Maximum Permissible Exposure Evaluation

FCC ID: 2AUFZ-ZD6

1. Client Information

Applicant	:	Shantou Fulaiying Toy Technology Co.,Ltd
Address	:	No.4, lane 1, Ronan Road, Toufen Village, Fengxiang Street, Chenghai District, Shantou City, Guangdong Province
Manufacturer	:	Shantou Fulaiying Toy Technology Co.,Ltd
Address	:	No.4, lane 1, Ronan Road, Toufen Village, Fengxiang Street, Chenghai District, Shantou City, Guangdong Province

2. General Description of EUT

EUT Name	:	Remote Control Four-axis Aircraft	
Models No.	:	FLY-X5, ZD6, X54, X6HD, ZD5, ZD6-GPS, ZD8, ZD8-GPS, ZD9, X10MINI, GD-65A	
Model Different	:	All these models are the same PCB, layout and electrical circuit, the only difference is change appearance, including in size and color	
Product Description	:	Operation Frequency:	802.11b/g: 2412MHz~2462MHz
		RF Output Power:	802.11b: 13.62dBm 802.11g: 12.91dBm
		Antenna Gain:	2dBi FPC Antenna
		Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g: OFDM
Power Rating	:	DC 3.7V 750mAH by Battery	
Software Version	:	X52_v1540	
Hardware Version	:	LG_X52RX_V2	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

MPE Calculations for WIFI

1. **Antenna Gain:**
   FPC Antenna: 2dBi.

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										
ANT	Mode	Freq. (MHz)	Conducted Power(max) (dBm) [P]	Tune up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Dista-nce (cm) [R]	Power Density (mW/ cm^2) [S]	Power Density Limit (mW/ cm^2)	Result
ANT	B	2412	13.58	13.58±1	14.58	2	20	0.00905	1	PASS
		2437	13.33	13.33±1	14.33			0.00855		
		2462	13.62	13.62±1	14.62			0.00914		
	G	2412	12.77	12.77±1	13.77			0.00751		
		2437	12.88	12.88±1	13.88			0.00770		
		2462	12.91	12.91±1	13.91			0.00776		
Max Power Density(mW/ cm^2)			Power Density=0.00914							
Note: 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:2412~2462 MHz
MPE limit S: $1mW/cm^2$
The MPE is calculated as ***$0.00914mW/cm^2 < limit\ 1mW/cm^2$***. 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-----