ATC-820

USB <=> RS-485 Interface Converter

User's Manual

Introduction

The ATC-820 is an Surge Protection USB to 1-Port RS-485 converter that is designed for PC, thin client, or server to provide instant COM port expansion via the Universal Serial Bus (USB). Supports Windows 95/98/Me, 2000, 2003, XP, Vista,Win7, CE, Linux.

The ATC-820 module is a cost-effective way to convert USB interface to RS-485 industrial buses. When connected to a PC USB port. The ATC-820 module is automatically detected and is installed as a native COM port which is compatible with any existing serial communication application.

The ATC-820 converter can be configured for RS485 two-wire (Half Duplex) networks. When operating in two-wire RS485 the data transfer control is automatically done by the converter.

The ATC-820 has a 384 byte receive buffer with an adjustable timeout and a 128 byte transmit buffer with auto-transmit control. The ATC-820 makes it easier to add RS-485 devices to your system with easy plug-and-play.

Features

● Computer interface: USB 1.1 2.0 Plug and Play.

● Operational system virtual serial port driver.

● Supports Windows 95/98/Me, 2000, 2003, XP, Vista,Win7, CE, Linux.

● Field Interfaces: RS-485 Half Duplex ,

● Automatic flow control for RS485 Half Duplex.

● Transmission rate: from 300 bps to 921.6KBPS.

● Maximum RS-485 cable length : 1200 mm

● Maximum number of devices in the RS485 network: Half Duplex to 32 devices

● Power: from the USB port.

● Consumption: <100 mA.

● RS-485 bus protection: 600W.

● USB connection: Type A connector. 100mm cable with the module.

● RS-485 connector: DB9 Male

● ABS enclosure: 60 x 57 x 24 mm(not include cable)

● Operating environment: -25°C to 70°C, 10 to 90% relative humidity, non-condensing.

Wiring configuration

The RS-485 termination of the Interface is implemented as a DB9 plug. The pin assignments for the connector can be found in the following table as well as on a sticker applied to the unit.
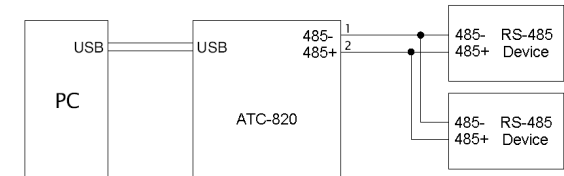
RS-485 Pinout at DB9 Male

PIN#	RS-485
1	485-
2	485+
5	GND

LED indication

Red LED ----- Data Sending from USB port to RS-485 Serial Port side

Green LED ----Data Receiving from RS-485 Serial port side to USB port

Wiring examples

Driver Installation

Follow the steps below to install driver of USB-High Speed Serial Converter:

1. Power on your computer and make sure that the USB port is enabled and working properly.

2. Plug in the USB-High Speed Serial Converter into the USB port   and run the **Add New Hardware Wizard** to assist you in setting up the new device. Click **Next** to continue.

3. Insert the USB-HS Serial Converter software driver into the CD-ROM drive   and click Next to continue. For Windows 98, click **Search for the best driver for your device** and click to search driver from the CD drive F:\DRIVER\ATC-820.

4. Windows will detect the driver (**FTDIBUS.INF**) and shows the **USB HS SERIAL CONVERTER**. Click Next to continue installation.

5. Click Next to continue and let Windows copy the needed files to your hard disk.

6. When Windows finished installing the software required for the new **USB to Serial Cable**, click Finish.

Setting Up the RS232 Serial Device

Follow the steps below to connect your RS232 Serial Device (ie: Modem) to the USB port of your PC:
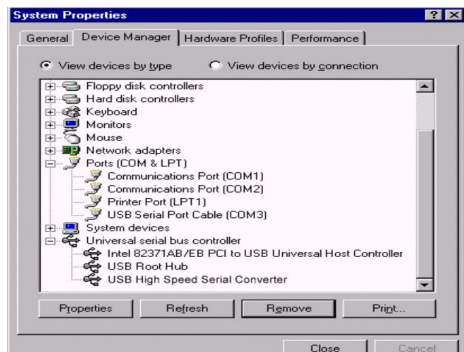
1. Turn off your Modem. Plug the DB 9 (or DB 25) connector of the USB-HS Serial Converter into your Modem. Connect the other end of the USB-HS Serial Converter to an USB type A to type B cable. Turn on the Modem afterwards.

2. Turn on your computer and plug in the USB connector of the USB-HS Serial Converter into the USB port.

3. If you have already installed a Modem device before, click Start, Settings, Modems. Open Modems Properties, select the Modem, click Properties. In

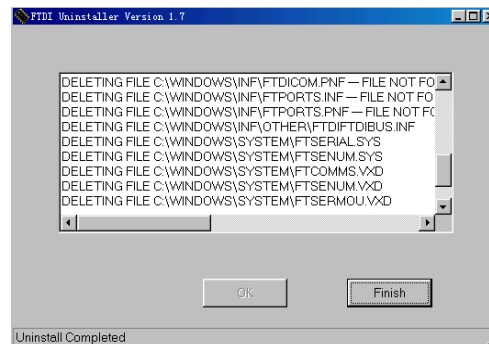General tab, please change the **Port** value to **USB Serial Port (COM3)**.

4. After finishing these processes, you can use USB to Serial Bridge Cable to connect RS232 Serial 56K FAX Modem and execute the Dial-up fuction to connect Internet, and send the FAX with the FAX software(ie: Microsoft FAX) properly.
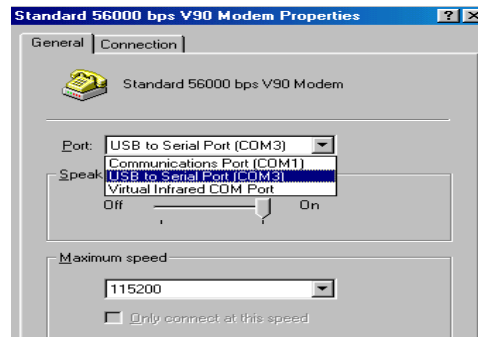
Uninstalling the Driver Program

If you want to remove the USB-HS Serial Converterr driver program, you can uninstall it by following the steps below:

1. Unplug the USB-HS Serial Converter from your PC.

2. Run the F**:\Driver\Win98&win2000\FTDIUNIN.EXE** program from the software CD-ROM, Clik finish then reboot the PC.

Disclaimer