

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Heart rate monitor
Model Name	HRM819, HRM819S, HRM819E
FCC ID	2ACN7HRM819

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 ≤ 5 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

BLE: 1M

$$P_t = -1.309 \text{ dBm} = 0.74 \text{ mW}$$

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 $\text{SAR} = (0.74 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.402(\text{GHz})}] = 0.23 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

BLE: 2M

$$P_t = -4.755 \text{ dBm} = 0.33 \text{ mW}$$

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 $\text{SAR} = (0.33 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.402(\text{GHz})}] = 0.10 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

2.4G:

$$P_t = -0.760 \text{ dBm} = 0.84 \text{ mW}$$

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 $SAR = (0.84 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.457} (\text{GHz})] = 0.26 < 3.0$
for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Note:

1. The 2.4GHz and BT(BLE) can not transmit simultaneously:

4. CONCLUSION

The SAR evaluation is not required.