

MAXIMUM PERMISSIBLE EXPOSURE EVALUATION REPORT

Applicant: AKUVOX (XIAMEN) NETWORKS CO., LTD.

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China

Product Name: Access Control Terminal

FCC ID: 2AHCR-A08SHPROX

Standard(s): 47 CFR §1.1310, 47 CFR §2.1091, 47 CFR §15.247(i),
447498 D01 General RF Exposure Guidance v06

Report Number: 2502W75824E-RF-00C

Report Date: 2025/10/27

The above device has been tested and found compliant with the requirement of the relative standards by Bay Area Compliance Laboratories Corp. (Dongguan).

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2502W75824E-RF-00C	Original Report	2025/10/27

1. GENERAL INFORMATION

1.1 General Description Of Equipment under Test

EUT Name:	Access Control Terminal
EUT Model:	A08S HID Prox Version
Rated Input Voltage:	DC 12V From LPS or 802.3af POE
EUT Received Date:	2025/8/29
EUT Received Status:	Good

2. MAXIMUM PERMISSIBLE EXPOSURE (MPE)

2.1 Applicable Standard

According to 1.1310, 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for Maximum Permissible Exposure (MPE)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
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;

2.2 Calculation For Test Exclusion:

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

2.3 MPE Test Procedure

1. Place the EUT's antenna was vertical polarization on the table.
2. The EUT was set to transmit at the frequency at maximum RF power.
3. The Distance between the test probe and the investigated EUT's antenna equal to the distance be specified as safety distance in the user manual.
4. Power density measurements were taken at different heights of the probe from the ground (0.8 to 2.8 meters) while rotating versus azimuth (from 0° to 360°) the antenna.
5. adjusted the distance between the test probe and the tested antenna to the real safe distance, R_{real} , such that the measured highest power density in the "worst case" position was the same or slightly less than the test limit.
6. The measurement results of final measurements conducted at the chosen azimuth and different heights of the probe above the ground.

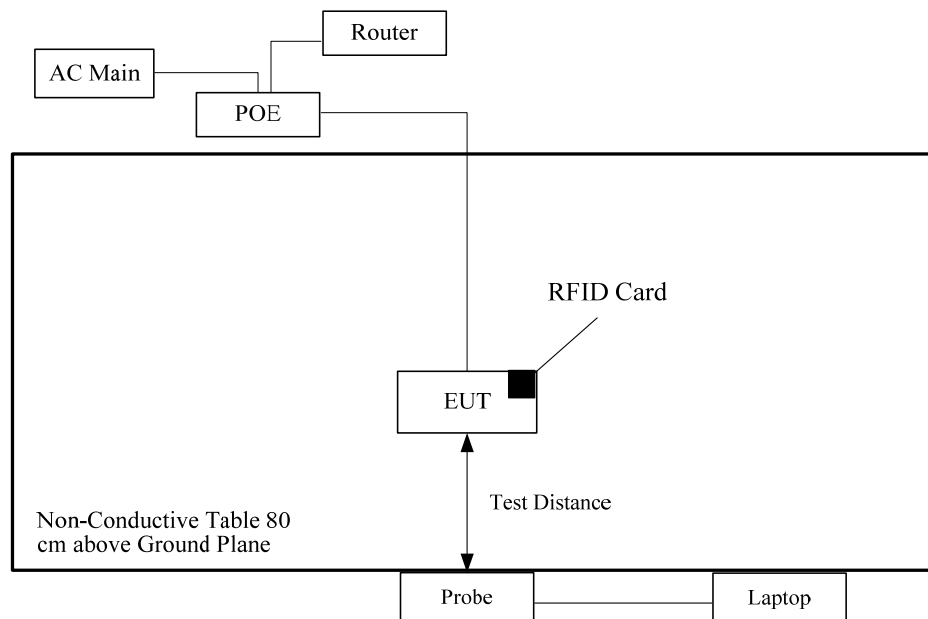
2.4 Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
MAIPU	POE	POE40-1PSE-A	B626-184681105414V00
Unknown	RFID Card	EINOLDA	EMZBNC21103001
Lenovo	Laptop	G510	CB30920865

2.5 Support Cable List and Details

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
RJ45 Cable	No	No	0.2	POE	EUT
RJ45 Cable	No	No	1.5	POE	Router
Signal Cable	No	No	3	Probe	Laptop

2.6 Block Diagram of Test Setup



2.7 Test Data:

Test Information:

Serial No.:	39PP-1	Test Date:	2025/10/21
Test Site:	Chamber A	Test Mode:	Transmitting
Tester:	Jayce Wang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C):	21.5	Relative Humidity: (%)	31	ATM Pressure: (kPa)	100.8
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Narda	Electric and Magnetic Field Probe-Analyzer	EHP-200AC	180ZX10204	2023/9/1	2026/8/31

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Data:

H-Field Strength

Frequency (kHz)	Position A (A/m)	Position B (A/m)	Position C (A/m)	Position D (A/m)	Position E (A/m)	Limit (A/m)
125	0.136	0.126	0.112	0.121	0.145	1.63

Note:

- 1, Test with 20cm distance from the center of the probe(s) to the antenna of the device.
- 2, When the test frequency is below 300kHz, the limit for 300kHz applied.

E-Field Strength

Frequency (kHz)	Position A (V/m)	Position B (V/m)	Position C (V/m)	Position D (V/m)	Position E (V/m)	Limit (V/m)
125	0.486	0.415	0.384	0.421	0.542	614

Note:

- 1, Test with 20cm distance from the center of the probe(s) to the antenna of the device.
- 2, When the test frequency is below 300kHz, the limit for 300kHz applied.

For BLE:

Operation Modes	Frequency (MHz)	Antenna Gain [▲]		Conducted output power including Tune-up Tolerance [▲]		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
BLE	2402-2480	-3	0.5	1.0	1.26	20.00	0.0001	1.0
Note: 1. Antenna Gain and The Conducted output power including Tune-up Tolerance provided by manufacturer								

Simultaneous transmission:

BLE and RFID(125k) can transmit [simultaneously](#), and the calculation result is too small to be counted.

Result: Compliant. The device compliant RF Exposure at 20cm distances.

EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2502W75824E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2502W75824E-RF-INP EUT INTERNAL PHOTOGRAPHS

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2502W75824E-RF-00C-TSP test setup photographs.

******* END OF REPORT *******