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FCC TEST REPORT

Report No.....: AB25070067FW02

FCC ID.....: 2BQV5-M65

Applicant.....: Guangdong Xiaolangxing IoT Co., Ltd.

Address.....: Room 1301, No. 666, East Section of Renmin Road, Dahe Community, Guanhu Subdistrict, Longhua District, Shenzhen

Manufacturer.....: Guangdong Xiaolangxing IoT Co., Ltd.

Address.....: Room 1301, No. 666, East Section of Renmin Road, Dahe Community, Guanhu Subdistrict, Longhua District, Shenzhen

Product Name.....: positioner

Trade Mark.....: xiaolangxing

Test Model.....: M65

Additional Model(s).....: See section 1.1(page 5)

Standard.....: FCC Part 2 (Section 2.1091)
KDB 447498 D01
IEEE C95.1

Date of Receipt.....: 2025.07.18

Date of Issue.....: 2025.08.18

Test Result.....: Pass

Compiled by:
(Printed Name + Signature)

Huaijie Li

Huaijie Li

Supervised by:
(Printed Name + Signature)

Jay Liu

Jay Liu

Approved by:
(Printed Name + Signature)

Mic Cheng

Mic Cheng

Testing Laboratory Name.....: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address.....: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

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FCC TEST REPORT

Test Report No.: AB25070067FW02	<u>2025.08.18</u> Date of issue
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EUT.....	: positioner
Test Model.....	: M65
Applicant.....	: Guangdong Xiaolangxing IoT Co., Ltd.
Address.....	: Room 1301, No. 666, East Section of Renmin Road, Dahe Community, Guanhu Subdistrict, Longhua District, Shenzhen
Manufacturer.....	: Guangdong Xiaolangxing IoT Co., Ltd.
Address.....	: Room 1301, No. 666, East Section of Renmin Road, Dahe Community, Guanhu Subdistrict, Longhua District, Shenzhen

Test Result	Positive
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

REPORT VERSION

Version No.	Issue Date	Description
01	2025.08.18	Initial Issue

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1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Product Name:	positioner	
Trade Mark:	xiaolangxing	
Test Model:	M65	
Additional Model(s):	M65A,M65B,M65C,M65D,M66A,M66B,M66C,M66D,M67A,M67B,M67C,M67D, M68A ,M68B, M68C, M68D, M69A, M69B, M69C, M69D	
Model Difference:	All models are the same circuit and RF module, except the model name.	
Hardware Version:	M65A-V01	
Software Version:	/	
Power Supply:	DC 3.7V Supplied by Battery(2600mAh)	
EUT Supports Function: (Provided by the customer)	E-UTRA Bands:	LTE Band 2/4/5/7/12/13/25/38/40/41/66
Test Sample(s) Number:	AB25070067-01 (Engineer Sample)	
Radio Specification Subject to this Report		
4G Band		
Support Networks:	Band 2 / 4 / 5 / 7 / 12 / 13 / 25 / 38 / 40 / 41 / 66	
Frequency Range:	Band 2	1850MHz–1910MHz
	Band 4	1710MHz–1755MHz
	Band 5	824MHz–849MHz
	Band 7	2500MHz–2570MHz
	Band 12	699MHz–716MHz
	Band 13	777MHz–787MHz
	Band 25	1850MHz–1915MHz
	Band 38	2570MHz–2620MHz
	Band 40-1	2305MHz–2315MHz
	Band 40-2	2350MHz–2360MHz
	Band 41	2496MHz–2690MHz
	Band 66	1710MHz –1780MHz
Modulation Type:	QPSK	
Channel Bandwidth:	Band 2	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 4	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 5	1.4MHz, 3MHz, 5MHz, 10MHz
	Band 7	5MHz, 10MHz, 15MHz, 20MHz
	Band 12	1.4MHz, 3 MHz, 5MHz, 10MHz
	Band 13	5MHz, 10MHz
	Band 25	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	Band 38	5MHz, 10MHz, 15MHz, 20MHz
	Band 40-1	5MHz, 10MHz

	Band 40-2	5MHz, 10MHz
	Band 41	5MHz, 10MHz, 15MHz, 20MHz
	Band 66	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	Band 2	2.64dBi
	Band 4	0.13 dBi
	Band 5	0.17dBi
	Band 7	3.06 dBi
	Band 12	-3.27 dBi
	Band 13	0.19 dBi
	Band 25	2.85 dBi
	Band 38	3.40 dBi
	Band 40-1	2.63 dBi
	Band 40-2	1.68dBi
	Band 41	3.54dBi
	Band 66	0.88 dBi

1.2. DESCRIPTION OF TEST FACILITY

Test Lab: Aibo Standard Technology (Shenzhen) Co., Ltd.

Address: 101, Building B, Tuori New Energy Industrial Park, High-tech Park, Tianliao Community, Yutang Street, Guangming District, Shenzhen City, Guangdong Province, China

Tel.: +(86) 0755 85250797

E-mail: Aibonorm@aibonorm.com

Website: www.Aibonorm.com

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

A2LA-Lab Certificate No.: 7514.01

Aibo Standard Technology (Shenzhen) Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC Accredited Lab.

Designation Number: CN1411

Test Firm Registration Number: 567066

ISED Wireless Device Testing Laboratories

CAB identifier: CN0185

2. RF EXPOSURE EVALUATION

2.1 Limit

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

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

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, $\pi = 3.1416$;

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.

Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

2.2 Evaluation Result

LTE Band2

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.189	0.049972	1.0	PASS

LTE Band4

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	23	199.526	0.039694	1.0	PASS

LTE Band5

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.189	0.049972	0.56	PASS

LTE Band7

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	23	199.526	0.039694	1.0	PASS

LTE Band12

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.189	0.049972	0.47	PASS

LTE Band13

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.189	0.049972	0.52	PASS

LTE Band25

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.189	0.049972	1	PASS

LTE Band38

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	22	158.489	0.031530	1.0	PASS

LTE Band40

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	23	199.526	0.039694	1.0	PASS

LTE Band41

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	24	251.189	0.049972	1.0	PASS

LTE Band66

Mode	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
QPSK	23	199.526	0.039694	1	PASS

So a SAR test is not required