

FCC RF Exposure

EUT Description: radio-controlled car
 Model No.: MT1587
 FCC ID: OQJRD129

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:

$$\left[\frac{\text{max power of channel, including tune - up tolerance, mW}}{\text{(min. test separation distance, mm)}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0$$
 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

$$\text{EIRP(dBm)} = 99.87(\text{dBuV/m}) - 95.2 = 4.67 \text{ (dBm)}$$

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
2440	4.67	4 ± 1	5/3.162	5	0.988	3.0	Pass
Note: PK Output power= conducted power. Conducted power see the test report HK2506263460-E , antenna gain= 1.02dBi							

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 0.988 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