FCC RADIO TEST REPORT

FCC ID	:	**PKRISGFX31001**
Equipment	:	**Indoor Router**
Brand Name	:	**Inseego**
Model Name	:	**FX3100-1**
Marketing Name	:	**FX3100**
Applicant	:	**INSEEGO CORP.** **9710 Scranton Road Suite 200, San Diego, CA 92121**
Manufacturer	:	**INSEEGO CORP.** **9710 Scranton Road Suite 200, San Diego, CA 92121**
Standard	:	**FCC 47 CFR Part 2, 27**

The product was received on Mar. 03, 2023 and testing was performed from Mar. 03, 2023 to Apr. 06, 2023. 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 partial 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.)

Table of Contents

History of this test report **3**
Summary of Test Result **4**
1 General Description **5**
1.1 Product Feature of Equipment Under Test 5
1.2 Modification of EUT 5
1.3 Testing Location 6
1.4 Applicable Standards 6
2 Test Configuration of Equipment Under Test **7**
2.1 Test Mode 7
2.2 Connection Diagram of Test System 8
2.3 Support Unit used in test configuration and system 8
2.4 Frequency List of Low/Middle/High Channels 9
3 Conducted Test Items **10**
3.1 Measuring Instruments 10
3.2 Conducted Output Power and EIRP 11
4 Radiated Test Items **12**
4.1 Measuring Instruments 12
4.2 Radiated Spurious Emission Measurement 14
5 List of Measuring Equipment **15**
6 Uncertainty of Evaluation **16**
Appendix A. Test Results of Conducted Test
Appendix B. Test Results of Radiated Test
Appendix C. Test Setup Photographs

History of this test report

Report No.	Version	Description	Issue Date
FG290606C	01	Initial issue of report	Apr. 19, 2023

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Reporting only	-
	§27.50 (j)(3)	Equivalent Isotropic Radiated Power (n77)	Pass	
-	§27.50 (j)(4)	Peak-to-Average Ratio	-	See Note
-	§2.1049	Occupied Bandwidth	-	See Note
-	§2.1051 §27.53 (l)(2)	Conducted Band Edge Measurement (n77)	-	See Note
-	§2.1051 §27.53 (l)(2)	Conducted Spurious Emission (n77)	-	See Note
-	§2.1055 §27.54	Frequency Stability Temperature & Voltage	-	See Note
4.2	§2.1051 §27.53 (l)(2)	Radiated Spurious Emission (n77)	Pass	15.30 dB under the limit at 7402.000 MHz

Note: The RF circuit and output power level are the same in WWAN function across all two FCC ID PKRISGM3000B and PKRISGFX31001, since the change, only verify RF output power and radiated spurious emission test data the worst mode was reported in this report.

Conformity Assessment Condition:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account. 2. Please refer to the section " Uncertainty of Evaluation " for measurement uncertainty.
Disclaimer:
The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Lewis Ho

Report Producer: Rachel Hsieh

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature
General Specs 4G-LTE, 5G-FR1, Wi-Fi 2.4GHz 802.11 b/g/n/ax, Wi-Fi 5GHz 802.11 a/n/ac/ax, and GNSS. **Antenna Type** WWAN: Fixed Internal Antenna WLAN: Fixed Internal Antenna GPS / Glonass / BDS / Galileo: Fixed Internal Antenna

Antenna information		
5G FR1 n77	Peak Gain (dBi)	<Ant. 4>: 2.6 <Ant. 6>: 4.1

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer 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.	**Sporton Site No.**
	TH03-HY
Test Engineer	Sherry Wu
Temperature (℃)	20~24
Relative Humidity (%)	50~58

Test Site	Sporton International Inc. Wensan Laboratory.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH12-HY (TAF Code: 3786)
Test Engineer	Jesse Fan, Tim Lee and Wilson Wu
Temperature (℃)	20~25
Relative Humidity (%)	50~60
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.

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

FCC Designation No.: TW1190 and TW3786

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, 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
- FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

Remark:

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

2 Test Configuration of Equipment Under Test

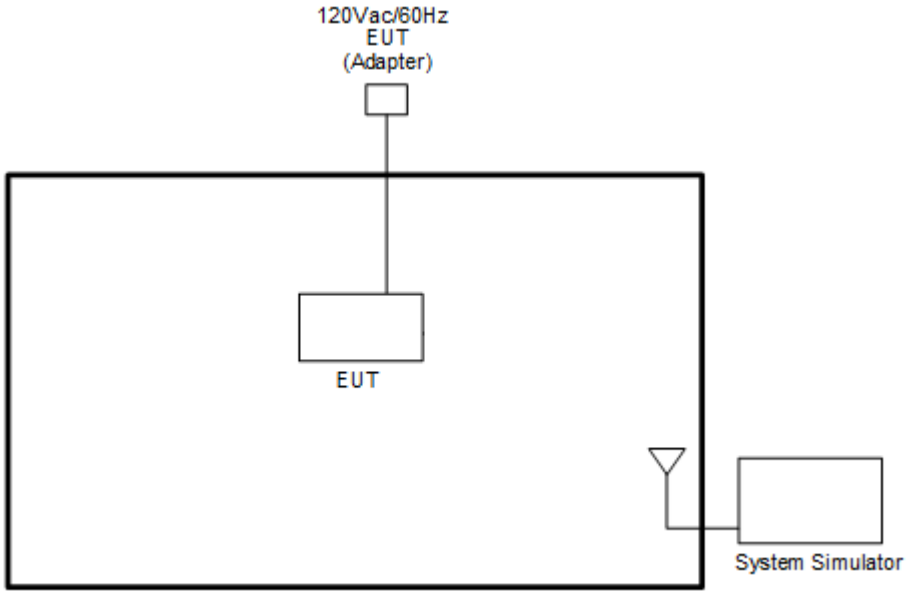
2.1 Test Mode

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.

For radiated measurement, 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 three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and only the worst case emissions were reported in this report.

Test Items	NR Band	Bandwidth (MHz)												Modulation					RB #			Test Channel		
		10	15	20	25	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	n77	v	v	v	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
E.I.R.P	n77	v	v	v	-	v	v	v	v	v	v	v	v	v	v	v	v	v	Max. Power					
Radiated Spurious Emission	n77	v		v	-									v					v			v	v	v
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. 4. 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. 5. For 5G FR1 test combination are EN-DC 2A-n77A, EN-DC 5A-n77A, EN-DC 7A-n77A, EN-DC 12A-n77A, EN-DC 13A-n77A, EN-DC 66A-n77A and EN-DC 71A-n77A.																							

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.	5G Wireless Test Platform	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

5G FR1 Band n77 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
100	Channel	650000	656000	662000
	Frequency	3750	3840	3930
90	Channel	649668	656000	662332
	Frequency	3745.02	3840	3934.98
80	Channel	649334	656000	662666
	Frequency	3740.01	3840	3939.99
70	Channel	649000	656000	663000
	Frequency	3735	3840	3945
60	Channel	648668	656000	663332
	Frequency	3730.02	3840	3949.98
50	Channel	648334	656000	663666
	Frequency	3725.01	3840	3954.99
40	Channel	648000	656000	664000
	Frequency	3720	3840	3960
30	Channel	647668	656000	664332
	Frequency	3715.02	3840	3965
20	Channel	647334	656000	664666
	Frequency	3710.01	3840	3969.99
15	Channel	647168	656000	664832
	Frequency	3707.52	3840	3972.48
10	Channel	647000	656000	665000
	Frequency	3705	3840	3975

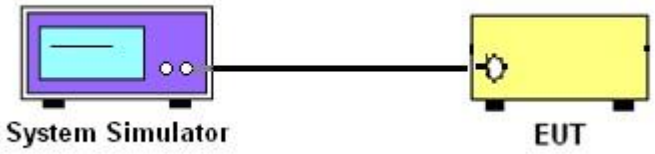
3 Conducted Test Items

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 EIRP

3.2.1 Description of the Conducted Output Power Measurement and 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 EIRP of mobile transmitters must not exceed 1 Watts for 5G FR1 n77

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T - L_C$, 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.
5. The MIMO mode is completely uncorrelated, so the directional gain is selected the maximum gain among all antennas.

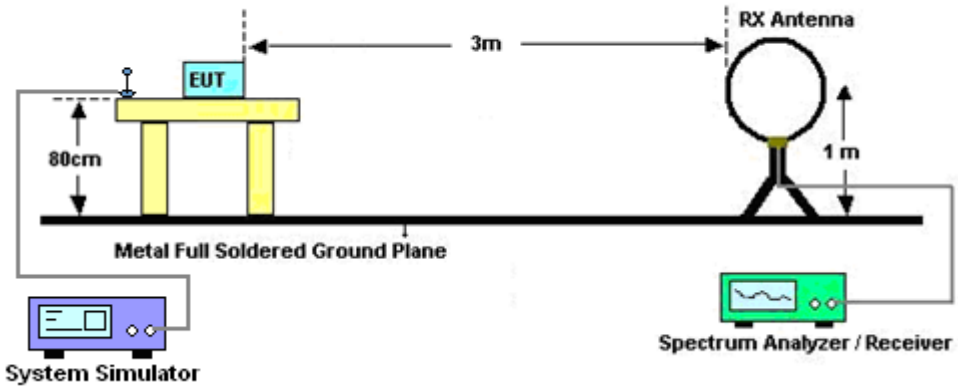
4 Radiated Test Items

4.1 Measuring Instruments

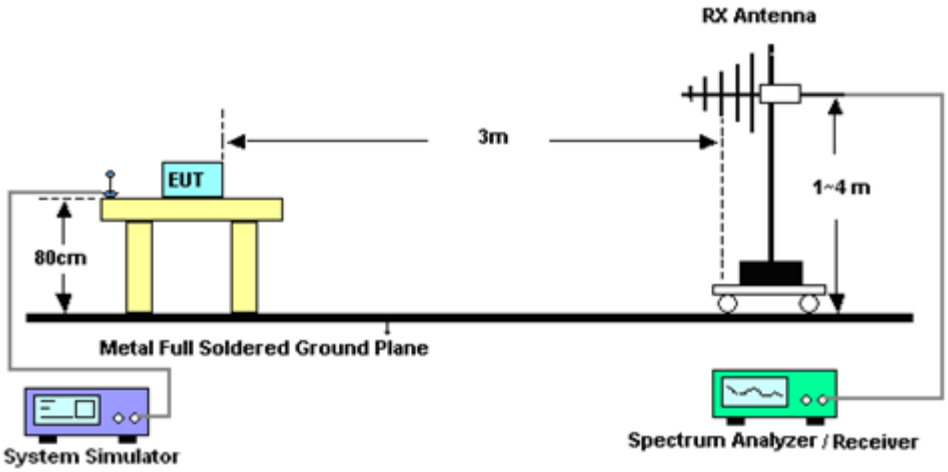
See list of measuring instruments of this test report.

4.1.1 Test Setup

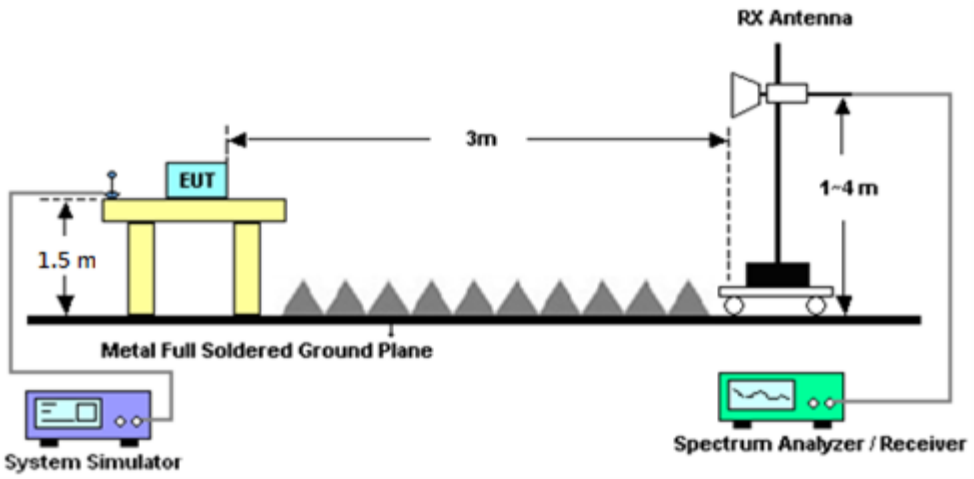
For radiated emissions below 30MHz



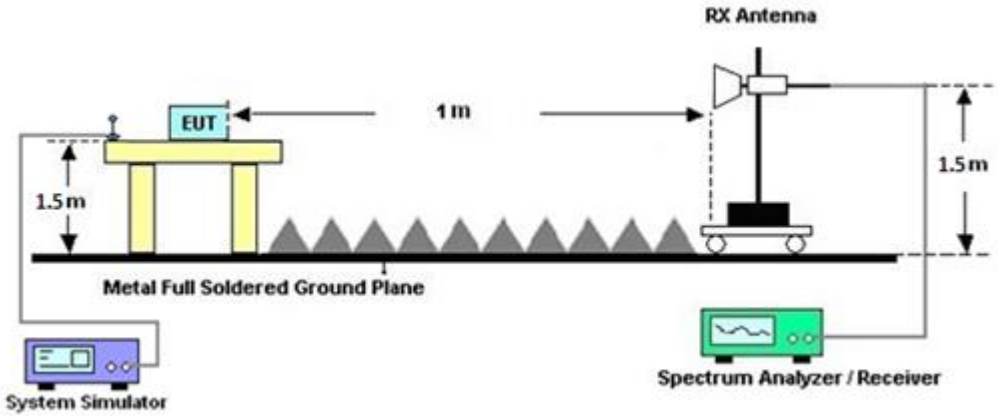
For radiated test from 30MHz to 1GHz



For radiated test 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.

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 + 10log(P)dB below the transmitter power P(Watts)

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	Mar. 23, 2023~ Mar. 24, 2023	Sep. 19, 2023	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	37059 & 01	30MHz~1GHz	Nov. 10, 2022	Mar. 23, 2023~ Mar. 24, 2023	Nov. 09, 2023	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02114	1GHz~18GHz	Aug. 09, 2022	Mar. 23, 2023~ Mar. 24, 2023	Aug. 08, 2023	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz-40GHz	Nov. 24, 2022	Mar. 23, 2023~ Mar. 24, 2023	Nov. 23, 2023	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 21, 2023	Mar. 23, 2023~ Mar. 24, 2023	Mar. 20, 2024	Radiation (03CH12-HY)
Preamplifier	Agilent	8449B	3008A02375	1GHz~26.5GHz	May 24, 2022	Mar. 23, 2023~ Mar. 24, 2023	May 23, 2023	Radiation (03CH12-HY)
Preamplifier	E-INSTRUMENT TECH LTD.	ERA-100M-18G-56-01-A70	EC1900249	1GHz-18GHz	Dec. 21, 2022	Mar. 23, 2023~ Mar. 24, 2023	Dec. 20, 2023	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 07, 2022	Mar. 23, 2023~ Mar. 24, 2023	Dec. 06, 2023	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Jan. 10, 2023	Mar. 23, 2023~ Mar. 24, 2023	Jan. 09, 2024	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2GHz Low Pass Filter	Mar. 13, 2023	Mar. 23, 2023~ Mar. 24, 2023	Mar. 12, 2024	Radiation (03CH12-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN2	6.75GHz High Pass Filter	Mar. 13, 2023	Mar. 23, 2023~ Mar. 24, 2023	Mar. 12, 2024	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 07, 2023	Mar. 23, 2023~ Mar. 24, 2023	Mar. 06, 2024	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 20, 2022	Mar. 23, 2023~ Mar. 24, 2023	Dec. 19, 2023	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Dec. 20, 2022	Mar. 23, 2023~ Mar. 24, 2023	Dec. 19, 2023	Radiation (03CH12-HY)
Hygrometer	TECPEL	DTM-303B	TP210090	N/A	Oct. 03, 2022	Mar. 23, 2023~ Mar. 24, 2023	Oct. 02, 2023	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Mar. 23, 2023~ Mar. 24, 2023	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Mar. 23, 2023~ Mar. 24, 2023	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Mar. 23, 2023~ Mar. 24, 2023	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Mar. 23, 2023~ Mar. 24, 2023	N/A	Radiation (03CH12-HY)
Programmable Power Supply	GW Instek	PSS-2005	EL890001	50Hz~60Hz	Sep. 29, 2022	Mar. 03, 2023 ~ Apr. 06, 2023	Sep. 28, 2023	Conducted (TH03-HY)
Signal Analyzer	Rohde & Schwarz	FSV3044	101049	10Hz~44GHz	Oct. 07, 2022	Mar. 03, 2023 ~ Apr. 06, 2023	Oct. 06, 2023	Conducted (TH03-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep, 07, 2022	Mar. 03, 2023 ~ Apr. 06, 2023	Sep, 06, 2023	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8821C	6262116730	LTE	Jun. 15, 2022	Mar. 03, 2023 ~ Apr. 06, 2023	Jun. 14, 2023	Conducted (TH03-HY)
Base Station (Measure)	Anritsu	MT8000A	6262134933	FR1	Jun. 13, 2022	Mar. 03, 2023 ~ Apr. 06, 2023	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))	3.31 dB

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.25 dB

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.81 dB

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power) and EIRP

<SISO Mode>

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	22.31	22.04	22.18	25.05	0.3199
10	1	22		22.40	22.01	22.24		
10	12	6		22.45	22.07	22.28		
10	1	0		22.28	22.04	22.25		
10	1	23		22.36	22.00	22.20		
10	24	0		22.41	22.10	22.26		
10	1	1	QPSK	22.33	22.02	22.25		
10	1	22		22.36	21.95	22.21		
10	12	6		22.44	22.11	22.23		
10	1	0		22.28	22.00	22.23		
10	1	23		22.30	21.96	22.16		
10	24	0		22.43	22.07	22.29		
10	1	1	16-QAM	22.33	22.17	22.00	24.93	0.3112
10	1	1	64-QAM	22.15	22.00	21.90		
10	1	1	256-QAM	21.35	21.04	21.20		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	22.41	22.22	22.52	25.20	0.3311
15	1	36		22.56	22.21	22.54		
15	18	9		22.58	22.23	22.48		
15	1	0		22.53	22.21	22.53		
15	1	37		22.58	22.21	22.52		
15	36	0		22.55	22.21	22.48		
15	1	1	QPSK	22.43	22.17	22.52		
15	1	36		22.59	22.25	22.52		
15	18	9		22.54	22.23	22.48		
15	1	0		22.47	22.22	22.48		
15	1	37		22.60	22.19	22.52		
15	36	0		22.54	22.19	22.48		
15	1	1	16-QAM	22.21	22.21	22.50	25.10	0.3236
15	1	1	64-QAM	22.00	22.20	22.29		
15	1	1	256-QAM	21.47	21.31	21.57		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	22.54	22.21	22.52	25.25	0.3350
20	1	49		22.61	22.14	22.51		
20	25	12		22.58	22.34	22.43		
20	1	0		22.54	22.27	22.64		
20	1	50		22.62	22.21	22.48		
20	50	0		22.65	22.33	22.48		
20	1	1	QPSK	22.39	22.13	22.50		
20	1	49		22.58	22.11	22.52		
20	25	12		22.61	22.31	22.44		
20	1	0		22.55	22.25	22.50		
20	1	50		22.62	22.15	22.42		
20	50	0		22.63	22.30	22.45		
20	1	1	16-QAM	22.56	22.29	22.53	25.16	0.3281
20	1	1	64-QAM	22.24	22.04	22.40		
20	1	1	256-QAM	21.57	21.24	21.52		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
30	1	1	PI/2 BPSK	22.42	22.21	22.77	25.37	0.3443
30	1	76		22.56	22.12	22.53		
30	36	18		22.61	22.18	22.56		
30	1	0		22.53	22.29	22.74		
30	1	77		22.53	22.10	22.53		
30	75	0		22.61	22.30	22.61		
30	1	1	QPSK	22.43	22.18	22.73		
30	1	76		22.57	22.03	22.57		
30	36	18		22.63	22.13	22.51		
30	1	0		22.51	22.27	22.70		
30	1	77		22.51	22.10	22.48		
30	75	0		22.64	22.30	22.60		
30	1	1	16-QAM	22.41	22.23	22.61	25.21	0.3319
30	1	1	64-QAM	22.20	22.16	22.60		
30	1	1	256-QAM	21.53	21.36	21.81		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	22.64	22.28	22.66	25.38	0.3451
40	1	104		22.56	22.06	22.57		
40	50	25		22.78	22.31	22.54		
40	1	0		22.75	22.37	22.76		
40	1	105		22.52	22.08	22.55		
40	100	0		22.69	22.26	22.62		
40	1	1	QPSK	22.61	22.31	22.65		
40	1	104		22.52	22.01	22.56		
40	50	25		22.72	22.27	22.60		
40	1	0		22.72	22.40	22.77		
40	1	105		22.54	22.03	22.57		
40	100	0		22.75	22.30	22.62		
40	1	1	16-QAM	22.72	22.38	22.60	25.32	0.3404
40	1	1	64-QAM	22.42	22.30	22.48		
40	1	1	256-QAM	21.68	21.36	21.76		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
50	1	1	PI/2 BPSK	22.42	21.98	22.49	25.22	0.3327
50	1	131		22.13	22.00	22.33		
50	64	32		22.46	22.13	22.51		
50	1	0		22.37	22.14	22.61		
50	1	132		22.11	22.05	22.35		
50	128	0		22.40	22.07	22.49		
50	1	1	QPSK	22.37	21.97	22.49		
50	1	131		22.14	21.96	22.36		
50	64	32		22.45	22.10	22.62		
50	1	0		22.38	22.08	22.50		
50	1	132		22.11	22.00	22.34		
50	128	0		22.41	22.12	22.57		
50	1	1	16-QAM	22.45	22.02	22.51	25.11	0.3243
50	1	1	64-QAM	22.39	21.84	22.31		
50	1	1	256-QAM	21.47	20.99	21.52		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
60	1	1	PI/2 BPSK	22.45	22.00	22.14	25.13	0.3258
60	1	160		22.21	21.98	22.32		
60	81	40		22.45	22.10	22.53		
60	1	0		22.45	22.09	22.28		
60	1	161		22.23	21.97	22.34		
60	162	0		22.41	22.02	22.42		
60	1	1	QPSK	22.38	21.94	22.02		
60	1	160		22.15	21.97	22.29		
60	81	40		22.49	22.11	22.46		
60	1	0		22.41	22.04	22.29		
60	1	161		22.17	21.97	22.27		
60	162	0		22.41	22.07	22.48		
60	1	1	16-QAM	22.29	22.04	22.14	25.05	0.3199
60	1	1	64-QAM	22.45	21.82	21.90		
60	1	1	256-QAM	21.43	21.04	21.13		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
70	1	1	PI/2 BPSK	22.29	21.84	21.96	24.98	0.3148
70	1	187		22.17	21.84	22.14		
70	90	45		22.34	21.92	22.32		
70	1	0		22.35	22.01	22.19		
70	1	188		22.15	21.85	22.14		
70	180	0		22.38	21.96	22.23		
70	1	1	QPSK	22.31	21.80	21.92		
70	1	187		22.19	21.81	22.12		
70	90	45		22.35	21.91	22.29		
70	1	0		22.31	22.01	22.16		
70	1	188		22.18	21.80	22.07		
70	180	0		22.32	21.86	22.23		
70	1	1	16-QAM	22.35	21.84	22.02	24.95	0.3126
70	1	1	64-QAM	22.00	21.63	21.71		
70	1	1	256-QAM	21.33	20.83	20.95		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
80	1	1	PI/2 BPSK	22.33	21.85	22.14	25.03	0.3184
80	1	215		22.26	21.91	22.18		
80	108	54		22.41	22.06	22.41		
80	1	0		22.38	22.05	22.33		
80	1	216		22.25	21.99	22.19		
80	216	0		22.35	21.97	22.32		
80	1	1	QPSK	22.32	21.81	22.14		
80	1	215		22.26	21.87	22.21		
80	108	54		22.40	22.02	22.43		
80	1	0		22.37	21.97	22.35		
80	1	216		22.25	21.99	22.17		
80	216	0		22.38	21.96	22.36		
80	1	1	16-QAM	22.37	21.77	22.22	24.97	0.3141
80	1	1	64-QAM	22.01	21.67	21.97		
80	1	1	256-QAM	21.23	20.82	21.19		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
90	1	1	PI/2 BPSK	22.26	21.87	22.15	25.01	0.3170
90	1	243		22.24	22.11	22.25		
90	120	60		22.26	21.97	22.31		
90	1	0		22.32	21.99	22.35		
90	1	244		22.23	21.07	22.21		
90	243	0		22.33	21.93	22.31		
90	1	1	QPSK	22.25	21.86	22.14		
90	1	243		22.23	22.03	22.16		
90	120	60		22.29	21.92	22.33		
90	1	0		22.34	21.99	22.41		
90	1	244		22.19	22.05	22.18		
90	243	0		22.31	21.91	22.29		
90	1	1	16-QAM	22.35	21.99	22.40	25.00	0.3162
90	1	1	64-QAM	22.02	21.72	22.05		
90	1	1	256-QAM	21.38	20.95	21.12		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
100	1	1	PI/2 BPSK	22.30	21.92	22.02	24.95	0.3126
100	1	271		22.13	22.11	22.29		
100	135	67		22.31	22.00	22.25		
100	1	0		22.34	22.04	22.31		
100	1	272		22.16	22.07	22.27		
100	270	0		22.35	21.97	22.24		
100	1	1	QPSK	22.29	21.96	22.02		
100	1	271		22.14	22.07	22.27		
100	135	67		22.35	21.92	22.26		
100	1	0		22.34	22.02	22.31		
100	1	272		22.14	22.04	22.23		
100	270	0		22.35	21.96	22.21		
100	1	1	16-QAM	22.36	21.98	22.02	24.96	0.3133
100	1	1	64-QAM	22.14	21.79	21.81		
100	1	1	256-QAM	21.32	21.00	20.98		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
10	1	1	PI/2 BPSK	25.82	25.59	25.75	28.55	0.7161
10	1	22		25.91	25.53	25.74		
10	12	6		25.93	25.63	25.79		
10	1	0		22.35	22.07	22.26		
10	1	23		22.37	21.97	22.27		
10	24	0		25.41	25.12	25.31		
10	1	1	QPSK	25.84	25.55	25.72		
10	1	22		25.86	25.51	25.74		
10	12	6		25.95	25.61	25.81		
10	1	0		22.32	22.06	22.21		
10	1	23		22.32	21.97	22.19		
10	24	0		24.91	24.61	24.78		
10	1	1	16-QAM	24.66	24.36	24.56	27.26	0.5321
10	1	1	64-QAM	23.29	23.01	23.06		
10	1	1	256-QAM	21.34	21.15	21.12		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
15	1	1	PI/2 BPSK	25.96	25.74	26.07	28.72	0.7447
15	1	36		26.11	25.72	26.09		
15	18	9		26.09	25.87	26.11		
15	1	0		22.46	22.33	22.66		
15	1	37		22.62	22.25	22.58		
15	36	0		25.58	25.31	25.61		
15	1	1	QPSK	25.97	25.73	25.97		
15	1	36		26.01	25.71	26.02		
15	18	9		26.06	25.84	26.12		
15	1	0		22.47	22.29	22.50		
15	1	37		22.56	22.16	22.52		
15	36	0		25.04	24.82	25.11		
15	1	1	16-QAM	24.85	24.57	24.86	27.46	0.5572
15	1	1	64-QAM	23.61	23.26	23.53		
15	1	1	256-QAM	21.50	21.19	21.47		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
20	1	1	PI/2 BPSK	26.06	25.71	26.11	28.77	0.7534
20	1	49		26.17	25.70	26.06		
20	25	12		26.12	25.84	25.97		
20	1	0		22.55	22.25	22.51		
20	1	50		22.61	22.12	22.51		
20	50	0		25.66	25.33	25.49		
20	1	1	QPSK	25.99	25.69	26.03		
20	1	49		26.11	25.63	26.00		
20	25	12		26.11	25.78	25.94		
20	1	0		22.49	22.22	22.49		
20	1	50		22.55	22.11	22.48		
20	50	0		25.11	24.84	24.99		
20	1	1	16-QAM	24.82	24.45	24.97	27.57	0.5715
20	1	1	64-QAM	23.48	23.32	23.61		
20	1	1	256-QAM	21.56	21.17	21.55		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
30	1	1	PI/2 BPSK	26.02	25.71	26.30	28.90	0.7762
30	1	76		26.07	25.62	26.05		
30	36	18		26.11	25.78	26.11		
30	1	0		22.51	22.26	22.77		
30	1	77		22.57	22.10	22.52		
30	75	0		25.62	25.30	25.64		
30	1	1	QPSK	25.87	25.70	26.24		
30	1	76		26.04	25.61	26.00		
30	36	18		26.12	25.77	26.09		
30	1	0		22.45	22.28	22.71		
30	1	77		22.48	22.14	22.52		
30	75	0		25.14	24.82	25.12		
30	1	1	16-QAM	24.74	24.56	25.05	27.65	0.5821
30	1	1	64-QAM	23.45	23.29	23.70		
30	1	1	256-QAM	21.59	21.19	21.81		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
40	1	1	PI/2 BPSK	26.31	25.79	26.20	28.91	0.7780
40	1	104		26.13	25.70	26.12		
40	50	25		26.23	25.85	26.11		
40	1	0		22.76	22.42	22.74		
40	1	105		22.62	22.17	22.52		
40	100	0		25.66	25.31	25.62		
40	1	1	QPSK	26.19	25.76	26.12		
40	1	104		26.03	25.64	26.02		
40	50	25		26.18	25.79	26.08		
40	1	0		22.70	22.40	22.70		
40	1	105		22.49	22.13	22.55		
40	100	0		25.17	24.78	25.12		
40	1	1	16-QAM	25.11	24.64	25.12	27.72	0.5916
40	1	1	64-QAM	23.54	23.40	23.71		
40	1	1	256-QAM	21.82	21.33	21.67		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
50	1	1	PI/2 BPSK	25.80	25.49	26.02	28.64	0.7311
50	1	131		25.56	25.50	25.85		
50	64	32		25.96	25.67	26.04		
50	1	0		22.36	22.13	22.49		
50	1	132		22.11	22.02	22.33		
50	128	0		25.34	25.11	25.48		
50	1	1	QPSK	25.79	25.51	25.95		
50	1	131		25.54	25.48	25.83		
50	64	32		25.97	25.64	26.04		
50	1	0		22.33	22.06	22.45		
50	1	132		22.04	21.99	22.29		
50	128	0		24.85	24.58	24.95		
50	1	1	16-QAM	24.68	24.33	24.90	27.50	0.5623
50	1	1	64-QAM	23.41	22.95	23.45		
50	1	1	256-QAM	21.38	21.03	21.45		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
60	1	1	PI/2 BPSK	25.76	25.43	25.49	28.42	0.6950
60	1	160		25.48	25.42	25.72		
60	81	40		25.81	25.57	25.82		
60	1	0		22.33	22.01	22.12		
60	1	161		21.98	21.91	22.21		
60	162	0		25.21	25.02	25.28		
60	1	1	QPSK	25.73	25.41	25.44		
60	1	160		25.47	25.41	25.67		
60	81	40		25.78	25.53	25.75		
60	1	0		22.32	21.95	22.12		
60	1	161		21.95	21.85	22.12		
60	162	0		24.68	24.51	24.71		
60	1	1	16-QAM	24.46	24.22	24.37	27.06	0.5082
60	1	1	64-QAM	23.36	22.92	22.92		
60	1	1	256-QAM	21.21	20.94	21.03		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
70	1	1	PI/2 BPSK	25.61	25.30	25.36	28.32	0.6792
70	1	187		25.52	25.31	25.51		
70	90	45		25.72	25.40	25.68		
70	1	0		22.18	21.85	22.06		
70	1	188		22.02	21.78	22.00		
70	180	0		25.18	24.85	25.15		
70	1	1	QPSK	25.62	25.21	25.32		
70	1	187		25.41	25.26	25.45		
70	90	45		25.71	25.40	25.71		
70	1	0		22.17	21.82	22.02		
70	1	188		22.01	21.71	21.97		
70	180	0		24.62	24.35	24.64		
70	1	1	16-QAM	24.42	24.04	24.17	27.02	0.5035
70	1	1	64-QAM	23.16	22.90	22.78		
70	1	1	256-QAM	21.16	20.75	20.85		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
80	1	1	PI/2 BPSK	25.61	25.26	25.43	28.31	0.6776
80	1	215		25.52	25.36	25.49		
80	108	54		25.69	25.35	25.67		
80	1	0		22.16	21.82	22.12		
80	1	216		22.08	21.82	21.95		
80	216	0		25.17	24.80	25.11		
80	1	1	QPSK	25.57	25.25	25.37		
80	1	215		25.47	25.33	25.42		
80	108	54		25.71	25.39	25.71		
80	1	0		22.16	21.81	22.12		
80	1	216		22.01	21.74	21.89		
80	216	0		24.65	24.33	24.62		
80	1	1	16-QAM	24.41	24.08	24.21	27.01	0.5023
80	1	1	64-QAM	23.17	22.84	23.00		
80	1	1	256-QAM	21.11	20.77	20.93		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
90	1	1	PI/2 BPSK	25.54	25.26	25.46	28.31	0.6776
90	1	243		25.63	25.44	25.45		
90	120	60		25.57	25.40	25.70		
90	1	0		22.11	21.94	22.21		
90	1	244		22.07	21.94	22.04		
90	243	0		25.07	24.86	25.11		
90	1	1	QPSK	25.54	25.21	25.37		
90	1	243		25.58	25.42	25.41		
90	120	60		25.61	25.45	25.71		
90	1	0		22.06	21.90	22.15		
90	1	244		22.06	21.90	22.03		
90	243	0		24.58	24.35	24.67		
90	1	1	16-QAM	24.35	24.11	24.15	26.95	0.4955
90	1	1	64-QAM	23.06	22.90	23.01		
90	1	1	256-QAM	21.26	20.74	20.94		
Limit	EIRP < 1W			Result			Pass	

5G FR1 n77 HPUE Maximum Average Power [dBm] (GT - LC = 2.6 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP(W)
100	1	1	PI/2 BPSK	25.66	24.35	25.35	28.30	0.6761
100	1	271		25.49	25.51	25.56		
100	135	67		25.70	25.35	25.61		
100	1	0		22.24	21.97	22.14		
100	1	272		21.99	21.99	22.06		
100	270	0		25.16	24.84	25.08		
100	1	1	QPSK	25.62	25.24	25.31		
100	1	271		25.47	25.49	25.52		
100	135	67		25.67	25.38	25.62		
100	1	0		22.19	21.92	22.09		
100	1	272		21.96	21.94	21.99		
100	270	0		24.66	24.35	24.57		
100	1	1	16-QAM	24.52	24.12	24.25	27.12	0.5152
100	1	1	64-QAM	23.10	22.84	22.92		
100	1	1	256-QAM	21.15	20.79	20.84		
Limit	EIRP < 1W			Result			Pass	

<MIMO Mode>

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
10	1	1	QPSK	20.79	20.39	20.63	20.92	21.05	20.99	23.87	23.74	23.82	28.05	0.6383
10	1	22		20.81	20.39	20.38	21.07	20.90	20.96	23.95	23.66	23.69		
10	12	6		20.85	20.28	20.44	21.01	21.00	21.02	23.94	23.67	23.75		
10	1	0		18.80	18.27	18.31	19.01	19.05	19.02	21.92	21.69	21.69		
10	1	23		18.72	18.17	18.46	18.96	18.86	18.98	21.85	21.54	21.74		
10	24	0		19.31	18.79	18.92	19.51	19.43	19.49	22.42	22.13	22.22		
10	1	1	16-QAM	20.25	19.74	19.74	20.56	20.65	20.63	23.42	23.23	23.22	27.52	0.5649
10	1	1	64-QAM	18.67	18.16	18.25	18.76	18.74	18.76	21.73	21.47	21.52		
10	1	1	256-QAM	15.72	15.25	15.26	16.00	15.99	16.01	18.87	18.65	18.66		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
15	1	1	QPSK	20.85	20.62	20.79	21.06	21.11	21.44	23.97	23.88	24.14	28.28	0.673
15	1	36		20.87	20.66	20.96	21.35	21.14	21.37	24.13	23.92	24.18		
15	19	9		20.94	20.52	20.70	21.13	21.15	21.31	24.05	23.86	24.03		
15	1	0		18.93	18.56	18.74	19.27	19.24	19.46	22.11	21.92	22.13		
15	1	37		18.80	18.42	18.90	19.25	19.15	19.45	22.04	21.81	22.19		
15	38	0		19.40	18.99	19.16	19.64	19.68	19.84	22.53	22.36	22.52		
15	1	1	16-QAM	20.36	20.03	20.00	20.77	20.80	21.03	23.58	23.44	23.56	27.68	0.5861
15	1	1	64-QAM	18.84	18.39	18.50	18.84	18.91	19.20	21.85	21.67	21.87		
15	1	1	256-QAM	15.92	15.54	15.64	16.16	16.19	16.36	19.05	18.89	19.03		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
20	1	1	QPSK	21.16	20.63	20.51	21.16	21.22	21.37	24.17	23.95	23.97	28.27	0.6714
20	1	49		20.96	20.57	20.65	21.25	21.18	21.25	24.12	23.90	23.97		
20	25	12		20.92	20.54	20.60	21.25	21.14	21.25	24.10	23.86	23.95		
20	1	0		19.02	18.50	18.62	19.27	19.28	19.42	22.16	21.92	22.05		
20	1	50		18.77	18.40	18.77	19.22	19.07	19.30	22.01	21.76	22.05		
20	51	0		19.36	19.04	19.11	19.68	19.67	19.81	22.53	22.38	22.48		
20	1	1	16-QAM	20.57	20.05	20.06	20.86	20.74	20.75	23.73	23.42	23.43	27.83	0.6067
20	1	1	64-QAM	18.87	18.42	18.62	18.91	18.84	19.32	21.90	21.65	21.99		
20	1	1	256-QAM	16.04	15.62	16.24	16.22	16.11	15.62	19.14	18.88	18.95		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
30	1	1	QPSK	20.86	20.70	20.69	21.08	21.14	21.58	23.98	23.94	24.17	28.45	0.6998
30	1	76		20.57	20.59	21.10	21.32	21.28	21.56	23.97	23.96	24.35		
30	39	19		20.83	20.56	20.59	21.20	21.14	21.37	24.03	23.87	24.01		
30	1	0		19.01	18.62	18.55	19.24	19.25	19.54	22.14	21.96	22.08		
30	1	77		18.61	18.34	18.84	19.28	19.01	19.27	21.97	21.70	22.07		
30	78	0		19.30	19.01	19.16	19.69	19.65	19.91	22.51	22.35	22.56		
30	1	1	16-QAM	20.30	19.91	19.90	20.71	20.75	21.27	23.52	23.36	23.65	27.75	0.5957
30	1	1	64-QAM	18.83	18.35	18.42	18.92	18.90	19.31	21.89	21.64	21.90		
30	1	1	256-QAM	15.91	15.56	15.54	16.15	16.12	16.61	19.04	18.86	19.12		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
40	1	1	QPSK	21.29	20.83	20.76	21.33	21.15	21.46	24.32	24.00	24.13	28.42	0.695
40	1	104		20.73	20.58	20.92	21.37	20.97	21.33	24.07	23.79	24.14		
40	53	26		20.75	20.45	20.56	21.21	21.09	21.30	24.00	23.79	23.96		
40	1	0		19.16	18.74	18.68	19.47	19.27	19.44	22.33	22.02	22.09		
40	1	105		18.59	18.48	18.80	19.34	18.96	19.27	21.99	21.74	22.05		
40	106	0		19.33	19.01	19.10	19.75	19.58	19.85	22.56	22.31	22.50		
40	1	1	16-QAM	20.63	20.31	19.97	20.92	20.94	21.20	23.79	23.65	23.64	27.89	0.6152
40	1	1	64-QAM	19.09	18.62	18.47	19.12	18.95	19.16	22.12	21.80	21.84		
40	1	1	256-QAM	16.10	15.70	15.60	16.36	16.14	16.52	19.24	18.94	19.09		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
50	1	1	QPSK	20.88	20.42	20.67	20.96	20.94	21.19	23.93	23.70	23.95	28.05	0.6383
50	1	131		20.50	20.35	20.74	20.82	20.94	21.13	23.67	23.67	23.95		
50	67	33		20.37	20.36	20.46	20.91	20.99	21.24	23.66	23.70	23.88		
50	1	0		18.75	18.51	18.10	19.05	18.99	19.19	21.91	21.77	21.69		
50	1	132		18.35	18.40	18.59	18.77	18.91	19.10	21.58	21.67	21.86		
50	133	0		18.99	18.90	19.06	19.46	19.42	19.71	22.24	22.18	22.41		
50	1	1	16-QAM	20.20	19.92	19.98	20.56	20.48	20.78	23.39	23.22	23.41	27.51	0.5636
50	1	1	64-QAM	18.69	18.20	18.45	18.78	18.70	18.98	21.75	21.47	21.73		
50	1	1	256-QAM	15.75	15.46	15.51	16.03	15.89	16.20	18.90	18.69	18.88		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
60	1	1	QPSK	20.88	20.51	20.61	21.04	20.89	20.80	23.97	23.71	23.72	28.07	0.6412
60	1	160		20.60	20.54	20.61	20.95	20.81	20.87	23.79	23.69	23.75		
60	81	40		20.37	20.33	20.32	21.07	20.91	20.96	23.74	23.64	23.66		
60	1	0		18.74	18.47	18.42	19.18	18.97	18.73	21.98	21.74	21.59		
60	1	161		18.52	18.35	18.56	18.89	18.90	18.84	21.72	21.64	21.71		
60	162	0		18.99	18.91	18.89	19.50	19.42	19.42	22.26	22.18	22.17		
60	1	1	16-QAM	20.27	19.99	19.83	20.69	20.72	20.41	23.50	23.38	23.14	27.60	0.5754
60	1	1	64-QAM	18.63	18.26	18.25	18.83	18.70	18.53	21.74	21.50	21.40		
60	1	1	256-QAM	15.81	15.41	15.34	16.05	15.86	15.83	18.94	18.65	18.60		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
70	1	1	QPSK	20.83	20.27	20.13	20.94	20.71	20.71	23.90	23.51	23.44	28.00	0.631
70	1	187		20.48	20.17	20.82	20.76	20.81	20.82	23.63	23.51	23.83		
70	95	47		20.31	20.18	20.31	20.98	20.86	20.80	23.67	23.54	23.57		
70	1	0		18.76	18.44	18.46	19.02	18.90	18.68	21.90	21.69	21.58		
70	1	188		18.31	18.05	18.46	18.80	18.70	18.66	21.57	21.40	21.57		
70	189	0		18.86	18.70	18.80	19.39	19.27	19.19	22.14	22.00	22.01		
70	1	1	16-QAM	20.26	19.78	19.64	20.59	20.30	20.26	23.44	23.06	22.97	27.54	0.5675
70	1	1	64-QAM	18.57	18.15	18.10	18.66	18.49	18.37	21.63	21.33	21.25		
70	1	1	256-QAM	15.70	15.19	15.24	15.91	15.64	15.66	18.82	18.43	18.47		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
80	1	1	QPSK	20.89	20.18	20.28	21.00	20.82	20.70	23.96	23.52	23.51	28.06	0.6397
80	1	215		20.54	20.42	20.63	20.79	20.72	20.79	23.68	23.58	23.72		
80	109	54		20.40	20.19	20.36	20.97	20.79	20.73	23.70	23.51	23.56		
80	1	0		18.86	18.31	18.33	19.13	18.85	18.68	22.01	21.60	21.52		
80	1	216		18.26	18.12	18.55	18.83	18.76	18.70	21.56	21.46	21.64		
80	217	0		18.93	18.69	18.87	19.41	19.20	19.19	22.19	21.96	22.04		
80	1	1	16-QAM	20.21	19.82	19.59	20.73	20.46	20.34	23.49	23.16	22.99	27.59	0.5741
80	1	1	64-QAM	18.57	18.02	18.01	18.77	18.55	18.43	21.68	21.30	21.24		
80	1	1	256-QAM	15.67	15.24	15.13	16.12	15.79	15.79	18.91	18.53	18.48		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
90	1	1	QPSK	20.88	20.35	20.27	20.83	20.76	20.85	23.87	23.57	23.58	27.97	0.6266
90	1	243		20.37	20.32	20.66	20.97	20.84	20.80	23.69	23.60	23.74		
90	123	61		20.33	20.16	20.46	20.83	20.85	20.71	23.60	23.53	23.60		
90	1	0		19.71	18.22	18.35	19.05	18.92	18.85	22.40	21.59	21.62		
90	1	244		19.22	18.20	18.57	18.95	18.93	18.63	22.10	21.59	21.61		
90	245	0		18.88	18.69	18.91	19.37	19.26	19.25	22.14	21.99	22.09		
90	1	1	16-QAM	20.04	19.74	19.71	20.45	20.37	20.56	23.26	23.08	23.17	27.36	0.5445
90	1	1	64-QAM	18.50	18.05	18.00	18.62	18.53	18.61	21.57	21.31	21.33		
90	1	1	256-QAM	15.60	15.22	15.19	15.92	15.67	15.84	18.77	18.46	18.54		
Limit	EIRP < 1W			Result									Pass	

5G FR1 n77 Maximum Average Power [dBm], DG = 4.1 dBi														
BW	RB	RB	Mod	Antenna 4			Antenna 6			Combine			EIRP	EIRP
(MHz)	Size	Offset		Lowest	Middle	Highest	Lowest	Middle	Highest	Lowest	Middle	Highest	(dBm)	(W)
100	1	1	QPSK	20.67	20.31	20.32	20.86	20.77	20.72	23.78	23.56	23.53	27.88	0.6138
100	1	271		20.40	20.37	20.63	20.66	20.80	20.81	23.54	23.60	23.73		
100	137	68		20.32	20.26	20.27	20.83	20.71	20.62	23.59	23.50	23.46		
100	1	0		18.79	18.39	18.32	19.06	18.93	18.76	21.94	21.68	21.56		
100	1	272		18.22	18.22	18.42	18.66	18.79	18.74	21.46	21.52	21.59		
100	273	0		18.90	18.76	18.67	19.32	19.20	19.13	22.13	22.00	21.92		
100	1	1	16-QAM	20.15	19.83	19.56	20.53	20.37	20.37	23.35	23.12	22.99	27.45	0.5559
100	1	1	64-QAM	18.50	18.06	17.90	18.63	18.47	18.41	21.58	21.28	21.17		
100	1	1	256-QAM	15.67	15.24	15.14	15.89	15.79	15.72	18.79	18.53	18.45		
Limit	EIRP < 1W			Result									Pass	

Appendix B. Test Results of Radiated Test

<Ant. 4>

5G FR1 n77 HPUE

5G FR1 n77 HPUE / 10MHz / 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	7402	-28.30	-13	-15.30	-58.11	-35.61	1.94	11.40	H
	11102	-36.77	-13	-23.77	-72.67	-43.00	2.24	10.62	H
	14803	-29.75	-13	-16.75	-71.64	-37.78	2.58	12.77	H
	18504	-62.05	-13	-49.05	-73.33	-74.26	3.24	17.60	H
	22205	-59.26	-13	-46.26	-74.08	-72.45	3.52	18.86	H
	25905	-53.63	-13	-40.63	-71.58	-66.64	3.92	19.08	H
	7402	-28.82	-13	-15.82	-58.72	-36.13	1.94	11.40	V
	11102	-36.45	-13	-23.45	-72.31	-42.68	2.24	10.62	V
	14803	-28.53	-13	-15.53	-71.53	-36.56	2.58	12.77	V
	18504	-62.44	-13	-49.44	-73.5	-74.65	3.24	17.60	V
	22205	-61.11	-13	-48.11	-75.53	-74.30	3.52	18.86	V
	25905	-54.45	-13	-41.45	-72.1	-67.46	3.92	19.08	V
Middle	7672	-30.69	-13	-17.69	-60.08	-38.29	1.89	11.64	H
	11507	-28.94	-13	-15.94	-65.32	-35.51	2.40	11.13	H
	15343	-30.36	-13	-17.36	-71.08	-40.27	2.65	14.71	H
	19179	-60.85	-13	-47.85	-72.13	-72.70	3.25	17.24	H
	23015	-51.90	-13	-38.90	-68.07	-64.78	3.57	18.60	H
	26850	-52.19	-13	-39.19	-71.73	-65.21	3.92	19.09	H
	7672	-31.66	-13	-18.66	-61.26	-39.26	1.89	11.64	V
	11507	-29.70	-13	-16.70	-66.19	-36.27	2.40	11.13	V
	15343	-29.57	-13	-16.57	-70.95	-39.48	2.65	14.71	V
	19179	-59.03	-13	-46.03	-70.07	-70.88	3.25	17.24	V
	23015	-55.72	-13	-42.72	-71.56	-68.60	3.57	18.60	V
	26850	-58.87	-13	-45.87	-78.02	-71.89	3.92	19.09	V

Highest	7942	-39.86	-13	-26.86	-69.98	-47.10	1.96	11.35	H
	11912	-30.28	-13	-17.28	-68.31	-38.14	2.57	12.58	H
	15883	-31.73	-13	-18.73	-71.16	-43.26	2.79	16.47	H
	19854	-56.45	-13	-43.45	-68.33	-68.53	3.20	17.43	H
	23825	-51.52	-13	-38.52	-67.97	-64.12	3.76	18.51	H
	27795	-57.45	-13	-44.45	-77.02	-70.96	3.96	19.62	H
									H
	7942	-38.89	-13	-25.89	-69.38	-46.13	1.96	11.35	V
	11912	-32.04	-13	-19.04	-69.61	-39.90	2.57	12.58	V
	15883	-31.00	-13	-18.00	-70.65	-42.53	2.79	16.47	V
	19854	-59.42	-13	-46.42	-71	-71.50	3.20	17.43	V
	23825	-57.72	-13	-44.72	-73.81	-70.32	3.76	18.51	V
	27795	-57.67	-13	-44.67	-76.89	-71.18	3.96	19.62	V
									V

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

MIMO <Ant. 4+6>

5G FR1 n77

5G FR1 n77 MIMO / 10MHz / 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	7402	-36.34	-13	-23.34	-66.15	-43.65	1.94	11.40	H
	11102	-36.90	-13	-23.90	-72.8	-43.13	2.24	10.62	H
	14803	-29.57	-13	-16.57	-71.46	-37.60	2.58	12.77	H
	18503	-50.52	-13	-37.52	-61.8	-62.73	3.24	17.60	H
	22204	-56.52	-13	-43.52	-71.34	-69.71	3.52	18.86	H
	25905	-54.07	-13	-41.07	-72.02	-67.08	3.92	19.08	H
									H
	7402	-34.61	-13	-21.61	-64.51	-41.92	1.94	11.40	V
	11102	-36.82	-13	-23.82	-72.68	-43.05	2.24	10.62	V
	14803	-28.41	-13	-15.41	-71.41	-36.44	2.58	12.77	V
	18503	-52.04	-13	-39.04	-63.1	-64.25	3.24	17.60	V
	22204	-58.83	-13	-45.83	-73.25	-72.02	3.52	18.86	V
	25905	-59.34	-13	-46.34	-76.99	-72.35	3.92	19.08	V
									V
Middle	7672	-35.95	-13	-22.95	-65.34	-43.55	1.89	11.64	H
	11507	-34.18	-13	-21.18	-70.56	-40.75	2.40	11.13	H
	15343	-30.34	-13	-17.34	-71.06	-40.25	2.65	14.71	H
	19179	-53.41	-13	-40.41	-64.69	-65.26	3.25	17.24	H
	28015	-49.88	-13	-36.88	-66.05	-63.45	3.97	19.69	H
	26857	-48.91	-13	-35.91	-68.46	-61.94	3.92	19.10	H
									H
	7672	-33.59	-13	-20.59	-63.19	-41.19	1.89	11.64	V
	11507	-30.83	-13	-17.83	-67.32	-37.40	2.40	11.13	V
	15343	-29.59	-13	-16.59	-70.97	-39.50	2.65	14.71	V
	19179	-60.09	-13	-47.09	-71.13	-71.94	3.25	17.24	V
	28015	-51.78	-13	-38.78	-67.62	-65.35	3.97	19.69	V
	26857	-46.10	-13	-33.10	-65.26	-59.13	3.92	19.10	V

Highest	7942	-39.66	-13	-26.66	-69.78	-46.90	1.96	11.35	H
	11912	-34.07	-13	-21.07	-72.1	-41.93	2.57	12.58	H
	15883	-31.70	-13	-18.70	-71.13	-43.23	2.79	16.47	H
	19853	-51.54	-13	-38.54	-63.42	-63.62	3.20	17.43	H
	23824	-43.10	-13	-30.10	-59.55	-55.70	3.76	18.51	H
	27795	-38.62	-13	-25.62	-58.19	-52.13	3.96	19.62	H
									H
	7942	-39.88	-13	-26.88	-70.37	-47.12	1.96	11.35	V
	11912	-33.93	-13	-20.93	-71.5	-41.79	2.57	12.58	V
	15883	-31.42	-13	-18.42	-71.07	-42.95	2.79	16.47	V
	19853	-52.37	-13	-39.37	-63.95	-64.45	3.20	17.43	V
	23824	-47.03	-13	-34.03	-63.12	-59.63	3.76	18.51	V
	27795	-49.74	-13	-36.74	-68.96	-63.25	3.96	19.62	V
									V

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

<Ant. 0+Ant. 4>

EN-DC 2A-n77A

EN-DC 2A-n77A / 10M + 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	7403	-30.46	-13	-17.46	-60.26	-37.76	1.94	11.39	H
	11104	-36.83	-13	-23.83	-72.74	-43.06	2.24	10.62	H
	14805	-29.77	-13	-16.77	-71.67	-37.81	2.58	12.77	H
	18506	-62.74	-13	-49.74	-74.02	-74.94	3.24	17.59	H
	22208	-60.87	-13	-47.87	-75.7	-74.06	3.52	18.86	H
	25909	-57.34	-13	-44.34	-75.3	-70.35	3.92	19.08	H
									H
	7403	-34.23	-13	-21.23	-64.13	-41.53	1.94	11.39	V
	11104	-36.16	-13	-23.16	-72.02	-42.39	2.24	10.62	V
	14805	-28.48	-13	-15.48	-71.49	-36.52	2.58	12.77	V
	18506	-63.27	-13	-50.27	-74.33	-75.47	3.24	17.59	V
	22208	-61.95	-13	-48.95	-76.38	-75.14	3.52	18.86	V
	25909	-59.26	-13	-46.26	-76.91	-72.27	3.92	19.08	V
									V
Middle	7663	-31.04	-13	-18.04	-60.42	-38.63	1.89	11.63	H
	11494	-33.15	-13	-20.15	-69.48	-39.70	2.40	11.09	H
	15325	-30.14	-13	-17.14	-70.93	-39.98	2.64	14.63	H
	19156	-63.91	-13	-50.91	-75.14	-75.74	3.25	17.22	H
	22988	-57.37	-13	-44.37	-73.51	-70.26	3.57	18.60	H
	26819	-51.37	-13	-38.37	-70.84	-64.34	3.92	19.05	H
									H
	7663	-35.04	-13	-22.04	-64.64	-42.63	1.89	11.63	V
	11494	-31.93	-13	-18.93	-68.38	-38.48	2.40	11.09	V
	15325	-29.47	-13	-16.47	-70.96	-39.31	2.64	14.63	V
	19156	-63.47	-13	-50.47	-74.46	-75.30	3.25	17.22	V
	22988	-54.04	-13	-41.04	-69.85	-66.93	3.57	18.60	V
	26819	-48.40	-13	-35.40	-67.48	-61.37	3.92	19.05	V

Highest	7923	-40.19	-13	-27.19	-70.23	-47.48	1.95	11.39	H
	11884	-32.26	-13	-19.26	-70.19	-40.03	2.56	12.48	H
	15845	-31.28	-13	-18.28	-70.78	-42.72	2.78	16.37	H
	19806	-58.77	-13	-45.77	-70.65	-70.86	3.20	17.44	H
	23768	-57.46	-13	-44.46	-73.91	-70.10	3.74	18.54	H
	27729	-55.10	-13	-42.10	-74.71	-68.59	3.95	19.59	H
									H
	7923	-40.47	-13	-27.47	-70.86	-47.76	1.95	11.39	V
	11884	-32.48	-13	-19.48	-69.98	-40.25	2.56	12.48	V
	15845	-31.29	-13	-18.29	-71.01	-42.73	2.78	16.37	V
	19806	-62.93	-13	-49.93	-74.52	-75.02	3.20	17.44	V
	23768	-54.35	-13	-41.35	-70.44	-66.99	3.74	18.54	V
	27729	-52.11	-13	-39.11	-71.38	-65.60	3.95	19.59	V
									V

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

EN-DC 5A-n77A

EN-DC 5A-n77A / 10M + 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)
Middle	7663	-32.52	-13	-19.52	-61.9	-40.11	1.89	11.63	H
	11494	-33.15	-13	-20.15	-69.48	-39.70	2.40	11.09	H
	15325	-30.25	-13	-17.25	-71.04	-40.09	2.64	14.63	H
	19156	-62.13	-13	-49.13	-73.36	-73.96	3.25	17.22	H
	22988	-56.26	-13	-43.26	-72.4	-69.15	3.57	18.60	H
	26819	-52.20	-13	-39.20	-71.67	-65.17	3.92	19.05	H
									H
	7663	-35.59	-13	-22.59	-65.19	-43.18	1.89	11.63	V
	11494	-31.24	-13	-18.24	-67.69	-37.79	2.40	11.09	V
	15325	-29.41	-13	-16.41	-70.9	-39.25	2.64	14.63	V
	19156	-63.10	-13	-50.10	-74.09	-74.93	3.25	17.22	V
	22988	-53.84	-13	-40.84	-69.65	-66.73	3.57	18.60	V
	26819	-50.30	-13	-37.30	-69.38	-63.27	3.92	19.05	V
									V

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

EN-DC 7A-n77A

EN-DC 7A-n77A / 10M + 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)
Middle	7663	-32.22	-13	-19.22	-61.6	-39.81	1.89	11.63	H
	11494	-33.83	-13	-20.83	-70.16	-40.38	2.40	11.09	H
	15325	-30.06	-13	-17.06	-70.85	-39.90	2.64	14.63	H
	19156	-63.77	-13	-50.77	-75	-75.60	3.25	17.22	H
	22988	-55.64	-13	-42.64	-71.78	-68.53	3.57	18.60	H
	26819	-54.48	-13	-41.48	-73.95	-67.45	3.92	19.05	H
									H
	7663	-35.37	-13	-22.37	-64.97	-42.96	1.89	11.63	V
	11494	-32.57	-13	-19.57	-69.02	-39.12	2.40	11.09	V
	15325	-29.59	-13	-16.59	-71.08	-39.43	2.64	14.63	V
	19156	-63.49	-13	-50.49	-74.48	-75.32	3.25	17.22	V
	22988	-54.26	-13	-41.26	-70.07	-67.15	3.57	18.60	V
	26819	-53.28	-13	-40.28	-72.36	-66.25	3.92	19.05	V
									V

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

EN-DC 12A-n77A

EN-DC 12A-n77A / 10M + 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)
Middle	7663	-31.84	-13	-18.84	-61.22	-39.43	1.89	11.63	H
	11494	-33.46	-13	-20.46	-69.79	-40.01	2.40	11.09	H
	15325	-30.21	-13	-17.21	-71	-40.05	2.64	14.63	H
	19156	-64.15	-13	-51.15	-75.38	-75.98	3.25	17.22	H
	22988	-56.16	-13	-43.16	-72.3	-69.05	3.57	18.60	H
	26819	-50.95	-13	-37.95	-70.42	-63.92	3.92	19.05	H
									H
	7663	-35.12	-13	-22.12	-64.72	-42.71	1.89	11.63	V
	11494	-33.02	-13	-20.02	-69.47	-39.57	2.40	11.09	V
	15325	-29.44	-13	-16.44	-70.93	-39.28	2.64	14.63	V
	19156	-64.06	-13	-51.06	-75.05	-75.89	3.25	17.22	V
	22988	-55.44	-13	-42.44	-71.25	-68.33	3.57	18.60	V
	26819	-47.77	-13	-34.77	-66.85	-60.74	3.92	19.05	V
									V

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

EN-DC 13A-n77A

EN-DC 13A-n77A / 10M + 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)
Middle	7663	-34.82	-13	-21.82	-64.2	-42.41	1.89	11.63	H
	11494	-34.78	-13	-21.78	-71.11	-41.33	2.40	11.09	H
	15325	-30.23	-13	-17.23	-71.02	-40.07	2.64	14.63	H
	19156	-64.06	-13	-51.06	-75.29	-75.89	3.25	17.22	H
	22988	-56.17	-13	-43.17	-72.31	-69.06	3.57	18.60	H
	26819	-54.51	-13	-41.51	-73.98	-67.48	3.92	19.05	H
									H
	7663	-37.71	-13	-24.71	-67.31	-45.30	1.89	11.63	V
	11494	-34.36	-13	-21.36	-70.81	-40.91	2.40	11.09	V
	15325	-29.70	-13	-16.70	-71.19	-39.54	2.64	14.63	V
	19156	-63.86	-13	-50.86	-74.85	-75.69	3.25	17.22	V
	22988	-59.52	-13	-46.52	-75.33	-72.41	3.57	18.60	V
	26819	-49.73	-13	-36.73	-68.81	-62.70	3.92	19.05	V
									V

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

EN-DC 66A-n77A

EN-DC 66A-n77A / 10M + 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)
Middle	7663	-37.63	-13	-24.63	-67.01	-45.22	1.89	11.63	H
	11494	-34.47	-13	-21.47	-70.8	-41.02	2.40	11.09	H
	15325	-29.99	-13	-16.99	-70.78	-39.83	2.64	14.63	H
	19156	-63.24	-13	-50.24	-74.47	-75.07	3.25	17.22	H
	22988	-52.51	-13	-39.51	-68.65	-65.40	3.57	18.60	H
	26819	-45.09	-13	-32.09	-64.56	-58.06	3.92	19.05	H
									H
	7663	-35.59	-13	-22.59	-65.19	-43.18	1.89	11.63	V
	11494	-34.13	-13	-21.13	-70.58	-40.68	2.40	11.09	V
	15325	-29.71	-13	-16.71	-71.2	-39.55	2.64	14.63	V
	19156	-62.17	-13	-49.17	-73.16	-74.00	3.25	17.22	V
	22988	-53.37	-13	-40.37	-69.18	-66.26	3.57	18.60	V
	26819	-47.31	-13	-34.31	-66.39	-60.28	3.92	19.05	V
									V

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

EN-DC 71A-n77A

EN-DC 71A-n77A / 10M + 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)
Middle	7663	-40.88	-13	-27.88	-70.26	-48.47	1.89	11.63	H
	11494	-35.59	-13	-22.59	-71.92	-42.14	2.40	11.09	H
	15325	-30.19	-13	-17.19	-70.98	-40.03	2.64	14.63	H
	9156	-61.84	-13	-48.84	-73.07	-68.94	2.11	11.35	H
	12988	-51.81	-13	-38.81	-67.95	-60.48	2.50	13.31	H
	16819	-48.06	-13	-35.06	-67.53	-57.81	2.98	14.88	H
									H
	7663	-36.03	-13	-23.03	-65.63	-43.62	1.89	11.63	V
	11494	-36.08	-13	-23.08	-72.53	-42.63	2.40	11.09	V
	15325	-29.58	-13	-16.58	-71.07	-39.42	2.64	14.63	V
	9156	-62.39	-13	-49.39	-73.38	-69.49	2.11	11.35	V
	12988	-52.43	-13	-39.43	-68.24	-61.10	2.50	13.31	V
	16819	-47.70	-13	-34.70	-66.78	-57.45	2.98	14.88	V
									V

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

Appendix C. Setup Photographs

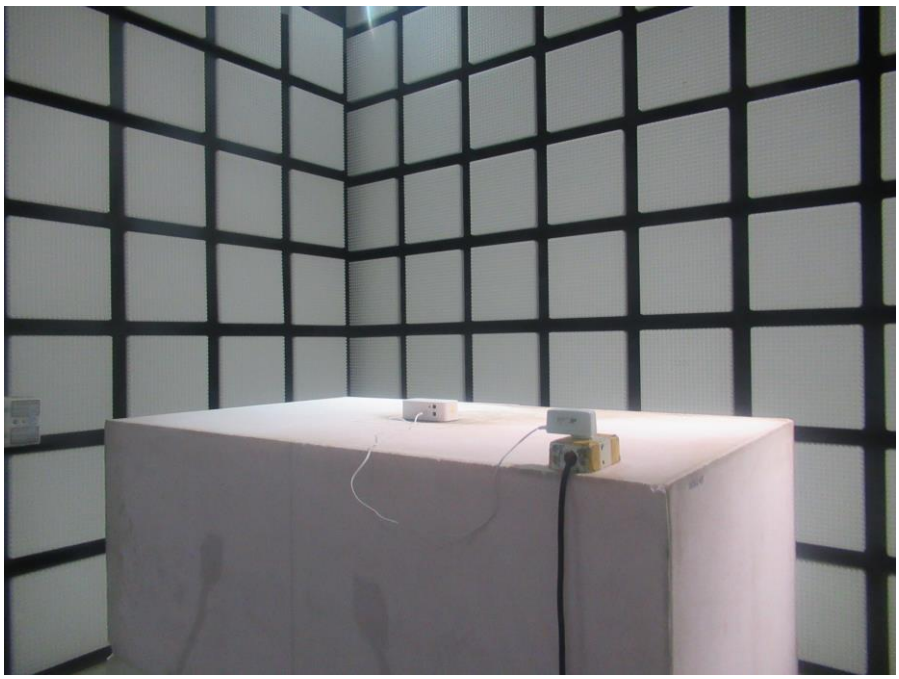
<Radiated Emission>

X Plane

LF

HF

SHF



———THE END———