

OEM User Manual and Installation Guide Instruction Book
Bluetooth 4.0 BLE Module

Module Type

NB-01

1、Product Parameter

- Bluetooth protocol version: Bluetooth Specification V4.0 BLE
- Working frequency: 2.4GHz ISM band
- Modulation system: GFSK (Gaussian Frequency Shift Keying)
- Transmitted power: 4dbm
- Sensitivity $\leq$ -84dBm at 0.1%BER
- Support services: Peripheral
- Support interface: TTL, 115200
- Supply voltage: +3.3VDC
- Operating temperature: -25℃~+75℃
- External dimension: 25mm * 18mm * 1.5mm

2、Product overview

NB series of Bluetooth module utilizes Nrf51822 chip from Nordic Company, interior part integrates 256KB space and radio-frequency emission portion. This series of module is only for Ninebot Inc. internal using, product externally expands one road of TTL UART, Baud rate is fixed at 115200.

3、Applied range

NB series of Bluetooth module is only applicable for Ninebot Inc. product which needs connect with smartphone by Bluetooth, not for external sale and technical support.



Figure 1: 3D figure of module

4、 Application steps

Welding module on PCB of equipment that needs Bluetooth to access, link VOC, GND, UART and IO, then smartphone can be connected to Bluetooth module, equipment can send data from UART to phone by Bluetooth. Meanwhile, phone data can be converted into UART data by Bluetooth module.

5、 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.

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

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.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

6、 Other regulatory notes for OEM.

Modular transmitters save manufacturers the time and any related expenses that would be incurred if a new equipment authorization were needed for the same transmitter when it is installed in a new device. This means that it can be integrated into end products without further testing or approval listing. The manufacturer must state the Ninebot (Tianjin) part number and product reference in his literature in order to meet the requirements of the Bluetooth and regulatory. This should be clearly indicated in the OEM manuals.

7、 FCC Label Instructions

The outside of final products that contain a NB-01 device must display a label referring to the enclosed module. This exterior label can use wording such as the following:
“Contains Transmitter Module FCC ID: 2AF2B-NB01.” Any similar wording that expresses the same meaning may be used.

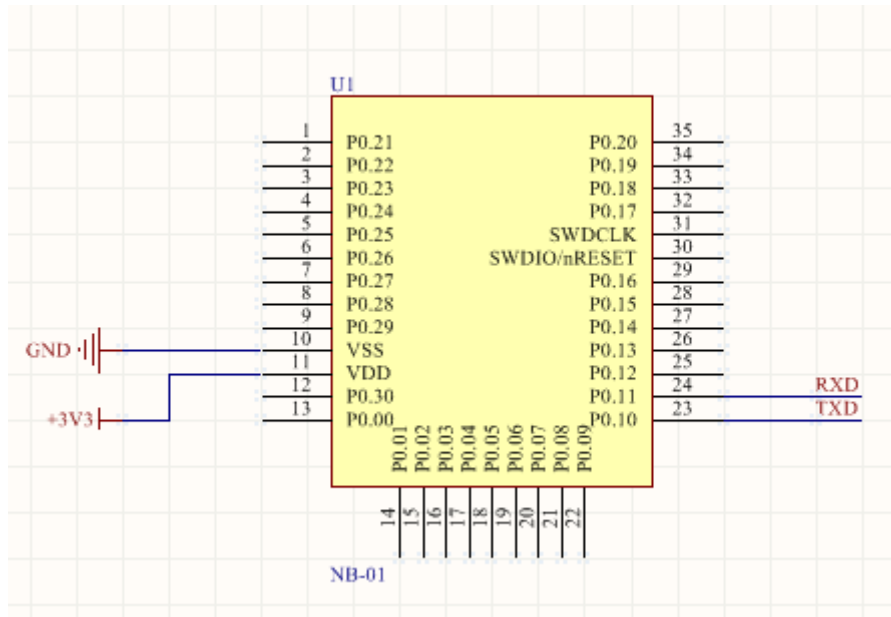


Figure 2: Application theory figure

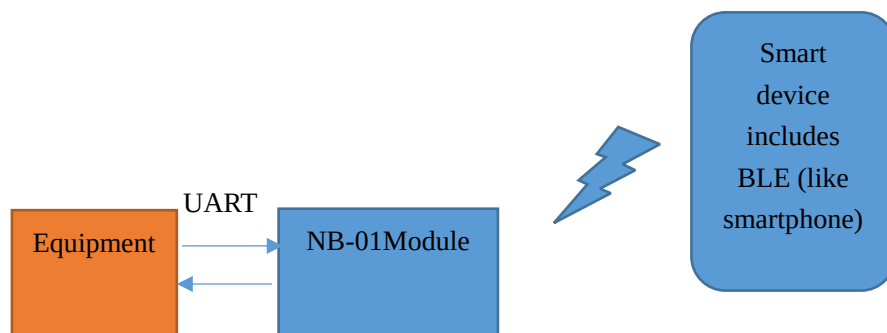


Figure 3: Function module figure