

FCC RF Exposure

EUT Description: MK770

Model No.: MK-770-MCKR1-US

FCC ID: 2AR8X-MK770MCKR1US

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:

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

Where:

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

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 separati on distance mm	Result	Limit (mW/cm ²)	SAR Test Exclusion
2402	4.94	4 ± 1	5/3.162	5	0.980	3.0	Pass

Note:

PK Output power= conducted power.

Conducted power see the test report **HK2306192570-1E**, antenna gain= 1.82dBi

EDR:

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separati on distance mm	Result	Limit (mW/cm ²)	SAR Test Exclusion
2402	2.24	2 ± 1	3/1.995	5	0.618	3.0	Pass

Note:

PK Output power= conducted power.

Conducted power see the test report **HK2306192570-2E**, antenna gain= 1.82dBi

2.4G:

$$\text{EIRP (dBm)} = 101.33(\text{dBuV/m}) - 95.2 = 6.13(\text{dBm})$$

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
2477	6.13	6 ± 1	7/5.012	5	1.578	3.0	Pass
Note: PK Output power= conducted power. Conducted power see the test report HK2306192570-3E , antenna gain= 1.82dBi							

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 1.578 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