



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

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Date: February 7, 2022

FCC ID : AK8YY2959  
Applicant: Sony Group 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 Gaming Headset, model: YY2959 (FCC ID: AK8YY2959) 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:*  
*$$\left[ \frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \cdot \sqrt{f(\text{GHz})} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$*

- $f(\text{GHz})$  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 max. possible duty cycle = 77.0 % = -1.14 dB,  
(\* xDH5: The maximum duty cycle of 77.0 % is declared by the client.)  
the max. possible burst averaged power incl. tune-up tolerance = 7.00 dBm, and  
the max. possible frame averaged power incl. tune-up tolerance = 7.00 + (-1.14) = 5.86 dBm  
= 3.85 mW  $\approx$  4 mW.

Therefore,

$$4 \text{ mW} / 5 \text{ mm} * (\sqrt{2.48 \text{ GHz}}) = 1.3 < 3.0$$

and no SAR evaluation is required.

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Regarding **Bluetooth Low Energy**;

$f = 2.48 \text{ GHz}$ , distance = 5mm,

the max. possible duty cycle = 100 % = 0.00 dB,

the max. possible burst averaged power incl. tune-up tolerance = 6.00 dBm, and

the max. possible frame averaged power incl. tune-up tolerance =  $6.00 + (0.00) = 6.00 \text{ dBm}$   
= 3.98 mW  $\approx 4 \text{ mW}$ .

Therefore,

$$4 \text{ mW} / 5 \text{ mm} * (\sqrt{2.48 \text{ GHz}}) = 1.3 < 3.0$$

and no SAR evaluation is required.

Regarding **simultaneous transmission of Bluetooth BR/EDR and Bluetooth Low Energy**;

the max. possible frame averaged power incl. tune-up tolerance =  $3.85 \text{ mW} + 3.98 \text{ mW}$   
= 7.83 mW  $\approx 8 \text{ mW}$

Therefore,

$$8 \text{ mW} / 5 \text{ mm} * (\sqrt{2.48 \text{ GHz}}) = 2.5 < 3.0$$

and no SAR evaluation is required.

Thank you for your attention to this matter.

Sincerely,



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Takashi Yamada

Technical Manager

EMC/ RF Test Laboratory Main Lab.

Design Technology Division

Sony Global Manufacturing & Operations Corporation