

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

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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**FCC Registration /
Designation Number:** 788550 / TW0003



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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 :

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Date: Mar. 16, 2023

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Approved by :

Jeremy Lin

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°C ~ 45°C
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		
USB Cable	Brand	Dong Guan An Huan Electronics
	Model	043-3093 USB-A to USB-C cable 1m flexible
	Signal Line	1m
Audio Cable	Brand	Mline
	Model	057-0011 Toslink cable 100cm, 3.5mm, black
	Signal Line	100cm
Audio Cable	Brand	Lin Shiung Enterprise
	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/cm ²)	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 ²)*	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

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 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/cm ²)	Limit (mW/cm ²)
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.

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