



TEST REPORT

Product Name : Portable 5G Router
Brand Name : N/A
Model : AWM55
Series Model : N/A
FCC ID : 2AOII-AWM55
Applicant : **WGI Telecom Inc**
Address : 1786 N Commerce Pkwy Weston, FL 33326, U.S.
Manufacturer : **WGI Telecom Inc**
Address : 1786 N Commerce Pkwy Weston, FL 33326, U.S.
Standard(s) : FCC CFR Title 47 Part 2, Part 27
ANSI C63.26:2015
KDB 971168 D01
Date of Receipt : Apr. 22, 2025
Date of Test : Apr. 23, 2025~ May 28, 2025
Issued Date : May 29, 2025

Issued By: **Guangdong Asia Hongke Test Technology Limited**

B1/F, Building 11, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street,
Bao'an District, Shenzhen, Guangdong, China

Tel.: +86 0755-230967639

Fax.: +86 0755-230967639

Reviewed by:

Leon Yi

Leon.yi

Approved by:

Sean She

Sean She



Note: This device has been tested and found to comply with the standard(s) listed, this test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory. This report shall not be reproduced except in full, without the written approval of Guangdong Asia Hongke Test Technology Limited. If there is a need to alter or revise this document, the right belongs to Guangdong Asia Hongke Test Technology Limited, and it should give a prior written notice of the revision document. This test report must not be used by the client to claim product endorsement.

Guangdong Asia Hongke Test Technology Limited

B1/F, Building 11, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China.



Report Revise Record

Report Version	Issued Date	Notes
M1	May 29, 2025	Initial Release

Contents

1	TEST SUMMARY	4
1.1	TEST STANDARDS	4
1.2	TEST SUMMARY	4
1.3	TEST FACILITY	5
1.4	MEASUREMENT UNCERTAINTY	5
2	GENGENERAL INFORMATION	6
2.1	ENVIRONMENTAL CONDITIONS	6
2.2	GENERAL DESCRIPTION OF EUT	6
2.3	DESCRIPTION OF TEST MODES AND TEST FREQUENCY.....	7
2.4	TEST SETUP AND CONDITIONS.....	8
2.4.1	<i>Conducted Measurement Test Setup</i>	<i>8</i>
2.4.2	<i>Radiated Measurement Test Setup</i>	<i>8</i>
2.5	EQUIPMENT LIST FOR THE TEST	9
3	TEST CONDITIONS AND RESULTS	10
3.1	TEST LIMIT APPLY	10
3.2	OUTPUT POWER	11
3.3	PEAK-TO-AVERAGE RATIO	12
3.4	OCCUPIED BANDWIDTH.....	13
3.5	BAND EDGE COMPLIANCE	14
3.6	SPURIOUS EMISSION	15
3.7	FREQUENCY STABILITY UNDER TEMPERATURE & VOLTAGE VARIATIONS.....	19
4	TEST SETUP PHOTOGRAPHS OF EUT	20
5	EXTERNAL PHOTOGRAPHS OF EUT	20
6	INTERNAL PHOTOGRAPHS OF EUT.....	20

1 TEST SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

[Part 27](#): MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

[FCC Part 2](#): FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

[ANSI C63.26:2015](#): American National Standard of procedures for compliance testing of transmitters used in licensed radio services.

[ANSI C63.10-2013](#): Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

[KDB971168 D01:v03r01](#): MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS

1.2 Test Summary

Test Item	FCC Rule No.	Test data	Verdict (Note1)
Effective(Isotropic) Radiated Power Output Data	Part 2.1046 Part 27.50 (k)(3)	Appendix – 5G NR	Pass
Peak-Average Ratio	Part 27.50 (k)(4)	Appendix – 5G NR	Pass
Bandwidth	Part 2.1049	Appendix – 5G NR	Pass
Band Edges Compliance	Part 2.1051 Part 27.53 (n)(2)	Appendix – 5G NR	Pass
Spurious Emission at Antenna Terminals	Part 2.1053 Part 27.53 (n)(2)	Appendix – 5G NR	Pass
Field Strength of Spurious Radiation	Part 2.1053 Part 27.53 (n)(2)	See Section 6.2	Pass
Frequency Stability	Part 2.1055 (d)(2) Part 27.54	Appendix – 5G NR	Pass
Note1: For the verdict, the “N/A” denotes “not applicable”, the “N/T” denotes “not tested”.			

1.3 Test Facility

Test Laboratory:

Guangdong Asia Hongke Test Technology Limited

B1/F, Building 11, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

The test facility is recognized, certified or accredited by the following organizations:

FCC-Registration No.: 251906 Designation Number: CN1376

Guangdong Asia Hongke Test Technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC —Registration No.: 31737 CAB identifier: CN0165

The 3m Semi-anechoic chamber of Guangdong Asia Hongke Test Technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 31737

A2LA-Lab Cert. No.: 7133.01

Guangdong Asia Hongke Test Technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

1.4 Measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report according to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Guangdong Asia Hongke Test Technology Limited's quality system according to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Asia Hongke laboratory is reported:

Test	Measurement Uncertainty	Notes
Power Line Conducted Emission	9KHz~30MHz ± 1.20 dB	(1)
Radiated Emission	9KHz~30MHz ± 3.10 dB	(1)
Radiated Emission	30MHz ~1GHz ± 3.75 dB	(1)
Radiated Emission	1GHz~18GHz ± 3.88 dB	(1)
Radiated Emission	18GHz~40GHz ± 3.88 dB	(1)
RF power, conducted	30MHz~6GHz ± 0.16 dB	(1)
RF power density, conducted	± 0.24 dB	(1)
Spurious emissions, conducted	± 0.21 dB	(1)
Temperature	$\pm 1^{\circ}\text{C}$	(1)
Humidity	$\pm 3\%$	(1)
DC and low frequency voltages	$\pm 1.5\%$	(1)
Time	$\pm 2\%$	(1)
Duty cycle	$\pm 2\%$	(1)

The report uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty Multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%

2 GENERAL INFORMATION

2.1 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2 General Description of EUT

Product Name:	Portable 5G Router		
Model/Type reference:	AWM55		
Serial Model:	N/A		
Power Supply:	DC 3.85V from battery or DC 5V from external circuit		
Hardware Version:	N/A		
Software Version:	N/A		
Sample(s) Status:	AiTSZ-250422102-1(Normal sample) AiTSZ-250422102-2(Engineer sample)		
NR:			
Operation Band:	<input checked="" type="checkbox"/> SA	n77	
	<input type="checkbox"/> NSA(EN-DC)	N/A	
Frequency Range:	Band n77L:	Tx: 3450 - 3550 MHz	Rx: 3450 - 3550 MHz
Modulation Type:	<input checked="" type="checkbox"/> DFT-s-OFDM: Pi/2-BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM <input checked="" type="checkbox"/> CP-OFDM: QPSK, 16-QAM, 64-QAM, 256-QAM		
SCS Support:	<input checked="" type="checkbox"/> 15 kHz <input type="checkbox"/> 30 kHz <input type="checkbox"/> 60 kHz <input type="checkbox"/> 120 kHz		
Power Class:	Class 3		
Antenna type:	FPC Antenna		
Antenna gain:	Band n77: 2.3 dBi (ANT6)		
Remark: The above DUT's information was declared by manufacturer. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.			

2.3 Description of Test Modes and Test Frequency

According to ANSI C63.26-2015 chapter 5.1.2.1 Table 2 requirement, select lowest channel, middle channel, and highest channel in the frequency range in which device operates for testing. The detailed frequency points are as follows.

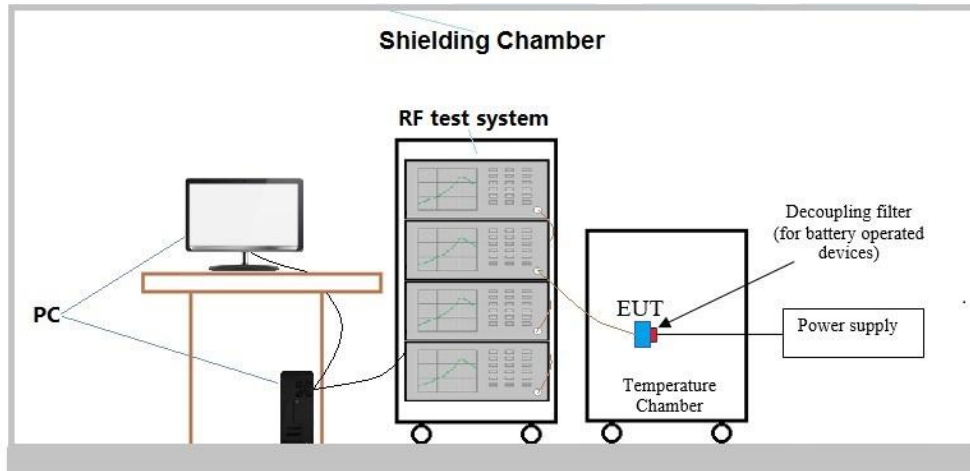
Test Frequency:

Band n77 (3450-3550), SCS: 15 kHz

Test Frequency ID	Bandwidth [MHz]	NUL	Frequency (UL and DL) [MHz]
Low Range	10	630334	3455.010
	15	630500	3457.500
	20	630668	3460.020
	30	631000	3465.000
	40	631334	3470.010
	50	631668	3475.020
Mid Range	10/15/20/30/40/50	633334	3500.010
High Range	10	636332	3544.980
	15	636166	3542.490
	20	636000	3540.000
	30	635666	3534.990
	40	635332	3529.980
	50	635000	3525.000

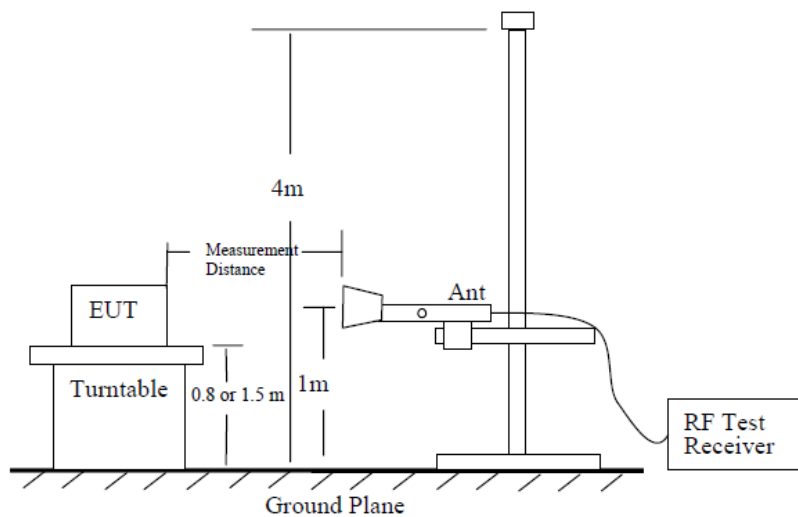
2.4 Test Setup and Conditions

2.4.1 Conducted Measurement Test Setup

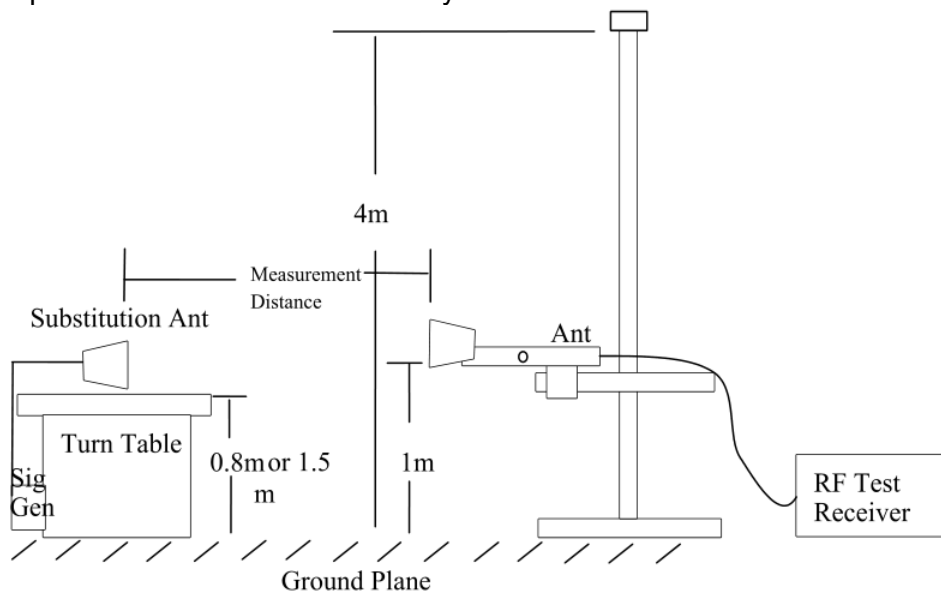


2.4.2 Radiated Measurement Test Setup

Step 1: Pre-test



Step 2: Substitution method to verify the maximum ERP/EIRP



No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	EMI Measuring Receiver	R&S	ESR	101160	2024.09.25	2025.09.24
2	Spectrum Analyzer	R&S	FSV40	101470	2024.09.23	2025.09.22
3	Low Noise Pre Amplifier	SCHWARZBECK	BBV 9745	00282	2024.09.25	2025.09.24
4	Low Noise Pre Amplifier	SCHWARZBECK	BBV 9745	00283	2024.09.25	2025.09.24
5	Low Noise Pre Amplifier	CESHENG	CSKJLNA231016A	CSKJLNA231016A	2024.09.25	2025.09.24
6	Passive Loop	ETS	6512	00165355	2024.08.29	2027.08.28
7	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB9168	01434	2024.08.29	2027.08.28
8	Broadband Horn Antenna	Schwarzbeck	BBHA 9120D	452	2024.08.29	2027.08.28
9	Broadband Horn Antenna	Schwarzbeck	BBHA 9120D	453	2024.08.29	2027.08.28
10	Horn Antenna 15-40GHz	SCHWARZBECK	BBHA9170	BBHA9170367	2024.08.28	2027.08.27
11	6dB Attenuator	JFW	50FPE-006	4360846-949-1	2024.09.24	2025.09.23
12	EMI Test Receiver	R&S	ESPI	100771	2024.09.25	2025.09.24
13	LISN	R&S	NNLK 8129	8130179	2024.09.24	2025.09.23
14	LISN	R&S	ESH3-Z5	892785/016	2024.09.23	2025.09.22
15	Pulse Limiter	R&S	ESH3-Z2	102789	2024.09.24	2025.09.23
16	RF Automatic Test system	TST	TSTPASS	21033016	2024.09.25	2025.09.24
17	Vector Signal Generator	Agilent	N5182A	MY50143009	2024.09.25	2025.09.24
18	Analog signal generator	Agilent	E8257	MY51554256	2024.09.25	2025.09.24
19	Spectrum Analyzer	Agilent	N9020A	MY51289843	2024.09.25	2025.09.24
20	Spectrum Analyzer	Agilent	N9020A	MY53421570	2024.09.25	2025.09.24
21	Power Sensor	Agilent	8481A	MY41097697	2024.09.25	2025.09.24
22	Wideband Radio communication tester	R&S	CMW500	1201.0002K50	2024.09.24	2025.09.23
23	Keysight	UXM 5G Wireless Test Platform	E7515B	MY59321499	2024.09.24	2025.09.23
24	DC power supply	ZHAOXIN	RXN-305D-2	28070002559	2024.09.24	2025.09.23
25	RE Software	EZ	EZ-EMC_RE	Ver.AIT-03A	N/A	N/A
26	CE Software	EZ	EZ-EMC_CE	Ver.AIT-03A	N/A	N/A
27	RF Software	TST	TSTPASS	Version 2.0	N/A	N/A
28	RF Software	cesheng	WCS-WCN	Version 2024.6.20	N/A	N/A
29	temporary antenna connector(Note)	NTS	R001	N/A	N/A	N/A
Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.						

3 TEST CONDITIONS AND RESULTS

3.1 Test Limit apply

Test items	Limit
Effective(Isotropic) Radiated Power Output Data	Band n77: 1W EIRP
Peak-to-Average Power Ratio	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB
Modulation Characteristics	N/A
26dB Emission Bandwidth 99% Occupied Bandwidth	N/A
Band Edges Compliance Spurious Emission at Antenna Terminals Field Strength of Spurious Radiation	<p>Band n77: For mobile operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this paragraph (n)(2) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.</p>
Frequency Stability	The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

3.2 Output Power

LIMIT

Limit apply as section 3.1.

MEASUREMENT SETUP

Test set up as section 2.4.1& 2.4.2.

TEST PROCEDURE

The EUT was setup according to ANSI C63.26:2015

Conducted Power Measurement:

- Place the EUT on a bench and set it in transmitting mode.
- Connect a low loss RF cable from the antenna port to a spectrum analyzer and tester by a Directional Couple.
- EUT Communicate with tester then selects a channel for testing.
- Add a correction factor to the display of spectrum, and then test.

Radiated Power Measurement:

Determining ERP and/or EIRP from conducted RF output power measurements according to ANSI C63.26 2015 Section 5.2.5.5.

In many cases, RF output power limits are specified in terms of the ERP or the EIRP. Typically, ERP is specified when the operating frequency is less than or equal to 1 GHz and EIRP is specified when the operating frequency is greater than 1 GHz. Both are defined as the product of the power supplied to the antenna and its gain (relative to a dipole antenna in the case of ERP, and relative to an isotropic antenna in the case of EIRP); however, when working in decibels (i.e., logarithmic scale), the ERP and EIRP represent the sum of the transmit antenna gain (in dBd or dBi, respectively) and the conducted RF output power (expressed in dB relative to watts or milliwatts).

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

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

$$\text{ERP} = \text{EIRP} - 2.15$$

where

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

P_{Meas} measured transmitter output power or PSD, in dBm or dBW

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

For devices utilizing multiple antennas, see 6.4 for guidance with respect to determining the effective array transmit antenna gain term to be used in the above equation.

The following equations demonstrate the mathematical relationship between ERP and EIRP:

- $\text{ERP} = \text{EIRP} - 2.15$, where ERP and EIRP are expressed in consistent units.
- $\text{EIRP} = \text{ERP} + 2.15$, where ERP and EIRP are expressed in consistent units.

TEST RESULTS

Passed

☒ Pass ☐ Not Applicable

Note:

For test data, please refer to Appendix RF test data for 5G NR.

3.3 PEAK-TO-AVERAGE RATIO

LIMIT

Limit apply as section 3.1.

MEASUREMENT SETUP

Test set up as section 2.4.1.

TEST PROCEDURE

CCDF Procedure for PAPR :

1. Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Set the measurement interval as follows:
 - for continuous transmissions, set to 1 ms,
 - or burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize and set the measurement interval to a time that is less than or equal to the burst duration.
4. Record the maximum PAPR level associated with a probability of 0.1%.

TEST RESULTS

Passed

☒ **Pass** ☐ **Not Applicable**

Note:

For test data, please refer to Appendix RF test data for 5G NR.

3.4 Occupied Bandwidth

LIMIT

Limit apply as section 3.1.

MEASUREMENT SETUP

Test set up as section 2.4.1.

TEST PROCEDURE

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99%occupied bandwidth and the 26dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 – 5% of the expected OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. If necessary, steps 2 – 7 were repeated after changing the RBW such that it would be within 1 – 5% of the 99% occupied bandwidth observed in Step 7

TEST RESULTS

Passed

☒ **Pass** ☐ **Not Applicable**

Note:

For test data, please refer to Appendix RF test data for 5G NR.

3.5 Band Edge compliance

LIMIT

Limit apply as section 3.1.

MEASUREMENT SETUP

Test set up as section 2.4.1.

TEST PROCEDURE

1. Set the spectrum analyzer center frequency to the block, band, or channel edge frequency.
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW > 1% of the emission bandwidth
4. VBW $\geq 3 \times$ RBW
5. Detector = RMS
6. Number of sweep points $\geq 2 \times$ Span/RBW
7. Trace mode = Average
8. Sweep time = > (number of points in sweep) \times (symbol period)
9. Sweep =Single

Or

1. Set the spectrum analyzer center frequency to the block, band, or channel edge frequency.
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW > 1% of the emission bandwidth
4. VBW $\geq 3 \times$ RBW
5. Detector = Peak
6. Number of sweep points $\geq 2 \times$ Span/RBW
7. Trace mode = Maxhold
8. Sweep time = Auto
9. Sweep =Single

TEST RESULTS

Passed

☒ **Pass** ☐ **Not Applicable**

Note:

For test data, please refer to Appendix RF test data for 5G NR.

3.6 Spurious Emission

LIMIT

Limit apply as section 3.1.

MEASUREMENT SETUP

Test set up as section 2.4.1& 2.4.2.

TEST PROCEDURE

The EUT was setup according to ANSI C63.26:2015

Conducted Spurious Measurement:

Test Settings

1. RBW = 1KHz (for 9K-150KHz), 10KHz (for 150KHz-10MHz), 100KHz (for 10MHz-30MHz), 1MHz(for above 1GHz)
2. VBW $\geq 3 * RBW$
3. Detector = RMS
4. Trace Mode = Trace average
5. Sweep time $> (\text{number of points in sweep}) \times (\text{symbol period})$
6. Number of points in sweep $\geq 2 \times \text{Span} / RBW$
7. Sweep =Single

Or

1. RBW = 1KHz(for 9K-150KHz), 10KHz(for 150KHz-10MHz), 100KHz(for 10MHz-30MHz), 1MHz(for above 1GHz)
2. VBW $\geq 3 * RBW$
3. Detector = Peak
4. Trace Mode = Maxhold
5. Sweep time = Auto
6. Number of points in sweep $\geq 2 \times \text{Span} / RBW$
7. Sweep =Single

Radiated Spurious Measurement:

1. The EUT shall be placed at the specified height on a support, and in the position closest to normal use as declared by provider.
2. The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter
3. The output of the test antenna shall be connected to the measuring receiver.
4. The transmitter shall be switched on and the measuring receiver shall be tuned to the frequency of the transmitter under test.
5. The test antenna shall be raised and lowered through the specified range of height until a

maximum signal level is detected by the measuring receiver.

6. The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
7. The test antenna shall be raised and lowered again through the specified range of height until a maximum signal level is detected by the measuring receiver.
8. The maximum signal level detected by the measuring receiver shall be noted.
9. The transmitter shall be replaced by a substitution antenna.
10. The substitution antenna shall be orientated for vertical polarization and the length of the substitution antenna shall be adjusted to correspond to the frequency of the transmitter.
11. The substitution antenna shall be connected to a calibrated signal generator.
12. If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
13. The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
14. The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.
15. The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.
16. The measure of the effective radiated power is the larger of the two levels recorded at the input to the substitution antenna, corrected for gain of the substitution antenna if necessary.
17. The frequency range need checked up to 10th harmonic.

Final measurement calculation as below:

The relevant equation for determining the ERP/EIRP from the radiated RF output power is:

$$\text{ERP/EIRP (dBm)} = \text{SA Read Value (dBm)} + \text{Correction Factor (dB)}$$

where:

ERP/EIRP = effective or equivalent radiated power, in dBm;

SA Read Value = measured transmitter power received by EMI receiver or spectrum analyzer, in dBm;

Correction Factor = total correction factor including cable loss, in dB;

TEST RESULTS

Conducted Measurement result:

Passed

☒ **Pass**

☐ **Not Applicable**

Note:

For test data, please refer to Appendix RF test data for 5G NR.

Radiated Measurement:

Note: The field strength of spurious radiation is tested all configuration and record the worst test result as below for each band.

Band n77(3450 MHz – 3550 MHz) The Worst Test Results							
Band n77 _SCS 15kHz 10MHz(Edge_1RB_Left) for DFT-s-OFDM Pi/2 BPSK							
Lowest channel							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit (dBm)	Margin (dBm)	Polarity
6911.00	-42.06	11.08	6.93	-37.91	-13.00	-24.91	H
10365.60	-42.76	11.69	9.22	-40.29	-13.00	-27.29	H
13820.35	-45.85	13.07	10.42	-43.20	-13.00	-30.20	H
6911.00	-41.20	11.08	6.93	-37.05	-13.00	-24.05	V
10365.60	-41.95	11.69	9.22	-39.48	-13.00	-26.48	V
13820.35	-44.99	13.07	10.42	-42.34	-13.00	-29.34	V
Middle channel							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit (dBm)	Margin (dBm)	Polarity
7001.50	-39.82	11.04	6.96	-35.74	-13.00	-22.74	H
10500.80	-43.31	11.75	9.31	-40.87	-13.00	-27.87	H
14000.45	-48.88	13	10.36	-46.24	-13.00	-33.24	H
7001.50	-38.76	11.04	6.96	-34.68	-13.00	-21.68	V
10500.80	-42.37	11.75	9.31	-39.93	-13.00	-26.93	V
14000.45	-48.69	13	10.36	-46.05	-13.00	-33.05	V
Highest channel							
Frequency(MHz)	S G.Lev (dBm)	Ant(dBi)	Loss	PMea (dBm)	Limit (dBm)	Margin (dBm)	Polarity
7090.50	-38.92	10.88	7.11	-35.15	-13.00	-22.15	H
10634.50	-43.58	11.66	9.47	-41.39	-13.00	-28.39	H
14180.00	-48.91	13.03	10.5	-46.38	-13.00	-33.38	H
7090.50	-37.82	10.88	7.11	-34.05	-13.00	-21.05	V
10634.50	-43.18	11.66	9.47	-40.99	-13.00	-27.99	V
14180.00	-48.02	13.03	10.5	-45.49	-13.00	-32.49	V

Remark:

1. $PMea = S\ G.Lev + Ant - Loss$
2. $Margin = PMea - Limit$
3. Other emission levels are attenuated 20dB below the limit and not recorded in report.

3.7 Frequency Stability under Temperature & Voltage Variations

LIMIT

Limit apply as section 3.1.

TEST CONFIGURATION

Test set up as section 2.4.1.

TEST PROCEDURE

The EUT was setup according to ANSI C63.26:2015

Frequency Stability under Temperature Variations:

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

Frequency Stability under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

TEST RESULTS

Passed

☒ **Pass** ☐ **Not Applicable**

Note:

For test data, please refer to Appendix RF test data for 5G NR.

4 Test Setup Photographs of EUT

Please refer to separated files for Test Setup Photos of the EUT.

5 External Photographs of EUT

Please refer to separated files for External Photos of the EUT.

6 Internal Photographs of EUT

Please refer to separated files for Internal Photos of the EUT.

***** **End of Report** *****