

RF EXPOSURE ANALYSIS

Product	FCC ID
WT41-A Bluetooth Module	QOQWT41

Analysis for FCC, portable use

Standalone SAR test exclusion considerations are defined in the KDB 447498 Chapter 4.3.1. 1-g head or body SAR exclusion threshold is defined with formula

$$[(\text{max. power of channel, including tun-up tolerance, mW}) / (\text{min. separation distance, mm.})] * (\sqrt{f(\text{GHz})}) \leq 3$$

For WT41 the rated TX power is 41 mW and maximum TX frequency is 2.48 GHz. Using separation distance of 22 mm with the formula above results

$$\left(\frac{41\text{mW}}{22\text{mm}} \right) * \sqrt{2.48} = 2.93 < 3$$

Thus for portable use the SAR exclusion condition is fulfilled and SAR evaluation is not required for separation distance of 22 mm or more.

Analysis for FCC, mobile use

$$S = \frac{E.I.R.P}{4\pi R^2} = \frac{69\text{mW}}{4\pi * (20\text{cm})^2} = 0.008\text{mW} / \text{cm}^2$$

E.I.R.P (mW)	Evaluation distance R (cm)	Power density S at prediction frequency (mW/cm ²)	MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	Verdict
69	20	0.008	1	PASS



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