

RF Exposure Report

Report No.: SA160926C31

FCC ID: DMORRFLEX

Test Model: RR Flex

Received Date: Sep. 26, 2016

Test Date: Sep. 26 ~ Oct. 05, 2016

Issued Date: Oct. 13, 2016

Applicant: Sennheiser electronic GmbH & Co.KG

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Release Control Record

Issue No.	Description	Date Issued
SA160926C31	Original release	Oct. 13, 2016

1 Certificate of Conformity

Product: Digital wireless TV headphone System (Flex 5000)

Brand: SENNHEISER

Test Model: RR Flex

Sample Status: Engineering sample

Applicant: Sennheiser electronic GmbH & Co.KG

Test Date: Sep. 26 ~ Oct. 05, 2016

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06 (October 23, 2015)

IEEE C95.1

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.

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Approved by : Ken Liu , **Date:** Oct. 13, 2016
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:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$$

$$\leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

 - $f(\text{GHz})$ 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 ≤ 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 ≤ 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 ≤ 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 Smallest Distance from The Antenna and Radiating Structures or Outer Surface of The Device

The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander. (See below figure)



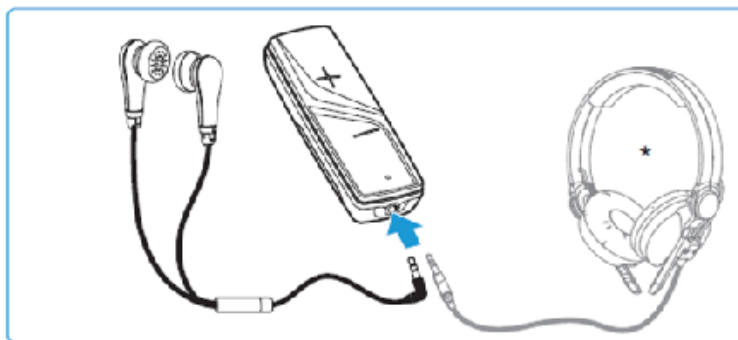
The distance 13.185mm shown from the antenna to the casing which is nearest to the body in the intended usage. However, one can use the product in un-intended way by always keeping the device on hand but it is normally unlikely.

RR Flex is intended to use with additional headphones as shown in the picture below. (page 14 of manual)

Connecting headphones

We recommend using closed headphones or earphones/ear canal phones to avoid echoes from e.g. the TV loudspeaker.

- Connect the 3.5 mm jack plug of the headphones (e.g. MX 475, supplied) to the jack socket of the receiver.



Additionally, see below how the receiver could be attached to the clothing (page 16 of manual):

Attaching the receiver to clothing

Depending on the connected headphones or induction loop, please observe the following attachment recommendations for your receiver:

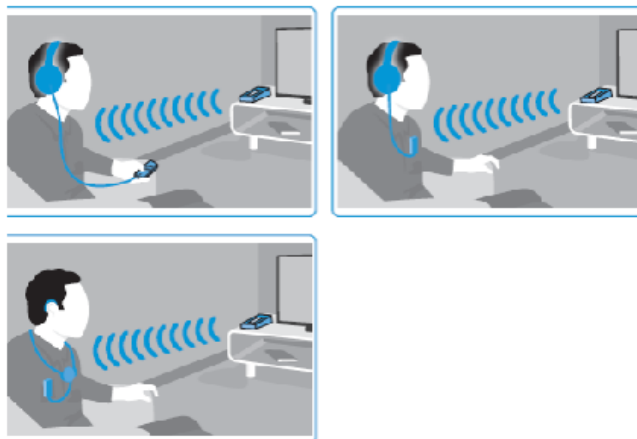
- Place the receiver next to you so that you can take it in your hand and operate it.
- Use the clip to attach the receiver to your clothing. Make sure that the headphone cable does not hinder your move-

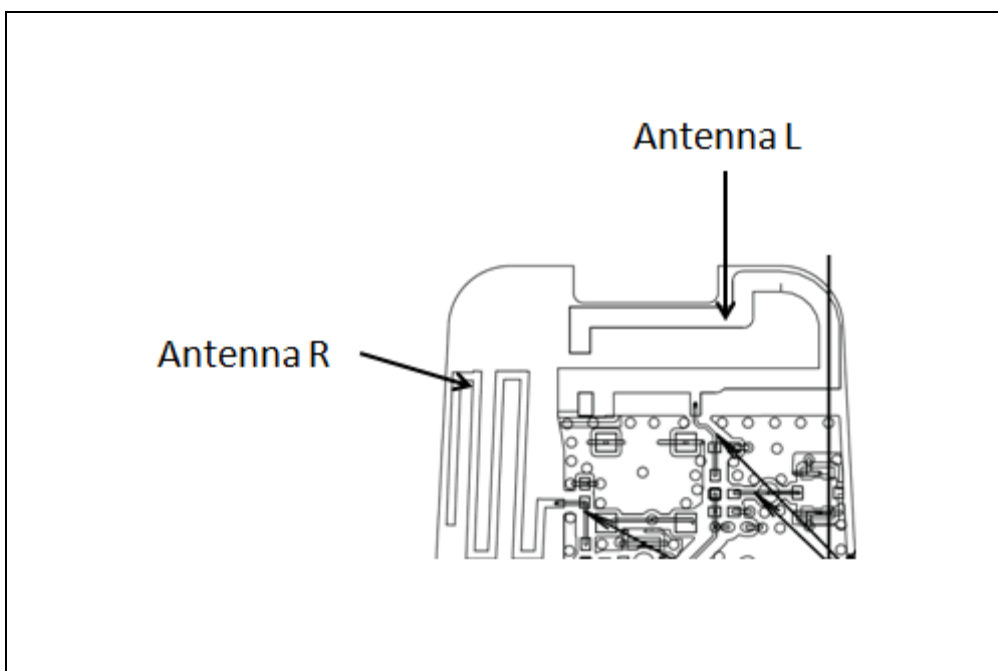
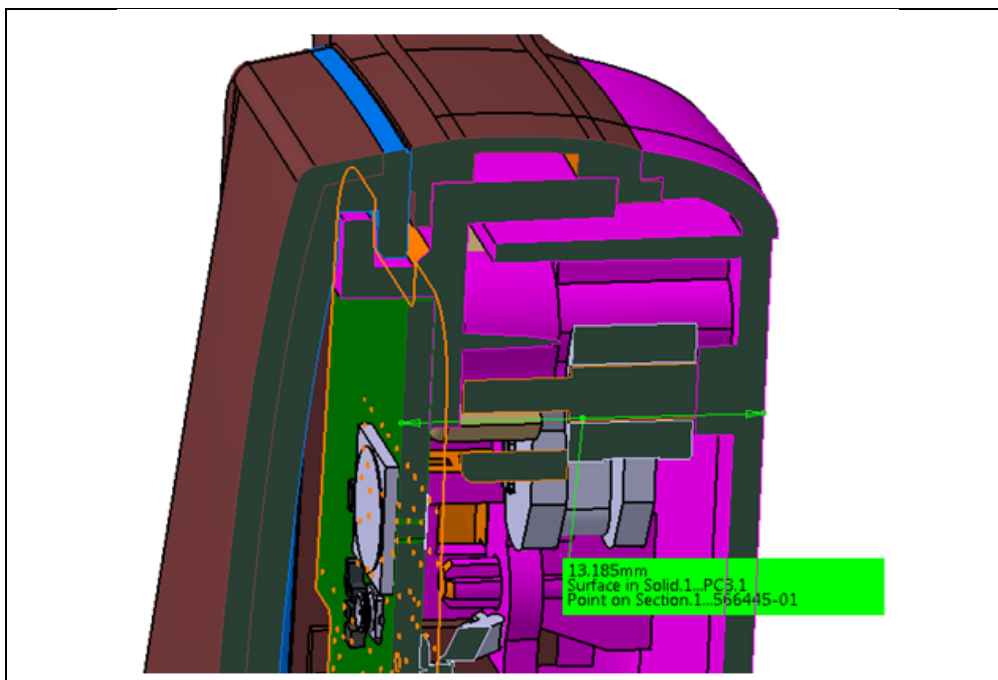
The RR Flex can be hand led by hand but it is only for temporary button pressing.

Also, take note of the instruction to keep the top portion (with volume buttons) face away from the body. With all these, it is unlikely the top or side of the device will be nearest to the body in the normal intended usage. (page 17 of manual)

ments and that there is a free line of sight between the receiver and the transmitter. The volume buttons face away from your body to facilitate ease of use.

Place the induction loop around your neck so that the receiver rests on your chest. The volume buttons face away from your body to facilitate ease of use.





4 SAR Test Exclusion Thresholds

Maximum measured transmitter power:

Max. Power (mW)	Min. test separation distance (mm)	SAR test exclusion calculation value ^(NOTE 2)	1-g-SAR test exclusion thresholds	Result
5.861	13.185	0.699	3	Pass

Note: 1. The antenna type is Dipole antenna with 4.04dBi gain.
 2. Calculate SAR test exclusion thresholds from condition "1" formulas.

5 Conclusion

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

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