

FCC RF Exposure

EUT Description: A140 Wireless microphone

Model No.: A140,S400,A400

FCC ID: 2A3RC-A140

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 \leq 50 mm are determined by:

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

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

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is \leq 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

Microphone	
CH/Frequency	Output power (dBm/ mW)
Channel List for Band A Channel 04 (538.70)	6.56/4.5290

Turn-up power	
Mode	Peak power range(dBm)
wireless microphone	6.00-8.00

[538.70MHz, 8dBm/6.31mW) output power]

$(6.31\text{mW} / 5\text{mm}) * [\sqrt{0.583.70(\text{GHz})}] = 0.9262 < 3.0 \text{ for 1-g SAR}$

Conclusion: No SAR is required

Microphone	
CH/Frequency	Output power (dBm/ mW)
Channel List for Band B Channel 04 (593.20)	6.67/4.645

Turn-up power	
Mode	Peak power range(dBm)
wireless microphone	6.00-8.00

[593.20MHz, 8dBm/6.31mW) output power]
 $(6.31\text{mW} / 5\text{mm}) * [\sqrt{0.593.20(\text{GHz})}] = 0.9719 < 3.0$ for 1-g SAR
 Conclusion: No SAR is required