

MPE Test Report

Report No.: BUMK-ESH-P20082481B-3

FCC ID: 2AWXZTY-R8821

Product: Smart Camera

Model: SC101-WA2, SC101-WO2

Received Date: Aug.27, 2020

Test Date: Sep.01 to Sep.15, 2020

Issued Date: Sep.23, 2020

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Issued By: BUREAU VERITAS ADT (Shanghai) Corporation

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Release Control Record

Issue No.	Description	Date Issued
BUMK-ESH-P20082481B-3	Original release	Sep.23, 2020

1 Certificate of Conformity

Product: Smart Camera

Brand: --

Test Model: SC101-WA2, SC101-WO2

Applicant: Zhejiang Tuya Smart Electronics Co., Ltd

Test Date: Sep.01 to Sep.15, 2020

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

The above equipment has been tested by **BUREAU VERITAS ADT (Shanghai) Corporation**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

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, Date:

Sep.23,2020

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2 General Description of EUT

Product	Smart Camera
Brand	--
Test Model	SC101-WA2, SC101-WO2
Model Difference	Only appearance, screen printing, software version differences
Nominal Voltage	5VDC/1A with adaptor 100-240V~,50/60Hz
Adapter Information	1) KA06E-0501000US I/P:100-240Vac, 50/60Hz, 0.25A O/P:5Vdc, 1A 2) TPA-46B050100UU I/P:100-240Vac, 50/60Hz, 0.2A O/P:5Vdc, 1A
Modulation Type	DSSS, OFDM
Modulation Technology	802.11b/g/n20/n40
Operating Frequency	802.11b, 802.11g and 802.11n (HT20):2412MHz~2462MHz, 802.11n (HT40):2422MHz~2452MHz
Number of Channel	802.11b, 802.11g and 802.11n (HT20):11, 802.11n (HT40):7
Antenna Type	Ceramic Antenna
Antenna Connector	--
Antenna Gain	3dBi

Note: 1.For more details, please refer to the User's manual of the EUT.

2. The two models only have appearance, screen printing, software version differences, so we choose model SC101-WA2 to perform on full tests.

3 RF Exposure

3.1 Limits For Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1,500	-	-	F/1500	30
1,500-100,000	-	-	1.0	30

F = Frequency in MHz

3.2 MPE Calculation Formula

Power density (S) is calculated according to the formula:

$$S = PG / (4\pi R^2)$$

Where S = power density in mW/cm²

P = transmit power in mW

G = numeric gain of transmit antenna (numeric gain=Log-1(dB antenna gain/10))

R = distance (cm)

3.3 MPE Calculation Formula

The antenna of this product, under normal use condition, is at least 20cm from the body of the user. So the device is classified as Mobile Device.

3.4 Calculation Result of Maximum Permissible Exposure

Frequency Band (MHz)	Max. Conducted output power(dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN 2.4GHz					
2412-2462	13.63	3	20	0.0091565	1

Conclusion:

The calculation result of MPE is less than the limit.

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