

Maximum Permissible Exposure Evaluation

FCC ID: 2ASAQ-A10C

1. Client Information

Applicant	:	Hangzhou Vision Insight Technology Co., Ltd.
Address	:	Room 1009, Zhejiang Middle And Small Enterprise Building, No.553, Wensan Road, Xihu Dist., Hangzhou, Zhejiang China
Manufacturer	:	Hangzhou Vision Insight Technology Co., Ltd.
Address	:	Room 1009, Zhejiang Middle And Small Enterprise Building, No.553, Wensan Road, Xihu Dist., Hangzhou, Zhejiang China

2. General Description of EUT

EUT Name	:	Smart Home Camera	
Models No.	:	A10C ,A10,A10F,A10S,A10D	
Model Difference	:	All these models are identical in the same PCB layout and electrical circuit, The only difference is the difference in packing and model.	
Product Description		Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz
	:	Max Output Power:	WIFI: 16.70 dBm
		Antenna Gain:	2.02dBi PIFA Antenna
Power Supply	:	DC Voltage supplied by AC/DC Adapter	
Power Rating	:	AC/DC Adapter (RD0501000-USBA-18MG): Input: AC 100~240V, 50/60Hz, 0.25A. Output: DC 5V, 1A.	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

MPE Calculations for WIFI

1. Antenna Gain:

PIFA Antenna: 2.02dBi.

2. EUT Operation Condition:

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

3. Exposure Evaluation:

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

4. Test Result:

Mode	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm ²) [S]
802.11b	16.70	16±1	17	2.02	20	0.01588
802.11g	15.88	15±1	16	2.02	20	0.01261
802.11n (HT20)	14.96	14±1	15	2.02	20	0.01002
802.11n (HT40)	13.78	13±1	14	2.02	20	0.00796

5. Conclusion:

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

Limits for General Population/ Uncontrolled Exposure

Frequency Range (MHz)	Power density (mW/ cm ²)
300-1,500	F/1500
1,500-100,000	1.0

For 802.11b/g/n:2412~2462 MHz

MPE limit S: 1mW/ cm²

The MPE is calculated as **0.01588mW / cm² < limit 1mW / cm²**. So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b).

The RF Exposure Information page from the manual is included here for reference.

Note

For a more detailed features description, please refer to the RF Test Report.

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