



# FCC RF Test Report

**APPLICANT** : Inseego Corp.  
**EQUIPMENT** : wireless device  
**BRAND NAME** : Inseego  
**MODEL NAME** : FG20003  
**FCC ID** : PKRISGFG20003  
**STANDARD** : 47 CFR Part 2, 96  
**CLASSIFICATION** : Citizens Band End User Devices (CBE)  
**EQUIPMENT TYPE** : End User Equipment

The product was received on Aug. 28, 2020 and completely tested on Oct. 02, 2020. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26 and shown compliance with the applicable technical standards.

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

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

Reviewed by: Jason Jia / Supervisor

Approved by: James Huang / Manager



**Sporton International (Kunshan) Inc.**

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



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### History of this test report

Report No.	Version	Description	Issued Date
FG082811D	Rev. 01	Initial issue of report	Nov. 25, 2020



### Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	§2.1046	Conducted Output Power	Reporting only	1
-	§96.41	Peak-to-Average Ratio	Not Required	Not applicable for End User Devices
3.2	§96.41	Maximum E.I.R.P	Pass	-
		Maximum Power Spectral Density	Not Required	Not applicable for End User Devices
-	§2.1049 §96.41	Occupied Bandwidth	Reporting only	1
-	§2.1051 §96.41	Conducted Band Edge Measurement Adjacent Channel Leakage Ratio	Pass	1
-	§2.1051 §96.41	Conducted Spurious Emission	Pass	1
-	§2.1055	Frequency Stability for Temperature & Voltage	Pass	1
4.4	§2.1051 §96.41	Radiated Spurious Emission	Pass	Under limit 11.75 dB at 144.96 MHz

**Note:**

- All conducted test items were leveraged from module RF report which can refer to Report No. "FG090125G, FG090125-01C"
- The maximum power of host is lower than and very close to the module, therefore, we chose higher power of the module to calculate the EIRP and show in the report.

**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.



# 1 General Description

## 1.1 Applicant

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

## 1.2 Manufacturer

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

## 1.3 Feature of Equipment Under Test

Product Feature	
Equipment	wireless device
Brand Name	Inseego
Model Name	FG20003
FCC ID	PKRISGFG20003
Tx Frequency	LTE Band 42: 3552.5 MHz ~ 3597.5 MHz LTE Band 48: 3552.5 MHz ~ 3697.5 MHz
Rx Frequency	LTE Band 42: 3552.5 MHz ~ 3597.5 MHz LTE Band 48: 3552.5 MHz ~ 3697.5 MHz
Bandwidth	5MHz / 10MHz / 15MHz / 20MHz
Uplink CA Band(s)	48C
Maximum Output Power to Antenna	LTE Band 48 : 19.37 dBm LTE Band CA48 : 19.38 dBm
Type of Modulation	QPSK / 16QAM / 64QAM / 256QAM
IMEI Code	Radiation: 990016260002868/990016260002744
HW Version	FG20003_SRT860H_V2.1
SW Version	1
EUT Stage	Identical Prototype

**Remark:**

The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



### 1.4 Maximum EIRP Power

LTE Band 48/42		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP (W)
5	3552.5~3697.5	-	-	0.1807	-	-	0.1479
10	3555~3695	-	-	0.1828	-	-	0.1500
15	3557.5~3692.5	-	-	0.1841	-	-	0.1500
20	3560~3690	-	-	0.1849	-	-	0.1500
LTE Band 48/42		64QAM			256QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP (W)
5	3552.5~3697.5	-	-	0.1089	-	-	0.0597
10	3555~3695	-	-	0.1084	-	-	0.0594
15	3557.5~3692.5	-	-	0.1094	-	-	0.0592
20	3560~3690	-	-	0.1096	-	-	0.0601

LTE Band 48 CA		QPSK			16QAM		
BW (MHz) Frequency (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP (W)	
20MHz+20MHz (3560 ~ 3690 MHz)	-	-	0.1726	-	-	0.1459	
20MHz+15MHz (3560 ~ 3692.2 MHz)	-	-	0.1854	-	-	0.1679	
LTE Band 48 CA		64QAM			256QAM		
BW (MHz) Frequency (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP (W)	
20MHz+20MHz (3560 ~ 3690 MHz)	-	-	0.1040	-	-	0.0551	
20MHz+15MHz (3560 ~ 3692.2 MHz)	-	-	0.1219	-	-	0.0618	

**Note:**

LTE Band 48 overlaps the entire frequency range of LTE Band 42 under Part 96 rule. Therefore, the test results of LTE Band 48 provided in this report covers Band 42.



### 1.5 Testing Site

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

<b>Test Firm</b>	Sporton International (Kunshan) Inc.		
<b>Test Site Location</b>	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Designation No.</b>	<b>FCC Test Firm Registration No.</b>
	03CH04-KS	CN1257	314309

### 1.6 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24a

### 1.7 Applied 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
- ♦ 47 CFR Part 2, 96
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 940660 D01 Part 96 CBRS v03
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP 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.



## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

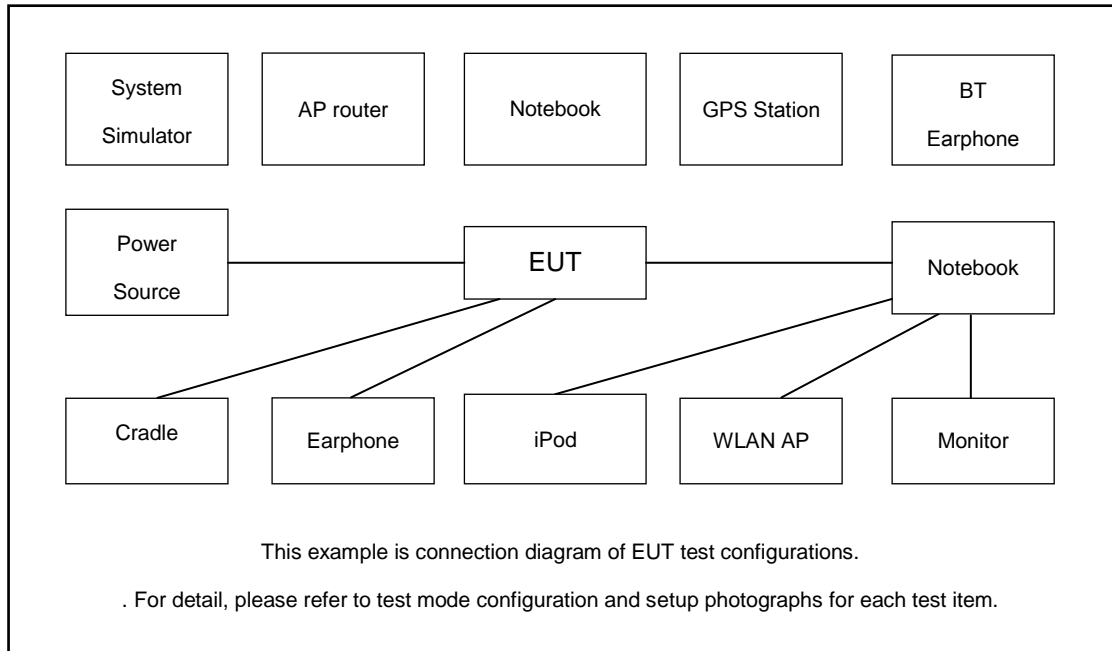
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel			
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H	
E.R.P / E.I.R.P	48	-	-	v	v	v	v	v	v	v	v	v				v	v	v
Radiated Spurious Emission	48	Worst Case															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>LTE Band 48 overlaps the entire frequency range of LTE Band 42 under Part 96 rule. Therefore, the test results of LTE Band 48 provided in this report covers Band 42..</li> </ol>																	

Test Items	Band	Bandwidth (MHz)							Modulation				RB #			Test Channel			
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H	
E.R.P / E.I.R.P	48C	v	v						v	v	v	v	v				v	v	v
Radiated Spurious Emission	48C	Worst Case															v		
Note	<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>LTE band48C only show the maximum power and maximum bandwidth combination in the report.</li> <li>All the radiated test cases were performed with Adapter.</li> </ol>																		



## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C/8821	N/A	N/A	Unshielded, 1.8 m

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

LTE Band 48 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	55340	55990	56640
	Frequency	3560.0	3625.0	3690.0
15	Channel	55315	55990	56665
	Frequency	3557.5	3625.0	3692.5
10	Channel	55290	55990	56690
	Frequency	3555.0	3625.0	3695.0
5	Channel	55265	55990	56715
	Frequency	3552.5	3625.0	3697.5



LTE Band 48C_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
5 + 20	PCC	Channel	55273	55898	56523
		Frequency	3553.3	3615.8	3678.3
	SCC	Channel	55390	56015	56640
		Frequency	3565	3627.5	3690
20 + 5	PCC	Channel	55340	55965	56590
		Frequency	3560	3622.5	3685
	SCC	Channel	55457	56082	56707
		Frequency	3571.7	3634.2	3696.7
10 + 20	PCC	Channel	55295	55896	56496
		Frequency	3555.5	3615.6	3675.6
	SCC	Channel	55439	56040	56640
		Frequency	3569.9	3630	3690
20 + 10	PCC	Channel	55340	55941	56541
		Frequency	3560	3620.1	3680.1
	SCC	Channel	55484	56085	56685
		Frequency	3574.4	3634.5	3694.5
15 + 20	PCC	Channel	55318	55893	56469
		Frequency	3557.8	3615.3	3672.9
	SCC	Channel	55489	56064	56640
		Frequency	3574.9	3632.4	3690
20 + 15	PCC	Channel	55340	55916	56491
		Frequency	3560	3617.6	3675.1
	SCC	Channel	55511	56087	56662
		Frequency	3577.1	3634.7	3692.2
20 + 20	PCC	Channel	55340	55891	56442
		Frequency	3560	3615.1	3670.2
	SCC	Channel	55538	56089	56640
		Frequency	3579.8	3634.9	3690



### 3 Conducted Test Items

#### 3.1 Conducted Output Power

##### 3.1.1 Description of the Conducted Output Power 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.

##### 3.1.2 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.

## 3.2 EIRP and PSD

### 3.2.1 Description of the EIRP and PSD Measurement

EIRP and PSD limits for CBRS equipment as below table:

Device		Maximum EIRP (dBm/10 MHz)	Maximum PSD (dBm/MHz)
Applied	End User Device	23	n/a
<input type="checkbox"/>	Category A CBSD	30	20
<input type="checkbox"/>	Category B CBSD	47	37

**Remark:**

1. The worst case EIRP shown in this section is found with LTE operating only using 1RB. As such, the EIRP/10MHz and full channel EIRP values will be identical since 1RB is fully contained within all available channel bandwidths for LTE Band 48 (i.e. 5, 10, 15, 20MHz)

### 3.2.2 Test Procedures for EIRP

1. Establishing a communications link with the call box (Base station) to measure the Maximum conducted power, the parameters were set to force the EUT transmitting at maximum output power level. Use the average power measurement function to measure total channel power of each channel bandwidth (per ANSI C63.26-2015 Section 5.2.1)
2. Determining ERP and/or EIRP from conducted RF output power measurements (Per ANSI C63.26-2015 Section 5.2.5.5)  
$$\text{EIRP} = P_T + G_T - L_C, \text{ ERP} = \text{EIRP} - 2.15, \text{ where}$$

$P_T$  = 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

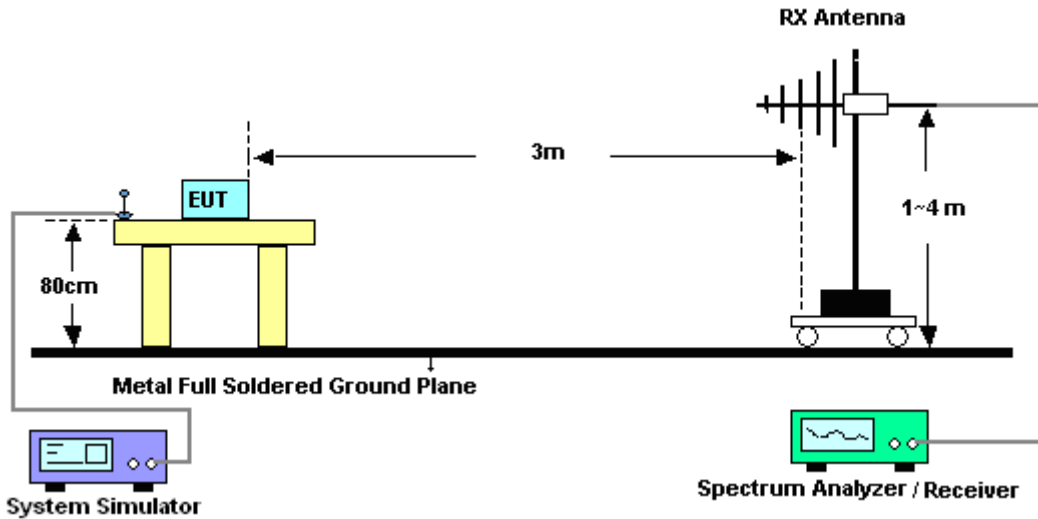
## 4 Radiated Test Items

### 4.1 Measuring Instruments

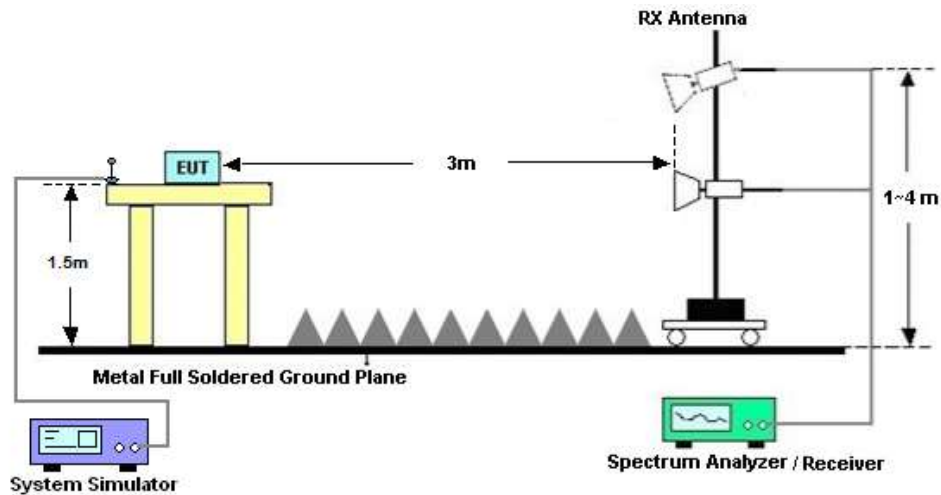
See list of measuring instruments of this test report.

### 4.2 Test Setup

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



### 4.3 Test Result of Radiated Test

Please refer to Appendix B.



## 4.4 Radiated Spurious Emission

### 4.4.1 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 -40dBm / MHz. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

### 4.4.2 Test Procedures

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. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.  
$$\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$$
$$\text{ERP (dBm)} = \text{EIRP} - 2.15$$
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.  
The limit line is -40dBm/MHz



## 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz-44G,MAX 30dB	Apr. 15, 2020	Oct. 02, 2020	Apr. 14, 2021	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	49922	30MHz-1GHz	Jan. 02, 2020	Oct. 02, 2020	Jan. 01, 2021	Radiation (03CH04-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	1356	1GHz~18GHz	Apr. 20, 2020	Oct. 02, 2020	Apr. 19, 2021	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101115	18GHz~40GHz	Nov. 10, 2019	Oct. 02, 2020	Nov. 09, 2020	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Jan. 02, 2020	Oct. 02, 2020	Jan. 01, 2021	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 08, 2020	Oct. 02, 2020	Jan. 07, 2021	Radiation (03CH04-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P	2025788	1Ghz-18Ghz	Jan. 02, 2020	Oct. 02, 2020	Jan. 01, 2021	Radiation (03CH04-KS)
Amplifier	Keysight	83017A	MY57280106	500MHz~26.5GHz	Oct. 15, 2019	Oct. 02, 2020	Oct. 14, 2020	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Oct. 02, 2020	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Oct. 02, 2020	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Oct. 02, 2020	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required



## 6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.3dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.8dB
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# Appendix A. Test Results of Conducted Test

## EIRP

The worst case EIRP shown in this section is found with LTE operating only using 1RB. As such, the EIRP/10MHz and full channel EIRP values will be identical since 1RB is fully contained within all available channel bandwidths for LTE Band 48 (i.e. 5, 10, 15, 20MHz)

LTE Band 48 (GT - LC = 3.30 dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm/10MHz)	19.27	18.37	18.38	19.32	18.44	18.35	19.35	18.45	18.22
Conducted Power (Watts/10MHz)	0.0845	0.0687	0.0689	0.0855	0.0698	0.0684	0.0861	0.0700	0.0664
EIRP (dBm/10MHz)	22.57	21.67	21.68	22.62	21.74	21.65	22.65	21.75	21.52
EIRP (Watts/10MHz)	0.1807	0.1469	0.1472	0.1828	0.1493	0.1462	0.1841	0.1496	0.1419

LTE Band 48 (GT - LC = 3.30 dB) QPSK			
Bandwidth	20M		
Channel	(Low)	(Mid)	(High)
Conducted Power (dBm/10MHz)	19.37	18.54	18.52
Conducted Power (Watts/10MHz)	0.0865	0.0714	0.0711
EIRP (dBm/10MHz)	22.67	21.84	21.82
EIRP (Watts/10MHz)	0.1849	0.1528	0.1521



LTE Band 48 (GT - LC = 3.30 dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm/10MHz)	18.40	17.51	17.33	18.46	17.64	17.48	18.46	17.55	17.53
Conducted Power (Watts/10MHz)	0.0692	0.0564	0.0541	0.0701	0.0581	0.0560	0.0701	0.0569	0.0566
EIRP (dBm/10MHz)	21.70	20.81	20.63	21.76	20.94	20.78	21.76	20.85	20.83
EIRP (Watts/10MHz)	0.1479	0.1205	0.1156	0.1500	0.1242	0.1197	0.1500	0.1216	0.1211

LTE Band 48 (GT - LC = 3.30 dB) 16QAM			
Bandwidth	20M		
Channel	(Low)	(Mid)	(High)
Conducted Power (dBm/10MHz)	18.46	17.64	17.58
Conducted Power (Watts/10MHz)	0.0701	0.0581	0.0573
EIRP (dBm/10MHz)	21.76	20.94	20.88
EIRP (Watts/10MHz)	0.1500	0.1242	0.1225



LTE Band 48 (GT - LC = 3.30 dB) 64QAM									
Bandwidth	5M			10M			15M		
Channel	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm/10MHz)	17.07	16.08	16.11	17.05	16.09	16.10	17.09	16.18	16.11
Conducted Power (Watts/10MHz)	0.0509	0.0406	0.0408	0.0507	0.0406	0.0407	0.0512	0.0415	0.0408
EIRP (dBm/10MHz)	20.37	19.38	19.41	20.35	19.39	19.40	20.39	19.48	19.41
EIRP (Watts/10MHz)	0.1089	0.0867	0.0873	0.1084	0.0869	0.0871	0.1094	0.0887	0.0873

LTE Band 48 (GT - LC = 3.30 dB) 64QAM			
Bandwidth	20M		
Channel	(Low)	(Mid)	(High)
Conducted Power (dBm/10MHz)	17.10	16.12	16.12
Conducted Power (Watts/10MHz)	0.0513	0.0409	0.0409
EIRP (dBm/10MHz)	20.40	19.42	19.42
EIRP (Watts/10MHz)	0.1096	0.0875	0.0875



LTE Band 48 (GT - LC = 3.30 dB) 256QAM									
Bandwidth	5M			10M			15M		
Channel	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm/10MHz)	14.46	13.50	13.32	14.44	13.50	13.30	14.42	13.48	13.36
Conducted Power (Watts/10MHz)	0.0279	0.0224	0.0215	0.0278	0.0224	0.0214	0.0277	0.0223	0.0217
EIRP (dBm/10MHz)	17.76	16.80	16.62	17.74	16.80	16.60	17.72	16.78	16.66
EIRP (Watts/10MHz)	0.0597	0.0479	0.0459	0.0594	0.0479	0.0457	0.0592	0.0476	0.0463

LTE Band 48 (GT - LC = 3.30 dB) 256QAM			
Bandwidth	20M		
Channel	(Low)	(Mid)	(High)
Conducted Power (dBm/10MHz)	14.49	13.55	13.38
Conducted Power (Watts/10MHz)	0.0281	0.0226	0.0218
EIRP (dBm/10MHz)	17.79	16.85	16.68
EIRP (Watts/10MHz)	0.0601	0.0484	0.0466



**CA EIRP**

LTE Band 48 CA (GT - LC = 3.30 dB) QPSK			
Bandwidth	20M+20M		
Channel PCC	55340	55891	56442
	(Low)	(Mid)	(High)
Channel SCC	55538	56089	56640
	(Low)	(Mid)	(High)
Conducted Power (dBm)	18.95	18.67	19.07
Conducted Power (Watts)	0.0785	0.0736	0.0807
EIRP(dBm)	22.25	21.97	22.37
EIRP(Watts)	0.1679	0.1574	0.1726

LTE Band 48 CA (GT - LC = 3.30 dB) 16QAM			
Bandwidth	20M+20M		
Channel PCC	55340	55891	56442
	(Low)	(Mid)	(High)
Channel SCC	55538	56089	56640
	(Low)	(Mid)	(High)
Conducted Power (dBm)	18.34	17.91	18.27
Conducted Power (Watts)	0.0682	0.0618	0.0671
EIRP(dBm)	21.64	21.21	21.57
EIRP(Watts)	0.1459	0.1321	0.1435



LTE Band 48 CA (GT - LC = 3.30 dB) 64QAM			
Bandwidth	20M+20M		
Channel PCC	55340	55891	56442
	(Low)	(Mid)	(High)
Channel SCC	55538	56089	56640
	(Low)	(Mid)	(High)
Conducted Power (dBm)	16.86	16.44	16.87
Conducted Power (Watts)	0.0485	0.0441	0.0486
EIRP(dBm)	20.16	19.74	20.17
EIRP(Watts)	0.1038	0.0942	0.1040

LTE Band 48 CA (GT - LC = 3.30 dB) 256QAM			
Bandwidth	20M+20M		
Channel PCC	55340	55891	56442
	(Low)	(Mid)	(High)
Channel SCC	55538	56089	56640
	(Low)	(Mid)	(High)
Conducted Power (dBm)	14.03	13.67	14.11
Conducted Power (Watts)	0.0253	0.0233	0.0258
EIRP(dBm)	17.33	16.97	17.41
EIRP(Watts)	0.0541	0.0498	0.0551



LTE Band 48 CA (GT - LC = 3.30 dB) QPSK			
Bandwidth	20M+15M		
Channel PCC	55340	55916	56491
	(Low)	(Mid)	(High)
Channel SCC	55511	56087	56662
	(Low)	(Mid)	(High)
Conducted Power (dBm)	19.38	18.81	19.18
Conducted Power (Watts)	0.0867	0.0760	0.0828
EIRP(dBm)	22.68	22.11	22.48
EIRP(Watts)	0.1854	0.1626	0.1770

LTE Band 48 CA (GT - LC = 3.30 dB) 16QAM			
Bandwidth	20M+15M		
Channel PCC	55340	55916	56491
	(Low)	(Mid)	(High)
Channel SCC	55511	56087	56662
	(Low)	(Mid)	(High)
Conducted Power (dBm)	18.95	18.34	18.72
Conducted Power (Watts)	0.0785	0.0682	0.0745
EIRP(dBm)	22.25	21.64	22.02
EIRP(Watts)	0.1679	0.1459	0.1592

LTE Band 48 CA (GT - LC = 3.30 dB) 64QAM			
Bandwidth	20M+15M		
Channel PCC	55340	55916	56491
	(Low)	(Mid)	(High)
Channel SCC	55511	56087	56662
	(Low)	(Mid)	(High)
Conducted Power (dBm)	17.56	17.00	17.30
Conducted Power (Watts)	0.0570	0.0501	0.0537
EIRP(dBm)	20.86	20.30	20.60
EIRP(Watts)	0.1219	0.1072	0.1148



LTE Band 48 CA (GT - LC = 3.30 dB) 256QAM			
Bandwidth	20M+15M		
Channel PCC	55340	55916	56491
	(Low)	(Mid)	(High)
Channel SCC	55511	56087	56662
	(Low)	(Mid)	(High)
Conducted Power (dBm)	14.61	14.05	14.36
Conducted Power (Watts)	0.0289	0.0254	0.0273
EIRP(dBm)	17.91	17.35	17.66
EIRP(Watts)	0.0618	0.0543	0.0583





## Appendix B. Test Results of Radiated Test

LTE Band 48 / 20MHz / QPSK								
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	7230	-59.97	-40	-19.97	-71.43	2.84	14.30	H
	10848	-54.94	-40	-14.94	-64.88	3.49	13.43	H
	14466	-53.02	-40	-13.02	-63.26	3.85	14.09	H
	7230	-59.13	-40	-19.13	-70.59	2.84	14.30	V
	10848	-55.02	-40	-15.02	-64.96	3.49	13.43	V
	14466	-52.19	-40	-12.19	-62.43	3.85	14.09	V

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

LTE Band 48C_CA / 20MHz+20MHz / QPSK								
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	7248	-61.32	-40	-21.32	-72.78	2.84	14.30	H
	10872	-55.22	-40	-15.22	-65.16	3.49	13.43	H
	14496	-53.24	-40	-13.24	-63.48	3.85	14.09	H
	7248	-60.78	-40	-20.78	-72.24	2.84	14.30	V
	10872	-54.33	-40	-14.33	-64.27	3.49	13.43	V
	14496	-51.75	-40	-11.75	-61.99	3.85	14.09	V

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