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User Manual

**4-Port RS-232 USB 2.0 Serial Adapter
w/ LED Indicators Model No. GM-FTDI4X-LED**

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Summary

- ▶ With this professional 4 port RS232 to USB FTDI chip adapter with RX and TX Status LEDs you can easily add 4 standard serial ports to your desktop, laptop or other mobile device. This device also offers protection against static electricity, high voltage spikes and other dangerous electrical shocks which can damage your equipment or data signaling.

- ▶ The [GM-FTDI4X-LED](#) 4 Port RS232 USB to Serial Adapter is compatible with most GPS and PDA devices such as Garmin, Magellan, and Palm. Office equipment such as modems, printers, scanners, and digital cameras are also compatible. With protection against static electricity and surges up to 15KV, the Professional 4 Port RS232 USB to Serial converter cable gives you reliable data transfers and protects the converter and your equipment from damage due to over voltages.

- ▶ The USB Plug and Play feature allows easy installation and requires no configuration for IRQ, DMA, or I/O port resources. Just like most of our other converters, this adapter is using the high quality FTDI chip which makes it fully compatible with all versions of Windows, Linux, and Mac.

Functions

[GM-FTDI4X-LED](#) interface converter supports the following communication mode:

1. Point-to-point communication mode.

Hardware Installation & Application

Read the user manual carefully before installing the [GM-FTDI4X-LED](#) interface converter. Put the signal cable of the equipment into the USB socket. USB/DB9 male connectors are adopted for input/output interface connection for this product.

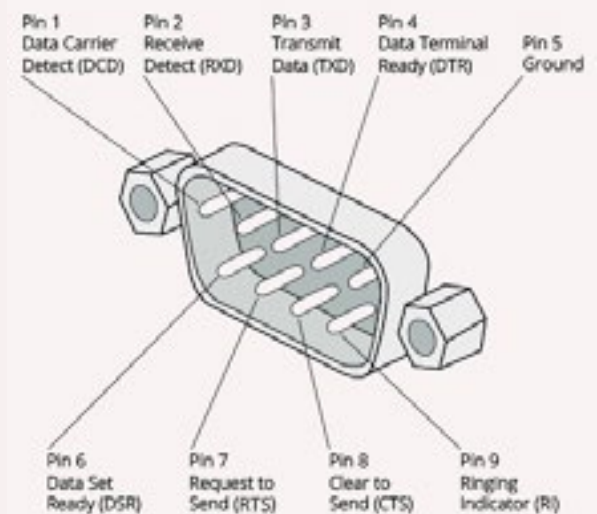
Performance Parameters

1. Standards: Conforming to USB V1.1, 1.0 and 2.0 and EIA RS-232.
2. USB signals: VCC, DATA+, DATA-, GND, FG
3. RS-232 signals: DCD, RXD, TXD, DTR, GND, DSR, RTS, CTS, RI
4. Working mode: Asynchronous point-to-point mode.
5. Direction control: Adoption of automatic data stream control for automatic recognition and control of data transmission direction.
6. Baud rate: 300-921.6Kbps, automatically detection of the transmission rate of the serial interface signal.
7. Transmission Distance: 5 Meters for RS-232 and less than 5 Meters for USB.
8. Interface Protection: +-15KV electrostatic protection.
9. Interface Forms: B interface female connector and DB9 male connector for USB.
10. Signal Indication: 9 indicator lights for Power (PWR), Send (TXD), and Receive (RXD).
11. Transmission media: twisted-pair cable or shielded cable.
12. Dimensions: 1500mm x 36mm x 16mm
13. Working environment: -40°C to 85°C, relative humidity of 5% to 95%
14. Supports Win98, 2000, 2003, 2008, XP, Vista, 7, 8, CE, Mac, Linux.

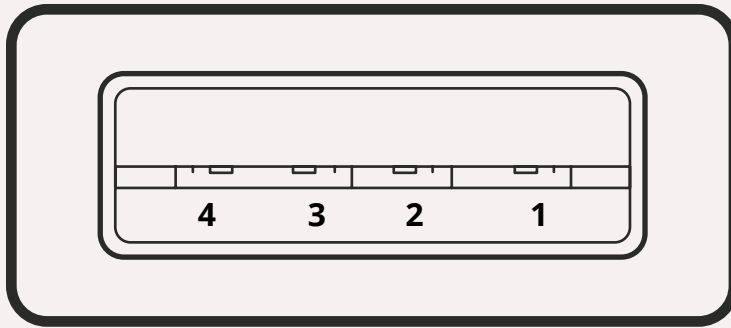
Connector & Signals

1. Pin assignment of RS-232C

DB9M (PIN)	RS-232C
1	Data Carrier Detect (DCD)
2	Receive Data SIN (RXD)
3	Transmit Data SOUT (TXD)
4	Data Terminal Ready (DTR)
5	Signal Ground (GND)
6	Data Set Ready (DSR)
7	Request to Send (RTS)
8	Clear to Send (CTS)
9	Ring Indicator (RI)



1. USB-A type: USB signal input and pin assignment

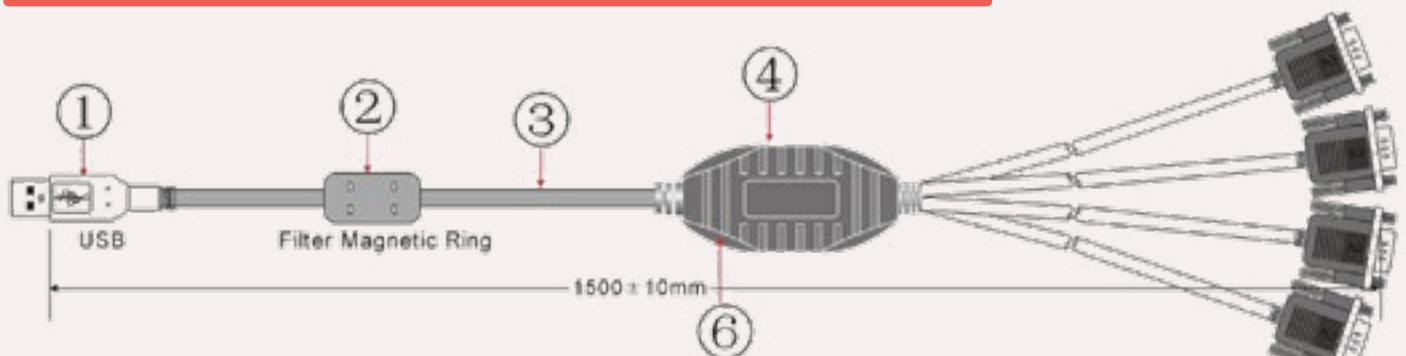


1. VCC
2. DATA-(DM)
3. DATA+(DP)
4. GND

RXD TXD LED Array



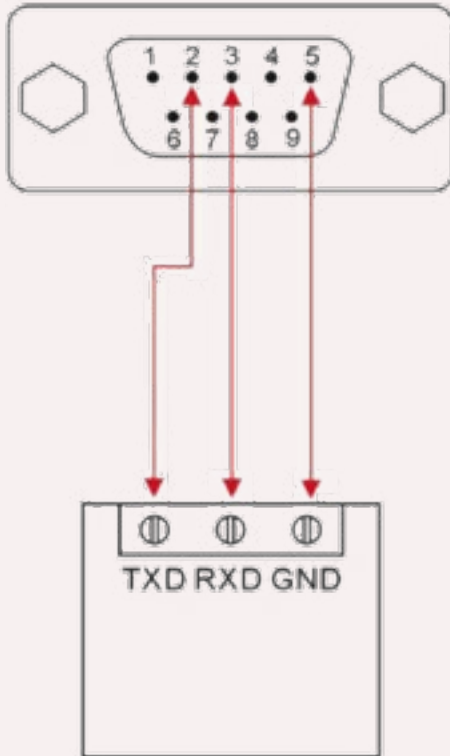
Product Dimension & Connection Diagram



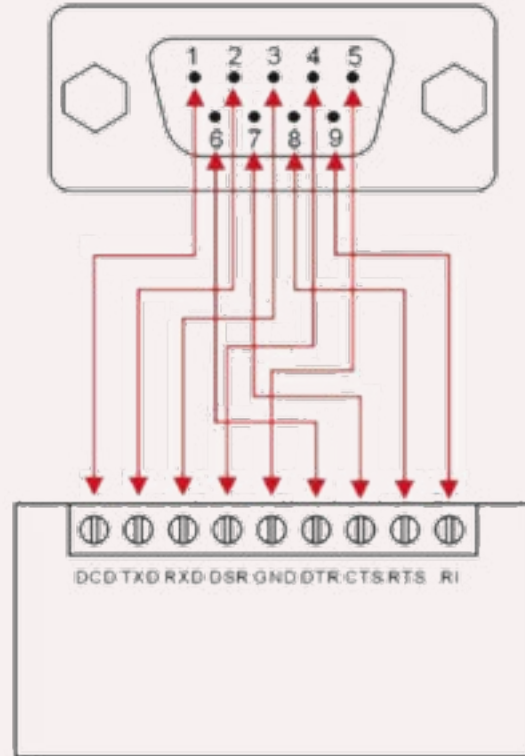
1. Standard USB A-type male connector
2. Filter magnetic ring
3. Screened black standard USB 2.0 cable
4. Aesthetic shell (black) with LED Array
5. Standard DB9 male connector
6. Master chip of FTDI company in England

USB to RS-232 Communication

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



RS-232 Device



RS-232 Device

Faults & Troubleshooting

1. Data Communication Failure

- Check the USB cable connection
- Make sure that the RS-232 output interface connection is correct
- Check the power supply
- Check the wire terminal connection
- Check receive indicator and see if it flashes
- Check send indicator and see if it flashes

2. Data missing or incorrect

- Check to see whether the data rate and format at both ends of the communication equipment is consistent.