Maximum Permissible Exposure Evaluation

FCC ID: 2AF2R-58TX

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.	:	HB6146, HB6146-2, HB6146TX, BL9046, BL9046-2, BL9046TX, BBM839, FK4863, FK4863TX, FK4863-2, HB6348, BBM840, BG1049, BG1049TX, BG1049-2, HB6049, BBM841	
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is different customers, different model name.	
Product Description	:	Operation Frequency:	2.4GHz:2412MHz~2469MHz
		Antenna Gain:	2.5dBi Dipole antenna
Power Rating	:	AC Adapter #1 (Model: K05S050100U): Input: 100-240V~50/60Hz, 0.2A Output: 5.0V⎓1.0A AC Adapter #2 (Model: A318-050100W-US2): Input: 100-240V~50/60Hz, 0.2A Output: 5.0V⎓1.0A	
Software Version	:	1.0	
Hardware Version	:	1.0	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Remark	:	the evaluation report used the EUT(202307-0066-6-2#).	

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MPE Calculations for WIFI

1. **EUT Operation Condition:**
   Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

2. **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

3. **Simultaneous transmission MPE Considerations**
   According to KDB447498: All transmitters and antennas in the host must be either evaluated for MPE compliance, by measurement or computational modeling, or qualify for the standalone MPE test exclusion in section 7.1. Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is ≤ 1.0.
   This means that:
   ∑ of MPE ratios ≤ 1.0

4. Test Result:

Mode	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]	Limit of Power Density (mW/cm^2) (S)
2.4G	2412	10.95	11±1	12	2.5	20	0.00561	1
	2442	9.861	10±1	11	2.5	20	0.00445	1
	2469	8.563	9±1	10	2.5	20	0.00354	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 2.4G :2412MHz~2469MHz

MPE limit S: 1mW/ cm^2

The worst MPE is calculated as ***0.00561mW/ cm2 < 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.

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 THE REPORT-----