

FCC RF Exposure

EUT Description: In Ear Monitor System

Model No.: ER-202,ER-2040,ER-280,ER-102,IEM-220,IEM-240,IEM-140,IEM-2080,DV-02,CM-02

FCC ID:2A2NH-ER-202

Equipment type: Portable Device

1. Test Procedure

According to KDB 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:

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

where

f(GHz) is the RF channel transmit frequency in GHz

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

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation

distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

2. Test Result of RF Exposure Evaluation

ANT 1	
CH/Frequency	Output power (dBm/ mW)
Channel 04 554.85MHz	5.55/3.589
Channel 08 579.85MHz	5.49/3.540

[554.85MHz, 5.55dBm/3.589mW) output power]

$(3.589\text{mW} / 5\text{mm}) \cdot [\sqrt{0.54485(\text{GHz})}] = 0.530 < 3.0$ for 1-g SAR

Conclusion: No SAR is required

[579.85MHz, 5.49dBm/3.540mW) output power]

$(3.540\text{mW} / 5\text{mm}) \cdot [\sqrt{0.57985(\text{GHz})}] = 0.539 < 3.0$ for 1-g SAR

Conclusion: No SAR is required

ANT 2	
CH/Frequency	Output power (dBm/ mW)
Channel 04 554.85MHz	5.17/3.289
Channel 08 579.85MHz	5.12/3.251

[554.85MHz, 5.17dBm/3.289mW) output power]

$(3.289\text{mW} / 5\text{mm}) * [\sqrt{0.54485(\text{GHz})}] = 0.486 < 3.0$ for 1-g SAR

Conclusion: No SAR is required

[579.85MHz, 5.12dBm/3.251mW) output power]

$(3.251\text{mW} / 5\text{mm}) * [\sqrt{0.57985(\text{GHz})}] = 0.495 < 3.0$ for 1-g SAR

Conclusion: No SAR is required