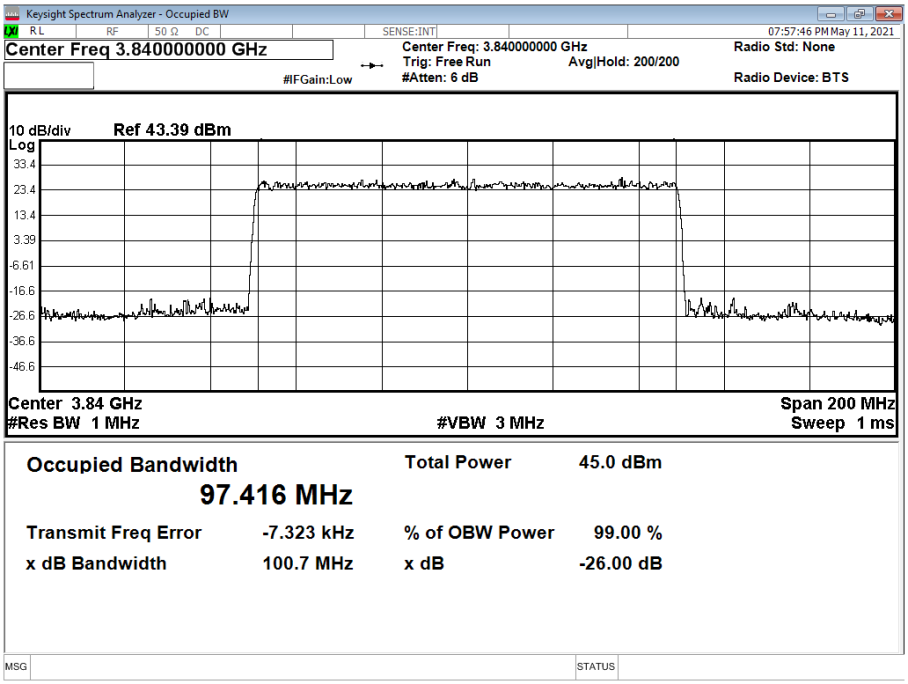
Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	100.00 MHz 30kHz SCS	97,320.04	100,684.38	97,415.68	100,713.66	97,312.51	100,658.04

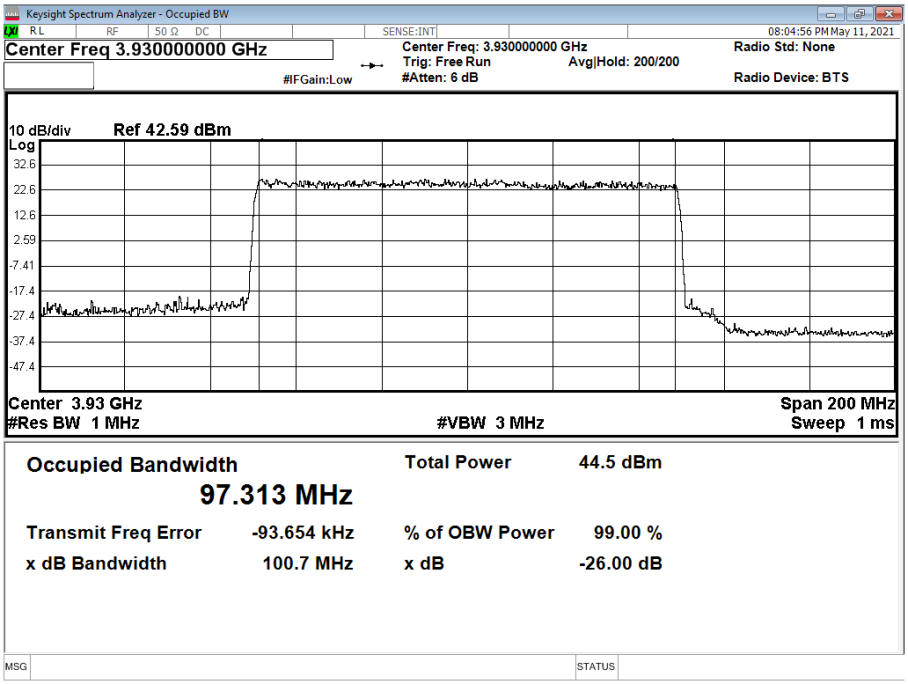
Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 100.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 100.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 100.0 MHz 30 kHz SCS - Channel Position T

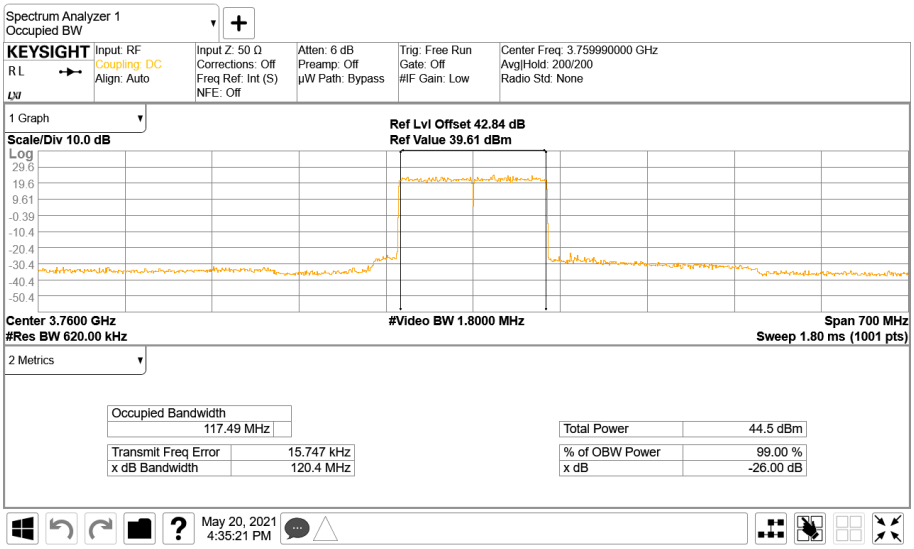


Configuration 6

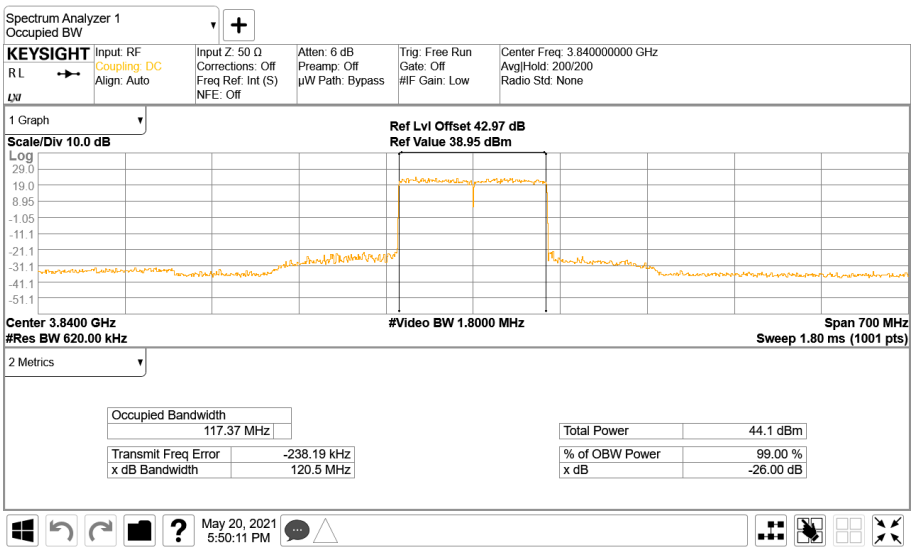
Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	2 x 60.00 MHz 30kHz SCS	117,490.52	120,392.52	117,369.08	120,505.26	117,285.54	120,925.30

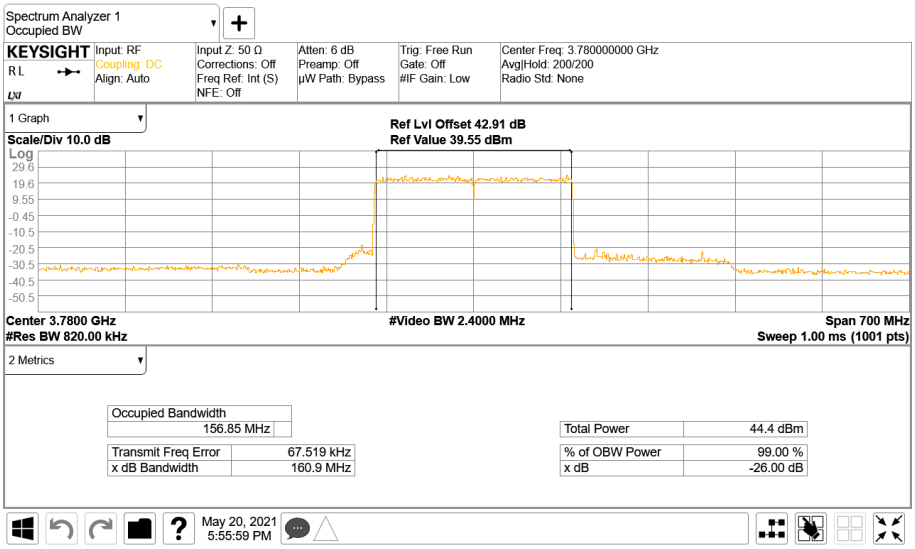
Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 60.0 MHz 30 kHz SCS - Channel Position T

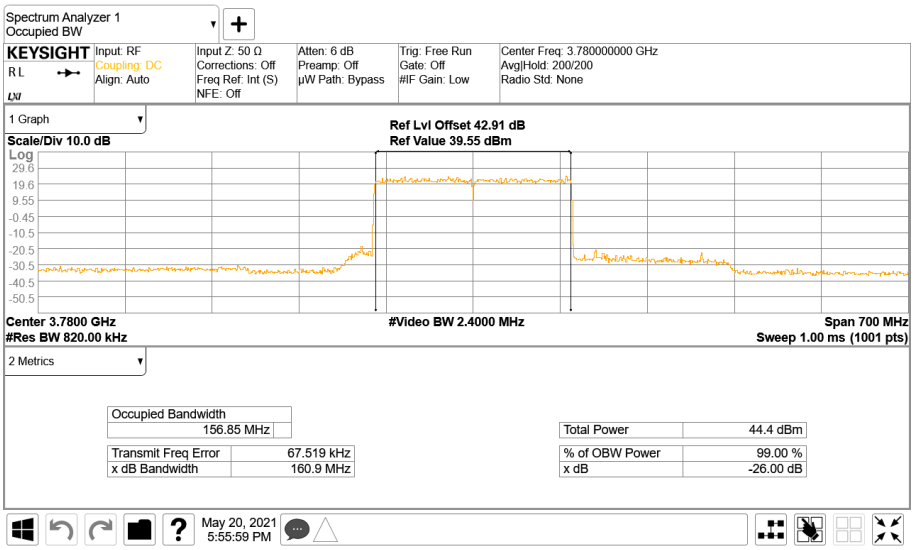


Configuration 6

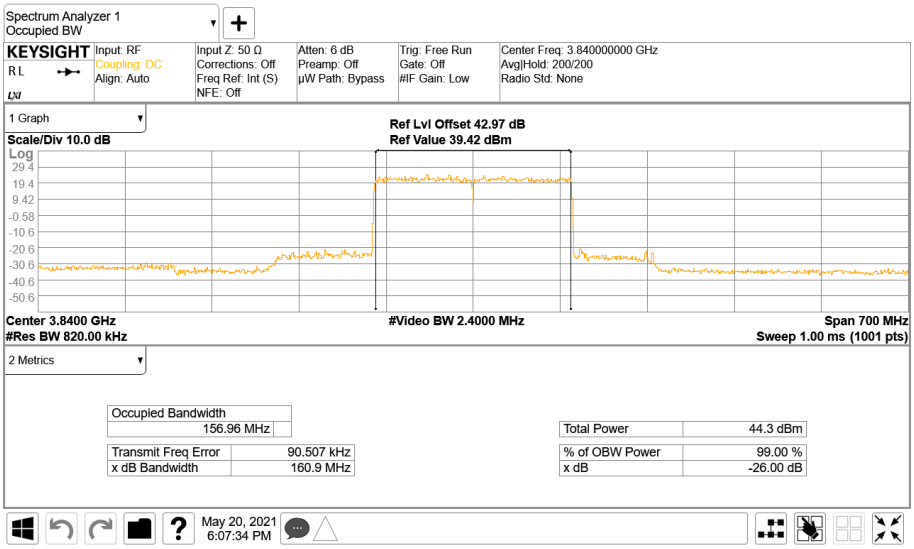
Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	2 x 80.00 MHz 30kHz SCS	156,850.45	160,936.62	156,961.43	160,949.25	157,273.33	160,923.87

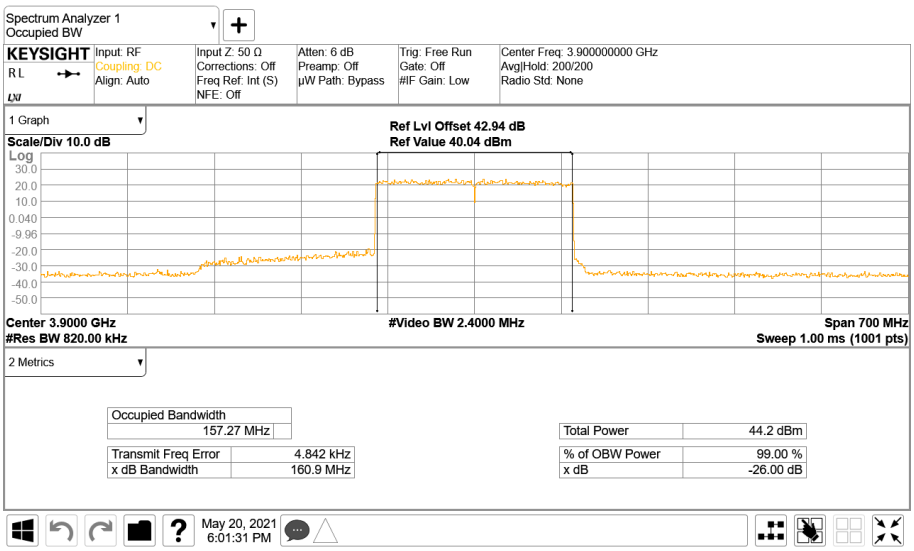
Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 80.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 80.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 80.0 MHz 30 kHz SCS - Channel Position T

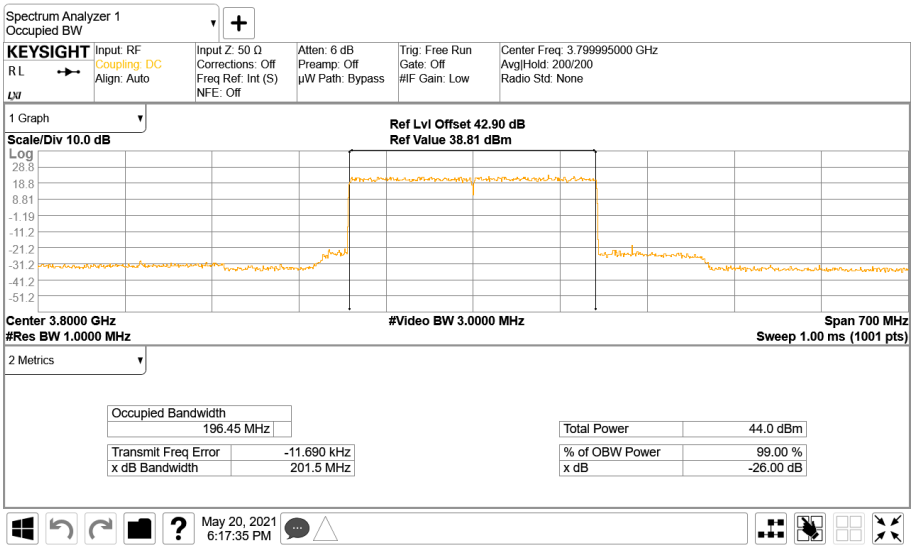


Configuration 6

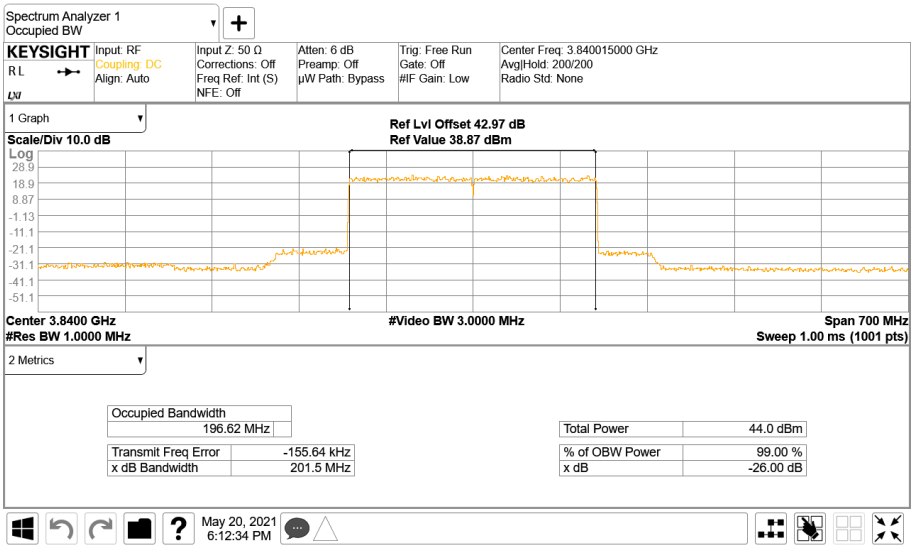
Maximum Output Power 37.00 dBm

Antenna	NR Modulation	NR Carrier Bandwidth	Result (MHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
3	64QAM	2 x 100.00 MHz 30kHz SCS	196,452.19	201,464.19	196,617.04	201,484.10	196,679.30	201,398.99

Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 100.0 MHz 30 kHz SCS - Channel Position B



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 100.0 MHz 30 kHz SCS - Channel Position M



Antenna 3 - NR Modulation 64QAM - NR Carrier Bandwidth 100.0 MHz 30 kHz SCS - Channel Position T