



RF EXPOSURE EVALUATION

FCC ID:2BSMA-CU4000-001

Report Number..... : ZKT-260724L1716E-2

Date of Test..... : Jan. 19, 2026 to Sep. 11, 2026

Date of issue..... : Sep. 11, 2026

Total number of pages..... : 7

Test Result : PASS

Testing Laboratory..... : Shenzhen ZKT Technology Co., Ltd.

Address : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name : VOXAURA GmbH

Address : Eschentalweg 5, Friesenheim, Germany

Manufacturer's name : Shenzhen STEP Electronic and Lighting Co., Ltd

Address : 14/F, Huide Building, Mintang Road 385, Longhua District, Shenzhen, China

Test specification:

**Standard..... : FCC 47CFR §2.1091
KDB 447498 D01 General RF Exposure Guidance v06**

Test procedure..... : /

Non-standard test method : N/A

Test Report Form No..... : /

Test Report Form(s) Originator..... : ZKT Testing

Master TRF : Dated: 2026-02-08

This device described above has been tested by ZKT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Product name..... : Control Unit

Trademark : N/A

Model/Type reference..... : CU4000

**Ratings..... : Input: DC 24V, Max 150W, Max 6.25A
Output: DC 24V, Max 150W, Max 6.25A**



Testing procedure and testing location:

Testing Laboratory.....: Shenzhen ZKT Technology Co., Ltd.

Address.....: 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

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

Jim Liu

Reviewer (name + signature).....: Jackson Fang

Jackson Fang

Approved (name + signature).....: Lake Xie





1. VERSION

Report No.	Version	Description	Approved
ZKT-260724L1716E-2	Rev.01	Initial issue of report	Sep. 11, 2026



2. TEST FACILITY

Shenzhen ZKT Technology Co., Ltd.

Add. : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

FCC Test Firm Registration Number: 927491

Designation Number: CN1431

IC Registered No.: 27033

CAB identifier: CN0110

Designation Number: CN0110



3. GENERAL DESCRIPTION OF EUT

Product Name:	Control Unit
Trade Mark:	N/A
Model No.:	CU4000
Serial No.:	N/A
Model Different.:	N/A
Hardware Version:	K715
Software Version:	V0.64
Sample(s) Status:	Engineer sample
Operation Frequency:	2402MHz~2480MHz for BLE 2405MHz~2480MHz for Zigbee
Channel Numbers:	40 Channels for BLE 16 Channels for Zigbee
Channel Spacing:	2MHz for BLE 5MHz for BLE
Modulation Technology:	GFSK for BLE O-QPSK for Zigbee
Antenna Type:	PCB Antenna
Antenna Gain:	-3.6dBi for BLE -1.0dBi for Zigbee
Power Supply:	Input: DC 24V
Battery Capacity:	N/A

Note1: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

Note2: The EUT's all information provided by client.



RF Exposure Evaluation

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 1.1307(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: $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

Pd = power density in mW/cm², **Pout** = 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

Pd 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.



For BLE

RF Function	Separation distance (cm)	Max AVG Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	ANT Gain (dBi)	Max EIRP (dBm)	Max EIRP (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
BLE	20	9.79	9±1	10.00	-3.6	6.4	4.365	0.00087	1	Pass

For Zigbee

RF Function	Separation distance (cm)	Max AVG Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	ANT Gain (dBi)	Max EIRP (dBm)	Max EIRP (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
Zigbee	20	18.93	18±1	19.00	-1	18	79.43	0.0126	1	Pass

Note: Approved single module, FCC ID: 2ANDL-TS24-U, grant date: 2024-01-10

Remark:

1. Output power (Peak) including turn-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer.

The product also has multiple transmitters. The simultaneous transmission possibilities are as below:

Simultaneous Tx Combination	S (mW/cm ²)	Limit	Result
BLE + Zigbee	0.01347	1.0	Pass