

## FCC 47 CFR MPE REPORT

Beijing Visual World Technology Co.,Ltd.

360 Smart Camera

Model Number: D503

FCC ID: 2AIV9D503

Prepared for : Beijing Visual World Technology Co.,Ltd.

15th Floor and 17th Floor 1701-10A, Building 3, No. 10,  
Jiuxianqiao Road Jia, Chaoyang District, Beijing.

Prepared By : EST Technology Co., Ltd.

San Tun Management Zone, Houjie District, Dongguan, China

Tel: 86-769-83081888-808

Report Number: ESTE-R1606050

Date of Test : June 01~ 28, 2016

Date of Report : June 28, 2016



## Maximum Permissible Exposure

### 1、 Applicable Standard

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 level 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 0.2m normally can be maintained between the user and the device.

#### (a)、 Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength E (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Times   E   2 ,   H   2 or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-10000			5	6

#### (b)、 Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength E (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Times   E   2 ,   H   2 or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-10000			1.0	30

Note: f=frequency in MHz; \*Plane-wave equivalent power density

### 2、 MPE Calculation Method

$$E \text{ (V/m)} = (30 \cdot P \cdot G)^{0.5} / d \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = E^2 / 377$$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = (30 \cdot P \cdot G) / (377 \cdot d^2)$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

### 3、Calculated Result and Limit

Mode	Frequency (MHz)	Peak output power (dBm)	Peak output power (mW)	Target power (dBm)	Antenna gain		Power Density (S) (mW/cm <sup>2</sup> )	Limited of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
					(dBi)	(Linear)			
IEEE 802.11b	2412	11.93	15.59553	11±2	2.73	1.875	<b>0.00744</b>	1	Compiles
	2442	12.82	19.14256	12±2	2.73	1.875	<b>0.00937</b>	1	Compiles
	2472	13.52	22.49055	13±2	2.73	1.875	<b>0.01180</b>	1	Compiles
IEEE 802.11g	2412	10.62	11.53453	10±2	2.73	1.875	<b>0.00591</b>	1	Compiles
	2442	11.25	13.33521	11±2	2.73	1.875	<b>0.00744</b>	1	Compiles
	2472	12.36	17.21869	12±2	2.73	1.875	<b>0.00937</b>	1	Compiles
IEEE 802.11n HT20	2412	10.43	11.04079	10±2	2.73	1.875	<b>0.00591</b>	1	Compiles
	2442	11.77	15.03142	11±2	2.73	1.875	<b>0.00744</b>	1	Compiles
	2472	12.30	16.98244	12±2	2.73	1.875	<b>0.00937</b>	1	Compiles
IEEE 802.11n HT40	2422	9.57	9.057326	9±2	2.73	1.875	<b>0.00470</b>	1	Compiles
	2442	10.09	10.20939	10±2	2.73	1.875	<b>0.00591</b>	1	Compiles
	2462	11.08	12.82331	11±2	2.73	1.875	<b>0.00744</b>	1	Compiles