



# FCC RADIO TEST REPORT

**FCC ID** : RI7FN980M  
**Equipment** : 5G/ LTE M.2 Data Card  
**Brand Name** : Telit  
**Model Name** : FN980m  
**Marketing Name** : FN980m  
**Applicant** : TELIT COMMUNICATIONS S.P.A.  
VIA STAZIONE DI PROSECCO 5B -  
SGONICO -TRIESTE - ITALY  
**Manufacturer** : TELIT COMMUNICATIONS S.P.A.  
VIA STAZIONE DI PROSECCO 5B -  
SGONICO -TRIESTE - ITALY  
**Standard** : FCC 47 CFR Part 2, 22(H), 24(E), 27

The product was received on Aug. 11, 2021 and testing was started from Aug. 30, 2021 and completed on Sep. 09, 2021. We, Sporton International Inc. EMC & Wireless Communications 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 variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

*Louis Wu*

Approved by: Louis Wu

**Sporton International Inc. EMC & Wireless Communications Laboratory**

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)



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### History of this test report

Report No.	Version	Description	Issued Date
FG031715-09C	01	Initial issue of report	Oct. 01, 2021



### Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
	§22.913 (a)(2)	Effective Radiated Power (n5)		
	§27.50 (c)(10)	Effective Radiated Power (n12) (n71)		
	§24.232 (c) §27.50 (h)(2)	Equivalent Isotropic Radiated Power (n2) (n25) (n7) (n41)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (n66)		
-	§24.232 (d) §27.50 (d)(5)	Peak-to-Average Ratio	Not Required	-
-	§2.1049	Occupied Bandwidth	Not Required	-
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g) §27.53 (h)	Conducted Band Edge Measurement (n2) (n5) (n12) (n25) (n66) (n71)	Not Required	-
	§2.1051 §27.53 (m)(4)	Conducted Band Edge Measurement (n7) (n41)		
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g) §27.53 (h)	Conducted Spurious Emission (n2) (n5) (n12) (n25) (n66) (n71)	Not Required	-
	§2.1051 §27.53 (m)(4)	Conducted Spurious Emission (n7) (n41)		
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	Not Required	-



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) (n12) (n25) (n66) (n71)	Pass	Under limit 30.95 dB at 9252.000 MHz
	§2.1051 §27.53 (m)(4)	Radiated Spurious Emission (n7) (n41)		

**Note:**

1. Not required means after assessing, test items are not necessary to carry out.
2. This is a variant report which can be referred Product Equality Declaration. All the test cases were performed on original report which can be referred to Sporton Report Number FG031715-03A. Based on the original report, the Conducted Output Power test cases were verified. The verify test of Radiated Spurious Emission that only spot check has been done on some representative bands.

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Avis Chuang**

**Report Producer: Vivian Hsu**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

WCDMA/LTE/5G NR and GNSS.

Product Specification subjective to this standard	
Antenna Type	<b>WWAN:</b> <Ant. 0> Dipole Antenna <Ant. 1> Dipole Antenna <Ant. 2> Dipole Antenna <Ant. 3> Dipole Antenna <b>GNSS :</b> <b>&lt;1559 MHz ~ 1610 MHz&gt;:</b> <Ant. 3> Dipole Antenna <Ant. 4> Dipole Antenna <b>&lt;1164 MHz ~ 1215 MHz&gt;:</b> <Ant. 2> Dipole Antenna

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

## 1.2 Modification of EUT

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

## 1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory	
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	<b>Sporton Site No.</b>	
	TH03-HY	03CH07-HY
Test Engineer	Luffy Lin	Jesse Wang and Stan Hsieh
Temperature	22.8~25.4°C	24.2~25.5°C
Relative Humidity	45.9~51.2%	53.9~55.7%

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

FCC Designation No.: TW1190



## **1.4 Applicable Standards**

According to the specifications of 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 test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

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

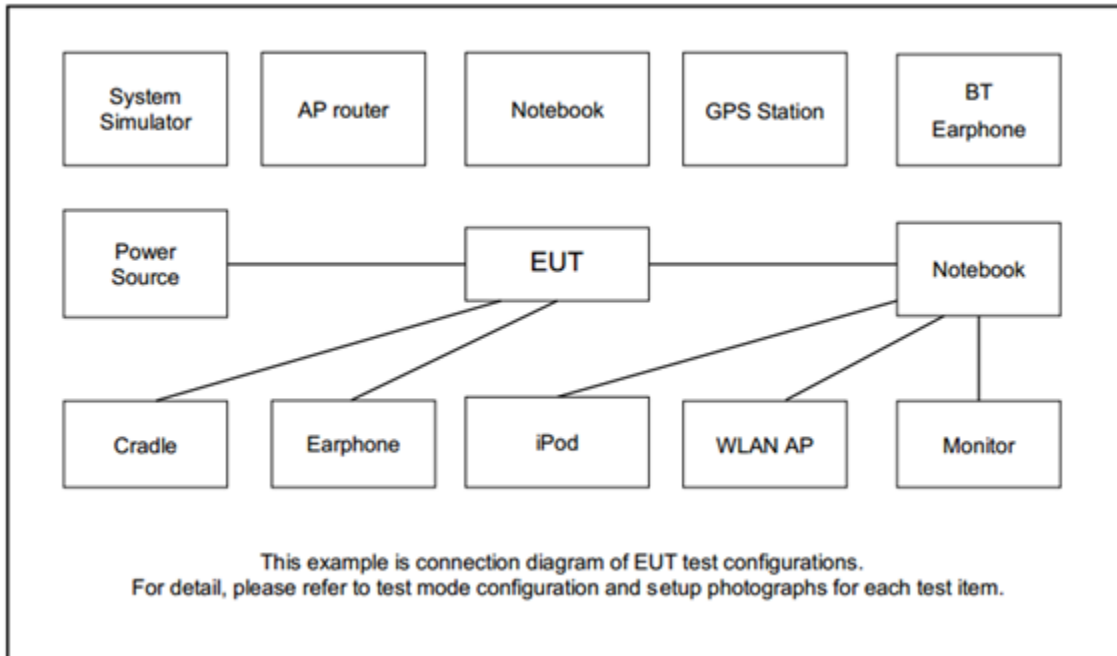
The measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in two config (Horizontal and Vertical), and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and find (Ant. Horizontal for EN-DC 66A-n25A; Ant. Vertical for EN-DC 30A-n5A) as worst plane.

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	v	v	v
	n5	v	v	v	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	v	v	v
	n12	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
	n66	v	v	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	v	v	v
E.R.P / E.I.R.P	n2	v	v	v	v	-	-	-	v	v	v	v	v	Max. Power					
	n5	v	v	v	v	-	-	-	v	v	v	v	v						
	n7	v	v	v	v	-	-	-	v	v	v	v	v						
	n12	v	v	v	-	-	-	-	v	v	v	v	v						
	n25	v	v	v	v	-	-	-	v	v	v	v	v						
	n66	v	v	v	v	-	-	-	v	v	v	v	v						
	n71	v	v	v	v	-	-	-	v	v	v	v	v						
Radiated Spurious Emission	n5				v	-	-	-	v					v					v
	n25				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>Test combination is EN-DC 30A-n5A and EN-DC 66A-n25A.</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			v		v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
E.R.P / E.I.R.P	n41	v		v		v	v	v	v	v	v	v	v	v	v		Max Power						
Remark	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.																						

## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
3.	DC power Supply	Agilent	E3610A	N/A	N/A	N/A



### 2.4 Frequency List of Low/Middle/High Channels

5G NR Band 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 Band 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 Band n7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
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



5G NR Band n12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	141300	141500	141700
	Frequency	706.5	707.5	708.5
10	Channel	140800	141500	142200
	Frequency	704	707.5	711
5	Channel	140300	141500	142700
	Frequency	701.5	707.5	713.5

5G NR Band n25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
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 Band n41 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	509202	518598	528000
	Frequency	2546.01	2592.99	2640
90	Channel	508200	518598	528996
	Frequency	2541	2592.99	2644.98
80	Channel	507204	518598	529998
	Frequency	2536.02	2592.99	2649.99
60	Channel	505200	518598	531996
	Frequency	2526	2592.99	2659.98
50	Channel	504204	518598	532998
	Frequency	2521.02	2592.99	2664.99
40	Channel	503202	518598	534000
	Frequency	2516.01	2592.99	2670
20	Channel	501204	518598	535998
	Frequency	2506.02	2592.99	2679.99
10	Channel	500202	518598	537000
	Frequency	2501.01	2592.99	2685



5G NR Band n66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
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 Band n71 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
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

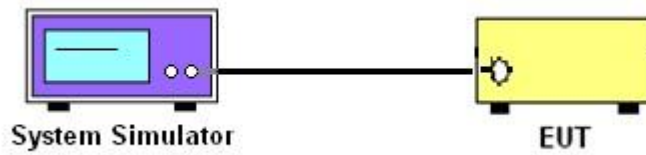
### 3 Conducted Test Items

#### 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 n12 and n71

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

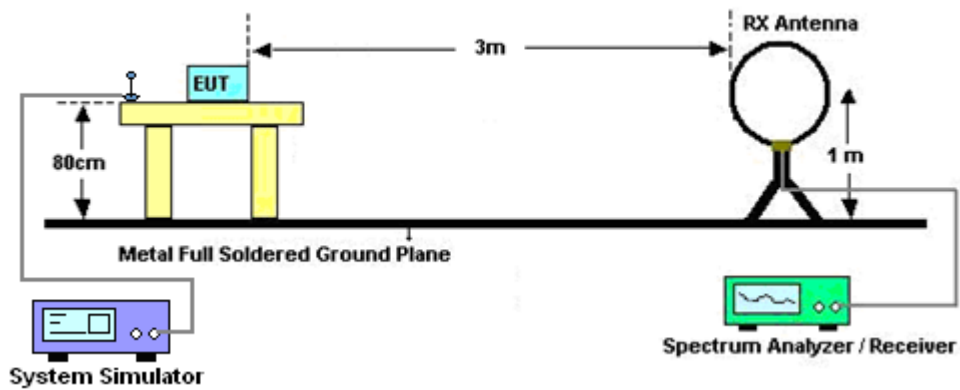
## 4 Radiated Test Items

### 4.1 Measuring Instruments

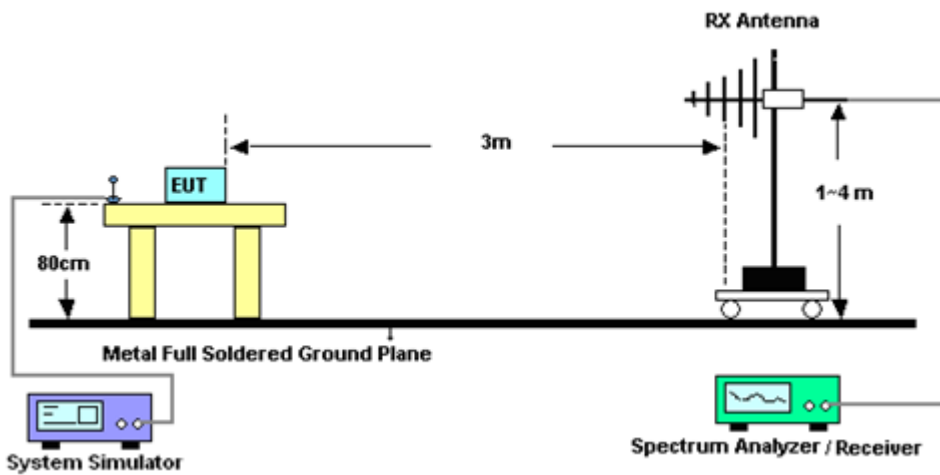
See list of measuring instruments of this test report.

#### 4.1.1 Test Setup

For radiated emissions below 30MHz

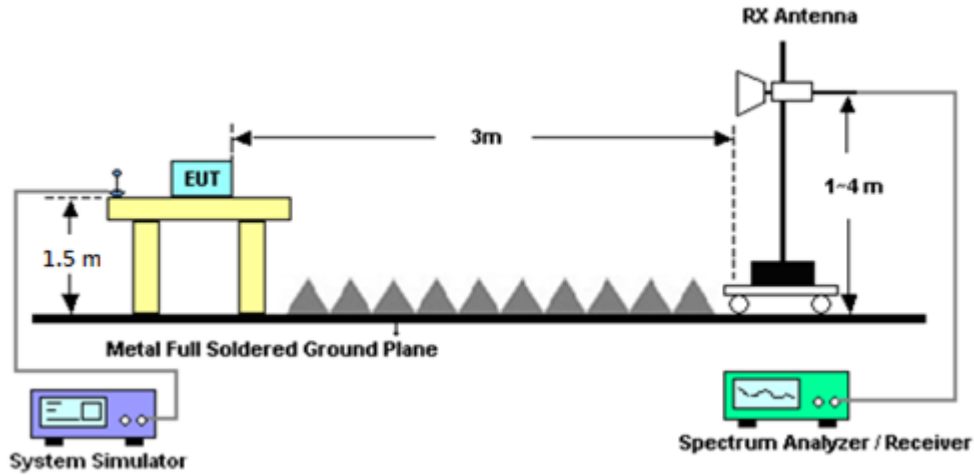


For radiated test from 30MHz to 1GHz





For radiated test above 1GHz



#### 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, 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, n41

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

$EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$

$ERP \text{ (dBm)} = EIRP - 2.15$



## 5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Programmable Power Supply	GW Instek	PSS-2005	EL890001	50Hz~60Hz	Oct. 05, 2020	Aug. 31, 2021~ Sep. 09, 2021	Oct. 04, 2021	Conducted (TH03-HY)
Hygrometer	Testo	608-H11	3489324	NA	Jan. 18, 2021	Aug. 31, 2021~ Sep. 09, 2021	Jan. 17, 2022	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8821C	6261849015	LTE	Sep. 18, 2020	Aug. 31, 2021~ Sep. 09, 2021	Sep. 17, 2021	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8000A	6261940327	FR1	Sep. 23, 2020	Aug. 31, 2021~ Sep. 09, 2021	Sep. 22, 2021	Conducted (TH03-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01 N-06	35419 & 03	30MHz~1GHz	Apr. 28, 2021	Aug. 30, 2021~ Sep. 01, 2021	Apr. 27, 2022	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 01, 2020	Aug. 30, 2021~ Sep. 01, 2021	Nov. 30, 2021	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz~18GHz	Apr. 22, 2021	Aug. 30, 2021~ Sep. 01, 2021	Apr. 21, 2022	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	May 18, 2021	Aug. 30, 2021~ Sep. 01, 2021	May 17, 2022	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~26.5GHz	Oct. 31, 2020	Aug. 30, 2021~ Sep. 01, 2021	Oct. 30, 2021	Radiation (03CH07-HY)
Preamplifier	EMEC	EM18G40G	0600789	18-40GHz	Jul. 23, 2021	Aug. 30, 2021~ Sep. 01, 2021	Jul. 22, 2022	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Jul. 22, 2021	Aug. 30, 2021~ Sep. 01, 2021	Jul. 21, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY15682-4	30MHz to 18GHz	Feb. 24, 2021	Aug. 30, 2021~ Sep. 01, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971-4	9kHz to 18GHz	Feb. 24, 2021	Aug. 30, 2021~ Sep. 01, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655-4	9kHz to 18GHz	Feb. 24, 2021	Aug. 30, 2021~ Sep. 01, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2,801 606/2	18GHz~40GHz	Feb. 24, 2021	Aug. 30, 2021~ Sep. 01, 2021	Feb. 23, 2022	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126	532078/126E	30MHz~18GHz	Sep. 18, 2020	Aug. 30, 2021~ Sep. 01, 2021	Sep. 17, 2021	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801606/2	9KHz ~ 40GHz	Apr. 03, 2021	Aug. 30, 2021~ Sep. 01, 2021	Apr. 02, 2022	Radiation (03CH07-HY)
Controller	EMEC	EM1000	N/A	Control Ant Mast	Apr. 28, 2021	Aug. 30, 2021~ Sep. 01, 2021	Apr. 27, 2022	Radiation (03CH07-HY)
Controller	MF	MF-7802	N/A	Control Turn table	N/A	Aug. 30, 2021~ Sep. 01, 2021	N/A	Radiation (03CH07-HY)
Antenna Mast	EMEC	AM-BS-4500E	N/A	Boresight mast 1M~4M	Apr. 28, 2021	Aug. 30, 2021~ Sep. 01, 2021	Apr. 27, 2022	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Aug. 30, 2021~ Sep. 01, 2021	N/A	Radiation (03CH07-HY)
Software	Audix	E3 6.2009-8-24	N/A	N/A	N/A	Aug. 30, 2021~ Sep. 01, 2021	N/A	Radiation (03CH07-HY)
USB Data Logger	TECPEL	TR-32	HE17XB2495	N/A	Mar. 09, 2021	Aug. 30, 2021~ Sep. 01, 2021	Mar. 08, 2022	Radiation (03CH07-HY)
Horn Antenna	EMCO	3117	00143261	1GHz~18GHz	Jan. 26, 2021	Aug. 30, 2021~ Sep. 01, 2021	Jan. 25, 2022	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917025 1	18GHz~40GHz	Dec. 02, 2020	Aug. 30, 2021~ Sep. 01, 2021	Dec. 01, 2021	Radiation (03CH07-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	Dec. 04, 2020	Aug. 30, 2021~ Sep. 01, 2021	Dec. 03, 2021	Radiation (03CH07-HY)



## 6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.16 dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.71 dB
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.16 dB
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## Appendix A. Test Results of Conducted Test

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

NR n2 Maximum Average Power [dBm] (GT - LC = 6 dB)									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)	
5	1	1	PI/2 BPSK	22.72	22.79	22.94	28.94	0.7834	
5	1	23		22.66	22.92	22.90			
5	12	6		22.74	22.74	22.65			
5	1	0		22.29	22.38	22.30			
5	1	24		22.33	22.37	22.21			
5	25	0		22.43	22.46	22.40			
5	1	1	QPSK	22.56	22.65	22.84			
5	1	23		22.63	22.79	22.90			
5	12	6		22.69	22.77	22.71			
5	1	0		21.63	21.77	21.95			
5	1	24		21.83	21.93	21.73			
5	25	0		21.93	22.05	21.75			
5	1	1	16-QAM	21.67	21.96	22.02	28.02	0.6339	
5	1	1	64-QAM	19.99	20.24	20.21			
5	1	1	256-QAM	17.87	18.00	18.08			
Limit	EIRP < 2W			Result			Pass		

NR n2 Maximum Average Power [dBm] (GT - LC = 6 dB)									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)	
10	1	1	PI/2 BPSK	22.76	22.66	22.64	28.87	0.7709	
10	1	50		22.70	22.77	22.87			
10	25	12		22.77	22.85	22.70			
10	1	0		22.24	22.32	22.45			
10	1	51		22.49	22.50	22.40			
10	50	0		22.19	22.53	22.37			
10	1	1	QPSK	22.72	22.44	22.74			
10	1	50		22.67	22.77	22.75			
10	25	12		22.63	22.66	22.86			
10	1	0		21.76	21.95	21.78			
10	1	51		22.01	21.89	21.63			
10	50	0		21.81	22.12	21.89			
10	1	1	16-QAM	21.68	22.02	22.12	28.12	0.6486	
10	1	1	64-QAM	20.17	20.28	20.07			
10	1	1	256-QAM	17.77	18.15	17.94			
Limit	EIRP < 2W			Result			Pass		



NR n2 Maximum Average Power [dBm] (GT - LC = 6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.84	22.93	22.82	28.93	0.7816
15	1	77		22.88	22.71	22.82		
15	36	18		22.77	22.69	22.84		
15	1	0		22.22	22.61	22.46		
15	1	78		22.53	22.37	22.15		
15	75	0		22.28	22.58	22.32		
15	1	1	QPSK	22.51	22.40	22.79		
15	1	77		22.91	22.64	22.78		
15	36	18		22.72	22.79	22.62		
15	1	0		21.76	21.96	21.81		
15	1	78		21.81	22.06	21.66		
15	75	0		21.85	22.22	21.85		
15	1	1	16-QAM	21.78	21.95	22.03	28.03	0.6353
15	1	1	64-QAM	20.11	20.30	20.09		
15	1	1	256-QAM	17.71	18.01	18.17		
Limit	EIRP < 2W			Result			Pass	

NR n2 Maximum Average Power [dBm] (GT - LC = 6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.91	22.95	22.94	28.95	0.7852
20	1	104		22.90	22.93	22.93		
20	50	25		22.92	22.94	22.91		
20	1	0		22.38	22.61	22.49		
20	1	105		22.61	22.56	22.43		
20	100	0		22.49	22.71	22.45		
20	1	1	QPSK	22.75	22.70	22.91		
20	1	104		22.91	22.94	22.93		
20	50	25		22.90	22.92	22.89		
20	1	0		21.78	22.04	22.01		
20	1	105		22.02	22.07	21.87		
20	100	0		22.01	22.26	21.97		
20	1	1	16-QAM	21.95	22.24	22.17	28.24	0.6668
20	1	1	64-QAM	20.24	20.41	20.35		
20	1	1	256-QAM	18.01	18.21	18.17		
Limit	EIRP < 2W			Result			Pass	



NR n5 Maximum Average Power [dBm] (GT - LC = 3.5 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)		
5	1	1	PI/2 BPSK	23.07	23.17	23.01	24.55	0.2851		
5	1	23		22.87	22.82	22.58				
5	12	6		23.14	23.20	22.92				
5	1	0		22.53	22.69	22.46				
5	1	24		22.20	22.42	22.10				
5	25	0		22.51	22.49	22.31				
5	1	1	QPSK	22.87	23.10	23.00				
5	1	23		23.00	22.98	22.77				
5	12	6		23.16	23.06	23.06				
5	1	0		22.03	22.01	21.91				
5	1	24		21.73	21.92	21.63				
5	25	0		22.13	22.23	21.88				
5	1	1	16-QAM	22.35	22.18	22.19	23.7	0.2344		
5	1	1	64-QAM	20.36	20.51	20.42				
5	1	1	256-QAM	18.15	18.40	18.13				
Limit	ERP < 7W			Result			Pass			

NR n5 Maximum Average Power [dBm] (GT - LC = 3.5 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)		
10	1	1	PI/2 BPSK	23.13	23.14	23.00	24.49	0.2812		
10	1	50		22.74	22.72	22.66				
10	25	12		23.07	23.11	23.08				
10	1	0		22.44	22.52	22.60				
10	1	51		22.23	22.38	22.07				
10	50	0		22.63	22.59	22.45				
10	1	1	QPSK	23.07	23.08	23.10				
10	1	50		22.90	22.89	22.81				
10	25	12		23.02	23.06	23.10				
10	1	0		21.94	22.02	22.17				
10	1	51		21.71	21.92	21.59				
10	50	0		22.12	22.14	22.06				
10	1	1	16-QAM	22.18	22.27	22.22	23.62	0.2301		
10	1	1	64-QAM	20.32	20.54	20.46				
10	1	1	256-QAM	18.29	18.43	18.24				
Limit	ERP < 7W			Result			Pass			



NR n5 Maximum Average Power [dBm] (GT - LC = 3.5 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)		
15	1	1	PI/2 BPSK	23.08	23.11	23.07	24.54	0.2844		
15	1	77		22.78	22.91	22.70				
15	36	18		23.09	23.19	22.95				
15	1	0		22.41	22.56	22.66				
15	1	78		22.44	22.38	22.28				
15	75	0		22.40	22.51	22.36				
15	1	1	QPSK	23.00	22.99	23.09				
15	1	77		22.90	22.96	22.67				
15	36	18		22.97	23.04	22.94				
15	1	0		22.01	22.03	22.10				
15	1	78		21.84	21.80	21.78				
15	75	0		22.17	22.21	21.93				
15	1	1	16-QAM	22.09	22.14	22.17	23.52	0.2249		
15	1	1	64-QAM	20.40	20.55	20.47				
15	1	1	256-QAM	18.34	18.17	18.12				
Limit	ERP < 7W			Result			Pass			

NR n5 Maximum Average Power [dBm] (GT - LC = 3.5 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)		
20	1	1	PI/2 BPSK	23.26	23.28	23.16	24.63	0.2904		
20	1	104		22.97	22.93	22.82				
20	50	25		23.26	23.22	23.22				
20	1	0		22.67	22.76	22.74				
20	1	105		22.47	22.49	22.36				
20	100	0		22.67	22.74	22.61				
20	1	1	QPSK	23.16	23.21	23.18				
20	1	104		23.01	22.98	22.85				
20	50	25		23.19	23.26	23.15				
20	1	0		22.17	22.21	22.17				
20	1	105		21.92	21.98	21.84				
20	100	0		22.24	22.27	22.12				
20	1	1	16-QAM	22.37	22.36	22.28	23.72	0.2355		
20	1	1	64-QAM	20.58	20.74	20.64				
20	1	1	256-QAM	18.39	18.43	18.38				
Limit	ERP < 7W			Result			Pass			





NR n7 Maximum Average Power [dBm] (GT - LC = 5.5 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
5	1	1	PI/2 BPSK	23.28	22.97	22.95	28.83	0.7638		
5	1	23		23.29	23.15	23.05				
5	12	6		23.22	23.31	23.14				
5	1	0		22.84	22.69	22.55				
5	1	24		22.70	22.53	22.47				
5	25	0		22.63	22.59	22.91				
5	1	1	QPSK	23.19	22.96	23.18				
5	1	23		23.21	22.95	23.24				
5	12	6		23.33	23.25	23.20				
5	1	0		22.05	22.07	22.29				
5	1	24		21.97	21.98	22.10				
5	25	0		22.20	22.10	22.40				
5	1	1	16-QAM	22.46	22.27	22.23	27.96	0.6252		
5	1	1	64-QAM	20.38	20.41	20.58				
5	1	1	256-QAM	18.15	18.20	18.28				
Limit	EIRP < 2W			Result			Pass			

NR n7 Maximum Average Power [dBm] (GT - LC = 5.5 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
10	1	1	PI/2 BPSK	23.06	23.12	23.02	28.81	0.7603		
10	1	50		23.06	23.15	23.31				
10	25	12		23.30	23.28	23.09				
10	1	0		22.93	22.53	22.72				
10	1	51		22.77	22.73	22.51				
10	50	0		22.69	22.70	22.87				
10	1	1	QPSK	23.25	22.95	23.08				
10	1	50		23.04	23.02	23.03				
10	25	12		23.18	23.12	22.99				
10	1	0		22.32	22.00	22.21				
10	1	51		21.96	22.04	22.04				
10	50	0		22.27	22.07	22.13				
10	1	1	16-QAM	22.27	22.26	22.42	27.92	0.6194		
10	1	1	64-QAM	20.45	20.45	20.66				
10	1	1	256-QAM	18.37	18.26	18.20				
Limit	EIRP < 2W			Result			Pass			



NR n7 Maximum Average Power [dBm] (GT - LC = 5.5 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
15	1	1	PI/2 BPSK	23.35	23.21	23.10	28.85	0.7674		
15	1	77		23.13	23.06	23.21				
15	36	18		23.15	23.05	23.29				
15	1	0		22.71	22.45	22.74				
15	1	78		22.60	22.56	22.49				
15	75	0		22.83	22.67	22.85				
15	1	1	QPSK	23.14	23.20	23.04			28.85	0.7674
15	1	77		23.08	23.25	23.27				
15	36	18		23.05	23.14	23.20				
15	1	0		22.18	22.15	22.37				
15	1	78		21.94	21.94	22.16				
15	75	0		22.06	21.98	22.40				
15	1	1	16-QAM	22.40	22.20	22.19	27.9	0.6166		
15	1	1	64-QAM	20.52	20.61	20.66				
15	1	1	256-QAM	18.26	18.20	18.13				
Limit	EIRP < 2W			Result			Pass			

NR n7 Maximum Average Power [dBm] (GT - LC = 5.5 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
20	1	1	PI/2 BPSK	23.36	23.25	23.21	28.88	0.7727		
20	1	104		23.34	23.24	23.32				
20	50	25		23.38	23.31	23.32				
20	1	0		22.98	22.75	22.84				
20	1	105		22.83	22.79	22.76				
20	100	0		22.87	22.74	22.93				
20	1	1	QPSK	23.32	23.21	23.24			28.88	0.7727
20	1	104		23.26	23.25	23.32				
20	50	25		23.35	23.29	23.25				
20	1	0		22.32	22.19	22.41				
20	1	105		22.24	22.21	22.34				
20	100	0		22.36	22.26	22.41				
20	1	1	16-QAM	22.53	22.32	22.48	28.03	0.6353		
20	1	1	64-QAM	20.66	20.61	20.79				
20	1	1	256-QAM	18.40	18.26	18.43				
Limit	EIRP < 2W			Result			Pass			



NR n12 Maximum Average Power [dBm] (GT - LC = 3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
5	1	1	PI/2 BPSK	22.82	22.72	22.66	23.84	0.2421
5	1	23		22.75	22.71	22.73		
5	12	6		22.93	22.78	22.93		
5	1	0		22.83	22.77	22.77		
5	1	24		22.33	22.40	22.26		
5	25	0		22.57	22.71	22.58		
5	1	1	QPSK	22.95	22.90	22.99		
5	1	23		22.69	22.75	21.77		
5	12	6		22.77	22.86	22.86		
5	1	0		22.08	22.18	22.23		
5	1	24		21.81	21.75	21.91		
5	25	0		22.24	22.16	22.15		
5	1	1	16-QAM	22.32	22.39	22.31	23.24	0.2109
5	1	1	64-QAM	20.64	20.42	20.37		
5	1	1	256-QAM	18.54	18.47	18.34		
Limit	ERP < 3W			Result			Pass	

NR n12 Maximum Average Power [dBm] (GT - LC = 3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
10	1	1	PI/2 BPSK	22.74	22.87	22.84	23.86	0.2432
10	1	50		22.94	22.77	22.73		
10	25	12		23.01	22.82	22.72		
10	1	0		22.61	22.65	22.79		
10	1	51		22.30	22.22	22.17		
10	50	0		22.69	22.64	22.61		
10	1	1	QPSK	22.79	22.80	22.79		
10	1	50		22.94	22.94	21.69		
10	25	12		22.80	22.73	22.89		
10	1	0		22.04	22.12	22.10		
10	1	51		21.79	21.96	21.77		
10	50	0		22.10	22.05	21.95		
10	1	1	16-QAM	22.29	22.42	22.20	23.27	0.2123
10	1	1	64-QAM	20.75	20.68	20.54		
10	1	1	256-QAM	18.36	18.27	18.33		
Limit	ERP < 3W			Result			Pass	



NR n12 Maximum Average Power [dBm] (GT - LC = 3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
15	1	1	PI/2 BPSK	23.02	23.01	22.93	23.87	0.2438
15	1	77		22.96	22.98	22.97		
15	36	18		23.01	22.96	22.98		
15	1	0		22.85	22.85	22.82		
15	1	78		22.50	22.52	22.46		
15	75	0		22.85	22.73	22.75		
15	1	1	QPSK	22.99	23.01	23.00		
15	1	77		22.95	22.99	21.95		
15	36	18		22.99	22.98	23.01		
15	1	0		22.32	22.29	22.32		
15	1	78		22.06	22.01	21.98		
15	75	0		22.32	22.28	22.21		
15	1	1	16-QAM	22.47	22.53	22.45	23.38	0.2178
15	1	1	64-QAM	20.83	20.68	20.64		
15	1	1	256-QAM	18.56	18.49	18.45		
Limit	ERP < 3W			Result			Pass	



NR n25 Maximum Average Power [dBm] (GT - LC = 6 dB)									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)	
5	1	1	PI/2 BPSK	22.58	22.70	22.67	28.71	0.7430	
5	1	23		22.69	22.44	22.71			
5	12	6		22.45	22.59	22.44			
5	1	0		22.16	22.41	22.49			
5	1	24		22.53	22.51	22.35			
5	25	0		22.54	22.48	22.68			
5	1	1	QPSK	22.56	22.44	22.71			
5	1	23		22.64	22.59	22.45			
5	12	6		22.51	22.67	22.50			
5	1	0		21.69	22.18	22.44			
5	1	24		21.97	21.98	22.07			
5	25	0		22.05	22.06	22.15			
5	1	1	16-QAM	21.85	22.34	22.03	28.34	0.6823	
5	1	1	64-QAM	20.21	20.60	20.26			
5	1	1	256-QAM	18.05	18.37	18.20			
Limit	EIRP < 2W			Result			Pass		

NR n25 Maximum Average Power [dBm] (GT - LC = 6 dB)									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)	
10	1	1	PI/2 BPSK	22.52	22.64	22.62	28.75	0.7499	
10	1	50		22.57	22.47	22.57			
10	25	12		22.56	22.50	22.70			
10	1	0		22.15	22.65	22.48			
10	1	51		22.53	22.51	22.52			
10	50	0		22.40	22.61	22.44			
10	1	1	QPSK	22.63	22.61	22.48			
10	1	50		22.56	22.46	22.58			
10	25	12		22.64	22.53	22.75			
10	1	0		21.72	22.25	22.45			
10	1	51		22.01	21.98	21.84			
10	50	0		21.93	22.13	22.15			
10	1	1	16-QAM	21.99	22.08	22.14	28.14	0.6516	
10	1	1	64-QAM	20.22	20.47	20.28			
10	1	1	256-QAM	17.92	18.13	18.19			
Limit	EIRP < 2W			Result			Pass		



NR n25 Maximum Average Power [dBm] (GT - LC = 6 dB)									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)	
15	1	1	PI/2 BPSK	22.54	22.49	22.50	28.74	0.7482	
15	1	77		22.61	22.59	22.50			
15	36	18		22.68	22.49	22.50			
15	1	0		22.18	22.66	22.35			
15	1	78		22.43	22.61	22.62			
15	75	0		22.43	22.53	22.47			
15	1	1	QPSK	22.42	22.55	22.50			
15	1	77		22.61	22.63	22.41			
15	36	18		22.50	22.50	22.74			
15	1	0		21.69	22.19	22.58			
15	1	78		22.04	21.87	21.87			
15	75	0		22.10	22.07	22.18			
15	1	1	16-QAM	21.87	22.24	22.03	28.24	0.6668	
15	1	1	64-QAM	20.15	20.51	20.24			
15	1	1	256-QAM	18.09	18.20	18.01			
Limit	EIRP < 2W			Result			Pass		

NR n25 Maximum Average Power [dBm] (GT - LC = 6 dB)									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)	
20	1	1	PI/2 BPSK	22.74	22.76	22.75	28.76	0.7516	
20	1	104		22.72	22.72	22.74			
20	50	25		22.74	22.75	22.70			
20	1	0		22.35	22.68	22.65			
20	1	105		22.63	22.61	22.62			
20	100	0		22.60	22.72	22.69			
20	1	1	QPSK	22.69	22.72	22.71			
20	1	104		22.72	22.74	22.71			
20	50	25		22.71	22.75	22.75			
20	1	0		21.86	22.26	22.74			
20	1	105		22.09	22.06	22.08			
20	100	0		22.13	22.31	22.22			
20	1	1	16-QAM	22.12	22.34	22.32	28.34	0.6823	
20	1	1	64-QAM	20.25	20.62	20.51			
20	1	1	256-QAM	18.09	18.41	18.31			
Limit	EIRP < 2W			Result			Pass		



NR n66 Maximum Average Power [dBm] (GT - LC = 5.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
5	1	1	PI/2 BPSK	22.34	22.46	22.32	28.11	0.6471
5	1	23		22.38	22.44	22.37		
5	12	6		22.29	22.51	22.51		
5	1	0		22.38	22.46	22.26		
5	1	24		22.16	22.21	21.89		
5	25	0		22.40	22.35	22.07		
5	1	1	QPSK	22.48	22.56	22.44		
5	1	23		22.46	22.44	22.30		
5	12	6		22.61	22.44	22.39		
5	1	0		21.80	21.70	21.56		
5	1	24		21.69	21.68	21.59		
5	25	0		21.76	21.72	21.48		
5	1	1	16-QAM	22.06	21.88	21.81	27.56	0.5702
5	1	1	64-QAM	20.29	20.07	19.85		
5	1	1	256-QAM	18.10	17.77	17.95		
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 5.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.54	22.31	22.52	28.10	0.6457
10	1	50		22.36	22.28	22.55		
10	25	12		22.36	22.57	22.34		
10	1	0		22.41	22.33	22.03		
10	1	51		22.07	22.25	22.00		
10	50	0		22.32	22.19	22.11		
10	1	1	QPSK	22.35	22.38	22.31		
10	1	50		22.25	22.50	22.41		
10	25	12		22.60	22.57	22.35		
10	1	0		21.79	21.70	21.55		
10	1	51		21.63	21.45	21.38		
10	50	0		21.94	21.59	21.59		
10	1	1	16-QAM	22.13	21.82	21.56	27.63	0.5794
10	1	1	64-QAM	20.16	20.05	19.91		
10	1	1	256-QAM	17.98	17.81	18.05		
Limit	EIRP < 1W			Result			Pass	



NR n66 Maximum Average Power [dBm] (GT - LC = 5.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.44	22.34	22.34	28.09	0.6442
15	1	77		22.50	22.49	22.36		
15	36	18		22.49	22.48	22.38		
15	1	0		22.49	22.44	22.19		
15	1	78		22.28	22.07	22.14		
15	75	0		22.14	22.24	22.05		
15	1	1	QPSK	22.43	22.55	22.30		
15	1	77		22.43	22.51	22.59		
15	36	18		22.32	22.40	22.36		
15	1	0		21.92	21.84	21.53		
15	1	78		21.58	21.66	21.44		
15	75	0		21.65	21.73	21.71		
15	1	1	16-QAM	21.93	21.89	21.62	27.43	0.5534
15	1	1	64-QAM	20.37	20.23	19.93		
15	1	1	256-QAM	17.97	17.78	18.16		
Limit	EIRP < 1W			Result			Pass	

NR n66 Maximum Average Power [dBm] (GT - LC = 5.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.91	22.93	22.72	28.46	0.7015
20	1	104		22.85	22.74	22.65		
20	50	25		22.94	22.96	22.81		
20	1	0		22.62	22.55	22.29		
20	1	105		22.35	22.32	22.19		
20	100	0		22.43	22.37	22.27		
20	1	1	QPSK	22.92	22.89	22.68		
20	1	104		22.82	22.75	22.63		
20	50	25		22.93	22.94	22.83		
20	1	0		22.07	21.85	21.65		
20	1	105		21.79	21.73	21.65		
20	100	0		21.95	21.89	21.76		
20	1	1	16-QAM	22.14	22.06	21.86	27.64	0.5808
20	1	1	64-QAM	20.45	20.24	20.02		
20	1	1	256-QAM	18.17	18.03	18.25		
Limit	EIRP < 1W			Result			Pass	





NR n71 Maximum Average Power [dBm] (GT - LC = 3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
5	1	1	PI/2 BPSK	22.57	22.74	22.70	23.63	0.2307
5	1	23		22.46	22.56	22.68		
5	12	6		22.50	22.72	22.67		
5	1	0		22.34	22.31	22.27		
5	1	24		22.27	22.10	22.21		
5	25	0		22.39	22.18	22.17		
5	1	1	QPSK	22.45	22.78	22.56		
5	1	23		22.57	22.58	22.69		
5	12	6		22.71	22.63	22.65		
5	1	0		21.93	21.57	21.78		
5	1	24		21.61	21.68	21.64		
5	25	0		21.71	21.91	21.86		
5	1	1	16-QAM	21.63	21.73	21.91	22.76	0.1888
5	1	1	64-QAM	20.14	20.06	20.06		
5	1	1	256-QAM	18.09	17.71	17.98		
Limit	ERP < 3W			Result			Pass	

NR n71 Maximum Average Power [dBm] (GT - LC = 3 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)
10	1	1	PI/2 BPSK	22.75	22.51	22.71	23.63	0.2307
10	1	50		22.58	22.52	22.60		
10	25	12		22.65	22.55	22.67		
10	1	0		22.54	22.25	22.38		
10	1	51		22.02	22.02	22.04		
10	50	0		22.30	22.26	22.32		
10	1	1	QPSK	22.53	22.74	22.56		
10	1	50		22.53	22.66	22.57		
10	25	12		22.78	22.66	22.54		
10	1	0		21.86	21.79	21.95		
10	1	51		21.66	21.73	21.52		
10	50	0		21.96	21.92	21.65		
10	1	1	16-QAM	21.59	21.94	21.80	22.79	0.1901
10	1	1	64-QAM	20.34	20.08	20.18		
10	1	1	256-QAM	17.95	17.66	17.88		
Limit	ERP < 3W			Result			Pass	



NR n71 Maximum Average Power [dBm] (GT - LC = 3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)		
15	1	1	PI/2 BPSK	22.74	22.80	22.48	23.65	0.2317		
15	1	77		22.54	22.69	22.63				
15	36	18		22.46	22.52	22.52				
15	1	0		22.42	22.19	22.35				
15	1	78		22.27	22.17	21.95				
15	75	0		22.22	22.37	22.20				
15	1	1	QPSK	22.57	22.59	22.59				
15	1	77		22.73	22.58	22.44				
15	36	18		22.49	22.66	22.66				
15	1	0		21.99	21.85	21.77				
15	1	78		21.76	21.63	21.49				
15	75	0		21.74	21.89	21.84				
15	1	1	16-QAM	21.55	22.00	21.86	22.85	0.1928		
15	1	1	64-QAM	20.29	19.95	20.04				
15	1	1	256-QAM	18.12	17.76	17.93				
Limit	ERP < 3W			Result			Pass			

NR n71 Maximum Average Power [dBm] (GT - LC = 3 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP(W)		
20	1	1	PI/2 BPSK	22.80	22.81	22.77	23.66	0.2323		
20	1	104		22.76	22.79	22.72				
20	50	25		22.75	22.80	22.79				
20	1	0		22.62	22.42	22.51				
20	1	105		22.32	22.30	22.21				
20	100	0		22.46	22.48	22.36				
20	1	1	QPSK	22.75	22.78	22.75				
20	1	104		22.77	22.72	22.73				
20	50	25		22.79	22.77	22.80				
20	1	0		22.09	21.86	21.95				
20	1	105		21.82	21.77	21.65				
20	100	0		21.96	21.99	21.94				
20	1	1	16-QAM	21.73	22.02	22.01	22.87	0.1936		
20	1	1	64-QAM	20.40	20.15	20.32				
20	1	1	256-QAM	18.16	17.88	18.06				
Limit	ERP < 3W			Result			Pass			



**Intra band ENDC Conducted Output Power (Average power) and EIRP**

LTE Band 41 Maximum Average Power [dBm]					EIRP (dBm)	EIRP(W)
BW [MHz]	RB Size	RB Offset	Mod	Middle		
10	50	0	QPSK	20.01	25.51	0.3556

BW [MHz]	Mod	EN-DC 41A-n41A Maximum Average Power [dBm]	EIRP (dBm)	EIRP(W)
20	QPSK	26.26	31.76	1.4985
20	QAM	25.68	31.18	1.3128
40	QPSK	26.25	31.75	1.4959
40	QAM	25.57	31.07	1.2803
50	QPSK	26.25	31.75	1.4959
50	QAM	25.57	31.07	1.2803
60	QPSK	26.28	31.78	1.5064
60	QAM	25.60	31.10	1.2889
80	QPSK	26.19	31.69	1.4751
80	QAM	25.60	31.10	1.2889
90	QPSK	26.21	31.71	1.4828
90	QAM	25.71	31.21	1.3217
100	QPSK	26.28	31.78	1.5064
100	QAM	26.32	31.82	1.5198

Remark: This EUT supports EN - DC and the LTE is anchor for simultaneous transmission, and only maximum combined power is reported.



NR n41 Maximum Average Power [dBm] (GT - LC = 4.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	25.04	24.70	24.88	29.78	0.9506
20	1	49		24.88	24.76	25.08		
20	25	12		24.65	25.00	24.68		
20	1	0		21.35	21.66	21.83		
20	1	50		21.69	22.10	21.69		
20	50	0		24.71	24.37	24.80		
20	1	1	QPSK	25.01	24.77	25.03		
20	1	49		24.74	25.04	24.12		
20	25	12		24.74	24.96	24.70		
20	1	0		21.51	21.87	21.98		
20	1	50		21.83	22.08	21.61		
20	50	0		24.27	24.66	24.35		
20	1	1	16-QAM	23.89	24.31	23.89	29.01	0.7962
20	1	1	64-QAM	22.53	22.59	22.21		
20	1	1	256-QAM	20.18	20.02	20.95		
Limit	EIRP < 2W			Result			Pass	

NR n41 Maximum Average Power [dBm] (GT - LC = 4.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	24.98	24.62	25.02	29.77	0.9484
40	1	104		24.73	25.02	24.91		
40	50	25		24.53	24.88	24.73		
40	1	0		21.49	21.86	21.96		
40	1	105		21.81	21.84	21.78		
40	100	0		24.88	24.47	24.84		
40	1	1	QPSK	25.07	24.69	25.04		
40	1	104		24.95	24.90	24.10		
40	50	25		24.71	24.98	24.54		
40	1	0		21.37	21.78	21.93		
40	1	105		21.68	22.03	21.71		
40	100	0		24.22	24.81	24.63		
40	1	1	16-QAM	23.97	24.16	23.96	28.86	0.7691
40	1	1	64-QAM	22.46	22.48	22.14		
40	1	1	256-QAM	20.36	20.07	20.68		
Limit	EIRP < 2W			Result			Pass	



NR n41 Maximum Average Power [dBm] (GT - LC = 4.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
50	1	1	PI/2 BPSK	24.83	24.75	25.03	29.81	0.9572
50	1	131		24.84	24.77	24.93		
50	64	32		24.70	24.93	24.77		
50	1	0		21.41	21.66	21.95		
50	1	132		21.77	21.93	21.86		
50	128	0		24.74	24.38	24.68		
50	1	1	QPSK	24.95	24.66	24.88		
50	1	131		24.92	24.97	23.92		
50	64	32		24.83	25.11	24.71		
50	1	0		21.48	22.01	21.99		
50	1	132		21.85	21.94	21.67		
50	128	0		24.23	24.56	24.63		
50	1	1	16-QAM	23.73	24.33	23.87	29.03	0.7998
50	1	1	64-QAM	22.44	22.55	22.19		
50	1	1	256-QAM	20.37	20.07	20.92		
Limit	EIRP < 2W			Result			Pass	

NR n41 Maximum Average Power [dBm] (GT - LC = 4.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
60	1	1	PI/2 BPSK	24.94	24.78	24.94	29.69	0.9311
60	1	160		24.99	24.95	24.88		
60	81	40		24.60	24.84	24.60		
60	1	0		21.26	21.75	21.83		
60	1	161		21.63	22.13	21.88		
60	162	0		24.76	24.55	24.88		
60	1	1	QPSK	24.97	24.62	24.80		
60	1	160		24.72	24.82	24.12		
60	81	40		24.72	24.87	24.55		
60	1	0		21.34	21.83	21.84		
60	1	161		21.73	22.11	21.52		
60	162	0		24.40	24.62	24.35		
60	1	1	16-QAM	23.81	24.20	23.89	28.90	0.7762
60	1	1	64-QAM	22.49	22.56	22.08		
60	1	1	256-QAM	20.33	20.25	20.90		
Limit	EIRP < 2W			Result			Pass	



NR n41 Maximum Average Power [dBm] (GT - LC = 4.7 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
80	1	1	PI/2 BPSK	24.86	24.67	24.94	29.81	0.9572		
80	1	215		24.73	24.86	24.96				
80	108	54		24.54	25.04	24.86				
80	1	0		21.45	21.72	21.99				
80	1	216		21.89	22.08	21.87				
80	216	0		24.81	24.59	24.73				
80	1	1	QPSK	25.11	24.55	24.87			29.81	0.9572
80	1	215		24.84	24.76	24.03				
80	108	54		24.86	24.90	24.52				
80	1	0		21.31	22.01	21.84				
80	1	216		21.89	21.91	21.71				
80	216	0		24.22	24.65	24.49				
80	1	1	16-QAM	23.96	24.38	24.04	29.08	0.8091		
80	1	1	64-QAM	22.26	22.55	22.27				
80	1	1	256-QAM	20.34	20.13	20.73				
Limit	EIRP < 2W			Result			Pass			

NR n41 Maximum Average Power [dBm] (GT - LC = 4.7 dB)										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)		
90	1	1	PI/2 BPSK	24.82	24.75	24.93	29.72	0.9376		
90	1	243		25.00	24.97	25.02				
90	120	60		24.83	24.94	24.64				
90	1	0		21.46	21.89	22.10				
90	1	244		21.70	22.10	21.68				
90	240	0		24.90	24.47	24.79				
90	1	1	QPSK	25.01	24.77	24.76			29.72	0.9376
90	1	243		24.74	24.79	23.93				
90	120	60		24.80	24.95	24.53				
90	1	0		21.50	22.00	21.89				
90	1	244		21.80	22.16	21.47				
90	240	0		24.35	24.71	24.49				
90	1	1	16-QAM	23.97	24.35	23.87	29.05	0.8035		
90	1	1	64-QAM	22.34	22.44	22.30				
90	1	1	256-QAM	20.33	20.07	20.83				
Limit	EIRP < 2W			Result			Pass			



NR n41 Maximum Average Power [dBm] (GT - LC = 4.7 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
100	1	1	PI/2 BPSK	25.12	24.82	25.15	29.86	0.9683
100	1	271		25.00	25.06	25.08		
100	135	67		24.83	25.11	24.86		
100	1	0		21.54	21.92	22.12		
100	1	272		21.89	22.13	21.89		
100	270	0		24.91	24.65	24.96		
100	1	1	QPSK	25.15	24.84	25.06		
100	1	271		24.99	25.05	24.22		
100	135	67		24.97	25.16	24.71		
100	1	0		21.57	22.07	22.14		
100	1	272		21.96	22.19	21.75		
100	270	0		24.42	24.83	24.65		
100	1	1	16-QAM	24.02	24.43	24.14	29.13	0.8185
100	1	1	64-QAM	22.56	22.67	22.36		
100	1	1	256-QAM	20.43	20.28	20.96		
Limit	EIRP < 2W			Result			Pass	



### Appendix B. Test Results of Radiated Test

<Ant. 1>

### EN-DC 30A-n5A

EN-DC 30A-n5A / 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Highest	1657	-53.16	-13	-40.16	-75.18	-54.89	0.98	4.86	H
	2485	-49.29	-13	-36.29	-76.4	-51.21	1.29	5.36	H
	3313	-47.75	-13	-34.75	-77.21	-51.23	1.55	7.18	H
									H
									H
									H
									H
	1657	-52.49	-13	-39.49	-74.94	-54.22	0.98	4.86	V
	2485	-48.59	-13	-35.59	-76.13	-50.51	1.29	5.36	V
	3313	-46.95	-13	-33.95	-76.67	-50.43	1.55	7.18	V
									V
									V
									V
									V

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





<Ant. 2>

**EN-DC 66A-n25A**

EN-DC 66A-n25A / 20MHz / PI/2 BPSK									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3700	-57.66	-13	-44.66	-78.49	-64.23	1.67	8.24	H
	5550	-55.52	-13	-42.52	-81.09	-62.59	2.65	9.72	H
	7404	-50.74	-13	-37.74	-77.9	-59.89	2.46	11.61	H
	9252	-49.29	-13	-36.29	-79.45	-59.35	2.54	12.60	H
									H
									H
									H
	3700	-57.25	-13	-44.25	-78.12	-63.82	1.67	8.24	V
	5550	-55.04	-13	-42.04	-80.54	-62.11	2.65	9.72	V
	7404	-50.86	-13	-37.86	-78.13	-60.01	2.46	11.61	V
	9252	-43.95	-13	-30.95	-74.53	-54.01	2.54	12.60	V
									V
									V
									V

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