

Maximum Permissible Exposure Evaluation

FCC ID: 2AF2R-60TX

1. Client Information

Applicant	:	Shenzhen Videotimes Technology Co.,Ltd
Address	:	701, Building 3, No. 1, Zhenhan Road, Gankeng Community, Jihua Street Office, Longgang District, Shenzhen, China 518000
Manufacturer	:	Shenzhen Videotimes Technology Co.,Ltd
Address	:	701, Building 3, No. 1, Zhenhan Road, Gankeng Community, Jihua Street Office, Longgang District, Shenzhen, China 518000

2. General Description of EUT

EUT Name	:	2.4GHz Digital Wireless Video Baby Camera
Models No.	:	HB6099, HB6099TX, FK9960, FK9960TX, JA2219, JA2219-2, JA2219TX, VT60TR99, VT60TR99-2, VT60TR99TX, BL9035, BL9035TX, OD8035, OD8035TX
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: 2409.5MHz~2468MHz
		Number of Channel: 40 channels
		RF Output Power: GFSK:17.388dBm
		Antenna Gain: 2dBi Monopole Antenna
Power Rating	:	Input: 100-240V~, 50/60Hz 0.2A Output: 5V=1A
Software Version	:	1.0
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:

PIFA 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	2409.5	12.158	12±1	13	2.0	20	0.0063
		2439.5	17.388	17±1	18	2.0	20	0.0199
		2468	9.8	10±1	11	2.0	20	0.0040
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:2409.5~2468 MHz

MPE limit S: 1mW/ cm²

The MPE is calculated as **0.0199 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-----