RF EXPOSURE
Test Report

Report No.	:	MTi260617020-0402E2
Date of issue	:	2026-09-17
Applicant	:	Changhong Research Labs Inc.
Product	:	Water Leak Detector
Model(s)	:	HWL-B103
FCC ID	:	2BXYIHWLB103

Shenzhen Microtest Co., Ltd.

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TEST REPORT

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Test Result Certification	
Applicant	Changhong Research Labs Inc.
Applicant Address	920 HILLVIEW COURT, SUITE 195, MILPITAS, CA 95035
Manufacturer	SICHUAN CHANGHONG NEONET TECHNOLOGIES CO., LTD
Manufacturer Address	Room 528, No. 2 Building, Innovation Center, New District of Science and Technology City, Mianyang
Factory	SICHUAN CHANGHONG NEONET TECHNOLOGIES CO., LTD
Factory Address	G05 Factory Premises, Changhong Intelligent Display Terminal Industrial Park, 38, Xinping Avenue,High-tech District, Mianyang 621000, P. R. China
Product description	
Product name	Water Leak Detector
Trademark	NeoNet
Model name	HWL-B103
Series Model(s)	N/A
Standards	47 CFR Part 2.1091
Test Method	KDB 447498 D01 v06
Testing Information	
Date of test	2026-09-11 to 2026-09-15
Test result	Pass

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Approved by:	Lewis Lian	Lewis Lian

1 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)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f^2	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			5	6
(B) 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
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

MPE Calculation Method

Friis transmission formula: Pd= (Pout*G)\ (4*pi*R^2)

Where

Pd= Power density in mW/cm^2

Pout=output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

Pi=3.1415926

R= distance between observation point and center of the radiator in cm(20cm)

Pd the limit of MPE, 1mW/cm^2. 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.

2 Measurement Result

Operation Frequency: 2405-2480MHz,
Power density limited: 1mW/ cm2

Antenna Type: PCB Antenna

Antenna gain: -0.21dBi
R=20cm
mW=10^(dBm/10)
Antenna gain Numeric=10^(dBi/10)= 10^(-0.21/10)=0.95

Channel Freq. (MHz)	modulation	conducted power	Tune-up power (dBm)	Max		Antenna		Evaluation result	Power density Limits
		(dBm)		tune-up power		Gain		(mW/cm^2)	(mW/cm^2)
				(dBm)	(mW)	(dBi)	Numeric		
2405	O-QPSK	3.01	3±1	4	2.512	-0.21	0.95	0.0005	1
2440		3.6	3±1	4	2.512	-0.21	0.95	0.0005	1
2480		3.45	3±1	4	2.512	-0.21	0.95	0.0005	1

Conclusion:

For the max result: 0.0005≤ 1.0 test exclusion threshold, No SAR is required.

Statement

1. This report is invalid without the seal and signature of the laboratory.

2. The test results of this report are only responsible for the samples submitted.Client shall be responsible for representativeness of the sample and authenticity of the material.
3. The report shall not be partially reproduced without the written consent of the Laboratory.
4. This report is invalid if transferred, altered or tampered with in any form without authorization.
5. The observations or tests with special mark fall outside the scope of accreditation, and are only used for purpose of commission, research, training, internal quality control etc.
6. Any objection to this report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

****** END OF REPORT ******