



## RF EXPOSURE ANALYSIS

<u>Product</u>	<u>FCC ID</u>
WT41u Bluetooth Module	QOQWT41U

### 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 WT41U the maximum TX power including tolerances is 80 mW and maximum TX frequency is 2.48 GHz. Using separation distance of 42 mm with the formula above results

$$\left( \frac{80\text{mW}}{42\text{mm}} \right) * \sqrt{2.48} = 2.9997 < 3$$

Thus WT41U meets the SAR exclusion criteria with 42 mm separation and SAR evaluation is not needed if the minimum separation distance to human body is more than 42mm.

### Analysis for FCC, mobile use

$$S = \frac{E.I.R.P}{4\pi R^2} = \frac{135\text{mW}}{4\pi * (20\text{cm})^2} = 0.026857\text{mW} / \text{cm}^2$$

E.I.R.P (mW)	Evaluation distance R (cm)	Power density S at prediction frequency (mW/cm <sup>2</sup> )	MPE limit for uncontrolled exposure at prediction frequency (mW/cm <sup>2</sup> )	Verdict
135	20	0.026857	1	PASS