



Sony Global Manufacturing & Operations Corporation EMC/RF Test Laboratory, Main Lab.  
Kisarazu Site 8-4 Shiomi Kisarazu-shi, Chiba, 292-0834 Japan

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Date: May 21, 2021

FCC ID : AK8YY2951  
Applicant: Sony Corporation

## SAR Evaluation Exemption

To whom it may concern,

We, Sony Global Manufacturing & Operations Corporation EMC/RF Test Laboratory, Main Lab., hereby declare that Wireless Noise Canceling Stereo Headset, model: YY2951 (FCC ID: AK8YY2951) of Sony Corporation is exempt from RF exposure SAR evaluation, as its output power meets the exclusion limits, stated in FCC Part 2 §2.1093.

According to KDB 447498 D01 (v06), section 4.3.1:

... These test exclusion conditions are based on source-based time-averaged (i.e. frame averaged) maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.  
... 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 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

For above device,

Regarding **Bluetooth BR/EDR**:

$f = 2.48$  GHz, distance = 5mm (the min. separation distance is  $< 5$  mm),  
the max. possible duty cycle = 83.3 % = -0.79 dB,  
(\* xDH5: 83.3% = (On time; 625  $\mu$ s \* 5 slots) / (On time + Off time; 625  $\mu$ s \* 6 slots) )  
the max. possible burst averaged power incl. tune-up tolerance = 3.96 dBm, and  
the max. possible frame averaged power incl. tune-up tolerance = 3.96 + (-0.79) = 3.17 dBm  $\approx 2$  mW.

Therefore,

$$2\text{mW} / 5 \text{ mm} * (\sqrt{2.48 \text{ GHz}}) = 0.6 < 3.0$$

and no SAR evaluation is required.

Regarding **Bluetooth Low Energy**:

$f = 2.48$  GHz, distance = 5mm (the min. separation distance is  $< 5$  mm),  
the max. possible duty cycle = 100 % = 0.00 dB,  
the max. possible burst averaged power incl. tune-up tolerance = 3.96 dBm, and  
the max. possible frame averaged power incl. tune-up tolerance = 3.96 + (0.0) = 3.96 dBm  $\approx 3$  mW.

Therefore,

$$3 \text{ mW} / 5 \text{ mm} * (\sqrt{2.48 \text{ GHz}}) = 0.9 < 3.0$$

and no SAR evaluation is required.

# SONY

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Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, reading "T. Yamada". The signature is written in a cursive, flowing style. The first part of the signature, "T.", is written above a horizontal line, and the last name "Yamada" is written below it.

Takashi Yamada

Technical Manager

EMC/ RF Test Laboratory Main Lab.

Design Technology Division

Sony Global Manufacturing & Operations Corporation