FCC RADIO TEST REPORT

FCC ID	:	**XMR2021EM05G2**
Equipment	:	**LTE Module**
Brand Name	:	**Quectal Wireless Solutions Co., Ltd.**
Model Name	:	**EM05-G**
Applicant	:	**Quectal Wireless Solutions Co., Ltd.** **Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China, 20023**
Manufacturer	:	**LCFC (HeFei) Electronics Technology Co., Ltd.** **No. 3188-1, Yungu Road (Hefei Export Processing Zone), Hefei Economics & Technology Development Area, Anhui, CHINA**
Standard	:	**FCC 47 CFR Part 2, 22(H), 24(E), 27(L)**

Equipment: Quectel EM05-G tested inside of Lenovo Notebook Computer.

The product was received on Nov. 10, 2022 and testing was performed from Dec. 23, 2022 to Dec. 30, 2022. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory

Table of Contents

History of this test report

Report No.	Version	Description	Issue Date
FG2N1103A	01	Initial issue of report	Jan. 05, 2023

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Pass	-
	§22.913 (a)(5)	Effective Radiated Power (WCDMA Band V)		
	§24.232 (c)	Equivalent Isotropic Radiated Power (WCDMA Band II)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (WCDMA Band IV)		
-	§24.232 (d)	Peak-to-Average Ratio	-	See Note
-	§2.1049 §22.917 (b) §24.238 (b) §27.53 (g)	Occupied Bandwidth (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV)	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g)	Band Edge Measurement (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV)	-	See Note
-	§2.1051 §22.917 (a) §24.238 (a) §27.53 (g)	Conducted Emission (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV)	-	See Note
-	§2.1055 §22.355 §24.235 §27.54	Frequency Stability Temperature & Voltage	-	See Note
4.4	§2.1053 §22.917 (a) §24.238 (a) §27.53 (h)	Field Strength of Spurious Radiation (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV)	Pass	26.94 dB under the limit at 7630.000 MHz

Note:
1. For host device, Field Strength of Spurious Radiation, Effective Radiated Power and Equivalent Isotropic Radiated Power are verified and complies with the limit in this test report.
2. For host device, the Conducted Output Power is no difference after compared to module (Model: EM05-G)

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 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	LTE Module
Brand Name	Quectal Wireless Solutions Co., Ltd.
Model Name	EM05-G
FCC ID	XMR2021EM05G2
Sample 1	EUT with Host 1
Sample 2	EUT with Host 2
EUT supports Radios application	WCDMA/HSPA/LTE/GNSS
EUT Stage	Production Unit

Remark:

1. The above EUT's information was declared by manufacturer.

2. Equipment: Quectel EM05-G tested inside of Lenovo Notebook Computer.

The product was installed into Notebook Computer (Brand Name: Lenovo, Model Name: TP00135D) during test, and the host information was recorded in the following table.

Host Information	
Host 1	Host with AMPHENOL TAIWAN CORPORATION Antenna
Host 2	Host with Speed Antenna

WWAN Antenna Information for Host				
Main Antenna	**Manufacturer**	AMPHENOL TAIWAN CORPORATION	**Peak gain (dBi)**	WCDMA Band II: -1.46 WCDMA Band IV: -0.03 WCDMA Band V: -1.18
	Part number	DC33001VU00	**Type**	PIFA
	Manufacturer	Speed	**Peak gain (dBi)**	WCDMA Band II: -1.46 WCDMA Band IV: -0.03 WCDMA Band V: -1.18
	Part number	DC33001VW00	**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	**WCDMA:** Band V: 826.4 MHz ~ 846.6 MHz Band II: 1852.4 MHz ~ 1907.6 MHz Band IV: 1712.4 MHz ~ 1752.6 MHz
Rx Frequency	**WCDMA:** Band V: 871.4 MHz ~ 891.6 MHz Band II: 1932.4 MHz ~ 1987.6 MHz Band IV: 2112.4 MHz ~ 2152.6 MHz
Maximum Output Power to Antenna	**WCDMA:** Band V: 24.23 dBm Band II: 23.70 dBm Band IV: 23.52 dBm
Type of Modulation	WCDMA: BPSK (Uplink) HSDPA: 64QAM (Downlink) HSUPA: QPSK (Uplink)

1.3 Modification of EUT

No modifications made to the EUT during the testing.

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
Test Engineer	Cotty Hsu
Temperature (℃)	22.2~23.1
Relative Humidity (%)	51~56

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.**
	03CH16-HY (TAF Code: 3786)
Test Engineer	Andy Yang, Gary Guo and Steven Wu
Temperature (℃)	18~23
Relative Humidity (%)	50~65
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.

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

FCC Designation No.: TW1190 and TW3786

1.5 Applicable Standards

According to the specifications declared by 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(L)
- 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 the test items were validated and recorded in accordance with the standards without any modification during the testing.
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 were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for WCDMA Band V
2. 30 MHz to 18000 MHz for WCDMA Band IV
3. 30 MHz to 19100 MHz for WCDMA Band II

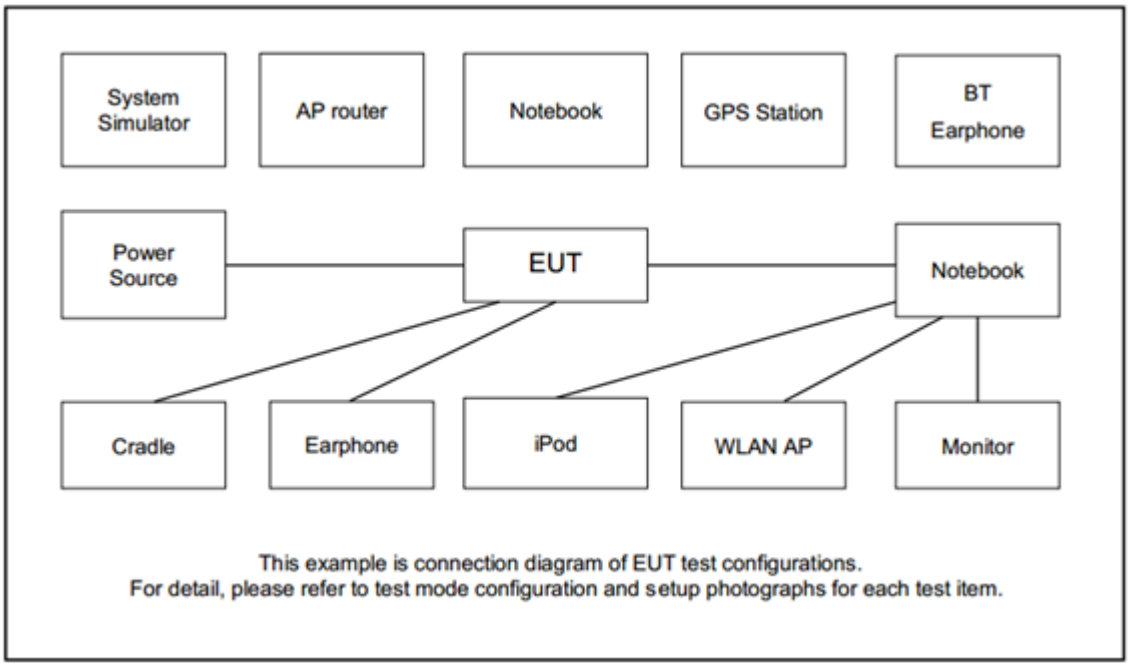
All modes, data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

Test Modes		
Band	**Radiated TCs**	**Conducted TCs**
WCDMA Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link
WCDMA Band IV	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link

Remark: All the radiated test cases were performed with Battery 1 and Sample 1.

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration

Item	Equipment	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Earphone	Lenove	TS300-01MS21-8S	N/A	Shielded, 1.2m	N/A
2.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

2.4 Frequency List of Low/Middle/High Channels

Frequency List				
Band	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
WCDMA Band V	Channel	4132	4182	4233
	Frequency	826.4	836.4	846.6
WCDMA Band II	Channel	9262	9400	9538
	Frequency	1852.4	1880.0	1907.6
WCDMA Band IV	Channel	1312	1413	1513
	Frequency	1712.4	1732.6	1752.6

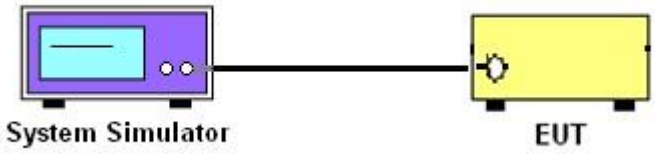
3 Conducted Test Result

3.1 Measuring Instruments

Please refer to the measuring equipment list in 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 and ERP/EIRP

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum 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 WCDMA Band V

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

The EIRP of mobile transmitters must not exceed 1 Watts for WCDMA Band IV

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 is connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select the lowest, middle, and the highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

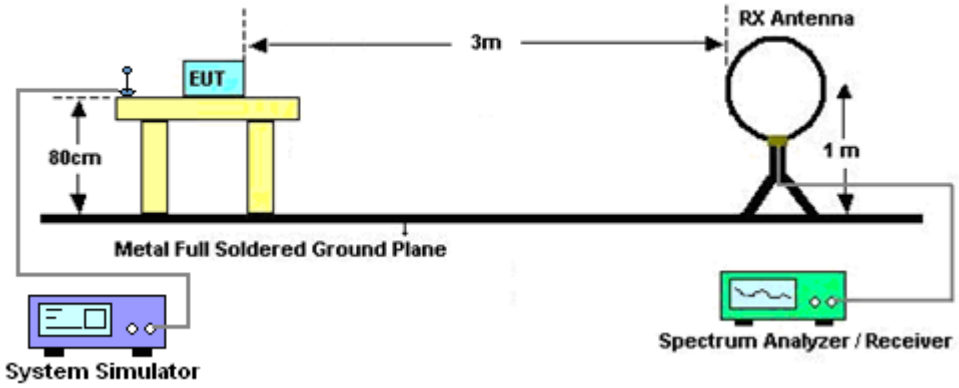
4 Radiated Test Items

4.1 Measuring Instruments

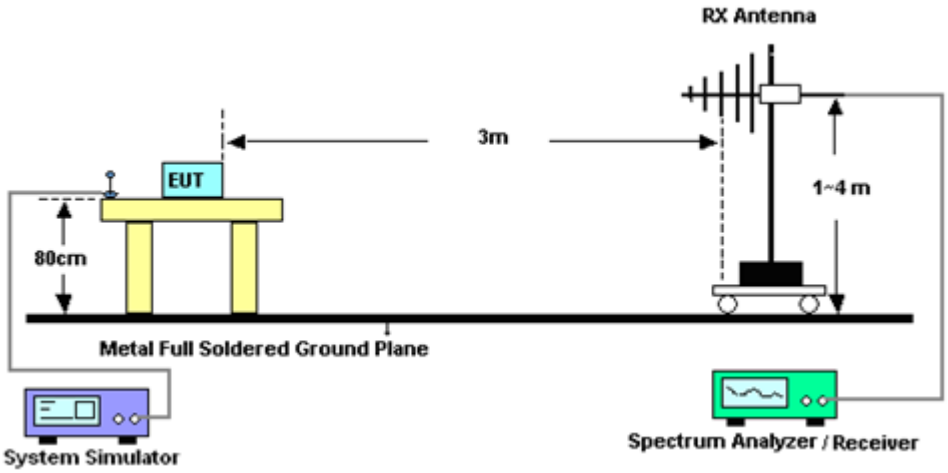
Please refer to the measuring equipment list in this test report.

4.2 Test Setup

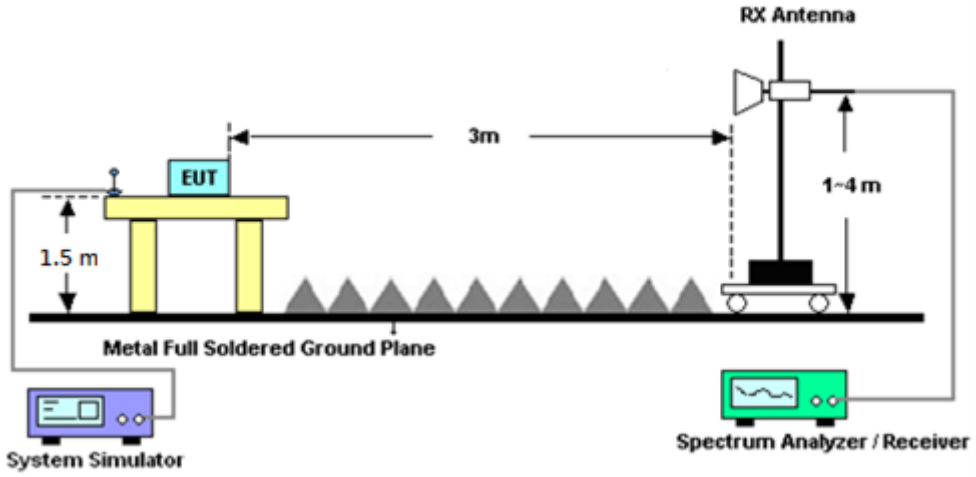
For radiated test below 30MHz



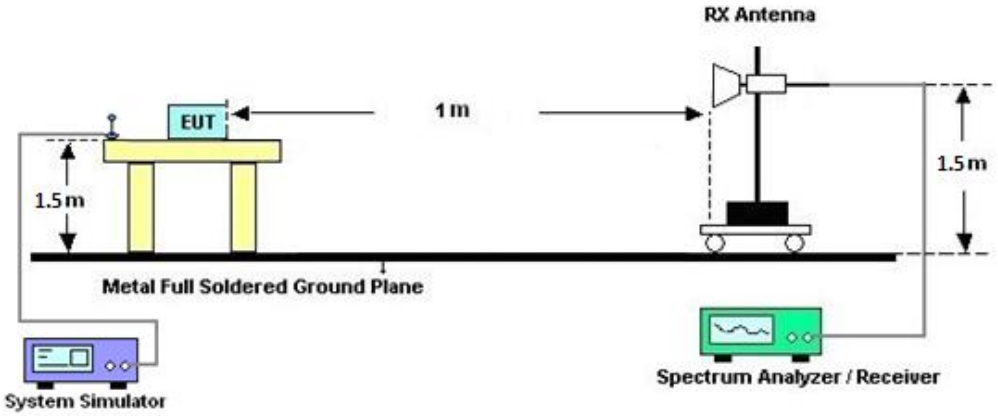
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

Note:

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is 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.

4.4 Field Strength of Spurious Radiation Measurement

4.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT is placed on a rotatable wooden table 0.8 meters for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz above the ground.
2. The EUT is set 3 meters away from the receiving antenna, which is mounted on the antenna tower.
3. The table is 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 for the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1 MHz, VBW = 3 MHz, taking record of maximum spurious emission.
6. A horn antenna is substituted in place of the EUT and is driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Take the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. The RF fundamental frequency shall be excluded against the limit line in the operating frequency band.
13. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

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	9 kHz~30 MHz	Sep. 20, 2022	Dec. 23, 2022~ Dec. 30, 2022	Sep. 19, 2023	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz-40GHz	Nov. 24, 2022	Dec. 23, 2022~ Dec. 30, 2022	Nov. 23, 2023	Radiation (03CH16-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 07, 2022	Dec. 23, 2022~ Dec. 30, 2022	Oct. 06, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 28, 2022	Dec. 23, 2022~ Dec. 30, 2022	Jun. 27, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804011/2,804012/2	18-40G	Jan. 04, 2022	Dec. 23, 2022~ Dec. 30, 2022	Jan. 03, 2023	Radiation (03CH16-HY)
Signal Generator	Agilent	MG3694C	163401	0.1Hz~40GHz	Feb. 13, 2022	Dec. 23, 2022~ Dec. 30, 2022	Feb. 12, 2023	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N -06	41912 & 05	30MHz to 1GHz	Feb. 06, 2022	Dec. 23, 2022~ Dec. 30, 2022	Feb. 05, 2023	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N -06	47020 & 06	30MHz to 1GHz	Oct. 08, 2022	Dec. 23, 2022~ Dec. 30, 2022	Oct. 07, 2023	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-02114	1G~18GHz	Aug. 09, 2022	Dec. 23, 2022~ Dec. 30, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1G~18GHz	Mar. 10, 2022	Dec. 23, 2022~ Dec. 30, 2022	Mar. 09, 2023	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1G	Jul. 04, 2022	Dec. 23, 2022~ Dec. 30, 2022	Jul. 03, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1-18GHz	Dec. 27, 2021	Dec. 23, 2022~ Dec. 25, 2022	Dec. 26, 2022	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1-18GHz	Dec. 26, 2022	Dec. 26, 2022~ Dec. 30, 2022	Dec. 25, 2023	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2022	Dec. 23, 2022~ Dec. 30, 2022	Dec. 08, 2023	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A	MY57290111	3Hz~26.5GHz	Dec. 15, 2022	Dec. 23, 2022~ Dec. 30, 2022	Dec. 14, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	805935/4	N/A	Aug. 09, 2022	Dec. 23, 2022~ Dec. 30, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	802434/4	N/A	Aug. 09, 2022	Dec. 23, 2022~ Dec. 30, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5757	N/A	Aug. 09, 2022	Dec. 23, 2022~ Dec. 30, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Dec. 23, 2022~ Dec. 30, 2022	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Dec. 23, 2022~ Dec. 30, 2022	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Dec. 23, 2022~ Dec. 30, 2022	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Dec. 23, 2022~ Dec. 30, 2022	N/A	Radiation (03CH16-HY)
Radio Communication Analyzer	Anritsu	MT8821C	6262025353	LTE FDD/TDD LTE-2CC DLCA/ULCA	Oct. 13, 2022	Dec. 26, 2022	Oct. 12, 2023	Conducted (TH03-HY)
Coupler	Warison	20dB 25W SMA Directional Coupler	#B	1-18GHz	Jan. 07, 2022	Dec. 26, 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))	**2.98 dB**

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.54 dB**

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.79 dB**

Appendix A. Test Results of Conducted Test

Conducted Output Power (Average power & ERP/EIRP)

WCDMA Band V Maximum Average Power [dBm] (GT - LC = -1.18 dB)					
Channel	4132	4182	4233	ERP (dBm)	ERP (W)
Frequency	826.4	836.4	846.6		
RMC 12.2K	23.54	23.65	**24.23**	20.90	0.1230
Limit	ERP < 7W			Result	Pass

WCDMA Band II Maximum Average Power [dBm] (GT - LC = -1.46 dB)					
Channel	9262	9400	9538	EIRP (dBm)	EIRP (W)
Frequency	1852.4	1880	1907.6		
RMC 12.2K	23.66	23.62	**23.70**	22.24	0.1675
Limit	EIRP < 2W			Result	Pass

WCDMA Band IV Maximum Average Power [dBm] (GT - LC = -0.03 dB)					
Channel	1312	1413	1513	EIRP (dBm)	EIRP (W)
Frequency	1712.4	1732.6	1752.6		
RMC 12.2K	23.51	23.50	**23.52**	23.49	0.2234
Limit	EIRP < 1W			Result	Pass

Appendix B. Test Results of Radiated Test

WCDMA 850

WCDMA 850									
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	1652	-56.52	-13	-43.52	-71.72	-60	3.89	9.51	H
	2479	-55.86	-13	-42.86	-74.75	-59.46	4.81	10.56	H
	3305	-53.60	-13	-40.60	-75.49	-58.11	5.56	12.22	H
									H
									H
									H
	1652	-56.81	-13	-43.81	-71.91	-60.29	3.89	9.51	V
	2479	-56.28	-13	-43.28	-75.16	-59.88	4.81	10.56	V
	3305	-53.68	-13	-40.68	-75.48	-58.19	5.56	12.22	V
									V
									V
									V
Middle	1672	-56.87	-13	-43.87	-72.15	-60.44	3.91	9.63	H
	2509	-55.45	-13	-42.45	-74.33	-59.12	4.84	10.65	H
	3345	-53.81	-13	-40.81	-75.62	-58.44	5.60	12.38	H
									H
									H
									H
	1672	-56.72	-13	-43.72	-71.93	-60.29	3.91	9.63	V
	2509	-55.13	-13	-42.13	-73.99	-58.8	4.84	10.65	V
	3345	-53.78	-13	-40.78	-75.52	-58.41	5.60	12.38	V
									V
									V
									V

Highest	1693	-57.21	-13	-44.21	-72.57	-60.88	3.93	9.76	H
	2539	-55.56	-13	-42.56	-74.71	-59.38	4.87	10.83	H
	3386	-54.04	-13	-41.04	-75.77	-58.73	5.64	12.47	H
									H
									H
									H
	1693	-58.35	-13	-45.35	-73.67	-62.02	3.93	9.76	V
	2539	-55.71	-13	-42.71	-74.64	-59.53	4.87	10.83	V
	3386	-54.33	-13	-41.33	-76	-59.02	5.64	12.47	V
									V
									V
									V

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

WCDMA 1900

WCDMA 1900									
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	3815	-50.59	-13	-37.59	-74.67	-56.83	6.03	12.27	H
	5722	-47.20	-13	-34.20	-76.58	-52.73	7.88	13.41	H
	7630	-40.31	-13	-27.31	-76.28	-43.15	8.82	11.66	H
									H
									H
									H
	3815	-48.24	-13	-35.24	-72.31	-54.48	6.03	12.27	V
	5722	-46.89	-13	-33.89	-76.24	-52.42	7.88	13.41	V
	7630	-39.94	-13	-26.94	-73.14	-42.78	8.82	11.66	V
									V
									V
									V
Middle	3704	-50.08	-13	-37.08	-73.63	-56.45	5.93	12.30	H
	5557	-47.97	-13	-34.97	-76.99	-53.54	7.75	13.31	H
	7409	-40.94	-13	-27.94	-75.85	-43.42	8.72	11.20	H
									H
									H
									H
	3704	-51.10	-13	-38.10	-74.56	-57.47	5.93	12.30	V
	5557	-48.27	-13	-35.27	-77.32	-53.84	7.75	13.31	V
	7409	-40.70	-13	-27.70	-75.87	-43.18	8.72	11.20	V
									V
									V
									V

Highest	3815	-50.59	-13	-37.59	-74.67	-56.83	6.03	12.27	H
	5722	-47.20	-13	-34.20	-76.58	-52.73	7.88	13.41	H
	7630	-40.31	-13	-27.31	-76.28	-43.15	8.82	11.66	H
									H
									H
									H
	3815	-48.24	-13	-35.24	-72.31	-54.48	6.03	12.27	V
	5722	-46.89	-13	-33.89	-76.24	-52.42	7.88	13.41	V
	7630	-39.94	-13	-26.94	-76.14	-42.78	8.82	11.66	V
									V
									V
									V

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

WCDMA 1700

WCDMA 1700									
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	3424	-49.21	-13	-36.21	-71.76	-56.04	5.67	12.50	H
	5137	-48.53	-13	-35.53	-77.2	-53.46	7.55	12.47	H
	6849	-42.91	-13	-29.91	-75.88	-46.67	8.44	12.20	H
									H
									H
									H
	3424	-51.52	-13	-38.52	-74.01	-58.35	5.67	12.50	V
	5137	-48.47	-13	-35.47	-76.96	-53.4	7.55	12.47	V
	6849	-43.02	-13	-30.02	-75.81	-46.78	8.44	12.20	V
									V
									V
									V
Middle	3465	-48.40	-13	-35.40	-71.33	-55.16	5.71	12.47	H
	5197	-48.43	-13	-35.43	-76.84	-53.73	7.57	12.88	H
	6930	-41.96	-13	-28.96	-75.43	-45.4	8.50	11.94	H
									H
									H
									H
	3465	-51.71	-13	-38.71	-74.56	-58.47	5.71	12.47	V
	5197	-48.54	-13	-35.54	-76.9	-53.84	7.57	12.88	V
	6930	-42.31	-13	-29.31	-75.83	-45.75	8.50	11.94	V
									V
									V
									V

Highest	3505	-51.22	-13	-38.22	-74.47	-57.85	5.74	12.37	H
	5257	-48.50	-13	-35.50	-77.05	-54.13	7.60	13.23	H
	7010	-42.21	-13	-29.21	-76.17	-45.5	8.55	11.84	H
									H
									H
									H
	3505	-52.93	-13	-39.93	-76.08	-59.56	5.74	12.37	V
	5257	-48.26	-13	-35.26	-76.72	-53.89	7.60	13.23	V
	7010	-41.98	-13	-28.98	-76.18	-45.27	8.55	11.84	V
									V
									V
									V

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