



FCC RF Test Report

APPLICANT : Inseego Corp.
EQUIPMENT : Outdoor Fixed CPE
BRAND NAME : Inseego
MODEL NAME : FW2010-1, FW2010e-1
FCC ID : PKRISGFW2010
STANDARD : 47 CFR Part 2, 27 Subpart O
CLASSIFICATION : PCS Licensed Transmitter (PCB)
TEST DATE(S) : Jul. 03, 2023 ~ Jul. 04, 2023

We, Sporton International Inc. (KunShan), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

This product installed a RF module (Brand Name: Inseego, Model Name: MD2000, FCC ID: PKRISGMD2000) during the test, only Power, EIRP and RSE test items are tested in this report, all the other test results are leveraged from module RF report.

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

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (Kunshan)

**No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China**



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG221528	Rev. 01	Initial issue of report	Jul. 13, 2023



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§27.50(j)(2)	Equivalent Isotropic Radiated Power	EIRP < 1640 Watt		
-	§27.50(j)(4)	Peak-to-Average Ratio	<13 dB	PASS	1
-	§2.1049	Occupied Bandwidth	Reporting Only	PASS	1
-	§2.1051 §27.53(l)(2)	Conducted Band Edge Measurement	< 43+10log ₁₀ (P[Watts])	PASS	1
-	§2.1051 §27.53(l)(2)	Conducted Spurious Emission	< 43+10log ₁₀ (P[Watts])	PASS	1
-	§27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	1
4.4	§2.1053 §27.53(l)(2)	Radiated Spurious Emission	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 37.33 dB at 11376.00 MHz

Remark 1:

All test results were leveraged from module RF report which can refer to Report No. FG090125-05.

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/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



1 General Description

1.1 Applicant

Inseego Corp.

9710 Scranton Road Suite 200, San Diego, CA 92121

1.2 Manufacturer

Inseego Corp.

9710 Scranton Road Suite 200, San Diego, CA 92121

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Outdoor Fixed CPE
Brand Name	Inseego
Model Name	FW2010-1, FW2010e-1
FCC ID	PKRISGFW2010
EUT Stage	Production Unit

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency	5G NR n77: 3700 MHz ~ 3980 MHz
SCS	30kHz
Bandwidth	n77: 20 / 40 / 50 / 60 / 80 / 90 / 100MHz
Antenna Type	Fixed Internal Antenna
Antenna Gain	<Ant. 4> 5G NR n77: 7.94 dBi
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM

Remark:

1. 5G NR n77 support SA and NSA mode.
2. The EN-DC mode combinations, DC_2A_n77A, DC_5A_n77A, DC_12A_n77A, DC_13A_n77A, DC_14_n77A, DC_30A_n77A, DC_66A_n77A.

1.5 Modification of EUT

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

1.6 Maximum EIRP

5G NR n77		PI/2 BPSK / QPSK	16QAM / 64QAM / 256QAM
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Maximum EIRP(W)
20	3710.01 ~ 3969.99	1.5031	1.1830
40	3720.00 ~ 3960.00	1.5101	1.2218
50	3725.01 ~ 3954.99	1.5031	1.1803
60	3730.02 ~ 3949.98	1.5136	1.1885
80	3740.01 ~ 3939.99	1.4125	1.1092
90	3745.02 ~ 3934.98	1.3521	1.0691
100	3750.00 ~ 3930.00	1.5205	1.0544

Remark: All modulations have been tested, and only the worst test results of PSK & QAM are shown in the report.

1.7 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH04-KS TH01-KS	CN1257	314309

1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24a1



1.9 Applicable Standards

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

- ♦ 47 CFR Part 2, 27
- ♦ ANSI C63.26-2015
- ♦ FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

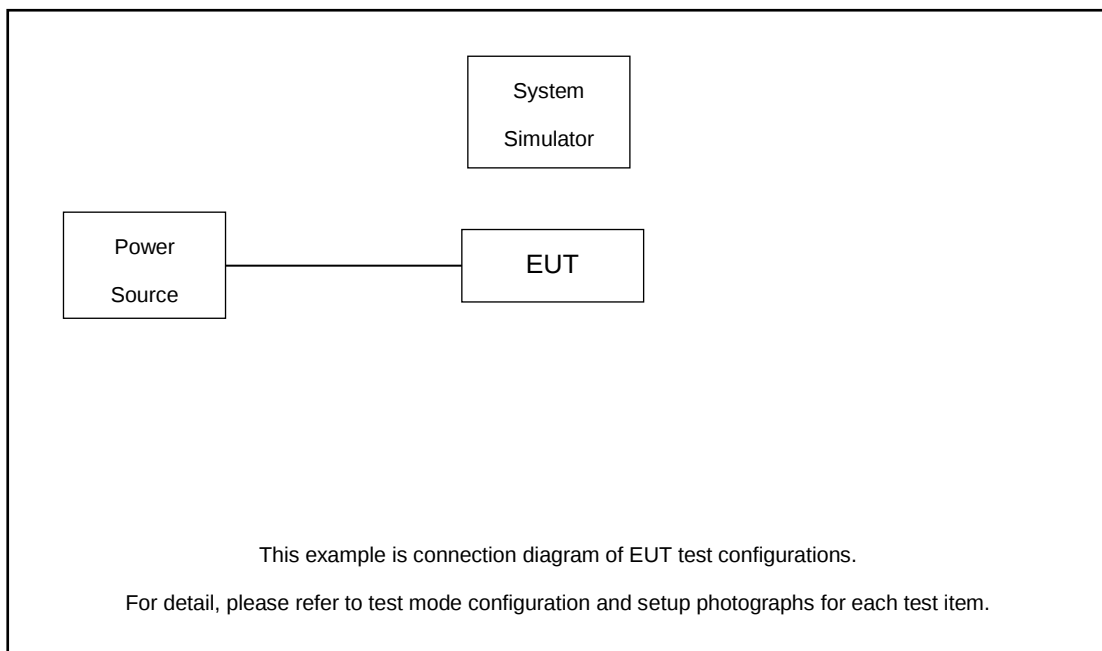
For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.

The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.

Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			

Test Items	5G NR	Bandwidth (MHz)										Modulation					RB #			Test Channel		
		10	15	20	30	40	50	60	80	90	100	PI/2 BPSK	QPSK	16QAM	64QAM	256 QAM	1	Partial	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
E.I.R.P	n77	-	-	v	-	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	n77	Worst Case																			v	
Note	1. The mark “v ” means that this configuration is chosen for testing 2. The mark “- ” means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.																					

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.	DC Power Supply	GW	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

5G 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
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
20	Channel	647334	656000	664666
	Frequency	3710.01	3840	3969.99

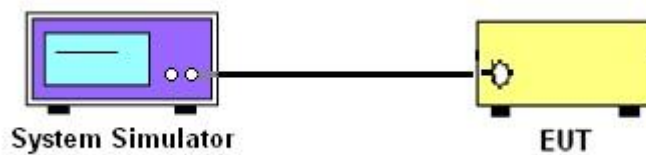
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and EIRP

3.4.1 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 fixed transmitters must not exceed 1640 Watts for 5G NR n77.

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

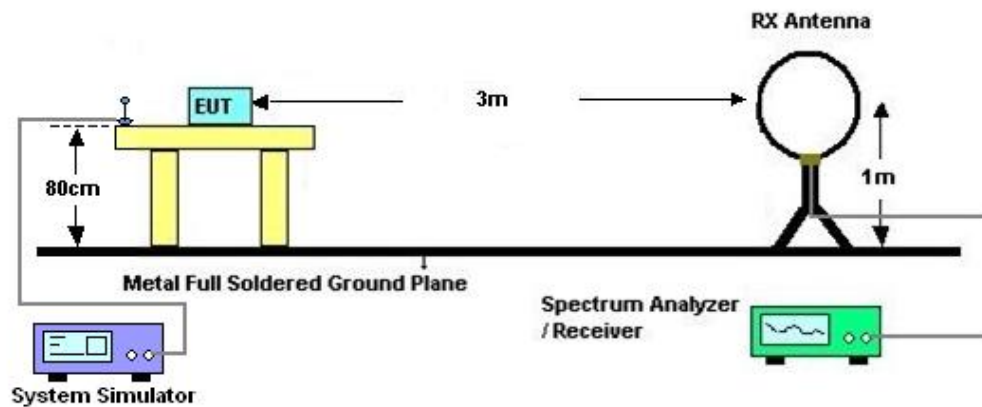
4 Radiated Test Items

4.1 Measuring Instruments

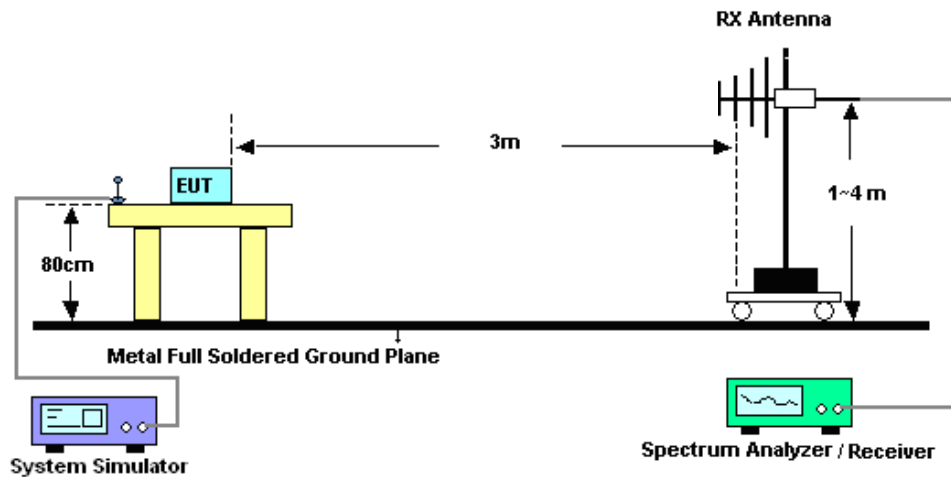
See list of measuring instruments of this test report.

4.2 Test Setup

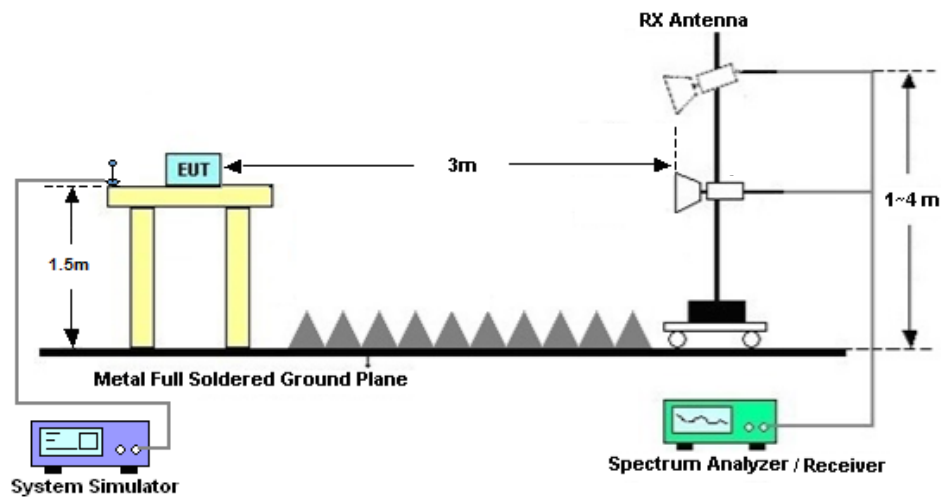
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

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

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
1. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna 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 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
5. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
10. $ERP \text{ (dBm)} = EIRP - 2.15$
11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

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



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 12, 2022	Jul. 03, 2023	Oct. 11, 2023	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	Jul. 03, 2023	NCR	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471079	10Hz-44G,MAX 30dB	Oct. 12, 2022	Jul. 04, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9KHz~30MHz	Sep. 22, 2022	Jul. 04, 2023	Sep. 21, 2023	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	Apr. 09, 2023	Jul. 04, 2023	Apr. 08, 2024	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1284	1GHz~18GHz	Oct. 16, 2022	Jul. 04, 2023	Oct. 15, 2023	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 08, 2023	Jul. 04, 2023	Jan. 07, 2024	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	380827	9KHz-1GHz	Jul. 11, 2022	Jul. 04, 2023	Jul. 10, 2023	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 05, 2023	Jul. 04, 2023	Jan. 04, 2024	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18G A	060840	1Ghz-18Ghz	Oct. 12, 2022	Jul. 04, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
Amplifier	Agilent	8449B	3008A02370	1Ghz-18Ghz	Oct. 12, 2022	Jul. 04, 2023	Oct. 11, 2023	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jul. 04, 2023	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jul. 04, 2023	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jul. 04, 2023	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required

6 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	± 0.46 dB

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.82dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.56dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.54dB
--	--------

----- THE END -----



Appendix A. Test Results of Conducted Test

Test Engineer :	Smile Wang	Temperature :	22~23°C
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and EIRP

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Gain	EIRP (dBm)			EIRP (W)		
Channel				650000	656000	662000	Gain	L	M	H	L	M	H
Frequency (MHz)				3750	3840	3930							
100	PI/2 BPSK	1	1	23.30	23.02	23.25	7.94	31.24	30.96	31.19	1.3305	1.2474	1.3152
100	QPSK	1	1	23.27	22.93	23.24	7.94	31.21	30.87	31.18	1.3213	1.2218	1.3122
100	QPSK	1	137	23.58	23.53	23.82	7.94	31.52	31.47	31.76	1.4191	1.4028	1.4997
100	QPSK	1	271	23.25	23.10	23.25	7.94	31.19	31.04	31.19	1.3152	1.2706	1.3152
100	QPSK	135	0	22.42	22.41	22.55	7.94	30.36	30.35	30.49	1.0864	1.0839	1.1194
100	QPSK	135	69	23.35	23.60	23.88	7.94	31.29	31.54	31.82	1.3459	1.4256	1.5205
100	QPSK	135	138	22.32	22.45	22.79	7.94	30.26	30.39	30.73	1.0617	1.0940	1.1830
100	QPSK	270	0	22.33	22.37	22.53	7.94	30.27	30.31	30.47	1.0641	1.0740	1.1143
100	16QAM	1	1	22.23	22.05	22.29	7.94	30.17	29.99	30.23	1.0399	0.9977	1.0544
100	64QAM	1	1	20.75	20.46	20.76	7.94	28.69	28.40	28.70	0.7396	0.6918	0.7413
100	256QAM	1	1	18.83	18.54	18.79	7.94	26.77	26.48	26.73	0.4753	0.4446	0.4710
Channel				649668	656000	662332	Gain	EIRP (dBm)			EIRP (W)		
Frequency (MHz)				3745.02	3840	3934.98							
90	PI/2 BPSK	1	1	23.26	23.18	23.37	7.94	31.20	31.12	31.31	1.3183	1.2942	1.3521
90	QPSK	1	1	23.25	23.16	23.35	7.94	31.19	31.10	31.29	1.3152	1.2882	1.3459
90	16QAM	1	1	22.23	22.19	22.35	7.94	30.17	30.13	30.29	1.0399	1.0304	1.0691
Channel				649334	656000	662666	Gain	EIRP (dBm)			EIRP (W)		
Frequency (MHz)				3740.01	3840	3939.99							
80	PI/2 BPSK	1	1	23.26	23.35	23.56	7.94	31.20	31.29	31.50	1.3183	1.3459	1.4125
80	QPSK	1	1	23.28	23.22	23.52	7.94	31.22	31.16	31.46	1.3243	1.3062	1.3996
80	16QAM	1	1	22.39	22.27	22.51	7.94	30.33	30.21	30.45	1.0789	1.0495	1.1092
Channel				648668	656000	663332	Gain	EIRP (dBm)			EIRP (W)		
Frequency (MHz)				3730.02	3840	3949.98							
60	PI/2 BPSK	1	1	23.32	23.46	23.86	7.94	31.26	31.40	31.80	1.3366	1.3804	1.5136
60	QPSK	1	1	23.32	23.47	23.83	7.94	31.26	31.41	31.77	1.3366	1.3836	1.5031
60	16QAM	1	1	22.30	22.39	22.81	7.94	30.24	30.33	30.75	1.0568	1.0789	1.1885
Channel				648334	656000	663666	Gain	EIRP (dBm)			EIRP (W)		
Frequency (MHz)				3725.01	3840	3954.99							
50	PI/2 BPSK	1	1	23.17	23.48	23.83	7.94	31.11	31.42	31.77	1.2912	1.3868	1.5031
50	QPSK	1	1	23.15	23.52	23.79	7.94	31.09	31.46	31.73	1.2853	1.3996	1.4894
50	16QAM	1	1	22.18	22.46	22.78	7.94	30.12	30.40	30.72	1.0280	1.0965	1.1803



Channel				648000	656000	664000	Gain	EIRP (dBm)			EIRP (W)		
Frequency (MHz)				3720	3840	3960							
40	PI/2 BPSK	1	1	23.69	23.85	23.85	7.94	31.63	31.79	31.79	1.4555	1.5101	1.5101
40	QPSK	1	1	23.71	23.82	23.83	7.94	31.65	31.76	31.77	1.4622	1.4997	1.5031
40	16QAM	1	1	22.73	22.93	22.89	7.94	30.67	30.87	30.83	1.1668	1.2218	1.2106
Channel				647334	656000	664666	Gain	EIRP (dBm)			EIRP (W)		
Frequency (MHz)				3710.01	3840	3969.99							
20	PI/2 BPSK	1	1	23.45	23.57	23.83	7.94	31.39	31.51	31.77	1.3772	1.4158	1.5031
20	QPSK	1	1	23.41	23.56	23.81	7.94	31.35	31.50	31.75	1.3646	1.4125	1.4962
20	16QAM	1	1	22.47	22.43	22.79	7.94	30.41	30.37	30.73	1.0990	1.0889	1.1830



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

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

n77 SA / NR 100MHz / QPSK(ANT4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7584	-62.36	-13	-49.36	-72.57	3.03	13.24	H
	11376	-57.12	-13	-44.12	-66.57	3.56	13.01	H
	15180	-58.59	-13	-45.59	-68.11	3.92	13.44	H
	7584	-56.68	-13	-43.68	-66.89	3.03	13.24	V
	11376	-54.30	-13	-41.30	-63.75	3.56	13.01	V
	15180	-58.78	-13	-45.78	-68.30	3.92	13.44	V

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

EN-DC_2A_n77A / LTE 20MHz + NR 100MHz / QPSK(0+4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7584	-59.69	-13	-46.69	-69.90	3.03	13.24	H
	11376	-56.93	-13	-43.93	-66.38	3.56	13.01	H
	15180	-58.95	-13	-45.95	-68.47	3.92	13.44	H
	7584	-56.86	-13	-43.86	-67.07	3.03	13.24	V
	11376	-51.23	-13	-38.23	-60.68	3.56	13.01	V
	15180	-59.00	-13	-46.00	-68.52	3.92	13.44	V

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

EN-DC_5A_n77A / LTE 20MHz + NR 100MHz / QPSK(0+4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7584	-58.75	-13	-45.75	-68.96	3.03	13.24	H
	11376	-56.38	-13	-43.38	-65.83	3.56	13.01	H
	15180	-59.10	-13	-46.10	-68.62	3.92	13.44	H
	7584	-56.42	-13	-43.42	-66.63	3.03	13.24	V
	11376	-56.07	-13	-43.07	-65.52	3.56	13.01	V
	15180	-58.87	-13	-45.87	-68.39	3.92	13.44	V

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



EN-DC_12A_n77A / LTE 20MHz + NR 100MHz / QPSK(0+4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7584	-59.00	-13	-46.00	-69.21	3.03	13.24	H
	11376	-57.19	-13	-44.19	-66.64	3.56	13.01	H
	15180	-58.71	-13	-45.71	-68.23	3.92	13.44	H
	7584	-56.65	-13	-43.65	-66.86	3.03	13.24	V
	11376	-53.63	-13	-40.63	-63.08	3.56	13.01	V
	15180	-58.80	-13	-45.80	-68.32	3.92	13.44	V

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

EN-DC_13A_n77A / LTE 20MHz + NR 100MHz / QPSK(0+4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7584	-60.95	-13	-47.95	-71.16	3.03	13.24	H
	11376	-58.16	-13	-45.16	-67.61	3.56	13.01	H
	15180	-58.88	-13	-45.88	-68.40	3.92	13.44	H
	7584	-55.45	-13	-42.45	-65.66	3.03	13.24	V
	11376	-52.09	-13	-39.09	-61.54	3.56	13.01	V
	15180	-58.97	-13	-45.97	-68.49	3.92	13.44	V

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

EN-DC_14A_n77A / LTE 20MHz + NR 100MHz / QPSK(0+4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7584	-60.54	-13	-47.54	-70.75	3.03	13.24	H
	11376	-57.07	-13	-44.07	-66.52	3.56	13.01	H
	15180	-58.65	-13	-45.65	-68.17	3.92	13.44	H
	7584	-56.66	-13	-43.66	-66.87	3.03	13.24	V
	11376	-52.01	-13	-39.01	-61.46	3.56	13.01	V
	15180	-58.93	-13	-45.93	-68.45	3.92	13.44	V

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

EN-DC_30A_n77A / LTE 20MHz + NR 100MHz / QPSK(0+4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7584	-58.56	-13	-45.56	-68.77	3.03	13.24	H
	11376	-57.77	-13	-44.77	-67.22	3.56	13.01	H
	15180	-58.90	-13	-45.90	-68.42	3.92	13.44	H
	7584	-55.90	-13	-42.90	-66.11	3.03	13.24	V
	11376	-55.71	-13	-42.71	-65.16	3.56	13.01	V
	15180	-58.79	-13	-45.79	-68.31	3.92	13.44	V

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

EN-DC_66A_n77A / LTE 20MHz + NR 100MHz / QPSK(0+4)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	7584	-59.37	-13	-46.37	-69.58	3.03	13.24	H
	11376	-57.72	-13	-44.72	-67.17	3.56	13.01	H
	15180	-58.58	-13	-45.58	-68.10	3.92	13.44	H
	7584	-56.44	-13	-43.44	-66.65	3.03	13.24	V
	11376	-50.33	-13	-37.33	-59.78	3.56	13.01	V
	15180	-58.65	-13	-45.65	-68.17	3.92	13.44	V

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