

WH-BLE102 Datasheet

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1.Product overview

WH-BLE102 is low-power BLE module which supports BLE 4.2 protocol and user can realize communication through simple configuration. User can set two modules as one master with one slave to transmit data and develop APP according to standard BLE protocol to connect module and communicate. BLE102 supports one-to-many broadcast mode and iBeacon protocol. And module also supports modifying 128bit format UUID to be compatible with other company BLE modules. In a word, WH-BLE102 is reliable BLE module with various functions and high compatibility.

2.Product features

- Support standard BLE 4.2 protocol
- Support low power consumption broadcast mode with average current 800uA and hibernate mode with average current 500nA. Support various waking up ways
- Support fast switch between master mode and slave mode
- Support serial AT command mode and transparent transmission AT command mode
- Support one-to-many broadcast mode and iBeacon protocol
- Support mesh networking mode
- Support modifying 128bit format UUID

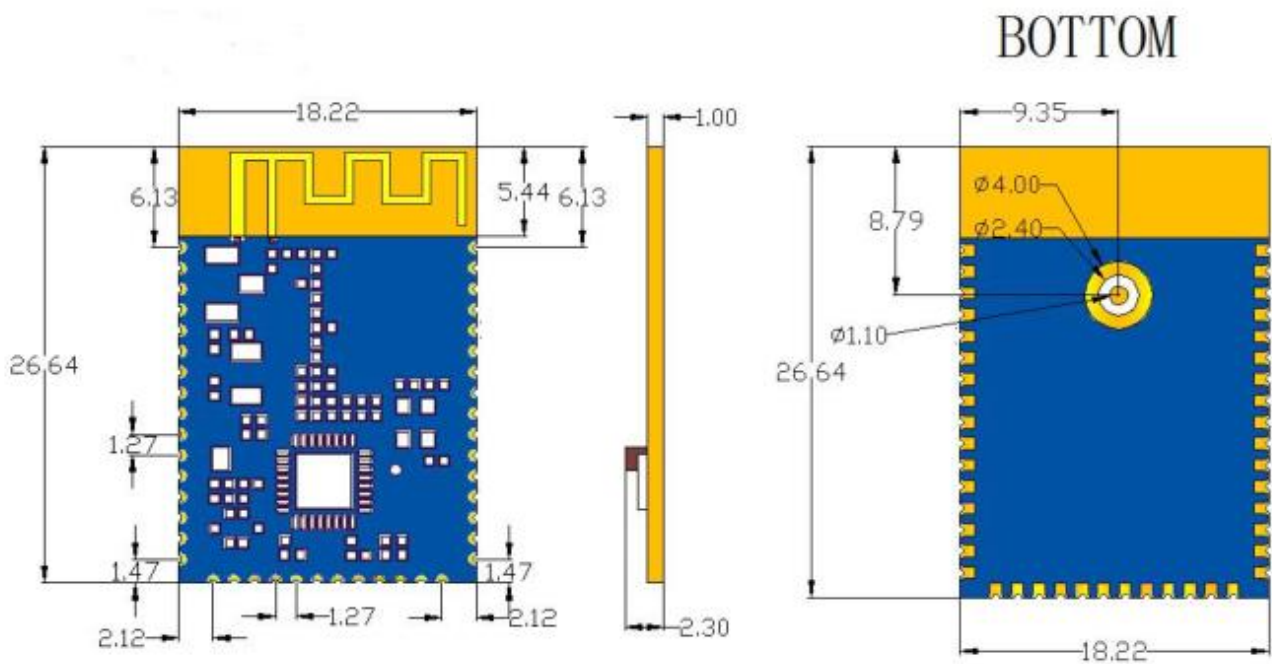
3.Product specifications

Wireless parameter	
Wireless standard	802.15.1
Frequency range	2.402GHz~2.480GHz
Transmitting power	-14dBm~+8dBm
Receiving sensitivity	-85dBm
Antenna	Internally installed antenna: On-board antenna Externally installed antenna: I-PEX connector
Transmission distance	Module to module: 100m.(Open area with maximum transmitting power) Mobile phone to module: 140m.(Open area with maximum transmitting power)
Hardware parameter	
Working voltage	1.7V~3.6V
Working current	Average 2.40mA@3.3V, slave mode without entering sleep mode Average 4.50mA@3.3V, master mode without entering sleep mode Average 2.40mA@3.3V, broadcast mode without entering sleep mode Average 0.800mA@3.3V, slave mode with entering deep sleep mode Average 0.800mA@3.3V, broadcast mode with entering deep sleep mode
Dimensions	18.2×26.7×3(mm)(L*W*H)
Working environment	
Working temperature	-40~85℃
Storage temperature	-40~125℃
Serial port	
Serial port number	TTL*1
Standard	3.3V-TTL

Data bits	5, 6, 7, 8
Stop bits	1, 1.5, 2
Parity	None, Even, Odd
Baud rate	1200bps~ 921600bps
Cache	512 bytes
Flow control	Don't support
Software parameter	
Device type	Master device/Slave device
Security mechanism	128-bit AES engine
Encryption type	PC1 encryption
Work mode	Master mode, slave mode, broadcast mode, mesh networking mode
Configuration command	AT command mode
Configuration method	Serial AT command mode, transparent transmission AT command mode

4.Product dimensions

Unit: mm



5.Contact Us

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6.Disclaimer

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7.Update History

2018-01-04 V1.0.0.01 established.