



# FCC RADIO TEST REPORT

FCC ID : 2AJN7-TP00145AU  
Equipment : Notebook Computer  
Brand Name : Lenovo  
Compliance ID : TP00145A; TP00145B  
Applicant : LC Future Center Limited Taiwan Branch  
7F., No.780, Beian Rd., Zhongshan Dist., Taipei 104, Taiwan  
Manufacturer : LCFC (HeFei) Electronics Technology Co., Ltd.  
No. 3188-1, Yungu Road (Hefei Export Processing Zone), Hefei  
Economics & Technology Development Area, Anhui, CHINA  
Standard : FCC 47 CFR Part 2, 22(H), 24(E), 27

Equipment: Fibocom FM350-GL tested inside of Lenovo Notebook Computer.

The product was received on Nov. 14, 2022 and testing was performed from Dec. 09, 2022 to Jan. 18, 2023. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

**Sporton International Inc. Wensan Laboratory**



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Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Reporting only	-
	§22.913 (a)(5)	Effective Radiated Power (n5)	Pass	
	§27.50 (c)(10)	Effective Radiated Power (n71)		
	§24.232 (c) §27.50 (h)(2)	Equivalent Isotropic Radiated Power (n2) (n25) (n7) (n38) (n41)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (n66)		
-	§24.232 (d) §27.50 (d)(5)	Peak-to-Average Ratio	-	See Note
-	§2.1049	Occupied Bandwidth	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g) §27.53 (h)	Conducted Band Edge Measurement (n2) (n5) (n25) (n66) (n71)	-	See Note
	§2.1051 §27.53 (m)(4)	Conducted Band Edge Measurement (n7) (n38) (n41)		
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g) §27.53 (h)	Conducted Spurious Emission (n2) (n5) (n25) (n66) (n71)	-	See Note
	§2.1051 §27.53 (m)(4)	Conducted Spurious Emission (n7) (n38) (n41)		
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	-	See Note



Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
4.2	§2.1053 §22.917 (a) §24.238 (a) §27.53 (g) §27.53 (h)	Radiated Spurious Emission (n2) (n5) (n25) (n66) (n71)	Pass	5.45 dB under the limit at 10008.000 MHz
	§2.1051 §27.53 (m)(4)	Radiated Spurious Emission (n7) (n38) (n41)		

**Note:** The certified module (model: FM350-GL) which supports normal mode and TX switching mode being integrated into a notebook computer. Spot check on both modes were performed and no degradation occur. Thus additionally reporting the spot check results in this report.

**Declaration of Conformity:**

- The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
- The measurement uncertainty please refer to report "Uncertainty of Evaluation".

**Comments and Explanations:**

- The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.
- The purpose of different model name is for CPU (Intel/AMD).

**Reviewed by: Sheng Kuo**

**Report Producer: Lucy Wu**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Notebook Computer
Brand Name	Lenovo
Compliance ID	TP00145A; TP00145B
FCC ID	2AJN7-TP00145AU
Sample 1	EUT with Amphenol Taiwan Corporation Antenna
Sample 2	EUT with Speed Antenna
Integrated WLAN Module	Brand Name: Qualcomm Model Name: QCNFA725 FCC ID: A5M-QCNFA725
Integrated WLAN Module	Brand Name: Intel Model Name: AX211D2W FCC ID: PD9AX211D2
Integrated NFC Module	Brand Name: Foxconn Model Name: T77H747
EUT supports Radios application	WCDMA/HSPA/LTE/5G NR/GNSS/NFC WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE
EUT Stage	Production Unit

**Remark:**

1. The above EUT's information was declared by manufacturer.
2. Equipment: Fibocom FM350-GL tested inside of Lenovo Notebook Computer.
3. All the test results were performed with TP00145A.

	Normal mode	TX switching mode
	TX/RX	TX/RX
Ant_0 (Main)	WCDMA : 2/4/5 LTE : 2/4/5/7/12/13/14/17/25/26/30/38/66/71 NR : 2/5/7/25/30/38/66/71	WCDMA : 5 LTE : 5/12/13/14/17/26/41/48/71 NR : 5/41/71/77/78
Ant_2 (MIMO2)	LTE : 41/48 NR : 41/77/78	WCDMA : 2/4 LTE : 2/4/7/25/30/38/66 NR : 2/7/25/30/38/66



WWAN Antenna Information				
Main Antenna	Manufacturer	Amphenol Taiwan Corporation	Peak gain (dBi)	5G NR n2: 0.4 5G NR n5: -0.4 5G NR n7: 0.4 5G NR n25: 0.4 5G NR n38: 0.8 5G NR n41: 0.6 5G NR n66: 1.8 5G NR n71: -2.8
	Part number	DC33001YS50	Type	PIFA
	Manufacturer	Speed	Peak gain (dBi)	5G NR n2: 0.4 5G NR n5: -0.4 5G NR n7: 0.4 5G NR n25: 0.4 5G NR n38: 0.8 5G NR n41: 0.6 5G NR n66: 1.8 5G NR n71: -2.8
	Part number	DC33001YT50	Type	PIFA
MIMO 2 Antenna	Manufacturer	Amphenol Taiwan Corporation	Peak gain (dBi)	5G NR n2: -0.2 5G NR n7: -2.4 5G NR n25: -0.1 5G NR n38: -2.7 5G NR n41: -2.3 5G NR n66: 0.1
	Part number	DC33001YS40	Type	PIFA
	Manufacturer	Speed	Peak gain (dBi)	5G NR n2: -0.2 5G NR n7: -2.4 5G NR n25: -0.1 5G NR n38: -2.7 5G NR n41: -2.3 5G NR n66: 0.1
	Part number	DC33001YT40	Type	PIFA

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.



## 1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
<b>Tx Frequency</b>	5G NR n2: 1852.5 MHz ~ 1907.5 MHz 5G NR n5: 826.5 MHz ~ 846.5 MHz 5G NR n7: 2502.5 MHz ~ 2567.5 MHz 5G NR n25: 1852.5 MHz ~ 1912.5 MHz 5G NR n38: 2575 MHz ~ 2615 MHz 5G NR n41: 2501.01 MHz ~ 2685.00 MHz 5G NR n66: 1712.5 MHz ~ 1777.5 MHz 5G NR n71: 665.5 MHz ~ 695.5 MHz
<b>Rx Frequency</b>	5G NR n2: 1932.5 MHz ~ 1987.5 MHz 5G NR n5: 871.5 MHz ~ 891.5 MHz 5G NR n7: 2622.5 MHz ~ 2687.5 MHz 5G NR n25: 1932.5 MHz ~ 1992.5 MHz 5G NR n38: 2575 MHz ~ 2615 MHz 5G NR n41: 2501.01 MHz ~ 2685.00 MHz 5G NR n66: 2112.5 MHz ~ 2197.5 MHz 5G NR n71: 619.5 MHz ~ 649.5 MHz
<b>Bandwidth</b>	5G NR n2: 5MHz / 10MHz / 15MHz / 20MHz 5G NR n5: 5MHz / 10MHz / 15MHz / 20MHz 5G NR n7: 5MHz / 10MHz / 15MHz / 20MHz 5G NR n25: 5MHz / 10MHz / 15MHz / 20MHz 5G NR n38: 5MHz / 10MHz / 15MHz / 20MHz 5G NR n41: 10MHz / 15MHz / 30MHz / 40MHz / 50MHz / 80MHz / 100MHz 5G NR n66: 5MHz / 10MHz / 15MHz / 20MHz / 40MHz 5G NR n71: 5MHz / 10MHz / 15MHz / 20MHz
<b>Maximum Output Power to Antenna</b>	<b>&lt;Main Antenna&gt;</b> 5G NR n2: 22.97 dBm 5G NR n5: 23.99 dBm 5G NR n7: 23.34 dBm 5G NR n25: 22.77 dBm 5G NR n38: 23.09 dBm 5G NR n41: 26.48 dBm for HPUE 5G NR n66: 23.19 dBm 5G NR n71: 23.75 dBm <b>&lt;MIMO 2 Antenna&gt;</b> 5G NR n2: 23.26 dBm 5G NR n7: 23.17 dBm 5G NR n25: 22.84 dBm 5G NR n38: 23.27 dBm 5G NR n41: 26.83 dBm for HPUE 5G NR n66: 23.21 dBm
<b>Type of Modulation</b>	PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

## 1.3 Modification of EUT

No modifications made to the EUT during the testing.





### 1.4 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333
Test Site No.	<b>Sporton Site No.</b>
	TH03-HY (TAF Code: 1190)
Test Engineer	Mike Yeh
Temperature (°C)	22.2~23.0
Relative Humidity (%)	51~56
Remark	The Conducted test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010
Test Site No.	<b>Sporton Site No.</b>
	03CH15-HY
Test Engineer	Eric Xiao, Quentin Liu and Bigshow Wang
Temperature (°C)	21~26
Relative Humidity (%)	45~60

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190 and TW3786

### 1.5 Applicable Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ FCC 47 CFR Part 2, 22(H), 24(E), 27
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.

**Remark:**

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.



## 2 Test Configuration of Equipment Under Test

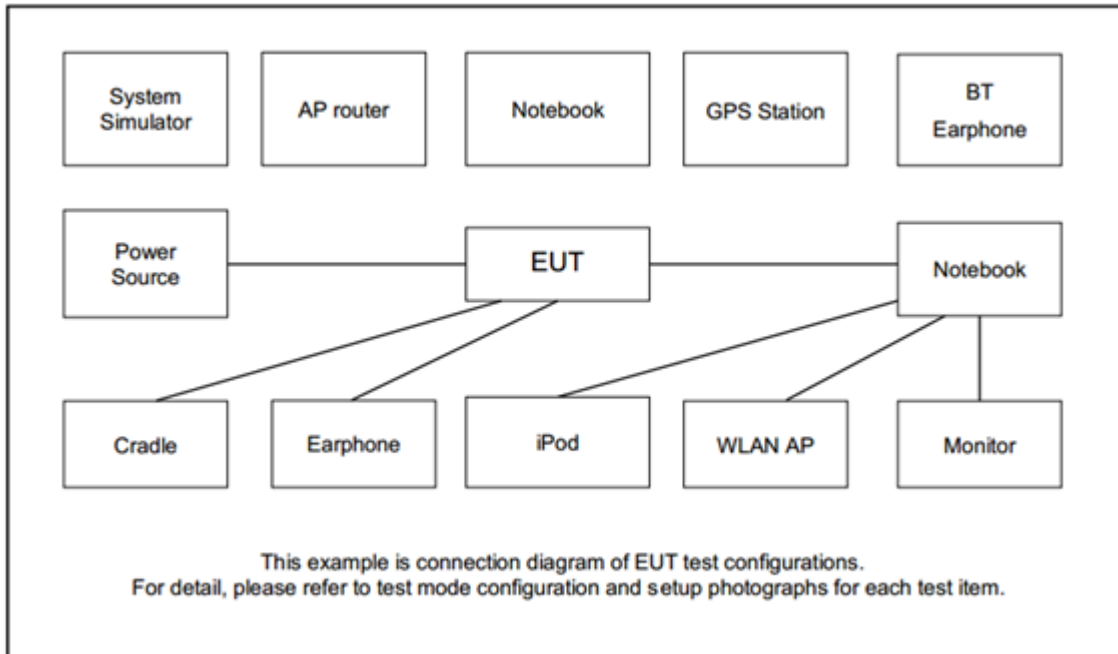
### 2.1 Test Mode

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.

Test Items	NR Band	Bandwidth (MHz)							Modulation					RB #			Test Channel		
		5	10	15	20	30	40	50	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	n2	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
	n7	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
	n38	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
	n71	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			Max. Power					
	n5	v	v	v	v	-	-	-	v	v	v								
	n7	v	v	v	v	-	-	-	v	v	v								
	n25	v	v	v	v	-	-	-	v	v	v								
	n38	v	v	v	v	-	-	-	v	v	v								
	n66	v	v	v	v	-	v	-	v	v	v								
	n71	v	v	v	v	-	-	-	v	v	v								
Radiated Spurious Emission	n2				v	-	-	-	v					v			v	v	v
	n5				v	-	-	-	v					v			v	v	v
	n7				v	-	-	-	v					v			v	v	v
	n25				v	-	-	-	v					v			v	v	v
	n38				v	-	-	-	v					v			v	v	v
	n66					-	v	-	v					v			v	v	v
	n71				v	-	-	-	v					v			v	v	v
Remark	<ol style="list-style-type: none"> <li>The mark "v " means that this configuration is chosen for testing</li> <li>The mark "- " means that this bandwidth is not supported.</li> <li>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.</li> <li>For radiated measurement, pre-scanned in two modes, DFT-s OFDM and CP OFDM. The worst cases (DFT-s OFDM) were recorded in this report, and the worst modes of FR1 and LTE for simultaneous transmission were verified and compliant.</li> <li>All the radiated test cases were performed with Battery 1 and Sample 2.</li> <li>For modulation of PI/2 BPSK/QPSK/16QAM, the maximum power of PI/2 BPSK/QPSK/16QAM is higher than other modulation(64QAM/256QAM), therefore, according to engineering evaluation , we choose higher power (PI/2 BPSK/QPSK/16QAM) to perform all tests and show in the report.</li> <li>Test combination is EN-DC 5A-n2A.</li> </ol>																		

Test Items	NR Band	Bandwidth (MHz)										Modulation					RB #			Test Channel		
		10	15	20	30	40	50	60	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	n41_HPUE	v	v	-	v	v	v	-	v	-	v	v	v	v			v	v		v	v	v
E.I.R.P	n41_HPUE	v	v	-	v	v	v	-	v	-	v	v	v	v			Max. Power					
Radiated Spurious Emission	n41_HPUE			-				-	v	-		v					v			v	v	v
Remark	<ol style="list-style-type: none"> <li>The mark "v " means that this configuration is chosen for testing</li> <li>The mark "- " means that this bandwidth is not supported.</li> <li>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.</li> <li>For radiated measurement, pre-scanned in two modes, DFT-s OFDM and CP OFDM. The worst cases (DFT-s OFDM) were recorded in this report, and the worst modes of FR1 and LTE for simultaneous transmission were verified and compliant.</li> <li>All the radiated test cases were performed with Battery 1 and Sample 2.</li> <li>For modulation of PI/2 BPSK/QPSK/16QAM, the maximum power of PI/2 BPSK/QPSK/16QAM is higher than other modulation(64QAM/256QAM), therefore, according to engineering evaluation , we choose higher power (PI/2 BPSK/QPSK/16QAM) to perform all tests and show in the report.</li> <li>Test combination is EN-DC 66A-n41A</li> </ol>																					

## 2.2 Connection Diagram of Test System





### 2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
4.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

### 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



<b>5G NR n7 Channel and Frequency List</b>				
<b>BW [MHz]</b>	<b>Channel/Frequency(MHz)</b>	<b>Lowest</b>	<b>Middle</b>	<b>Highest</b>
20	Channel	502000	507000	512000
	Frequency	2510	2535	2560
15	Channel	501500	507000	512500
	Frequency	2507.5	2535	2562.5
10	Channel	501000	507000	513000
	Frequency	2505	2535	2565
5	Channel	500500	507000	513500
	Frequency	2502.5	2535	2567.5

<b>5G NR n25 Channel and Frequency List</b>				
<b>BW [MHz]</b>	<b>Channel/Frequency(MHz)</b>	<b>Lowest</b>	<b>Middle</b>	<b>Highest</b>
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

<b>5G NR n38 Channel and Frequency List</b>				
<b>BW [MHz]</b>	<b>Channel/Frequency(MHz)</b>	<b>Lowest</b>	<b>Middle</b>	<b>Highest</b>
20	Channel	516000	519000	522000
	Frequency	2580	2595	2610
15	Channel	515500	519000	522500
	Frequency	2577.5	2595	2612.5
10	Channel	515000	519000	523000
	Frequency	2575	2595	2615
5	Channel	514500	519000	523500
	Frequency	2572.5	2595	2617.5



5G NR n41 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	509202	518598	528000
	Frequency	2546.01	2592.99	2640
80	Channel	507204	518598	529998
	Frequency	2536.02	2592.99	2649.99
50	Channel	504204	518598	532998
	Frequency	2521.02	2592.99	2664.99
40	Channel	503202	518598	534000
	Frequency	2516.01	2592.99	2670
30	Channel	502200	518598	534996
	Frequency	2511	2592.99	2674.98
15	Channel	500700	518598	536496
	Frequency	2503.5	2592.99	2682.48
10	Channel	500202	518598	537000
	Frequency	2501.01	2592.99	2685

5G NR n66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
40	Channel	346000	349000	352000
	Frequency	1730	1745	1760
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



<b>5G NR n71 Channel and Frequency List</b>				
<b>BW [MHz]</b>	<b>Channel/Frequency(MHz)</b>	<b>Lowest</b>	<b>Middle</b>	<b>Highest</b>
20	Channel	134600	136100	137600
	Frequency	673	680.5	688
15	Channel	134100	136100	138100
	Frequency	670.5	680.5	690.5
10	Channel	133600	136100	138600
	Frequency	668	680.5	693
5	Channel	133100	136100	139100
	Frequency	665.5	680.5	695.5

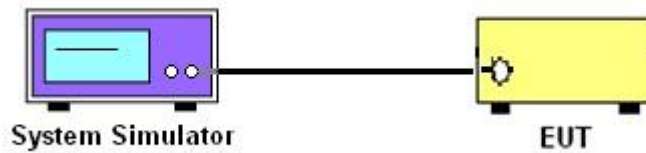
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.1 Test Setup

##### 3.1.2 Conducted Output Power



##### 3.1.3 Test Result of Conducted Test

Please refer to Appendix A.





## 3.2 Conducted Output Power and ERP/EIRP

### 3.2.1 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

The ERP of mobile transmitters must not exceed 3 Watts for 5G NR n71

The EIRP of mobile transmitters must not exceed 2 Watts for 5G NR n2 and n25 and n7 and n38 and n41

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

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

### 3.2.2 Test Procedures

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

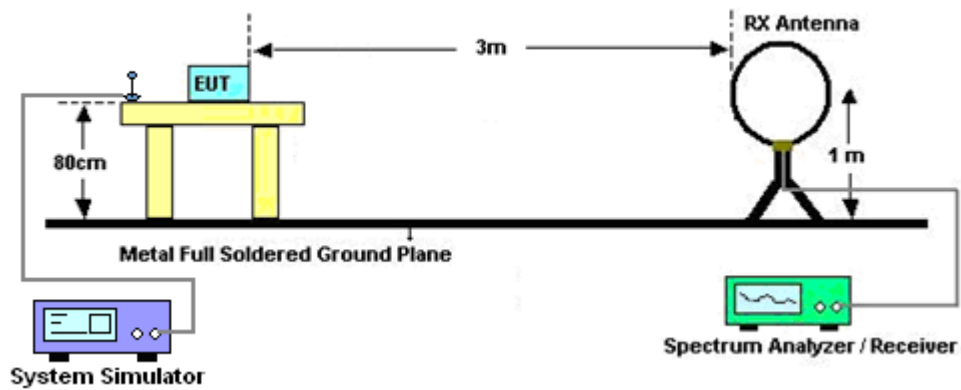
## 4 Radiated Test Items

### 4.1 Measuring Instruments

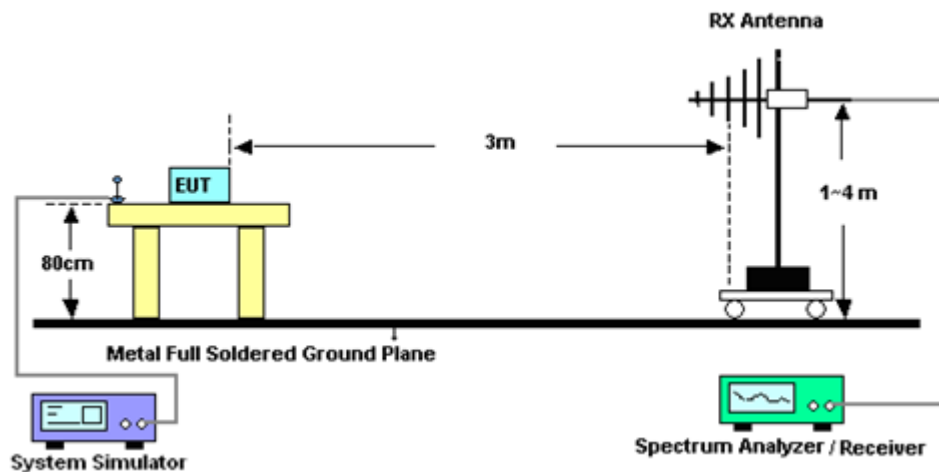
See list of measuring instruments of this test report.

#### 4.1.1 Test Setup

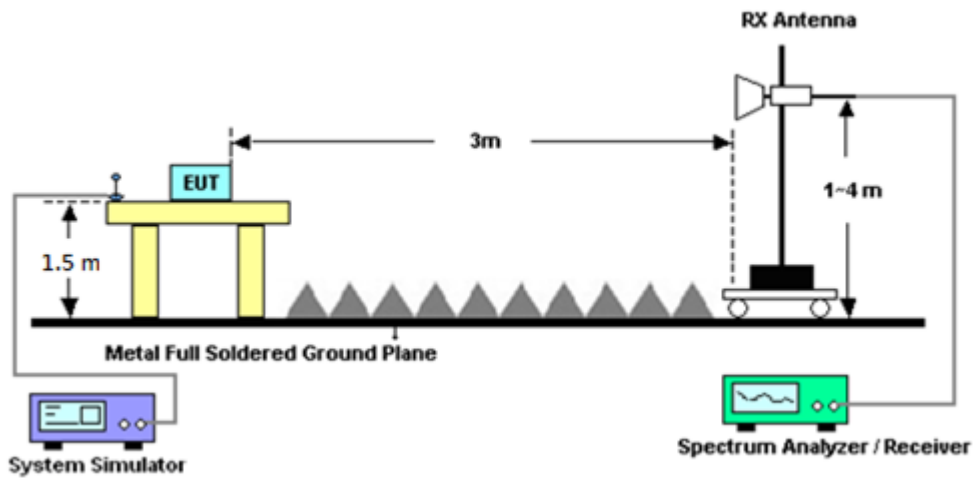
For radiated test below 30MHz



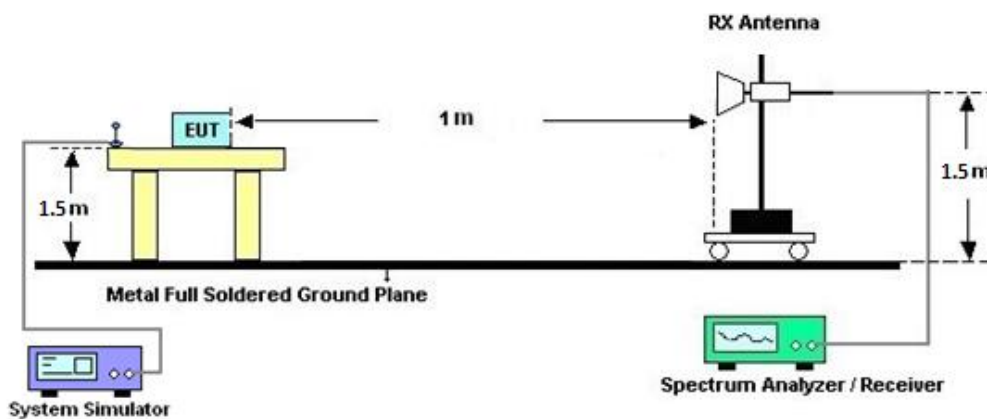
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



#### 4.1.2 Test Result of Radiated Test

Please refer to Appendix B.

**Note:**

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.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.



## 4.2 Radiated Spurious Emission Measurement

### 4.2.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. 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.

For 5G NR n7, n38, n41

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  $55 + 10 \log (P)$  dB.

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

### 4.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was 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 one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. 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)

For 5G NR n7, n38, n41

The limit line is derived from  $55 + 10\log(P)$ dB below the transmitter power P(Watts)

EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain

ERP (dBm) = EIRP - 2.15



## 5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 20, 2022	Jan. 01, 2023~ Jan. 18, 2023	Sep. 19, 2023	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	41912 & 05	30MHz~1GHz	Feb. 06, 2022	Jan. 01, 2023~ Jan. 18, 2023	Feb. 05, 2023	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	40103 & 07	30MHz~1GHz	Apr. 24, 2022	Jan. 01, 2023~ Jan. 18, 2023	Apr. 23, 2023	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 26, 2022	Jan. 01, 2023~ Jan. 18, 2023	Dec. 25, 2023	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1241	1GHz~18GHz	Jul. 25, 2022	Jan. 01, 2023~ Jan. 18, 2023	Jul. 24, 2023	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-02294	1GHz~18GHz	Jun. 23, 2022	Jan. 01, 2023~ Jan. 18, 2023	Jun. 22, 2023	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170576	18GHz~40GHz	May 14, 2022	Jan. 01, 2023~ Jan. 18, 2023	May 13, 2023	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	00993	18GHz~40GHz	Nov. 24, 2022	Jan. 01, 2023~ Jan. 18, 2023	Nov. 23, 2023	Radiation (03CH15-HY)
Preamplifier	E-INSTRUME NT TECH LTD.	ERA-100M-18G-5 6-01-A70	EC1900269	1GHz~18GHz	Dec. 26, 2022	Jan. 01, 2023~ Jan. 18, 2023	Dec. 25, 2023	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060802	1GHz-18GHz	Mar. 08, 2022	Jan. 01, 2023~ Jan. 18, 2023	Mar. 07, 2023	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20MHz~8.4GHz	Oct. 18, 2022	Jan. 01, 2023~ Jan. 18, 2023	Oct. 17, 2023	Radiation (03CH15-HY)
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	May 11, 2022	Jan. 01, 2023~ Jan. 18, 2023	May 10, 2023	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Jan. 01, 2023~ Jan. 18, 2023	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Jan. 01, 2023~ Jan. 18, 2023	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24(k5)	RK-000451	N/A	N/A	Jan. 01, 2023~ Jan. 18, 2023	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104, 102E	MY582185/4,M Y9838/4PE,519 228/2	30MHz~18G	Jun. 21, 2022	Jan. 01, 2023~ Jan. 18, 2023	Jun. 20, 2023	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,8040 12/2	30MHz-40GHz	Jan. 04, 2022	Jan. 01, 2023~ Jan. 02, 2023	Jan. 03, 2023	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,8040 12/2	30MHz-40GHz	Jan. 03, 2023	Jan. 03, 2023~ Jan. 07, 2023	Jan. 02, 2024	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 10, 2022	Jan. 01, 2023~ Jan. 18, 2023	Mar. 09, 2023	Radiation (03CH15-HY)
Base Station (Measure)	Anritsu	MT8000A	6262134933	FR1	Jun. 13, 2022	Dec. 09, 2022~ Dec. 20, 2022	Jun. 12, 2023	Conducted (TH03-HY)



## 6 Uncertainty of Evaluation

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.27 dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.72 dB
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.12 dB
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## Appendix A. Test Results of Conducted Test

### Conducted Output Power(Average power) and ERP/EIRP

#### <Main Antenna>

NR n2 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	22.81	22.69	22.84	23.33	0.2153
5	1	23		22.75	22.25	22.93		
5	12	6		22.76	22.83	22.90		
5	1	1	QPSK	22.72	22.68	22.79		
5	1	23		22.68	21.74	22.85		
5	12	6		22.78	22.81	22.92		
5	1	1	16-QAM	21.76	21.45	21.52	22.16	0.1644
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.68	22.56	22.49	23.34	0.2158
10	1	50		22.67	22.75	22.94		
10	25	12		22.70	22.63	22.85		
10	1	1	QPSK	22.72	22.48	22.75		
10	1	50		22.57	22.66	22.82		
10	25	12		22.75	22.69	22.91		
10	1	1	16-QAM	21.40	21.23	21.54	21.94	0.1563
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.64	22.62	22.83	23.37	0.2173
15	1	77		22.58	22.93	22.97		
15	36	18		22.84	22.76	22.65		
15	1	1	QPSK	22.56	22.53	22.78		
15	1	77		22.48	22.84	22.88		
15	36	18		22.78	22.79	22.82		
15	1	1	16-QAM	21.42	21.37	21.45	21.85	0.1531
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.78	22.46	22.85	23.35	0.2163
20	1	104		22.58	22.95	22.89		
20	50	25		22.72	22.75	22.95		
20	1	1	QPSK	22.45	22.53	22.65		
20	1	104		22.51	22.80	22.78		
20	50	25		22.70	22.78	22.92		
20	1	1	16-QAM	21.35	21.13	21.70	22.10	0.1622
Limit	EIRP < 2W			Result			Pass	



NR n5 Maximum Average Power [dBm] (GT - LC = -0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
5	1	1	PI/2 BPSK	23.56	23.65	23.79	21.43	0.1390
5	1	23		23.60	23.57	23.73		
5	12	6		23.64	23.63	23.95		
5	1	1	QPSK	23.56	23.68	23.63		
5	1	23		23.57	23.46	23.69		
5	12	6		23.68	23.67	23.98		
5	1	1	16-QAM	22.18	22.26	22.27	19.72	0.0937
Limit	ERP < 7W			Result			Pass	

NR n5 Maximum Average Power [dBm] (GT - LC = -0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
10	1	1	PI/2 BPSK	23.45	23.51	23.35	21.03	0.1268
10	1	50		23.58	23.42	23.24		
10	25	12		23.50	23.41	23.49		
10	1	1	QPSK	23.46	23.45	23.25		
10	1	50		23.54	23.40	23.24		
10	25	12		23.47	23.41	23.42		
10	1	1	16-QAM	22.09	22.03	22.02	19.54	0.0899
Limit	ERP < 7W			Result			Pass	

NR n5 Maximum Average Power [dBm] (GT - LC = -0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
15	1	1	PI/2 BPSK	23.45	23.67	23.62	21.13	0.1297
15	1	77		23.49	23.54	23.42		
15	36	18		23.49	23.53	23.53		
15	1	1	QPSK	23.43	23.68	23.55		
15	1	77		23.40	23.49	23.45		
15	36	18		23.62	23.56	23.50		
15	1	1	16-QAM	22.03	22.26	22.11	19.71	0.0935
Limit	ERP < 7W			Result			Pass	

NR n5 Maximum Average Power [dBm] (GT - LC = -0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
20	1	1	PI/2 BPSK	23.51	23.99	23.53	21.44	0.1393
20	1	104		23.46	23.67	23.29		
20	50	25		23.59	23.72	23.56		
20	1	1	QPSK	23.53	23.62	23.48		
20	1	104		23.48	23.59	23.29		
20	50	25		23.64	23.63	23.58		
20	1	1	16-QAM	22.06	22.12	22.05	19.57	0.0906
Limit	ERP < 7W			Result			Pass	





NR n7 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	23.05	23.01	23.12	23.72	0.2355
5	1	23		22.80	23.05	22.75		
5	12	6		23.32	23.06	23.31		
5	1	1	QPSK	23.09	22.97	23.09		
5	1	23		23.17	22.94	22.89		
5	12	6		23.20	23.05	23.31		
5	1	1	16-QAM	22.10	21.60	21.89	22.50	0.1778
Limit	EIRP < 2W			Result			Pass	

NR n7 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.82	22.45	22.54	23.58	0.2280
10	1	50		22.78	22.47	22.72		
10	25	12		22.94	22.95	23.18		
10	1	1	QPSK	22.86	22.39	22.52		
10	1	50		22.95	22.46	22.63		
10	25	12		22.97	22.89	23.14		
10	1	1	16-QAM	21.83	21.42	21.25	22.23	0.1671
Limit	EIRP < 2W			Result			Pass	

NR n7 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	23.10	23.08	22.81	23.70	0.2344
15	1	77		23.24	23.10	22.90		
15	36	18		23.15	23.01	23.30		
15	1	1	QPSK	22.98	22.98	23.21		
15	1	77		23.07	23.02	22.93		
15	36	18		23.21	23.05	23.24		
15	1	1	16-QAM	22.08	21.51	22.07	22.48	0.1770
Limit	EIRP < 2W			Result			Pass	

NR n7 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	23.02	22.98	23.09	23.74	0.2366
20	1	104		23.18	23.09	23.34		
20	50	25		23.01	22.97	23.23		
20	1	1	QPSK	23.08	22.89	22.98		
20	1	104		23.02	22.87	23.27		
20	50	25		22.98	22.96	23.31		
20	1	1	16-QAM	21.83	21.86	21.81	22.26	0.1683
Limit	EIRP < 2W			Result			Pass	



NR n25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	22.75	22.75	22.76	23.17	0.2075
5	1	23		22.71	22.76	22.72		
5	12	6		22.70	22.77	22.69		
5	1	1	QPSK	22.75	22.72	22.68		
5	1	23		22.71	22.77	22.63		
5	12	6		22.75	22.73	22.73		
5	1	1	16-QAM	21.91	22.01	21.82	22.41	0.1742
Limit	EIRP < 2W			Result			Pass	

NR n25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.68	22.70	22.73	23.17	0.2075
10	1	50		22.75	22.75	22.71		
10	25	12		22.74	22.73	22.77		
10	1	1	QPSK	22.72	22.68	22.71		
10	1	50		22.69	22.73	22.72		
10	25	12		22.75	22.70	22.74		
10	1	1	16-QAM	21.91	21.82	21.91	22.31	0.1702
Limit	EIRP < 2W			Result			Pass	

NR n25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.73	22.71	22.76	23.17	0.2075
15	1	77		22.74	22.77	22.72		
15	36	18		22.70	22.01	22.73		
15	1	1	QPSK	22.75	22.72	22.77		
15	1	77		22.70	22.71	22.72		
15	36	18		22.62	22.77	22.74		
15	1	1	16-QAM	21.91	21.95	21.94	22.35	0.1718
Limit	EIRP < 2W			Result			Pass	

NR n25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.36	22.62	22.76	23.17	0.2075
20	1	104		22.77	22.76	22.35		
20	50	25		22.72	22.73	22.75		
20	1	1	QPSK	22.31	22.39	22.71		
20	1	104		22.75	22.75	22.35		
20	50	25		22.70	22.71	22.76		
20	1	1	16-QAM	20.95	21.54	21.54	21.94	0.1563
Limit	EIRP < 2W			Result			Pass	



NR n66 Maximum Average Power [dBm] (GT - LC = 1.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	22.95	23.19	23.05	24.99	0.3155
5	1	23		23.03	23.18	23.13		
5	12	6		22.97	23.13	23.12		
5	1	1	QPSK	22.96	23.16	23.00		
5	1	23		23.05	23.07	23.11		
5	12	6		22.96	23.11	23.12		
5	1	1	16-QAM	22.07	22.21	22.15	24.01	0.2518
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 1.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	23.00	23.08	22.94	24.91	0.3097
10	1	50		23.09	23.10	23.11		
10	25	12		22.92	23.06	23.01		
10	1	1	QPSK	22.90	22.95	22.92		
10	1	50		23.01	23.03	23.03		
10	25	12		22.90	23.05	22.96		
10	1	1	16-QAM	21.88	22.18	22.08	23.98	0.2500
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 1.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	23.06	23.19	22.97	24.99	0.3155
15	1	77		23.19	23.15	23.09		
15	36	18		23.13	23.16	23.05		
15	1	1	QPSK	23.02	23.17	22.90		
15	1	77		23.10	23.11	23.10		
15	36	18		23.10	23.15	23.02		
15	1	1	16-QAM	22.14	22.40	22.02	24.20	0.2630
Limit	EIRP < 1W			Result			Pass	



NR n66 Maximum Average Power [dBm] (GT - LC = 1.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.92	23.17	22.89	24.99	0.3155
20	1	104		23.19	23.12	23.15		
20	50	25		22.99	23.16	23.07		
20	1	1	QPSK	22.94	23.00	22.88		
20	1	104		23.14	23.01	23.06		
20	50	25		23.10	23.17	23.04		
20	1	1	16-QAM	21.96	22.27	22.08	24.07	0.2553
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 1.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	22.54	22.70	22.61	24.95	0.3126
40	1	214		22.72	22.71	22.72		
40	108	54		23.03	23.13	23.04		
40	1	1	QPSK	22.40	22.61	22.62		
40	1	214		22.53	22.58	22.64		
40	108	54		23.07	23.15	23.04		
40	1	1	16-QAM	21.63	21.90	21.77	23.70	0.2344
Limit	EIRP < 1W			Result			Pass	



NR n71 Maximum Average Power [dBm] (GT - LC = -2.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
5	1	1	PI/2 BPSK	22.61	23.46	23.18	18.80	0.0759
5	1	23		23.56	23.47	23.14		
5	12	6		23.64	23.53	23.31		
5	1	1	QPSK	23.57	23.44	23.47		
5	1	23		23.61	23.47	23.39		
5	12	6		23.75	23.59	23.43		
5	1	1	16-QAM	22.52	22.62	22.33	17.67	0.0585
Limit	ERP < 3W			Result			Pass	

NR n71 Maximum Average Power [dBm] (GT - LC = -2.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
10	1	1	PI/2 BPSK	23.40	23.31	23.18	18.53	0.0713
10	1	50		23.47	23.43	23.09		
10	25	12		23.48	23.43	23.26		
10	1	1	QPSK	23.35	23.31	23.27		
10	1	50		23.40	23.35	23.46		
10	25	12		23.48	23.42	23.25		
10	1	1	16-QAM	22.40	22.40	22.28	17.45	0.0556
Limit	ERP < 3W			Result			Pass	

NR n71 Maximum Average Power [dBm] (GT - LC = -2.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
15	1	1	PI/2 BPSK	23.52	23.44	23.52	18.68	0.0738
15	1	77		23.48	23.56	23.45		
15	36	18		23.63	23.60	23.49		
15	1	1	QPSK	23.44	23.38	23.40		
15	1	77		23.45	23.45	23.40		
15	36	18		23.57	23.55	23.48		
15	1	1	16-QAM	22.74	22.55	22.66	17.79	0.0601
Limit	ERP < 3W			Result			Pass	

NR n71 Maximum Average Power [dBm] (GT - LC = -2.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
20	1	1	PI/2 BPSK	23.45	23.55	23.50	18.69	0.0740
20	1	104		23.49	23.44	23.45		
20	50	25		23.50	23.64	23.49		
20	1	1	QPSK	23.42	23.47	23.44		
20	1	104		23.43	23.41	23.40		
20	50	25		23.54	23.60	23.48		
20	1	1	16-QAM	22.63	22.53	22.64	17.69	0.0587
Limit	ERP < 3W			Result			Pass	



NR n38 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	22.86	22.74	22.85	23.89	0.2449
5	1	23		22.77	22.76	22.93		
5	12	6		22.88	22.81	23.09		
5	1	1	QPSK	22.82	22.73	22.91		
5	1	23		22.86	22.79	22.92		
5	12	6		22.84	22.82	23.04		
5	1	1	16-QAM	21.85	21.79	21.93	22.73	0.1875
Limit	EIRP < 2W			Result			Pass	

NR n38 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.57	22.58	22.53	23.60	0.2291
10	1	50		22.63	22.71	22.76		
10	25	12		22.64	22.69	22.77		
10	1	1	QPSK	22.54	22.57	22.64		
10	1	50		22.70	22.75	22.80		
10	25	12		22.67	22.70	22.78		
10	1	1	16-QAM	21.55	21.70	21.67	22.50	0.1778
Limit	EIRP < 2W			Result			Pass	

NR n38 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.71	22.71	22.90	23.97	0.2495
15	1	77		22.78	22.94	23.05		
15	36	18		22.79	22.92	23.17		
15	1	1	QPSK	22.74	22.74	22.90		
15	1	77		22.87	22.95	23.06		
15	36	18		22.85	22.84	23.14		
15	1	1	16-QAM	21.80	21.83	22.03	22.83	0.1919
Limit	EIRP < 2W			Result			Pass	

NR n38 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.85	22.62	22.93	24.02	0.2523
20	1	104		22.89	22.89	23.13		
20	50	25		22.99	22.82	23.14		
20	1	1	QPSK	22.79	22.68	22.89		
20	1	104		22.92	22.91	23.11		
20	50	25		23.02	22.93	23.22		
20	1	1	16-QAM	21.81	21.55	21.95	22.75	0.1884
Limit	EIRP < 2W			Result			Pass	



<SCS 15k>

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	26.27	25.11	25.15	27.08	0.5105
10	1	50		25.91	25.51	24.18		
10	25	12		26.04	25.17	25.10		
10	1	1	QPSK	26.48	25.26	25.07		
10	1	50		26.12	25.63	24.15		
10	25	12		26.10	25.14	25.09		
10	1	1	16-QAM	25.31	23.87	23.92	25.91	0.3899
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	26.43	25.13	25.50	27.07	0.5093
15	1	77		25.74	25.74	24.44		
15	36	18		26.14	25.37	25.40		
15	1	1	QPSK	26.47	25.38	25.52		
15	1	77		26.10	25.91	24.45		
15	36	18		26.17	25.27	25.44		
15	1	1	16-QAM	25.48	24.00	24.42	26.08	0.4055
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
30	1	1	PI/2 BPSK	26.18	24.71	25.72	27.01	0.5023
30	1	158		24.18	25.84	25.17		
30	80	40		25.68	25.22	25.54		
30	1	1	QPSK	26.41	24.85	25.84		
30	1	158		24.08	25.93	25.33		
30	80	40		25.65	25.18	25.53		
30	1	1	16-QAM	25.10	23.57	24.55	25.70	0.3715
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	25.84	24.34	25.30	26.66	0.4634
40	1	214		23.55	25.55	24.89		
40	108	54		25.35	25.30	25.62		
40	1	1	QPSK	26.06	24.51	25.31		
40	1	214		23.59	25.58	25.01		
40	108	54		25.37	25.22	25.64		
40	1	1	16-QAM	24.98	23.19	24.69	25.58	0.3614
Limit	EIRP < 2W			Result			Pass	



<SCS 30k>

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	26.33	25.20	25.34	27.06	0.5082
10	1	22		26.31	25.45	24.35		
10	12	6		26.46	25.26	25.23		
10	1	1	QPSK	26.42	25.15	25.19		
10	1	22		26.32	25.39	24.40		
10	12	6		26.35	25.28	25.25		
10	1	1	16-QAM	25.57	24.20	24.19	26.17	0.4140
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	26.43	25.12	25.52	27.07	0.5093
15	1	36		26.01	25.65	24.49		
15	18	9		26.38	25.24	25.41		
15	1	1	QPSK	26.47	25.02	25.43		
15	1	36		25.99	25.44	24.57		
15	18	9		26.40	25.19	25.43		
15	1	1	16-QAM	25.68	24.04	24.43	26.28	0.4246
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
30	1	1	PI/2 BPSK	26.30	24.70	25.65	26.91	0.4909
30	1	76		24.44	25.72	25.11		
30	36	18		25.93	25.12	25.57		
30	1	1	QPSK	26.31	24.73	25.59		
30	1	76		24.42	25.79	25.12		
30	36	18		25.96	25.09	25.62		
30	1	1	16-QAM	25.35	23.75	24.69	25.95	0.3936
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	26.00	24.56	25.40	26.60	0.4571
40	1	104		23.74	25.53	24.89		
40	50	25		25.60	25.13	25.60		
40	1	1	QPSK	25.85	24.52	25.20		
40	1	104		23.80	25.60	21.41		
40	50	25		25.60	25.16	25.64		
40	1	1	16-QAM	24.97	23.60	24.64	25.57	0.3606
Limit	EIRP < 2W			Result			Pass	





NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
50	1	1	PI/2 BPSK	26.30	24.77	25.03	26.90	0.4898
50	1	131		24.26	25.36	25.16		
50	64	32		25.55	25.20	25.90		
50	1	1	QPSK	26.13	24.76	25.10		
50	1	131		23.74	25.38	25.21		
50	64	32		25.42	25.21	25.95		
50	1	1	16-QAM	25.38	23.83	24.60	25.98	0.3963
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
80	1	1	PI/2 BPSK	25.63	24.27	24.76	26.36	0.4325
80	1	215		24.13	24.99	24.86		
80	108	54		24.56	24.62	25.50		
80	1	1	QPSK	25.76	24.45	25.02		
80	1	215		23.89	24.89	24.94		
80	108	54		24.36	24.58	25.39		
80	1	1	16-QAM	24.69	24.36	24.33	25.29	0.3381
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = 0.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
100	1	1	PI/2 BPSK	25.30	23.84	23.77	26.20	0.4169
100	1	271		24.06	24.57	24.61		
100	135	67		24.48	24.72	25.60		
100	1	1	QPSK	25.17	23.99	23.98		
100	1	271		24.03	24.50	24.60		
100	135	67		24.37	24.78	25.47		
100	1	1	16-QAM	24.65	23.79	22.90	25.28	0.3373
Limit	EIRP < 2W			Result			Pass	



<MIMO 2 Antenna>

NR n2 Maximum Average Power [dBm] (GT - LC = -0.2 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	22.86	23.03	22.60	23.05	0.2018
5	1	23		22.89	23.05	22.64		
5	12	6		23.25	23.14	23.24		
5	1	1	QPSK	22.67	21.50	22.61		
5	1	23		22.67	22.65	22.60		
5	12	6		23.21	23.16	23.21		
5	1	1	16-QAM	21.58	21.72	21.34	21.52	0.1419
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = -0.2 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.67	22.34	22.51	23.00	0.1995
10	1	50		22.71	22.62	22.64		
10	25	12		23.20	22.99	23.07		
10	1	1	QPSK	22.72	22.38	22.54		
10	1	50		22.63	22.57	22.57		
10	25	12		23.18	23.01	23.11		
10	1	1	16-QAM	21.46	21.54	21.28	21.34	0.1361
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = -0.2 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.80	22.98	22.63	23.06	0.2023
15	1	77		22.68	22.74	22.66		
15	36	18		23.26	23.07	23.16		
15	1	1	QPSK	22.80	22.91	22.58		
15	1	77		22.68	22.68	22.63		
15	36	18		23.24	23.14	23.19		
15	1	1	16-QAM	21.49	21.65	21.86	21.66	0.1466
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = -0.2 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.71	22.41	22.61	23.06	0.2023
20	1	104		22.61	22.69	22.71		
20	50	25		23.22	23.26	23.25		
20	1	1	QPSK	22.68	22.41	22.58		
20	1	104		22.54	22.67	22.70		
20	50	25		23.25	23.17	23.21		
20	1	1	16-QAM	21.42	21.14	21.35	21.22	0.1324
Limit	EIRP < 2W			Result			Pass	



NR n7 Maximum Average Power [dBm] (GT - LC = -2.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	23.01	22.56	22.49	20.76	0.1191
5	1	23		23.15	22.59	23.02		
5	12	6		23.11	23.09	23.08		
5	1	1	QPSK	23.04	22.57	22.46		
5	1	23		23.11	22.53	22.48		
5	12	6		23.16	23.15	23.14		
5	1	1	16-QAM	21.75	21.21	21.19	19.35	0.0861
Limit	EIRP < 2W			Result			Pass	

NR n7 Maximum Average Power [dBm] (GT - LC = -2.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.83	22.86	22.34	20.58	0.1143
10	1	50		22.89	22.98	22.88		
10	25	12		22.87	22.88	22.90		
10	1	1	QPSK	22.84	22.84	22.78		
10	1	50		22.86	22.93	22.83		
10	25	12		22.88	22.91	22.87		
10	1	1	16-QAM	21.49	21.58	21.47	19.18	0.0828
Limit	EIRP < 2W			Result			Pass	

NR n7 Maximum Average Power [dBm] (GT - LC = -2.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.96	23.06	23.03	20.77	0.1194
15	1	77		23.02	23.05	23.17		
15	36	18		23.01	23.03	23.06		
15	1	1	QPSK	22.95	23.04	22.87		
15	1	77		23.01	23.12	22.93		
15	36	18		23.05	23.04	23.12		
15	1	1	16-QAM	21.68	21.79	21.37	19.39	0.0869
Limit	EIRP < 2W			Result			Pass	

NR n7 Maximum Average Power [dBm] (GT - LC = -2.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	23.02	22.99	22.91	20.72	0.1180
20	1	104		23.05	23.06	23.02		
20	50	25		23.10	23.01	22.92		
20	1	1	QPSK	23.01	22.96	22.80		
20	1	104		23.03	23.01	22.96		
20	50	25		23.12	23.09	23.07		
20	1	1	16-QAM	21.72	21.61	21.86	19.46	0.0883
Limit	EIRP < 2W			Result			Pass	



NR n25 Maximum Average Power [dBm] (GT - LC = -0.1 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	22.72	22.76	22.71	22.68	0.1854
5	1	23		22.76	22.73	22.73		
5	12	6		22.78	22.78	22.77		
5	1	1	QPSK	22.71	22.73	22.70		
5	1	23		22.75	22.72	22.77		
5	12	6		22.78	22.77	22.78		
5	1	1	16-QAM	22.09	21.98	22.04	21.99	0.1581
Limit	EIRP < 2W			Result			Pass	

NR n25 Maximum Average Power [dBm] (GT - LC = -0.1 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.72	22.69	22.75	22.74	0.1879
10	1	50		22.71	22.72	22.73		
10	25	12		22.75	22.76	22.77		
10	1	1	QPSK	22.71	22.66	22.74		
10	1	50		22.73	22.84	22.76		
10	25	12		22.76	22.77	22.78		
10	1	1	16-QAM	21.54	21.75	21.98	21.88	0.1542
Limit	EIRP < 2W			Result			Pass	

NR n25 Maximum Average Power [dBm] (GT - LC = -0.1 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.72	22.76	22.77	22.68	0.1854
15	1	77		22.75	22.74	22.75		
15	36	18		22.78	22.77	22.78		
15	1	1	QPSK	22.74	22.73	22.76		
15	1	77		22.76	22.74	22.71		
15	36	18		22.72	22.75	22.78		
15	1	1	16-QAM	22.13	21.82	22.34	22.24	0.1675
Limit	EIRP < 2W			Result			Pass	

NR n25 Maximum Average Power [dBm] (GT - LC = -0.1 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.69	22.65	22.72	22.68	0.1854
20	1	104		22.65	22.72	22.74		
20	50	25		22.78	22.77	22.78		
20	1	1	QPSK	22.75	22.62	22.75		
20	1	104		22.72	22.75	22.72		
20	50	25		22.78	22.77	22.78		
20	1	1	16-QAM	21.97	21.76	22.03	21.93	0.1560
Limit	EIRP < 2W			Result			Pass	



NR n66 Maximum Average Power [dBm] (GT - LC = 0.1 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	22.66	22.98	23.16	23.30	0.2138
5	1	23		22.75	22.75	23.01		
5	12	6		23.18	23.15	23.20		
5	1	1	QPSK	22.54	22.96	23.11		
5	1	23		22.59	22.63	22.92		
5	12	6		23.14	23.15	23.19		
5	1	1	16-QAM	21.98	22.21	22.21	22.31	0.1702
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 0.1 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.66	22.63	22.94	23.30	0.2138
10	1	50		22.86	22.73	23.01		
10	25	12		23.17	23.11	23.19		
10	1	1	QPSK	22.53	22.48	22.86		
10	1	50		22.72	22.58	22.88		
10	25	12		23.14	23.13	23.20		
10	1	1	16-QAM	22.89	21.95	22.02	22.99	0.1991
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 0.1 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.63	22.72	22.91	23.25	0.2113
15	1	77		22.90	22.81	22.97		
15	36	18		23.15	23.11	23.11		
15	1	1	QPSK	22.80	22.59	22.83		
15	1	77		22.76	22.69	22.86		
15	36	18		23.11	23.14	23.12		
15	1	1	16-QAM	22.12	21.62	21.99	22.22	0.1667
Limit	EIRP < 1W			Result			Pass	



NR n66 Maximum Average Power [dBm] (GT - LC = 0.1 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.56	22.56	22.95	23.31	0.2143
20	1	104		22.72	22.71	22.98		
20	50	25		23.16	23.11	23.15		
20	1	1	QPSK	22.47	22.89	23.21		
20	1	104		22.61	22.56	22.93		
20	50	25		23.11	23.17	23.18		
20	1	1	16-QAM	21.78	22.04	22.29	22.39	0.1734
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 0.1 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	22.56	22.56	22.76	23.29	0.2133
40	1	214		22.86	22.76	22.67		
40	108	54		23.09	23.11	23.19		
40	1	1	QPSK	22.45	22.62	22.68		
40	1	214		22.45	22.65	22.56		
40	108	54		23.12	23.16	23.15		
40	1	1	16-QAM	21.54	21.03	21.35	21.64	0.1459
Limit	EIRP < 1W			Result			Pass	



NR n38 Maximum Average Power [dBm] (GT - LC = -2.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	23.22	23.22	23.14	20.56	0.1138
5	1	23		23.23	23.25	23.15		
5	12	6		23.25	23.26	23.24		
5	1	1	QPSK	23.22	23.26	23.26		
5	1	23		23.23	23.24	23.24		
5	12	6		23.21	23.21	23.25		
5	1	1	16-QAM	22.25	22.61	22.34	19.91	0.0979
Limit	EIRP < 2W			Result			Pass	

NR n38 Maximum Average Power [dBm] (GT - LC = -2.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	23.04	23.25	23.24	20.56	0.1138
10	1	50		23.17	23.24	23.21		
10	25	12		23.21	23.26	23.24		
10	1	1	QPSK	23.07	23.26	23.21		
10	1	50		23.22	23.25	23.22		
10	25	12		23.15	23.24	23.23		
10	1	1	16-QAM	22.07	22.62	22.23	19.92	0.0982
Limit	EIRP < 2W			Result			Pass	

NR n38 Maximum Average Power [dBm] (GT - LC = -2.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	23.22	23.25	23.21	20.57	0.1140
15	1	77		23.23	23.26	23.25		
15	36	18		23.21	23.27	23.26		
15	1	1	QPSK	23.20	23.24	23.23		
15	1	77		23.18	23.25	23.25		
15	36	18		23.23	23.26	23.24		
15	1	1	16-QAM	22.32	22.82	22.51	20.12	0.1028
Limit	EIRP < 2W			Result			Pass	

NR n38 Maximum Average Power [dBm] (GT - LC = -2.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	23.21	23.25	23.17	20.56	0.1138
20	1	104		23.19	23.21	23.21		
20	50	25		23.25	23.26	23.23		
20	1	1	QPSK	23.22	23.21	23.23		
20	1	104		23.24	23.26	23.25		
20	50	25		23.23	23.25	23.26		
20	1	1	16-QAM	22.21	22.64	22.47	19.94	0.0986
Limit	EIRP < 2W			Result			Pass	



<SCS 15k>

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	26.44	26.49	26.37	24.30	0.2692
10	1	50		26.52	26.60	26.21		
10	25	12		26.50	26.47	26.27		
10	1	1	QPSK	26.51	26.40	26.32		
10	1	50		26.54	26.55	26.27		
10	25	12		26.49	26.41	26.28		
10	1	1	16-QAM	25.33	25.57	25.45	23.27	0.2123
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	26.55	26.58	26.51	24.30	0.2692
15	1	77		26.60	26.60	26.46		
15	36	18		26.58	26.59	26.42		
15	1	1	QPSK	26.55	26.57	26.37		
15	1	77		26.60	25.60	26.42		
15	36	18		25.59	26.54	26.41		
15	1	1	16-QAM	25.25	25.59	25.39	23.29	0.2133
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
30	1	1	PI/2 BPSK	25.90	26.07	26.31	24.23	0.2649
30	1	158		26.09	26.37	26.30		
30	80	40		26.23	26.32	26.46		
30	1	1	QPSK	26.09	26.02	26.42		
30	1	158		26.16	26.31	26.33		
30	80	40		26.26	26.30	26.53		
30	1	1	16-QAM	25.00	24.94	25.36	23.06	0.2023
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	25.60	25.92	26.13	24.20	0.2630
40	1	214		25.73	26.24	26.04		
40	108	54		26.34	26.50	26.44		
40	1	1	QPSK	25.85	25.88	26.11		
40	1	214		26.01	26.15	26.00		
40	108	54		26.37	26.45	24.45		
40	1	1	16-QAM	24.80	24.98	25.02	22.72	0.1871
Limit	EIRP < 2W			Result			Pass	





<SCS 30k>

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	26.60	26.60	26.38	24.30	0.2692
10	1	22		26.58	26.59	26.19		
10	12	6		26.55	26.56	26.53		
10	1	1	QPSK	26.58	26.57	26.45		
10	1	22		26.53	26.60	26.24		
10	12	6		25.57	26.58	26.54		
10	1	1	16-QAM	25.71	25.67	25.66	23.41	0.2193
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	26.58	26.60	26.53	24.31	0.2698
15	1	36		26.59	26.61	26.36		
15	18	9		26.53	26.57	26.58		
15	1	1	QPSK	26.54	26.55	26.55		
15	1	36		26.61	26.59	26.35		
15	18	9		26.60	26.57	26.57		
15	1	1	16-QAM	25.74	25.75	25.59	23.45	0.2213
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
30	1	1	PI/2 BPSK	26.43	26.38	26.58	24.30	0.2692
30	1	76		26.51	26.60	26.49		
30	36	18		26.57	26.56	26.59		
30	1	1	QPSK	26.36	26.45	26.50		
30	1	76		26.39	26.59	26.45		
30	36	18		26.58	26.55	26.60		
30	1	1	16-QAM	25.61	25.52	25.77	23.47	0.2223
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	26.12	26.18	26.44	24.30	0.2692
40	1	104		26.27	26.50	26.28		
40	50	25		26.58	26.55	26.52		
40	1	1	QPSK	26.16	26.17	26.35		
40	1	104		26.24	26.47	26.25		
40	50	25		26.51	26.60	26.53		
40	1	1	16-QAM	25.26	25.34	25.34	23.04	0.2014
Limit	EIRP < 2W			Result			Pass	



NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
50	1	1	PI/2 BPSK	26.35	26.33	26.57	24.30	0.2692
50	1	131		26.50	26.54	26.52		
50	64	32		26.60	26.52	26.60		
50	1	1	QPSK	26.32	26.35	26.59		
50	1	131		26.56	26.50	26.43		
50	64	32		26.52	26.54	26.57		
50	1	1	16-QAM	25.42	25.35	25.10	23.12	0.2051
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
80	1	1	PI/2 BPSK	25.96	25.97	26.19	24.53	0.2838
80	1	215		26.01	26.32	26.05		
80	108	54		26.46	26.64	26.83		
80	1	1	QPSK	26.02	26.01	26.25		
80	1	215		26.06	26.35	26.10		
80	108	54		26.54	26.50	26.53		
80	1	1	16-QAM	25.16	24.98	25.42	23.12	0.2051
Limit	EIRP < 2W			Result			Pass	

NR n41 (HPUE) Maximum Average Power [dBm] (GT - LC = -2.3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
100	1	1	PI/2 BPSK	25.71	25.72	25.72	24.25	0.2661
100	1	271		25.89	25.92	25.88		
100	135	67		26.42	26.54	26.51		
100	1	1	QPSK	25.83	25.81	25.84		
100	1	271		25.98	25.84	25.91		
100	135	67		26.45	26.55	26.54		
100	1	1	16-QAM	24.74	24.92	24.77	22.62	0.1828
Limit	EIRP < 2W			Result			Pass	



## Appendix B. Test Results of Radiated Test

<Main Antenna>

### 5G NR n2

5G NR n2/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-49.66	-13	-36.66	-32.94	-59.29	2.77	12.40	H
	5548	-39.41	-13	-26.41	-27.11	-49.34	3.46	13.39	H
	7403	-59.55	-13	-46.55	-52.34	-66.76	3.98	11.19	H
									H
									H
									H
	3700	-47.91	-13	-34.91	-31.6	-57.54	2.77	12.40	V
	5548	-42.69	-13	-29.69	-30.44	-52.62	3.46	13.39	V
	7403	-59.04	-13	-46.04	-52.31	-66.25	3.98	11.19	V
									V
									V
									V
Middle	3742	-56.82	-13	-43.82	-40.22	-66.53	2.78	12.48	H
	5611	-41.66	-13	-28.66	-29.26	-51.53	3.48	13.34	H
	7487	-60.98	-13	-47.98	-53.76	-68.16	4.00	11.17	H
									H
									H
									H
	3742	-57.02	-13	-44.02	-40.82	-66.73	2.78	12.48	V
	5611	-40.59	-13	-27.59	-28.41	-50.46	3.48	13.34	V
	7487	-60.11	-13	-47.11	-53.26	-67.29	4.00	11.17	V
									V
									V
									V



Highest	3784	-64.23	-13	-51.23	-47.74	-73.87	2.79	12.43	H
	5674	-62.48	-13	-49.48	-50.57	-72.44	3.49	13.45	H
	7564	-62.35	-13	-49.35	-54.84	-69.58	4.02	11.26	H
									H
									H
									H
	3784	-60.11	-13	-47.11	-44	-69.75	2.79	12.43	V
	5674	-46.07	-13	-33.07	-34.39	-56.03	3.49	13.45	V
	7564	-61.31	-13	-48.31	-54.28	-68.54	4.02	11.26	V
									V
									V
									V

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



5G NR n5

5G NR n5/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-49.97	-13	-36.97	-25.13	-55.27	1.83	9.28	H
	2472	-51.16	-13	-38.16	-30.5	-57.39	2.25	10.63	H
	3304	-67.06	-13	-54.06	-48.51	-74.62	2.63	12.33	H
									H
									H
									H
	1648	-51.53	-13	-38.53	-27.15	-56.83	1.83	9.28	V
	2472	-50.08	-13	-37.08	-29.65	-56.31	2.25	10.63	V
	3304	-66.27	-13	-53.27	-48.12	-73.83	2.63	12.33	V
									V
									V
									V
Middle	1656	-50.93	-13	-37.93	-26.15	-56.28	1.84	9.34	H
	2480	-49.89	-13	-36.89	-29.28	-56.17	2.25	10.68	H
	3312	-67.10	-13	-54.10	-48.52	-74.72	2.63	12.40	H
									H
									H
									H
	1656	-52.52	-13	-39.52	-28.2	-57.87	1.84	9.34	V
	2480	-46.21	-13	-33.21	-25.78	-52.49	2.25	10.68	V
	3312	-66.36	-13	-53.36	-48.18	-73.98	2.63	12.40	V
									V
									V
									V



Highest	1656	-53.48	-13	-40.48	-28.7	-58.83	1.84	9.34	H
	2488	-55.14	-13	-42.14	-34.59	-61.46	2.25	10.73	H
	3320	-67.05	-13	-54.05	-48.43	-74.73	2.63	12.46	H
									H
									H
									H
	1656	-56.20	-13	-43.20	-31.88	-61.55	1.84	9.34	V
	2488	-52.56	-13	-39.56	-32.13	-58.88	2.25	10.73	V
	3320	-66.66	-13	-53.66	-48.44	-74.34	2.63	12.46	V
									V
									V
									V

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



5G NR n7

5G NR n7/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4998	-53.92	-25	-28.92	-41.14	-63.25	3.27	12.60	H
	7503	-59.70	-25	-34.70	-53.47	-66.90	4.00	11.20	H
	10008	-56.26	-25	-31.26	-52.36	-62.80	4.67	11.22	H
									H
									H
									H
	4998	-48.70	-25	-23.70	-36.6	-58.03	3.27	12.60	V
	7503	-58.98	-25	-33.98	-53.1	-66.18	4.00	11.20	V
	10008	-56.52	-25	-31.52	-52.38	-63.06	4.67	11.22	V
									V
									V
									V
Middle	5052	-54.54	-25	-29.54	-41.98	-63.65	3.29	12.40	H
	7578	-60.69	-25	-35.69	-54.11	-67.97	4.03	11.31	H
	10107	-56.03	-25	-31.03	-52.5	-62.72	4.70	11.39	H
									H
									H
									H
	5052	-48.57	-25	-23.57	-36.64	-57.68	3.29	12.40	V
	7578	-60.04	-25	-35.04	-53.96	-67.32	4.03	11.31	V
	10107	-56.69	-25	-31.69	-52.73	-63.38	4.70	11.39	V
									V
									V
									V



Highest	5100	-63.53	-25	-38.53	-51.17	-72.52	3.31	12.30	H
	7653	-60.09	-25	-35.09	-53.43	-67.54	4.06	11.51	H
	10206	-55.99	-25	-30.99	-52.83	-62.55	4.73	11.29	H
									H
									H
									H
	5100	-62.78	-25	-37.78	-51.01	-71.77	3.31	12.30	V
	7653	-59.64	-25	-34.64	-53.51	-67.09	4.06	11.51	V
	10206	-56.79	-25	-31.79	-53.03	-63.35	4.73	11.29	V
									V
									V
									V

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





5G NR n25

5G NR n25/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-50.57	-13	-37.57	-33.85	-60.20	2.77	12.40	H
	5548	-43.07	-13	-30.07	-30.77	-53.00	3.46	13.39	H
	7403	-59.61	-13	-46.61	-52.4	-66.82	3.98	11.19	H
									H
									H
									H
	3700	-48.51	-13	-35.51	-32.2	-58.14	2.77	12.40	V
	5548	-44.70	-13	-31.70	-32.45	-54.63	3.46	13.39	V
	7403	-59.11	-13	-46.11	-52.38	-66.32	3.98	11.19	V
									V
									V
									V
Middle	3749	-56.33	-13	-43.33	-39.76	-66.05	2.78	12.50	H
	5618	-42.50	-13	-29.50	-30.16	-52.39	3.48	13.37	H
	7494	-60.55	-13	-47.55	-53.33	-67.74	4.00	11.19	H
									H
									H
									H
	3749	-57.67	-13	-44.67	-41.49	-67.39	2.78	12.50	V
	5618	-42.89	-13	-29.89	-30.77	-52.78	3.48	13.37	V
	7494	-47.10	-13	-34.10	-53.23	-54.29	4.00	11.19	V
									V
									V
									V



Highest	3791	-55.07	-13	-42.07	-38.61	-64.70	2.79	12.42	H
	5688	-45.12	-13	-32.12	-33.33	-55.05	3.50	13.42	H
	7585	-61.24	-13	-48.24	-53.62	-68.55	4.03	11.34	H
									H
									H
									H
	3791	-57.43	-13	-44.43	-41.35	-67.06	2.79	12.42	V
	5688	-43.68	-13	-30.68	-32.12	-53.61	3.50	13.42	V
	7585	-60.35	-13	-47.35	-53.25	-67.66	4.03	11.34	V
									V
									V
									V

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



5G NR n38

5G NR n38/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5142	-59.78	-25	-34.78	-47.59	-68.93	3.32	12.47	H
	7716	-59.49	-25	-34.49	-52.84	-67.11	4.08	11.70	H
	10287	-55.97	-25	-30.97	-53.11	-62.34	4.76	11.13	H
									H
									H
									H
	5142	-57.79	-25	-32.79	-46.15	-66.94	3.32	12.47	V
	7716	-59.17	-25	-34.17	-53.03	-66.79	4.08	11.70	V
	10287	-56.63	-25	-31.63	-53.03	-63.00	4.76	11.13	V
									V
									V
									V
Middle	5172	-62.95	-25	-37.95	-50.89	-72.25	3.33	12.63	H
	7758	-58.87	-25	-33.87	-52.23	-66.63	4.09	11.85	H
	10341	-55.19	-25	-30.19	-52.52	-61.31	4.77	10.90	H
									H
									H
									H
	5172	-57.95	-25	-32.95	-46.41	-67.25	3.33	12.63	V
	7758	-59.04	-25	-34.04	-52.91	-66.80	4.09	11.85	V
	10341	-56.02	-25	-31.02	-52.51	-62.14	4.77	10.90	V
									V
									V
									V



Highest	5202	-62.50	-25	-37.50	-50.57	-71.97	3.34	12.82	H
	7803	-58.57	-25	-33.57	-51.96	-66.05	4.11	11.59	H
	10405	-54.94	-25	-29.94	-52.52	-60.76	4.79	10.61	H
									H
									H
									H
	5202	-61.02	-25	-36.02	-49.58	-70.49	3.34	12.82	V
	7803	-58.16	-25	-33.16	-52.03	-65.64	4.11	11.59	V
	10405	-55.92	-25	-30.92	-52.54	-61.74	4.79	10.61	V
									V
									V
									V

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



5G NR n66

5G NR n66/ 40MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-51.10	-13	-38.10	-34.2	-61.02	2.68	12.60	H
	5135	-41.10	-13	-28.10	-28.88	-50.22	3.32	12.44	H
	6849	-60.38	-13	-47.38	-53.35	-68.92	3.86	12.40	H
									H
									H
									H
	3420	-50.68	-13	-37.68	-34.15	-60.60	2.68	12.60	V
	5135	-44.92	-13	-31.92	-33.26	-54.04	3.32	12.44	V
	6849	-60.64	-13	-47.64	-53.96	-69.18	3.86	12.40	V
									V
									V
									V
Middle	3448	-50.47	-13	-37.47	-33.78	-60.37	2.70	12.60	H
	5177	-43.51	-13	-30.51	-31.48	-52.84	3.33	12.66	H
	6909	-59.52	-13	-46.52	-52.62	-67.64	3.88	12.00	H
									H
									H
									H
	3448	-47.09	-13	-34.09	-30.83	-56.99	2.70	12.60	V
	5177	-44.21	-13	-31.21	-32.69	-53.54	3.33	12.66	V
	6909	-59.77	-13	-46.77	-53.03	-67.89	3.88	12.00	V
									V
									V
									V



Highest	3483	-27.24	-13	-14.24	-28.83	-37.00	2.71	12.47	H
	5219	-33.52	-13	-20.52	-34.6	-43.12	3.35	12.95	H
	6969	-46.18	-13	-33.18	-52.41	-54.24	3.90	11.96	H
									H
									H
									H
	3483	-30.31	-13	-17.31	-27.27	-40.07	2.71	12.47	V
	5219	-33.93	-13	-20.93	-35.47	-43.53	3.35	12.95	V
	6969	-46.14	-13	-33.14	-52.33	-54.20	3.90	11.96	V
									V
									V
									V

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



5G NR n41 (HPUE)

5G NR n41 (HPUE) / 80MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4996	-54.70	-25	-29.70	-40.91	-64.04	3.27	12.61	H
	7494	-59.17	-25	-34.17	-51.05	-66.36	4.00	11.19	H
	9991	-56.46	-25	-31.46	-51.54	-62.97	4.67	11.18	H
									H
									H
									H
	4996	-53.32	-25	-28.32	-40.21	-62.66	3.27	12.61	V
	7494	-56.25	-25	-31.25	-49.37	-63.30	3.99	11.04	V
	9991	-56.77	-25	-31.77	-51.6	-63.28	4.67	11.18	V
									V
									V
									V
Middle	5110	-58.33	-25	-33.33	-45.01	-67.36	3.31	12.34	H
	7664	-60.46	-25	-35.46	-52.8	-67.93	4.06	11.53	H
	10219	-56.97	-25	-31.97	-52.86	-63.50	4.74	11.26	H
									H
									H
									H
	5110	-56.56	-25	-31.56	-43.81	-65.59	3.31	12.34	V
	7664	-59.23	-25	-34.23	-52.1	-66.70	4.06	11.53	V
	10219	-57.58	-25	-32.58	-52.84	-64.11	4.74	11.26	V
									V
									V
									V



Highest	5223	-56.83	-25	-31.83	-43.9	-66.46	3.35	12.98	H
	7835	-58.53	-25	-33.53	-51.05	-65.94	4.12	11.53	H
	10447	-55.67	-25	-30.67	-52.39	-61.56	4.80	10.69	H
									H
									H
									H
	5223	-52.62	-25	-27.62	-40.15	-62.25	3.35	12.98	V
	7835	-56.64	-25	-31.64	-49.58	-64.05	4.12	11.53	V
	10447	-56.88	-25	-31.88	-52.57	-62.77	4.80	10.69	V
									V
									V
									V

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





5G NR n71

5G NR n71/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1328	-40.92	-13	-27.92	-16.85	-45.74	1.64	6.46	H
	1992	-37.39	-13	-24.39	-14.8	-45.26	2.03	9.90	H
	2656	-65.94	-13	-52.94	-46.55	-74.41	2.33	10.80	H
	3320	-63.05	-13	-50.05	-45.43	-72.88	2.63	12.46	H
									H
									H
	1328	-41.73	-13	-28.73	-17.65	-46.55	1.64	6.46	V
	1992	-36.68	-13	-23.68	-14.35	-44.55	2.03	9.90	V
	2656	-64.93	-13	-51.93	-46.1	-73.40	2.33	10.80	V
	3320	-58.72	-13	-45.72	-41.5	-68.55	2.63	12.46	V
									V
									V
Middle	1344	-48.28	-13	-35.28	-24.21	-53.12	1.65	6.49	H
	2016	-47.06	-13	-34.06	-24.65	-54.92	2.04	9.90	H
	2687	-66.88	-13	-53.88	-47.7	-75.34	2.34	10.80	H
									H
									H
									H
	1344	-48.65	-13	-35.65	-24.61	-53.49	1.65	6.49	V
	2016	-47.03	-13	-34.03	-24.9	-54.89	2.04	9.90	V
	2687	-66.59	-13	-53.59	-47.92	-75.05	2.34	10.80	V
									V
									V
									V



Highest	1360	-40.81	-13	-27.81	-29.75	-45.73	1.66	6.58	H
	2032	-33.66	-13	-20.66	-24.43	-41.52	2.04	9.90	H
	2720	-53.27	-13	-40.27	-47.32	-61.79	2.36	10.88	H
									H
									H
									H
	1360	-42.11	-13	-29.11	-31.13	-47.03	1.66	6.58	V
	2032	-33.80	-13	-20.80	-24.89	-41.66	2.04	9.90	V
	2720	-52.59	-13	-39.59	-47.06	-61.11	2.36	10.88	V
									V
									V
									V

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



<MIMO 2 Antenna>

5G NR n7

5G NR n7/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4998	-53.40	-25	-28.40	-40.62	-62.73	3.27	12.60	H
	7500	-42.14	-25	-17.14	-35.91	-49.34	4.00	11.20	H
	10008	-30.45	-25	-5.45	-51.55	-36.99	4.67	11.22	H
									H
									H
									H
	4998	-48.09	-25	-23.09	-35.99	-57.42	3.27	12.60	V
	7500	-52.55	-25	-27.55	-46.67	-59.75	4.00	11.20	V
	10008	-55.96	-25	-30.96	-51.82	-62.50	4.67	11.22	V
									V
									V
									V
Middle	5052	-54.05	-25	-29.05	-41.49	-63.16	3.29	12.40	H
	7578	-59.59	-25	-34.59	-53.01	-66.87	4.03	11.31	H
	10107	-55.40	-25	-30.40	-51.87	-62.09	4.70	11.39	H
									H
									H
									H
	5052	-48.07	-25	-23.07	-3.614	-57.18	3.29	12.40	V
	7578	-57.83	-25	-32.83	-51.75	-65.11	4.03	11.31	V
	10107	-56.10	-25	-31.10	-52.14	-62.79	4.70	11.39	V
									V
									V
									V



Highest	5100	-53.81	-25	-28.81	-41.45	-62.80	3.31	12.30	H
	7653	-59.71	-25	-34.71	-53.05	-67.16	4.06	11.51	H
	10206	-55.82	-25	-30.82	-52.66	-62.38	4.73	11.29	H
									H
									H
									H
	5100	-49.60	-25	-24.60	37.82	-58.59	3.31	12.30	V
	7653	-50.72	-25	-25.72	-44.59	-58.17	4.06	11.51	V
	10206	-56.27	-25	-31.27	-52.51	-62.83	4.73	11.29	V
									V
									V
									V

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



5G NR n25

5G NR n25/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-51.08	-13	-38.08	-34.36	-60.71	2.77	12.40	H
	5548	-42.19	-13	-29.19	-29.89	-52.12	3.46	13.39	H
	7403	-59.45	-13	-46.45	-52.24	-66.66	3.98	11.19	H
									H
									H
									H
	3700	-47.27	-13	-34.27	-30.96	-56.90	2.77	12.40	V
	5548	-45.02	-13	-32.02	-32.77	-54.95	3.46	13.39	V
	7403	-58.87	-13	-45.87	-52.14	-66.08	3.98	11.19	V
									V
									V
									V
Middle	3749	-57.42	-13	-44.42	-40.85	-67.14	2.78	12.50	H
	5618	-41.01	-13	-28.01	-28.67	-50.90	3.48	13.37	H
	7495	-60.21	-13	-47.21	-52.99	-67.40	4.00	11.19	H
									H
									H
									H
	3749	-55.63	-13	-42.63	-39.45	-65.35	2.78	12.50	V
	5618	-39.62	-13	-26.62	-27.5	-49.51	3.48	13.37	V
	7495	-59.52	-13	-46.52	-52.65	-66.71	4.00	11.19	V
									V
									V
									V



Highest	3791	-55.24	-13	-42.24	-38.78	-64.87	2.79	12.42	H
	5688	-44.82	-13	-31.82	-33.03	-54.75	3.50	13.42	H
	7585	-61.24	-13	-48.24	-53.62	-68.55	4.03	11.34	H
									H
									H
									H
	3791	-57.59	-13	-44.59	-41.51	-67.22	2.79	12.42	V
	5688	-41.68	-13	-28.68	-30.12	-51.61	3.50	13.42	V
	7585	-60.70	-13	-47.70	-53.6	-68.01	4.03	11.34	V
									V
									V
									V

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



5G NR n38

5G NR n38/ 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5142	-64.75	-25	-39.75	-51.56	-73.90	3.32	12.47	H
	7716	-61.65	-25	-36.65	-54	-69.27	4.08	11.70	H
	10287	-57.59	-25	-32.59	-53.73	-63.96	4.76	11.13	H
									H
									H
									H
	5142	-55.07	-25	-30.07	-42.43	-64.22	3.32	12.47	V
	7716	-60.40	-25	-35.40	-53.26	-68.02	4.08	11.70	V
	10287	-57.81	-25	-32.81	-53.21	-64.18	4.76	11.13	V
									V
									V
									V
Middle	5172	-65.49	-25	-40.49	-52.43	-74.79	3.33	12.63	H
	7758	-61.44	-25	-36.44	-53.8	-69.20	4.09	11.85	H
	10341	-56.68	-25	-31.68	-53.01	-62.80	4.77	10.90	H
									H
									H
									H
	5172	-56.04	-25	-31.04	-43.5	-65.34	3.33	12.63	V
	7758	-60.06	-25	-35.06	-52.93	-67.82	4.09	11.85	V
	10341	-57.03	-25	-32.03	-52.52	-63.15	4.77	10.90	V
									V
									V
									V



Highest	5202	-63.81	-25	-38.81	-50.88	-73.28	3.34	12.82	H
	7800	-60.62	-25	-35.62	-53	-68.11	4.11	11.60	H
	10404	-57.30	-25	-32.30	-53.88	-63.12	4.79	10.61	H
									H
									H
									H
	5202	-55.82	-25	-30.82	-43.38	-65.29	3.34	12.82	V
	7800	-58.74	-25	-33.74	-51.61	-66.23	4.11	11.60	V
	10404	-57.43	-25	-32.43	-53.05	-63.25	4.79	10.61	V
									V
									V
									V

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





5G NR n41 (HPUE)

5G NR n41 (HPUE) / 80MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4995	-53.09	-25	-28.09	-40.1	-62.43	3.27	12.61	H
	7494	-57.86	-25	-32.86	-50.64	-65.05	4.00	11.19	H
	9991	-56.02	-25	-31.02	-51.1	-62.53	4.67	11.18	H
									H
									H
									H
	4996	-52.16	-25	-27.16	-39.05	-61.50	3.27	12.61	V
	7494	-56.25	-25	-31.25	-49.38	-63.44	4.00	11.19	V
	9991	-56.57	-25	-31.57	-51.4	-63.08	4.67	11.18	V
									V
									V
									V
Middle	5110	-60.62	-25	-35.62	-47.3	-69.65	3.31	12.34	H
	7664	-60.60	-25	-35.60	-52.93	-68.07	4.06	11.53	H
	10219	-56.76	-25	-31.76	-52.64	-63.29	4.74	11.26	H
									H
									H
									H
	5110	-54.79	-25	-29.79	-42.04	-63.82	3.31	12.34	V
	7664	-58.91	-25	-33.91	-51.78	-66.38	4.06	11.53	V
	10219	-57.57	-25	-32.57	-52.83	-64.10	4.74	11.26	V
									V
									V
									V



Highest	5223	-56.95	-25	-31.95	-44.02	-66.58	3.35	12.98	H
	7385	-58.97	-25	-33.97	-51.72	-66.13	3.98	11.14	H
	10447	-55.58	-25	-30.58	-52.32	-61.47	4.80	10.69	H
									H
									H
									H
	5223	-53.09	-25	-28.09	-40.62	-62.72	3.35	12.98	V
	7385	-58.75	-25	-33.75	-51.97	-65.91	3.98	11.14	V
	10447	-57.00	-25	-32.00	-52.69	-62.89	4.80	10.69	V
									V
									V
									V

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



5G NR n66

5G NR n66/ 40MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-51.53	-13	-38.53	-34.63	-61.45	2.68	12.60	H
	5135	-39.74	-13	-26.74	-27.52	-48.86	3.32	12.44	H
	6850	-60.31	-13	-47.31	-53.28	-68.85	3.86	12.40	H
									H
									H
									H
	3420	-52.27	-13	-39.27	-35.74	-62.19	2.68	12.60	V
	5135	-43.85	-13	-30.85	-32.19	-52.97	3.32	12.44	V
	6849	-60.39	-13	-47.39	-53.71	-68.93	3.86	12.40	V
									V
									V
									V
Middle	3448	-45.94	-13	-32.94	-29.25	-55.84	2.70	12.60	H
	5177	-40.19	-13	-27.19	-28.16	-49.52	3.33	12.66	H
	6906	-59.34	-13	-46.34	-52.43	-67.46	3.88	12.00	H
									H
									H
									H
	3448	-46.54	-13	-33.54	-30.22	-56.44	2.70	12.60	V
	5177	-43.06	-13	-30.06	-31.54	-52.39	3.33	12.66	V
	6906	-59.10	-13	-46.10	-52.36	-67.22	3.88	12.00	V
									V
									V
									V



Highest	3483	-51.35	-13	-38.35	-34.94	-61.11	2.71	12.47	H
	5226	-62.70	-13	-49.70	-50.79	-72.36	3.35	13.01	H
	6969	-58.75	-13	-45.75	-51.98	-66.81	3.90	11.96	H
									H
									H
									H
	3483	-47.05	-13	-34.05	-31.01	-56.81	2.71	12.47	V
	5226	-62.40	-13	-49.40	-50.93	-72.06	3.35	13.01	V
	6969	-58.75	-13	-45.75	-51.94	-66.81	3.90	11.96	V
									V
									V
									V

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



<MIMO 1 Antenna>

**5G NR n41 (HPUE) SRS**

5G NR n41 (HPUE) SRS / 80MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4992	-58.25	-25	-33.25	-44.45	-67.60	3.27	12.62	H
	7493	-59.54	-25	-34.54	-52.32	-66.73	4.00	11.19	H
	9990	-56.67	-25	-31.67	-51.75	-63.18	4.67	11.18	H
									H
									H
									H
	4992	-52.09	-25	-27.09	-38.96	-61.44	3.27	12.62	V
	7493	-57.75	-25	-32.75	-50.88	-64.94	4.00	11.19	V
	9990	-56.63	-25	-31.63	-51.46	-63.14	4.67	11.18	V
									V
									V
									V
Middle	5106	-58.95	-25	-33.95	-45.62	-67.97	3.31	12.32	H
	7662	-59.34	-25	-34.34	-51.67	-66.81	4.06	11.52	H
	10215	-57.08	-25	-32.08	-52.94	-63.62	4.73	11.27	H
									H
									H
									H
	5106	-55.67	-25	-30.67	-42.92	-64.69	3.31	12.32	V
	7662	-55.11	-25	-30.11	-47.97	-62.58	4.06	11.52	V
	10215	-57.56	-25	-32.56	-52.81	-64.10	4.73	11.27	V
									V
									V
									V



Highest	5220	-61.59	-25	-36.59	-48.67	-71.20	3.35	12.96	H
	7836	-50.62	-25	-25.62	-43.14	-58.03	4.12	11.53	H
	10449	-55.82	-25	-30.82	-52.56	-61.71	4.80	10.70	H
									H
									H
									H
	5220	-61.22	-25	-36.22	-48.76	-70.83	3.35	12.96	V
	7836	-45.46	-25	-20.46	-38.4	-52.87	4.12	11.53	V
	10449	-56.82	-25	-31.82	-52.52	-62.71	4.80	10.70	V
									V
									V
									V

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



<Aux. Antenna>

**5G NR n41 (HPUE) SRS**

5G NR n41 (HPUE) SRS / 80MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4992	-61.61	-25	-36.61	-47.81	-70.96	3.27	12.62	H
	7493	-59.88	-25	-34.88	-52.66	-67.07	4.00	11.19	H
	9990	-56.42	-25	-31.42	-51.5	-62.93	4.67	11.18	H
									H
									H
									H
	4992	-59.81	-25	-34.81	-496.68	-69.16	3.27	12.62	V
	7493	-59.62	-25	-34.62	-52.75	-66.81	4.00	11.19	V
	9990	-56.90	-25	-31.90	-51.73	-63.41	4.67	11.18	V
									V
									V
									V
Middle	5112	-63.55	-25	-38.55	-50.24	-72.59	3.31	12.35	H
	7664	-60.76	-25	-35.76	-53.09	-68.23	4.06	11.53	H
	10215	-57.13	-25	-32.13	-52.99	-63.67	4.73	11.27	H
									H
									H
									H
	5112	-58.44	-25	-33.44	-45.69	-67.48	3.31	12.35	V
	7664	-60.19	-25	-35.19	-53.05	-67.66	4.06	11.53	V
	10215	-57.81	-25	-32.81	-53.06	-64.35	4.73	11.27	V
									V
									V
									V



Highest	5220	-63.45	-25	-38.45	-50.53	-73.06	3.35	12.96	H
	7835	-58.18	-25	-33.18	-50.7	-65.59	4.12	11.53	H
	10449	-55.75	-25	-30.75	-52.49	-61.64	4.80	10.70	H
									H
									H
									H
	5220	-62.72	-25	-37.72	-50.25	-72.33	3.35	12.96	V
	7835	-52.83	-25	-27.83	-45.77	-60.24	4.12	11.53	V
	10449	-56.64	-25	-31.64	-52.34	-62.53	4.80	10.70	V
									V
									V
									V

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





MIMO <Main Antenna + MIMO 2 Antenna>

5G NR n41 (HPUE)

5G NR n41 (HPUE) / 80MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4995	-57.47	-25	-32.47	-43.68	-66.81	3.27	12.61	H
	7493	-60.55	-25	-35.55	-53.33	-67.74	4.00	11.19	H
	9991	-56.91	-25	-31.91	-51.99	-63.42	4.67	11.18	H
									H
									H
									H
	4996	-53.19	-25	-28.19	-40.08	-62.53	3.27	12.61	V
	7494	-59.76	-25	-34.76	-52.89	-66.95	4.00	11.19	V
	9991	-57.06	-25	-32.06	-51.89	-63.57	4.67	11.18	V
									V
									V
									V
Middle	5110	-59.84	-25	-34.84	-46.52	-68.87	3.31	12.34	H
	7664	-61.55	-25	-36.55	-53.88	-69.02	4.06	11.53	H
	10219	-57.46	-25	-32.46	-53.34	-63.99	4.74	11.26	H
									H
									H
									H
	5110	-52.76	-25	-27.76	-40.01	-61.79	3.31	12.34	V
	7664	-60.40	-25	-35.40	-53.27	-67.87	4.06	11.53	V
	10219	-58.06	-25	-33.06	-53.32	-64.59	4.74	11.26	V
									V
									V
									V



Highest	5220	-60.19	-25	-35.19	-47.27	-69.80	3.35	12.96	H
	7835	-59.35	-25	-34.35	-51.87	-66.76	4.12	11.53	H
	10447	-56.09	-25	-31.09	-52.81	-61.98	4.80	10.69	H
									H
									H
									H
	5223	-59.18	-25	-34.18	-46.71	-68.81	3.35	12.98	V
	7835	-58.08	-25	-33.08	-51.02	-65.49	4.12	11.53	V
	10447	-57.30	-25	-32.30	-52.99	-63.19	4.80	10.69	V
									V
									V
									V

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



<Main Antenna + MIMO 2 Antenna>

**EN-DC 66A-n41A**

EN-DC 66A-n41A / 20+80MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4995	-60.18	-25	-35.18	-46.39	-69.52	3.27	12.61	H
	7493	-59.87	-25	-34.87	-52.65	-67.06	4.00	11.19	H
	9991	-56.81	-25	-31.81	-51.89	-63.32	4.67	11.18	H
									H
									H
									H
	4995	-57.99	-25	-32.99	-44.88	-67.33	3.27	12.61	V
	7493	-59.72	-25	-34.72	-52.85	-66.91	4.00	11.19	V
	9991	-56.83	-25	-31.83	-51.66	-63.34	4.67	11.18	V
									V
									V
									V
Middle	5109	-64.86	-25	-39.86	-51.53	-73.89	3.31	12.34	H
	7664	-61.64	-25	-36.64	-53.97	-69.11	4.06	11.53	H
	10219	-57.73	-25	-32.73	-53.61	-64.26	4.74	11.26	H
									H
									H
									H
	5109	-58.72	-25	-33.72	-45.97	-67.75	3.31	12.34	V
	7664	-60.50	-25	-35.50	-53.37	-67.97	4.06	11.53	V
	10219	-57.82	-25	-32.82	-53.08	-64.35	4.74	11.26	V
									V
									V
									V



Highest	5223	-60.56	-25	-35.56	-47.63	-70.19	3.35	12.98	H
	7835	-59.16	-25	-34.16	-51.71	-66.57	4.12	11.53	H
	10447	-56.20	-25	-31.20	-52.92	-62.09	4.80	10.69	H
									H
									H
									H
	5223	-57.98	-25	-32.98	-45.51	-67.61	3.35	12.98	V
	7835	-58.47	-25	-33.47	-51.41	-65.88	4.12	11.53	V
	10447	-57.04	-25	-32.04	-52.73	-62.93	4.80	10.69	V
									V
									V
									V

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



**EN-DC 5A-n2A**

EN-DC 5A-n2A / 10+20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Margin ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3702	-51.96	-13	-38.96	-35.25	-61.60	2.77	12.40	H
	5553	-60.45	-13	-47.45	-48.13	-70.38	3.46	13.39	H
	7404	-59.53	-13	-46.53	-52.32	-66.73	3.98	11.18	H
									H
									H
									H
	3702	-48.33	-13	-35.33	-32.03	-57.97	2.77	12.40	V
	5553	-58.05	-13	-45.05	-45.8	-67.98	3.46	13.39	V
	7404	-59.09	-13	-46.09	-52.36	-66.29	3.98	11.18	V
									V
									V
									V
Middle	3742	-51.03	-13	-38.03	-34.43	-60.74	2.78	12.48	H
	5613	-59.75	-13	-46.75	-47.37	-69.62	3.48	13.35	H
	7484	-60.48	-13	-47.48	-53.26	-67.65	4.00	11.17	H
									H
									H
									H
	3742	-48.41	-13	-35.41	-32.21	-58.12	2.78	12.48	V
	5613	-57.12	-13	-44.12	-44.96	-66.99	3.48	13.35	V
	7484	-59.81	-13	-46.81	-52.96	-66.98	4.00	11.17	V
									V
									V
									V



Highest	3782	-47.13	-13	-34.13	-30.64	-56.78	2.79	12.44	H
	5673	-60.57	-13	-47.57	-48.66	-70.53	3.49	13.45	H
	7564	-61.29	-13	-48.29	-53.78	-68.52	4.02	11.26	H
									H
									H
									H
	3782	-45.17	-13	-32.17	-29.07	-54.82	2.79	12.44	V
	5673	-58.38	-13	-45.38	-46.7	-68.34	3.49	13.45	V
	7564	-60.76	-13	-47.76	-53.73	-67.99	4.02	11.26	V
									V
									V
									V

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