



FCC RF Test Report

APPLICANT : Quetel Wireless Solutions Co., Ltd.
EQUIPMENT : 5G Sub-6 GHz LGA Module
BRAND NAME : Quetel
MODEL NAME : RG500L-LA
FCC ID : XMR2023RG500LLA
STANDARD : 47 CFR Part 2, 22(H), 27(L), 27(M)
CLASSIFICATION : PCS Licensed Transmitter (PCB)
TEST DATE(S) : May 16, 2024 ~ May 17, 2024

We, Sporton International Inc. (Kunshan), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

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

Jason Jia



Approved by: Jason Jia

Sporton International Inc. (Kunshan)

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



TABLE OF CONTENTS

REVISION HISTORY...3
SUMMARY OF TEST RESULT...4
1 GENERAL DESCRIPTION...5
1.1 Applicant...5
1.2 Manufacturer...5
1.3 Product Feature of Equipment Under Test...5
1.4 Product Specification of Equipment Under Test...6
1.5 Modification of EUT...6
1.6 Maximum Conducted Power and Emission Designator...7
1.7 Testing Location...8
1.8 Test Software...9
1.9 Applicable Standards...9
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST...10
2.1 Test Mode...10
2.2 Connection Diagram of Test System...11
2.3 Support Unit used in test configuration and system...11
2.4 Frequency List of Low/Middle/High Channels...12
3 CONDUCTED TEST ITEMS...16
3.1 Measuring Instruments...16
3.2 Test Setup...16
3.3 Test Result of Conducted Test...16
3.4 Conducted Output Power and ERP/EIRP...17
4 RADIATED TEST ITEMS...18
4.1 Measuring Instruments...18
4.2 Test Setup...18
4.3 Test Result of Radiated Test...19
4.4 Radiated Spurious Emission...20
5 LIST OF MEASURING EQUIPMENT...21
6 UNCERTAINTY OF EVALUATION...22
APPENDIX A. TEST RESULTS OF CONDUCTED TEST
APPENDIX B. TEST RESULTS OF RADIATED TEST
APPENDIX C. TEST SETUP PHOTOGRAPHS



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG2D0201-02A	Rev. 01	Initial issue of report	May 31, 2024



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§22.913(a)(5)	Effective Radiated Power (Band 5)	ERP < 7 Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt		-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 7)	EIRP < 2Watt		-
4.4	§2.1053 §22.917(a) §27.53(h)	Radiated Spurious Emission (Band 4) (Band 5) (Band 66)	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 15.07 dB at 2520.000 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7)	< 55+10log ₁₀ (P[Watts])		

Note: This is a variant report for RG500L-LA. The change note could be referred to the RG500L-LA_Operational Description of Product Equality Declaration which is exhibit separately. According to the change, only the related test cases were verified from original report FG2D0201-01B&Spot check report 2D0201-01(Reference report FG2D0201A& FG2D0201B, FCC ID: XMR2023RG500LNA).

Conformity Assessment Condition:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"
Disclaimer:
The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



1 General Description

1.1 Applicant

Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233,China

1.2 Manufacturer

Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233,China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	5G Sub-6 GHz LGA Module
Brand Name	Quectel
Model Name	RG500L-LA
FCC ID	XMR2023RG500LLA
IMEI Code	863221060013925
HW Version	R1.0
SW Version	RG500LLA00AAR01A05E8_OCPU
EUT Stage	Identical Prototype

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



1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz
Rx Frequency	LTE Band 4 : 2110 MHz ~ 2155 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 7 : 2620 MHz ~ 2690 MHz LTE Band 66 : 2110 MHz~ 2200 MHz
Bandwidth	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 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 4 : 22.62 dBm LTE Band 5 : 22.98 dBm LTE Band 7 : 22.42 dBm LTE Band 7C : 22.86 dBm LTE Band 66 : 22.93 dBm LTE Band 66B : 23.05 dBm
Antenna Gain	Ant.1 : LTE Band 7 : 4.0 dBi LTE Band 66 : 2.7 dBi Ant.7 : LTE Band 4 : 3.1 dBi LTE Band 5 : 1.6 dBi LTE Band 7 : 2.0 dBi LTE Band 66 : 3.1 dBi
Type of Modulation	QPSK / 16QAM / 64QAM/ 256QAM

Note:

1. The maximum ERP/EIRP is calculated from max output power and max antenna gain, only the maximum ERP/EIRP of Ant 7 for LTE Band 4/5/66/66B and Ant 1 for LTE Band 7/7C.
2. The device supports two PAs for LTE Band 7/66 (main PA with Ant.7 for single carrier mode, and other PA with Ant.1 for ENDC mode).

1.5 Modification of EUT

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



1.6 Maximum Conducted Power

LTE Band 4		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1754.3	0.1791	-	0.1633	-
3	1711.5 ~ 1753.5	0.1791	-	0.1633	-
5	1712.5 ~ 1752.5	0.1811	-	0.1510	-
10	1715.0 ~ 1750.0	0.1803	-	0.1563	-
15	1717.5 ~ 1747.5	0.1816	-	0.1652	-
20	1720.0 ~ 1745.0	0.1828	-	0.1570	-
LTE Band 5		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.1754	-	0.1521	-
3	825.5 ~ 847.5	0.1706	-	0.1479	-
5	826.5 ~ 846.5	0.1698	-	0.1432	-
10	829.0 ~ 844.0	0.1750	-	0.1479	-
LTE Band 7		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
5	2502.5 ~ 2567.5	0.1746	-	0.1528	-
10	2505.0 ~ 2565.0	0.1742	-	0.1510	-
15	2507.5 ~ 2562.5	0.1726	-	0.1517	-
20	2510.0 ~ 2560.0	0.1746	-	0.1542	-
LTE Band 66		QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1779.3	0.1936	-	0.1758	-
3	1711.5 ~ 1778.5	0.1941	-	0.1774	-
5	1712.5 ~ 1777.5	0.1945	-	0.1782	-
10	1715.0 ~ 1775.0	0.1941	-	0.1795	-
15	1717.5 ~ 1772.5	0.1945	-	0.1786	-
20	1720.0 ~ 1770.0	0.1963	-	0.1845	-



LTE Band CA_7C	QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
10MHz+20MHz	0.1841	-	0.1419	-
15MHz+15MHz	0.1799	-	0.1549	-
15MHz+20MHz	0.1866	-	0.1560	-
15MHz+10MHz	0.1905	-	0.1574	-
20MHz+10MHz	0.1875	-	0.1629	-
20MHz+15MHz	0.1892	-	0.1570	-
20MHz+20MHz	0.1932	-	0.1667	-

LTE Band CA_66B	QPSK		16QAM/64QAM/256QAM	
BW (MHz)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Maximum Conducted power (W)	Emission Designator (99%OBW)
5MHz+5MHz	0.1871	-	0.1667	-
5MHz+10MHz	0.2009	-	0.1702	-
10MHz+5MHz	0.1991	-	0.1714	-
5MHz+15MHz	0.1968	-	0.1795	-
15MHz+5MHz	0.1968	-	0.1762	-
10MHz+10MHz	0.2018	-	0.1766	-

Note: LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4.

1.7 Testing Location

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

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH04-KS TH01-KS	CN1257	314309



1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-KS	AUDIX	E3	6.2009-8-24al

1.9 Applicable Standards

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

- ♦ 47 CFR Part 2, 22(H), 27(L) , 27(M)
- ♦ ANSI C63.26-2015
- ♦ FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



2 Test Configuration of Equipment Under Test

2.1 Test Mode

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

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission. (Y-Plane)

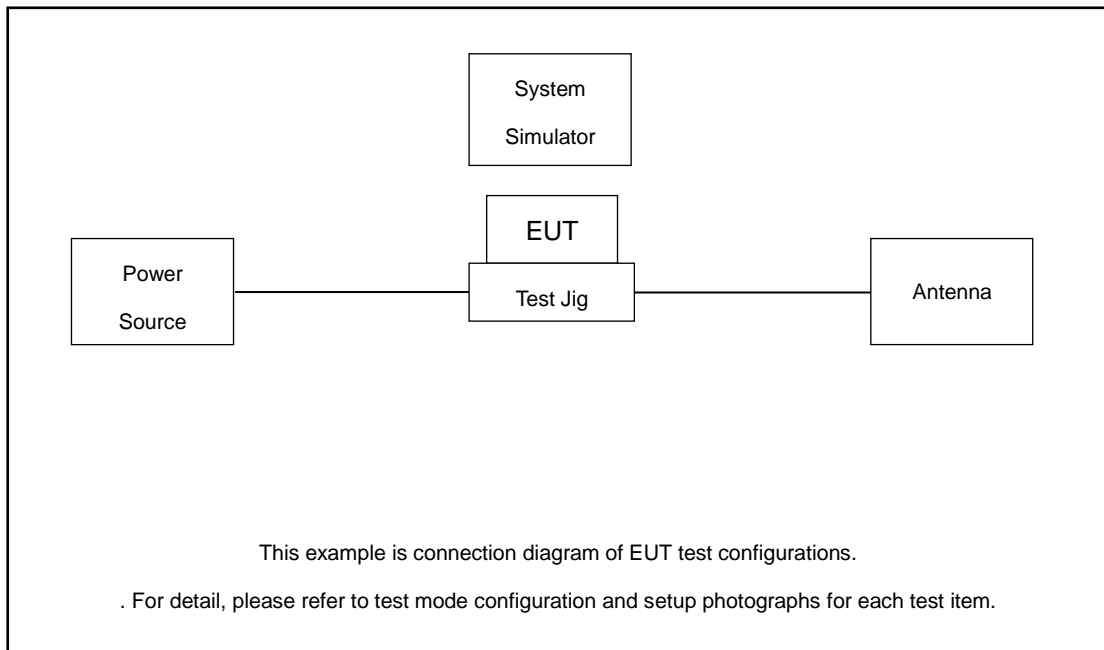
Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	4	v	v	v	v	v	v	v	v	v	v	v		v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v		v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v		v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v		v	v	v	v
E.R.P / E.I.R.P	4	v	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	v
	7	-	-	v	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	v
Radiated Spurious Emission	5	Worst Case													v	v	v
	7	Worst Case													v	v	v
	66	Worst Case													v	v	v
Note	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		
		10+10	15+5	5+15	10+5	5+10	5+5	5+3	3+5	QPSK	16QAM	64QAM	256QAM	1	Half	Full	L	M	H
Max. Output Power	66B_CA	v	v	v	v	v	v	-	-	v	v	v	v	v			v	v	v
E.I.R.P.	66B_CA	v	v	v	v	v	v	-	-	v	v	v	v	v			v	v	v
Radiated Spurious Emission	66B_CA	Worst Case													v	v	v		
Note	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	16 QAM	64 QAM	256 QAM	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
E.I.R.P.	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v	v			v	v	v
Radiated Spurious Emission	7C_CA	Worst Case																v	v	v	
Note	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	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	Base Station	Anritsu	MT8820/8821	N/A	N/A	Unshielded, 1.8 m
3.	Adapter	N/A	N/A	N/A	N/A	N/A
4.	Test Jig	N/A	N/A	N/A	N/A	N/A
5.	Antenna	N/A	N/A	N/A	N/A	N/A



2.4 Frequency List of Low/Middle/High Channels

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 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 7C_CA Channel and Frequency List					
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 66B_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
5 + 5	PCC	Channel	131997	132398	132599
		Frequency	1712.5	1752.6	1772.7
	SCC	Channel	132045	132446	132647
		Frequency	1717.3	1757.4	1777.5
5 + 10	PCC	Channel	132000	132375	132550
		Frequency	1712.8	1750.3	1767.8
	SCC	Channel	132072	132447	132622
		Frequency	1720	1757.5	1775
10 + 5	PCC	Channel	132022	132397	132572
		Frequency	1715	1752.5	1770
	SCC	Channel	132094	132469	132644
		Frequency	1722.2	1759.7	1777.2
5 + 15	PCC	Channel	132002	132353	132504
		Frequency	1713	1748.1	1763.2
	SCC	Channel	132095	132446	132597
		Frequency	1722.3	1757.4	1772.5
15 + 5	PCC	Channel	132047	132398	132549
		Frequency	1717.5	1752.6	1767.7
	SCC	Channel	132140	132491	132642
		Frequency	1726.8	1761.9	1777
10 + 10	PCC	Channel	132022	132373	132523
		Frequency	1715	1750.1	1765.1
	SCC	Channel	132121	132472	132622
		Frequency	1724.9	1760	1775

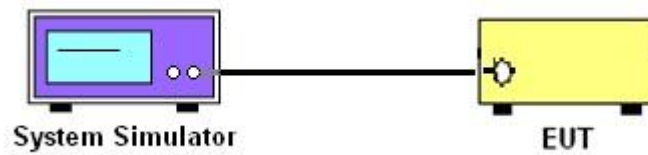
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.3 Test Result of Conducted Test

Please refer to Appendix A.



3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/EIRP Measurement

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

The ERP of mobile transmitters must not exceed 7 Watts for LTE Band 5.

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

The EIRP of mobile transmitters must not exceed 2 Watts for Band 7.

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$, $ERP = EIRP - 2.15$, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

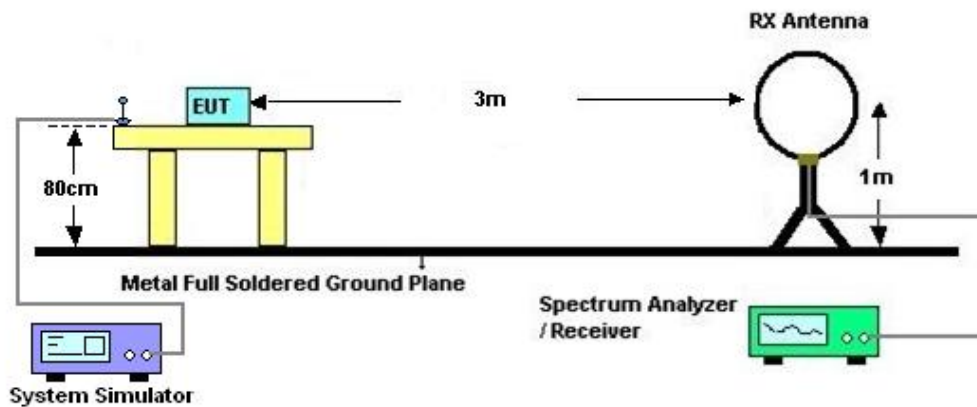
4 Radiated Test Items

4.1 Measuring Instruments

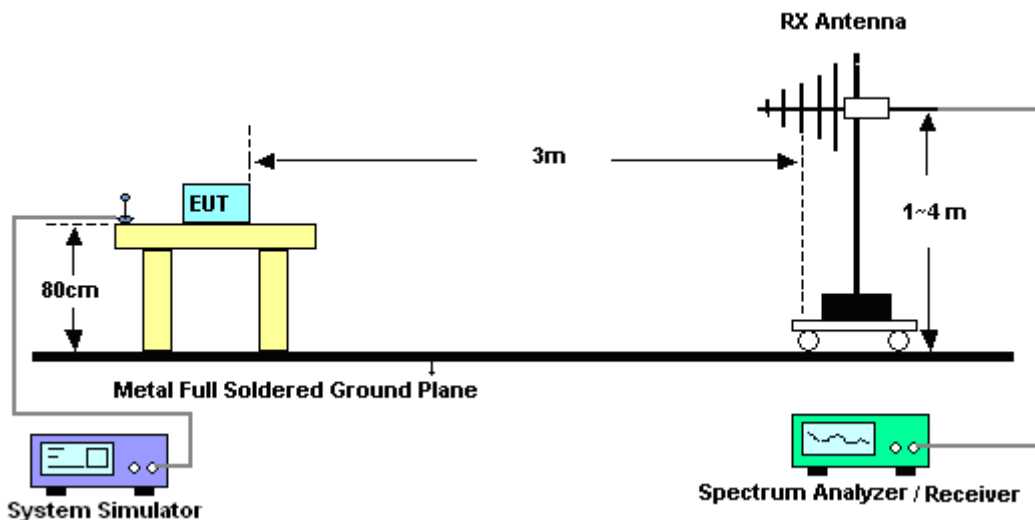
See list of measuring instruments of this test report.

4.2 Test Setup

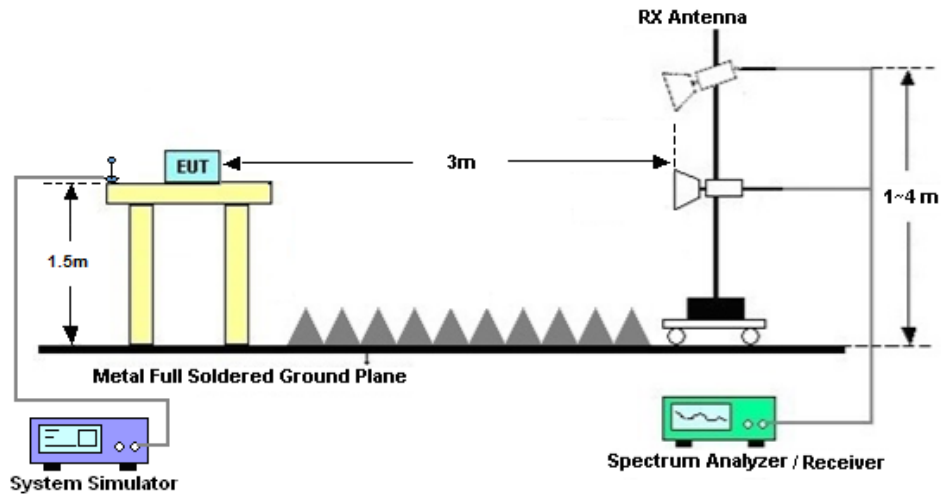
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

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.

Please refer to Appendix B.



4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

For Band 7

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.

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

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10. $EIRP (dBm) = S.G. Power - Tx Cable Loss + Tx Antenna Gain$
11. $ERP (dBm) = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] (dB)$
 $= [30 + 10\log(P)] (dBm) - [43 + 10\log(P)] (dB)$
 $= -13dBm.$



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Oct. 11, 2023	May 17, 2024	Oct. 10, 2024	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	May 17, 2024	NCR	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 06, 2023	May 17, 2024	Jul. 05, 2024	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471079	10Hz-44G,MAX 30dB	Oct. 10, 2023	May 16, 2024	Oct. 09, 2024	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	59913	30MHz-1GHz	Aug. 19, 2023	May 16, 2024	Aug. 18, 2024	Radiation (03CH04-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00251694	1GHz~18GHz	Jul. 12, 2023	May 16, 2024	Jul. 11, 2024	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2024	May 16, 2024	Jan. 04, 2025	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	380827	9KHz-1GHz	Jul. 06, 2023	May 16, 2024	Jul. 05, 2024	Radiation (03CH04-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 05, 2024	May 16, 2024	Jan. 04, 2025	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18G A	060840	1Ghz-18Ghz	Oct. 10, 2023	May 16, 2024	Oct. 09, 2024	Radiation (03CH04-KS)
Amplifier	Agilent	8449B	3008A02370	1Ghz-18Ghz	Oct. 10, 2023	May 16, 2024	Oct. 09, 2024	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	May 16, 2024	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	May 16, 2024	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	May 16, 2024	NCR	Radiation (03CH04-KS)

NCR: No Calibration Required



6 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±0.46 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.82 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))	3.56 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))	3.54 dB
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Appendix A. Test Results of Conducted Test

Test Engineer :	Simle Wang	Temperature :	22~23°C
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and ERP/EIRP

LTE Band 4									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				20050	20175	20300	EIRP(W)		
Frequency (MHz)				1720	1732.5	1745	L	M	H
20	QPSK	1	0	22.58	22.56	22.62	0.3698	0.3681	0.3733
20	QPSK	1	99	22.57	22.54	22.58	0.3690	0.3664	0.3698
20	QPSK	100	0	21.46	21.57	21.59	0.2858	0.2931	0.2944
20	16QAM	1	0	21.87	21.85	21.96	0.3141	0.3126	0.3206
20	64QAM	1	0	20.61	20.74	20.32	0.2350	0.2421	0.2198
20	256QAM	1	0	17.64	17.65	17.96	0.1186	0.1189	0.1276
Channel				20025	20175	20325	EIRP(W)		
Frequency (MHz)				1717.5	1732.5	1747.5	L	M	H
15	QPSK	1	0	22.53	22.48	22.59	0.3656	0.3614	0.3707
15	16QAM	1	0	22.18	22.05	21.68	0.3373	0.3273	0.3006
Channel				20000	20175	20350	EIRP(W)		
Frequency (MHz)				1715	1732.5	1750	L	M	H
10	QPSK	1	0	22.54	22.52	22.56	0.3664	0.3648	0.3681
10	16QAM	1	0	21.94	21.82	21.89	0.3192	0.3105	0.3155
Channel				19975	20175	20375	EIRP(W)		
Frequency (MHz)				1712.5	1732.5	1752.5	L	M	H
5	QPSK	1	0	22.56	22.56	22.58	0.3681	0.3681	0.3698
5	16QAM	1	0	21.79	21.73	21.72	0.3083	0.3041	0.3034
Channel				19965	20175	20385	EIRP(W)		
Frequency (MHz)				1711.5	1732.5	1753.5	L	M	H
3	QPSK	1	0	22.51	22.48	22.53	0.3639	0.3614	0.3656
3	16QAM	1	0	22.11	21.94	22.13	0.3319	0.3192	0.3334
Channel				19957	20175	20393	EIRP(W)		
Frequency (MHz)				1710.7	1732.5	1754.3	L	M	H
1.4	QPSK	1	0	22.51	22.48	22.53	0.3639	0.3614	0.3656
1.4	16QAM	1	0	22.11	21.94	22.13	0.3319	0.3192	0.3334



LTE Band 5									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)		
Channel				20450	20525	20600	ERP(W)		
Frequency (MHz)				829	836.5	844	L	M	H
10	QPSK	1	0	22.98	22.88	22.95	0.1750	0.1710	0.1738
10	QPSK	1	49	22.92	22.79	22.95	0.1726	0.1675	0.1738
10	QPSK	50	0	21.92	21.87	21.92	0.1371	0.1355	0.1371
10	16QAM	1	0	22.25	22.21	22.24	0.1479	0.1466	0.1476
10	64QAM	1	0	21.08	21.28	21.25	0.1130	0.1183	0.1175
10	256QAM	1	0	17.84	17.98	18.06	0.0536	0.0553	0.0564
Channel				20425	20525	20625	ERP(W)		
Frequency (MHz)				826.5	836.5	846.5	L	M	H
5	QPSK	1	0	22.85	22.78	22.82	0.1698	0.1671	0.1687
5	16QAM	1	0	22.08	22.11	22.07	0.1422	0.1432	0.1419
Channel				20415	20525	20635	ERP(W)		
Frequency (MHz)				825.5	836.5	847.5	L	M	H
3	QPSK	1	0	22.87	22.82	22.84	0.1706	0.1687	0.1694
3	16QAM	1	0	22.23	22.25	22.17	0.1472	0.1479	0.1452
Channel				20407	20525	20643	ERP(W)		
Frequency (MHz)				824.7	836.5	848.3	L	M	H
1.4	QPSK	1	0	22.83	22.88	22.99	0.1690	0.1710	0.1754
1.4	16QAM	1	0	22.33	22.37	22.21	0.1507	0.1521	0.1466



LTE Band 7									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				20850	20850	21350	EIRP(W)		
Frequency (MHz)				2510	2535	2560	L	M	H
20	QPSK	1	0	22.42	22.41	22.39	0.4385	0.4375	0.4355
20	QPSK	1	99	22.38	22.36	22.38	0.4345	0.4325	0.4345
20	QPSK	100	0	21.55	21.52	21.48	0.3589	0.3565	0.3532
20	16QAM	1	0	21.78	21.82	21.88	0.3784	0.3819	0.3873
20	64QAM	1	0	21.20	21.28	21.31	0.3311	0.3373	0.3396
20	256QAM	1	0	18.26	18.05	18.08	0.1683	0.1603	0.1614
Channel				20825	21100	21375	EIRP(W)		
Frequency (MHz)				2507.5	2535	2562.5	L	M	H
15	QPSK	1	0	22.35	22.33	22.37	0.4315	0.4295	0.4335
15	16QAM	1	0	21.77	21.79	21.81	0.3776	0.3793	0.3811
Channel				20800	21100	21400	EIRP(W)		
Frequency (MHz)				2505	2535	2565	L	M	H
10	QPSK	1	0	22.40	22.38	22.41	0.4365	0.4345	0.4375
10	16QAM	1	0	21.78	21.78	21.79	0.3784	0.3784	0.3793
Channel				20775	21100	21425	EIRP(W)		
Frequency (MHz)				2502.5	2535	2567.5	L	M	H
5	QPSK	1	0	22.41	22.42	22.40	0.4375	0.4385	0.4365
5	16QAM	1	0	21.82	21.83	21.84	0.3819	0.3828	0.3837



LTE Band 66									
BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				132072	132322	132572	EIRP(W)		
Frequency (MHz)				1720	1745	1770	L	M	H
20	QPSK	1	0	22.92	22.90	22.93	0.3999	0.3981	0.4009
20	QPSK	1	99	22.89	22.88	22.89	0.3972	0.3963	0.3972
20	QPSK	100	0	22.38	22.44	22.52	0.3532	0.3581	0.3648
20	16QAM	1	0	22.62	22.55	22.66	0.3733	0.3673	0.3767
20	64QAM	1	0	21.81	21.83	21.91	0.3097	0.3112	0.3170
20	256QAM	1	0	18.41	18.33	18.40	0.1416	0.1390	0.1413
Channel				132047	132322	132597	EIRP(W)		
Frequency (MHz)				1717.5	1745	1772.5	L	M	H
15	QPSK	1	0	22.89	22.85	22.84	0.3972	0.3936	0.3926
15	16QAM	1	0	22.52	22.44	22.51	0.3648	0.3581	0.3639
Channel				132022	132322	132622	EIRP(W)		
Frequency (MHz)				1715	1745	1775	L	M	H
10	QPSK	1	0	22.88	22.87	22.86	0.3963	0.3954	0.3945
10	16QAM	1	0	22.54	22.48	22.53	0.3664	0.3614	0.3656
Channel				131997	132322	132647	EIRP(W)		
Frequency (MHz)				1712.5	1745	1777.5	L	M	H
5	QPSK	1	0	22.87	22.89	22.86	0.3954	0.3972	0.3945
5	16QAM	1	0	22.51	22.46	22.49	0.3639	0.3597	0.3622
Channel				131987	132322	132657	EIRP(W)		
Frequency (MHz)				1711.5	1745	1778.5	L	M	H
3	QPSK	1	0	22.88	22.86	22.82	0.3963	0.3945	0.3908
3	16QAM	1	0	22.44	22.43	22.49	0.3581	0.3573	0.3622
Channel				131979	132322	132665	EIRP(W)		
Frequency (MHz)				1710.7	1745	1779.3	L	M	H
1.4	QPSK	1	0	22.87	22.84	22.80	0.3954	0.3926	0.3890
1.4	16QAM	1	0	22.41	22.45	22.42	0.3556	0.3589	0.3565



CA Power(Average power) and EIRP

LTE Band 7C							
Combination 20MHz+20MHz (100RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.86	0.4853
M	QPSK	1	Max	1	0	22.77	0.4753
H	QPSK	1	Max	1	0	22.64	0.4613
L	16QAM	1	Max	1	0	22.18	0.4150
M	16QAM	1	Max	1	0	22.22	0.4188
H	16QAM	1	Max	1	0	22.17	0.4140
L	64QAM	1	Max	1	0	20.21	0.2636
M	64QAM	1	Max	1	0	20.18	0.2618
H	64QAM	1	Max	1	0	20.11	0.2576
L	256QAM	1	Max	1	0	18.11	0.1626
M	256QAM	1	Max	1	0	18.06	0.1607
H	256QAM	1	Max	1	0	18.05	0.1603
Combination 20MHz+15MHz (100RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	22.77	0.4753
M	16QAM	1	Max	1	0	21.96	0.3945
Combination 15MHz+20MHz (75RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	22.71	0.4688
M	16QAM	1	Max	1	0	21.93	0.3917
Combination 15MHz+15MHz (75RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	22.55	0.4519
M	16QAM	1	Max	1	0	21.90	0.3890
Combination 20MHz+10MHz (100RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	22.73	0.4710
M	16QAM	1	Max	1	0	22.12	0.4093
Combination 10MHz+20MHz (50RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	22.65	0.4624
M	16QAM	1	Max	1	0	21.52	0.3565
Combination 15MHz+10MHz (75RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	22.80	0.4786
M	16QAM	1	Max	1	0	21.97	0.3954



LTE Band 66B							
Combination 10MHz+10MHz (50RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	23.05	0.4121
M	QPSK	1	Max	1	0	22.89	0.3972
H	QPSK	1	Max	1	0	22.82	0.3908
L	16QAM	1	Max	1	0	22.47	0.3606
M	16QAM	1	Max	1	0	22.28	0.3451
H	16QAM	1	Max	1	0	22.25	0.3428
L	64QAM	1	Max	1	0	20.22	0.2148
M	64QAM	1	Max	1	0	20.18	0.2128
H	64QAM	1	Max	1	0	20.11	0.2094
L	256QAM	1	Max	1	0	18.25	0.1365
M	256QAM	1	Max	1	0	18.15	0.1334
H	256QAM	1	Max	1	0	18.13	0.1327
Combination 15MHz+5MHz (75RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.94	0.4018
L	16QAM	1	Max	1	0	22.46	0.3597
Combination 5MHz+15MHz (25RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.94	0.4018
L	16QAM	1	Max	1	0	22.54	0.3664
Combination 10MHz+5MHz (50RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.99	0.4064
L	16QAM	1	Max	1	0	22.34	0.3499
Combination 5MHz+10MHz (25RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	23.03	0.4102
L	16QAM	1	Max	1	0	22.31	0.3475
Combination 5MHz+5MHz (25RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	22.72	0.3819
L	16QAM	1	Max	1	0	22.22	0.3404



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Chris	Temperature :	22~23°C
		Relative Humidity :	40~42%

LTE Band 7 / 20MHz / QPSK / Ant.7								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	5008	-59.56	-25	-34.56	-69.77	3.03	13.24	H
	7500	-55.76	-25	-30.76	-65.21	3.56	13.01	H
	10006	-61.66	-25	-36.66	-71.18	3.92	13.44	H
	5008	-53.62	-25	-28.62	-63.83	3.03	13.24	V
	7500	-44.01	-25	-19.01	-53.46	3.56	13.01	V
	10006	-62.07	-25	-37.07	-71.59	3.92	13.44	V
Middle	5050	-61.00	-25	-36.00	-71.21	3.03	13.24	H
	7584	-55.77	-25	-30.77	-65.22	3.56	13.01	H
	10104	-62.09	-25	-37.09	-71.61	3.92	13.44	H
	5050	-58.00	-25	-33.00	-68.21	3.03	13.24	V
	7584	-44.13	-25	-19.13	-53.58	3.56	13.01	V
	10104	-62.17	-25	-37.17	-71.69	3.92	13.44	V
Highest	5106	-60.33	-25	-35.33	-70.54	3.03	13.24	H
	7654	-55.18	-25	-30.18	-64.63	3.56	13.01	H
	10202	-62.26	-25	-37.26	-71.78	3.92	13.44	H
	5106	-55.54	-25	-30.54	-65.75	3.03	13.24	V
	7654	-42.49	-25	-17.49	-51.94	3.56	13.01	V
	10202	-62.73	-25	-37.73	-72.25	3.92	13.44	V

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



LTE Band 7C_CA / 20MHz+20MHz / QPSK / Ant.7								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest PCC_1RB0	5008	-62.72	-25	-37.72	-72.93	3.03	13.24	H
	7500	-63.45	-25	-38.45	-72.90	3.56	13.01	H
	10006	-62.40	-25	-37.40	-71.92	3.92	13.44	H
	5008	-59.76	-25	-34.76	-69.97	3.03	13.24	V
	7500	-59.54	-25	-34.54	-68.99	3.56	13.01	V
	10006	-62.67	-25	-37.67	-72.19	3.92	13.44	V
Lowest SCC_1RBM AX	5036	-64.14	-25	-39.14	-74.35	3.03	13.24	H
	7556	-63.00	-25	-38.00	-72.45	3.56	13.01	H
	10090	-62.13	-25	-37.13	-71.65	3.92	13.44	H
	5036	-64.41	-25	-39.41	-74.62	3.03	13.24	V
	7556	-63.21	-25	-38.21	-72.66	3.56	13.01	V
	10090	-62.62	-25	-37.62	-72.14	3.92	13.44	V
Middle PCC_1RB0	5036	-64.14	-25	-39.14	-74.35	3.03	13.24	H
	7542	-63.64	-25	-38.64	-73.09	3.56	13.01	H
	10062	-62.27	-25	-37.27	-71.79	3.92	13.44	H
	5036	-62.07	-25	-37.07	-72.28	3.03	13.24	V
	7542	-63.24	-25	-38.24	-72.69	3.56	13.01	V
	10062	-62.40	-25	-37.40	-71.92	3.92	13.44	V
Middle SCC_1RBM AX	5078	-64.60	-25	-39.60	-74.81	3.03	13.24	H
	7612	-63.51	-25	-38.51	-72.96	3.56	13.01	H
	10146	-62.65	-25	-37.65	-72.17	3.92	13.44	H
	5078	-64.72	-25	-39.72	-74.93	3.03	13.24	V
	7612	-63.61	-25	-38.61	-73.06	3.56	13.01	V
	10146	-63.06	-25	-38.06	-72.58	3.92	13.44	V
Highest PCC_1RB0	5064	-63.64	-25	-38.64	-73.85	3.03	13.24	H
	7598	-63.84	-25	-38.84	-73.29	3.56	13.01	H
	10132	-62.47	-25	-37.47	-71.99	3.92	13.44	H
	5064	-58.97	-25	-33.97	-69.18	3.03	13.24	V
	7598	-59.02	-25	-34.02	-68.47	3.56	13.01	V
	10132	-62.93	-25	-37.93	-72.45	3.92	13.44	V
Highest SCC_1RBM AX	5106	-65.18	-25	-40.18	-75.39	3.03	13.24	H
	7654	-62.72	-25	-37.72	-72.17	3.56	13.01	H
	10202	-62.67	-25	-37.67	-72.19	3.92	13.44	H
	5106	-64.76	-25	-39.76	-74.97	3.03	13.24	V
	7654	-60.28	-25	-35.28	-69.73	3.56	13.01	V
	10202	-62.82	-25	-37.82	-72.34	3.92	13.44	V



DC_7A-n5A / 20MHz / QPSK / Ant.1								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4995	-55.80	-25	-30.80	-66.01	3.03	13.24	H
	7500	-54.44	-25	-29.44	-63.89	3.56	13.01	H
	10005	-50.03	-25	-25.03	-59.55	3.92	13.44	H
	4995	-55.80	-25	-30.80	-66.01	3.03	13.24	V
	7500	-54.44	-25	-29.44	-63.89	3.56	13.01	V
	10005	-50.03	-25	-25.03	-59.55	3.92	13.44	V
Middle	5055	-55.89	-25	-30.89	-66.10	3.03	13.24	H
	7575	-54.39	-25	-29.39	-63.84	3.56	13.01	H
	10110	-50.31	-25	-25.31	-59.83	3.92	13.44	H
	5055	-56.15	-25	-31.15	-66.36	3.03	13.24	V
	7575	-54.22	-25	-29.22	-63.67	3.56	13.01	V
	10110	-50.64	-25	-25.64	-60.16	3.92	13.44	V
Highest	5100	-56.33	-25	-31.33	-66.54	3.03	13.24	H
	7650	-54.42	-25	-29.42	-63.87	3.56	13.01	H
	10200	-50.23	-25	-25.23	-59.75	3.92	13.44	H
	5100	-56.09	-25	-31.09	-66.30	3.03	13.24	V
	7650	-54.17	-25	-29.17	-63.62	3.56	13.01	V
	10200	-50.62	-25	-25.62	-60.14	3.92	13.44	V



LTE Band 5 / 10MHz / QPSK / Ant.7								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1648	-65.94	-13	-52.94	-72.91	1.58	10.70	H
	2472	-60.09	-13	-47.09	-68.34	2.102	12.50	H
	3296	-61.19	-13	-48.19	-70.08	2.856	13.90	H
	1648	-63.80	-13	-50.80	-70.77	1.58	10.70	V
	2472	-57.09	-13	-44.09	-65.34	2.10	12.50	V
	3296	-61.05	-13	-48.05	-69.94	2.86	13.90	V
Middle	1664	-62.87	-13	-49.87	-69.84	1.58	10.70	H
	2496	-53.32	-13	-40.32	-61.57	2.102	12.50	H
	3328	-61.19	-13	-48.19	-70.08	2.856	13.90	H
	1664	-62.09	-13	-49.09	-69.06	1.58	10.70	V
	2496	-49.70	-13	-36.70	-57.95	2.10	12.50	V
	3328	-61.42	-13	-48.42	-70.31	2.86	13.90	V
Highest	1680	-61.79	-13	-48.79	-68.76	1.58	10.70	H
	2520	-28.07	-13	-15.07	-36.32	2.102	12.50	H
	3360	-61.34	-13	-48.34	-70.23	2.856	13.90	H
	1680	-62.73	-13	-49.73	-69.70	1.58	10.70	V
	2520	-38.77	-13	-25.77	-47.02	2.10	12.50	V
	3360	-61.74	-13	-48.74	-70.63	2.86	13.90	V

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



LTE Band 66 / 20MHz / QPSK / Ant.7								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-54.78	-13	-41.78	-65.52	2.604	13.34	H
	5130	-55.73	-13	-42.73	-66.24	3.011	13.52	H
	6840	-54.99	-13	-41.99	-65.19	3.271	13.47	H
	3420	-56.29	-13	-43.29	-67.03	2.604	13.34	V
	5130	-52.10	-13	-39.10	-62.61	3.011	13.52	V
	6840	-55.33	-13	-42.33	-65.53	3.271	13.47	V
Middle	3465	-57.81	-13	-44.81	-68.55	2.604	13.34	H
	5205	-55.20	-13	-42.20	-65.71	3.011	13.52	H
	6945	-55.18	-13	-42.18	-65.38	3.271	13.47	H
	3465	-57.84	-13	-44.84	-68.58	2.604	13.34	V
	5205	-51.02	-13	-38.02	-61.53	3.011	13.52	V
	6945	-55.13	-13	-42.13	-65.33	3.271	13.47	V
Highest	3525	-57.64	-13	-44.64	-68.38	2.604	13.34	H
	5280	-55.18	-13	-42.18	-65.69	3.011	13.52	H
	7050	-55.67	-13	-42.67	-65.87	3.271	13.47	H
	3525	-58.01	-13	-45.01	-68.75	2.604	13.34	V
	5280	-51.86	-13	-38.86	-62.37	3.011	13.52	V
	7050	-55.59	-13	-42.59	-65.79	3.271	13.47	V

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



DC_66A_n5A / 20MHz / QPSK for Other PA / Ant.1								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3420	-60.66	-13	-47.66	-71.40	2.604	13.34	H
	5130	-57.71	-13	-44.71	-68.22	3.011	13.52	H
	6840	-57.76	-13	-44.76	-67.96	3.271	13.47	H
	3420	-61.09	-13	-48.09	-71.83	2.604	13.34	V
	5130	-58.57	-13	-45.57	-69.08	3.011	13.52	V
	6840	-57.93	-13	-44.93	-68.13	3.271	13.47	V
Middle	3465	-59.59	-13	-46.59	-70.33	2.604	13.34	H
	5205	-57.93	-13	-44.93	-68.44	3.011	13.52	H
	6945	-57.58	-13	-44.58	-67.78	3.271	13.47	H
	3465	-60.42	-13	-47.42	-71.16	2.604	13.34	V
	5205	-57.82	-13	-44.82	-68.33	3.011	13.52	V
	6945	-57.70	-13	-44.70	-67.90	3.271	13.47	V
Highest	3525	-60.50	-13	-47.50	-71.24	2.604	13.34	H
	5280	-58.19	-13	-45.19	-68.70	3.011	13.52	H
	7050	-58.33	-13	-45.33	-68.53	3.271	13.47	H
	3525	-60.29	-13	-47.29	-71.03	2.604	13.34	V
	5280	-57.87	-13	-44.87	-68.38	3.011	13.52	V
	7050	-58.24	-13	-45.24	-68.44	3.271	13.47	V

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



LTE Band 66B / 10MHz + 10MHz / QPSK/ Ant.7								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest PCC_1RB0	3420	-57.38	-13	-44.38	-68.12	2.604	13.34	H
	5130	-55.30	-13	-42.30	-65.81	3.011	13.52	H
	6840	-54.82	-13	-41.82	-65.02	3.271	13.47	H
	3420	-58.22	-13	-45.22	-68.96	2.604	13.34	V
	5130	-55.85	-13	-42.85	-66.36	3.011	13.52	V
	6840	-55.20	-13	-42.20	-65.40	3.271	13.47	V
Lowest SCC_1RBM AX	3435	-58.22	-13	-45.22	-68.96	2.604	13.34	H
	5160	-54.74	-13	-41.74	-65.25	3.011	13.52	H
	6885	-54.65	-13	-41.65	-64.85	3.271	13.47	H
	3435	-58.36	-13	-45.36	-69.10	2.604	13.34	V
	5160	-54.36	-13	-41.36	-64.87	3.011	13.52	V
	6885	-54.72	-13	-41.72	-64.92	3.271	13.47	V
Middle PCC_1RB0	3495	-57.81	-13	-44.81	-68.55	2.604	13.34	H
	5235	-55.91	-13	-42.91	-66.42	3.011	13.52	H
	6990	-55.60	-13	-42.60	-65.80	3.271	13.47	H
	3495	-58.02	-13	-45.02	-68.76	2.604	13.34	V
	5235	-55.99	-13	-42.99	-66.50	3.011	13.52	V
	6990	-55.37	-13	-42.37	-65.57	3.271	13.47	V
Middle SCC_1RBM AX	3510	-57.70	-13	-44.70	-68.44	2.604	13.34	H
	5265	-55.64	-13	-42.64	-66.15	3.011	13.52	H
	7020	-56.33	-13	-43.33	-66.53	3.271	13.47	H
	3510	-57.81	-13	-44.81	-68.55	2.604	13.34	V
	5265	-55.50	-13	-42.50	-66.01	3.011	13.52	V
	7020	-56.03	-13	-43.03	-66.23	3.271	13.47	V
Highest PCC_1RB0	3525	-58.16	-13	-45.16	-68.90	2.604	13.34	H
	5280	-55.38	-13	-42.38	-65.89	3.011	13.52	H
	7050	-55.94	-13	-42.94	-66.14	3.271	13.47	H
	3525	-58.32	-13	-45.32	-69.06	2.604	13.34	V
	5280	-55.44	-13	-42.44	-65.95	3.011	13.52	V
	7050	-56.00	-13	-43.00	-66.20	3.271	13.47	V
Highest SCC_1RBM AX	3540	-57.77	-13	-44.77	-68.51	2.604	13.34	H
	5310	-55.66	-13	-42.66	-66.17	3.011	13.52	H
	7080	-55.91	-13	-42.91	-66.11	3.271	13.47	H
	3540	-58.11	-13	-45.11	-68.85	2.604	13.34	V
	5310	-55.53	-13	-42.53	-66.04	3.011	13.52	V
	7080	-55.92	-13	-42.92	-66.12	3.271	13.47	V