



Report On

FCC and ISED Testing of the Ericsson AIR 3283 B25 B66,
KRD 901 892/2, LTE and NR (2100 MHz) Base Station in accordance
with FCC CFR 47 Part 2, FCC CFR 47 Part 27, ISED RSS-GEN and
Industry Canada RSS-139

COMMERCIAL-IN-CONFIDENCE

FCC: TA8AKRD901892

IC: 287AB-AS901892

PREPARED BY

APPROVED BY

DATED

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20 November 2024

Document 75961458 Report 04 Issue 1

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SECTION 1

REPORT INFORMATION



1.1 REPORT DETAILS

Manufacturer	Ericsson
Address	Torshamnsgatan 23 Kista SE-16480 Stockholm Sweden
Product Name & Product Number	AIR 3283 B25 B66 - KRD 901 892/2
Serial Number(s)	E23F527361
Software Version	CXP2021151/1 – R23A113
Hardware Version	R1C
Non-Tested Variant (See Section 1.11 Additional Information)	KRD 901 892/1 KRD 901 892/11 KRD 901 892/21
Test Specification/Issue/Date	FCC CFR 47 Part 2: 2023 FCC CFR 47 Part 27: 2023 ISED RSS-GEN: Issue 5: March 2019 Amendment 1, 2021 Amendment 2 ISED RSS-139: Issue 4: Sept 2022, Amendment October 2022
Test Plan	General RA FCC Test Plan for AIR 3283 B25B66_3-4C_6C rev H
Start of Test	25-October-2024
Finish of Test	7-November-2024
Name of Engineer(s)	Shashi Kiran
Related Document(s)	KDB 971168 D01 v02r02 KDB 662911 D01 v02r01 ICES-003:Issue 7 (2020-10) ANSI C63.26-2015

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 and FCC CFR 47 Part 2: 2023, FCC CFR 47 Part 27: 2023, ISED RSS-GEN: Issue 5: March 2019 Amendment 1, 2021 Amendment 2, ISED RSS-139: Issue 4: Sept 2022, Amendment October 2022. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);


Shashi Kiran



1.2 BRIEF SUMMARY OF RESULTS

The tests that have been selected are detailed in the customer Test Plan as defined in section 1.1 of this report. The Test Plan is based on the TÜV SÜD FCC Test Plan Rationale, available on request.

A brief summary of results for each configuration, in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 27, ISSED RSS-GEN and ISSED RSS-139 is shown below.

Section	Specification Clause				Test Description	Result
	FCC CFR 47 Part 2	FCC CFR 47 Part 27	RSS-GEN	ISED RSS-139		
2.1	2.1046	27.50	6.11	5.5	Maximum Peak Output Power and Peak to Average Ratio - Conducted	Pass
2.2	2.1049	27.53	6.7	5.5	Occupied Bandwidth	Pass
2.3	2.1051	27.53	-	5.5	Band Edge	Pass
2.4	2.1051	27.53	6.13	5.6	Transmitter Spurious Emissions	Pass
-	2.1053	27.53	6.13	5.6	Radiated Spurious Emissions*	Pass

Testing in this Report covers only B66 (2110 MHz -2200 MHz).

For additional configurations and test cases not contained within this test report, refer to the following report:

TÜV SÜD Document 75961458 Report 01 – B25 (1930 MHz -1995 MHz) and B2 (1930 MHz - 1990 MHz).

TÜV SÜD Document 75961458 Report 02 – B66 (2110 MHz -2200 MHz)

TÜV SÜD Document 75961458 Report 03 – B25 (1930 MHz -1995 MHz) and B2 (1930 MHz - 1990 MHz).

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

Intertek Test Report reference 2409561STO-101 AIR3283 FCC2427 for (1-4Carriers)

Intertek Test Report reference 2407336STO-101 AIR3283 FCC2427 for (3-6Carriers)



1.3 TEST RATIONALE

The tests that have been selected are detailed in the customer Test Plan as defined in section 1.1 of this report. The Test Plan is based on the TÜV SÜD FCC Test Plan Rationale, available on request.

1.4 CONFIGURATION DESCRIPTION

Config No	No Of carriers	RAT Band	Carrier Bandwidth (MHz)	Carrier Frequency Configuration (MHz)				
				Channel position B (MHz)	Channel position M (MHz)	Channel position T (MHz)	Power (W) per carrier	Power (dBm) per RDNB connector
1 Sections 2.2, 2.4	4/3	LTE 66	5	2112.5 + 2117.5 + 2122.5 + 2127.5	2147.5 + 2152.5 + 2157.5 + 2152.5	2197.5 + 2192.5 + 2187.5 + 2182.5	4x40	4x30.96
			10	2115.0 + 2125.0 + 2135.0 + 2145.0	2140.0 + 2150.0 + 2160.0 + 2170.0	2195.0 + 2185.0 + 2175.0 + 2165.0	4x60	4x32.74
			15	2117.5 + 2132.5 + 2147.5 + 2162.5	2132.5 + 2147.5 + 2162.5 + 2177.5	2192.5 + 2177.5 + 2162.5 + 2147.5	4x60	4x32.74
			20	2120.0 + 2140.0 + 2160.0	2135.0 + 2155.0 + 2175.0	2190.0 + 2170.0 + 2150.0	3x80	3x33.97
1 Section 2.3			20	2120.0 + 2140.0 + 2160.0	N/A	2190.0 + 2170.0 + 2150.0	3x80	3x33.97
2 Section 2.1	4/3	LTE 66	5	2112.5 + 2117.5 + 2122.5 + 2127.5	2147.5 + 2152.5 + 2157.5 + 2152.5	2197.5 + 2192.5 + 2187.5 + 2182.5	4x28.75	4x29.53
			10	2115.0 + 2125.0 + 2135.0 + 2145.0	2140.0 + 2150.0 + 2160.0 + 2170.0	2195.0 + 2185.0 + 2175.0 + 2165.0	4x57.5	4x32.54
			15	2117.5 + 2132.5 + 2147.5 + 2162.5	2132.5 + 2147.5 + 2162.5 + 2177.5	2192.5 + 2177.5 + 2162.5 + 2147.5	4x60	4x32.74
			20	2120.0 + 2140.0 + 2160.0	2135.0 + 2155.0 + 2175.0	2190.0 + 2170.0 + 2150.0	3x80	3x33.97
3 Sections 2.2, 2.4	4/3	NR 66	5 – 15 kHz SCS	2112.5 + 2117.5 + 2122.5 + 2127.5	2147.5 + 2152.5 + 2157.5 + 2152.5	2197.5 + 2192.5 + 2187.5 + 2182.5	4x40	4x30.96
			10 – 15 kHz SCS	2115.0 + 2125.0 + 2135.0 + 2145.0	2140.0 + 2150.0 + 2160.0 + 2170.0	2195.0 + 2185.0 + 2175.0 + 2165.0	4x60	4x32.74
			15 – 15 kHz SCS	2117.5 + 2132.5 + 2147.5 + 2162.5	2132.5 + 2147.5 + 2162.5 + 2177.5	2192.5 + 2177.5 + 2162.5 + 2147.5	4x60	4x32.74
			20 – 15 kHz SCS	2120.0 + 2140.0 + 2160.0	2135.0 + 2155.0 + 2175.0	2190.0 + 2170.0 + 2150.0	3x80	3x33.97
3 Section 2.3			20 – 15 kHz SCS	2120.0 + 2140.0 + 2160.0	N/A	2190.0 + 2170.0 + 2150.0	3x80	3x33.97
4 Section 2.1	4/3	NR 66	5 – 15 kHz SCS	2112.5 + 2117.5 + 2122.5 + 2127.5	2147.5 + 2152.5 + 2157.5 + 2152.5	2197.5 + 2192.5 + 2187.5 + 2182.5	4x28.75	4x29.53
			10 – 15 kHz SCS	2115.0 + 2125.0 + 2135.0 + 2145.0	2140.0 + 2150.0 + 2160.0 + 2170.0	2195.0 + 2185.0 + 2175.0 + 2165.0	4x57.5	4x32.54
			15 – 15 kHz SCS	2117.5 + 2132.5 + 2147.5 + 2162.5	2132.5 + 2147.5 + 2162.5 + 2177.5	2192.5 + 2177.5 + 2162.5 + 2147.5	4x60	4x32.74
			20 – 15 kHz SCS	2120.0 + 2140.0 + 2160.0	2135.0 + 2155.0 + 2175.0	2190.0 + 2170.0 + 2150.0	3x80	3x33.97
5 Section 2.3	3	LTE+NR 66	LTE 20 QPSK+ NR 20 QPSK + NR 20 QPSK	2120.0(LTE) + 2140.0(NR) + 2160.0(NR)	N/A	2190.0(LTE) + 2170.0(NR) + 2150.0(NR)	3x80	3x33.97



Config No	No Of carriers	RAT Band	Carrier Bandwidth (MHz)	Carrier Frequency Configuration (MHz)				
				Channel position B (MHz)	Channel position M (MHz)	Channel position T (MHz)	Power (W) per carrier	Power (dBm) per RDNB connector
5 Section 2.4	4	LTE+NR 66	LTE 20 QPSK+ NR 20 QPSK + NR 20 QPSK	2120.0(LTE) + 2140.0(NR) + 2160.0(NR)	2135.0(LTE) + 2155.0(NR) + 2175.0(NR)	2190.0(LTE) + 2170.0(NR) + 2150.0(NR)	3x80	3x33.97
6 Sections 2.3			LTE 15 QPSK+ LTE 15 QPSK+ NR 15 QPSK + NR 15 QPSK	2117.5(LTE) + 2132.5(LTE) + 2147.5(NR) + 2162.5(NR)	N/A	2192.5(LTE) + 2177.5(LTE) + 2162.5(NR) + 2147.5(NR)	4x60	4x32.74
6 Sections 2.4			LTE 15 QPSK+ LTE 15 QPSK+ NR 15 QPSK + NR 15 QPSK	2117.5(LTE) + 2132.5(LTE) + 2147.5(NR) + 2162.5(NR)	2132.5(LTE) + 2147.5(LTE) + 2162.5(NR) + 2177.5(NR)	2192.5(LTE) + 2177.5(LTE) + 2162.5(NR) + 2147.5(NR)	4x60	4x32.74
7 Section 2.1	3	LTE+NR 66	LTE 20 QPSK+ NR 20 QPSK + NR 20 QPSK	2120.0(LTE) + 2140.0(NR) + 2160.0(NR)	2135.0(LTE) + 2155.0(NR) + 2175.0(NR)	2190.0(LTE) + 2170.0(NR) + 2150.0(NR)	3x80	3x33.97
8 Sections 2.1	4	LTE+NR 66	LTE 15 QPSK+ LTE 15 QPSK+ NR 15 QPSK + NR 15 QPSK	2117.5(LTE) + 2132.5(LTE) + 2147.5(NR) + 2162.5(NR)	2132.5(LTE) + 2147.5(LTE) + 2162.5(NR) + 2177.5(NR)	2192.5(LTE) + 2177.5(LTE) + 2162.5(NR) + 2147.5(NR)	4x60	4x32.74
9 Sections 2.1, 2.3, 2.4	5	LTE+NR 25, 66	LTE-5 64QAM Band 25+ NR-20 QPSK Band 25+ LTE-20 QPSK Band 66+ NR-20 QPSK Band 66+ NR-20 QPSK Band 66	1932.5+1950+2120+2140 +2160	1942.5+1962.5+2135+2155 +2175	1992.5+1975+2150+2170+21 90	20(LTE)+120(NR)+60(LTE)+60(NR)+60(NR)	27.95(LTE)+35.7 4(NR)+32.74(LTE)+32.74(NR)+32. 74(NR)
10 Sections 2.1, 2.3, 2.4	5	LTE+NR 2, 66	LTE-5 64QAM Band 2+ NR-20 QPSK Band 2+ LTE-20 QPSK Band 66+ NR-20 QPSK Band 66+ NR-20 QPSK Band 66	N/A	N/A	1987.5+1970+2150+2170+21 90	20(LTE)+120(NR)+60(LTE)+60(NR)+60(NR)	27.95(LTE)+35.7 4(NR)+32.74(LTE)+32.74(NR)+32. 74(NR)
11 Sections 2.1, 2.3, 2.4	5	LTE+NR 25, 66	LTE-5 64QAM Band 25+ NR-20 QPSK Band 25+ NR-20 QPSK Band 25+ LTE-20 QPSK Band 66+ NR-20 QPSK Band 66	1932.5+1945+1965+2120 +2140	1942.5+1955+19750+2155+ 2175	1992.5+1980+1960+2170+21 90	20(LTE)+120(NR)+60(NR)+60(LTE)+60(NR)	27.95(LTE)+35.7 4(NR)+32.74(NR)+32.74(LTE)+32. 74(NR)
12 Sections 2.1, 2.3, 2.4	5	LTE+NR 2, 66	LTE-5 64QAM Band 2+ NR-20 QPSK Band 2+ NR-20 QPSK Band 2+ LTE-20 QPSK Band 66+ NR-20 QPSK Band 66	N/A	N/A	1987.5+1975+1955+2170+21 90	20(LTE)+120(NR)+60(NR)+60(LTE)+60(NR)	27.95(LTE)+35.7 4(NR)+32.74(NR)+32.74(LTE)+32. 74(NR)



Config No	No Of carriers	RAT Band	Carrier Bandwidth (MHz)	Carrier Frequency Configuration (MHz)				
				Channel position B (MHz)	Channel position M (MHz)	Channel position T (MHz)	Power (W) per carrier	Power (dBm) per RDNB connector
13 Sections 2.1, 2.3, 2.4	6	LTE+NR 25, 66	LTE-5 64QAM Band 25+ NR-20 QPSK Band 25+ LTE-20 QPSK Band 66+ NR-20 QPSK Band 66+ NR-20 QPSK Band 66	1932.5+1937.5+1950+2120+2140+2160	1942.5+1947.5+1960+2135+2155+2175	1992.5+1987.5+1975+2150+2170+2190	20(LTE)+20(NR)+60(NR)+60(LTE)+60(NR)+60(NR)	27.95(LTE)+27.95(NR)+32.74(NR)+32.74(LTE)+32.74(NR)+32.74(NR)
14 Sections 2.1, 2.3, 2.4	6	LTE+NR 2, 66	LTE-5 64QAM Band 2+ NR-20 QPSK Band 2+ NR-20 QPSK Band 2+ LTE-20 QPSK Band 66+ NR-20 QPSK Band 66+ NR-20 QPSK Band 66	N/A	N/A	1987.5+1982.5+1970+2150+2170+2190	20(LTE)+20(NR)+60(NR)+60(LTE)+60(NR)+60(NR)	27.95(LTE)+27.95(NR)+32.74(NR)+32.74(LTE)+32.74(NR)+32.74(NR)
15 Section 2.1, 2.3, 2.4	6	LTE+NR 25, 66	LTE-5 64QAM Band 25+ NR-15 QPSK Band 25+ LTE-15 QPSK Band 66+ LTE-15 QPSK Band 66+ NR-15 QPSK Band 66+ NR-15 QPSK Band 66	1932.5+1960+2117.5+2132.5+2147.5+2162.6	1942.5+1962.5+2132.5+2147.5+2162.5+2177.5	1992.5+1965+2192.5+2177.5+2162.5+2147.5	20(LTE)+60(NR)+60(LTE)+60(LTE)+60(LTE)+60(NR)+60(NR)	27.95(LTE)+32.74(NR)+32.74(LTE)+32.74(LTE)+32.74(LTE)+32.74(NR)+32.74(NR)
16 Section 2.1, 2.3, 2.4	6	LTE+NR 2, 66	LTE-5 64QAM Band 2+ NR-15 QPSK Band 2+ LTE-15 QPSK Band 66+ LTE-15 QPSK Band 66+ NR-15 QPSK Band 66+ NR-15 QPSK Band 66	N/A	N/A	1987.5+1965+2192.5+2177.5+2162.5+2147.5	20(LTE)+60(NR)+60(LTE)+60(LTE)+60(LTE)+60(NR)+60(NR)	27.95(LTE)+32.74(NR)+32.74(LTE)+32.74(LTE)+32.74(LTE)+32.74(NR)+32.74(NR)



1.5 DECLARATION OF BUILD STATUS

Equipment Description		
Technical Description:	Multi standard AIR 3283 B25 B66 32Tx/32Rx	
Manufacturer:	Ericsson AB	
Model:	AIR 3283 B25 B66	
Part Number:	KRD 901 892/1 With Antenna, Security Unlocked. KRD 901 892/11** With Antenna, Security Locked KRD 901 892/2* CAB-unit, Security Unlocked KRD 901 892/21 CAB unit, Security Locked	
	Note*: Tested unit	
	Note**: This will be the marketed, sold unit	
Hardware Version:	R1C	
Software Version:	CXP2021151/1-R23A113	
FCC ID of the product under test	TA8AKRD901892	
IC ID of the product under test	287AB-AS901892	
HVIN	AS901892	
FVIN	CXP2021151/1-R23A113	
Intentional Radiators		
RAT	LTE	NR SCS 15kHz
Frequency Range (MHz to MHz) B25/n25	1930MHz -1995MHz	1930MHz -1995MHz
Frequency Range (MHz to MHz) B2/n2	1930MHz -1990MHz	1930MHz -1990MHz
Frequency Range (MHz to MHz) B66/n66	2110MHz -2200MHz	2110MHz -2200MHz
Conducted Declared Output Power (dBm)	40dBm (10W)Max output power per carrier 53,8dBm(240W)Max output power per band 55dBm (320W)Max output power multi band per Radio	40dBm (10W)Max output power per carrier 53,8dBm(240W)Max output power per band 55dBm (320W)Max output power multi band per Radio
Antenna Gain (dBi)	B2/n2, B25/n25 is 23.7 dBi and B66/n66 is 23.7 dBi	
Antenna Impedance(Ω)	50	
Total RF bandwidth (BW) B25/n25	65MHz	65MHz
Total RF bandwidth (BW) B66/n66	90MHz	90MHz
Total RF bandwidth (BW) B2/n2	60MHz	60MHz
Total RF bandwidth (BW) multiband(B2/n2, B25/n25 + B66/n66)	270 MHz(Both SRO and MRO)	270 MHz(Both SRO and MRO)
Maximum Opertional bandwidth (BW) multiband(B25/B2, B66)	90 MHz(Both SRO and MRO)	90 MHz(Both SRO and MRO)
Supported Bandwidth(s) (MHz) B2/n2, B25/n25, B66/n66	LTE: 5,10, 15,20MHz	NR: 5,10,15, 20MHz
Modulation Scheme(s) B2/n2, B25/n25, B66/n66	LTE:QPSK, 16QAM, 64QAM, 256QAM	NR: QPSK, 16QAM, 64QAM, 256QAM
ITU Emission Designator B2/n2, B25/n25	5MHz BW: 4M50W7D 10MHz BW: 8M96W7D 15MHz BW: 13M5W7D 20MHz BW: 17M9W7D carrier aggregation:37M7W7D(20MHz+20MHz) carrier aggregation: BW: 57M4W7D(20 MHz+ 20MHz + 20MHz)	5MHz BW: 4M48W7D 10MHz BW: 9M28W7D 15MHz BW: 14M2W7D 20MHz BW: 19M0W7D carrier aggregation: BW: 38M7W7D(20MHz+20MHz) carrier aggregation: BW: 58M5W7D(20 MHz + 20MHz + 20MHz)



ITU Emission Designator B66/n66	5MHz BW: 4M48W7D 10MHz BW: 8M96W7D 15MHz BW: 13M5W7D 20MHz BW: 17M9W7D carrier aggregation: 37M7W7D(20MHz+20MHz) carrier aggregation: 57M5W7D(20MHz+20MHz + 20MHz) carrier aggregation:57M9W7D(15MHz+ 15MHz + 15MHz + 15MHz)	5MHz BW: 4M48W7D 10MHz BW: 9M28W7D 15MHz BW: 14M1W7D 20MHz BW: 19M0W7D carrier aggregation: BW: 38M7W7D(20MHz+20MHz) carrier aggregation: BW:58M5W7D(20MHz+20MHz + 20MHz) carrier aggregation: BW:58M6W7D(15MHz+ 15MHz + 15MHz + 15MHz)	
Duplex mode:	FDD	FDD	
Supported transmission modes:	32 x 32 MIMO	32 x 32 MIMO	
Maximum number of carriers per band B25/n25 /Port	3(Both SRO and MRO)	3 (Both SRO and MRO)	
Maximum number of carriers per band B2/n2 /Port	3(Both SRO and MRO)	3(Both SRO and MRO)	
Maximum number of carriers per band B66/n66 /Port	4(Both SRO and MRO)	4(Both SRO and MRO)	
Maximum number of carriers per multi band (B2/n2, B25/n25 + B66/n66)/Port	6(Both SRO and MRO)	6(Both SRO and MRO)	
Antenna Characteristics			
Temporary antenna connector	State impedance	50 Ohm	
Integral antenna	Type:	AAS (Advanced Antenna System)	
EIRP Limit to be used	Non-rural :B66/n66 PSD <5.75W/MHz and B25/n25, B2/n2 PSD <6W/MHz		
Unintentional Radiators			
Highest frequency generated or used in the device or on which the device operates or tunes		Up to 25.8 Gbit/s	
Lowest frequency generated or used in the device or on which the device operates or tunes if <30MHz		.-	
Class A Digital Device (Use in commercial, industrial or business environment)		.-	
Class B Digital Device (Use in residential environment)		Class B	
DC Power Supply (Delete if Not Applicable)			
Nominal voltage:	-48V		
Operating (Normal) Voltage:	-53.22V		
Extreme upper voltage:	-36V		
Extreme lower voltage:	-58.5V		
Max current:	50A		
Temperature			
Minimum temperature:	-40°C		
Maximum temperature:	55°C		
Ancillaries			
Equipment Description	Model:	Part Number:	Manufacturer:
Baseband simulator CT-DU25	LPC 102 500/1	T01G522534	Ericsson
Power Supply Unit CT-DU25/LP2x700W	BML 901 468/1	LP00318	Ericsson
I hereby declare that I am entitled to sign on behalf of the manufacturer and that the information supplied is correct and complete.			
Name:	Afrah Ali sadiq		
Position held:	Regulatory Approval Engineer		
Email address:	Afrah.ali.sadiq@ericsson.com		
Telephone number:	.+46724650796		
Date:	14/11/2024		

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

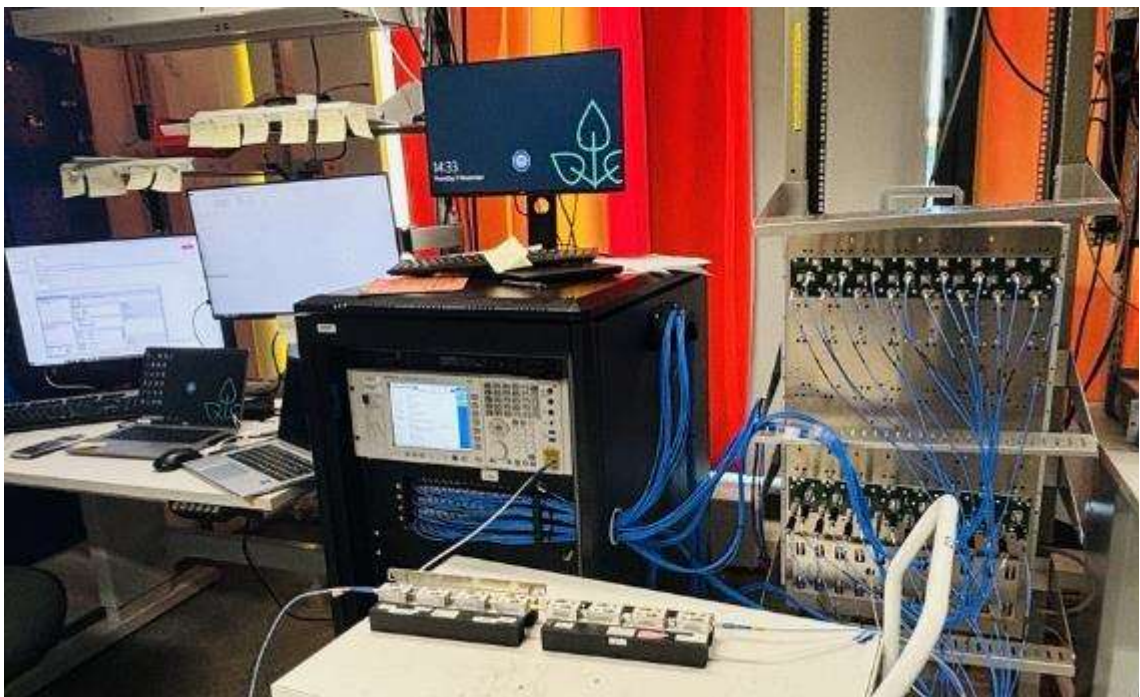
1.6 PRODUCT INFORMATION

1.6.1 Technical Description

The Equipment Under Test (EUT) AIR 3283 B25 B66 - KRD 901 892/2 is an Ericsson AB Radio Unit working in the public mobile service Band 1 band which provides communication connections to Band 1 network.

The EUT is declared as operating from a nominal -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.

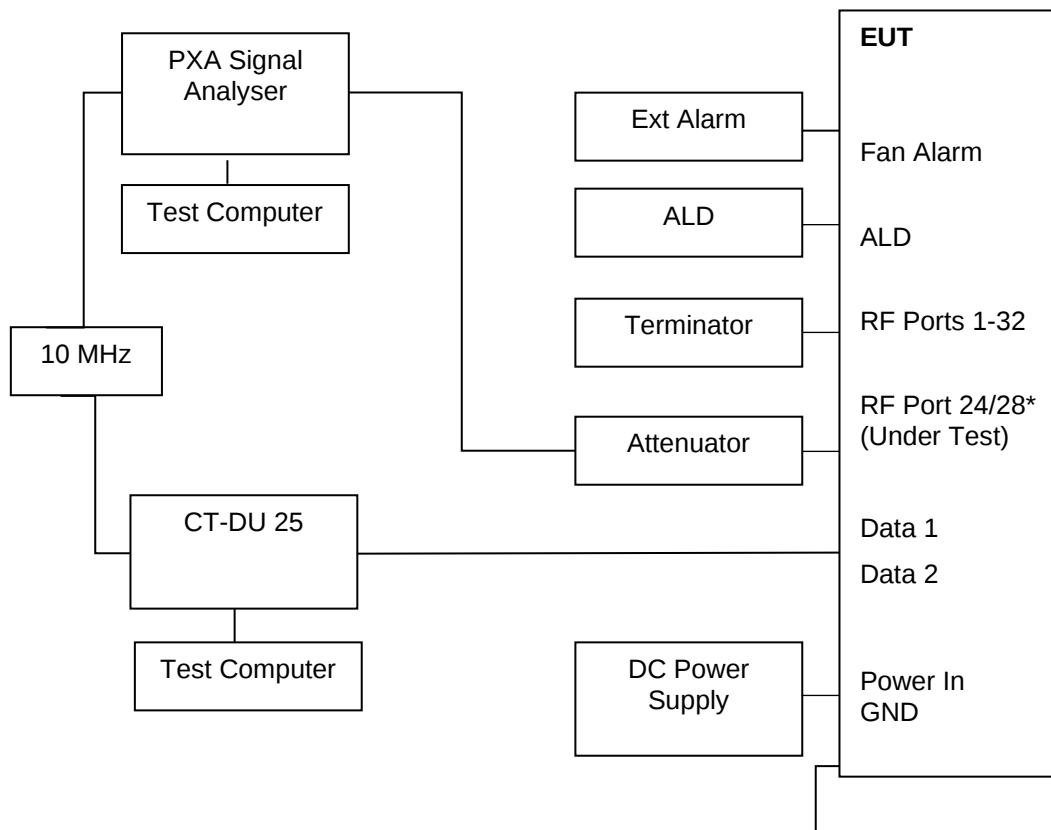


Equipment Under Test

1.7 TEST SETUP

Conducted Test Set Up – Carrier Power, PAR, PSD, Band Edge, OBW, Conducted Emissions

*Ports 24 or 28 have been used in the Multiband Tests.





1.8 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 -53.22 V DC supply unless otherwise stated.

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

ISED Accreditation
IC#26170 Ericsson Test Laboratory, Kista
Postal Address: Ericsson AB, Isafjordsgatan 10, Stockholm, SE-164 40, Sweden

Under our group Swedac Accreditation, TÜV SÜD Sverige conducted the following tests
Ericsson Test Lab, Kista.

Test Name	Name of Engineer(s)
Maximum Peak Output Power and Peak to Average Ratio - Conducted	Shashi Kiran Gangaraju
Occupied Bandwidth	Shashi Kiran Gangaraju
Band Edge	Shashi Kiran Gangaraju
Transmitter Spurious Emissions	Shashi Kiran Gangaraju

1.9 DEVIATION FROM THE STANDARD

No deviations from the applicable test standards or test plan were made during testing.

1.10 MODIFICATION RECORD

No modifications were made to the EUT during testing.



1.11 ADDITIONAL INFORMATION

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 using Module 1, as defined below and in the Module Annex.

Band 25/2

The port with the highest power, worst case port was port 28.

Worst case modulation was 64QAM for LTE.

Worst case modulation was QPSK for NR.

Worst case bandwidth was 5 MHz for LTE.

Worst case bandwidth was 20 MHz for NR.

Band 66

The port with the highest power, worst case port was port 24

Worst case modulation was QPSK for LTE.

Worst case modulation was QPSK for NR.

Worst case bandwidth was 20 MHz for LTE.

Worst case bandwidth was 20 MHz for NR.

These worst-case results are presented in this report to demonstrate compliance.

Ports 24 or 28 have been used in the Multiband Tests.

TÜV SÜD retains all results, plots and printouts for the tests performed and also calibration details of the test equipment used.

This EUT uses the same port for Tx and Rx and therefore RX Spurious Emissions has not been performed. Rx Spurious Emissions have been covered by testing to FCC Part 15B, which are covered by a separate test report.

Ericsson have provided the following details about the variants of the AIR 3283 B25 B66

KRD 901 892/1 With Antenna, Security Unlocked.

KRD 901 892/11** With Antenna, Security Locked

KRD 901 892/2* CAB-unit, Security Unlocked

KRD 901 892/21 CAB unit, Security Locked

Note*: Tested unit

Note**: This will be the marketed, sold unit

The KRD 901 892/11 is equivalent to KRD 901 892/2 in conducted radio performance terms, as such no extra testing is required to prove conformity.

In Section 1.5 Ericsson's Declaration of Build Status shows the EIRP Limit to be used under the Antenna Characteristics section.

Throughout this report the power unit dBm is used. dBm is a unit of level used to indicate that a power level is expressed in decibels (dB) with reference to one milliwatt (mW). It is used as a convenient measure of absolute power because of its capability to express both very large and very small values in a short form.

Testing shows Regulatory Compliance for the AIR 3283 B25 B66, KRD 901 892/2.



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
ISED RSS-GEN, Clause 6.11
ISED RSS-139, Clause 5.5
FCC CFR 47 Part 2, Clause 2.1046

2.1.2 Date of Test and Modification State

25, 29, 30 October, 04, 05, 06 and 07-November-2024 - 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	21.8 - 23.0°C
Relative Humidity	31.5 - 35.6%

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.

Measurements and calculations for In Band Power Spectral Density (PSD) have been made either in accordance with FCC KDB 662911 D01 V02r01 E 2) a) and ANSI C63.26.6.4.3.2.2 for In-Band Power Spectral Density (PSD) Measurements, Measure and sum the spectra across the outputs or in accordance with FCC KDB 662911 D01 V02r01 E 2) c) and ANSI C63.26.6.4.3.2.4 Measure and add $[10 \log (N_{out})]$ dB using the following calculation

Calculations:

Total power = Measured Output Power (port x, worst case) + $10 \log (N_{ANT})$ + Declared Antenna Gain

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

The worst case modulation and bandwidth plots are presented here, all other applicable plots are retained by TUV SUD and available for presentation if required

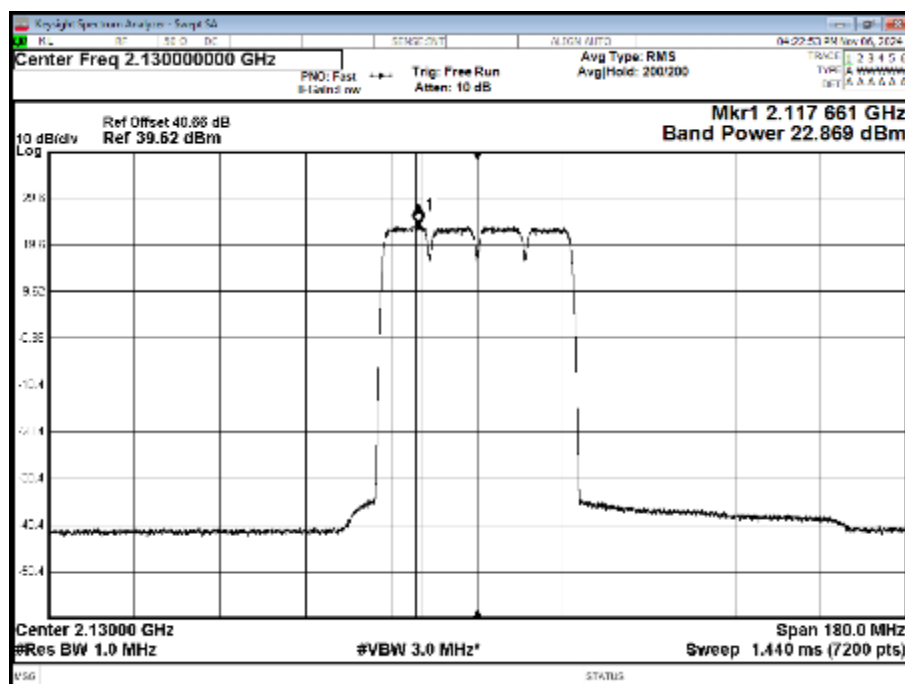
2.1.6 Test Results

Configuration 2

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE Modulation	LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
24	QPSK	5.0 MHz	-	35.07	22.73	50.12	37.78	23.70	61.48	0.67
24	QPSK	10.0 MHz	-	38.17	22.87	53.22	37.92	23.70	61.62	0.53
24	QPSK	15.0 MHz	-	38.37	21.41	53.42	36.46	23.70	60.16	1.99

Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position B

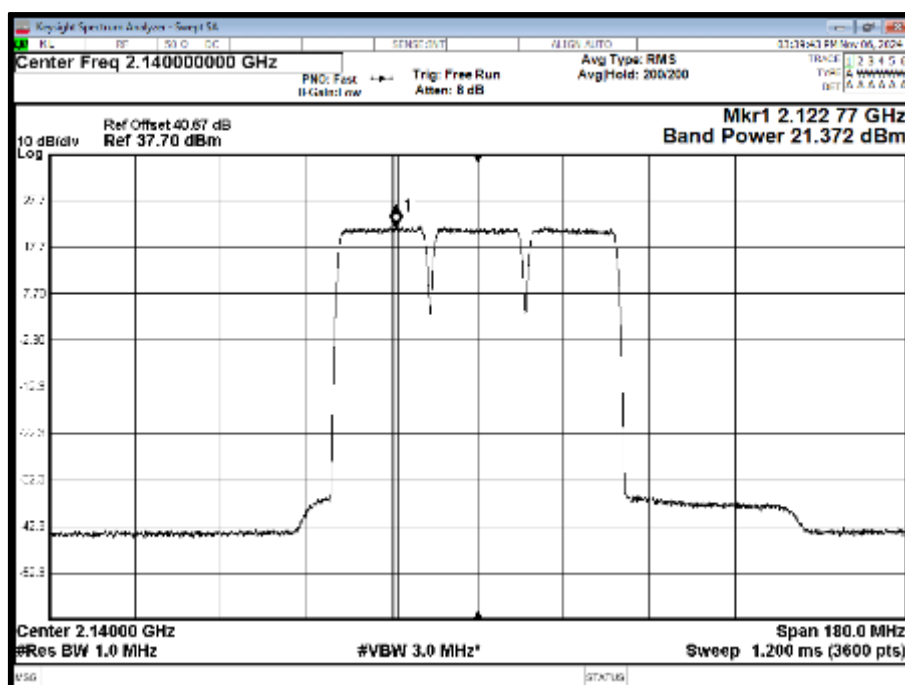


Configuration 2

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE Modulation	LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK	20.0 MHz	-	38.33	21.37	53.38	36.42	23.70	60.12	2.03

Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position B

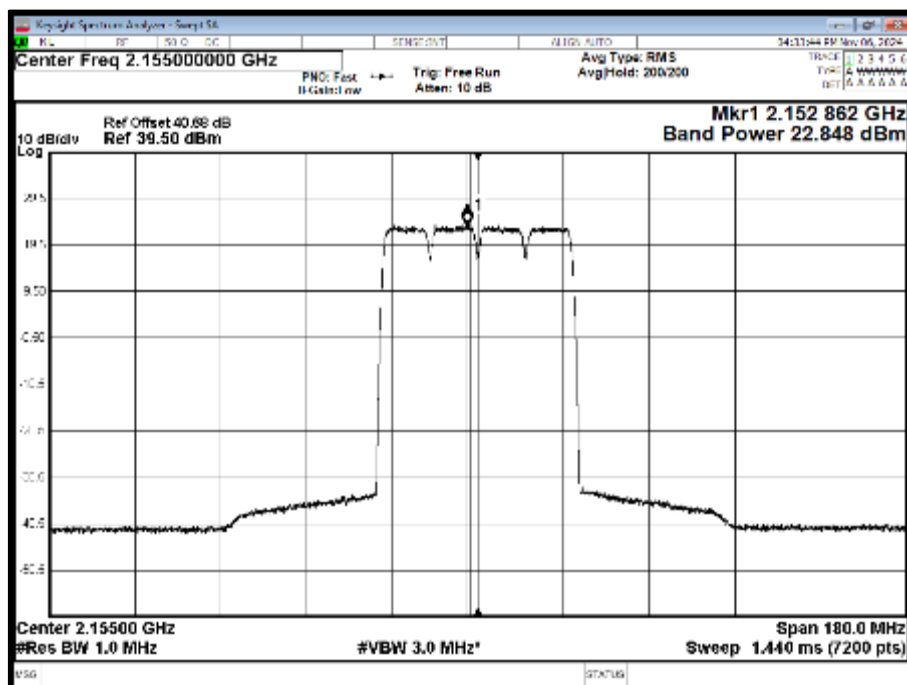


Configuration 2

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE Modulation	LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK	5.0 MHz	-	35.11	22.76	50.16	37.81	23.70	61.51	0.64
24	QPSK	10.0 MHz	-	38.17	22.85	53.22	37.90	23.70	61.60	0.55
24	QPSK	15.0 MHz	-	38.36	21.31	53.41	36.36	23.70	60.06	2.09

Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position M

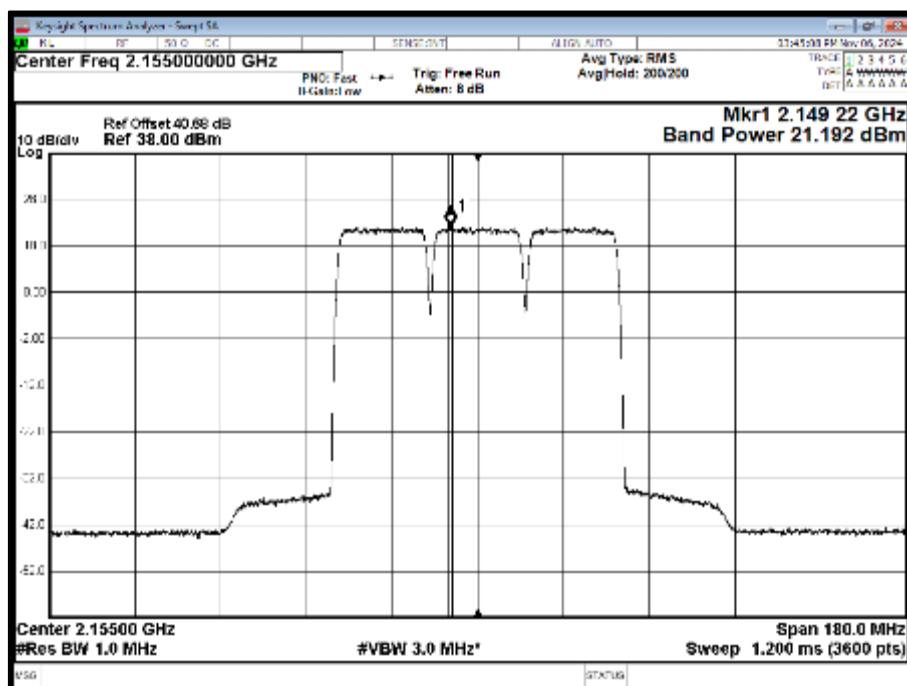


Configuration 2

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE Modulation	LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
24	QPSK	20.0 MHz	-	38.32	21.19	53.37	36.24	23.70	59.94	62.15

Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position M



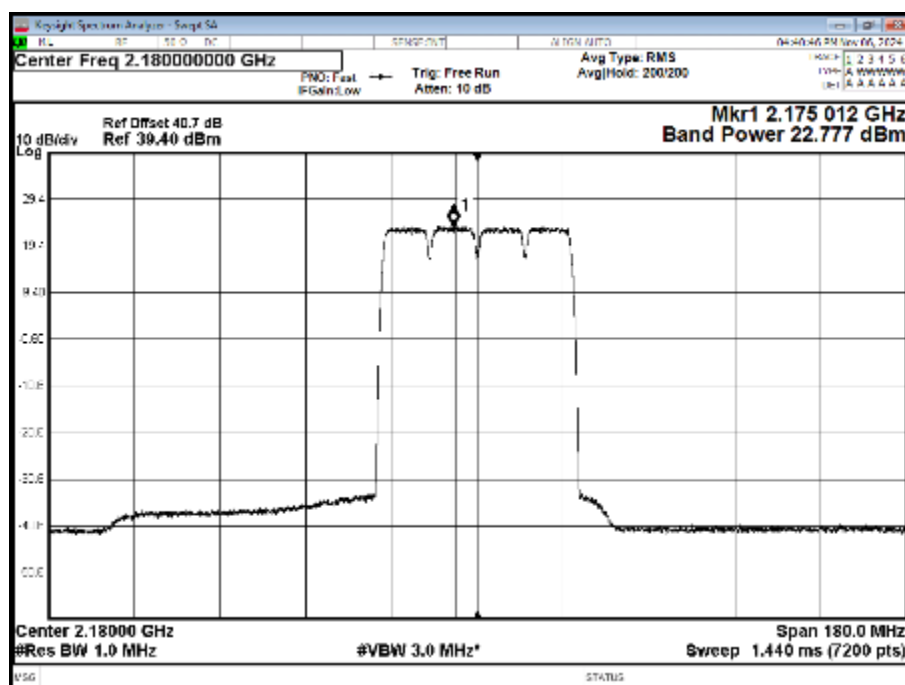


Configuration 2

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE Modulation	LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK	5.0 MHz	-	35.05	22.67	50.10	37.72	23.70	61.42	0.73
24	QPSK	10.0 MHz	-	38.14	22.78	53.19	37.83	23.70	61.53	0.62
24	QPSK	15.0 MHz	-	38.41	21.27	53.46	36.32	23.70	60.02	2.13

Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position T

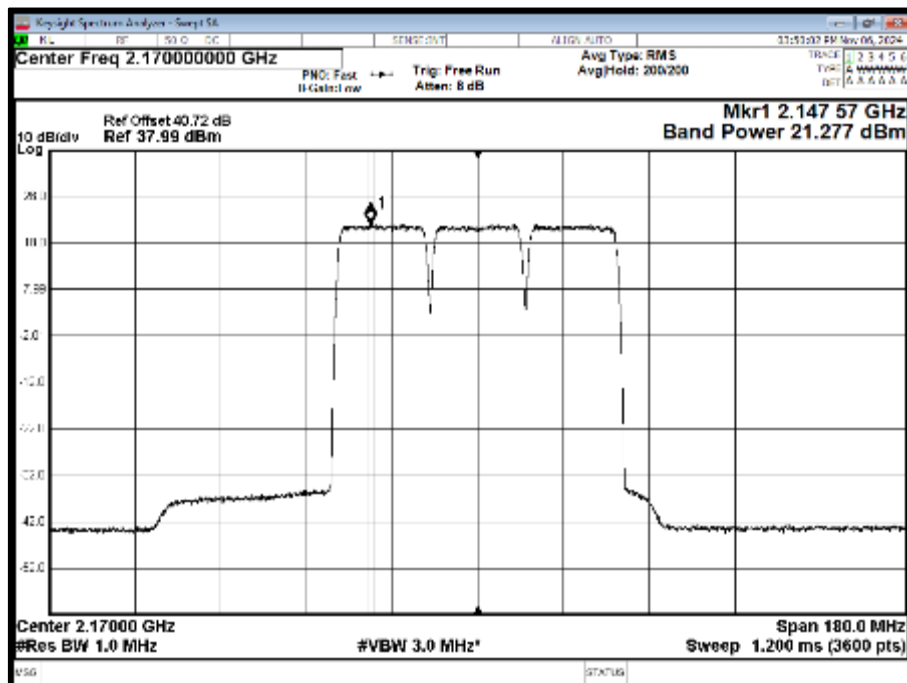


Configuration 2

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE Modulation	LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK	20.0 MHz	-	38.27	21.28	53.32	36.33	23.70	60.03	2.12

Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position T



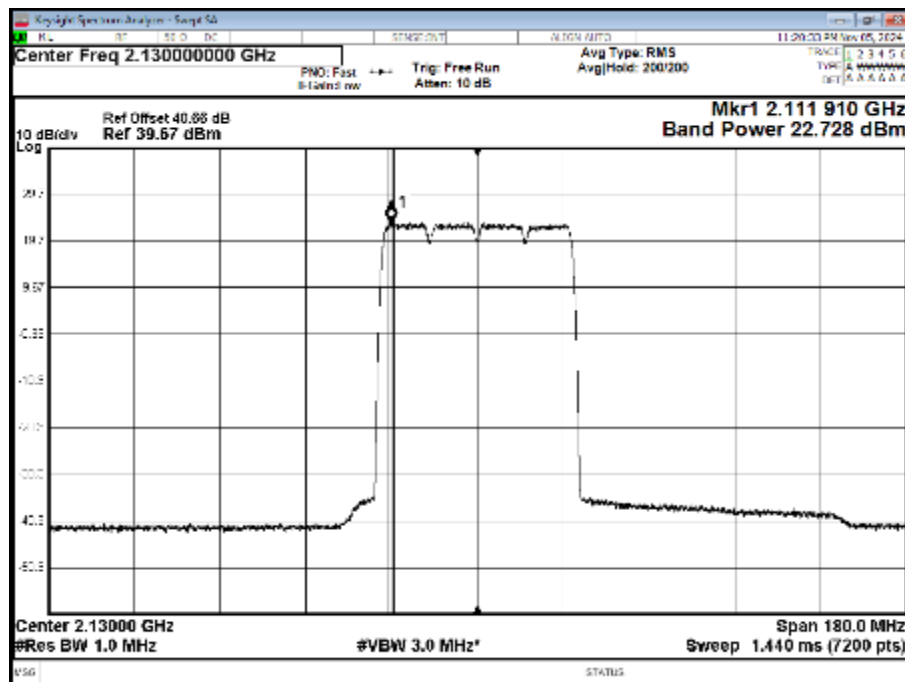


Configuration 4

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK	5.0 MHz 15 kHz SCS	-	35.03	22.71	50.08	37.76	23.70	61.46	0.69
24	QPSK	10.0 MHz 15 kHz SCS	-	38.14	22.73	53.19	37.78	23.70	61.48	0.67
24	QPSK	15.0 MHz 15 kHz SCS	-	38.33	21.10	53.38	36.15	23.70	59.85	2.30

Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz - Channel Position B



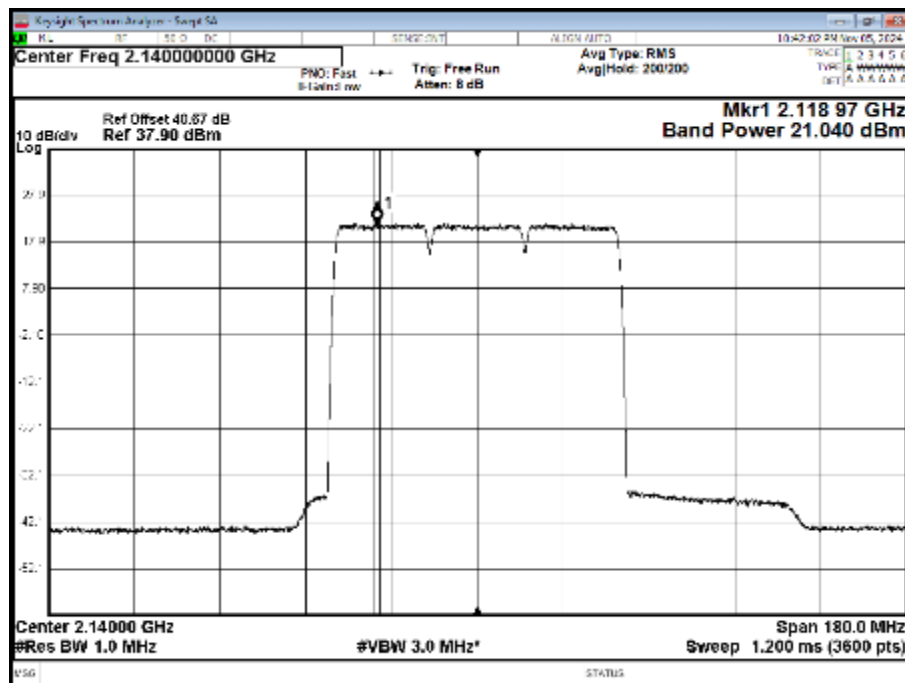


Configuration 4

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK	20.0 MHz 15 kHz SCS	-	38.29	21.04	53.34	36.09	23.70	59.79	62.15

Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz - Channel Position B

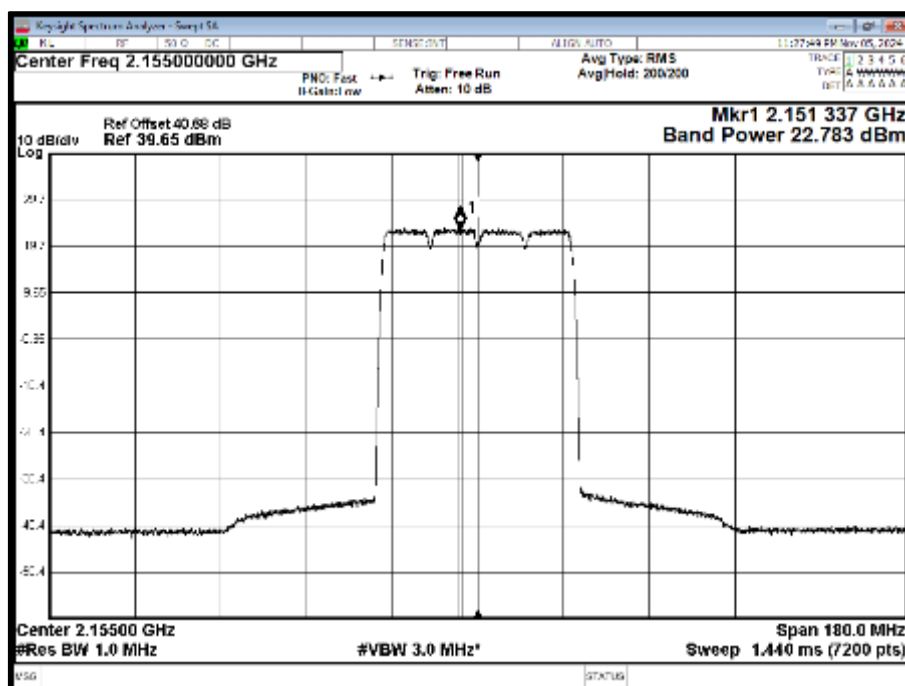


Configuration 4

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK	5.0 MHz 15 kHz SCS	-	35.07	22.75	50.12	37.80	23.70	61.50	0.65
24	QPSK	10.0 MHz 15 kHz SCS	-	38.14	22.78	53.19	37.83	23.70	61.53	0.62
24	QPSK	15.0 MHz 15 kHz SCS	-	38.35	21.10	53.40	36.15	23.70	59.85	2.30

Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz - Channel Position M

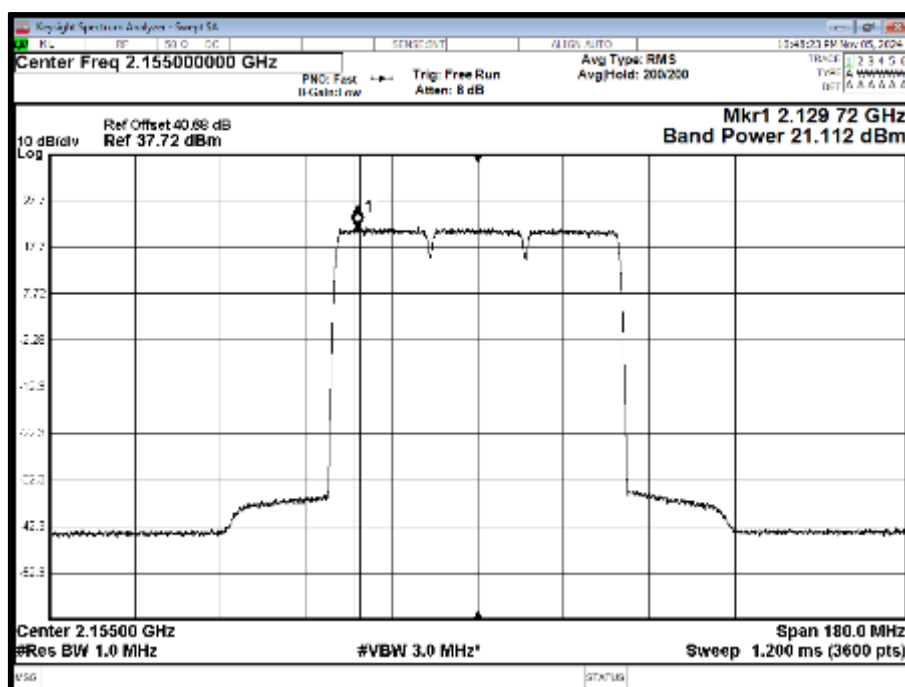


Configuration 4

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
24	QPSK	20.0 MHz 15 kHz SCS	-	38.29	21.11	53.34	36.16	23.70	59.86	62.15

Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz - Channel Position M

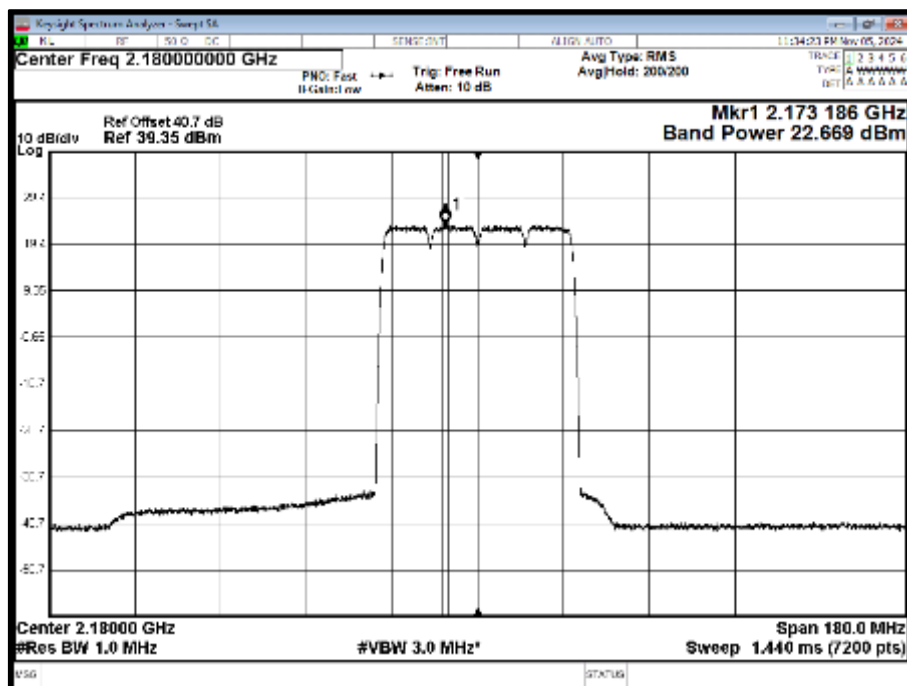


Configuration 4

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK	5.0 MHz 15 kHz SCS	-	35.03	22.62	50.08	37.67	23.70	61.37	0.78
24	QPSK	10.0 MHz 15 kHz SCS	-	38.10	22.67	53.15	37.72	23.70	61.42	0.73
24	QPSK	15.0 MHz 15 kHz SCS	-	38.34	21.09	53.39	36.14	23.70	59.84	2.31

Antenna 24 – NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz - Channel Position T

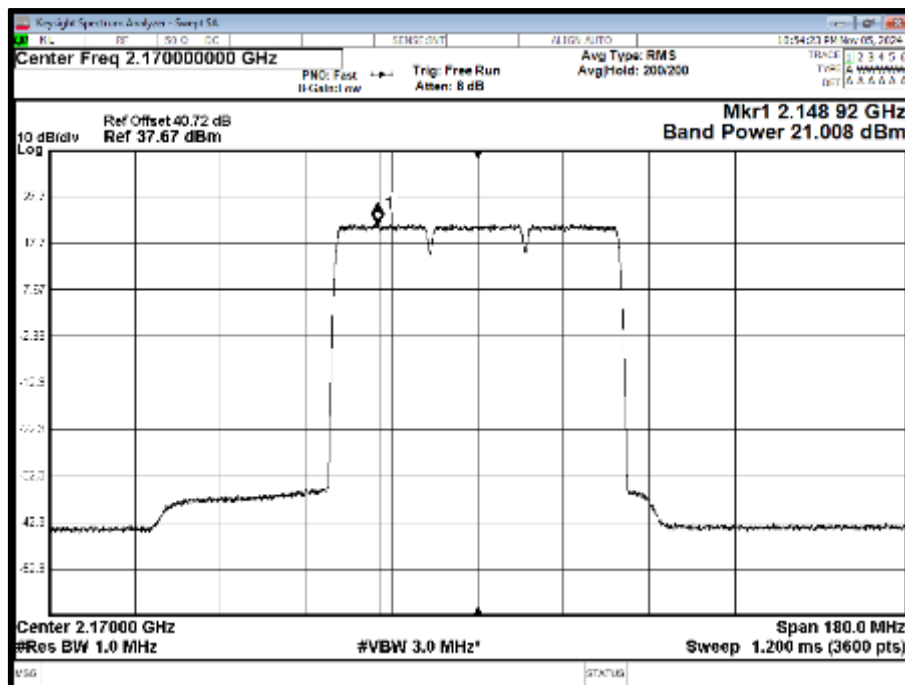


Configuration 4

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
24	QPSK	20.0 MHz 15 kHz SCS	-	38.27	21.01	53.32	36.06	23.70	59.76	62.15

Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz - Channel Position T

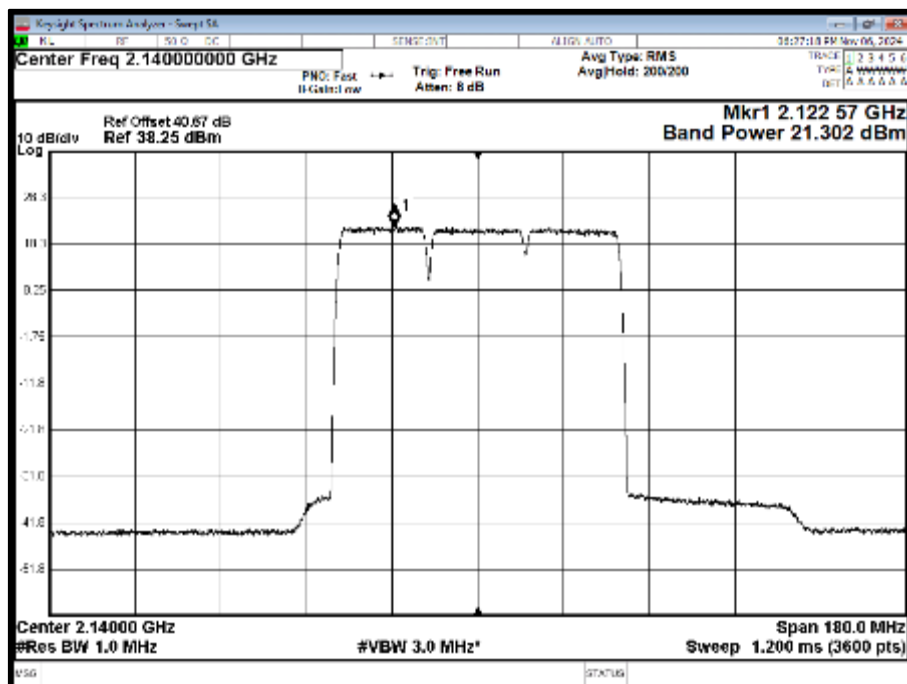


Configuration 7

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK / QPSK / QPSK	LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK)	-	38.32	21.30	53.37	36.08	23.70	59.78	2.37

Antenna 24 - NR / LTE Modulation QPSK - NR / LTE Carrier Bandwidth LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK) - Channel Position B



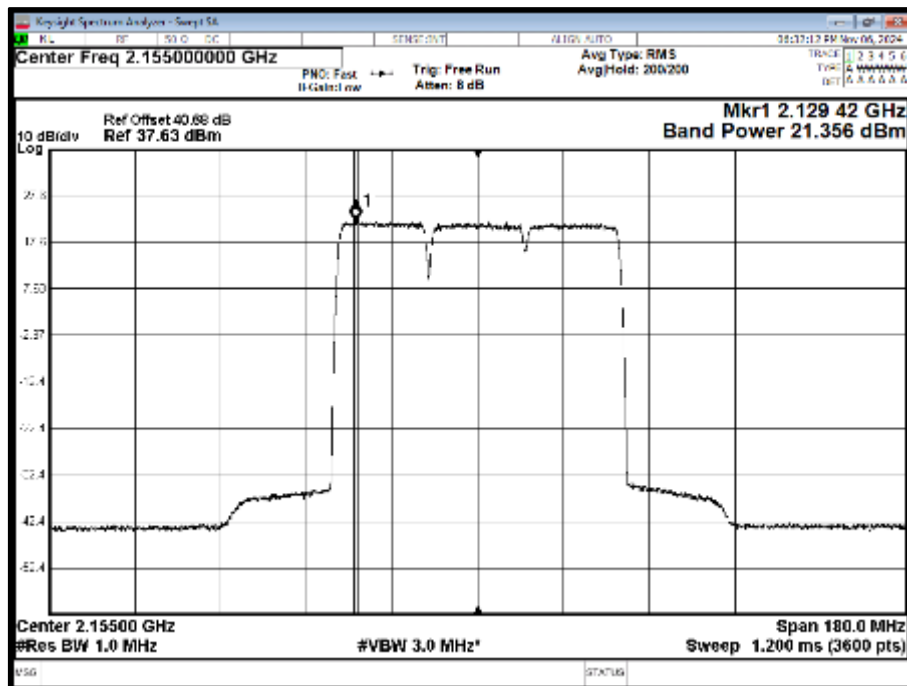


Configuration 7

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK / QPSK / QPSK	LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK)	-	38.36	21.36	53.41	36.41	23.70	60.11	2.04

Antenna 24 - NR / LTE Modulation QPSK - NR / LTE Carrier Bandwidth LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK) - Channel Position M

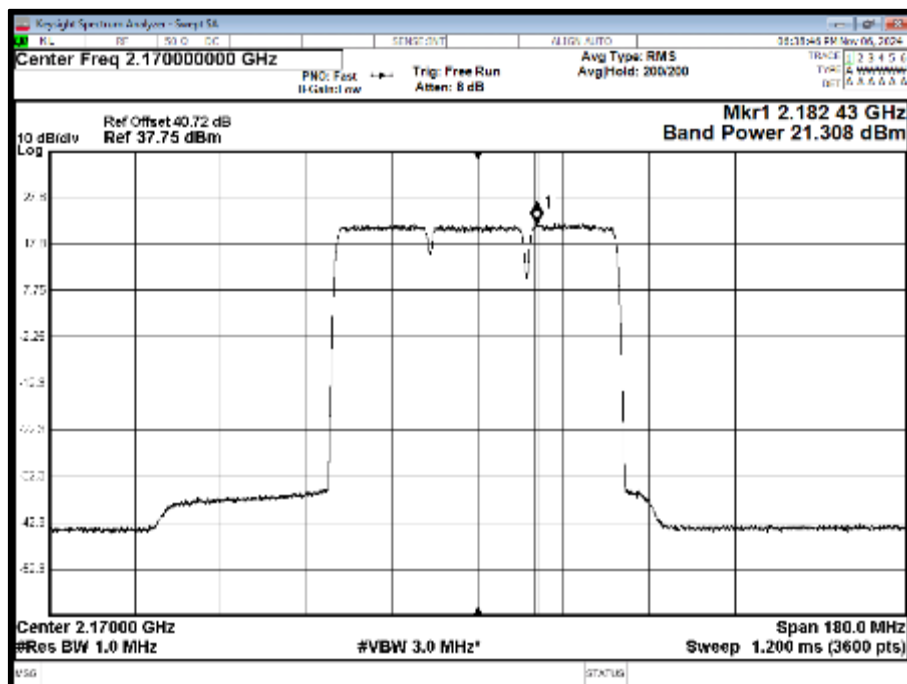


Configuration 7

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK / QPSK / QPSK	LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK)	-	38.42	21.31	53.47	36.36	23.70	60.06	2.09

Antenna 24 - NR / LTE Modulation QPSK - NR / LTE Carrier Bandwidth LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK) - Channel Position T

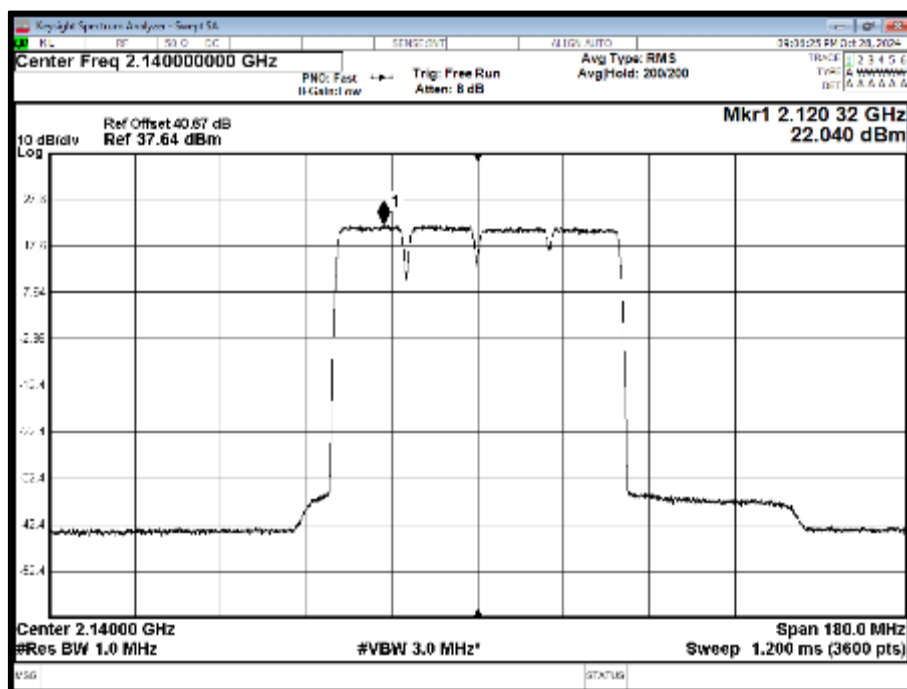


Configuration 8

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK / QPSK / QPSK / QPSK	LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK)	-	38.36	22.04	53.41	37.09	23.70	60.79	1.36

Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK) - Channel Position B

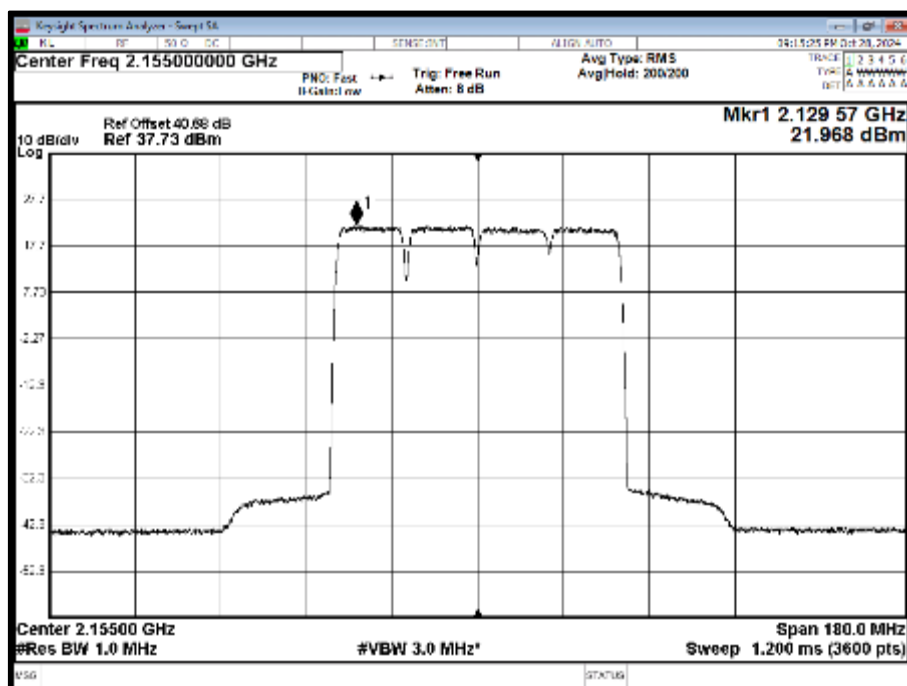


Configuration 8

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK / QPSK / QPSK / QPSK	LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK)	-	38.79	21.97	53.84	37.02	23.70	60.72	1.43

Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK) - Channel Position M

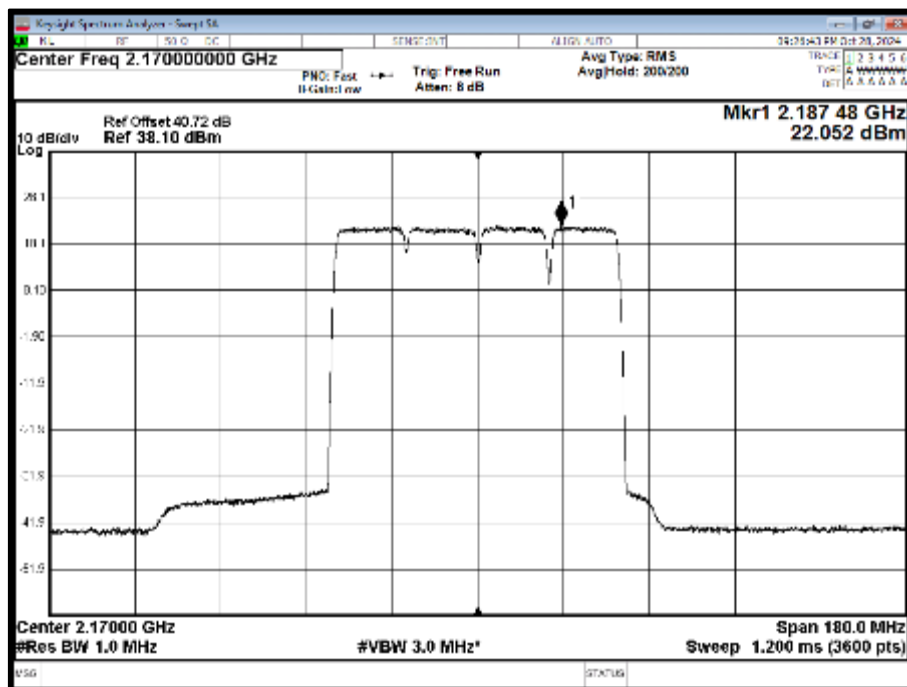


Configuration 8

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	QPSK / QPSK / QPSK / QPSK	LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK)	-	38.38	22.05	53.43	37.10	23.70	60.80	1.35

Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK) - Channel Position T

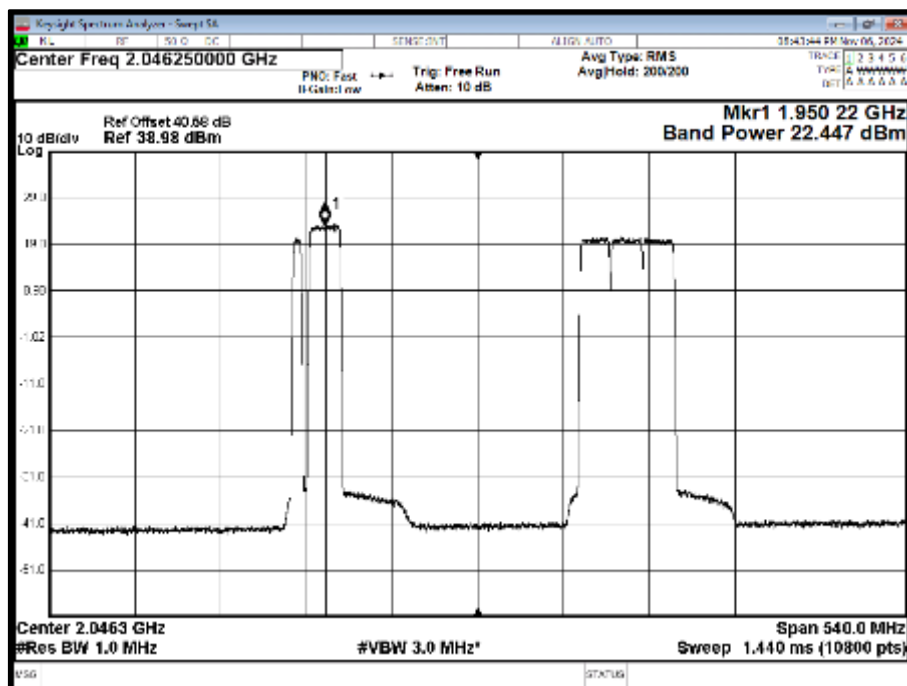


Configuration 9

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK	2CC(B25) + 3CC(B66)	-	39.27	22.45	54.32	37.50	23.70	61.20	0.95

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 3CC(B66) - Channel Position B

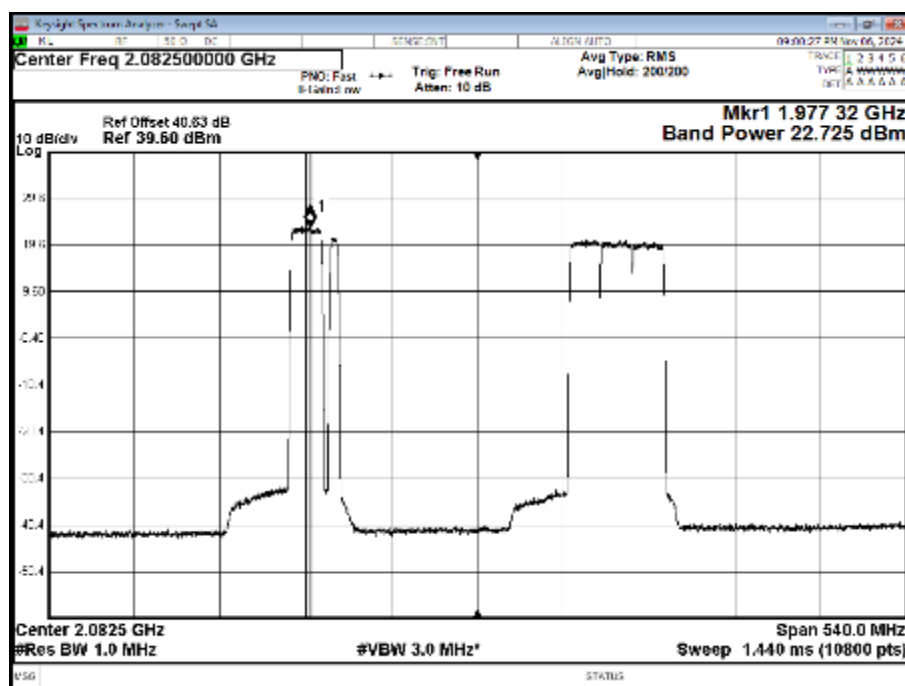


Configuration 9

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK	2CC(B25) + 3CC(B66)	-	39.37	22.73	54.42	37.78	23.70	61.48	0.67

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 3CC(B66) - Channel Position M

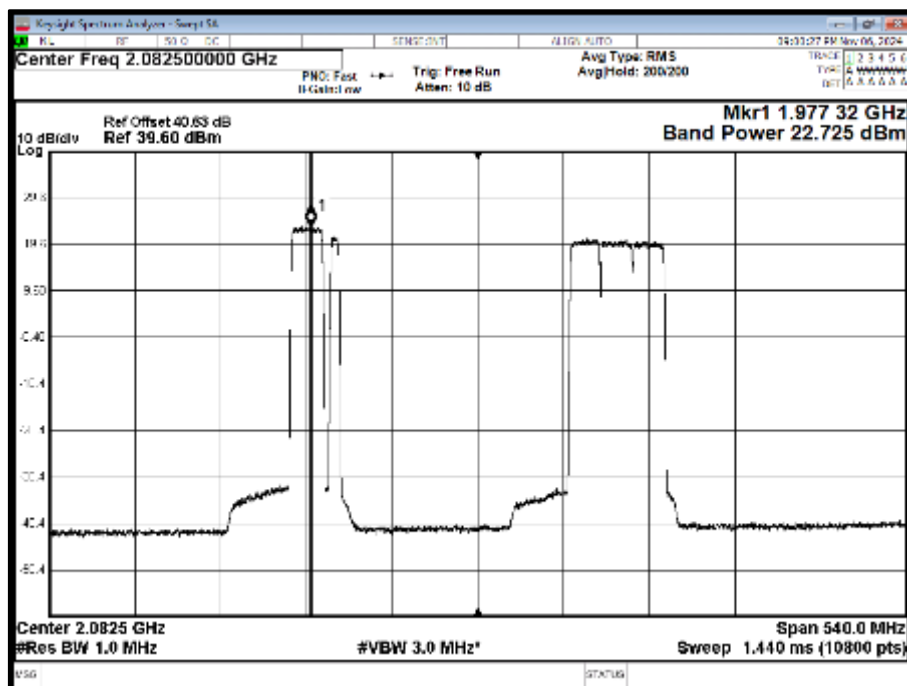


Configuration 9

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK	2CC(B25) + 3CC(B66)	-	39.37	22.73	54.42	37.78	23.70	61.48	0.67

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 3CC(B66) - Channel Position T

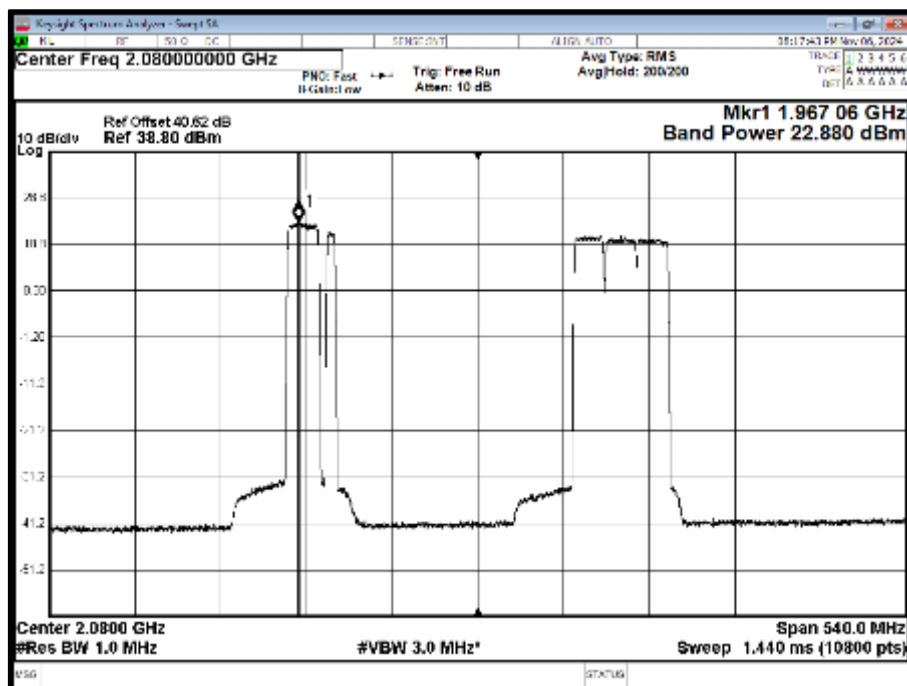


Configuration 10

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK	2CC(B2) + 3CC(B66)		39.40	22.88	54.45	37.93	23.70	61.63	0.52

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B2) + 3CC(B66) - Channel Position T

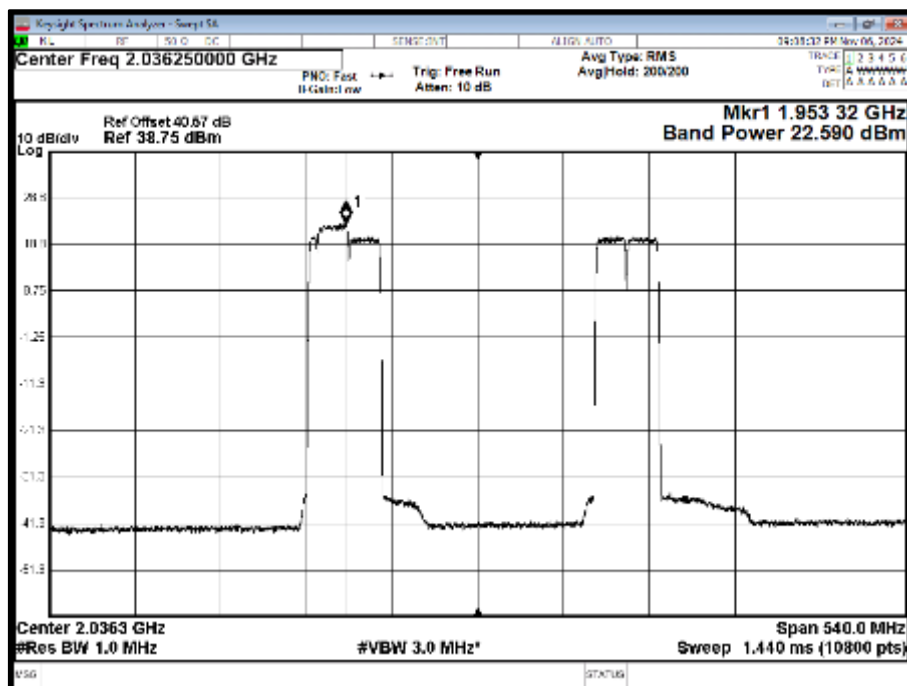


Configuration 11

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK	3CC(B25) + 2CC(B66)	-	39.24	22.59	54.29	37.64	23.70	61.34	0.81

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B25) + 2CC(B66) - Channel Position B

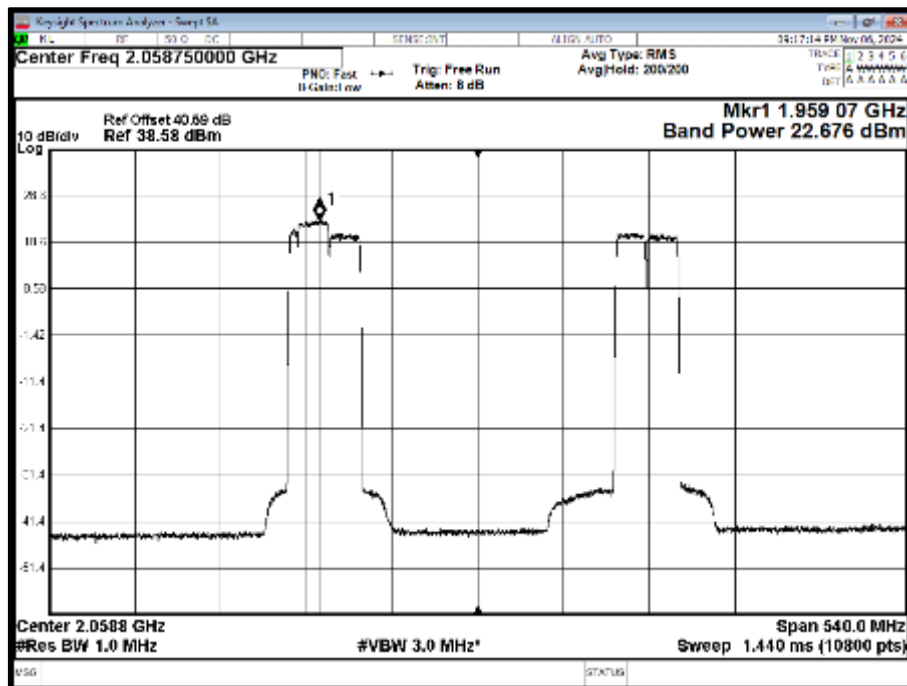


Configuration 11

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK	3CC(B25) + 2CC(B66)	-	39.39	22.67	54.44	37.72	23.70	61.42	0.73

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B25) + 2CC(B66) - Channel Position M

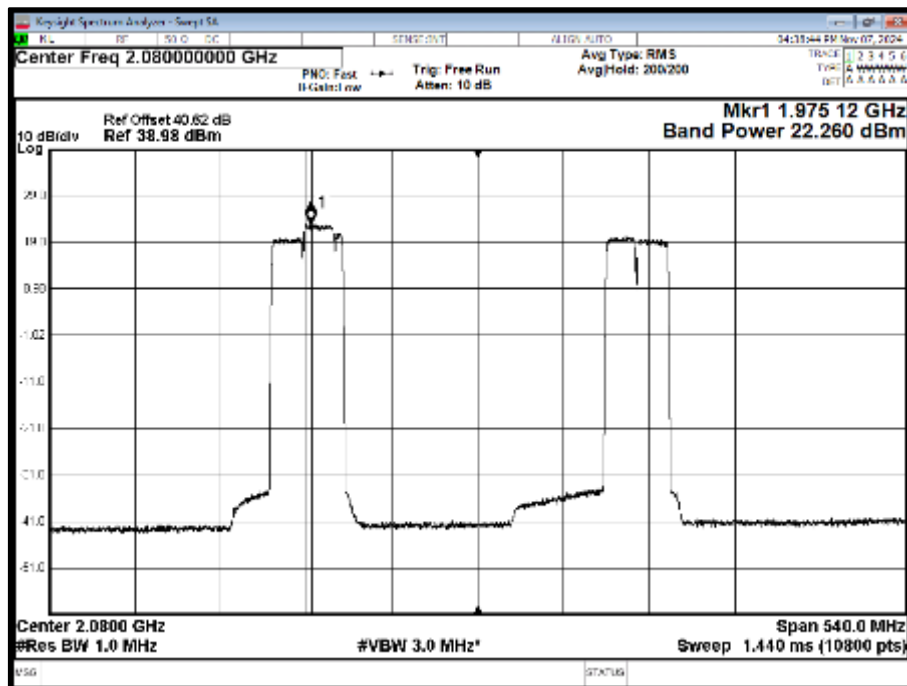


Configuration 11

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK	3CC(B25) + 2CC(B66)	-	38.96	22.26	54.01	37.31	23.70	61.01	1.14

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B25) + 2CC(B66) - Channel Position T

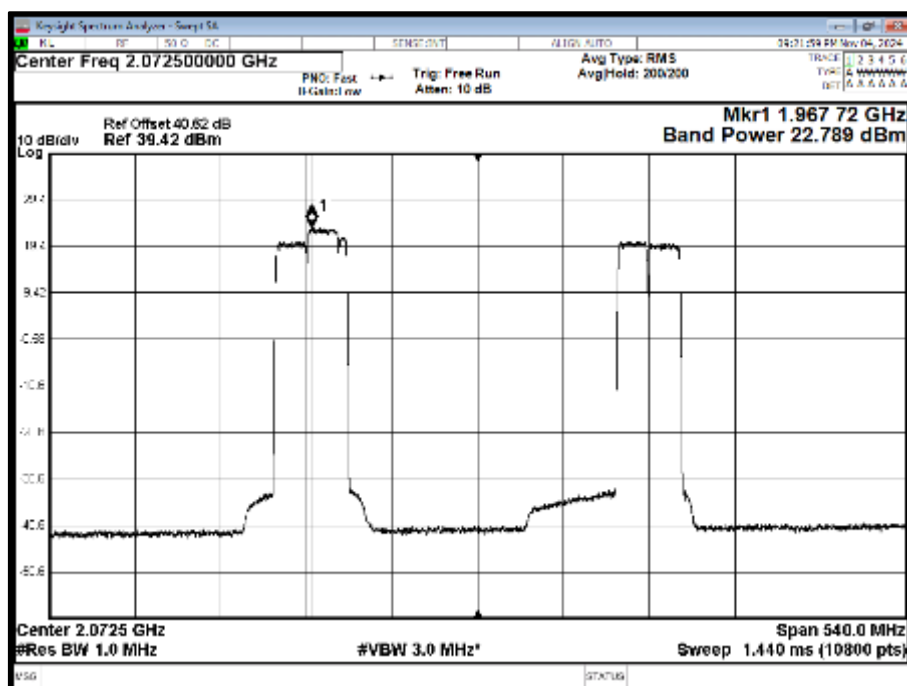


Configuration 12

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
24	64QAM / QPSK / QPSK / QPSK / QPSK	3CC(B2) + 2CC(B66)	-	39.45	22.79	54.50	37.84	23.70	61.54	0.61

Antenna 24 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B2) + 2CC(B66) - Channel Position T

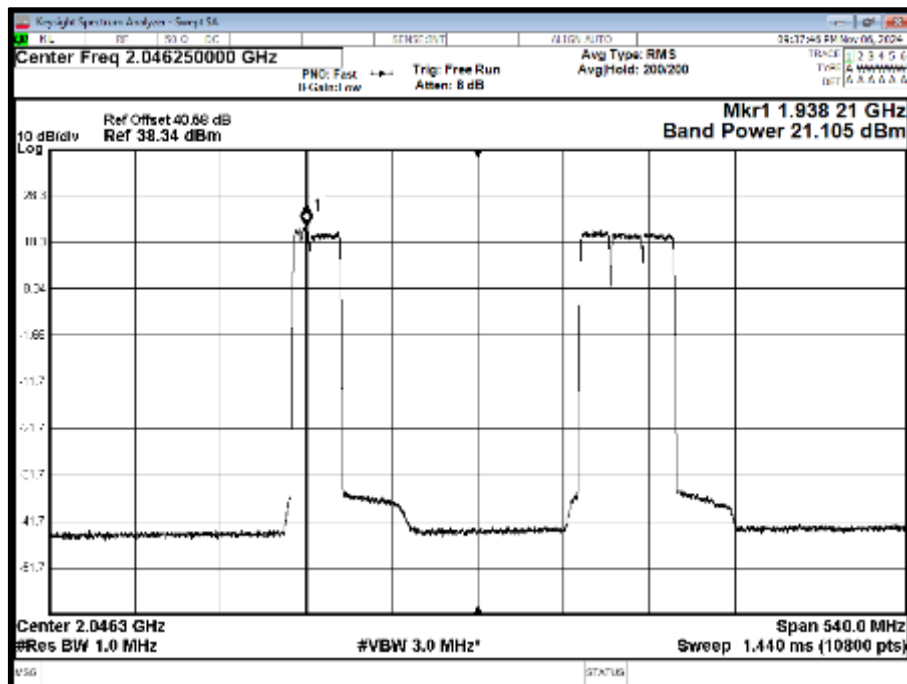


Configuration 13

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK / QPSK	3CC(B25) + 3CC(B66)	-	38.12	21.10	53.17	36.15	23.70	59.85	2.30

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B25) + 3CC(B66) - Channel Position B

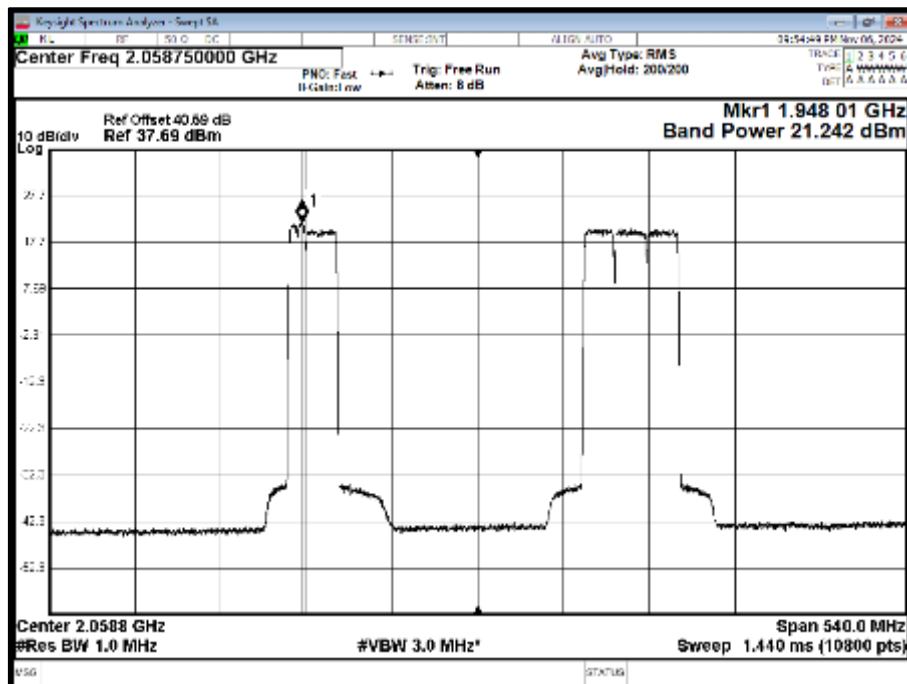


Configuration 13

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK / QPSK	3CC(B25) + 3CC(B66)	-	38.90	21.24	53.95	36.29	23.70	59.99	2.16

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B25) + 3CC(B66) - Channel Position M

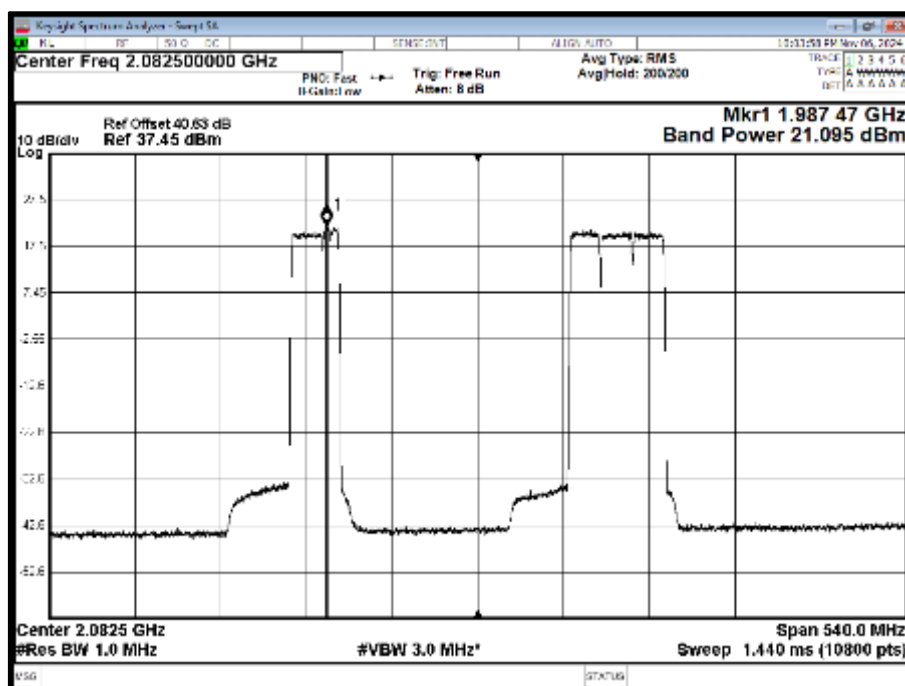


Configuration 13

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T _{REBW}							
			PAR (dB)	Average Power/PSD	Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit	
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK / QPSK	3CC(B25) + 3CC(B66)		38.93	21.10	53.98	36.15	23.70	59.85	2.30

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B25) + 3CC(B66) - Channel Position T

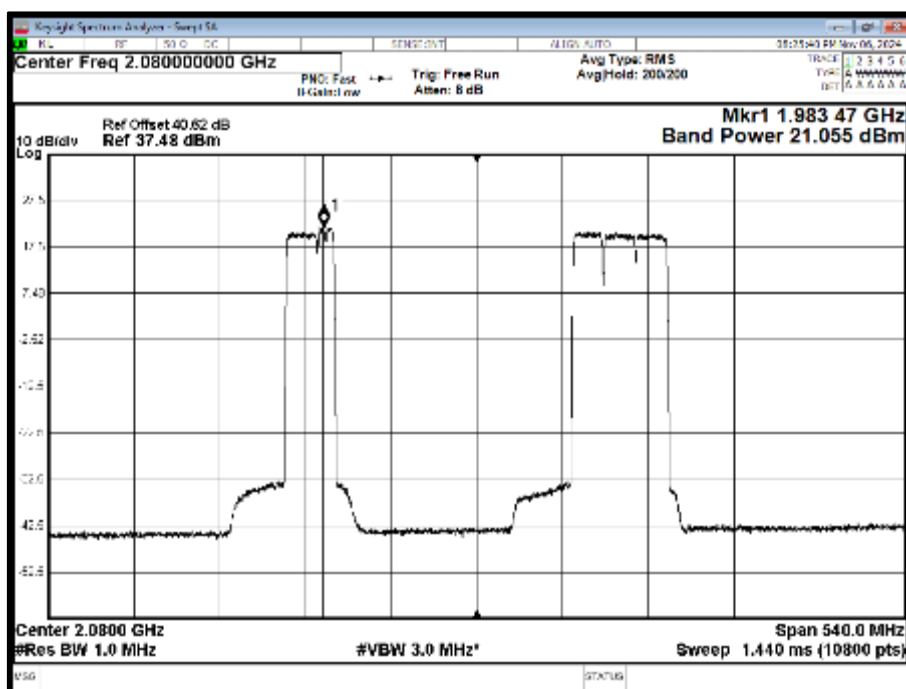


Configuration 14

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T_{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK / QPSK	3CC(B2) + 3CC(B66)	-	38.93	21.06	53.98	36.11	23.70	59.81	2.34

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B2) + 3CC(B66) - Channel Position T

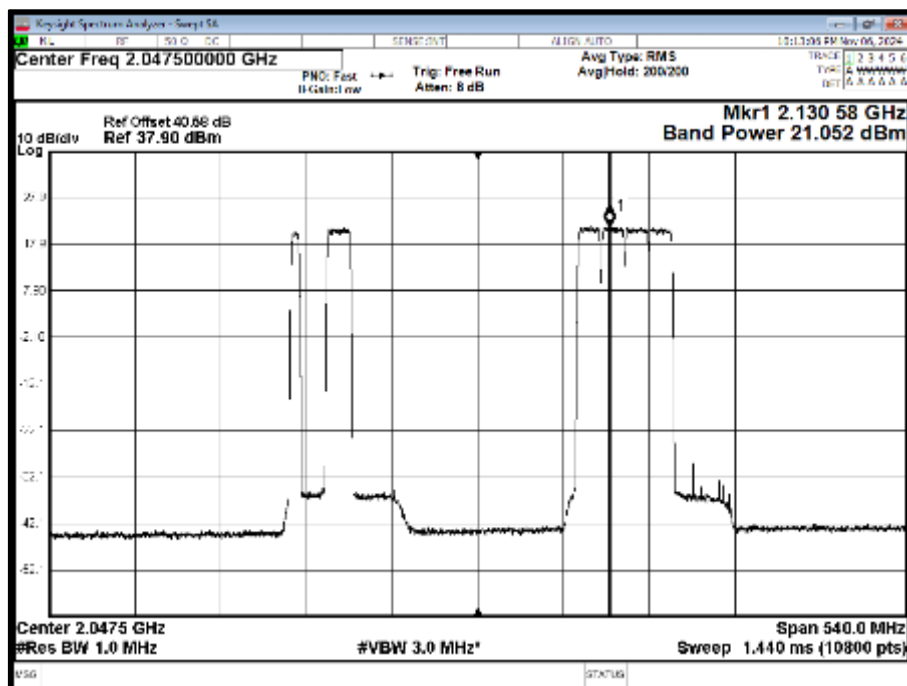


Configuration 15

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position B _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK / QPSK	2CC(B25) + 4CC(B66)	-	39.28	21.05	54.33	36.10	23.70	59.80	2.35

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 4CC(B66) - Channel Position B

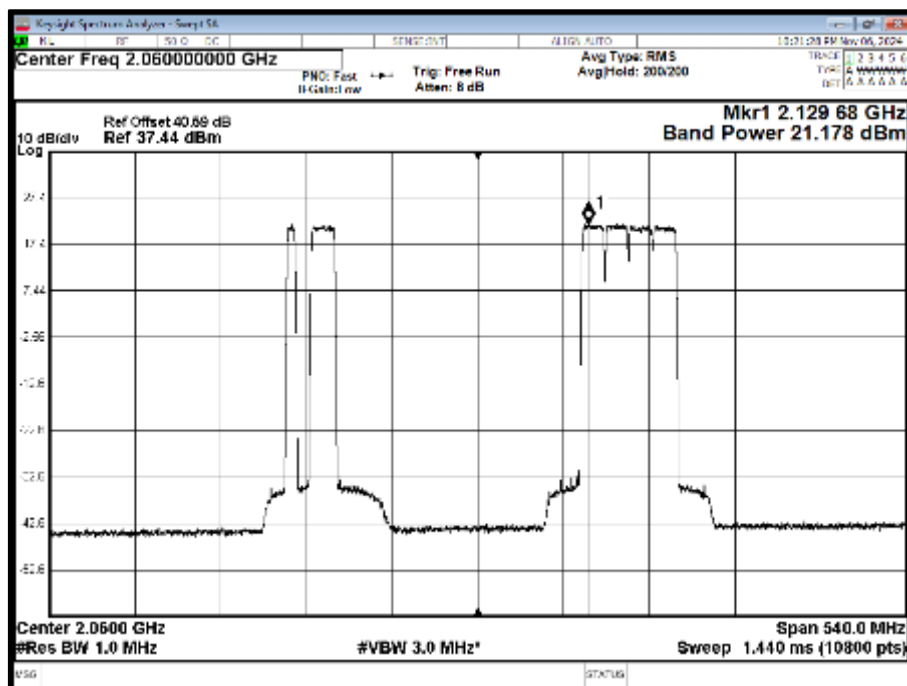


Configuration 15

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position M _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK / QPSK	2CC(B25) + 4CC(B66)	-	39.38	21.18	54.43	36.23	23.70	59.93	2.22

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 4CC(B66) - Channel Position M

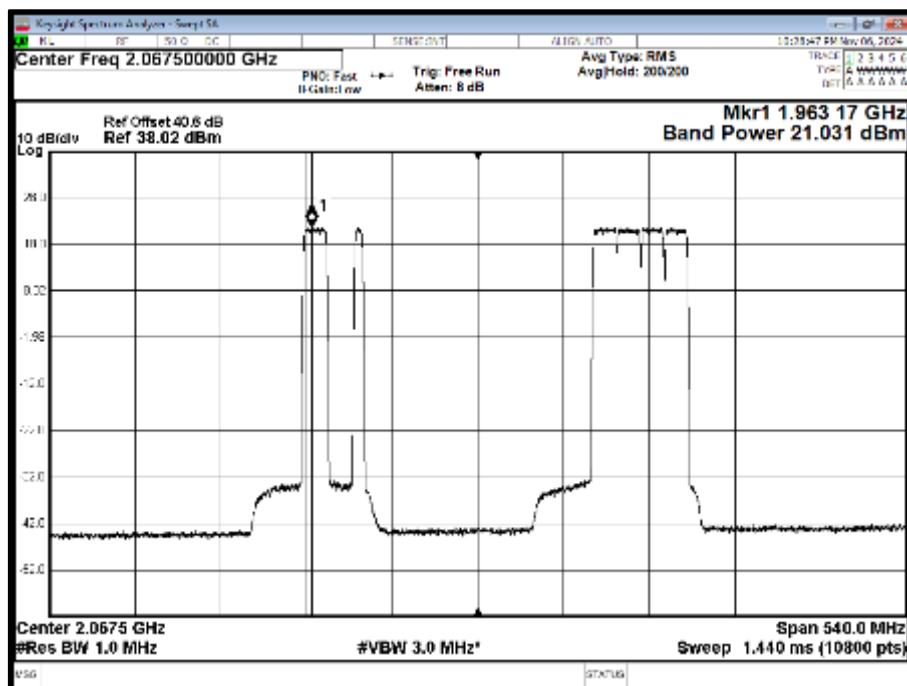


Configuration 15

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T _{REBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK / QPSK	2CC(B25) + 4CC(B66)	-	39.37	21.03	54.42	36.08	23.70	59.78	2.37

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 4CC(B66) - Channel Position T

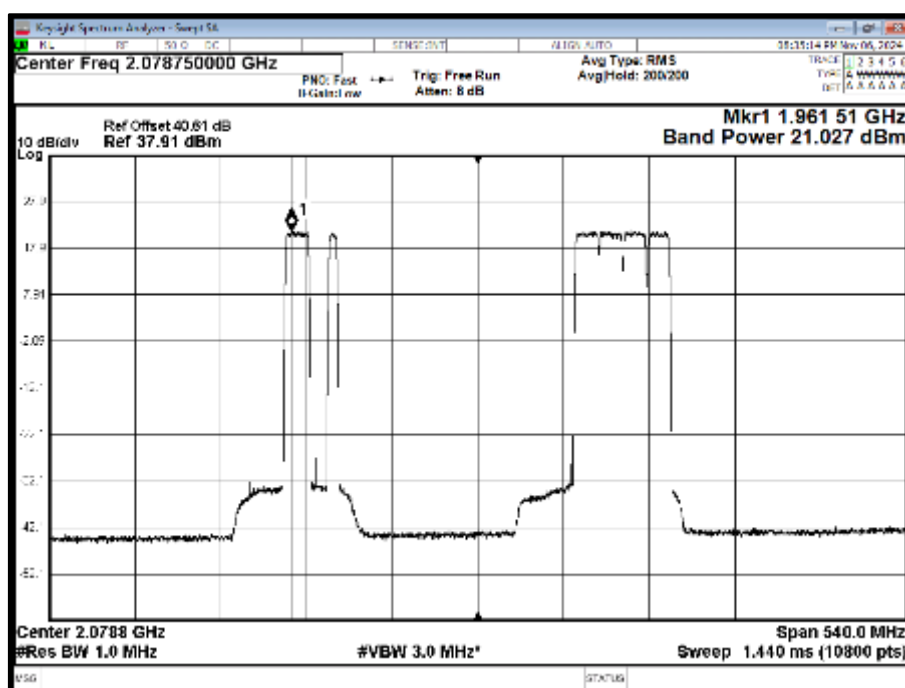


Configuration 16

Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
			Channel Position T _{RFBW}							
			PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Total EIRP Limit
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
28	64QAM / QPSK / QPSK / QPSK / QPSK / QPSK	2CC(B2) + 4CC(B66)	-	39.39	21.03	54.44	36.08	23.70	59.78	62.15

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 4CC(B66) - Channel Position T



Limit	
Maximum rated output power (Non-Rural)	≤ 1640 W/MHz or ≤ +62.15 dBm/MHz
Maximum rated output power (Rural)	≤ 3280 W/MHz or ≤ +65.15 dBm/MHz
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
ISED RSS-GEN, Clause 6.7
ISED RSS-139, Clause 5.5

2.2.2 Date of Test and Modification State

02, 04 and 06-November-2024 - Modification State 0

2.2.3 Test Equipment Used

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

2.2.4 Environmental Conditions

Ambient Temperature	21.6 - 23.0°C
Relative Humidity	35.5 - 35.6%

2.2.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, Clause 4.2 and 4.3. The Spectrum Analyser RBW was configured to be at least 1% of the channel bandwidth of the carrier to be measured.

For 26 dB Bandwidth, in accordance with KDB 971168 D01, a peak detector and a trace setting of Max Hold were used. The trace was allowed to stabilise. Using the Spectrum Analyser function, the 26dB measurement result was obtained.

4.2 Occupied bandwidth – relative measurement procedure

The reference value is the highest level of the spectral envelope of the modulated signal, unless otherwise specified in an applicable rule section.

Subclause 5.4.3 of ANSI C63.26-2015 is applicable.

4.3 Occupied bandwidth – 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 analyzer).

The worst case modulation and bandwidth plots are presented here, all other applicable plots are retained by TUV SUD and available for presentation if required.

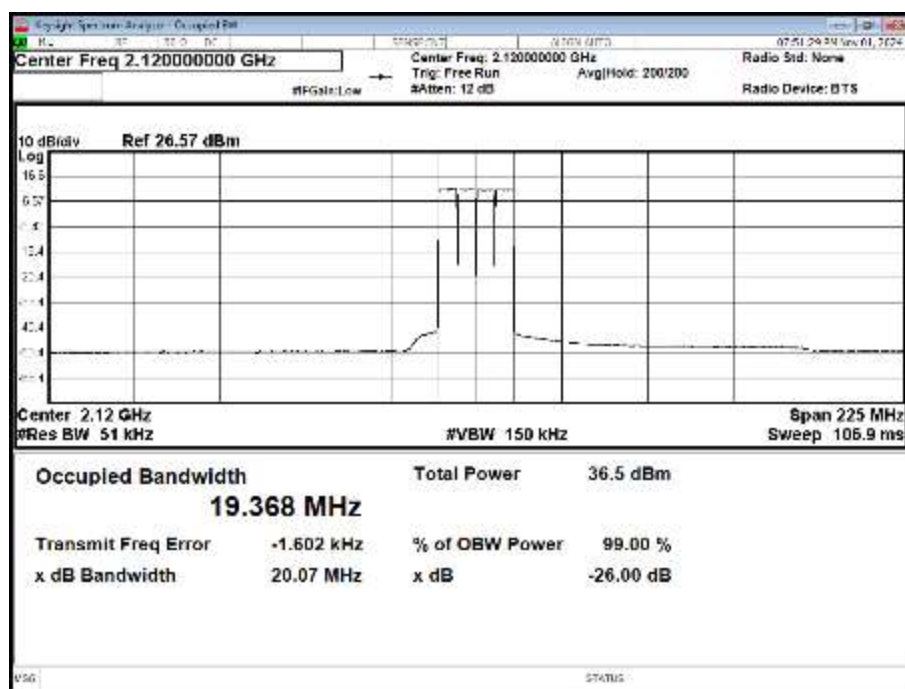
2.2.6 Test Results

Configuration 1

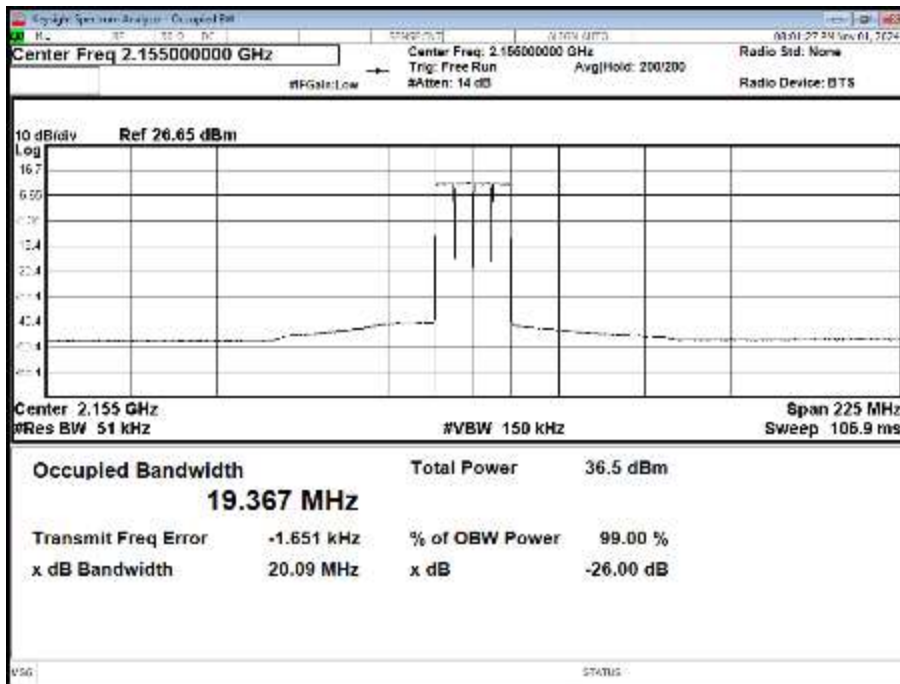
Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE Modulation	LTE Carrier Bandwidth	Result (Hz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
24	QPSK	5.0 MHz	19,368.35	20,074.86	19,366.70	20,086.94	19,370.51	20,089.49
24	QPSK	10.0 MHz	38,655.27	39,596.13	38,659.97	39,595.83	38,654.44	39,595.73
24	QPSK	15.0 MHz	57,948.74	59,272.95	57,977.32	59,262.26	57,969.36	59,267.03

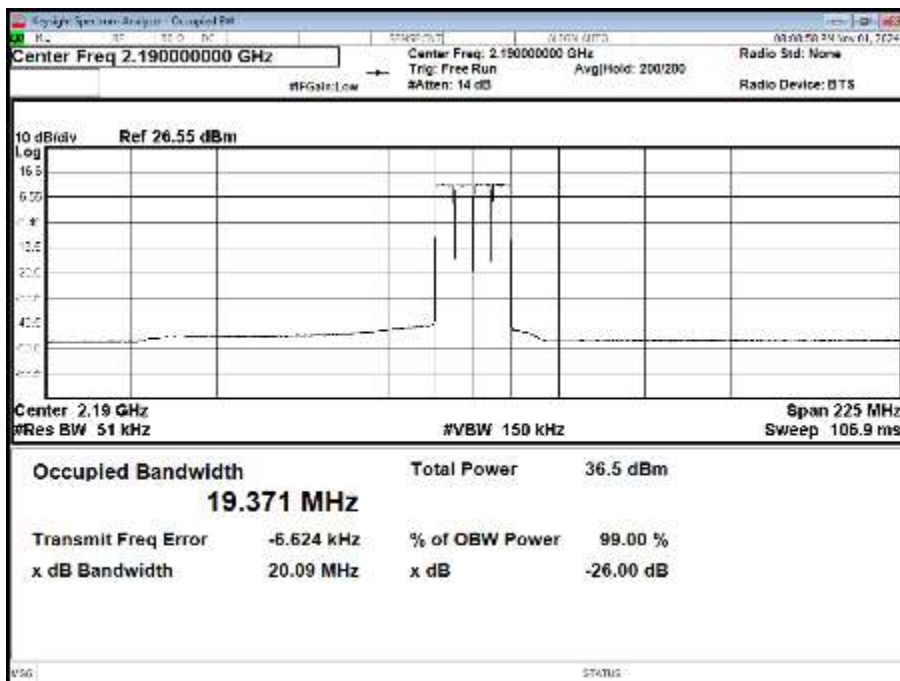
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position B



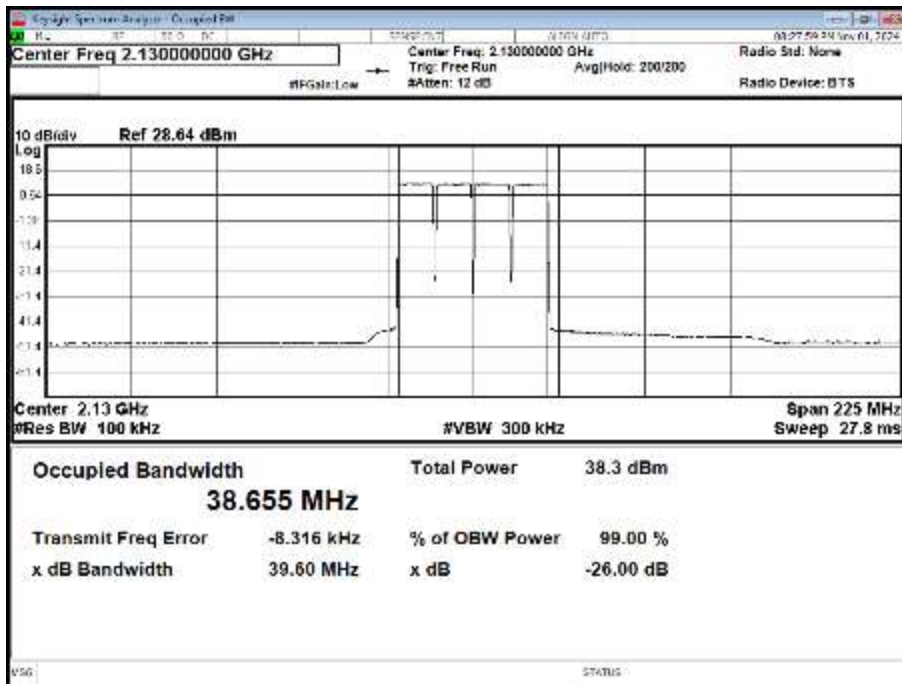
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position M



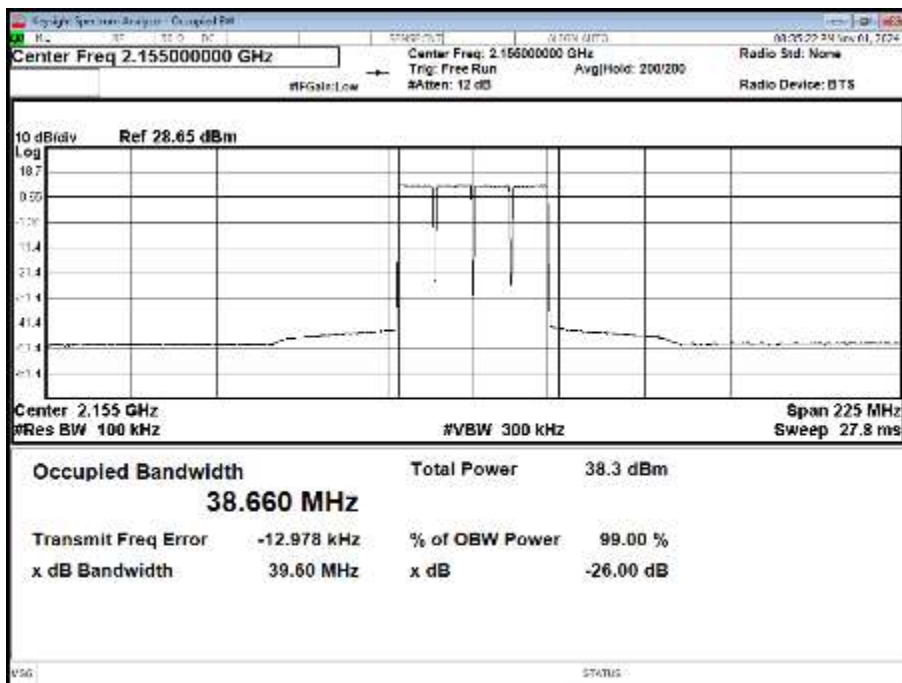
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 5.0 MHz - Channel Position T



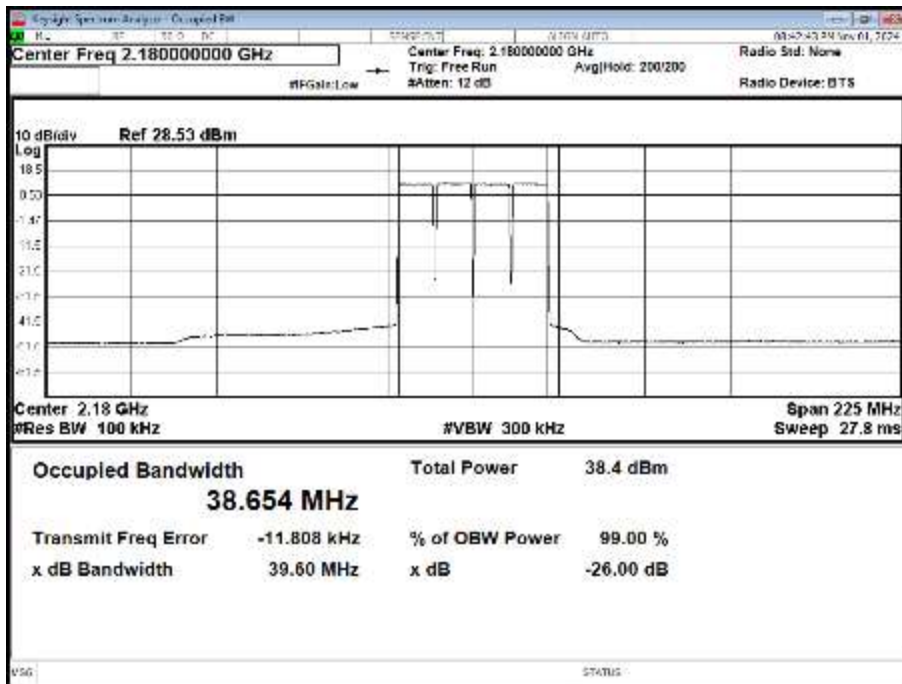
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position B



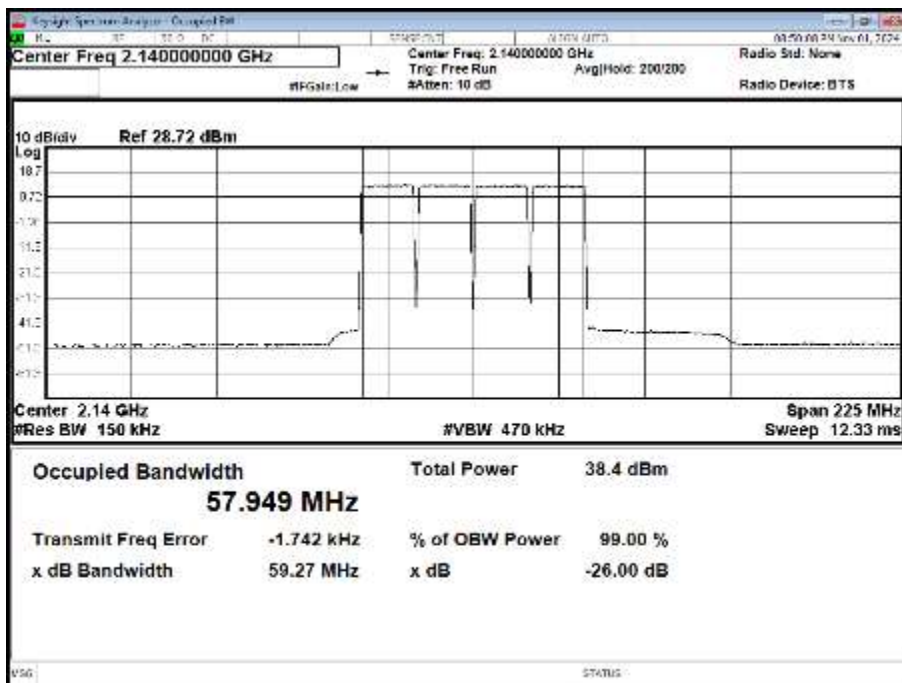
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position M



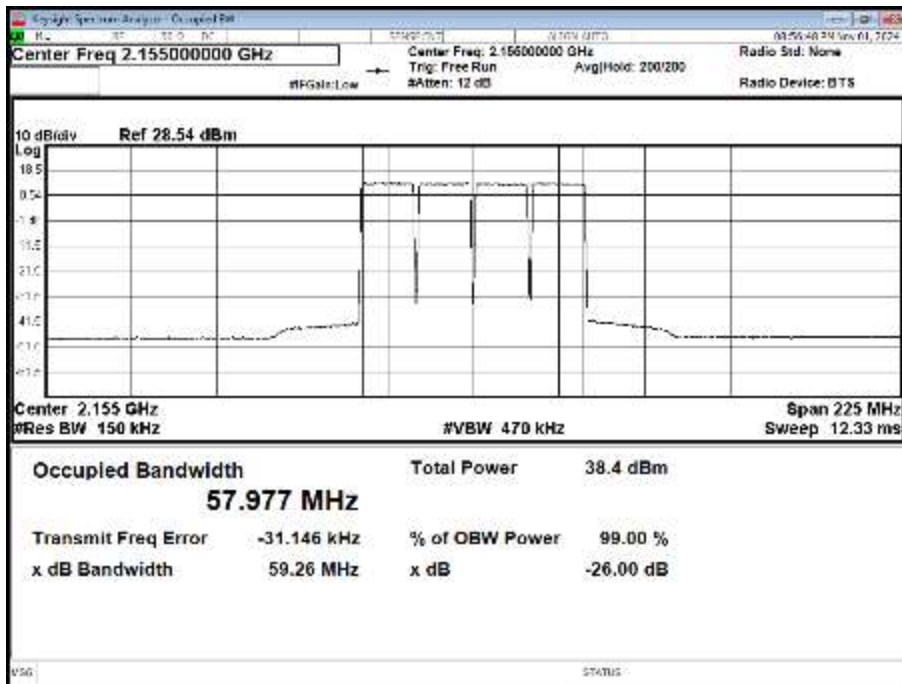
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 10.0 MHz - Channel Position T



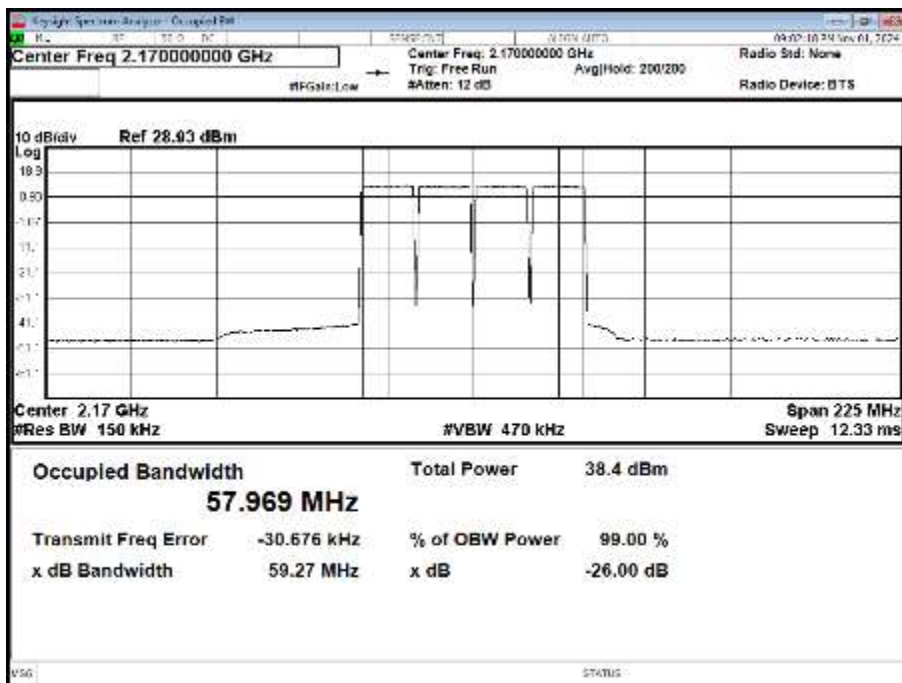
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 15.0 MHz - Channel Position B



Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 15.0 MHz - Channel Position M

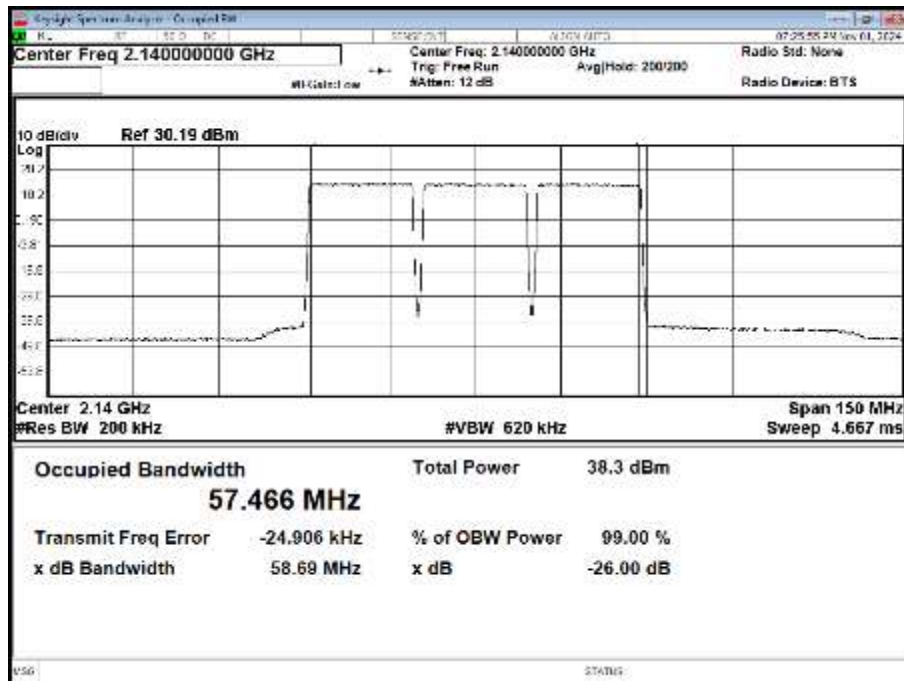


Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 15.0 MHz - Channel Position T

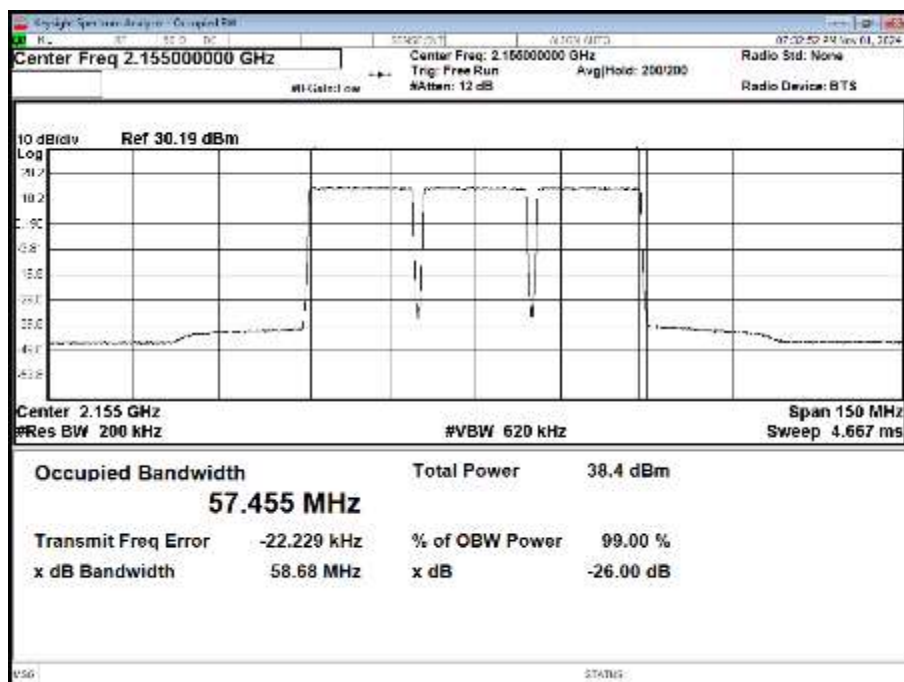


Antenna	LTE Modulation	LTE Carrier Bandwidth	Result (Hz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
24	QPSK	20.0 MHz	57,466.32	58,688.57	57,455.48	58,678.77	57,453.80	58,823.75

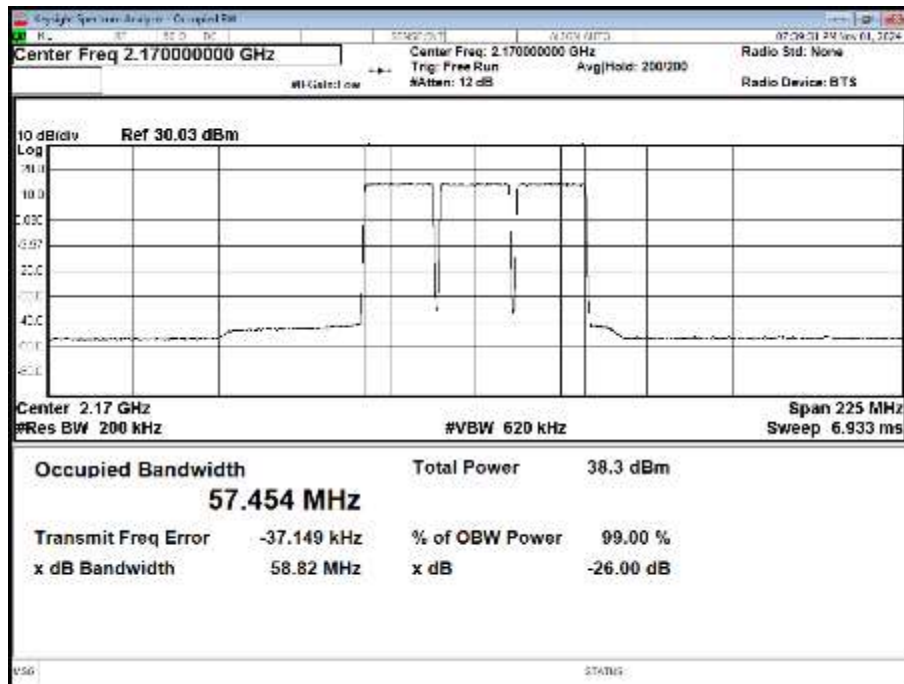
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position B



Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position M



Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position T

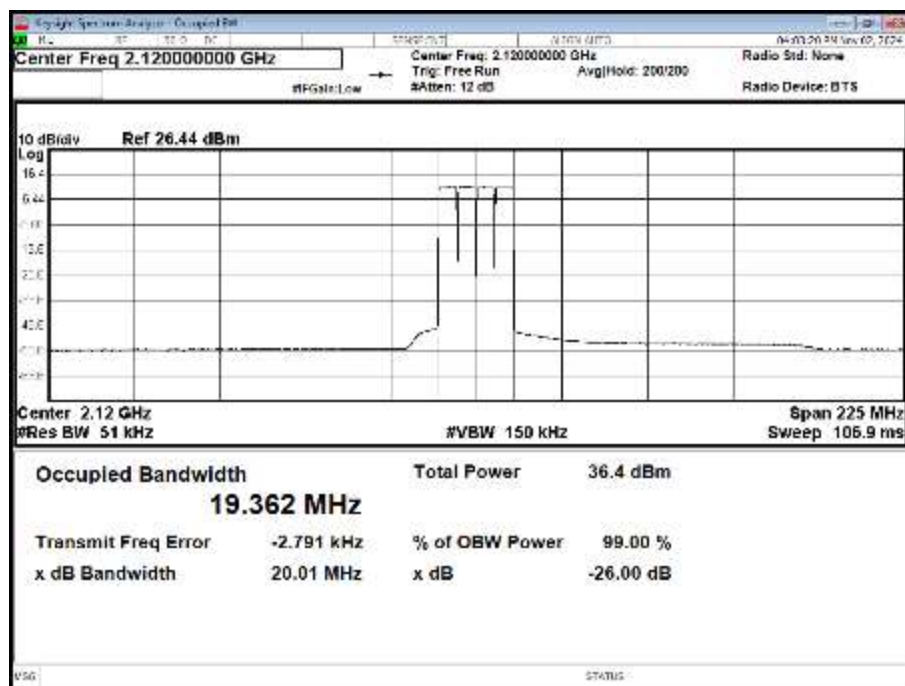


Configuration 3

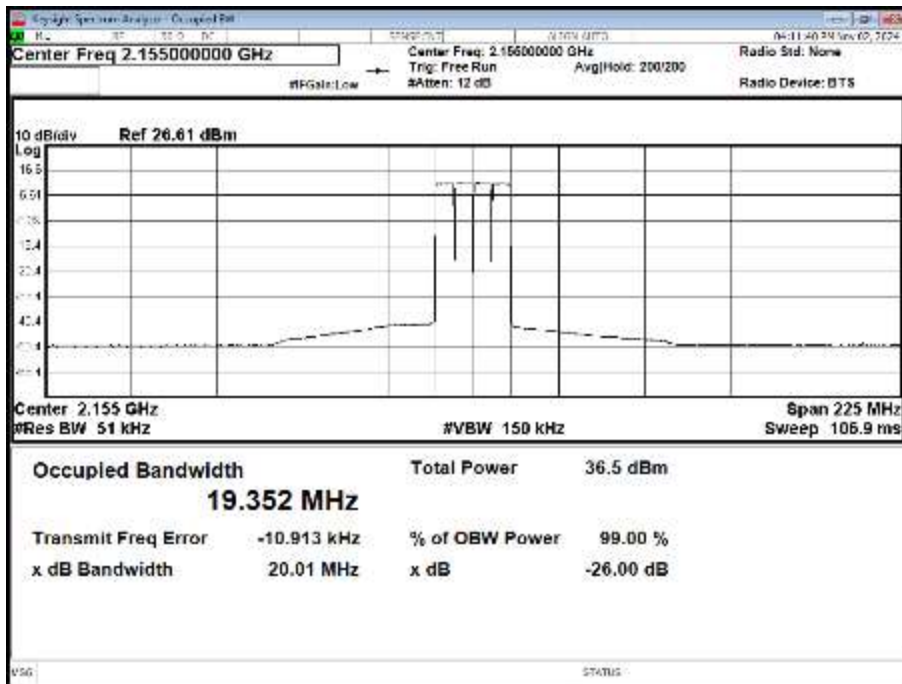
Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Result (Hz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
24	QPSK	5.0 MHz 15 kHz SCS	19,362.12	20,006.17	19,351.86	20,011.26	19,359.24	19,977.53
24	QPSK	10.0 MHz 15 kHz SCS	38,994.58	40,021.56	39,004.93	40,024.10	38,975.95	40,022.04
24	QPSK	15.0 MHz 15 kHz SCS	58,630.65	59,942.94	58,628.83	59,842.40	58,618.79	59,842.14

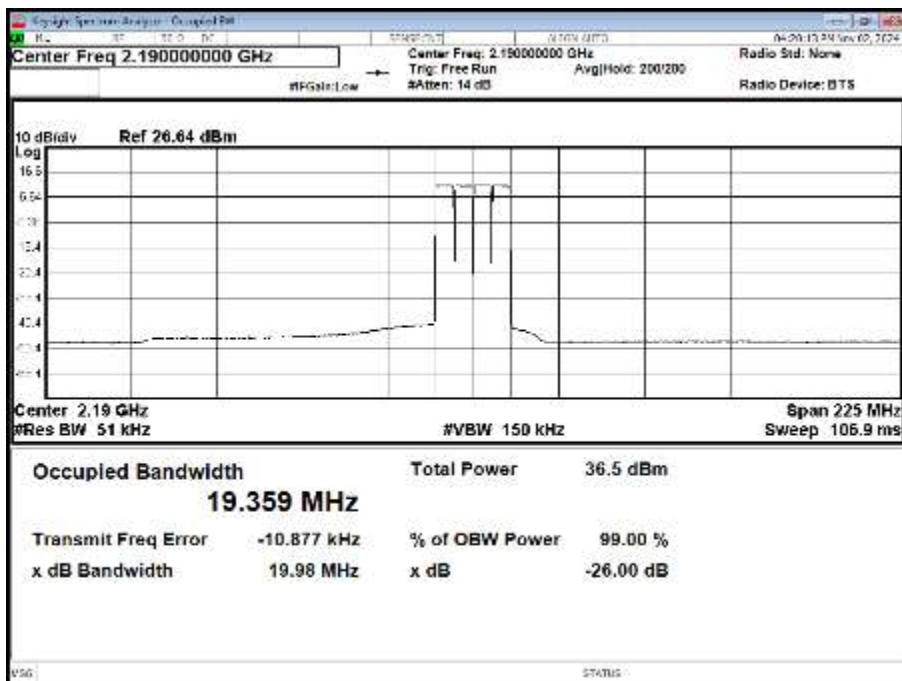
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz - Channel Position B



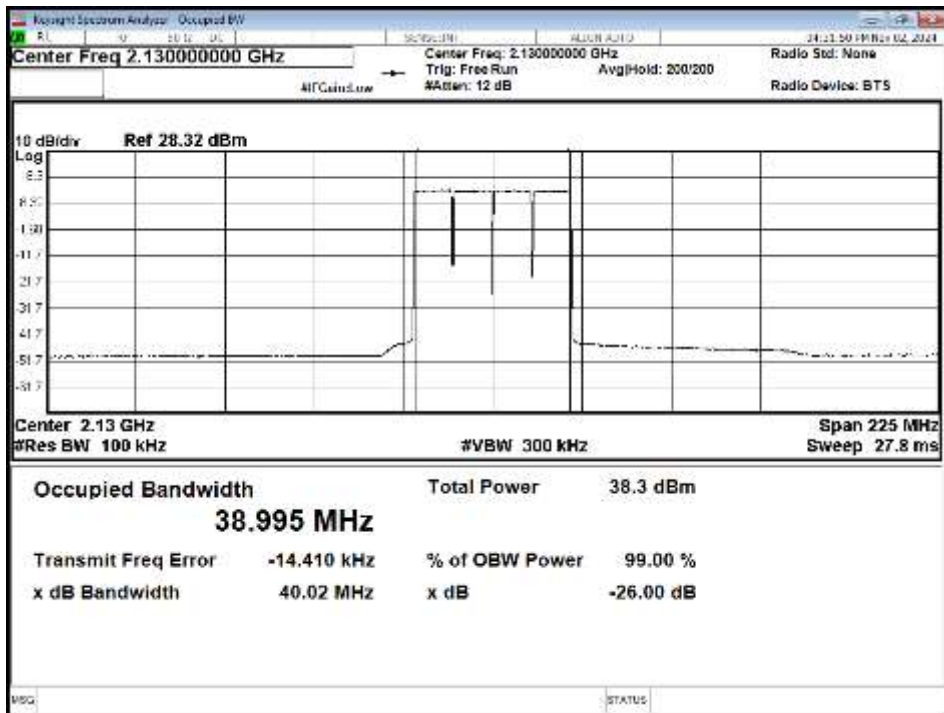
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz - Channel Position M



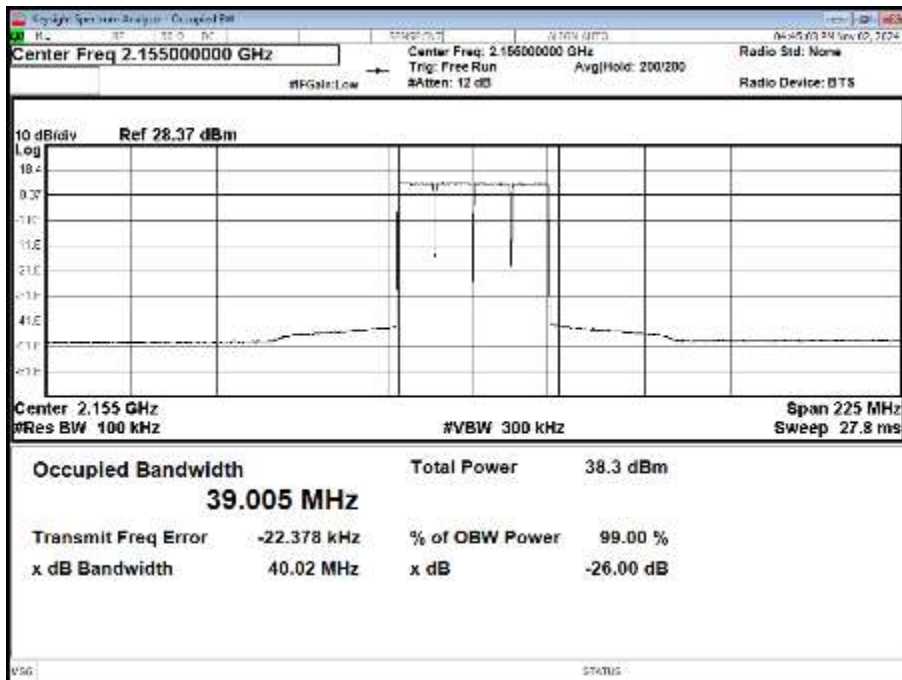
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 5.0 MHz - Channel Position T



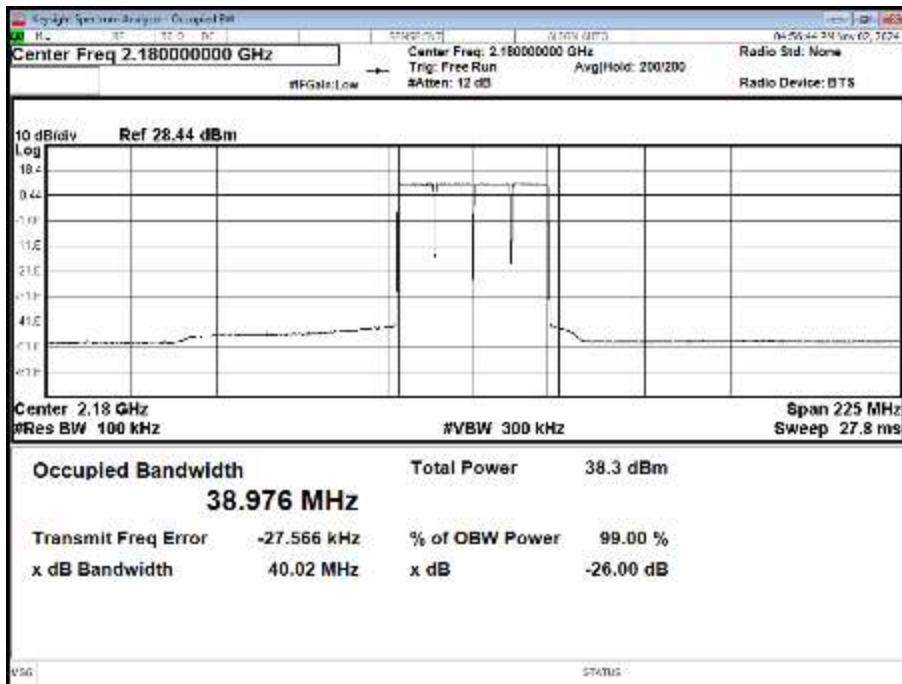
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz - Channel Position B



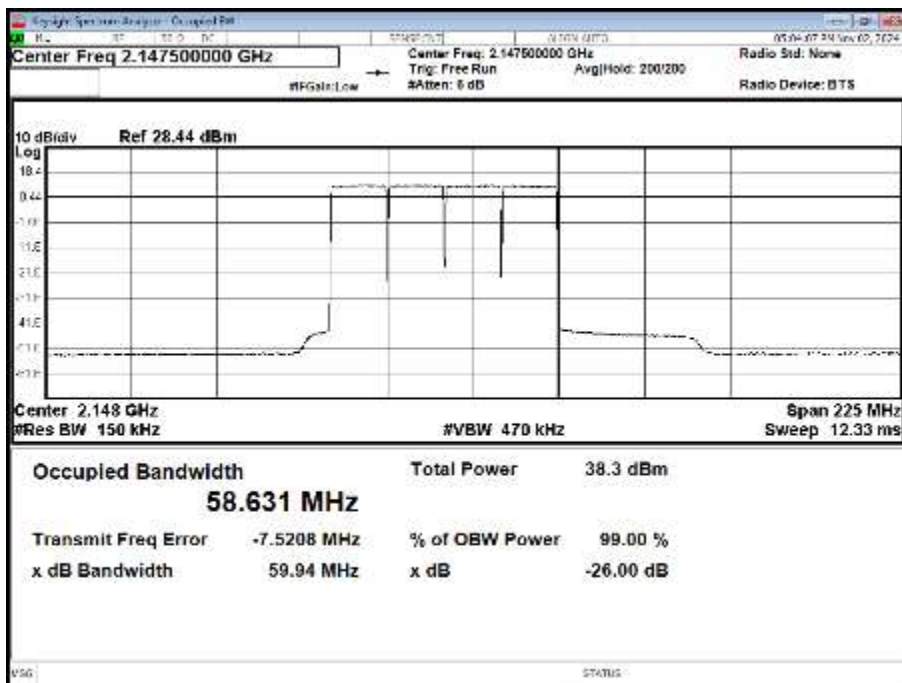
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz - Channel Position M



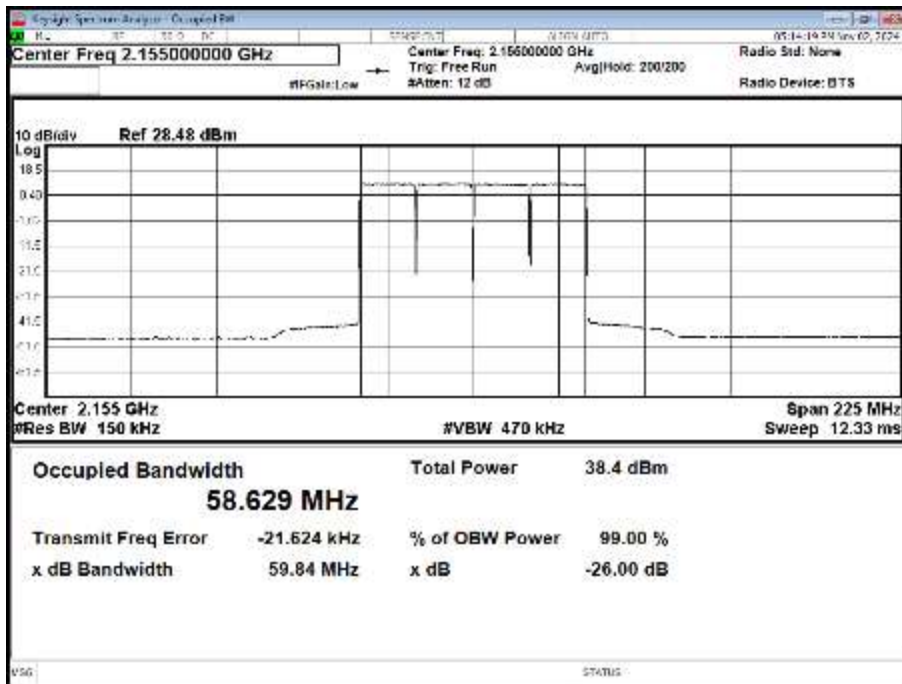
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 10.0 MHz - Channel Position T



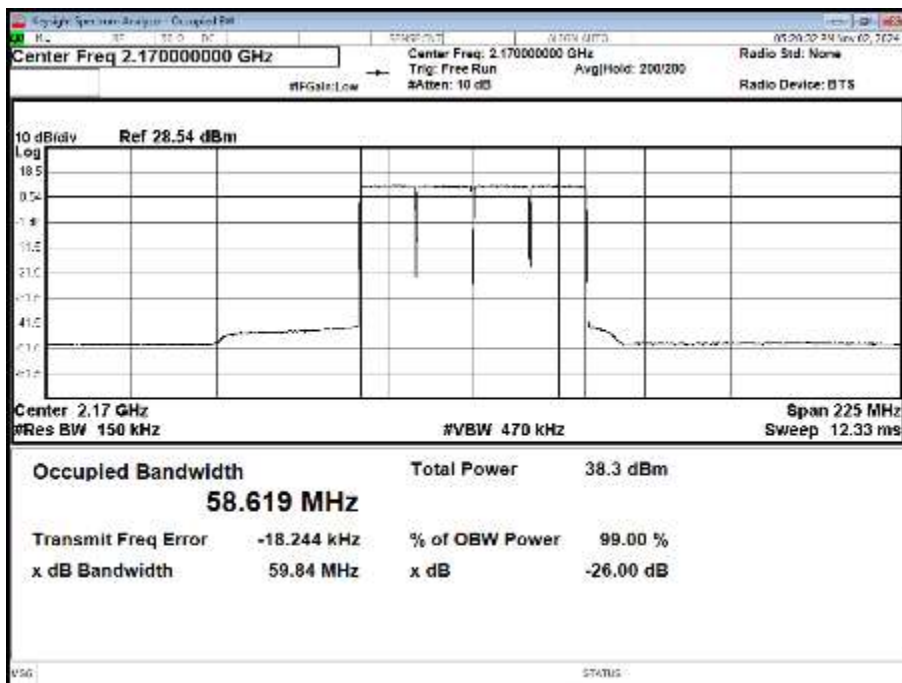
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 15.0 MHz - Channel Position B



Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 15.0 MHz - Channel Position M



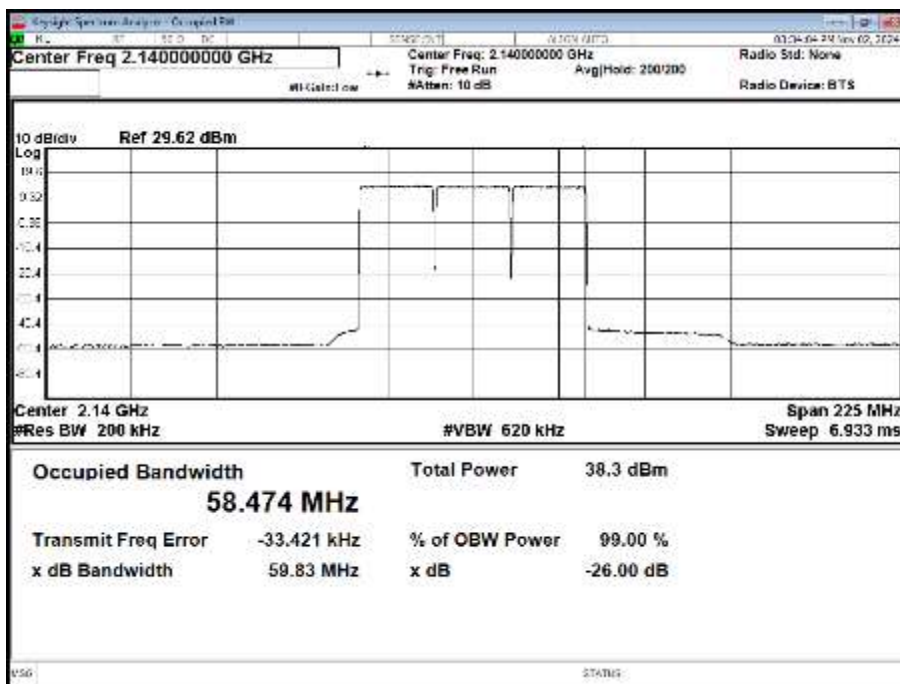
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 15.0 MHz - Channel Position T



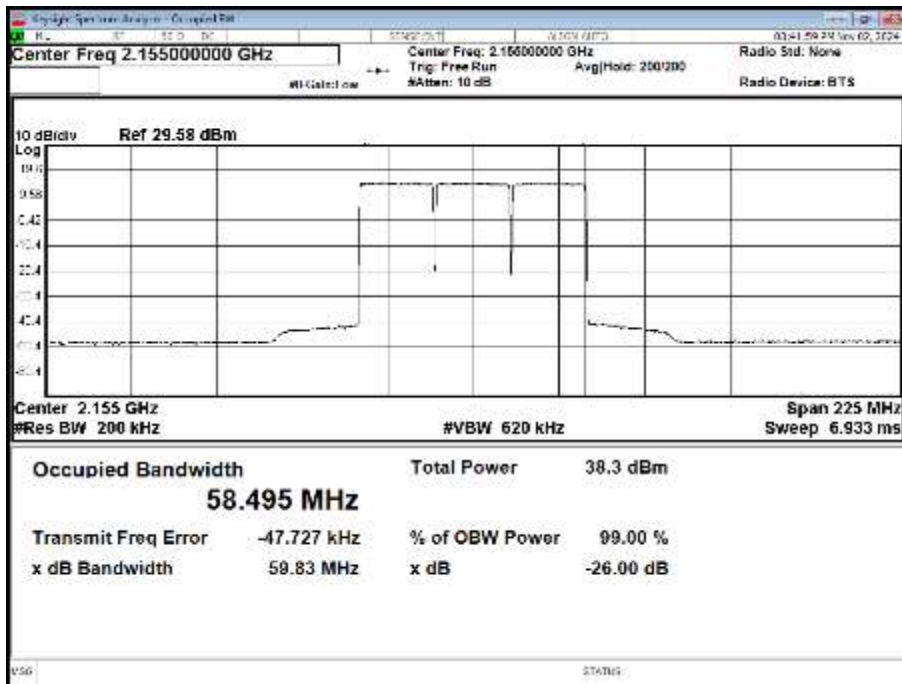


Antenna	NR Modulation	NR Carrier Bandwidth	Result (Hz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
24	QPSK	20.0 MHz 15 kHz SCS	58,473.80	59,827.50	58,494.75	59,827.99	58,499.11	59,828.58

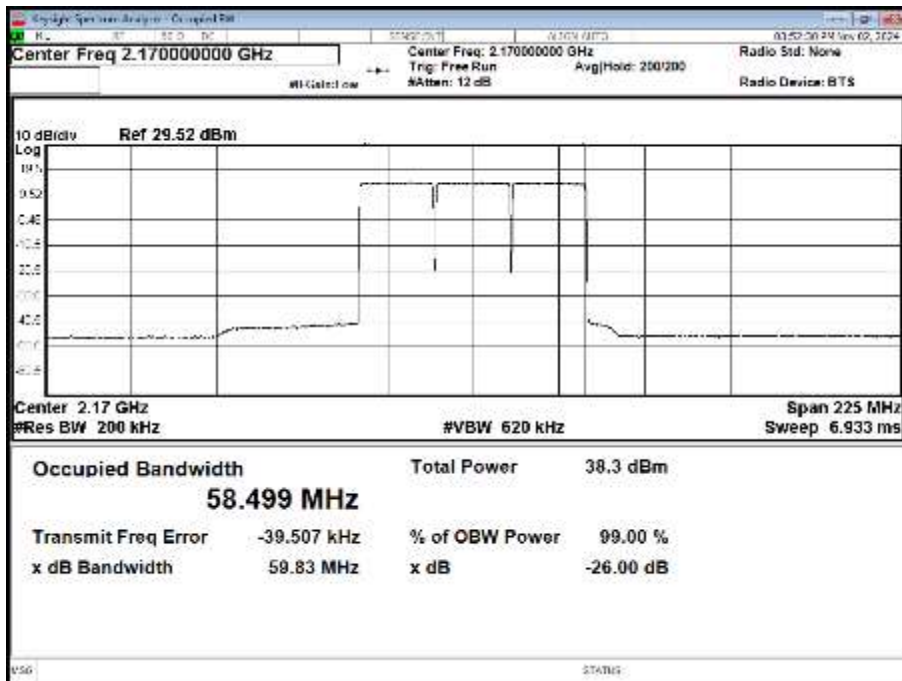
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz - Channel Position B



Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz - Channel Position M



Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz - Channel Position T





2.3 BAND EDGE

2.3.1 Specification Reference

FCC CFR 47 Part 27, Clause 27.53
ISED RSS-139, Clause 5.5
FCC CFR 47 Part 2, Clause 2.1051

2.3.2 Date of Test and Modification State

02, 04 and 06-November-2024 - Modification State 0

2.3.3 Test Equipment Used

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

2.3.4 Environmental Conditions

Ambient Temperature 21.6 - 23.0°C
Relative Humidity 35.5 - 35.6%

2.3.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, Clause 6.0.

Band Edge measurements were used an Integration Bandwidth of at least 1% of the measured 26dB Bandwidth.

Each antenna port has been declared as being equivalent, therefore measurements were made on one antenna port only. To account for this, the limit was tightened by $10 * \log(N)$, where N is equal to the number of MIMO antenna ports.

For the number of antenna ports, the limit was calculated as being:
 $-13 \text{ dBm} - 10 * \log(32) = -28.05 \text{ dBm}$.

The worst-case modulation and bandwidth plots are presented here, all other applicable plots are retained by TUV SUD and available for presentation if required.

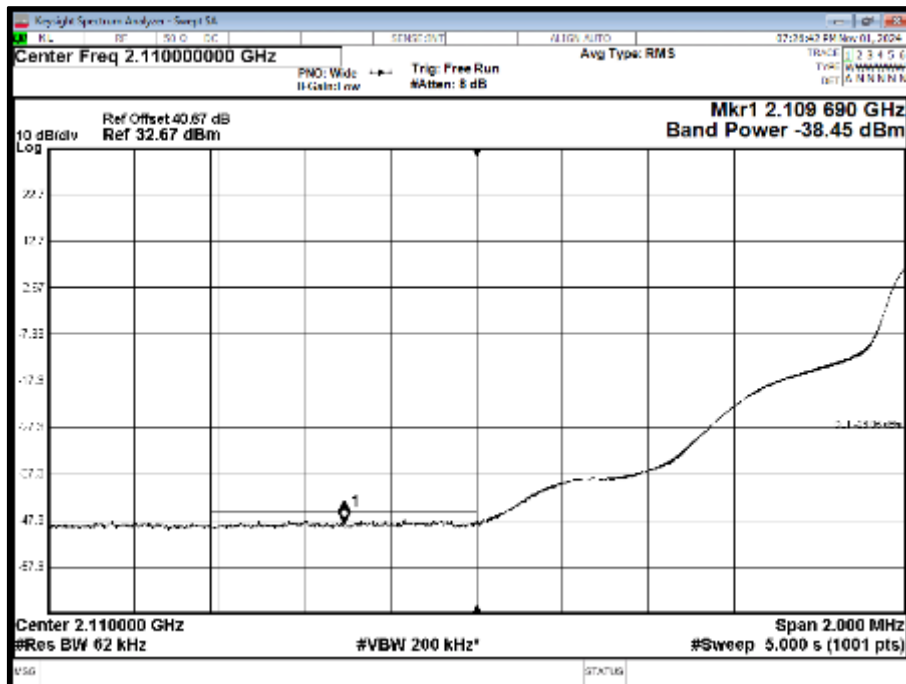
2.3.6 Test Results

Configuration 1

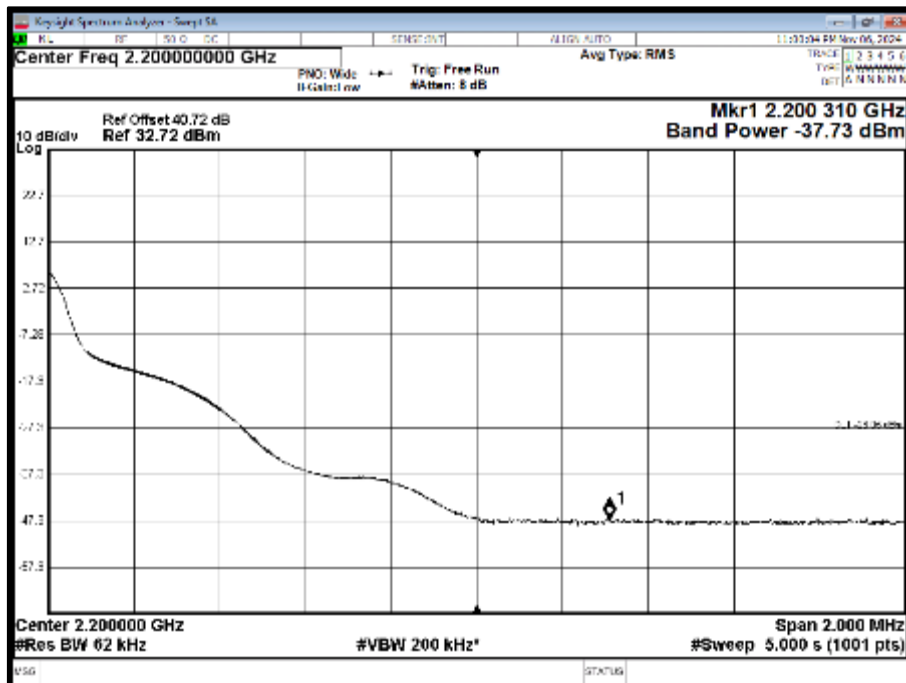
Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE Modulation	LTE Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
24	QPSK	20.0 MHz	2120+2140+2160	2190+2170+2150

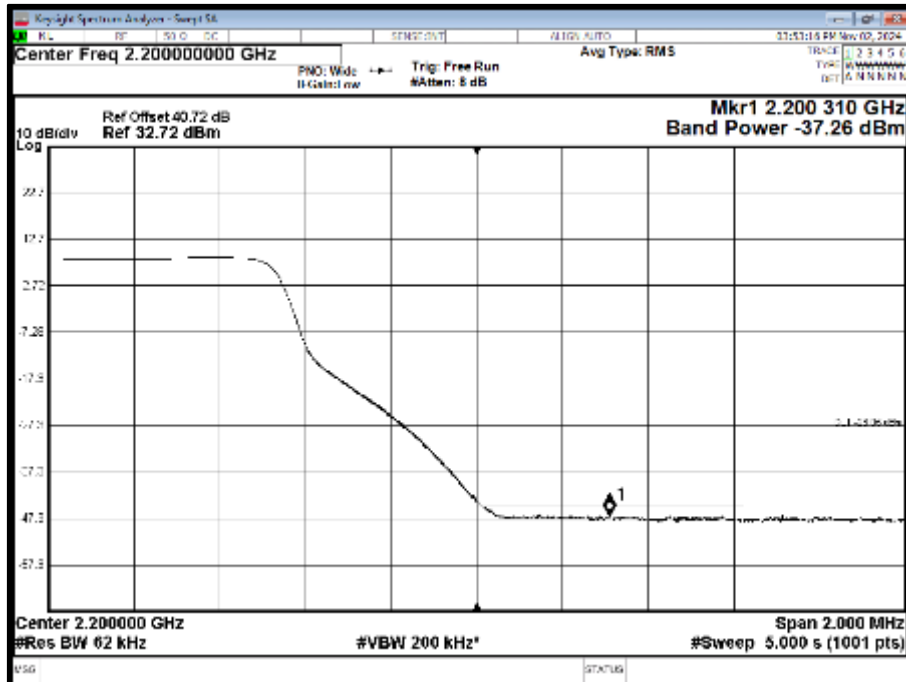
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position B



Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position T



Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position T

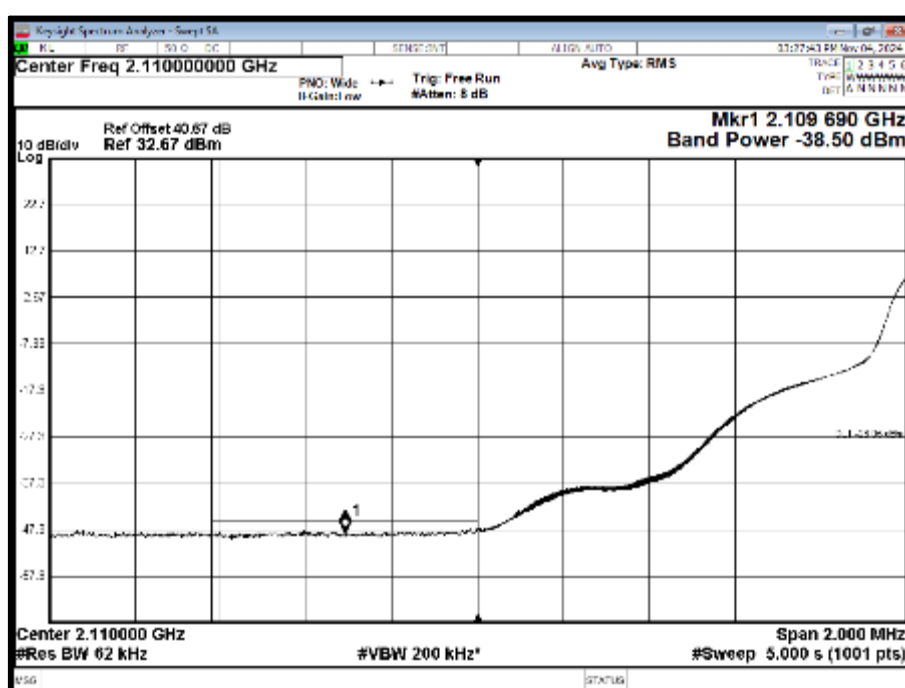


Configuration 5

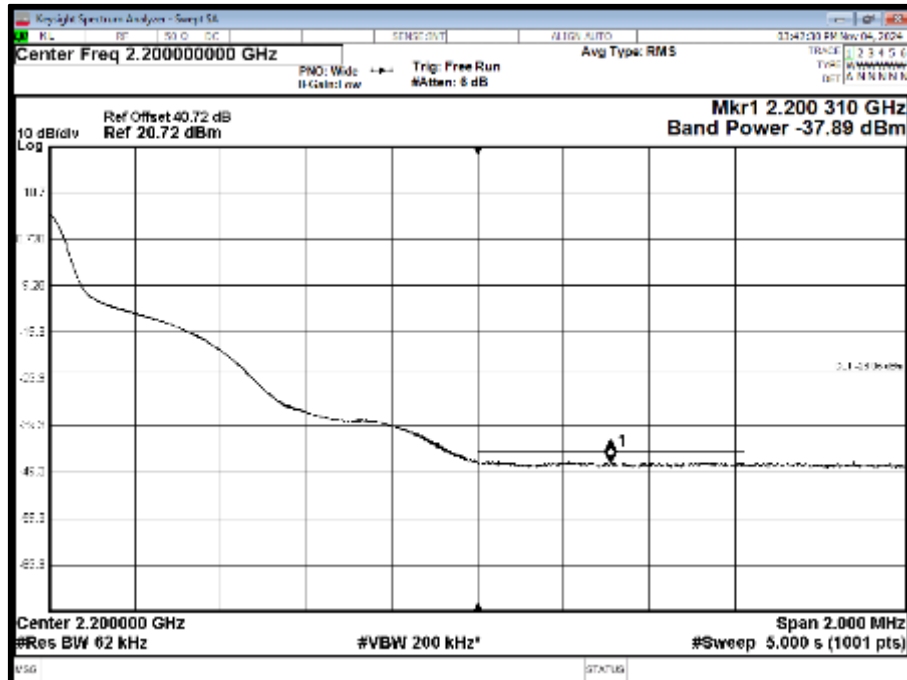
Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B _{RFBW}	Channel Position T _{RFBW}
24	QPSK / QPSK / QPSK	LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK)	2120+2140+2160	2190+2170+2150

Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK) - Channel Position B



Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK) - Channel Position T

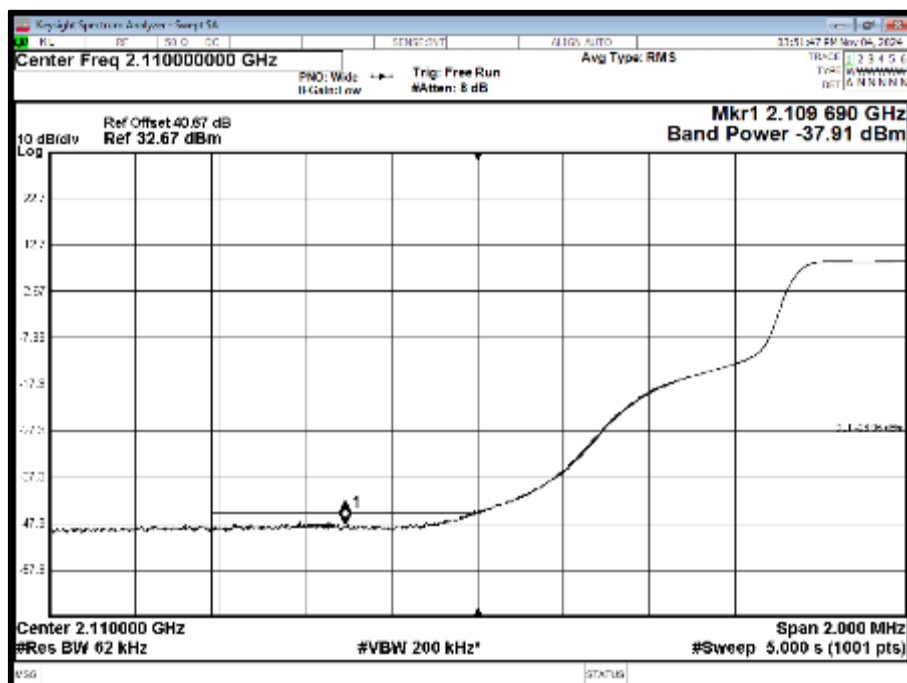


Configuration 6

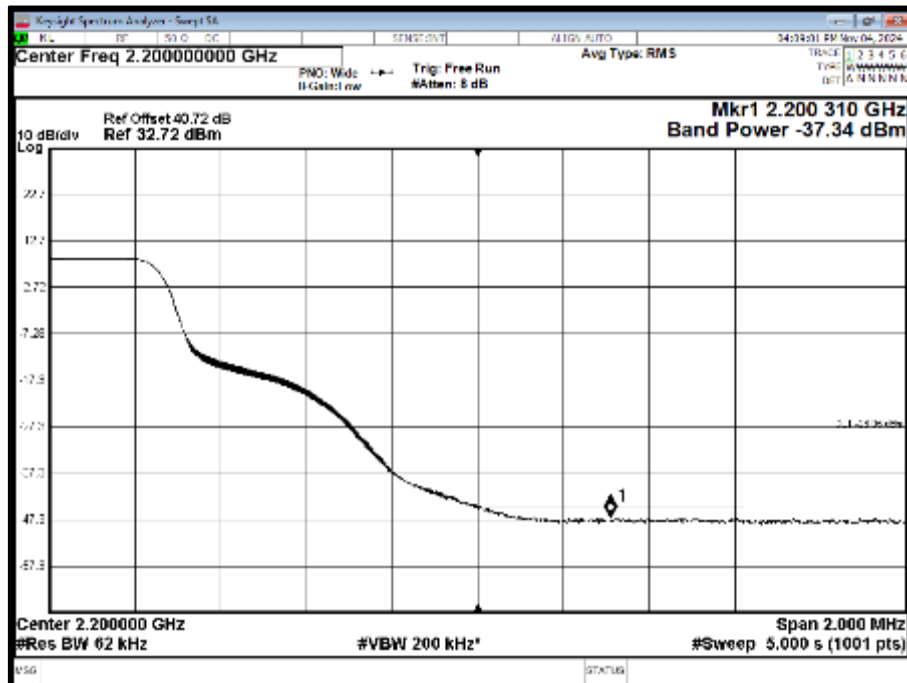
Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR / LTE Modulation	NR / LTE Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B _{RFBW}	Channel Position T _{RFBW}
24	QPSK / QPSK / QPSK / QPSK	LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK)	2117.5+2132.5+2 147.5+2162.5	2147.5+2162.5+2 177.5+2192.5

Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth
LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK) - Channel
Position B



Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth
 LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK) - Channel
 Position T



Limit	-28.05 dBm
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2.4 TRANSMITTER SPURIOUS EMISSIONS

2.4.1 Specification Reference

FCC CFR 47 Part 27, Clause 27.53
ISED RSS-GEN, Clause 6.13
ISED RSS-139, Clause 5.6
FCC CFR 47 Part 2, Clause 2.1051

2.4.2 Date of Test and Modification State

30 October, 01, 02, 04 and 05-November-2024 - Modification State 0

2.4.3 Test Equipment Used

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

2.4.4 Environmental Conditions

Ambient Temperature	23.0°C
Relative Humidity	35.6%

2.4.5 Test Method

All measurements were made in accordance with FCC KDB 971168 D01, Clause 6.1.
All measurements were made in accordance with FCC KDB 971168 D01, Clause 6.1.

Each antenna port has been declared as being equivalent, therefore measurements were made on one antenna port only. To account for this, the limit was tightened by $10 * \text{Log}(N)$, where N is equal to the number of MIMO antenna ports.

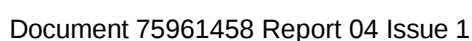
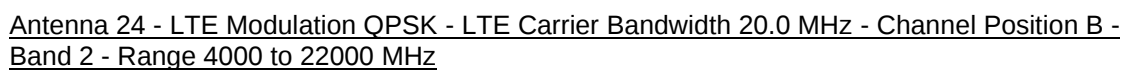
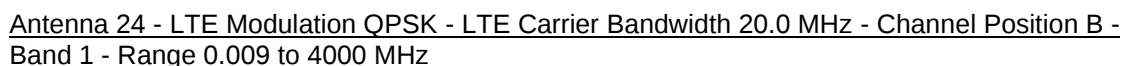
For the number of antenna ports, the limit was calculated as being:
 $-13 \text{ dBm} - 10 * \text{Log}(32) = -28.05 \text{ dBm}$.

The worst case modulation and bandwidth plots are presented here, all other applicable plots are retained by TUV SUD and available for presentation if required.

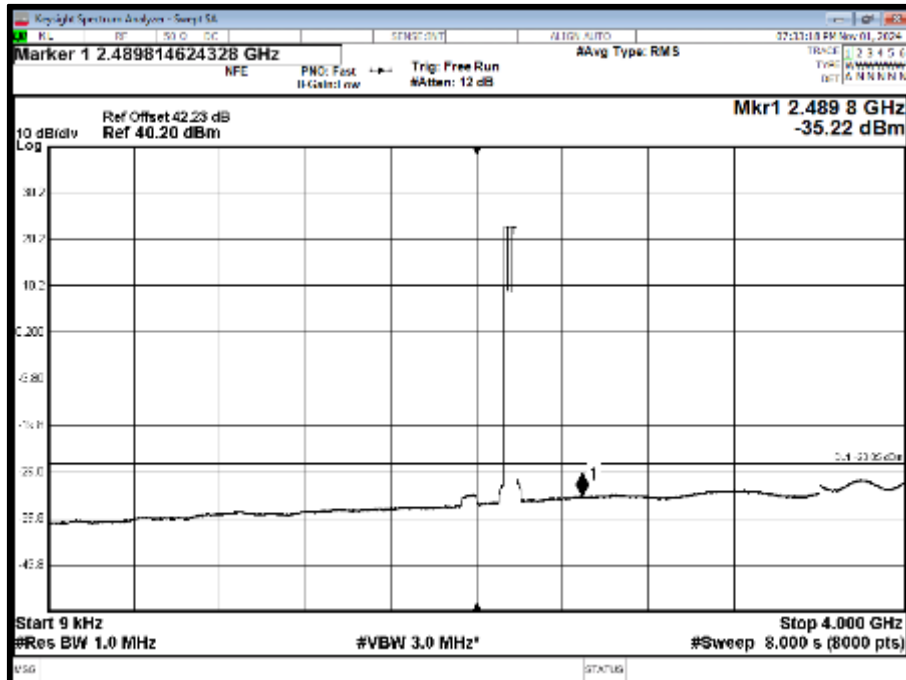
2.4.6 Test Results

Configuration 1

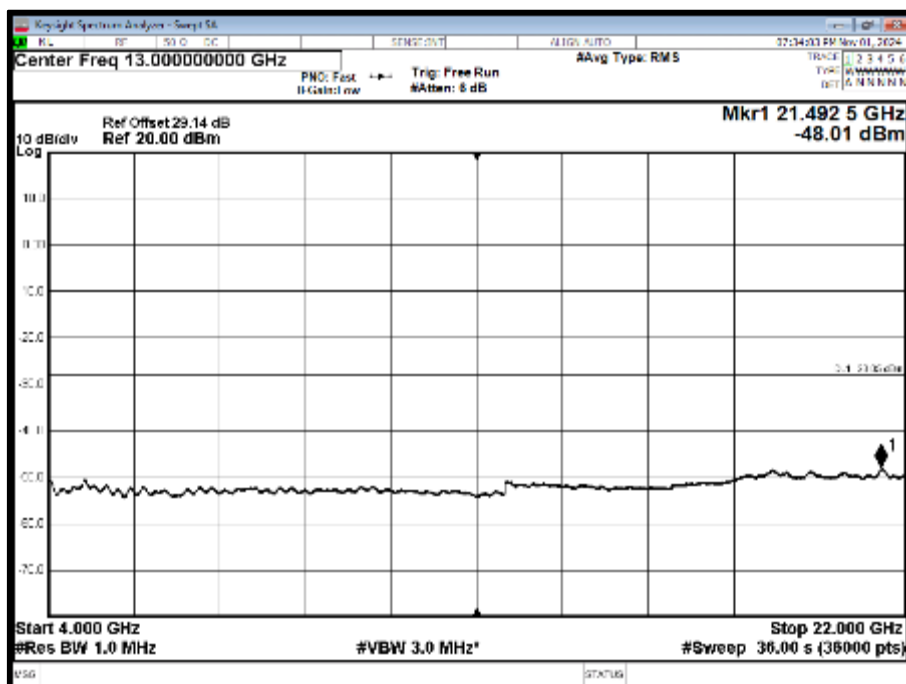
Maximum Output Power See Section 1.4 Configuration Description



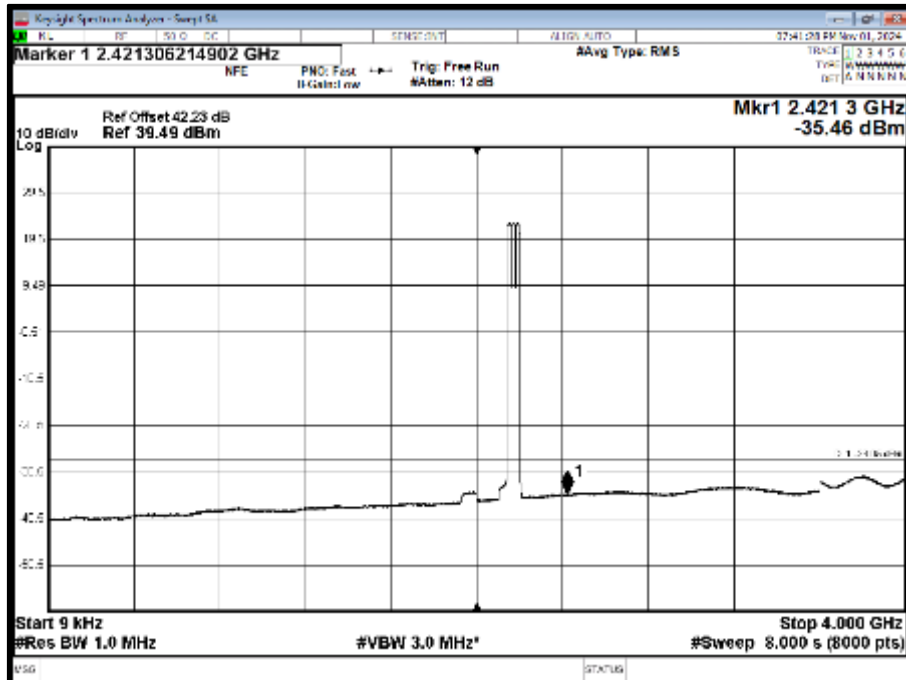
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position M - Band 1 - Range 0.009 to 4000 MHz



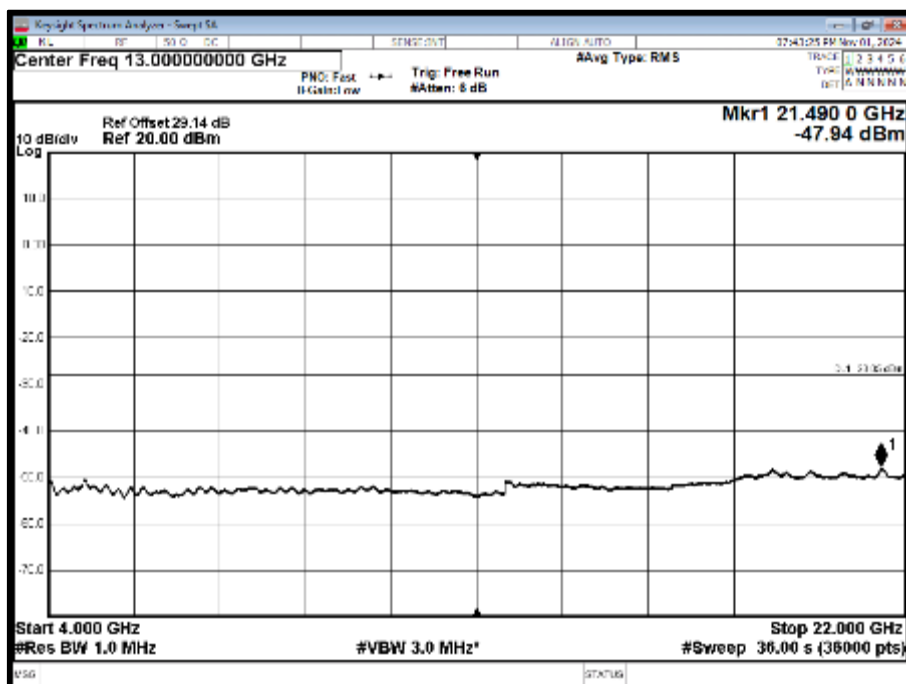
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position M - Band 2 - Range 4000 to 22000 MHz



Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position T - Band 1 - Range 0.009 to 4000 MHz



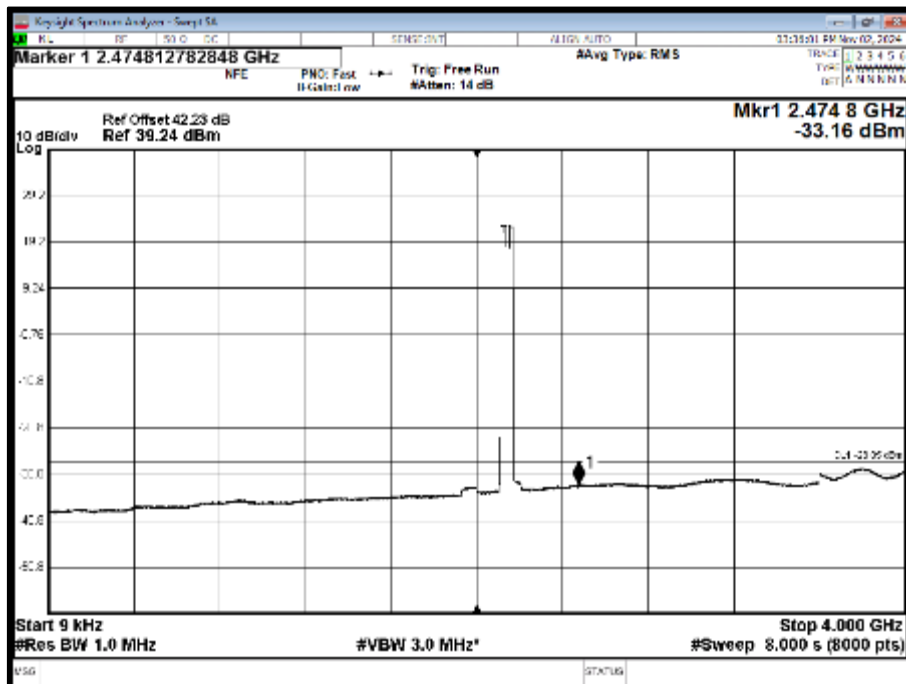
Antenna 24 - LTE Modulation QPSK - LTE Carrier Bandwidth 20.0 MHz - Channel Position T - Band 2 - Range 4000 to 22000 MHz



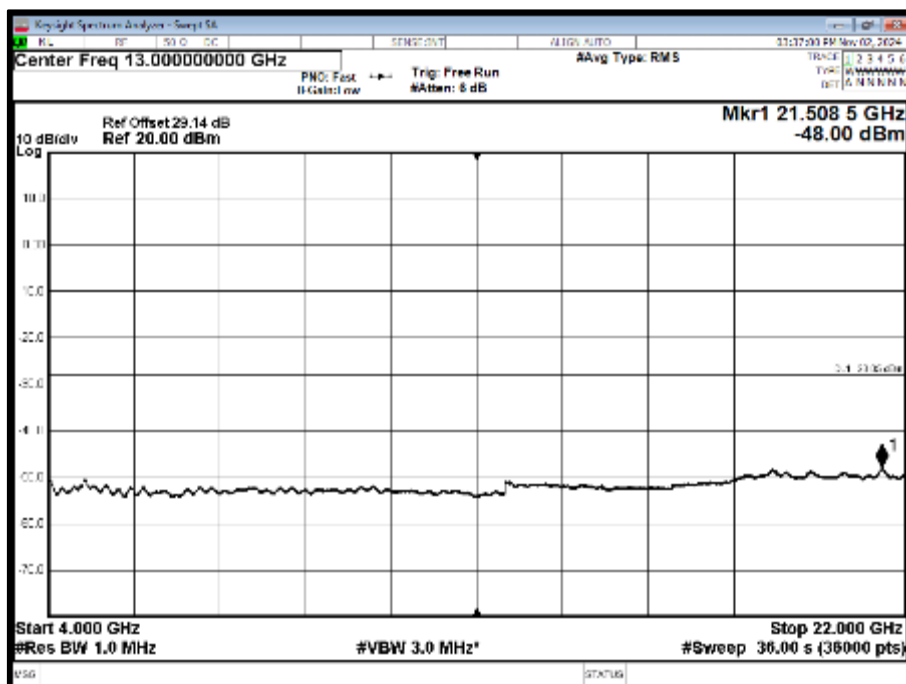
Configuration 3

Maximum Output Power See Section 1.4 Configuration Description

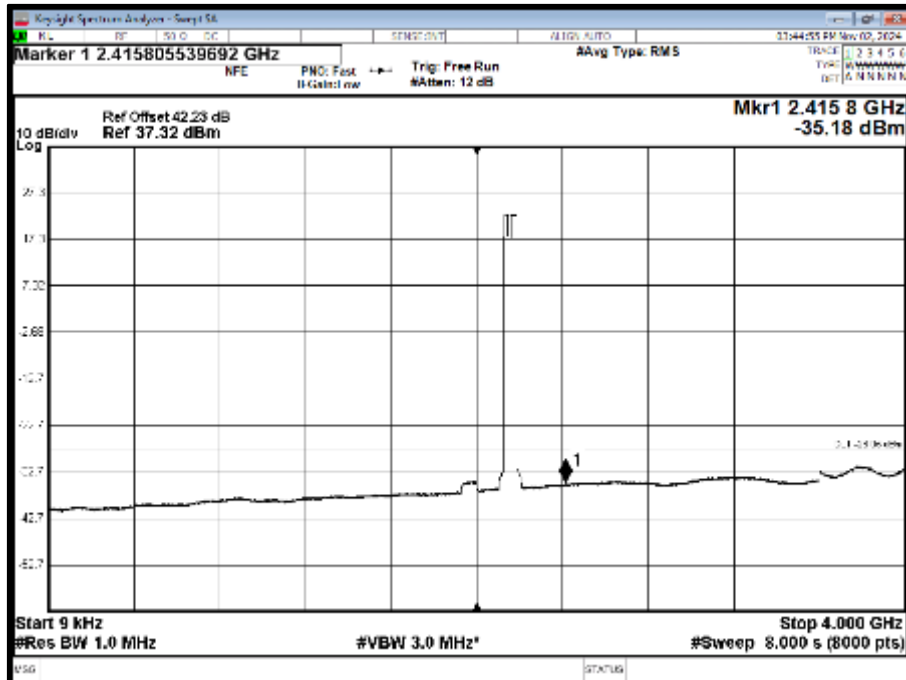
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position B - Band 1 - Range 0.009 to 4000 MHz



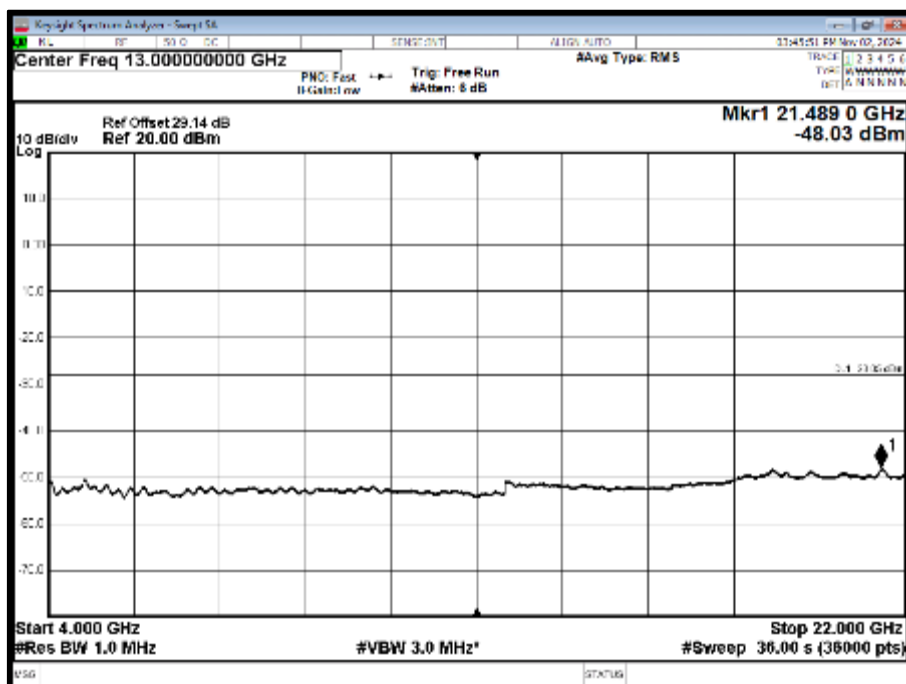
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position B - Band 2 - Range 4000 to 22000 MHz



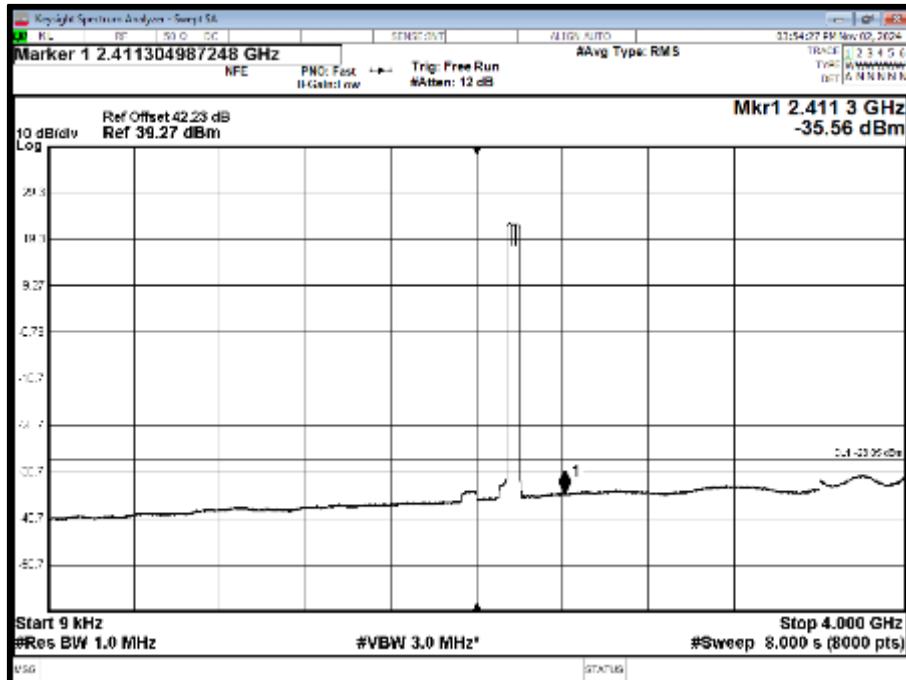
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position M - Band 1 - Range 0.009 to 4000 MHz



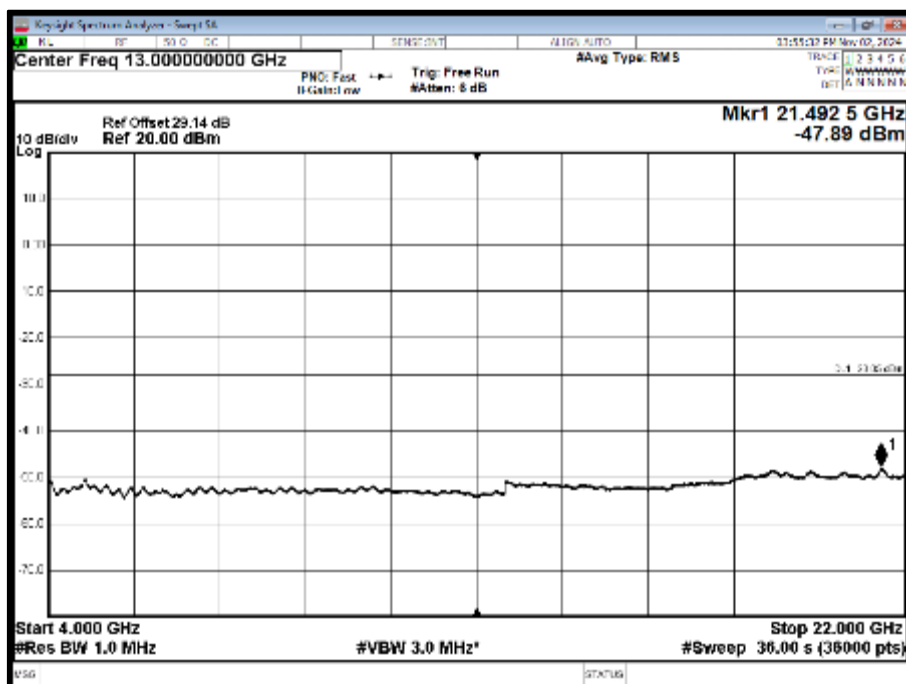
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position M - Band 2 - Range 4000 to 22000 MHz



Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position T - Band 1 - Range 0.009 to 4000 MHz



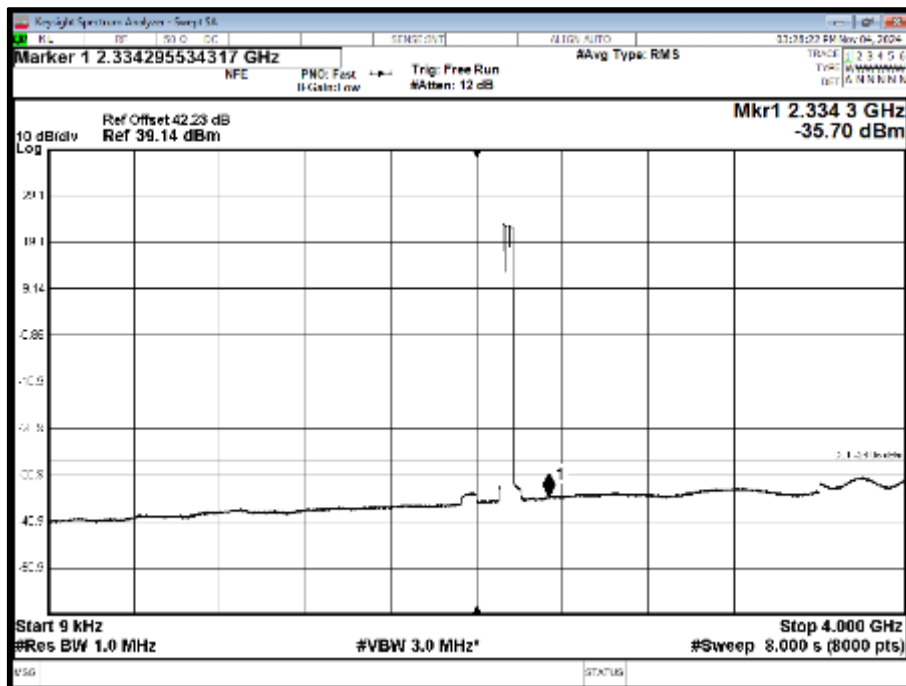
Antenna 24 - NR Modulation QPSK - NR Carrier Bandwidth 20.0 MHz 15 kHz SCS - Channel Position T - Band 2 - Range 4000 to 22000 MHz



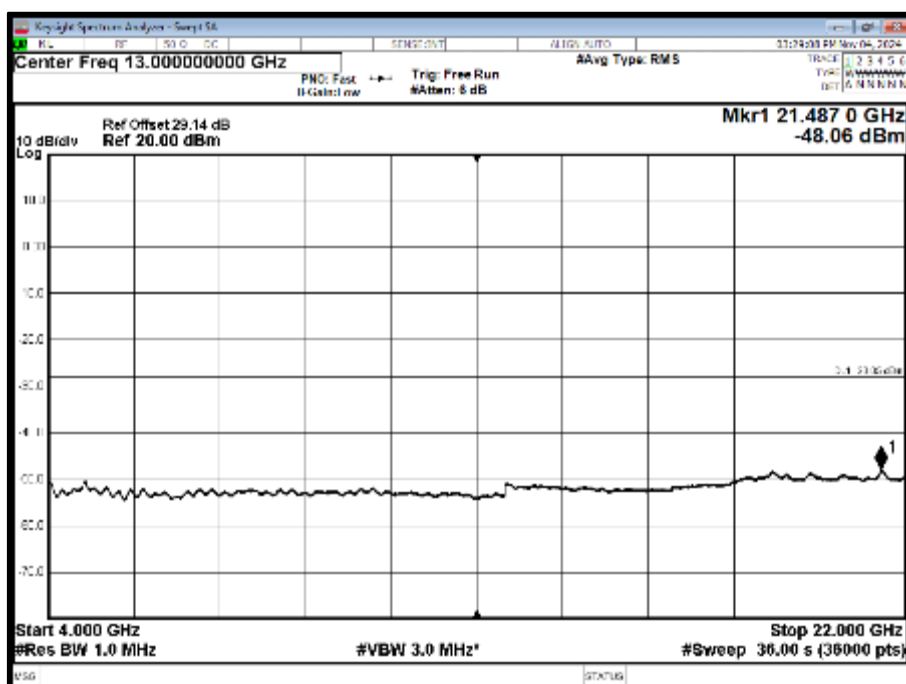
Configuration 5

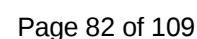
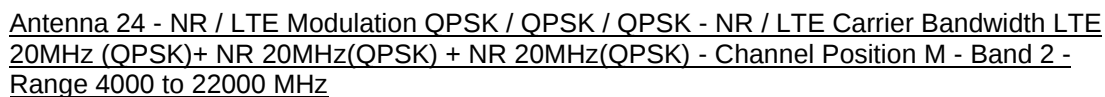
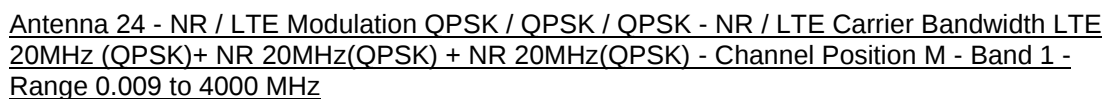
Maximum Output Power See Section 1.4 Configuration Description

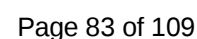
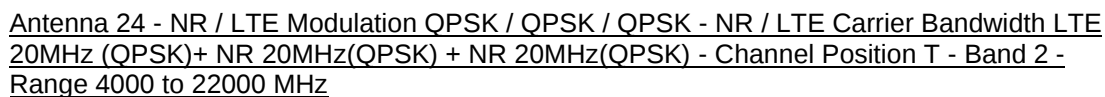
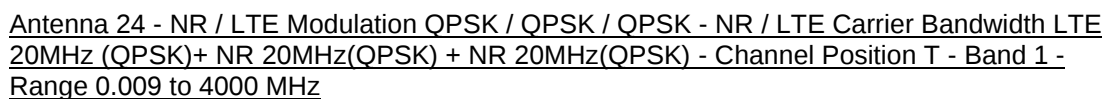
Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK) - Channel Position B - Band 1 - Range 0.009 to 4000 MHz

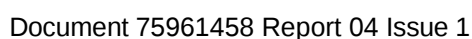
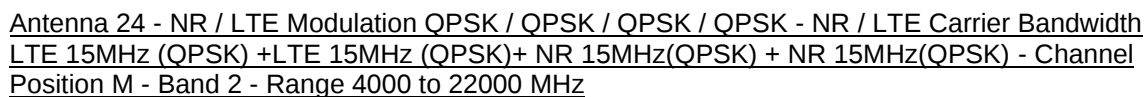
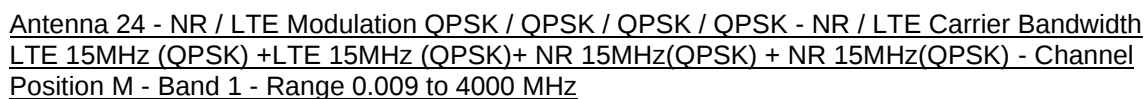


Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth LTE 20MHz (QPSK)+ NR 20MHz(QPSK) + NR 20MHz(QPSK) - Channel Position B - Band 2 - Range 4000 to 22000 MHz

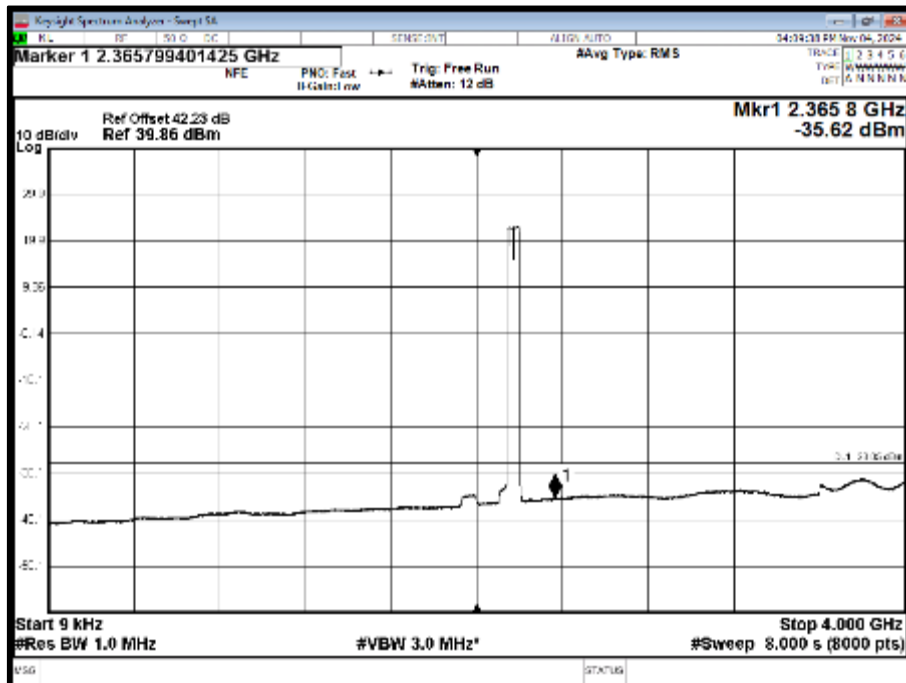




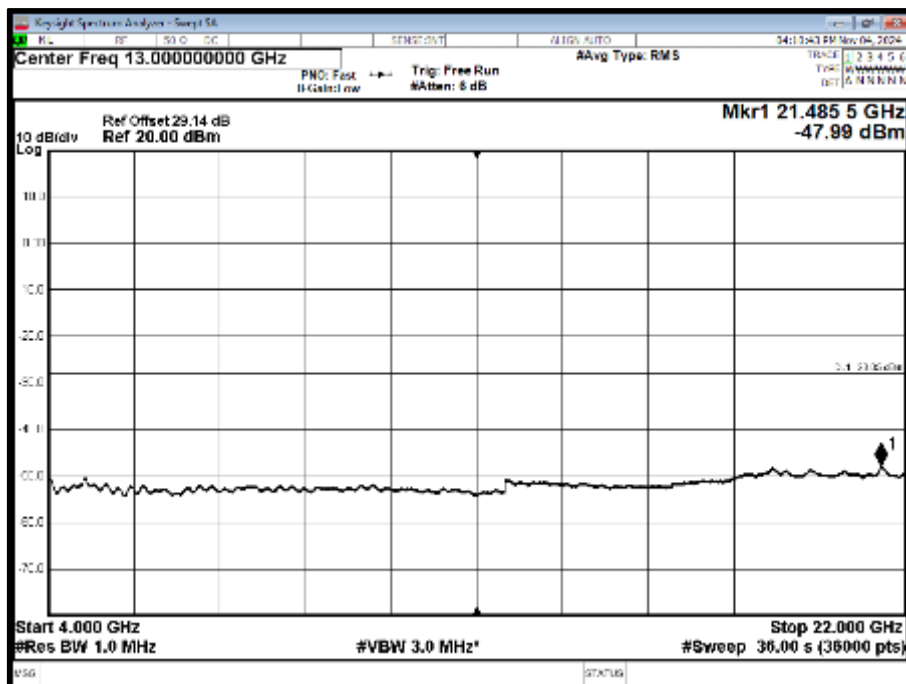




Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth
LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK) - Channel
Position T - Band 1 - Range 0.009 to 4000 MHz



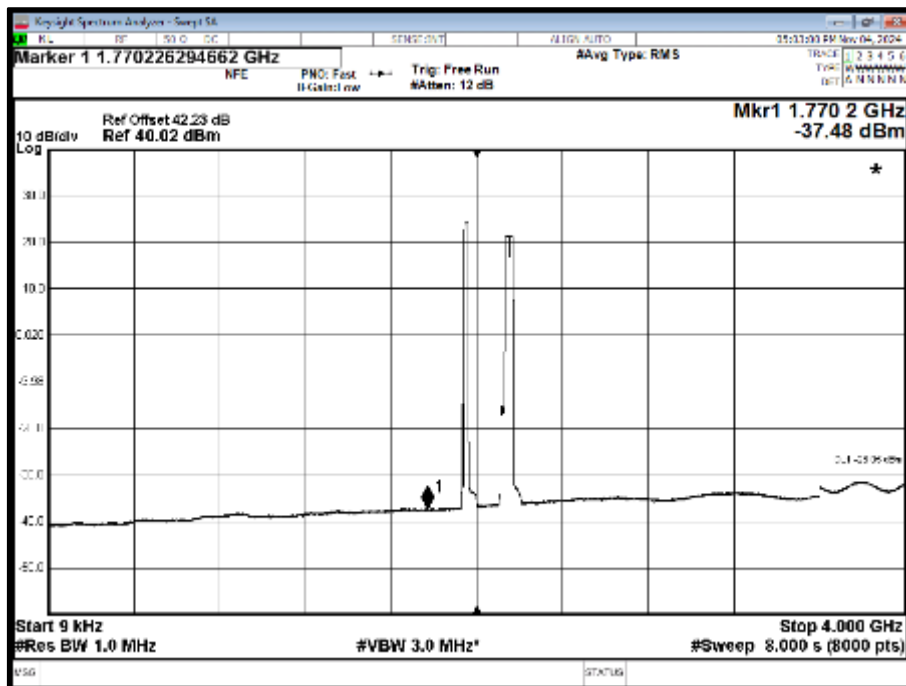
Antenna 24 - NR / LTE Modulation QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth
LTE 15MHz (QPSK) +LTE 15MHz (QPSK)+ NR 15MHz(QPSK) + NR 15MHz(QPSK) - Channel
Position T - Band 2 - Range 4000 to 22000 MHz



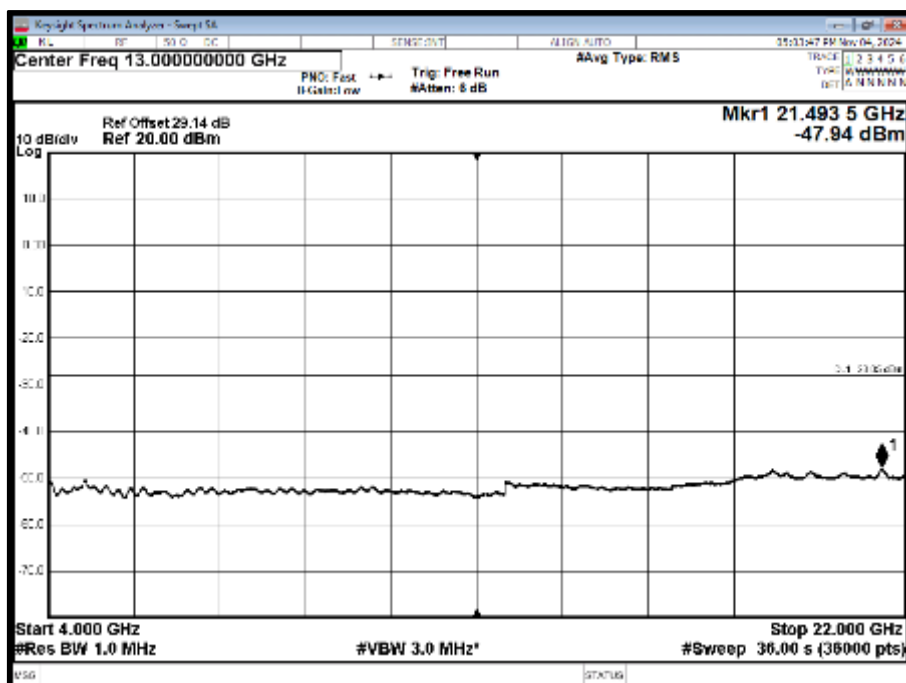
Configuration 9

Maximum Output Power See Section 1.4 Configuration Description

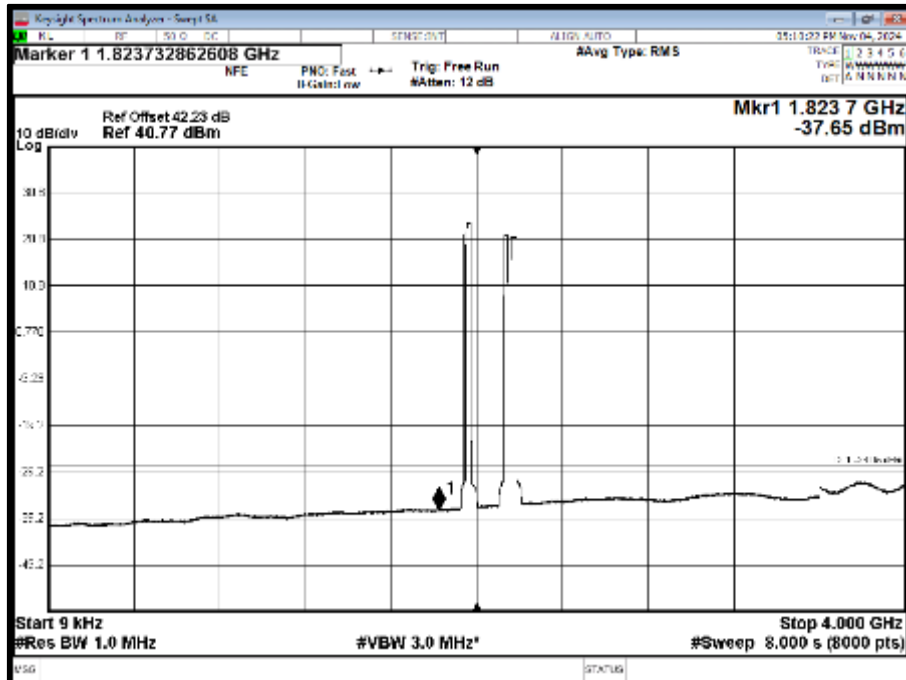
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 3CC(B66) - Channel Position B - Band 1 - Range 0.009 to 4000 MHz



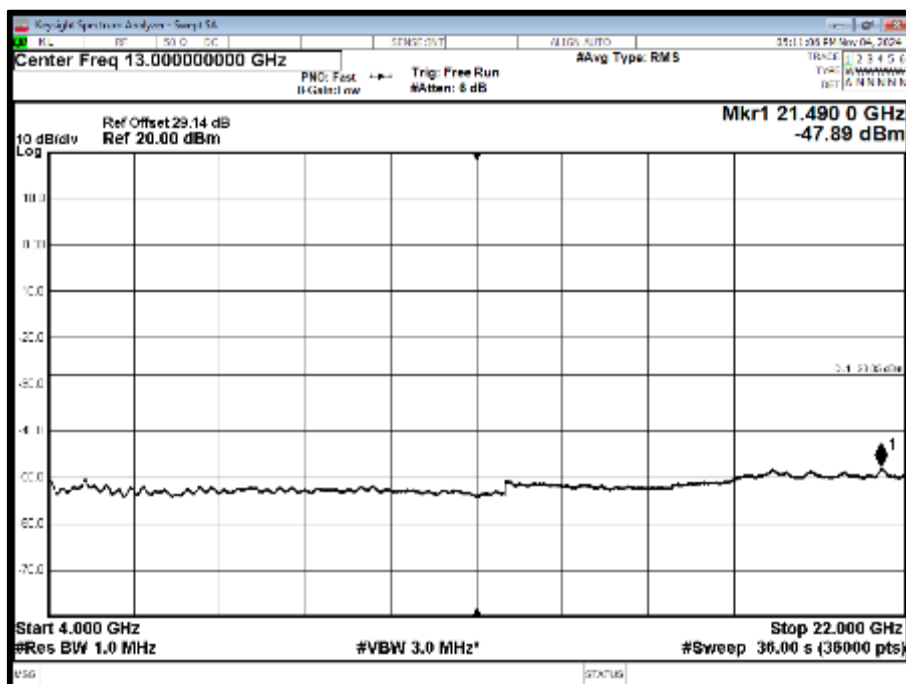
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 3CC(B66) - Channel Position B - Band 2 - Range 4000 to 22000 MHz



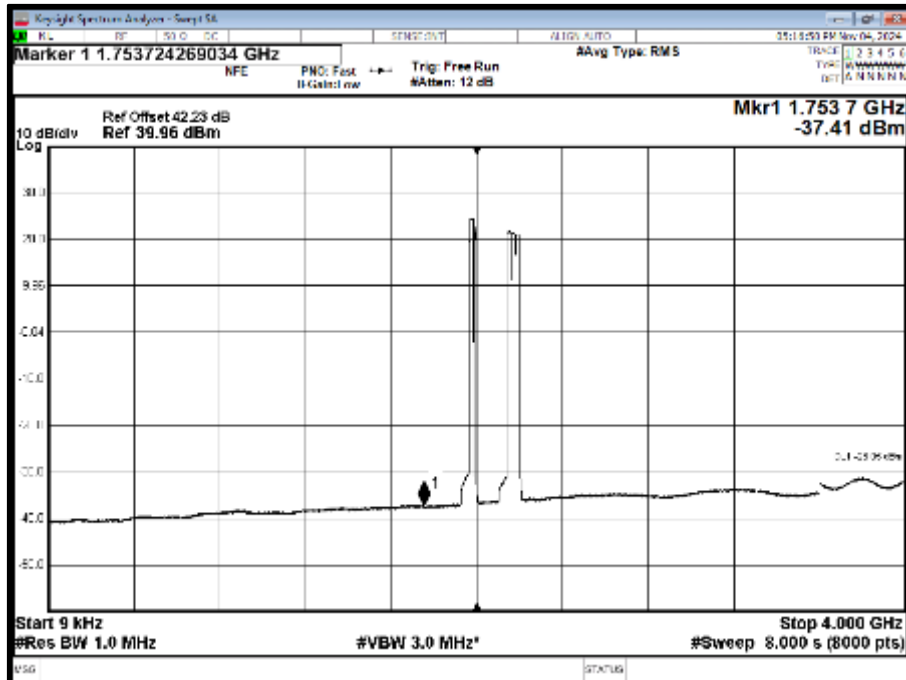
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 3CC(B66) - Channel Position M - Band 1 - Range 0.009 to 4000 MHz



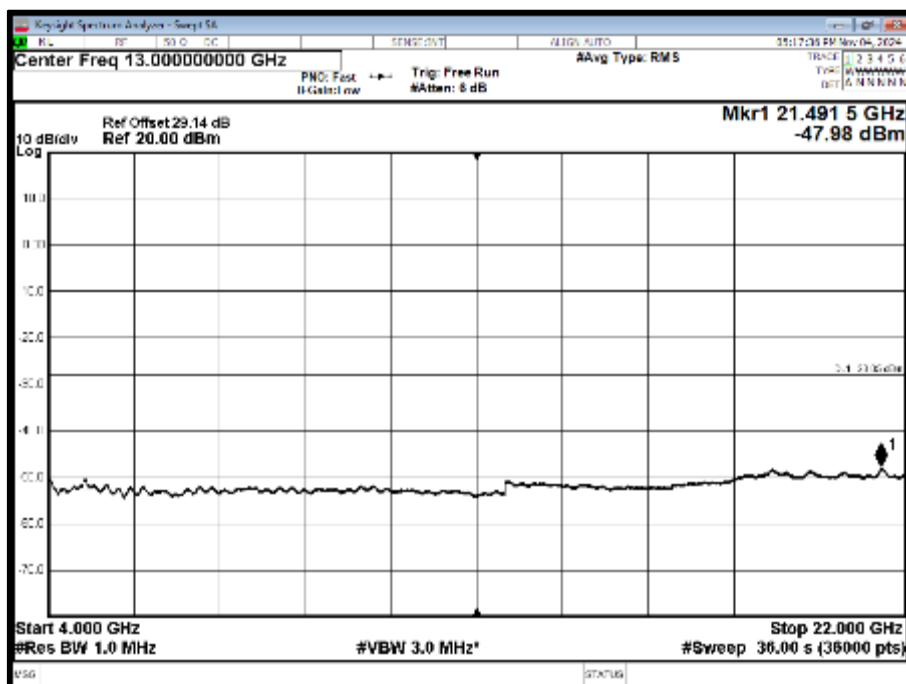
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B25) + 3CC(B66) - Channel Position M - Band 2 - Range 4000 to 22000 MHz



Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier
Bandwidth 2CC(B25) + 3CC(B66) - Channel Position T - Band 1 - Range 0.009 to 4000 MHz



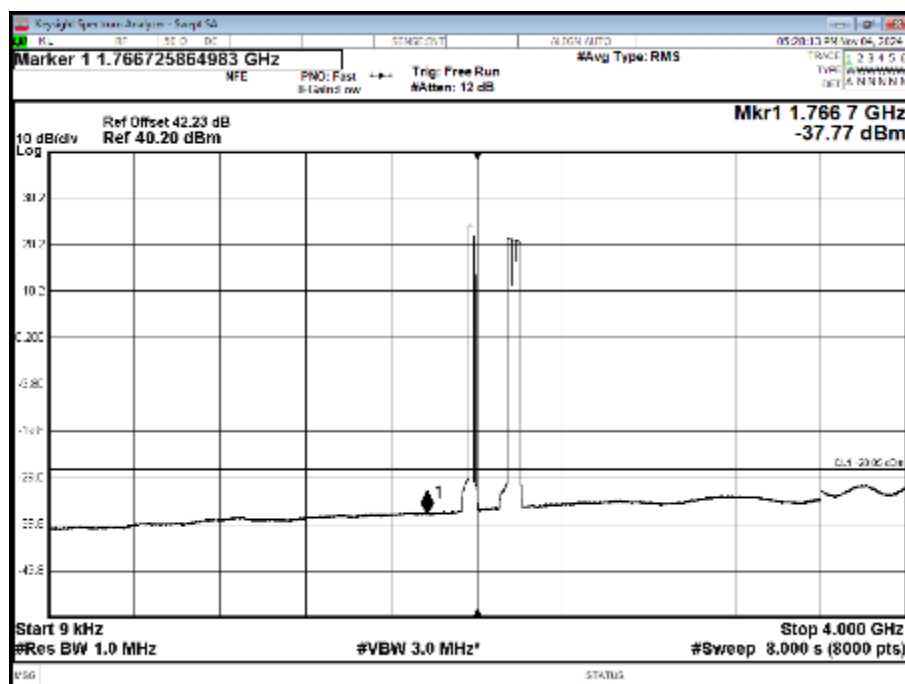
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier
Bandwidth 2CC(B25) + 3CC(B66) - Channel Position T - Band 2 - Range 4000 to 22000 MHz



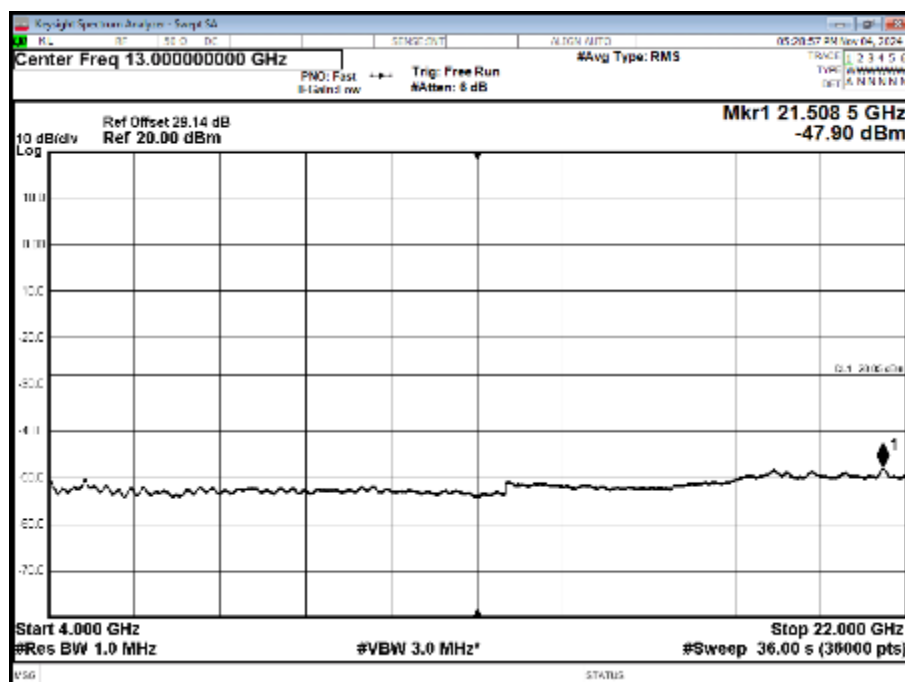
Configuration 10

Maximum Output Power See Section 1.4 Configuration Description

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B2) + 3CC(B66) - Channel Position T - Band 1 - Range 4000 to 22000 MHz



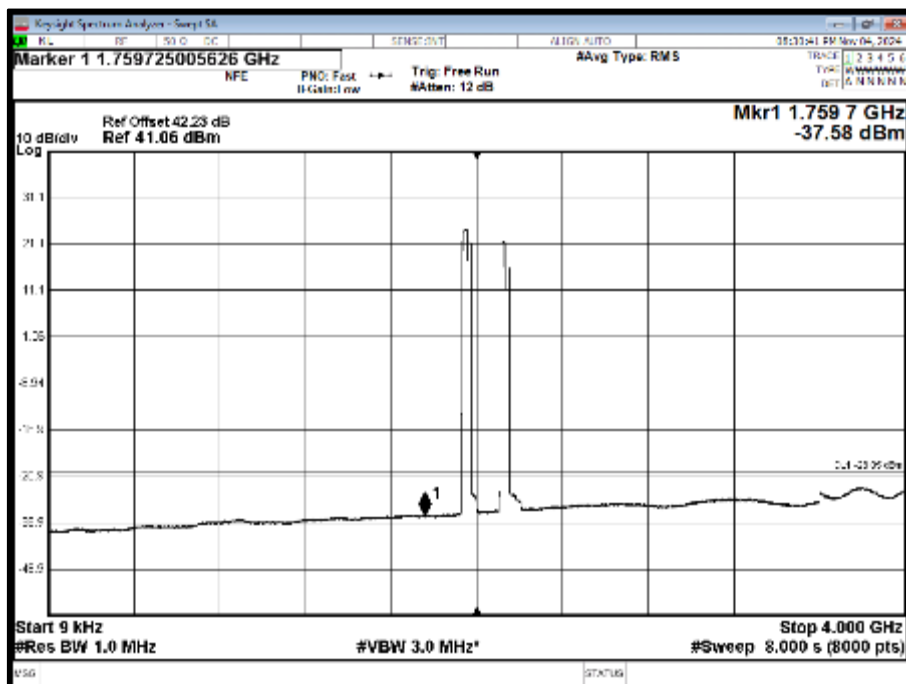
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 2CC(B2) + 3CC(B66) - Channel Position T - Band 2 - Range 4000 to 22000 MHz



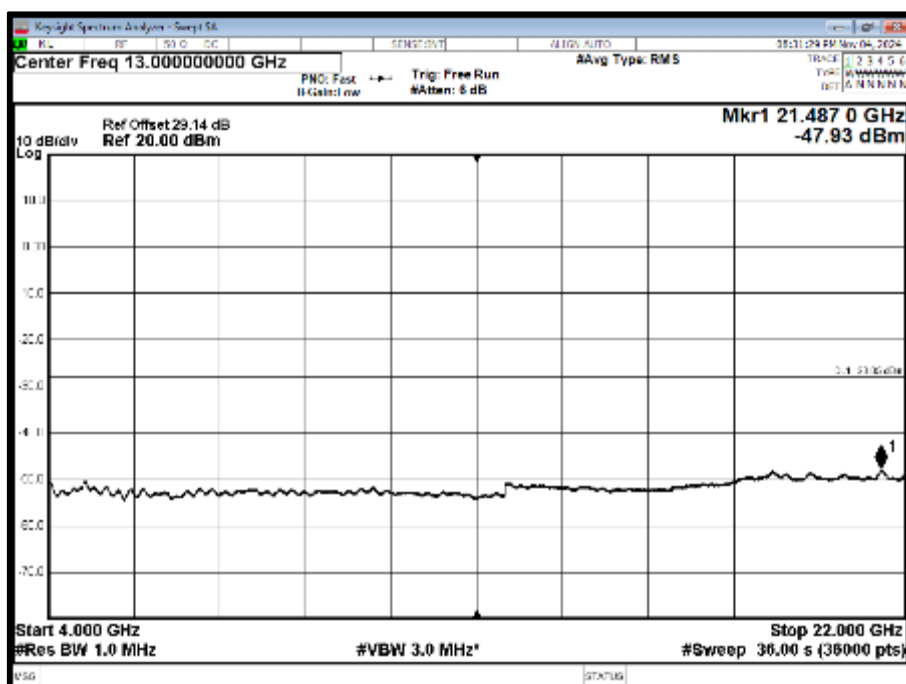
Configuration 11

Maximum Output Power See Section 1.4 Configuration Description

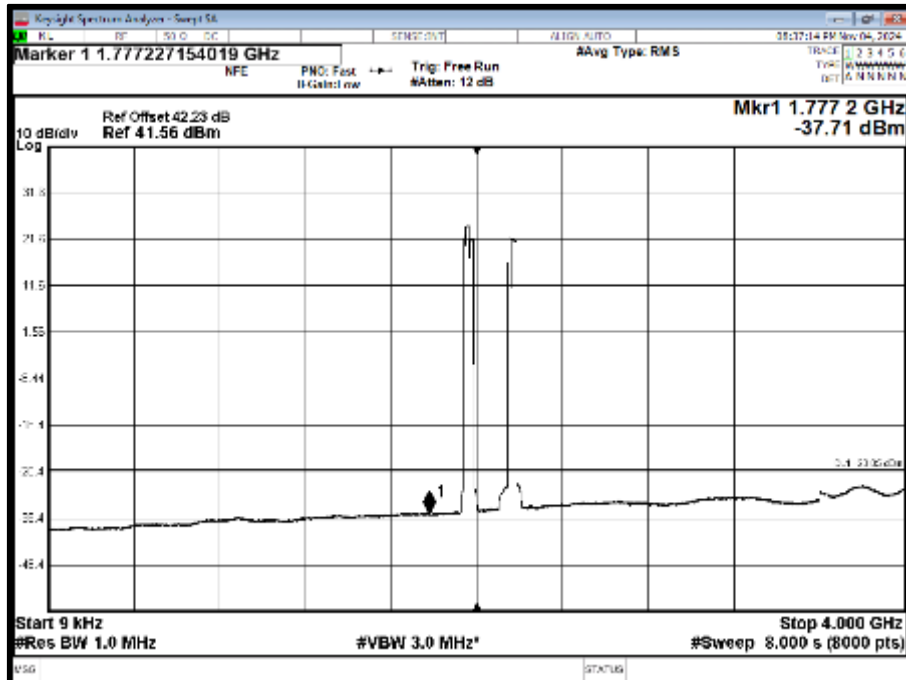
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B25) + 2CC(B66) - Channel Position B - Band 1 - Range 0.009 to 4000 MHz



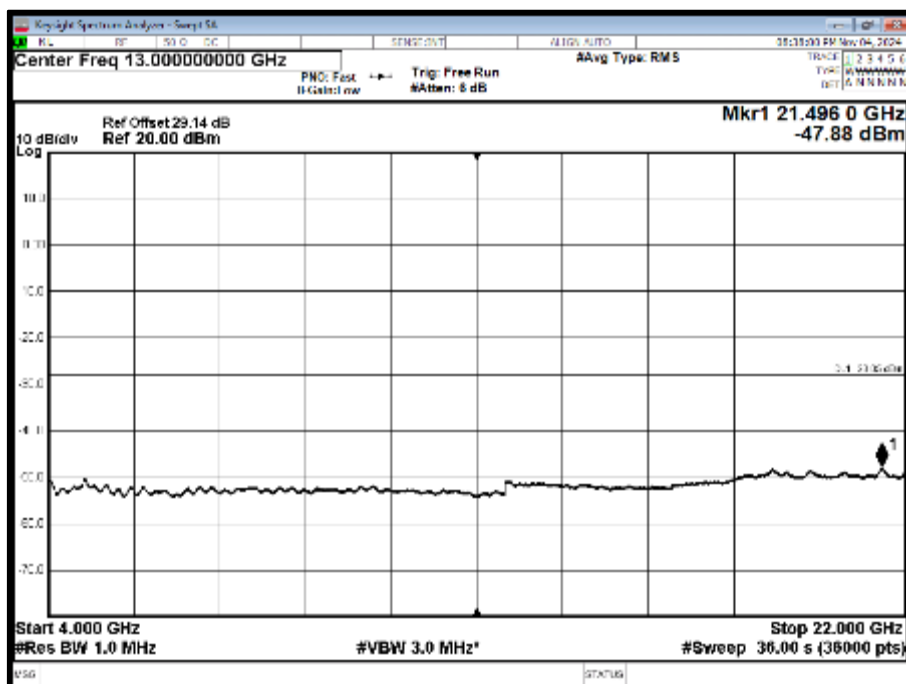
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B25) + 2CC(B66) - Channel Position B - Band 2 - Range 4000 to 22000 MHz

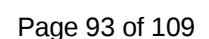
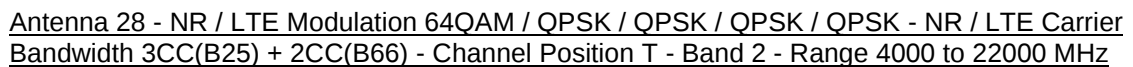
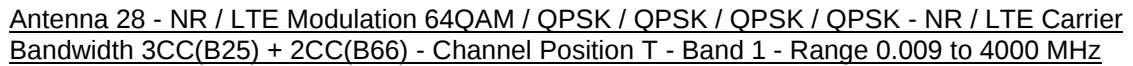


Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier
Bandwidth 3CC(B25) + 2CC(B66) - Channel Position M - Band 1 - Range 0.009 to 4000 MHz



Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier
Bandwidth 3CC(B25) + 2CC(B66) - Channel Position M - Band 2 - Range 4000 to 22000 MHz

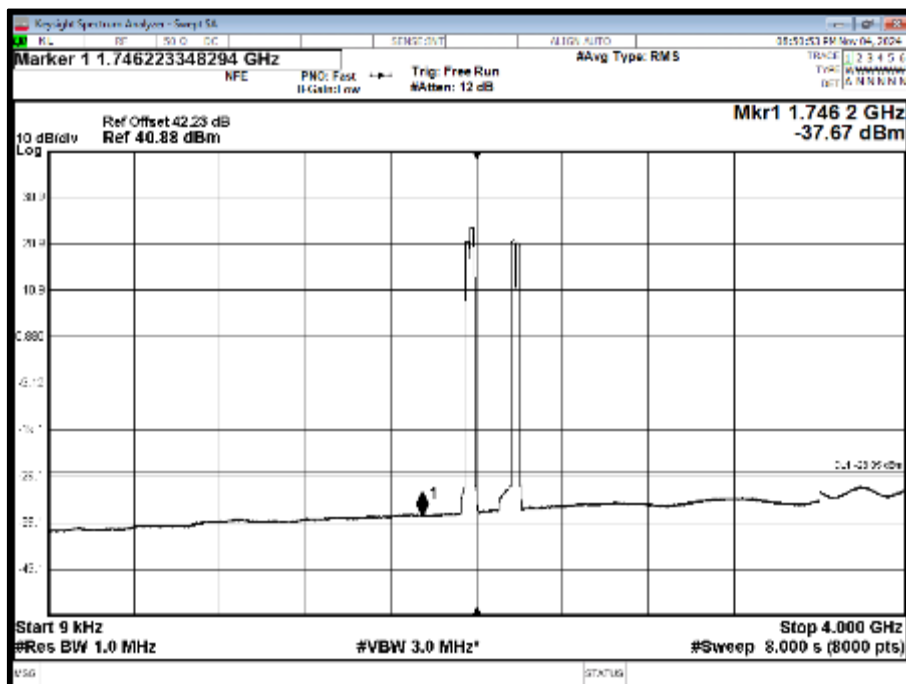




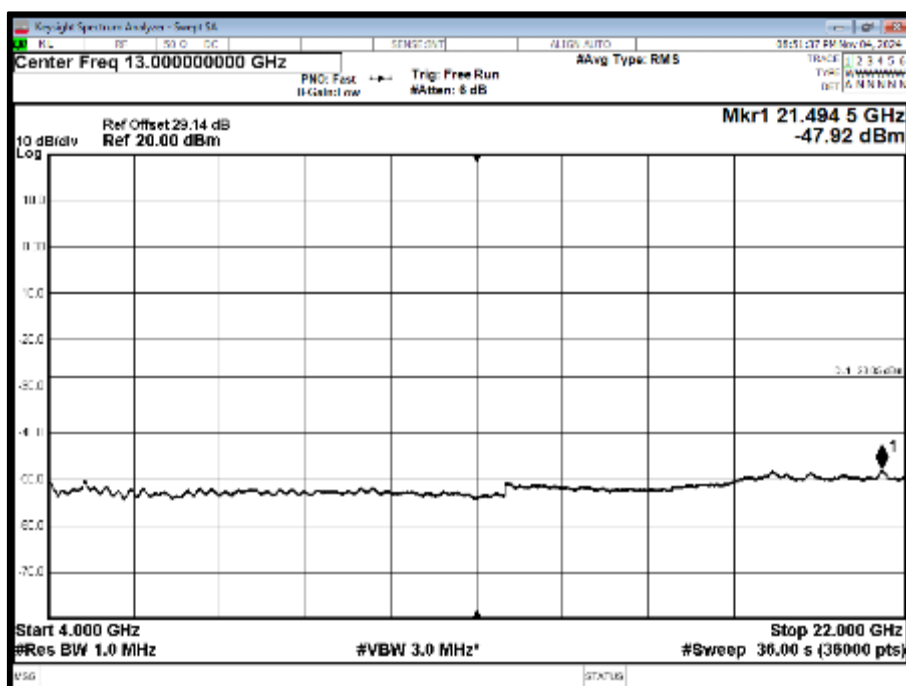
Configuration 12

Maximum Output Power See Section 1.4 Configuration Description

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B2) + 2CC(B66) - Channel Position T - Band 1 - Range 0.009 to 4000 MHz



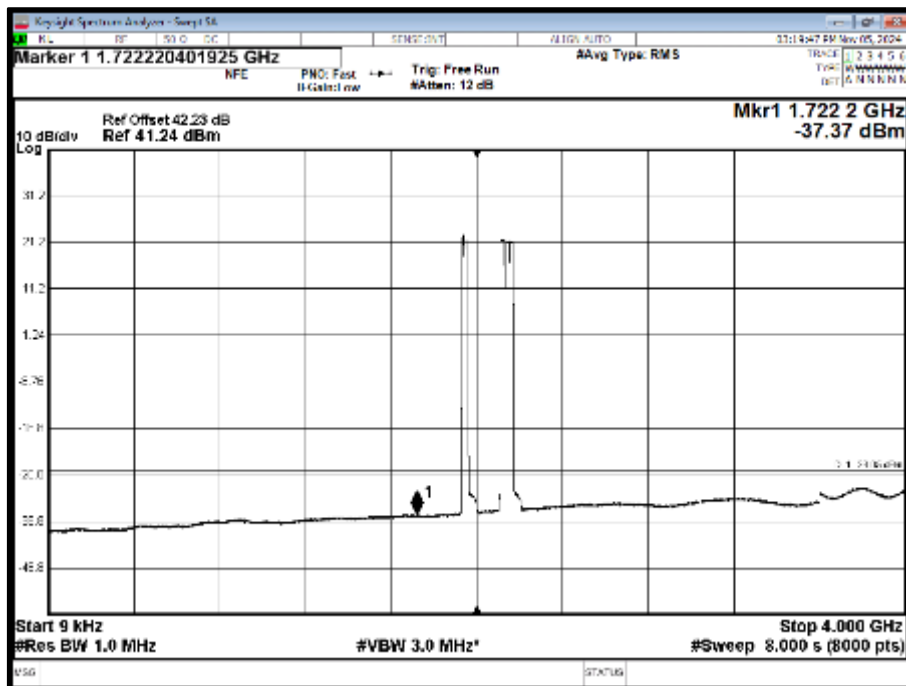
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - NR / LTE Carrier Bandwidth 3CC(B2) + 2CC(B66) - Channel Position T - Band 2 - Range 4000 to 22000 MHz



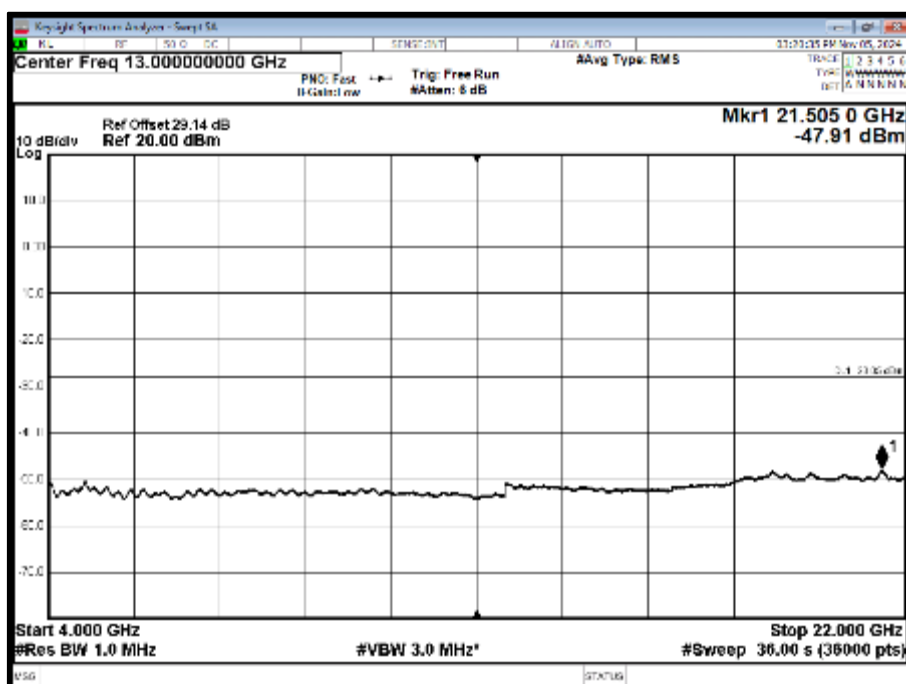
Configuration 13

Maximum Output Power See Section 1.4 Configuration Description

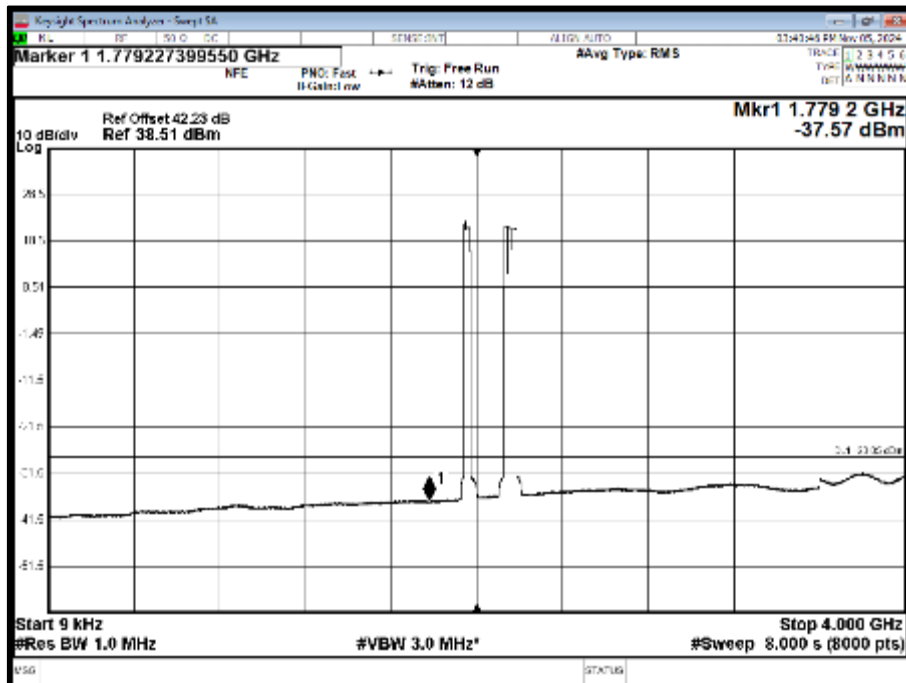
Antenna 24 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE
Carrier Bandwidth 3CC(B25) + 3CC(B66) - Channel Position B - Band 1 - Range 0.009 to 4000 MHz



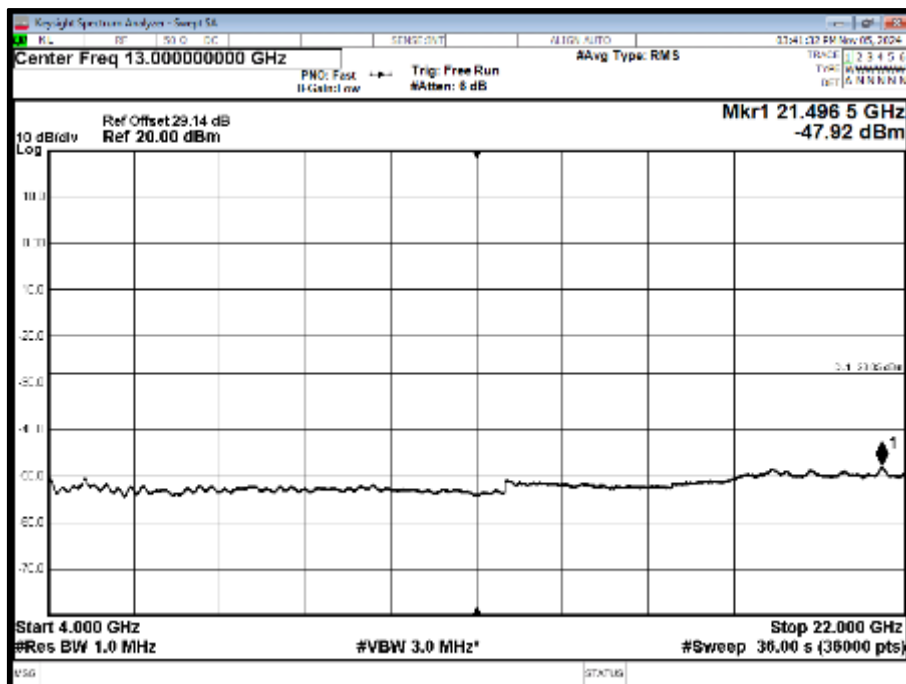
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Carrier Bandwidth 3CC(B25) + 3CC(B66) - Channel Position B - Band 2 - Range 4000 to 22000 MHz



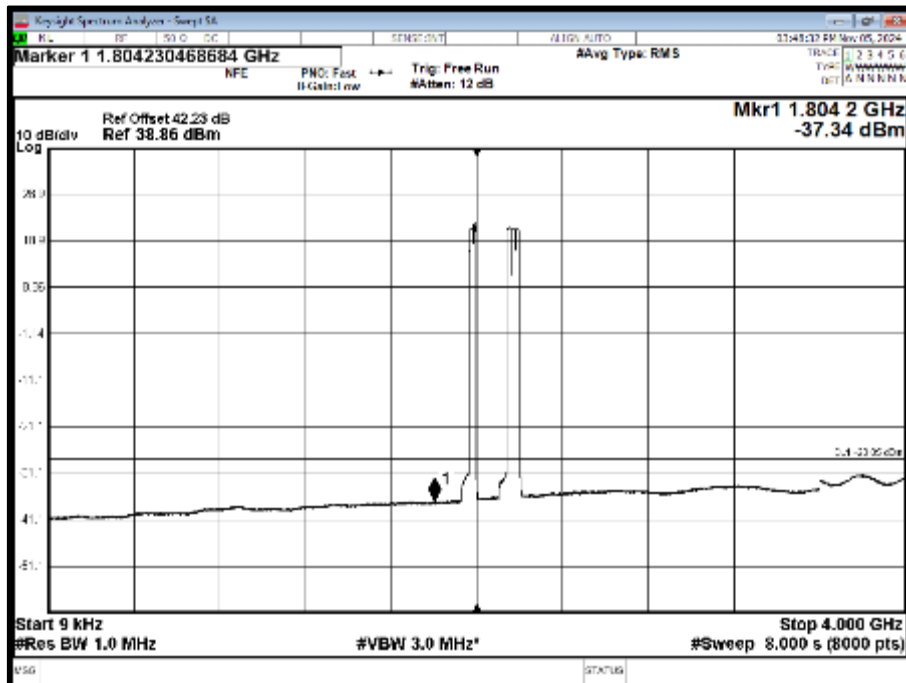
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MHz



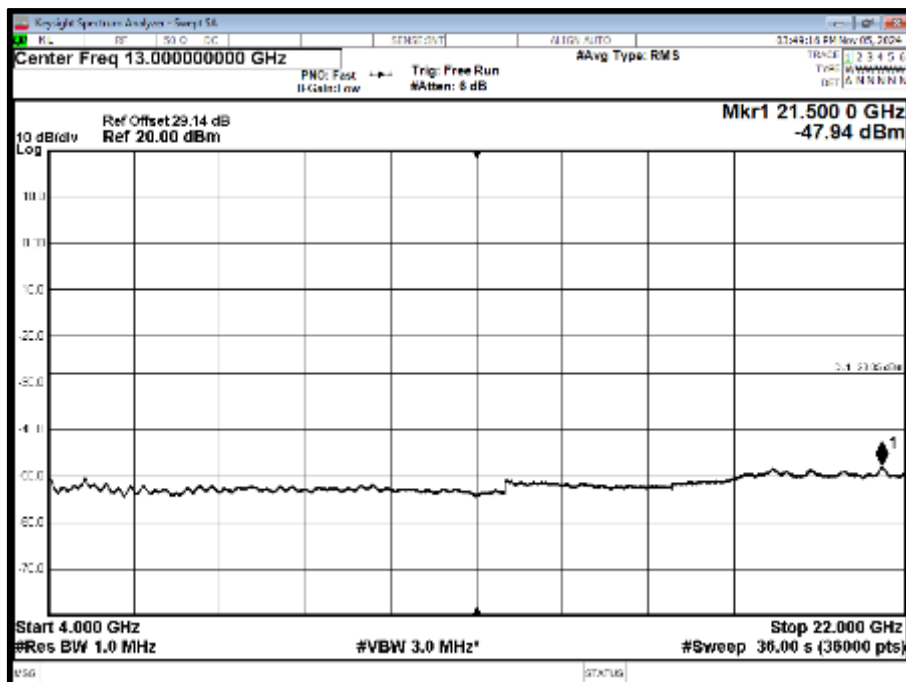
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Carrier Bandwidth 3CC(B25) + 3CC(B66) - Channel Position M - Band 2 - Range 4000 to 22000
MHz



Antenna 24 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE
Carrier Bandwidth 3CC(B25) + 3CC(B66) - Channel Position T - Band 1 - Range 0.009 to 4000
MHz



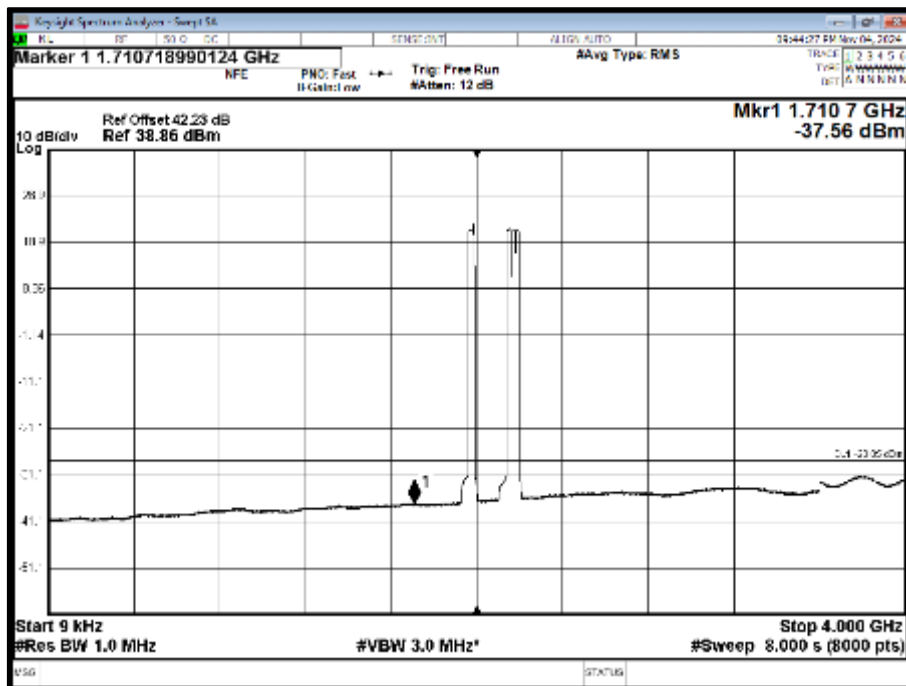
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MHz



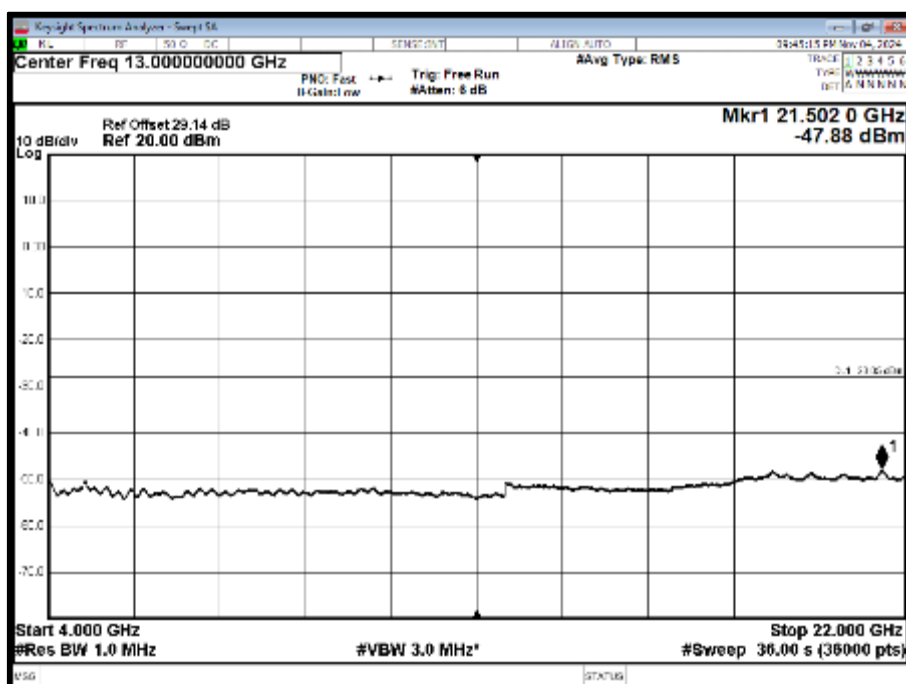
Configuration 14

Maximum Output Power See Section 1.4 Configuration Description

Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE
Carrier Bandwidth 3CC(B2) + 3CC(B66) - Channel Position T - Band 1 - Range 0.009 to 4000
MHz



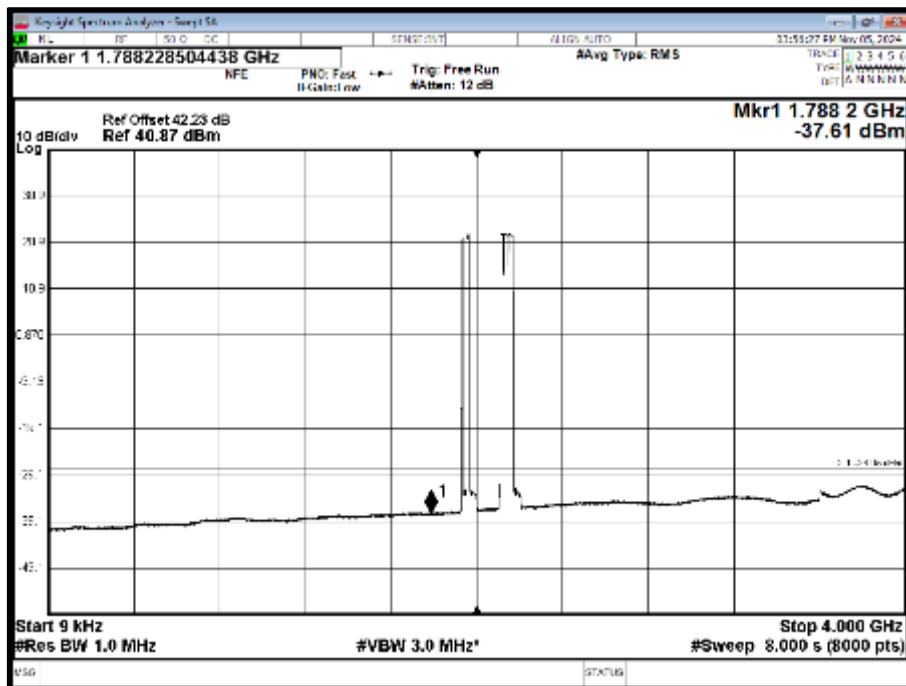
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MHz



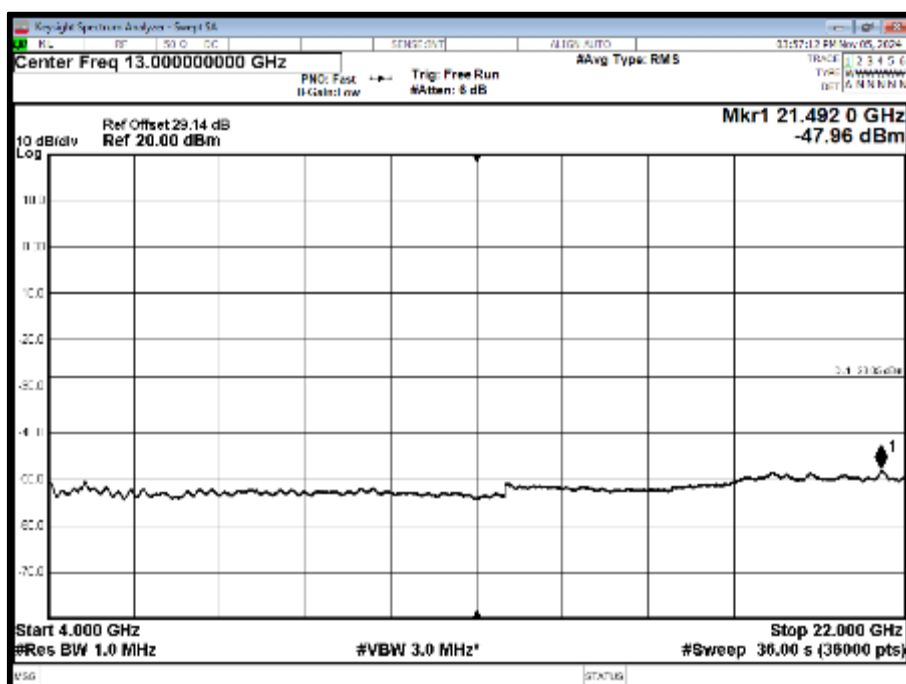
Configuration 15

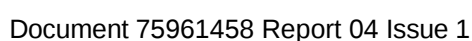
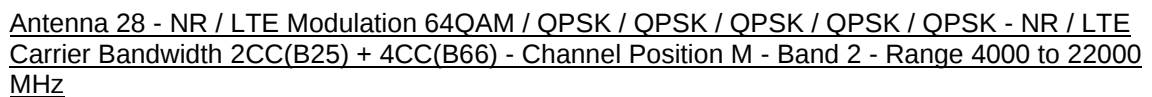
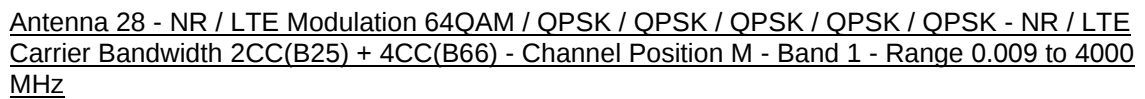
Maximum Output Power See Section 1.4 Configuration Description

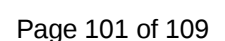
Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE
Carrier Bandwidth 2CC(B25) + 4CC(B66) - Channel Position B - Band 1 - Range 0.009 to 4000
MHz



Antenna 28 - NR / LTE Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK - NR / LTE
Carrier Bandwidth 2CC(B25) + 4CC(B66) - Channel Position B - Band 2 - Range 4000 to 22000
MHz









Limit 27.53 (h) (1)

Limit	$-13 \text{ dBm} - 10 * \text{Log} (32) = -28.05 \text{ dBm}.$
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SECTION 3

TEST EQUIPMENT USED



3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Due
Auxiliary Equipment					
Computer	MacBook Pro	Apple	BAMS-1002122808	N/A	O/P Mon
PSU	LP2 x 700W	Ericsson	BAMS-1017033678	N/A	O/P Mon
SFP module	N/A	N/A	N/A	N/A	O/P Mon
Power supply (for EUT)	Keysight	N8738A 80V/42A 3360W	BAMS-1001643633	N/A	O/P Mon
Maximum Peak Output Power and Peak to Average Ratio - Conducted					
Hygro meter	Rotronic	HP21	TE-5004	12	08-Mar-2025
ENA Network Analyzer (2Hz-44GHz)	Keysight	E5080B	BAMS 1056688792	12	11-Jan-2025
PXA Signal Analyzer (2Hz-44GHz)	Keysight	N9030A	BAMS 1001562403	12	02-Jan-2025
Digital Multimeter	RS components	ISO-TECH IDM 101	TE-5601	12	23-Feb-2025
Attenuator20dB	Aeroflex/Weinschel	Model: 6834-20-11	SERIAL NO: 004	N/A	O/P Mon
Attenuator20dB	Aeroflex/Weinschel	Model: 6834-20-11	SERIAL NO: 002	N/A	O/P Mon
Hygro meter	Rotronic	HP21	TE-5004	12	08-Mar-2025
Milliohm meter	RS PRO	ILOM-508A	TE-5755	12	11-Jun-2025
Occupied Bandwidth					
Attenuator20dB	Aeroflex/Weinschel	Model: 6834-20-11	SERIAL NO: 004	N/A	O/P Mon
Attenuator20dB	Aeroflex/Weinschel	Model: 6834-20-11	SERIAL NO: 002	N/A	O/P Mon
Hygro meter	Rotronic	HP21	TE-5004	12	08-Mar-2025
ENA Network Analyzer (2Hz-44GHz)	Keysight	E5080B	BAMS 1056688792	12	11-Jan-2025
PXA Signal Analyzer (2Hz-44GHz)	Keysight	N9030A	BAMS 1001562403	12	02-Jan-2025
Digital Multimeter	RS components	ISO-TECH IDM 101	TE-5601	12	23-Feb-2025
Band Edge					
Attenuator20dB	Aeroflex/Weinschel	Model: 6834-20-11	SERIAL NO: 004	N/A	O/P Mon
Attenuator20dB	Aeroflex/Weinschel	Model: 6834-20-11	SERIAL NO: 002	N/A	O/P Mon
Hygro meter	Rotronic	HP21	TE-5004	12	08-Mar-2025
PXA Signal Analyzer (2Hz-44GHz)	Keysight	N9030A	BAMS 1001562403	12	02-Jan-2025
Digital Multimeter	RS components	ISO-TECH IDM 101	TE-5601	12	23-Feb-2025
Milliohm meter	RS PRO	ILOM-508A	TE-5755	12	11-Jun-2025
Transmitter Spurious Emissions					
Attenuator20dB	Aeroflex/Weinschel	Model: 6834-20-11	SERIAL NO: 004	N/A	O/P Mon
Attenuator20dB	Aeroflex/Weinschel	Model: 6834-20-11	SERIAL NO: 002	N/A	O/P Mon
Hygro meter	Rotronic	HP21	TE-5004	12	08-Mar-2025
PXA Signal Analyzer (2Hz-44GHz)	Keysight	N9030A	BAMS 1001562403	12	02-Jan-2025
Digital Multimeter	RS components	ISO-TECH IDM 101	TE-5601	12	23-Feb-2025

N/A – Not Applicable

O/P Mon – Output Monitored with Calibrated Equipment



3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:-

Test Discipline	Frequency / Parameter	MU	MU Unit
Conducted Maximum Peak Output Power- HP-VEE Software	2110 MHz to 2200 MHz	±1.8	dB
Conducted Emissions- HP-VEE Software	9kHz to 22 GHz	± 1.77	dB
Occupied Bandwidth - HP-VEE Software	Up to 20 MHz Bandwidth	5 MHz Bandwidth	± 665736.9
		10 MHz Bandwidth	± 669194.5
		15 MHz Bandwidth	± 753418.5
		20 MHz Bandwidth	± 567981.9
Band Edge- HP-VEE Software	2110 MHz to 2200 MHz	±1.8	dB

Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the results of the compliance measurement and does not take into account measurement instrumentation uncertainty as defined in ANSI C63.26:2015 Clause 1.3.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8



3.3 MEASUREMENT SOFTWARE USED

List of measurement software versions used for testing.

Instrument	Manufacturer	Type No.	TE No.	Software Version
PXA Signal Analyser	Keysight	N9030A	BAMS1001562403	A.19.05
HP-VEE Software	TUV SUD	HP_VEE	N/A	V3.35



SECTION 5

ACCREDITATION, DISCLAIMERS AND COPYRIGHT



4.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT



This report relates only to the actual item/items tested.

Our Swedac Accreditation does not cover opinions and interpretations and any expressed are outside the scope of our Swedac Accreditation.

Results of tests not covered by our Swedac Accreditation Schedule are marked NSA
(Not Swedac Accredited).

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Postal Address: Adelgatan 2, 211 22 Malmö, Sweden

ANNEX A

MODULE LIST

Configurations 1-20			
Product	Product No	R-State	Serial No
AIR 3283 B25 B66	KRD 901 892/2	R1C	E23F527361
CT-DU25	LPC102500/1	R3B	T01G522534
Software Version:	CXP2021151/1	Revision:	R23A113
External Cables Connected to the EUT			
Port	Type	Length (m)	Specifications
DC in	DC power	2*10 m2	Copper cable
Earth	Ground	50 mm2	300/500V, -40/90 °C
Data_1 & Data_2	Optical fibre cable	20m	Single Mode Duplex