RF Exposure Report

Report No.:	SA170905C20
FCC ID:	A6REPHW53A
Test Model:	EPH-W53
Received Date:	Sep. 05, 2017
Test Date:	Sep. 07 ~ Sep. 15, 2017
Issued Date:	Sep. 27, 2017
Applicant:	Yamaha Corporation
Address:	10-1 Nakazawa-cho,Naka-ku Hamamatsu, Shizuoka 430-8650,Japan
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

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Release Control Record

Issue No.	Description	Date Issued
SA170905C20	Original release	Sep. 27, 2017

1 Certificate of Conformity

Product:	Bluetooth Earphones
Brand:	YAMAHA
Test Model:	EPH-W53
Sample Status:	Engineering sample
Applicant:	Yamaha Corporation
Test Date:	Sep. 07 ~ Sep. 15, 2017
Standards:	FCC Part 2 (Section 2.1093) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Sep. 27, 2017

Pettie Chen / Senior Specialist

Approved by : _____ , **Date:** Sep. 27, 2017

Ken Liu / Senior Manager

2 Evaluation Result

Following FCC KDB 447498 D01 “General SAR test exclusion guidance”

The corresponding SAR Exclusion Threshold condition, listed below:

1) 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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] ·[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,16 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 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:

a) [Threshold at 50 mm in step 1) + (test separation distance - 50mm)·(f(MHz)/150)] mW, at 100MHz to 1500 MHz

b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz

3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.

a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by [1 + log(100/f(MHz))] for test separation distances > 50 mm and < 200 mm.

b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by ½ for test separation distances ≤ 50 mm.

c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

3 SAR Test Exclusion Thresholds

Maximum measured transmitter power:

Mode	Max. Power (mW)	Min. test separation distance (mm)	SAR test exclusion calculation value(NOTE 2)	1-g SAR test exclusion thresholds	Result
BT EDR	5.470	5	1.695	3	Pass

Note: 1. The antenna type is Chip antenna with 0.85dBi gain.
2. Calculate SAR test exclusion thresholds from condition “1” formulas.

4 Conclusion

Since Source-base time average power is below SAR test exclusion power thresholds, the SAR evaluation is not required.

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