

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Bluetooth headphones
Model Name	NB-1092
Series Model	SSX23P106, NB-1100F, NB-1100, NB-1100FS, NB-1100BF, NB-1300B, NB-1300BF, NB-1300, NB-1050, NB-1060, NB-1069, NB-1090, NB-1090P, NB-1070, NB-1070S, NB-1094, NB-1093, NB-1700, NB-1600, NB-2030, NB-1093, NB-1095, NB-1096, NB-1097, NB-1050, NB-2040
FCC ID	2ALHZNB-1092

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:

$P_t = 0.601 \text{ dBm} = 1.15 \text{ mW}$

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 $\text{SAR} = (1.15 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.480 \text{ GHz}}] = 0.361 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

BLE GFSK 1Mbps:

$P_t = -2.104 \text{ dBm} = 0.62 \text{ mW}$

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 $\text{SAR} = (0.62 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.480 \text{ GHz}}] = 0.195 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

BLE GFSK 2Mbps:

$P_t = -2.206 \text{ dBm} = 0.60 \text{ mW}$

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 $\text{SAR} = (0.60 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.480 \text{ GHz}}] = 0.188 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

4. CONCLUSION

The SAR evaluation is not required.