Maximum Permissible Exposure Evaluation

FCC ID: 2ANK8-S06

1. Client Information

Applicant	:	Shenzhen Forever Young Technology Co.,Ltd
Address	:	4/F, No.5 Bldg, Fu Hong Industrial Park, Fu Yong Town, Bao'an District, Shenzhen, China
Manufacturer	:	Shenzhen Forever Young Technology Co.,Ltd
Address	:	4/F, No.5 Bldg, Fu Hong Industrial Park, Fu Yong Town, Bao'an District, Shenzhen, China

2. General Description of EUT

EUT Name	:	WiFi Infrared Remote Control	
Models No.	:	S06	
Model Difference	:	N/A	
Product Description	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz
		Number of Channel:	802.11b/g/n(HT20):11 channels
		RF Output Power:	802.11b: 15.78 dBm 802.11g: 14.72 dBm 802.11n (HT20): 14.45 dBm
		Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK, QPSK,16QAM, 64QAM)
Power Supply	:	DC 5V for USB Port.	
Software Version	:	N/A	
Hardware Version	:	N/A	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

Note:

More test information about the EUT please refer the RF Test Report.

MPE Calculations for WiFi

1. **Antenna Gain:**
   PCB Antenna: 2.5dBi.

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:**

Worst Maximum MPE Result								
Mode	N_{TX}	Freq. (MHz)	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	1	2412	15.78	16±1	17	2.5	20	0.0177
		2437	15.48	16±1	17	2.5	20	0.0177
		2462	15.24	16±1	17	2.5	20	0.0177
802.11g	1	2412	14.41	14±1	15	2.5	20	0.0112
		2437	14.36	14±1	15	2.5	20	0.0112
		2462	14.72	14±1	15	2.5	20	0.0112
802.11n (HT20)	1	2412	14.28	14±1	15	2.5	20	0.0112
		2437	14.23	14±1	15	2.5	20	0.0112
		2462	14.45	14±1	15	2.5	20	0.0112

Note:
(1) N_{TX}= Number of Transmit Antennas
(2) RF Output power specifies that Maximum Conducted Peak Output Power.

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: 1 mW/cm^2
The MPE is calculated as 0.0177mW/cm^2 < limit 1 mW/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 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-----