

TEST REPORT

Applicant: Quectel Wireless Solutions Co., Ltd.
EUT Description: LTE Cat 1 bis Module
Model: EG912U-GL
Brand: QUECTEL
FCC ID: XMR2023EG912UGL
Standards: FCC 47 CFR Part 15 Subpart C
Date of Receipt: 2025/07/29
Date of Test: Reference report FR2D1203A
Date of Issue: 2025/08/20

TOWE. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

the results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of the model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. without written approval of TOWE, the test report shall not be reproduced except in full.



A handwritten signature in black ink, appearing to read "Jim Huang".

Jim Huang
Approved By:

A handwritten signature in black ink, appearing to read "Carey Chen".

Carey Chen
Reviewed By:

Revision History

Rev.	Issue Date	Description	Revised by
01	2025/08/20	Original	Carey Chen

Summary of Test Results

Clause	FCC Part	Test Items	Result
4.1	§15.203/15.247(b)	Antenna Requirement	Reference report FR2D1203A
4.2	§15.207	AC Power Line Conducted Emission	
4.3	§15.247 (b)(1)	Output Power	
4.4	§15.247 (a)(1)	Occupied Bandwidth	
4.5	§15.247 (a)(1)	Hopping Frequency Separation	
4.6	§15.247 (a)(1)(iii)	Number Hopping Channels	
4.7	§15.247 (a)(1)(iii)	Dwell Time	
4.8	§15.247(d)	Band Edge for Conducted Emissions	
4.9	§15.247(d)	Spurious RF Conducted Emissions	
4.10	§15.205 §15.209	Radiated Spurious emissions and Band Edge	
Test Method: ANSI C63.10:2020, KDB 558074 D01 15.247 Mesa Guidance v05r02.			
Remark:			
1. All the testing items in this report do not need to be tested, and all test data please refer to the previous report with report number FR2D1203A issued by Sporton International Inc. (Kunshan).			

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1 General Description

1.1 Lab Information

1.1.1 Testing Location

These measurements tests were conducted at the Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. facility located at F401 and F101, Building E, Hongwei Industrial Zone, Liuxian 3rd Road, Bao'an District, Shenzhen, China. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014

Tel.: +86-755-27212361

Contact Email: info@towewireless.com

1.1.2 Test Facility / Accreditations

A2LA (Certificate Number: 7088.01)

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

FCC Designation No.: CN1353

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized as an accredited testing laboratory. Designation Number: CN1353.

ISED CAB identifier: CN0152

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0152

Company Number: 31000

1.2 Client Information

1.2.1 Applicant

Applicant:	Quectel Wireless Solutions Co., Ltd.
Address:	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233, China.

1.2.2 Manufacturer

Manufacturer:	Quectel Wireless Solutions Co., Ltd.
Address:	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233, China.

1.3 Product Information

EUT Description:	LTE Cat 1 bis Module
Model:	EG912U-GL
Brand:	QUECTEL
Hardware Version:	R1.0, R1.2
Software Version:	EG912UGLAAR03A18M08
Bluetooth version:	Bluetooth V4.2
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Frequency Range:	2400 ~ 2483.5MHz
Channel Frequency:	2402 ~ 2480MHz
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Antenna Type:	☒ External, ☐ Integrated
Antenna Gain:	Ant (dBi)
	0.47
Remark: 1. The above EUT's information was declared by applicant, please refer to the specifications or user manual for more detailed description. 2. EG912U-GL has two versions, R1.0 version supports Bluetooth, Wi-Fi Scan and GNSS functions, R1.2 version support Bluetooth, Wi-Fi San but doesn't support GNSS function. Refer to the statement provided by applicant.	

2 Test Configuration

2.1 Test Channel

Operation Frequency of each channel for GFSK, $\pi/4$ DQPSK, 8DPSK							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	20	2422MHz	40	2442MHz	60	2462MHz
1	2403MHz	21	2423MHz	41	2443MHz	61	2463MHz
2	2404MHz	22	2424MHz	42	2444MHz	62	2464MHz
3	2405MHz	23	2425MHz	43	2445MHz	63	2465MHz
4	2406MHz	24	2426MHz	44	2446MHz	64	2466MHz
5	2407MHz	25	2427MHz	45	2447MHz	65	2467MHz
6	2408MHz	26	2428MHz	46	2448MHz	66	2468MHz
7	2409MHz	27	2429MHz	47	2449MHz	67	2469MHz
8	2410MHz	28	2430MHz	48	2450MHz	68	2470MHz
9	2411MHz	29	2431MHz	49	2451MHz	69	2471MHz
10	2412MHz	30	2432MHz	50	2452MHz	70	2472MHz
11	2413MHz	31	2433MHz	51	2453MHz	71	2473MHz
12	2414MHz	32	2434MHz	52	2454MHz	72	2474MHz
13	2415MHz	33	2435MHz	53	2455MHz	73	2475MHz
14	2416MHz	34	2436MHz	54	2456MHz	74	2476MHz
15	2417MHz	35	2437MHz	55	2457MHz	75	2477MHz
16	2418MHz	36	2438MHz	56	2458MHz	76	2478MHz
17	2419MHz	37	2439MHz	57	2459MHz	77	2479MHz
18	2420MHz	38	2440MHz	58	2460MHz	78	2480MHz
19	2421MHz	39	2441MHz	59	2461MHz		

Remark:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test Channel	Test Frequency
The Lowest channel (CH0)	2402MHz
The Middle channel (CH39)	2441MHz
The Highest channel (CH78)	2480MHz

2.2 Worst-case configuration and Mode

Modulation Type	GFSK			$\pi/4$ DQPSK			8DPSK		
	DH1	DH3	DH5	2DH1	2DH3	2DH5	3DH1	3DH3	3DH5
Payload	27	183	339	54	367	679	83	552	1021
Hopping mode	Keep the EUT in hopping mode								
No hopping mode	Keep the EUT was programmed to be in continuously transmitting mode								
Normal Link	Keep the EUT operation to normal function.								

2.3 Test Environment

Please reference report FR2D1203A.

2.4 Test RF Cable

For all conducted test items: The offset level is set spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

2.5 Modifications

No modifications were made during testing.

3 Equipment and Measurement Uncertainty

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, whichever is less, and where applicable is traceable to recognized national standards.

3.1 Test Equipment List

Please reference report FR2D1203A.

3.2 Measurement Uncertainty

Please reference report FR2D1203A.

4 Test results

Please reference report FR2D1203A.

~The End~