



REPORT No.: SZ26070489S01

RF EXPOSURE EVALUATION REPORT

APPLICANT : Shenzhen Sonoff Technologies Co.,Ltd.
PRODUCT NAME : Matter Over WiFi Human Presence Sensor
MODEL NAME : SNWF-06P24
BRAND NAME : SONOFF
FCC ID : 2APN5-SNWF06P24
STANDARD(S) : FCC 47CFR Part 2(2.1091)
RECEIPT DATE : 2026-08-05
TEST DATE : 2026-08-10 to 2026-08-18
ISSUE DATE : 2026-09-07



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MORLAB

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Change History		
Version	Date	Reason for Change
1.0	2026-09-07	First edition

Note: The latest revision of the report supersedes all previous version.



1. Technical Information

Note: Provide by applicant.

1.1 Applicant and Manufacturer Information

Applicant:	Shenzhen Sonoff Technologies Co.,Ltd.
Applicant Address:	3F & 6F, Bldg A, No. 663, Bulong Rd, Shenzhen, Guangdong, China
Manufacturer:	Shenzhen Sonoff Technologies Co.,Ltd.
Manufacturer Address:	3F & 6F, Bldg A, No. 663, Bulong Rd, Shenzhen, Guangdong, China

1.2 Equipment under Test (EUT) Description

Product Name:	Matter Over WiFi Human Presence Sensor	
Serial No:	2#, 4#, 5#	
Hardware Version:	V1.0	
Software Version:	V0.1.0	
Frequency Bands:	WLAN 2.4GHz: 2412 MHz ~ 2472 MHz Bluetooth: 2402 MHz ~ 2480 MHz 24G Radar: 24 GHz ~ 24.25 GHz	
Modulation Mode:	802.11b: DSSS 802.11g: OFDM 802.11n-HT20: OFDM Bluetooth LE: GFSK 24G Radar: FMCW	
Antenna Type:	Ceramic Antenna	
Antenna Gain:	Wireless Mode	Antenna Gain (dBi)
	WLAN 2.4GHz	-1.59
	Bluetooth	-1.59
	24G Radar	9.00

Note: The declarations of EUT presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information.



1.3 Applied Reference Documents

Leading reference documents for testing:

Identity	Document Title	Remark
FCC 47CFR Part 2(2.1091)	Radio Frequency Radiation Exposure Assessment: mobile devices	/
KDB 447498 D01v06	General RF Exposure Guidance	/
Note: Any additions, deviation, or exclusions from the method shall be noted in the "Remark".		



2. Device Category and RF Exposure Limit

Per user manual, Based on 47CFR 2.1091, this device belongs to mobile device category with General Population/Uncontrolled exposure.

Mobile Devices:

47CFR 2.1091(b)

For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. In this context, the term "fixed location" means that the device is physically secured at one location and is not able to be easily moved to another location. Transmitting devices designed to be used by consumers or workers that can be easily re-located, such as wireless devices associated with a personal computer, are considered to be mobile devices if they meet the 20 centimeter separation requirement.

General Population/Uncontrolled Exposure:

The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity. Warning labels placed on low-power consumer devices such as cellular telephones are not considered sufficient to allow the device to be considered under the occupational/controlled category, and the general population/uncontrolled exposure limits apply to these devices.

Table 1—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)
(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
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

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

3. Maximum Average Power Summary

➤ **Maximum Output Power for WLAN/Bluetooth**

Wireless Mode	Channel	Frequency (MHz)	Max. Average Power (dBm)	Tune-up Limit (dBm)
WLAN 2.4GHz	1	2412	18.09	19.00
Bluetooth	0	2402	8.77	9.50

➤ **Maximum Emission for IEEE 802.15.4g**

Wireless Mode	Frequency (GHz)	Max. Emission (dBuV/m)	Max. Emission (V/m)
24G Radar	24.011273	95.51	0.0596

Note:

1. The maximum average power of Bluetooth/WLAN 2.4GHz refers to the report SZ26070489W01/W02.
2. The maximum emission of 24G Radar refers to the report SZ26070489W03.

4. RF Exposure Assessment

➤ Standalone Transmission Assessment:

Bands	Frequency (MHz)	Tune-up Limit (dBm)	Antenna Gain (dBi)	EIRP (mW)	Power Density (mW/cm ²)	Limit for MPE (mW/cm ²)
WLAN 2.4GHz	2412	19.00	-1.59	55.08	0.011	1.0
Bluetooth	2402	9.50	-1.59	6.18	0.001	1.0

Bands	Frequency (GHz)	Max. Emission (dBμV/m)	Max. Emission (V/m)	EIRP (mW)	Power Density (mW/cm ²)	Limit for MPE (mW/cm ²)
24G Radar	24.011273	95.51	0.0596	1.067	<0.001	1.0

Note:

- According to KDB 447498, SAR test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring assessment, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.
- MPE calculate method

$$S = EIRP / 4\pi R^2$$

Where: EIRP = P+G (mW)

P = Output Power (dBm)

G = Antenna Gain (dBi)

R = Separation Distance (20cm)



➤ **Simultaneous Transmission Assessment:**

<Multi-Band simultaneous transmission consideration>

Simultaneous Transmission Consideration	Applicable Combination
	Bluetooth + WLAN 2.4GHz + Radar

- The worst condition for Bluetooth & WLAN 2.4GHz & Radar will be calculated for transmitting simultaneously.

$$\text{Formula: Total Exposure Radio} = \sum_{i=1}^{i=n} \frac{\text{Power density}_i}{\text{Limit}_i} \leq 1.$$

Transmission Bands	Power Density (mW/cm ²)	Limit (mW/cm ²)	Total Exposure Radio
Bluetooth	0.011	1.0	0.012
WLAN 2.4GHz	0.001	1.0	
24G Radar	<0.001	1.0	

➤ **Conclusion:**

According to 47 CFR §2.1091, this device complies with human exposure basic restrictions.



Annex A General Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
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2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.1-3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

The FCC designation number is CN1192, the test firm registration number is 226174.



Notes

1. The report shall have report stamp or our company stamp.
2. The report shall be invalid without all the signatures of the editor and approver.
3. The report shall not be changed.
4. Any objections must be raised to Morlab within 15 days since the date when the report is received. It will not be taken into consideration beyond this limit.
5. Conformity declaration:
 - ☒ Morlab issues a statement of conformity based on the corresponding standards (default)
 - ☐ Morlab issues a statement of conformity based on the applicant requirement
6. Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the testing standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule).

_____ END OF REPORT _____