



FCC RF Test Report

APPLICANT : UOVision Technology (HONGKONG) Co., Ltd
EQUIPMENT : Trail camera
BRAND NAME : UOVision
MODEL NAME : UML3
FCC ID : 2AC8CUML3
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L), 27(F), 27(H)
CLASSIFICATION : PCS Licensed Transmitter (PCB)
TEST DATE(S) : Apr. 12, 2024

This product installed a RF module (Brand Name: Quectel, Model Name: EG915Q-NA, FCC ID: XMR2023EG915QNA) during the test, only Conducted Power, ERP/EIRP and worse case of RSE from RF module report test items are tested in this report, all the other test results are leveraged from module RF report.

We, Sporton International Inc. (ShenZhen), 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. (ShenZhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia



Sporton International Inc. (ShenZhen)

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People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG431301	Rev. 01	Initial issue of report	Apr. 19, 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(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13)	ERP < 3 Watt	PASS	-
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt	PASS	-
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	1
3.6	§2.1049	Occupied Bandwidth	-	Report Only	1
3.7	§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 66)	< 43+10log10(P[Watts])	PASS	1
3.8	§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 66)	< 43+10log10(P[Watts])	PASS	1
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	1
	§2.1055 §24.235 §27.54		Within Authorized Band		



Report Section	FCC Rule	Description	Limit	Result	Remark
4.4	§2.1053 §27.53(c)(2) §27.53(f)	Radiated Spurious Emission (Band 13)	$< 43 + 10\log_{10}(P[\text{Watts}])$	PASS	Under limit 2.36 dB at 1559.500 MHz

Remark :

- For LTE Category-1 bits, the conducted test items were leverage from module RF reports which can refer to Report No. SEWM2305000159RG01.
- Compared with the module report, the Host antenna gain is smaller, so RSE only verified the worse mode.

Conformity Assessment Condition:

- 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/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
- 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

UOVision Technology (HONGKONG) Co., Ltd

UNIT A3,9/F SILVER INTERNATIONAL TOWER,707-713 NATHAN ROAD, MONGKOK,KOWLOON,
HONGKONG

1.2 Manufacturer

UOVision Technology (Shenzhen) Co.,Ltd.

4th Floor, A1 Building, Shunheda Factory, liuxiangdong Industrial Zone, Xili street, Nanshan District,
Shenzhen, CHN 518000

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Trail camera
Brand Name	UOVision
Model Name	UML3
FCC ID	2AC8CUML3
IMEI Code	867507060045610
HW Version	L3V50M
SW Version	18056.128.H

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz
Rx Frequency	LTE Band 2 : 1930 MHz ~ 1990 MHz LTE Band 4 : 2110 MHz ~ 2155 MHz LTE Band 5 : 869 MHz ~ 894 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 13 : 746 MHz ~ 756 MHz LTE Band 66 : 2110 MHz~ 2180 MHz
Bandwidth	LTE Categor-1 bits: 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 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz



Maximum Output Power to Antenna	LTE Category-1 bits: LTE Band 2 : 23.63 dBm LTE Band 4 : 23.59 dBm LTE Band 5 : 23.58 dBm LTE Band 12 : 23.45 dBm LTE Band 13 : 23.24 dBm LTE Band 66 : 23.76 dBm
Antenna Type	Fixed Internal Antenna
Antenna Gain	LTE Band 2 : 1.37 dBi LTE Band 4 : 1.35 dBi LTE Band 5 : 0.96 dBi LTE Band 12 : 0.57 dBi LTE Band 13 : 1.90 dBi LTE Band 66 : 1.36 dBi
Type of Modulation	LTE Category-1 bits: QPSK / 16QAM

1.5 Modification of EUT

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

1.6 Maximum ERP/EIRP

LTE Category-1 bits:

LTE Band 2		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1850.7 ~ 1909.3	0.2877	-	0.2296	-
3	1851.5 ~ 1908.5	0.2904	-	0.2399	-
5	1852.5 ~ 1907.5	0.2838	-	0.2421	-
10	1855.0 ~ 1905.0	0.2858	-	0.2427	-
15	1857.5 ~ 1902.5	0.2924	-	0.2460	-
20	1860.0 ~ 1900.0	0.3162	-	0.2742	-
LTE Band 4		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1754.3	0.3090	-	0.2506	-
3	1711.5 ~ 1753.5	0.2992	-	0.2270	-
5	1712.5 ~ 1752.5	0.3006	-	0.2275	-
10	1715.0 ~ 1750.0	0.2999	-	0.2259	-
15	1717.5 ~ 1747.5	0.3048	-	0.2275	-
20	1720.0 ~ 1745.0	0.3119	-	0.2249	-



LTE Band 5		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
1.4	824.7 ~ 848.3	0.1698	-	0.1435	-
3	825.5 ~ 847.5	0.1618	-	0.1462	-
5	826.5 ~ 846.5	0.1578	-	0.1483	-
10	829.0 ~ 844.0	0.1734	-	0.1503	-
LTE Band 12		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
1.4	699.7 ~ 715.3	0.1496	-	0.1253	-
3	700.5 ~ 714.5	0.1419	-	0.1167	-
5	701.5 ~ 713.5	0.1426	-	0.1159	-
10	704.0 ~ 711.0	0.1538	-	0.1169	-
LTE Band 13		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	779.5 ~ 784.5	0.1963	-	0.1538	-
10	782.0	0.1991	-	0.1567	-
LTE Band 66		QPSK		16QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
1.4	1710.7 ~ 1779.3	0.3069	-	0.2897	-
3	1711.5 ~ 1778.5	0.3013	-	0.2742	-
5	1712.5 ~ 1777.5	0.3034	-	0.2735	-
10	1715.0 ~ 1775.0	0.3041	-	0.2742	-
15	1717.5 ~ 1772.5	0.3062	-	0.2805	-
20	1720.0 ~ 1770.0	0.3251	-	0.2377	-

1.7 Testing Location

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

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH01-SZ	CN1256	421272

1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH01-SZ	AUDIX	E3	6.2009-8-24

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), 24(E), 27(L), 27(H), 27(F)
- 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

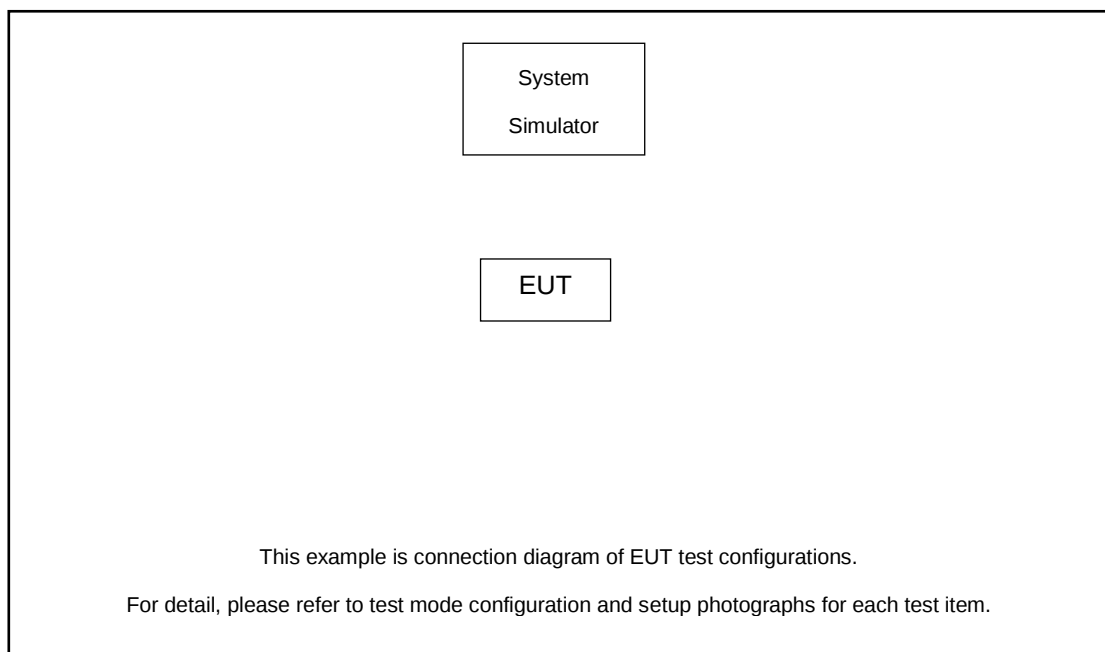
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

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

LTE Category-1 bits:

EUT Category 1 BRS																
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
	12	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v
	13	-	-	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	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
	12	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v
	13	-	-	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
Radiated Spurious Emission	13	Worst Case												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.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m



2.4 Frequency List of Low/Middle/High Channels

LTE Category-1 bits:

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 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 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

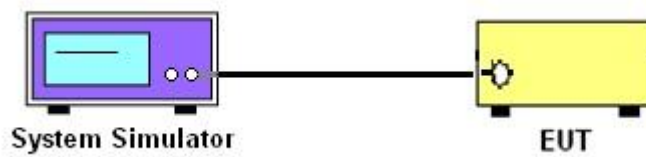
3 Conducted Test Items

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 ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12 and Band 13.

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

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

3.4.2 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.

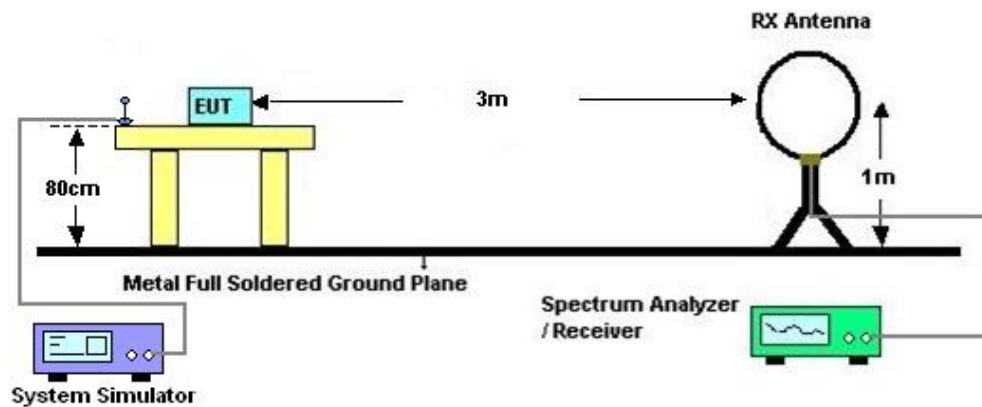
4 Radiated Test Items

4.1 Measuring Instruments

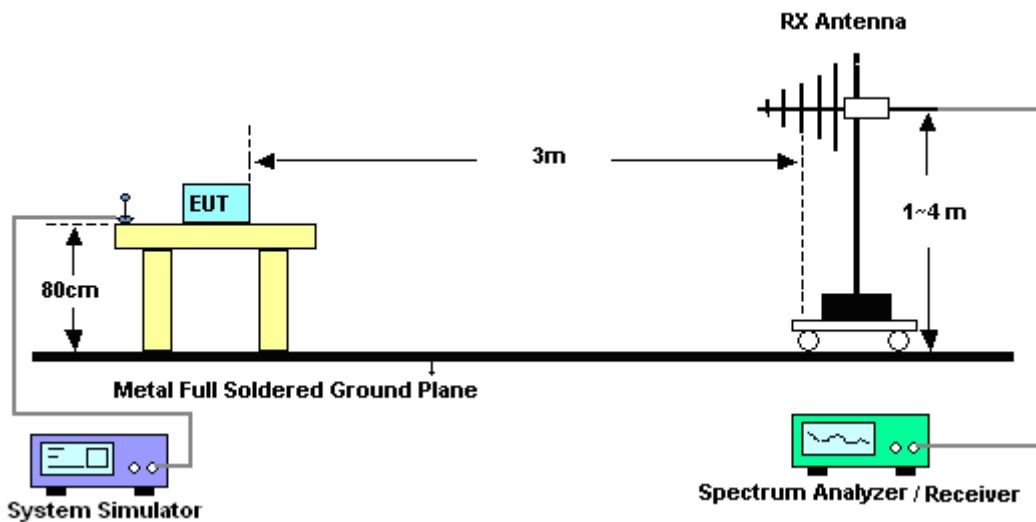
See list of measuring instruments of this test report.

4.2 Test Setup

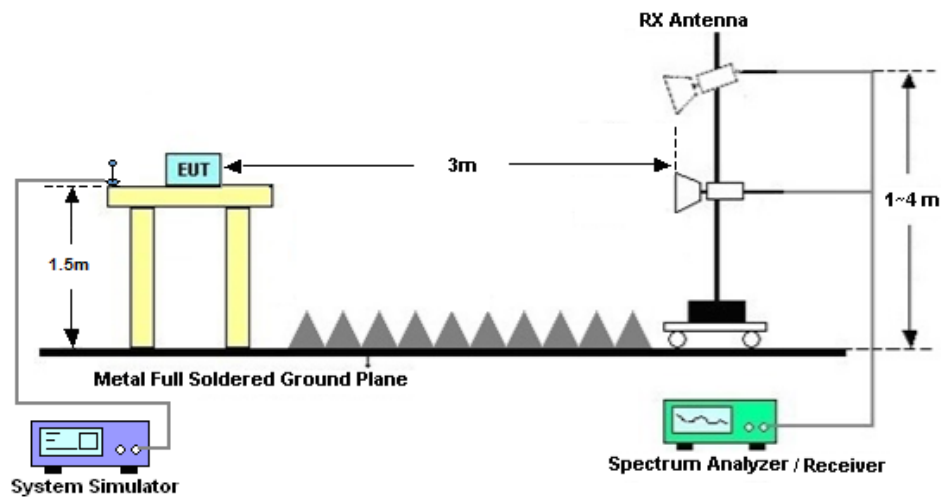
4.2.1 For radiated test below 30MHz



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 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.

4.4.2 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. $\text{EIRP (dBm)} = \text{S.G. Power} - \text{Tx Cable Loss} + \text{Tx Antenna Gain}$
11. $\text{ERP (dBm)} = \text{EIRP} - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

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



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 05, 2024	Apr. 12, 2024	Apr. 04, 2025	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2023	Apr. 12, 2024	Dec. 24, 2024	Conducted (TH01-SZ)
EMI Test Receiver&SA	Agilent	N9038A	MY52260185	20Hz~26.5GHz	Dec. 27, 2023	Apr. 12, 2024	Dec. 26, 2024	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jul. 28, 2022	Apr. 12, 2024	Jul. 27, 2024	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 18,2023	Apr. 12, 2024	Oct. 17,2024	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Apr. 12, 2024	Oct. 23, 2025	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 08, 2023	Apr. 12, 2024	Jul. 07, 2024	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 07, 2024	Apr. 12, 2024	Apr. 06, 2025	Radiation (03CH01-SZ)
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 03, 2024	Apr. 12, 2024	Apr. 02, 2025	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1	1943528	1GHz~18GHz	Oct. 18,2023	Apr. 12, 2024	Oct. 17,2024	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 07, 2023	Apr. 12, 2024	Jul. 06, 2024	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	Oct. 18,2023	Apr. 12, 2024	Oct. 17,2024	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Apr. 12, 2024	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Apr. 12, 2024	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required

6 Uncertainty of Evaluation

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

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	± 1.34 dB

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.48dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	3.53dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	4.02dB
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Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power) and ERP/EIRP

LTE Category-1 bits:

LTE Band 2

0	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				18700	18900	19100			
Frequency (MHz)				1860	1880	1900	L	M	H
20	QPSK	1	0	23.62	23.47	23.54	0.3155	0.3048	0.3097
20	QPSK	1	49	23.59	23.25	23.14	0.3133	0.2897	0.2825
20	QPSK	1	99	23.63	23.30	23.02	0.3162	0.2931	0.2748
20	QPSK	50	0	22.71	22.39	22.24	0.2559	0.2377	0.2296
20	QPSK	50	24	22.69	22.27	22.23	0.2547	0.2312	0.2291
20	QPSK	50	50	22.69	22.26	22.27	0.2547	0.2307	0.2312
20	QPSK	100	0	22.60	22.16	22.23	0.2495	0.2254	0.2291
20	16QAM	1	0	22.60	23.01	22.41	0.2495	0.2742	0.2388
Channel				18675	18900	19125	EIRP(W)		
Frequency (MHz)				1857.5	1880	1902.5	L	M	H
15	QPSK	1	0	23.16	23.29	23.19	0.2838	0.2924	0.2858
15	16QAM	1	0	22.54	22.13	22.13	0.2460	0.2239	0.2239
Channel				18650	18900	19150	EIRP(W)		
Frequency (MHz)				1855	1880	1905	L	M	H
10	QPSK	1	0	23.06	23.19	23.08	0.2773	0.2858	0.2786
10	16QAM	1	0	22.48	22.09	22.01	0.2427	0.2218	0.2178
Channel				18625	18900	19175	EIRP(W)		
Frequency (MHz)				1852.5	1880	1907.5	L	M	H
5	QPSK	1	0	23.13	23.16	23.07	0.2818	0.2838	0.2780
5	16QAM	1	0	22.47	22.07	22.03	0.2421	0.2208	0.2188
Channel				18615	18900	19185	EIRP(W)		
Frequency (MHz)				1851.5	1880	1908.5	L	M	H
3	QPSK	1	0	23.07	23.26	23.09	0.2780	0.2904	0.2793
3	16QAM	1	0	22.43	22.02	22.05	0.2399	0.2183	0.2198
Channel				18607	18900	19193	EIRP(W)		
Frequency (MHz)				1850.7	1880	1909.3	L	M	H
1.4	QPSK	1	0	23.10	23.22	22.80	0.2799	0.2877	0.2612
1.4	16QAM	1	0	22.12	22.24	22.15	0.2234	0.2296	0.2249



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			
Frequency (MHz)				1720	1732.5	1745	L	M	H
20	QPSK	1	0	23.52	23.13	23.34	0.3069	0.2805	0.2944
20	QPSK	1	49	23.59	23.26	23.47	0.3119	0.2891	0.3034
20	QPSK	1	99	23.37	23.02	23.41	0.2965	0.2735	0.2992
20	QPSK	50	0	22.55	22.13	22.31	0.2455	0.2228	0.2323
20	QPSK	50	24	22.54	22.49	22.60	0.2449	0.2421	0.2483
20	QPSK	50	50	22.30	22.41	22.30	0.2317	0.2377	0.2317
20	QPSK	100	0	22.32	22.19	22.25	0.2328	0.2259	0.2291
20	16QAM	1	0	22.09	22.17	22.17	0.2208	0.2249	0.2249
Channel				20025	20175	20325	EIRP(W)		
Frequency (MHz)				1717.5	1732.5	1747.5	L	M	H
15	QPSK	1	0	23.49	23.13	23.42	0.3048	0.2805	0.2999
15	16QAM	1	0	22.13	22.16	22.22	0.2228	0.2244	0.2275
Channel				20000	20175	20350	EIRP(W)		
Frequency (MHz)				1715	1732.5	1750	L	M	H
10	QPSK	1	0	23.41	23.12	23.42	0.2992	0.2799	0.2999
10	16QAM	1	0	22.19	22.12	22.15	0.2259	0.2223	0.2239
Channel				19975	20175	20375	EIRP(W)		
Frequency (MHz)				1712.5	1732.5	1752.5	L	M	H
5	QPSK	1	0	23.41	23.16	23.43	0.2992	0.2825	0.3006
5	16QAM	1	0	22.22	22.12	22.18	0.2275	0.2223	0.2254
Channel				19965	20175	20385	EIRP(W)		
Frequency (MHz)				1711.5	1732.5	1753.5	L	M	H
3	QPSK	1	0	23.41	23.15	23.35	0.2992	0.2818	0.2951
3	16QAM	1	0	22.12	22.15	22.21	0.2223	0.2239	0.2270
Channel				19950	20175	20393	EIRP(W)		
Frequency (MHz)				1710	1732.5	1754.3	L	M	H
1.4	QPSK	1	0	23.55	23.32	23.36	0.3090	0.2931	0.2958
1.4	16QAM	1	0	22.64	22.62	22.39	0.2506	0.2495	0.2366



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			
Frequency (MHz)				829	836.5	844	L	M	H
10	QPSK	1	0	23.13	23.14	23.31	0.1563	0.1567	0.1629
10	QPSK	1	25	23.38	23.39	23.58	0.1656	0.1660	0.1734
10	QPSK	1	49	23.16	23.20	23.42	0.1574	0.1589	0.1671
10	QPSK	25	0	22.33	22.30	22.58	0.1300	0.1291	0.1377
10	QPSK	25	12	22.44	22.55	22.68	0.1334	0.1368	0.1409
10	QPSK	25	25	22.28	22.37	22.28	0.1285	0.1312	0.1285
10	QPSK	50	0	22.27	22.34	22.44	0.1282	0.1303	0.1334
10	16QAM	1	0	22.68	22.96	22.44	0.1409	0.1503	0.1334
Channel				20425	20525	20625	ERP(W)		
Frequency (MHz)				826.5	836.5	846.5	L	M	H
5	QPSK	1	0	23.01	23.06	23.17	0.1521	0.1538	0.1578
5	16QAM	1	0	22.57	22.90	22.39	0.1374	0.1483	0.1318
Channel				20415	20525	20635	ERP(W)		
Frequency (MHz)				825.5	836.5	847.5	L	M	H
3	QPSK	1	0	23.06	23.12	23.28	0.1538	0.1560	0.1618
3	16QAM	1	0	22.66	22.84	22.38	0.1403	0.1462	0.1315
Channel				20407	20525	20643	ERP(W)		
Frequency (MHz)				824.7	836.5	848.3	L	M	H
1.4	QPSK	1	0	23.49	23.35	23.21	0.1698	0.1644	0.1592
1.4	16QAM	1	0	22.50	22.76	22.44	0.1352	0.1435	0.1334



LTE Band 12

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)		
Channel				23060	23095	23130			
Frequency (MHz)				704	707.5	711	L	M	H
10	QPSK	1	0	23.07	23.13	23.07	0.1409	0.1429	0.1409
10	QPSK	1	25	23.45	23.23	23.20	0.1538	0.1462	0.1452
10	QPSK	1	49	23.19	23.17	23.14	0.1449	0.1442	0.1432
10	QPSK	25	0	22.14	22.03	22.05	0.1138	0.1109	0.1114
10	QPSK	25	12	22.15	22.09	22.10	0.1140	0.1125	0.1127
10	QPSK	25	25	22.14	22.02	22.01	0.1138	0.1107	0.1104
10	QPSK	50	0	22.12	22.27	22.29	0.1132	0.1172	0.1178
10	16QAM	1	0	22.00	22.26	22.26	0.1102	0.1169	0.1169
Channel				23035	23095	23155	ERP(W)		
Frequency (MHz)				701.5	707.5	713.5	L	M	H
5	QPSK	1	0	23.02	23.12	23.00	0.1393	0.1426	0.1387
5	16QAM	1	0	21.94	22.14	22.22	0.1086	0.1138	0.1159
Channel				23025	23095	23165	ERP(W)		
Frequency (MHz)				700.5	707.5	714.5	L	M	H
3	QPSK	1	0	22.94	23.10	23.04	0.1368	0.1419	0.1400
3	16QAM	1	0	21.98	22.22	22.25	0.1096	0.1159	0.1167
Channel				23017	23095	23173	ERP(W)		
Frequency (MHz)				699.7	707.5	715.3	L	M	H
1.4	QPSK	1	0	22.74	22.97	23.33	0.1306	0.1377	0.1496
1.4	16QAM	1	0	22.03	22.08	22.56	0.1109	0.1122	0.1253

**LTE Band 13**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP(W)		
Channel				23230					
Frequency (MHz)				782				M	
10	QPSK	1	0		23.21			0.1977	
10	QPSK	1	25		23.24			0.1991	
10	QPSK	1	49		23.17			0.1959	
10	QPSK	25	0		22.26			0.1589	
10	QPSK	25	12		22.45			0.1660	
10	QPSK	25	25		22.20			0.1567	
10	QPSK	50	0		22.22			0.1574	
10	16QAM	1	0		22.20			0.1567	
Channel				23205	23230	23255	ERP(W)		
Frequency (MHz)				779.5	782	784.5	L	M	H
5	QPSK	1	0	23.11	23.08	23.18	0.1932	0.1919	0.1963
5	16QAM	1	0	22.09	22.12	22.10	0.1528	0.1538	0.1531



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			
Frequency (MHz)				1720	1745	1770	L	M	H
20	QPSK	1	0	23.70	23.37	23.62	0.3206	0.2972	0.3148
20	QPSK	1	49	23.76	23.42	23.67	0.3251	0.3006	0.3184
20	QPSK	1	99	23.61	23.27	23.57	0.3141	0.2904	0.3112
20	QPSK	50	0	22.76	22.42	22.57	0.2582	0.2388	0.2472
20	QPSK	50	24	22.78	22.72	22.76	0.2594	0.2559	0.2582
20	QPSK	50	50	22.55	22.58	22.54	0.2460	0.2477	0.2455
20	QPSK	100	0	22.53	22.46	22.44	0.2449	0.2410	0.2399
20	16QAM	1	0	22.38	22.40	22.40	0.2366	0.2377	0.2377
Channel				132047	132322	132597	EIRP(W)		
Frequency (MHz)				1717.5	1745	1772.5	L	M	H
15	QPSK	1	0	23.48	23.47	23.50	0.3048	0.3041	0.3062
15	16QAM	1	0	22.84	23.12	23.04	0.2630	0.2805	0.2754
Channel				132022	132322	132622	EIRP(W)		
Frequency (MHz)				1715	1745	1775	L	M	H
10	QPSK	1	0	23.42	23.35	23.47	0.3006	0.2958	0.3041
10	16QAM	1	0	22.80	23.02	22.99	0.2606	0.2742	0.2723
Channel				131997	132322	132647	EIRP(W)		
Frequency (MHz)				1712.5	1745	1777.5	L	M	H
5	QPSK	1	0	23.37	23.33	23.46	0.2972	0.2944	0.3034
5	16QAM	1	0	22.82	23.01	22.98	0.2618	0.2735	0.2716
Channel				131987	132322	132657	EIRP(W)		
Frequency (MHz)				1711.5	1745	1778.5	L	M	H
3	QPSK	1	0	23.35	23.43	23.35	0.2958	0.3013	0.2958
3	16QAM	1	0	22.82	23.01	23.02	0.2618	0.2735	0.2742
Channel				131979	132322	132665	EIRP(W)		
Frequency (MHz)				1710.7	1745	1779.3	L	M	H
1.4	QPSK	1	0	23.49	23.51	23.22	0.3055	0.3069	0.2871
1.4	16QAM	1	0	23.26	22.88	22.45	0.2897	0.2655	0.2404



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Shiwei Wen	Temperature :	22~25°C
		Relative Humidity :	48~52%

<LTE Category-1 bits>

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)
Middle	1559.5	-48.76	-42.15	-6.61	-60.54	-52.01	4.00	9.40	H
	2339.25	-59.86	-13	-46.86	-78.47	-63.43	4.88	10.60	H
	3119	-59.43	-13	-46.43	-79.75	-64.36	5.52	12.60	H
	1559.5	-44.51	-42.15	-2.36	-56.91	-47.76	4.00	9.40	V
	2339.25	-59.81	-13	-46.81	-78.79	-63.38	4.88	10.60	V
	3119	-57.50	-13	-44.50	-79.62	-62.43	5.52	12.60	V

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