HOLYIOT 22049-beacon-V1.0 Bluetooth Low Power Slave

HOLYIOT 22049-beacon-V1.0 Bluetooth Low Power Slave Device Instructions

Contents

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Product Information

Specifications

- Model: 22049-beacon-V1.0
- Chip: Nordic’s nRF52 series
- Bluetooth: Low Energy Bluetooth 5.0
- Dimensions: 2.76cm x 2.72cm
- Power Supply: CR2032 battery

Product Overview

Scope of Application

The product is suitable for various scenarios including push messages, indoor positioning navigation, reverse car search, office attendance check-in, sensor applications, and scenic guide.

Features

The 22049-beacon-V1.0 utilizes the Nordic Bluetooth Low Energy Bluetooth 5.0 chip with a sensitivity of -96dBm in low power mode, maximum transmit power of 4dBm, and on-chip barometer. It also includes a 3-axis acceleration sensor for versatile applications.

Core Components

The core component of the product is the Nordic nRF52 series chip known for its Bluetooth low power 5.0 features.

Product Usage Instructions

Installation

Insert a CR2032 battery into the device following the polarity markings. Ensure the device is placed in a suitable location for optimal signal transmission.

Pairing

To pair the device with a compatible system or application, follow the specific pairing instructions provided by the system/application. Usually, this involves activating Bluetooth on the receiving device and searching for available devices to pair with.

Functionality

Utilize the device for push messaging, indoor navigation, asset tracking, access control, attendance management, sensor applications, and other scenarios as needed.

FAQ

- **Q: What is the recommended battery type for this device?**
  - A: The recommended battery type for this device is a CR2032 battery.
- **Q: How can I check the battery level of the device?**
  - A: The device does not have a built-in battery level indicator. It is recommended to replace the battery periodically to ensure optimal performance.

Product overview

Scope of application

1. Push messages
2. Indoor positioning navigation
3. Reverse car search
4. Office attendance check-in
5. Sensor application
6. Scenic guide

Product Overview

22049-beacon-V1.0 is a Bluetooth low-power slave device that can be used in various living and learning scenarios. Its application areas are: push messages; Indoor navigation and positioning, asset positioning tracking and management; Wechat shake; Identification, access control, attendance, clocking, etc.; Sensor application; and Comprehensive application of beacons in large public places. The internal core of 22049-beacon-V1.0 is

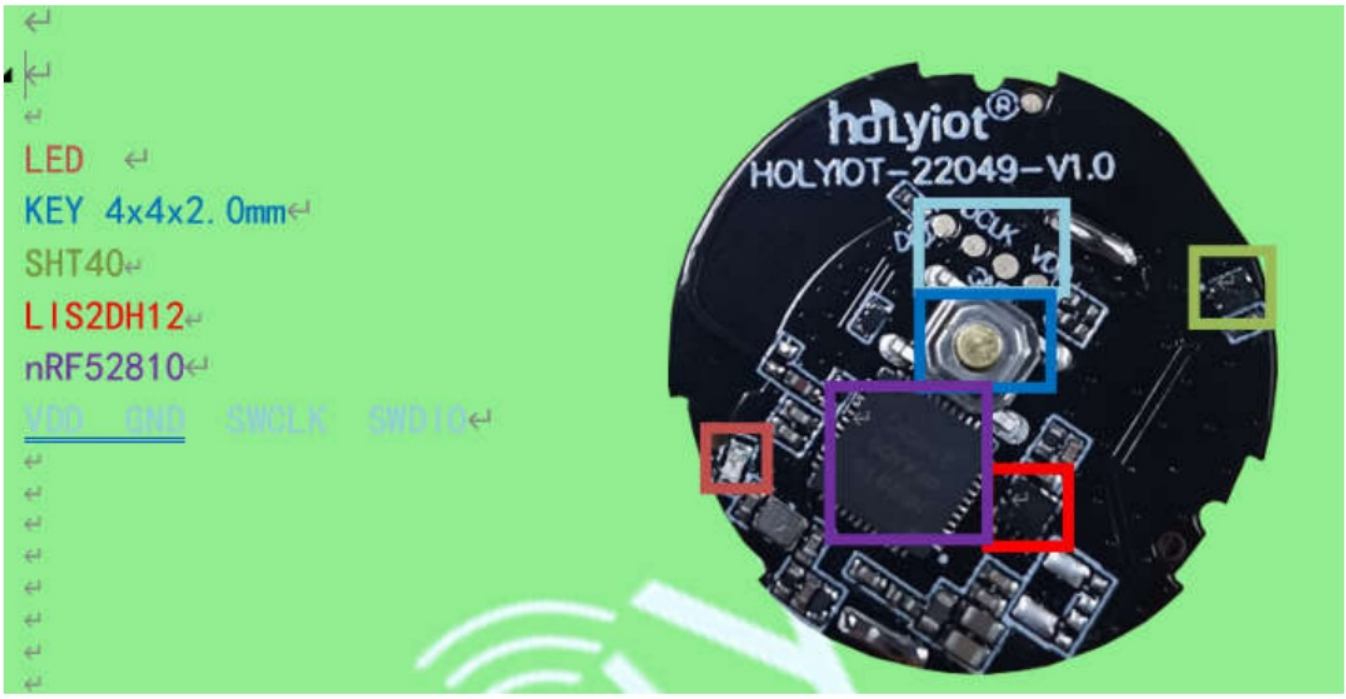
Nordic’snRF52 series chip, which has a number of mature Bluetooth low power 5.0 devices

Product Features

22049-beacon-V1.0 is based on the Nordic Bluetooth Low Energy Bluetooth 5.0 chip. It has a sensitivity of -96dBm in low power mode, a maximum transmit power of 4dBn, and on-chip barron. And it has flexible power management. There is a 3-axis acceleration sensor inside the product, which can be flexibly applied to other scenarios.

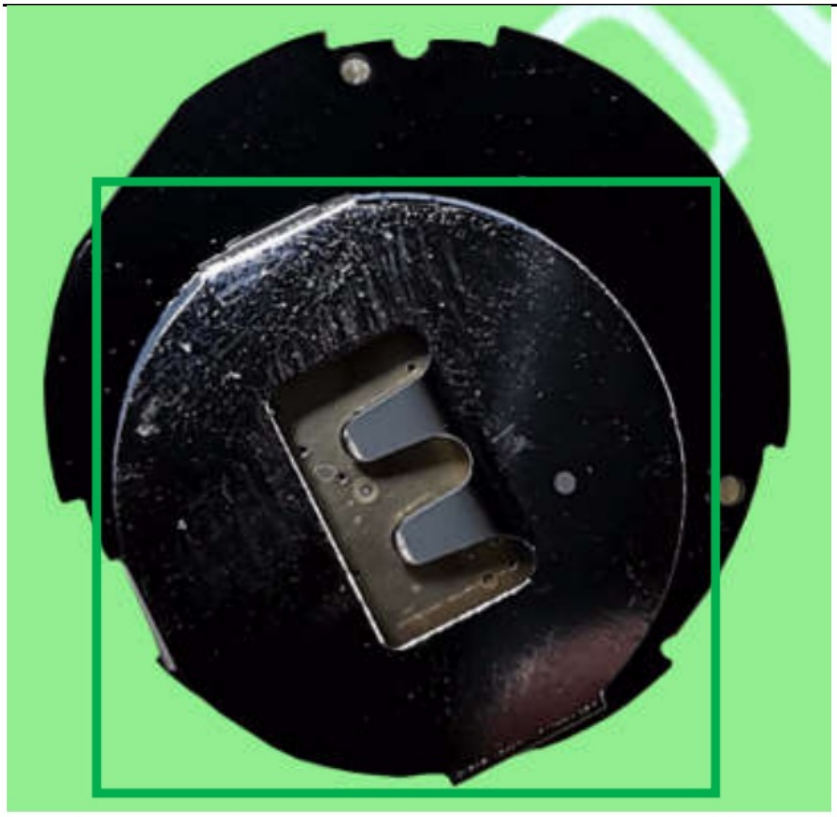
Appearance and dimension drawing

Physical drawing

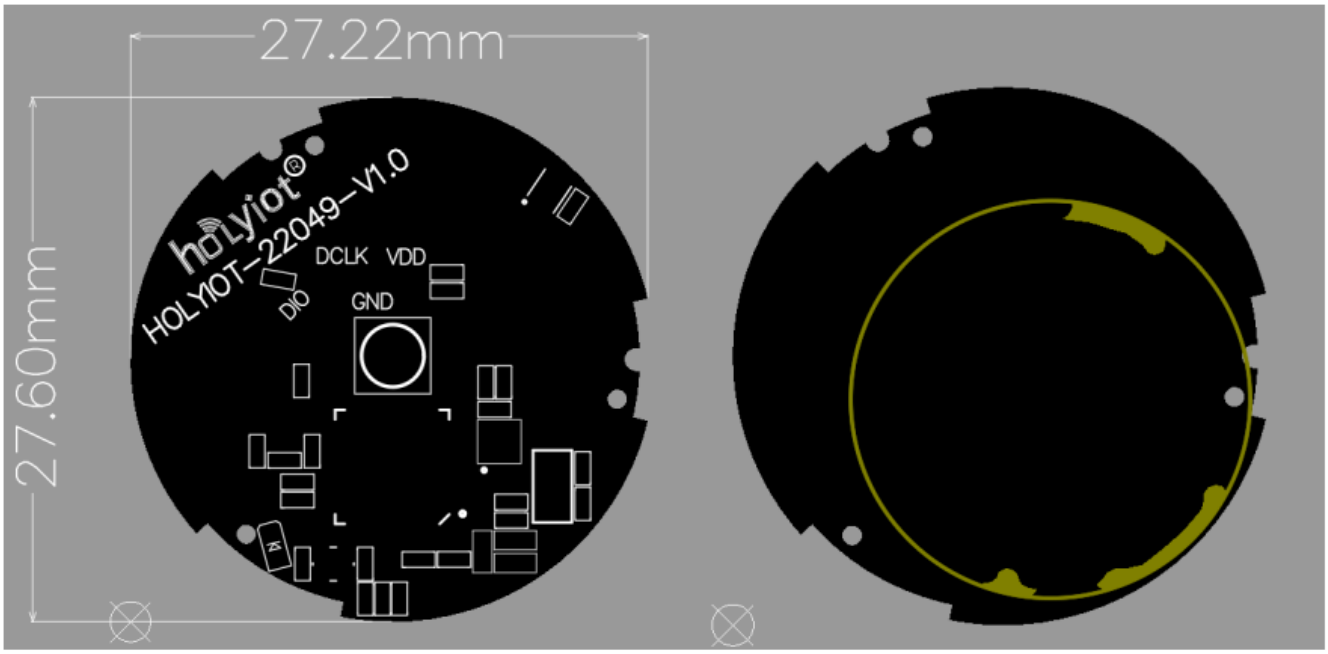


TOP VIEW

- Dimensions 2.76cm*2.72cm



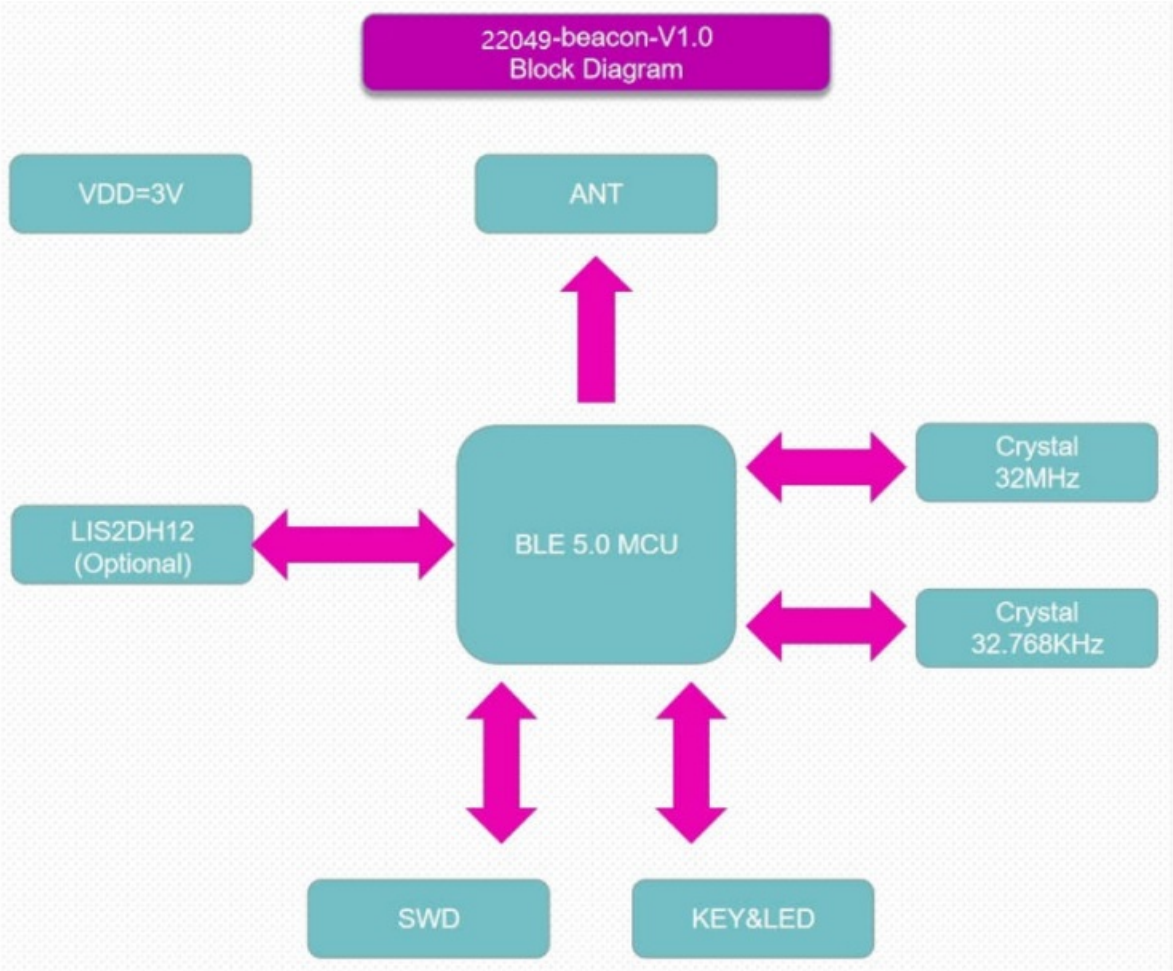
Dimensioning Diagram



TOP VIEW

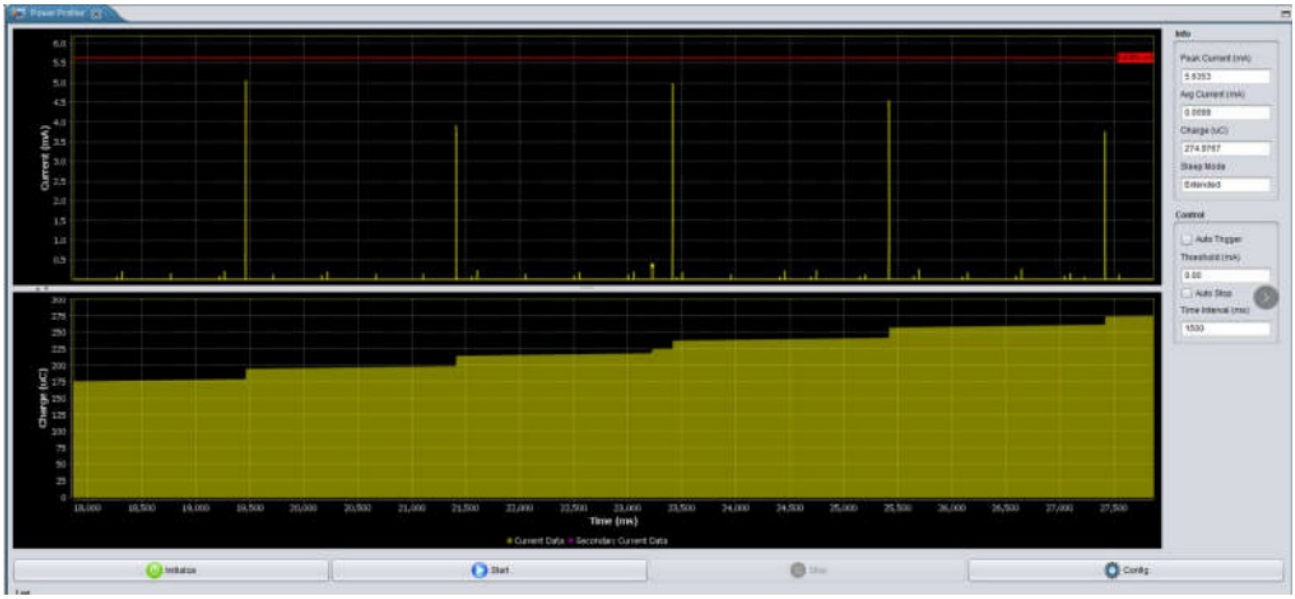
BOTTOM VIEW

Product Block Diagram

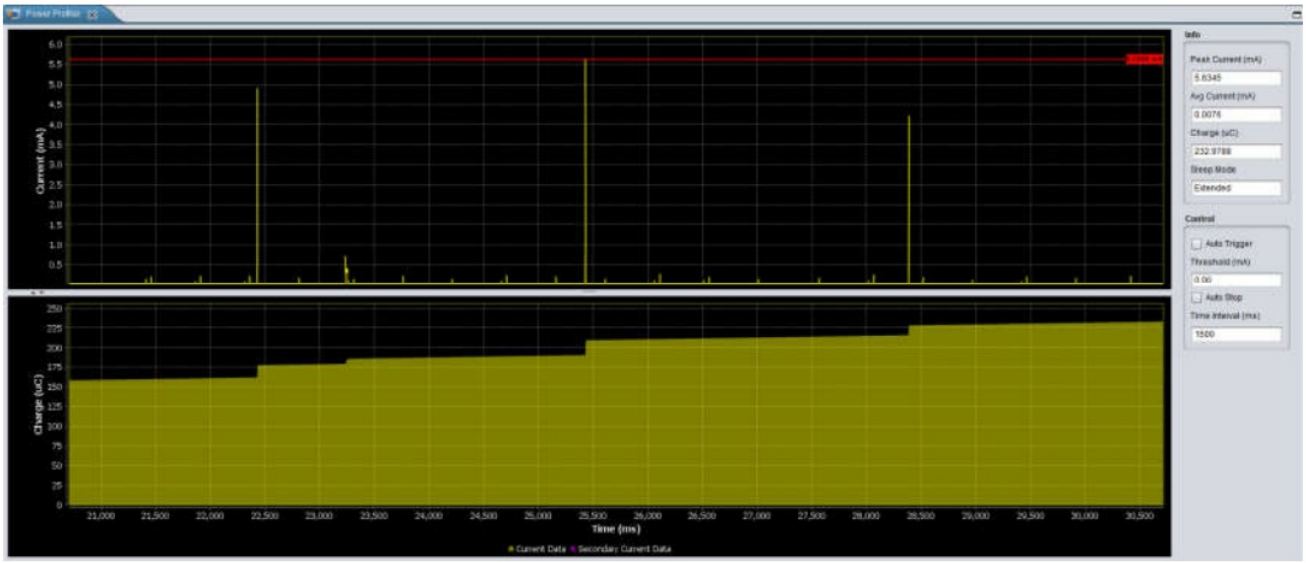


Electrical characteristics and parameters

- Operating voltage 2.0V to 3.6v, 3.0v is recommended
- Working band : 2402 MHz2483 MHz
- Maximum transmit power:+4dBm
- Receive sensitivity: -96dBm
- Transmission distance:30-50 meters
- Frequency error: ±50 kHz
- Shutdown power consumption: 2.2uA
- Operating temperature: -20℃~+60℃
- Storage temperature: -40℃~+85℃
- Power consumption at 2s 0dBm broadcast time: 9.9uA



- Power consumption at 3s 0dBm broadcast time:7.6uA



Recommended Working Conditions

Function operation can not guarantee its performance beyond the limit of the value of each condition parameter in the following table, and long-term operation beyond this limit will affect the long-term reliability of the module more or less.

Attention:

Operating temperature is limited by changes in crystal frequency; To ensure radio frequency performance, the ripple on the power supply must be less than 30mV

		Minimum value	Typical value	Maximum value	Units
Power supply and IO	Battery mode	2.0	3.0	3.6	V
Operational problems	/	-20	25	60	℃

Contact us

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FCC Statement

District, Shenzhen

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.

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

NOTE: 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.

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

Documents / Resources

	HOLYIOT 22049-beacon-V1.0 Bluetooth Low Power Slave Device [pdf] Instructions 22049, 2ALGY-22049, 2ALGY22049, 22049-beacon-V1.0 Bluetooth Low Power Slave Device, 2 2049-beacon-V1.0, Bluetooth Low Power Slave Device, Low Power Slave Device, Power Slave Device, Slave Device, Device

References

- _____
- **User Manual**