SAR Exclusion Report

FCC Rule Part	:	**CFR §2.1093**
Standards	:	**IEEE Std 1528:2013, KDB 865664 D01 v01r04, KDB 865664 D02 v01r02, KDB 447498 D04 Interim General RF Exposure Guidance v01**
Report No.	:	**SFCICG-WTW-P24080537**
Applicant	:	**HP Inc.**
Address	:	**3390 East Harmony Road, Fort Collins, Colorado United States 80528**
Product Name	:	**Wireless Headset**
Brand Name	:	**HYPERX**
FCC ID	:	**B94-HXHS243**
Model No.	:	**HXHS243**
Sample Received Date	:	**Aug. 21, 2024**
Date of Evaluation	:	**Sep. 30, 2024**
Lab Address	:	**No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan**
Test Location	:	**No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City, Taiwan**
FCC Accredited No.	:	**TW0003**

CERTIFICATION: The above equipment have been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch – Lin Kou Laboratories**, 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 SAR characteristics under the conditions specified in this report. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by TAF or any government agencies.

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Approved By : Gordon Lin / Manager

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Release Control Record

Issue No.	Reason for Change	Date Issued
SFCICG-WTW-P24080537	Initial release	Oct. 29, 2024

1. Test Reference Guidance

FCC Rule Part	:	**CFR §2.1093**
Measurement procedure	:	**IEEE Std 1528:2013, KDB 865664 D01 v01r04, KDB 865664 D02 v01r02, KDB 447498 D04 Interim General RF Exposure Guidance v01**

2. Summary of Maximum SAR Value

Equipment Class	Mode	Highest Reported SAR_{1g} (W/kg)
DTS	Bluetooth/SRD	Not Required

Note:

1. The SAR limit **(Head & Body: SAR_{1g} 1.6 W/kg)** for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.

Test Reference Guidance: FCC-19-126

3. Description of Equipment Under Test

EUT Type	Wireless Headset
Brand Name	HYPERX
FCC ID	B94-HXHS243
Model Name	HXHS243
Tx Frequency Bands (Unit: MHz)	Bluetooth/SRD : 2402 ~ 2480
Uplink Modulations	Bluetooth : GFSK, π/4-DQPSK, 8-DPSK BT SRD : GFSK, π/4-DQPSK
Antenna Type	PIFA Antenna (Peak Antenna Gain: 3.66 dBi)
EUT Stage	Engineering Sample

4. SAR Measurement Evaluation

4.1 Maximum Output Power

The maximum conducted power (Unit: dBm) including tune-up tolerance is shown as below.

Bluetooth			
Mode	**Channel**	**Frequency (MHz)**	**Ant 0 Max. Tune-up**
BT-GFSK	0	2402	6.0
	39	2441	6.0
	78	2480	6.0
BT-8DPSK	0	2402	6.0
	39	2441	6.0
	78	2480	6.0

SRD			
Mode	**Channel**	**Frequency (MHz)**	**Ant 0 Max. Tune-up**
GFSK	0	2402	6.0
	39	2441	6.0
	78	2480	6.0
DQPSK	0	2402	6.0
	39	2441	6.0
	78	2480	6.0

4.2 SAR Testing Exclusions

According to KDB 447498 D04 Interim General RF Exposure Guidance v01, the SAR test exclusion condition is based on source-based time-averaged maximum conducted output power, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following formula.

1. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequency from 0.3 GHz to 6 GHz (inclusive).

$$P_{th}\ (\text{mW}) = \begin{cases} ERP_{20\ cm}(d/20\ \text{cm})^{x} & d \le 20\ \text{cm} \\ ERP_{20\ cm} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ cm}\sqrt{f}}\right) \text{ and f is in GHz;}$$

and

$$ERP_{20\ cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

d = the separation distance (cm);

<SAR Exemption Analysis>

Mode	Higher of Max. Power or ERP			Min. Distance to human Head		
	Frequency (MHz)	Tune up (dBm)	Tune up (mW)	Distance (mm)	Exclusion (mW)	Result
BT & SRD	2480	7.51	5.64	14.5	20.65	No

Note:

1. When the device output power is less than the power threshold shown in above table, the SAR testing exclusion is applied.
2. Units for d are cm and units for f are GHz.

Summary:

Since the SAR testing for all device orientations apply SAR test exclusion per KDB 447498, SAR testing for this device is not required.

5. Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The road map of all our labs can be found in our web site also.

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