

# Maximum Permissible Exposure Evaluation

## FCC ID: 2AJ8T-JT116K-H03

### 1. Client Information

<b>Applicant</b>	:	Shen Zhen JoyHong Technology CO., Ltd
<b>Address</b>	:	4th Floor, Building 1, Zhongtai Road NO. 18, Loucun Second Industrial Park, Xinhua Street, Guangming, Shenzhen, China.
<b>Manufacturer</b>	:	Shen Zhen JoyHong Technology CO., Ltd
<b>Address</b>	:	4th Floor, Building 1, Zhongtai Road NO. 18, Loucun Second Industrial Park, Xinhua Street, Guangming, Shenzhen, China.

### 2. General Description of EUT

<b>EUT Name</b>	:	Digital photo Frame
<b>Models No.</b>	:	JT065X-XXX, JT070X-XXX, JT071X-XXX, JT080X-XXX, JT081X-XXX, JT090X-XXX, JT097X-XXX, JT100X-XXX, JT101X-XXX, JT102X-XXX, JT104X-XXX, JT110X-XXX, JT114X-XXX, JT116X-XXX, JT120X-XXX, JT121X-XXX, JT130X-XXX, JT133X-XXX, JT140X-XXX, JT141X-XXX, JT142X-XXX, JT150X-XXX, JT154X-XXX, JT156X-XXX, JT170X-XXX, JT171X-XXX, JT172X-XXX, JT173X-XXX, JT185X-XXX, JT190X-XXX, JT192X-XXX, JT215X-XXX, JT11GX-XXX, JD065X-XXX, JD070X-XXX, JD071X-XXX, JD080X-XXX, JD081X-XXX, JD090X-XXX, JD097X-XXX, JD100X-XXX, JD101X-XXX, JD102X-XXX, JD104X-XXX, JD110X-XXX, JD114X-XXX, JD116X-XXX, JD120X-XXX, JD121X-XXX, JD130X-XXX, JD133X-XXX, JD140X-XXX, JD141X-XXX, JD142X-XXX, JD150X-XXX, JD154X-XXX, JD156X-XXX, JD170X-XXX, JD171X-XXX, JD172X-XXX, JD173X-XXX, JD185X-XXX, JD190X-XXX, JD192X-XXX, JD215X-XXX, JD11GX-XXX(X stanT for 0~9 or A~Z)
<b>Model Different</b>	:	All of these models are in the same PCB, layout and circuitry, the only difference is model name.
<b>Brand Name</b>	:	----
<b>Product Description</b>	:	Operation Frequency: 802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz
		Number of Channel: 802.11b/g/n(HT20):11 channels 802.11n(HT40):7 channels
		E.I.R.P: 802.11b: 2.76dBm 802.11g: 3.14 dBm 802.11n (HT20): 7.90 dBm 802.11n (HT40): 7.86 dBm
		Antenna Gain: 1.2dBi PIFA Antenna
<b>Power Rating</b>	:	(Adapter:JHD-AP015U-050250BA) Input: AC 100-240V, 50/60Hz, 0.45A Output: DC 5V 2.5A
<b>Software Version</b>	:	8.1.0

Hardware Version	:	RF102
Connecting I/O Port(S)	:	Please refer to the User's Manual
Remark	:	the MPE report used the EUT(TBBJ-20200720-04-2#).

## MPE Calculations for WIFI

### 1. Antenna Gain:

PIFA Antenna: 1.2dBi.

### 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:

Worst Maximum MPE Result								
Mode	N <sub>TX</sub>	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 <sup>2</sup> ) [S]
802.11b	1	2412	2.76	2±1	3	1.2	20	0.0005
		2437	2.35	2±1	3	1.2	20	0.0005
		2462	2.71	2±1	3	1.2	20	0.0005
802.11g	1	2412	3.14	3±1	4	1.2	20	0.0006
		2437	2.30	2±1	3	1.2	20	0.0005
		2462	2.93	2±1	3	1.2	20	0.0005
802.11n(HT20)	1	2412	7.59	7±1	8	1.2	20	0.0016
		2437	7.08	7±1	8	1.2	20	0.0016
		2462	7.90	7±1	8	1.2	20	0.0016
802.11n(HT40)	1	2422	7.86	7±1	8	1.2	20	0.0016
		2437	7.45	7±1	8	1.2	20	0.0016
		2452	7.52	7±1	8	1.2	20	0.0016
Note: (1) N <sub>TX</sub> = 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 <sup>2</sup> )
300-1,500	F/1500
1,500-100,000	1.0

For 2.4WIFI:2412~2462 MHz  
2422~2452 MHz

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

The MPE is calculated as  $0.0016 \text{ mW} / \text{cm}^2 < \text{limit } 1 \text{mW} / \text{cm}^2$ . 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 REPORT-----