

FCC RF Exposure

EUT Description: Bluetooth earphones

Model No.: TW60, I17, I23, I28, A3pro, A30pro, i30pro, TW11, TW12, TW13, TW14, TW15, TW16, TW17, TW18, TW19, TW70, TW80, TW90, J1, J2, J3, B10, B20, B30, B40, B60, B80, J60, J90, A90

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

2.4G

	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separation distance mm	Result	Limit	SAR Test Exclusion
EDR	-5.193	-6 ± 1	-5/ 0.32	5	0.10079	3.0	Pass
Note: PK Output power= conducted power. Conducted power see the test report HK2011093332-E , antenna gain=2.71dBi							

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 0.10079 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(GHz) is the RF channel transmit frequency in GHz

Distance=5mm