



# FCC RADIO TEST REPORT

FCC ID : PKRISGS2000E3

Equipment : S2000e-3

Brand Name : 

Model Name : S2000e-3

Marketing Name : 5G Enterprise Gateway

Applicant : Inseego Corp.  
9710 Scranton Road Suite 200, San Diego, CA 92121

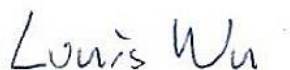
Manufacturer : MeiG Smart Technology Co., Ltd  
Floor 2, Office Building No.5, Lingxia Road,  
Fenghuang Community, Fuyong Street, Bao 'an  
District, Shenzhen

Standard : FCC 47 CFR Part 2, 27

The product was received on Apr. 29, 2022 and testing was performed from May 06, 2022 to May 07, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

This product installed a RF module (Brand Name: Inseego, Model Name: MD2000, FCC ID: PKRISGM2000) during the test, only RSE test items are tested in this report, all the other test results are quoted in module RF report.

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



Approved by: Louis Wu

**Sporton International Inc. Wensan Laboratory**

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



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### History of this test report

Report No.	Version	Description	Issued Date
FG160713-02	01	Initial issue of report	May 11, 2022
FG160713-02	02	Conducted test data was leveraged from module report	May 12, 2022



### Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	§2.1046	Conducted Output Power	-	See Note
	§27.50 (j)(3)	Equivalent Isotropic Radiated Power (n77)	-	
-	§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
3.2	§2.1051 §27.53 (l)(2)	Radiated Spurious Emission (n77)	Pass	Under limit 14.28 dB at 14805.000 MHz

**Note:** Test results were leveraged from module RF report which can refer to Sporton report No. "FG090125-05" for 5G NR n77.

Declaration of Conformity:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".
Comments and Explanations:
The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

**Reviewed by: Avis Chuang**  
**Report Producer: Vivian Hsu**



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

WCDMA/LTE/5G NR, Bluetooth and GNSS.

Product Feature	
Antenna Type	WWAN: Fixed External Antenna

**Remark:**

1. The above EUT's information is declared by manufacturer. Please refer to Comments and Explanations in report summary.
2. Inseego provided an external dipole antenna with a gain of 2.5dBi for the sole purpose of supporting radiated testing only with customer provided representative antenna. Module is not equipped with antenna.

## 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. 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.	<b>Sporton Site No.</b> 03CH12-HY
Test Engineer	Jack Cheng
Temperature (°C)	21.6~26.2
Relative Humidity (%)	56~68

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

FCC Designation No.: 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

**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

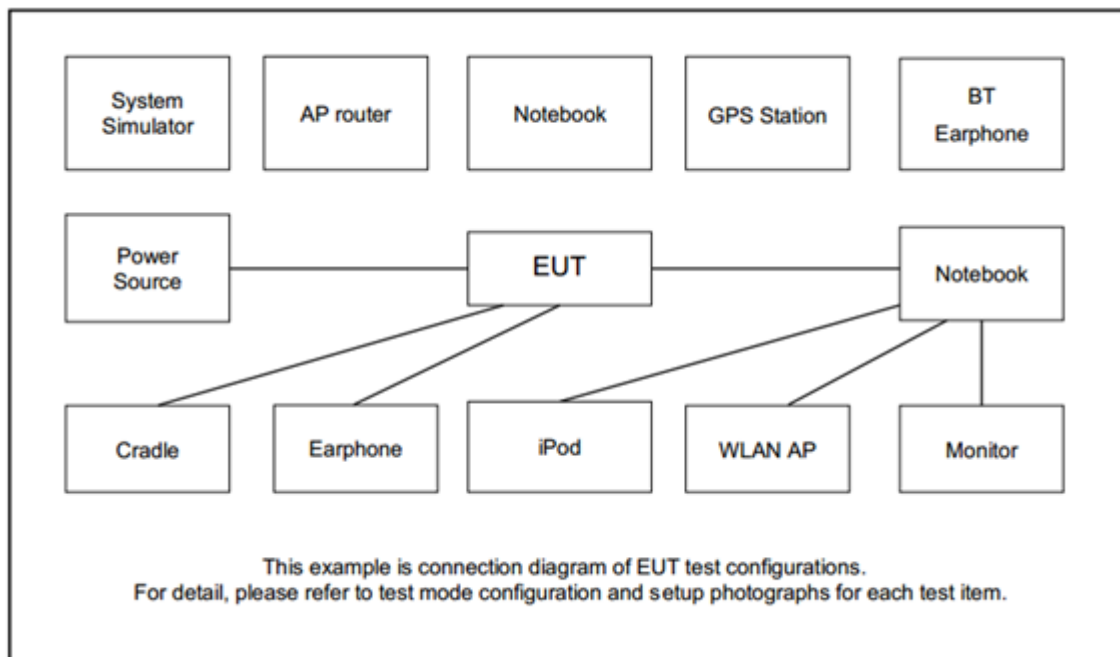
### 2.1 Test Mode

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 in two antenna polarization (Horizontal and Vertical), and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and find: Ant. Vertical. as worst plane.

Test Items	NR Band	Bandwidth (MHz)											Modulation					RB #			Test Channel		
		10	15	20	30	40	50	60	70	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Radiated Spurious Emission	n77			v									v							v	v	v	v
Remark	<ol style="list-style-type: none"><li>The mark "v" means that this configuration is chosen for testing</li><li>The mark "-" means that this bandwidth is not supported.</li><li>The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.</li><li>The product support 5G NR SA/NSA mode, test combination are 5G NR n77, EN-DC 2A_n77A, EN-DC 5A_n77A, EN-DC 12A_n77A, EN-DC 13A_n77A, EN-DC 14A_n77A, EN-DC 30A_n77A, EN-DC 66A_n77A.</li><li>For radiated measurement, pre-scanned in two modes, DFT-s OFDM and CP OFDM. The worst cases (DFT-s OFDM) were recorded in this report, and the worst modes of FR1 and LTE for simultaneous transmission were verified and compliant.</li></ol>																						

### 2.2 Connection Diagram of Test System





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

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m

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

5G NR Band n77 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	647334	656000	664666
	Frequency	3710.01	3840	3969.99



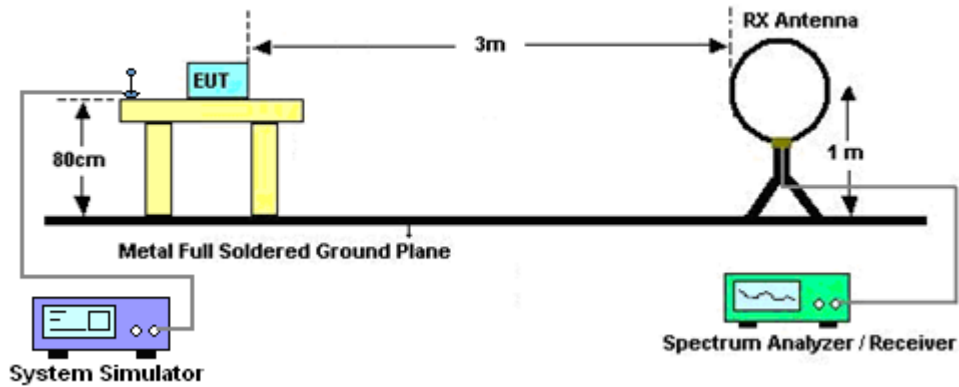
### 3 Radiated Test Items

#### 3.1 Measuring Instruments

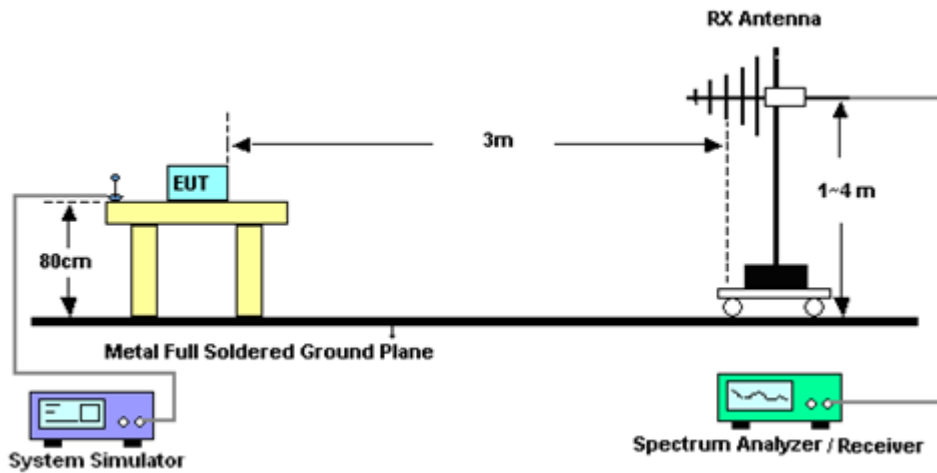
See list of measuring instruments of this test report.

##### 3.1.1 Test Setup

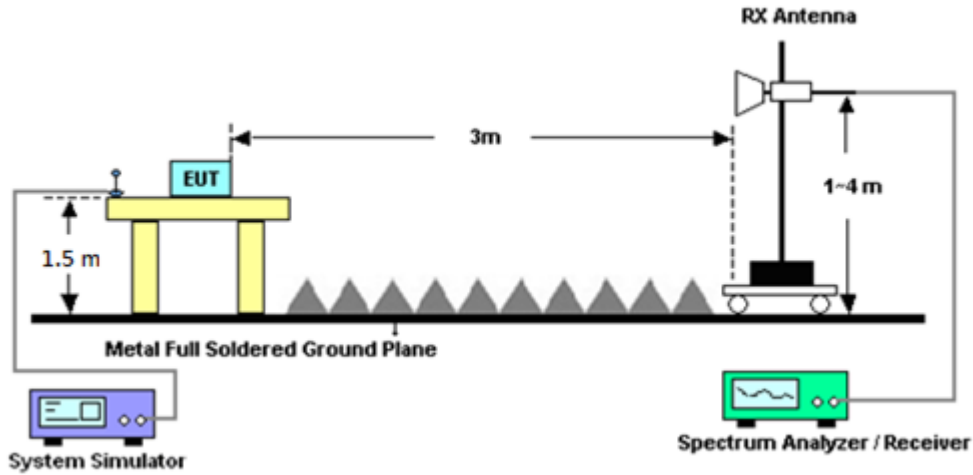
For radiated emissions below 30MHz



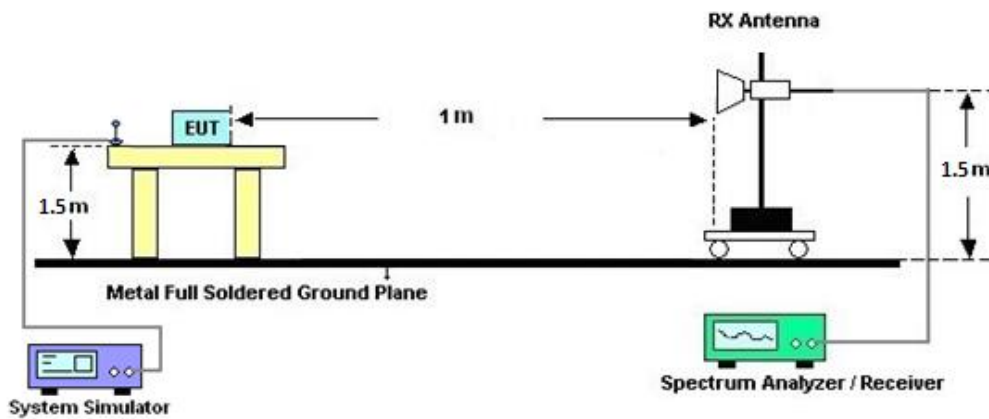
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



### 3.1.2 Test Result of Radiated Test

Please refer to Appendix A.

**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.



## 3.2 Radiated Spurious Emission Measurement

### 3.2.1 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.

### 3.2.2 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)



## 4 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. 07, 2021	May 06, 2022~ May 07, 2022	Sep. 06, 2022	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	37059 & 01	30MHz~1GHz	Oct. 09, 2021	May 06, 2022~ May 07, 2022	Oct. 08, 2022	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 09, 2021	May 06, 2022~ May 07, 2022	Oct. 08, 2022	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1328	1GHz~18GHz	Dec. 03, 2021	May 06, 2022~ May 07, 2022	Dec. 02, 2022	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1212	1GHz~18GHz	May 18, 2021	May 06, 2022~ May 07, 2022	May 17, 2022	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA91702 51	18GHz~40GHz	Nov. 30, 2021	May 06, 2022~ May 07, 2022	Nov. 29, 2022	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA91705 76	18GHz~40GHz	May 21, 2021	May 06, 2022~ May 07, 2022	May 20, 2022	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 23, 2022	May 06, 2022~ May 07, 2022	Mar. 22, 2023	Radiation (03CH12-HY)
Preamplifier	Aglient	8449B	3008A02375	1GHz~26.5GHz	May 25, 2021	May 06, 2022~ May 07, 2022	May 24, 2022	Radiation (03CH12-HY)
Preamplifier	E-INSTRUME NT TECH LTD.	ERA-100M-18 G-56-01-A70	EC1900270	1GHz-18GHz	Dec. 27, 2021	May 06, 2022~ May 07, 2022	Dec. 26, 2022	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 24, 2021	May 06, 2022~ May 07, 2022	Dec. 23, 2022	Radiation (03CH12-HY)
Spectrum Analyzer	Keysight	N9010A	MY53470118	10Hz~44GHz	Jan. 12, 2022	May 06, 2022~ May 07, 2022	Jan. 11, 2023	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 10, 2022	May 06, 2022~ May 07, 2022	Mar. 09, 2023	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 10, 2021	May 06, 2022~ May 07, 2022	Dec. 09, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 21, 2022	May 06, 2022~ May 07, 2022	Feb. 20, 2023	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803953/2	30MHz~40GHz	Mar. 08, 2022	May 06, 2022~ May 07, 2022	Mar. 07, 2023	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12 SS	SN2	1.2GHz Low Pass Filter	Mar. 16, 2022	May 06, 2022~ May 07, 2022	Mar. 15, 2023	Radiation (03CH12-HY)
Filter	Wainwright	WHKX8-5872. 5-6750-18000- 40ST	SN2	6.75GHz High Pass Filter	Mar. 16, 2022	May 06, 2022~ May 07, 2022	Mar. 15, 2023	Radiation (03CH12-HY)
Hygrometer	TECEPEL	DTM-303B	TP140349	N/A	Sep. 30, 2021	May 06, 2022~ May 07, 2022	Sep. 29, 2022	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	May 06, 2022~ May 07, 2022	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	May 06, 2022~ May 07, 2022	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	May 06, 2022~ May 07, 2022	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	May 06, 2022~ May 07, 2022	N/A	Radiation (03CH12-HY)



## 5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.10 dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.39 dB
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### Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.34 dB
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### Appendix A. Test Results of Radiated Test

### 5G NR n77

5G NR n77 / 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	-40.47	-13	-27.47	-71.38	-47.77	1.94	11.39	H
	11104	-35.19	-13	-22.19	-72.05	-41.42	2.24	10.62	H
	14805	-28.39	-13	-15.39	-71.43	-36.43	2.58	12.77	H
	18506	-62.32	-13	-49.32	-74.2	-74.52	3.24	17.59	H
	22208	-60.32	-13	-47.32	-76.05	-73.51	3.52	18.86	H
	25909	-58.31	-13	-45.31	-77.13	-71.32	3.92	19.08	H
									H
	7403	-40.83	-13	-27.83	-71.84	-48.13	1.94	11.39	V
	11104	-34.57	-13	-21.57	-71.38	-40.80	2.24	10.62	V
	14805	-27.28	-13	-14.28	-71.43	-35.32	2.58	12.77	V
	18506	-63.13	-13	-50.13	-74.79	-75.33	3.24	17.59	V
	22208	-61.26	-13	-48.26	-76.59	-74.45	3.52	18.86	V
	25909	-59.26	-13	-46.26	-77.77	-72.27	3.92	19.08	V
									V



Middle	7579	-40.85	-13	-27.85	-71.45	-48.32	1.90	11.52	H
	11375	-34.52	-13	-21.52	-71.79	-40.97	2.35	10.95	H
	15162	-29.39	-13	-16.39	-71.06	-38.55	2.60	13.91	H
	18954	-63.63	-13	-50.63	-75.46	-75.37	3.26	17.15	H
	22747	-58.38	-13	-45.38	-75.32	-71.38	3.55	18.70	H
	26535	-56.90	-13	-43.90	-77.14	-69.47	3.93	18.65	H
									H
	7579	-40.70	-13	-27.70	-71.52	-48.17	1.90	11.52	V
	11375	-34.37	-13	-21.37	-71.76	-40.82	2.35	10.95	V
	15162	-28.57	-13	-15.57	-70.94	-37.73	2.60	13.91	V
	18954	-62.64	-13	-49.64	-74.23	-74.38	3.26	17.15	V
	22747	-60.21	-13	-47.21	-76.82	-73.21	3.55	18.70	V
	26535	-57.52	-13	-44.52	-77.37	-70.09	3.93	18.65	V
									V
Highest	7923	-40.71	-13	-27.71	-71.88	-48.00	1.95	11.39	H
	11884	-32.71	-13	-19.71	-71.83	-40.48	2.56	12.48	H
	15845	-30.79	-13	-17.79	-71.04	-42.23	2.78	16.37	H
	19806	-63.16	-13	-50.16	-75.64	-75.25	3.20	17.44	H
	23768	-59.77	-13	-46.77	-77.07	-72.41	3.74	18.54	H
	27729	-56.46	-13	-43.46	-76.96	-69.95	3.95	19.59	H
									H
	7763	-40.01	-13	-27.01	-71.53	-47.66	1.88	11.68	V
	11643	-33.20	-13	-20.20	-71.89	-40.20	2.46	11.61	V
	15522	-30.19	-13	-17.19	-70.66	-40.81	2.70	15.46	V
	19806	-61.97	-13	-48.97	-74.16	-74.06	3.20	17.44	V
	23768	-60.23	-13	-47.23	-77.17	-72.87	3.74	18.54	V
	27729	-57.10	-13	-44.10	-77.26	-70.59	3.95	19.59	V
									V

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



**EN-DC 2A-n77A**

EN-DC 2A-n77A / 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	-41.06	-13	-28.06	-71.66	-48.65	1.89	11.63	H
	11494	-34.76	-13	-21.76	-72.03	-41.31	2.40	11.09	H
	15325	-29.43	-13	-16.43	-71.1	-39.27	2.64	14.63	H
	19156	-63.73	-13	-50.73	-75.56	-75.56	3.25	17.22	H
	22988	-59.98	-13	-46.98	-76.92	-72.87	3.57	18.60	H
	26819	-57.07	-13	-44.07	-77.31	-70.04	3.92	19.05	H
									H
	7663	-40.69	-13	-27.69	-71.51	-48.28	1.89	11.63	V
	11494	-34.53	-13	-21.53	-71.92	-41.08	2.40	11.09	V
	15325	-28.56	-13	-15.56	-70.93	-38.40	2.64	14.63	V
	19156	-64.01	-13	-51.01	-75.6	-75.84	3.25	17.22	V
	22988	-60.44	-13	-47.44	-77.05	-73.33	3.57	18.60	V
	26819	-57.32	-13	-44.32	-77.17	-70.29	3.92	19.05	V
									V

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





**EN-DC 5A-n77A**

EN-DC 5A-n77A / 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	-40.63	-13	-27.63	-71.23	-48.22	1.89	11.63	H
	11494	-34.42	-13	-21.42	-71.69	-40.97	2.40	11.09	H
	15325	-28.94	-13	-15.94	-70.61	-38.78	2.64	14.63	H
	19156	-63.84	-13	-50.84	-75.67	-75.67	3.25	17.22	H
	22988	-60.28	-13	-47.28	-77.22	-73.17	3.57	18.60	H
	26819	-56.96	-13	-43.96	-77.2	-69.93	3.92	19.05	H
									H
	7663	-40.86	-13	-27.86	-71.68	-48.45	1.89	11.63	V
	11494	-34.33	-13	-21.33	-71.72	-40.88	2.40	11.09	V
	15325	-28.59	-13	-15.59	-70.96	-38.43	2.64	14.63	V
	19156	-63.50	-13	-50.50	-75.09	-75.33	3.25	17.22	V
	22988	-59.87	-13	-46.87	-76.48	-72.76	3.57	18.60	V
	26819	-57.38	-13	-44.38	-77.23	-70.35	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 / 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	-41.17	-13	-28.17	-71.77	-48.76	1.89	11.63	H
	11494	-34.48	-13	-21.48	-71.75	-41.03	2.40	11.09	H
	15325	-29.30	-13	-16.30	-70.97	-39.14	2.64	14.63	H
	19156	-63.52	-13	-50.52	-75.35	-75.35	3.25	17.22	H
	22988	-60.04	-13	-47.04	-76.98	-72.93	3.57	18.60	H
	26819	-57.21	-13	-44.21	-77.45	-70.18	3.92	19.05	H
									H
	7663	-40.93	-13	-27.93	-71.75	-48.52	1.89	11.63	V
	11494	-34.57	-13	-21.57	-71.96	-41.12	2.40	11.09	V
	15325	-28.57	-13	-15.57	-70.94	-38.41	2.64	14.63	V
	19156	-64.07	-13	-51.07	-75.66	-75.90	3.25	17.22	V
	22988	-60.18	-13	-47.18	-76.79	-73.07	3.57	18.60	V
	26819	-57.38	-13	-44.38	-77.23	-70.35	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 / 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	-41.01	-13	-28.01	-71.61	-48.60	1.89	11.63	H
	11494	-34.54	-13	-21.54	-71.81	-41.09	2.40	11.09	H
	15325	-29.35	-13	-16.35	-71.02	-39.19	2.64	14.63	H
	19156	-63.17	-13	-50.17	-75	-75.00	3.25	17.22	H
	22988	-60.16	-13	-47.16	-77.1	-73.05	3.57	18.60	H
	26819	-56.86	-13	-43.86	-77.1	-69.83	3.92	19.05	H
									H
	7663	-40.52	-13	-27.52	-71.34	-48.11	1.89	11.63	V
	11494	-34.41	-13	-21.41	-71.8	-40.96	2.40	11.09	V
	15325	-28.52	-13	-15.52	-70.89	-38.36	2.64	14.63	V
	19156	-63.78	-13	-50.78	-75.37	-75.61	3.25	17.22	V
	22988	-59.82	-13	-46.82	-76.43	-72.71	3.57	18.60	V
	26819	-56.93	-13	-43.93	-76.78	-69.90	3.92	19.05	V
									V

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



**EN-DC 14A-n77A**

EN-DC 14A-n77A / 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	-40.80	-13	-27.80	-71.4	-48.39	1.89	11.63	H
	11494	-34.66	-13	-21.66	-71.93	-41.21	2.40	11.09	H
	15325	-28.82	-13	-15.82	-70.49	-38.66	2.64	14.63	H
	19156	-62.93	-13	-49.93	-74.76	-74.76	3.25	17.22	H
	22988	-59.39	-13	-46.39	-76.33	-72.28	3.57	18.60	H
	26819	-57.00	-13	-44.00	-77.24	-69.97	3.92	19.05	H
									H
	7663	-40.15	-13	-27.15	-70.97	-47.74	1.89	11.63	V
	11494	-34.61	-13	-21.61	-72	-41.16	2.40	11.09	V
	15325	-28.60	-13	-15.60	-70.97	-38.44	2.64	14.63	V
	19156	-62.87	-13	-49.87	-74.46	-74.70	3.25	17.22	V
	22988	-60.44	-13	-47.44	-77.05	-73.33	3.57	18.60	V
	26819	-57.41	-13	-44.41	-77.26	-70.38	3.92	19.05	V
									V

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



**EN-DC 30A-n77A**

EN-DC 30A-n77A / 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	-41.02	-13	-28.02	-71.62	-48.61	1.89	11.63	H
	11494	-34.65	-13	-21.65	-71.92	-41.20	2.40	11.09	H
	15325	-29.24	-13	-16.24	-70.91	-39.08	2.64	14.63	H
	19156	-63.22	-13	-50.22	-75.05	-75.05	3.25	17.22	H
	22988	-59.77	-13	-46.77	-76.71	-72.66	3.57	18.60	H
	26819	-56.76	-13	-43.76	-77	-69.73	3.92	19.05	H
									H
	7663	-41.13	-13	-28.13	-71.95	-48.72	1.89	11.63	V
	11494	-34.60	-13	-21.60	-71.99	-41.15	2.40	11.09	V
	15325	-28.73	-13	-15.73	-71.1	-38.57	2.64	14.63	V
	19156	-63.53	-13	-50.53	-75.12	-75.36	3.25	17.22	V
	22988	-60.44	-13	-47.44	-77.05	-73.33	3.57	18.60	V
	26819	-56.96	-13	-43.96	-76.81	-69.93	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 / 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	-41.17	-13	-28.17	-71.77	-48.76	1.89	11.63	H
	11494	-34.81	-13	-21.81	-72.08	-41.36	2.40	11.09	H
	15325	-29.77	-13	-16.77	-71.44	-39.61	2.64	14.63	H
	19156	-63.42	-13	-50.42	-75.25	-75.25	3.25	17.22	H
	22988	-60.01	-13	-47.01	-76.95	-72.90	3.57	18.60	H
	26819	-56.63	-13	-43.63	-76.87	-69.60	3.92	19.05	H
									H
	7663	-41.21	-13	-28.21	-72.03	-48.80	1.89	11.63	V
	11494	-34.68	-13	-21.68	-72.07	-41.23	2.40	11.09	V
	15325	-29.09	-13	-16.09	-71.46	-38.93	2.64	14.63	V
	19156	-63.71	-13	-50.71	-75.3	-75.54	3.25	17.22	V
	22988	-60.14	-13	-47.14	-76.75	-73.03	3.57	18.60	V
	26819	-57.23	-13	-44.23	-77.08	-70.20	3.92	19.05	V
									V

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