

RF Exposure Evaluation

of

E.U.T. : XS WIRELESS
FCC ID. : DMOSKMXSXW
Model No. : SKM-XSXW
Working Frequency : 2433 MHz ~ 2473 MHz
Working Frequency : 548 MHz ~ 572 MHz

for

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

Test Performed by

TAIWAN TESTING AND CERTIFICATION CENTER

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Report Number : 22-12-RBF-009-02-MPE

1.Report Version History :

The following revisions have been made to ETC report No.
18-11-RBF-013-03-MPE

<u>Report No.</u>	<u>Date of issue</u>	<u>Description</u>
18-11-RBF-013-03-MPE	Dec.26, 2018	First Version.
22-12-RBF-009-02-MPE	Jul. 03, 2023	1. Reference Test Report Data from ETC Report No.: 18-11-RBF-013-03-MPE Class II Change Description: To change the PIN with the same VCO as following the KDB Publication 178919 D01 (C2PC) which describes general permissive change policies.

TEST REPORT CERTIFICATION

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

Manufacturer : MASCOT ELECTRIC CO., LTD
NO. 85, CHANGXING 1ST ST., RENDE DIST., TAINAN CITY
717, TAIWAN

Description of EUT :

a) Type of EUT : XS WIRELESS

b) Trade Name : SENNHEISER

c) Model No. : SKM-XSW

d) FCC ID : DMOSKMXSXW

e) Working Frequency : 2433 MHz ~ 2473 MHz
548 MHz ~ 572 MHz

f) Power Supply : DC 3V Battery

g) Antenna Gain : 1.26 dBi


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, Engineer)

Approve & Authorized : 
Kevin Lee, Section Manager
EMC Dept. II of TAIWAN
TESTING AND CERTIFICATION
CENTER



Product Information:

Type of EUT: XS WIRELESS
 FCC ID: DMOSKMXSW
 Model: SKM-XSW

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

9.91 dB μ V/m at 571.65 MHz in a 3-m test distance.

The EIRP (P_d) is -85.35 dBm (0.0029 nW)

89.96 dB μ V/m at 2452.00 MHz in a 3-m test distance.

The EIRP (P_d) is -5.30 dBm (0.30 mW)

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$

The max. power of channel, including tune-up tolerance (mW) is 0.0000000029 mW @ 571.65 MHz (With Tune-up tolerance),

The max. power of channel, including tune-up tolerance (mW) is 0.30 mW @ 2452.00 MHz (With Tune-up tolerance),

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

Calculation Method:

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

Where

P = Maximum turn-up power in mW

F = Channel frequency in GHz

D = Minimum test separation distance in mm

So, $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] = \mathbf{0.000000000439} < 3.0$ (With Tune-up tolerance). @ 571.65 MHz

So, $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] = \mathbf{0.09} < 3.0$ (With Tune-up tolerance). @ 2452.00 MHz

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