UC2322 / UC2324 / UC4852 / UC4854

USB-to-Serial RS-232 Hub

Serial Port Configuration

User Manual

www.aten.com
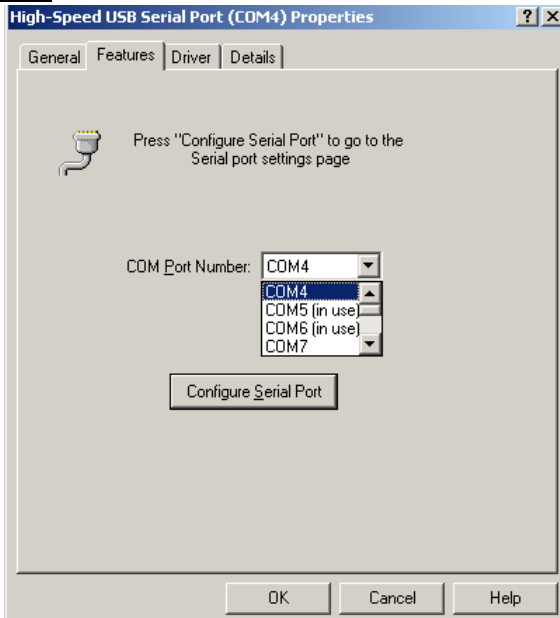
Serial Port Configuration

Overview

This user manual provides information to help you configure the Serial Port after it has been installed for the UC2322 / UC2324 / UC4852 / UC4854 USB-to-Serial RS-232 Hub. You must first install the driver before it can be configured. To install the driver please go to our website and download the user manual for instructions.

Properties Page

To configure the Serial Port for your device, on your computer go to Control Panel - Device Manager, select "*High-Speed USB Serial Port* (*Com X*)", right click and select **Properties**. Click the *Features* tab.

Features Tab

This tab is used to change the COM port number and configure the port. Use the *COM Port Number* drop down list to select the serial port you want to configure.

Configuring the COM Ports

To configure the serial port properties, from the *Features* tab, select the COM Port Number, and click the "*Configure Serial Port*" button. The *USB Serial Port Properties* page will appear:

Port Settings Tab

There are two sections on the *Port Settings* Tab: *Serial Port section* and *Configuration*. Click **Default** to reset all values their original setting, **Set** to apply changes, or **Discard** to remove changes before they are applied.

Serial Port is used to set the communication parameters without the help of a third party application. This is possible only when you are using an application that does not support configuration of the communication parameters.

Configuration is used to improve the performance while working with higher baud rates (1.5, 3 & 6 Mbps). However, optimal performance can be obtained with the default values at the standard baud rates. Maximum Status Poll is used to increase the polling of status end point of USB.
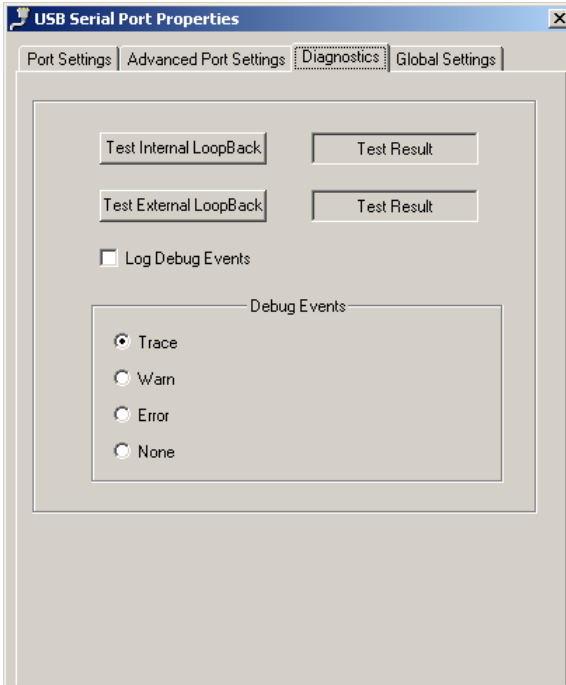
Advanced Port Settings Tab
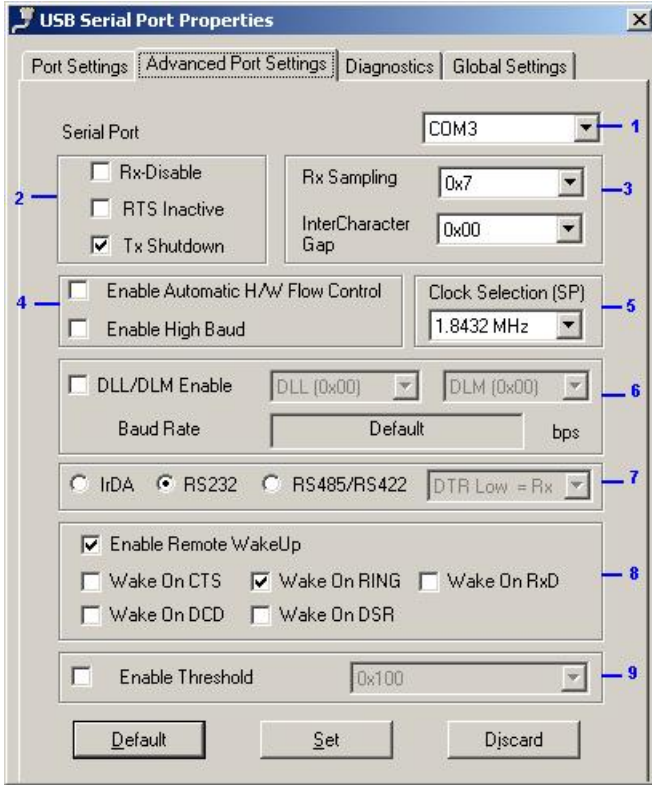
On this tab you will find many configuration settings which can be customized according to your requirements. Click **Default** to reset all values their original setting, **Set** to apply changes, or **Discard** to remove changes before they are applied. This tab has 9 sections, described in the table below:

No.	Description
1	**Serial Port:** Select the COM port which you would like to make changes to.
2	◆ **Rx-Disable:** Checking this box permanently disables the receiving capacity of the selected port.
	◆ **RTS Inactive:** This is for setting the status of the RTS signal. The default setting (Unchecked) is Active Low.
	◆ **Tx Shutdown:** Checking this box shuts down the transceiver on the USB suspend state.

| No.	Description
3	◆ **Rx-Sampling**: This is used to program the sampling point of each data bit (initial, middle or end). By default this value is set to 0x7 so that sampling takes place in the middle of each bit. ◆ **InterCharacter Gap:** This value is used to program the gap between each data bit being sent or received. By default this value is set to 0x00, which sets the default gap.
4	◆ **Enable Automatic H/W Flow Control:** Checking this option enables Hardware Flow Control automatically for that particular serial port. ◆ **Enable High Baud:** Enables high baud rates to Serial Applications (110/150bps acts as 1.5 Mbps, 300bps acts as 3 Mbps, and 600/1200 bps acts as 6 Mbps).
5	**Clock Selection (SP):** The Clock for the serial port can be selected from this drop down box. Six options are available: *1.8432 MHz (Default), 30 MHz, 96MHz, 120 MHz, PLL OutPut,* and *External clock.* ◆ PLL Clock OutPut for the Internal Clock can be programmed by selecting the 12 MHz option and setting *Loop-Divisor* and *Pre-Divisor* values on the Global Settings page. ◆ PLL Clock OutPut for the External Clock can be programmed by selecting the External Clock option and setting *Loop-Divisor* and *Pre-Divisor* values on the Global Settings page.
6	**Enable DLL/DLM:** This section enables programming of custom baud rates for serial ports, by selecting suitable values for **DLL** and **DLM**. If this option is enabled, these settings will be applied to the serial ports irrespective of those set in a COM port application. You can view the related baud rate for each selection, found in the **Baud Rate** option box below.
7	The UC2322 / UC2324 / UC4852 / UC4854 will auto detect and set the serial interface for you, therefore the selection will be grayed out.
8	**Enable Remote WakeUp:** This section enables the remote wakeup feature. Remote wakeup can be enabled by checking different options, per the signal requirements.
9	**Enable Threshold:** This option should be enabled if you experience retries when working with a Windows HyperTerminal application on a Hyper Threading/Dual Core PC. Check **Enable Threshold** to set the default value of *0x100* i.e., 256 bytes for completion. Or change the value per your configuration requirements.

Diagnostics Tab

This tab is used to conduct Internal and External Loop-back diagnostics. Click the **Test Internal LoopBack**, or **Test External LoopBack** button to begin a test and view the *Test Result*.

Log Debug Events is used to launch the debugger. Use the radio buttons to select events. Events include: *Trace*, *Warn*, *Error*, and *None*.

Note: The debugger is applicable on Windows 2000 and Windows XP 32bit systems.

Global Settings Tab
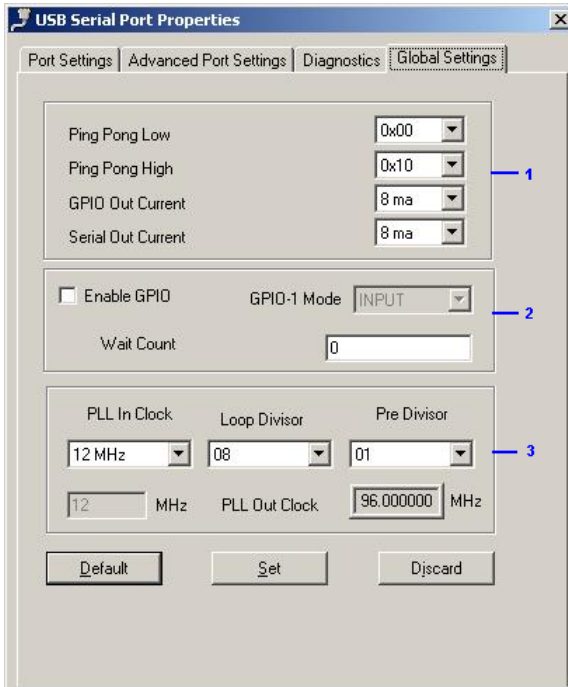
On this tab you will find the global settings which can be customized according to your requirements. Click **Default** to reset all values their original setting, **Set** to apply changes, or **Discard** to remove changes before they are applied. This tab has 3 sections, described in the table below:

No.	Description
1	In this section, the **Ping Pong Low**, **Ping Pong High, GPIO Out Current,** and **Serial Out Current** mechanisms can be adjusted as your configuration requires.
	◆ **Ping Pong Low and Ping Pong High:** These values can be adjusted to improve the performance of the serial port at lower baud rates. The default value provides the optimal performance for all baud rates.
	◆ Both the **GPIO Output currents** and **Serial Port Current** should be configured according to your specific requirements.
2	**Enable GPIO:** In this section, the GPIO-1 can be enabled and configured in *INPUT* or *OUTPUT* mode.
	◆ **Wait Count** can be adjusted to decrease the CPU utilization when 8 or more serial ports are configured on a single PC at higher baud rates.

No.	Description
3	This section provides the flexibility of knowing the **PLL Out Clock** value, by adjusting the **Loop Divisor** and **Pre Divisor** values, the desired clock value can be achieved. This functionality also holds good if an External Clock is selected, provided the value of the External Clock is chosen in the *Clock Selection* list on the *Advanced Port Settings* tab.