

Model:UT-8823F

(Product Name: USB/RS-232 1Port commercial grade interface converter.)

Datasheet



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1. Overview

As the PC industry continues to develop, USB interfaces are gradually replacing various low-speed peripheral interfaces of old PCs. However, many important devices in the industrial environment still use RS-232 interface design. Therefore, many users use USB to RS-232 converters to achieve data transmission between PCs and RS-232 devices.

The UT-8823F is a universal USB/RS-232 converter that does not require an external power supply, is compatible with USB and RS-232 standards, and can convert single-ended USB signals into RS-232 signals. The converter has zero-delay automatic send/receive conversion and unique I/O circuitry that automatically controls the direction of data flow without any handshake signals (such as RTS, DTR, etc.) or jumper settings, plug and play, ensuring compatibility with all existing communication software and interface hardware.

The UT-8823F interface converter can provide reliable connections for point-to-point communications. It has a data communication rate of 300-460800bps and supports USB to RS-232 signal conversion.

2. Major Functions & Features

The interface converter supports the following communication mode:

1. Point-to-point communication mode.

3. Hardware Installation and Application

Please read the product manual carefully before installing the UT-8823F. Connect the USB communication cable provided with the product to the USB port on your computer. This product uses a USB/DB9F universal connector as its input/output interface and can automatically realize RS-232 communication mode without requiring additional settings. It can be connected using twisted pair or shielded wire, and is easy to connect and disconnect.

The converter uses a 9-wire connection scheme that includes all signals such as DCD, RXD, TXD, DTR, GND, DSR, RTS, CTS, and RI.

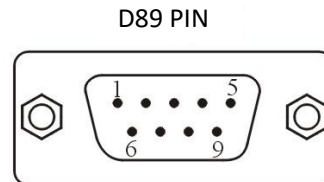
4. Performance Parameters

1. Standard: Compliant with USBV1.1, 1.0, 2.0 standards, EIA RS-232 standard
2. USB signal: VCC, DATA-, DATA+, GND, FG
3. RS-232 signal: DCD RXD TXD DTR GND DSR RTS CTS RI
4. Operation mode: Asynchronous operation, point-to-point operation
5. Direction control: Adopts data flow automatic control technology, automatically identifies and controls the direction of data transmission
6. Baud rate: 300-460800bps, automatically detects the serial port signal rate
7. Load capacity: Supports point-to-point communication mode
8. Transmission distance: 5 meters for RS-232 end, not exceeding 5 meters for USB port
9. Interface protection: $\pm 15\text{KV}$ electrostatic protection
10. Interface form: USB end A-type interface male head, connected by DB9 male head connector
11. Transmission medium: Twisted pair or shielded wire
12. Dimensions: 1530mm \times 34mm \times 16mm
13. Operating environment: -40°C to 85°C , relative humidity from 5% to 95%
14. Support Windows95/98/2000/2008/xp/Vista/win7/8/8.1/10/11, MAC, Linux, etc.

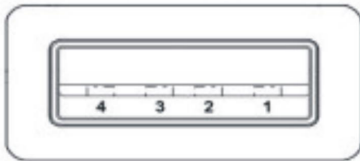
7. Connector&signal

1. RS-232C Pinout

DB9 M(PIN)	RS-232C Interface Signals:
1	Data Carrier Detect (DCD)
2	Transmit Data (TXD)
3	Receive Data (RXD)
4	Data Set Ready (DSR)
5	Signal Ground (GND)
6	Data Terminal Ready (DTR)
7	Clear to Send (CTS)
8	Request to Send (RTS)
9	Ring Indicator (RI)

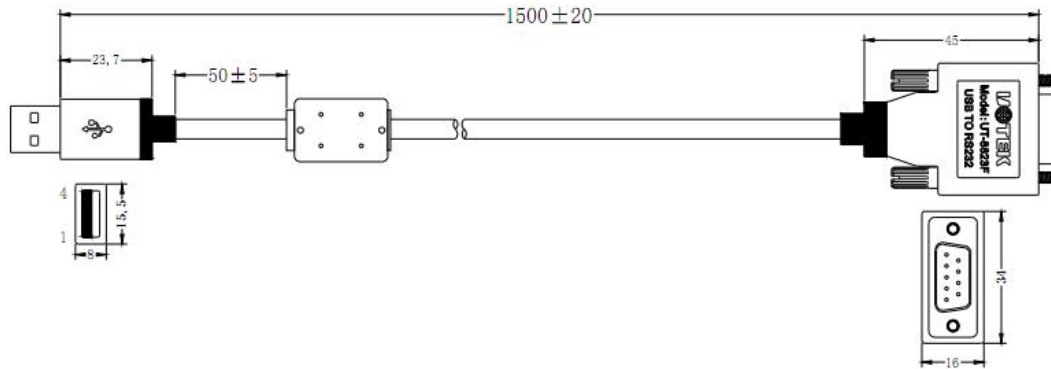


2. USB-A: USB signal input and pinout diagram



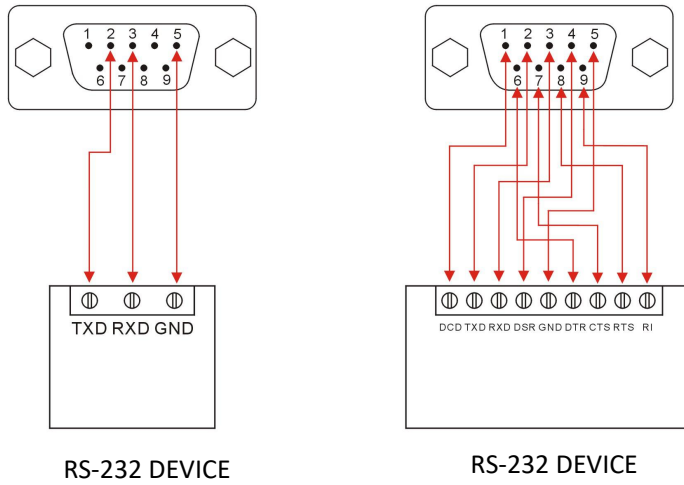
- 1、 VCC
- 2、 DATA-(DM)
- 3、 DATA+(DP)
- 4、 GND

6. Communication Connection Schematic



- ① Standard USB A interface male head
- ② Filter magnetic ring
- ③ Black shielded USB 2.0 communication cable
- ④ Standard DB9 male head
- ⑤ The main chip uses products from FTDI company in the UK.

1、DCD 2、RXD 3、TXD 4、DTR 5、GND 6、DSR 7、RTS 8、CTS 9、RI



8. Appearance



9. Troubleshooting

1. Data communication failure:
 - A. Check if the USB interface wiring is correct.
 - B. Check if the RS-232 output interface wiring is correct.
 - C. Check if the power supply is normal.
 - D. Check if the terminal connections are well connected.

2. Data loss or error:

A. Check if the data rate and format of the two ends of the data communication device are consistent.

B. Check if the amount of data transmitted and received by the two ends of the data communication device is consistent.