

RF Exposure Evaluation



Applicant : Cyber Power Systems, Inc.
Product : Wireless Environmental Sensor
Model : SNWEV001, EMWS-U01
FCC ID : 2AFG8SNWEV001

In accordance with
FCC rule Part §1.13101

RESPONSIBLE FOR	NAME	SIGNATURE	DATE
Approved By	Jack Chang		2025.08.26
Prepared By	Ariel Hsu		2025.08.26

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Product Service control rules.

EXECUTIVE SUMMARY

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1 General Information

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

History of this test report

Issue	Description of Change	Date of Issue
1	Initial Issue	2025-08-26

1.2 Introduction

The information contained in this report is intended to show verification of RF qualification approval. The testing requirements of the standards for the tests listed in Section 1.5.

Applicant : Cyber Power Systems, Inc.
Address : 11F, No. 26,, Jinzhuang Rd., Neihu Dist., Taipei, Taiwan
Manufacturer : CyberPower (ShenZhen) System Inc.
Brand Name : CyberPower
Product Name : Wireless Environmental Sensor
Model Number(s) : SNWEV001, EMWS-U01
Date of Receipt of EUT : 2025-07-10
Start of Test : 2025-07-15
Finish of Test : 2025-07-24
Test Laboratory : TÜV SÜD Asia Ltd., Taiwan Branch
Address : 7F., No. 37, Sec. 2, Zhongyang S. Rd., Beitou District, Taipei City 11270, R.O.C. Taiwan
Test Location : TÜV SÜD Asia Ltd., Taiwan Branch, Guishan Laboratory
Address : No. 31, Dinghu Road, Guishan District, Taoyuan City, TAIWAN (R.O.C.)

The test facility is accredited by TAF (member of ILAC), under number 2573 according to ISO/IEC 17025: 2017.

FCC Designation Number No.: TW2573

1.3 Applied Standard

FCC rule Part §2.1091
FCC Part §1.1310 FCC KDB 447498 D04 Interim General RF Exposure Guidance v01

1.4 Deviation from standards

None

1.5 Reference Test Report

Test Lab	TÜV SÜD Asia Ltd., Taiwan Branch
Report Number	6128625041901

2 General EUT Information

All information in this chapter was provided by the applicant.

2.1 Technical Specification of EUT

Items	EUT information
Operating Frequency	2405 ~ 2480 MHz
Channel number	16
Maximum Output Power (dBm)	Zigbee: 0.38dBm
Operation Voltage	3Vdc From Battery
Modulation	O-QPSK
Test Software Version	STM32CubeMonitor-RF: Version 2.12.0

2.2 Antenna List

	Antenna Type	Brand	Model	Connector	Freq. (MHz)	Peak Antenna Gain (dBi)
Main	Chip Antenna	Molex	2.4GHz MID SMT Antenna	Permanently attached antenna	2400 - 2500	3.7

3 FCC Maximum Permissible Exposure Evaluation

3.1 Introduction

This Standard specifies requirements for, and provides guidance on, assessing compliance with the exposure limits of radiofrequency (RF) safety standards such as IEEE Std C95.1. This includes methodologies for making an assessment (by measurement or computation) of human exposure to ambient RF fields and induced body currents in the frequency range of 0 kHz to 300 GHz.

This Standard may also be used as a guide for making low-level environmental exposure assessments in areas around RF sources listed above, as well as other sources such as Wi-Fi devices.

3.2 Reference Levels

According to 447498 D04 Interim General RF Exposure Guidance v01 B.4 SAR-based Exemption, The formula defines the thresholds in general for either available maximum timeaveraged power or maximum time-averaged ERP, whichever is greater.

Table B.2—Example Power Thresholds (mW)

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Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

3.3 Exemption limits for routine evaluations

Chain 0	Frequency (MHz)	Distance (cm)	Max. tune-up power (dBm)	Max. tune-up power (mW)	Peak gain (dBi)	ERP (dBm)	ERP (mW)	P _{th} (mW)	P or ERP /P _{th}
ZigBee	2440	0.5	0.38	1.091	3.7	1.93	1.560	2.76	0.565