

RF Exposure Evaluation Report

Product : Kami Outdoor Security Camera
Trade mark : Kami
Model/Type reference : YHS.3119
Serial Number : N/A
Report Number : EED32L00154104
FCC ID : 2AFIB-YHS3119
Date of Issue : Oct. 26, 2020
Test Standards : 47 CFR Part 1.1307
47 CFR Part 1.1310
KDB447498D01v06
Test result : PASS

Prepared for:

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Oct. 26, 2020



Check No.:3915579242

2 Version

Version No.	Date	Description
00	Oct. 26, 2020	Original

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4 General Information

4.1 Client Information

Applicant:	Shanghai Xiaoyi Technology Co., Ltd.
Address of Applicant:	Building 18, Lane 55, Chuanhe Road, China(Shanghai) Pilot Free Trade Zone, Shanghai ,China, 201203
Manufacturer:	YI Technologies, Inc.
Address of Manufacturer:	182 South Murphy Ave, Floor #2, Sunnyvale CA 94086 United States

4.2 General Description of EUT

Product Name:	Kami Outdoor Security Camera
Model No.(EUT):	YHS.3119
Trade Mark:	Kami
EUT Supports Radios application	2.4G WiFi, 802.11b/g/n(20MHz)/n(40MHz) ,2412-2462MHz

4.3 Product Specification subjective to this standard

Frequency Range:	IEEE 802.11b/g/n(HT20): 2412MHz to 2472MHz IEEE 802.11n(HT40): 2422MHz to 2462MHz
Modulation Type:	IEEE for 802.11b:DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g:OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40): OFDM (64QAM, 16QAM,QPSK,BPSK)
Number of Channels:	IEEE 802.11b/g, IEEE 802.11n HT20: 13 Channels IEEE 802.11n HT40: 9 Channels
Test Power Grade:	N/A
Test Software of EUT:	N/A
Antenna Type:	FPC Antenna
Antenna Gain:	3.48dBi
Power Supply:	AC 230V, 50Hz
Max Conducted Peak Output Power:	18.41dBm
	The Max Conducted Peak Output Power data refer to the report EED32L00154103
Sample Received Date:	Jun. 13, 2019
Sample tested Date:	Jun. 13, 2019 to Aug. 05, 2019
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Limits

According to FCC Part1.1310: 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)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
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
300–1500 .....	.....	.....	f/300	6
1500–100,000 .....	.....	.....	5	6
(B) 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
300–1500 .....	.....	.....	f/1500	30
1500–100,000 .....	.....	.....	1.0	30

A rough estimation of the expected exposure in power flux density on a given point can be made with the following equation:

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R= distance to the centre of radiation of the antenna

EIRP = P*G

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user.

Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. Therefore, the S of the device is calculated with R=20cm, and if it is below the limit S, then we can conclude the device complies with the rules.

5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually.

5.1.3 EUT RF Exposure Evaluation

Antenna Gain: 3.48dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Channel	Frequency (MHz)	Max Conducted Peak Output Power(dBm)	Gain (dBi)	EIRP* (dBm)	EIRP (mW)	R (cm)	S (mW/cm ²)	Limit (mW/cm ²)	Result
Middle	2442	18.41	3.48	21.89	154.53	20	0.031	1.0	Pass

Note: Refer to report No. EED32L00154103 for EUT test Max Conducted Peak Output Power value.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00154103 for EUT external and internal photos.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***