

TEST REPORT

Application No.: SZCR2512005688MO

Applicant: Shenzhen Jimi IoT Co., Ltd.

Address of Applicant: 3-4/F, Block A, Building#7, Shenzhen International Innovation Valley, Dashi 1st Road, Nanshan District Shenzhen China

Manufacturer: Shenzhen Jimi IoT Co., Ltd.

Address of Manufacturer: 3-4/F, Block A, Building#7, Shenzhen International Innovation Valley, Dashi 1st Road, Nanshan District Shenzhen China

Factory: Huizhou Newthinking Electronics Co., Ltd.

Address of Factory: 3-6F, Block 2, Building No. 1, Renluo Fifth Road, Shuikou Street, Huicheng District, Huizhou City, Guangdong, China

EUT Description: wireless communication module

Model No.: XQ800X, XQ800X-NA ♣

♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.

Trade Mark: Jimi IoT

FCC ID: 2AMLF-XQ800X-NA

Standards: FCC 47 CFR Part 2.1091
FCC KDB 447498 D01 v06

Date of Receipt: 2025/12/23

Date of Test: 2025/12/24 to 2025/12/31

Date of Issue: 2026/01/23

Test Result:	PASS*
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* In the configuration tested, the EUT complied with the standards specified above.

Keny Xu

Keny Xu
EMC Laboratory Manager



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SZEMC-TRF-01 Rev. A/2

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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2026/01/23		Original

Authorized for issue by:				
		Darren Yuan		
		Darren Yuan/Project Engineer		
		Eric Fu		
		Eric Fu/Reviewer		



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch Testing Center Laboratory

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2 General Information

2.1 General Description of EUT

Power Supply:	3.8V DC			
Antenna Type:	☒ External, ☐ Integrated			
HPUE Power Class:	LTE Band 41, LTE CA_41C			
Antenna Gain:	LTE Band 2:	6.63dBi	LTE Band 4:	6.28dBi
	LTE Band 5:	4.86dBi	LTE Band 7:	3.14dBi
	LTE Band 12:	4.11dBi	LTE Band 14:	2.98dBi
	LTE Band 17:	4.11dBi	LTE Band 25:	6.63dBi
	LTE Band 26:	4.86dBi	LTE Band 41:	3.42dBi
	LTE Band 66:	6.28dBi		
	Note: The antenna gain are derived from the gain information report provided by the manufacturer.			
RF Cable:	9kHz ~ 30MHz (0.3dB)	30MHz ~ 1000MHz (0.6dB)	1000MHz ~ 2000MHz (0.8dB)	
	2000MHz ~ 4000MHz (1.1dB)	4000MHz ~ 6000MHz (1.8dB)	6000MHz ~ 12750MHz (2.6dB)	
	Above 12750MHz(3.5dB)			
Remark: As above information is provided and confirmed by the applicant. SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.				

Declaration of EUT Family Grouping:

Model No.: XQ800X, XQ800X-NA

Only the model XQ800X was tested, since according to the declaration from the applicant, the electrical circuit design, PCB layout, components used and internal wiring and functions were identical for the above models, with only difference on model No..



2.2 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

2.3 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd.

Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.



3 RF Exposure Evaluation

3.1 RF Exposure Compliance Requirement

3.1.1 Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
 *=Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.



3.2 Measurement and Calculation

Operating Band	Frequency (MHz)	Maximum Conducted Power [dBm] (including tune up)	Antenna gain [dBi]	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Verdict
LTE B2	1850.7	24	6.63	0.230	1.000	Pass
LTE B4	1710.7	25	6.28	0.267	1.000	Pass
LTE B5	824.7	25	4.86	0.193	0.550	Pass
LTE B7	2502.5	23	3.14	0.082	1.000	Pass
LTE B12	1710.7	24	4.11	0.129	1.000	Pass
LTE B14	790.5	24	2.98	0.099	0.527	Pass
LTE B17	706.5	24	4.11	0.129	0.471	Pass
LTE B25	1850.7	24	6.63	0.230	1.000	Pass
LTE B26	814.7	25	4.86	0.193	0.543	Pass
LTE B41	2498.5	23	3.42	0.087	1.000	Pass
LTE B66	1710.7	25	6.28	0.267	1.000	Pass

---End of Report---

