

FCC RF Test Report

APPLICANT : Nextivity, Inc.
EQUIPMENT : SHIELD MegaFi 2
BRAND NAME : Nextivity
MODEL NAME : M4D-UC
FCC ID : YETM4D-UC
STANDARD : 47 CFR Part 27 Subpart Q
CLASSIFICATION : PCS Licensed Transmitter (PCB)
TEST DATE(S) : Dec. 26, 2024 ~ Jan. 20, 2025

This product installed a RF module (Brand Name: Telit, Model Name: FN990A40, FCC ID: RI7FN990A40) during the test, only Conducted Power, EIRP and RSE test items are tested in this report, all the other test results are leveraged from module RF report.

We, Sporton International Inc. (KunShan), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (KunShan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (Kunshan)

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China**

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG492317N	Rev. 01	Initial issue of report	Feb. 10, 2025

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	—	Report Only	-
-	§27.50 (k)(4)	Peak-to-Average Ratio	<13dB	PASS	1
3.5	§27.50 (k)(3)	EIRP	EIRP < 1W (30dBm)	PASS	-
-	§2.1049	Occupied Bandwidth	—	Report Only	1
-	§2.1051 §27.53 (n)(2)	Conducted Band Edge Measurement	-13dBm/MHz	PASS	1
-	§2.1051 §27.53 (n)(2)	Conducted Spurious Emission	-13dBm/MHz	PASS	1
-	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within the band	PASS	1
4.4	§2.1053 §27.53 (n)(2)	Radiated Spurious Emission	-13dBm/MHz	PASS	Under limit 22.20 dB at 6900.00 MHz

Remark 1: The conducted test results were leveraged from module RF report which can refer to Report No. FG270608H.

Conformity Assessment Condition:

- The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
- The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

Nextivity, Inc.

16550 West Bernardo Drive, Building 5, Suite 550, San Diego, CA 92127 USA

1.2 Manufacturer

Asiatelco Technologies Co.

#68 HuaTuo Road, Building-8, Zhangjiang Hi-Tech Park, Pudong, Shanghai 201204, China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	SHIELD MegaFi 2
Brand Name	Nextivity
Model Name	M4D-UC
FCC ID	YETM4D-UC
SN Code	Conducted : 243902000029 Radiation : 243902000026
HW Version	1.0
SW Version	1.2.0.0
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Product Feature	
Tx/Rx Frequency	5G NR n77: 3450 MHz ~ 3550 MHz 5G NR n78: 3450 MHz ~ 3550 MHz
SCS	30kHz
Bandwidth	n77: 20 / 30 / 40 / 60 / 80 / 100MHz n78: 20 / 30 / 40 / 50 / 60 / 70 / 80 / 90 / 100MHz
Antenna Type	Dipole Antenna
Antenna Gain	<Ant.0> Paddle antenna: 5G NR n77/78: 3.6 dBi Sharkfin antenna: 5G NR n77/78: 3.8 dBi <Ant.2> Paddle antenna: 5G NR n77/78: 3.6 dBi Sharkfin antenna: 5G NR n77/78: 3.8 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

- There are two type of EUT, which only differ in antenna. Sample 1 with paddle antenna and sample 2 with sharkfin antenna. Based on the max antenna gain, we chose sample 2 for RF testing
- 5G NR n77/n78 support SA mode and NSA mode. According to the maximum power between SA

and NSA mode, SA covers NSA mode.

3. The device supports HPUE (PC2) mode for 5G NR n77/n78.
4. 5G NR n77/n78 supports SISO mode on Ant 2 only.
5. 5G NR n77/n78 supports UL MIMO mode for Ant (0+2), and only supports CP-OFDM Modulation, the MIMO mode is completely uncorrelated, so the directional gain is selected the maximum gain among all antennas.
6. The EN-DC mode combination could be referred to the product spec.

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Maximum EIRP Power and Emission Designator

5G NR n77 SA for SCS 30kHz		PI/2 BPSK / QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	3460.02 ~ 3540.00	0.8260	-	0.6653	-
30	3465.00 ~ 3534.99	0.8337	-	0.6808	-
40	3470.01 ~ 3529.98	0.8453	-	0.6668	-
60	3480.00 ~ 3519.99	0.8091	-	0.6546	-
80	3490.02 ~ 3510.00	0.7603	-	0.6124	-
100	3500.01	0.7727	-	0.6138	-

5G NR n78 SA for SCS 30kHz		PI/2 BPSK / QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	3460.02 ~ 3540.00	0.8710	-	0.7079	-
30	3465.00 ~ 3534.99	0.8670	-	0.7096	-
40	3470.01 ~ 3529.98	0.8933	-	0.7295	-
50	3475.02 ~ 3525.00	0.8395	-	0.6808	-
60	3480.00 ~ 3519.99	0.8610	-	0.6934	-
70	3485.01 ~ 3514.98	0.8222	-	0.6730	-
80	3490.02 ~ 3510.00	0.8241	-	0.6653	-
90	3495.00 ~ 3504.99	0.8185	-	0.6622	-
100	3500.01	0.8035	-	0.6516	-

5G NR n77 UL MIMO for SCS 30kHz		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	3460.02 ~ 3540.00	0.5967	-	0.5219	-
30	3465.00 ~ 3534.99	0.6050	-	0.5310	-
40	3470.01 ~ 3529.98	0.6450	-	0.5359	-
60	3480.00 ~ 3519.99	0.6080	-	0.5229	-
80	3490.02 ~ 3510.00	0.5594	-	0.4893	-
100	3500.01	0.5579	-	0.4922	-

5G NR n78 UL MIMO for SCS 30kHz		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
20	3460.02 ~ 3540.00	0.6103	-	0.5383	-
30	3465.00 ~ 3534.99	0.6296	-	0.5465	-
40	3470.01 ~ 3529.98	0.6334	-	0.5541	-
50	3475.02 ~ 3525.00	0.6076	-	0.5178	-
60	3480.00 ~ 3519.99	0.6243	-	0.5302	-
70	3485.01 ~ 3514.98	0.6012	-	0.5158	-
80	3490.02 ~ 3510.00	0.5916	-	0.4984	-
90	3495.00 ~ 3504.99	0.5768	-	0.5057	-
100	3500.01	0.5676	-	0.5082	-

Note: All modulations have been tested, and only the worst test results of PSK & QAM are shown in the report.

1.7 Testing Site

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH03-KS TH01-KS	CN1257	314309

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	TH01-KS	SPORTON	FCC_5GNR_China_2 01027	1.0
2.	03CH03-KS	AUDIX	E3	210616

1.9 Applied Standards

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

- ♦ 47 CFR Part 27 Subpart Q
- ♦ ANSI C63.26-2015
- ♦ FCC KDB 971168 Power Meas License Digital Systems D01 v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

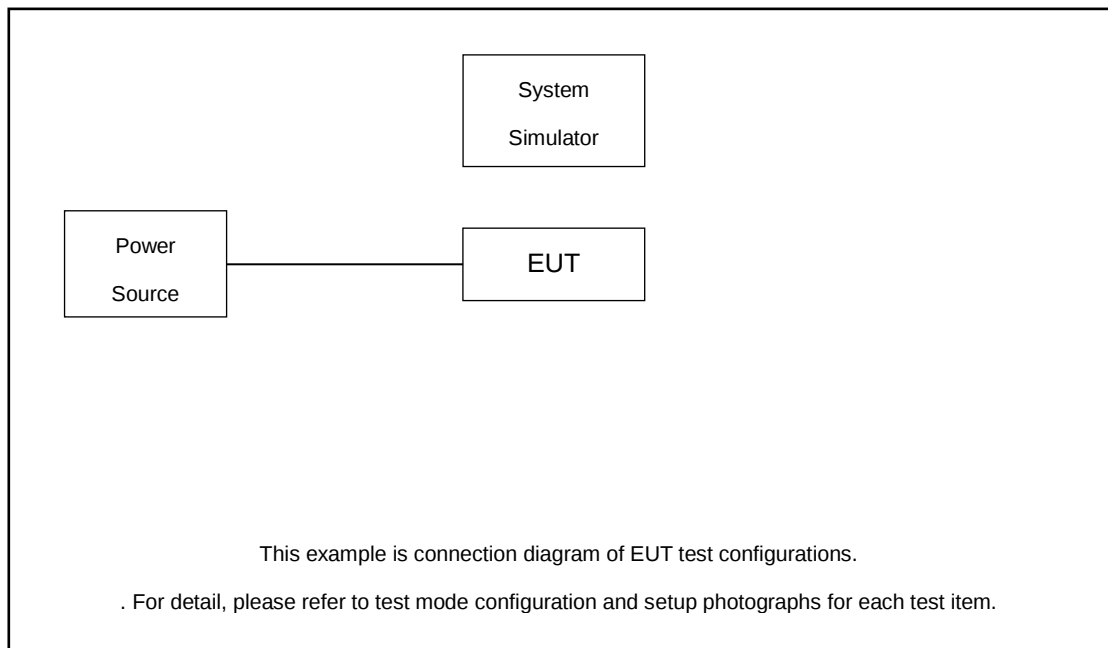
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	5G NR	Bandwidth (MHz)										Modulation					RB #			Test Channel		
		20	30	40	45	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256 QAM	1	Partial	Full	L	M	H
Max. Output Power	n77	v	v	v	-	-	v	-	v	-	v	v	v	v	v	v	v		v	v	v	v
	n78	v	v	v	-	v	v	v	v	v	v	v	v	v	v	v	v		v	v	v	v
E.I.R.P	n77	v	v	v	-	-	v	-	v	-	v	v	v	v	v	v	v		v	v	v	v
	n78	v	v	v	-	v	v	v	v	v	v	v	v	v	v	v	v		v	v	v	v
Radiated Spurious Emission	n77	Worst Case																			v	
Note	1. The mark “v ” means that this configuration is chosen for testing 2. The mark “-” means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. 5G NR n77 overlaps the entire frequency range of n78. Therefore, the test results provided in this report covers n77 as well as n78.																					

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

5G n77 Channel and Frequency List for SCS 30kHz				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	-	633334	-
	Frequency	-	3500.01	-
80	Channel	632668	633334	634000
	Frequency	3490.02	3500.01	3510
60	Channel	632000	633334	634666
	Frequency	3480	3500.01	3519.99
40	Channel	631334	633334	635332
	Frequency	3470.01	3500.01	3529.98
30	Channel	631000	633334	635666
	Frequency	3465	3500.01	3534.99
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540

5G n78 Channel and Frequency List for SCS 30kHz				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	-	633334	-
	Frequency	-	3500.01	-
90	Channel	633000	633334	633666
	Frequency	3495	3500.01	3504.99
80	Channel	632668	633334	634000
	Frequency	3490.02	3500.01	3510
70	Channel	632334	633334	634332
	Frequency	3485.01	3500.01	3514.98
60	Channel	632000	633334	634666
	Frequency	3480	3500.01	3519.99
50	Channel	631668	633334	635000
	Frequency	3475.02	3500.01	3525
40	Channel	631334	633334	635332
	Frequency	3470.01	3500.01	3529.98
30	Channel	631000	633334	635666
	Frequency	3465	3500.01	3534.99
20	Channel	630668	633334	636000
	Frequency	3460.02	3500.01	3540

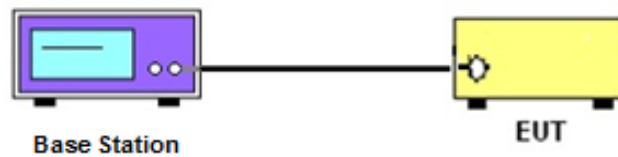
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power Measurement

3.4.1 Description of the Conducted Output Power Measurement

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals shall be reported.

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

3.5 EIRP

3.5.1 Description of EIRP Limit

§ 27.50 (k)(3)

Mobile devices are limited to 1Watt (30 dBm) EIRP. Mobile devices operating in these bands must employ a means for limiting power to the minimum necessary for successful communications

3.5.2 Test Procedures

1. According to KDB 412172 D01 Power Approach,
2. $EIRP = P_T + G_T - L_C$, $ERP = EIRP - 2.15$, where
 P_T = transmitter output power in dBm
 G_T = gain of the transmitting antenna in dBi
 L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

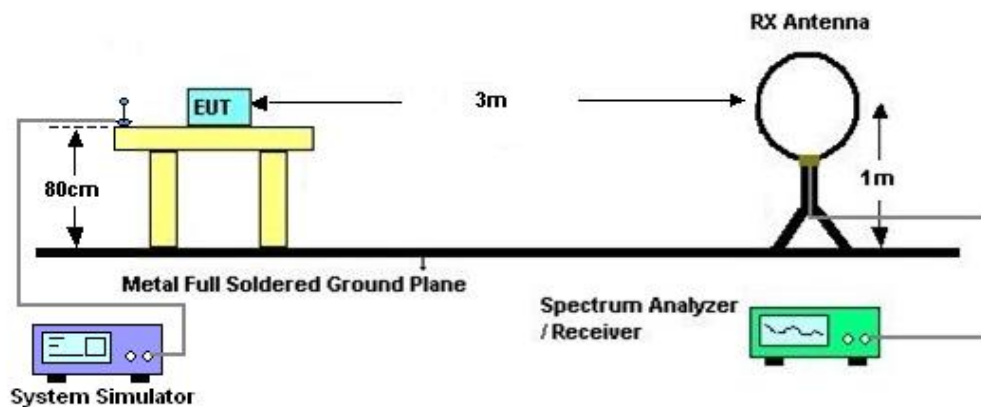
4 Radiated Test Items

4.1 Measuring Instruments

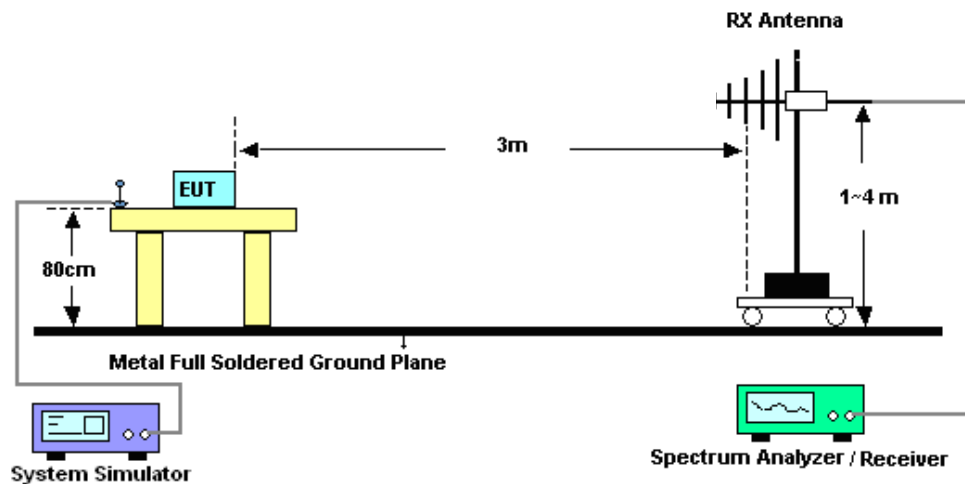
See list of measuring instruments of this test report.

4.2 Test Setup

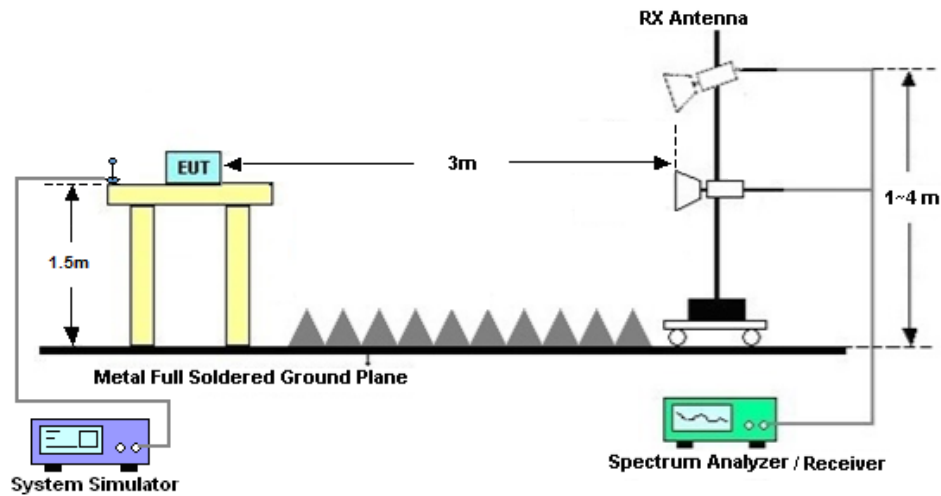
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix B.

4.4 Radiated Spurious Emission Measurement

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. The power of any emission outside of the authorized operating frequency ranges shall not exceed -13 dBm/MHz.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
1. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
5. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
$$\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$$
$$\text{ERP (dBm)} = \text{EIRP} - 2.15$$
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 10, 2024	Jan. 20, 2025	Oct. 09, 2025	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	Jan. 20, 2025	NCR	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 04, 2024	Jan. 20, 2025	Jul. 03, 2025	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400004	3Hz~8.5GHz;Max 30dBm	Oct. 11, 2024	Dec. 26, 2024	Oct. 10, 2025	Radiation (03CH03-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz~44GHz	Apr. 18, 2024	Dec. 26, 2024	Apr. 13, 2025	Radiation (03CH03-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Dec. 26, 2024	Sep. 07, 2025	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz~1GHz	Dec. 05, 2024	Dec. 26, 2024	Dec. 04, 2025	Radiation (03CH03-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00251982	1GHz~18GHz	Aug. 16, 2024	Dec. 26, 2024	Aug. 15, 2025	Radiation (03CH03-KS)
SHF-EHF Horn	com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Dec. 26, 2024	Oct. 21, 2025	Radiation (03CH03-KS)
Amplifier	SONOMA	310N	380826	9KHz~1GHz	Jul. 03, 2024	Dec. 26, 2024	Jul. 02, 2025	Radiation (03CH03-KS)
Amplifier	EM	EM18G40G A	060851	18~40GHz	Jan. 03, 2024	Dec. 26, 2024	Jan. 02, 2025	Radiation (03CH03-KS)
high gain Amplifier	EM	EM01G18G A	060834	1Ghz~18Ghz	Dec. 02, 2024	Dec. 26, 2024	Dec. 01, 2025	Radiation (03CH03-KS)
Amplifier	EM	EM01G18G A	EM	1GHz~26.5GHz	Oct. 09, 2024	Dec. 26, 2024	Oct. 08, 2025	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Dec. 26, 2024	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Dec. 26, 2024	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Dec. 26, 2024	NCR	Radiation (03CH03-KS)

NCR: No Calibration Required

6 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage $K=2$ to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Conducted Power	± 0.50 dB
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Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.30dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.84dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.84dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.83dB
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----- THE END -----

Appendix A. Test Results of Conducted Test

Test Engineer :	Smile Wang	Temperature :	22~23°C
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and EIRP

5G NR n77

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
77	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@1	25.16	28.96	0.7870
77	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	25.17	28.97	0.7889
77	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	24.31	28.11	0.6471
77	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.32	29.12	0.8166
77	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.19	28.99	0.7925
77	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.31	28.11	0.6471
77	30	20	636000	3540	DFT-s-OFDM PI/2 BPSK	1@1	25.37	29.17	0.8260
77	30	20	636000	3540	DFT-s-OFDM QPSK	1@1	25.34	29.14	0.8204
77	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	24.43	28.23	0.6653
77	30	30	631000	3465	DFT-s-OFDM PI/2 BPSK	1@1	25.33	29.13	0.8185
77	30	30	631000	3465	DFT-s-OFDM QPSK	1@1	25.28	29.08	0.8091
77	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	24.46	28.26	0.6699
77	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.36	29.16	0.8241
77	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.34	29.14	0.8204
77	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.46	28.26	0.6699
77	30	30	635666	3534.99	DFT-s-OFDM PI/2 BPSK	1@1	25.41	29.21	0.8337
77	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	25.33	29.13	0.8185
77	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	24.53	28.33	0.6808
77	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@1	25.36	29.16	0.8241
77	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	25.36	29.16	0.8241
77	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	24.43	28.23	0.6653
77	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.31	29.11	0.8147
77	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.32	29.12	0.8166
77	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.4	28.2	0.6607
77	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@1	25.46	29.26	0.8433
77	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	25.47	29.27	0.8453
77	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	24.44	28.24	0.6668
77	30	60	632000	3480	DFT-s-OFDM PI/2 BPSK	1@1	25.15	28.95	0.7852
77	30	60	632000	3480	DFT-s-OFDM QPSK	1@1	25.09	28.89	0.7745
77	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@1	24.24	28.04	0.6368
77	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	24.97	28.77	0.7534
77	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	24.99	28.79	0.7568
77	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.09	27.89	0.6152
77	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	1@1	25.28	29.08	0.8091
77	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	25.22	29.02	0.7980
77	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	24.36	28.16	0.6546
77	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	1@1	24.98	28.78	0.7551



77	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	25	28.8	0.7586
77	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	24.07	27.87	0.6124
77	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	24.91	28.71	0.7430
77	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	24.94	28.74	0.7482
77	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	23.99	27.79	0.6012
77	30	80	634000	3510	DFT-s-OFDM PI/2 BPSK	1@1	24.96	28.76	0.7516
77	30	80	634000	3510	DFT-s-OFDM QPSK	1@1	25.01	28.81	0.7603
77	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@1	24.03	27.83	0.6067
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	25	28.8	0.7586
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.05	28.85	0.7674
77	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	24.71	28.51	0.7096
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	25.02	28.82	0.7621
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.08	28.88	0.7727
77	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	24.73	28.53	0.7129
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	24.01	27.81	0.6039
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.08	27.88	0.6138
77	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	23.89	27.69	0.5875
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	22.47	26.27	0.4236
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	22.6	26.4	0.4365
77	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	22.27	26.07	0.4046
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	20.48	24.28	0.2679
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.27	24.07	0.2553
77	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	19.98	23.78	0.2388
77	30	100	633334	3500.01	CP-OFDM QPSK	137@68	23.44	27.24	0.5297
77	30	100	633334	3500.01	CP-OFDM QPSK	1@1	23.55	27.35	0.5433
77	30	100	633334	3500.01	CP-OFDM QPSK	1@271	23.19	26.99	0.5000

5G NR n77 UL MIMO

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	ANT0 Power(dBm)	ANT2 Power(dBm)	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
77	30	20	630668	3460.02	CP-OFDM QPSK	1@1	20.83	20.68	23.77	27.57	0.5709
77	30	20	630668	3460.02	CP-OFDM 16 QAM	1@1	20.25	20.06	23.17	26.97	0.4973
77	30	20	630668	3460.02	CP-OFDM 64 QAM	1@1	19.02	19.05	22.05	25.85	0.3842
77	30	20	633334	3500.01	CP-OFDM QPSK	1@1	20.81	21.08	23.96	27.76	0.5967
77	30	20	633334	3500.01	CP-OFDM 16 QAM	1@1	20.29	20.44	23.38	27.18	0.5219
77	30	20	633334	3500.01	CP-OFDM 64 QAM	1@1	19.05	19.12	22.10	25.90	0.3886
77	30	20	636000	3540	CP-OFDM QPSK	1@1	20.81	20.91	23.87	27.67	0.5849
77	30	20	636000	3540	CP-OFDM 16 QAM	1@1	20.28	20.32	23.31	27.11	0.5141
77	30	20	636000	3540	CP-OFDM 64 QAM	1@1	19.03	19.12	22.09	25.89	0.3878
77	30	30	631000	3465	CP-OFDM QPSK	1@1	20.89	20.98	23.95	27.75	0.5950
77	30	30	631000	3465	CP-OFDM 16 QAM	1@1	20.29	20.28	23.30	27.10	0.5123
77	30	30	631000	3465	CP-OFDM 64 QAM	1@1	19.01	19.05	22.04	25.84	0.3837
77	30	30	633334	3500.01	CP-OFDM QPSK	1@1	20.88	21.09	24.00	27.80	0.6021
77	30	30	633334	3500.01	CP-OFDM 16 QAM	1@1	20.37	20.51	23.45	27.25	0.5310
77	30	30	633334	3500.01	CP-OFDM 64 QAM	1@1	19.05	19.23	22.15	25.95	0.3937
77	30	30	635666	3534.99	CP-OFDM QPSK	1@1	20.86	21.15	24.02	27.82	0.6050
77	30	30	635666	3534.99	CP-OFDM 16 QAM	1@1	20.34	20.47	23.42	27.22	0.5267
77	30	30	635666	3534.99	CP-OFDM 64 QAM	1@1	19.12	19.23	22.19	25.99	0.3968
77	30	40	631334	3470.01	CP-OFDM QPSK	1@1	20.99	21.02	24.02	27.82	0.6047



77	30	40	631334	3470.01	CP-OFDM 16 QAM	1@1	20.35	20.25	23.31	27.11	0.5141
77	30	40	631334	3470.01	CP-OFDM 64 QAM	1@1	19.11	19.05	22.09	25.89	0.3882
77	30	40	633334	3500.01	CP-OFDM QPSK	1@1	20.85	21.14	24.01	27.81	0.6036
77	30	40	633334	3500.01	CP-OFDM 16 QAM	1@1	20.32	20.5	23.42	27.22	0.5274
77	30	40	633334	3500.01	CP-OFDM 64 QAM	1@1	19.02	19.12	22.08	25.88	0.3873
77	30	40	635332	3529.98	CP-OFDM QPSK	1@1	21.22	21.35	24.30	28.10	0.6450
77	30	40	635332	3529.98	CP-OFDM 16 QAM	1@1	20.41	20.55	23.49	27.29	0.5359
77	30	40	635332	3529.98	CP-OFDM 64 QAM	1@1	19.13	19.24	22.20	26.00	0.3977
77	30	60	632000	3480	CP-OFDM QPSK	1@1	20.74	20.76	23.76	27.56	0.5702
77	30	60	632000	3480	CP-OFDM 16 QAM	1@1	20.06	20.1	23.09	26.89	0.4887
77	30	60	632000	3480	CP-OFDM 64 QAM	1@1	18.69	18.93	21.82	25.62	0.3649
77	30	60	633334	3500.01	CP-OFDM QPSK	1@1	20.66	21.02	23.85	27.65	0.5826
77	30	60	633334	3500.01	CP-OFDM 16 QAM	1@1	20.02	20.29	23.17	26.97	0.4974
77	30	60	633334	3500.01	CP-OFDM 64 QAM	1@1	18.62	19.01	21.83	25.63	0.3656
77	30	60	634666	3519.99	CP-OFDM QPSK	1@1	20.85	21.2	24.04	27.84	0.6080
77	30	60	634666	3519.99	CP-OFDM 16 QAM	1@1	20.19	20.55	23.38	27.18	0.5229
77	30	60	634666	3519.99	CP-OFDM 64 QAM	1@1	18.86	19.12	22.00	25.80	0.3804
77	30	80	632668	3490.02	CP-OFDM QPSK	1@1	20.55	20.54	23.56	27.36	0.5439
77	30	80	632668	3490.02	CP-OFDM 16 QAM	1@1	20.12	20.05	23.10	26.90	0.4893
77	30	80	632668	3490.02	CP-OFDM 64 QAM	1@1	18.84	18.89	21.88	25.68	0.3694
77	30	80	633334	3500.01	CP-OFDM QPSK	1@1	20.53	20.8	23.68	27.48	0.5594
77	30	80	633334	3500.01	CP-OFDM 16 QAM	1@1	19.75	20.08	22.93	26.73	0.4708
77	30	80	633334	3500.01	CP-OFDM 64 QAM	1@1	18.49	18.86	21.69	25.49	0.3539
77	30	80	634000	3510	CP-OFDM QPSK	1@1	20.53	20.76	23.66	27.46	0.5568
77	30	80	634000	3510	CP-OFDM 16 QAM	1@1	19.83	20.27	23.07	26.87	0.4859
77	30	80	634000	3510	CP-OFDM 64 QAM	1@1	18.59	18.89	21.75	25.55	0.3592
77	30	100	633334	3500.01	CP-OFDM QPSK	137@68	20.51	20.71	23.62	27.42	0.5523
77	30	100	633334	3500.01	CP-OFDM QPSK	1@1	20.66	20.65	23.67	27.47	0.5579
77	30	100	633334	3500.01	CP-OFDM QPSK	1@271	20.16	20.17	23.18	26.98	0.4983
77	30	100	633334	3500.01	CP-OFDM 16 QAM	137@68	20.03	20.19	23.12	26.92	0.4922
77	30	100	633334	3500.01	CP-OFDM 16 QAM	1@1	19.95	20.06	23.02	26.82	0.4804
77	30	100	633334	3500.01	CP-OFDM 16 QAM	1@271	19.41	19.73	22.58	26.38	0.4348
77	30	100	633334	3500.01	CP-OFDM 64 QAM	137@68	18.57	18.72	21.66	25.46	0.3512
77	30	100	633334	3500.01	CP-OFDM 64 QAM	1@1	18.65	18.92	21.80	25.60	0.3629
77	30	100	633334	3500.01	CP-OFDM 64 QAM	1@271	18.25	18.38	21.33	25.13	0.3255
77	30	100	633334	3500.01	CP-OFDM 256 QAM	137@68	18.53	18.72	21.64	25.44	0.3497
77	30	100	633334	3500.01	CP-OFDM 256 QAM	1@1	15.66	15.91	18.80	22.60	0.1818
77	30	100	633334	3500.01	CP-OFDM 256 QAM	1@271	15.11	15.41	18.27	22.07	0.1612

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NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
78	30	20	630668	3460.02	DFT-s-OFDM PI/2 BPSK	1@1	25.56	29.36	0.8630
78	30	20	630668	3460.02	DFT-s-OFDM QPSK	1@1	25.49	29.29	0.8492
78	30	20	630668	3460.02	DFT-s-OFDM 16 QAM	1@1	24.58	28.38	0.6887
78	30	20	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.54	29.34	0.8590
78	30	20	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.5	29.3	0.8511
78	30	20	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.59	28.39	0.6902
78	30	20	636000	3540	DFT-s-OFDM PI/2 BPSK	1@1	25.6	29.4	0.8710



78	30	20	636000	3540	DFT-s-OFDM QPSK	1@1	25.6	29.4	0.8710
78	30	20	636000	3540	DFT-s-OFDM 16 QAM	1@1	24.7	28.5	0.7079
78	30	30	631000	3465	DFT-s-OFDM PI/2 BPSK	1@1	25.53	29.33	0.8570
78	30	30	631000	3465	DFT-s-OFDM QPSK	1@1	25.51	29.31	0.8531
78	30	30	631000	3465	DFT-s-OFDM 16 QAM	1@1	24.69	28.49	0.7063
78	30	30	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.54	29.34	0.8590
78	30	30	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.53	29.33	0.8570
78	30	30	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.69	28.49	0.7063
78	30	30	635666	3534.99	DFT-s-OFDM PI/2 BPSK	1@1	25.58	29.38	0.8670
78	30	30	635666	3534.99	DFT-s-OFDM QPSK	1@1	25.52	29.32	0.8551
78	30	30	635666	3534.99	DFT-s-OFDM 16 QAM	1@1	24.71	28.51	0.7096
78	30	40	631334	3470.01	DFT-s-OFDM PI/2 BPSK	1@1	25.62	29.42	0.8750
78	30	40	631334	3470.01	DFT-s-OFDM QPSK	1@1	25.59	29.39	0.8690
78	30	40	631334	3470.01	DFT-s-OFDM 16 QAM	1@1	24.65	28.45	0.6998
78	30	40	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.54	29.34	0.8590
78	30	40	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.56	29.36	0.8630
78	30	40	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.65	28.45	0.6998
78	30	40	635332	3529.98	DFT-s-OFDM PI/2 BPSK	1@1	25.7	29.5	0.8913
78	30	40	635332	3529.98	DFT-s-OFDM QPSK	1@1	25.71	29.51	0.8933
78	30	40	635332	3529.98	DFT-s-OFDM 16 QAM	1@1	24.83	28.63	0.7295
78	30	50	631668	3475.02	DFT-s-OFDM PI/2 BPSK	1@1	25.3	29.1	0.8128
78	30	50	631668	3475.02	DFT-s-OFDM QPSK	1@1	25.32	29.12	0.8166
78	30	50	631668	3475.02	DFT-s-OFDM 16 QAM	1@1	24.39	28.19	0.6592
78	30	50	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.18	28.98	0.7907
78	30	50	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.2	29	0.7943
78	30	50	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.31	28.11	0.6471
78	30	50	635000	3525	DFT-s-OFDM PI/2 BPSK	1@1	25.44	29.24	0.8395
78	30	50	635000	3525	DFT-s-OFDM QPSK	1@1	25.37	29.17	0.8260
78	30	50	635000	3525	DFT-s-OFDM 16 QAM	1@1	24.53	28.33	0.6808
78	30	60	632000	3480	DFT-s-OFDM PI/2 BPSK	1@1	25.36	29.16	0.8241
78	30	60	632000	3480	DFT-s-OFDM QPSK	1@1	25.34	29.14	0.8204
78	30	60	632000	3480	DFT-s-OFDM 16 QAM	1@1	24.47	28.27	0.6714
78	30	60	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.24	29.04	0.8017
78	30	60	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.19	28.99	0.7925
78	30	60	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.35	28.15	0.6531
78	30	60	634666	3519.99	DFT-s-OFDM PI/2 BPSK	1@1	25.52	29.32	0.8551
78	30	60	634666	3519.99	DFT-s-OFDM QPSK	1@1	25.55	29.35	0.8610
78	30	60	634666	3519.99	DFT-s-OFDM 16 QAM	1@1	24.61	28.41	0.6934
78	30	70	632334	3485.01	DFT-s-OFDM PI/2 BPSK	1@1	25.35	29.15	0.8222
78	30	70	632334	3485.01	DFT-s-OFDM QPSK	1@1	25.33	29.13	0.8185
78	30	70	632334	3485.01	DFT-s-OFDM 16 QAM	1@1	24.48	28.28	0.6730
78	30	70	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.26	29.06	0.8054
78	30	70	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.26	29.06	0.8054
78	30	70	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.28	28.08	0.6427
78	30	70	634332	3514.98	DFT-s-OFDM PI/2 BPSK	1@1	25.22	29.02	0.7980
78	30	70	634332	3514.98	DFT-s-OFDM QPSK	1@1	25.21	29.01	0.7962
78	30	70	634332	3514.98	DFT-s-OFDM 16 QAM	1@1	24.32	28.12	0.6486
78	30	80	632668	3490.02	DFT-s-OFDM PI/2 BPSK	1@1	25.36	29.16	0.8241
78	30	80	632668	3490.02	DFT-s-OFDM QPSK	1@1	25.34	29.14	0.8204



78	30	80	632668	3490.02	DFT-s-OFDM 16 QAM	1@1	24.43	28.23	0.6653
78	30	80	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.21	29.01	0.7962
78	30	80	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.17	28.97	0.7889
78	30	80	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.23	28.03	0.6353
78	30	80	634000	3510	DFT-s-OFDM PI/2 BPSK	1@1	25.21	29.01	0.7962
78	30	80	634000	3510	DFT-s-OFDM QPSK	1@1	25.22	29.02	0.7980
78	30	80	634000	3510	DFT-s-OFDM 16 QAM	1@1	24.28	28.08	0.6427
78	30	90	633000	3495	DFT-s-OFDM PI/2 BPSK	1@1	25.33	29.13	0.8185
78	30	90	633000	3495	DFT-s-OFDM QPSK	1@1	25.28	29.08	0.8091
78	30	90	633000	3495	DFT-s-OFDM 16 QAM	1@1	24.41	28.21	0.6622
78	30	90	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.14	28.94	0.7834
78	30	90	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.14	28.94	0.7834
78	30	90	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.2	28	0.6310
78	30	90	633666	3504.99	DFT-s-OFDM PI/2 BPSK	1@1	25.19	28.99	0.7925
78	30	90	633666	3504.99	DFT-s-OFDM QPSK	1@1	25.2	29	0.7943
78	30	90	633666	3504.99	DFT-s-OFDM 16 QAM	1@1	24.28	28.08	0.6427
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	135@67	25.18	28.98	0.7907
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@1	25.25	29.05	0.8035
78	30	100	633334	3500.01	DFT-s-OFDM PI/2 BPSK	1@271	24.82	28.62	0.7278
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	135@67	25.11	28.91	0.7780
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@1	25.23	29.03	0.7998
78	30	100	633334	3500.01	DFT-s-OFDM QPSK	1@271	24.76	28.56	0.7178
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	135@67	24.12	27.92	0.6194
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@1	24.34	28.14	0.6516
78	30	100	633334	3500.01	DFT-s-OFDM 16 QAM	1@271	23.94	27.74	0.5943
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	135@67	22.71	26.51	0.4477
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@1	22.79	26.59	0.4560
78	30	100	633334	3500.01	DFT-s-OFDM 64 QAM	1@271	22.34	26.14	0.4111
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	135@67	20.6	24.4	0.2754
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@1	20.51	24.31	0.2698
78	30	100	633334	3500.01	DFT-s-OFDM 256 QAM	1@271	20.1	23.9	0.2455
78	30	100	633334	3500.01	CP-OFDM QPSK	137@68	23.67	27.47	0.5585
78	30	100	633334	3500.01	CP-OFDM QPSK	1@1	23.8	27.6	0.5754
78	30	100	633334	3500.01	CP-OFDM QPSK	1@271	23.29	27.09	0.5117

5G NR n78 UL MIMO

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	ANT0 Power(dBm)	ANT2 Power(dBm)	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
78	30	20	630668	3460.02	CP-OFDM QPSK	1@1	20.91	20.93	23.93	27.73	0.5930
78	30	20	630668	3460.02	CP-OFDM 16 QAM	1@1	20.32	20.23	23.29	27.09	0.5112
78	30	20	630668	3460.02	CP-OFDM 64 QAM	1@1	19.02	18.98	22.01	25.81	0.3811
78	30	20	633334	3500.01	CP-OFDM QPSK	1@1	21	21.09	24.06	27.86	0.6103
78	30	20	633334	3500.01	CP-OFDM 16 QAM	1@1	20.45	20.52	23.50	27.30	0.5365
78	30	20	633334	3500.01	CP-OFDM 64 QAM	1@1	19.12	19.23	22.19	25.99	0.3968
78	30	20	636000	3540	CP-OFDM QPSK	1@1	20.99	21.03	24.02	27.82	0.6054
78	30	20	636000	3540	CP-OFDM 16 QAM	1@1	20.52	20.48	23.51	27.31	0.5383
78	30	20	636000	3540	CP-OFDM 64 QAM	1@1	19.23	19.22	22.24	26.04	0.4014
78	30	30	631000	3465	CP-OFDM QPSK	1@1	21.08	21.06	24.08	27.88	0.6138
78	30	30	631000	3465	CP-OFDM 16 QAM	1@1	20.56	20.32	23.45	27.25	0.5311



78	30	30	631000	3465	CP-OFDM 64 QAM	1@1	19.31	19.05	22.19	25.99	0.3974
78	30	30	633334	3500.01	CP-OFDM QPSK	1@1	21.13	21.23	24.19	27.99	0.6296
78	30	30	633334	3500.01	CP-OFDM 16 QAM	1@1	20.51	20.62	23.58	27.38	0.5465
78	30	30	633334	3500.01	CP-OFDM 64 QAM	1@1	19.11	19.23	22.18	25.98	0.3963
78	30	30	635666	3534.99	CP-OFDM QPSK	1@1	21.1	21.14	24.13	27.93	0.6209
78	30	30	635666	3534.99	CP-OFDM 16 QAM	1@1	20.57	20.47	23.53	27.33	0.5408
78	30	30	635666	3534.99	CP-OFDM 64 QAM	1@1	19.23	19.21	22.23	26.03	0.4009
78	30	40	631334	3470.01	CP-OFDM QPSK	1@1	21.14	20.93	24.05	27.85	0.6091
78	30	40	631334	3470.01	CP-OFDM 16 QAM	1@1	20.47	20.51	23.50	27.30	0.5371
78	30	40	631334	3470.01	CP-OFDM 64 QAM	1@1	19.15	19.23	22.20	26.00	0.3982
78	30	40	633334	3500.01	CP-OFDM QPSK	1@1	21.08	21.33	24.22	28.02	0.6334
78	30	40	633334	3500.01	CP-OFDM 16 QAM	1@1	20.53	20.62	23.59	27.39	0.5477
78	30	40	633334	3500.01	CP-OFDM 64 QAM	1@1	19.23	19.34	22.30	26.10	0.4070
78	30	40	635332	3529.98	CP-OFDM QPSK	1@1	21.15	21.22	24.20	28.00	0.6303
78	30	40	635332	3529.98	CP-OFDM 16 QAM	1@1	20.58	20.67	23.64	27.44	0.5541
78	30	40	635332	3529.98	CP-OFDM 64 QAM	1@1	19.23	19.31	22.28	26.08	0.4056
78	30	50	631668	3475.02	CP-OFDM QPSK	1@1	20.74	20.75	23.76	27.56	0.5695
78	30	50	631668	3475.02	CP-OFDM 16 QAM	1@1	20.12	20.05	23.10	26.90	0.4893
78	30	50	631668	3475.02	CP-OFDM 64 QAM	1@1	18.89	18.87	21.89	25.69	0.3707
78	30	50	633334	3500.01	CP-OFDM QPSK	1@1	20.79	20.96	23.89	27.69	0.5870
78	30	50	633334	3500.01	CP-OFDM 16 QAM	1@1	20.02	20.31	23.18	26.98	0.4986
78	30	50	633334	3500.01	CP-OFDM 64 QAM	1@1	18.86	19.02	21.95	25.75	0.3759
78	30	50	635000	3525	CP-OFDM QPSK	1@1	20.94	21.11	24.04	27.84	0.6076
78	30	50	635000	3525	CP-OFDM 16 QAM	1@1	20.22	20.44	23.34	27.14	0.5178
78	30	50	635000	3525	CP-OFDM 64 QAM	1@1	18.98	19.12	22.06	25.86	0.3856
78	30	60	632000	3480	CP-OFDM QPSK	1@1	20.85	20.83	23.85	27.65	0.5821
78	30	60	632000	3480	CP-OFDM 16 QAM	1@1	20.12	20.17	23.16	26.96	0.4961
78	30	60	632000	3480	CP-OFDM 64 QAM	1@1	18.88	18.92	21.91	25.71	0.3724
78	30	60	633334	3500.01	CP-OFDM QPSK	1@1	20.83	20.9	23.88	27.68	0.5855
78	30	60	633334	3500.01	CP-OFDM 16 QAM	1@1	20.16	20.28	23.23	27.03	0.5047
78	30	60	633334	3500.01	CP-OFDM 64 QAM	1@1	18.86	19.02	21.95	25.75	0.3759
78	30	60	634666	3519.99	CP-OFDM QPSK	1@1	20.96	21.32	24.15	27.95	0.6243
78	30	60	634666	3519.99	CP-OFDM 16 QAM	1@1	20.24	20.62	23.44	27.24	0.5302
78	30	60	634666	3519.99	CP-OFDM 64 QAM	1@1	18.92	19.25	22.10	25.90	0.3889
78	30	70	632334	3485.01	CP-OFDM QPSK	1@1	20.79	20.75	23.78	27.58	0.5728
78	30	70	632334	3485.01	CP-OFDM 16 QAM	1@1	20.19	20.16	23.19	26.99	0.4995
78	30	70	632334	3485.01	CP-OFDM 64 QAM	1@1	18.86	18.92	21.90	25.70	0.3716
78	30	70	633334	3500.01	CP-OFDM QPSK	1@1	20.79	20.85	23.83	27.63	0.5795
78	30	70	633334	3500.01	CP-OFDM 16 QAM	1@1	20.19	20.24	23.23	27.03	0.5041
78	30	70	633334	3500.01	CP-OFDM 64 QAM	1@1	18.93	19.02	21.99	25.79	0.3789
78	30	70	634332	3514.98	CP-OFDM QPSK	1@1	20.77	21.18	23.99	27.79	0.6012
78	30	70	634332	3514.98	CP-OFDM 16 QAM	1@1	20.12	20.5	23.32	27.12	0.5158
78	30	70	634332	3514.98	CP-OFDM 64 QAM	1@1	18.84	19.22	22.04	25.84	0.3841
78	30	80	632668	3490.02	CP-OFDM QPSK	1@1	20.9	20.71	23.82	27.62	0.5776
78	30	80	632668	3490.02	CP-OFDM 16 QAM	1@1	20.09	20.24	23.18	26.98	0.4984
78	30	80	632668	3490.02	CP-OFDM 64 QAM	1@1	18.84	19.03	21.95	25.75	0.3755
78	30	80	633334	3500.01	CP-OFDM QPSK	1@1	20.76	20.81	23.80	27.60	0.5748
78	30	80	633334	3500.01	CP-OFDM 16 QAM	1@1	20.05	20.14	23.11	26.91	0.4904
78	30	80	633334	3500.01	CP-OFDM 64 QAM	1@1	18.74	18.96	21.86	25.66	0.3683



78	30	80	634000	3510	CP-OFDM QPSK	1@1	20.7	21.11	23.92	27.72	0.5916
78	30	80	634000	3510	CP-OFDM 16 QAM	1@1	19.88	20.37	23.14	26.94	0.4946
78	30	80	634000	3510	CP-OFDM 64 QAM	1@1	18.56	19.02	21.81	25.61	0.3636
78	30	90	633000	3495	CP-OFDM QPSK	1@1	20.68	20.74	23.72	27.52	0.5650
78	30	90	633000	3495	CP-OFDM 16 QAM	1@1	20.14	20.19	23.18	26.98	0.4984
78	30	90	633000	3495	CP-OFDM 64 QAM	1@1	18.86	19.02	21.95	25.75	0.3759
78	30	90	633334	3500.01	CP-OFDM QPSK	1@1	20.75	20.7	23.74	27.54	0.5669
78	30	90	633334	3500.01	CP-OFDM 16 QAM	1@1	20.03	20.04	23.05	26.85	0.4836
78	30	90	633334	3500.01	CP-OFDM 64 QAM	1@1	18.74	18.89	21.83	25.63	0.3653
78	30	90	633666	3504.99	CP-OFDM QPSK	1@1	20.85	20.75	23.81	27.61	0.5768
78	30	90	633666	3504.99	CP-OFDM 16 QAM	1@1	20.05	20.4	23.24	27.04	0.5057
78	30	90	633666	3504.99	CP-OFDM 64 QAM	1@1	18.86	19.12	22.00	25.80	0.3804
78	30	100	633334	3500.01	CP-OFDM QPSK	137@68	20.68	20.78	23.74	27.54	0.5676
78	30	100	633334	3500.01	CP-OFDM QPSK	1@1	20.77	20.63	23.71	27.51	0.5637
78	30	100	633334	3500.01	CP-OFDM QPSK	1@271	20.32	20.36	23.35	27.15	0.5188
78	30	100	633334	3500.01	CP-OFDM 16 QAM	137@68	20.19	20.31	23.26	27.06	0.5082
78	30	100	633334	3500.01	CP-OFDM 16 QAM	1@1	20.03	19.98	23.02	26.82	0.4803
78	30	100	633334	3500.01	CP-OFDM 16 QAM	1@271	19.54	19.55	22.56	26.36	0.4320
78	30	100	633334	3500.01	CP-OFDM 64 QAM	137@68	18.74	18.75	21.76	25.56	0.3594
78	30	100	633334	3500.01	CP-OFDM 64 QAM	1@1	18.87	18.89	21.89	25.69	0.3707
78	30	100	633334	3500.01	CP-OFDM 64 QAM	1@271	18.39	18.46	21.44	25.24	0.3338
78	30	100	633334	3500.01	CP-OFDM 256 QAM	137@68	18.67	18.8	21.75	25.55	0.3586
78	30	100	633334	3500.01	CP-OFDM 256 QAM	1@1	15.74	15.84	18.80	22.60	0.1820
78	30	100	633334	3500.01	CP-OFDM 256 QAM	1@271	15.34	15.38	18.37	22.17	0.1648

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Jake zhou	Temperature :	23~25°C
		Relative Humidity :	53~58%

n77 UL MIMO / NR 100MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	6900	-39.02	-13	-26.02	-49.23	3.03	13.24	H
	10356	-53.42	-13	-40.42	-62.87	3.56	13.01	H
	13824	-59.97	-13	-46.97	-69.49	3.92	13.44	H
	6900	-35.20	-13	-22.20	-45.41	3.03	13.24	V
	10356	-49.67	-13	-36.67	-59.12	3.56	13.01	V
	13824	-59.49	-13	-46.49	-69.01	3.92	13.44	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_30A_n77A / LTE 10MHz + NR 100MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	6900	-49.05	-13	-36.05	-59.26	3.03	13.24	H
	10356	-52.53	-13	-39.53	-61.98	3.56	13.01	H
	13824	-59.45	-13	-46.45	-68.97	3.92	13.44	H
	6900	-44.25	-13	-31.25	-54.46	3.03	13.24	V
	10356	-47.80	-13	-34.80	-57.25	3.56	13.01	V
	13824	-59.56	-13	-46.56	-69.08	3.92	13.44	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.