

# **Model:UT-2003B1**

**USB to 8 ports RS-232 Converter**

## **Datasheet**

## 1. Overview

With the development of PC industry, USB interface is gradually replacing various low-speed peripheral interfaces of old PC, however, many important devices in industrial environment still use RS-232 interface design, so many users use USB to RS-232 converter to realize data transfer between PC and RS-232 devices.

The UT-2003B1 is a universal USB/RS-232 interface converter, which is compatible with USB and RS-232 standards without external power supply, and is capable of converting a single USB signal to a UART RS-232 signal, with the RS-232 side connected via a DB9 male connector. The converter is equipped with zero-latency automatic transceiver, unique I/O circuitry to automatically control the data flow direction, plug and play. It ensures that it is suitable for all existing communication software and interface hardware.

UT-2003B1 interface converter can be used for point-to-point communication connection, data communication rate 300-921.6Kbps, with power indicator and data flow indicator to indicate the fault situation, support the communication mode of USB to RS-232 conversion.

## 2. Major Functions & Features

- Support USB to RS-232 converter

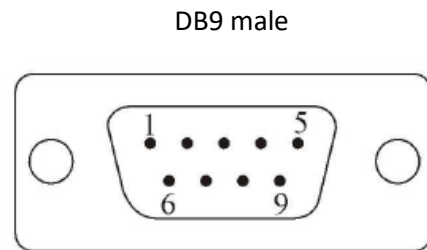
## 3. Technical Parameters

- Standard: Compliant with USBV1.0, 1.1, 2.0 standard EIA RS-232 standard
- USB signals: VCC, DATA+, DATA-, GND, FG
- RS-232 signal: DCD RXD TXD DTR GND DSR RTS CTS RI
- Working mode: asynchronous work, point-to-point communication mode
- Direction control: automatic data flow control technology is used to automatically identify and control the direction of data transmission
- Baud rate: 300-921.6Kbps, automatic detection of serial signal rate
- Transmission distance: RS-232 end 5m, USB port no more than 5m
- Interface protection:  $\pm 15KV$  electrostatic protection
- Interface form: USB end of the Class B interface female, DB9 male connector connection
- Signal indication: light power (PWR) transmit (TXD) receive (RXD)
- Transmission medium: twisted pair or shielded wire
- Dimension: 490mmX201mmX43mm
- Operating environment: -40~ 85°C, relative humidity 5~ 95%
- Support Win98/Win2000/WinXP/Vista/Win7/Linux etc.
- External power supply: AC220V/50Hz

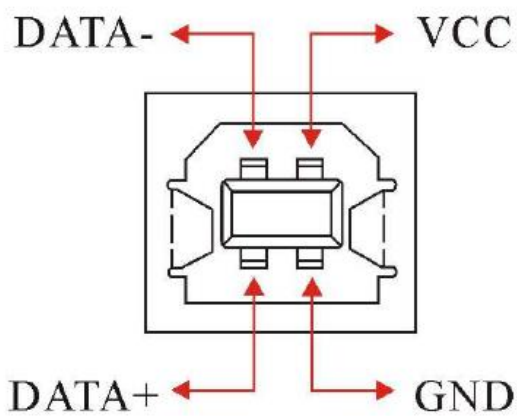
## 4. Hardware definition and initial settings

- DB9 male: RS-232 output signal and terminal pin assignment

| DB9 (PIN) | RJ-45C Signal interface         |
|-----------|---------------------------------|
| 1         | Protection grounding            |
| 2         | Receiving data SIN(RXD)         |
| 3         | Transmitting data SOUT(TXD)     |
| 4         | Data terminal preparation (DTR) |
| 5         | GND                             |
| 6         | Data device preparation (DSR)   |
| 7         | RTS                             |
| 8         | STS                             |
| 9         | RI                              |



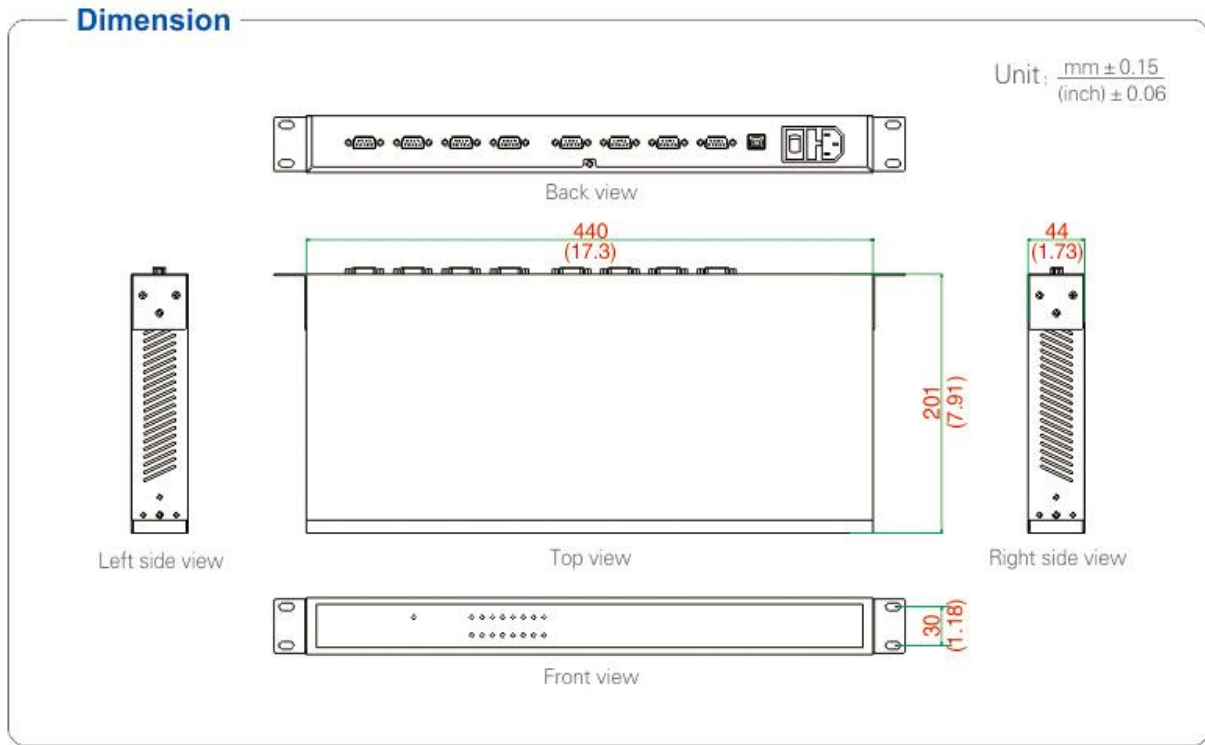
- USB-B Female: USB signal input and pin assignment diagram



## 5. Product View (Appearance)



## 6. Structure Dimensions



## 7. Ordering Information

| Model     | Signal/ Interface |          |            | Protection level |            | Baud rate            | Operating Environment |          |          | Power         |                |
|-----------|-------------------|----------|------------|------------------|------------|----------------------|-----------------------|----------|----------|---------------|----------------|
|           | USB               | RS-232   | RS-485/422 |                  |            |                      | Temperature           |          | Humidity |               |                |
|           | USB B type        | DB9 male |            | RS232            | RS-485/422 |                      | -25~70°C              | -40~85°C | 5~95%    | plug and play | External power |
| UT-2003B1 | √                 | √        |            | ±15 KV<br>ESD    |            | 300bps-921.6<br>kbps |                       | √        | √        |               | 100-240<br>VAC |