

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Bluetooth 5.0 USB Adapter
Model Name	BT501
Series Model	BT502, BT503
FCC ID	O79-BT501

2. EVALUATION METHOD

According to 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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Where $f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation.

3. CALCULATION

BR/EDR:

$P_t = 6.123 \text{ dBm} = 4.10 \text{ mW}$

The value of the Maximum output power P_t is referred to the test report of the CFR47 §15.247.

The result for RF exposure evaluation $\text{SAR} = (4.10 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.480 \text{ GHz}}] = 1.29 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

BLE:

$P_t = 2.903 \text{ dBm} = 1.95 \text{ mW}$

The value of the Maximum output power P_t is referred to the test report of the CFR47 §15.247.

The result for RF exposure evaluation $\text{SAR} = (1.95 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.480 \text{ GHz}}] = 0.61 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

4. CONCLUSION

The SAR evaluation is not required.