



Accred. no. 10363
Testing
ISO/IEC 17025



Report On

FCC and ISED Testing of the Ericsson AIR 3283 B25 B66, KRD 901 892/2, LTE and NR (1900 MHz) Base Station in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 24, ISED RSS-GEN and Industry Canada RSS-133

COMMERCIAL-IN-CONFIDENCE

FCC: TA8AKRD901892

IC: 287AB-AS901892

PREPARED BY

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DATED

24 March 2025



CONTENTS

Section	Page No
1	REPORT INFORMATION 2
1.1	Report Details 3
1.2	Brief Summary of Results 4
1.3	Test Rationale..... 5
1.4	Configuration Description 6
1.5	Declaration of Build Status 8
1.6	Product Information 11
1.7	Test Setup 12
1.8	Test Conditions..... 15
1.9	Deviation From The Standard 15
1.10	Modification Record 15
1.11	Additional Information 15
2	TEST DETAILS 17
2.1	Maximum Peak Output Power and Peak to Average Ratio - Conducted..... 18
2.2	Occupied Bandwidth..... 47
2.3	Band Edge 61
2.4	Transmitter Spurious Emissions..... 75
2.5	Frequency Stability 116
3	TEST EQUIPMENT USED 117
3.1	Test Equipment Used 118
3.2	Measurement Uncertainty 119
3.3	Measurement Software Used 120
4	ACCREDITATION, DISCLAIMERS AND COPYRIGHT 121
4.1	Accreditation, Disclaimers and Copyright..... 122
ANNEX A	Module Lists.....A.2



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
IC Model Name	AS901892
Serial Number(s)	Module 1 -E23F527361 Module 2 – E23F529480
Software Version	CXP2021151/1-R24A70
Hardware Version	R1C
Non-Tested Variant (See Section 1.5 Declaration of Build Status	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 24: 2024 ISED RSS-GEN: Issue 5: April 2018, Amendment 1; March 2019, Amendment 2; February 2021 ISED RSS-133: Issue 7: July 2024
Test Plan	General RA FCC Test Plan for AIR 3283 B25B66_FCC#3_E
Start of Test	21-February-2025
Finish of Test	12-March-2025
Name of Engineer(s)	Vinodhini Chandrasekaran and Shakir Salman
Related Document(s)	KDB 971168 D01 v03r01 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 FCC CFR 47 Part 2: 2023, FCC CFR 47 Part 24: 2024, ISED RSS-GEN: Issue 5: April 2018, Amendment 1; March 2019, Amendment 2; February 2021, ISED RSS-133: Issue 7: July 2024. The sample tested was found to comply with the requirements defined in the applied rules.

Test Engineer(s);

Vinodhini Chandrasekaran and Shakir Salman



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.

A brief summary of results for each configuration, in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 24, ISSED RSS-GEN and Industry Canada RSS-133 is shown below.

Section	Specification Clause				Test Description	Result
	FCC CFR 47 Part 2	FCC CFR 47 Part 24	RSS-GEN	RSS-133		
2.1	2.1046	24.232	-	5.5	Maximum Peak Output Power and Peak to Average Ratio - Conducted	Pass
2.2	2.1049	24.238 (b)	6.7		Occupied Bandwidth	Pass
2.3	2.1051	24.238 (b)	-	5.6	Band Edge	Pass
2.4	2.1051	24.238 (a)	6.13	5.6	Transmitter Spurious Emissions	Pass
2.5	2.1055	24.235	6.11	5.4	Frequency Stability	Pass
*-	2.1053	24.238	6.13	5.6	Radiated Spurious Emissions	Pass

Testing in this Report covers only B25 (1930 MHz -1995 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).

TÜV SÜD Document 75961458 Report 04 – B66 (2110 MHz -2200 MHz).

TÜV SÜD Document 75961458 Report 06 – B66 (2110 MHz -2200 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)

Intertek Test Report reference 2500147STO-101 AIR3283 FCC2427 for (NR: wide Bandwidth).



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 2.1, 2.2 & 2.4 & 2.5	1	NR B25	25	1942.5	1962.5	1982.5	240	38.75
			30	1945.0	1962.5	1980.0	240	38.75
			35	1947.5	1962.5	1977.5	240	38.75
1 - Sections 2.3	1	NR B25	25	1942.5	N/A	1982.5	240	38.75
			30	1945.0	N/A	1980.0	240	38.75
			35	1947.5	N/A	1977.5	240	38.75
2 - Sections 2.1	1	NR B25	25	1942.5	1962.5	1982.5	150	36.70
			30	1945.0	1962.5	1980.0	180	37.50
			35	1947.5	1962.5	1977.5	210	38.17
3 - Sections 2.1 & 2.2	2	NR B25	25	1942.5 + 1967.5	1950.0 + 1975.0	1957.5 + 1982.5	2x120	2x35.74
			30	1945.0 + 1975.0	1947.5 + 1977.5	1950.0 + 1980.0	2x120	2x35.74
3 - Sections 2.3	2	NR B25	25	1942.5 + 1967.5	N/A	1957.5 + 1982.5	2x120	2x35.74
3 - Sections 2.4	2	NR B25	25	1942.5 + 1967.5	1950.0 + 1975.0	1957.5 + 1982.5	2x120	2x35.74
4 - Sections 2.1 & 2.4	3	NR + LTE B25	LTE 5MHz (64QAM)+ NR 25MHz(QPSK)+ NR 25MHz(QPSK)	1932.5(LTE) + 1947.5(NR)+ 1972.5(NR)	1937.5(LTE)+ 1952.5(NR)+ 1977.5(NR)	1992.5 (LTE)+ 1977.5(NR)+ 1952.5(NR)	40(LTE)+100(NR)+100(NR)	30.96(LTE)+ 34.94(NR)+ 34.94(NR)
4 - Sections 2.3	3	NR + LTE B25	LTE 5MHz (64QAM)+ NR 25MHz(QPSK)+ NR 25MHz(QPSK)	1932.5(LTE) + 1947.5(NR)+ 1972.5(NR)	N/A	1992.5 (LTE)+ 1977.5(NR)+ 1952.5(NR)	40(LTE)+100(NR)+100(NR)	30.96(LTE)+ 34.94(NR)+ 34.94(NR)
5 - Sections 2.1	3	NR + LTE B25	LTE 5MHz (64QAM)+ NR 25MHz(QPSK)+ NR 25MHz(QPSK)	1932.5(LTE) + 1947.5(NR)+ 1972.5(NR)	1937.5(LTE)+ 1952.5(NR)+ 1977.5(NR)	1992.5 (LTE)+ 1977.5(NR)+ 1952.5(NR)	30(LTE)+100(NR)+100(NR)	29.72(LTE) + 34.94(NR)+ 34.94(NR)
6 - Sections 2.1 & 2.2 & 2.3 & 2.4	1	NR B2	25	N/A	N/A	1977.5	240	38.75
			30	N/A	N/A	1975.0	240	38.75
			35	N/A	N/A	1972.5	240	38.75



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
7 - Sections 2.1	1	NR B2	20	N/A	N/A	1977.5	150	36.70
			30	N/A	N/A	1975.0	180	37.50
			65	N/A	N/A	1972.5	210	38.17
8- Sections 2.1 & 2.3 & 2.4	3	NR + LTE B2	LTE 5MHz (64QAM)+ NR 25MHz(QPSK)+ NR 25MHz(QPSK)	N/A	N/A	1987.5 (LTE)+ 1972.5(NR)+ 1947.5.0(NR)	40(LTE)+100(NR)+100(NR)	30.96(LTE)+ 34.94(NR)+ 34.94(NR)
9 - Sections 2.1	3	NR + LTE B2	LTE 5MHz (64QAM)+ NR 25MHz(QPSK)+ NR 25MHz(QPSK)	N/A	N/A	1987.5 (LTE)+ 1972.5(NR)+ 1947.5.0(NR)	30(LTE)+100(NR)+100(NR)	29.72(LTE) + 34.94(NR)+ 34.94(NR)
10 - Sections 2.1 & 2.3 & 2.4	6	NR + LTE (B25 +B66)	LTE-5M 64QAM Band25 + NR-15M QPSK Band25 + NR-25M QPSK Band25 + LTE-20M QPSK Band66 + NR-5M QPSK Band66 + NR-20M QPSK Band66	1932.5 + 1942.5 + 1962.5 + 2120.0 + 2132.5 + 2145.0	1942.5 + 1952.5+ 1972.5+ 2135.0+ 2147.5+ 2160.0	1992.5 + 1982.5 + 1962.5+ 2190.0+ 2177.5+ 2165.0	15, 45, 100, 70, 20,70.	26.7 31.48 34.94 33.39 27.95 33.39
11 - Sections 2.1 & 2.3 & 2.4	6	NR + LTE (B2 +B66)	LTE-5M 64QAM Band2 + NR-15M QPSK Band2 + NR-25M QPSK Band2 + LTE-20M QPSK Band66 + NR-5M QPSK Band66 + NR-20M QPSK Band66	N/A	N/A	1987.5 + 1977.5 + 1957.5+ 2190.0 + 2177.5+ 2165.0	15, 45, 100, 70, 20,70.	26.7 31.48 34.94 33.39 27.95 33.39



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 901 892/11** With Antenna, Security Locked KRD 901 892/2* CAB-unit, Security Unlocked	
	Note*: Tested unit	
	Note**: This will be the marketed, sold unit	
Hardware Version:	R1C	
Software Version:	CXP2021151/1-R24A70	
FCC ID of the product under test	TA8AKRD901892	
IC ID of the product under test	287AB-AS901892	
HVIN	AS901892	
FVIN	CXP2021151/1-R24A70	
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
Max Power per carrier	4W/MHz	
EIRP Limit to be used non-rural	B25/B2, n25/n2 with max 6 W/MHz PSD is classified with FCC Non-Rural EIRP limit	B66, n66 with max 5.75W/MHz PSD is classified with FCC Non-Rural EIRP limit
Duty Cycle	73%-74%	
Total Horizontal Plane Beamwidth	65°±5	65°±5
Antenna Gain (dBi)B2/n2, B25/n25 & B66/n66	23.7	
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 ,20 ,25 ,30 ,35MHz
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	5MHz BW: 4M48W7D 10MHz BW: 9M28W7D

	15MHz BW: 13M5W7D 20MHz BW: 17M9W7D CA(20+20)MHz BW:37M7W7D CA(20+20+20)MHz BW:57M4W7D	15MHz BW: 14M2W7D 20MHz BW: 19M0W7D CA(20+20M)MHz BW:38M7W7D CA(20+20+20M)MHz BW:58M5W7D
ITU Emission Designator B66/n66	5MHz BW: 4M48W7D 10MHz BW: 8M96W7D 15MHz BW: 13M5W7D 20MHz BW: 17M9W7D CA(20+20)MHz BW:37M7W7D CA(20+20+20)MHz BW:57M5W7D CA(15+15+15+15)MHz BW:57M9W7D	5MHz BW: 4M48W7D 10MHz BW: 9M28W7D 15MHz BW: 14M1W7D 20MHz BW: 19M0W7D CA(20+20)MHz BW:38M7W7D CA(20+20+20)MHz BW:58M5W7D CA(15+15+15+15)MHz BW:58M6W7D
ITU Emission Designator (additional BW's) n2, n25,	No additional BW.	25MHz BW: 23M8W7D 30MHz BW: 28M6W7D 35MHz BW: 33M6W7D CA(25+25)MHz BW:48M4W7D CA(30+30)MHz BW:58M4W7D
ITU Emission Designator (additional BW's) n66,		25MHz BW: 23M8W7D 30MHz BW: 28M6W7D 35MHz BW: 33M6W7D CA(25+25)MHz BW:48M6W7D CA(30+30)MHz BW:58M4W7D
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)
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	LP00588	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:	21/03/2025		

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 B2, B25 & B66 which provides communication connections to B2, B25 & B66 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.

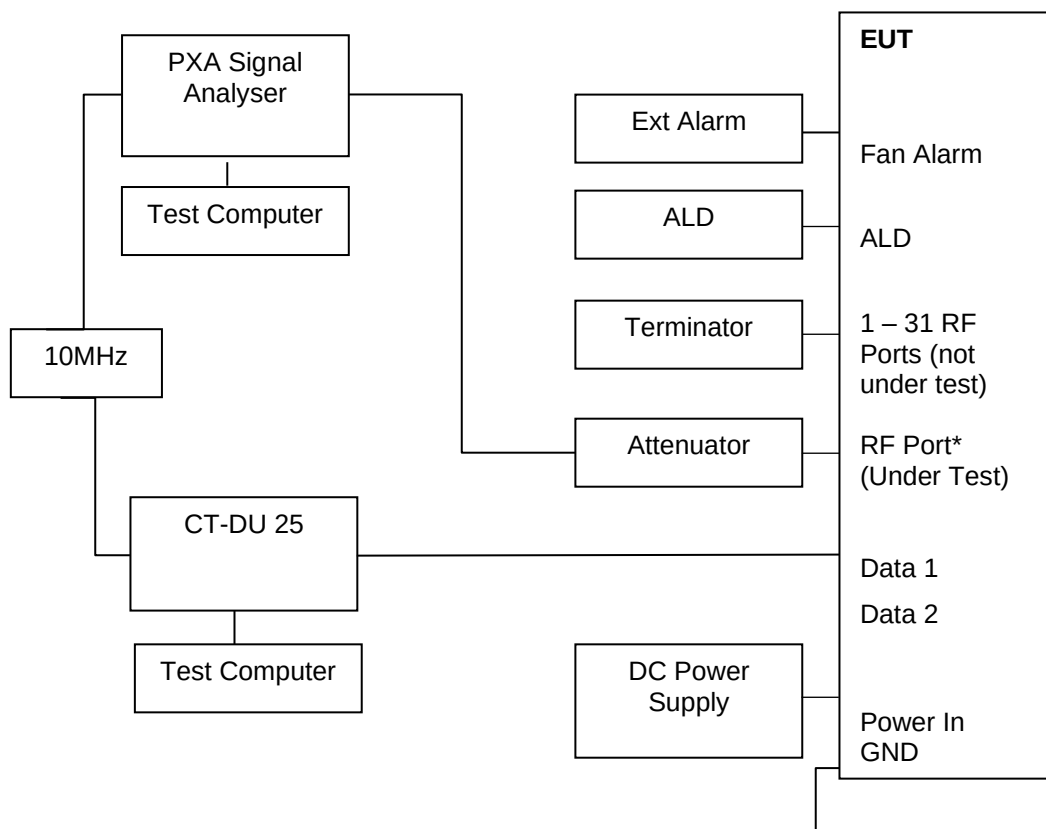


Equipment Under Test

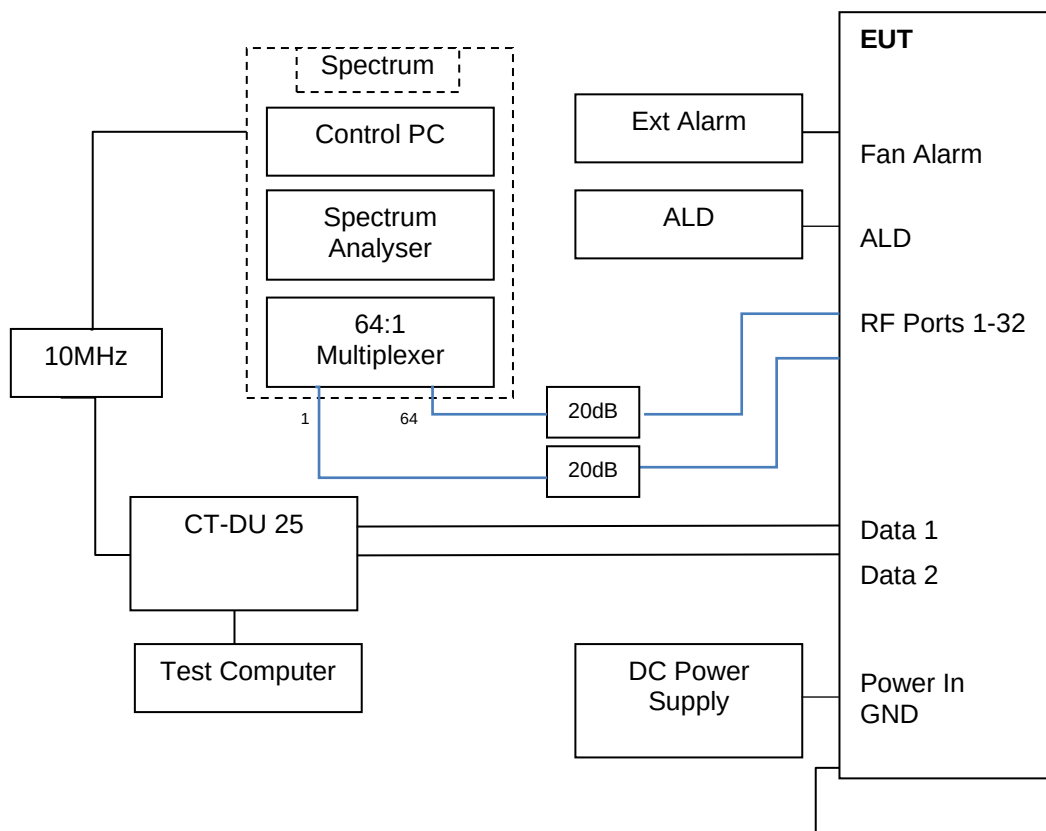
1.7 TEST SETUP

Conducted Test Set Up – Conducted Emissions

*Port 6 has been used in the Band 2 & Band 25 & Port 32 in the Multiband Tests

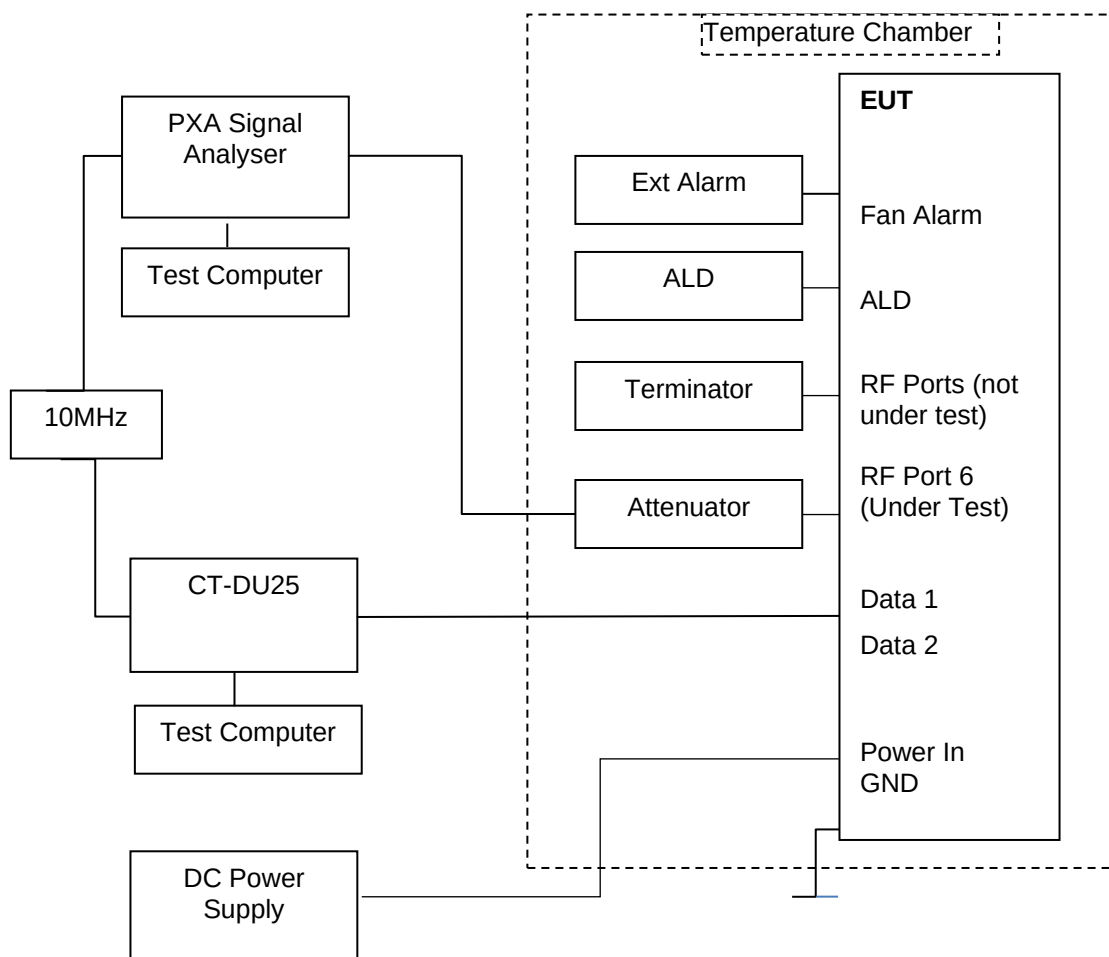


Conducted Test Set Up, Power, PSD, PAR, Occupied Bandwidth, Band Edge



Conducted Test Set Up – Frequency Stability

Dashed line indicates equipment inside the Temperature Chamber for testing





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.

563983 Ericsson Test Laboratory, Kista
Postal Address: Ericsson AB, Isafjordsgatan 10, Stockholm, SE-16 440, Sweden

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)	Module Number
Maximum Peak Output Power and Peak to Average Ratio - Conducted	Vinodhini Chandrasekaran and Shakir Salman	1
Occupied Bandwidth	Vinodhini Chandrasekaran and Shakir Salman	1
Band Edge	Vinodhini Chandrasekaran and Shakir Salman	1
Transmitter Spurious Emissions	Vinodhini Chandrasekaran and Shakir Salman	1
Frequency Stability	Vinodhini Chandrasekaran and Shakir Salman	2

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

This filing is for a Class 2 & 3 Permissive change to add NR bandwidths 25 MHz, 30 MHz and 35 MHz to a previously certified Radio for use in the USA and Canada under the following IDs:

FCC: TA8AKRD901892

IC: 287AB-AS901892

This device is electrically identical as originally certified as no hardware changes have been made.

The Test Plan is based on the TUV SUD Document FCC and ISED Test Plan Rationale for Base Station Equipment.

Pre-testing was performed for the initial testing in TUV SUD Document 75961458 Report 01, 02, 03 and 04 in accordance with the Test Plan to establish the worst-case modulation scheme.

Pre-testing was performed in accordance with the Test Plan to establish the worst-case Port, and bandwidths.

The port with the highest power, worst case port was port 6.

The modulation used was 64 QAM (LTE) ,QPSK (NR), these were defined by Ericsson, based on previous testing of this product.

Worst case bandwidth for the multiband configuration was measured as 25 MHz (NR), see Section 1.4, Configuration Description.

For LTE the most appropriate bandwidth to fit into the multiband configuration was used, see Section 1.4, Configuration Description.

These worst-case results from antenna port 6 are presented in this report to demonstrate compliance.

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 <EUT>

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.

To expedite testing two AIR 3283 B25 B66 radios were used, the Hardware and Software Versions were identical. The table in Section 1.8 indicates which units were used for which tests and refers to them throughout as Module 1 and Module 2.

Ericsson declared that testing on Module 2 should use the same worst-case Ports that were measured on Module 1 as this would be representative.

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 24, Clause 24.232
Industry Canada RSS-133, Clause 5.5
FCC CFR 47 Part 2, Clause 2.1046

2.1.2 Date of Test and Modification State

25, 26, 28-February-2025, 03, 05 and 12-March-2025 - 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	20.4 - 23.5°C
Relative Humidity	22.0 - 39.1%

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 (dBm/MHz) = $PSD (port x) + 10 \log (NANT)$

Total EIRP (dBm/MHz) = Total Power + Declared Antenna Gain

Margin Limit (dB) = Limit – Total EIRP

Where NANT refers to the number of Ports and x is the number of the port deemed to be worst case during pre-test measurements.

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.

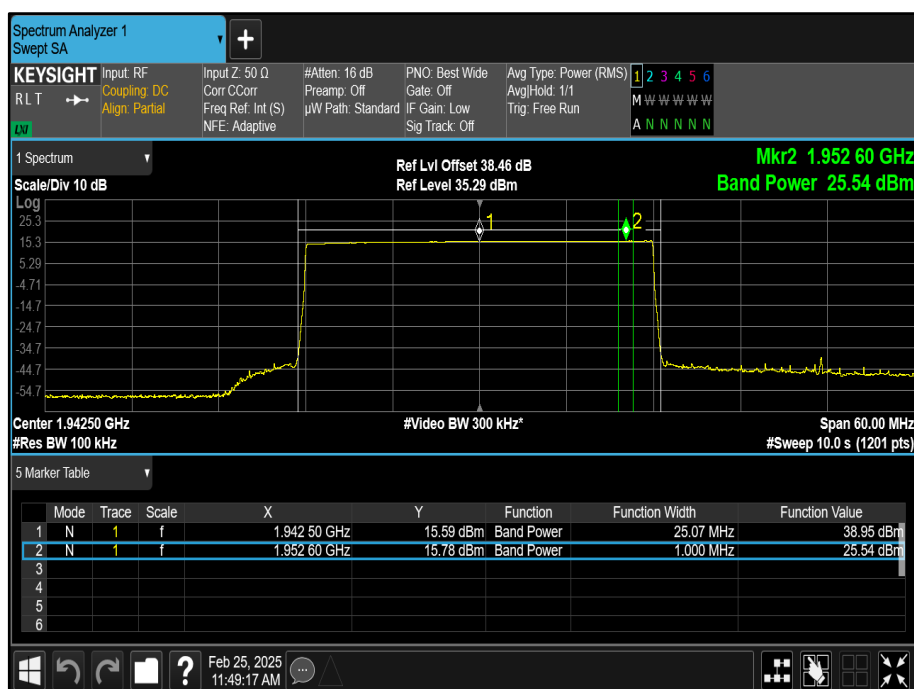
2.1.6 Test Results

Configuration 1

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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	25.0 MHz 15 kHz SCS	8.72	38.95	25.54	54.00	40.59	23.70	64.29	0.86
6	QPSK	30.0 MHz 15 kHz SCS	8.85	39.03	24.82	54.08	39.87	23.70	63.57	1.58
6	QPSK	35.0 MHz 15 kHz SCS	8.93	38.96	23.99	54.01	39.04	23.70	62.74	2.41

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position B

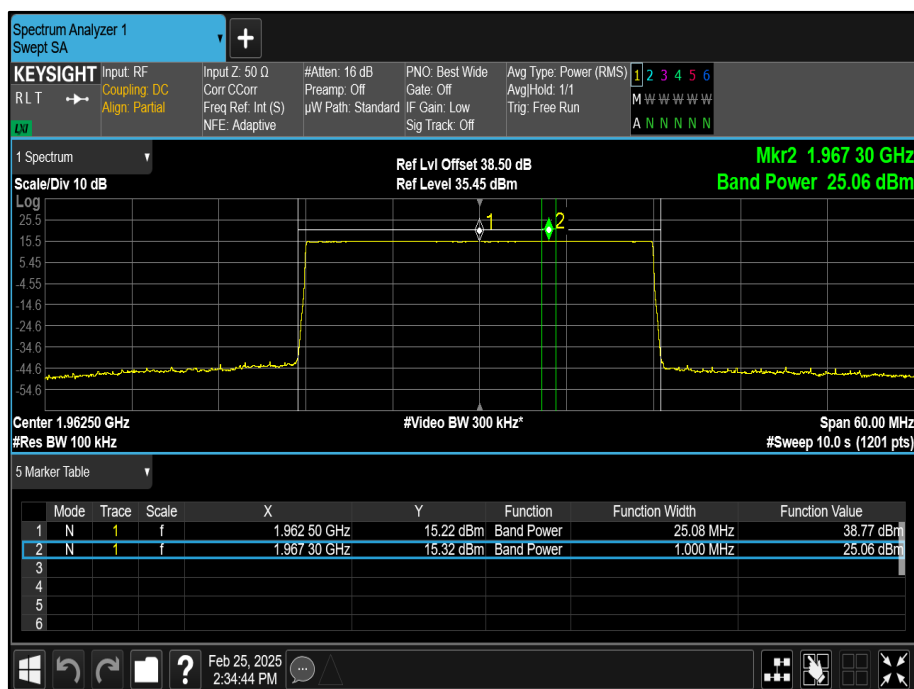


Configuration 1

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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	25.0 MHz 15 kHz SCS	8.39	38.76	25.06	53.81	40.22	23.70	63.92	1.23
6	QPSK	30.0 MHz 15 kHz SCS	8.56	38.81	24.31	53.86	39.36	23.70	63.06	2.09
6	QPSK	35.0 MHz 15 kHz SCS	8.64	38.78	23.60	53.83	38.65	23.70	62.35	2.80

Antenna 6 - NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position M

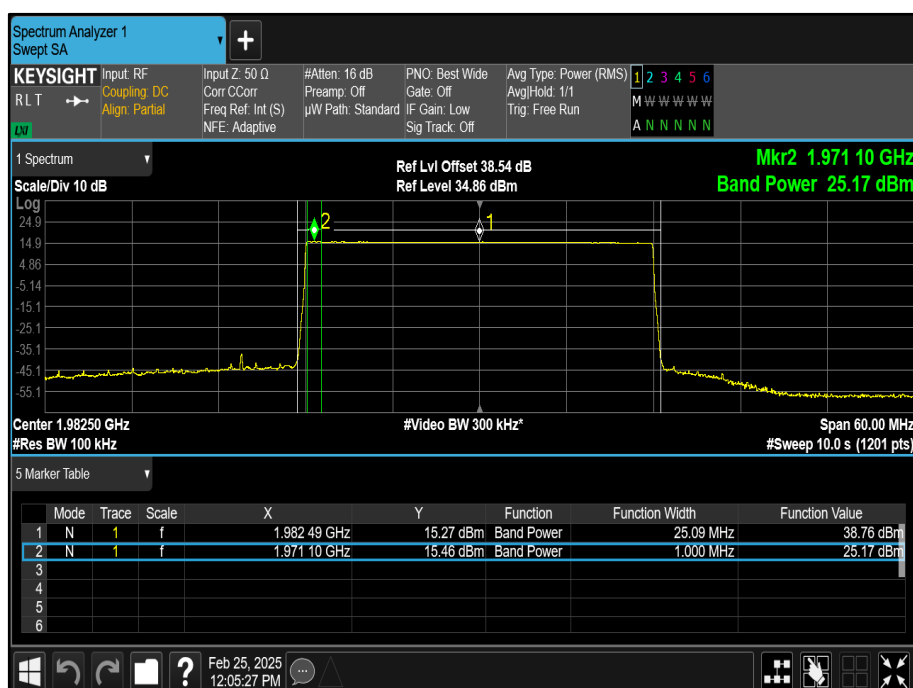


Configuration 1

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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	25.0 MHz 15 kHz SCS	8.39	38.76	25.17	53.81	40.22	23.70	63.92	1.23
6	QPSK	30.0 MHz 15 kHz SCS	8.58	38.76	24.36	53.81	39.41	23.70	63.11	2.04
6	QPSK	35.0 MHz 15 kHz SCS	8.57	38.83	23.71	53.88	38.76	23.70	62.46	2.69

Antenna 6 - NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position T



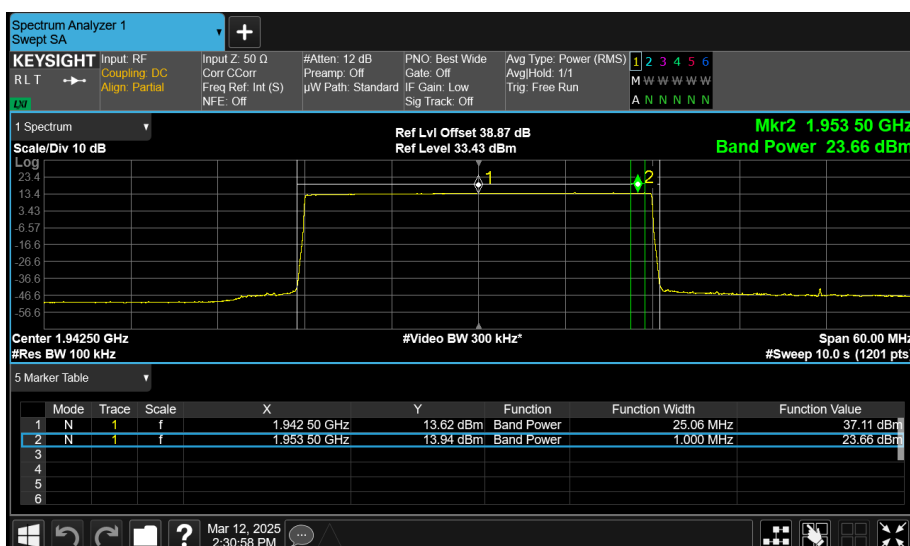
Configuration 2

Maximum Output Power See Section 1.4 Configuration Description

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	Margin Limit 62.15
			dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
QPSK	25.0 MHz 15 kHz SCS	8.91	36.86	See Below – Measured on all 32 Ports					
QPSK	30.0 MHz 15 kHz SCS	8.94	37.73	See Below – Measured on all 32 Ports					
QPSK	35.0 MHz 15 kHz SCS	8.95	38.35	23.37	53.40	38.42	23.70	62.12	0.03

Test Channel	Number of Measurements	PSD (dBm/MHz)			Declared Gain	EIRP	Limit	Margin
		Min	Max	Σ	dBi	(dBm/MHz)	(dBm/MHz)	(dB)
Bottom (1942.5 MHz)	32	23.02	23.66	38.43	23.7	62.13	62.15	0.02

Antenna 28- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position B



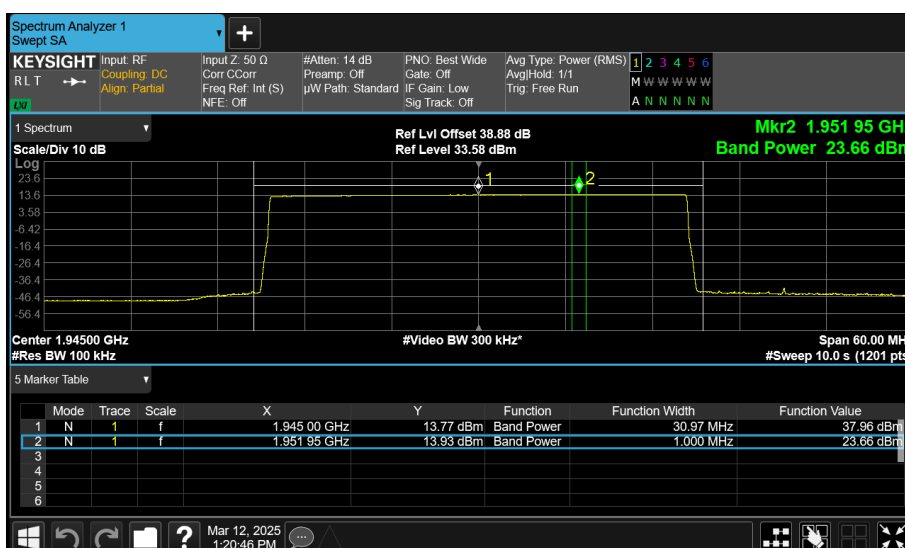
Configuration 2

Maximum Output Power See Section 1.4 Configuration Description

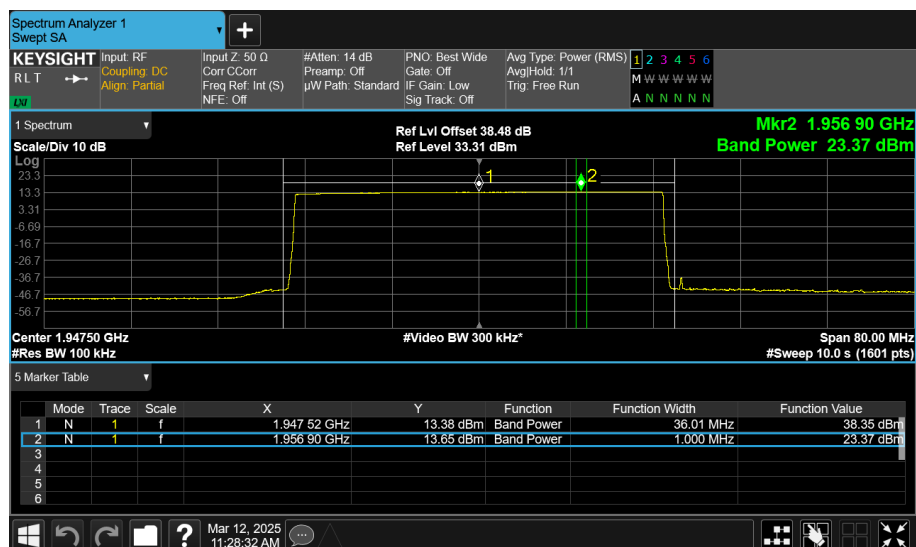
NR Modulation	NR Carrier Bandwidth	Peak to Average Ratio (PAR) / Output Power / PSD							
		Channel Position B							
		PAR (dB)	Average Power/PSD		Total Power Ports 1-32	Total Power Ports 1-32	Declared Gain	Total EIRP	Margin Limit 62.15
			dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
QPSK	25.0 MHz 15 kHz SCS	8.91	36.86	See Below – Measured on all 32 Ports					
QPSK	30.0 MHz 15 kHz SCS	8.94	37.73	See Below – Measured on all 32 Ports					
QPSK	35.0 MHz 15 kHz SCS	8.95	38.35	23.37	53.40	38.42	23.70	62.12	0.03

Test Channel	Number of Measurements	PSD (dBm/MHz)			Declared Gain dBi	EIRP (dBm/MHz)	Limit (dBm/MHz)	Margin (dB)
		Min	Max	Σ				
Bottom (1942.5 MHz)	32	22.97	23.66	62.09	23.7	62.09	62.15	0.06

Antenna 28- NR Modulation QPSK - NR Carrier Bandwidth 30.0 MHz 15 kHz SCS - Channel Position B



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 35.0 MHz 15 kHz SCS - Channel Position B

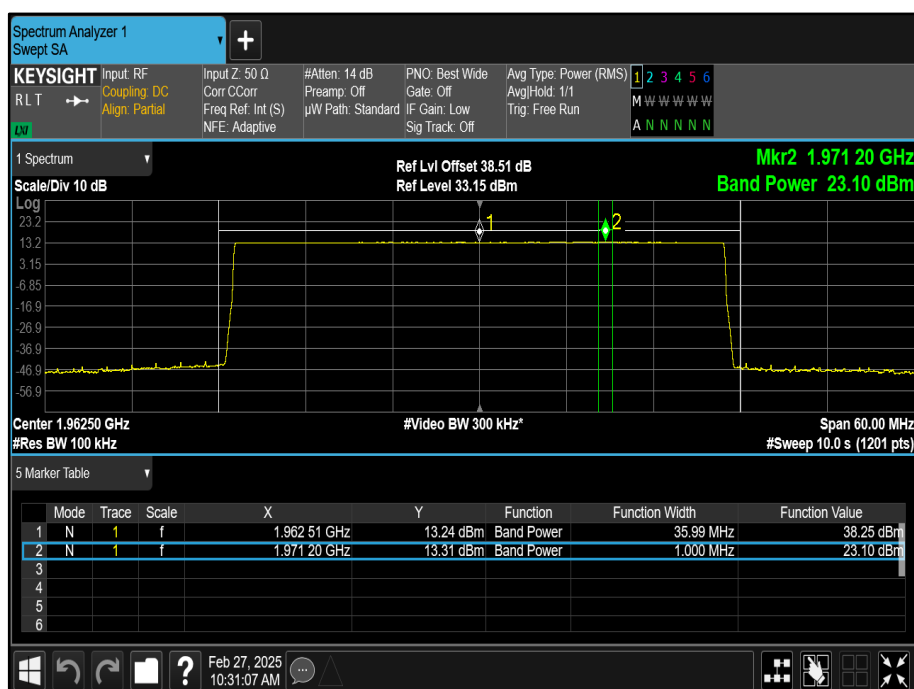


Configuration 2

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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	25.0 MHz 15 kHz SCS	8.49	36.78	23.08	51.83	38.13	23.70	61.83	0.32
6	QPSK	30.0 MHz 15 kHz SCS	8.55	37.56	23.09	52.61	38.14	23.70	61.84	0.31
6	QPSK	35.0 MHz 15 kHz SCS	8.55	38.25	23.10	53.30	38.15	23.70	61.85	0.30

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 35.0 MHz 15 kHz SCS - Channel Position M

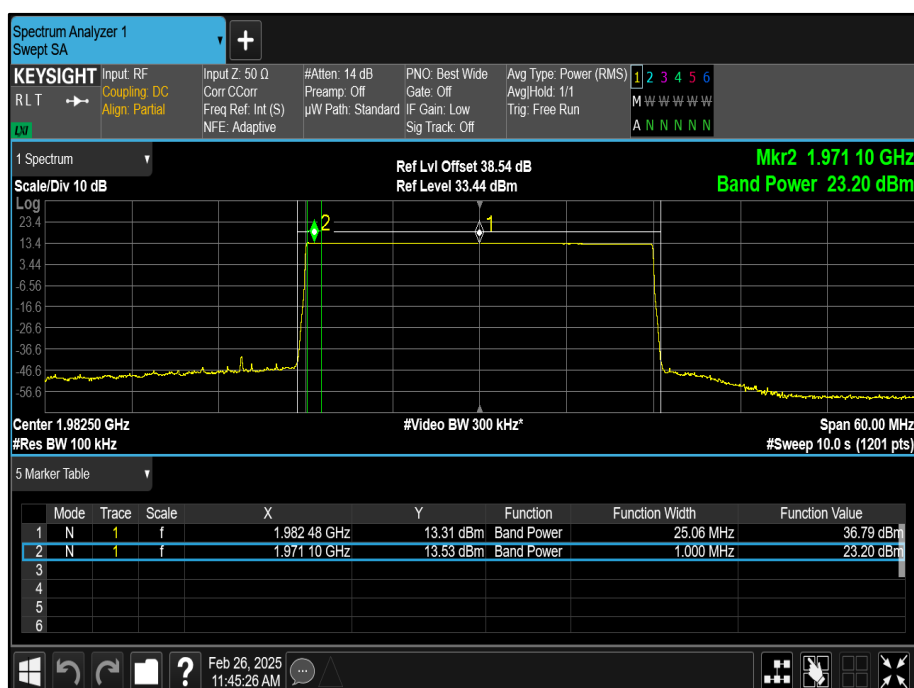


Configuration 2

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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	25.0 MHz 15 kHz SCS	8.54	36.79	23.20	51.84	38.25	23.70	61.95	0.20
6	QPSK	30.0 MHz 15 kHz SCS	8.60	37.55	23.14	52.60	38.19	23.70	61.89	0.26
6	QPSK	35.0 MHz 15 kHz SCS	8.59	38.22	23.09	53.27	38.14	23.70	61.84	0.31

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position T

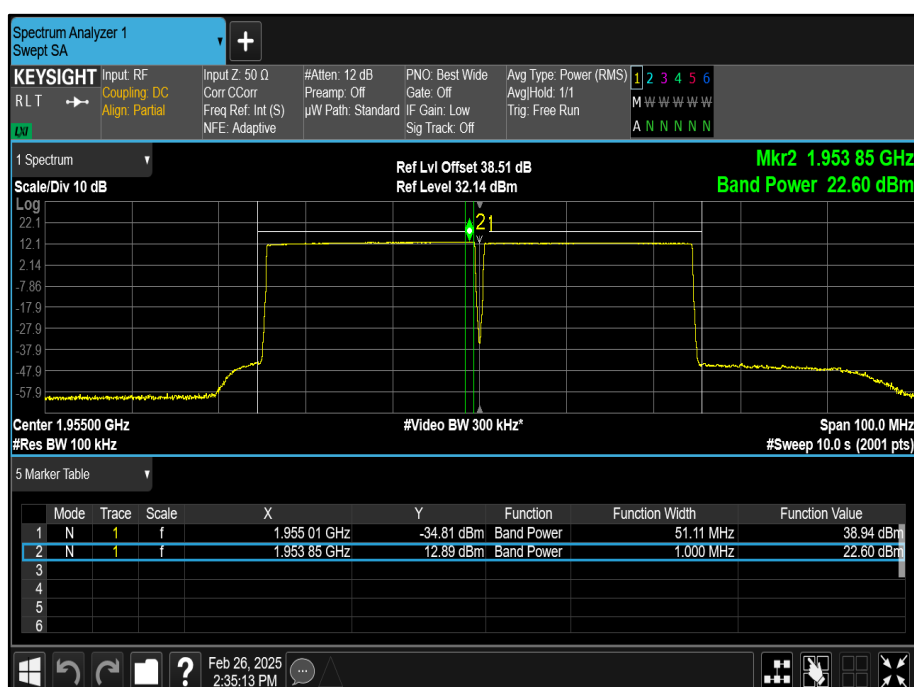


Configuration 3

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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	2 x 25.0 MHz 15 kHz SCS	-	38.94	22.60	53.99	37.65	23.70	61.35	3.80
6	QPSK	2 x 30.0 MHz 15 kHz SCS	-	38.88	21.79	53.93	36.84	23.70	60.54	4.61

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 25.0 MHz 15 kHz SCS - Channel Position B

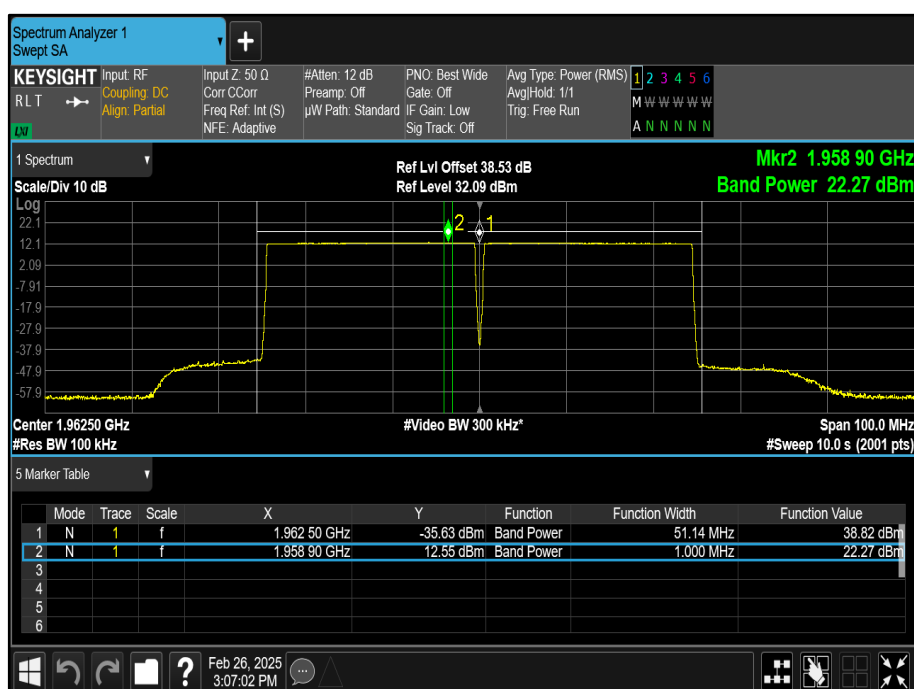


Configuration 3

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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	2 x 25.0 MHz 15 kHz SCS	-	38.82	22.27	53.87	37.32	23.70	61.02	4.13
6	QPSK	2 x 30.0 MHz 15 kHz SCS	-	38.84	21.75	53.89	36.80	23.70	60.50	4.65

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 25.0 MHz 15 kHz SCS - Channel Position M

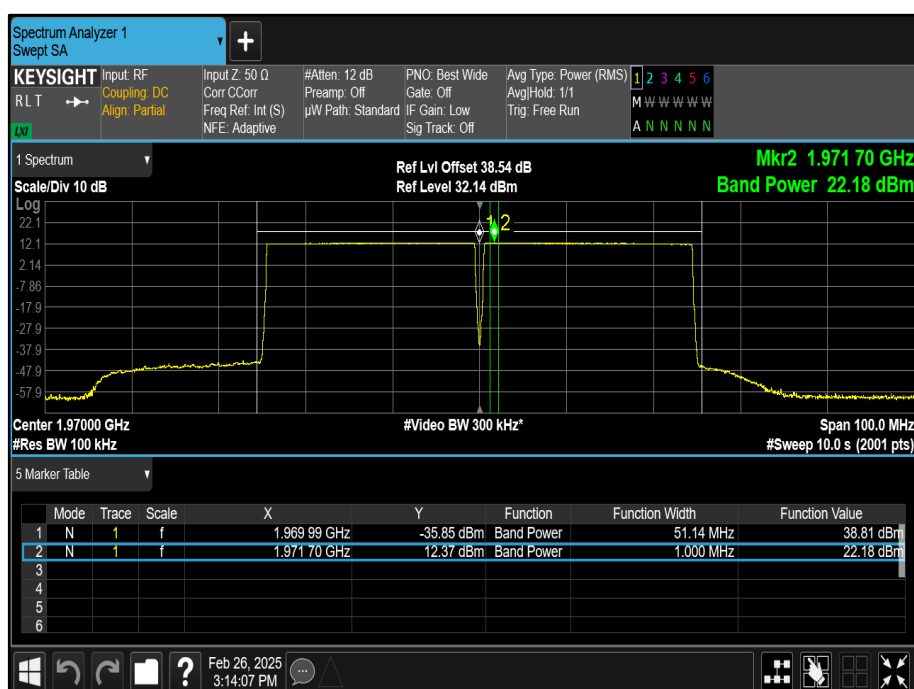


Configuration 3

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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	2 x 25.0 MHz 15 kHz SCS	-	38.81	22.18	53.86	37.23	23.70	60.93	4.22
6	QPSK	2 x 30.0 MHz 15 kHz SCS	-	38.80	21.48	53.85	36.53	23.70	60.23	4.92

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 25.0 MHz 15 kHz SCS - Channel Position T

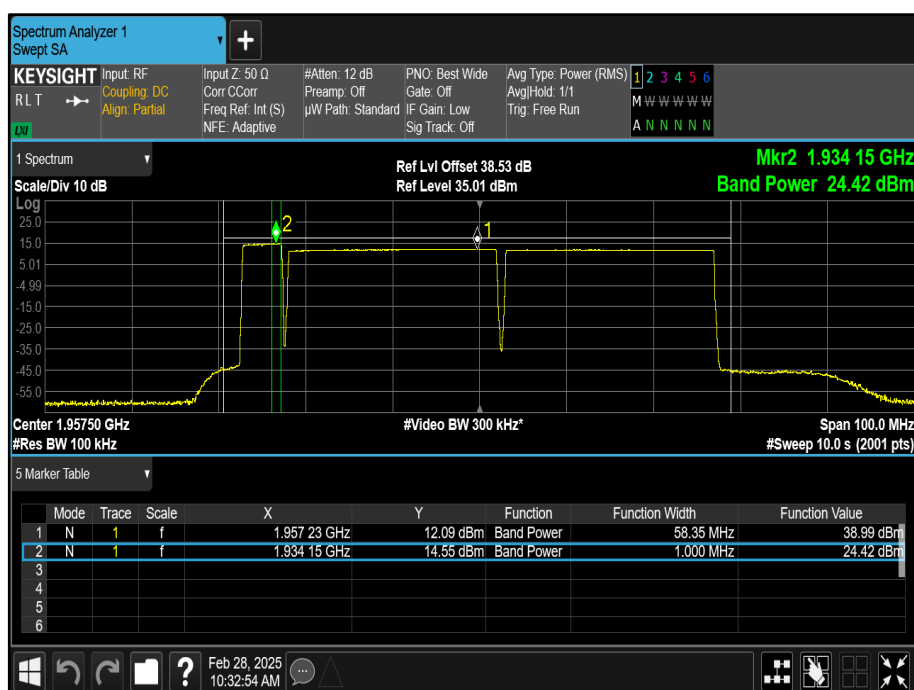


Configuration 4

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE+NR Modulation	LTE+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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	64QAM/QPSK	1C LTE 5 MHz/2C NR 25 MHz	-	38.99	24.42	54.04	39.47	23.70	63.17	1.98

Antenna 6- LTE+NR Modulation 64QAM/QPSK - LTE+NR Carrier Bandwidth 1C LTE 5 MHz/2C NR 25 MHz - Channel Position B

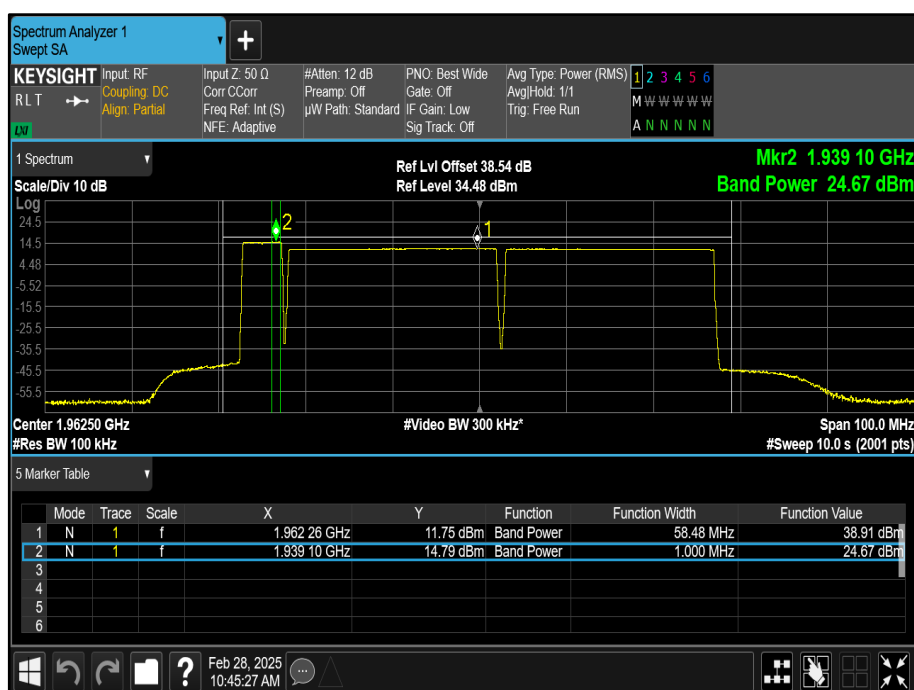


Configuration 4

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE+NR Modulation	LTE+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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
6	64QAM/QPSK	1C LTE 5 MHz/2C NR 25 MHz	-	38.91	24.67	53.96	39.72	23.70	63.42	1.73

Antenna 6- LTE+NR Modulation 64QAM/QPSK - LTE+NR Carrier Bandwidth 1C LTE 5 MHz/2C NR 25 MHz - Channel Position M

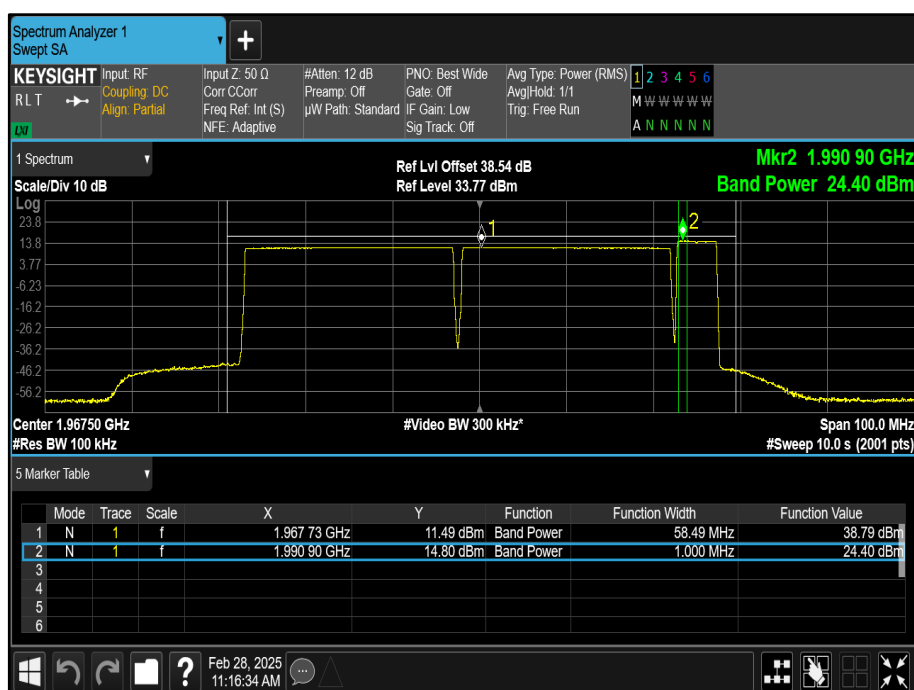


Configuration 4

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE+NR Modulation	LTE+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	Margin Limit 65.15dB
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
6	64QAM/QPSK	1C LTE 5 MHz/2C NR 25 MHz	-	38.79	24.40	53.84	39.45	23.70	63.15	2.00

Antenna 6- LTE+NR Modulation 64QAM/QPSK - LTE+NR Carrier Bandwidth 1C LTE 5 MHz/2C NR 25 MHz - Channel Position T

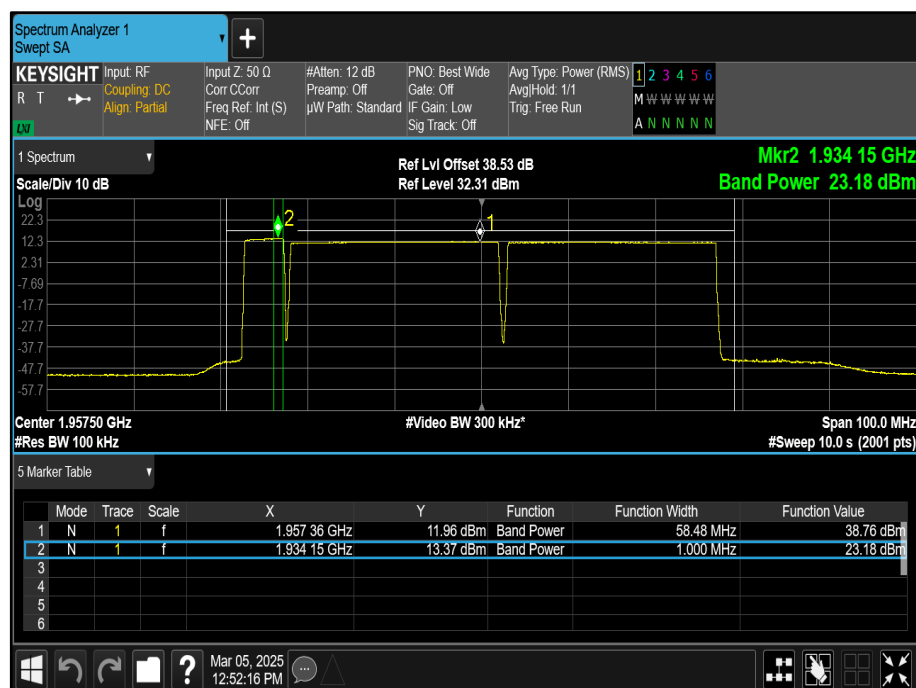


Configuration 5

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE+NR Modulation	LTE+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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	64QAM/QPSK/QPSK	1C LTE 5 MHz/2C NR 25 MHz	9.2	38.8	23.18	53.81	38.23	23.70	61.93	0.22

Antenna 6- LTE+NR Modulation 64QAM/QPSK - LTE+NR Carrier Bandwidth 1C LTE 5 MHz/2C NR 25 MHz - Channel Position B

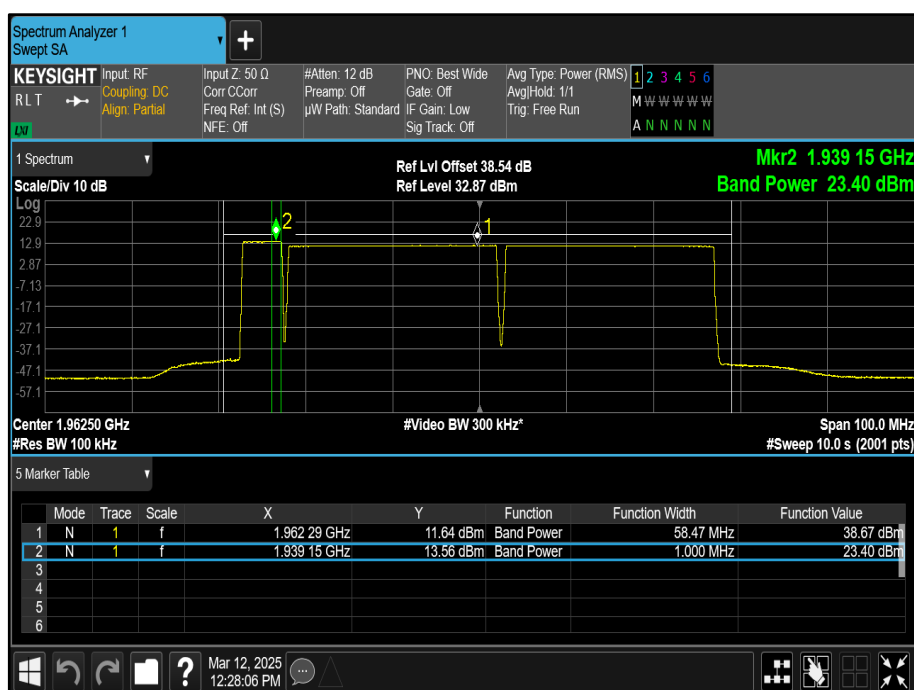


Configuration 5

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE+NR Modulation	LTE+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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	64QAM/QPSK/QPSK	1C LTE 5 MHz/2C NR 25 MHz	8.9	38.7	23.4	53.7	38.4	23.7	62.1	0.01

Antenna 6- LTE+NR Modulation 64QAM/QPSK - LTE+NR Carrier Bandwidth 1C LTE 5 MHz/2C NR 25 MHz - Channel Position M

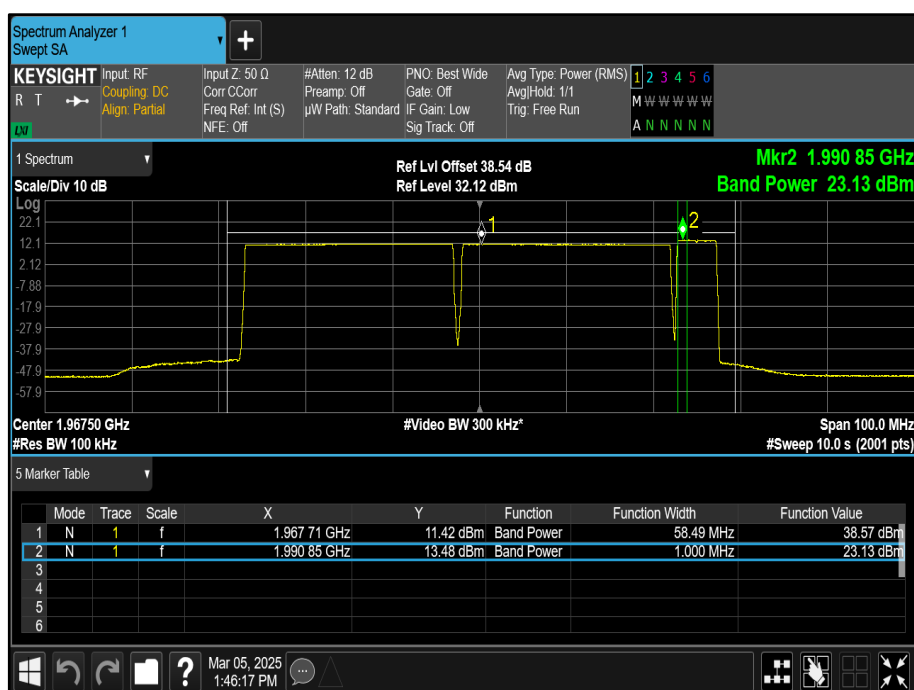


Configuration 5

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE+NR Modulation	LTE+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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	64QAM/QPSK/QPSK	1C LTE 5 MHz/2C NR 25 MHz	8.60	38.57	23.13	53.62	38.18	23.70	61.88	0.27

Antenna 6- LTE+NR Modulation 64QAM/QPSK - LTE+NR Carrier Bandwidth 1C LTE 5 MHz/2C NR 25 MHz - Channel Position T

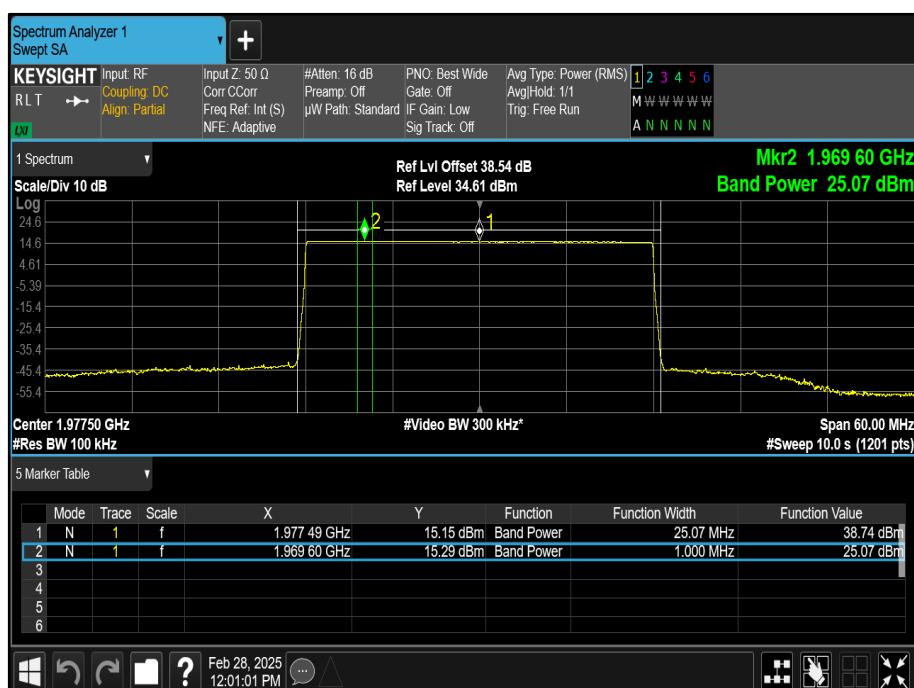


Configuration 6

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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	25.0 MHz 15 kHz SCS	8.49	38.74	25.07	53.79	40.12	23.70	63.82	1.33
6	QPSK	30.0 MHz 15 kHz SCS	8.51	38.85	24.38	53.90	39.43	23.70	63.13	2.02
6	QPSK	35.0 MHz 15 kHz SCS	8.51	38.85	23.68	53.90	38.73	23.70	62.43	2.72

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position T

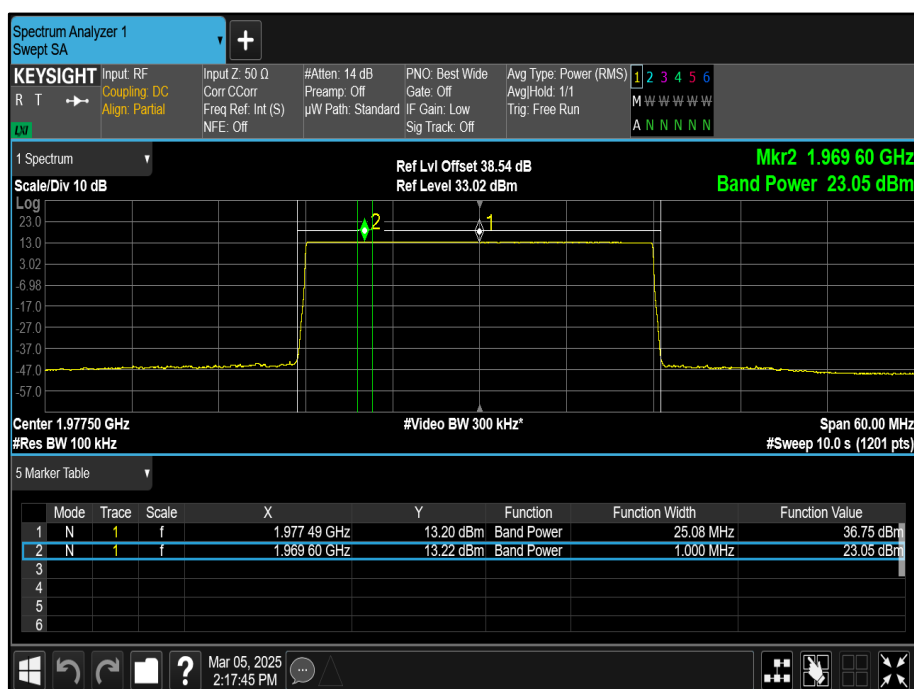


Configuration 7

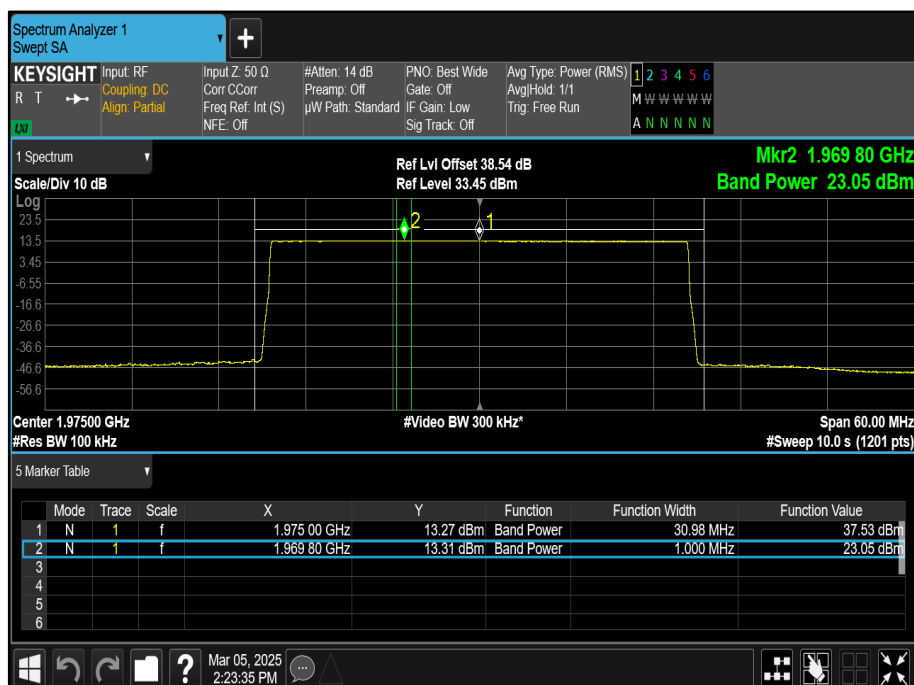
Maximum Output Power See Section 1.4 Configuration Description

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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	QPSK	25.0 MHz 15 kHz SCS	8.37	36.75	23.05	51.80	38.10	23.70	61.80	0.35
6	QPSK	30.0 MHz 15 kHz SCS	8.51	37.53	23.05	52.58	38.10	23.70	61.80	0.35
6	QPSK	35.0 MHz 15 kHz SCS	8.50	38.15	22.97	53.20	38.02	23.70	61.72	0.43

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position T



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 30.0 MHz 15 kHz SCS - Channel Position T

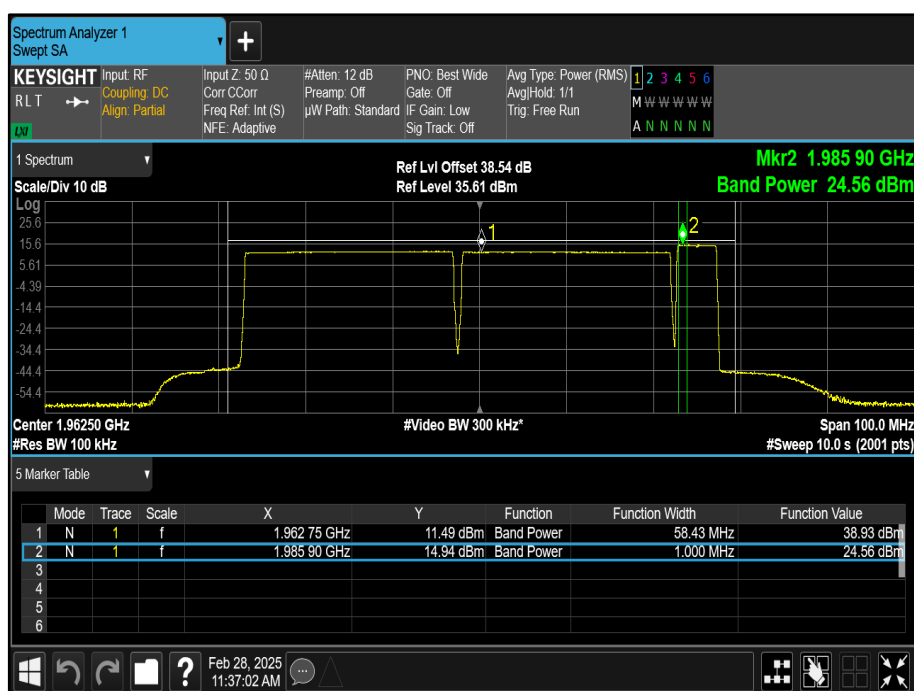


Configuration 8

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR Modulation	LTE / 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	Margin Limit 65.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	64QAM/QPSK/QPSK	1C LTE 5 MHz/ 2C NR 25 MHz	-	38.93	24.56	53.98	39.61	23.70	63.31	1.84

Antenna 6- LTE / NR Modulation 64QAM/QPSK/QPSK - LTE / NR Carrier Bandwidth 1C LTE 5 MHz/ 2C NR 25 MHz - Channel Position T

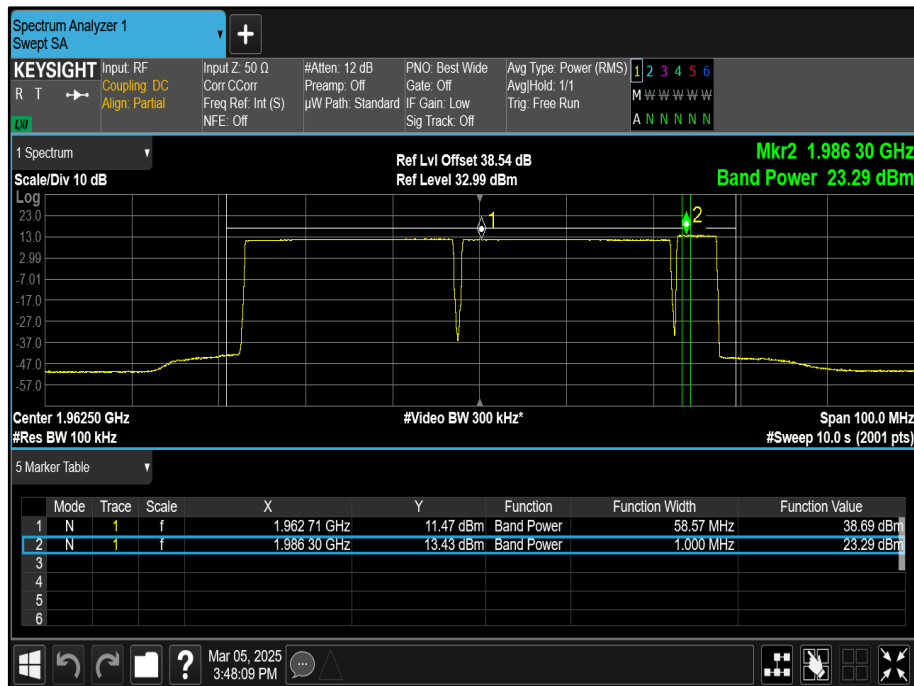


Configuration 9

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR Modulation	LTE / 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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
6	64QAM/QPSK	1C LTE 5 MHz/ 2C NR 25 MHz	8.85	38.69	23.29	53.74	38.35	23.70	62.05	0.10

Antenna 6- LTE / NR Modulation 64QAM/QPSK – LTE / NR Carrier Bandwidth 1C LTE 5 MHz/
2C NR 25 MHz - Channel Position T

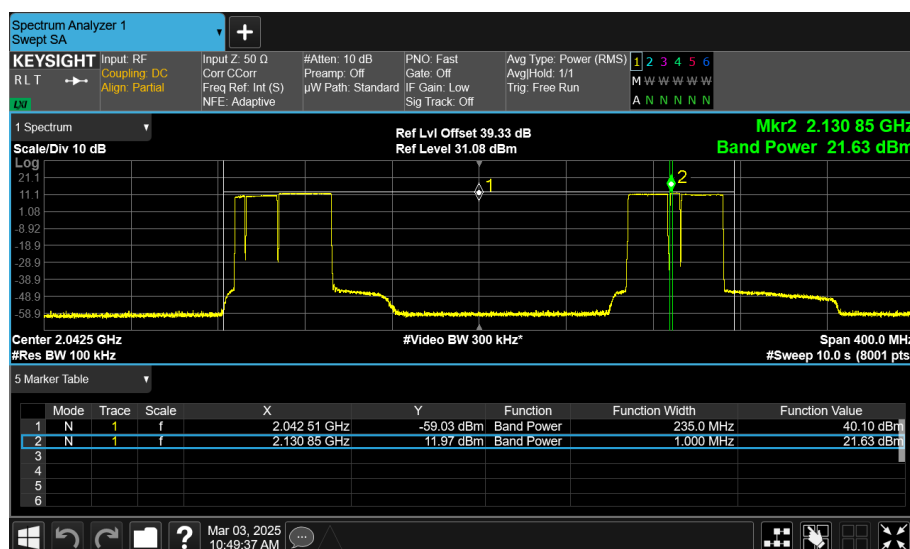


Configuration 10

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR Modulation	LTE / 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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
32	QPSK / QPSK / 64QAM / QPSK / QPSK / QPSK	3CC (B25) + 3CC (B66)	8.98	40.10	21.63	55.15	36.68	23.70	60.38	4.77

Antenna 32- LTE / NR Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK – LTE / NR Carrier Bandwidth 3CC (B25) + 3CC (B66) - Channel Position B

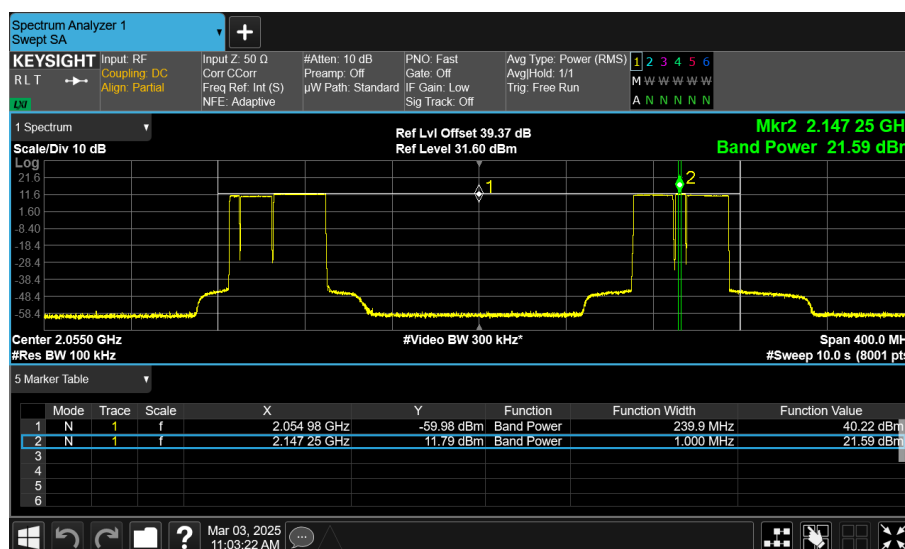


Configuration 10

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR 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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
32	QPSK / QPSK / 64QAM / QPSK / QPSK / QPSK	3CC (B25) + 3CC (B66)	8.83	40.22	21.59	55.27	36.64	23.70	60.34	4.81

Antenna 32- LTE / NR Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK – LTE / NR Carrier Bandwidth 3CC (B25) + 3CC (B66) - Channel Position M

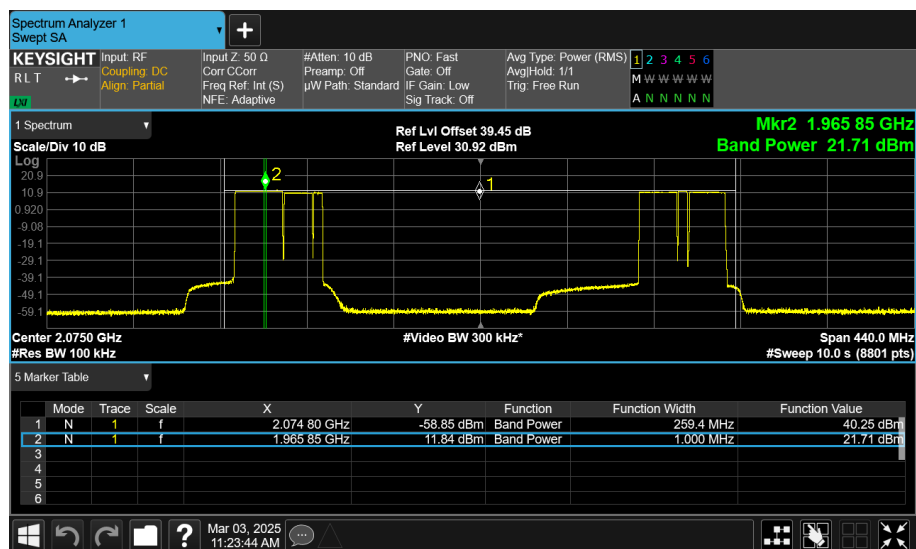


Configuration 10

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR 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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dB	dBm/MHz	dB
32	QPSK / QPSK / 64QAM / QPSK / QPSK / QPSK	3CC (B25) + 3CC (B66)	8.56	40.25	21.71	55.30	36.76	23.70	60.46	4.69

Antenna 32- LTE / NR Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK – LTE / NR Carrier Bandwidth 3CC (B25) + 3CC (B66) - Channel Position T

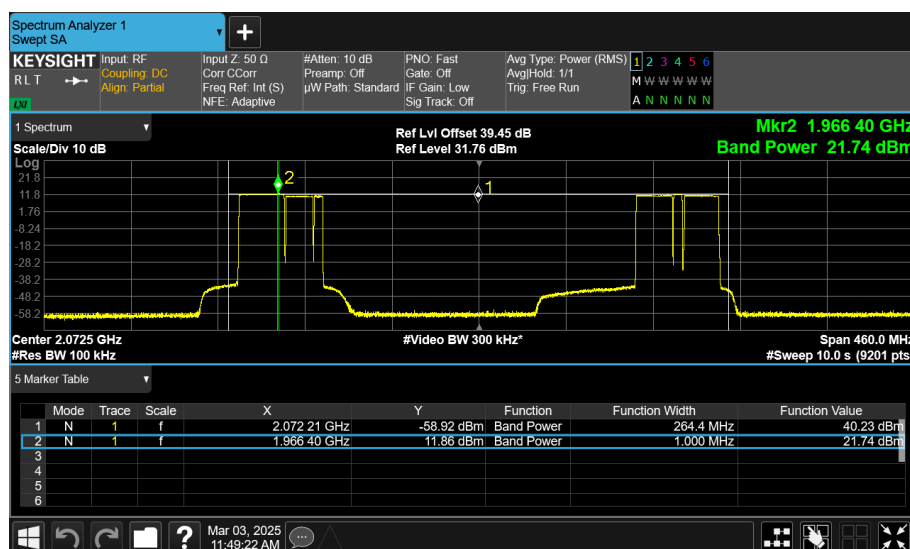


Configuration 11

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR Modulation	LTE / 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	Margin Limit 62.15
				dBm	dBm/MHz	dBm	dBm/MHz	dBi	dBm/MHz	dB
32	QPSK / QPSK / 64QAM / QPSK / QPSK / QPSK	3CC (B2) + 3CC (B66)	8.56	40.23	21.74	55.28	36.79	23.70	60.49	4.66

Antenna 32- LTE / NR Modulation 64QAM / QPSK / QPSK / QPSK / QPSK / QPSK – LTE / NR Carrier Bandwidth 3CC 3CC (B2) + 3CC (B66) - Channel Position T



FCC Part 24.232 Clauses (a) & (b)

Limit	
Maximum ERP (Urban)	$\leq 1640 \text{ W}$ or $\leq +62.15 \text{ dBm}$ (antenna height $\leq 300\text{m}$) $\leq 1070 \text{ W}$ or $\leq +60.30 \text{ dBm}$ (antenna height $\leq 500\text{m}$) $\leq 490 \text{ W}$ or $\leq +56.90 \text{ dBm}$ (antenna height $\leq 1000\text{m}$) $\leq 270 \text{ W}$ or $\leq +54.31 \text{ dBm}$ (antenna height $\leq 1500\text{m}$) $\leq 160 \text{ W}$ or $\leq +52.04 \text{ dBm}$ (antenna height $\leq 2000\text{m}$)
Maximum ERP (Non-Urban)	$\leq 3280 \text{ W}$ or $\leq +65.15 \text{ dBm}$ (antenna height $\leq 300\text{m}$) $\leq 2140 \text{ W}$ or $\leq +63.30 \text{ dBm}$ (antenna height $\leq 500\text{m}$) $\leq 980 \text{ W}$ or $\leq +59.91 \text{ dBm}$ (antenna height $\leq 1000\text{m}$) $\leq 540 \text{ W}$ or $\leq +57.32 \text{ dBm}$ (antenna height $\leq 1500\text{m}$) $\leq 320 \text{ W}$ or $\leq +55.05 \text{ dBm}$ (antenna height $\leq 2000\text{m}$)

RSS-133 Clause 5.5

Peak to Average Ratio	$\leq 13 \text{ dB}$	
Maximum Power Spectral Density	Equipment type	Maximum power spectral density
	Non-AAS fixed station and base station	3280 W/MHz e.i.r.p
	AAS fixed station and base station	46 dBm/MHz TRP
	Subscriber equipment	2 W /channel bandwidth e.i.r.p

SRSP-510 E.i.r.p. limits and antenna height limits for non-AAS systems Clause 6.1.3

Clause 6.1 Fixed and base stations using non-active antenna systems	
Maximum EIRP (Non-Urban)	$\leq 3280 \text{ W/MHz}$ or $\leq +65.15 \text{ dBm}$
Maximum EIRP (Urban)	$\leq 1640 \text{ W/MHz}$ or $\leq +62.15 \text{ dBm}$ (antenna height $\leq 300\text{m}$)
	$\leq 1070 \text{ W/MHz}$ or $\leq +60.30 \text{ dBm}$ (antenna height $\leq 500\text{m}$)
	$\leq 490 \text{ W/MHz}$ or $\leq +56.90 \text{ dBm}$ (antenna height $\leq 1000\text{m}$)
	$\leq 270 \text{ W/MHz}$ or $\leq +54.31 \text{ dBm}$ (antenna height $\leq 1500\text{m}$)
	$\leq 160 \text{ W/MHz}$ or $\leq +52.04 \text{ dBm}$ (antenna height $\leq 2000\text{m}$)

SRSP-510 Technical requirements and antenna height limits for active antenna systems Clause 6.2

Fixed and base station location (distance from a large or medium population centre)	Channel bandwidth	Maximum permissible e.i.r.p. (e.i.r.p.max)
More than 26 km	equal to or less than 1 MHz	3280 W
More than 26 km	greater than 1 MHz	3280 W/MHz
Less than 26 km	equal to or less than 1 MHz	1640 W
Less than 26 km	greater than 1 MHz	1640 W/MHz

Maximum permissible e.i.r.p for AAS with HAAT > 300 m	
HAAT (m)	Maximum e.i.r.p (W for a channel bandwidth ≤ 1 MHz or W/MHz for a channel bandwidth > 1 MHz)
$300 < \text{HAAT} \leq 500$	1070
$500 < \text{HAAT} \leq 1000$	490
$1000 < \text{HAAT} \leq 1500$	270

2.2 OCCUPIED BANDWIDTH

2.2.1 Specification Reference

FCC CFR 47 Part 24, Clause 24.238 (b)
ISED RSS-GEN, Clause 6.7
FCC CFR 47 Part 2, Clause 2.1049

2.2.2 Date of Test and Modification State

25, 26 and 28-February-2025 - 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	20.4 - 23.5°C
Relative Humidity	22.0 - 39.1%

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).

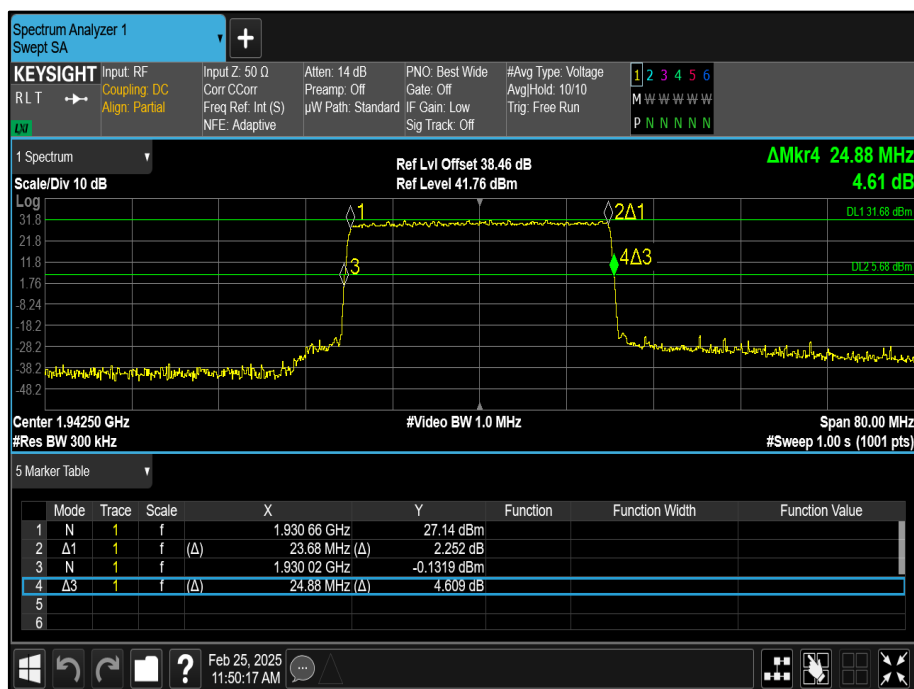
2.2.6 Test Results

Configuration 1

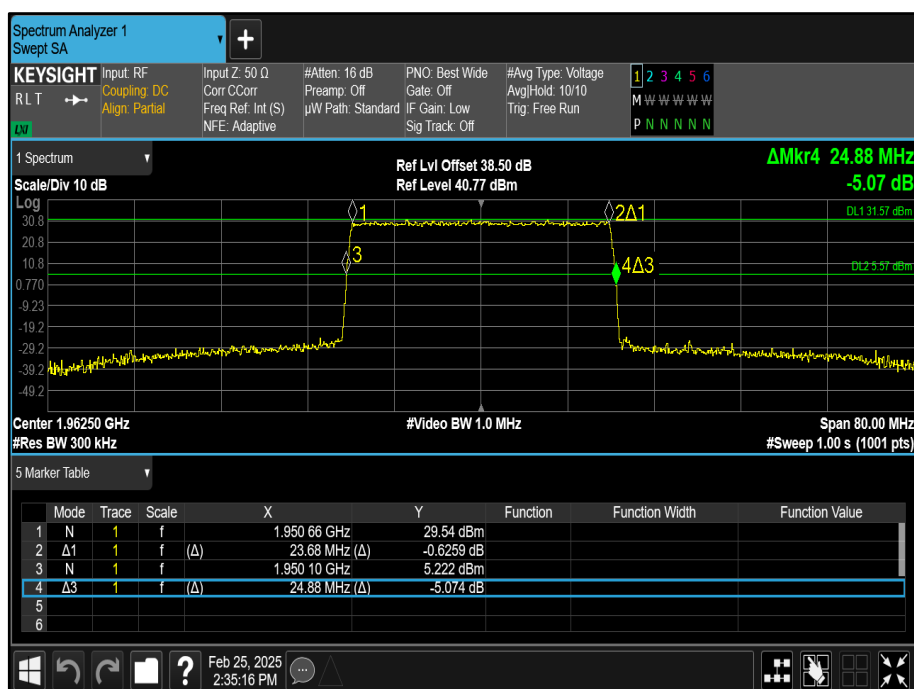
Maximum Output Power See Section 1.4 Configuration Description

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
6	QPSK	25.0 MHz 15 kHz SCS	23.68	24.88	23.68	24.88	23.76	24.88
6	QPSK	30.0 MHz 15 kHz SCS	28.48	29.84	28.56	29.76	28.56	29.76
6	QPSK	35.0 MHz 15 kHz SCS	33.60	35.10	33.60	35.10	33.50	35.20

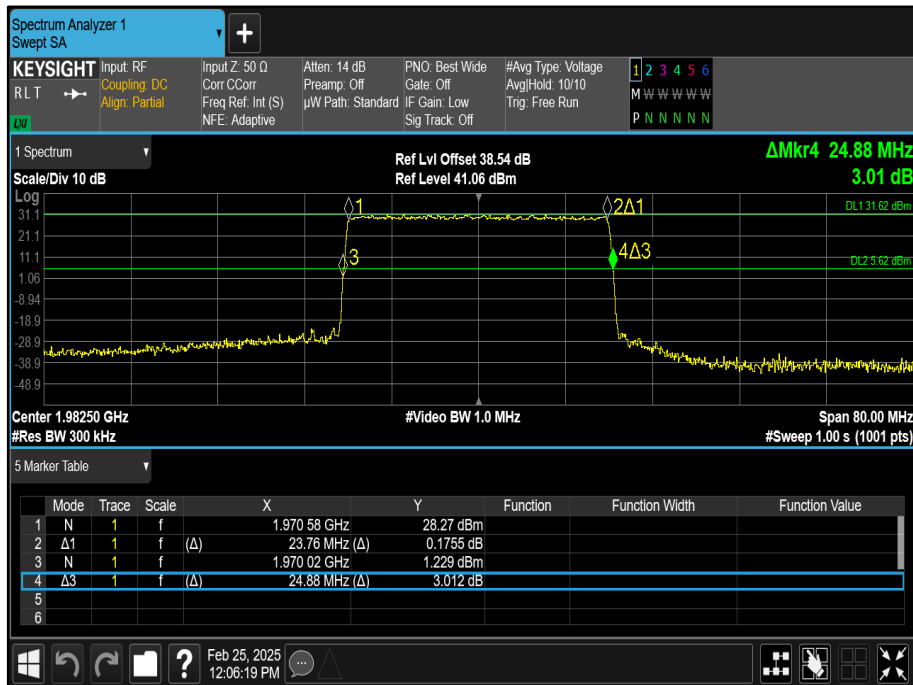
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position B



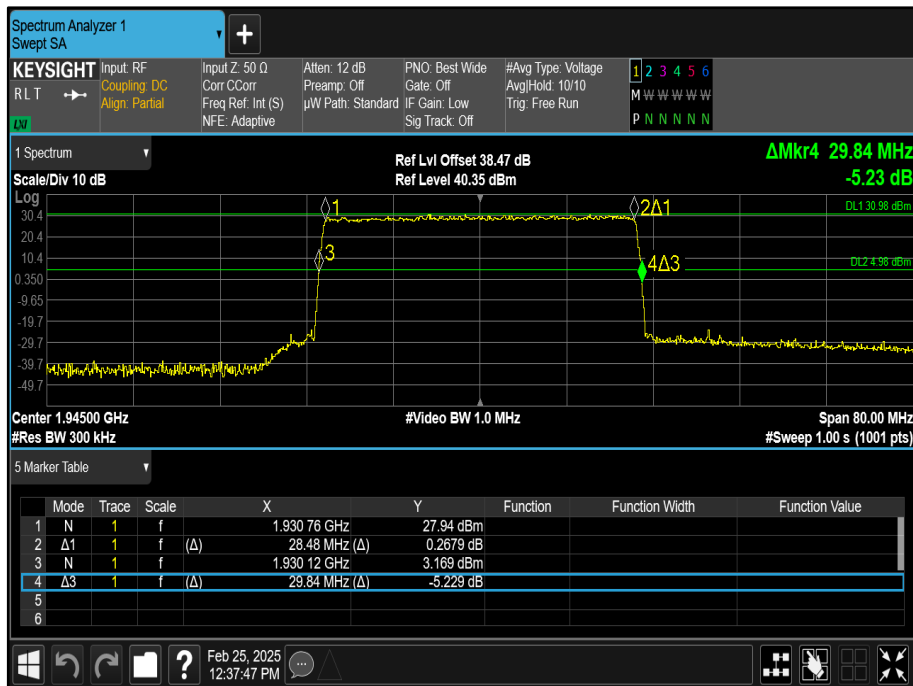
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position M



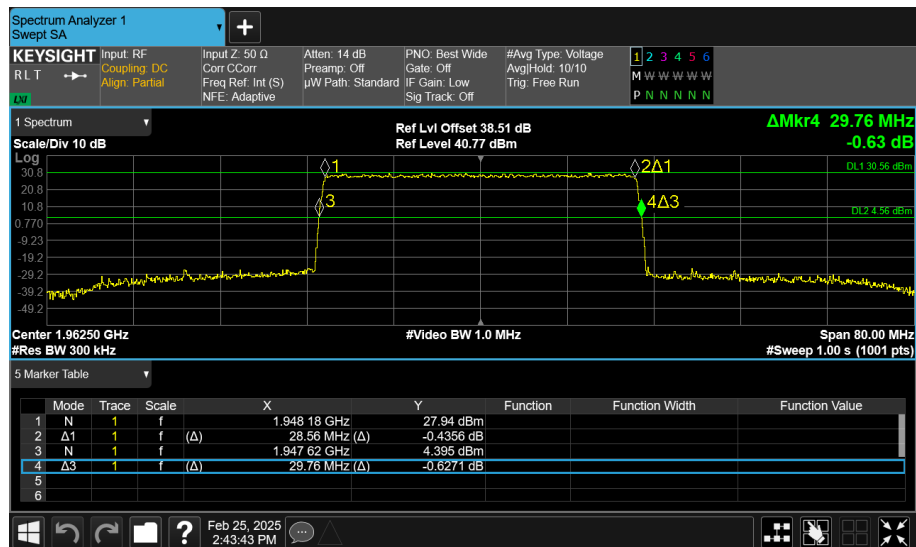
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position T



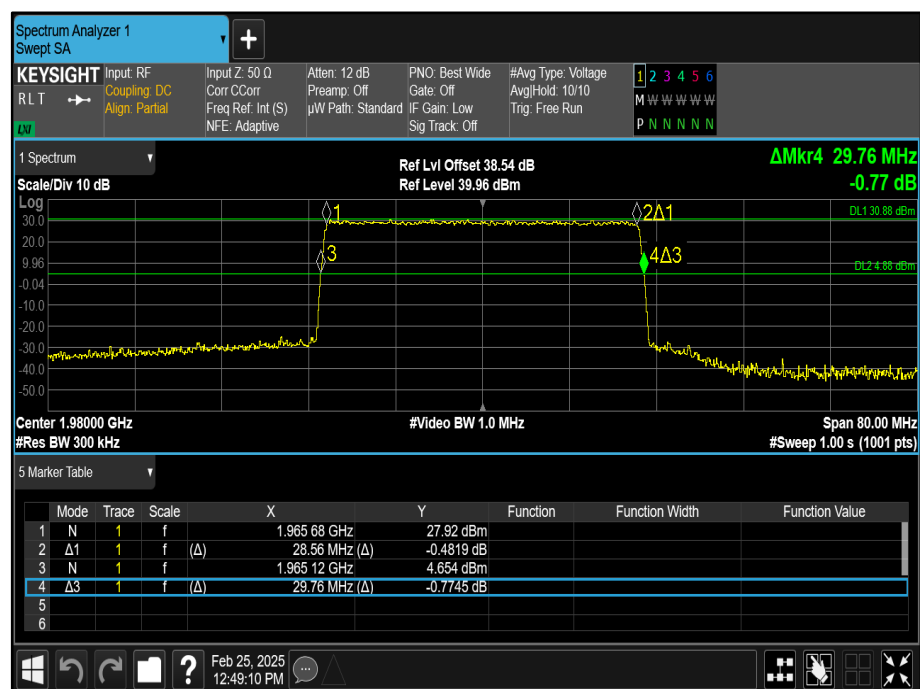
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 30.0 MHz 15 kHz SCS - Channel Position B



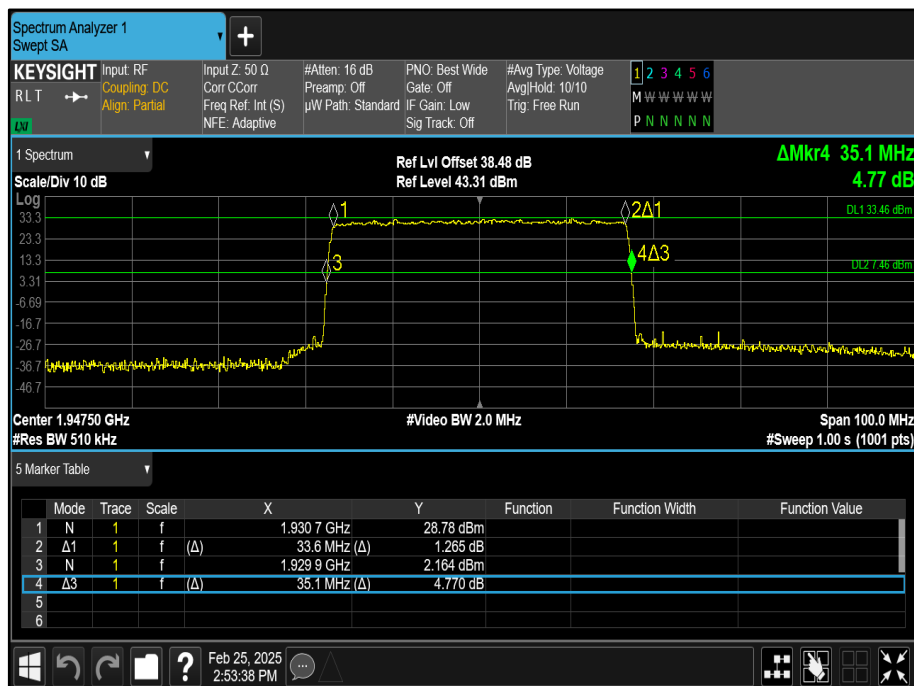
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 30.0 MHz 15 kHz SCS - Channel Position M



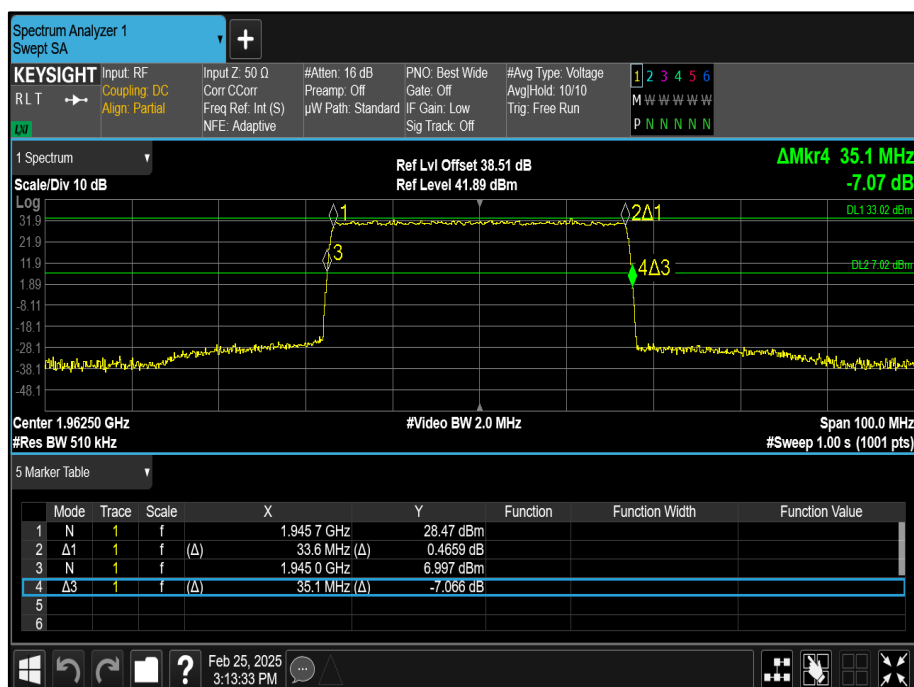
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 30.0 MHz 15 kHz SCS - Channel Position T



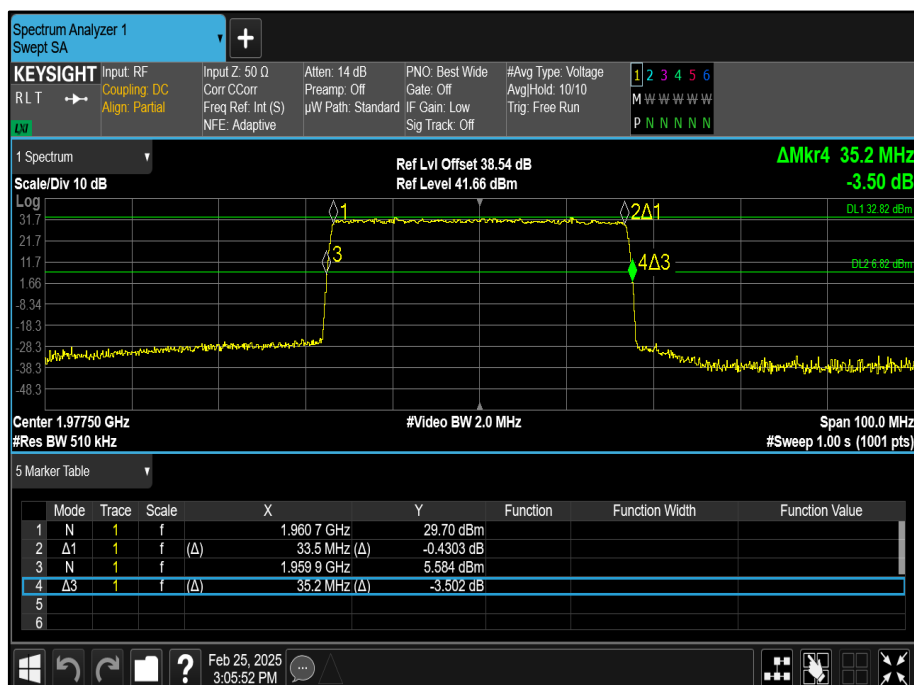
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 35.0 MHz 15 kHz SCS - Channel Position B



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 35.0 MHz 15 kHz SCS - Channel Position M



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 35.0 MHz 15 kHz SCS - Channel Position T

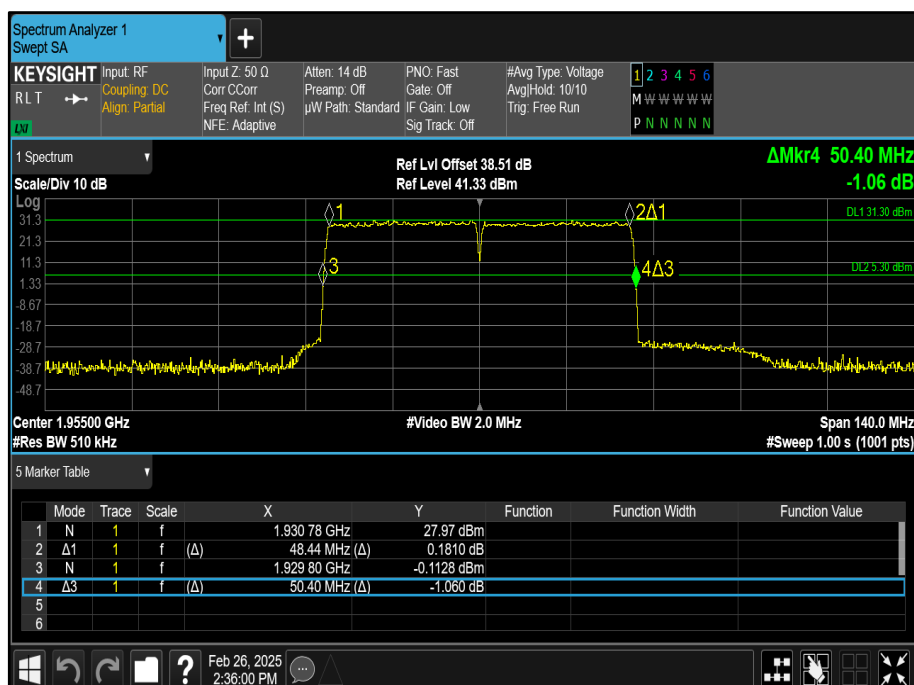


Configuration 3

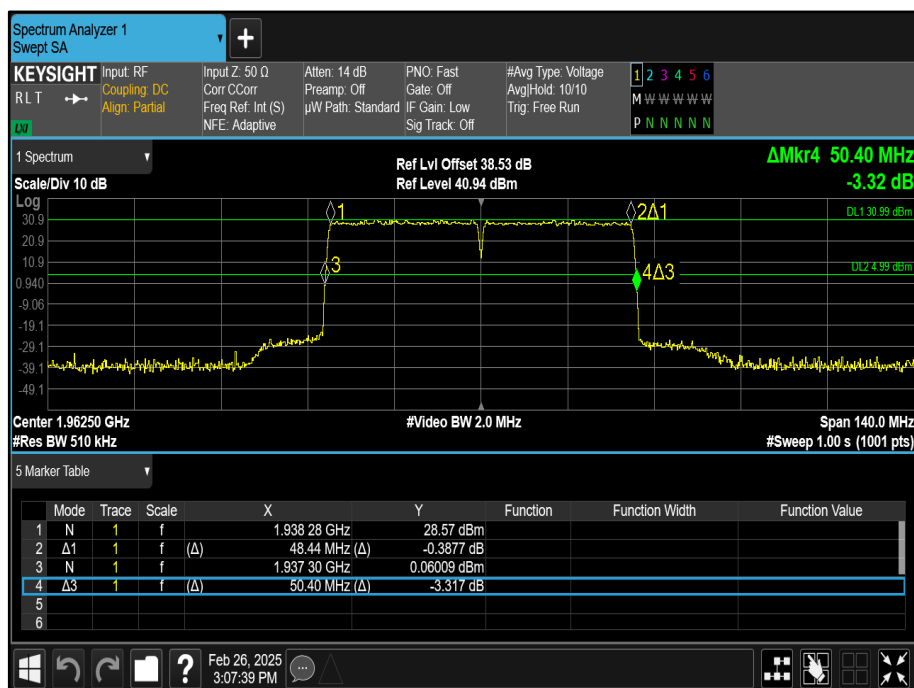
Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Result (kHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
6	QPSK	2 x 25.0 MHz 15 kHz SCS	48.44	50.40	48.44	50.40	48.44	50.40
6	QPSK	2 x 30.0 MHz 15 kHz SCS	58.24	61.12	58.24	61.12	58.40	61.12

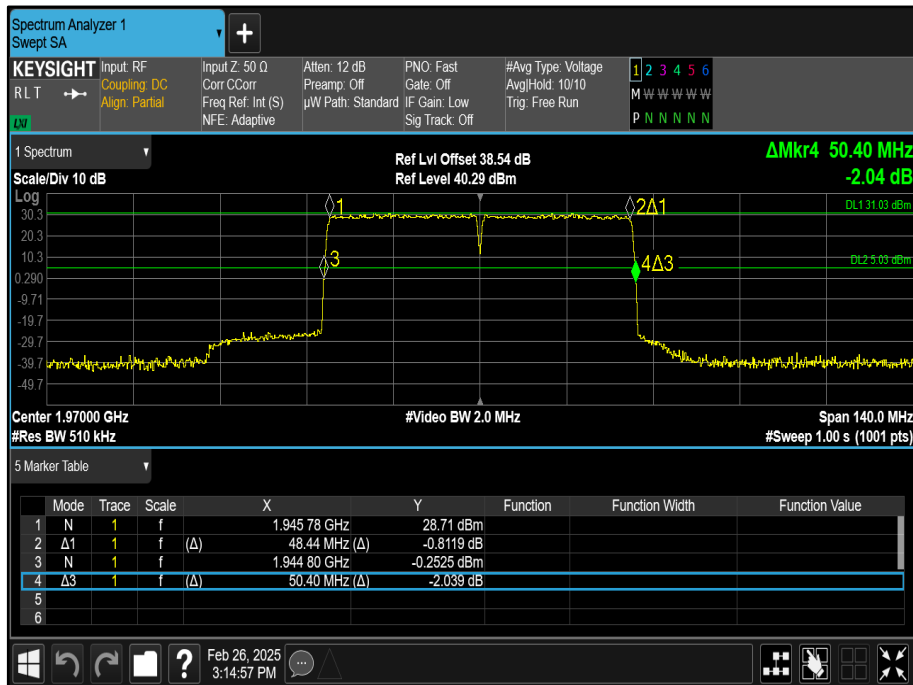
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 25.0 MHz 15 kHz SCS - Channel Position B



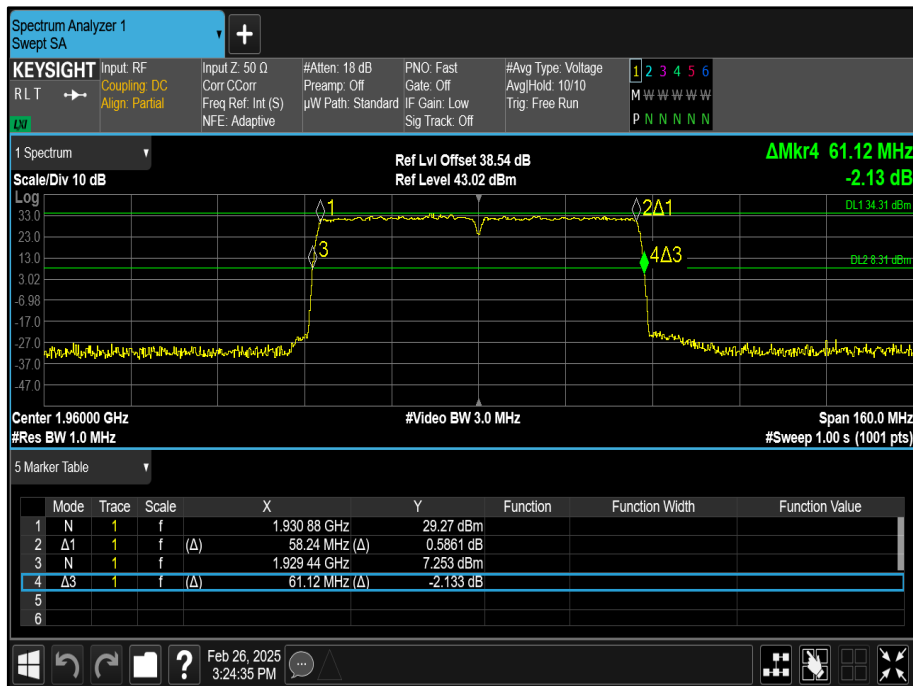
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 25.0 MHz 15 kHz SCS - Channel Position M



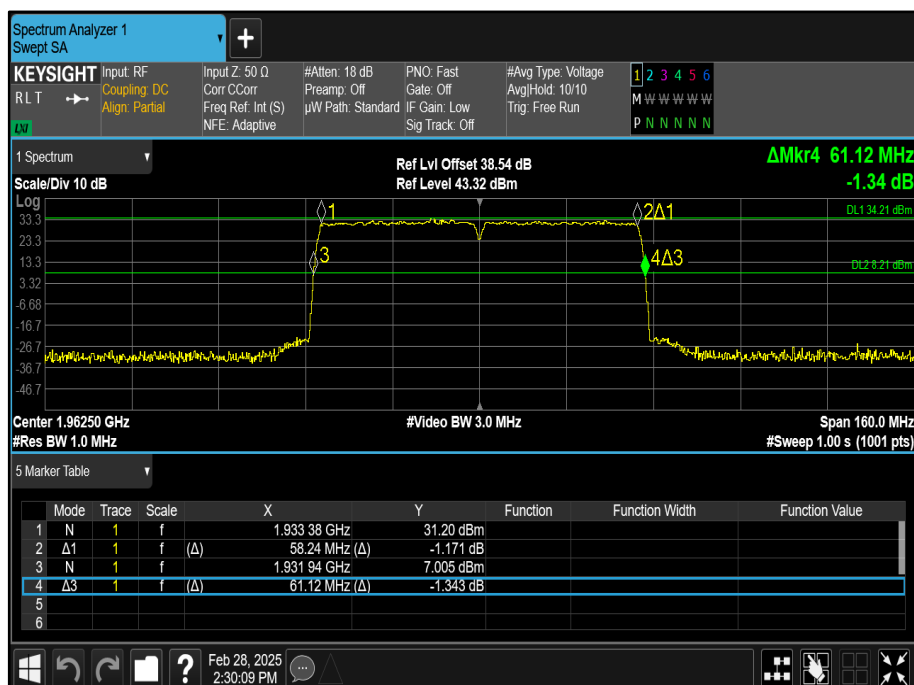
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 25.0 MHz 15 kHz SCS - Channel Position T



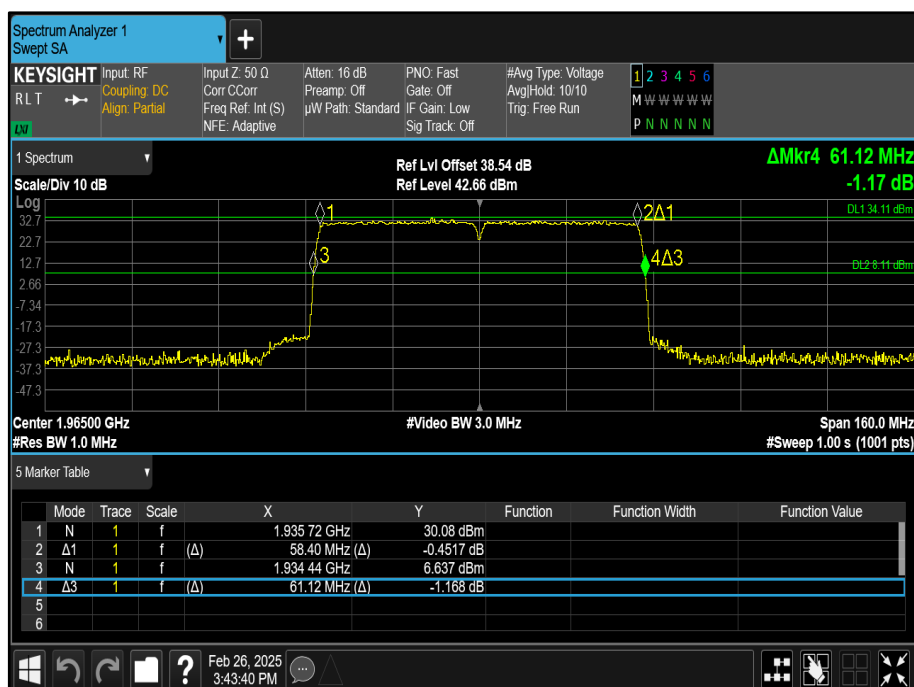
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 30.0 MHz 15 kHz SCS - Channel Position B



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 30.0 MHz 15 kHz SCS - Channel Position M



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 30.0 MHz 15 kHz SCS - Channel Position T

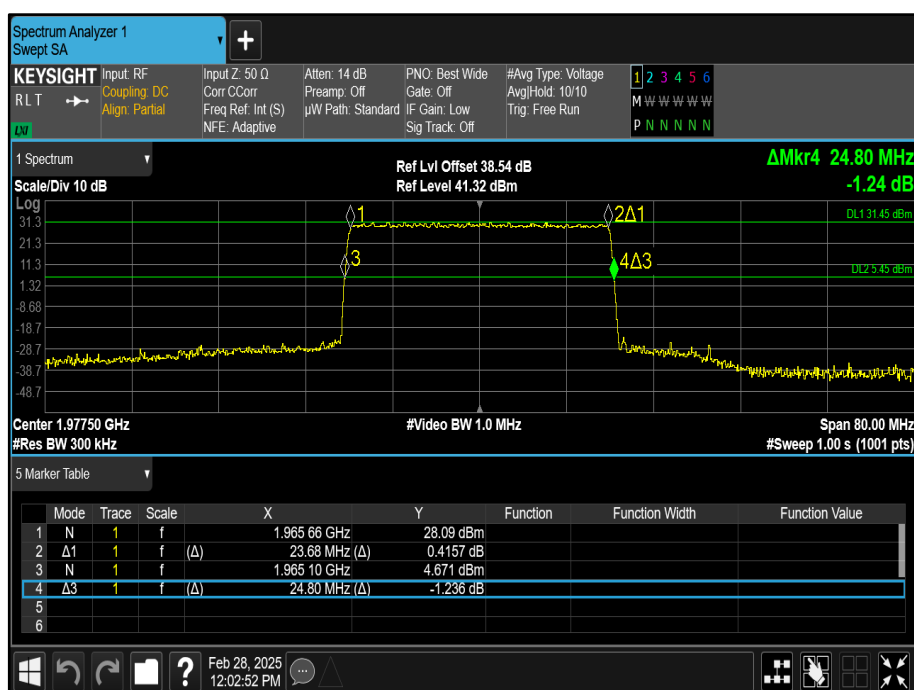


Configuration 6

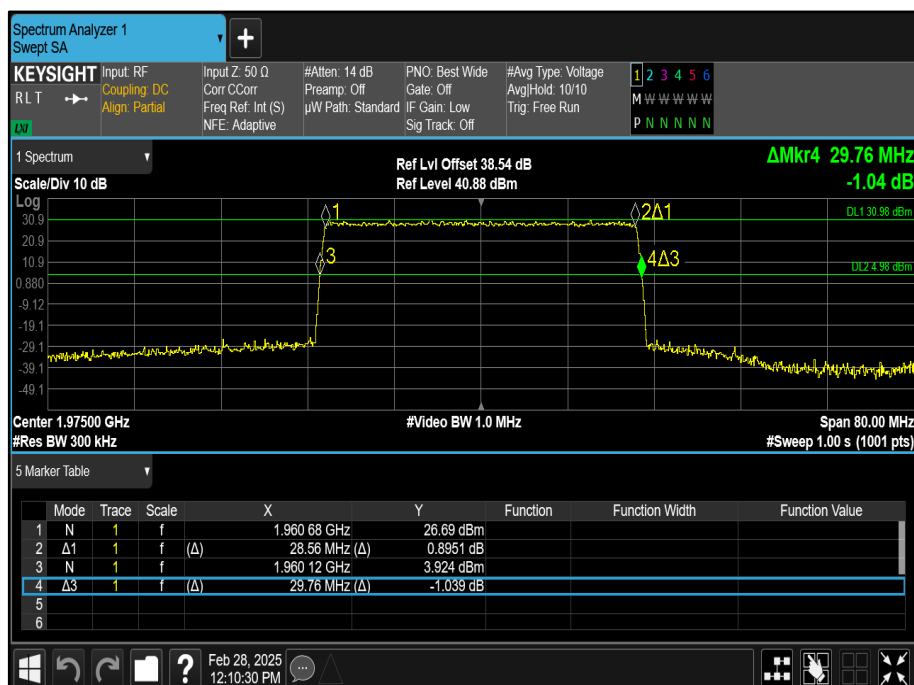
Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Result (kHz)					
			Channel Position B		Channel Position M		Channel Position T	
			Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth	Occupied Bandwidth	-26 dB Bandwidth
6	QPSK	25.0 MHz 15 kHz SCS	-	-	-	-	23.68	24.80
6	QPSK	30.0 MHz 15 kHz SCS	-	-	-	-	28.56	29.76
6	QPSK	35.0 MHz 15 kHz SCS	-	-	-	-	33.60	35.20

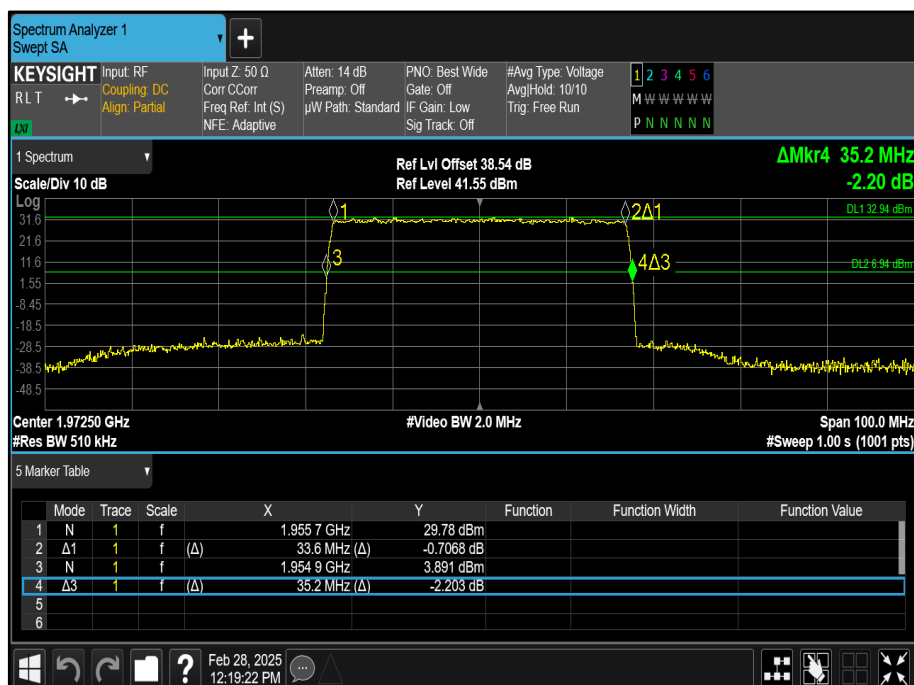
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position T



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 30.0 MHz 15 kHz SCS - Channel Position T



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 35.0 MHz 15 kHz SCS - Channel Position T



2.3 BAND EDGE

2.3.1 Specification Reference

FCC CFR 47 Part 24, Clause 24.238 (b)
Industry Canada RSS-133, Clause 5.6
FCC CFR 47 Part 2, Clause 2.1051

2.3.2 Date of Test and Modification State

25, 26, 28-February-2025 and 03-March-2025 - 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	20.4 - 23.5°C
Relative Humidity	22.0 - 39.1%

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:

$$-13 \text{ dBm} - 10 * \log(32) = -28.05 \text{ dBm}$$

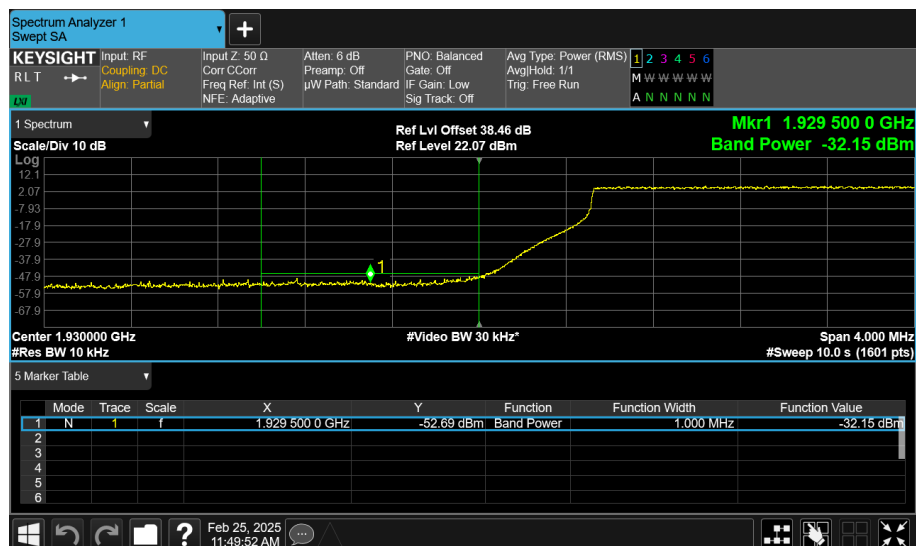
2.3.6 Test Results

Configuration 1

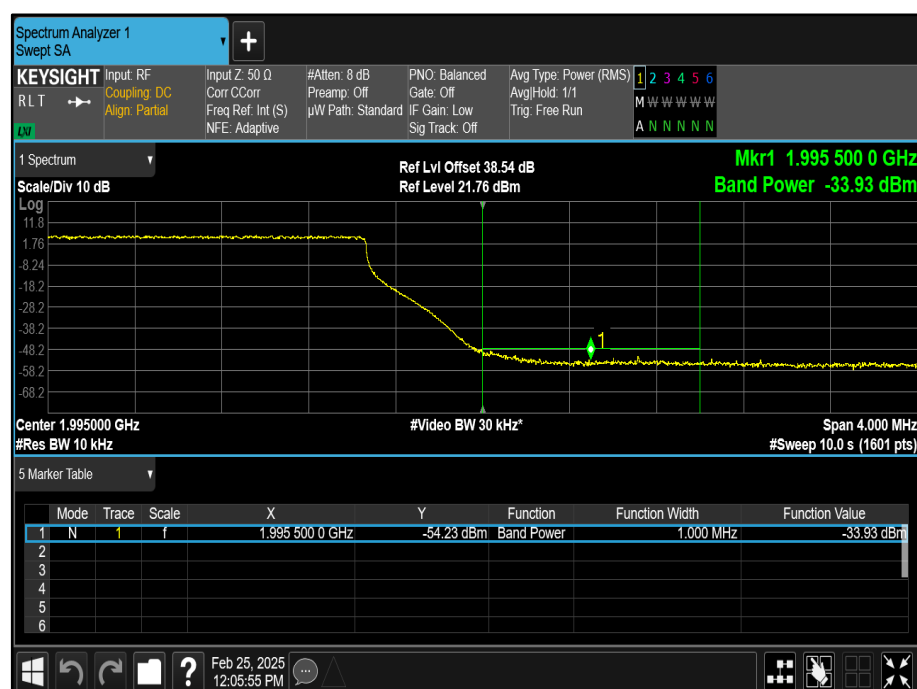
Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
6	QPSK	25.0 MHz 15 kHz SCS	1,942.5	1,982.5
6	QPSK	30.0 MHz 15 kHz SCS	1,945.0	1,980.0
6	QPSK	35.0 MHz 15 kHz SCS	1,947.5	1,977.5

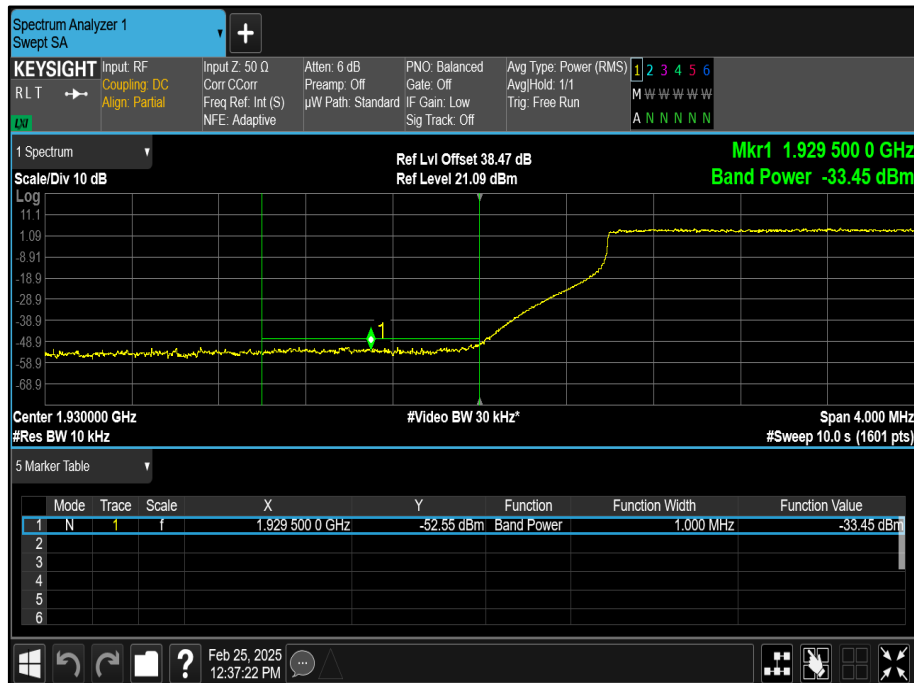
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position B



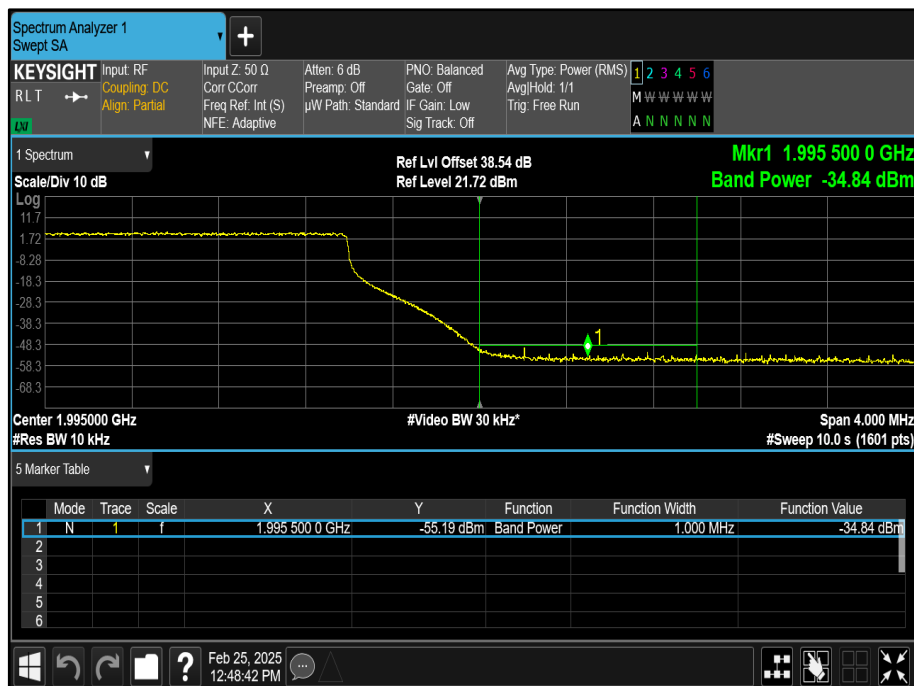
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position T



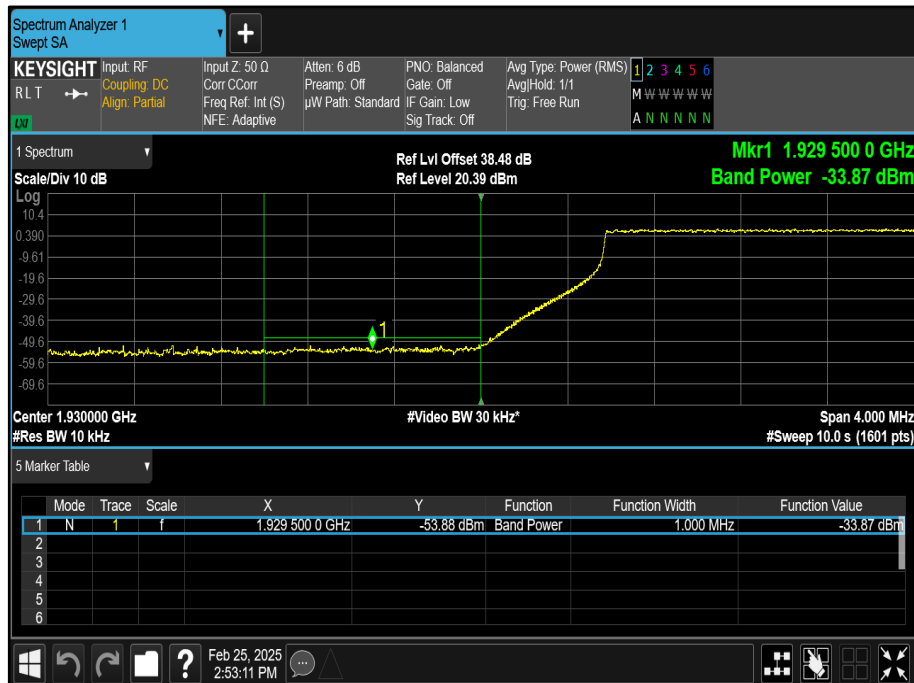
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 30.0 MHz 15 kHz SCS - Channel Position B



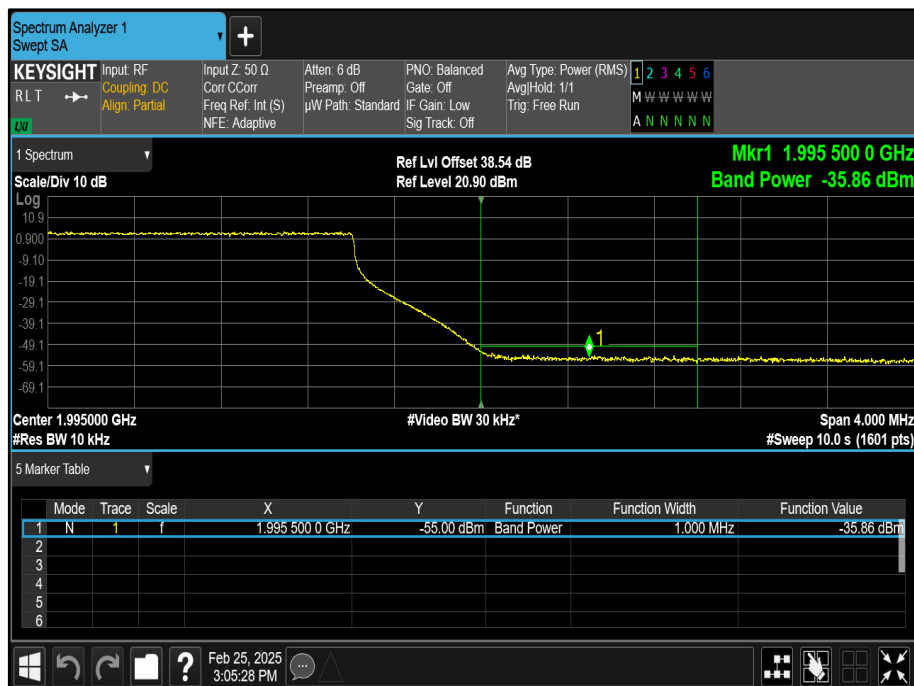
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 30.0 MHz 15 kHz SCS - Channel Position T



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 35.0 MHz 15 kHz SCS - Channel Position B



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 35.0 MHz 15 kHz SCS - Channel Position T

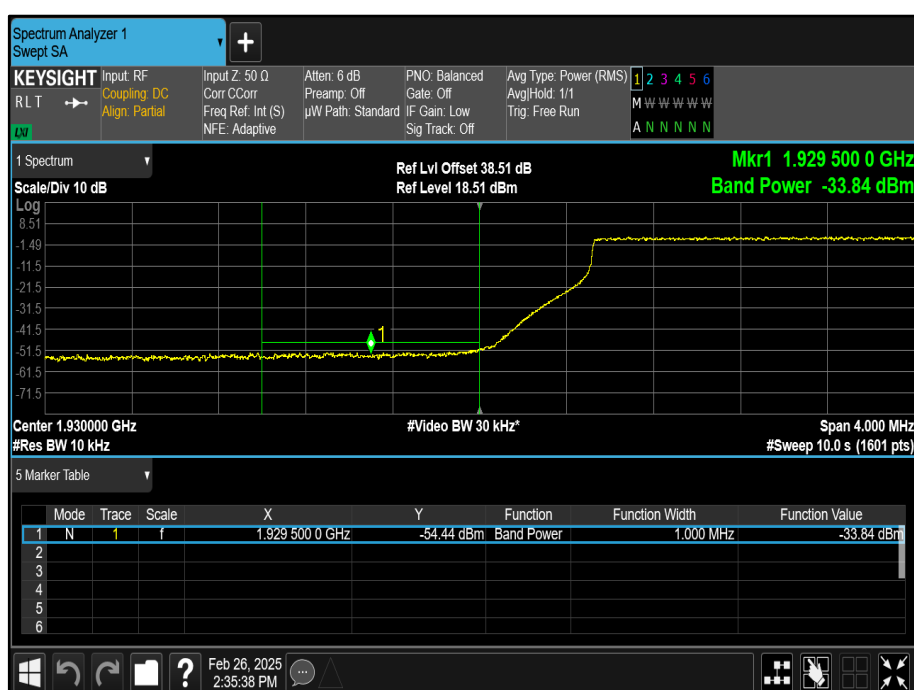


Configuration 3

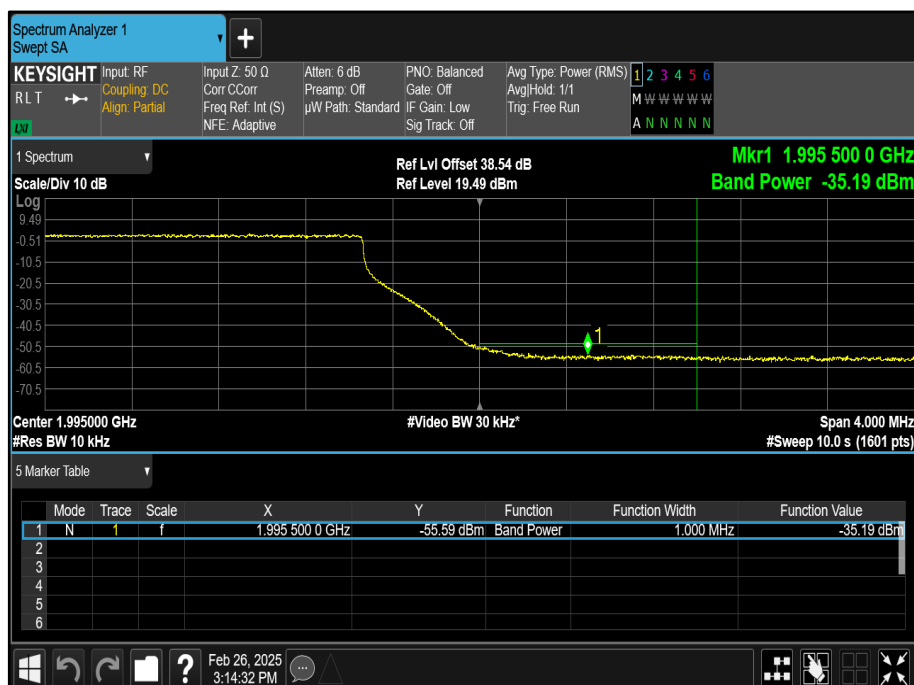
Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
6	QPSK	2 x 25.0 MHz 15 kHz SCS	1942.5+1967.5	1957.5+1982.5

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 25.0 MHz 15 kHz SCS - Channel Position B



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 2 x 25.0 MHz 15 kHz SCS - Channel Position T

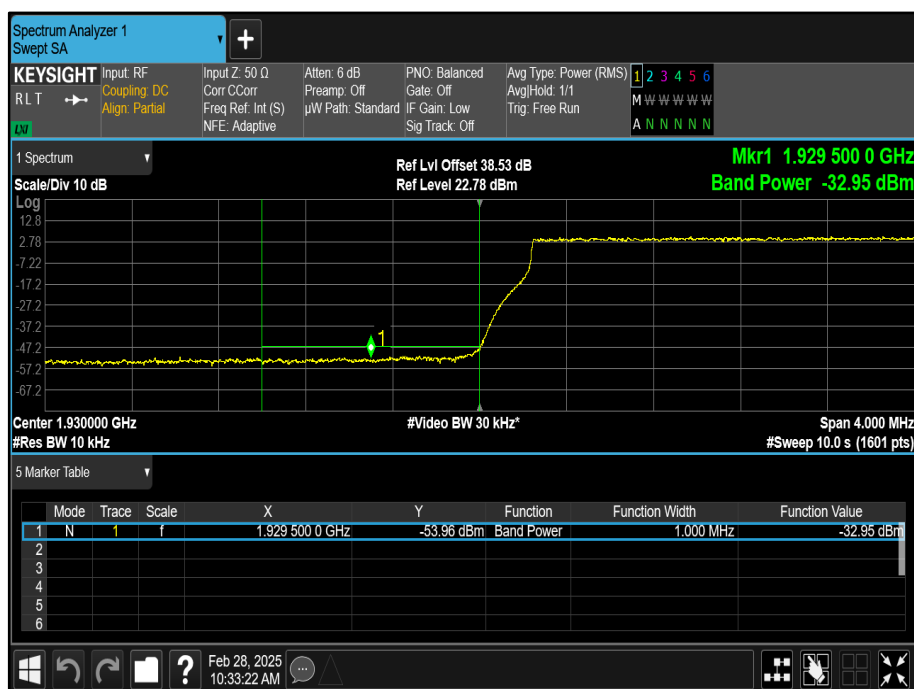


Configuration 4

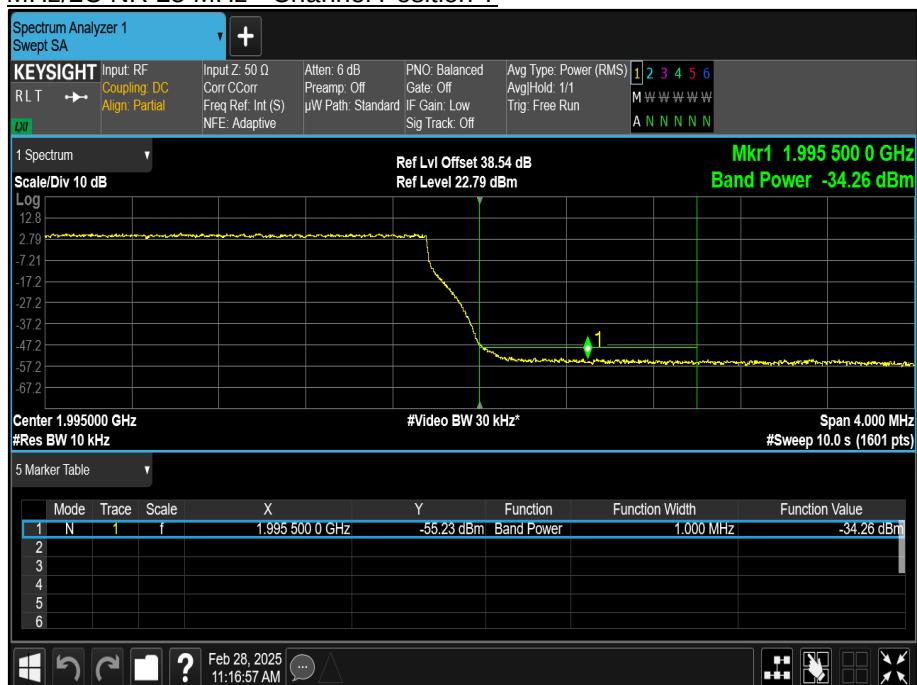
Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR Modulation	LTE / NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B_{RFBW}	Channel Position T_{RFBW}
6	QPSK/ 64QAM	1C LTE 5 MHz/2C NR 25 MHz	1932.5+1947.5+1972.5	1992.5+1977.5+1952.5

Antenna 6 - NR / LTE Modulation QPSK/64QAM - NR / LTE Carrier Bandwidth 1C LTE 5 MHz/2C NR 25 MHz - Channel Position B



Antenna 6 – NR / LTE Modulation QPSK/64QAM/ - NR / LTE Carrier Bandwidth 1C LTE 5 MHz/2C NR 25 MHz - Channel Position T

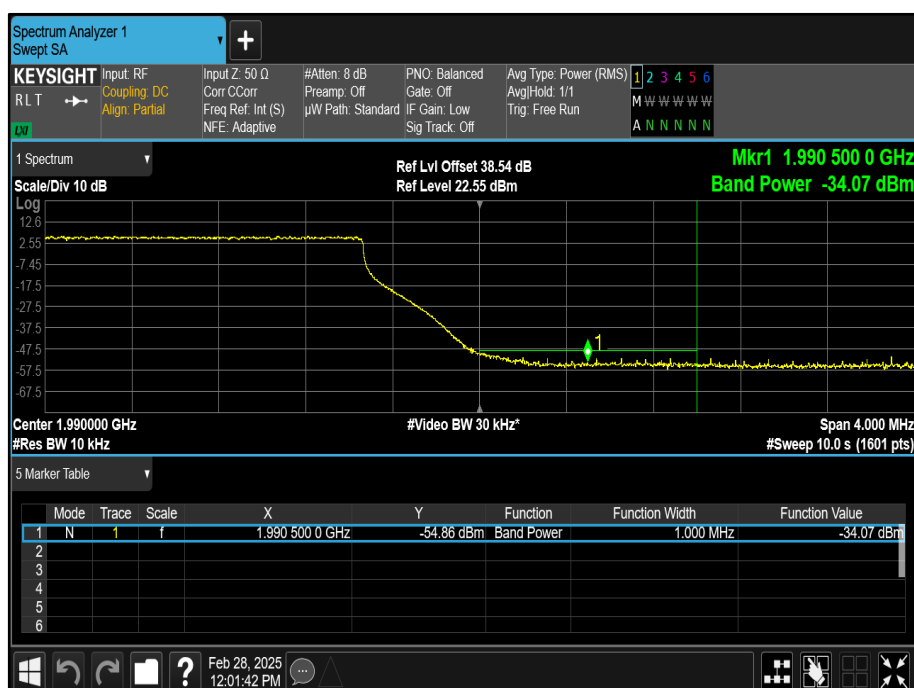


Configuration 6

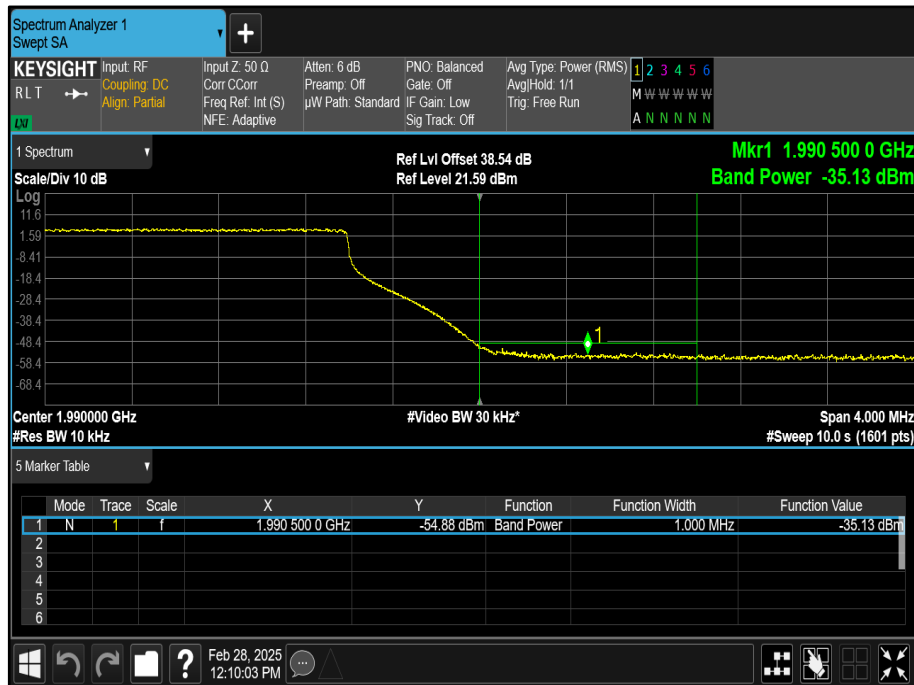
Maximum Output Power See Section 1.4 Configuration Description

Antenna	NR Modulation	NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
6	QPSK	25.0 MHz 15 kHz SCS	-	1,977.5
6	QPSK	30.0 MHz 15 kHz SCS	-	1,975.0
6	QPSK	35.0 MHz 15 kHz SCS	-	1,972.5

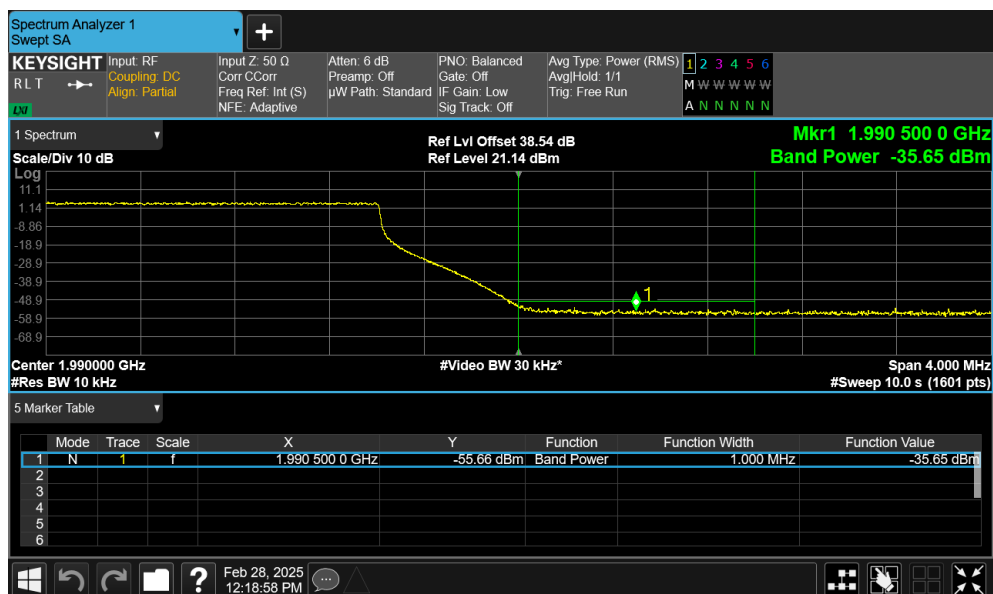
Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position T



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 30.0 MHz 15 kHz SCS - Channel Position T



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 35.0 MHz 15 kHz SCS - Channel Position T

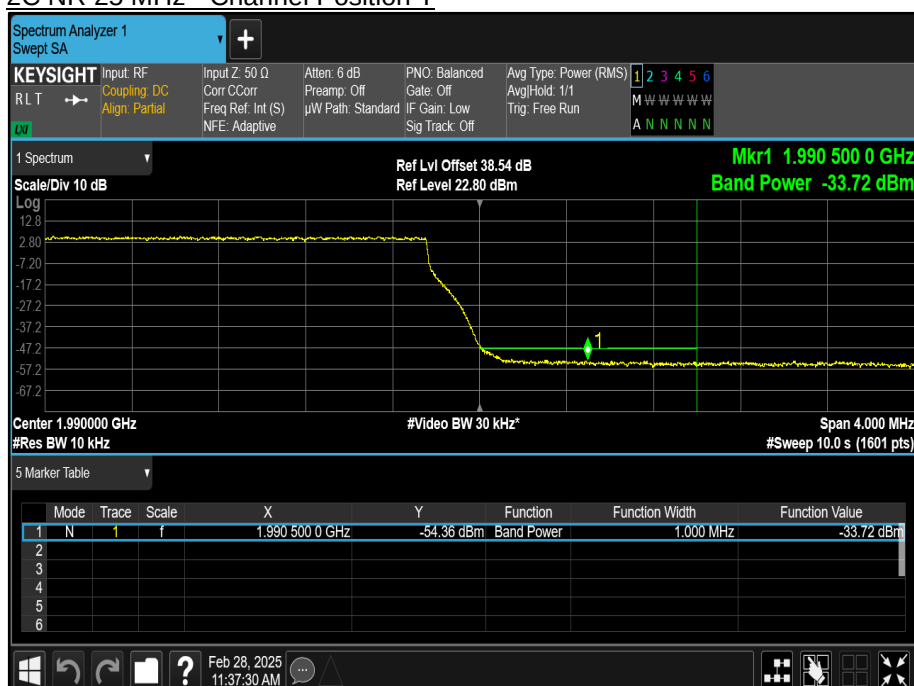


Configuration 8

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR Modulation	LTE / NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B_{RFBW}	Channel Position T_{RFBW}
6	QPSK/64QAM	1C LTE 5 MHz/ 2C NR 25 MHz	-	1987.5+1972.5+1947.5

Antenna 6- NR / LTE Modulation QPSK/64QAM - NR / LTE Carrier Bandwidth 1C LTE 5 MHz/ 2C NR 25 MHz - Channel Position T

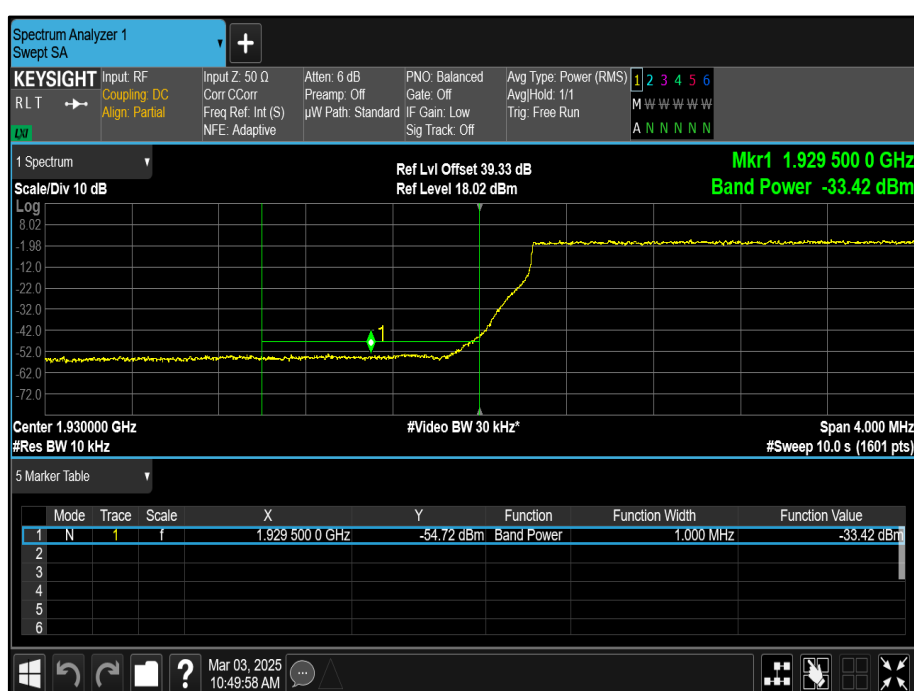


Configuration 10

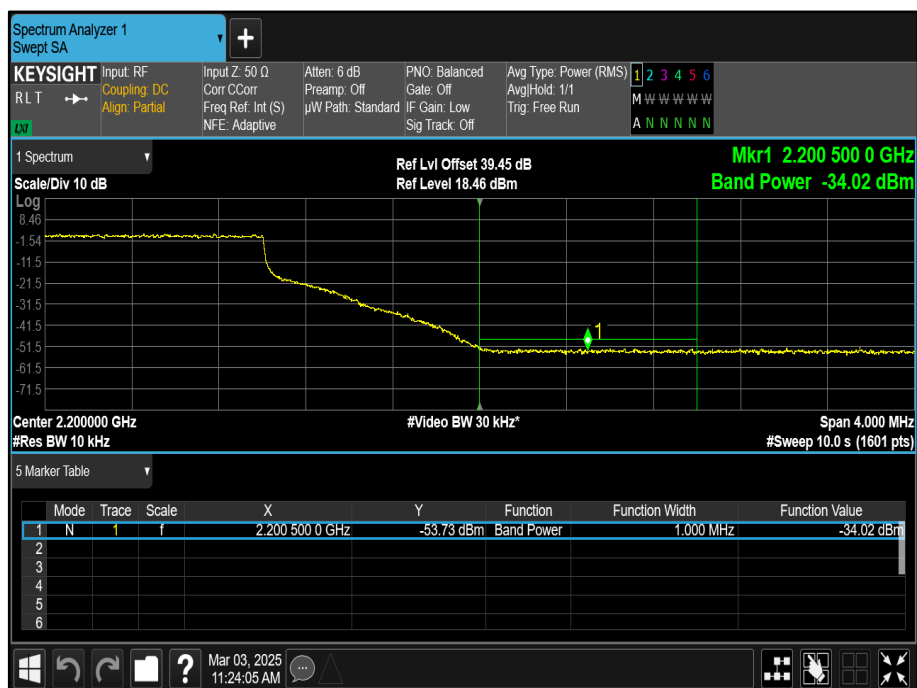
Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR Modulation	LTE / NR Carrier Bandwidth	Band Edge (MHz)	
			Channel Position B	Channel Position T
32	64QAM / QPSK / QPSK / QPSK / QPSK	3CC (B25) + 3CC (B66)	1932.5+1942.5+1962.5+2120.0+2132.5+2145.0	1962.5+1982.5+1992.5+2165.0+2177.5+2190.0

Antenna 32- LTE / NR Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - LTE / NR Carrier Bandwidth 3CC (B25) + 3CC (B66) - Channel Position B



Antenna 32 - LTE / NR Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - LTE / NR
Carrier Bandwidth 3CC (B25) + 3CC (B66) - Channel Position T

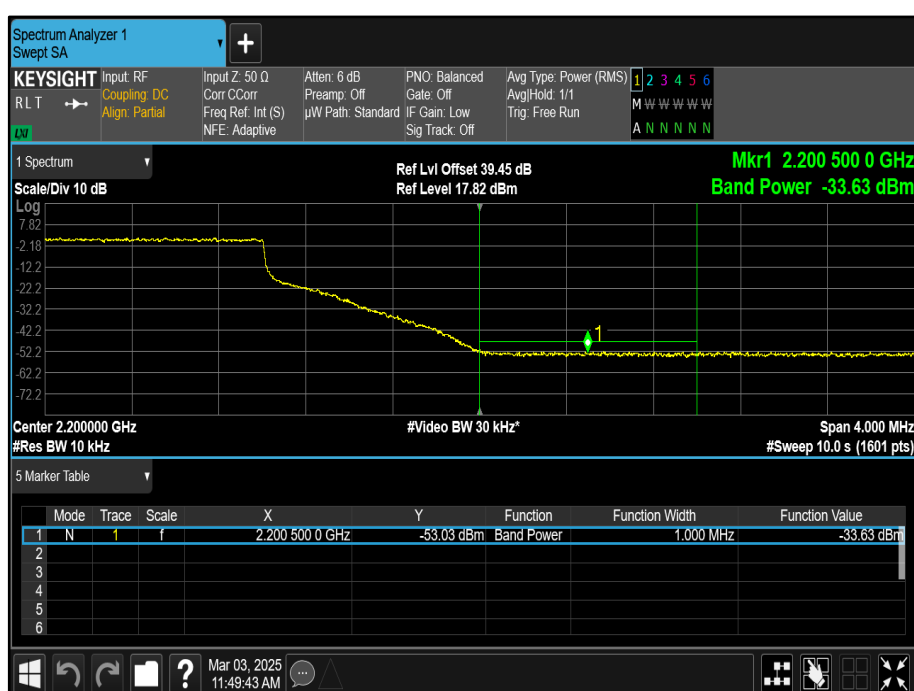


Configuration 11

Maximum Output Power See Section 1.4 Configuration Description

Antenna	LTE / NR Modulation	LTE / NR Carrier Bandwidth	Band Edge (MHz)
			Channel Position T
32	64QAM / QPSK / QPSK / QPSK / QPSK	3CC (B2) + 3CC (B66)	1957.5+1977.5+1987.5+2165.0+2177.5+2190.0

Antenna 32 - LTE / NR Modulation 64QAM / QPSK / QPSK / QPSK / QPSK - LTE / NR Carrier Bandwidth 3CC (B2) + 3CC (B66) - 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 24, Clause 24.238 (a)
ISED RSS-GEN, Clause 6.13
Industry Canada RSS-133, Clause 5.6
FCC CFR 47 Part 2, Clause 2.1051

2.4.2 Date of Test and Modification State

04 March and 05 March-2025 - 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	21.4 - 23.8°C
Relative Humidity	21.4 - 25.8%

2.4.5 Test Method

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 $10 * \log(N)$, where N is equal to the number of MIMO antenna ports.

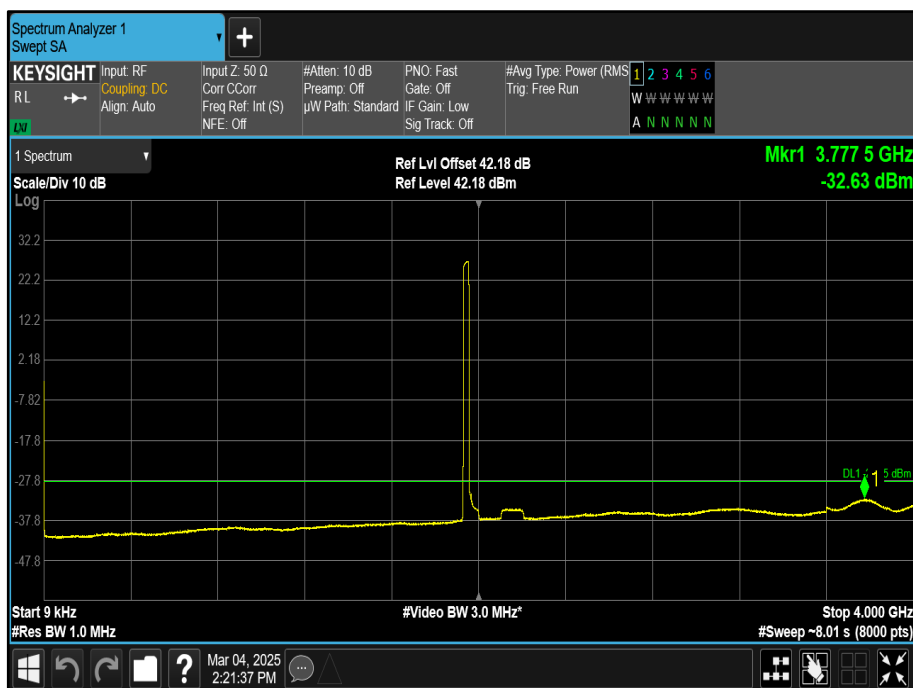
For the number of antenna ports, the limit was calculated as being:
 $-13 \text{ dBm} - 10 * \log(32) = -28.05 \text{ dBm}$

The 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.

2.4.6 Test Results

Configuration 1

Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position B - Band 1 - Range 0.009 to 4000 MHz



Antenna 6- NR Modulation QPSK - NR Carrier Bandwidth 25.0 MHz 15 kHz SCS - Channel Position B - Band 2 - Range 4000 to 6000 MHz

