

Date: May 29, 2018

FCC ID : AK8WH1000XM3

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, models: WH-1000XM3 (FCC ID: AK8WH1000XM3) of Sony Corporation are exempt from RF exposure SAR evaluation, as their output power meet 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:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 for 1-g SAR and  $\leq 7.5$  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
- 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 Maximum Average Conducted Output Power (burst averaged) = -0.04 dBm  $\approx 1$  mW.

Therefore,

$$1 \text{ mW} / 5 \text{ mm} * (\sqrt{2.48 \text{ GHz}}) = 0.3 < 3.0$$

and no SAR evaluation is required.

Regarding **Bluetooth Low Energy**;

$f = 2.48$  GHz, distance = 5mm (the min. separation distance is  $< 5$  mm),

the Maximum Average Conducted Output Power (burst averaged) = -0.29 dBm  $\approx 1$  mW.

Therefore,

$$1 \text{ mW} / 5 \text{ mm} * (\sqrt{2.48 \text{ GHz}}) = 0.3 < 3.0$$

and no SAR evaluation is required.

# SONY

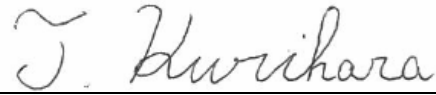
Sony Global Manufacturing & Operations Corporation EMC/RF Test Laboratory, Main Lab.

Kisarazu Site 8-4 Shiomi Kisarazu-shi, Chiba, 292-0834 Japan

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Thank you for your attention to this matter.

Sincerely,

A handwritten signature in cursive script, reading "T. Kurihara". The signature is written in black ink on a white background. The first letter "T" is large and stylized, followed by a period and the name "Kurihara".

Teruki Kurihara

Technical Manager

EMC/ RF Test Laboratory Main Lab.

Design Technology Division

Sony Global Manufacturing & Operations Corporation