

RF EXPOSURE ANALYSIS

| <u>Product</u> | <u>FCC ID</u> | <u>IC Number</u> |
|------------------------|---------------|------------------|
| WT32i Bluetooth Module | QOQWT32I | 5123A-BGTWT32I |

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 WT32i the maximum TX power including tolerances is 8 mW and maximum TX frequency is 2.48 GHz. Using separation distance of 5 mm with the formula above results

$$\left(\frac{8\text{mW}}{5\text{mm}} \right) * \sqrt{2.48} = 2.52 < 3$$

As described in KDB447489, if the test separation distance is less than 5 mm then distance of 5 mm is used to determine the SAR test exclusion. Thus for portable use the SAR exclusion condition is fulfilled and SAR evaluation is not required for WT32i with 0 mm separation distance.

Analysis for FCC, mobile use

$$S = \frac{E.I.R.P}{4\pi R^2} = \frac{8\text{mW}}{4\pi * (20\text{cm})^2} = 0.0015\text{mW} / \text{cm}^2$$

| 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 |
|--------------|----------------------------|---|---|---------|
| 8 | 20 | 0.0015 | 1 | PASS |



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