

## RF Exposure Report

**Report No.:** MFBHWX-WTW-P23120571 R1

**FCC ID:** A94442591

**Model No.:** 442591

**Received Date:** 2023/12/22

**Test Date:** 2024/1/23 ~ 2024/4/14

**Issued Date:** 2024/4/26

**Applicant:** Bose Corporation

**Address:** The Mountain, Framingham, MA 01701 USA

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Lin Kou Laboratories

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**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City  
33383, Taiwan

**FCC Registration /  
Designation Number:** 788550 / TW0003



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### Release Control Record

Issue No.	Description	Date Issued
MFBHWX-WTW-P23120571	Original release	2024/3/15
MFBHWX-WTW-P23120571 R1	Reduced the power, therefore re-calculate MPE value	2024/4/26

## 1 Certificate of Conformity

**Product:** Bluetooth Speaker

**Brand:** Bose

**Test Model:** 442591

**Sample Status:** Engineering sample

**Applicant:** Bose Corporation

**Test Date:** 2024/1/23 ~ 2024/4/14

**FCC Rule Part:** FCC Part 2 (Section 2.1091)

**Standards:** KDB 447498 D01 General RF Exposure Guidance v06

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 RF characteristics under the conditions specified in this report.

**Prepared by :** Celine Chou , **Date:** 2024/4/26  
Celine Chou / Senior Specialist

**Approved by :** Jeremy Lin , **Date:** 2024/4/26  
Jeremy Lin / Project Engineer

## 2 RF Exposure

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  $\leq 50$  mm are determined by:  
[[max. power of channel, including tune-up tolerance, mW]/(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(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.
- 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)  $\cdot$  ( f(MHz)/150)] mW, at 100MHz to 1500 MHz
  - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)  $\cdot$  10] mW at  $> 1500$  MHz and  $\leq 6$  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  $[1 + \log(100/f(\text{MHz}))]$  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  $\frac{1}{2}$  for test separation distances  $\leq 50$  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:

Function	Frequency (GHz)	Max. Power (mW)	Min. test separation distance (mm)	SAR test exclusion calculation value <sup>(NOTE 2)</sup>	1-g SAR test exclusion thresholds	Result
BT LE	2.402 ~ 2.480	0.8222	5	0.259	3	Pass
BT EDR	2.402 ~ 2.480	4.831	5	1.522	3	Pass
HSL-C	2.404 ~ 2.478	4.416	5	1.391	3	Pass

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The antenna type is Inverted-F PCB antenna with 5.05dBi gain.
3. The max. power including tune-up tolerance.
4. Calculate SAR test exclusion thresholds from condition "1" formulas.

### 4 Conclusion

Source-base time average power is below Exemption Criteria and/or MPE thresholds, therefore the device is compliant FCC RF exposure requirement.

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