



## Bobber 200 User Manual



**Brand Name:**  **BOBBER**

**Product Name:** Bobber 200

**Model Name:** G230

**Manufacture:** CATBOB HK LIMITED

## Introduction

Bobber 200 is a high-efficiency hotspot. It is compatible with the leading wireless LongFi protocol. The Bobber 200 is also compatible with all LongFi devices.

The Bobber 200 runs on ultra-low power consumption (5W) and its signal range can cover up to 10+ miles, providing connectivity to tens of thousands of LongFi end nodes detected within its range.

In previous tests, 100 deployed devices have proven sufficient to cover a city area of 10km x 10km, broadcasting the LongFi network.

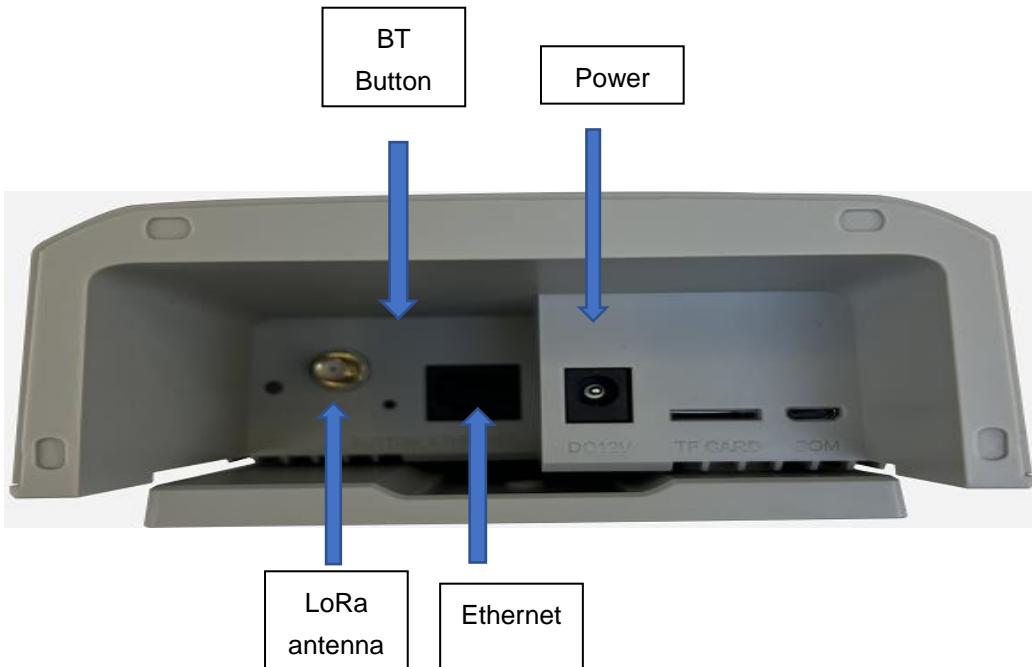
## Features

- Rockchip RK3308B ARM Quad-Core Cortex-A35 1.3GHz
- Onboard 256M DDR3/DDR3L and 8GB eMMC
- Integrated WiFi, Bluetooth and LoRa function
- Support Ethernet, RTC
- 1 x TF, 1 x USB2.0 OTG, 1 x UART

## Precautions

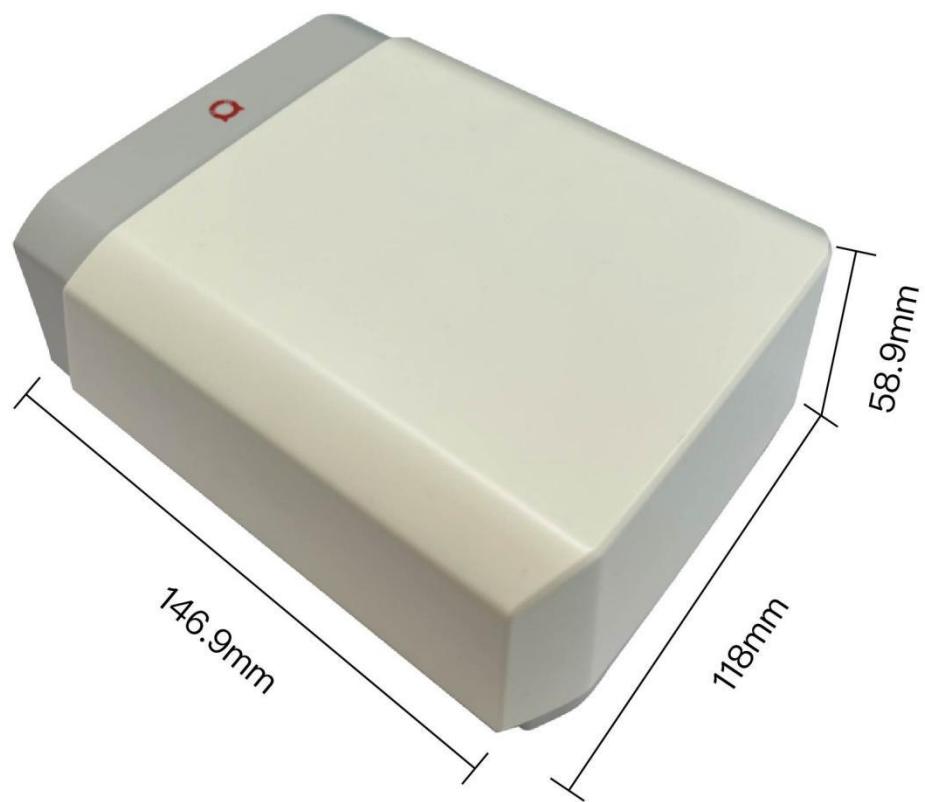
- ✧ During the installation of the device, please handle it with care and no collision or fall to prevent the product from being damaged or the parts falling off, which may cause the device to work abnormally.
- ✧ When installing the device, please try to get close to the window or balcony to receive GPS signals as long as your personal safety is ensured, the Bluetooth connection between the mobile phone and the device is good, and the device network is well connected.
- ✧ It is recommended to install this device in a spacious environment to ensure good LongFi signal transmission and wide antenna coverage.
- ✧ The place where this device is installed must be stable, clean, and ventilated. Do not choose a place with water, rain or humidity etc.

## Instruction



1. Take out the Bobber 200 and accessories from the package, install the LoRa antenna and hanger, you can put the device directly on a stable desktop or hang it on a solid wall.
2. If you will use a wired network on this device, please plug the network cable into the ETHERNET connector. If you use WiFi, please configure it in the mobile APP in the next steps..
3. Turn on the Bluetooth and GPS function of the mobile phone.
4. Search the Helium mobile APP from the Google Play store or Apple App store, download and install it. After the installation is complete, please register and log in.
5. Select setup "Hotspots" in login page and then select "Bobber 200". At this time, you can choose to consult the network configuration guide or select "Skip" and proceed to the next step as prompted.
6. Plug DC adapter into the Power hole, the indicator will light red and then yellow.
7. At this time, please insert the pin into the BT BUTTON hole on the back of the device and hold it for 5 seconds until the indicator light turns blue.
8. When the indicator light is blue, please click "Scan my Hotspot" on the mobile APP. When the Bobber 200 is scanned, click on the device and perform network settings. To use WiFi, please enter the SSID and password of the wireless network which will connect; if you use a wired network, please select "Use Ethernet Instead". If the network connection is successful, the indicator light will turn from blue to green.
9. After completing the above operations, the indicator light of the machine is green, which means that Bobber 200 has been successfully installed.

## Dimensions



## Package Content



## FCC Caution

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.

RF warning for Mobile device:

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

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## IC Warning

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference, and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement respecte les limites d'exposition aux rayonnements IC fixées pour un environnement non contrôlé. Cet équipement doit être installé et exploité à une distance minimale de 20cm entre le radiateur et votre corps.

## Antenna requirements

*This radio transmitter IC: 28309-G23001 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.*

**Frequency:** 902.3-915.1MHz(200KHz), 903-927MHz(500KHz)

**Modulation Type:** FSK

**Antenna Gain (dBi):** 4dBi

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1		BGS-903D	External	Non-SMA	4dBi	50ohm
2		AR113-3590-001-00	External	Non-SMA	4dBi	50ohm
3		ANTWLWQ860 4V60RPSJXP1 MB	External	Non-SMA	4dBi	50ohm