

1 Cover Page

RF Exposure Evaluation Report

Application No.: SHCR2111000759CR
FCC ID: 2APV2-CSH31J5
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 Camera
Model No.: CS-H3 (5MP);
Add Model No: CS-H3
Trade mark: EZVIZ
Standard(s) : FCC Rules 47 CFR §2.1091
 KDB447498 D01 General RF Exposure Guidance v06

Date of Receipt: 2022-02-25
Date of Test: 2022-03-10 to 2022-03-18
Date of Issue: 2022-03-19

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

Parlam Zhan


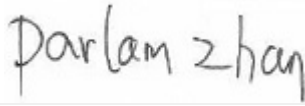
Parlam Zhan
Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2022-03-19		Original

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



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3 General Information

3.1 General Description of E.U.T.

Power supply:	DC 12V
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3.2 Technical Specifications

2.4G WiFi

Antenna Gain:	Ant 1:2.24dBi; (Provided by manufacturer) Ant 2:2.3dBi; (Provided by manufacturer) Directional gain:5.28dBi
Antenna Type:	Antenna 1: Dipole Antenna Antenna 2: Dipole Antenna
Channel Spacing:	5MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Number of Channels:	802.11b/g/n(HT20):11
Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz



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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 (Kunshan) 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 Canada (ISED) as an accredited testing laboratory.

Company Number: 2324E

• **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 SHCR220200044201

Test Mode	Channel	Antenna 1 Power[dBm]	Antenna 2 Power[dBm]	MIMO Power[dBm]	Antenna 1 Power[mW]	Antenna 2 Power[mW]	MIMO Power[mW]
11B	2412	14.32	13.27	NA	27.04	21.23	N/A
11B	2437	13.86	12.81	NA	24.32	19.10	N/A
11B	2462	13.39	12.32	NA	21.83	17.06	N/A
11G	2412	13.70	13.29	NA	23.44	21.33	N/A
11G	2437	13.02	12.67	NA	20.04	18.49	N/A
11G	2462	12.52	12.19	NA	17.86	16.56	N/A
11N20MIMO	2412	10.93	11.27	14.11	12.39	13.40	25.76
11N20MIMO	2437	10.52	10.76	13.65	11.27	11.91	23.17
11N20MIMO	2462	10.04	10.47	13.27	10.09	11.14	21.23



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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) MPE limit = 1mW/cm²

For 2.4G WiFi –Antenna1:

The max. antenna gain is 2.24 dBi

Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
27.04	1.675	20	0.00901	1	Pass

For 2.4G WiFi –Antenna2:

The max. antenna gain is 2.3 dBi

Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
21.33	1.698	20	0.00721	1	Pass

In MIMO mode:

The max. antenna gain is 5.28 dBi

Max. Conducted Power P(mW)	Gain in Linear Scale G	Operation Distance R(cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
25.76	3.373	20	0.01729	1	Pass

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

--End of the Report--

