

RF Exposure Evaluation Report

Applicant: Lumi United Technology Co., Ltd

Address of Applicant: B1, Chongwen Park, Nanshan iPark, Liuxian Avenue, Taoyuan Residential District, Nanshan District, Shenzhen, China

Product Name: Spatial Multi-Sensor FP400 Pro, Spatial Multi-Sensor FP400

Model No.: PS-S06D, PS-S05E, PS-S05D, PS-S06E

Brand Name: Aqara

FCC ID: 2AKIT-PSS05

Test Standards: FCC CFR Title 47 Part 2 (\$2.1091)

Date of Sample Receipt: Apr. 13, 2026

Date of Test: Apr. 13 to 27, 2026

Date of Report Issue:

Apr. 28, 2026

Prepared By:

Shenzhen Acote Technology Co., Ltd.

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Report Revision History

Rev.	Issue Date	Description
V00	Apr. 28, 2026	Initial Release



Table of Contents

Cover Page	1
Report Revision History	2
Table of Contents	3
1 Laboratory Introduction	4
1.1 Laboratory Location.....	4
1.2 Laboratory Facility	4
1.3 Announcement	4
1.4 Disclaimer.....	4
2 Equipment Under Test Information	5
2.1 Application Information.....	5
2.2 Product Information	5
2.3 EUT Technical Parameters	5
3 Test Information	6
3.1 Test Methodology.....	6
3.2 Additions to, Deviations, or Exclusions from the Method.....	6
3.3 Test Mode	6
3.4 Worst-case	6
4 Technical requirements specification	7
4.1 Limits	7
4.2 Result	8
4.3 Conclusion.....	8

1 Laboratory Introduction

1.1 Laboratory Location

Company Name:	Shenzhen Acote Technology Co., Ltd.
Address of Main Laboratory:	Room 719, Excellence Times Building, No. 27, Xinqiao 3rd Road, Xinqiao Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong Province, China.
Address of Satellite Laboratory:	101, F1, building 15, zhongda 365, Xincheng Road No.9, Songshanhu, Dongguan, Guangdong, China.
Website:	www.acotelabs.com
Email:	info@acotelabs.com
Tel.:	+86-0755-2788 9963

1.2 Laboratory Facility

Our company's laboratory facilities have received accreditation, certification, or authorization from the following organizations:

- **FCC - Designation No.: CN1450**
Shenzhen Acote Technology Co., Ltd. has been certified by the FCC (Federal Communications Commission) as a testing laboratory. Test Firm Registration Number: **832670**.
- **A2LA - Accreditation Number: 7697.01**
Shenzhen Acote Technology Co., Ltd. has been accredited by A2LA (American Association for Laboratory Accreditation) in compliance with the internationally recognized standard ISO/IEC 17025:2017, "General Requirements for the Competence of Testing and Calibration Laboratories."

1.3 Announcement

Shenzhen Acote Technology Co., Ltd. tested the equipment in accordance with the requirements set forth in the test 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 this 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.

This document may not be altered or revised in any way unless done so by Shenzhen Acote Technology Co., Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Shenzhen Acote Technology Co., Ltd. will constitute fraud and shall nullify the document.

1.4 Disclaimer

For the information or data provided by the client in this report, the relevant results or conclusions of this report are only made for these data or information. The testing laboratory is not responsible for the authenticity and accuracy of these data or information.

2 Equipment Under Test Information

2.1 Application Information

Applicant:	Lumi United Technology Co., Ltd
Address of Applicant:	B1, Chongwen Park, Nanshan iPark, Liuxian Avenue, Taoyuan Residential District, Nanshan District, Shenzhen, China
Manufacturer:	Lumi United Technology Co., Ltd
Address of Manufacturer:	B1, Chongwen Park, Nanshan iPark, Liuxian Avenue, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.2 Product Information

Product Name:	Spatial Multi-Sensor FP400 Pro, Spatial Multi-Sensor FP400
Model No.:	PS-S06D
Models of Product Family:	PS-S05E, PS-S05D, PS-S06E
Description of Model Differentiation:	Please refer to model differences declaration letter.

2.3 EUT Technical Parameters

Operation Frequency:	BLE: 2402MHz ~ 2480MHz Zigbee: 2405MHz ~ 2480MHz Thread: 2405MHz ~ 2480MHz Radar: 59.2GHz ~ 61.6GHz
Antenna Type:	BLE/Zigbee/Thread: FPC Antenna Radar: Microstrip Antenna
Antenna Gain:	BLE/ Zigbee/ Thread: 1.0 dBi (declared by applicant) Radar: 2.0 dBi (declared by applicant)
Power Supply:	DC 5V, 1A
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

3 Test Information

3.1 Test Methodology

The tests documented in this report were performed in accordance with:

- FCC CFR Title 47 Part 2 (§2.1091)

3.2 Additions to, Deviations, or Exclusions from the Method

None

3.3 Test Mode

TM 1:	Keep the EUT continuously transmitting in BLE mode.
TM 2:	Keep the EUT continuously transmitting in Zigbee mode.
TM 3:	Keep the EUT continuously transmitting in Thread mode.
TM 4:	Keep the EUT continuously transmitting in Radar mode.

3.4 Worst-case

This RF exposure assessment is based on the maximum EIRP derived from worst-case engineering measurements across all modulation types at various data rates.

4 Technical requirements specification

4.1 Limits

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 1.1310

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
1500-100000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-3.0	614	1.63	*(100)	30
3.0-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100000			1.0	30

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

4.2 Result

Worse case:

Mode	Maximum Tune-up power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm ²)	Limits for General Population/ Uncontrolled Exposure (mW/cm ²)
BLE	8.00	7.67	1.00	1.26	20.00	0.0019	1.0
Zigbee	9.00	8.97	1.00	1.26	20.00	0.0022	1.0
Thread	9.50	9.05	1.00	1.26	20.00	0.0023	1.0
Radar	14.00	13.10	2.00	1.58	20.00	0.0041	1.0

Simultaneous transmission (Worse mode):

Frequency range (MHz)	Mode	Power Density / Limit	Total Power Density / Limit	Limit	Verdict
1500-100000	Thread	0.0023	0.0064	1	Pass
	Radar	0.0041			

4.3 Conclusion

The device is exempt from the SAR test and satisfies RF exposure evaluation.

----- End of Report -----