

FCC RF Exposure

FCC ID: 2AIV9D706

Applicant: Beijing Visual World Technology Co., Ltd.

Exposure category: General population/uncontrolled environment

EUT Type: 360 Smart Camera

Refer Standard: FCC Part 2.1091: Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)

FCC MPE Limited:

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

Test Data

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

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, the power gain factor, is normally numeric gain.

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

2.4G WLAN Antenna Gain information

Antenna Gain: 3.59dBi

Note 1: According to KDB 662911, all transmit signals are completely uncorrelated with each other. Directional gain = G_{ANT}

Maximum Conduct Power & Manufacturing tolerance

Test mode	Channel	Frequency (MHz)	Max. RF Power(dBm)	Tolerance \pm (dB)
802.11b	1	2412	16.71	17 ± 1
	6	2437	17.70	17 ± 1
	11	2462	17.82	17 ± 1
802.11g	1	2412	15.34	16 ± 1
	6	2437	16.22	16 ± 1
	11	2462	16.88	16 ± 1
802.11n20	1	2412	15.37	16 ± 1
	6	2437	16.45	16 ± 1
	11	2462	15.45	16 ± 1
802.11n40	3	2422	14.92	15 ± 1
	6	2437	15.66	15 ± 1
	9	2452	15.89	15 ± 1

Calculation results (for 2.4G WIFI): pass

Mode	Frequency (MHz)	Maximum tune up power(dBm)	ANT Gain(dBi)	RF distance(cm)	Result (mW/cm ²)	Limit (mW/cm ²)
802.11b	2412	18	3.59	20	0.029	1.0
	2437	18	3.59	20	0.029	
	2462	18	3.59	20	0.029	
802.11g	2412	17	3.59	20	0.023	
	2437	17	3.59	20	0.023	
	2462	17	3.59	20	0.023	
802.11n20	2412	17	3.59	20	0.023	
	2437	17	3.59	20	0.023	
	2462	17	3.59	20	0.023	
802.11n40	2422	16	3.59	20	0.018	
	2437	16	3.59	20	0.018	
	2452	16	3.59	20	0.018	