



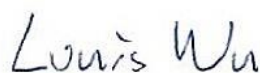
FCC RADIO TEST REPORT

FCC ID : ZMOL860GL16L
Equipment : LTE Module
Brand Name : Fibocom Wireless Inc.
Model Name : L860-GL-16
Applicant : Fibocom Wireless Inc.
1101, Tower A, Building 6, Shenzhen
International, Innovation Valley, Dashi 1st Rd,
Nanshan, Shenzhen, China
Manufacturer : LCFC (HeFei) Electronics Technology Co., Ltd.
No. 3188-1, Yungu Road (Hefei Export
Processing Zone), Hefei Economics &
Technology Development Area, Anhui, CHINA
Standard : FCC 47 CFR Part 2, 22(H), 24(E), 27

Equipment: Fibocom L860-GL-16 tested inside of Lenovo Notebook Computer.

The product was received on Sep. 03, 2021 and testing was started from Sep. 20, 2021 and completed on Sep. 28, 2021. 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 partial 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.



Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory

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History of this test report

Report No.	Version	Description	Issued Date
FG190337B	01	Initial issue of report	Dec. 21, 2021

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
	§22.913 (a)(5)	Effective Radiated Power (Band 5) (Band 26)	Pass	
	§27.50 (b)(10) §27.50 (c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17) (Band 71)		
	§24.232 (c) §27.50 (h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 25) (Band 7) (Band 38) (Band 41)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)		
-	§24.232 (d) §27.50 (d)(5)	Peak-to-Average Ratio	-	See Note
-	§2.1049	Occupied Bandwidth	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (c)(2)(4) §27.53 (g) §27.53 (h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	-	See Note
	§2.1051 §27.53 (m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)		
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (c)(2) §27.53 (g) §27.53 (h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	-	See Note
	§2.1051 §27.53 (m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)		
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	-	See Note

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
4.2	§2.1053 §22.917 (a) §24.238 (a) §27.53 (c)(2) §27.53 (f) §27.53 (g) §27.53 (h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	Pass	Under limit 12.53 dB at 1568.000 MHz
	§2.1051 §27.53 (m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)		

Note:

1. The module (Model: L860-GL-16) makes no difference after verifying output power, this report reuses test data from the module report.
2. Conducted power was verified to be consistent with the original modular approval, so the output power level in the original modular grant is referenced in this report for determining ERP/EIRP of this host product.

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: Sheng Kuo

Report Producer: Cindy Liu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	LTE Module
Brand Name	Fibocom Wireless Inc.
Model Name	L860-GL-16
FCC ID	ZMOL860GL16L
Sample 1	EUT with Host 1
Sample 2	EUT with Host 2
EUT supports Radios application	WCDMA/HSPA/LTE/GNSS
EUT Stage	Production Unit

Remark:

1. The above EUT's information was declared by manufacturer.
2. Equipment: Fibocom L860-GL-16 tested inside of Lenovo Notebook Computer.

The product was installed into Notebook Computer (Brand Name: Lenovo, Model Name: TP00128B) during test, and the host information was recorded in the following table.

Host Information	
Host 1	Host with Amphenol Antenna
Host 2	Host with JYT/NVC Antenna

WWAN Antenna Information				
Main Antenna	Manufacturer	Amphenol	Peak gain (dBi)	LTE Band 2 : 0.50 LTE Band 4 : 0.95 LTE Band 5 : -0.43 LTE Band 7 : 0.36 LTE Band 12 : -1.66 LTE Band 13 : -1.44 LTE Band 17 : -1.59 LTE Band 25 : 0.40 LTE Band 26 : -0.43 LTE Band 38 : 0.76 LTE Band 41 : 1.62 LTE Band 66 : 0.80 LTE Band 71 : -1.91
	Part number	TKC114-16-000-C	Type	PIFA
	Manufacturer	JYT/NVC	Peak gain (dBi)	LTE Band 2 : -1.83 LTE Band 4 : -1.18 LTE Band 5 : -2.02 LTE Band 7 : -4.23 LTE Band 12 : -3.81 LTE Band 13 : -3.29 LTE Band 17 : -3.56 LTE Band 25 : -1.67 LTE Band 26 : -2.02 LTE Band 38 : -5.78 LTE Band 41 : -4.12 LTE Band 66 : -1.21 LTE Band 71 : -4.43
	Part number	JYAAE0154HR	Type	PIFA

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.
2. All test items were performed with Amphenol Antenna as representative.

1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12 : 699.7 MHz ~ 715.3 MHz LTE Band 13 : 779.5 MHz ~ 784.5 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7MHz ~ 1914.3 MHz LTE Band 26 : 824.7MHz ~ 848.3 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz LTE Band 25: 1930.7MHz ~ 1994.3 MHz LTE Band 26 : 869.7MHz ~ 893.3MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 2110.7 MHz ~ 2199.3 MHz LTE Band 71: 619.5 MHz ~ 649.5 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 25: 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 71: 5MHz / 10MHz / 15MHz / 20MHz

Product Specification subjective to this standard	
Maximum Output Power to Antenna	LTE Band 2 : 23.32 dBm LTE Band 4 : 22.98 dBm LTE Band 5 : 22.92 dBm LTE Band 5B : 23.06 dBm LTE Band 7 : 23.26 dBm LTE Band 7C : 23.95 dBm LTE Band 12 : 22.86 dBm LTE Band 13 : 22.73 dBm LTE Band 17 : 22.85 dBm LTE Band 25 : 23.32 dBm LTE Band 26 : 22.93 dBm LTE Band 38 : 23.46 dBm LTE Band 38C : 23.57 dBm LTE Band 41 : 25.35 dBm for HPUE LTE Band 41C : 23.63 dBm LTE Band 66 : 22.99 dBm LTE Band 66B : 22.98 dBm LTE Band 66C : 22.65 dBm LTE Band 71 : 23.32 dBm
Type of Modulation	QPSK / 16QAM / 64QAM

1.3 Modification of EUT

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

1.4 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan
Test Site No.	Sporton Site No.
	TH03-HY
Test Engineer	Benjamin Lin
Temperature	23.5~25.2℃
Relative Humidity	49.4~52.3%

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan
Test Site No.	Sporton Site No.
	03CH12-HY (TAF Code: 3786)
Test Engineer	Jack Cheng, Lance Chiang and Chuan Chu
Temperature	21.6~26.2℃
Relative Humidity	56~68%
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory

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

FCC Designation No.: TW1190 and TW3786

1.5 Applicable Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ FCC 47 CFR Part 2, 22(H), 24(E), 27
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

For radiated, The measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in Tablet Type (three orthogonal axis (X: flat, Y: portrait, Z: landscape)) and Notebook Type, and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and find (Y Plane with accessory for LTE Band 5, 5B, 7, 12, 25, 71; Y Plane for LTE Band 13; Z Plane with accessory for LTE Band 41C, 66, 66B, 66C; Notebook Type with accessory for LTE Bnnd 7C, 41 (HPUE)) as worst plane.

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	v
	4	v	v	v	v	v	v	v	v	v	v		v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v		v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v		v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v		v	v	v	v
	13	-	-	v	v	-	-	v	v	v	v		v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v		v	v	v	v
	25	v	v	v	v	v	v	v	v	v	v		v	v	v	v
	26	v	v	v	v	v	-	v	v	v	v		v	v	v	v
	38	-	-	v	v	v	v	v	v	v	v		v	v	v	v
	41	-	-	v	v	v	v	v	v	v	v		v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v		v	v	v	v
	71	-	-	v	v	v	v	v	v	v	v		v	v	v	v



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
E.R.P / E.I.R.P	2	v	v	v	v	v	v	v	v	v	Max. Power					
	4	v	v	v	v	v	v	v	v	v						
	5	v	v	v	v	-	-	v	v	v						
	7	-	-	v	v	v	v	v	v	v						
	12	v	v	v	v	-	-	v	v	v						
	13	-	-	v	v	-	-	v	v	v						
	17	-	-	v	v	-	-	v	v	v						
	25	v	v	v	v	v	v	v	v	v						
	26	v	v	v	v	v	-	v	v	v						
	38	-	-	v	v	v	v	v	v	v						
	41	-	-	v	v	v	v	v	v	v						
	66	v	v	v	v	v	v	v	v	v						
	71	-	-	v	v	v	v	v	v	v						
Radiated Spurious Emission	2	Covered by Band 25														
	4	Covered by Band 66														
	5				v	-	-	v			v			v	v	v
	7	-	-				v	v			v			v	v	v
	12				v	-	-	v			v			v	v	v
	13	-	-	v	v	-	-	v			v			v	v	v
	17	Covered by Band 12														
	25						v	v			v			v	v	v
	26	Covered by Band 5														
	38	Covered by Band 41														
	41	-	-				v	v			v			v	v	v
	66						v	v			v			v	v	v
	71	-	-				v	v			v			v	v	v
Remark	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. 4. Wider operating range bandwidth covers narrower one when the power is higher or the same.															

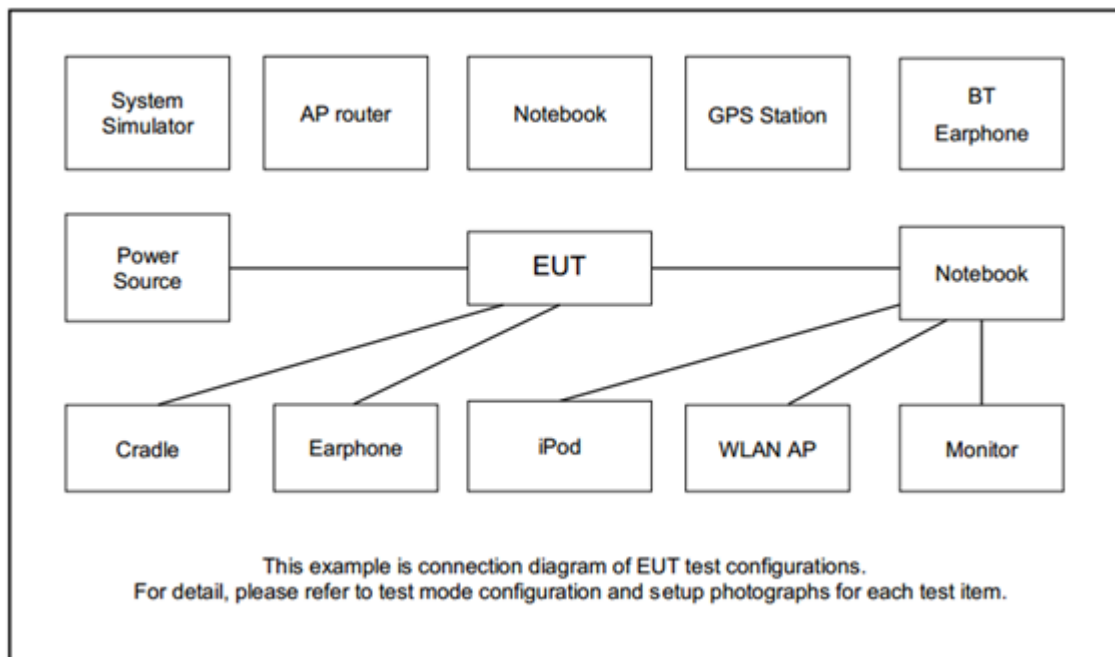
Test Items	Band	Bandwidth (MHz)					Modulation			RB #			Test Channel		
		3+5	5+3	5+10	10+5	10+10	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	5B_CA					v	v	v	v	v			v	v	v
E.R.P / E.I.R.P	5B_CA					v	v	v	v	Max. Power					
Radiated Spurious Emission	5B_CA					v	v	v	v	v			v	v	v
Remark	1. The mark "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.														

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		5+5	5+10	10+5	5+15	15+5	10+10	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	66B_CA					v		v	v	v	v			v	v	v
E.I.R.P	66B_CA					v		v	v	v	Max. Power					
Radiated Spurious Emission	66B_CA						v	v			v			v	v	v
Remark	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.															



Test Items	Band	Bandwidth (MHz)										Modulation			RB #			Test Channel		
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v	v	v	v
	38C_CA	v	-	-	-	-	-	-		-	-	v	v	v	v	v	v	v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	66C_CA	v										v	v	v	v	v	v	v	v	v
E.I.R.P	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	Max. Power					
	38C_CA	v	-	-	-	-	-	-		-	-	v	v	v						
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v						
	66C_CA	v										v	v	v						
Radiated Spurious Emission	7C_CA	v					-	-			-	v			v			v	v	v
	38C_CA	Covered by Band 41C																		
	41C_CA	v										v			v			v	v	v
	66C_CA	v										v			v			v	v	v
Remark	- 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. - Wider operating range bandwidth covers narrower one when the power is higher or the same.																			

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	System Simulator	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
4.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A

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 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3

LTE Band 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

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

LTE Band 13 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	23230	-
	Frequency	-	782	-
5	Channel	23205	23230	23255
	Frequency	779.5	782	784.5

LTE Band 17 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23780	23790	23800
	Frequency	709	710	711
5	Channel	23755	23790	23825
	Frequency	706.5	710	713.5

LTE Band 25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	26140	26340	26590
	Frequency	1860	1880	1905
15	Channel	26115	26340	26615
	Frequency	1857.5	1880	1907.5
10	Channel	26090	26340	26640
	Frequency	1855	1880	1910
5	Channel	26065	26340	26665
	Frequency	1852.5	1880	1912.5
3	Channel	26055	26340	26675
	Frequency	1851.5	1880	1913.5
1.4	Channel	26047	26340	26683
	Frequency	1850.7	1880	1914.3

LTE Band 26 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	26865	26915	26965
	Frequency	831.5	836.5	841.5
10	Channel	26840	26915	26990
	Frequency	829.0	836.5	844.0
5	Channel	26815	26915	27015
	Frequency	826.5	836.5	846.5
3	Channel	26805	26915	27025
	Frequency	825.5	836.5	847.5
1.4	Channel	26797	26915	27033
	Frequency	824.7	836.5	848.3

LTE Band 38 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	37850	38000	38150
	Frequency	2580.0	2595.0	2610.0
15	Channel	37825	38000	38175
	Frequency	2577.5	2595.0	2612.5
10	Channel	37800	38000	38200
	Frequency	2575.0	2595.0	2615.0
5	Channel	37775	38000	38225
	Frequency	2572.5	2595.0	2617.5

LTE Band 41 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	39750	40620	41490
	Frequency	2506.0	2593.0	2680.0
15	Channel	39725	40620	41515
	Frequency	2503.5	2593.0	2682.5
10	Channel	39700	40620	41540
	Frequency	2501.0	2593.0	2685.0
5	Channel	39675	40620	41565
	Frequency	2498.5	2593.0	2687.5

LTE Band 66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	132072	132322	132572
	Frequency	1720	1745	1770
15	Channel	132047	132322	132597
	Frequency	1717.5	1745	1772.5
10	Channel	132022	132322	132622
	Frequency	1715	1745	1775
5	Channel	131997	132322	132647
	Frequency	1712.5	1745	1777.5
3	Channel	131987	132322	132657
	Frequency	1711.5	1745	1778.5
1.4	Channel	131979	132322	132665
	Frequency	1710.7	1745	1779.3

LTE Band 71 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	133222	133297	133372
	Frequency	673.0	680.5	688.0
15	Channel	133197	133297	133397
	Frequency	670.5	680.5	690.5
10	Channel	133172	133297	133422
	Frequency	668.0	680.5	693.0
5	Channel	133147	133297	133447
	Frequency	665.5	680.5	695.5

LTE Band 7 Channel and Frequency List_CA					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	20850	21001	21152
		Frequency	2510.0	2525.1	2540.2
	SCC	Channel	21048	21199	21350
		Frequency	2529.8	2544.9	2560.0
20 + 15	PCC	Channel	20850	21026	21201
		Frequency	2510.0	2527.6	2545.1
	SCC	Channel	21021	21197	21372
		Frequency	2527.1	2544.7	2562.2
15 + 20	PCC	Channel	20828	21003	21179
		Frequency	2507.8	2525.3	2542.9
	SCC	Channel	20999	21174	21350
		Frequency	2524.9	2542.4	2560.0
20 + 10	PCC	Channel	20850	21051	21251
		Frequency	2510.0	2530.1	2550.1
	SCC	Channel	20994	21195	21395
		Frequency	2524.4	2544.5	2564.5
10 + 20	PCC	Channel	20805	21006	21206
		Frequency	2505.5	2525.6	2545.6
	SCC	Channel	20949	21150	21350
		Frequency	2519.9	2540.0	2560.0
15 + 15	PCC	Channel	20825	21025	21225
		Frequency	2507.5	2527.5	2547.5
	SCC	Channel	20975	21175	21375
		Frequency	2522.5	2542.5	2562.5
15 + 10	PCC	Channel	20825	21051	21277
		Frequency	2507.5	2530.1	2552.7
	SCC	Channel	20945	21171	21397
		Frequency	2519.5	2542.1	2564.7

LTE Band 38 Channel and Frequency List_CA					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	37850	37901	37952
		Frequency	2580.0	2585.1	2590.2
	SCC	Channel	38048	38099	38150
		Frequency	2599.8	2604.9	2610.0

LTE Band 41 Channel and Frequency List_CA					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	39750	40521	41292
		Frequency	2506.0	2583.1	2660.2
	SCC	Channel	39948	40719	41490
		Frequency	2525.8	2602.9	2680.0
20 + 15	PCC	Channel	39750	40546	41341
		Frequency	2506.0	2585.6	2665.1
	SCC	Channel	39921	40717	41512
		Frequency	2523.1	2602.7	2682.2
15 + 20	PCC	Channel	39728	40523	41319
		Frequency	2503.8	2593.3	2662.9
	SCC	Channel	39899	40694	41490
		Frequency	2520.9	2600.4	2680.0
20 + 10	PCC	Channel	39750	40571	41391
		Frequency	2506.0	2588.1	2670.1
	SCC	Channel	39894	40715	41535
		Frequency	2520.4	2602.5	2684.5
10 + 20	PCC	Channel	39705	40526	41346
		Frequency	2501.5	2583.6	2665.6
	SCC	Channel	39849	40670	41490
		Frequency	2515.9	2598.0	2680.0

LTE Band 41 Channel and Frequency List_CA					
20 + 5	PCC	Channel	39750	40595	41440
		Frequency	2506.0	2590.5	2675.0
	SCC	Channel	39867	40712	41557
		Frequency	2517.7	2602.2	2686.7
5 + 20	PCC	Channel	39683	40528	41373
		Frequency	2499.3	2583.8	2668.3
	SCC	Channel	39800	40645	41490
		Frequency	2511.0	2595.5	2680.0
15 + 15	PCC	Channel	39725	40545	41365
		Frequency	2503.5	2585.5	2667.5
	SCC	Channel	39875	40695	41515
		Frequency	2518.5	2600.5	2682.5
10 + 15	PCC	Channel	39703	40549	41395
		Frequency	2501.3	2585.9	2670.5
	SCC	Channel	39823	40669	41515
		Frequency	2513.3	2597.9	2682.5
15 + 10	PCC	Channel	39725	40571	41417
		Frequency	2503.5	2588.1	2672.7
	SCC	Channel	39845	40691	41537
		Frequency	2515.5	2600.1	2684.7

LTE Band 5 Channel and Frequency List_CA					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
10 + 10	PCC	Channel	20450	20476	20501
		Frequency	829.0	831.6	834.1
	SCC	Channel	20549	20575	20600
		Frequency	838.9	841.5	844.0

LTE Band 66B Channel and Frequency List_CA					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
15 + 5	PCC	Channel	132047	132398	132549
		Frequency	1717.5	1752.6	1767.7
	SCC	Channel	132140	133391	132642
		Frequency	1726.8	1761.9	1777.0
10 + 10	PCC	Channel	132022	132373	135523
		Frequency	1715.0	1750.1	1765.1
	SCC	Channel	132121	133372	132622
		Frequency	1724.9	1760.0	1775.0

LTE Band 66C Channel and Frequency List_CA					
20 + 20	PCC	Channel	132072	132323	132374
		Frequency	1720.0	1745.1	1750.2
	SCC	Channel	132270	133421	132572
		Frequency	1739.8	1764.9	1770.0

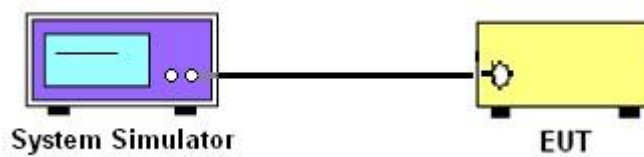
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.1.1 Test Setup

3.1.2 Conducted Output Power



3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

3.2 Conducted Output Power and ERP/EIRP

3.2.1 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 7 Watts for LTE Band 5 and Band 26

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12 and Band 13 and Band 17 and Band 71

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 and Band 25 and Band 7 and Band 38 and Band 41

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4 and Band 66

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

3.2.2 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.

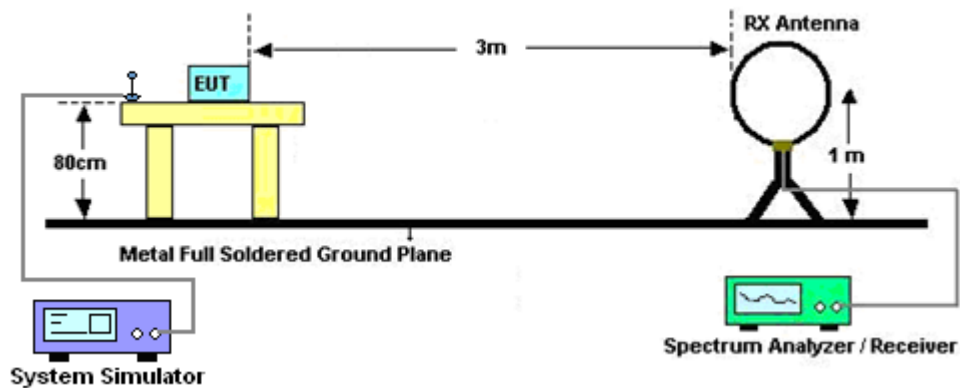
4 Radiated Test Items

4.1 Measuring Instruments

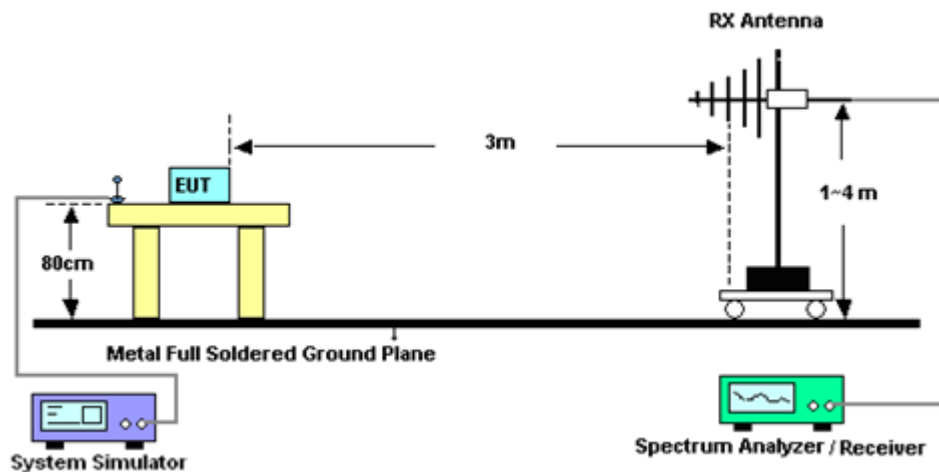
See list of measuring instruments of this test report.

4.1.1 Test Setup

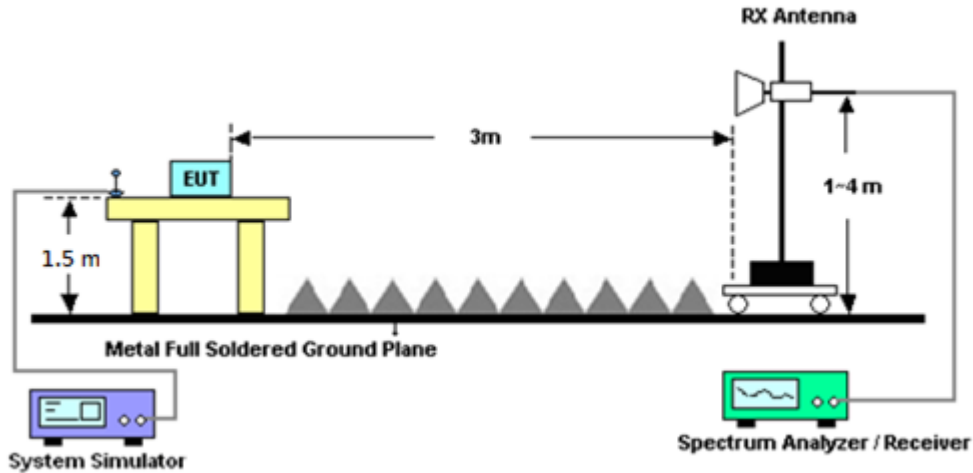
For radiated test below 30MHz



For radiated test from 30MHz to 1GHz



For radiated test from above 1GHz



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 adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

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 $43 + 10 \log (P)$ dB.

For LTE Band 7, 38, 41

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 $55 + 10 \log (P)$ dB.

For LTE Band 13

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

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.

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

For LTE Band 7, 38, 41

The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)

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

ERP (dBm) = EIRP - 2.15



5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Jan. 04, 2021	Sep. 20, 2021~ Sep. 28, 2021	Jan. 03, 2022	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	37059 & 01	30MHz~1GHz	Oct. 11, 2020	Sep. 20, 2021~ Sep. 28, 2021	Oct. 10, 2021	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 11, 2020	Sep. 20, 2021~ Sep. 28, 2021	Oct. 10, 2021	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1328	1GHz~18GHz	Nov. 23, 2020	Sep. 20, 2021~ Sep. 28, 2021	Nov. 22, 2021	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz~18GHz	May 18, 2021	Sep. 20, 2021~ Sep. 28, 2021	May 17, 2022	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	00993	18GHz~40GHz	Nov. 19, 2020	Sep. 20, 2021~ Sep. 28, 2021	Nov. 18, 2021	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz~40GHz	May 21, 2021	Sep. 20, 2021~ Sep. 28, 2021	May 20, 2022	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 24, 2021	Sep. 20, 2021~ Sep. 28, 2021	Mar. 23, 2022	Radiation (03CH12-HY)
Preamplifier	Aglient	8449B	3008A02375	1GHz~26.5GHz	May 25, 2021	Sep. 20, 2021~ Sep. 28, 2021	May 24, 2022	Radiation (03CH12-HY)
Preamplifier	E-INSTRUMENT TECH LTD.	ERA-100M-18 G-56-01-A70	EC1900249	1GHz~18GHz	Dec. 05, 2020	Sep. 20, 2021~ Sep. 28, 2021	Dec. 04, 2021	Radiation (03CH12-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 11, 2020	Sep. 20, 2021~ Sep. 28, 2021	Dec. 10, 2021	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Jan. 15, 2021	Sep. 20, 2021~ Sep. 28, 2021	Jan. 14, 2022	Radiation (03CH12-HY)
Signal Generator	Rohde & Schwarz	SMB100A	101107	100kHz~40GHz	Dec. 04, 2020	Sep. 20, 2021~ Sep. 28, 2021	Dec. 03, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0058/126E	30MHz~18GHz	Dec. 11, 2020	Sep. 20, 2021~ Sep. 28, 2021	Dec. 10, 2021	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz~40GHz	Feb. 22, 2021	Sep. 20, 2021~ Sep. 28, 2021	Feb. 21, 2022	Radiation (03CH12-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz~40GHz	Feb. 22, 2021	Sep. 20, 2021~ Sep. 28, 2021	Feb. 21, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WLKS1200-12SS	SN2	1.2GHz Low Pass Filter	Mar. 17, 2021	Sep. 20, 2021~ Sep. 28, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-1080-1200-15000-6OSS	SN1	1.2GHz High Pass Filter	Mar. 17, 2021	Sep. 20, 2021~ Sep. 28, 2021	Mar. 16, 2022	Radiation (03CH12-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-6OST	SN2	3GHz High Pass Filter	Jul. 12, 2021	Sep. 20, 2021~ Sep. 28, 2021	Jul. 11, 2022	Radiation (03CH12-HY)
Hygrometer	TECEPEL	DTM-303B	TP140349	N/A	Oct. 02, 2020	Sep. 20, 2021~ Sep. 28, 2021	Oct. 01, 2021	Radiation (03CH12-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Sep. 20, 2021~ Sep. 28, 2021	N/A	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Sep. 20, 2021~ Sep. 28, 2021	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Sep. 20, 2021~ Sep. 28, 2021	N/A	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	N/A	N/A	Sep. 20, 2021~ Sep. 28, 2021	N/A	Radiation (03CH12-HY)
Base Station (Measure)	Anritsu	MT8821C	6262025341	N/A	Oct. 06, 2020	Sep. 20, 2021	Oct. 05, 2021	Conducted (TH03-HY)

6 Uncertainty of Evaluation

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

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

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

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

Conducted Output Power(Average power & ERP/EIRP)

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	23.23	22.65	23.31	23.81	0.2404
20	1	99		22.65	21.86	23.26		
20	100	0		21.85	21.22	21.65		
20	1	0	16-QAM	22.66	23.32	22.52	23.82	0.2410
20	1	0	64-QAM	21.33	20.89	21.66	22.16	0.1644
Limit	EIRP < 2W			Result			Pass	

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	23.05	22.75	23.15	23.65	0.2317
15	1	0	16-QAM	22.65	21.65	22.44	23.15	0.2065
15	1	0	64-QAM	21.36	21.23	21.52	22.02	0.1592
Limit	EIRP < 2W			Result			Pass	

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	22.79	22.86	22.58	23.36	0.2168
10	1	0	16-QAM	22.06	22.18	21.89	22.68	0.1854
10	1	0	64-QAM	21.32	20.86	20.73	21.82	0.1521
Limit	EIRP < 2W			Result			Pass	

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	23.11	23.02	22.95	23.61	0.2296
5	1	0	16-QAM	22.12	22.23	22.25	22.75	0.1884
5	1	0	64-QAM	21.52	21.25	21.36	22.02	0.1592
Limit	EIRP < 2W			Result			Pass	

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
3	1	0	QPSK	22.96	23.06	23.09	23.59	0.2286
3	1	0	16-QAM	22.03	22.32	22.16	22.82	0.1914
3	1	0	64-QAM	21.25	21.56	21.36	22.06	0.1607
Limit	EIRP < 2W			Result			Pass	

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.5 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
1.4	1	0	QPSK	23.05	23.16	23.25	23.75	0.2371
1.4	1	0	16-QAM	22.32	22.36	22.44	22.94	0.1968
1.4	1	0	64-QAM	22.13	21.23	21.25	22.63	0.1832
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	22.77	22.85	23.32	23.72	0.2355
20	1	99		22.82	23.06	22.63		
20	100	0		21.87	22.05	22.13		
20	1	0	16-QAM	22.01	21.87	22.63	23.03	0.2009
20	1	0	64-QAM	21.32	21.23	21.37	21.77	0.1503
Limit	EIRP < 2W			Result			Pass	

LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	22.63	22.73	22.85	23.25	0.2113
15	1	0	16-QAM	21.68	22.25	21.87	22.65	0.1841
15	1	0	64-QAM	20.96	21.21	21.12	21.61	0.1449
Limit	EIRP < 2W			Result			Pass	

LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	22.72	22.68	22.72	23.12	0.2051
10	1	0	16-QAM	21.86	21.82	21.63	22.26	0.1683
10	1	0	64-QAM	20.85	21.03	20.85	21.43	0.1390
Limit	EIRP < 2W			Result			Pass	

LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	22.63	22.65	23.13	23.53	0.2254
5	1	0	16-QAM	22.12	21.85	22.62	23.02	0.2004
5	1	0	64-QAM	20.87	20.69	21.36	21.76	0.1500
Limit	EIRP < 2W			Result			Pass	

LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
3	1	0	QPSK	22.63	22.56	22.93	23.33	0.2153
3	1	0	16-QAM	21.85	21.86	21.93	22.33	0.1710
3	1	0	64-QAM	20.32	20.78	21.32	21.72	0.1486
Limit	EIRP < 2W			Result			Pass	

LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.4 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
1.4	1	0	QPSK	22.63	22.63	22.66	23.06	0.2023
1.4	1	0	16-QAM	21.56	21.68	21.92	22.32	0.1706
1.4	1	0	64-QAM	20.72	20.86	20.68	21.26	0.1337
Limit	EIRP < 2W			Result			Pass	



LTE Band 4 Maximum Average Power [dBm] (GT - LC = 0.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	22.98	22.78	22.89	23.93	0.2472
20	1	99		22.63	22.86	22.85		
20	100	0		21.77	21.79	21.96		
20	1	0	16-QAM	22.56	22.26	22.56	23.51	0.2244
20	1	0	64-QAM	21.65	20.80	21.25	22.60	0.1820
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = 0.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	22.86	22.59	22.79	23.81	0.2404
15	1	0	16-QAM	22.38	22.21	21.58	23.33	0.2153
15	1	0	64-QAM	21.36	20.65	20.72	22.31	0.1702
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = 0.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	22.78	22.60	22.89	23.84	0.2421
10	1	0	16-QAM	21.85	21.65	21.98	22.93	0.1963
10	1	0	64-QAM	21.18	20.85	21.36	22.31	0.1702
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = 0.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	22.96	22.67	22.96	23.91	0.2460
5	1	0	16-QAM	22.16	21.69	22.22	23.17	0.2075
5	1	0	64-QAM	21.33	21.21	21.16	22.28	0.1690
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = 0.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
3	1	0	QPSK	22.82	22.44	22.77	23.77	0.2382
3	1	0	16-QAM	21.63	21.63	21.65	22.60	0.1820
3	1	0	64-QAM	20.86	20.75	21.18	22.13	0.1633
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = 0.95 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
1.4	1	0	QPSK	22.63	22.68	22.78	23.73	0.2360
1.4	1	0	16-QAM	21.65	21.75	22.13	23.08	0.2032
1.4	1	0	64-QAM	21.23	20.63	21.36	22.31	0.1702
Limit	EIRP < 1W			Result			Pass	



LTE Band 5 Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	22.86	22.92	22.83	20.34	0.1081
10	1	49		22.75	22.73	22.63		
10	50	0		21.78	21.82	21.83		
10	1	0	16-QAM	21.85	21.89	21.86	19.31	0.0853
10	1	0	64-QAM	21.32	21.26	21.66	19.08	0.0809
Limit	ERP < 7W			Result			Pass	

LTE Band 5 Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	22.78	22.76	22.77	20.2	0.1047
5	1	0	16-QAM	21.85	21.88	21.85	19.3	0.0851
5	1	0	64-QAM	21.25	21.56	21.36	18.98	0.0791
Limit	ERP < 7W			Result			Pass	

LTE Band 5 Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
3	1	0	QPSK	22.75	22.78	22.91	20.33	0.1079
3	1	0	16-QAM	21.86	21.66	22.22	19.64	0.0920
3	1	0	64-QAM	21.65	21.36	21.63	19.07	0.0807
Limit	ERP < 7W			Result			Pass	

LTE Band 5 Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
1.4	1	0	QPSK	22.78	22.86	22.86	20.28	0.1067
1.4	1	0	16-QAM	21.85	21.36	21.63	19.27	0.0845
1.4	1	0	64-QAM	20.96	21.26	21.35	18.77	0.0753
Limit	ERP < 7W			Result			Pass	



LTE Band 7 Maximum Average Power [dBm] (GT - LC = 0.36 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	23.12	23.26	22.77	23.62	0.2301
20	1	99		23.03	22.86	23.26		
20	100	0		22.12	22.44	22.13		
20	1	0	16-QAM	22.56	22.76	21.87	23.12	0.2051
20	1	0	64-QAM	21.22	21.59	20.86	21.95	0.1567
Limit	EIRP < 2W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = 0.36 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	23.13	23.22	22.89	23.58	0.2280
15	1	0	16-QAM	22.56	22.58	22.12	22.94	0.1968
15	1	0	64-QAM	21.58	21.36	21.23	21.94	0.1563
Limit	EIRP < 2W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = 0.36 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	23.23	23.23	23.13	23.59	0.2286
10	1	0	16-QAM	22.58	22.52	22.52	22.94	0.1968
10	1	0	64-QAM	21.21	21.62	21.52	21.98	0.1578
Limit	EIRP < 2W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = 0.36 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	23.06	23.23	23.12	23.59	0.2286
5	1	0	16-QAM	22.55	22.44	22.56	22.92	0.1959
5	1	0	64-QAM	21.85	21.56	21.52	22.21	0.1663
Limit	EIRP < 2W			Result			Pass	



LTE Band 12 Maximum Average Power [dBm] (GT - LC = -1.66 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	22.58	22.86	22.72	19.05	0.0804
10	1	49		22.62	22.56	22.63		
10	50	0		21.72	21.58	21.68		
10	1	0	16-QAM	21.65	22.21	21.85	18.4	0.0692
10	1	0	64-QAM	20.75	21.97	20.65	18.16	0.0655
Limit	ERP < 3W			Result			Pass	

LTE Band 12 Maximum Average Power [dBm] (GT - LC = -1.66 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	22.63	22.69	22.63	18.88	0.0773
5	1	0	16-QAM	21.86	21.86	21.75	18.05	0.0638
5	1	0	64-QAM	20.96	20.96	21.13	17.32	0.0540
Limit	ERP < 3W			Result			Pass	

LTE Band 12 Maximum Average Power [dBm] (GT - LC = -1.66 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
3	1	0	QPSK	22.63	22.63	22.66	18.85	0.0767
3	1	0	16-QAM	21.86	21.85	21.86	18.05	0.0638
3	1	0	64-QAM	20.75	20.96	20.96	17.15	0.0519
Limit	ERP < 3W			Result			Pass	

LTE Band 12 Maximum Average Power [dBm] (GT - LC = -1.66 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
1.4	1	0	QPSK	22.56	22.68	22.69	18.88	0.0773
1.4	1	0	16-QAM	21.87	21.86	22.20	18.39	0.0690
1.4	1	0	64-QAM	21.86	20.96	20.98	18.05	0.0638
Limit	ERP < 3W			Result			Pass	



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LTE Band 13 Maximum Average Power [dBm] (GT - LC = -1.44 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	-	22.73	-	19.14	0.0820
10	1	49			22.56			
10	50	0			21.65			
10	1	0	16-QAM		21.86		18.27	0.0671
10	1	0	64-QAM		20.97		17.38	0.0547
Limit	ERP < 3W			Result			Pass	

LTE Band 13 Maximum Average Power [dBm] (GT - LC = -1.44 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	22.52	22.65	22.72	19.13	0.0818
5	1	0	16-QAM	21.52	21.85	21.36	18.26	0.0670
5	1	0	64-QAM	20.96	20.96	20.56	17.37	0.0546
Limit	ERP < 3W			Result			Pass	



FCC RADIO TEST REPORT

Report No. : FG190337B

LTE Band 17 Maximum Average Power [dBm] (GT - LC = -1.59 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	22.85	22.63	22.75	19.11	0.0815
10	1	49		22.72	22.69	22.32		
10	50	0		21.62	21.65	21.82		
10	1	0	16-QAM	21.87	21.36	21.65	18.13	0.0650
10	1	0	64-QAM	21.32	20.85	21.12	17.58	0.0573
Limit	ERP < 3W			Result			Pass	

LTE Band 17 Maximum Average Power [dBm] (GT - LC = -1.59 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	22.82	22.72	22.63	19.08	0.0809
5	1	0	16-QAM	21.86	21.69	21.71	18.12	0.0649
5	1	0	64-QAM	20.86	20.78	20.65	17.12	0.0515
Limit	ERP < 3W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
15	1	0	QPSK	22.63	22.66	22.93	20.35	0.1084
15	1	74		22.76	22.56	22.63		
15	75	0		21.86	21.78	21.68		
15	1	0	16-QAM	20.85	21.72	21.52	19.14	0.0820
Limit	ERP < 7W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	22.75	22.76	22.73	20.18	0.1042
10	1	0	16-QAM	21.36	21.32	21.56	18.98	0.0791
10	1	0	64-QAM	20.63	20.53	20.25	18.05	0.0638
Limit	ERP < 7W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	22.63	22.76	22.68	20.18	0.1042
5	1	0	16-QAM	21.71	21.35	21.52	19.13	0.0818
5	1	0	64-QAM	20.68	20.35	20.36	18.1	0.0646
Limit	ERP < 7W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
3	1	0	QPSK	22.66	22.77	22.76	20.19	0.1045
3	1	0	16-QAM	21.32	21.32	21.36	18.78	0.0755
3	1	0	64-QAM	20.85	20.25	20.33	18.27	0.0671
Limit	ERP < 7W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -0.43 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
1.4	1	0	QPSK	22.69	22.76	22.86	20.28	0.1067
1.4	1	0	16-QAM	21.32	21.32	21.63	19.05	0.0804
1.4	1	0	64-QAM	20.23	20.32	20.65	18.07	0.0641
Limit	ERP < 7W			Result			Pass	



LTE Band 38 Maximum Average Power [dBm] (GT - LC = 0.76 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	23.44	23.46	23.26	24.22	0.2642
20	1	99		23.39	23.21	23.13		
20	100	0		23.35	22.25	22.15		
20	1	0	16-QAM	22.32	22.86	22.36	23.62	0.2301
20	1	0	64-QAM	21.36	21.58	21.52	22.34	0.1714
Limit	EIRP < 2W			Result			Pass	

LTE Band 38 Maximum Average Power [dBm] (GT - LC = 0.76 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	23.44	23.36	23.21	24.20	0.2630
15	1	0	16-QAM	22.56	22.52	22.39	23.32	0.2148
15	1	0	64-QAM	21.36	21.23	21.82	22.58	0.1811
Limit	EIRP < 2W			Result			Pass	

LTE Band 38 Maximum Average Power [dBm] (GT - LC = 0.76 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	23.13	23.25	23.13	24.01	0.2518
10	1	0	16-QAM	22.52	22.36	22.03	23.28	0.2128
10	1	0	64-QAM	21.63	21.32	21.29	22.39	0.1734
Limit	EIRP < 2W			Result			Pass	

LTE Band 38 Maximum Average Power [dBm] (GT - LC = 0.76 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	23.36	23.26	23.13	24.12	0.2582
5	1	0	16-QAM	22.63	22.56	22.36	23.39	0.2183
5	1	0	64-QAM	21.58	21.63	21.36	22.39	0.1734
Limit	EIRP < 2W			Result			Pass	



LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 1.62 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	25.35	25.32	24.85	26.97	0.4977
20	1	99		25.03	25.09	24.87		
20	100	0		24.26	24.32	24.36		
20	1	0	16-QAM	24.56	24.62	24.52	26.24	0.4207
20	1	0	64-QAM	23.69	23.58	23.55	25.31	0.3396
Limit	EIRP < 2W			Result			Pass	

LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 1.62 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	25.33	25.32	24.96	26.95	0.4955
15	1	0	16-QAM	24.69	24.44	24.32	26.31	0.4276
15	1	0	64-QAM	23.75	23.51	23.36	25.37	0.3443
Limit	EIRP < 2W			Result			Pass	

LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 1.62 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	25.35	25.33	24.96	26.97	0.4977
10	1	0	16-QAM	24.77	24.86	24.25	26.48	0.4446
10	1	0	64-QAM	23.63	23.63	23.25	25.25	0.3350
Limit	EIRP < 2W			Result			Pass	

LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 1.62 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	25.26	25.22	24.96	26.88	0.4875
5	1	0	16-QAM	24.32	24.23	24.32	25.94	0.3926
5	1	0	64-QAM	23.36	23.63	23.63	25.25	0.3350
Limit	EIRP < 2W			Result			Pass	



LTE Band 66 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
20	1	0	QPSK	22.99	22.76	22.63	23.79	0.2393
20	1	99		22.63	22.85	22.87		
20	100	0		21.56	21.96	21.79		
20	1	0	16-QAM	22.32	21.65	21.60	23.12	0.2051
20	1	0	64-QAM	21.70	20.82	20.85	22.50	0.1778
Limit	EIRP < 1W			Result			Pass	

LTE Band 66 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
15	1	0	QPSK	22.86	22.68	22.36	23.66	0.2323
15	1	0	16-QAM	22.12	22.06	21.89	22.92	0.1959
15	1	0	64-QAM	21.69	21.16	21.02	22.49	0.1774
Limit	EIRP < 1W			Result			Pass	

LTE Band 66 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
10	1	0	QPSK	22.78	22.75	22.52	23.58	0.2280
10	1	0	16-QAM	21.86	21.65	21.76	22.66	0.1845
10	1	0	64-QAM	20.85	20.63	20.56	21.65	0.1462
Limit	EIRP < 1W			Result			Pass	

LTE Band 66 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
5	1	0	QPSK	22.85	22.77	22.72	23.65	0.2317
5	1	0	16-QAM	21.76	21.63	21.58	22.56	0.1803
5	1	0	64-QAM	20.65	20.71	20.36	21.51	0.1416
Limit	EIRP < 1W			Result			Pass	

LTE Band 66 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
3	1	0	QPSK	22.77	22.63	22.76	23.57	0.2275
3	1	0	16-QAM	21.63	21.68	21.63	22.48	0.1770
3	1	0	64-QAM	20.73	20.32	20.58	21.53	0.1422
Limit	EIRP < 1W			Result			Pass	

LTE Band 66 Maximum Average Power [dBm] (GT - LC = 0.8 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
1.4	1	0	QPSK	22.76	22.73	22.72	23.56	0.2270
1.4	1	0	16-QAM	21.32	21.58	21.54	22.38	0.1730
1.4	1	0	64-QAM	20.69	20.54	20.57	21.49	0.1409
Limit	EIRP < 1W			Result			Pass	



LTE Band 71 Maximum Average Power [dBm] (GT - LC = -1.91 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
20	1	0	QPSK	22.87	22.63	22.63	19.26	0.0843
20	1	99		22.56	23.32	22.02		
20	100	0		21.58	21.96	21.63		
20	1	0	16-QAM	21.32	21.36	21.97	17.91	0.0618
20	1	0	64-QAM	20.36	20.97	20.69	16.91	0.0491
Limit	ERP < 3W			Result			Pass	

LTE Band 71 Maximum Average Power [dBm] (GT - LC = -1.91 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
15	1	0	QPSK	22.44	22.74	22.77	18.71	0.0743
15	1	0	16-QAM	21.56	21.58	21.96	17.9	0.0617
15	1	0	64-QAM	20.96	20.74	20.58	16.9	0.0490
Limit	ERP < 3W			Result			Pass	

LTE Band 71 Maximum Average Power [dBm] (GT - LC = -1.91 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	22.36	22.82	22.86	18.8	0.0759
10	1	0	16-QAM	21.86	21.65	21.54	17.8	0.0603
10	1	0	64-QAM	20.66	20.69	20.38	16.63	0.0460
Limit	ERP < 3W			Result			Pass	

LTE Band 71 Maximum Average Power [dBm] (GT - LC = -1.91 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	22.58	22.58	22.39	18.52	0.0711
5	1	0	16-QAM	21.52	21.63	21.85	17.79	0.0601
5	1	0	64-QAM	20.36	20.71	20.36	16.65	0.0462
Limit	ERP < 3W			Result			Pass	



LTE Band 5B_CA Maximum Average Power [dBm] (GT - LC = -0.43 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
	RB Size	RB Offset	RB Size	RB Offset						
10+10	50	0	50	0	QPSK	20.67	20.58	20.64	20.48	0.1117
10+10	1	0	1	49		12.48	12.25	12.30		
10+10	1	49	1	0		22.50	23.06	22.57		
10+10	1	0	1	49	16-QAM	13.21	12.64	12.10	19.78	0.0951
10+10	1	49	1	0		21.93	22.36	21.65		
10+10	1	0	1	49	64-QAM	12.36	12.43	12.46	18.56	0.0718
10+10	1	49	1	0		20.71	20.83	21.14		
Limit	ERP < 7W					Result			Pass	

LTE Band 66B_CA Maximum Average Power [dBm] (GT - LC = 0.8 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
15+5	75	0	25	0	QPSK	22.98	22.24	22.13	23.78	0.2388
15+5	1	0	1	24		22.15	22.19	22.13		
15+5	1	74	1	0		21.65	22.78	22.65		
15+5	1	0	1	24	16-QAM	22.50	22.10	22.16	23.57	0.2275
15+5	1	74	1	0		22.51	22.77	22.57		
15+5	1	0	1	24	64-QAM	22.44	22.13	22.56	23.36	0.2168
15+5	1	74	1	0		22.31	22.50	22.26		
Limit	EIRP < 1W					Result			Pass	

LTE Band 66C_CA Maximum Average Power [dBm] (GT - LC = 0.8 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
20+20	100	0	100	0	QPSK	20.51	20.31	20.43	23.45	0.2213
20+20	1	0	1	99		13.74	13.42	13.52		
20+20	1	99	1	0		22.36	22.65	22.47		
20+20	1	0	1	99	16-QAM	14.13	14.10	13.48	22.69	0.1858
20+20	1	99	1	0		21.32	21.89	21.41		
20+20	1	0	1	99	64-QAM	14.48	13.87	14.19	21.92	0.1556
20+20	1	99	1	0		20.69	20.88	21.12		
Limit	EIRP < 1W					Result			Pass	



FCC RADIO TEST REPORT

Report No. : FG190337B

LTE Band 7C_CA Maximum Average Power [dBm] (GT - LC = 0.36 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
20+20	100	0	100	0	QPSK	21.86	21.85	22.13	24.31	0.2698
20+20	1	0	1	99		15.12	14.96	15.03		
20+20	1	99	1	0		23.91	23.79	23.95		
20+20	1	0	1	99	16-QAM	15.32	15.55	15.65	24.02	0.2523
20+20	1	99	1	0		23.66	23.26	23.36		
20+20	1	0	1	99	64-QAM	15.13	15.12	15.52	22.58	0.1811
20+20	1	99	1	0		22.21	22.03	22.22		
20+15	100	0	75	0	QPSK	20.40	20.23	20.37	22.74	0.1879
20+15	1	0	1	74		13.93	13.36	13.81		
20+15	1	99	1	0		22.36	22.38	22.13		
20+15	1	0	1	74	16-QAM	14.26	13.96	13.64	22.56	0.1803
20+15	1	99	1	0		22.20	21.80	21.83		
15+20	75	0	100	0	QPSK	20.41	20.34	20.33	23.72	0.2355
15+20	1	0	1	99		13.46	13.05	13.75		
15+20	1	74	1	0		22.82	22.19	23.36		
15+20	1	0	1	99	16-QAM	13.70	13.83	14.30	22.21	0.1663
15+20	1	74	1	0		21.60	21.66	21.85		
Limit	EIRP < 2W					Result			Pass	

LTE Band 7C_CA Maximum Average Power [dBm] (GT - LC = 0.36 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
20+10	100	0	75	0	QPSK	20.34	20.22	20.31	22.75	0.1884
20+10	1	0	1	74		13.71	13.70	13.76		
20+10	1	99	1	0		22.31	22.18	22.39		
20+10	1	0	1	74	16-QAM	14.31	13.98	14.21	22.64	0.1837
20+10	1	99	1	0		21.74	21.42	22.28		
10+20	75	0	100	0	QPSK	20.31	20.24	20.12	22.71	0.1866
10+20	1	0	1	99		13.58	13.70	13.71		
10+20	1	74	1	0		22.35	22.19	22.35		
10+20	1	0	1	99	16-QAM	14.49	13.92	13.52	21.90	0.1549
10+20	1	74	1	0		21.28	21.49	21.54		
15+15	75	0	100	0	QPSK	20.35	20.24	20.30	22.72	0.1871
15+15	1	0	1	99		13.64	13.67	13.67		
15+15	1	74	1	0		22.36	22.10	22.31		
15+15	1	0	1	99	16-QAM	14.06	13.82	13.83	22.37	0.1726
15+15	1	74	1	0		22.01	21.49	21.39		
Limit	EIRP < 2W					Result			Pass	

LTE Band 7C_CA Maximum Average Power [dBm] (GT - LC = 0.36 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
15+10	75	0	100	0	QPSK	20.34	20.15	20.31	22.67	0.1849
15+10	1	0	1	99		13.80	20.32	13.94		
15+10	1	74	1	0		22.31	22.23	22.27		
15+10	1	0	1	99	16-QAM	13.78	19.36	14.28	22.30	0.1698
15+10	1	74	1	0		21.40	21.94	21.69		
Limit	EIRP < 2W					Result			Pass	



FCC RADIO TEST REPORT

Report No. : FG190337B

LTE Band 38C_CA Maximum Average Power [dBm] (GT - LC = 0.76 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
20+20	1	99	1	0	QPSK	23.57	23.52	23.55	24.33	0.2710
20+20	1	99	1	0	16-QAM	22.58	22.49	22.44	23.34	0.2158
20+20	1	99	1	0	64-QAM	21.54	21.46	21.46	22.30	0.1698
Limit	EIRP < 2W					Result			Pass	

LTE Band 41C_CA Maximum Average Power [dBm] (GT - LC = 1.62 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
20+20	100	0	100	0	QPSK	21.59	21.19	21.31	25.25	0.3350
20+20	1	0	1	99		15.03	14.42	14.62		
20+20	1	99	1	0		23.63	23.18	23.14		
20+20	1	0	1	99	16-QAM	15.22	14.77	15.29	24.73	0.2972
20+20	1	99	1	0		23.11	22.81	22.47		
20+20	1	0	1	99	64-QAM	15.55	14.54	15.25	24.65	0.2917
20+20	1	99	1	0		23.03	21.63	21.58		
20+15	100	0	75	0	QPSK	21.49	21.13	21.16	25.13	0.3258
20+15	1	0	1	74		14.88	14.47	14.72		
20+15	1	99	1	0		23.51	23.22	22.96		
20+15	1	0	1	74	16-QAM	15.44	15.09	14.88	24.71	0.2958
20+15	1	99	1	0		23.09	22.97	22.82		
15+20	75	0	100	0	QPSK	21.48	21.28	21.08	24.95	0.3126
15+20	1	0	1	99		14.79	14.59	14.57		
15+20	1	74	1	0		22.41	23.33	23.01		
15+20	1	0	1	99	16-QAM	15.38	15.28	14.64	24.43	0.2773
15+20	1	74	1	0		22.39	22.81	22.55		
Limit	EIRP < 2W					Result			Pass	

LTE Band 41C_CA Maximum Average Power [dBm] (GT - LC = 1.62 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
20+10	100	0	50	0	QPSK	21.41	21.14	21.11	25.12	0.3251
20+10	1	0	1	49		14.89	14.55	14.78		
20+10	1	99	1	0		23.50	23.32	22.95		
20+10	1	0	1	49	16-QAM	15.44	15.17	15.14	24.88	0.3076
20+10	1	99	1	0		23.26	22.61	22.24		
10+20	50	0	100	0	QPSK	21.32	21.17	21.10	25.17	0.3289
10+20	1	0	1	99		14.85	14.45	14.61		
10+20	1	49	1	0		23.55	23.12	23.06		
10+20	1	0	1	99	16-QAM	15.36	14.94	15.24	25.00	0.3162
10+20	1	49	1	0		23.38	22.67	22.68		
20+5	100	0	25	0	QPSK	21.54	21.21	20.99	24.84	0.3048
20+5	1	0	1	24		14.98	14.62	14.67		
20+5	1	99	1	0		22.68	23.22	22.72		
20+5	1	0	1	24	16-QAM	15.47	15.32	15.41	24.81	0.3027
20+5	1	99	1	0		23.19	22.79	22.56		
Limit	EIRP < 2W					Result			Pass	



LTE Band 41C_CA Maximum Average Power [dBm] (GT - LC = 1.62 dB)										
BW [MHz]	PCC		SCC		Mod	Lowest	Middle	Highest	EIRP (dBm)	EIRP (W)
	RB Size	RB Offset	RB Size	RB Offset						
5+20	25	0	100	0	QPSK	21.47	21.18	21.06	24.26	0.2667
5+20	1	0	1	99		14.82	14.47	14.61		
5+20	1	24	1	0		22.13	22.64	22.58		
5+20	1	0	1	99	16-QAM	22.86	15.05	15.07	24.48	0.2805
5+20	1	24	1	0		22.51	22.39	22.29		
15+10	75	0	50	0	QPSK	21.44	21.11	20.99	25.21	0.3319
15+10	1	0	1	49		14.85	14.52	14.71		
15+10	1	74	1	0		23.59	23.09	22.88		
15+10	1	0	1	49	16-QAM	15.36	15.05	15.32	24.70	0.2951
15+10	1	74	1	0		23.08	22.64	21.83		
10+15	50	0	75	0	QPSK	21.41	21.16	21.11	25.07	0.3214
10+15	1	0	1	74		14.87	14.64	14.57		
10+15	1	49	1	0		23.45	23.25	23.02		
10+15	1	0	1	74	16-QAM	15.28	14.95	14.90	24.75	0.2985
10+15	1	49	1	0		23.13	22.44	22.59		
Limit	EIRP < 2W					Result			Pass	

LTE Band 41C_CA Maximum Average Power [dBm] (GT - LC = 1.62 dB)										
15+15	75	0	75	0	QPSK	20.76	21.08	21.07	25.08	0.3221
15+15	1	0	1	74		14.88	14.43	14.61		
15+15	1	74	1	0		23.46	23.26	22.97		
15+15	1	0	1	74	16-QAM	15.36	14.96	14.78	24.73	0.2972
15+15	1	74	1	0		23.11	22.61	22.47		
Limit	EIRP < 2W					Result			Pass	



Appendix B. Test Results of Radiated Test

LTE Band 5

LTE Band 5 / 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)
Lowest	1649	-60.82	-13	-47.82	-70.47	-66.42	0.92	8.67	H
	2473	-55.65	-13	-42.65	-69.6	-63.02	1.14	10.66	H
	3298	-55.37	-13	-42.37	-71.43	-63.91	1.32	12.02	H
									H
									H
									H
									H
	1649	-60.15	-13	-47.15	-69.27	-65.75	0.92	8.67	V
	2473	-54.34	-13	-41.34	-68.44	-61.71	1.14	10.66	V
	3298	-54.50	-13	-41.50	-71.03	-63.04	1.32	12.02	V
									V
									V
									V
									V
Middle	1664	-61.16	-13	-48.16	-70.85	-66.81	0.93	8.72	H
	2496	-54.70	-13	-41.70	-68.65	-62.10	1.15	10.69	H
	3328	-54.89	-13	-41.89	-70.9	-63.50	1.33	12.09	H
									H
									H
									H
	1664	-61.38	-13	-48.38	-70.48	-67.03	0.93	8.72	V
	2496	-50.21	-13	-37.21	-64.37	-57.61	1.15	10.69	V
	3328	-54.18	-13	-41.18	-70.65	-62.79	1.33	12.09	V
									V
									V
									V
									V
									V



Highest	1679	-60.80	-13	-47.80	-70.53	-66.50	0.93	8.78	H
	2518	-56.45	-13	-43.45	-70.41	-63.87	1.15	10.72	H
	3358	-54.90	-13	-41.90	-70.85	-63.57	1.33	12.16	H
									H
									H
									H
									H
	1679	-61.40	-13	-48.40	-70.48	-67.10	0.93	8.78	V
	2518	-55.33	-13	-42.33	-69.46	-62.75	1.15	10.72	V
	3358	-54.67	-13	-41.67	-71.07	-63.34	1.33	12.16	V
									V
									V
									V
									V

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

**LTE Band 5B**

LTE Band 5B / 10MHz+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)
Lowest	1666	-58.21	-13	-45.21	-67.9	-63.86	0.93	8.73	H
	2500	-50.97	-13	-37.97	-64.92	-58.37	1.15	10.70	H
	3333	-54.43	-13	-41.43	-70.43	-63.05	1.33	12.10	H
									H
									H
									H
									H
	1666	-58.61	-13	-45.61	-67.7	-64.26	0.93	8.73	V
	2500	-50.39	-13	-37.39	-64.56	-57.79	1.15	10.70	V
	3333	-54.68	-13	-41.68	-71.14	-63.30	1.33	12.10	V
									V
									V
									V
									V
Middle	1672	-58.91	-13	-45.91	-68.63	-64.59	0.93	8.75	H
	2510	-52.26	-13	-39.26	-66.21	-59.67	1.15	10.71	H
	3344	-55.21	-13	-42.21	-71.19	-63.85	1.33	12.13	H
									H
									H
									H
									H
	1672	-59.07	-13	-46.07	-68.16	-64.75	0.93	8.75	V
	2510	-51.46	-13	-38.46	-65.61	-58.87	1.15	10.71	V
	3344	-54.50	-13	-41.50	-70.93	-63.14	1.33	12.13	V
									V
									V
									V
									V



Highest	1677	-58.30	-13	-45.30	-68.02	-63.99	0.93	8.77	H
	2515	-52.69	-13	-39.69	-66.65	-60.10	1.15	10.72	H
	3354	-55.08	-13	-42.08	-71.03	-63.75	1.33	12.15	H
									H
									H
									H
									H
	1677	-59.16	-13	-46.16	-68.24	-64.85	0.93	8.77	V
	2515	-54.01	-13	-41.01	-68.15	-61.42	1.15	10.72	V
	3354	-54.47	-13	-41.47	-70.87	-63.14	1.33	12.15	V
									V
									V
									V
									V

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

**LTE Band 25**

LTE Band 25 / 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)
Lowest	3702	-52.23	-13	-39.23	-70.79	-63.44	1.41	12.62	H
	5553	-48.85	-13	-35.85	-71.75	-60.41	1.74	13.30	H
	7404	-44.67	-13	-31.67	-71.65	-53.99	1.94	11.25	H
									H
									H
									H
									H
	3702	-52.45	-13	-39.45	-71.16	-63.66	1.41	12.62	V
	5553	-48.76	-13	-35.76	-71.19	-60.32	1.74	13.30	V
	7404	-44.43	-13	-31.43	-71.26	-53.75	1.94	11.25	V
									V
									V
									V
									V
Middle	3742	-52.39	-13	-39.39	-71.04	-63.61	1.42	12.65	H
	5613	-48.21	-13	-35.21	-71.04	-59.77	1.74	13.30	H
	7484	-45.34	-13	-32.34	-71.98	-54.48	1.98	11.13	H
									H
									H
									H
									H
	3742	-52.43	-13	-39.43	-71.28	-63.65	1.42	12.65	V
	5613	-48.20	-13	-35.20	-70.69	-59.76	1.74	13.30	V
	7484	-45.51	-13	-32.51	-72.1	-54.65	1.98	11.13	V
									V
									V
									V
									V



Highest	3792	-52.20	-13	-39.20	-70.97	-63.44	1.44	12.68	H
	5688	-47.01	-13	-34.01	-70.19	-58.58	1.73	13.30	H
	7584	-45.66	-13	-32.66	-71.8	-54.78	2.00	11.12	H
									H
									H
									H
									H
	3792	-51.80	-13	-38.80	-70.83	-63.04	1.44	12.68	V
	5688	-47.61	-13	-34.61	-70.26	-59.18	1.73	13.30	V
	7584	-45.68	-13	-32.68	-71.78	-54.80	2.00	11.12	V
									V
									V
									V
									V

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

**LTE Band 66**

LTE Band 66 / 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)
Lowest	3420	-54.45	-13	-41.45	-71.26	-65.41	1.35	12.31	H
	5133	-47.03	-13	-34.03	-68.6	-58.17	1.64	12.79	H
	6844	-47.14	-13	-34.14	-72.56	-57.52	1.74	12.12	H
									H
									H
									H
									H
	3420	-54.30	-13	-41.30	-71.53	-65.26	1.35	12.31	V
	5133	-49.58	-13	-36.58	-70.9	-60.72	1.64	12.79	V
	6844	-47.41	-13	-34.41	-72.43	-57.79	1.74	12.12	V
									V
									V
									V
									V
Middle	3472	-54.01	-13	-41.01	-71.36	-65.09	1.35	12.43	H
	5205	-47.53	-13	-34.53	-69.16	-58.75	1.66	12.89	H
	6944	-46.10	-13	-33.10	-72.03	-56.35	1.73	11.98	H
									H
									H
									H
									H
	3472	-53.15	-13	-40.15	-70.88	-64.23	1.35	12.43	V
	5205	-50.17	-13	-37.17	-71.63	-61.39	1.66	12.89	V
	6944	-46.49	-13	-33.49	-71.96	-56.74	1.73	11.98	V
									V
									V
									V
									V



Highest	3525	-53.87	-13	-40.87	-71.68	-65.02	1.37	12.52	H
	5283	-45.44	-13	-32.44	-67.36	-56.75	1.68	13.00	H
	7044	-45.92	-13	-32.92	-72.31	-56.01	1.74	11.83	H
									H
									H
									H
									H
	3525	-53.56	-13	-40.56	-71.65	-64.71	1.37	12.52	V
	5283	-50.07	-13	-37.07	-71.73	-61.38	1.68	13.00	V
	7044	-45.90	-13	-32.90	-71.83	-55.99	1.74	11.83	V
									V
									V
									V
									V

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

**LTE Band 66B**

LTE Band 66B / 10MHz+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)
Lowest	3441	-54.30	-13	-41.30	-71.33	-65.31	1.35	12.36	H
	5156	-47.09	-13	-34.09	-70.67	-58.26	1.65	12.82	H
	6878	-46.96	-13	-33.96	-72.55	-57.29	1.74	12.07	H
									H
									H
									H
									H
	3441	-53.79	-13	-40.79	-71.22	-64.80	1.35	12.36	V
	5156	-48.67	-13	-35.67	-70.03	-59.84	1.65	12.82	V
	6878	-46.82	-13	-33.82	-71.99	-57.15	1.74	12.07	V
									V
									V
									V
									V
Middle	3511	-53.53	-13	-40.53	-71.24	-64.67	1.36	12.51	H
	5261	-47.27	-13	-34.27	-69.11	-58.56	1.68	12.97	H
	7018	-45.23	-13	-32.23	-71.52	-55.37	1.73	11.87	H
									H
									H
									H
									H
	3511	-53.14	-13	-40.14	-71.17	-64.28	1.36	12.51	V
	5261	-48.14	-13	-35.14	-69.75	-59.43	1.68	12.97	V
	7018	-45.92	-13	-32.92	-71.73	-56.06	1.73	11.87	V
									V
									V
									V
									V



Highest	3539	-53.78	-13	-40.78	-71.69	-64.93	1.37	12.52	H
	5310	-48.76	-13	-35.76	-70.8	-60.10	1.69	13.03	H
	7081	-45.01	-13	-32.01	-71.52	-55.02	1.76	11.77	H
									H
									H
									H
									H
	3539	-53.17	-13	-40.17	-71.3	-64.32	1.37	12.52	V
	5310	-48.83	-13	-35.83	-70.57	-60.17	1.69	13.03	V
	7081	-45.88	-13	-32.88	-71.98	-55.89	1.76	11.77	V
									V
									V
									V
									V

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

**LTE Band 66C**

LTE Band 66C / 20MHz+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)
Lowest	3455	-54.25	-13	-41.25	-71.42	-64.68	1.83	12.27	H
	5186	-50.34	-13	-37.34	-71.93	-60.19	2.28	12.14	H
	6915	-46.53	-13	-33.53	-72.32	-55.12	2.39	10.99	H
									H
									H
									H
									H
	3455	-54.04	-13	-41.04	-71.6	-64.47	1.83	12.27	V
	5186	-50.50	-13	-37.50	-71.91	-60.35	2.28	12.14	V
	6915	-46.84	-13	-33.84	-72.17	-55.43	2.39	10.99	V
									V
									V
									V
									V
Middle	3509	-53.28	-13	-40.28	-70.97	-63.80	1.87	12.39	H
	5268	-47.76	-13	-34.76	-69.63	-57.66	2.25	12.15	H
	7018	-45.57	-13	-32.57	-71.86	-54.03	2.41	10.87	H
									H
									H
									H
									H
	3509	-53.43	-13	-40.43	-71.45	-63.95	1.87	12.39	V
	5268	-49.04	-13	-36.04	-70.66	-58.94	2.25	12.15	V
	7018	-45.98	-13	-32.98	-71.79	-54.44	2.41	10.87	V
									V
									V
									V
									V



Highest	3518	-53.63	-13	-40.63	-71.39	-64.14	1.88	12.39	H
	5277	-50.25	-13	-37.25	-72.16	-60.16	2.25	12.16	H
	7036	-45.91	-13	-32.91	-72.26	-54.35	2.40	10.84	H
									H
									H
									H
									H
	3518	-53.56	-13	-40.56	-71.61	-64.07	1.88	12.39	V
	5277	-50.19	-13	-37.19	-71.84	-60.10	2.25	12.16	V
	7036	-46.12	-13	-33.12	-72.03	-54.56	2.40	10.84	V
									V
									V
									V
									V

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

**LTE Band 13**

LTE Band 13 / 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)
Lowest	1552	-54.19	-13	-41.19	-64.12	-59.45	0.89	8.30	H
	2336	-51.15	-13	-38.15	-65.49	-58.36	1.11	10.47	H
	3104	-54.98	-13	-41.98	-70.97	-63.09	1.29	11.55	H
									H
									H
									H
									H
	1552	-55.50	-13	-42.50	-64.72	-60.76	0.89	8.30	V
	2336	-51.96	-13	-38.96	-65.87	-59.17	1.11	10.47	V
	3104	-54.87	-13	-41.87	-71.19	-62.98	1.29	11.55	V
									V
									V
									V
									V
Middle	1560	-55.17	-42.15	-13.02	-65.03	-60.46	0.89	8.33	H
	2336	-51.55	-13	-38.55	-65.89	-58.76	1.11	10.47	H
	3120	-54.72	-13	-41.72	-70.75	-62.87	1.29	11.59	H
	1560	-56.11	-42.15	-13.96	-65.33	-61.40	0.89	8.33	V
	2336	-50.58	-13	-37.58	-64.49	-57.79	1.11	10.47	V
	3120	-54.32	-13	-41.32	-70.71	-62.47	1.29	11.59	V



Highest	1568	-54.68	-42.15	-12.53	-64.48	-60.00	0.89	8.36	H
	2344	-50.22	-13	-37.22	-64.50	-57.44	1.12	10.48	H
	3136	-54.79	-13	-41.79	-70.87	-62.97	1.29	11.63	H
									H
									H
									H
									H
	1568	-56.12	-42.15	-13.97	-65.33	-61.44	0.89	8.36	V
	2344	-51.43	-13	-38.43	-65.34	-58.65	1.12	10.48	V
	3136	-54.59	-13	-41.59	-71.06	-62.77	1.29	11.63	V
									V
									V
									V
									V

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



LTE Band 13 / 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	1552	-54.21	-13	-41.21	-64.14	-59.47	0.89	8.30	H
	2336	-51.84	-13	-38.84	-66.18	-59.05	1.11	10.47	H
	3104	-55.20	-13	-42.20	-71.19	-63.31	1.29	11.55	H
									H
									H
									H
									H
	1552	-56.10	-13	-43.10	-65.32	-61.36	0.89	8.30	V
	2336	-52.01	-13	-39.01	-65.92	-59.22	1.11	10.47	V
	3104	-54.85	-13	-41.85	-71.17	-62.96	1.29	11.55	V
									V
									V
									V
									V

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

**LTE Band 12**

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)
Lowest	1400	-56.06	-13	-43.06	-44.06	-60.71	0.84	7.64	H
	2096	-46.42	-13	-33.42	-34.42	-53.34	1.06	10.13	H
	2800	-55.98	-13	-42.98	-43.98	-63.67	1.22	11.06	H
									H
									H
									H
									H
	1400	-59.29	-13	-46.29	-68.99	-63.94	0.84	7.64	V
	2096	-47.72	-13	-34.72	-60.10	-54.64	1.06	10.13	V
	2800	-55.84	-13	-42.84	-70.60	-63.53	1.22	11.06	V
									V
									V
									V
									V
Middle	1408	-57.02	-13	-44.02	-67.90	-61.70	0.85	7.68	H
	2112	-45.23	-13	-32.23	-58.98	-52.17	1.06	10.16	H
	2816	-55.43	-13	-42.43	-70.31	-63.13	1.23	11.08	H
									H
									H
									H
									H
	1408	-59.28	-13	-46.28	-68.94	-63.96	0.85	7.68	V
	2112	-47.31	-13	-34.31	-59.94	-54.25	1.06	10.16	V
	2816	-55.43	-13	-42.43	-70.27	-63.13	1.23	11.08	V
									V
									V
									V
									V



Highest	1413	-59.40	-13	-46.40	-70.26	-64.10	0.85	7.70	H
	2120	-46.70	-13	-33.70	-60.57	-53.65	1.07	10.17	H
	2824	-55.62	-13	-42.62	-70.55	-63.33	1.23	11.09	H
									H
									H
									H
									H
	1413	-60.41	-13	-47.41	-70.05	-65.11	0.85	7.70	V
	2120	-49.07	-13	-36.07	-61.81	-56.02	1.07	10.17	V
	2824	-55.53	-13	-42.53	-70.43	-63.24	1.23	11.09	V
									V
									V
									V
									V

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

**LTE Band 7**

LTE Band 7 / 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)
Lowest	5002	-46.67	-25	-21.67	-68.18	-57.66	1.61	12.60	H
	7503	-45.38	-25	-20.38	-71.94	-54.49	1.99	11.10	H
	10004	-42.31	-25	-17.31	-71.26	-51.21	2.40	11.30	H
									H
									H
									H
									H
	5002	-48.79	-25	-23.79	-69.85	-59.78	1.61	12.60	V
	7503	-45.16	-25	-20.16	-71.69	-54.27	1.99	11.10	V
	10004	-41.75	-25	-16.75	-71.49	-50.65	2.40	11.30	V
									V
									V
									V
									V
Middle	5052	-49.40	-25	-24.40	-70.93	-60.45	1.62	12.67	H
	7578	-45.83	-25	-20.83	-72	-54.94	2.00	11.12	H
	10104	-41.94	-25	-16.94	-71.2	-50.76	2.40	11.22	H
									H
									H
									H
									H
	5052	-50.19	-25	-25.19	-71.35	-61.24	1.62	12.67	V
	7578	-45.93	-25	-20.93	-72.06	-55.04	2.00	11.12	V
	10104	-41.88	-25	-16.88	-71.72	-50.70	2.40	11.22	V
									V
									V
									V
									V



Highest	5102	-49.67	-25	-24.67	-71.23	-60.78	1.64	12.74	H
	7653	-45.79	-25	-20.79	-71.87	-54.91	2.01	11.13	H
	10204	-42.12	-25	-17.12	-71.7	-50.86	2.40	11.14	H
									H
									H
									H
									H
	5102	-50.20	-25	-25.20	-71.46	-61.31	1.64	12.74	V
	7653	-45.83	-25	-20.83	-71.79	-54.95	2.01	11.13	V
	10204	-41.74	-25	-16.74	-71.67	-50.48	2.40	11.14	V
									V
									V
									V
									V

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

**LTE Band 41(HPUE)**

LTE Band 41 / 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)
Lowest	4994	-49.95	-25	-24.95	-71.45	-60.94	1.61	12.60	H
	7491	-45.67	-25	-20.67	-72.28	-54.80	1.99	11.11	H
	9988	-42.57	-25	-17.57	-71.56	-51.48	2.40	11.30	H
									H
									H
									H
									H
	4994	-50.03	-25	-25.03	-71.07	-61.02	1.61	12.60	V
	7491	-45.58	-25	-20.58	-72.15	-54.71	1.99	11.11	V
	9988	-41.95	-25	-16.95	-71.7	-50.86	2.40	11.30	V
									V
									V
									V
									V
Middle	5168	-49.96	-25	-24.96	-71.55	-61.14	1.65	12.84	H
	7752	-45.75	-25	-20.75	-71.85	-54.88	2.03	11.15	H
	10336	-41.77	-25	-16.77	-71.75	-50.41	2.39	11.03	H
									H
									H
									H
									H
	5168	-50.39	-25	-25.39	-71.77	-61.57	1.65	12.84	V
	7752	-45.85	-25	-20.85	-71.71	-54.98	2.03	11.15	V
	10336	-41.81	-25	-16.81	-71.86	-50.45	2.39	11.03	V
									V
									V
									V
									V



Highest	5342	-50.23	-25	-25.23	-72.39	-61.61	1.70	13.08	H
	8013	-44.19	-25	-19.19	-71.66	-53.36	2.06	11.23	H
	10683	-41.69	-25	-16.69	-72.54	-50.10	2.49	10.90	H
									H
									H
									H
									H
	5342	-50.77	-25	-25.77	-72.58	-62.15	1.70	13.08	V
	8013	-44.43	-25	-19.43	-71.79	-53.60	2.06	11.23	V
	10683	-41.86	-25	-16.86	-72.46	-50.27	2.49	10.90	V
									V
									V
									V
									V

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

**LTE Band 7C**

LTE Band 7 / 20+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)
Lowest	5037	-49.63	-25	-24.63	-71.16	-60.66	1.62	12.65	H
	7556	-45.11	-25	-20.11	-71.4	-54.22	2.00	11.11	H
	10075	-42.30	-25	-17.30	-71.47	-51.14	2.40	11.24	H
									H
									H
									H
									H
	5037	-49.84	-25	-24.84	-70.98	-60.87	1.62	12.65	V
	7556	-45.35	-25	-20.35	-71.6	-54.46	2.00	11.11	V
	10075	-41.34	-25	-16.34	-71.15	-50.18	2.40	11.24	V
									V
									V
									V
									V
Middle	5068	-49.64	-25	-24.64	-71.18	-60.71	1.63	12.70	H
	7602	-45.56	-25	-20.56	-71.62	-54.68	2.00	11.12	H
	10136	-41.68	-25	-16.68	-71.05	-50.47	2.40	11.19	H
									H
									H
									H
									H
	5068	-49.59	-25	-24.59	-70.78	-60.66	1.63	12.70	V
	7602	-45.49	-25	-20.49	-71.5	-54.61	2.00	11.12	V
	10136	-41.17	-25	-16.17	-71.04	-49.96	2.40	11.19	V
									V
									V
									V
									V



Highest	5098	-49.39	-25	-24.39	-70.95	-60.49	1.64	12.74	H
	7647	-45.68	-25	-20.68	-71.74	-54.80	2.01	11.13	H
	10196	-41.47	-25	-16.47	-71.02	-50.22	2.40	11.14	H
									H
									H
									H
									H
	5098	-49.50	-25	-24.50	-70.75	-60.60	1.64	12.74	V
	7647	-45.72	-25	-20.72	-71.68	-54.84	2.01	11.13	V
	10196	-41.39	-25	-16.39	-71.31	-50.14	2.40	11.14	V
									V
									V
									V
									V

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

**LTE Band 41C**

LTE Band 41C / 20MHz+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)
Lowest	5028	-49.39	-25	-24.39	-70.92	-60.41	1.62	12.64	H
	7544	-45.23	-25	-20.23	-71.58	-54.34	2.00	11.11	H
	10062	-42.44	-25	-17.44	-71.58	-51.29	2.40	11.25	H
									H
									H
									H
									H
	5028	-50.30	-25	-25.30	-71.42	-61.32	1.62	12.64	V
	7544	-45.62	-25	-20.62	-71.94	-54.73	2.00	11.11	V
	10062	-41.59	-25	-16.59	-71.39	-50.44	2.40	11.25	V
									V
									V
									V
									V
Middle	5184	-50.39	-25	-25.39	-71.98	-61.59	1.66	12.86	H
	7776	-45.40	-25	-20.40	-71.5	-54.53	2.03	11.16	H
	10368	-41.29	-25	-16.29	-71.37	-49.90	2.39	11.01	H
									H
									H
									H
									H
	5184	-50.64	-25	-25.64	-72.05	-61.84	1.66	12.86	V
	7776	-45.60	-25	-20.60	-71.43	-54.73	2.03	11.16	V
	10368	-41.56	-25	-16.56	-71.64	-50.17	2.39	11.01	V
									V
									V
									V
									V



Highest	5340	-50.30	-25	-25.30	-72.45	-61.68	1.70	13.08	H
	8007	-44.19	-25	-19.19	-71.65	-53.34	2.06	11.21	H
	10674	-41.15	-25	-16.15	-71.98	-49.57	2.48	10.90	H
									H
									H
									H
									H
	5340	-50.55	-25	-25.55	-72.36	-61.93	1.70	13.08	V
	8007	-44.36	-25	-19.36	-71.72	-53.51	2.06	11.21	V
	10674	-41.13	-25	-16.13	-71.71	-49.55	2.48	10.90	V
									V
									V
									V
									V

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

**LTE Band 71**

LTE Band 71 / 20MHz / 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)
Lowest	1328	-58.43	-13	-45.43	-69.06	-64.91	0.83	7.31	H
	1992	-55.45	-13	-42.45	-67.27	-64.38	1.04	9.97	H
	2656	-56.58	-13	-43.58	-70.8	-66.28	1.19	10.89	H
									H
									H
									H
									H
	1328	-59.68	-13	-46.68	-69.47	-66.16	0.83	7.31	V
	1992	-54.33	-13	-41.33	-65.18	-63.26	1.04	9.97	V
	2656	-56.13	-13	-43.13	-70.32	-65.83	1.19	10.89	V
									V
									V
									V
									V
Middle	1348	-56.35	-13	-43.35	-67.05	-62.92	0.83	7.40	H
	2022	-52.79	-13	-39.79	-65.06	-61.78	1.04	10.03	H
	2696	-56.09	-13	-43.09	-70.47	-65.83	1.20	10.94	H
									H
									H
									H
									H
	1348	-58.76	-13	-45.76	-68.52	-65.33	0.83	7.40	V
	2022	-52.03	-13	-39.03	-63.3	-61.02	1.04	10.03	V
	2696	-56.10	-13	-43.10	-70.43	-65.84	1.20	10.94	V
									V
									V
									V
									V



Highest	1358	-57.12	-13	-44.12	-67.86	-63.73	0.83	7.45	H
	2037	-52.73	-13	-39.73	-65.24	-61.73	1.05	10.05	H
	2716	-56.47	-13	-43.47	-70.93	-66.23	1.20	10.96	H
									H
									H
									H
									H
	1358	-58.65	-13	-45.65	-68.39	-65.26	0.83	7.45	V
	2037	-49.50	-13	-36.50	-60.99	-58.50	1.05	10.05	V
	2716	-56.33	-13	-43.33	-70.75	-66.09	1.20	10.96	V
									V
									V
									V
									V

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