RF Exposure Evaluation

of

E.U.T. : WIRELESS RECEIVER
FCC ID. : DMOEMXSW1D
Model No. : EM-XSW1 DUAL, EM-XSW1,EM-XSW2
Working Frequency : 2433 MHz ~ 2473 MHz

for

APPLICANT : Sennheiser Electric Corp.
ADDRESS : 1 Enterprise Drive, Old Lyme, CT 06371, USA

Test Performed by

TAIWAN TESTING AND CERTIFICATION CENTER
NO. 34. LIN 5, DINGFU VIL., LINKOU DIST.,
NEW TAIPEI CITY, TAIWAN, 24442, R.O.C.
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Report Number : 22-12-RBF-006-06-MPE

TEST REPORT CERTIFICATION

Applicant	:	Sennheiser Electronic Corp 1 Enterprise Drive, Old Lyme, CT 06371, USA
Manufacturer	:	Sennheiser electronic GmbH & Co. KG Am Labor 1 30900 Wedemark, Germany
Factory	:	MASCOT ELECTRIC CO., LTD NO. 85, CHANGXING 1ST ST., RENDE DIST., TAINAN CITY 717, TAIWAN
Description of EUT	:	
a) Type of EUT	:	WIRELESS RECEIVER
b) Trade Name	:	SENNHEISER
c) Model No.	:	EM-XSW1 DUAL, EM-XSW1, EM-XSW2
d) FCC ID	:	DMOEMXSW1D
e) Working Frequency	:	2433 MHz ~ 2473 MHz
f) Power Supply	:	Model: SSC-5WVI-12 120050 (Type: NT12-5CW) I/P: AC100-240V, 50-60Hz,0.2A；O/P: 12Vdc, 500mA

Regulation Applied: FCC KDB447498 D01 V06. The equipment fulfills the requirements on power density for general population/uncontrolled exposure and therefore fulfills the requirements of section 1.1310 of FCC 47 CFR Part 1.

Note:
1. The result of the testing report relate only to the item tested.
2. The testing report shall not be reproduced expect in full, without the written approval of ETC

Issued Date : Jul. 03, 2023

Test Engineer : Brian Huang
(Brian Huang, Engineer)

Approve & Authorized : Kevin Lee

Kevin Lee, Section Manager
EMC Dept. II of TAIWAN
TESTING AND CERTIFICATION
CENTER

Product Information:

Type of EUT:	WIRELESS RECEIVER
FCC ID:	DMOEMXSW1D
Model:	EM-XSW1 DUAL, EM-XSW1, EM-XSW2

According to KDB 447498 D01 V06 section 4.3.1 a), the 1-g SAR test exclusion thresholds at test separation distance ≤ 50 mm are determined by:

When following the measured result (worst test case),

E field strength is 86.71 dBμV/m at 2472.80 MHz in a 3-m test distance.
The EIRP (P_d) is -8.55 dBm (0.14 mW)

$$E[dB\mu V/m]=EIRP[dBm]-20\log_{10}R[m]+104.8$$

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance,mm)] ·[√f(GHz)] ≤ 3.0

The max. power of channel, including tune-up tolerance (mW) is 0.14 mW @ 2472.80 MHz (With Tune-up tolerance),

The min. test separation distance (mm) is 5 mm,

Calculation Method:

$$P\sqrt{f(GHz)}/D$$

Where

P = Maximum turn-up power in mW
F = Channel frequency in GHz
D = Minimum test separation distance in mm

So, [(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] ·[√f(GHz)] = **0.044** < 3.0 (With Tune-up tolerance).

Therefore, standalone SAR measurements are not required for both head and body within the above statement of justification to qualify for SAR test exclusion.