

FCC RF Exposure

EUT Description: MM712 Pro
 Model No.: MM-712-KKOH2
 FCC ID: **2AR8X-MM-712-KKOH2**

1. Limits

According to KDB 447498 D01 General RF Exposure Guidance v06 The 1 - g and 10 - g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max power of channel, including tune - up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 for 1 - g SAR and ≤ 7.5 for 10 - g extremity SAR,

Where:

$$\text{Result} = P/D \cdot \sqrt{F}$$

F= the RF channel transmit frequency in GHz

P=Maximum turn - up power in mw

D=Min. test separation distance in mm

2. Test Result of RF Exposure Evaluation

BLE:

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separation distance mm	Result	Limit (mW/cm ²)	SAR Test Exclusion
2402	-5.42	-6 ± 1	-5/0.316	5	0.098	3.0	Pass

Note:

PK Output power= conducted power.

Conducted power see the test report **HK2307213170-1E**, antenna gain= -0.36dBi

EDR:

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separation distance mm	Result	Limit (mW/cm ²)	SAR Test Exclusion
2441	2.21	2 ± 1	3/1.995	5	0.623	3.0	Pass

Note:

PK Output power= conducted power.

Conducted power see the test report **HK2307213170-2E**, antenna gain= -0.36dBi

2.4G:

$$\text{EIRP (dBm)} = 100.86(\text{dBuV/m}) - 95.2 = 5.66(\text{dBm})$$

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separation distance mm	Result	Limit (mW/cm ²)	SAR Test Exclusion
2480	5.66	5 ± 1	6/3.981	5	1.254	3.0	Pass

Note:

PK Output power= conducted power.

Conducted power see the test report **HK2307213170-3E**, antenna gain= -0.36dBi

Per KDB 447498 D01, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine RF Exposure test exclusion. The test exclusion threshold is 1.254 which is ≤ 3, RF Exposure testing is not required.

Note: Exclusion Thresholds Results = $\left[\frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot [\sqrt{f(\text{GHz})}]$

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Distance=5mm