

1 Cover Page

RF Exposure Evaluation Report

Application No.: SHCR2203000548AT
FCC ID: 2APV2-CSHB32C3
Applicant: Hangzhou Ezviz Software Co., Ltd.
Address of Applicant: Room 302, Unit B, Building 2, 399 Danfeng Road, Binjiang District, Hangzhou, Zhejiang
Manufacturer: Hangzhou Ezviz Software Co., Ltd.
Address of Manufacturer: Room 302, Unit B, Building 2, 399 Danfeng Road, Binjiang District, Hangzhou, Zhejiang
Equipment Under Test (EUT):
EUT Name: Smart Home Battery Camera
Model No.: CS-HB3 (3MP, Halow), CS-HB3
Standard(s): FCC Rules 47 CFR §2.1091
 KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt: 2022-03-11
Date of Test: 2022-03-30 to 2022-04-24
Date of Issue: 2022-04-25

Test Result:	Pass*
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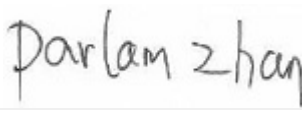
* In the configuration tested, the EUT complied with the standards specified above.

Parlam Zhan

Parlam Zhan
EMC Laboratory Manager



Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2022-04-25		Original

Authorized for issue by:				
				
		Micheal Niu /Project Engineer		
				
		Parlam Zhan /Reviewer		



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3 General Information

3.1 General Description of E.U.T.

Power supply:	DC 5V,2A
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3.2 Technical Specifications

802.11ah Wi-Fi Halow

Operation Frequency:	903.5-926.5MHz for 1MHz bandwidth 905-925MHz for 2MHz bandwidth 906-926MHz for 4MHz bandwidth 908-924MHz for 8MHz bandwidth
Number of Channels	24 for 1MHz bandwidth 11 for 2MHz bandwidth 6 for 4MHz bandwidth 3 for 8MHz bandwidth
Bandwidth	1MHz,2MHz,4MHz,8MHz
Modulation Type:	OFDM
Data rate:	1MHz: 150Kbps-4Mbps 2MHz: 650Kbps-7.8Mbps 4MHz: 1.35Mbps-18Mbps 8MHz: 2.9Mbps-39Mbps
Antenna Type:	PIFA Antenna
Antenna Gain:	0.83dBi (Provided by the manufacturer)



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3.3 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.

3.4 Test Facility

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

• **CNAS (No. CNAS L4354)**

CNAS has accredited Compliance Certification Services (Kunshan) Inc. to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• **A2LA (Certificate No. 2541.01)**

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

• **FCC (Designation Number: CN1172)**

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

• **ISED (CAB Identifier: CN0072)**

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

CAB Identifier: CN0072.

• **VCCI (Member No.: 1938)**

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.



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4 Test Standards and Limits

4.1 FCC Radiofrequency radiation exposure limits:

According to §1.1310, the limit for general population/uncontrolled exposures

Frequency	Power density(mW/cm ²)	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30



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5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHCR220300054801

Test Mode	Channel	Antenna Power[dBm]	Antenna Power[mW]
1M	903.5	24.74	297.85
	914.5	24.72	296.48
	926.5	24.57	286.42
2M	905	26.31	427.56
	915	26.31	427.56
	925	26.30	426.58
4M	906	25.12	325.09
	914	24.98	314.77
	926	24.80	302.00
8M	908	26.09	406.44
	916	26.17	414.00
	924	25.99	397.19

5.2 MPE 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 meter) = 20cm
- 3) For 903.5MHz ~ 926.5MHz, MPE limit=903.5MHz/1500=0.602mW/cm².

Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
427.56	1.211	20	0.10297	0.602	Pass

according to the KDB447498 section 7.2 determine the device is exclusion from SAR test.

--End of the Report--



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