

# RF Exposure Evaluation

## FCC ID: 2ABQJ-SP360

### 1. Client Information

**Applicant** : Shenzhen Sinopine Technology Co., Ltd  
**Address** : D Building, Huafeng Industrial Zone, Hangcheng Boulevard, Gushu Village, Xixiang Town, Bao'an District, Shenzhen City, China  
**Manufacturer** : Shenzhen Sinopine Technology Co., Ltd  
**Address** : D Building, Huafeng Industrial Zone, Hangcheng Boulevard, Gushu Village, Xixiang Town, Bao'an District, Shenzhen City, China

### 2. General Description of EUT

<b>EUT Name</b>	:	Network Camera
<b>Models No.</b>	:	SP360, SP360PIR, SP370, SP380, SP390
<b>Model Difference</b>	:	The different models are identical in schematic, structure and critical component, the only different is the appearance.
<b>Product Description</b>	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40):2422MHz~2452MHz
	Number of Channel:	802.11b/g/n(HT20):11 channels
	RF Output Power:	802.11b: 17.12 dBm 802.11g: 15.23 dBm 802.11n (HT20): 14.47 dBm
	Antenna Gain:	2 dBi Integral Antenna
	Modulation Type:	802.11b: CCK, QPSK, BPSK 802.11g: OFDM 802.11n (20M): OFDM
	Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n:up to 150Mbps
<b>Power Supply</b>	:	DC Voltage supplied from AC/DC adapter
<b>Power Rating</b>	:	AC/DC adapter : Input: 100~240V 50/60Hz 0.4A Output: 12V 1A
<b>Connecting I/O Port(S)</b>	:	Please refer to the User's Manual

TB-RF-075-1.0

**Note:**

- (1) More detail information about Equipment, please refer to User's manual, more information about the test data, please refer to test report.
- (2) Antenna information provided by the applicant.

## MPE Calculations for WIFI

### 1. Antenna Gain:

Integral Antenna: 2 dBi.

### 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:

Band	Channel	Frequency (MHz)	Power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm <sup>2</sup> ) [S]
802.11b	CH1	2412	17.12	2	20	0.0162
	CH6	2437	16.92	2	20	0.0155
	CH11	2462	16.73	2	20	0.0149
802.11g	CH1	2412	15.20	2	20	0.0104
	CH6	2437	14.97	2	20	0.0099
	CH11	2462	15.23	2	20	0.0105
802.11n (HT20)	CH1	2412	13.91	2	20	0.0076
	CH6	2437	14.07	2	20	0.0080
	CH11	2462	14.47	2	20	0.0088

### 5. Conclusion:

FCC: 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 <sup>2</sup> )
300-1,500	F/1500

1,500-100,000	1.0
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For 802.11b/g/n (2412~2462 MHz)

MPE limit S: 1 mW/ cm<sup>2</sup>

The MPE is calculated as  $0.0162\text{mW} / \text{cm}^2 < \text{limit } 1 \text{ mW} / \text{cm}^2$ . 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 47CFR2.1091 (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.