

# Maximum Permissible Exposure Evaluation

## FCC ID: 2AEP6XM-JPT2-R

### 1. Client Information

**Applicant** : HangZhou XiongMai Technology CO., LTD  
**Address** : 9th Floor, Building 9, Yinhu Innovation Center, No.9 FuXian Road, YinHu Street, Hangzhou, China  
**Manufacturer** : HangZhou XiongMai Technology CO., LTD  
**Address** : 9th Floor, Building 9, Yinhu Innovation Center, No.9 FuXian Road, YinHu Street, Hangzhou, China

### 2. General Description of EUT

<b>EUT Name</b>	:	DRUM CAMERA
<b>Models No.</b>	:	XM-JPT2-R, XM-T2-R, XM-T2-F4, XM-T5-F4, XM-JPT2-F4, XM-JPT5-F4
<b>Model Difference</b>	:	All models are identical in the same PCB layout interior structure and electrical circuits, The only difference is resolution and brand.
<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 <i>see note(3)</i> 802.11n(HT40): 7 channels <i>see note(3)</i>
	:	RF Output Power: 802.11b: 17.57dBm 802.11g: 17.57dBm 802.11n (HT20): 16.55dBm 802.11n (HT40): 15.42dBm
	:	Antenna Gain: 3dBi Internal Antenna
	:	Modulation Type: 802.11b: DSSS(CCK, QPSK, BPSK) 802.11g: OFDM 802.11n: OFDM
	:	Bit Rate of Transmitter: 802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n: up to 150Mbps
	<b>Power Supply</b>	:

TB-RF-075-1.0



<b>Power Rating</b>	:	AC/DC Adapter (BT-TC-015): Input: AC 100~240V, 50/60Hz, 0.3A. Output: DC 5V, 1.5A.
<b>Connecting I/O Port(S)</b>	:	Please refer to the User's Manual
<b>Note:</b> More information about the RF function, please refer the RF test reports.		

## MPE Calculations for WIFI

### 1. Antenna Gain:

Internal Antenna: 3dBi.

### 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	16.78	17±1	18	3	20	0.0251
		2437	17.12	17±1	18	3	20	0.0251
		2462	17.57	17±1	18	3	20	0.0251
802.11g	1	2412	16.67	17±1	18	3	20	0.0251
		2437	17.35	17±1	18	3	20	0.0251
		2462	17.57	17±1	18	3	20	0.0251
802.11n (HT20)	1	2412	14.97	16±1.5	17.5	3	20	0.0223
		2437	16.02	16±1.5	17.5	3	20	0.0223
		2462	16.55	16±1.5	17.5	3	20	0.0223
802.11n (HT40)	1	2422	14.77	15±1	16	3	20	0.0158
		2437	15.05	15±1	16	3	20	0.0158
		2452	15.42	15±1	16	3	20	0.0158

**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 802.11b/g/n (2412~2462 MHz)

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

The MPE is calculated as 0.0251mW / 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.

-----END OF REPORT-----