

# Arduino Sensor Wireless 433 MHz



## ***Introduction:***

Using TI's high performance CC1101 wireless communications chips, 433MHz license-free ISM band free use, serial the application is simple to use without programming, providing up to 256 channels, low- power operation, transmission power operation, transmission distance up to 200 meters above, can be widely used in wireless meter reading, industrial remote control, LED screen graphic updates and other wireless data trasmission fields. transmission fields.

## ***Basic Performance and Features:***

1. low-power module, the maximum transmit power 10mW
2. Operating voltage 3.3-5V, DC power supply
3. Work in 433MHz ISM band free, free license to use (420MHz ~ 440MHz)
4. High noise immunity and low error rate, based on FSK modulation mode, high-efficiency forward error correction coding and channel interleaving technology to improve the ability of anti-random noise and burst data interference, channel bit error rate of 10-2 can be achieved when the actual error rate 10-5 ~10-6
5. Support transparent data transfer and DL / 645 of the Statute. Provide transparent data interface, can adapt to any standard or nonstandard user protocol. Air generated automatically filter out false data (ie collected issued), communications software supports wireless meter reading system DL / 645 of the statute.
6. Maximum 256 programmable channels (20M Band). You can follow 200 KHz frequency intervals can provide at least 256 channels to meet the multiple communication combination mode.
7. Provides three kinds Optional Interface: TTL level UART interface, the standard level of the standard RS-232 or RS-485 interface, currently only TTL, other needs orders.
8. Using professional single-chip module design, reducing user costs
9. Large data buffers. Interface baud rate equal air baud rate, provides three kinds of user-selectable baud rate: 4800,9600, 19200bps (currently shipping is fixed at 9600bps, please contact the treasurer need other), data format 8N1 / 8E1 / 8O1 user Custom, you can transfer up to 30 bytes of data frames, the user program more flexible.
10. Intelligent data control, users do not need to prepare excessive programs. Even the half-duplex communication, users do not need to prepare excessive programs, as long as the interface to send / receive data to other such as air / receiving conversion, control and other operations, FT1100-232 module automatically.
11. Multiple antenna configuration, to meet the different needs of users, such as multiple gain rubber antenna, suction cup antenna. The communication distance: In the linear visual case, the height of antenna > 2 meters, 9600bps reliable transmission distance is more than 200m (BER = 10-3 / 9600bps).

## ***Typical Applications:***

- \* Wireless meter reading system
- \* Automatic real-time data acquisition system
- \* Remote automated acquisition and control system
- \* Building automation, security, wireless monitoring and control room equipment
- \* Down-hole location, alarm
- \* Wireless alarm and security systems
- \* Industrial monitoring and control
- \* Wireless sensor networks
- \* LED screen wireless graphic update
- \* Low-power handheld devices, etc.