## I-7563 Pin Assignment and Specifications:



## Introduction

The **I-7563** is a cost-effective module for transfer serial data over USB. It allows you to connect your serial devices to systems using a USB interface. Connecting the **I-7563** to a PC, The **I-7563** contains "Self Tuner "This chip auto-tunes the baud rate and data format to the Rs-485 network. The **I-7563** module derives the power from the USB port and doesn't need any power adapter. It also features a high-speed 115.2 Kb/s transmission rate, and supports various O.S.

Do you have any RS-485 wiring problems? The **I-7563** is USB to three ports RS-485 Hub. Each channel has its own RS-485 driver IC on it, so it can support star-shaped wiring.

## **Specifications**

- Full compatibility with USB 1.1 specifications.
- Input Port: USB.
- Output Port: Three RS-485.
- Speed: "Self Tuner" inside
- 3000 V DC Isolation protections provided.
- 256 modules max. In three channels RS-485 network without repeater.
- 2048 modules max. In three channels RS-485 network with repeater.
- Repeater request: 4,000 feet or over 256 modules.
- Power consumption: 1.5 W max.
- Storage temperature: -25°C to +80°C
- Humidity: 5~ 95%
- Driver Supported: Windows 98/ME/2000/XP, iMAC OS 10.1X, 10.2.X, Linux

The I-7563 System Network Configuration:

- Multiple Baud Rate
- Multiple Data Format



The I-7563 Block Diagram:



The I-7563 is designed with a Termination resistor on board

Enable/Disable the resistor jumper for channel 1:

To disable the resistor: Set the JP1 jumper to positions 1 and 2. To enable the resistor: Set the JP1 jumper to positions 2 and 3.







120 Ohm on board

Enable/Disable the resistor jumper for channel 2:

To disable the resistor: Set the JP2 jumper to positions 1 and 2. To enable the resistor: Set the JP2 jumper to positions 2 and 3.



Default setting Resistor Disabled



120 Ohm on board

Enable/Disable the resistor jumper for channel 3:

To disable the resistor: Set the JP3 jumper to positions 1 and 2. To enable the resistor: Set the JP3 jumper to positions 2 and 3.



Default setting Resistor Disabled



120 Ohm on board

## I-7563 Driver Installation

This section will guide you on how to install the I-7563 USB to 3 Ports RS-485 Hub under Windows XP, Windows 2000, Windows ME, and Windows 98 operating systems. (No support for WinNT). Download driver files from

- 1. Package CD, \Napdos\7000\756x\7563
- 2. ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/7000/756x/7563

The following steps will show how to install the device under Windows 2000. Basically, the procedures are also somewhat the same for other Windows operating systems.

- 1. Power on your computer and boot to Windows.
- 2. Locate the USB port of your computer and plug in the I-7563.
- 3. Windows will detect the new device and will initiate the Found New Hardware Wizard prompting you to install the software for the detected USB Device. Select to install from a list or specific location. Click Next to continue.



4. An "Install Hardware Device Drivers" window is shown. Click "Next" to initiate a search for a suitable driver for your device.

Found New Hardware Wizard				
Install Hardware Device Drivers A device driver is a software program that enables a hardware device to work with an operating system.				
This wizard will complete the installation for this device:				
A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.				
What do you want the wizard to do?				
<ul> <li>Search for a suitable driver for my device (recommended)</li> </ul>				
Display a list of the known drivers for this device so that I can choose a specific driver				
< Back Next > Cancel				

5. Select the "Specify a location" optional search locations. If the "CD-ROM drives" checkbox is selected, please insert the driver CD. Click "Next" to start the search.

Found New Hardware Wizard				
Locate Driver Files Where do you want Windows to search for driver files?				
Search for driver files for the following hardware device:				
USB Device				
The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.				
To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.				
Optional search locations:				
Floppy disk drives				
CD-ROM drives				
Specify a location				
Microsoft Windows Update				
< Back Next > Cancel				

6. If the "Specify a location" is selected, you much choose the correct path. Enter E:\Napdos\7000\756x\7563(The 'E' is the Disk that Package CD put in). Click "OK" to start the search.

Found Nev	v Hardware Wizard	×
=	Insert the manufacturer's installation disk into the drive selected, and then click OK.	OK Cancel
	Copy manufacturer's files from: E:\Napdos\7000\756x\7563\Win2000	Browse

7. Once Windows finds the correct driver, click "Next" to install the driver.

Found New Hardware Wizard					
Driver Files Search Results The wizard has finished searching for driver files for your hardware device.					
The wizard found a driver for the following device:					
Windows found a driver for this device. To install the driver Windows found, click Next.					
e:\napdos\7000\756x\7563\win2000\ser2pl.inf					
< Back Next > Cancel					

8. Windows will then install the driver for the USB-to-3 Ports. Once installation is complete, Windows will notify you that it has finished installing the software. Click "Finish" to continue.



Verifying the Installation:

This section will show you on how to verify whether the I-7563 was properly installed. You will also need to determine the COM port assignment made by Windows for the USB to 3 Ports RS-485 Hub.

Note: Before you connect the I-7563 for the first time, ensure that you do not attach any serial devices to the converter. You must only connect the I-7560 itself.

To verify whether the device is properly installed and determine the COM port assignment for the device:

- 1. Click "Start" → "Settings" → "Control Panel", then double click on the "System" icon. Once the System Properties window is display, click on
- "Hardware" tab and then click on the "Device Manager" button. Doubleclick on Ports (COM & LPT). If the device was correctly installed, you should now see the I-7563 USB-to-3 Ports RS485 Hub (COM3) device listing. This also means that Windows has assigned the device to the COM3 port.



2. If you need to assign the COM Port name to another Port number, you can double-click on the device (I-7563 USB-to-RS485 Hub) to view the properties.

I-7563 USB-to-3 Ports R5485 Hub (COM3) Properties ? 🛛						
General Port Settings Driver						
Į	I-7563 USB-to-3 Ports RS485 Hub (COM3)					
	Device type:	Ports (COM & LPT)				
	Manufacturer:	ICP DAS				
	Location:	USB Device				
Device status This device is working properly. If you are having problems with this device, click Troubleshooter to start the troubleshooter. Troubleshooter						
Use this device (enable)						
		OK Cancel				

3. Once the properties window opens click on the Port Settings tab. Then click on the advanced button.

I-7563 USB-to-3 Ports R5485 Hub (COM3) Properties					
General Port Settings Driver					
Bits per second: 9600					
Data bits: 8					
Parity: None					
Stop bits: 1					
Flow control: None					
Advanced Restore Defaults					
OK Cancel					

4. The Advanced Settings dialog box will now be displayed. Click on the COM Port Number drop down box to check what other port numbers are available. If, for instance, Windows has assigned COM5 to the device, you may try to reassign it to a lower unused port number. Click OK when finished. Try running HyperTerminal to test whether the new port number is OK.

Advanced Settings for COM3							<u>? ×</u>
Use FIFO buffers (requ Select lower settings to	ires 16550 correct co	compatible UAR	T)				OK
Select higher settings fo	or faster pe	rformance.					
Receive Buffer: Low (1)	1			—Į	High (14)	(14)	
Transmit Buffer: Low (1)	1			—Ţ	High (16)	(16)	
COM Port Number: COM3	-L						1

Note: Some software programs may only support Ports up to COM4 and may not work if the port is assigned to COM5 or higher.

5. Once you have verified that the device has been properly installed, you may now proceed to use the USB-to-3 Ports RS485 Hub to connect to serial devices. Attach the serial device to the serial port of the adapter and then connect the USB connector to the USB port of your computer. Use the supplied driver for the serial device if needed.

Uninstalling the Device Driver

It is easy to uninstall the USB to Serial device driver:

- 1. Run the DRemover98\_2K.exe Uninstall program which can be found on the Package CD, \Napdos\7000\756x\7563 or at
- ftp://ftp.icpdas.com/pub/cd/8000cd/napdos/7000/756x/7563
- 2. The uninstall program will then prompt you if you want to remove the utility program. Click OK to continue.



3. After the uninstall is complete, the program will prompt you to restart Windows. Click "Yes" to continue.



4. Windows will show a dialog box to notify you that the driver was removed successfully. Wait for Windows to restart your computer.

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