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www.moxa.com/product



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# **1** Introduction

The MOXA UPort 1200/1400/1600 are advanced USB-to-serial hubs that connect to 2, 4, 8, or 16 RS-232 or RS-232/422/485 serial devices. The UPort 1200/1400/1600 Series adds 2, 4, 8, or 16 Windows serial COM ports via its USB connection, and is compatible with new and legacy RS-232 or RS-422/485 devices. This plug and play USB solution is perfect for mobile, instrumentation, and point-of sale applications.

In this manual, we refer to the products in the series collectively as **UPort 1200/1400/1600 Series**. The models in the UPort 1200/1400/1600 Series are:

- UPort 1250 2-port RS-232/422/485 USB-to-serial hub
- UPort 1250I 2-port RS-232/422/485 USB-to-serial hub w/ isolation protection
- UPort 1410 4-port RS-232 USB-to-serial hub
- UPort 1450 4-port RS-232/422/485 USB-to-serial hub
- UPort 1450I 4-port RS-232/422/485 USB-to-serial hub w/ isolation protection
- UPort 1610-8 8-port RS-232 USB-to-serial hub
- UPort 1650-8 8-port RS-232/422/485 USB-to-serial hub
- UPort 1610-16 16-port RS-232 USB-to-serial hub
- UPort 1650-16 16-port RS-232/422/485 USB-to-serial hub

The following topics are covered in this chapter:

- **Overview**
- Package Checklist
- **D** Product Features
- **D** Product Specifications
- **D** Panel Layout
- **Dimensions**

## Overview

UPort 1200/1400/1600 Series products are easy to use. Simply install the drivers, connect the UPort to your computer, plug in your serial devices, and you're ready to go. Programming is NOT required, and you do not need to worry about IRQs, configuring a board, power requirements, or connection schemes.

UPort Series products are compliant with USB 1.1, and 2.0 specifications, and meet the 480 Mbps high-speed requirement. Using your computer's USB ports to connect serial devices reduces the total cost of ownership, investment in hardware, and long term management and integration costs.

The UPort Series supports both bus power and external power via an adapter. Bus power is adapted for laptop or workstation connections that support 500 mA output for USB devices. External power is adapted for those USB hubs that can only produce 100 mA of current.

## Package Checklist

MOXA UPort 1200/1400/1600 products are shipped with the following items:

Standard Accessories

- UPort 1200, 1400 or 1600 USB-to-Serial Hub
- 1 USB Cable
- Document and Software CD-ROM
- UPort 1200/1400/1600 Quick Installation Guide
- Power Adaptor (UPort 1250I/1450I/1600-8) or Power Cord (UPort 1600-16)

#### **Optional Accessories**

- Magnets × 2 (magnets are used to attach the UPort hub to the PC case, suitable for UPort 1400, 1600-8)
- Mini DB9F-to-TB adaptor

NOTE: Notify your sales representative if any of the above items is missing or damaged.

## **Product Features**

UPort 1200/1400/1600 Series products have the following features:

- Hi-speed USB 2.0 supported (up to 480 Mbps)
- Additional I/O or IRQ not required
- Serial transmission speed up to 921.6 Kbps
- 128-byte FIFO and on-chip H/W, S/W flow control
- Built-in 15 KV ESD protection
- Windows 2000/XP/2003 drivers supported
- Both bus power and external power supported
- Suitable for 4-wire RS-422/485 and 2-wire RS-485 applications
- Easy maintenance with LED display and management software
- IP30, rugged metal case
- COM port assignments maintained across different PCs
- Optional magnet accessories for attaching on PC case
- Mini Female DB9 to Terminal Block attachment for easy wiring

# **Product Specifications**

Models Names	UPort 1250/1250I, UPort 1410/1450/1450I, UPort 1610-8/1650-8, UPort 1610-16/1650-16		
USB Compliant with USP 2.0	1.1		
Comparent with USB 2.0,	, I.I USD trme D		
Speed	USD type D High speed 480 Mbps		
Special	Hign speed 480 Mbps		
No of Ports	2 (UPort 1250/1250	)T)	
	4 (UPort 1410/1450	)/1450I)	
	8 (UPort 1610-8/16	50-8)	
	16 (UPort 1610-16/	(1650-16)	
Interface	RS-232: TxD, RxD	, RTS, CTS, DTR, DSR, DCD, GND	
RS-422/485 is for UPort	RS-422: TxD+(B),	TxD-(A), RxD+(B), RxD-(A), GND	
1250, 1250I, 1450, 1450I	,4-wire RS-485: TxI	D+(B), TxD-(A), RxD+(B), RxD-(A), GND	
1650-8, 1650-16	2-wire RS-485: Dat	a+(B), Data-(A), GND	
Connector	Male DB9		
FIFO	128 bytes		
Serial line protection	15 KV ESD for all	signals	
Serial Communication I	Parameters		
Parity	None, Even, Odd, S	Space, Mark	
Data bits	5, 6, 7, 8		
Stop bit	1, 1.5, 2		
Flow Control	RIS/CIS, XON/XO	JFF	
Speed Dowor Dogwinomonto	50 bps to 921.6 Kbj	08	
Power Requirements	LIPort 1250	5 VDC (hus power)	
rower input	UPort 1250I	12 to 48 VDC	
	UPort 1/100.	12 to 48 VDC (external) or 5 VDC (bus power)	
	UPort 1600-8.	12 to 48 VDC (external) of 5 VDC (bus power)	
	UPort 1600-16.	100 to 240 VAC	
Power Consumption	UPort 1250I:	200 mA (max)	
Ext. PWR	UPort 1410:	180 mA (max)	
	UPort 1450:	260 mA (max)	
	UPort 1450I:	360 mA (max)	
	UPort 1610-8:	230 mA (max)	
	UPort 1650-8:	580 mA (max)	
	UPort 1610-16:	130 mA (max)	
	UPort 1650-16:	170 mA (max)	
Mechanical Specification	ns		
Material	Metal		
Environmental			
Operating Temperature	0 to 55°C (32 to 131°F)		
Storage Temperature	-20 to 75°C (-4 to 167°F)		
Operating Humidity	5 to 95% KH ENESO22 Class A ENESO24 ENECTODO 2.2 ENECTODO 2.2		
Regulatory Approvals	EN53022 Class A, I EN61000 4 2 EN6	EIN33024, $EIN01000-3-2$ , $EIN01000-3-3$ , 1000 4 2 EN61000 4 4 EN61000 4 5	
	EN01000-4-2, EN01000-4-3, EN01000-4-4, EN01000-4-5, EN61000-4-6, ECC Part 15 Class A		
	III. CIII TÜV		
Warranty	5 years		
· · ••• • • • • • • • • • • • • • • • •	5 yours		





# Dimensions



#### UPort 1410/1450/1450I



#### UPort 1610-8/1650-8



#### UPort 1610-16/1650-16



# **Driver Installation**

This chapter includes information about installing the UPort 1200/1400/1600 USB-to-Serial Hub. We present the installation procedure for Windows 2000. The procedures for Windows XP/2003 (32 bit) and Windows XP/2003 (64 bit) are essentially the same as that for Windows 2000.

We recommend installing the UPort 1200/1400/1600 driver first, before connecting the UPort 1400/1600 USB-to-Serial Hub to your computer's USB port.

The following topics are covered in this chapter:

- **USB** Usage Limitations for UPort
- **Installing the Driver**
- **Connecting the Hardware** 
  - Connecting to the External Power Adaptor
  - Connecting to a Serial Device
  - LED Indicators
  - Adjustable Pull High/low Registors for the RS-485 Port
- □ Installing the Setup Program
- □ Installing the Driver for the Server
- □ Installing the Driver for the Ports
- **Configuring the Ports**
- **Uninstalling UPort**
- **Uninstalling the Driver**

# **USB Usage Limitations for UPort**

- 1. A maximum of 4 UPorts can be connected to each host. Connecting more than 4 UPorts will cause system resources to become low and unstable.
- 2. We recommend connecting the UPort directly to the host USB port. If you need to use an external USB hub, only the first level is recommended.
- 3. In general, there are 2 types of USB hub:
  - i. **High power hubs** require an external power adaptor, and provide 500 mA of power to the USB port.
  - ii. **Low power hubs** get power from the host PC, and provide 100 mA of power to the USB port.

The following table shows what type of USB hub should be used with UPort 1200/1400/1600 products.

	UPort 1250 with bus power	UPort 1250I with external power	UPort 1400 with bus power	UPort 1400 with external power	UPort 1600-8	UPort 1600-16
High power HUB (500 mA)	ОК	ОК	ОК	OK	OK	ОК
Low power HUB (100 mA)	Not Supported	ОК	Not Supported	OK	OK	OK

4. Although UPort can operate using USB 1.1, to get the best and most stable performance, we recommend using a USB 2.0 host controller or HUB.

## **Installing the Driver**

1. Run the Setup program located on the UPort 1200/1400/1600 Document and Software CD-ROM. Click **Next** to Start installing the driver.



2. Click **Next** to install the driver in the indicated folder.

🔂 Setup - MOXA UPort Windows Driver Ver1.0
Select Destination Location Where should M0XA UPort Windows Driver Ver1.0 be installed?
Setup will install MDXA UPort Windows Driver Ver1.0 into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Moxa\UPortDriver Browse
At least 0.7 MB of free disk space is required.
< Back Next > Cancel

3. Click **Install** to proceed with the installation.

🖥 Setup - MOXA UPort Windows Driver Ver1.0	
Ready to Install Setup is now ready to begin installing MDXA UPort Windows Driver Ver1.0 on you computer.	
Click Install to continue with the installation, or click Back if you want to review or change any settings.	
Destination location: C:\Program Files\Moxa\UPortDriver	~
< Back Install	Cancel

4. The next window that opens cautions you that although this software has not passed Windows logo testing, the driver has already been tested and shown that it can support Windows OS. Click **Continue Anyway** to proceed.



5. Click Finish to complete the driver installation.



## **Connecting the Hardware**

Before you connect the UPort via USB cable, we recommend that you install the driver first. UPort 1250 supports bus power, UPort 1250I supports external power, UPort 1400 supports both bus and external power, UPort 1600 needs external power. If you want to use bus power with UPort 1400, switch the DIP switch to **bus** when you connect the USB cable between the host PC and UPort 1400. We cover **Connecting to the External Power Adaptor**, **Connecting to a Serial Device**, and **LED Indicators** in this chapter.

## Connecting to the External Power Adaptor

For UPort 1250I/1600-8 Series, we provide the power adaptor to connect from the host PC to UPort. For UPort 1600-16 Series, we provide the power cord to connect from the host PC to UPort.

If the power is properly supplied, the Active LED will glow a solid green.

#### Buzzer (UPort 1400 and 1600 only)

UPort will sound the buzzer twice when the power is turned on. You will also hear the buzzer when using the **Locate** function on the driver property page.

## Connecting to a Serial Device

Connect the serial cable between UPort 1200/1400/1600 and the serial device. UPort 1200/1400/1600's serial ports use the RS-232 or RS-422/485 interface to transmit data. The port uses a standard male DB9 pin assignment.

## **LED** Indicators

#### UPort 1250/1250I

There are five LEDs to indicate status for each port, listed under P1 and P2.

LED Name	LED Color	LED Function	
Activo	Red	Power is on	
Active	Off	Power is off, or power error condition exists	
RS-232	Red	Port is configured for RS-232 operation	
RS-422	Red	Port is configured for RS-422 operation	
4W RS-485	Red	Port is configured for 4-wire RS-485 operation	
2W RS-485	Red	Port is configured for 2-wire RS-485 operation	
	Orange	Port is receiving data from attached device	
TxD/RxD	Green	Port is transmitting data to attached device	
	Off	No data is being transmitted or received	

#### UPort 1400/1600

LED Name	LED Color	LED Function	
Activo	Green	Power is on	
Active	Off	Power is off, or power error condition exists	
	Orange	Port is receiving data from attached device	
Tx/Rx	Green	Port is transmitting data to attached device	
	Off	No data is being transmitted or received	

## Adjustable Pull High/low Resistors for the RS-485 Port

In some critical environments, you may need to add termination resistors to prevent the reflection of serial signals. When using termination resistors, it is important to set the pull high/low resistors correctly so that the electrical signal is not corrupted. The UPort uses DIP switches to set the pull high/low resistor values for each serial port.

To set the pull high/low resistors to 150 K $\Omega$ , make sure both of the assigned DIP switches are in the OFF position. This is the default setting.

To set the pull high/low resistors to 1 K $\Omega$ , make sure both of the assigned DIP switches are in the ON position.



## ATTENTION

Do not use the 1 K $\Omega$  setting on the UPort when using the RS-232 interface. Doing so will degrade the RS-232 signals and shorten the maximum allowed communication distance.



## **UPort 1200 DIP Switches**

## **UPort 1400 DIP Switches**



**UPort 1600-8 DIP Switches** 



#### **UPort 1600-16 DIP Switches**



# Installing the Setup Program

1. Run the **Setup** program on the UPort 1200/1400/1600 Document and Software CD-ROM. Click **Next** to Start installing the driver.



2. Click Next to install the driver in the indicated folder.

🔂 Setup - MOXA UPort Windows Driver Ver1.0
Select Destination Location Where should MOXA UPort Windows Driver Ver1.0 be installed?
Setup will install MOXA UPort Windows Driver Ver1.0 into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Moxa\UPortDriver Browse Browse
At least 0.7 MB of free disk space is required.
< Back Next > Cancel

3. Click **Install** to proceed with the installation.

📴 Setup - MOXA UPort Windows Driver Verl.0				
Ready to Install Setup is now ready to begin installing MOXA UPort Windows Driver Ver1.0 on your computer.				
Click Install to continue with the installation, or click Back if you want to review or change any settings.				
Destination location: C:\Program Files\Moxa\UPortDriver				
8				
< <u>B</u> ack Install Can	icel			

4. The next window that opens cautions you that although this software has not passed Windows logo testing, this driver has already been tested and shown that it can support the Windows OS. Click **Continue** Anyway to proceed. Then, click **Finish** to complete the driver installation.



# Installing the Driver for the Server

1. After connecting the USB cable from UPort to host the PC, Windows 2000 will automatically detect the new UPort, and the **Found New Hardware** balloon will open in the bottom right corner of the Windows desktop.



#### Driver Installation

### UPort 1200/1400/1600 Series User's Manual

 Found New Hardware Wizard

 Welcome to the Found New Landware Wizard

 Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). Read our privacy policy

 Can Windows connect to Windows Update to search for software?

 Yes, this time only

 Yes, now and every time I connect a device

 No, not this time

 Click Next to continue.

2. Select No, not at this time. Click Next to start the installation.

3. Select Install the software automatically (Recommended), and then click Next to continue.

Found New Hardware Wizard
This wizard helps you install software for: MOXA UPort 1450 Series If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?   What do you want the wizard to do?   Install the software automatically (Recommended)  Install from a list or specific location (Advanced)  Click Next to continue.
< Back Next > Cancel

4. Wait while the installation wizard searches for the correct drivers. The next window that opens cautions you that although this software has not passed Windows logo testing, this driver has already been tested and shown that it can support Windows OS. Click **Continue Anyway** to proceed.



5. Wait while the driver software is installed.

Found New Hardware Wizard			
Please wait	while the wizard installs the	software	
<b>»</b> ()	MOXA UPort 1450 Series		
	mxusefg.hlp To C:\WINDOWS\system32	6	<b>)</b>
		K Back N	ext > Cancel

#### **Driver Installation**

#### UPort 1200/1400/1600 Series User's Manual

6. The next window shows the model name of the board, and indicates that Windows has completed the driver installation. Click **Finish** to proceed with the rest of the installation procedure.



# Installing the Driver for the Ports

1. The **Found Next Hardware Wizard** window will open to help you install the driver for Moxa Port 0. This window will offer to connect to the Windows update site to search for a driver. Select **No, not at this time** and then click **Next** to continue.



2. Select **Install the software automatically (Recommended)**, and then click **Next** to continue. Found New Hardware Wizard



3. Wait while the installation wizard searches for the correct drivers. The next window that opens cautions you that although this software has not passed Windows logo testing, this driver has already been tested and shown that it can support Windows OS. Click **Continue Anyway** to proceed.

Found New Hardware Wizard Please wait while the wizard installs the soft	ware
MOXA UPort COM Port	The software you are installing for this hardware: MOXA UPort COM Port has not passed Windows Logo testing to verify its compatibility with Windows XP. <u>(Tell me why this testing is important.)</u> Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommedis that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway

4. Wait while the driver software is installed.

Found New Hardware Wizard	
Please wait while the wizard installs the	software
MOXA UPort COM Port	
mxusport.dll To C:\WINDDWS\system32	
	<back next=""> Cancel</back>

5. After all files have been copied to the system, the **Completing the Found New Hardware Wizard** window will open to indicate that it has finished installing Port 0. Click **Finish** to proceed with the rest of the installation.

Found New Hardware Wiz	ard
	Completing the Found New Hardware Wizard The wizard has finished installing the software for: MOXA UPort COM Port
	Click Finish to close the wizard.

- 6. Repeat Step 1 through Step 5 for each of the remaining 1 port (UPort 1200), 3 ports (UPort 1400), 7 ports (UPort 1600-8), or 15 ports (UPort 1600-16). The last port to be installed will be MOXA Port 3, 7, or 15, respectively.
- 7. The **Found New Hardware** balloon will reappear to inform you that the hardware was installed successfully.



# **Configuring the Ports**

After the driver has been installed, use **Device Manager** to configure the UPort serial ports.

1. With the **System Properties** window open, click on the **Hardware** tab, and then click on **Device Manager**.

tem Pro	perties			?
Systen	n Restore	Automati	c Updates	Remote
General	Compu	uter Name	Hardware	Advanced
Device N	Anager The Device M on your compu properties of ar	anager lists all th iter. Use the De ny device.	ne hardware device vice Manager to ch	es installed hange the
			Device Ma	anager
Drivers				
	Driver Signing compatible with how Windows	lets you make so n Windows, Win connects to Wi	ure that installed dr dows Update lets j ndows Update for (	ivers are you set up drivers.
	Driver 9	igning	Windows L	Ipdate
Hardwar	e Profiles			
Ð	Hardware profi different hardw	les provide a wa vare configuratio	ay for you to set up ns.	and store
			Hardware I	Profiles
		OK	Cancel	Apply

2. Expand the **Multi-port serial adapters** tab, right click **MOXA UPort 1450 Series**, and then click **Properties** to open the UPort's configuration panel.

🚇 Device Manager	
File Action View Help	
🕀 🧕 Computer	^
🕀 🥌 Disk drives	
🗄 💆 Display adapters	
II 😃 DVD/CD-ROM drives	
🗉 😋 Floppy disk controllers	
🛨 🤳 Floppy disk drives	
IDE ATA/ATAPI controllers	
E Seyboards	
Mice and other pointing devices	
H g Monitors	
Huit-port serial adapters	
Device (COM 9-LDT)	
Gommunications Port (COM1)	
Communications Port (COM2)	
MOXA LIPort COM Port 1 (COM3)	
MOXA UPort COM Port 2 (COM4)	
MOXA LIPort COM Port 3 (COM5)	
MOXA UPort COM Port 4 (COM6)	
Printer Port (LPT1)	
E Servicessors	~

XA UPort 1450	Series Propert	ies	?	×
ieneral Ports Confi	guration Driver	Details		
Basic Settings Port Select Port 2 Port 2 Port 3 Port 4	Parameters (1 po COM No. I Auto E Friendly Name UART FIFO Tx Mode Fast Flush Interface	t(s) selecte COM3 (cu numerating MOXA UP Enable Hi-Perform Enable RS-232	ed. 1st port is port 1) rrent) COM Number Port COM anance	
	Reset	lefault	View all settings	
Advance Settings				
Save	Rest	ore	Clear	
	He	lp di	Locate	-
			OK Cance	

The Ports Configuration page settings are described below.

#### Auto Enumerating COM Number

If the "Auto Enumerating COM Number" checkbox is checked, COM numbers will be assigned automatically and in sequence to the ports. E.g., COM3 to Port 1, COM4 to Port 2, etc.

If you do not enable this check box, only the first COM Number will be changed to new COM number list in the drop-down list box. Enable this function if you want to configure several ports with sequential numbers.

Friendly Name

Setting	Factory Default	Necessity
1 to 20 characters (E.g., UPort 1610-8)	MOXA UPort COM	Optional

Friendly name is specially designed to allow easy identification of the serial devices that are connected to UPort's serial port.

#### **UART FIFO**

Setting	Factory Default	Necessity
Enable/Disable	Enable	Required

UPort's serial ports provide a 128-byte FIFO both in the Tx and Rx directions. Disable UART FIFO setting when your serial device does not have a FIFO to prevent data loss during communication. For a slow serial device, we recommend you disable FIFO to improve the latency. If you want to use XON/XOFF flow control, we recommend disabling UART FIFO.

Tx Mode		
Setting	Factory Default	Necessity
Hi-Performance, Classical	Hi-Performance	Required

To improve write performance, you can select the **Hi-Performance** mode. Under classical mode, the driver will not notify the user's program that Tx is completed until all Tx data has been sent out from the UPort; this mode will cause lower throughput. If you want to ensure that all data is sent out before further processing, classical mode is recommended. Classical mode is the same as the COM Port behavior: The *WriteFile()* call will only finish when all queued data are sent out.

#### Fast Flush

Setting	Factory Default	Necessity
Enable/Disable	Enable	Required

- For some applications, the user's program will use the Win32 *PurgeComm()* function before it reads or writes data. With our design, after the program uses this *PurgeComm()* function, the UPort driver will keep querying UPort's firmware several times to make sure that there is really no data queued in the UPort firmware buffer, rather than just flushing the local buffer. This kind of design is used because of some special considerations. However, it might take more time (about several hundred milliseconds) than a native COM1, because it needs to work via Ethernet. This is why the native COM ports on the motherboard can work fast with this function call, but UPort requires much more time.
- 2. To begin with, make sure there are some *PurgeComm()* functions being used in your application program. In this kind of situation, you might find that your UPort exhibits a much poorer operation performance than when using the native COM1 port. Once you have enabled the *Fast Flush* function, you can check to see if there has been an improvement in performance.
- 3. By default, the optional *Fast Flush* function is enabled, the UPort driver will work faster with *PurgeComm()*.
- 4. Win32 Function *PurgeComm()* with PURGE\_TXCLEAR will clear all queued Tx data. But for some applications, it will call this function for each transaction and result in low throughput. To avoid this, you can enable this function. The driver will only clear the data queued in the local buffer; it will not send firmware through the USB to clear the data queued in the firmware buffer.

#### Interface

UPort 1410, 1610-8, 1610-16

Setting	Factory Default	Necessity
RS-232	RS-232	Required

#### UPort 1250, 1250I, 1450, 1450I, 1650-8, 1650-16

Setting	Factory Default	Necessity
RS-232, RS-422, 4-wire RS-485, 2-wire RS-485	RS-232	Required

## **Other Settings**

#### Reset default

If you click the **Rest default** button, all the settings will return to Factory default settings:

COM Number:	<assign automatically="" available="" com="" number=""></assign>
Tx Mode:	Hi-Performance
UART FIFO:	Enable
Fast Flush:	Enable
Interface:	RS-232

#### View All Settings:

You can preview all ports settings with this function.

Port	COM No.	UART FIFO	Tx Mode	Fast Flush	Interface	Friendly Name	
	COM3	Enable	Hi-Performance	Enable	RS-232	MOXA UPort COM	
2	COM4	Enable	Hi-Performance	Enable	RS-232	MOXA UPort COM	
}	COM5	Enable	Hi-Performance	Enable	RS-232	MOXA UPort COM	
ļ.	COM6	Enable	Hi-Performance	Enable	RS-232	MOXA UPort COM	

## **Advance Settings**

#### **COM Preserver – Driver Setting Management**

UPort provides one special function to help you manage the UPort settings. In the general case, you need write down all the settings including COM number to prevent them from being lost. In some applications, to clone multiple systems you also need to worry about how to clone the COM Port settings. Using the UPort *COM Preserver* function, you just need to save all the settings into UPort device directly– just like a USB Mass Storage device. You do not need to record it using additional paper or disk. If your host crashes, you can just install the driver into new host, plug the original UPort and click the **Restore** button to restore all settings back very quickly.

**NOTE** If you want to use these settings in another PC, be sure the PC has a free COM port available. Otherwise, the new settings will copy over the settings of a COM port that is already in use.



• Restore

Read all settings from UPort as new settings. You still need to press the **OK** button to activate it.

Informa	tion 🛛 🔀				
Configurations restore success					
	ОК				

• Clear

Clear the UPort setting which is stored in UPort Device. This operation is similar to resetting all the settings to ther factory defaults.

Informa	tion 🔀
(į)	Configurations clear successfully.
	ОК

The following settings will be saved to UPort if you select **Save**:

COM number, Friendly Name, Transmission Mode, FIFO settings, Fast Flush settings, and Interface.

#### Help

Clicking this will open the online help for the product.



#### Locate

This function can help to identify the UPort location, especially when two or more UPorts are installed. This function will ask the UPort to flash the ready LED and turn on the Buzzer until you stop it.

Locate		×
	Device locating	
	Stop	

## **Uninstalling UPort**

If you want to remove the UPort device, you just need to remove the device from the **Device Manager**. The UPort driver will still stay alive enabling other UPort devices to keep working.

1. To uninstall the UPort device, click Start  $\rightarrow$  Settings  $\rightarrow$  Control Panel  $\rightarrow$  System, select the Hardware tab, and then click Device Manager.

General	estore Automatic Updates		Remote	
achora	Computer Name	Hardware	Advance	
Device Manag				
Sevice Manag	Device Manager lists	all the hardware devic	es installed	
prop	our computer. Use the erties of any device.	e Device Manager to c	nange (ne	
		Device M	anager	
Differen				
Drivers Drive	r Signing lets you ma	ke oure that installed d	ivere pre	
	a signing lets you ma patible with Windows.	Windows Update lets	you set up	
how	Windows connects to	o Windows Update for	drivers.	
	Driver Signing	Windows l	Jpdate	
Hardware Profi	es			
	ware profiles provide ept bardware copfigu	a way for you to set up rations	and store	
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2. Expand the **Multi-port serial adapters** tab, right click **MOXA UPort 1450 Series**, and then click **Remove** to uninstall this UPort device. A window will pop up to confirm if you want to remove this UPort.



3. Click **OK** to continue uninstalling the UPort device. The UPort device will be removed from the list of **Multi-port serial adapters**.

# **Uninstalling the Driver**

1. To uninstall the driver, open the Control window, and click Add/Remove Programs.



🐼 Add or Rer	move Programs				
	Currently installed programs:		Show up <u>d</u> ates	Sort by: Name	~
Change or Remove	🖟 Microsoft SQL Server Desktop Engine			Size	69.07MB
Programs	🕞 MOXA UPort Windows Driver Ver1.0			Size	1.17MB
Th	Click here for support information.			Used	rarely
<u> 1</u>				Last Used On	6/6/2006
Add <u>N</u> ew Programs	To remove this program from your computer, click Remove.				Remove
1	PowerQuest PartitionMagic 8.0			Size	43.67MB
<u>.</u>	🐻 Windows XP Embedded Database SP1			Size 3	3,493.00MB
Add/Remove Windows	🐻 Windows XP Embedded Remote Boot Server			Size	0.58MB
Components	📸 Windows XP Embedded Tools SP2 Update			Size	9.90MB
	C.M.C.				
Set Program					
Access and Defaults					
	a				
🐞 Add or Rer	nove Programs				_ 🗆 🛛
🕉 Add or Rer	nove Programs Currently installed programs:		Show undates	Sort by: Name	
Add or Rer	nove Programs Currently installed programs: rt21 Microsoft SOL Server Deckton Engine		Show up <u>d</u> ates	Sort by: Name	
Add or Rer	nove Programs Currently installed programs: 행 Microsoft SQL Server Desktop Engine 역 MINYA I Root Windows Deiver Vari 0		Show up <u>d</u> ates	Sort by: Name Size	69.07MB
Add or Rer	nove Programs Currently installed programs: IBM Microsoft SQL Server Desktop Engine IBM OXA UPort Windows Driver Ver1.0 Citle base for support biometion		Show up <u>d</u> ates	Sort by: Name Size Size	69.07MB
Add or Rer Change or Remove Programs	nove Programs Currently installed programs: 데에 Microsoft SQL Server Desktop Engine 데에 MOXA UPort Windows Driver Ver1.0 Click here for support information.		Show up <u>d</u> ates	Sort by: Name Size Size Used Last Used On	<ul> <li>69.07MB</li> <li>1.17MB</li> <li>rarely</li> <li>6/6/2006</li> </ul>
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Add or Rer     Change or     Remove     Programs     Add New     Programs     Add New     Programs     Add New     Componente     Componente     Componente     Componente     Access and     Defaults	move Programs         Currently installed programs:         Microsoft SQL Server Desktop Engine         Other Desktop Engine         Clickhere for support information.         To remove this program from your computer, click Remove.         PowerQuest PartitionMagic 8.0         OXA UPort Windows Driver Ver1.0 Uninstall         Are you sure you want to completely remove MOXA UPort         Yes       No	Windo	Show updates	Sort by: Name Size Size Used Last Used On Size National Size	C      C     C
Add or Rer  Change or Remove Programs  Add New Programs  Add New Componente	move Programs         Currently installed programs:         Image: Solution of SQL Server Desktop Engine         Image:	Windo	Show updates	Sort by: Name Size Used Last Used On Size Not all of its components?	C      C     C
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Add or Rer  Change or Remove Programs  Add New Programs  Add New Programs  Add New Componente  Compon	move Programs         Currently installed programs:         Image: Mixed program information.         Image: Mixed program from your computer, click Remove.         Image: PowerQuest PartitionMagic 8.0         OXA UPort Windows Driver Ver1.0 Uninstall         Image: OXA UPort Windows Driver Ver1.0 Uninstall         Image: PowerQuest PartitionMagic 8.0         OXA UPort Windows Driver Ver1.0 Uninstall         Image: PowerQuest PartitionMagic 8.0         OXA UPort Windows Driver Ver1.0 Uninstall         Image: PowerQuest PartitionMagic 8.0         Image: PowerQuest PartitionMagic 8.0         OXA UPort Windows Driver Ver1.0 Uninstall         Image: PowerQuest PartitionMagic 8.0         Image: Po	Windo	Show updates	Sort by: Name Size Used Last Used On Size	C      C     C
Add or Rer  Change or Remove Programs  Add New Programs  Add New Original  Add/Remove Mindows Componente  Compone	move Programs         Currently installed programs:         Image: Second Sec	Windo	Show updates	Sort by: Name Size Used Last Used On Size	C      C     C

2. Select Moxa UPort Windows Driver Ver1.0. Click the Remove button.

Cur Cur	rently installed programs:	Show updates	Sort by: Name	~
ige or 🔢	MOXA UPort Windows Driver Ver1.0 Un	install	Size	69.07ME
rams 15	Uninstall Status Please wait while MOXA UPort Windows Dr computer.	iver Ver1.0 is removed from your	Size Used ed On	<u>1.17M</u> rarely 6/6/2006
<u>N</u> ew rams	Uninstalling MOXA UPort Windows Driver V	'er1.0		Remove
1 e			Size	43.67ME
emove			Size	3,493.00ME
nents			Size	9.90ME
ogram s and aults			parta 8	
			Cancel	

3. Wait while the driver software is uninstalled.

4. Click **OK** to proceed with the un-installation procedure.

🚳 Add or Rer	move Programs			
-	Currently installed programs:	Show up <u>d</u> ates	Sort by: Name	~
C <u>h</u> ange or Remove	📳 Microsoft SQL Server Desktop Engine		Size	69.07MB
Programs	B MOXA UPort Windows Driver Ver1.0		Size	1.17MB
14	Click here for support information.		Used	<u>rarely</u>
Add <u>N</u> ew Programs	To remove this program from your computer, click Remove.		Last Used On	6/6/2006 Remove
1	PowerQuest PartitionMagic 8.0		Size	43.67MB
Add/Domous	Windows XP Embedded Database SP1		Size	3,493.00MB
Windows	MOXA UPort Windows Driver Ver1.0 Uninstall		Size	0.58MB
Set Program Access and Defaults	MOXA LPort Windows Driver Ver1.0 was succes	sfully removed from you	r computer. Size	9.90MB

# **3** Pin Assignment

UPort 1250/1250I has 2 RS-232/422/485 ports, UPort 1410 has 4 RS-232 ports, UPort 1450/1450I has 4 RS-232/422/485 ports, UPort 1610-8/1610-16 has 8/16 RS-232 ports, and UPort 1650-8/1650-16 has 8/16 RS-232/422/485 ports.

# **Serial Port Pinouts**

DB9 Male RS-232 Port for UPort 1410/1610-8/1610-16

	Pin	RS-232
1 5	1	DCD
	2	RxD
	3	TxD
6 9	4	DTR
	5	GND
	6	DSR
	7	RTS
	8	CTS

DB9 Male RS-232/422/485 Port for UPort 1250/1250I/1450/1450I/1650-8/1650-16

	Pin	RS-232	RS-422/ 4-wire RS-485	2-wire RS-485
1 5	1	DCD	TxD-(A)	
	2	RxD	TxD+(B)	
	3	TxD	RxD+(B)	Data+(B)
6 9	4	DTR	RxD-(A)	Data-(A)
	5	GND	GND	GND
	6	DSR		
	7	RTS		
	8	CTS		

Mini DB9F-to-TB\* for RS-422/485 wiring

DB9F	<b>Terminal Block</b>
1	2
2	- 1
3	3
4	4
5	 5

\* Adapter include with UPort 1130, 1250,1250I, 1450, 1450I, 1650-8, 1650-16.

# A Service Information

This appendix shows you how to contact Moxa for information about this and other products, and how to report problems.

In this appendix, we cover the following topics.

- **MOXA Internet Services**
- **D** Problem Report Form
- **D** Product Return Procedure

## **MOXA Internet Services**

Customer satisfaction is our primary concern. To ensure that customers receive the full benefit of our products, Moxa Internet Services has been set up to provide technical support, driver updates, product information, and user's manual updates.

The following services are provided

E-mail for technical support.....support@moxa.com

World Wide Web (WWW) Site for product information:

.....<u>http://www.moxa.com</u>

## **Problem Report Form**

# MOXA UPort 1200/1400/1600

Cι	Customer name:								
Cc	Company:								
Tel: Fax:									
Email:				Date:					
1.	Moxa Product:	□ UPort 1250	UPort	1250I	□ UPort 1410	□ UPort 1450			
		□ UPort 1450I	UPort UPort	1610-8	□ UPort 1650-8	□ UPort 1610-16			
		□ UPort 1650-16							
2.	Serial Number:								

**Problem Description:** Please describe the symptoms of the problem as clearly as possible, including any error messages you see. A clearly written description of the problem will allow us to reproduce the symptoms, and expedite the repair of your product.

## **Product Return Procedure**

For product repair, exchange, or refund, the customer must:

- Provide evidence of original purchase.
- Obtain a Product Return Agreement (PRA) from the sales representative or dealer.
- Fill out the Problem Report Form (PRF). Include as much detail as possible for a shorter product repair time.
- Carefully pack the product in an anti-static package, and send it, pre-paid, to the dealer. The PRA should be visible on the outside of the package, and include a description of the problem, along with the return address and telephone number of a technical contact.