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: 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
Power Supply	:	DC Voltage supplied from Host System by USB cable. DC power by Li-ion Battery.	
Power Rating	:	DC 5.0V by USB cable. 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.

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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.