

# **RF Exposure Report**

Report No.: MFBAYG-WTW-P22090618

FCC ID: 2A3ULTVC2TX

Model No.: TVC2-TX

Received Date: Sep. 19, 2022

Date of Evaluation: Dec. 28, 2022

**Issued Date:** Mar. 16, 2023

Applicant: Sonova Consumer Hearing GmbH

Address: Am Labor 1, 30900 Wedemark, Germany

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 /

788550 / TW0003

**Designation Number:** 





This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <a href="http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/">http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/</a> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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### **Release Control Record**

Issue No.	Description	Date Issued
MFBAYG-WTW-P22090618	Original Release	Mar. 16, 2023



#### 1 Certificate of Conformity

**Product:** TV Clear Transmitter 2

**Brand:** SENNHEISER

Model No.: TVC2-TX

Sample Status: Engineering Sample

Applicant: Sonova Consumer Hearing GmbH

Date of Evaluation: Dec. 28, 2022

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 : \_\_\_\_\_\_, Date: \_\_\_\_\_, Mar. 16, 2023

Approved by : \_\_\_\_\_\_\_, Date: \_\_\_\_\_\_\_, Mar. 16, 2023

Jeremy Lin / Project Engineer



# 2 Description of EUT

Product	TV Clear Transmitter 2			
Brand	SENNHEISER			
Model No.	TVC2-TX			
Status of EUT	Engineering Sample			
Power Supply Rating	5Vdc, 0.5A (USB port)			
Operating Temperature	0℃~45℃			
Modulation Type	GMSK			
Data Transfer Rate	2.6 Mbps			
Operating Frequency	2402 ~ 2480 MHz			
Number of Channel	40			
Channel Spacing	2MHz			
Channel Bandwidth	2MHz			
Transmission technology	proprietary 2.4GHz transmission protocol			
Maximum Output Power	11.722 mW			
Antenna Type	PIFA antenna with 3.38 dBi gain			
Antenna Connector	N/A			
Accessory Device	Refer to Note as below			
Data Cable Supplied	Refer to Note as below			

### Note:

1. The EUT contains following accessory devices.

Accessories information					
	Brand	Dong Guan An Huan Electronics			
USB Cable	Model	043-3093 USB-A to USB-C cable 1m flexible			
	Signal Line	1m			
	Brand	Mline			
Audio Cable	Model	057-0011 Toslink cable 100cm, 3.5mm, black			
	Signal Line	100cm			
	Brand	Lin Shiung Enterprise			
Audio Cable	Model	052-3205 Stereo cable 3.5mm / 1m			
	Signal Line	1m			

- 2. Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.
- 3. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or User's Manual.



### 3 RF Exposure

### 3.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	Average Time (minutes)				
	Limits For General Population / Uncontrolled Exposure							
0.3-1.34	614	1.63	(100)*	30				
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30				
30-300	27.5	0.073	0.2	30				
300-1500			f/1500	30				
1500-100,000			1.0	30				

f = Frequency in MHz; \*Plane-wave equivalent power density

#### 3.2 MPE Calculation Formula

 $Pd = (Pout*G) / (4*pi*r^2)$ 

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

pi = 3.1416

r = distance between observation point and center of the radiator in cm

#### 3.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.



# 3.4 Calculation Result of Maximum Conducted Power

Band	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm²)	Limit (mW/cm²)
FLORA	2402-2480	10.66	3.38	20	0.005	1.00

### Note:

1.	Determining compliance based on the results of the compliance measurement, not taking into account
	measurement instrumentation uncertainty.

END			