

FCC RF Test Report

APPLICANT : Mobile Devices Ingénierie
EQUIPMENT : Telematics embedded system
BRAND NAME : Mobile Devices Ingenierie
MODEL NAME : C4D-4MUSAD_V6
FCC ID : A6GC4D-4MUS2V6
STANDARD : 47 CFR Part 2, 24(E), 27(L), 27(H)
CLASSIFICATION : PCS Licensed Transmitter (PCB)

The product was installed a module during the test: LTE Cat-M1 Module (FCC ID: XPY2AGQN4NNN) during test.

The product was received on May 22, 2019 and completely tested on Jun. 05, 2019. We, Sporton International (Shenzhen) Inc., 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.

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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG952224	Rev. 01	Initial issue of report	Jun. 20, 2019

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§27.50(c)(10)	Effective Radiated Power (Band 12)	ERP < 3 Watt	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt	PASS	-
-	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	1
-	§2.1049	Occupied Bandwidth	Reporting Only	PASS	1
-	§2.1051 §24.238(a) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 12)	< 43+10log ₁₀ (P[Watts])	PASS	1
-	§2.1051 §24.238(a) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 12)	< 43+10log ₁₀ (P[Watts])	PASS	1
-	§2.1055 §24.235 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	1
4.4	§2.1053 §24.238(a) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 12)	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 23.73 dB at 1413.740 MHz

Remark :

The conducted test items were leverage from module RF report which can refer to Report No. "SD72128174-0517A" for Band 4 , Band 12. And Report No. "SD72128174-0517B" for Band 2.

1 General Description

1.1 Applicant

Mobile Devices Ingénierie

100 Avenue de Stalingrad 94800 Villejuif FRANCE

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Telematics embedded system
Brand Name	Mobile Devices Ingenierie
Model Name	C4D-4MUSAD_V6
FCC ID	A6GC4D-4MUS2V6
EUT supports Radios application	LTE Category M1/GNSS
IMEI Code	Radiation: 357812094954408
HW Version	SAP00328+SAP00417+SAP00387
SW Version	V2107
EUT Stage	Identical Prototype

Note: There are three types of EUT, please refer the product equality declaration exhibit submitted. According to the difference, we choose the sample 1 to full test.

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 12 : 699.7 MHz ~ 715.3 MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz
Maximum Output Power to Antenna	LTE Band 2 : 23.43 dBm LTE Band 4 : 23.40 dBm LTE Band 12 : 23.64 dBm
Antenna Gain	LTE Band 2 : 1.00 dBi LTE Band 4 : 1.00 dBi LTE Band 12 : 0.50 dBi
Type of Modulation	QPSK / 16QAM

1.4 Modification of EUT

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



1.5 Maximum ERP/EIRP Power

LTE Band 2		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)
1.4	1850.7 ~ 1909.3	-	-	0.2547	-	-	0.2466
3	1851.5 ~ 1908.5	-	-	0.2410	-	-	0.2483
5	1852.5 ~ 1907.5	-	-	0.2594	-	-	0.2685
10	1855.0 ~ 1905.0	-	-	0.2547	-	-	0.2553
15	1857.5 ~ 1902.5	-	-	0.2559	-	-	0.2667
20	1860.0 ~ 1900.0	-	-	0.2655	-	-	0.2773
LTE Band 4		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)
1.4	1710.7 ~ 1754.3	-	-	0.2559	-	-	0.2655
3	1711.5 ~ 1753.5	-	-	0.2600	-	-	0.2698
5	1712.5 ~ 1752.5	-	-	0.2576	-	-	0.2673
10	1715.0 ~ 1750.0	-	-	0.2570	-	-	0.2655
15	1717.5 ~ 1747.5	-	-	0.2606	-	-	0.2679
20	1720.0 ~ 1745.0	-	-	0.2710	-	-	0.2754
LTE Band 12		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum ERP(W)
1.4	699.7 ~ 715.3	-	-	0.1469	-	-	0.1567
3	700.5 ~ 714.5	-	-	0.1483	-	-	0.1581
5	701.5 ~ 713.5	-	-	0.1476	-	-	0.1574
10	704.0 ~ 711.0	-	-	0.1489	-	-	0.1531



1.6 Testing Location

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan Shenzhen, 518055 People's Republic of China TEL: +86-755-33202398		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH02-SZ	CN1256	421272

1.7 Applicable Standards

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

- ♦ 47 CFR Part 2, 24(E), 27(L), 27(H)
- ♦ 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

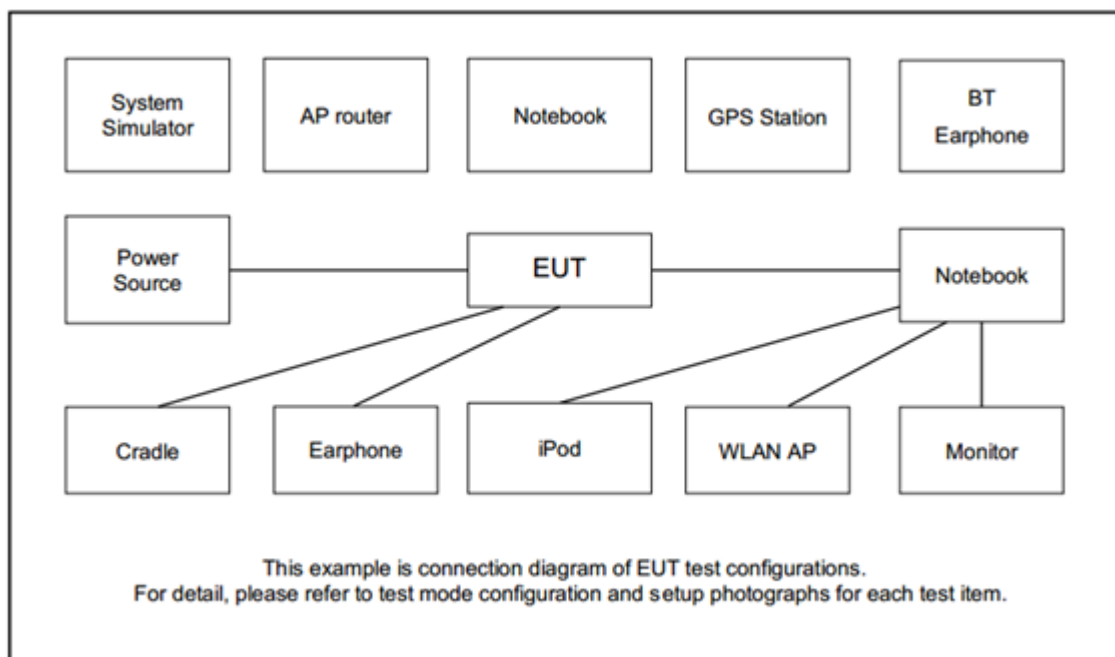
2.1 Test Mode

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

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	-	v	-	v	v	v	v
	4	v	v	v	v	v	v	v	v	-	v	-	v	v	v	v
	12	v	v	v	v	-	-	v	v	-	v	-	v	v	v	v
E.R.P / E.I.R.P	2	v	v	v	v	v	v	v	v	-	v			v	v	v
	4	v	v	v	v	v	v	v	v	-	v			v	v	v
	12	v	v	v	v	-	-	v	v	-	v			v	v	v
Radiated Spurious Emission	2	v	v	v	v	v	v	v		-	v				v	
	4	v	v	v	v	v	v	v		-	v				v	
	12	v	v	v	v	-	-	v		-	v				v	
Note	- The mark "v" means that this configuration is chosen for testing - The mark "-" means that this bandwidth is not supported. - 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	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	R&S	CMW500	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

LTE Band 2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5
1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3



LTE Band 12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23060	23095	23130
	Frequency	704	707.5	711
5	Channel	23035	23095	23155
	Frequency	701.5	707.5	713.5
3	Channel	23025	23095	23165
	Frequency	700.5	707.5	714.5
1.4	Channel	23017	23095	23173
	Frequency	699.7	707.5	715.3

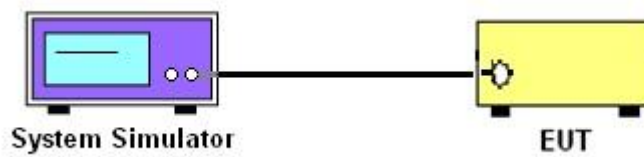
3 Conducted Test Items

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 ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/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 ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4.

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.

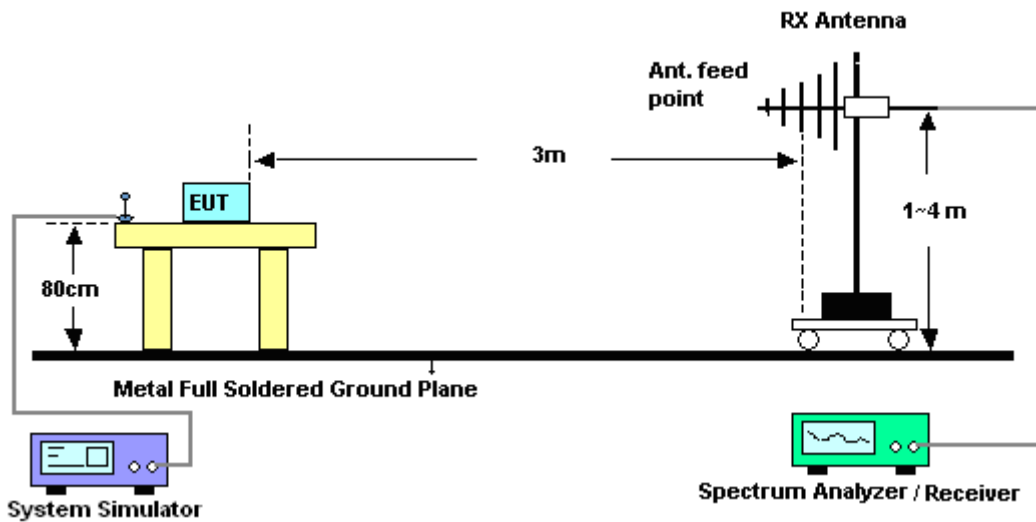
4 Radiated Test Items

4.1 Measuring Instruments

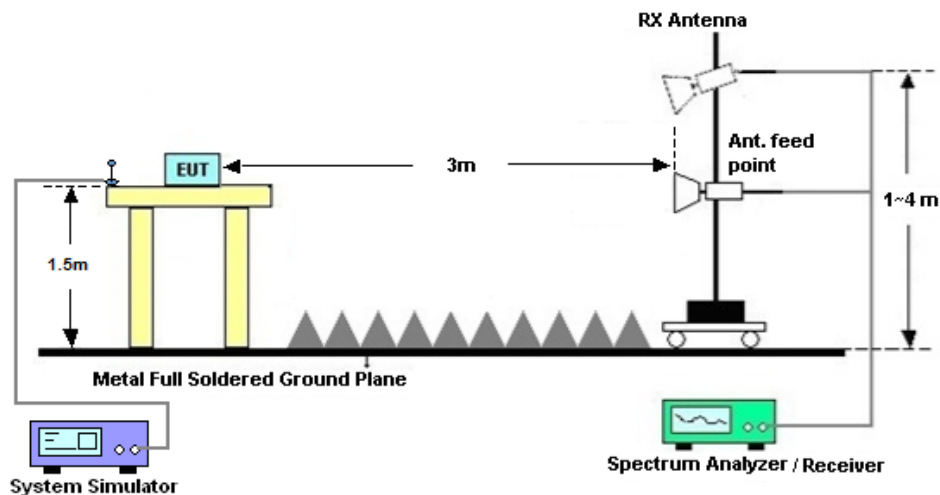
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test 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

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
2. 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.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11. $ERP \text{ (dBm)} = EIRP - 2.15$
12. 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
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Apr. 19, 2019	Jun. 05, 2019	Apr. 18, 2020	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35408	30MHz-2GHz	Apr. 19, 2019	Jun. 05, 2019	Apr. 18, 2020	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1285	1GHz~18GHz	Jan. 07, 2019	Jun. 05, 2019	Jan. 06, 2020	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Mar. 30, 2019	Jun. 05, 2019	Mar. 29, 2020	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 18, 2018	Jun. 05, 2019	Oct. 17, 2019	Radiation (03CH02-SZ)
HF Amplifier	Agilent	8449B	3008A01023	1GHz~26.5GHz	Oct. 18, 2018	Jun. 05, 2019	Oct. 17, 2019	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 30, 2018	Jun. 05, 2019	Jul. 29, 2019	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010002470	N/A	NCR	Jun. 05, 2019	NCR	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Jun. 05, 2019	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Jun. 05, 2019	NCR	Radiation (03CH02-SZ)

NCR: No Calibration Required

6 Uncertainty of Evaluation

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 Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.5dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.3dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.7dB
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Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2 Maximum Average Power [dBm]									
BW [MHz]	Mod	RB Size	RB Offset	Index			Lowest	Middle	Highest
				L	M	H			
20	QPSK	1	0	0	0	15	23.24	23.05	23.06
20		1	5	0	0	15	23.21	23.07	23.06
20		6	0	0	0	15	23.24	22.87	22.86
20	16-QAM	1	0	0	0	15	23.43	22.97	22.97
20		1	5	0	0	15	23.40	22.80	22.85
20		6	0	0	0	15	23.28	22.86	22.75
15	QPSK	1	0	0	0	11	23.08	23.06	22.98
15		1	5	0	0	11	23.05	23.06	23.00
15		6	0	0	0	11	23.07	22.98	22.91
15	16-QAM	1	0	0	0	11	23.26	22.81	22.87
15		1	5	0	0	11	23.24	22.78	22.89
15		6	0	0	0	11	23.11	22.91	22.59
10	QPSK	1	0	0	0	7	23.05	22.97	22.97
10		1	5	0	0	7	23.06	22.98	22.95
10		6	0	0	0	7	22.49	22.31	22.27
10	16-QAM	1	0	0	0	7	23.06	22.99	22.86
10		1	5	0	0	7	23.07	22.81	22.83
10		6	0	0	0	7	21.97	21.93	21.89
5	QPSK	1	0	0	0	3	23.10	23.02	22.96
5		1	5	0	0	3	23.14	23.00	22.90
5		6	0	0	0	3	22.53	22.30	22.24
5	16-QAM	1	0	0	0	3	23.29	22.85	22.86
5		1	5	0	0	3	23.01	22.83	22.80
5		6	0	0	0	3	22.01	21.95	22.12



LTE Band 2 Maximum Average Power [dBm]									
BW [MHz]	Mod	RB Size	RB Offset	Index			Lowest	Middle	Highest
				L	M	H			
3	QPSK	1	0	0	0	1	22.82	22.73	22.61
3		1	5	0	0	1	22.81	22.72	22.66
3		6	0	0	0	1	22.74	22.73	22.65
3		1	0	0	0	1	22.78	22.72	22.63
3	16-QAM	1	5	0	0	1	22.73	22.71	22.51
3		6	0	0	0	1	22.95	22.72	22.82
1.4	QPSK	1	0	0	0	0	23.05	22.93	22.84
1.4		1	5	0	0	0	23.06	22.91	22.83
1.4		6	0	0	0	0	22.97	22.87	22.78
1.4	16-QAM	1	0	0	0	0	22.92	22.82	22.75
1.4		1	5	0	0	0	22.81	22.81	22.62
1.4		6	0	0	0	0	22.39	22.50	22.36



LTE Band 4 Maximum Average Power [dBm]									
BW [MHz]	Mod	RB Size	RB Offset	Index			Lowest	Middle	Highest
				L	M	H			
20	QPSK	1	0	0	0	15	23.22	22.99	22.75
20		1	5	0	0	15	23.31	23.00	22.76
20		6	0	0	0	15	23.33	22.78	22.95
20		1	0	0	0	15	23.37	22.06	22.10
20	16-QAM	1	5	0	0	15	23.40	22.07	22.10
20		6	0	0	0	15	23.27	22.74	22.83
15	QPSK	1	0	0	0	11	23.16	22.93	22.79
15		1	5	0	0	11	23.13	22.92	22.81
15		6	0	0	0	11	23.13	22.84	22.79
15	16-QAM	1	0	0	0	11	23.28	22.10	22.05
15		1	5	0	0	11	23.24	22.09	22.07
15		6	0	0	0	11	23.12	22.80	22.70
10	QPSK	1	0	0	0	7	23.10	22.85	22.73
10		1	5	0	0	7	23.10	22.91	22.71
10		6	0	0	0	7	22.48	22.14	22.19
10		1	0	0	0	7	23.23	22.16	22.36
10	16-QAM	1	5	0	0	7	23.24	22.17	21.98
10		6	0	0	0	7	21.99	21.38	21.44
5	QPSK	1	0	0	0	3	23.11	22.82	22.77
5		1	5	0	0	3	22.96	22.87	22.72
5		6	0	0	0	3	22.50	22.27	22.19
5	16-QAM	1	0	0	0	3	23.24	21.94	22.02
5		1	5	0	0	3	23.27	22.06	21.97
5		6	0	0	0	3	21.98	21.48	21.44



LTE Band 4 Maximum Average Power [dBm]									
BW [MHz]	Mod	RB Size	RB Offset	Index			Lowest	Middle	Highest
				L	M	H			
3	QPSK	1	0	0	0	1	23.15	22.86	22.81
3		1	5	0	0	1	23.00	22.91	22.76
3		6	0	0	0	1	22.54	22.31	22.23
3		1	0	0	0	1	23.28	22.18	22.06
3	16-QAM	1	5	0	0	1	23.31	22.40	22.21
3		6	0	0	0	1	22.02	21.52	21.48
1.4	QPSK	1	0	0	0	0	23.08	22.79	22.74
1.4		1	5	0	0	0	22.93	22.84	22.69
1.4		6	0	0	0	0	22.47	22.64	22.56
1.4	16-QAM	1	0	0	0	0	23.21	22.31	22.39
1.4		1	5	0	0	0	23.24	22.53	22.42
1.4		6	0	0	0	0	21.95	21.45	21.41



LTE Band 12 Maximum Average Power [dBm]									
BW [MHz]	Mod	RB Size	RB Offset	Index			Lowest	Middle	Highest
				L	M	H			
10	QPSK	1	0	0	0	7	23.36	23.35	23.20
10		1	5	0	0	7	23.38	23.36	23.22
10		6	0	0	0	7	22.74	22.57	22.46
10		1	0	0	0	7	23.48	22.44	22.26
10	16-QAM	1	5	0	0	7	23.50	22.40	22.25
10		6	0	0	0	7	22.21	21.87	21.84
5	QPSK	1	0	0	0	3	23.34	23.20	23.21
5		1	5	0	0	3	23.29	23.18	23.16
5		6	0	0	0	3	22.62	22.52	22.52
5	16-QAM	1	0	0	0	3	23.57	22.23	22.24
5		1	5	0	0	3	23.62	22.22	22.29
5		6	0	0	0	3	22.19	21.71	21.78
3	QPSK	1	0	0	0	1	23.36	23.22	23.23
3		1	5	0	0	1	23.31	23.20	23.18
3		6	0	0	0	1	22.64	22.54	22.54
3		1	0	0	0	1	23.59	22.65	22.36
3	16-QAM	1	5	0	0	1	23.64	22.54	22.51
3		6	0	0	0	1	22.21	21.73	21.80
1.4	QPSK	1	0	0	0	0	23.32	23.18	23.19
1.4		1	5	0	0	0	23.27	23.16	23.14
1.4		6	0	0	0	0	22.60	22.50	22.50
1.4	16-QAM	1	0	0	0	0	23.55	22.51	22.52
1.4		1	5	0	0	0	23.60	22.70	22.67
1.4		6	0	0	0	0	22.17	21.69	21.76

**ERP/EIRP**

LTE Band 2 (GT - LC = 1.00 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
(MHz)									
Conducted Power (dBm)	23.06	22.91	22.83	22.82	22.73	22.61	23.14	23.00	22.90
Conducted Power (Watts)	0.2023	0.1954	0.1919	0.1914	0.1875	0.1824	0.2061	0.1995	0.1950
EIRP(dBm)	24.06	23.91	23.83	23.82	23.73	23.61	24.14	24.00	23.90
EIRP(Watts)	0.2547	0.2460	0.2415	0.2410	0.2360	0.2296	0.2594	0.2512	0.2455

LTE Band 2 (GT - LC = 1.00 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
(MHz)									
Conducted Power (dBm)	23.06	22.98	22.95	23.08	23.06	22.98	23.24	23.05	23.06
Conducted Power (Watts)	0.2023	0.1986	0.1972	0.2032	0.2023	0.1986	0.2109	0.2018	0.2023
EIRP(dBm)	24.06	23.98	23.95	24.08	24.06	23.98	24.24	24.05	24.06
EIRP(Watts)	0.2547	0.2500	0.2483	0.2559	0.2547	0.2500	0.2655	0.2541	0.2547



LTE Band 2 (GT - LC = 1.00 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	18607	18900	19193	18615	18900	19185	18625	18900	19175
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1850.7	1880	1909.3	1851.5	1880	1908.5	1852.5	1880	1907.5
(MHz)									
Conducted Power (dBm)	22.92	22.82	22.75	22.95	22.72	22.82	23.29	22.85	22.86
Conducted Power (Watts)	0.1959	0.1914	0.1884	0.1972	0.1871	0.1914	0.2133	0.1928	0.1932
EIRP(dBm)	23.92	23.82	23.75	23.95	23.72	23.82	24.29	23.85	23.86
EIRP(Watts)	0.2466	0.2410	0.2371	0.2483	0.2355	0.2410	0.2685	0.2427	0.2432

LTE Band 2 (GT - LC = 1.00 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	18650	18900	19150	18675	18900	19125	18650	18900	19100
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1855	1880	1905	1857.5	1880	1902.5	1860	1880	1900
(MHz)									
Conducted Power (dBm)	23.07	22.81	22.83	23.26	22.81	22.87	23.43	22.97	22.97
Conducted Power (Watts)	0.2028	0.1910	0.1919	0.2118	0.1910	0.1936	0.2203	0.1982	0.1982
EIRP(dBm)	24.07	23.81	23.83	24.26	23.81	23.87	24.43	23.97	23.97
EIRP(Watts)	0.2553	0.2404	0.2415	0.2667	0.2404	0.2438	0.2773	0.2495	0.2495



LTE Band 4 (GT - LC = 1.00 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
(MHz)									
Conducted Power (dBm)	23.08	22.79	22.74	23.15	22.86	22.81	23.11	22.82	22.77
Conducted Power (Watts)	0.2032	0.1901	0.1879	0.2065	0.1932	0.1910	0.2046	0.1914	0.1892
EIRP(dBm)	24.08	23.79	23.74	24.15	23.86	23.81	24.11	23.82	23.77
EIRP(Watts)	0.2559	0.2393	0.2366	0.2600	0.2432	0.2404	0.2576	0.2410	0.2382

LTE Band 4 (GT - LC = 1.00 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
(MHz)									
Conducted Power (dBm)	23.10	22.91	22.71	23.16	22.93	22.79	23.33	22.78	22.95
Conducted Power (Watts)	0.2042	0.1954	0.1866	0.2070	0.1963	0.1901	0.2153	0.1897	0.1972
EIRP(dBm)	24.10	23.91	23.71	24.16	23.93	23.79	24.33	23.78	23.95
EIRP(Watts)	0.2570	0.2460	0.2350	0.2606	0.2472	0.2393	0.2710	0.2388	0.2483



LTE Band 4 (GT - LC = 1.00 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
(MHz)									
Conducted Power (dBm)	23.24	22.53	22.42	23.31	22.40	22.21	23.27	22.06	21.97
Conducted Power (Watts)	0.2109	0.1791	0.1746	0.2143	0.1738	0.1663	0.2123	0.1607	0.1574
EIRP(dBm)	24.24	23.53	23.42	24.31	23.40	23.21	24.27	23.06	22.97
EIRP(Watts)	0.2655	0.2254	0.2198	0.2698	0.2188	0.2094	0.2673	0.2023	0.1982

LTE Band 4 (GT - LC = 1.00 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
(MHz)									
Conducted Power (dBm)	23.24	22.17	21.98	23.28	22.10	22.05	23.40	22.07	22.10
Conducted Power (Watts)	0.2109	0.1648	0.1578	0.2128	0.1622	0.1603	0.2188	0.1611	0.1622
EIRP(dBm)	24.24	23.17	22.98	24.28	23.10	23.05	24.40	23.07	23.10
EIRP(Watts)	0.2655	0.2075	0.1986	0.2679	0.2042	0.2018	0.2754	0.2028	0.2042



LTE Band 12 (GT - LC = 0.50 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
(MHz)									
Conducted Power (dBm)	23.32	23.18	23.19	23.36	23.22	23.23	23.34	23.20	23.21
Conducted Power (Watts)	0.2148	0.2080	0.2084	0.2168	0.2099	0.2104	0.2158	0.2089	0.2094
ERP(dBm)	21.67	21.53	21.54	21.71	21.57	21.58	21.69	21.55	21.56
ERP(Watts)	0.1469	0.1422	0.1426	0.1483	0.1435	0.1439	0.1476	0.1429	0.1432

LTE Band 12 (GT - LC = 0.50 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency	704	707.5	711
(MHz)			
Conducted Power (dBm)	23.38	23.36	23.22
Conducted Power (Watts)	0.2178	0.2168	0.2099
ERP(dBm)	21.73	21.71	21.57
ERP(Watts)	0.1489	0.1483	0.1435



LTE Band 12 (GT - LC = 0.50 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
(MHz)									
Conducted Power (dBm)	23.60	22.70	22.67	23.64	22.54	22.51	23.62	22.22	22.29
Conducted Power (Watts)	0.2291	0.1862	0.1849	0.2312	0.1795	0.1782	0.2301	0.1667	0.1694
ERP(dBm)	21.95	21.05	21.02	21.99	20.89	20.86	21.97	20.57	20.64
ERP(Watts)	0.1567	0.1274	0.1265	0.1581	0.1227	0.1219	0.1574	0.1140	0.1159

LTE Band 12 (GT - LC = 0.50 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency	704	707.5	711
(MHz)			
Conducted Power (dBm)	23.50	22.40	22.25
Conducted Power (Watts)	0.2239	0.1738	0.1679
ERP(dBm)	21.85	20.75	20.60
ERP(Watts)	0.1531	0.1189	0.1148



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

LTE Band 2 / 1.4MHz / 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)
Middle	3758.92	-46.21	-13	-33.21	-63.21	-52.96	5.85	12.60	H
	5638.38	-54.16	-13	-41.16	-74.83	-59.96	7.30	13.10	H
	7517.84	-55.00	-13	-42.00	-81.34	-58.15	8.35	11.50	H
	3758.92	-47.52	-13	-34.52	-64.56	-54.27	5.85	12.60	V
	5638.38	-53.95	-13	-40.95	-75.02	-59.75	7.30	13.10	V
	7517.84	-53.82	-13	-40.82	-79.94	-56.97	8.35	11.50	V

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

LTE Band 2 / 3MHz / 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)
Middle	3757.48	-46.38	-13	-33.38	-63.38	-53.13	5.85	12.60	H
	5636.22	-53.16	-13	-40.16	-73.83	-58.96	7.30	13.10	H
	7514.96	-53.73	-13	-40.73	-80.08	-56.88	8.35	11.50	H
	3757.48	-46.54	-13	-33.54	-63.58	-53.29	5.85	12.60	V
	5636.22	-53.38	-13	-40.38	-74.45	-59.18	7.30	13.10	V
	7514.96	-54.67	-13	-41.67	-80.8	-57.82	8.35	11.50	V

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

LTE Band 2 / 5MHz / 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)
Middle	3755.68	-47.57	-13	-34.57	-64.57	-54.32	5.85	12.60	H
	5633.52	-53.56	-13	-40.56	-74.23	-59.36	7.30	13.10	H
	7511.36	-52.80	-13	-39.80	-79.15	-55.95	8.35	11.50	H
	3755.68	-47.95	-13	-34.95	-64.99	-54.70	5.85	12.60	V
	5633.52	-52.54	-13	-39.54	-73.61	-58.34	7.30	13.10	V
	7511.36	-55.07	-13	-42.07	-81.2	-58.22	8.35	11.50	V

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



LTE Band 2 / 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)
Middle	3751.18	-46.84	-13	-33.84	-63.84	-53.59	5.85	12.60	H
	5626.77	-55.28	-13	-42.28	-76.13	-61.08	7.30	13.10	H
	7502	-53.60	-13	-40.60	-80.02	-56.75	8.35	11.50	H
	3751.18	-51.13	-13	-38.13	-68.17	-57.88	5.85	12.60	V
	5626.77	-52.48	-13	-39.48	-73.6	-58.28	7.30	13.10	V
	7502	-54.40	-13	-41.40	-80.58	-57.55	8.35	11.50	V

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

LTE Band 2 / 15MHz / 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)
Middle	3746.68	-46.45	-13	-33.45	-63.45	-53.20	5.85	12.60	H
	5620.02	-54.90	-13	-41.90	-75.75	-60.70	7.30	13.10	H
	7493.36	-55.14	-13	-42.14	-81.56	-58.29	8.35	11.50	H
	3746.68	-50.46	-13	-37.46	-67.5	-57.21	5.85	12.60	V
	5620.02	-55.35	-13	-42.35	-76.47	-61.15	7.30	13.10	V
	7493.36	-54.29	-13	-41.29	-80.47	-57.44	8.35	11.50	V

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

LTE Band 2 / 20MHz / 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)
Middle	3742.18	-48.76	-13	-35.76	-65.72	-55.51	5.85	12.60	H
	5613.27	-55.44	-13	-42.44	-76.47	-61.24	7.30	13.10	H
	7484.36	-53.89	-13	-40.89	-80.39	-57.04	8.35	11.50	H
	3742.18	-48.21	-13	-35.21	-65.21	-54.96	5.85	12.60	V
	5613.27	-52.41	-13	-39.41	-73.59	-58.21	7.30	13.10	V
	7484.36	-55.09	-13	-42.09	-81.34	-58.24	8.35	11.50	V

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



LTE Band 4 / 1.4MHz / 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)
Middle	3463.74	-47.60	-13	-34.60	-63.22	-54.45	5.65	12.50	H
	5195.61	-49.44	-13	-36.44	-69.61	-55.11	7.13	12.80	H
	6927.48	-53.90	-13	-40.90	-79.20	-57.30	8.40	11.80	H
	3463.74	-51.99	-13	-38.99	-67.64	-58.84	5.65	12.50	V
	5195.61	-50.42	-13	-37.42	-71.04	-56.09	7.13	12.80	V
	6927.48	-56.21	-13	-43.21	-81.62	-59.61	8.40	11.80	V

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

LTE Band 4 / 3MHz / 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)
Middle	3462.48	-48.10	-13	-35.10	-63.72	-54.95	5.65	12.50	H
	5193.72	-46.20	-13	-33.20	-66.37	-51.87	7.13	12.80	H
	6924.96	-54.12	-13	-41.12	-79.42	-57.52	8.40	11.80	H
	3462.48	-48.82	-13	-35.82	-64.47	-55.67	5.65	12.50	V
	5193.72	-46.43	-13	-33.43	-67.05	-52.10	7.13	12.80	V
	6924.96	-56.28	-13	-43.28	-81.69	-59.68	8.40	11.80	V

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

LTE Band 4 / 5MHz / 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)
Middle	3460.68	-48.66	-13	-35.66	-64.28	-55.51	5.65	12.50	H
	5191.02	-46.36	-13	-33.36	-66.53	-52.03	7.13	12.80	H
	6921.36	-54.95	-13	-41.95	-80.16	-58.35	8.40	11.80	H
	3460.68	-49.15	-13	-36.15	-64.8	-56.00	5.65	12.50	V
	5191.02	-45.50	-13	-32.50	-66.12	-51.17	7.13	12.80	V
	6921.36	-55.96	-13	-42.96	-81.31	-59.36	8.40	11.80	V

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



LTE Band 4 / 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)
Middle	3456.18	-47.35	-13	-34.35	-62.82	-54.20	5.65	12.50	H
	5184.27	-52.21	-13	-39.21	-72.36	-57.88	7.13	12.80	H
	6912.36	-55.02	-13	-42.02	-80.23	-58.42	8.40	11.80	H
	3456.18	-50.20	-13	-37.20	-65.7	-57.05	5.65	12.50	V
	5184.27	-56.12	-13	-43.12	-76.72	-61.79	7.13	12.80	V
	6912.36	-55.27	-13	-42.27	-80.62	-58.67	8.40	11.80	V

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

LTE Band 4 / 15MHz / 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)
Middle	3451.68	-46.17	-13	-33.17	-61.64	-53.02	5.65	12.50	H
	5177.52	-54.74	-13	-41.74	-74.89	-60.41	7.13	12.80	H
	6903.36	-53.03	-13	-40.03	-78.15	-56.43	8.40	11.80	H
	3451.68	-50.52	-13	-37.52	-66.02	-57.37	5.65	12.50	V
	5177.52	-51.31	-13	-38.31	-71.91	-56.98	7.13	12.80	V
	6903.36	-56.20	-13	-43.20	-81.48	-59.60	8.40	11.80	V

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

LTE Band 4 / 20MHz / 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)
Middle	3447.18	-46.88	-13	-33.88	-62.35	-53.73	5.65	12.50	H
	5170.77	-50.99	-13	-37.99	-71.12	-56.66	7.13	12.80	H
	6894.36	-54.72	-13	-41.72	-79.85	-58.12	8.40	11.80	H
	3447.18	-55.01	-13	-42.01	-70.51	-61.86	5.65	12.50	V
	5170.77	-45.08	-13	-32.08	-65.66	-50.75	7.13	12.80	V
	6894.36	-55.31	-13	-42.31	-80.6	-58.71	8.40	11.80	V

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



LTE Band 12 / 1.4MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1413.74	-40.75	-13	-27.75	-50.20	-44.00	4.00	9.40	H
	2120.61	-53.00	-13	-40.00	-65.98	-56.57	4.88	10.60	H
	2827.48	-62.22	-13	-49.22	-76.14	-67.15	5.52	12.60	H
	3534.35	-57.73	-13	-44.73	-73.92	-62.20	6.00	12.62	H
	4241.22	-61.91	-13	-48.91	-80.11	-65.32	7.14	12.70	H
	4948.09	-61.14	-13	-48.14	-81.10	-64.37	7.62	13.00	H
	1413.74	-36.73	-13	-23.73	-46.14	-39.98	4.00	9.40	V
	2120.61	-49.45	-13	-36.45	-62.34	-53.02	4.88	10.60	V
	2827.48	-62.21	-13	-49.21	-76.74	-67.14	5.52	12.60	V
	3534.35	-53.96	-13	-40.96	-70.19	-58.43	6.00	12.62	V
	4241.22	-60.47	-13	-47.47	-78.62	-63.88	7.14	12.70	V
	4948.09	-60.57	-13	-47.57	-80.89	-63.80	7.62	13.00	V

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

LTE Band 12 / 3MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1412.3	-43.23	-13	-30.23	-52.68	-46.48	4.00	9.40	H
	2118.45	-55.88	-13	-42.88	-68.86	-59.45	4.88	10.60	H
	2824.6	-61.57	-13	-48.57	-75.49	-66.50	5.52	12.60	H
	3530.75	-59.22	-13	-46.22	-75.41	-63.69	6.00	12.62	H
	4236.9	-62.35	-13	-49.35	-80.49	-65.76	7.14	12.70	H
	4943	-60.95	-13	-47.95	-80.91	-64.18	7.62	13.00	H
	1412.3	-38.12	-13	-25.12	-47.53	-41.37	4.00	9.40	V
	2118.45	-57.08	-13	-44.08	-69.97	-60.65	4.88	10.60	V
	2824.6	-58.91	-13	-45.91	-73.44	-63.84	5.52	12.60	V
	3530.75	-54.85	-13	-41.85	-71.08	-59.32	6.00	12.62	V
	4236.9	-61.22	-13	-48.22	-79.30	-64.63	7.14	12.70	V
	4943	-60.67	-13	-47.67	-80.99	-63.90	7.62	13.00	V

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



LTE Band 12 / 5MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1410.5	-42.30	-13	-29.30	-51.75	-45.55	4.00	9.40	H
	2115.75	-55.18	-13	-42.18	-68.16	-58.75	4.88	10.60	H
	2821	-62.62	-13	-49.62	-76.53	-67.55	5.52	12.60	H
	3526.25	-57.31	-13	-44.31	-73.50	-61.78	6.00	12.62	H
	4231.5	-62.06	-13	-49.06	-80.20	-65.47	7.14	12.70	H
	4936.75	-60.92	-13	-47.92	-80.89	-64.15	7.62	13.00	H
	1410.5	-37.04	-13	-24.04	-46.45	-40.29	4.00	9.40	V
	2115.75	-53.81	-13	-40.81	-66.70	-57.38	4.88	10.60	V
	2821	-61.16	-13	-48.16	-75.68	-66.09	5.52	12.60	V
	3526.25	-55.40	-13	-42.40	-71.63	-59.87	6.00	12.62	V
	4231.5	-61.03	-13	-48.03	-79.11	-64.44	7.14	12.70	V
	4936.75	-60.45	-13	-47.45	-80.78	-63.68	7.62	13.00	V

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

LTE Band 12 / 10MHz / QPSK									
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1406	-40.32	-13	-27.32	-49.77	-43.57	4.00	9.40	H
	2109	-56.32	-13	-43.32	-69.05	-59.89	4.88	10.60	H
	2812	-59.77	-13	-46.77	-73.68	-64.70	5.52	12.60	H
	3515	-59.01	-13	-46.01	-75.06	-63.48	6.00	12.62	H
	4218	-62.35	-13	-49.35	-80.44	-65.76	7.14	12.70	H
	4921	-60.93	-13	-47.93	-80.90	-64.16	7.62	13.00	H
	1406	-39.69	-13	-26.69	-49.10	-42.94	4.00	9.40	V
	2109	-53.35	-13	-40.35	-66.01	-56.92	4.88	10.60	V
	2812	-60.05	-13	-47.05	-74.57	-64.98	5.52	12.60	V
	3515	-55.60	-13	-42.60	-71.68	-60.07	6.00	12.62	V
	4218	-62.14	-13	-49.14	-80.15	-65.55	7.14	12.70	V
	4921	-60.76	-13	-47.76	-81.08	-63.99	7.62	13.00	V

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