1 Cover Page

RF Exposure Evaluation Report

Application No.:	SHCR2204000754AT
FCC ID:	2APV2-CSH31H3
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 (3MP)
Add Model No.:	CS-H3, CS-H3-R100-1H3WKFL
Trade Mark:	EZVIZ
Standard(s) :	FCC Rules 47 CFR §2.1091 KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt:	2022-04-20
Date of Test:	2022-04-28 to 2022-04-30
Date of Issue:	2022-05-09
Test Result:	**Pass***

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

Parlam Zhan
EMC Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2022-05-09		Original

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

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3 General Information

3.1 General Description of E.U.T.

Power supply:	12V 1A,9W Max

3.2 Technical Specifications

2.4GHz

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)
Number of Channels:	802.11b/g/n(HT20):11
Channel Spacing:	5MHz
Antenna Type:	Dipole Antenna
Antenna Gain:	Ant 1:2.3dBi (Provided by the manufacturer) Ant 2:2.3dBi (Provided by the manufacturer) Directional gain:5.31dBi

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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.

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-1600, C-1707, T-1499, 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

1) Note: PSD limit for 2.4G= 1mW/cm²

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5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHCR220400075401

2.4G

Test Mode	Frequency (MHz)	Antenna 1 Power[dBm]	Antenna 2 Power[dBm]	MIMO Power[dBm]	Antenna 1 Power[mW]	Antenna 2 Power[mW]	MIMO Power[mW]
11B	2412	14.13	14.48	NA	25.88	**28.05**	N/A
11B	2437	13.37	14.14	NA	21.73	25.94	N/A
11B	2462	12.71	13.62	NA	18.66	23.01	N/A
11G	2412	14.17	14.35	NA	**26.12**	27.23	N/A
11G	2437	13.40	13.95	NA	21.88	24.83	N/A
11G	2462	12.79	13.43	NA	19.01	22.03	N/A
11N20MIMO	2412	14.15	14.37	17.27	26.00	27.35	**53.33**
11N20MIMO	2437	13.42	13.96	16.71	21.98	24.89	46.88
11N20MIMO	2462	12.63	13.25	15.96	18.32	21.13	39.45

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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:

2) P (mW)

3) R = distance to the center of radiation of antenna (in meter) = 20cm

4) MPE limit = 1mW/cm²

For 2.4G WiFi –Antenna1:

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
26.12	1.698	20	0.00882	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
28.05	1.698	20	0.00948	1	Pass

In MIMO mode:

Two antennas can transmit simultaneously and they are correlated.

The max. antenna gain is 5.31 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
53.33	3.396	20	0.03603	1	Pass

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

--End of the Report--

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