

# Maximum Permissible Exposure Evaluation

## FCC ID: 2ANK8-D06

### 1. Client Information

<b>Applicant</b>	:	Shenzhen Forever Young Technology Co.,Ltd
<b>Address</b>	:	2/F, No.B2 Bldg, Fu Yuan Industrial Park, Fu Yong Town, Bao'an District, Shenzhen, China
<b>Manufacturer</b>	:	Shenzhen Forever Young Technology Co.,Ltd
<b>Address</b>	:	2/F, No.B2 Bldg, Fu Yuan Industrial Park, Fu Yong Town, Bao'an District, Shenzhen, China

### 2. General Description of EUT

<b>EUT Name</b>	:	Door Window Sensor	
<b>Models No.</b>	:	D06	
<b>Model Different</b>	:	----	
<b>Product Description</b>	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz
		RF Output Power:	802.11b: 15.96dBm 802.11g: 14.96dBm 802.11n (HT20): 13.82dBm
		Antenna Gain:	2.69dBi PCB Antenna
		Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK,QPSK,16QAM, 64QAM)
<b>Power Rating</b>	:	DC 3V By AAA battery	
<b>Software Version</b>	:	3.12.6	
<b>Hardware Version</b>	:	V1.0	
<b>Connecting Port(S)</b>	I/O :	Please refer to the User's Manual	
<b>Remark</b>	:	The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.	

TB-RF-075-1.0



### MPE Calculations for WIFI

**1. Antenna Gain:**

PCB Antenna: 2.69dBi.

**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 <sup>2</sup> ) [S]
802.11b	15.96	16±1	17	2.69	20	0.01852
802.11g	14.96	15±1	16	2.69	20	0.01471
802.11n (HT20)	13.82	14±1	15	2.69	20	0.01169



**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 <sup>2</sup> )
300-1,500	F/1500
1,500-100,000	1.0

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

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

The MPE is calculated as **0.01852mW / cm<sup>2</sup> < limit 1mW / cm<sup>2</sup>**. So, the device compliance the RF Exposure requirement.

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.

-----END OF REPORT-----