

# RF Exposure Evaluation

## FCC ID: 2AAQL-M709

### 1. Client Information

**Applicant** : More Star Industrial Group Limited  
**Address** : 3&4F, D Building, ZhuangBian Industrial Park, GuShu Industrial Area, Xixiang Town, Bao'an District, ShenZhen, China  
**Manufacturer** : More Star Industrial Group Limited  
**Address** : 3&4F, D Building, ZhuangBian Industrial Park, GuShu Industrial Area, Xixiang Town, Bao'an District, ShenZhen, China

### 2. General Description of EUT

<b>EUT Name</b>	:	Tablet PC
<b>Models No.</b>	:	M709, Vixen, M708
<b>Model Difference</b>	:	All models are identical in the same PCB layout, interior structure and electrical circuits, The only difference is model name for commercial purpose.
<b>Product Description</b>	:	Operation Frequency: 802.11b/g/n(HT20): 2412MHz~2462MHz Bluetooth: 2402MHz~2480MHz
	:	Number of Channel: 802.11b/g/n(HT20):11 channels
	:	Max Peak Output Power: WiFi: 802.11b: 9.29 dBm 802.11g: 8.98 dBm 802.11n (HT20): 8.76 dBm Bluetooth: GFSK:-1.64 dBm 8-DPSK: 0.12 dBm
	:	Antenna Gain: 0 dBi Integral Antenna
	:	Modulation Type: 802.11b: DSSS (CCK, QPSK, BPSK) 802.11g: OFDM 802.11n: OFDM GFSK 1Mbps(1 Mbps) $\pi$ /4-DQPSK(2 Mbps) 8-DPSK(3 Mbps)
<b>Power Supply</b>	:	DC power supplied by AC/DC Adapter DC Voltage supplied from Li-Polymer battery.
<b>Power Rating</b>	:	AC/DC Adapter(PS12A050K2000UD): Input: AC 100~240V 50/60Hz 0.35A Output: DC 5V 2A DC 3.7V 4000mAh from 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.

## MPE 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  $\leq 50$  mm are determined by:  
$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{\text{(GHz)}}}]}{\leq 3.0 \text{ for 1-g SAR}}$$
  
$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{\text{(GHz)}}}]}{\leq 7.5.0 \text{ for 10-g SAR}}$$

## 2.

### Calculation:

802.11b Mode						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	TX Power (mW)	Distance (mm)	Calculation Value	Threshold Value
2.412	9.19	0	8.298	5	2.578	3.0
2.437	9.23	0	8.375	5	2.614	3.0
2.462	9.29	0	8.492	5	2.665	3.0
802.11g Mode						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	TX Power (mW)	Distance (mm)	Calculation Value	Threshold Value
2.412	8.83	0	7.638	5	2.373	3.0
2.437	8.60	0	7.244	5	2.262	3.0
2.462	8.98	0	7.907	5	2.481	3.0
802.11n(HT20) Mode						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	TX Power (mW)	Distance (mm)	Calculation Value	Threshold Value
2.412	8.71	0	7.430	5	2.308	3.0
2.437	8.76	0	7.516	5	2.347	3.0
2.462	8.75	0	7.499	5	2.353	3.0
Bluetooth Mode (GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	TX Power (mW)	Distance (mm)	Calculation Value	Threshold Value
2.402	-1.64	0	0.685	5	0.213	3.0
2.441	-2.00	0	0.631	5	0.197	3.0
2.480	-4.21	0	0.379	5	0.120	3.0
Bluetooth Mode (8-DPSK)						
Frequency (GHz)	Conducted Power (dBm)	Ant Gain (dBi)	TX Power (mW)	Distance (mm)	Calculation Value	Threshold Value
2.402	0.12	0	1.028	5	0.324	3.0
2.441	-0.81	0	0.830	5	0.261	3.0
2.480	-2.45	0	0.569	5	0.179	3.0

So standalone SAR measurements are not required.

Remark: WiFi and Bluetooth can't transmit at the same time.