Maximum Permissible Exposure Evaluation

FCC ID: 2AYT4-DD-TD011

1. Client Information

Applicant	:	Shenzhen Vigiot Technology Co., Ltd
Address	:	Room 809, Langshi Building, South Science Park, Nanshan District, Shenzhen, 518000, P.R China
Manufacturer	:	Shenzhen Vigiot Technology Co., Ltd
Address	:	Room 809, Langshi Building, South Science Park, Nanshan District, Shenzhen, 518000, P.R China

2. General Description of EUT

EUT Name	:	Smart Pet Treat Tosser	
Models No.	:	DD-TD011, DD-TD	
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is the model name.	
Brand Name	:	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:19.531dBm 802.11g: 18.957dBm 802.11n (HT20): 16.478dBm 802.11n (HT40): 17.422dBm
		Antenna Gain:	2dBi PIFA Antenna
Power Rating	:	Input: 100-240V~50/60Hz, 0.6A Max Output: DC 5V3A	
Software Version	:	V4.03.R12.J2922990.12002.044B02.0000000	
Hardware Version	:	LKK_P_PLAY_MAIN_V1.03	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Remark	:	the MPE report used the EUT(TBBJ-20210127-19-02#).	

MPE Calculations for WIFI

1. **Antenna Gain:**
   PCB 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:**

2.4G WiFi

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^2) [S]	Limit of Power Density (mW/ cm^2) (S)
802.11B	19.531	19±1	20	2	20	0.03153	1
802.11G	18.957	18±1	19	2	20	0.02505	1
802.11N(HT20)	16.478	16±1	17	2	20	0.01508	1
802.11N(HT40)	17.422	17±1	18	2	20	0.01989	1

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 2.4WIFI:2412~2462 MHz

MPE limit S: 1mW/ cm^2

The MPE is calculated as ***0.03153mW / cm² < limit 1mW / cm²***. 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.

6. Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

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