

TEST REPORT

Reference No...... : WTF22D04070741W003
FCC ID : 2A6J9C100-0200
Applicant..... : Bkav Corporation
Address..... : 2nd Floor, HH1 Building, Yen Hoa Ward, Cau Giay District, Ha Noi, 100000 Vietnam
Manufacturer : Bkav Corporation
Address..... : 2nd Floor, HH1 Building, Yen Hoa Ward, Cau Giay District, Ha Noi, 100000 Vietnam
Product..... : IP Camera
Model(s) : C100-0200
Standards..... : 47CFR FCC Part 2 Subpart J Section 2.1091
Date of Receipt sample : 2022-04-15
Date of Test : 2022-04-15 to 2022-05-23
Date of Issue..... : 2022-08-03
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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3. Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTF22D04070741 W003	2022-04-15	2022-04-15 to 2022-05-24	2022-08-03	Original	-	Valid

4. General Information

4.1. General Description of E.U.T.

Product:	IP Camera
Model(s):	C100-0200
Model Description:	N/A
Wi-Fi Specification:	2.4G Wi-Fi 802.11b/g/n HT20 5G Wi-Fi: 802.11a/n HT20
Hardware Version:	V2.1.1
Software Version:	1.2.3.6

4.2. Details of E.U.T.

Operation Frequency:	2.4G 802.11b/g/n (HT20), 2412-2462MHz 11CH 802.11n (HT40), 2422-2452MHz 7CH U-NII-1 802.11a/n(HT20), 5180-5240MHz 4CH 802.11n(HT40), 5190-5230MHz 2CH U-NII-3 802.11a/n(HT20), 5745-5825MHz 5CH 802.11n(HT40), 5755-5795MHz 2CH
Max. RF output power:	2.4G Wi-Fi: 17.30dBm Conducted power 5G Wi-Fi U-NII-1: 19.37dBm EIRP U-NII-3: 18.70dBm EIRP
Type of Modulation:	802.11b: DBPSK, DQPSK, CCK 802.11a/g: OFDM(BPSK, QPSK, 16QAM, 64QAM) 802.11n: OFDM(BPSK, QPSK, 16QAM, 64QAM)
Antenna installation:	External antenna with RP-SMA connector
Antenna Gain:	2.4G Wi-Fi: 2.0dBi 5G Wi-Fi: 3.0dBi
Ratings:	DC 12V from adapter
Adapter:	Manufacturer XING YUAN ELECTRONICS CO., LTD Model No.: XY12J-1201000Q-UW Input: 100-240VAC, 0.5A Max 50/60Hz Output: 12V $\overline{=}$ 1.0A

4.3. Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Testing Group Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Testing Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

4.4. Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

Yes No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

4.5. Abnormalities from Standard Conditions

None.

5. Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	FCC Part 2.1091	PASS

6. RF Exposure

Test Requirement: 47CFR FCC Part 2 Subpart J Section 2.1091

Evaluation Method: 47CFR FCC Part 1 Subpart I Section 1.1310,
KDB 447498 D01 General RF Exposure Guidance v06

6.1. Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

6.2. The procedures / limit

Table 1 to § 1.1310(e)(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)
(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	<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	<30

f = frequency in MHz. * = Plane-wave equivalent power density.

6.3. MPE Calculation Method

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

S = power density (in appropriate units, e.g. mW/cm²)

P = output power to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

From the peak EUT RF output power, the minimum mobile separation distance, R=20cm, as well as the gain of the used antenna, the RF power density can be obtained

6.4. Radio Frequency Radiation Exposure Evaluation

Band	Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2.4G Wi-Fi	2.00	1.585	17.30	53.70	0.016932	1.0
5G Wi-Fi U-NII-1	3.00	1.995	16.37	43.35	0.017208	1.0
5G Wi-Fi U-NII-3	3.00	1.995	15.70	37.15	0.14748	1.0

Note:

1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.
3. 2.4G WLAN and 5G WLAN share the same antenna, and cannot transmit simultaneously.

Conclusion:

According to 47 CFR § 2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

====End of Report=====