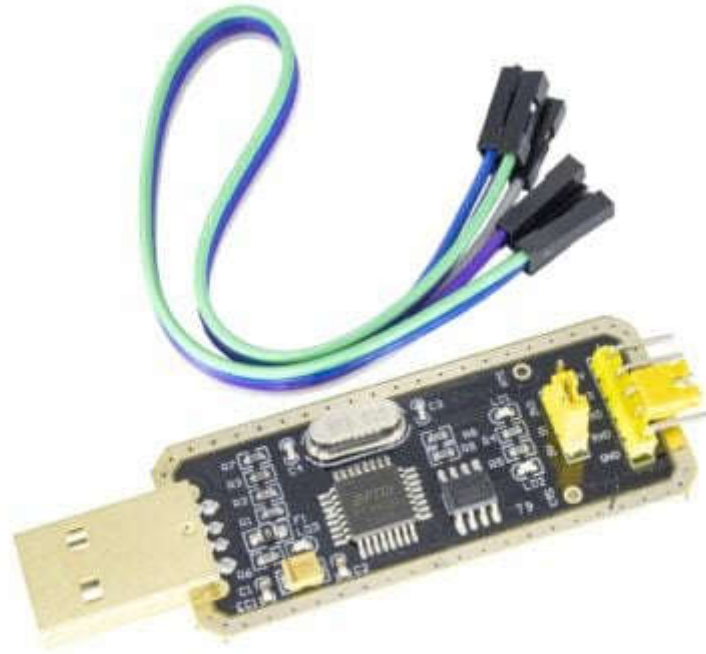


FT232 Module USB to TTL Local Gold



Introduction

FT232RL is a powerful USB – to – serial chip produced by FTDI, which is widely used in various electronic design projects. With its efficient and stable characteristics, it provides developers with a convenient hardware communication solution. The FT232RL chip provides designers with a simple way to implement RS – 232 serial communication function through the USB interface. It integrates USB full – speed processing function, serial engine and FIFO buffer, without the need for an external USB interface chip or FIFO RAM. This degree of integration simplifies the design process and reduces the development cost.

1. Adopt industrial – grade FT232BL chip, and the external EEPROM (93C46) makes it more stable.
2. Support WINDOWS 10.
3. Support 3 power supply modes: 5V external power supply; 3.3V external power supply; powered by external power supply (3.3V – 5V is required).
4. Equipped with 3 LEDs: TXD LED, RXD LED, POWER LED.
5. GND, RXD, TXD, 3V3, 5V: 引出 with bent pin headers.
6. Other functional PINs: reserved pads CTS, RTS.
7. Equipped with a 500mA self – restoring fuse, which will not burn when connected reversely.

Instructions for Use

1. GND: Connect to GND.
2. RXD: Connect to MCU.TX (Signal flow: MCU.TX >> FT232 >> PC.RX).
3. TXD: Connect to MCU.RX (Signal flow: MCU.RX << FT232 << PC.TX).

4. 3V3/5V: Output 3.3V or 5V (When the module is powered by USB, the jumper cap must be set to 3.3V or 5V).
5. RTS: Connect to MCU.CTS (Signal flow: MCU.CTS << FT232 << PC.RTS).
6. CTS: Connect to MCU.RTS (Signal flow: MCU.RTS >> FT232 >> PC.CTS).

Note: (Take connecting to MCU as an example)

Common Problems

In which environments does the USB interface need to be isolated?

The USB interface has become one of the commonly used interfaces in the daily work and life of electronic engineers and practitioners. However, as competition in the computer industry becomes increasingly fierce and product prices get lower and lower, most merchants are forced to reduce the protection of computer motherboards. This forces most enterprises to frequently come into contact with the human body and the outside world, and many times it also supplies power to external devices. External strong electricity and strong interference put great pressure on the USB port. This leads to the premature failure of USB interfaces in many computers and even motherboard damage.

1. Electrical equipment with strong electricity

When equipment with strong electricity (such as high – voltage electricity, frequency converters, motor drives, etc.) is connected to the computer’s USB port, it may burn out the USB interface. Isolation must be carried out to ensure the safety of the computer’s USB port, motherboard, and human body, which can effectively avoid damage to the USB port and personal injury.

2. Electrical equipment with strong interference

Devices such as motor drivers and frequency converters themselves generate a lot of interference. If this interference is introduced into the USB port, it may cause the computer to crash, blue screen, or become unresponsive. Communication isolation of the USB interface can be carried out through this device to prevent the computer from being interfered.

3. Noise – sensitive equipment

The computer itself is also a noise source. By isolating the USB port, high – frequency interference from the computer can be prevented from being transmitted to sensitive equipment, thereby better acquiring data, such as audio equipment, precision measurement equipment, and medical equipment.

4. Ordinary electronic equipment

For ordinary electronic equipment, isolation can effectively avoid problems such as short – circuit damage to the computer’s USB port and blue screen caused by operational errors, greatly improving operational safety.

FT232RL Driver Installation

Royalty free VIRTUAL COM PORT (VCP) DRIVERS for...

- Windows 10 32,64-bit
- Windows 8/8.1 32,64-bit
- Windows 7 32,64-bit
- Windows Vista and Vista 64-bit
- Windows XP and XP 64-bit
- Windows 98, 98SE, ME, 2000, Server 2003, XP, Server 2008 and server 2012 R2
- Windows XP Embedded
- Windows CE 4.2, 5.0 and 6.0
- Mac OS 8/9, OS-X
- Linux 2.4 and greater

Royalty free D2XX *Direct Drivers* (USB Drivers + DLL S/W Interface)

- Windows 10 32,64-bit
- Windows 8/8.1 32,64-bit
- Windows 7 32,64-bit
- Windows Vista and Vista 64-bit
- Windows XP and XP 64-bit
- Windows 98, 98SE, ME, 2000, Server 2003, XP, Server 2008 and server 2012 R2
- Windows XP Embedded
- Windows CE 4.2, 5.0 and 6.0
- Linux 2.4 and greater
- Android(J2xx)

