

IOT positioning terminal

Instructions



Product name: CIC-001

Product model: CIC-001

Latest version: V1.00

Version Description:

Version	Revision Description	Revised by	Date
V1.00	first draft	Zhou	2023.9.19

directory

1	Overview	1
1.1	Product Features	1
1.2	Environmental conditions for use.....	1
1.3	Working conditions	2
1.4	Safety.....	2
2	Structural Features and Working Principles	2
2.1	Structural characteristics	2
2.2	Working principle.....	2
3	Technical characteristics.....	3
3.1	Main functions.....	3
3.2	Main parameters	3
4	Parts List.....	4
5	Product photos.....	4

1 Overview

IOT positioning terminal is a device or device component used to obtain and transmit information about its location, and communicate through an internet connection. IOT positioning terminals are typically used to track, monitor, manage, and control various physical objects, from vehicles and goods to industrial equipment.

This product adopts a low-power and simple design concept, which is easy to operate, stable and reliable in operation, and meets the standard requirements of industrial application environments.

1.1 Product Features

- ◆ 32-bit ARM low-power processor.
- ◆ CAT1 global communication.
- ◆ Support GSP and LBS dual positioning technology.
- ◆ Support Bluetooth data collection.
- ◆ Support Bluetooth configuration and upgrade.
- ◆ IP 64 protection level, designed for industrial environments, capable of handling harsh environments.
- ◆ Stable and reliable upgrade function: providing online device upgrades.

1.2 Environmental conditions for use

- 1) Environmental temperature: $-20\text{ }^{\circ}\text{C}\sim+70\text{ }^{\circ}\text{C}$;
- 2) Relative humidity: $0\%\sim95\%$, non condensing;
- 3) Atmospheric pressure: 70-106Kpa;
- 4) Storage temperature: $-40\text{ }^{\circ}\text{C}\sim+75\text{ }^{\circ}\text{C}$;
- 5) Cooling method: natural cooling.

1.3 Working conditions

- 1) 1) Working temperature: -20 °C~+70 °C
- 2) 2) Relative humidity: 0%~95% (non condensing)
- 3) 3) Internal power supply, no need to connect to power supply
- 4) Indoor;

1.4 Safety

The IOT positioning terminal can only operate as a gateway device in a black box mode, and contains batteries inside. Do not place the device in ultra-high temperature or fire.

2 Structural Features and Working Principles

2.1 Structural characteristics

- 1) Basic structure: ABS plastic material;
- 2) Installation method: fixed installation with screw holes;
- 3) Weight:<300g
- 4) Color: black;

2.2 Working principle

The IOT positioning terminal locates the device through GPS and LBS.

When the device is in an open air environment, it can be located and obtained through GPS satellite search.

When the device is in a location where satellite communication is not visible, LBS positioning can be used to assist in positioning using CAT1 base stations, to address the positioning requirements in situations where GPS signals are weak or non-existent.

The IOT positioning terminal can collect Bluetooth temperature and humidity sensor data, search for attachments, and obtain Bluetooth temperature and humidity sensor data.

The IOT positioning terminal can communicate through CAT1 and push GPS, LBS, BLE data to the internet platform through a 4G network.

3 Technical characteristics

3.1 Main functions

- 1) Supports GPS positioning.
- 2) Supports LBS positioning.
- 3) Supports Bluetooth scanning.
- 4) Supports Bluetooth configuration.
- 5) Support for battery alarm.
- 6) IP64 protection design.

3.2 Main parameters

- 1) Processor: 32-bit ARM low-power processor
- 2) Power supply: DC3.6V built-in battery pack power supply
- 3) Protection level: IP64
- 4) Product size: 205 * 65.5 * 35 mm
- 5) Communication protocol: mqtt
- 6) Standby current: 40-60uA.

4 Parts List

The IOT positioning terminal mainly includes the following accessories:

project
PCB board
Battery pack 26500 * 2+VPC
Global Communication CAT1 Antenna
GPS antenna
Shell
instructions
Certificate of conformity

5 Product photos



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Caution

THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE.

SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

IMPORTANT NOTE: FCC RF Radiation Exposure Statement

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

This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.