



RF Exposure Evaluation

FCC ID: 2BU6F-AS3112

On Behalf of

Silicon XPandas Electronics Co., Ltd.

BLE module

Model No.: AS3112

Prepared for : Silicon XPandas Electronics Co., Ltd.
Address : 8F., No.439, Ruiguang Rd., Neihu Dist., Taipei City 11492, Taiwan

Prepared By : Shenzhen PSI Testing Co., Ltd.
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Report Number : psi2602086-C01-R02
Date of Receipt : January 20, 2026
Date of Test : January 20, 2026-February 28, 2026
Date of Report : March 23, 2026
Version Number : V0

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TEST REPORT DECLARATION

Applicant : Silicon XPandas Electronics Co., Ltd.
Address : 8F., No.439, Ruiguang Rd., Neihu Dist., Taipei City 11492, Taiwan
Manufacturer : Silicon XPandas Electronics Co., Ltd.
Address : 8F., No.439, Ruiguang Rd., Neihu Dist., Taipei City 11492, Taiwan
EUT Description : BLE module
(A) Model No. : AS3112
(B) Sample No: psi2602086-C01-S001
(C) Trademark : N/A

Measurement Standard Used:

FCC 1.1310

KDB 447498 D01v06

Test Result: PASS

The device described above is tested by Shenzhen PSI Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen PSI Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the FCC Part 15C requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen PSI Testing Co., Ltd.

Tested by (name + signature).....:

Felix Pang
Test Engineer

Felix Pang

Approved by (name + signature).....:

Simple Guan
Project Manager

Simple Guan



Date of issue.....:

March 23, 2026

Revision History

Revision	Issue Date	Revisions	Revised By
V0	March 23, 2026	Initial released Issue	Felix Pang

1. General Information

1.1. Description of Device (EUT)

Product Name : BLE module
Model : AS3112
Diff : N/A
Test Voltage : DC 3V

Radio Technology : Bluetooth Low Energy V5.3

Operation frequency : 2402-2480MHz

Channel No. : 40 channels

Channel Separation : 2MHz

Rate : 1Mbps, 2Mbps

Modulation : GFSK

Antenna Type : Internal PCB antenna, maximum gain is -0.91dBi.

Software version : V1.0

Hardware version : V2.0

Note : Antenna information is provided by applicant.
Testing lab is not responsible for the accuracy of the information.

2. Summary Of Standards And Results

2.1. Test Requirement:

According to FCC 1.1310: 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)

KDB Test Methodology: KDB 447498 D01v06

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm ²)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

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 = Numeric gain of the antenna relative to isotropic antenna

π =3.14

R = distance between observation point and center of the radiator in cm=20cm

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

2.2. Test Facility

Shenzhen PSI Testing Co., Ltd.

1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road, Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

September 13, 2023 File on Federal Communication Commission

Registration Number: 916281

Designation Number: CN1362

2.3. Measurement Uncertainty

(95% confidence levels, k=2)

Item	Uncertainty
Conducted RF Power	0.41dB

2.4. Measurement Result

Mode	Frequency (MHz)	Prediction distance (cm)	Max measured power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)	Antenna Gain (Numeric)	Evaluation result (mW/cm ²)	Limit (mW/cm ²)	Result
BLE 1M	2402	20	2.34	2	3	0.81	0.000322	1	Pass
BLE 1M	2440	20	1.48	1	2	0.81	0.000256	1	Pass
BLE 1M	2480	20	1.48	1	2	0.81	0.000256	1	Pass
BLE 2M	2402	20	2.36	2	3	0.81	0.000322	1	Pass
BLE 2M	2440	20	1.47	1	2	0.81	0.000256	1	Pass
BLE 2M	2480	20	1.52	2	3	0.81	0.000322	1	Pass

3. Photos of EUT

Reference to the **appendix II external photos** and **internal photos** for details.

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