



FCC RF Test Report

APPLICANT : Viavi Solutions Inc.
EQUIPMENT : 5G Sub-6 GHz M.2 Module with WCDMA and LTE
BRAND NAME : VIAVI
MODEL NAME : RM520N-GL
FCC ID : WUW-RM520NGL
STANDARD : 47 CFR Part 22, 24, 27
CLASSIFICATION : PCS Licensed Transmitter (PCB)
TEST DATE(S) : Jul. 30, 2024 ~ Oct. 16, 2024

The product was installed into a host (Brand Name: VIAVI, Model Name: NXE-DEVICE-4M) during the test, only Conducted Power, ERP/EIRP and RSE test items are tested in this 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
FG452001I	Rev. 01	Initial issue of report	Dec. 18, 2024



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (5G NR n5, n26)	ERP < 7 Watt		
	§24.232(c)	Equivalent Isotropic Radiated Power (5G NR n2, n25)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (5G NR n66, n70)	EIRP < 1Watt		
-	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	1
-	§2.1049	Occupied Bandwidth	Reporting Only	PASS	1
-	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Band Edge Measurement (5G NR n5, n26) (5G NR n2, n25) (5G NR n66, n70)	< $43+10\log_{10}(P[\text{Watts}])$	PASS	1
-	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Spurious Emission (5G NR n5, n26) (5G NR n2, n25) (5G NR n66, n70)	< $43+10\log_{10}(P[\text{Watts}])$	PASS	1
-	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	1
	§24.235 §27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Radiated Spurious Emission (5G NR n5, n26) (5G NR n2, n25) (5G NR n66, n70)	< $43+10\log_{10}(P[\text{Watts}])$	PASS	Under limit 6.21 dB at 3705.00 MHz

Remark 1: Test results are leveraged from module RF report No “SEWA2204000008RG02”.

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

Viavi Solutions Inc.

1445 South Spectrum Boulevard, Suite 102, Chandler, Arizona 85286

1.2 Manufacturer

Viavi Solutions Inc.

1445 South Spectrum Boulevard, Suite 102, Chandler, Arizona 85286

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	5G Sub-6 GHz M.2 Module with WCDMA and LTE
Brand Name	VIAVI
Model Name	RM520N-GL
FCC ID	WUW-RM520NGL
EUT Stage	Identical Prototype

Host Product Feature	
Equipment	XEDGE 2.0
Brand Name	VIAVI
Model Name	NXE-DEVICE-4M
IMEI Code	Conducted : IMEI A: 868371051639645 IMEI B: 868371051635213 IMEI C: 868371051635338 IMEI D: 868371051639819 Radiation : IMEI A: 868371051120539 IMEI B: 868371051121032 IMEI C: 868371051143184 IMEI D: 868371051635312
Applicant	Viavi Solutions Inc. 1445 South Spectrum Boulevard, Suite 102, Chandler, Arizona 85286
Manufacturer	Viavi Solutions Inc. 1445 South Spectrum Boulevard, Suite 102, Chandler, Arizona 85286

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 824 MHz ~ 849 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz
Rx Frequency	5G NR n2 : 1930 MHz ~ 1990 MHz 5G NR n5 : 869 MHz ~ 894 MHz 5G NR n25 : 1930 MHz ~ 1995 MHz 5G NR n26 : 869 MHz ~ 894 MHz 5G NR n66 : 2110 MHz~ 2200 MHz 5G NR n70 : 1995 MHz ~ 2020 MHz
Bandwidth	n2 : 5MHz / 10MHz / 15MHz / 20MHz n5, n26 : 5MHz / 10MHz / 15MHz / 20MHz n25 : 5MHz / 10MHz / 15MHz / 20MHz / 25MHz / 30MHz / 40MHz n66 : 5MHz / 10MHz / 15MHz / 20MHz / 30MHz / 40MHz n70 : 5MHz / 10MHz / 15MHz
SCS	15kHz
Antenna Gain	< Module A/B/C/D> <Ant.0> n2: 8.9 dBi n5: 6.0 dBi n25: 8.9 dBi n26: 6.0 dBi n66: 8.9 dBi <Ant.2> n2: 8.9 dBi n25: 8.9 dBi n66: 8.9 dBi n70: 8.9 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. The maximum ERP/EIRP is calculated from max output power and max antenna gain, only the maximum ERP/EIRP are shown in the report, 5G NR n2/n5/n66/n70 for Ant. 2 and n5/26 for Ant. 0.
2. All the supported ENDC combinations are verified conducted power, only the ENDC combination with highest power are shown in the report.
3. 5G NR support SA (n2/n5/n25/n26/n66/n70) mode and NSA(n2/n5/n25/n66) mode. According to the maximum power between SA and NSA mode, SA covers NSA mode for (n2/n5/n25/n66).
4. The EN-DC mode combination could be referred to the product spec.
5. The four Modules are the same include Power setting, but we still verified the real power, which is within the uncertainty range, so we chose the module of the higher power for testing, each Module has four antennas, only Ant.0/2 supports TX/RX function, the others are RX only.
6. For RSE testing, we choice the module of the higher conducted Power to test, because between four modules do not support MIMO mode.



1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP and Emission Designator

5G NR n2		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)
5	1852.5 ~ 1907.5	1.4256	-	1.1117	-
10	1855.0 ~ 1905.0	1.4093	-	1.1015	-
15	1857.5 ~ 1902.5	1.4223	-	1.1092	-
20	1860.0 ~ 1900.0	1.4388	-	1.1641	-

5G NR n25		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)
5	1852.5 ~ 1912.5	1.4488	-	1.0864	-
10	1855.0 ~ 1910.0	1.4421	-	1.0839	-
15	1857.5 ~ 1907.5	1.4388	-	1.1117	-
20	1860.0 ~ 1905.0	1.4555	-	1.1066	-
25	1862.5 ~ 1902.5	1.4488	-	1.1117	-
30	1865.0 ~ 1900.0	1.4322	-	1.1041	-
40	1870.0 ~ 1895.0	1.4622	-	1.1885	-

5G NR n5		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	826.5 ~ 846.5	0.4656	-	0.3565	-
10	829.0 ~ 844.0	0.4624	-	0.3614	-
15	831.5 ~ 841.5	0.4656	-	0.3614	-
20	834.0 ~ 839.0	0.4732	-	0.3908	-

5G NR n26		PI/2 BPSK / QPSK		16QAM / 64QAM / 256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	826.5 ~ 846.5	0.4721	-	0.3656	-
10	829.0 ~ 844.0	0.4753	-	0.3741	-



15	831.5 ~ 841.5	0.4721	-	0.3690	-
20	834.0 ~ 839.0	0.4819	-	0.3864	-

5G NR n66		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)
5	1712.5 ~ 1777.5	0.6730	-	0.6622	-
10	1715.0 ~ 1775.0	0.6808	-	0.6637	-
15	1717.5 ~ 1772.5	0.6714	-	0.6622	-
20	1720.0 ~ 1770.0	0.6730	-	0.6622	-
30	1725.0 ~ 1765.0	0.6699	-	0.6561	-
40	1730.0 ~ 1760.0	0.6998	-	0.6637	-

5G NR n70		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)
5	1697.5 ~ 1707.5	0.6745	-	0.6653	-
10	1700.0 ~ 1705.0	0.6808	-	0.6699	-
15	1702.5	0.6982	-	0.6761	-

Note:

1. All modulations have been tested, only the worst test results of PSK & QAM are shown in the report.
2. Band n26 overlaps the entire frequency range of Band n5. Therefore, the test results provided in this report covers Band n26 as well as Band n5.
3. Band n25 overlaps the entire frequency range of Band n2. Therefore, the test results provided in this report covers Band n25 as well as Band n2.



1.7 Testing Location

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.
	03CH04-KS TH01-KS	CN1257	314309

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	TH01-KS	Tonscend	JS1120-3 test system China_210602	3.3.10
2.	03CH04-KS	AUDIX	E3	210616



1.9 Applicable Standards

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

- ♦ 47 CFR Part 22, 24, 27
- ♦ ANSI C63.26-2015
- ♦ FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

All test items were verified and recorded according to the standards and without any deviation during the test.



2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

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.

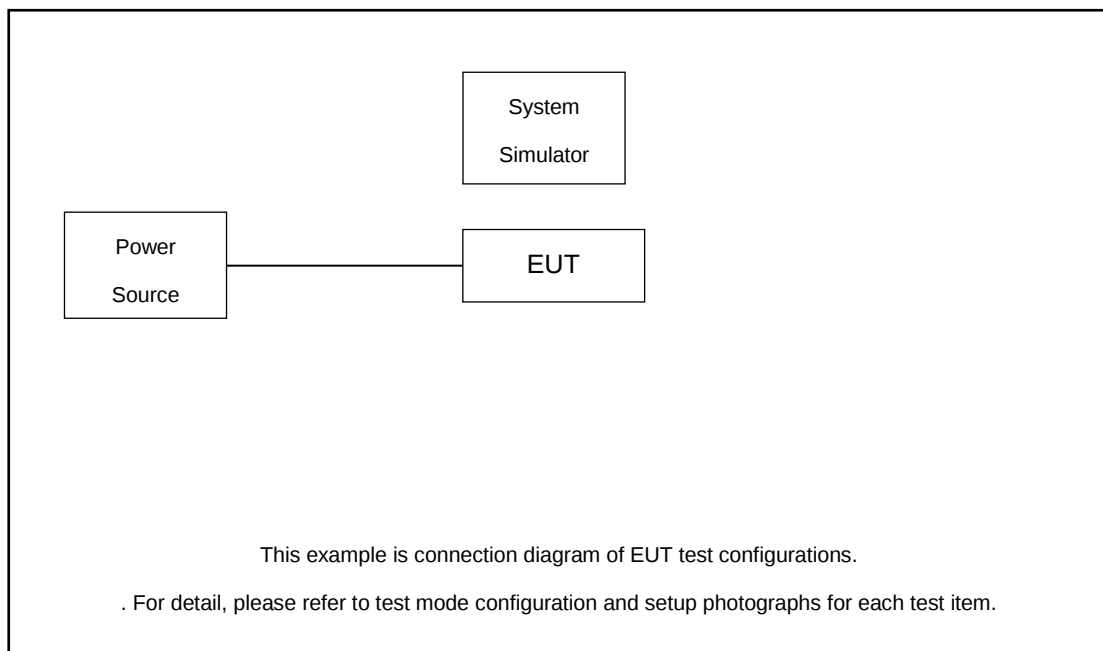
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane

Test Items	5G NR	Bandwidth (MHz)														Modulation					RB #		Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Full	L	M	H	
Max. Output Power	n2	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n5	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n25	v	v	v	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n26	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n66	v	v	v	v	-	v	v	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n70	v	v	v	-	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
E.R.P / E.I.R.P	n2	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n5	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n25	v	v	v	v	v	v	v	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n26	v	v	v	v	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n66	v	v	v	v	-	v	v	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
	n70	v	v	v	-	-	-	-	-	-	-	-	-	-	v	v	v	v	v	v	v	v	v	v	
Radiated Spurious Emission	n2	Worst Case																				v	v	v	
	n5	Worst Case																				v	v	v	
	n25	Worst Case																				v	v	v	
	n26	Worst Case																				v	v	v	
	n66	Worst Case																				v	v	v	



Test Items	5G NR	Bandwidth (MHz)														Modulation					RB #		Test Channel		
		5	10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Full	L	M	H	
	n70	Worst Case																				v	v	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. Frequency Stability : Normal Voltage = 24V ; Low Voltage =11V. ; High Voltage =28V																								

2.2 Connection Diagram of Test System



The EUT has been configuration operated in a manner tended to maximize its emission characteristics in a typical application.

2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

5G NR n2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	372000	376000	380000
	Frequency	1860	1880	1900
15	Channel	371500	376000	380500
	Frequency	1857.5	1880	1902.5
10	Channel	371000	376000	381000
	Frequency	1855	1880	1905
5	Channel	370500	376000	381500
	Frequency	1852.5	1880	1907.5

5G NR n5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	166800	167300	167800
	Frequency	834	836.5	839
15	Channel	166300	167300	168300
	Frequency	831.5	836.5	841.5
10	Channel	165800	167300	168800
	Frequency	829	836.5	844
5	Channel	165300	167300	169300
	Frequency	826.5	836.5	846.5



5G NR n25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	390000	392500	395000
	Frequency	1870	1882.5	1895
30	Channel	389000	392500	396000
	Frequency	1865	1882.5	1900
25	Channel	388500	392500	396500
	Frequency	1862.5	1882.5	1902.5
20	Channel	372000	376500	381000
	Frequency	1860	1882.5	1905
15	Channel	371500	376500	381500
	Frequency	1857.5	1882.5	1907.5
10	Channel	371000	376500	382000
	Frequency	1855	1882.5	1910
5	Channel	370500	376500	382500
	Frequency	1852.5	1882.5	1912.5

5G NR n26 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	166800	167300	167800
	Frequency	834	836.5	839
15	Channel	166300	167300	168300
	Frequency	831.5	836.5	841.5
10	Channel	165800	167300	168800
	Frequency	829	836.5	844
5	Channel	165300	167300	169300
	Frequency	826.5	836.5	846.5



5G NR n66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	346000	349000	352000
	Frequency	1730	1745	1760
30	Channel	345000	349000	353000
	Frequency	1725	1745	1765
20	Channel	344000	349000	354000
	Frequency	1720	1745	1770
15	Channel	343500	349000	354500
	Frequency	1717.5	1745	1772.5
10	Channel	343000	349000	355000
	Frequency	1715	1745	1775
5	Channel	342500	349000	355500
	Frequency	1712.5	1745	1777.5

5G NR n70 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	340500		
	Frequency	1702.5		
10	Channel	340000	340500	341000
	Frequency	1700	1702.5	1705
5	Channel	399500	340500	341500
	Frequency	1697.5	1702.5	1707.5

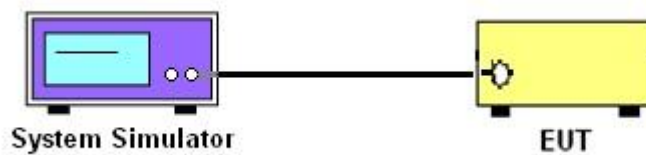
3 Conducted Test Items

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 and ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/EIRP Measurement

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

The ERP of mobile transmitters must not exceed 7 Watts for 5G NR n5, n26.

The EIRP of mobile transmitters must not exceed 2 Watts for 5G NR n2, n25.

The EIRP of mobile transmitters must not exceed 1 Watts for 5G NR n66, n70.

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$, $ERP = EIRP - 2.15$, 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

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.

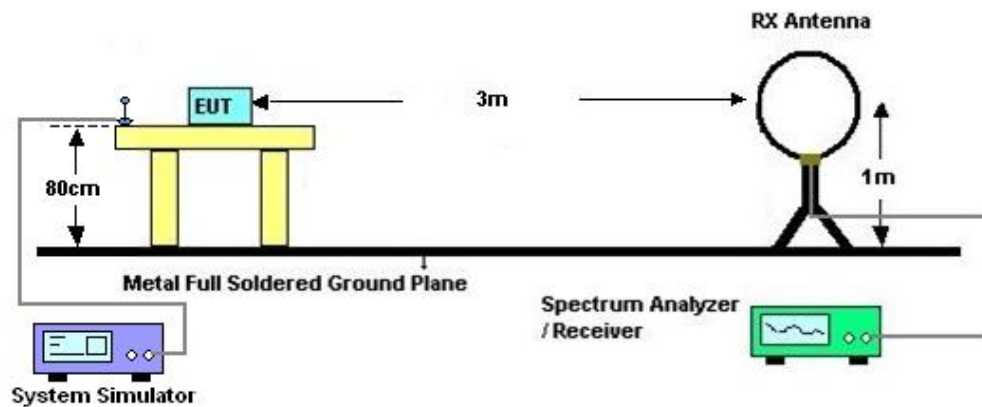
4 Radiated Test Items

4.1 Measuring Instruments

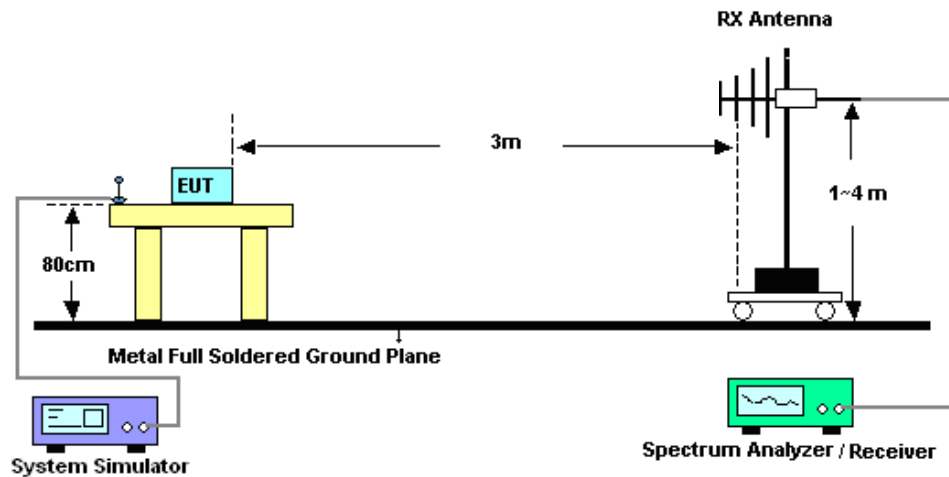
See list of measuring instruments of this test report.

4.2 Test Setup

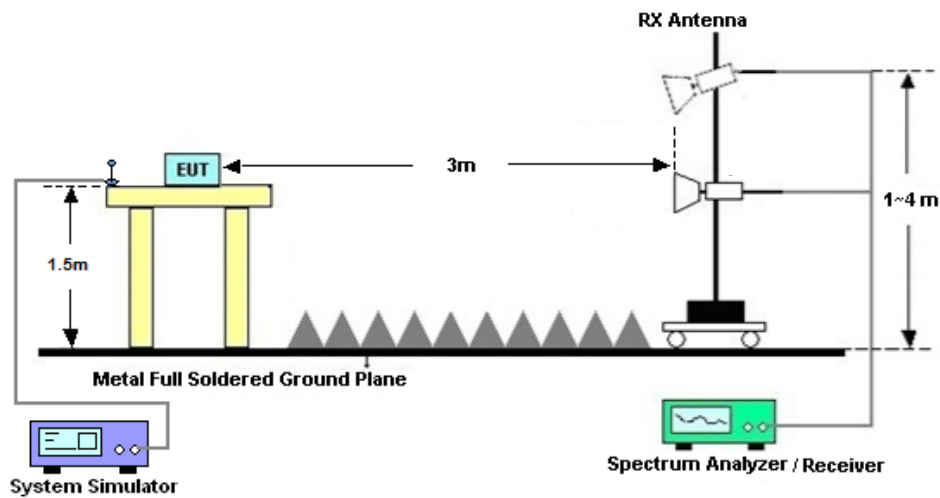
4.2.1 For radiated test below 30MHz



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

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 must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

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

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$



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	Oct. 16, 2024	Oct. 09, 2025	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	Oct. 16, 2024	NCR	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471079	10Hz~44G,MAX 30dB	Oct. 11, 2023	Jul. 30, 2024	Oct. 10, 2024	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 09, 2023	Jul. 30, 2024	Sep. 08, 2024	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz~1GHz	Dec. 06, 2023	Jul. 30, 2024	Dec. 05, 2024	Radiation (03CH04-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 23, 2023	Jul. 30, 2024	Oct. 22, 2024	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 27, 2024	Jul. 30, 2024	Jan. 26, 2025	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	413740	9KHz~1GHz	Jan. 03, 2024	Jul. 30, 2024	Jan. 02, 2025	Radiation (03CH04-KS)
Amplifier	EM	EM18G40G A	060728	18~40GHz	Jan. 02, 2024	Jul. 30, 2024	Jan. 01, 2025	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18G A	060840	1Ghz~18Ghz	Oct. 11, 2023	Jul. 30, 2024	Oct. 10, 2024	Radiation (03CH04-KS)
Amplifier	EM	EM01G18G A	060892	1Ghz~18Ghz	Oct. 11, 2023	Jul. 30, 2024	Oct. 10, 2024	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jul. 30, 2024	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jul. 30, 2024	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jul. 30, 2024	NCR	Radiation (03CH04-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 (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.83 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.83 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.82 dB
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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 ERP/EIRP

5G NR n2_ Module C Ant2 :

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP (W)		
Channel				372000	376000	380000	L	M	H
Frequency (MHz)				1860	1880	1900			
20	PI/2 BPSK	1	1	22.61	22.60	22.50	1.4158	1.4125	1.3804
20	PI/2 BPSK	1	53	22.49	22.56	22.25	1.3772	1.3996	1.3032
20	PI/2 BPSK	1	104	22.41	22.65	22.44	1.3521	1.4289	1.3614
20	PI/2 BPSK	50	0	22.05	21.95	22.10	1.2445	1.2162	1.2589
20	PI/2 BPSK	50	28	22.64	22.51	22.48	1.4256	1.3836	1.3740
20	PI/2 BPSK	50	56	22.30	22.47	22.01	1.3183	1.3709	1.2331
20	PI/2 BPSK	100	0	22.01	22.48	21.87	1.2331	1.3740	1.1940
20	QPSK	1	1	22.67	22.68	22.60	1.4355	1.4388	1.4125
20	QPSK	1	53	22.48	22.63	22.56	1.3740	1.4223	1.3996
20	QPSK	1	104	22.43	22.53	22.42	1.3583	1.3900	1.3552
20	QPSK	50	0	21.36	21.39	21.54	1.0617	1.0691	1.1066
20	QPSK	50	28	22.66	22.67	22.56	1.4322	1.4355	1.3996
20	QPSK	50	56	21.70	21.70	21.70	1.1482	1.1482	1.1482
20	QPSK	100	0	21.72	21.77	21.46	1.1535	1.1668	1.0864
20	16QAM	1	1	21.76	21.75	21.65	1.1641	1.1614	1.1350
20	64QAM	1	1	20.18	19.99	19.85	0.8091	0.7745	0.7499
20	256QAM	1	1	18.20	18.34	18.27	0.5129	0.5297	0.5212
Channel				371500	376000	380500	L	M	H
Frequency (MHz)				1857.5	1880	1902.5			
15	QPSK	1	1	22.56	22.63	22.52	1.3996	1.4223	1.3868
15	16QAM	1	1	21.46	21.55	21.43	1.0864	1.1092	1.0789
Channel				371000	376000	381000	L	M	H
Frequency (MHz)				1855	1880	1905			
10	QPSK	1	1	22.59	22.55	22.57	1.4093	1.3964	1.4028
10	16QAM	1	1	21.45	21.52	21.51	1.0839	1.1015	1.0990
Channel				370500	376000	381500	L	M	H
Frequency (MHz)				1852.5	1880	1907.5			
5	QPSK	1	1	22.56	22.64	22.53	1.3996	1.4256	1.3900
5	16QAM	1	1	21.46	21.56	21.51	1.0864	1.1117	1.0990



5G NR n5_ Module B Ant0:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP (W)		
Channel				166800	167300	167800	L	M	H
Frequency (MHz)				834	836.5	839			
20	PI/2 BPSK	1	1	22.69	22.74	22.51	0.4508	0.4560	0.4325
20	PI/2 BPSK	1	53	22.68	22.69	22.55	0.4498	0.4508	0.4365
20	PI/2 BPSK	1	104	22.70	22.83	22.59	0.4519	0.4656	0.4406
20	PI/2 BPSK	50	0	22.37	22.41	22.31	0.4188	0.4227	0.4130
20	PI/2 BPSK	50	28	22.68	22.82	22.65	0.4498	0.4645	0.4467
20	PI/2 BPSK	50	56	22.39	22.33	22.16	0.4207	0.4150	0.3990
20	PI/2 BPSK	100	0	22.30	22.51	22.27	0.4121	0.4325	0.4093
20	QPSK	1	1	22.88	22.90	22.85	0.4710	0.4732	0.4677
20	QPSK	1	53	22.76	22.70	22.62	0.4581	0.4519	0.4436
20	QPSK	1	104	22.72	22.74	22.70	0.4539	0.4560	0.4519
20	QPSK	50	0	21.91	21.88	21.78	0.3767	0.3741	0.3656
20	QPSK	50	28	22.82	22.90	22.67	0.4645	0.4732	0.4487
20	QPSK	50	56	21.81	21.84	21.69	0.3681	0.3707	0.3581
20	QPSK	100	0	21.77	21.84	21.74	0.3648	0.3707	0.3622
20	16QAM	1	1	21.86	22.07	21.77	0.3724	0.3908	0.3648
20	64QAM	1	1	20.26	20.32	20.15	0.2576	0.2612	0.2512
20	256QAM	1	1	18.41	18.33	18.26	0.1683	0.1652	0.1626
Channel				166300	167300	168300	L	M	H
Frequency (MHz)				831.5	836.5	841.5			
15	QPSK	1	1	22.79	22.82	22.83	0.4613	0.4645	0.4656
15	16QAM	1	1	21.71	21.72	21.73	0.3597	0.3606	0.3614
Channel				165800	167300	168800	L	M	H
Frequency (MHz)				829	836.5	844			
10	QPSK	1	1	22.72	22.80	22.74	0.4539	0.4624	0.4560
10	16QAM	1	1	21.69	21.73	21.68	0.3581	0.3614	0.3573
Channel				165300	167300	169300	L	M	H
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	1	22.83	22.82	22.74	0.4656	0.4645	0.4560
5	16QAM	1	1	21.66	21.67	21.66	0.3556	0.3565	0.3556



5G NR n25_ Module C Ant2 :

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP (W)		
Channel				374000	376500	379000	L	M	H
Frequency (MHz)				1870	1882.5	1895			
40	PI/2 BPSK	1	1	22.58	22.73	22.64	1.4060	1.4555	1.4256
40	PI/2 BPSK	1	108	22.60	22.65	22.33	1.4125	1.4289	1.3274
40	PI/2 BPSK	1	214	22.55	22.66	22.59	1.3964	1.4322	1.4093
40	PI/2 BPSK	108	0	22.20	22.12	22.23	1.2882	1.2647	1.2972
40	PI/2 BPSK	108	54	22.67	22.63	22.55	1.4355	1.4223	1.3964
40	PI/2 BPSK	108	108	22.34	22.53	22.17	1.3305	1.3900	1.2794
40	PI/2 BPSK	216	0	22.15	22.60	21.99	1.2735	1.4125	1.2274
40	QPSK	1	1	22.71	22.75	22.73	1.4488	1.4622	1.4555
40	QPSK	1	108	22.57	22.70	22.61	1.4028	1.4454	1.4158
40	QPSK	1	214	22.44	22.66	22.53	1.3614	1.4322	1.3900
40	QPSK	108	0	21.53	21.61	21.67	1.1041	1.1246	1.1402
40	QPSK	108	54	22.72	22.73	22.65	1.4521	1.4555	1.4289
40	QPSK	108	108	21.78	21.88	21.75	1.1695	1.1967	1.1614
40	QPSK	216	0	21.79	21.82	21.71	1.1722	1.1803	1.1508
40	16QAM	1	1	21.83	21.85	21.77	1.1830	1.1885	1.1668
40	64QAM	1	1	20.21	20.06	19.95	0.8147	0.7870	0.7674
40	256QAM	1	1	18.22	18.46	18.28	0.5152	0.5445	0.5224
Channel				373000	376500	380000	L	M	H
Frequency (MHz)				1865	1882.5	1900			
30	QPSK	1	1	22.66	22.66	22.64	1.4322	1.4322	1.4256
30	16QAM	1	1	21.52	21.53	21.51	1.1015	1.1041	1.0990
Channel				372500	376500	380500	L	M	H
Frequency (MHz)				1862.5	1882.5	1902.5			
25	QPSK	1	1	22.61	22.71	22.70	1.4158	1.4488	1.4454
25	16QAM	1	1	21.53	21.56	21.53	1.1041	1.1117	1.1041
Channel				372000	376500	381000	L	M	H
Frequency (MHz)				1860	1882.5	1905			
20	QPSK	1	1	22.64	22.73	22.67	1.4256	1.4555	1.4355
20	16QAM	1	1	21.54	21.53	21.53	1.1066	1.1041	1.1041
Channel				371500	376500	381500	L	M	H
Frequency (MHz)				1857.5	1882.5	1907.5			
15	QPSK	1	1	22.68	22.67	22.63	1.4388	1.4355	1.4223
15	16QAM	1	1	21.54	21.56	21.52	1.1066	1.1117	1.1015
Channel				371000	376500	382000	L	M	H
Frequency (MHz)				1855	1882.5	1910			
10	QPSK	1	1	22.61	22.66	22.69	1.4158	1.4322	1.4421
10	16QAM	1	1	21.45	21.44	21.42	1.0839	1.0814	1.0765
Channel				370500	376500	382500	L	M	H
Frequency (MHz)				1852.5	1882.5	1912.5			
5	QPSK	1	1	22.66	22.65	22.71	1.4322	1.4289	1.4488
5	16QAM	1	1	21.43	21.45	21.46	1.0789	1.0839	1.0864



5G NR n26_ Module A Ant0 :

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP (W)		
Channel				166800	167300	167800	L	M	H
Frequency (MHz)				834	836.5	839			
20	PI/2 BPSK	1	1	22.66	22.85	22.64	0.4477	0.4677	0.4457
20	PI/2 BPSK	1	53	22.70	22.75	22.65	0.4519	0.4571	0.4467
20	PI/2 BPSK	1	104	22.81	22.73	22.65	0.4634	0.4550	0.4467
20	PI/2 BPSK	50	0	22.33	22.25	22.27	0.4150	0.4074	0.4093
20	PI/2 BPSK	50	28	22.70	22.75	22.65	0.4519	0.4571	0.4467
20	PI/2 BPSK	50	56	22.43	22.53	22.23	0.4246	0.4345	0.4055
20	PI/2 BPSK	100	0	22.23	22.47	22.38	0.4055	0.4285	0.4198
20	QPSK	1	1	22.78	22.98	22.85	0.4603	0.4819	0.4677
20	QPSK	1	53	22.70	22.79	22.73	0.4519	0.4613	0.4550
20	QPSK	1	104	22.65	22.67	22.64	0.4467	0.4487	0.4457
20	QPSK	50	0	21.84	21.80	21.75	0.3707	0.3673	0.3631
20	QPSK	50	28	22.79	22.89	22.68	0.4613	0.4721	0.4498
20	QPSK	50	56	21.93	21.76	21.74	0.3784	0.3639	0.3622
20	QPSK	100	0	21.93	21.95	21.88	0.3784	0.3802	0.3741
20	16QAM	1	1	22.02	21.95	21.71	0.3864	0.3802	0.3597
20	64QAM	1	1	20.39	20.37	20.31	0.2655	0.2642	0.2606
20	256QAM	1	1	18.33	18.48	18.36	0.1652	0.1710	0.1663
Channel				166300	167300	168300	L	M	H
Frequency (MHz)				831.5	836.5	841.5			
15	QPSK	1	1	22.79	22.89	22.80	0.4613	0.4721	0.4624
15	16QAM	1	1	21.71	21.82	21.76	0.3597	0.3690	0.3639
Channel				165800	167300	168800	L	M	H
Frequency (MHz)				829	836.5	844			
10	QPSK	1	1	22.72	22.92	22.76	0.4539	0.4753	0.4581
10	16QAM	1	1	21.66	21.88	21.67	0.3556	0.3741	0.3565
Channel				165300	167300	169300	L	M	H
Frequency (MHz)				826.5	836.5	846.5			
5	QPSK	1	1	22.72	22.89	22.78	0.4539	0.4721	0.4603
5	16QAM	1	1	21.69	21.78	21.72	0.3581	0.3656	0.3606



5G NR n66 Module C ANT2 :

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP (W)		
Channel				346000	349000	352000	L	M	H
Frequency (MHz)				1730	1745	1760			
40	PI/2 BPSK	1	1	19.23	19.29	19.25	0.6501	0.6592	0.6531
40	PI/2 BPSK	1	108	19.20	19.39	19.29	0.6457	0.6745	0.6592
40	PI/2 BPSK	1	214	19.26	19.40	19.29	0.6546	0.6761	0.6592
40	PI/2 BPSK	108	0	19.23	19.31	19.31	0.6501	0.6622	0.6622
40	PI/2 BPSK	108	54	19.31	19.27	19.26	0.6622	0.6561	0.6546
40	PI/2 BPSK	108	108	19.12	19.36	19.25	0.6339	0.6699	0.6531
40	PI/2 BPSK	216	0	19.24	19.41	19.26	0.6516	0.6776	0.6546
40	QPSK	1	1	19.42	19.55	19.50	0.6792	0.6998	0.6918
40	QPSK	1	108	19.27	19.27	19.30	0.6561	0.6561	0.6607
40	QPSK	1	214	19.29	19.27	19.27	0.6592	0.6561	0.6561
40	QPSK	108	0	19.28	19.25	19.28	0.6577	0.6531	0.6577
40	QPSK	108	54	19.38	19.42	19.19	0.6730	0.6792	0.6442
40	QPSK	108	108	19.31	19.25	19.29	0.6622	0.6531	0.6592
40	QPSK	216	0	19.33	19.41	19.38	0.6653	0.6776	0.6730
40	16QAM	1	1	19.32	19.27	19.23	0.6637	0.6561	0.6501
40	64QAM	1	1	19.22	19.23	19.27	0.6486	0.6501	0.6561
40	256QAM	1	1	18.39	18.47	18.36	0.5358	0.5458	0.5321
Channel				345000	349000	353000	L	M	H
Frequency (MHz)				1725	1745	1765			
30	QPSK	1	1	19.22	19.36	19.29	0.6486	0.6699	0.6592
30	16QAM	1	1	19.11	19.27	19.22	0.6324	0.6561	0.6486
Channel				344000	349000	354000	L	M	H
Frequency (MHz)				1720	1745	1770			
20	QPSK	1	1	19.22	19.38	19.32	0.6486	0.6730	0.6637
20	16QAM	1	1	19.16	19.31	19.26	0.6397	0.6622	0.6546
Channel				343500	349000	354500	L	M	H
Frequency (MHz)				1717.5	1745	1772.5			
15	QPSK	1	1	19.23	19.37	19.32	0.6501	0.6714	0.6637
15	16QAM	1	1	19.15	19.31	19.24	0.6383	0.6622	0.6516
Channel				343000	349000	355000	L	M	H
Frequency (MHz)				1715	1745	1775			
10	QPSK	1	1	19.17	19.43	19.32	0.6412	0.6808	0.6637
10	16QAM	1	1	19.11	19.32	19.25	0.6324	0.6637	0.6531
Channel				342500	349000	355500	L	M	H
Frequency (MHz)				1712.5	1745	1777.5			
5	QPSK	1	1	19.23	19.38	19.27	0.6501	0.6730	0.6561
5	16QAM	1	1	19.15	19.31	19.22	0.6383	0.6622	0.6486



5G NR n70_ Module C ANT2 :

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP (W)		
Channel					340500		L	M	H
Frequency (MHz)					1702.5				
15	PI/2 BPSK	1	1		19.41			0.6776	
15	PI/2 BPSK	1	40		19.40			0.6761	
15	PI/2 BPSK	1	77		19.44			0.6823	
15	PI/2 BPSK	36	0		19.41			0.6776	
15	PI/2 BPSK	36	22		19.41			0.6776	
15	PI/2 BPSK	36	43		19.40			0.6761	
15	PI/2 BPSK	75	0		19.44			0.6823	
15	QPSK	1	1		19.54			0.6982	
15	QPSK	1	40		19.41			0.6776	
15	QPSK	1	77		19.40			0.6761	
15	QPSK	36	0		19.41			0.6776	
15	QPSK	36	22		19.44			0.6823	
15	QPSK	36	43		19.40			0.6761	
15	QPSK	75	0		19.47			0.6871	
15	16QAM	1	1		19.40			0.6761	
15	64QAM	1	1		19.40			0.6761	
	256QAM	1	1		18.54			0.5546	
Channel				340000	340500	341000	L	M	H
Frequency (MHz)				1700	1702.5	1705			
10	QPSK	1	1	19.37	19.43	19.41	0.6714	0.6808	0.6776
10	16QAM	1	1	19.31	19.36	19.33	0.6622	0.6699	0.6653
Channel				339500	340500	341500	L	M	H
Frequency (MHz)				1697.5	1702.5	1707.5			
5	QPSK	1	1	19.37	19.39	19.37	0.6714	0.6745	0.6714
5	16QAM	1	1	19.31	19.33	19.32	0.6622	0.6653	0.6637



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Bruce	Temperature :	23~25°C
		Relative Humidity :	41~42%

Note: Pre-scanned harmonic for the different antenna combinations, we choose the worst antenna mode to perform final test.

n2 SA / NR 20MHz / QPSK(ANT0)								
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)
Lowest	3705	-26.47	-13	-13.47	-38.73	2.64	14.90	H
	5550	-32.07	-13	-19.07	-43.93	2.94	14.80	H
	7395	-40.10	-13	-27.10	-49.87	3.39	13.16	H
	9255	-42.97	-13	-29.97	-53.45	4.00	14.48	H
	11115	-48.55	-13	-35.55	-58.06	4.23	13.74	H
	12960	-39.84	-13	-26.84	-49.68	4.49	14.32	H
	14805	-42.22	-13	-29.22	-52.47	4.94	15.19	H
	16665	-34.32	-13	-21.32	-44.21	5.01	14.90	H
	3705	-19.21	-13	-6.21	-31.47	2.64	14.90	V
	5550	-29.95	-13	-16.95	-41.81	2.94	14.80	V
	7410	-41.20	-13	-28.20	-50.97	3.39	13.16	V
	9255	-38.68	-13	-25.68	-49.16	4.00	14.48	V
	11115	-48.15	-13	-35.15	-57.66	4.23	13.74	V
	12960	-35.68	-13	-22.68	-45.52	4.49	14.32	V
	14805	-44.38	-13	-31.38	-54.63	4.94	15.19	V
	16665	-40.75	-13	-27.75	-50.64	5.01	14.90	V
Middle	3735	-23.12	-13	-10.12	-35.38	2.64	14.90	H
	5610	-26.55	-13	-13.55	-38.41	2.94	14.80	H
	7485	-42.27	-13	-29.27	-52.04	3.39	13.16	H
	9360	-44.32	-13	-31.32	-54.80	4.00	14.48	H
	11220	-47.69	-13	-34.69	-57.20	4.23	13.74	H
	13095	-45.20	-13	-32.20	-55.04	4.49	14.32	H
	14970	-43.25	-13	-30.25	-53.50	4.94	15.19	H
	16845	-36.24	-13	-23.24	-46.13	5.01	14.90	H
	3735	-19.46	-13	-6.46	-31.72	2.64	14.90	V
	5610	-27.10	-13	-14.10	-38.96	2.94	14.80	V
	7485	-41.21	-13	-28.21	-50.98	3.39	13.16	V
	9360	-41.52	-13	-28.52	-52.00	4.00	14.48	V
	11220	-47.68	-13	-34.68	-57.19	4.23	13.74	V
	13095	-35.73	-13	-22.73	-45.57	4.49	14.32	V
	14970	-44.56	-13	-31.56	-54.81	4.94	15.19	V
	16845	-40.16	-13	-27.16	-50.05	5.01	14.90	V



Highest	3780	-26.46	-13	-13.46	-38.72	2.64	14.90	H
	5670	-30.42	-13	-17.42	-42.28	2.94	14.80	H
	7560	-39.76	-13	-26.76	-49.53	3.39	13.16	H
	9450	-40.53	-13	-27.53	-51.01	4.00	14.48	H
	11340	-47.93	-13	-34.93	-57.44	4.23	13.74	H
	13245	-43.72	-13	-30.72	-53.56	4.49	14.32	H
	15135	-43.11	-13	-30.11	-53.36	4.94	15.19	H
	17025	-31.31	-13	-18.31	-41.20	5.01	14.90	H
	3780	-20.10	-13	-7.10	-32.36	2.64	14.90	V
	5670	-33.36	-13	-20.36	-45.22	2.94	14.80	V
	7560	-37.73	-13	-24.73	-47.50	3.39	13.16	V
	9450	-41.92	-13	-28.92	-52.40	4.00	14.48	V
	11340	-48.22	-13	-35.22	-57.73	4.23	13.74	V
	13245	-38.46	-13	-25.46	-48.30	4.49	14.32	V
	15135	-45.93	-13	-32.93	-56.18	4.94	15.19	V
	17025	-40.84	-13	-27.84	-50.73	5.01	14.90	V

EN-DC_66A_n2A / LTE 10MHz + NR 20MHz / QPSK (ANT0+2)								
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)
Lowest	3705	-49.23	-13	-36.23	-61.49	2.64	14.90	H
	5550	-55.73	-13	-42.73	-67.59	2.94	14.80	H
	7410	-55.06	-13	-42.06	-64.83	3.39	13.16	H
	3705	-43.30	-13	-30.30	-55.56	2.64	14.90	V
	5550	-54.87	-13	-41.87	-66.73	2.94	14.80	V
	7410	-55.20	-13	-42.20	-64.97	3.39	13.16	V
Middle	3735	-42.33	-13	-29.33	-54.59	2.64	14.90	H
	5610	-51.57	-13	-38.57	-63.43	2.94	14.80	H
	7485	-54.37	-13	-41.37	-64.14	3.39	13.16	H
	3735	-37.13	-13	-24.13	-49.39	2.64	14.90	V
	5610	-47.98	-13	-34.98	-59.84	2.94	14.80	V
	7485	-53.27	-13	-40.27	-63.04	3.39	13.16	V
Highest	3780	-38.91	-13	-25.91	-51.17	2.64	14.90	H
	5670	-50.89	-13	-37.89	-62.75	2.94	14.80	H
	7560	-51.31	-13	-38.31	-61.08	3.39	13.16	H
	3780	-34.62	-13	-21.62	-46.88	2.64	14.90	V
	5670	-48.74	-13	-35.74	-60.60	2.94	14.80	V
	7560	-51.37	-13	-38.37	-61.14	3.39	13.16	V

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



EN-DC_12A_n25A / LTE 20MHz + NR 20MHz / QPSK (ANT0+2)								
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)
Lowest	3705	-55.76	-13	-42.76	-68.02	2.64	14.90	H
	5550	-55.20	-13	-42.20	-67.06	2.94	14.80	H
	7410	-54.39	-13	-41.39	-64.16	3.39	13.16	H
	3705	-55.65	-13	-42.65	-67.91	2.64	14.90	V
	5550	-55.61	-13	-42.61	-67.47	2.94	14.80	V
	7410	-54.57	-13	-41.57	-64.34	3.39	13.16	V
Middle	3735	-56.79	-13	-43.79	-69.05	2.64	14.90	H
	5595	-54.92	-13	-41.92	-66.78	2.94	14.80	H
	7455	-54.16	-13	-41.16	-63.93	3.39	13.16	H
	3735	-56.24	-13	-43.24	-68.50	2.64	14.90	V
	5595	-54.98	-13	-41.98	-66.84	2.94	14.80	V
	7455	-54.03	-13	-41.03	-63.80	3.39	13.16	V
Highest	3750	-56.64	-13	-43.64	-68.90	2.64	14.90	H
	5625	-55.66	-13	-42.66	-67.52	2.94	14.80	H
	7515	-54.28	-13	-41.28	-64.05	3.39	13.16	H
	3750	-56.51	-13	-43.51	-68.77	2.64	14.90	V
	5625	-55.79	-13	-42.79	-67.65	2.94	14.80	V
	7515	-54.29	-13	-41.29	-64.06	3.39	13.16	V

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

N5 SA / NR 20MHz / QPSK(ANT0)								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-66.22	-13	-53.22	-73.19	1.58	10.70	H
	2472	-59.77	-13	-46.77	-68.02	2.102	12.50	H
	3296	-56.16	-13	-43.16	-65.05	2.856	13.90	H
	1648	-64.54	-13	-51.54	-71.51	1.58	10.70	V
	2472	-55.52	-13	-42.52	-63.77	2.10	12.50	V
	3296	-54.10	-13	-41.10	-62.99	2.86	13.90	V
Middle	1656	-66.16	-13	-53.16	-73.13	1.58	10.70	H
	2480	-62.06	-13	-49.06	-70.31	2.102	12.50	H
	3312	-57.94	-13	-44.94	-66.83	2.856	13.90	H
	1656	-65.11	-13	-52.11	-72.08	1.58	10.70	V
	2480	-59.31	-13	-46.31	-67.56	2.10	12.50	V
	3312	-53.99	-13	-40.99	-62.88	2.86	13.90	V
Highest	1664	-65.72	-13	-52.72	-72.69	1.58	10.70	H
	2488	-61.40	-13	-48.40	-69.65	2.102	12.50	H
	3320	-58.63	-13	-45.63	-67.52	2.856	13.90	H
	1664	-64.72	-13	-51.72	-71.69	1.58	10.70	V
	2488	-58.88	-13	-45.88	-67.13	2.10	12.50	V
	3320	-55.08	-13	-42.08	-63.97	2.86	13.90	V

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



N25 SA / NR 40MHz / QPSK(ANT0)								
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)
Lowest	3705	-58.28	-13	-45.28	-70.54	2.64	14.90	H
	5550	-58.24	-13	-45.24	-70.10	2.94	14.80	H
	7410	-54.03	-13	-41.03	-63.80	3.39	13.16	H
	3705	-58.55	-13	-45.55	-70.81	2.64	14.90	V
	5550	-58.01	-13	-45.01	-69.87	2.94	14.80	V
	7410	-54.21	-13	-41.21	-63.98	3.39	13.16	V
Middle	3735	-58.75	-13	-45.75	-71.01	2.64	14.90	H
	5595	-58.02	-13	-45.02	-69.88	2.94	14.80	H
	7455	-54.28	-13	-41.28	-64.05	3.39	13.16	H
	3735	-58.39	-13	-45.39	-70.65	2.64	14.90	V
	5595	-58.15	-13	-45.15	-70.01	2.94	14.80	V
	7455	-53.78	-13	-40.78	-63.55	3.39	13.16	V
Highest	3750	-58.81	-13	-45.81	-71.07	2.64	14.90	H
	5625	-58.02	-13	-45.02	-69.88	2.94	14.80	H
	7515	-53.92	-13	-40.92	-63.69	3.39	13.16	H
	3750	-58.80	-13	-45.80	-71.06	2.64	14.90	V
	5625	-58.48	-13	-45.48	-70.34	2.94	14.80	V
	7515	-53.99	-13	-40.99	-63.76	3.39	13.16	V

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

N26 SA / NR 20MHz / QPSK(ANT0)								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-64.63	-13	-51.63	-71.60	1.58	10.70	H
	2472	-60.70	-13	-47.70	-68.95	2.102	12.50	H
	3296	-59.23	-13	-46.23	-68.12	2.856	13.90	H
	1648	-63.72	-13	-50.72	-70.69	1.58	10.70	V
	2472	-58.64	-13	-45.64	-66.89	2.10	12.50	V
	3296	-59.12	-13	-46.12	-68.01	2.86	13.90	V
Middle	1656	-63.91	-13	-50.91	-70.88	1.58	10.70	H
	2488	-60.34	-13	-47.34	-68.59	2.102	12.50	H
	3320	-59.43	-13	-46.43	-68.32	2.856	13.90	H
	1656	-63.20	-13	-50.20	-70.17	1.58	10.70	V
	2488	-58.62	-13	-45.62	-66.87	2.10	12.50	V
	3320	-59.55	-13	-46.55	-68.44	2.86	13.90	V
Highest	1672	-63.79	-13	-50.79	-70.76	1.58	10.70	H
	2504	-60.26	-13	-47.26	-68.51	2.102	12.50	H
	3336	-59.51	-13	-46.51	-68.40	2.856	13.90	H
	1672	-62.80	-13	-49.80	-69.77	1.58	10.70	V
	2504	-58.77	-13	-45.77	-67.02	2.10	12.50	V
	3336	-59.41	-13	-46.41	-68.30	2.86	13.90	V

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



EN-DC_66A_n5A / LTE 20MHz + NR 20MHz / QPSK (ANT2+0)								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-65.51	-13	-52.51	-72.48	1.58	10.70	H
	2472	-57.00	-13	-44.00	-65.25	2.102	12.50	H
	3296	-55.41	-13	-42.41	-64.30	2.856	13.90	H
	1648	-66.22	-13	-53.22	-73.19	1.58	10.70	V
	2472	-57.58	-13	-44.58	-65.83	2.10	12.50	V
	3296	-55.61	-13	-42.61	-64.50	2.86	13.90	V
Middle	1656	-65.69	-13	-52.69	-72.66	1.58	10.70	H
	2480	-60.18	-13	-47.18	-68.43	2.102	12.50	H
	3312	-54.49	-13	-41.49	-63.38	2.856	13.90	H
	1656	-64.90	-13	-51.90	-71.87	1.58	10.70	V
	2480	-55.99	-13	-42.99	-64.24	2.10	12.50	V
	3312	-49.10	-13	-36.10	-57.99	2.86	13.90	V
Highest	1664	-65.36	-13	-52.36	-72.33	1.58	10.70	H
	2488	-61.66	-13	-48.66	-69.91	2.102	12.50	H
	3320	-56.03	-13	-43.03	-64.92	2.856	13.90	H
	4152	-61.63	-13	-48.63	-70.09	2.689	13.30	H
	1664	-63.69	-13	-50.69	-70.66	1.58	10.70	V
	2488	-57.14	-13	-44.14	-65.39	2.10	12.50	V
	3320	-50.77	-13	-37.77	-59.66	2.86	13.90	V
	4152	-58.71	-13	-45.71	-67.17	2.69	13.30	V

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

N66 SA / NR 40MHz / QPSK(ANT0)								
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)
Lowest	3420	-27.49	-13	-14.49	-38.23	2.604	13.34	H
	5130	-29.66	-13	-16.66	-40.17	3.011	13.52	H
	6840	-31.69	-13	-18.69	-41.89	3.271	13.47	H
	8550	-47.45	-13	-34.45	-54.42	5.527	12.5	H
	10275	-49.54	-13	-36.54	-56.40	6.038	12.9	H
	11970	-43.83	-13	-30.83	-51.03	6.726	13.93	H
	13680	-43.59	-13	-30.59	-51.03	6.963	14.4	H
	15390	-42.18	-13	-29.18	-48.81	7.57	14.2	H
	17115	-33.39	-13	-20.39	-38.96	8.063	13.63	H
	3420	-20.63	-13	-7.63	-31.37	2.604	13.34	V
	5130	-28.58	-13	-15.58	-39.09	3.011	13.52	V
	6840	-31.47	-13	-18.47	-41.67	3.271	13.47	V
	8550	-46.35	-13	-33.35	-53.32	5.527	12.50	V
	10275	-49.89	-13	-36.89	-56.75	6.038	12.90	V
	11970	-40.97	-13	-27.97	-48.17	6.726	13.93	V
	13680	-43.34	-13	-30.34	-50.78	6.963	14.40	V
	15390	-44.52	-13	-31.52	-51.15	7.57	14.20	V
	17115	-40.84	-13	-27.84	-46.41	8.063	13.63	V
Middle	3450	-27.60	-13	-14.60	-38.34	2.604	13.34	H
	5175	-28.41	-13	-15.41	-38.92	3.011	13.52	H



	6900	-35.45	-13	-22.45	-45.65	3.271	13.47	H
	8625	-45.02	-13	-32.02	-51.99	5.527	12.5	H
	10365	-49.66	-13	-36.66	-56.52	6.038	12.9	H
	12075	-44.88	-13	-31.88	-52.08	6.726	13.93	H
	13800	-43.56	-13	-30.56	-51.00	6.963	14.4	H
	15525	-41.37	-13	-28.37	-48.00	7.57	14.2	H
	17265	-37.25	-13	-24.25	-42.82	8.063	13.63	H
	3450	-19.99	-13	-6.99	-30.73	2.604	13.34	V
	5175	-26.33	-13	-13.33	-36.84	3.011	13.52	V
	6900	-30.10	-13	-17.10	-40.30	3.271	13.47	V
	8625	-44.67	-13	-31.67	-51.64	5.527	12.50	V
	10365	-49.97	-13	-36.97	-56.83	6.038	12.90	V
	12075	-43.08	-13	-30.08	-50.28	6.726	13.93	V
	13800	-45.10	-13	-32.10	-52.54	6.963	14.40	V
	15525	-44.79	-13	-31.79	-51.42	7.57	14.20	V
	17265	-42.59	-13	-29.59	-48.16	8.063	13.63	V
Highest	3480	-27.47	-13	-14.47	-38.21	2.604	13.34	H
	5220	-26.13	-13	-13.13	-36.64	3.011	13.52	H
	6960	-33.47	-13	-20.47	-43.67	3.271	13.47	H
	8700	-47.34	-13	-34.34	-54.31	5.527	12.5	H
	10455	-48.81	-13	-35.81	-55.67	6.038	12.9	H
	12180	-44.45	-13	-31.45	-51.65	6.726	13.93	H
	13920	-43.05	-13	-30.05	-50.49	6.963	14.4	H
	15675	-41.43	-13	-28.43	-48.06	7.57	14.2	H
	17415	-36.24	-13	-23.24	-41.81	8.063	13.63	H
	3480	-20.58	-13	-7.58	-31.32	2.604	13.34	V
	5220	-25.60	-13	-12.60	-36.11	3.011	13.52	V
	6960	-32.85	-13	-19.85	-43.05	3.271	13.47	V
	8700	-45.42	-13	-32.42	-52.39	5.527	12.50	V
	10455	-49.01	-13	-36.01	-55.87	6.038	12.90	V
	12180	-42.84	-13	-29.84	-50.04	6.726	13.93	V
	13920	-45.93	-13	-32.93	-53.37	6.963	14.40	V
	15675	-43.53	-13	-30.53	-50.16	7.57	14.20	V
	17415	-40.18	-13	-27.18	-45.75	8.063	13.63	V

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



N70 SA / NR 10MHz / QPSK(ANT0)								
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)
Lowest	3390	-47.02	-13	-34.02	-57.76	2.604	13.34	H
	5085	-51.14	-13	-38.14	-61.65	3.011	13.52	H
	6780	-53.80	-13	-40.80	-64.00	3.271	13.47	H
	3390	-42.36	-13	-29.36	-53.10	2.604	13.34	V
	5085	-47.13	-13	-34.13	-57.64	3.011	13.52	V
	6780	-53.43	-13	-40.43	-63.63	3.271	13.47	V
Middle	3390	-44.15	-13	-31.15	-54.89	2.604	13.34	H
	5100	-48.74	-13	-35.74	-59.25	3.011	13.52	H
	6795	-54.24	-13	-41.24	-64.44	3.271	13.47	H
	3390	-39.97	-13	-26.97	-50.71	2.604	13.34	V
	5100	-46.03	-13	-33.03	-56.54	3.011	13.52	V
	6795	-54.27	-13	-41.27	-64.47	3.271	13.47	V
Highest	3405	-44.40	-13	-31.40	-55.14	2.604	13.34	H
	5100	-48.83	-13	-35.83	-59.34	3.011	13.52	H
	6795	-54.21	-13	-41.21	-64.41	3.271	13.47	H
	3405	-40.63	-13	-27.63	-51.37	2.604	13.34	V
	5100	-45.68	-13	-32.68	-56.19	3.011	13.52	V
	6795	-54.26	-13	-41.26	-64.46	3.271	13.47	V

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

N70 SA / NR 15MHz / QPSK(ANT0)								
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	3390	-43.81	-13	-30.81	-54.55	2.604	13.34	H
	5085	-50.54	-13	-37.54	-61.05	3.011	13.52	H
	6780	-54.05	-13	-41.05	-64.25	3.271	13.47	H
	3390	-41.29	-13	-28.29	-52.03	2.604	13.34	V
	5085	-47.88	-13	-34.88	-58.39	3.011	13.52	V
	6780	-54.11	-13	-41.11	-64.31	3.271	13.47	V

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



EN-DC_12A_n66A / LTE 20MHz + NR 20MHz / QPSK (ANT0+2)								
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)
Lowest	3420	-40.75	-13	-27.75	-51.49	2.604	13.34	H
	5130	-54.68	-13	-41.68	-65.19	3.011	13.52	H
	6855	-55.42	-13	-42.42	-65.62	3.271	13.47	H
	3420	-50.25	-13	-37.25	-60.99	2.604	13.34	V
	5130	-54.01	-13	-41.01	-64.52	3.011	13.52	V
	6855	-55.54	-13	-42.54	-65.74	3.271	13.47	V
Middle	3450	-57.18	-13	-44.18	-67.92	2.604	13.34	H
	5175	-54.83	-13	-41.83	-65.34	3.011	13.52	H
	6915	-55.56	-13	-42.56	-65.76	3.271	13.47	H
	3450	-57.26	-13	-44.26	-68.00	2.604	13.34	V
	5175	-55.09	-13	-42.09	-65.60	3.011	13.52	V
	6915	-55.77	-13	-42.77	-65.97	3.271	13.47	V
Highest	3480	-43.27	-13	-30.27	-54.01	2.604	13.34	H
	5220	-54.89	-13	-41.89	-65.40	3.011	13.52	H
	6975	-55.76	-13	-42.76	-65.96	3.271	13.47	H
	3480	-58.51	-13	-45.51	-69.25	2.604	13.34	V
	5220	-54.34	-13	-41.34	-64.85	3.011	13.52	V
	6975	-55.79	-13	-42.79	-65.99	3.271	13.47	V

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