Maximum Permissible Exposure Evaluation

FCC ID: 2AF2R-63TX

1. Client Information

Applicant	:	Shenzhen Videotimes Technology Co.,Ltd
Address	:	Room 2106, Building 11, Tianan Yungu Phase II(Plot of Land 02-08) , Gangtou Community, Bantian Street, Longgang District, Shenzhen, Guangdong. China.
Manufacturer	:	Shenzhen Videotimes Technology Co.,Ltd
Address	:	Room 2106, Building 11, Tianan Yungu Phase II(Plot of Land 02-08) , Gangtou Community, Bantian Street, Longgang District, Shenzhen, Guangdong. China.

2. General Description of EUT

EUT Name	:	2.4GHz Digital Wireless Video Baby Camera	
Models No.	:	HB6351, HB6351TX, HB6351-2, FK5163, FK5163-2, FK5163TX, BBM810, BBM810-2, BBM810TX, HB6352, HB6352-2, HB6352TX, VT502, VT502-2, VT502TX, BBM811, BBM811-2, BBM811TX, HB6251, HB6251-2, HB6251TX, JA2216, JA2216-2, JA2216TX, BBM805, BBM805-2, BBM805TX, HB6252, HB6252-2, HB6252TX, BL9052, BL9052-2, BL9052TX, BBM806, BBM806-2, BBM806TX, VV6052, VV6052-2, VV6052TX	
Model Difference	:	All these models are identical in the same PCB layout and electrical circuit, the only difference is that names.	
Product Description	:	Operation Frequency:	2.4G: 2412MHz~2469MHz
		Number of Channel:	20 channels
		RF Output Power:	GFSK:16.382dBm
		Antenna Gain:	2dBi Dipole Antenna
Power Rating	:	Input: 100-240V~, 50/60Hz 0.2A Output: 5V⎓1A	
Software Version	:	1.2	
Hardware Version	:	1.0	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Remark	:	The adapter and antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.	

MPE Calculations for 2.4G

1. **Antenna Gain:**
   Dipole Antenna:2.0dBi.

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]
2.4G	1	2412	14.349	14±1	15	2.0	20	0.0100
		2442	15.663	16±1	17	2.0	20	0.0158
		2469	16.382	16±1	17	2.0	20	0.0158

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 2.4G:2412~2469 MHz

MPE limit S: $1mW/ cm^2$

The MPE is calculated as **0.0158 *mW / 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-----