

EMF TEST REPORT

Test Report No. : OT-25O-RWD-012

Reception No. : 2509003014

Applicant : UNION biometrics Co., Ltd.

Address : 12F, Munjeong Daemyeong Valeon bldg, 127 Beobwon-ro Songpa-gu, Seoul, South Korea

Manufacturer : UNION biometrics Co., Ltd.

Address : 12F, Munjeong Daemyeong Valeon bldg, 127 Beobwon-ro Songpa-gu, Seoul, South Korea

Type of Equipment : Access controller

FCC ID. : XX2-U-AC2000

Model Name : AC-2000

Multiple Model Name : N/A

Serial number : N/A

Total page of Report : 6 pages (including this page)

Date of Incoming : September 05, 2025

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SUMMARY

The equipment complies with the requirements of **FCC CFR 47 § 1.1307**

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

This test report is not associated with the accreditation granted by the Korean Laboratory Accreditation Scheme (KOLAS).



Tested by
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Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-25O-RWD-012	October 15, 2025	Initial Release	All

1. VERIFICATION OF COMPLIANCE

Applicant : UNION biometrics Co., Ltd.

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Contact Person : Dong Ho Lee

Telephone No. : +82-2-6488-3054

FCC ID : XX2-U-AC2000

Model Name : AC-2000

Brand Name :

Serial Number : N/A

E.U.T. DESCRIPTION	Access controller
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	KDB 447498 D04 Interim General RF Exposure Guidance v01
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
Modifications on the Equipment to Achieve Compliance	None

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. GENERAL INFORMATION

2.1 Product Description

The UNION biometrics Co., Ltd., Model AC-2000 (referred to as the EUT in this report) is a Access controller. The product specification described herein was obtained from product data sheet or user's manual.

DEVICE TYPE	Access controller
OPERATING FREQUENCY	Bluetooth LE 1 Mbps: 2 402 MHz ~ 2 480 MHz
	RFID: 13.56 MHz
MODULATION TYPE	Bluetooth LE 1 Mbps: GFSK
	RFID: ASK
RF OUTPUT POWER	Bluetooth LE 1 Mbps: 2.21 dBm
ANTENNA TYPE	PCB Antenna
ANTENNA GAIN	2.88 dBi
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	8 MHz, 27.12 MHz, 400 MHz
RATED SUPPLY VOLTAGE	DC 12.0 V

2.2 Alternative type(s)/model(s); also covered by this test report.

-. None

3. EUT MODIFICATIONS

-. None

4. RADIO FREQUENCY EXPOSURE

4.1 Environmental evaluation and exposure limit

In accordance with KDB 447498 D04 Interim General RF Exposure Guidance v01.

1 mW Test Exemption according paragraph 2.1.2

- 13.56 MHz Maximum E.I.R.P power = $50.57 \text{ dB}\mu\text{V/m} - 95.2 = -44.63 \text{ dBm}$ at 13.56 MHz

Calculated MPE Safe Distance

Operating Mode	Target Power W/tolerance (dBm)	Max tune up power		Antenna Gain		Safe Distance (cm)	Power Density (mW/cm ²) @ 20 cm Separation	Limit (mW/cm ²)
		(dBm)	(mW)	Log	Linear			
Bluetooth LE 1 Mbps	2.21 ± 0.5	2.71	1.87	2.88	1.941	0.537	0.000 7	1.00
RFID 13.56 MHz	-44.63 ± 0.5	-44.13	0.000 1	-	-	0.003	0.000 1	0.98

DATA for Intermodulation Transmit

According to above equation, the following result was obtained.

Simultaneous Transmission	Operating Mode	Power Density (mW/cm ²)	Sum Power Density	Limit
Bluetooth LE + RFID	Bluetooth LE 1 Mbps	0.000 7	0.0008	1.00
	RFID 13.56 MHz	0.000 1		