RF MEASUREMENT REPORT

FCC ID:	2AD8UAWHHC01
Application:	Nokia Solutions and Networks, OY
Product:	AirScale Indoor Radio ASiR 5G-pRRH
Model No.:	AWHHC
Brand Name:	Nokia
FCC Rule Part(s):	Part 2, 27 (M)
Result:	Complies
Received Date:	2023-09-26
Test Date:	2023-09-27 ~ 2023-09-30

Reviewed By: Sunny Sun

Approved By: Robin Wu

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.26-2015. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date	Note
2309RSU054-U1	V01	Initial Report	2023-10-09	Invalid
2309RSU054-U1	V02	Update Cal. Due Date of Instrument	2023-10-10	Valid

Note: This report is prepared for FCC Class II permissive supplement to FCC ID: 2AD8UAWHHC01 adding 5G NR 70MHz & 90MHz bandwidth and related data.

CONTENTS

1. General Information

1.1. Applicant

Nokia Solutions and Networks, OY

2000 W. Lucent Lane, Naperville, Illinois, United States, 60563

1.2. Manufacturer

Nokia Solutions and Networks, OY

2000 W. Lucent Lane, Naperville, Illinois, United States, 60563

1.3. Testing Facility

☒	**Test Site - MRT Suzhou Laboratory**				
	Laboratory Location (Suzhou - Wuzhong)				
	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China				
	Laboratory Location (Suzhou - SIP)				
	4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China				
	Laboratory Accreditations				
	A2LA: 3628.01		CNAS: L10551		
	FCC: CN1166		ISED: CN0001		
	VCCI:	☐R-20025	☐G-20034	☐C-20020	☐T-20020
		☐R-20141	☐G-20134	☐C-20103	☐T-20104
☐	**Test Site - MRT Shenzhen Laboratory**				
	Laboratory Location (Shenzhen)				
	1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China				
	Laboratory Accreditations				
	A2LA: 3628.02		CNAS: L10551		
	FCC: CN1284		ISED: CN0105		
☐	**Test Site - MRT Taiwan Laboratory**				
	Laboratory Location (Taiwan)				
	No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)				
	Laboratory Accreditations				
	TAF: 3261				
	FCC: 291082, TW3261		ISED: TW3261		

1.4. Product Information

Product Name	AirScale Indoor Radio ASiR 5G-pRRH
Model No.	AWHHC
Brand Name	Nokia
Operating Band (s)	5G NR Band n41, LTE Band 41
Power Supply Rating	PoE (52.0 ~ 57.0Vdc)
Antenna Specification	Refer to Section 1.6
The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Test

NR Band Specification	
Single Band	5G NR n41
T_X Frequency Range	2496 ~ 2690 MHz
R_X Frequency Range	2496 ~ 2690 MHz
Modulation	QPSK, 16QAM, 64QAM, 256QAM
Max EIRP Power	70 MHz: 41.46 dBm, 90 MHz: 41.82 dBm

1.6. Description of Available Antennas

Band Support	Antenna Type	Model	Antenna Gain (dBi)	Directional Gain (dBi)	
				2*2 MIMO	4*4 MIMO
NR n41 & LTE Band 41	Directional Antenna	G10804-06846	6.4	9.41	12.42

Remark:

1. The transmit signals are correlated, the directional gain = G_{ANT} + 10 log (N_{ANT}/N_{SS}) dBi, where N_{SS} = the number of independent spatial streams of data and G_{ANT} is the antenna gain in dBi.
2. This device supports both 2*2 T_X & 4*4 T_X modes of operation, configured by SW. When operating in 2*2 TX mode, only Ant 0 & 1 transmit ports are actively transmitting.

1.7. Test Methodology

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

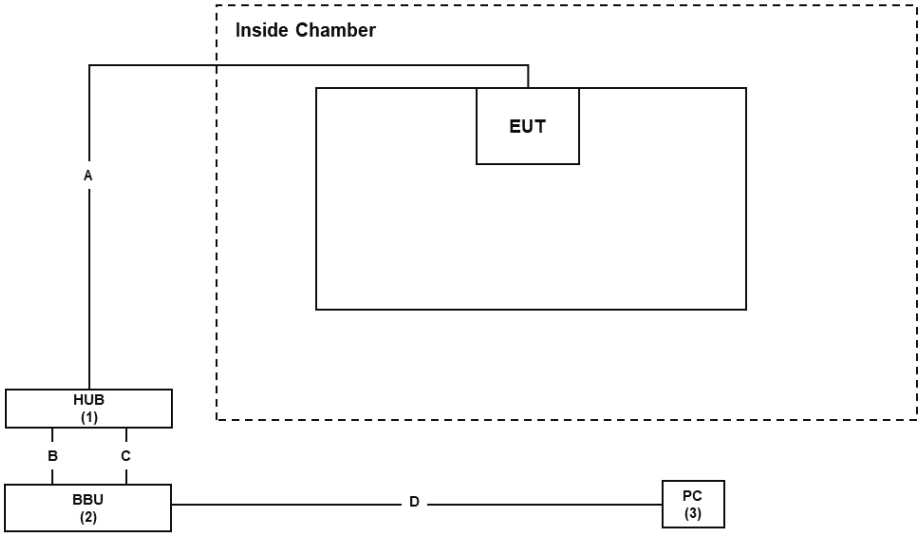
- ANSI C63.26:2015
- FCC CFR 47 Part 2, Part 27
- FCC KDB 971168 D01 v03r01: Power Meas License Digital Systems
- FCC KDB 971168 D02 v02r01: Misc Rev Approv License Devices
- FCC KDB 412172 D01 v01r01: Determining ERP and EIRP
- FCC KDB 662911 D01 v02r01: Multiple Transmitter Output

2. Test Configuration

2.1. Test Mode

Test Item	Channel Bandwidth	Modulation
Occupied bandwidth	70/90MHz	QPSK, 16QAM, 64QAM, 256QAM
Peak to Average Ratio		QPSK, 16QAM, 64QAM, 256QAM
Equivalent Isotropically Radiated Power		QPSK, 16QAM, 64QAM, 256QAM
Band Edge unwanted Emissions		16QAM
Out-of-frequency band unwanted emissions		16QAM

2.2. Test System Connection Diagram



No.	Cable Type	Cable Spec.	Length
A	LAN cable	Non-Shielding	>10.0m
B	Optical fiber cable	Non-Shielding	>10.0m
C	Optical fiber cable	Non-Shielding	>10.0m
D	LAN cable	Non-Shielding	2.0m
No.	Product	Manufacturer	Model No.
1	HUB	Nokia	ASIL+ABIO
2	BBU	Nokia	APHA
3	Personal Computer	HP	TPN-C143

2.3. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20 ~ 75%RH

3. Measuring Instrument

Instrument Name	Manufacturer	Model No.	Asset No.	Cali. Interval	Cal. Due Date	Test Site
Signal Analyzer	Keysight	N9020B	MRTSUE06583	1 year	2023-10-08	WZ-SR6
Thermohygrometer	testo	608-H1	MRTSUE06362	1 year	2024-02-14	WZ-SR6
Shielding Room	HUAMING	WZ-SR6	MRTSUE06443	N/A	N/A	WZ-SR6
Attenuator	SHX	SMA10-20dB-18G	MRTSUE06697	1 year	2024-03-01	WZ
Attenuator	MVE	MVE2213	MRTSUE11083	1 year	2024-06-08	WZ
Attenuator	MVE	MVE2213	MRTSUE11084	1 year	2024-06-08	WZ

4. Decision Rules and Measurement Uncertainty

4.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

4.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Conducted Spurious Emissions
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.468dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 0.66dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 69.28KHz

5. Test Result

5.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
2.1049.	Occupied bandwidth	Conducted	Pass
2.1046	Peak to Average Ratio		Pass
2.1046; 27.50(h)(1)(i).	Equivalent Isotropically Radiated Power		Pass
2.1051; 27.53(m)(2)(v).	Transmitter unwanted emissions (Band Edge)		Pass
2.1051; 27.53(m)(2)(v).	Out-of-frequency Band unwanted Emissions		Pass

Notes:

1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
2) All supported modulation types were evaluated. The worst-case emission of modulation was selected. Therefore, the Unwanted Emissions were presented the worst-case in the test report.
3) Here is only the different antenna between FCC ID "2AD8UAWHHA01" & "2AD8UAWHHC01", and the other circuits are the same. This report reused the conducted measurements resluts of FCC ID “2AD8UAWHHA01”.

5.2. Occupied Bandwidth Measurement

5.2.1. Test Limit

The occupied bandwidth shall not exceed the equipment's channel bandwidth, which is declared by the manufacturer.

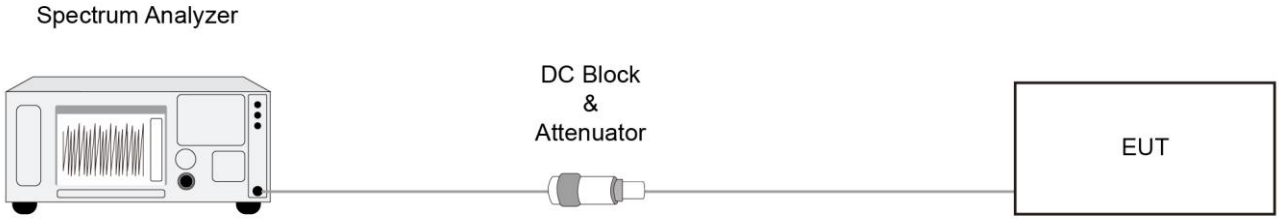
5.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.4

5.2.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency
2. RBW = The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW
3. VBW ≥ 3 × RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

5.2.4. Test Setup



5.2.5. Test Result

Refer to Appendix A.1.

5.3. Peak to Average Ratio Measurement

5.3.1. Test Limit

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

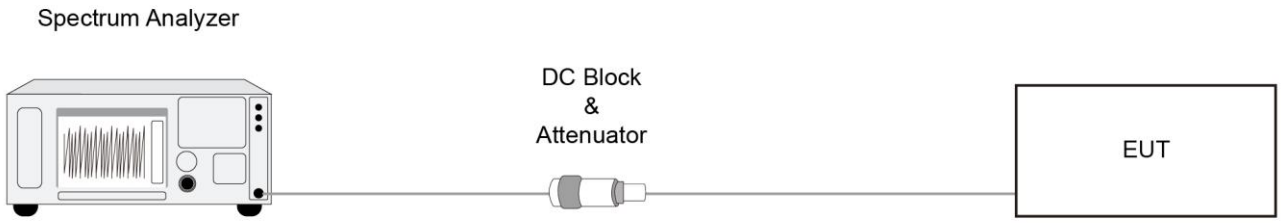
5.3.2. Test Procedure Used

ANSI C63.26-2015 - Section 5.2.3.4 (CCDF).

5.3.3. Test Setting

1. Set the resolution / measurement bandwidth ≥ signal's occupied bandwidth
2. Set the number of counts to a value that stabilizes the measured CCDF curve
3. Record the maximum PARR level associated with a probability of 0.1%

5.3.4. Test Setup



5.3.5.Test Result

Refer to Appendix A.2.

5.4. Equivalent Isotropically Radiated Power Measurement

5.4.1. Test Limit

According to the specific rule 27.50(h)(1), the following power limits shall apply in the BRS and EBS: Main, booster and base stations.(i) The maximum EIRP of a main, booster or base station shall not exceed 33 dBW +10log(X/Y) dBW, where X is the actual channel width in MHz and Y is either 6 MHz if prior to transition or the station is in the MBS following transition or 5.5 MHz if the station is in the LBS and UBS following transition, except as provided in paragraph (h)(1)(ii) of this section.

For 70MHz Bandwidth: The EIRP limit = 33 + 30 + 10*log (70/6) = 73.67dBm

For 90MHz Bandwidth: The EIRP limit = 33 + 30 + 10*log (90/6) = 74.76dBm

5.4.2. Test Procedure

ANSI C63.26-2015 - Section 5.2

5.4.3. Test Setting

Average Power Measurement

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

Average Power Density Measurement

1. Set span to 2 × to 3 × the OBW;
2. Set RBW = 1% to 5% of the OBW;
3. Set VBW ≥ 3 × RBW;
4. Set number of measurement points in sweep ≥ 2 × span / RBW;
5. Sweep time set to auto;
6. Detector = power averaging (rms);
7. If the EUT can be configured to transmit continuously, then set the trigger to free run;
8. If the EUT cannot be configured to transmit continuously, then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep.
9. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over multiple symbols, it can be necessary to increase the

number of traces to be averaged above 100 or, if using a manually configured sweep time, increase the sweep time.

10. Compute power by integrating the spectrum across the specified bandwidth of the signal using the instrument's band or channel power measurement function with band/channel limits set equal to the specified bandwidth band edges. If the instrument does not have a band or channel power function, sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire specified bandwidth of the spectrum

ERP & EIRP Measurement

The relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation (1) as follows:

ERP or EIRP = PMeas + GT

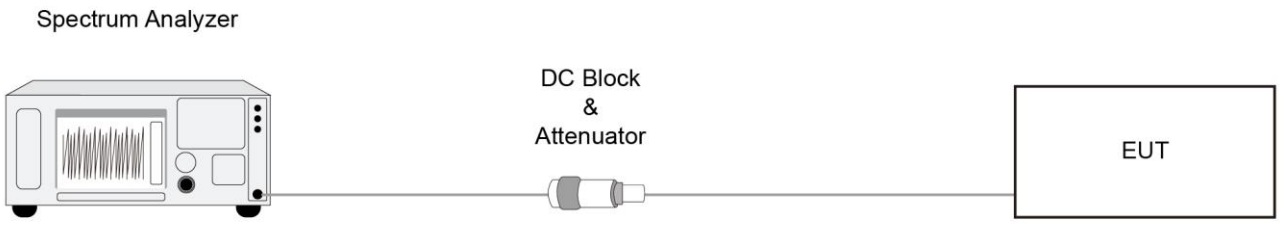
where

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

PMeas measured transmitter output power or PSD, in dBm or dBW

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

5.4.4. Test Setup



5.4.5. Test Result

Refer to Appendix A.3.

5.5. Band Edge unwanted Emissions Measurement

5.5.1. Test Limit

For all fixed digital user stations, the attenuation factor shall be not less than 43 + 10 log (P) dB at the channel edge.

Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

Note: This device can be impelement MIMO function, so the limit os spurious emissions needs to be reduced 10*log($Numbers_{Ant}$) according to FCC KDB 662911 D01 guidance.

The limit is adjusted to -13dBm - 10*log(4) = -19.02dBm

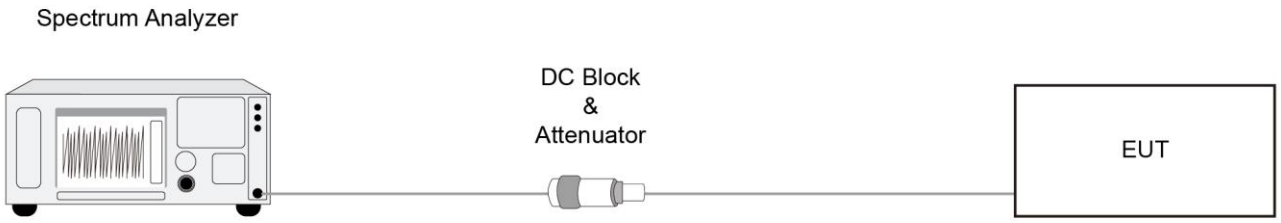
5.5.2. Test Procedure

ANSI C63.26-2015 - Section 5.7

5.5.3. Test Setting

1. Set the analyzer frequency to Bottom or Top channel.
2. RBW = The nominal RBW shall be in the range of 1% of the anticipated OBW;
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to “free run”
7. User gate triggered such that the analyzer only sweeps when the device is transmitting at full power
8. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.
9. Used power integration when using a measurement bandwidth smaller than the specified bandwidth.

5.5.4. Test Setup



5.5.5. Test Result

Refer to Appendix A.4.

5.6. Out-of-frequency Band Unwanted Emissions Measurement

5.6.1. Test Limit

For all fixed digital user stations, the attenuation factor shall be not less than 43 + 10 log (P) dB at the channel edge.

Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

Note: This device can be impelement MIMO function, so the limit os spurious emissions needs to be reduced $10*\log(Numbers_{Ant})$ according to FCC KDB 662911 D01 guidance.

The limit is adjusted to -13dBm - 10*log(4) = -19.02dBm

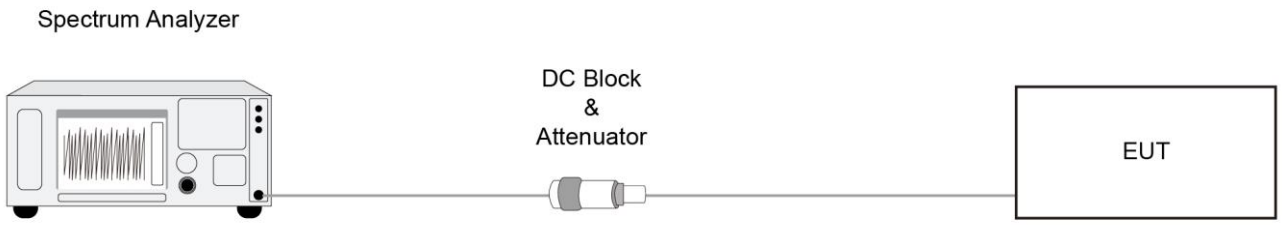
5.6.2. Test Procedure

ANSI C63.26-2015 - Section 5.7

5.6.3. Test Setting

1. Set the analyzer frequency to low or high channel.
2. RBW = 1MHz
3. VBW ≥ 3*RBW
4. Sweep time = auto
5. Detector = power averaging (rms)
6. Set sweep trigger to “free run.”
7. User gate triggered such that the analyzer only sweeps when the device is transmitting at full power.
8. Trace average at least 100 traces in power averaging (rms) mode if sweep is set to auto-couple. To accurately determine the average power over the on and off time of the transmitter, it can be necessary to increase the number of traces to be averaged above 100, or if using a manually configured sweep time, increase the sweep time.

5.6.4. Test Setup



5.6.5. Test Result

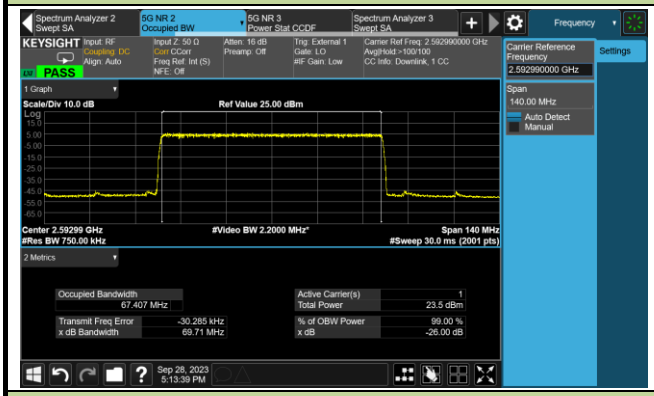
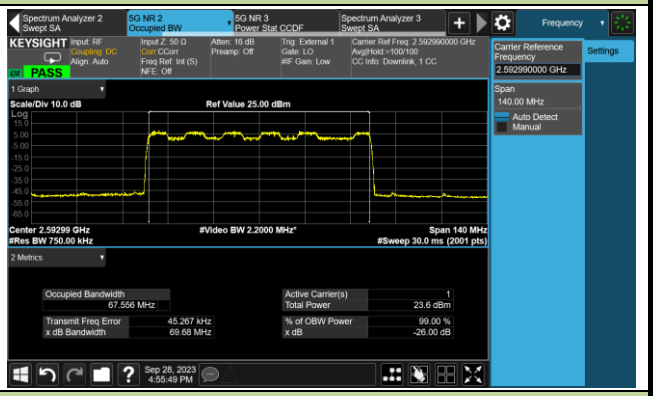
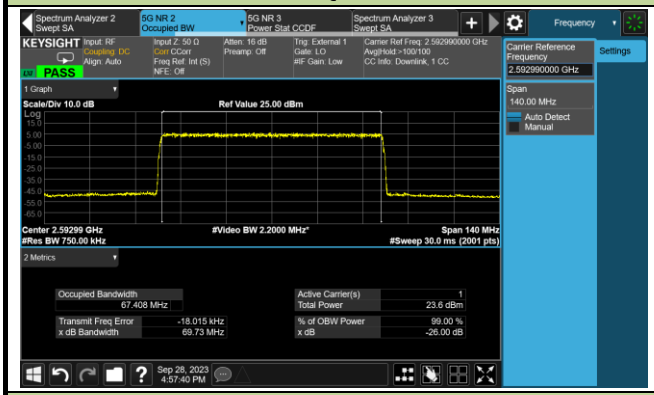
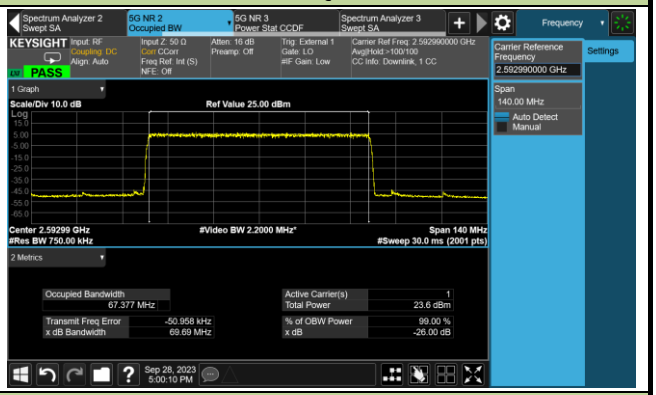
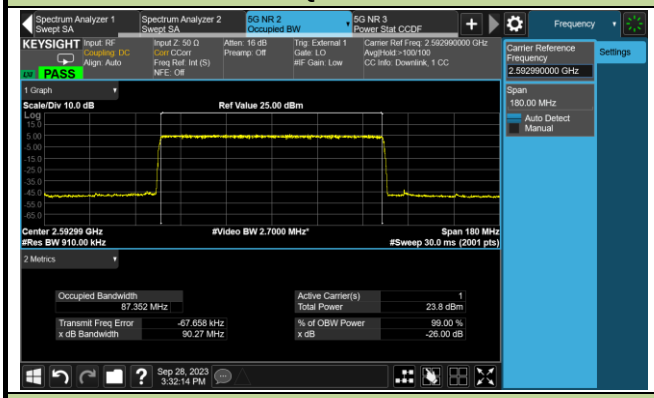
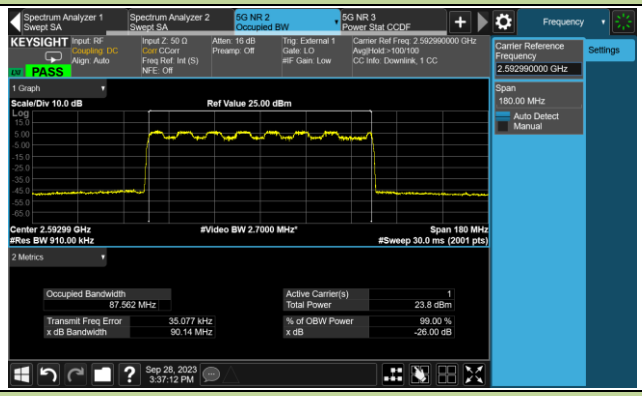
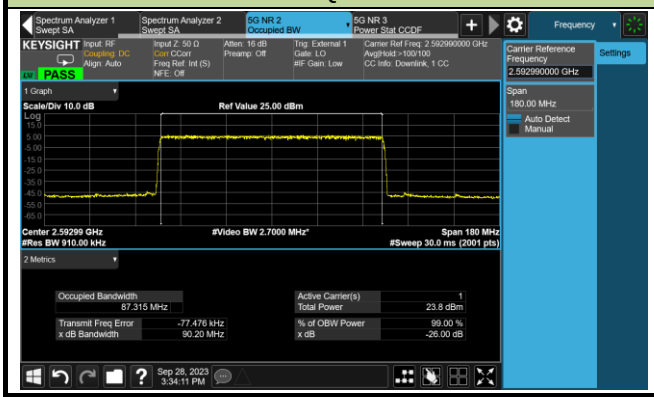
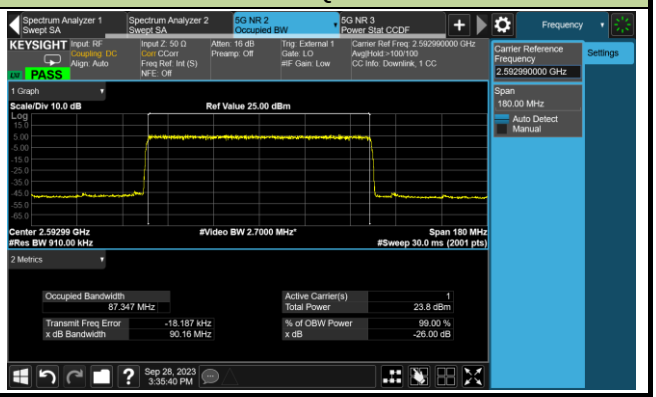
Refer to Appendix A.5.

Appendix A - Test Result

A.1 Occupied Bandwidth Test Result

Test Site	WZ-SR6	Test Engineer	Larry Yan
Test Date	2023-09-28	Test Configuration	NR n41_Middle Channel

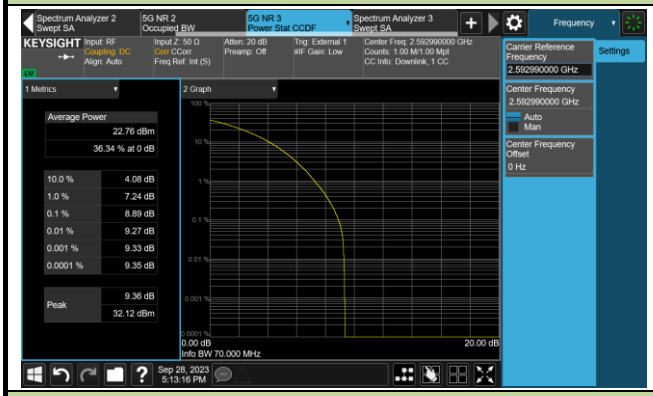
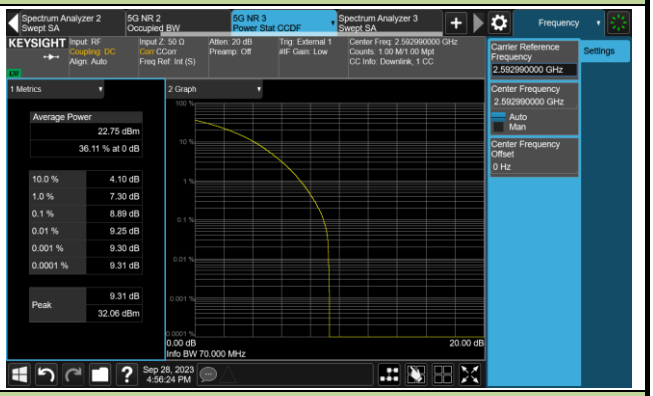
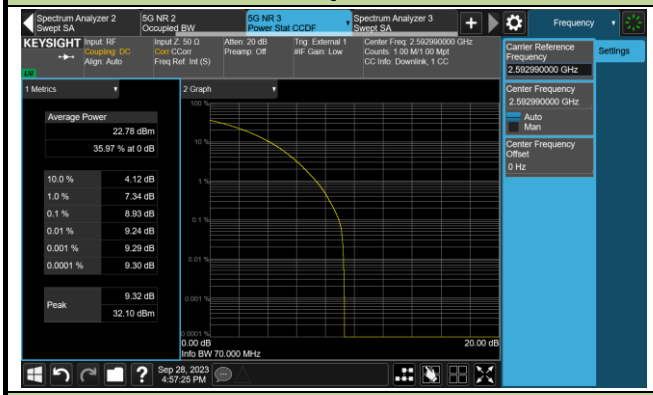
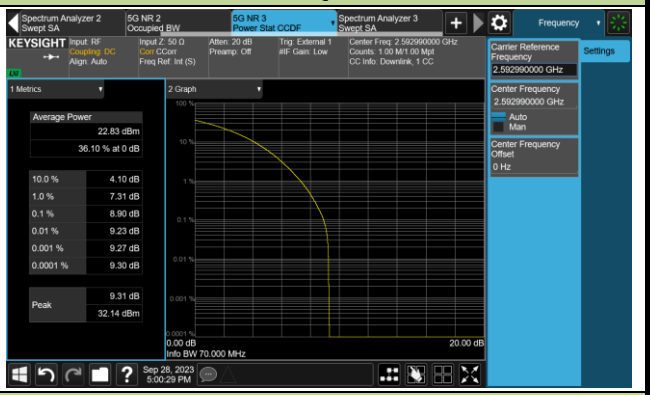
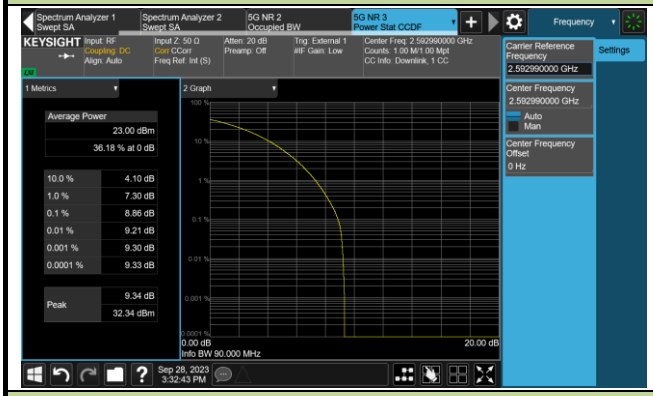
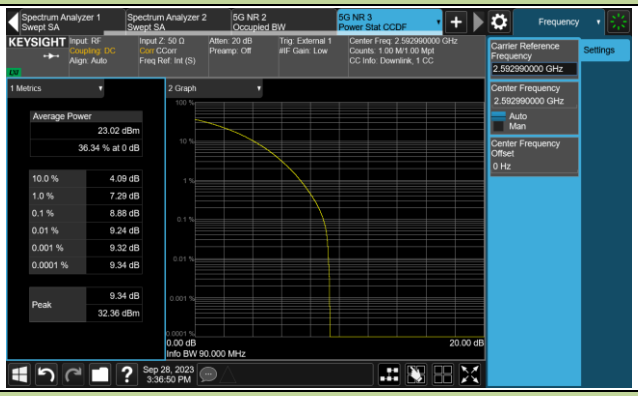
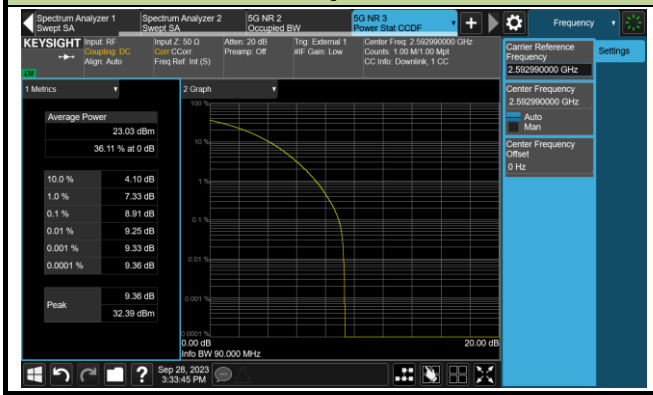
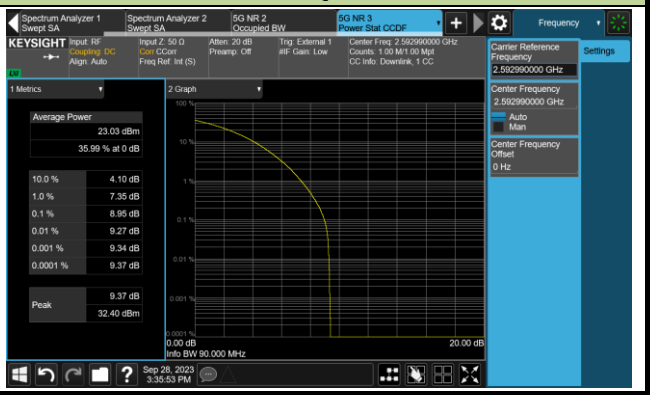
Frequency (MHz)	Bandwidth (MHz)	99% Bandwidth (MHz)
QPSK		
2592.99	70	67.407
2592.99	90	87.352
16QAM		
2592.99	70	67.556
2592.99	90	87.562
64QAM		
2592.99	70	67.408
2592.99	90	87.315
256QAM		
2592.99	70	67.377
2592.99	90	87.347

70MHz Channel Bandwidth – Middle Channel	
QPSK	16QAM
	
64QAM	256QAM
	
90MHz Channel Bandwidth – Middle Channel	
QPSK	16QAM
	
64QAM	256QAM
	

A.2 Peak to Average Ratio Test Result

Test Site	WZ-SR6	Test Engineer	Larry Yan
Test Date	2023-09-28	Test Configuration	NR n41_Middle Channel

Frequency (MHz)	Channel Bandwidth (MHz)	Peak to Average Ratio (dB)	Limit (dB)	Result
QPSK				
2592.99	70	8.89	≤ 13.00	Pass
2592.99	90	8.86	≤ 13.00	Pass
16QAM				
2592.99	70	8.89	≤ 13.00	Pass
2592.99	90	8.88	≤ 13.00	Pass
64QAM				
2592.99	70	8.93	≤ 13.00	Pass
2592.99	90	8.91	≤ 13.00	Pass
256QAM				
2592.99	70	8.90	≤ 13.00	Pass
2592.99	90	8.95	≤ 13.00	Pass

70MHz Channel Bandwidth – Middle Channel	
QPSK	16QAM
	
64QAM	256QAM
	
90MHz Channel Bandwidth – Middle Channel	
QPSK	16QAM
	
64QAM	256QAM
	

A.3 Equivalent Isotropically Radiated Power Test Result

Test Site	WZ-SR6	Test Engineer	Larry Yan
Test Date	2023-09-27 ~ 2023-09-30	Test Configuration	NR n41_2T2R_70MHz

Frequency (MHz)	Output Power (dBm)		Total Power (dBm)	EIRP (dBm)	Limit (dBm)
	Ant 0	Ant 1			
QPSK					
2531.01	22.99	22.66	25.84	35.25	< 73.67
2592.99	22.88	22.79	25.85	35.26	< 73.67
2655.00	22.76	22.53	25.66	35.07	< 73.67
16QAM					
2531.01	22.81	22.68	25.76	35.17	< 73.67
2592.99	22.94	22.77	25.87	35.28	< 73.67
2655.00	22.61	22.53	25.58	34.99	< 73.67
64QAM					
2531.01	22.85	22.64	25.76	35.17	< 73.67
2592.99	22.96	22.81	25.90	35.31	< 73.67
2655.00	22.67	22.61	25.65	35.06	< 73.67
256QAM					
2531.01	23.07	22.77	25.93	35.34	< 73.67
2592.99	22.84	22.85	25.86	35.27	< 73.67
2655.00	22.70	22.58	25.65	35.06	< 73.67

Note 1: Total Power (dBm) = 10*log*{$10^{\wedge[\text{ANT 0 Power (dBm) / 10}]}$ + $10^{\wedge[\text{ANT 1 Power (dBm) / 10}]}$ } (dBm).

Note 2: EIRP (dBm) = Total Power (dBm) + Direction Gain (dBi)

Test Site	WZ-SR6	Test Engineer	Larry Yan
Test Date	2023-09-27 ~ 2023-09-30	Test Configuration	NR n41_2T2R_90MHz

Frequency (MHz)	Output Power (dBm)		Total Power (dBm)	EIRP (dBm)	Limit (dBm)
	Ant 0	Ant 1			
QPSK					
2541.00	22.99	22.79	25.90	35.31	< 74.76
2592.99	23.26	23.05	26.17	35.58	< 74.76
2644.98	23.12	23.05	26.10	35.51	< 74.76
16QAM					
2541.00	22.95	22.75	25.86	35.27	< 74.76
2592.99	23.20	23.13	26.18	35.59	< 74.76
2644.98	23.25	22.98	26.13	35.54	< 74.76
64QAM					
2541.00	22.96	22.80	25.89	35.30	< 74.76
2592.99	23.16	23.22	26.20	35.61	< 74.76
2644.98	23.21	23.00	26.12	35.53	< 74.76
256QAM					
2541.00	23.06	22.81	25.95	35.36	< 74.76
2592.99	23.32	23.25	26.30	35.71	< 74.76
2644.98	23.29	22.98	26.15	35.56	< 74.76

Note 1: Total Power (dBm) = 10*log*{10^[ANT 0 Power (dBm) / 10] + 10^[ANT 1 Power (dBm) / 10] } (dBm).

Note 2: EIRP (dBm) = Total Power (dBm) + Direction Gain (dBi)

Test Site	WZ-SR6	Test Engineer	Larry Yan
Test Date	2023-09-27 ~ 2023-09-30	Test Configuration	NR n41_4T4R_70MHz

Frequency (MHz)	Output Power (dBm)				Total Power (dBm)	EIRP (dBm)	Limit (dBm)
	Ant 0	Ant 1	Ant 2	Ant 3			
QPSK							
2531.01	22.99	22.66	23.17	22.94	28.96	41.38	< 73.67
2592.99	22.88	22.79	22.98	22.89	28.91	41.33	< 73.67
2655.00	22.76	22.53	22.96	22.87	28.80	41.22	< 73.67
16QAM							
2531.01	22.81	22.68	23.10	22.82	28.88	41.30	< 73.67
2592.99	22.94	22.77	22.98	22.81	28.90	41.32	< 73.67
2655.00	22.61	22.53	22.93	22.86	28.76	41.18	< 73.67
64QAM							
2531.01	22.85	22.64	23.12	22.88	28.90	41.32	< 73.67
2592.99	22.96	22.81	23.02	22.99	28.97	41.39	< 73.67
2655.00	22.67	22.61	23.00	22.83	28.80	41.22	< 73.67
256QAM							
2531.01	23.07	22.77	23.22	23.02	29.04	41.46	< 73.67
2592.99	22.84	22.85	23.05	23.01	28.96	41.38	< 73.67
2655.00	22.70	22.58	23.02	22.87	28.82	41.24	< 73.67

Note 1: Total Power (dBm) = 10*log*{$10^{[\text{ANT 0 Power (dBm) / 10}]}$ + $10^{[\text{ANT 1 Power (dBm) / 10}]}$ + $10^{[\text{ANT 2 Power (dBm) / 10}]}$ + $10^{[\text{ANT 3 Power (dBm / 10}]}$} (dBm).

Note 2: EIRP (dBm) = Total Power (dBm) + Direction Gain (dBi)

Test Site	WZ-SR6	Test Engineer	Larry Yan
Test Date	2023-09-27 ~ 2023-09-30	Test Configuration	NR n41_4T4R_90MHz

Frequency (MHz)	Output Power (dBm)				Total Power (dBm)	EIRP (dBm)	Limit (dBm)
	Ant 0	Ant 1	Ant 2	Ant 3			
QPSK							
2541.00	22.99	22.79	23.19	22.95	29.00	41.42	< 74.76
2592.99	23.26	23.05	23.43	23.40	29.31	41.73	< 74.76
2644.98	23.12	23.05	23.56	23.31	29.29	41.71	< 74.76
16QAM							
2541.00	22.95	22.75	23.18	22.89	28.97	41.39	< 74.76
2592.99	23.20	23.13	23.40	23.38	29.30	41.72	< 74.76
2644.98	23.25	22.98	23.59	23.29	29.30	41.72	< 74.76
64QAM							
2541.00	22.96	22.80	23.21	22.84	28.98	41.40	< 74.76
2592.99	23.16	23.22	23.43	23.40	29.32	41.74	< 74.76
2644.98	23.21	23.00	23.53	23.30	29.28	41.70	< 74.76
256QAM							
2541.00	23.06	22.81	23.20	22.81	28.99	41.41	< 74.76
2592.99	23.32	23.25	23.51	23.45	29.40	41.82	< 74.76
2644.98	23.29	22.98	23.55	23.26	29.30	41.72	< 74.76

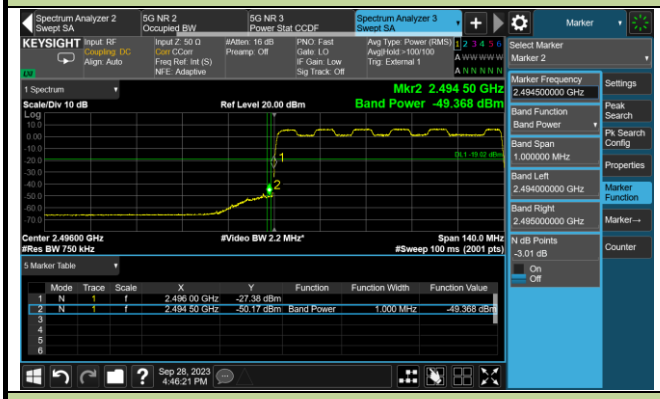
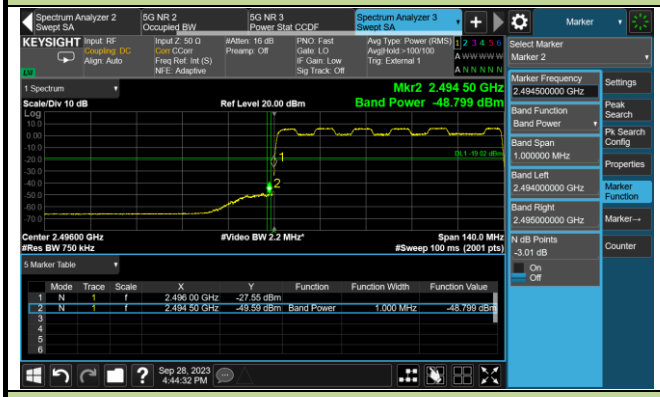
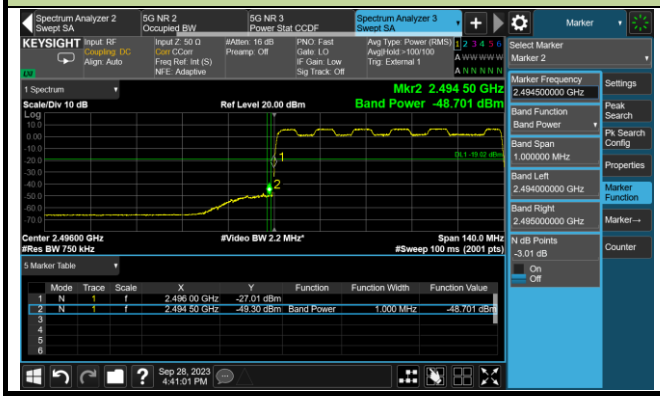
Note 1: Total Power (dBm) = 10*log*{10^[ANT 0 Power (dBm) / 10] + 10^[ANT 1 Power (dBm) / 10] + 10^[ANT 2 Power (dBm) / 10] + 10^[ANT 3 Power (dBm / 10]} (dBm).

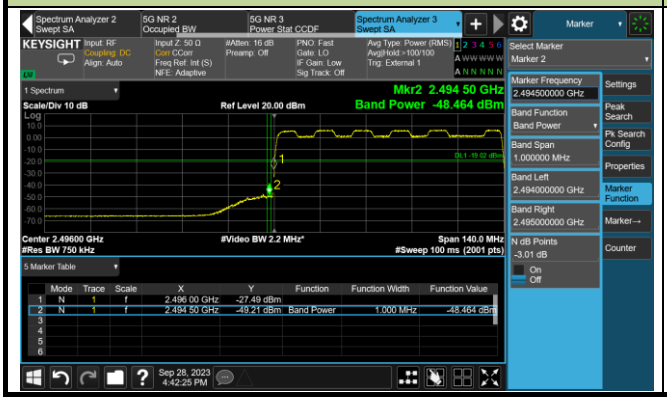
Note 2: EIRP (dBm) = Total Power (dBm) + Direction Gain (dBi)

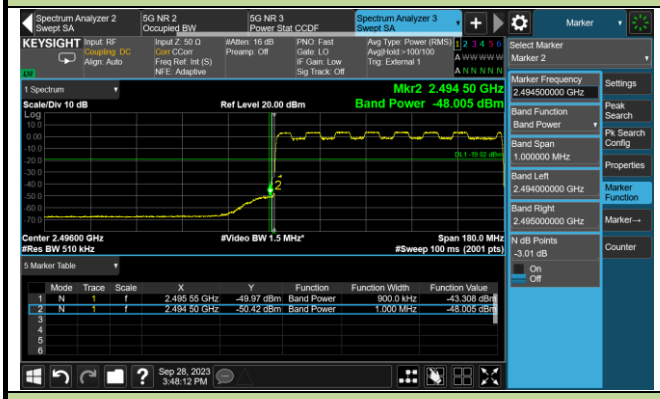
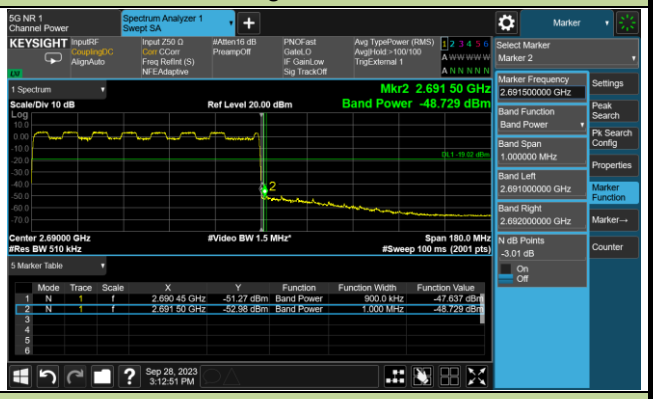
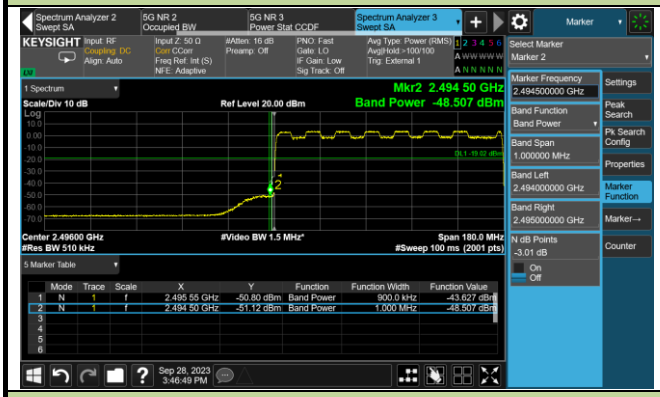
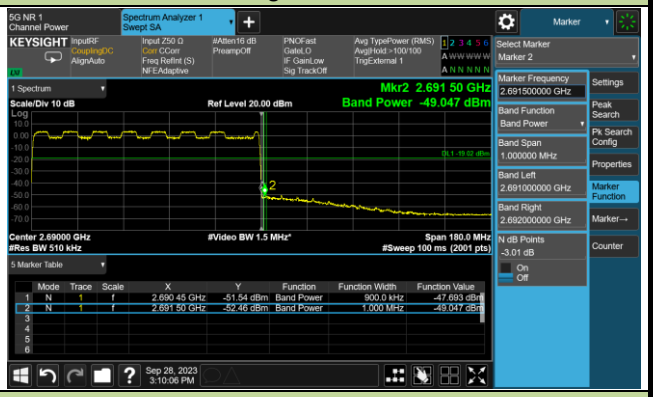
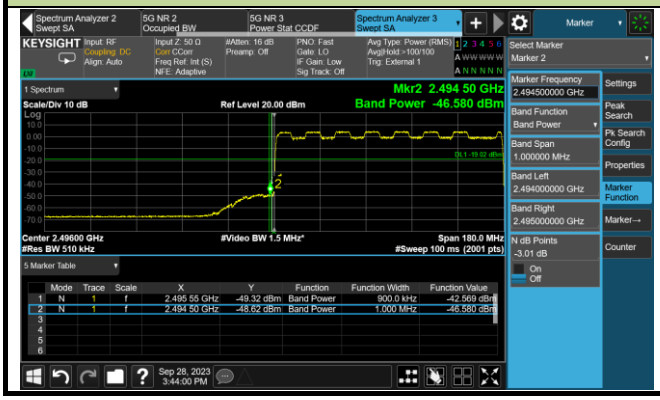
A.4 Band Edge unwanted Emissions Test Result

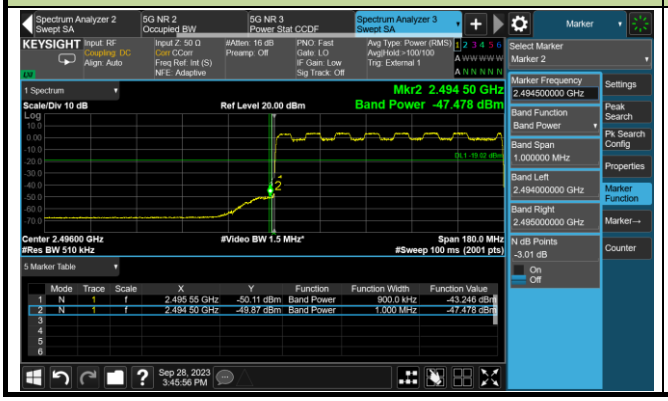
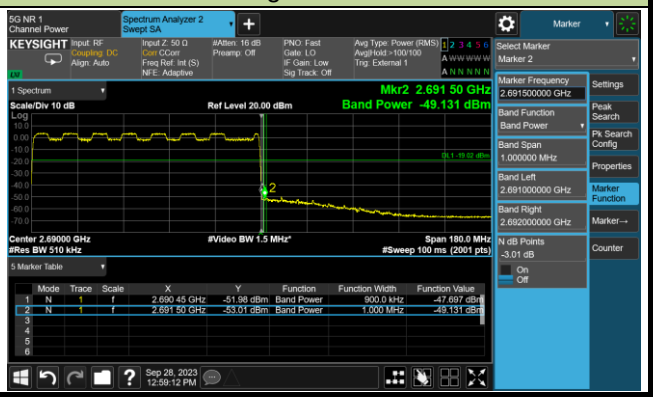
Test Site	WZ-SR6	Test Engineer	Larry Yan
Test Date	2023-09-28	Test Configuration	NR n41_16QAM

Channel Bandwidth (MHz)	Carrier Frequency (MHz)	Max Band Edge (dBm)				Limit (dBm)	Result
		Ant 0	Ant 1	Ant 2	Ant 3		
70	2531.01	-27.380	-27.550	-27.010	-27.490	≤ -19.02	Pass
	2655.00	-25.360	-25.100	-24.820	-24.810	≤ -19.02	Pass
90	2541.00	-43.308	-43.627	-42.569	-43.246	≤ -19.02	Pass
	2644.98	-47.637	-47.693	-47.519	-47.697	≤ -19.02	Pass

70MHz Channel Bandwidth	
Ant 0	
Low Channel	High Channel
	
Ant 1	
Low Channel	High Channel
	
Ant 2	
Low Channel	High Channel
	

Ant 3	
Low Channel	High Channel
	

90MHz Channel Bandwidth	
Ant 0	
Low Channel	High Channel
	
Ant 1	
Low Channel	High Channel
	
Ant 2	
Low Channel	High Channel
	

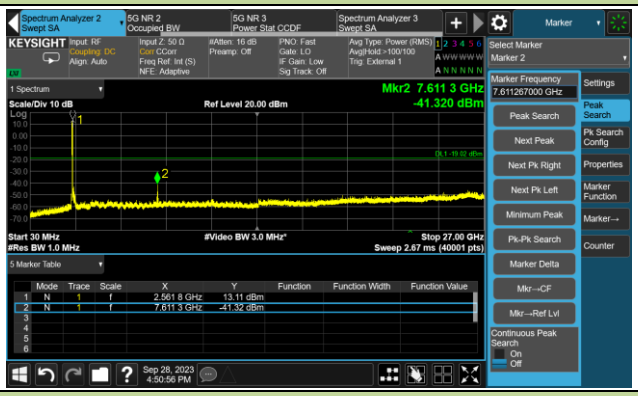
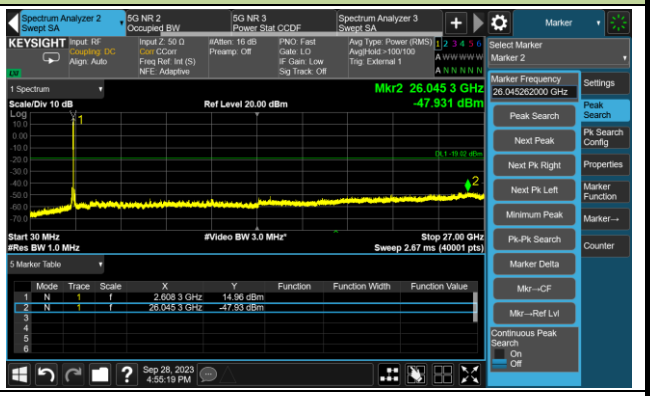
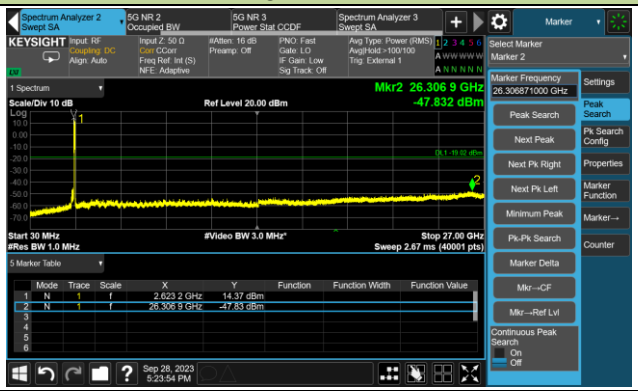
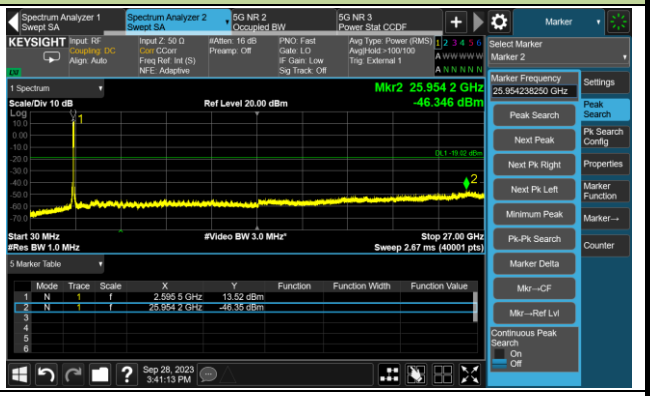
Ant 3	
Low Channel	High Channel
	

A.5 Out-of-frequency Band Unwanted Emissions Test Result

Test Site	WZ-SR6	Test Engineer	Larry Yan
Test Date	2023-09-28	Test Configuration	NR n41_16QAM

Channel BW(MHz)	Frequency (MHz)	Frequency Range (MHz)	Max Spurious Emissions (dBm)	Limit (dBm)	Result
70	2531.01	30 ~ 27000	-41.32	≤ -19.02	Pass
	2592.99	30 ~ 27000	-47.93	≤ -19.02	Pass
	2655.00	30 ~ 27000	-47.83	≤ -19.02	Pass
90	2541.00	30 ~ 27000	-43.31	≤ -19.02	Pass
	2592.99	30 ~ 27000	-46.35	≤ -19.02	Pass
	2644.98	30 ~ 27000	-47.53	≤ -19.02	Pass

Note: The amplitude of Conducted Spurious emissions (frequency range from 9kHz to 30MHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

70MHz Channel Bandwidth	
Low Channel	Middel Channel
	
High Channel	
	
90MHz Channel Bandwidth	
Low Channel	Middel Channel
	
High Channel	
	

Appendix B - Test Setup Photograph

Refer to “2309RSU054-UT” file.

Appendix C - EUT Photograph

Refer to “2309RSU054-UE” file.

The End