

MEASUREMENT REPORT

FCC PART 22 & 24 & 27 & 90

Application: Suzhou Story Network Technology Co., Ltd.

Address: Building 2, Zhongxinxin Park, No.91 Weixin Road, Industrial Park, Suzhou City, Jiangsu, China

Application Type: Class II Permissive Change

Product: LTE Modem

Model No.: EG25-G

FCC Rule Part(s): Part 22 Subpart H, Part 24 Subpart E, Part 27 Subpart C, Part 90 Subpart S

Test Procedure(s): ANSI C63.26-2015, KDB 971168 D01v03r01

Test Date: April 13 ~ 17, 2020

Reviewed By:

Jame Yuan

(Jame Yuan)

Approved By:

Robin Wu

(Robin Wu)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.26-2015. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2003RSU045-U1	Rev. 01	Initial Report	05-06-2020	Valid

CONTENTS

Description	Page
1. INTRODUCTION.....	5
1.1. Scope.....	5
1.2. MRT Test Location	5
2. PRODUCT INFORMATION.....	6
2.1. Equipment Description	6
2.2. Product Specification Subjective to this Report	6
2.3. Description of Host	7
2.4. EMI Suppression Device(s)/Modifications.....	8
2.5. Labeling Requirements.....	8
3. DESCRIPTION of TEST.....	9
3.1. Evaluation Procedure	9
3.2. Radiated Emissions.....	9
4. TEST EQUIPMENT CALIBRATION DATE.....	11
5. MEASUREMENT UNCERTAINTY	12
6. TEST RESULT	13
6.1. Summary.....	13
6.2. Transmitter Spurious Emissions Measurements.....	14
6.2.1. Test Limit	14
6.2.2. Test Procedure Used	14
6.2.3. Test Setting.....	14
6.2.4. Test Setup	15
6.2.5. Test Result.....	16
7. CONCLUSION	31
Appendix A - Test Setup Photograph	32
Appendix B - EUT Photograph.....	33

General Information

Applicant:	Suzhou Story Network Technology Co., Ltd.
Applicant Address:	Building 2, Zhongxinxin Park, No.91 Weixin Road, Industrial Park, Suzhou City, Jiangsu, China
Manufacturer:	Suzhou Story Network Technology Co., Ltd.
Manufacturer Address:	Building 2, Zhongxinxin Park, No.91 Weixin Road, Industrial Park, Suzhou City, Jiangsu, China
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Designation No. CN1166) test facility with the site description report on file and has met all the requirements specified in ANSI C63.4-2014.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-20025, G-20034, C-20020, T-20020) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications, Radio and SAR testing.



1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.



2. PRODUCT INFORMATION

2.1. Equipment Description

Product:	LTE Modem
Model No.:	EG25-G
GSM Band (s):	850/1900
WCDMA Operation Band (s):	Band 2/4/5
LTE Operation Band (s):	FDD Band 2/4/5/7/12/13/25/26, TDD Band 38/41

2.2. Product Specification Subjective to this Report

Frequency Range:	GSM 850: 824~850 GSM 1900: 1850~1910 WCDMA Band 2: 1850~1910 MHz WCDMA Band 4: 1710~1755 MHz WCDMA Band 5: 820~850 MHz LTE Band 2: 1850~1910 MHz LTE Band 4: 1710~1755 MHz LTE Band 5: 824~849 MHz LTE Band 7: 2500~2570 MHz LTE Band 12: 699~716 MHz LTE Band 13: 777~787 MHz LTE Band 25: 1850~1915 MHz LTE Band 26: 814~849 MHz LTE Band 38: 2570~2620 MHz LTE Band 41: 2496~2690 MHz
Multi-slot Class:	GPRS/EGPRS Class 33
Type of Modulation:	LTE: QPSK, 16QAM
Product Category:	LTE: Category 4
Antenna Specification:	MAIN Antenna: WCDMA/LTE (1Tx, 1Rx) AUX Antenna: WCDMA/LTE (Rx only)
Antenna Type:	FPC Antenna
Antenna Gain:	2dBi

Note: For other features of this EUT, test report will be issued separately.

2.3. Description of Host

Product Name:	LTE Modem
Model No.:	GT25-G
Contain one module	
Module:	FCC ID: 2AWAF-GT25G

2.4. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.5. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlets supplied to the user and be readily visible to the purchaser at the time of purchase.

However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

3. DESCRIPTION of TEST

3.1. Evaluation Procedure

The measurement procedure described in the document titled “American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services” (ANSI C63.26-2015) was used in the measurement.

3.2. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meters semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.

For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst-case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna

was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, which produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

4. TEST EQUIPMENT CALIBRATION DATE

Radiated Emissions - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2020/08/01
PXA Signal Analyzer	Keysight	9030B	MRTSUE06395	1 year	2020/09/03
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2021/03/31
Broad Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2020/10/13
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2021/02/23
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2020/11/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2020/06/11
Thermohygrometer	Testo	608-H1	MRTSUE06403	1 year	2020/08/08
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2020/04/30

Radiated Emission - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Keysight	N9038A	MRTSUE06125	1 year	2020/08/01
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2020/10/13
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06171	1 year	2020/10/27
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2021/02/23
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2020/11/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2020/06/11
Temperature/Humidity Meter	Minggao	ETH529	MRTSUE06170	1 year	2020/12/15
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2020/04/30

Software	Version	Function
EMI Software	V3	EMI Test Software

5. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement - SR2
<p>The maximum measurement uncertainty is evaluated as:</p> <p>9kHz~150kHz: 3.84dB</p> <p>150kHz~30MHz: 3.46dB</p>
Radiated Emission Measurement - AC1
<p>The maximum measurement uncertainty is evaluated as:</p> <p>Horizontal: 30MHz~300MHz: 4.07dB</p> <p>300MHz~1GHz: 3.63dB</p> <p>1GHz~18GHz: 4.16dB</p> <p>Vertical: 30MHz~300MHz: 4.18dB</p> <p>300MHz~1GHz: 3.60dB</p> <p>1GHz~18GHz: 4.76dB</p>
Radiated Emission Measurement - AC2
<p>The maximum measurement uncertainty is evaluated as:</p> <p>Horizontal: 30MHz~300MHz: 3.75dB</p> <p>300MHz~1GHz: 3.53dB</p> <p>1GHz~18GHz: 4.28dB</p> <p>Vertical: 30MHz~300MHz: 3.86dB</p> <p>300MHz~1GHz: 3.53dB</p> <p>1GHz~18GHz: 4.33dB</p>

6. TEST RESULT

6.1. Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
2.1053, 22.917, 24.238, 27.53(c), 27.53(f), 27.53(g), 27.53(h), 90.691	Radiated Spurious Emissions (GSM850, 1900, WCDMA Band 2, 4, 5, LTE Band 2, 4, 5, 12, 13, 25, 26)	$> 43 + 10\log_{10} (P[\text{Watts}])$ for all out-of-band emissions	Radiated	Pass	Section 6.2
27.53(m)	Radiated Spurious Emissions (LTE Band 7, 38, 41)	Undesirable emissions must meet the limits detailed in 27.53(m)			

Notes:

- 1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 2) All supported modulation types were evaluated. The worst-case emission of modulation was selected.

6.2. Transmitter Spurious Emissions Measurements

6.2.1. Test Limit

Out of band emissions: The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

For Band 7, 38, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $55 + 10 \log(P)$ dB. The emission limit equal to -25dBm

$E (\text{dB}\mu\text{V}/\text{m}) = \text{EIRP} (\text{dBm}) - 20 \log D + 104.8$; where D is the measurement distance in meters. The emission limit equal to 82.2dB μ V/m or 70.2dB μ V/m.

6.2.2. Test Procedure Used

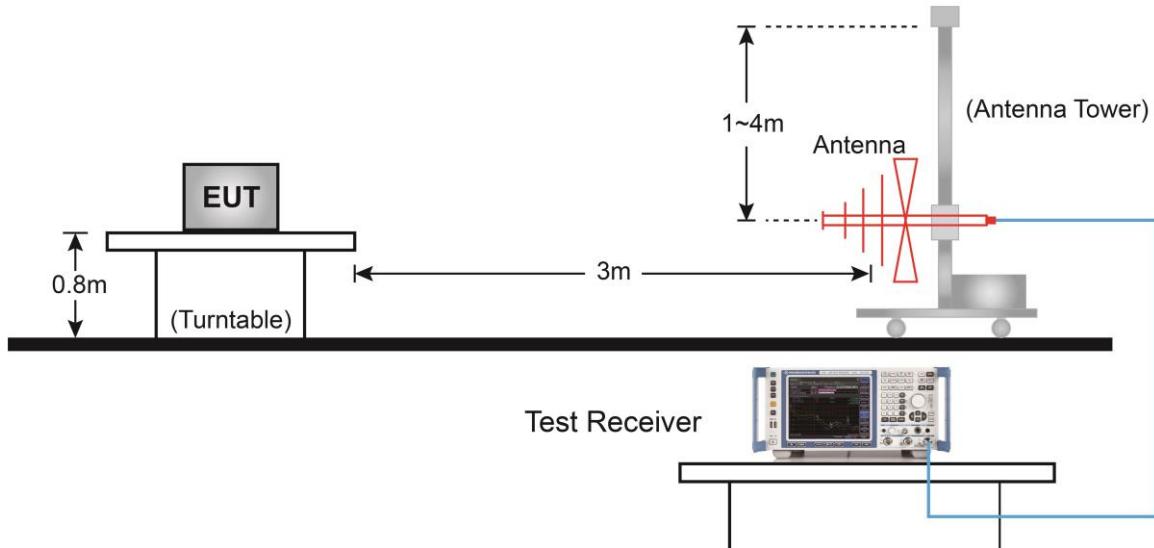
ANSI C63.26-2015 - Section 5.2.7 & 5.5

6.2.3. Test Setting

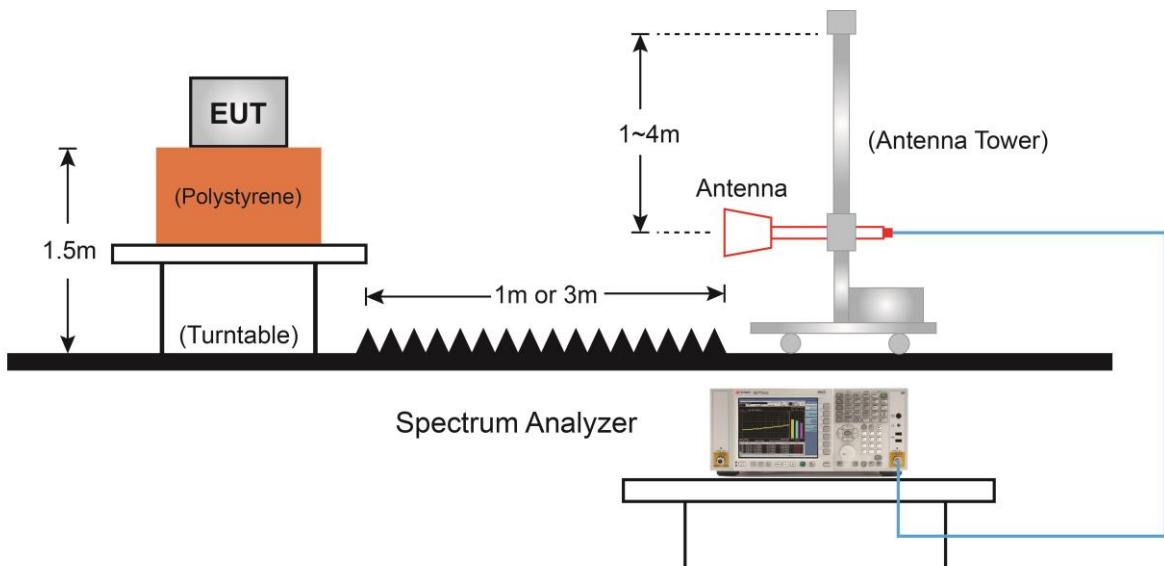
1. RBW = 100kHz or 1MHz
2. VBW $\geq 3 \times \text{RBW}$
3. Sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{transmission symbol period})$
4. Detector = Peak
5. Trace mode = max hold
6. The trace was allowed to stabilize

6.2.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.2.5. Test Result

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	GSM850		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
High Channel							
161.9	1.4	14.0	15.4	82.2	-66.8	Peak	Horizontal
258.0	7.0	13.1	20.1	82.2	-62.1	Peak	Horizontal
40.2	5.8	14.5	20.3	82.2	-61.9	Peak	Vertical
238.6	6.4	11.4	17.8	82.2	-64.4	Peak	Vertical
5071.5	38.2	6.3	44.5	82.2	-37.7	Peak	Horizontal
10571.0	36.5	17.4	53.9	82.2	-28.3	Peak	Horizontal
2283.5	42.0	-1.1	40.9	82.2	-41.3	Peak	Vertical
7256.0	37.0	11.6	48.6	82.2	-33.6	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	PCS1900		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
High Channel							
240.0	27.8	12.8	40.6	82.2	-41.6	Peak	Horizontal
338.5	12.9	15.2	28.1	82.2	-54.1	Peak	Horizontal
38.7	16.0	14.4	30.4	82.2	-51.8	Peak	Vertical
240.0	28.1	12.8	40.9	82.2	-41.3	Peak	Vertical
6695.0	36.5	9.6	46.1	82.2	-36.1	Peak	Horizontal
7995.5	37.0	12.5	49.5	82.2	-32.7	Peak	Horizontal
8029.5	37.4	12.7	50.1	82.2	-32.1	Peak	Vertical
9780.5	35.3	16.6	51.9	82.2	-30.3	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	WCDMA Band 2		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
High Channel							
240.0	29.2	12.8	42.0	82.2	-40.2	Peak	Horizontal
343.3	14.8	15.3	30.1	82.2	-52.1	Peak	Horizontal
31.5	18.5	13.7	32.2	82.2	-50.0	Peak	Vertical
240.0	28.2	12.8	41.0	82.2	-41.2	Peak	Vertical
6720.5	36.9	9.5	46.4	82.2	-35.8	Peak	Horizontal
8080.5	36.9	12.7	49.6	82.2	-32.6	Peak	Horizontal
8097.5	36.8	12.7	49.5	82.2	-32.7	Peak	Vertical
10605.0	36.5	17.3	53.8	82.2	-28.4	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	WCDMA Band 4		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
High Channel							
240.0	28.3	12.8	41.1	82.2	-41.1	Peak	Horizontal
341.4	14.7	15.3	30.0	82.2	-52.2	Peak	Horizontal
32.4	20.1	13.7	33.8	82.2	-48.4	Peak	Vertical
240.0	28.9	12.8	41.7	82.2	-40.5	Peak	Vertical
4357.5	40.5	4.1	44.6	82.2	-37.6	Peak	Horizontal
7281.5	35.4	11.7	47.1	82.2	-35.1	Peak	Horizontal
4289.5	40.0	4.0	44.0	82.2	-38.2	Peak	Vertical
8131.5	37.4	12.7	50.1	82.2	-32.1	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	WCDMA Band 5		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
Low Channel							
294.8	4.8	14.1	18.9	82.2	-63.3	Peak	Horizontal
329.7	4.4	15.0	19.4	82.2	-62.8	Peak	Horizontal
31.0	10.4	13.7	24.1	82.2	-58.1	Peak	Vertical
648.4	1.5	21.3	22.8	82.2	-59.4	Peak	Vertical
2122.0	42.7	-1.9	40.8	82.2	-41.4	Peak	Horizontal
5964.0	37.2	7.2	44.4	82.2	-37.8	Peak	Horizontal
2411.0	41.6	-1.1	40.5	82.2	-41.7	Peak	Vertical
8012.5	37.7	12.5	50.2	82.2	-32.0	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 2		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
High Channel							
240.0	27.2	12.8	40.0	82.2	-42.2	Peak	Horizontal
300.1	22.5	14.3	36.8	82.2	-45.4	Peak	Horizontal
36.8	16.1	14.1	30.2	82.2	-52.0	Peak	Vertical
240.0	27.2	12.8	40.0	82.2	-42.2	Peak	Vertical
4332.0	39.0	4.1	43.1	82.2	-39.1	Peak	Horizontal
10783.5	35.7	17.7	53.4	82.2	-28.8	Peak	Horizontal
5088.5	38.0	6.4	44.4	82.2	-37.8	Peak	Vertical
9415.0	36.0	15.8	51.8	82.2	-30.4	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 4		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
High Channel							
240.0	27.2	12.8	40.0	82.2	-42.2	Peak	Horizontal
300.1	23.8	14.3	38.1	82.2	-44.1	Peak	Horizontal
31.9	14.6	13.7	28.3	82.2	-53.9	Peak	Vertical
240.0	22.7	12.8	35.5	82.2	-46.7	Peak	Vertical
3201.5	40.3	1.2	41.5	82.2	-40.7	Peak	Horizontal
6958.5	37.3	10.4	47.7	82.2	-34.5	Peak	Horizontal
4502.0	38.8	4.6	43.4	82.2	-38.8	Peak	Vertical
8055.0	36.9	12.6	49.5	82.2	-32.7	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 5		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
Mid Channel							
300.1	7.7	14.3	22.0	82.2	-60.2	Peak	Horizontal
466.0	3.9	16.1	20.0	82.2	-62.2	Peak	Horizontal
30.5	9.0	13.6	22.6	82.2	-59.6	Peak	Vertical
112.0	8.2	11.3	19.5	82.2	-62.7	Peak	Vertical
1680.0	47.3	-4.8	42.5	82.2	-39.7	Peak	Horizontal
7417.5	37.0	11.7	48.7	82.2	-33.5	Peak	Horizontal
1680.0	48.2	-4.8	43.4	82.2	-38.8	Peak	Vertical
2419.5	44.7	-1.1	43.6	82.2	-38.6	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 7		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
Mid Channel							
294.8	6.2	12.7	18.9	70.2	-51.3	Peak	Horizontal
657.6	4.6	19.2	23.8	70.2	-46.4	Peak	Horizontal
573.7	4.1	17.8	21.9	70.2	-48.3	Peak	Vertical
961.2	4.8	22.2	27.0	70.2	-43.2	Peak	Vertical
7995.5	45.7	3.7	49.4	70.2	-20.8	Peak	Horizontal
11013.0	46.1	7.7	53.8	70.2	-16.4	Peak	Horizontal
8131.5	46.4	3.8	50.2	70.2	-20.0	Peak	Vertical
9559.5	45.7	6.4	52.1	70.2	-18.1	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 12		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
Low Channel							
30.0	1.6	13.2	14.8	82.2	-67.4	Peak	Horizontal
112.0	8.2	11.3	19.5	82.2	-62.7	Peak	Horizontal
39.7	8.0	14.5	22.5	82.2	-59.7	Peak	Vertical
469.9	3.2	18.0	21.2	82.2	-61.0	Peak	Vertical
1416.5	55.8	-4.2	51.6	82.2	-30.6	Peak	Horizontal
7239.0	35.7	11.5	47.2	82.2	-35.0	Peak	Horizontal
1408.0	60.7	-4.2	56.5	82.2	-25.7	Peak	Vertical
3728.5	40.3	2.4	42.7	82.2	-39.5	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 13		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
Low Channel							
118.3	1.4	13.0	14.4	82.2	-67.8	Peak	Horizontal
300.1	6.2	14.3	20.5	82.2	-61.7	Peak	Horizontal
31.0	9.1	13.7	22.8	82.2	-59.4	Peak	Vertical
619.3	2.8	20.9	23.7	82.2	-58.5	Peak	Vertical
1561.0	53.5	-4.7	48.8	82.2	-33.4	Peak	Horizontal
7145.5	36.5	11.2	47.7	82.2	-34.5	Peak	Horizontal
1561.0	55.6	-4.7	50.9	82.2	-31.3	Peak	Vertical
2428.0	43.5	-1.1	42.4	82.2	-39.8	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 25		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
High Channel							
240.0	26.8	12.8	39.6	82.2	-42.6	Peak	Horizontal
300.1	21.8	14.3	36.1	82.2	-46.1	Peak	Horizontal
32.4	16.7	13.7	30.4	82.2	-51.8	Peak	Vertical
240.0	27.2	12.8	40.0	82.2	-42.2	Peak	Vertical
4476.5	39.2	4.5	43.7	82.2	-38.5	Peak	Horizontal
9440.5	35.0	16.0	51.0	82.2	-31.2	Peak	Horizontal
3337.5	41.0	1.0	42.0	82.2	-40.2	Peak	Vertical
7885.0	37.1	12.1	49.2	82.2	-33.0	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 26		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
Low Channel							
147.4	0.2	15.0	15.2	82.2	-67.0	Peak	Horizontal
300.1	5.8	14.3	20.1	82.2	-62.1	Peak	Horizontal
39.7	7.7	14.5	22.2	82.2	-60.0	Peak	Vertical
699.3	2.7	22.0	24.7	82.2	-57.5	Peak	Vertical
1637.5	49.2	-4.9	44.3	82.2	-37.9	Peak	Horizontal
8021.0	37.4	12.6	50.0	82.2	-32.2	Peak	Horizontal
1637.5	48.9	-4.9	44.0	82.2	-38.2	Peak	Vertical
3915.5	39.2	3.0	42.2	82.2	-40.0	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 38		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
Mid Channel							
240.0	28.2	12.8	41.0	70.2	-29.2	Peak	Horizontal
300.1	20.4	14.3	34.7	70.2	-35.5	Peak	Horizontal
36.8	17.5	14.1	31.6	70.2	-38.6	Peak	Vertical
240.0	27.0	12.8	39.8	70.2	-30.4	Peak	Vertical
4468.0	39.7	4.5	44.2	70.2	-26.0	Peak	Horizontal
7944.5	36.4	12.5	48.9	70.2	-21.3	Peak	Horizontal
4510.5	39.0	4.6	43.6	70.2	-26.6	Peak	Vertical
7978.5	37.4	12.4	49.8	70.2	-20.4	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

Product	LTE Modem	Temperature	25°C
Test Engineer	Larry Yan	Relative Humidity	56%
Test Site	AC1	Test Date	2020/04/16
Test Mode	LTE Band 41		

Frequency (MHz)	Reading Level (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
Mid Channel							
240.0	26.7	12.8	39.5	70.2	-30.7	Peak	Horizontal
300.1	22.4	14.3	36.7	70.2	-33.5	Peak	Horizontal
31.9	20.5	13.7	34.2	70.2	-36.0	Peak	Vertical
240.0	27.6	12.8	40.4	70.2	-29.8	Peak	Vertical
4391.5	39.3	4.4	43.7	70.2	-26.5	Peak	Horizontal
6924.5	37.1	10.2	47.3	70.2	-22.9	Peak	Horizontal
5071.5	37.6	6.3	43.9	70.2	-26.3	Peak	Vertical
7936.0	36.7	12.4	49.1	70.2	-21.1	Peak	Vertical

Note: Only exhibited the worst-case data of test channel based on the original module report.

7. CONCLUSION

The data collected relate only the item(s) tested and show that unit is in compliance with FCC Rules.

The End

Appendix A - Test Setup Photograph

Refer to "2003RSU045-UT" file.

Appendix B - EUT Photograph

Refer to "2003RSU045-UE" file.