



FCC RADIO TEST REPORT

FCC ID : PU5-LN13WYD
Equipment : Notebook Computer
Brand Name : Lenovo
Model Name : Lenovo 13w Yoga
Applicant : Wistron Corporation
21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih Dist,
New Taipei City 221, Taiwan
Manufacturer : Lenovo PC HK Limited.
23/F, Lincoln House, Taikoo Place, 979 King's Road,
Quarry Bay, Hong Kong, 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 Jan. 04, 2022 and testing was performed from Feb. 21, 2022 to Mar. 04, 2022. We, Sporton International Inc. Wensan 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. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory



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History of this test report

Report No.	Version	Description	Issued Date
FG1D2927B	01	Initial issue of report	Mar. 09, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Reporting only	-
	§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 1.11 dB at 1560.000 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:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".

Comments and Explanations:

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

Reviewed by: Sheng Kuo

Report Producer: Lucy Wu

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Notebook Computer
Brand Name	Lenovo
Model Name	Lenovo 13w Yoga
FCC ID	PU5-LN13WYD
Sample 1	EUT with AWAN Antenna
Sample 2	EUT with WNC Antenna
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.

Antenna Information				
Main Antenna	Manufacturer	AWAN	Peak gain(dBi)	LTE Band 2 : 0.72 LTE Band 4 : -0.67 LTE Band 5 : -3.36 LTE Band 7 : -1.75 LTE Band 12 : -4.10 LTE Band 13 : -2.80 LTE Band 17 : -4.16 LTE Band 25 : 0.72 LTE Band 26 : -2.99 LTE Band 38 : -2.30 LTE Band 41 : -1.66 LTE Band 66 : -0.67 LTE Band 71 : -2.73
	Part number	025.901Z3.0001	Type	PIFA
Main Antenna	Manufacturer	WNC	Peak gain(dBi)	LTE Band 2 : 0.33 LTE Band 4 : 1.08 LTE Band 5 : -3.66 LTE Band 7 : 1.90 LTE Band 12 : -0.83 LTE Band 13 : -1.78 LTE Band 17 : -0.82 LTE Band 25 : 0.33 LTE Band 26 : -3.77 LTE Band 38 : 0.76 LTE Band 41 : 1.93 LTE Band 66 : 1.08 LTE Band 71 : -0.52
	Part number	025.901YZ.0001	Type	PIFA

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.



1.2 Product Specification of Equipment Under Test

Product Specification is subject 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 is subject to this standard	
Maximum Output Power to Antenna	LTE Band 2 : 23.31 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 : 22.87 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
Test Site No.	Sporton Site No.
	TH03-HY (TAF Code: 1190)
Test Engineer	HaoEn Zhang
Temperature (°C)	22.1~23.4
Relative Humidity (%)	51.8~55.6
Remark	The Conducted test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory.

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010
Test Site No.	Sporton Site No.
	03CH13-HY
Test Engineer	Yuan Lee, Jacky Hong and Peter Liao
Temperature (°C)	20~25
Relative Humidity (%)	50~60

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 measurement, 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 **<Sample 1>**: Y Plane for LTE Band 25; Z Plane for LTE Band 5B; Notebook Type for LTE Band 26; **<Sample 2>**: Z Plane for LTE Band 12, 41_HPUE, 41C, 66, 66B, and 71; Notebook Type for LTE Band 7, 7C, 13, 66C 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
E.R.P / E.I.R.P	71	-	-	v	v	v	v	v	v	v	v		v	v	v	v
	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						



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
Radiated Spurious Emission	2	Covered by Band 25														
	4	Covered by Band 66														
	5	Covered by Band 26														
	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				v		-	v			v			v	v	v
	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	- 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.															

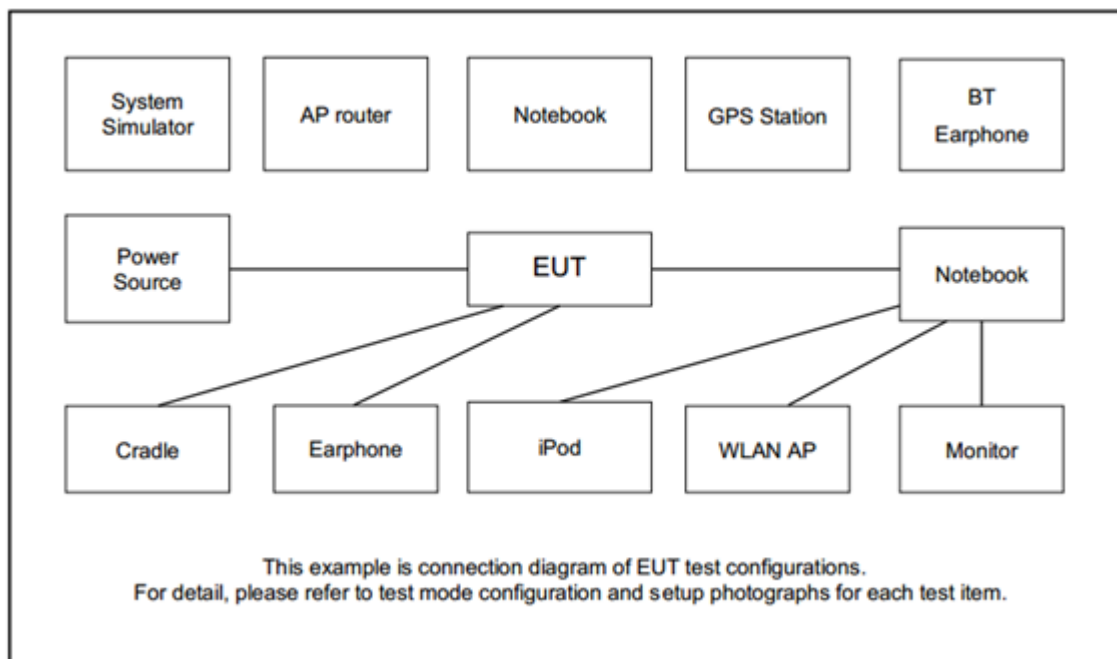
Test Items	Band	Bandwidth (MHz)					Modulation			RB #			Test Channel		
		3+5	5+3	5+10	10+5	10+10	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	5B_CA	-	-			v	v	v	v	v		v	v	v	v
E.R.P.	5B_CA	-	-			v	v	v	v	Max. Power					
Radiated Spurious Emission	5B_CA					v	v			v			v	v	v
Remark	- The mark "v" means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



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	7_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v		v	v	v	v
	38_CA	v	-	-	-	-	-	-		-	-	v	v	v	v			v	v	v
	41_CA	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
E.I.R.P.	7_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	Max. Power					
	38_CA	v	-	-	-	-	-	-		-	-	v	v	v						
	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v						
	66C_CA	v										v	v	v						
Radiated Spurious Emission	7_CA	v					-	-			-	v			v			v	v	v
	38_CA	Covered by Band 41C_CA																		
	41_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.																			

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

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.	Earphone	SONY	MH750	N/A	Unshielded, 1.2m	N/A
2.	System Simulator	Anritsu	MT8821C	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 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	Channel	132072	132322	132572
		Frequency	1720	1745	1770
15	Channel	Channel	132047	132322	132597
		Frequency	1717.5	1745	1772.5
10	Channel	Channel	132022	132322	132622
		Frequency	1715	1745	1775
5	Channel	Channel	131997	132322	132647
		Frequency	1712.5	1745	1777.5
3	Channel	Channel	131987	132322	132657
		Frequency	1711.5	1745	1778.5
1.4	Channel	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	Channel	133222	133297	133372
		Frequency	673.0	680.5	688.0
15	Channel	Channel	133197	133297	133397
		Frequency	670.5	680.5	690.5
10	Channel	Channel	133172	133297	133422
		Frequency	668.0	680.5	693.0
5	Channel	Channel	133147	133297	133447
		Frequency	665.5	680.5	695.5

LTE Band 5B 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 7C 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 38C Channel and Frequency List					
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 41C Channel and Frequency List					
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					
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 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
LTE Band 66C Channel and Frequency List_CA					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
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

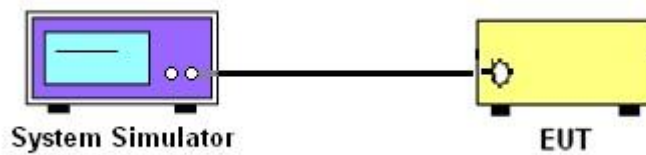
3 Conducted Test Items

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.

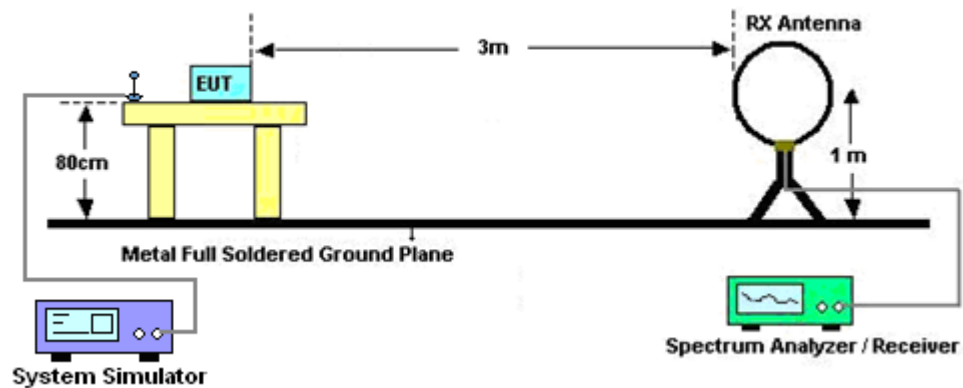
4 Radiated Test Items

4.1 Measuring Instruments

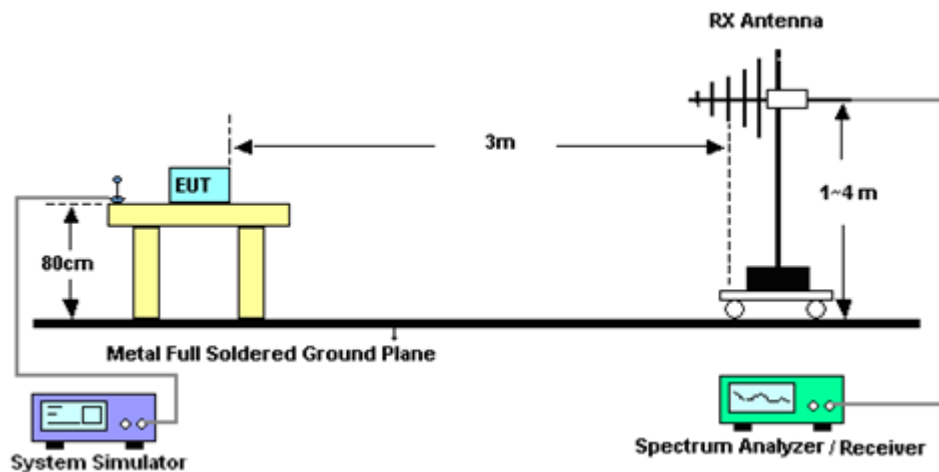
See list of measuring instruments of this test report.

4.1.1 Test Setup

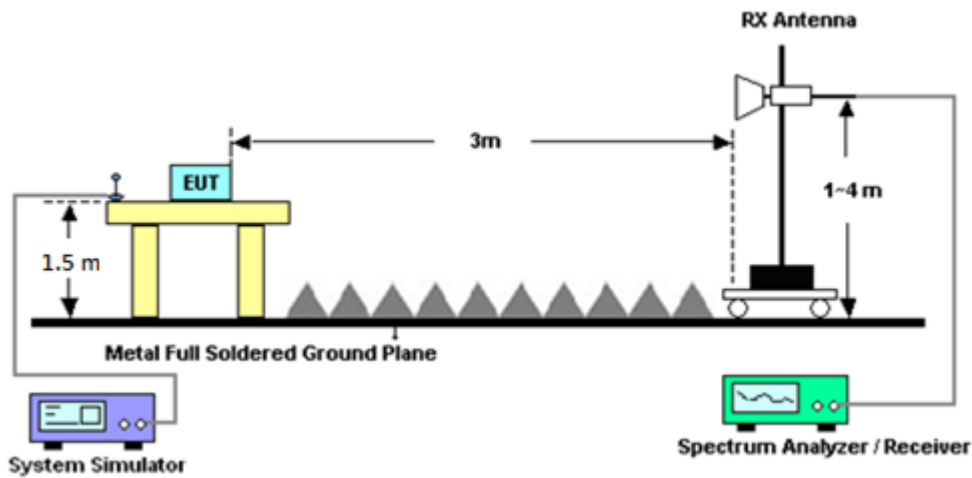
For radiated test below 30MHz



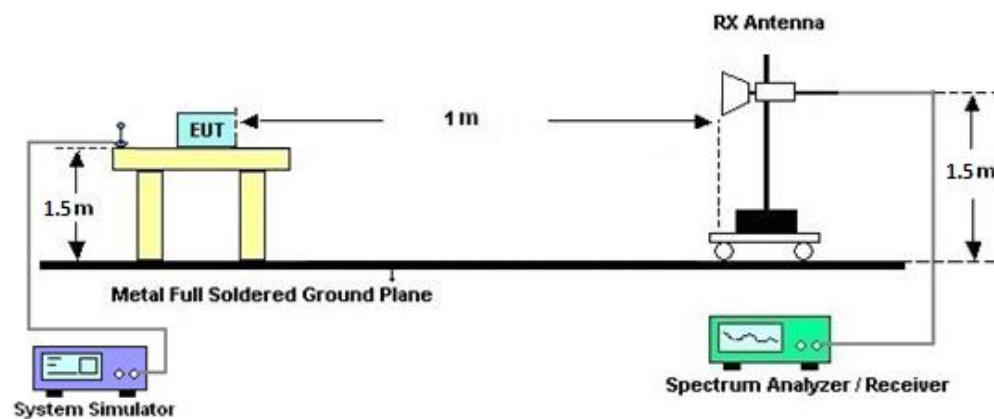
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



4.1.2 Test Result of Radiated Test

Please refer to Appendix B.

Note:

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

There is 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	100488	9kHz~30MHz	Sep. 07, 2021	Feb. 28, 2022~ Mar. 08, 2022	Sep. 06, 2022	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800N 1D01N-06	40103 & 07	30MHz~1GHz	Apr. 28, 2021	Feb. 28, 2022~ Mar. 08, 2022	Apr. 27, 2022	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00802N 1D01N-06	54682 & AT-N0603	30MHz~1GHz	Sep. 09, 2021	Feb. 28, 2022~ Mar. 08, 2022	Sep. 08, 2022	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9kHz~1GHz	Dec. 15, 2021	Feb. 28, 2022~ Mar. 08, 2022	Dec. 14, 2022	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1212	1GHz~18GHz	May 18, 2021	Feb. 28, 2022~ Mar. 08, 2022	May 17, 2022	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz~18GHz	Jul. 13, 2021	Feb. 28, 2022~ Mar. 08, 2022	Jul. 12, 2022	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-00101 800-30-10P	1590074	1GHz~18GHz	May 18, 2021	Feb. 28, 2022~ Mar. 08, 2022	May 17, 2022	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Oct. 26, 2021	Feb. 28, 2022~ Mar. 08, 2022	Oct. 25, 2022	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	00993	18GHz~40GHz	Nov. 30, 2021	Feb. 28, 2022~ Mar. 08, 2022	Nov. 29, 2022	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	00994	18GHz~40GHz	Nov. 04, 2021	Feb. 28, 2022~ Mar. 08, 2022	Nov. 03, 2022	Radiation (03CH13-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 22, 2021	Feb. 28, 2022~ Mar. 08, 2022	Jun. 21, 2022	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 18, 2021	Feb. 28, 2022~ Mar. 08, 2022	Mar. 17, 2022	Radiation (03CH13-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	Dec. 08, 2021	Feb. 28, 2022~ Mar. 08, 2022	Dec. 07, 2022	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-2700- 3000-18000-60 SS	SN2	3GHz High Pass Filter	Jul. 12, 2021	Feb. 28, 2022~ Mar. 08, 2022	Jul. 11, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz~30MHz	Mar. 11, 2021	Feb. 28, 2022~ Mar. 08, 2022	Mar. 10, 2022	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30MHz~18GHz	Feb. 09, 2022	Feb. 28, 2022~ Mar. 08, 2022	Feb. 08, 2023	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	804793/4	30MHz~18GHz	Feb. 09, 2022	Feb. 28, 2022~ Mar. 08, 2022	Feb. 08, 2023	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30MHz~18GHz	Feb. 09, 2022	Feb. 28, 2022~ Mar. 08, 2022	Feb. 08, 2023	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2, 804012/2	18GHz~40GHz	Jan. 04, 2022	Feb. 28, 2022~ Mar. 08, 2022	Jan. 03, 2023	Radiation (03CH13-HY)
Hygrometer	TECPEL	DTM-303B	TP200889	N/A	Sep. 30, 2021	Feb. 28, 2022~ Mar. 08, 2022	Sep. 29, 2022	Radiation (03CH13-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Feb. 28, 2022~ Mar. 08, 2022	N/A	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Feb. 28, 2022~ Mar. 08, 2022	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Feb. 28, 2022~ Mar. 08, 2022	N/A	Radiation (03CH13-HY)
Software	Audix	E3 6.2009-8-24	RK-000992	N/A	N/A	Feb. 28, 2022~ Mar. 08, 2022	N/A	Radiation (03CH13-HY)
Radio Communication Analyzer	Anritsu	MT8821C	6262025341	LTE FDD/TDD LTE-2CC ULCA/DLCA	Oct. 05, 2021	Feb. 21, 2022~ Feb. 25, 2022	Oct. 04, 2022	Conducted (TH03-HY)
Base Station (Measure)	Rohde & Schwarz	CMU200	117995	GSM/GPRS/ WCDMA/CDMA	Jul. 13, 2021	Feb. 21, 2022~ Feb. 25, 2022	Jul. 12, 2022	Conducted (TH03-HY)
Coupler	Warison	20dB 25W SMA Directional Coupler	#B	1-18GHz	Jan. 07, 2022	Feb. 21, 2022~ Feb. 25, 2022	Jan. 06, 2023	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% ($U = 2Uc(y)$)	3.45 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.73 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.00 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 = 0.72 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	24.03	0.2529
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	24.04	0.2535
20	1	0	64-QAM	21.33	20.89	21.66	22.38	0.1730
Limit	EIRP < 2W			Result			Pass	

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.87	0.2438
15	1	0	16-QAM	22.65	21.65	22.44	23.37	0.2173
15	1	0	64-QAM	21.36	21.23	21.52	22.24	0.1675
Limit	EIRP < 2W			Result			Pass	

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.58	0.2280
10	1	0	16-QAM	22.06	22.18	21.89	22.90	0.1950
10	1	0	64-QAM	21.32	20.86	20.73	22.04	0.1600
Limit	EIRP < 2W			Result			Pass	



LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.83	0.2415
5	1	0	16-QAM	22.12	22.23	22.25	22.97	0.1982
5	1	0	64-QAM	21.52	21.25	21.36	22.24	0.1675
Limit	EIRP < 2W			Result			Pass	

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.81	0.2404
3	1	0	16-QAM	22.03	22.32	22.16	23.04	0.2014
3	1	0	64-QAM	21.25	21.56	21.36	22.28	0.1690
Limit	EIRP < 2W			Result			Pass	

LTE Band 2 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.97	0.2495
1.4	1	0	16-QAM	22.32	22.36	22.44	23.16	0.2070
1.4	1	0	64-QAM	22.13	21.23	21.25	22.85	0.1928
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.72 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	24.04	0.2535
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	23.35	0.2163
20	1	0	64-QAM	21.32	21.23	21.37	22.09	0.1618
Limit	EIRP < 2W			Result			Pass	

LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.57	0.2275
15	1	0	16-QAM	21.68	22.25	21.87	22.97	0.1982
15	1	0	64-QAM	20.96	21.21	21.12	21.93	0.1560
Limit	EIRP < 2W			Result			Pass	

LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.44	0.2208
10	1	0	16-QAM	21.86	21.82	21.63	22.58	0.1811
10	1	0	64-QAM	20.85	21.03	20.85	21.75	0.1496
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.85	0.2427
5	1	0	16-QAM	22.12	21.85	22.62	23.34	0.2158
5	1	0	64-QAM	20.87	20.69	21.36	22.08	0.1614
Limit	EIRP < 2W			Result			Pass	

LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.65	0.2317
3	1	0	16-QAM	21.85	21.86	21.93	22.65	0.1841
3	1	0	64-QAM	20.32	20.78	21.32	22.04	0.1600
Limit	EIRP < 2W			Result			Pass	

LTE Band 25 Maximum Average Power [dBm] (GT - LC = 0.72 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	23.38	0.2178
1.4	1	0	16-QAM	21.56	21.68	21.92	22.64	0.1837
1.4	1	0	64-QAM	20.72	20.86	20.68	21.58	0.1439
Limit	EIRP < 2W			Result			Pass	



LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.08 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	24.06	0.2547
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	23.64	0.2312
20	1	0	64-QAM	21.65	20.80	21.25	22.73	0.1875
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.08 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	23.94	0.2477
15	1	0	16-QAM	22.38	22.21	21.58	23.46	0.2218
15	1	0	64-QAM	21.36	20.65	20.72	22.44	0.1754
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.08 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	23.97	0.2495
10	1	0	16-QAM	21.85	21.65	21.98	23.06	0.2023
10	1	0	64-QAM	21.18	20.85	21.36	22.44	0.1754
Limit	EIRP < 1W			Result			Pass	



LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.08 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	24.04	0.2535
5	1	0	16-QAM	22.16	21.69	22.22	23.30	0.2138
5	1	0	64-QAM	21.33	21.21	21.16	22.41	0.1742
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.08 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	23.90	0.2455
3	1	0	16-QAM	21.63	21.63	21.65	22.73	0.1875
3	1	0	64-QAM	20.86	20.75	21.18	22.26	0.1683
Limit	EIRP < 1W			Result			Pass	

LTE Band 4 Maximum Average Power [dBm] (GT - LC = 1.08 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	23.86	0.2432
1.4	1	0	16-QAM	21.65	21.75	22.13	23.21	0.2094
1.4	1	0	64-QAM	21.23	20.63	21.36	22.44	0.1754
Limit	EIRP < 1W			Result			Pass	



LTE Band 5 Maximum Average Power [dBm] (GT - LC = -3.36 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	17.41	0.0551
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	16.38	0.0435
10	1	0	64-QAM	21.32	21.26	21.66	16.15	0.0412
Limit	ERP < 7W			Result			Pass	

LTE Band 5 Maximum Average Power [dBm] (GT - LC = -3.36 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	17.27	0.0533
5	1	0	16-QAM	21.85	21.88	21.85	16.37	0.0434
5	1	0	64-QAM	21.25	21.56	21.36	16.05	0.0403
Limit	ERP < 7W			Result			Pass	

LTE Band 5 Maximum Average Power [dBm] (GT - LC = -3.36 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	17.40	0.0550
3	1	0	16-QAM	21.86	21.66	22.22	16.71	0.0469
3	1	0	64-QAM	21.65	21.36	21.63	16.14	0.0411
Limit	ERP < 7W			Result			Pass	

LTE Band 5 Maximum Average Power [dBm] (GT - LC = -3.36 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	17.35	0.0543
1.4	1	0	16-QAM	21.85	21.36	21.63	16.34	0.0431
1.4	1	0	64-QAM	20.96	21.26	21.35	15.84	0.0384
Limit	ERP < 7W			Result			Pass	



LTE Band 7 Maximum Average Power [dBm] (GT - LC = 1.9 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	25.16	0.3281
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	24.66	0.2924
20	1	0	64-QAM	21.22	21.59	20.86	23.49	0.2234
Limit	EIRP < 2W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = 1.9 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	25.12	0.3251
15	1	0	16-QAM	22.56	22.58	22.12	24.48	0.2805
15	1	0	64-QAM	21.58	21.36	21.23	23.48	0.2228
Limit	EIRP < 2W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = 1.9 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	25.13	0.3258
10	1	0	16-QAM	22.58	22.52	22.52	24.48	0.2805
10	1	0	64-QAM	21.21	21.62	21.52	23.52	0.2249
Limit	EIRP < 2W			Result			Pass	

LTE Band 7 Maximum Average Power [dBm] (GT - LC = 1.9 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	25.13	0.3258
5	1	0	16-QAM	22.55	22.44	22.56	24.46	0.2793
5	1	0	64-QAM	21.85	21.56	21.52	23.75	0.2371
Limit	EIRP < 2W			Result			Pass	



LTE Band 12 Maximum Average Power [dBm] (GT - LC = -0.83 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	19.88	0.0973
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	19.23	0.0838
10	1	0	64-QAM	20.75	21.97	20.65	18.99	0.0793
Limit	ERP < 3W			Result			Pass	

LTE Band 12 Maximum Average Power [dBm] (GT - LC = -0.83 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	19.71	0.0935
5	1	0	16-QAM	21.86	21.86	21.75	18.88	0.0773
5	1	0	64-QAM	20.96	20.96	21.13	18.15	0.0653
Limit	ERP < 3W			Result			Pass	

LTE Band 12 Maximum Average Power [dBm] (GT - LC = -0.83 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	19.68	0.0929
3	1	0	16-QAM	21.86	21.85	21.86	18.88	0.0773
3	1	0	64-QAM	20.75	20.96	20.96	17.98	0.0628
Limit	ERP < 3W			Result			Pass	

LTE Band 12 Maximum Average Power [dBm] (GT - LC = -0.83 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	19.71	0.0935
1.4	1	0	16-QAM	21.87	21.86	22.20	19.22	0.0836
1.4	1	0	64-QAM	21.86	20.96	20.98	18.88	0.0773
Limit	ERP < 3W			Result			Pass	



FCC RADIO TEST REPORT

Report No. : FG1D2927B

LTE Band 13 Maximum Average Power [dBm] (GT - LC = -1.78 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	-	22.73	-	18.80	0.0759
10	1	49			22.56			
10	50	0			21.65			
10	1	0	16-QAM		21.86		17.93	0.0621
10	1	0	64-QAM		20.97		17.04	0.0506
Limit	ERP < 3W			Result			Pass	

LTE Band 13 Maximum Average Power [dBm] (GT - LC = -1.78 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	18.79	0.0757
5	1	0	16-QAM	21.52	21.85	21.36	17.92	0.0619
5	1	0	64-QAM	20.96	20.96	20.56	17.03	0.0505
Limit	ERP < 3W			Result			Pass	



FCC RADIO TEST REPORT

Report No. : FG1D2927B

LTE Band 17 Maximum Average Power [dBm] (GT - LC = -0.82 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	19.88	0.0973
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	18.90	0.0776
10	1	0	64-QAM	21.32	20.85	21.12	18.35	0.0684
Limit	ERP < 3W			Result			Pass	

LTE Band 17 Maximum Average Power [dBm] (GT - LC = -0.82 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	19.85	0.0966
5	1	0	16-QAM	21.86	21.69	21.71	18.89	0.0774
5	1	0	64-QAM	20.86	20.78	20.65	17.89	0.0615
Limit	ERP < 3W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm] (GT - LC = -2.99 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	17.79	0.0601
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	16.58	0.0455
15	1	0	64-QAM	19.69	20.89	20.23	15.75	0.0376
Limit	ERP < 7W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -2.99 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	17.62	0.0578
10	1	0	16-QAM	21.36	21.32	21.56	16.42	0.0439
10	1	0	64-QAM	20.63	20.53	20.25	15.49	0.0354
Limit	ERP < 7W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -2.99 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	17.62	0.0578
5	1	0	16-QAM	21.71	21.35	21.52	16.57	0.0454
5	1	0	64-QAM	20.68	20.35	20.36	15.54	0.0358
Limit	ERP < 7W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -2.99 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	17.63	0.0579
3	1	0	16-QAM	21.32	21.32	21.36	16.22	0.0419
3	1	0	64-QAM	20.85	20.25	20.33	15.71	0.0372
Limit	ERP < 7W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -2.99 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	17.72	0.0592
1.4	1	0	16-QAM	21.32	21.32	21.63	16.49	0.0446
1.4	1	0	64-QAM	20.23	20.32	20.65	15.51	0.0356
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 = 1.93 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	27.28	0.5346
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	26.55	0.4519
20	1	0	64-QAM	23.69	23.58	23.55	25.62	0.3648
Limit	EIRP < 2W			Result			Pass	

LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 1.93 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	27.26	0.5321
15	1	0	16-QAM	24.69	24.44	24.32	26.62	0.4592
15	1	0	64-QAM	23.75	23.51	23.36	25.68	0.3698
Limit	EIRP < 2W			Result			Pass	

LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 1.93 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	27.28	0.5346
10	1	0	16-QAM	24.77	24.86	24.25	26.79	0.4775
10	1	0	64-QAM	23.63	23.63	23.25	25.56	0.3597
Limit	EIRP < 2W			Result			Pass	

LTE Band 41(HPUE) Maximum Average Power [dBm] (GT - LC = 1.93 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	27.19	0.5236
5	1	0	16-QAM	24.32	24.23	24.32	26.25	0.4217
5	1	0	64-QAM	23.36	23.63	23.63	25.56	0.3597
Limit	EIRP < 2W			Result			Pass	



LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.08 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	24.07	0.2553
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	23.40	0.2188
20	1	0	64-QAM	21.70	20.82	20.85	22.78	0.1897
Limit	EIRP < 1W			Result			Pass	

LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.08 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	23.94	0.2477
15	1	0	16-QAM	22.12	22.06	21.89	23.20	0.2089
15	1	0	64-QAM	21.69	21.16	21.02	22.77	0.1892
Limit	EIRP < 1W			Result			Pass	

LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.08 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	23.86	0.2432
10	1	0	16-QAM	21.86	21.65	21.76	22.94	0.1968
10	1	0	64-QAM	20.85	20.63	20.56	21.93	0.1560
Limit	EIRP < 1W			Result			Pass	



LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.08 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	23.93	0.2472
5	1	0	16-QAM	21.76	21.63	21.58	22.84	0.1923
5	1	0	64-QAM	20.65	20.71	20.36	21.79	0.1510
Limit	EIRP < 1W			Result			Pass	

LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.08 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	23.85	0.2427
3	1	0	16-QAM	21.63	21.68	21.63	22.76	0.1888
3	1	0	64-QAM	20.73	20.32	20.58	21.81	0.1517
Limit	EIRP < 1W			Result			Pass	

LTE Band 66 Maximum Average Power [dBm] (GT - LC = 1.08 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	23.84	0.2421
1.4	1	0	16-QAM	21.32	21.58	21.54	22.66	0.1845
1.4	1	0	64-QAM	20.69	20.54	20.57	21.77	0.1503
Limit	EIRP < 1W			Result			Pass	



LTE Band 71 Maximum Average Power [dBm] (GT - LC = -0.52 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	20.20	0.1047
20	1	99		22.56	22.32	22.02		
20	100	0		21.58	21.96	21.63		
20	1	0	16-QAM	21.32	21.36	21.97	19.30	0.0851
20	1	0	64-QAM	20.36	20.97	20.69	18.30	0.0676
Limit	ERP < 3W			Result			Pass	

LTE Band 71 Maximum Average Power [dBm] (GT - LC = -0.52 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	20.10	0.1023
15	1	0	16-QAM	21.56	21.58	21.96	19.29	0.0849
15	1	0	64-QAM	20.96	20.74	20.58	18.29	0.0675
Limit	ERP < 3W			Result			Pass	

LTE Band 71 Maximum Average Power [dBm] (GT - LC = -0.52 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	20.19	0.1045
10	1	0	16-QAM	21.86	21.65	21.54	19.19	0.0830
10	1	0	64-QAM	20.66	20.69	20.38	18.02	0.0634
Limit	ERP < 3W			Result			Pass	

LTE Band 71 Maximum Average Power [dBm] (GT - LC = -0.52 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	19.91	0.0979
5	1	0	16-QAM	21.52	21.63	21.85	19.18	0.0828
5	1	0	64-QAM	20.36	20.71	20.36	18.04	0.0637
Limit	ERP < 3W			Result			Pass	



LTE Band 5B_CA Maximum Average Power [dBm] (GT - LC = -3.36 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	17.55	0.0569
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	16.85	0.0484
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	15.63	0.0366
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 = 1.08 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	24.06	0.2547
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	23.85	0.2427
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	23.64	0.2312
15+5	1	74	1	0		22.31	22.50	22.26		
Limit	EIRP < 1W					Result			Pass	



FCC RADIO TEST REPORT

Report No. : FG1D2927B

LTE Band 66C_CA Maximum Average Power [dBm] (GT - LC = 1.08 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	23.73	0.2360
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	22.97	0.1982
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	22.20	0.1660
20+20	1	99	1	0		20.69	20.88	21.12		
Limit	EIRP < 1W					Result			Pass	



LTE Band 7C_CA Maximum Average Power [dBm] (GT - LC = 1.9 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	25.85	0.3846
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	25.56	0.3597
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	24.12	0.2582
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	24.28	0.2679
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	24.10	0.2570
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	25.26	0.3357
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	23.75	0.2371
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 = 1.9 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	24.29	0.2685
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	24.18	0.2618
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	24.25	0.2661
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	23.44	0.2208
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	24.26	0.2667
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	23.91	0.2460
15+15	1	74	1	0		22.01	21.49	21.39		
15+10	75	0	100	0	QPSK	20.34	20.15	20.31	24.21	0.2636
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	23.84	0.2421
15+10	1	74	1	0		21.40	21.94	21.69		
Limit	EIRP < 2W					Result			Pass	



LTE Band 41C_CA Maximum Average Power [dBm] (GT - LC = 1.93 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	25.56	0.3597
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	25.04	0.3192
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	24.96	0.3133
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	25.44	0.3499
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	25.02	0.3177
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	25.26	0.3357
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	24.74	0.2979
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 = 1.93 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	25.43	0.3491
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	25.19	0.3304
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	25.48	0.3532
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	25.31	0.3396
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	25.15	0.3273
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	25.12	0.3251
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 = 1.93 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	24.57	0.2864
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	24.79	0.3013
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	25.52	0.3565
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	25.01	0.3170
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	25.38	0.3451
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	25.06	0.3206
10+15	1	49	1	0		23.13	22.44	22.59		
15+15	75	0	75	0	QPSK	20.76	21.08	21.07	25.39	0.3459
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	25.04	0.3192
15+15	1	74	1	0		23.11	22.61	22.47		
Limit	EIRP < 2W					Result			Pass	



FCC RADIO TEST REPORT

Report No. : FG1D2927B

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	



Appendix B. Test Results of Radiated Test

<Sample 1>

LTE Band 26

LTE Band 26 / 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	-41.45	-13	-28.45	-57.43	-42.32	6.35	9.37	H
	2474	-38.00	-13	-25.00	-55.33	-38.18	8.04	10.37	H
	3298	-55.77	-13	-42.77	-75.69	-56.50	9.16	12.04	H
									H
	1649	-44.96	-13	-31.96	-60.93	-45.83	6.35	9.37	V
	2474	-38.80	-13	-25.80	-55.98	-38.98	8.04	10.37	V
	3298	-55.58	-13	-42.58	-75.6	-56.31	9.16	12.04	V
									V
Middle	1664	-44.86	-13	-31.86	-61.02	-45.76	6.37	9.42	H
	2496	-37.20	-13	-24.20	-54.42	-37.37	8.16	10.48	H
	3328	-56.23	-13	-43.23	-76.2	-57.05	9.23	12.20	H
									H
	1664	-48.31	-13	-35.31	-64.45	-49.21	6.37	9.42	V
	2496	-39.21	-13	-26.21	-56.27	-39.38	8.16	10.48	V
	3328	-55.98	-13	-42.98	-76.02	-56.80	9.23	12.20	V
									V
Highest	1679	-46.58	-13	-33.58	-62.83	-47.51	6.40	9.48	H
	2519	-36.97	-13	-23.97	-54.37	-37.28	8.14	10.60	H
	3358	-56.05	-13	-43.05	-76.05	-56.97	9.30	12.37	H
									H
	1679	-48.55	-13	-35.55	-64.77	-49.48	6.40	9.48	V
	2519	-39.96	-13	-26.96	-57.23	-40.27	8.14	10.60	V
	3358	-55.60	-13	-42.60	-75.66	-56.52	9.30	12.37	V
									V

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

**LTE Band 5B CA**

LTE Band 5B / 10+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	1667	-51.33	-13	-38.33	-67.49	-52.23	6.38	9.43	H
	2500	-42.12	-13	-29.12	-59.33	-42.29	8.18	10.50	H
	3334	-55.71	-13	-42.71	-75.68	-56.56	9.24	12.24	H
									H
	1667	-47.76	-13	-34.76	-63.9	-48.66	6.38	9.43	V
	2500	-43.62	-13	-30.62	-60.68	-43.79	8.18	10.50	V
	3334	-56.19	-13	-43.19	-76.24	-57.04	9.24	12.24	V
									V
Middle	1672	-51.84	-13	-38.84	-68.09	-52.75	6.39	9.45	H
	2508	-42.81	-13	-29.81	-60.12	-43.04	8.16	10.54	H
	3344	-55.99	-13	-42.99	-75.97	-56.87	9.26	12.29	H
									H
	1672	-51.41	-13	-38.41	-67.63	-52.32	6.39	9.45	V
	2508	-44.41	-13	-31.41	-61.57	-44.64	8.16	10.54	V
	3344	-55.96	-13	-42.96	-76	-56.84	9.26	12.29	V
									V
Highest	1677	-50.85	-13	-37.85	-67.1	-51.78	6.39	9.47	H
	2516	-41.57	-13	-28.57	-58.97	-41.85	8.15	10.58	H
	3354	-55.81	-13	-42.81	-75.79	-56.72	9.29	12.35	H
									H
	1677	-49.63	-13	-36.63	-65.85	-50.56	6.39	9.47	V
	2516	-41.16	-13	-28.16	-58.43	-41.44	8.15	10.58	V
	3354	-55.77	-13	-42.77	-75.81	-56.68	9.29	12.35	V
									V

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

**LTE Band 25**

LTE Band 25 / 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	3701	-46.47	-13	-33.47	-68.24	-48.64	9.93	12.10	H
	5552	-51.92	-13	-38.92	-76.16	-51.40	13.67	13.15	H
	7402	-45.32	-13	-32.32	-76.06	-42.78	13.94	11.40	H
									H
	3701	-50.35	-13	-37.35	-71.99	-52.52	9.93	12.10	V
	5552	-49.08	-13	-36.08	-73.88	-48.56	13.67	13.15	V
	7402	-44.96	-13	-31.96	-75.88	-42.42	13.94	11.40	V
									V
Middle	3751	-49.92	-13	-36.92	-71.82	-52.03	10.04	12.15	H
	5627	-51.91	-13	-38.91	-76.07	-51.23	13.91	13.23	H
	7502	-45.89	-13	-32.89	-76.07	-42.36	14.74	11.21	H
									H
	3751	-52.74	-13	-39.74	-74.57	-54.85	10.04	12.15	V
	5627	-48.50	-13	-35.50	-73.17	-47.82	13.91	13.23	V
	7502	-45.72	-13	-32.72	-75.98	-42.19	14.74	11.21	V
									V
Highest	3811	-50.93	-13	-37.93	-73	-52.97	10.18	12.22	H
	5717	-51.14	-13	-38.14	-75.47	-50.69	13.77	13.32	H
	7622	-46.02	-13	-33.02	-75.65	-42.51	15.12	11.61	H
									H
	3811	-53.07	-13	-40.07	-75.14	-55.11	10.18	12.22	V
	5717	-48.89	-13	-35.89	-73.75	-48.44	13.77	13.32	V
	7622	-46.05	-13	-33.05	-75.75	-42.54	15.12	11.61	V
									V

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



<Sample 2>

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	1555	-45.06	-13	-32.06	-60.22	-45.34	6.28	8.71	H
	2332	-57.65	-13	-44.65	-75.57	-57.62	7.54	9.66	H
	3109	-56.56	-13	-43.56	-76.04	-56.92	8.81	11.32	H
									H
	1555	-43.48	-13	-30.48	-58.60	-43.76	6.28	8.71	V
	2332	-57.54	-13	-44.54	-75.44	-57.51	7.54	9.66	V
	3109	-56.32	-13	-43.32	-75.74	-56.68	8.81	11.32	V
									V
Middle	1560	-45.91	-42.15	-3.76	-61.10	-46.24	6.28	8.76	H
	2340	-57.49	-13	-44.49	-75.38	-57.49	7.55	9.70	H
	3120	-55.98	-13	-42.98	-75.51	-56.34	8.83	11.34	H
									H
	1560	-43.26	-42.15	-1.11	-58.41	-43.59	6.28	8.76	V
	2340	-57.59	-13	-44.59	-75.45	-57.59	7.55	9.70	V
	3120	-56.07	-13	-43.07	-75.53	-56.43	8.83	11.34	V
									V
Highest	1565	-46.49	-42.15	-4.34	-61.71	-46.88	6.28	8.82	H
	2347	-57.63	-13	-44.63	-75.51	-57.66	7.56	9.74	H
	3129	-56.07	-13	-43.07	-75.63	-56.44	8.84	11.36	H
									H
	1565	-44.95	-42.15	-2.80	-60.14	-45.34	6.28	8.82	V
	2347	-57.64	-13	-44.64	-75.46	-57.67	7.56	9.74	V
	3129	-55.94	-13	-42.94	-75.45	-56.31	8.84	11.36	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	1553	-42.72	-13	-29.72	-57.89	-42.97	6.28	8.68	H
	2333	-57.56	-13	-44.56	-75.47	-57.54	7.54	9.67	H
	3106	-55.81	-13	-42.81	-75.29	-56.16	8.81	11.31	H
									H
	1553	-42.28	-13	-29.28	-57.39	-42.53	6.28	8.68	V
	2333	-57.47	-13	-44.47	-75.37	-57.45	7.54	9.67	V
	3106	-56.09	-13	-43.09	-75.45	-56.44	8.81	11.31	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	1399	-46.02	-13.00	-33.02	-60.74	-45.26	5.81	7.20	H
	2099	-57.42	-13.00	-44.42	-74.66	-57.63	7.15	9.51	H
	2798	-57.32	-13.00	-44.32	-75.62	-57.49	8.58	10.90	H
									H
	1399	-50.58	-13.00	-37.58	-65.69	-49.82	5.81	7.20	V
	2099	-56.97	-13.00	-43.97	-74.25	-57.18	7.15	9.51	V
	2798	-57.44	-13.00	-44.44	-75.63	-57.61	8.58	10.90	V
									V
Middle	1406	-42.83	-13.00	-29.83	-57.57	-42.09	5.84	7.25	H
	2112	-58.02	-13.00	-45.02	-75.42	-58.14	7.17	9.44	H
	2812	-57.16	-13.00	-44.16	-75.51	-57.33	8.59	10.91	H
									H
	1406	-51.28	-13.00	-38.28	-66.38	-50.54	5.84	7.25	V
	2112	-48.58	-13.00	-35.58	-66.04	-48.70	7.17	9.44	V
	2812	-57.36	-13.00	-44.36	-75.58	-57.53	8.59	10.91	V
									V
Highest	1413	-46.70	-13.00	-33.70	-61.45	-46.00	5.87	7.32	H
	2120	-50.82	-13.00	-37.82	-68.30	-50.88	7.19	9.40	H
	2826	-57.38	-13.00	-44.38	-75.79	-57.56	8.60	10.93	H
									H
	1413	-52.21	-13.00	-39.21	-67.28	-51.51	5.87	7.32	V
	2120	-54.66	-13.00	-41.66	-72.22	-54.72	7.19	9.40	V
	2826	-57.22	-13.00	-44.22	-75.47	-57.40	8.60	10.93	V
									V

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

**LTE Band 66**

LTE Band 66 / 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	3421	-31.08	-13	-18.08	-51.96	-34.23	9.41	12.56	H
	5132	-51.26	-13	-38.26	-75.84	-51.83	12.10	12.67	H
	6842	-47.45	-13	-34.45	-76.66	-45.91	13.97	12.43	H
									H
	3421	-28.39	-13	-15.39	-49.27	-31.54	9.41	12.56	V
	5132	-49.63	-13	-36.63	-74.47	-50.20	12.10	12.67	V
	6842	-47.78	-13	-34.78	-76.82	-46.24	13.97	12.43	V
									V
Middle	3481	-25.34	-13	-12.34	-46.57	-28.30	9.48	12.44	H
	5222	-52.12	-13	-39.12	-76.86	-52.59	12.30	12.77	H
	6962	-47.15	-13	-34.15	-76.28	-45.05	14.05	11.95	H
									H
	3481	-22.68	-13	-9.68	-43.87	-25.64	9.48	12.44	V
	5222	-51.29	-13	-38.29	-76.3	-51.76	12.30	12.77	V
	6962	-46.85	-13	-33.85	-75.84	-44.75	14.05	11.95	V
									V
Highest	3541	-30.05	-13	-17.05	-51.47	-32.70	9.59	12.24	H
	5312	-52.56	-13	-39.56	-77.39	-52.90	12.70	13.04	H
	7082	-46.69	-13	-33.69	-75.96	-44.32	13.97	11.60	H
									H
	3541	-28.99	-13	-15.99	-50.28	-31.64	9.59	12.24	V
	5312	-52.06	-13	-39.06	-77.32	-52.40	12.70	13.04	V
	7082	-46.18	-13	-33.18	-75.68	-43.81	13.97	11.60	V
									V

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

LTE Band 66B CA

LTE Band 66B / 15+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)
Lowest	3448	-26.61	-13	-13.61	-47.65	-29.67	9.44	12.50	H
	5172	-52.29	-13	-39.29	-76.95	-52.82	12.16	12.69	H
	6897	-47.61	-13	-34.61	-76.78	-45.82	14.00	12.21	H
									H
	3448	-24.95	-13	-11.95	-45.97	-28.01	9.44	12.50	V
	5172	-51.51	-13	-38.51	-76.41	-52.04	12.16	12.69	V
	6897	-47.44	-13	-34.44	-76.46	-45.65	14.00	12.21	V
									V
Middle	3519	-28.57	-13	-15.57	-49.94	-31.35	9.54	12.32	H
	5278	-52.56	-13	-39.56	-77.35	-52.94	12.55	12.93	H
	7037	-46.90	-13	-33.90	-76.07	-44.58	14.03	11.71	H
									H
	3519	-26.83	-13	-13.83	-48.11	-29.61	9.54	12.32	V
	5278	-52.07	-13	-39.07	-77.22	-52.45	12.55	12.93	V
	7037	-46.99	-13	-33.99	-76.21	-44.67	14.03	11.71	V
									V
Highest	3549	-31.74	-13	-18.74	-53.17	-34.34	9.60	12.20	H
	5323	-53.04	-13	-40.04	-77.87	-53.36	12.75	13.07	H
	7097	-46.89	-13	-33.89	-76.19	-44.50	13.95	11.56	H
									H
	3549	-30.04	-13	-17.04	-51.33	-32.64	9.60	12.20	V
	5323	-52.31	-13	-39.31	-77.59	-52.63	12.75	13.07	V
	7097	-46.52	-13	-33.52	-76.11	-44.13	13.95	11.56	V
									V

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

**Band 66C CA**

LTE Band 66C / 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	3458	-30.89	-13	-17.89	-51.97	-33.92	9.45	12.48	H
	5187	-51.66	-13	-38.66	-76.35	-52.17	12.18	12.69	H
	6916	-47.14	-13	-34.14	-76.3	-45.26	14.02	12.14	H
									H
	3458	-35.20	-13	-22.20	-56.28	-38.23	9.45	12.48	V
	5187	-51.57	-13	-38.57	-76.49	-52.08	12.18	12.69	V
	6916	-47.25	-13	-34.25	-76.25	-45.37	14.02	12.14	V
									V
Middle	3508	-28.28	-13	-15.28	-49.64	-31.13	9.52	12.37	H
	5262	-52.64	-13	-39.64	-77.41	-53.05	12.48	12.89	H
	7016	-46.43	-13	-33.43	-75.56	-44.14	14.05	11.76	H
									H
	3508	-32.22	-13	-19.22	-53.51	-35.07	9.52	12.37	V
	5262	-52.00	-13	-39.00	-77.11	-52.41	12.48	12.89	V
	7016	-46.81	-13	-33.81	-75.89	-44.52	14.05	11.76	V
									V
Highest	3518	-28.34	-13	-15.34	-49.71	-31.13	9.54	12.33	H
	5277	-52.21	-13	-39.21	-77	-52.60	12.54	12.93	H
	7036	-46.60	-13	-33.60	-75.77	-44.28	14.03	11.71	H
									H
	3518	-32.49	-13	-19.49	-53.77	-35.28	9.54	12.33	V
	5277	-51.64	-13	-38.64	-76.79	-52.03	12.54	12.93	V
	7036	-46.37	-13	-33.37	-75.59	-44.05	14.03	11.71	V
									V

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

**LTE Band 7**

LTE Band 7 / 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	5001	-54.65	-25	-29.65	-48.74	-55.33	11.92	12.60	H
	7502	-52.49	-25	-27.49	-53.02	-48.96	14.74	11.21	H
	10002	-57.08	-25	-32.08	-61.26	-51.01	17.17	11.10	H
									H
	5001	-53.18	-25	-28.18	-47.58	-53.86	11.92	12.60	V
	7502	-53.97	-25	-28.97	-54.58	-50.44	14.74	11.21	V
	10002	-57.52	-25	-32.52	-61.03	-51.45	17.17	11.10	V
									V
Middle	5061	-53.19	-25	-28.19	-47.53	-53.81	12.01	12.63	H
	7592	-52.65	-25	-27.65	-52.78	-49.02	15.20	11.57	H
	10122	-57.47	-25	-32.47	-61.73	-51.33	17.17	11.03	H
									H
	5061	-52.93	-25	-27.93	-47.56	-53.55	12.01	12.63	V
	7592	-54.10	-25	-29.10	-54.3	-50.47	15.20	11.57	V
	10122	-57.66	-25	-32.66	-61.4	-51.52	17.17	11.03	V
									V
Highest	5121	-53.97	-25	-28.97	-48.56	-54.54	12.09	12.66	H
	7681	-53.19	-25	-28.19	-53.32	-50.02	14.81	11.64	H
	10242	-58.27	-25	-33.27	-62.6	-52.05	17.17	10.95	H
									H
	5121	-53.24	-25	-28.24	-48.09	-53.81	12.09	12.66	V
	7681	-52.38	-25	-27.38	-52.58	-49.21	14.81	11.64	V
	10242	-56.11	-25	-31.11	-60.06	-49.89	17.17	10.95	V
									V

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

LTE Band 7C CA

LTE Band 7C / 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	-53.13	-25	-28.13	-47.37	-53.78	11.97	12.62	H
	7557	-53.82	-25	-28.82	-54.1	-50.23	15.02	11.43	H
	10080	-58.64	-25	-33.64	-62.87	-52.52	17.17	11.05	H
									H
	5037	-53.95	-25	-28.95	-48.49	-54.60	11.97	12.62	V
	7557	-57.25	-25	-32.25	-57.6	-53.66	15.02	11.43	V
	10080	-59.21	-25	-34.21	-62.87	-53.09	17.17	11.05	V
									V
Middle	5065	-53.27	-25	-28.27	-47.63	-53.89	12.01	12.63	H
	7599	-54.78	-25	-29.78	-54.86	-51.14	15.23	11.60	H
	10132	-57.50	-25	-32.50	-61.76	-51.35	17.17	11.02	H
									H
	5065	-54.05	-25	-29.05	-48.69	-54.67	12.01	12.63	V
	7599	-55.11	-25	-30.11	-55.26	-51.47	15.23	11.60	V
	10132	-58.46	-25	-33.46	-62.21	-52.31	17.17	11.02	V
									V
Highest	5100	-54.49	-25	-29.49	-49	-55.08	12.06	12.65	H
	7648	-53.25	-25	-28.25	-53.36	-49.89	14.98	11.62	H
	10198	-58.37	-25	-33.37	-62.67	-52.19	17.17	10.98	H
									H
	5100	-53.53	-25	-28.53	-48.3	-54.12	12.06	12.65	V
	7648	-53.87	-25	-28.87	-54.05	-50.51	14.98	11.62	V
	10198	-59.04	-25	-34.04	-62.92	-52.86	17.17	10.98	V
									V

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

**LTE Band 41 (HPUE)**

LTE Band 41 (HPUE) / 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	5003	-54.38	-25	-29.38	-48.49	-55.06	11.92	12.60	H
	7504	-53.12	-25	-28.12	-53.64	-49.59	14.75	11.22	H
	10006	-57.57	-25	-32.57	-61.75	-51.50	17.17	11.10	H
									H
	5003	-55.02	-25	-30.02	-49.44	-55.70	11.92	12.60	V
	7504	-51.61	-25	-26.61	-52.21	-48.08	14.75	11.22	V
	10006	-58.43	-25	-33.43	-61.95	-52.36	17.17	11.10	V
									V
Middle	5177	-46.99	-25	-21.99	-41.8	-47.51	12.17	12.69	H
	7765	-49.66	-25	-24.66	-49.83	-46.98	14.36	11.68	H
	10354	-57.55	-25	-32.55	-61.95	-51.28	17.16	10.89	H
									H
	5177	-50.27	-25	-25.27	-45.32	-50.79	12.17	12.69	V
	7765	-49.75	-25	-24.75	-49.98	-47.07	14.36	11.68	V
	10354	-58.11	-25	-33.11	-62.28	-51.84	17.16	10.89	V
									V
Highest	5351	-51.04	-25	-26.04	-46.43	-51.32	12.87	13.15	H
	8026	-49.14	-25	-24.14	-50.07	-45.64	14.80	11.30	H
	13378	-51.22	-25	-26.22	-58.61	-44.82	19.32	12.92	H
	16053	-53.74	-25	-28.74	-61.61	-48.98	21.39	16.63	H
									H
	5351	-49.80	-25	-24.80	-45.68	-50.08	12.87	13.15	V
	8026	-47.95	-25	-22.95	-48.9	-44.45	14.80	11.30	V
	13378	-54.33	-25	-29.33	-61.12	-47.93	19.32	12.92	V
	16053	-48.69	-25	-23.69	-56.74	-43.93	21.39	16.63	V
									V

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

**LTE Band 41C CA**

LTE Band 41C / 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	5029	-56.82	-25	-31.82	-51.03	-57.47	11.96	12.61	H
	7544	-56.31	-25	-31.31	-56.65	-52.74	14.95	11.38	H
	10060	-57.79	-25	-32.79	-62.01	-51.68	17.17	11.06	H
									H
	5029	-60.20	-25	-35.20	-54.71	-60.85	11.96	12.61	V
	7544	-55.46	-25	-30.46	-55.87	-51.89	14.95	11.38	V
	10060	-58.43	-25	-33.43	-62.05	-52.32	17.17	11.06	V
									V
Middle	5184	-52.22	-25	-27.22	-47.06	-52.73	12.18	12.69	H
	7776	-53.35	-25	-28.35	-53.53	-50.74	14.30	11.69	H
	10368	-57.77	-25	-32.77	-62.18	-51.49	17.16	10.88	H
									H
	5184	-53.86	-25	-28.86	-48.94	-54.37	12.18	12.69	V
	7776	-55.22	-25	-30.22	-55.46	-52.61	14.30	11.69	V
	10368	-58.19	-25	-33.19	-62.38	-51.91	17.16	10.88	V
									V
Highest	5338	-54.18	-25	-29.18	-49.53	-54.48	12.81	13.11	H
	8007	-54.84	-25	-29.84	-55.71	-51.28	14.79	11.23	H
	16015	-55.19	-25	-30.19	-63	-50.60	21.34	16.75	H
									H
	5338	-55.98	-25	-30.98	-51.8	-56.28	12.81	13.11	V
	8007	-52.05	-25	-27.05	-52.92	-48.49	14.79	11.23	V
	16015	-55.67	-25	-30.67	-63.68	-51.08	21.34	16.75	V
									V

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

**LTE Band 71**

LTE Band 71 / 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	1327	-40.40	-13	-27.40	-54.93	-39.57	5.62	6.94	H
	1991	-58.52	-13	-45.52	-74.74	-59.43	6.94	10.00	H
	2654	-57.04	-13	-44.04	-75.39	-57.72	8.14	10.97	H
									H
	1327	-46.99	-13	-33.99	-61.51	-46.16	5.62	6.94	V
	1991	-59.01	-13	-46.01	-75.09	-59.92	6.94	10.00	V
	2654	-56.74	-13	-43.74	-75.03	-57.42	8.14	10.97	V
									V
Middle	1347	-40.76	-13	-27.76	-55.35	-39.95	5.67	7.01	H
	2020	-57.40	-13	-44.40	-73.78	-58.15	7.00	9.90	H
	2694	-57.31	-13	-44.31	-75.65	-57.84	8.27	10.95	H
									H
	1347	-45.57	-13	-32.57	-60.25	-44.76	5.67	7.01	V
	2020	-53.77	-13	-40.77	-70.03	-54.52	7.00	9.90	V
	2694	-57.50	-13	-44.50	-75.76	-58.03	8.27	10.95	V
									V
Highest	1377	-41.89	-13	-28.89	-56.55	-41.11	5.75	7.12	H
	2066	-56.78	-13	-43.78	-73.66	-57.21	7.09	9.67	H
	2754	-57.44	-13	-44.44	-75.76	-57.76	8.45	10.92	H
									H
	1377	-47.17	-13	-34.17	-62.09	-46.39	5.75	7.12	V
	2066	-58.30	-13	-45.30	-75.15	-58.73	7.09	9.67	V
	2754	-57.17	-13	-44.17	-75.39	-57.49	8.45	10.92	V
									V

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