

BLE (Bluetooth Low Energy) Product Instruction Manual

MODEL: DOT1-DB01-700

I. Product Overview

This product is an ultra-low power, high-performance Bluetooth broadcast positioning device. Designed to provide you with real-time, accurate location information, it is suitable for asset tracking and location beacons. The product features a compact design, extremely low power consumption, and can operate stably for long periods using the built-in battery.

II. Key Features

Dedicated Broadcast Mode: Transmits broadcast signals only; does not scan or accept connection requests, ensuring extremely low power consumption.

Low Power Design: Utilizes optimized hardware and firmware design to maximize battery life.

Stable Broadcasting: Continuously and stably transmits Bluetooth broadcast signals at a default interval of 3 seconds.

Compact Structure: High level of module integration, equipped with a custom-molded housing, achieving IP67 waterproof rating through ultrasonic sealing, suitable for various application environments.

III. Hardware Specifications

Core Chip: WCH CH592D Bluetooth Chip

Operating Frequency: 2.4GHz ISM Band

Broadcast Content: Customizable (configured before shipment), typically includes unique device ID, signal strength, etc.

Broadcast Interval: 3 seconds (typical, customizable upon request)

Antenna: Integrated PCB Antenna

Power Supply:

Operating Voltage: 3.0V DC

Power Source: Built-in Lithium Manganese Dioxide Battery (Capacity 600mAh)

Battery Life: Theoretically up to several years (depending on broadcast power and environmental temperature; typically >5 years under typical conditions)

Operating Temperature: -20°C ~ +70°C

IV. Installation and Usage

Unboxing: Open the package and remove the product.

Installation: Secure the device to the target location using self-tapping screws or other methods (such as adhesive backing, depending on the actual design).

Indicator Light: This product is designed for ultimate low power consumption and typically does not include an operational indicator light. The broadcast function is enabled by default.

Application: Use any terminal device that supports Bluetooth scanning to detect the broadcast signal from this device nearby.

V. Precautions

Battery Safety:

Do not charge, heat, short-circuit, or disassemble the battery.

Do not apply excessive force or crush the product.

Operating Environment: Avoid prolonged use in environments with strong corrosive gases, liquids, or extreme high temperatures and high humidity.

Compliance Statement: This product complies with relevant radio transmission equipment regulations. Before use, please ensure you understand and adhere to the radio management regulations of your country or region.

VI. Product Identification

The product casing is printed with the company logo and an SN label. This number is the product's unique identity identifier. Please keep it safe for future inquiries.

VII. FCC Warning

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.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.