

TEST REPORT

Product Name : Water Leak Sensor
Model Number : SWS0B
FCC ID : 2AU4DDCX

Prepared for : X-Sense Innovations Co., Ltd.
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Date of issue : December 1, 2025

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1. TEST RESULT CERTIFICATION

Applicant : X-Sense Innovations Co., Ltd.
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Manufacturer : X-Sense Electronics Co., Ltd.
Address : Room 402, Building 4, No. 9, Jinshagang 1st Road, Shixia Village, Dalang Town, Dongguan City, 523750 Guangdong, P.R. CHINA
Factory : X-Sense Electronics Co., Ltd.
Address : Room 402, Building 4, No. 9, Jinshagang 1st Road, Shixia Village, Dalang Town, Dongguan City, 523750 Guangdong, P.R. CHINA
EUT : Water Leak Sensor
Model Name : SWS0B
Trademark : X-SENSE

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2020) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : November 11, 2025 to November 28, 2025

Prepared by :

Una Yu /Editor

Reviewer :

Joe Xia/Supervisor

Approve & Authorized Signer :

Lisa Wang/Manager

Modified History

Version	Report No.	Revision Date	Summary
	ENS2511120038W01502R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	Water Leak Sensor
Model Number:	SWS0B
Sample:	1#
Data Rate:	BLE: 1Mbps for GFSK modulation 2.4G WIFI: 802.11b 802.11g 802.11n(20MHz channel bandwidth)
Modulation:	BLE: GFSK 2.4G WIFI: DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;
Operating Frequency Range(s) :	2402-2480MHz for BLE; 2412-2462MHz for 2.4G WIFI
Number of Channels:	40 channels for BLE; 11 channels for 2.4G WIFI
Transmit Power Max:	14.52 dBm(0.028314 W) for WiFi 2.4G; 1.51 dBm(0.001416 W) for BLE
Antenna Gain:	2.08 dBi
Power supply:	DC 3V from Battery
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

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
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

Friis transmission 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 = Numeric gain of the antenna relative to isotropic antenna

π =3.1416

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

P_d the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

4. Measurement Result

gain:	2.08	FCC MPE						
Frequency (MHz)	Output Power(dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
802.11b	2402	14.52	16.6	16±1	17	0.016096	1	PASS
	2441	12.5	14.58	14±1	15	0.010156	1	PASS
	2480	12.65	14.73	14±1	15	0.010156	1	PASS
802.11g	2402	14.43	16.51	16±1	17	0.016096	1	PASS
	2441	12.88	14.96	14±1	15	0.010156	1	PASS
	2480	12.81	14.89	14±1	15	0.010156	1	PASS
802.11n(20M Hz channel bandwidth)	2402	14.08	16.16	16±1	17	0.016096	1	PASS
	2441	12.84	14.92	14±1	15	0.010156	1	PASS
	2480	11.72	13.8	13±1	14	0.008067	1	PASS

gain:	2.08	FCC MPE						
Frequency (MHz)	Output Power(dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Verdict
GFSK	2402	-0.57	1.51	1±1	2	0.000509	1	PASS
	2441	-1.99	0.09	0±1	1	0.000404	1	PASS
	2480	-2	0.08	0±1	1	0.000404	1	PASS

According to KDB 447498, no stand-alone required for BT antenna, and no simultaneous SAR measurement

*** End of Report ***