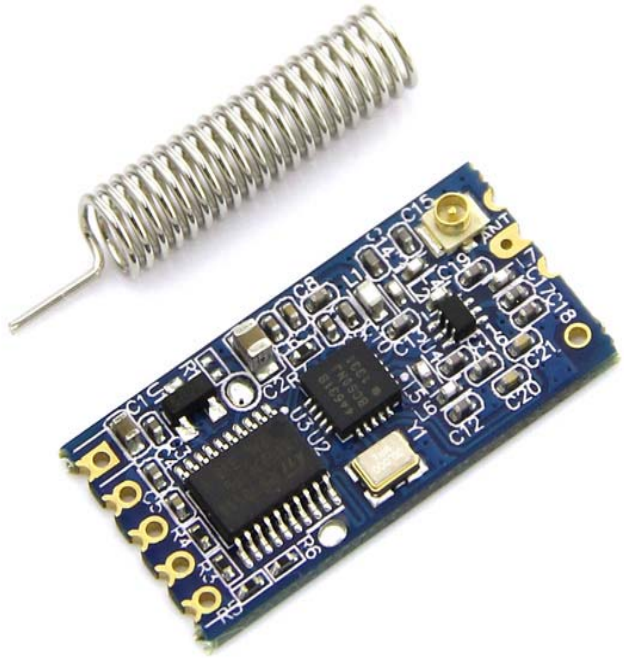
433Mhz Wireless Serial Transceiver Module - 1 Kilometer

SKU 113990039



Long-distance wireless transmission
3 working modes
Working frequency range (433.4-473.0MHz, up to 100 communication channels)
Built-in MCU, performing communication with external device through serial port

Description

HC-12 wireless serial port communication module is a new-generation multichannel embedded wireless data transmission module. Its wireless working frequency band is 433.4-473.0MHz, multiple channels can be set, with the stepping of 400 KHz, and there are totally 100 channels. The maximum transmitting power of module is 100mW (20dBm), the receiving sensitivity is -117dBm at baud rate of 5,000bps in the air, and the communication distance is 1,000m in open space.

The module is encapsulated with stamp hole, can adopt patch welding, and its dimension is 27.8mm×14.4mm×4mm (including antenna cap, excluding spring antenna), so it is very convenient for customers to go into application system. There is a PCB antenna pedestal ANT1 on the module, and user can use external antenna of 433M frequency band through coaxial cable; there is also an antenna solder eye ANT2 in the module, and it is convenient for user to weld spring antenna. User could select one of these antennas according to use requirements.

There is MCU inside the module, and user don’t need to program the module separately, and all transparent transmission mode is only responsible for receiving and sending serial port data, so it is convenient to use. The module adopts multiple serial port transparent transmission modes, and user could select them by AT command according to use requirements. The average working current of three modes FU1, FU2 and FU3 in idle state is 80μa, 3.6mA an 16mA respectively, and the maximum working current is 100mA (in transmitting state).

Features:

- Long-distance wireless transmission (1,000m in open space/baud rate 5,000bps in the air)
- Working frequency range (433.4-473.0MHz, up to 100 communication channels)
- Maximum 100mW (20dBm) transmitting power (8 gears of power can be set)
- Three working modes, adapting to different application situations
- Built-in MCU, performing communication with external device through serial port
- The number of bytes transmitted unlimited to one time

Specification：

- Working frequency: 433.4MHz to 473.0MHz
- Supply voltage: 3.2V to 5.5VDC
- Communication distance: 1,000m in the open space
- Serial baud rate: 1.2Kbps to 115.2Kbps（default 9.6Kbps）
- Receiving sensitivity: -117dBm to -100dBm
- Transmit power: -1dBm to 20dBm
- Interface protocol: UART/TTL
- Operating temperature: -40℃ to +85℃
- Dimensions: 27.8mm x 14.4mm x 4mm

Copyright © 2008-2016 Seeed Development Limited All rights reserved