

Wireless Water Detector

Product Information and Manuals

Model Number: WWD3LWU

1、Product Overview

WWD3 is a low-power wireless sensor terminal that integrates leak detection, motion monitoring and long-distance LoRa communication functions. The device is battery-powered and supports -20°C~70°C industrial environment operation. Key features include: Microampere standby current Touch interaction and sound and light alarm Support SWD wireless firmware upgrade

2、Technical specifications

category	parameter
Power	2×AA battery (2.8-3.6V)
Power consumption	Working Mode: 18mA 3V, Sleep Mode: 1.5 μA
Wireless Communications	(STM32WLE5CC), stand by 868/915MHz
Sensor Type	Leak Detection×2, 3-axis accelerometer (LIS3DH)
interface	SWD debug interface, UART Data Interface
Mechanical Dimensions	8.2X4.5X2.5cm

3、Mechanical Dimensions

(1) Power system

Power supply mode:

Main power supply: 2 AA batteries connected in series (BAT1)

(2) Soc

Soc: STM32WLE5CC (ARM Cortex-M4)

Resource Allocation:

Pinout	Function	Signal
PA0/PA1	LED Control	LED1/LED2
PB7	Buzzer control	BUZZER
PC13	Touch key input	KEY_OUT
ADC1/2/3	Battery/leak detection	BAT_LEVEL/LEAK_SG

(3) Sensor system

Leak detection:

Detection principle: Electrical impedance change monitoring

Interface: Spring contact (LEAK_SG_1/2)

Response time: < 500ms

Motion detection:

Chip: LIS3DH ($\pm 2g \sim \pm 16g$ adjustable)

Wake-up threshold: Software configurable

4. RF system

RF front end: PE4259 antenna switch

5. User Interaction

LED Indication:

state	LED1 (green)	LED2 (red)
Normal operation	0.5Hz flicker	Off
Leakage Alert	Off	2Hz flashing
Low battery	1Hz synchronous flashing	1Hz synchronous flashing

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.

ISED Statement

- English: This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

- French: Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux CNR exempts de licence d'Innovation, Sciences et Développement économique Canada. Le fonctionnement est soumis aux deux conditions suivantes :

(1) Cet appareil ne doit pas causer d'interférences.

(2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 0cm between the radiator & your body.

Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé.

Cet équipement doit être installé et utilisé avec une distance minimale de 0 cm entre le radiateur et votre corps.