

Maximum Permissible Exposure Evaluation

FCC ID: 2AF2R-HB30TX

IC ID: 20674-HB30TX

1. Client Information

Applicant	:	Shenzhen Videotimes Technology Co.,Ltd
Address	:	Room 601, Building B, Union Financial Building, No 1 Shihua Road, Fubao Street, Futian Free Trade Zone, Shenzhen, Guangdong, China.
Manufacturer	:	Shenzhen Videotimes Technology Co.,Ltd
Address	:	Room 601, Building B, Union Financial Building, No 1 Shihua Road, Fubao Street, Futian Free Trade Zone, Shenzhen, Guangdong, China.

2. General Description of EUT

EUT Name	:	2.4GHz Digital Wireless Video Baby Camera	
Models No.	:	HB31TX,HB30TX	
Model Different	:	All these models are identical in the same PCB layout and electrical circuit, Only the appearance design, color and model are different. Does not affect EMC and RF performance.	
Product Description	:	Operation Frequency:	GFSK: 2403.5MHz~2468MHz
		RF Output Power:	GFSK: 17.338dBm
		Antenna Gain:	2dBi FPC Antenna
		Modulation Type:	GFSK (1.5 Mbps)
Power Supply	:	DC Voltage Supply from AC/DC Adapter for TX (Camera)	
Power Rating	:	Adapter Model:K05S050100U Input: AC 100-240V~50/60Hz, 0.2A Output: DC 5.0V@1.0A	
Software Version	:	1.0	

TB-RF-075-1.0

Hardware Version	:	1.2
Connecting I/O Port(S)	:	Please refer to the User's Manual

MPE Calculations

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:

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]
2403.5	17.338	17±1	18	2	20	0.01989495
2439.5	17.307	17±1	18	2	20	0.01989495
2468.0	17.239	17±1	18	2	20	0.01989495

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 GFSK:2403.5~2468 MHz

MPE limit S: 1mW/ cm²

The MPE is calculated as **0.01989495mW / 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.

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