



# Maximum Permissible Exposure Evaluation

## FCC ID:2BDR5-30T

### 1. Client Information

|                     |   |                                                                                  |
|---------------------|---|----------------------------------------------------------------------------------|
| <b>Applicant</b>    | : | Videotimes Technology (Hubei) Co., Ltd                                           |
| <b>Address</b>      | : | B5-1,B5-2, Electronic Information Industry Park, Wuxue, Huanggang, Hubei, China. |
| <b>Manufacturer</b> | : | Videotimes Technology (Hubei) Co., Ltd                                           |
| <b>Address</b>      | : | B5-1,B5-2, Electronic Information Industry Park, Wuxue, Huanggang, Hubei, China. |

### 2. General Description of EUT

|                               |   |                                                                                                                                                                 |                             |
|-------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| <b>EUT Name</b>               | : | 2.4GHz Digital Wireless Video Baby Camera                                                                                                                       |                             |
| <b>Models No.</b>             | : | HB30, HB2229,BBM874,BBM872,HB30-2,HB30TX,HB31,BBM873, HB31-2,HB31TX,VT31,VT31-2,VT31TX,DVM64,DVM64C                                                             |                             |
| <b>Model Different</b>        | : | All these models are identical in the same PCB, layout and electrical circuit, The only difference is that the model name and appearance material are different |                             |
| <b>Product Description</b>    | : | Operation Frequency:                                                                                                                                            | 2.4G:2412MHz~2469MHz        |
|                               |   | Number of Channel:                                                                                                                                              | 58Channels                  |
|                               |   | Antenna Gain:                                                                                                                                                   | 2.75dBi Copper Tube Antenna |
| <b>Power Rating</b>           | : | Please see Note(List:1)                                                                                                                                         |                             |
| <b>Software Version</b>       | : | 1.0                                                                                                                                                             |                             |
| <b>Hardware Version</b>       | : | 1.2                                                                                                                                                             |                             |
| <b>Connecting I/O Port(S)</b> | : | Please refer to the User's Manual                                                                                                                               |                             |



(1) List:

|                                                          |                                                                                             |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 1#                                                       | AC Adapter 1# (Model: K05V050100U):<br>Input: 100-240V~50/60Hz, 0.2A Output: 5.0V=1.0A      |
| 2#                                                       | AC Adapter 1# (Model: K05S050100U):<br>Input: 100-240V~50/60Hz, 0.2A Output: 5.0V=1.0A      |
| 3#                                                       | AC Adapter 1# (Model: K05E050100U):<br>Input: 100-240V~50/60Hz, 0.2A Output: 5.0V=1.0A      |
| 4#                                                       | AC Adapter 1# (Model: A318-050100W-US2):<br>Input: 100-240V~50/60Hz, 0.2A Output: 5.0V=1.0A |
| RSE testing uses only 1# adapters Evaluate worst pattern |                                                                                             |



## MPE Calculations

### 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. Test Result:

**2.4GHz worst reported.**

| Frequency | 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 <sup>2</sup> ) [S] | Limit of Power Density (mW/ cm <sup>2</sup> ) (S) |
|-----------|----------------------------|--------------------|-----------------------------|--------------------|-------------------|------------------------------------------|---------------------------------------------------|
| 2412MHz   | 15.15                      | 15±1               | 16                          | 2.75               | 20                | 0.01492                                  | 1                                                 |

### 4. 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 <sup>2</sup> ) |
|-----------------------|--------------------------------------|
| 300-1,500             | F/1500                               |
| 1,500-100,000         | 1.0                                  |

For 2.4GHz:2412~2469 MHz

MPE limit S: 1mW/ cm<sup>2</sup>

The MPE is calculated as **0.01492 mW / cm<sup>2</sup> < limit 1mW / cm<sup>2</sup>**. 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.

### 5. 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-----

