

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Boxing Punch tracker
Model Name	BX100, BX200
FCC ID	2ACN7BX100

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

FCC 2.4G:

$$P_t = 0.144 \text{ dBm} = 1.03 \text{ mW}$$

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 $\text{SAR} = (1.03 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.457(\text{GHz})}] = 0.32 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

BLE GFSK 1Mbps:

$$P_t = 0.113 \text{ dBm} = 1.03 \text{ mW}$$

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 $\text{SAR} = (1.03 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.402 \text{ GHz}}] = 0.32 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

BLE GFSK 2Mbps:

$$P_t=0.237\text{dBm}=1.06\text{mW}$$

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 $\text{SAR}=(1.06\text{mW}/5\text{mm}) \cdot [\sqrt{2.480\text{GHz}}]= 0.33<3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

4. CONCLUSION

The SAR evaluation is not required.