# RF Exposure Evaluation

## *FCC ID: 2AEP6XM-JPG1-2*

## 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** | : | WarriorG1 | |
| **Models No.** | : | XM-JPG1-2, XM-JPG1-2S, XM-JPG1-4, XM-JPG1-4S, G1-2, G1-4S | |
| **Brand Name** | : | XM | |
| **Models Difference** | : | All these models are identical in the same PCB, layout and electrical circuit, the only difference is model name for commercial. | |
| **Product Description** | : | Operation Frequency:<br>WiFi: 802.11b/g/n(HT20): 2412MHz~2462MHz<br>802.11n(HT40): 2422MHz~2452MHz | |
| | | Number of Channel: | 802.11b/g/n(HT20):11channels<br>802.11n(HT40): 7 channels |
| | | Max Peak Output Power: | 802.11b: 9.13 dBm<br>802.11g: 9.08 dBm<br>802.11n (HT20): 9.00 dBm<br>802.11n (HT40): 9.02 dBm |
| | | Antenna Gain: | 2 dBi PCB Antenna |
| | | Modulation Type: | 802.11b: CCK, DQPSK, DBPSK<br>802.11g: 64-QAM,QPSK,BPSK<br>802.11n: 64-QAM,16-QAM,QPSK,BPSK |
| **Power Supply** | : | DC Voltage supplied from Host System by USB cable.<br>DC power by Li-ion Battery. | |
| **Power Rating** | : | DC 5.0V by USB cable.<br>DC 3.6V by 3400mAh Li-ion Battery. | |
| **Connecting I/O Port(S)** | : | Please refer to the User's Manual | |

**Note:**

More test information about the EUT please refer the RF Test Report.



1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, China
*Tel: +86 75526509301 Fax: +86 75526509195*

# SAR Test Exclusion Calculations

1. **FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v05r02.**
   **(1) Clause 4.3: General SAR test reduction and exclusion guidance**
   **Sub clause 4.31: Standalone SAR test exclusion considerations**
   **1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance≤5 mm are determined by:**
   **[(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[ $\sqrt{f_{(GHz)}}$ ] ≤3.0 for 1-g SAR**
   **[(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[ $\sqrt{f_{(GHz)}}$ ] ≤7.5.0 for 10-g SAR**

## 2. Calculation:

| Test separation: 5mm | | | | | |
|---|---|---|---|---|---|
| WiFi Mode(802.11b) | | | | | |
| Frequency (GHz) | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.412 | 9.12 | ±0.5 | 9.162 | 2.846 | **3.0** |
| 2.437 | 9.09 | ±0.5 | 9.099 | 2.841 | **3.0** |
| 2.462 | 9.13 | ±0.5 | 9.183 | 2.882 | **3.0** |
| WiFi Mode(802.11g) | | | | | |
| Frequency (GHz) | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.412 | 9.01 | ±0.5 | 8.933 | 2.775 | **3.0** |
| 2.437 | 9.08 | ±0.5 | 9.078 | 2.834 | **3.0** |
| 2.462 | 9.05 | ±0.5 | 9.016 | 2.829 | **3.0** |
| WiFi Mode(802.11n(HT20)) | | | | | |
| Frequency (GHz) | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.412 | 8.97 | ±0.5 | 8.851 | 2.749 | **3.0** |
| 2.437 | 8.98 | ±0.5 | 8.872 | 2.770 | **3.0** |
| 2.462 | 9.00 | ±0.5 | 8.913 | 2.797 | **3.0** |
| WiFi Mode(802.11n(HT40)) | | | | | |
| Frequency (GHz) | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.422 | 9.02 | ±0.5 | 8.954 | 2.781 | **3.0** |
| 2.437 | 8.99 | ±0.5 | 8.892 | 2.776 | **3.0** |
| 2.452 | 8.87 | ±0.5 | 8.650 | 2.714 | **3.0** |

**So standalone SAR measurements are not required.**