1 Cover Page

RF Exposure Evaluation Report

Application No.:	KSCR2407001379AT
FCC ID:	2AL8S-0235C8YR
Applicant:	Zhejiang Uniview Technologies Co., Ltd.
Address of Applicant:	No. 369, Xietong Road, Xixing Sub-district, Binjiang District, Hangzhou City, 310051, Zhejiang Province, China
Manufacturer:	Zhejiang Uniview Technologies Co., Ltd.
Address of Manufacturer:	No. 369, Xietong Road, Xixing Sub-district, Binjiang District, Hangzhou City, 310051, Zhejiang Province, China
Factory:	Zhejiang Uniview Systems Technology Co., Ltd.
Address of Factory:	No.1277 South Qingfeng South Road, Tongxiang City, Jiaxing City, Zhejiang Province, China
Equipment Under Test (EUT):	
EUT Name:	Intelligent Recognition Access Control Terminal
Model No.:	OET-573B-HMQR-Z-W-R, OET-573B-HMQR-Z-xxxxxxxx-yyyyyyyy-zzz (“x”,”y”,”z” can be 0-9,A-Z,a-z or blank;”-” may be blank)
Standard(s) :	FCC Rules 47 CFR §2.1091 KDB 447498 D01 General RF Exposure Guidance v06
Date of Receipt:	2024-07-16
Date of Test:	2024-07-17 to 2024-08-12
Date of Issue:	2024-08-15
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Revision Record			
Version	**Description**	***Date***	***Remark***
00	Original	2024-08-15	/

Authorized for issue by:				
Tested By		 **Maker_Qi/Project Engineer**		
Approved By		 **Terry Hou /Reviewer**		

2 Contents

3 General Information

3.1 General Description of E.U.T.

Power supply:	DC 12V/2.0A

3.2 Technical Specifications

2.4GHz WiFi

Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK); 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Data rate:	802.11b:1/2/5.5/11Mbps 802.11g:6/9/12/18/24/36/48/54Mbps 802.11n:MCS0-MCS7
Number of Channels:	802.11b/g/n(HT20):11
Channel Spacing:	5MHz
Antenna Type:	PCB antenna
Antenna Gain:	3.61dBi (Provided by the manufacturer)

13.56MHz

Operation Frequency:	13.56MHz
Modulation Type:	ASK
Antenna Type:	FPC Antenna

3.3 Separation Distance

Separation distance between the antenna to person (R):	＞20cm
Remark: This minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander. R has been stated in user manual.	

3.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).

3. Sample source: sent by customer.

3.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• FCC

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

• VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4 FCC Radiofrequency radiation exposure limits

According to§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 part1.1307(b)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
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
300–1,500			f/300	<6
1,500–100,000			5	<6
(ii) 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
300–1,500			f/1500	<30
1,500–100,000			1.0	<30

Note:Limit for 2.4GHz is 1.0 mW/cm2

Limit for 13.56MHz is 60.77 V/m

5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR240700137901, KSCR240700137902

5.2 RF Exposure Calculation

According to the formula $S=P/4\pi R^2$, we can calculate S which is MPE.

Note:

1) P (mW)
2) R = distance to the center of radiation of antenna (in centimeter)

For wifi

Band	Frequency Band (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Distance R (cm)	Power Density (mW/cm2)	Limit (mW/cm2)	Result
WLAN 2.4GHz	2412-2462	14.85	3.61	18.46	20.0	0.014	1.00	Pass

For 13.56MHz: 57.73dBuV/m@3m, @20cm=@3m+40log(3/0.2)=104.77dBuV/m=0.17V/m＜60.77V/m.

For multiple RF sources:

The 2.4G band and 13.56MHz function can simultaneous transmitting. But the maximum rate of MPE is 0.014/1+0.17/60.77=0.017≤1.according to the KDB447498 section 7.2 determine the device is exclusion from SAR test.

--End of the Report--