

Report No.: FG041658-01D



## FCC RADIO TEST REPORT

FCC ID : PKRISGM2000B

Equipment : Wireless Hotspot Modem

Brand Name : Inseego Model Name : M2000B Marketing Name : M2000

Applicant : Inseego Corporation

9710 Scranton Road Suite 200, San Diego, CA 92121

Manufacturer : Inseego Corporation

9710 Scranton Road Suite 200, San Diego, CA 92121

Standard : FCC 47 CFR Part 2, Part 27(D)

The product was received on Jul. 30, 2020 and testing was started from Sep. 01, 2020 and completed on Sep. 16, 2020. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

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## History of this test report

Report No. : FG041658-01D

Report No.	Version	Description	Issued Date
FG041658-01D	01	Initial issue of report	Sep. 23, 2020

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### **Summary of Test Result**

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Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power and Effective Isotropic Radiated Power	Reporting only	-
-	-	Peak-to-Average Ratio	Not Required	-
-	§27.50 (a)(3)	EIRP Power Density	Not Required	-
-	§2.1049	Occupied Bandwidth	Not Required	-
-	§2.1051 §27.53 (a)(4)	Conducted Band Edge Measurement	Not Required	-
-	§2.1051 §27.53 (a)(4)	Conducted Spurious Emission	Not Required	-
_	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Not Required	-
4.2	§2.1053 §27.53 (a)(4)	Radiated Spurious Emission	Pass	Under limit 8.25 dB at 4626.000 MHz

#### Remark:

- 1. Not required means after assessing, test items are not necessary to carry out.
- 2. This is a variant report, please refer to the Declaration of Similarity Letter provided by the applicant for the deviation against its parent model. All the test cases were performed on original report which can be referred to Sporton Report Number FG041657-01D as appendix D. Based on the original report, the test cases were verified.

#### **Declaration of Conformity:**

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

#### Comments and Explanations:

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

Reviewed by: Wii Chang Report Producer: Dara Chiu

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## 1 General Description

## 1.1 Product Feature of Equipment Under Test

WCDMA/LTE/5G NR, Wi-Fi 2.4GHz 802.11b/g/n/ax, Wi-Fi 5GHz 802.11a/n/ac/ax and GNSS

Product Specification subjective to this standard					
	WWAN: Fixed Internal Antenna				
	WLAN:				
Antenna Type	<ant. 1="">: Fixed Internal Antenna</ant.>				
	<ant. 2="">: Fixed Internal Antenna</ant.>				
	GPS: Fixed Internal Antenna				

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### 1.2 Modification of EUT

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

### 1.3 Testing Site

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory				
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978				
Test Site No.	Sporton Site No.				
rest site No.	TH05-HY				
Test Engineer	Benjamin Lin				
Temperature	21.5~23.6℃				
Relative Humidity 45.7~46.9%					

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory		
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855		
Test Site No.	Sporton Site No.		
rest site No.	03CH12-HY		
Test Engineer	Jack Cheng, Lance Chiang, and Chuan Chu		
Temperature	24.3~26.4°ℂ		
Relative Humidity	58~66%		

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

FCC Designation No. TW1190 and TW0007

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### 1.4 Applied Standards

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

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

#### Remark:

- 1. All test items were verified and recorded according to the standards and without any deviation during the test.
- 2. The TAF code is not including all the FCC KDB listed without accreditation.

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## 2 Test Configuration of Equipment Under Test

#### 2.1 Test Mode

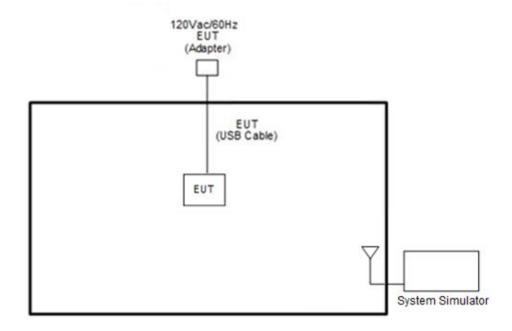
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

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

			Bandwidth (MHz)			Modulation			RB#			Test Channel					
Test Items	Band	1.4	3	5	10	15	20	QPSK	16 QAM	64 QAM	256 QAM	1	Half	Full	L	М	Н
Max. Output Power	30	-	-	v	v	-	•	v	٧	v	v	٧	v	٧	٧	٧	v
Radiated Spurious Emission	30	-	-	v	v	-		<b>v</b>						v		v	v
Remark	<ol> <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>All the radiated test cases were performed with Battery 2.</li> </ol>																

## 2.2 Connection Diagram of Test System



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## 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	8821C	N/A	N/A	Unshielded, 1.8 m

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

LTE Band 30 Channel and Frequency List							
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest			
10	Channel	-	27710	-			
10	Frequency	-	2310	-			
5	Channel	27685	27710	27735			
	Frequency	2307.5	2310	2312.5			

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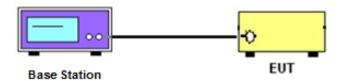
## 3 Conducted Test Items

## 3.1 Measuring Instruments

See list of measuring instruments of this test report.

## 3.1.1 Test Setup

### 3.1.2 Conducted Output Power



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#### 3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

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### 3.2 Conducted Output Power Measurement and EIRP Measurement

# 3.2.1 Description of the Conducted Output Power Measurement and EIRP Measurement

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals shall be reported.

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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<sub>C</sub> = 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.

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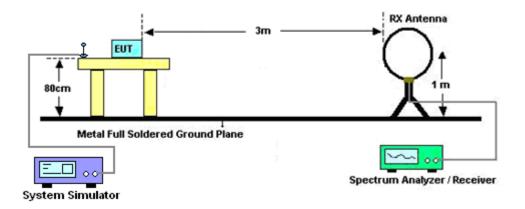
### 4 Radiated Test Items

### 4.1 Measuring Instruments

See list of measuring instruments of this test report.

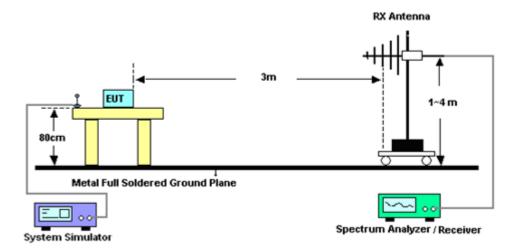
### 4.1.1 Test Setup

#### For radiated emissions below 30MHz



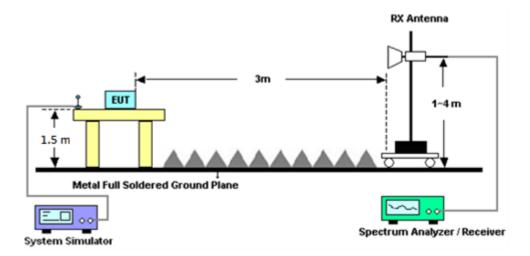
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#### For radiated test from 30MHz to 1GHz



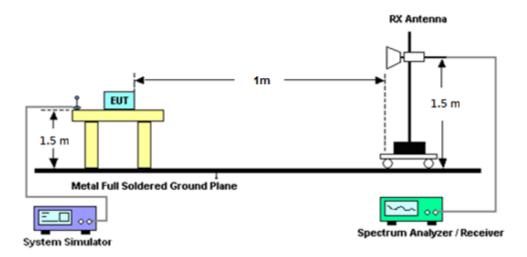
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#### For radiated test above 1GHz



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#### 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 a comparison data 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.

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### 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 70 + 10 log (P) dB.

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

#### 4.2.2 Test Procedures

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

- 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.

```
EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain ERP (dBm) = EIRP - 2.15
```

1. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from 70 + 10log(P)dB below the transmitter power P(Watts)

- = P(W) [70 + 10log(P)] (dB)
- = [30 + 10log(P)] (dBm) [70 + 10log(P)] (dB)
- = -40dBm.

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## 5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Base Station (Measure)	Anritsu	MT8821C	6262025280	GSM / GPRS /WCDMA / LTE FDD/TDD with 44) /LTE-3CC DLCA,2CC ULCA	Oct. 25, 2019	Sep. 01, 2020 ~ Sep. 10, 2020	Oct. 24, 2020	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101908	10Hz~40GHz	May 13, 2020	Sep. 01, 2020 ~ Sep. 10, 2020	May 12, 2021	Conducted (TH05-HY)
Coupler	Warison	20dB 25W SMA Directional Coupler	#A	1-18GHz	Jan. 13, 2020	Sep. 01, 2020 ~ Sep. 10, 2020	Jan. 12, 2021	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Dec. 26, 2019	Sep. 08, 2020 ~ Sep. 16, 2020	Dec. 25, 2020	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	37059 & 01	30MHz~1GHz	Oct. 12, 2019	Sep. 08, 2020 ~ Sep. 16, 2020	Oct. 11, 2020	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-1328	1GHz~18GHz	Nov. 14, 2019	Sep. 08, 2020 ~ Sep. 16, 2020	Nov. 13, 2020	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120D	9120D-1522	1GHz ~ 18GHz	Sep. 19, 2019	Sep. 08, 2020 ~ Sep. 16, 2020	Sep. 18, 2020	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA917058 4	18GHz~40GHz	Dec. 10, 2019	Sep. 08, 2020 ~ Sep. 16, 2020	Dec. 09, 2020	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA917098 0	18GHz ~ 40GHz	Jan. 10, 2019	Sep. 08, 2020 ~ Sep. 16, 2020	Jan. 09, 2021	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 25, 2020	Sep. 08, 2020 ~ Sep. 16, 2020	Mar. 24, 2021	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY57280120	1GHz~26.5GHz	Jul. 20, 2020	Sep. 08, 2020 ~ Sep. 16, 2020	Jul. 19, 2021	Radiation (03CH12-HY)
Preamplifier	Jet-Power	JPA0118-55-30 3K	17100018000 54002	1GHz~18GHz	Feb. 07, 2020	Sep. 08, 2020 ~ Sep. 16, 2020	Feb. 06, 2021	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 13, 2019	Sep. 08, 2020 ~ Sep. 16, 2020	Dec. 12, 2020	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9010A	MY54200485	10Hz~44GHz	Feb. 10, 2020	Sep. 08, 2020 ~ Sep. 16, 2020	Feb. 09, 2021	Radiation (03CH12-HY)
Signal Generator	Anritsu	MG3694C	163401	0.1Hz~40GHz	Feb. 15, 2020	Sep. 08, 2020 ~ Sep. 16, 2020	Feb. 14, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 12, 2020	Sep. 08, 2020 ~ Sep. 16, 2020	Mar. 11, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 12, 2019	Sep. 08, 2020 ~ Sep. 16, 2020	Dec. 11, 2020	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 25, 2020	Sep. 08, 2020 ~ Sep. 16, 2020	Feb. 24, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 25, 2020	Sep. 08, 2020 ~ Sep. 16, 2020	Feb. 24, 2021	Radiation (03CH12-HY)
Hygrometer	TECPEL	DTM-303B	TP140349	N/A	Oct. 25, 2019	Sep. 08, 2020 ~ Sep. 16, 2020	Oct. 24, 2020	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Sep. 08, 2020 ~ Sep. 16, 2020	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Sep. 08, 2020 ~ Sep. 16, 2020	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Sep. 08, 2020 ~ Sep. 16, 2020	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Sep. 08, 2020 ~ Sep. 16, 2020	N/A	Radiation (03CH12-HY)

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## 6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of	3.07
Confidence of 95% (U = 2Uc(y))	

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

Measuring Uncertainty for a Level of	2.24
Confidence of 95% (U = 2Uc(y))	3.21

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

Measuring Uncertainty for a Level of	3.80
Confidence of 95% (U = 2Uc(y))	3.00

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## **Appendix A. Test Results of Conducted Test**

## Conducted Output Power(Average power)

	LTE Band 30 Maximum Average Power [dBm]									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest				
10	1	0			20.92					
10	1	25			20.99	1				
10	1	49			20.91					
10	25	0	QPSK		20.13					
10	25	12			20.13					
10	25	25			20.14					
10	50	0			20.12					
10	1	0			20.40					
10	1	25			20.48					
10	1	49			20.50					
10	25	0	16-QAM		19.12					
10	25	12			19.11					
10	25	25			19.23					
10	50	0		_	19.18					
10	1	0		_	19.25	_				
10	1	25			19.38					
10	1	49			19.33					
10	25	0	64-QAM		18.15					
10	25	12			18.18					
10	25	25			18.20					
10	50	0			18.21					
10	1	0			15.91					
10	1	25			15.88					
10	1	49			15.95					
10	25	0	256-QAM		15.73					
10	25	12			15.71					
10	25	25			15.73					
10	50	0			15.67					



LTE Band 30 Maximum Average Power [dBm]									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest			
5	1	0		20.84	20.82	20.91			
5	1	12		20.93	20.91	20.89			
5	1	24		20.89	20.91	20.85			
5	12	0	QPSK	20.09	20.12	20.18			
5	12	7		20.20	20.15	20.25			
5	12	13		20.20	20.16	20.25			
5	25	0		20.15	20.12	20.23			
5	1	0		20.31	20.29	20.43			
5	1	12		20.38	20.42	20.45			
5	1	24		20.45	20.41	20.45			
5	12	0	16-QAM	19.10	19.15	19.18			
5	12	7		19.24	19.16	19.25			
5	12	13		19.21	19.17	19.23			
5	25	0		19.21	19.15	19.21			
5	1	0		19.22	19.22	19.39			
5	1	12		19.25	19.40	19.36			
5	1	24		19.43	19.35	19.47			
5	12	0	64-QAM	18.15	18.19	18.25			
5	12	7		18.27	18.21	18.28			
5	12	13		18.25	18.22	18.27			
5	25	0		18.21	18.21	18.22			
5	1	0		15.84	15.84	15.89			
5	1	12		15.82	15.87	15.82			
5	1	24		15.95	15.92	15.91			
5	12	0	256-QAM	15.69	15.65	15.64			
5	12	7		15.66	15.63	15.64			
5	12	13		15.64	15.70	15.68			
5	25	0		15.66	15.63	15.65			

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## **Appendix B. Test Results of EIRP and Radiated Test**

## EIRP

<Reporting Only>

LTE Band 30 / 5MHz (Average) (GT - LC = 2.7 dB)										
Channel	Mode	RB		Cond	ucted	EIRP				
Chamilei		Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)			
Lowest		1	12	20.93	0.1239	23.63	0.2307			
Middle	QPSK	1	12	20.91	0.1233	23.61	0.2296			
Highest		1	12	20.89	0.1227	23.59	0.2286			
Lowest	16QAM	1	12	20.38	0.1091	23.08	0.2032			
Middle		1	12	20.42	0.1102	23.12	0.2051			
Highest		1	12	20.45	0.1109	23.15	0.2065			
Lowest		1	24	19.43	0.0877	22.13	0.1633			
Middle	64QAM	1	24	19.35	0.0861	22.05	0.1603			
Highest		1	24	19.47	0.0885	22.17	0.1648			
Lowest	256QAM	1	0	16.14	0.0411	18.84	0.0766			
Middle		1	0	16.09	0.0406	18.79	0.0757			
Highest		1	0	16.19	0.0416	18.89	0.0774			

	LTE Band 30 / 10MHz (Average) (GT - LC = 2.7 dB)									
Channel	Mode	RB		Cond	ucted	EIRP				
Chainlei	Wode	Size	Offset	Power (dBm)	Power (Watts)	EIRP(dBm)	EIRP(W)			
Lowest		1	-	1	-	-	1			
Middle	QPSK	1	25	20.99	0.1256	23.69	0.2339			
Highest		-	-	-	-	-	-			
Lowest	16QAM	-	-	-	-	-	-			
Middle		1	49	20.50	0.1122	23.20	0.2089			
Highest		1	-	1	-	-	1			
Lowest		1	-	1	-	-	1			
Middle	64QAM	1	25	19.38	0.0867	22.08	0.1614			
Highest		-	-	-	-	-	-			
Lowest	256QAM	1	-	-	-	-				
Middle		1	49	16.19	0.0416	18.89	0.0774			
Highest		-	-	-	-	-	-			

## **Radiated Spurious Emission**

## LTE Band 30

Report No. :FG041658-01D

			L	TE Band 30	/ 5MHz / QP	SK			
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
	4626	-48.25	-40	-8.25	-41.82	-59.46	1.46	12.67	Н
	6936	-49.04	-40	-9.04	-49.38	-59.30	1.73	11.99	Н
	9252	-55.55	-40	-15.55	-58.32	-65.13	2.17	11.75	Н
	11565	-57.05	-40	-17.05	-60.52	-66.27	2.46	11.68	Н
									Н
									Н
Llighoot									Н
Highest	4626	-50.52	-40	-10.52	-43.32	-61.73	1.46	12.67	V
	6936	-50.30	-40	-10.30	-50.19	-60.56	1.73	11.99	V
	9252	-54.18	-40	-14.18	-57.99	-63.76	2.17	11.75	V
	11565	-56.71	-40	-16.71	-60.14	-65.93	2.46	11.68	V
									V
									V
									V

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

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	LTE Band 30 / 10MHz / QPSK										
Channel	Frequency ( MHz )	EIRP (dBm)	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)		
	4614	-50.73	-40	-10.73	-44.26	-61.95	1.46	12.68	Н		
	6918	-48.99	-40	-8.99	-49.21	-59.27	1.73	12.01	Н		
	9225	-54.98	-40	-14.98	-57.8	-64.60	2.16	11.78	Н		
	11529	-55.82	-40	-15.82	-59.24	-64.95	2.45	11.58	Н		
									Н		
									Н		
Middle									Н		
Middle	4614	-53.91	-40	-13.91	-46.67	-65.13	1.46	12.68	V		
	6918	-50.47	-40	-10.47	-50.25	-60.75	1.73	12.01	V		
	9225	-54.67	-40	-14.67	-58.49	-64.29	2.16	11.78	V		
	11529	-56.32	-40	-16.32	-59.64	-65.45	2.45	11.58	V		
									V		
									V		
									V		

Report No. :FG041658-01D

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

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