

Maximum Permissible Exposure Evaluation

FCC ID: 2AEP6-JPLB1S-2

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

| | | |
|----------------------------|---------------------|--|
| EUT Name | : | Smart LED Bulb 360 Camera |
| Models No. | : | XM-JPLB1S-2, XM-LB1S-2, XM-LB1S-2S, XM-JPLB1S-2S, LB1S-2, LB1S-1, B13-L |
| Model Difference | : | All models are identical in the same PCB layout interior structure and electrical circuits, The only difference is resolution and brand. |
| Product Description | : | 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: 17.81dBm 802.11g: 18.41dBm 802.11n (HT20): 17.24dBm 802.11n (HT40): 14.51dBm |
| | : | 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 |
| | Power Supply | : |

TB-RF-075-1.0

| | | |
|--|---|-----------------------------------|
| Power Rating | : | Input: AC 100-240V 50/60Hz |
| Connecting I/O Port(S) | : | Please refer to the User's Manual |
| Note: 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 _{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] |
| 802.11b | 1 | 2412 | 16.63 | 17±1 | 18 | 3 | 20 | 0.0251 |
| | | 2437 | 17.29 | 17±1 | 18 | 3 | 20 | 0.0251 |
| | | 2462 | 17.81 | 17±1 | 18 | 3 | 20 | 0.0251 |
| 802.11g | 1 | 2412 | 17.27 | 18±1 | 19 | 3 | 20 | 0.0315 |
| | | 2437 | 17.70 | 18±1 | 19 | 3 | 20 | 0.0315 |
| | | 2462 | 18.41 | 18±1 | 19 | 3 | 20 | 0.0315 |
| 802.11n (HT20) | 1 | 2412 | 16.04 | 17±1 | 18 | 3 | 20 | 0.0251 |
| | | 2437 | 16.37 | 17±1 | 18 | 3 | 20 | 0.0251 |
| | | 2462 | 17.24 | 17±1 | 18 | 3 | 20 | 0.0251 |
| 802.11n (HT40) | 1 | 2422 | 13.99 | 14±1 | 15 | 3 | 20 | 0.0126 |
| | | 2437 | 14.25 | 14±1 | 15 | 3 | 20 | 0.0126 |
| | | 2452 | 14.51 | 14±1 | 15 | 3 | 20 | 0.0126 |

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

MPE limit S: 1mW/ cm²

The MPE is calculated as 0.0315mW / 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.

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