











SAR Exemption Evaluation Report

Product Name: Bluetooth Headset

Model No. : B8200

FCC ID : AL8-B8200

Applicant: Plantronics, Inc.

Address: 345 Encinal Street, Santa Cruz, CA95060 USA

Date of Receipt: Mar. 22th, 2017

Test Date : Mar. 22th, 2017~ May. 14th, 2017

Issued Date : Jun. 16th, 2017

Report No. : 1732089R-RF-US-P20V02

Report Version: V 1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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Co., Ltd.



Test Report Certification

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Bluetooth Headset **Product Name** Plantronics, Inc. **Applicant**

345 Encinal Street, Santa Cruz, CA95060 USA Address

Plantronics, Inc. Manufacturer

345 Encinal Street, Santa Cruz, CA95060 USA Address

B8200 Model No.

FCC ID AL8-B8200

EUT Voltage DC 3.7V

Test Voltage AC 120V/60Hz

Applicable Standard KDB 447498D01V06

FCC Part1.1310

Test Result Complied

DEKRA Testing & Certification (Suzhou) Co., Ltd. Performed Location

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1. RF Exposure Evaluation

1.1. Limits

According to KDB 447498 D01 General RF Exposure Guidance v06

4.3.1 Standalone SAR test exclusion considerations

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)] $\cdot [\sqrt{f(GHz)}]$ ≤ 3.0 for 1-g SAR and ≤ 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
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

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 \leq 5 mm, a distance of 5 mm according to 5) in section 4.1 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, and as illustrated in Appendix B:
- a) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance 50 mm)·(f(MHz)/150)] mW, at 100 MHz to 1500 MHz
- b) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance 50 mm)·10] mW at > 1500 MHz and \leq 6 GHz
- 3) The 1-g and 10-g SAR test exclusion thresholds for below 100 MHz at test separation distances ≤ 50 mm are determined by:
- a) The power 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 power 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. Note: when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.



1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18° C and 78° MH.

1.3. Test Result of RF Exposure Evaluation

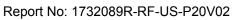
Product Name	:	Bluetooth Headset				
Test Item	:	RF Exposure Evaluation				
Test Site	:	AC-6				

Antenna Gain:

Model No.	N/A							
Antenna manufacturer	N/A							
Antenna Delivery	\boxtimes	☐ 1*TX+1*RX ☐ 2*TX+2*RX ☐ 3*TX+3*RX						
Antenna technology	⊠ siso							
				Basic				
		MIMO		CDD				
				Beam-forming				
Antenna Type		External		Dipole				
	\boxtimes	Internal		PIFA				
			\boxtimes	РСВ				
				Ceramic Chip Antenna				
				Metal plate type F antenna				
Antenna Gain	2.3dBi							

Based on The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm and the formula below:

Estimated SAR=
$$\sqrt{f(GHz)} * \frac{\text{(Max Power of channel, mW)}}{\text{Min. Separation Distance, mm}}$$



Conclusion: 2402MHz-2480MHz SAR was not required.



Band Exposure Condition	Eynosure	Pmax	Pmax	Distance		calculation	Stand-alone Test	
	(dBm)	(mw)	(mm)	f(GHz)	result	exclusion threshold	SAR Test	
ВТ	head	8.56	7.178	5	2.480	2.261	3	No

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