

# 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

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

#### Note:

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

[TB-RF-074-1.0](#)

## 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  $\leq 5$  mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR}$$
$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0 \text{ for 10-g SAR}$$

## 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	$\pm 0.5$	9.162	2.846	3.0
2.437	9.09	$\pm 0.5$	9.099	2.841	3.0
2.462	9.13	$\pm 0.5$	9.183	2.882	3.0
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	9.01	$\pm 0.5$	8.933	2.775	3.0
2.437	9.08	$\pm 0.5$	9.078	2.834	3.0
2.462	9.05	$\pm 0.5$	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	$\pm 0.5$	8.851	2.749	3.0
2.437	8.98	$\pm 0.5$	8.872	2.770	3.0
2.462	9.00	$\pm 0.5$	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	$\pm 0.5$	8.954	2.781	3.0
2.437	8.99	$\pm 0.5$	8.892	2.776	3.0
2.452	8.87	$\pm 0.5$	8.650	2.714	3.0

So standalone SAR measurements are not required.