

## Quick Start Guide

### MIPort™ Multi Interface Universal PCI Cards



# MIPORT™

## 1. Check for Required Hardware

- ❑ MIPort Universal PCI Card – One of the following
  - 3PCIU1, 1 Port Isolated (1 DB9 Male)
  - 3PCIU2, 2 Port Isolated (2 DB9 Male)
  - 3PCIU4, 4 Port Isolated (2 DB9 Male on card, 2 DB9 Male on Expansion Bracket w/cable)
  - 3PCIU2, 2 Port, Non-isolated (DB9 Male)
  - 3PCIU4, 4 Port, Non-isolated (DB37 Female w/4 DB9 Male fan-out cable)
  - 3PCIU8, 8 Port, Non-isolated (DB78 Female w/8 DB9 Male fan-out cable)
- ❑ This Quick Start Guide
- ❑ CD with Driver and Manual

## 2. Certifications



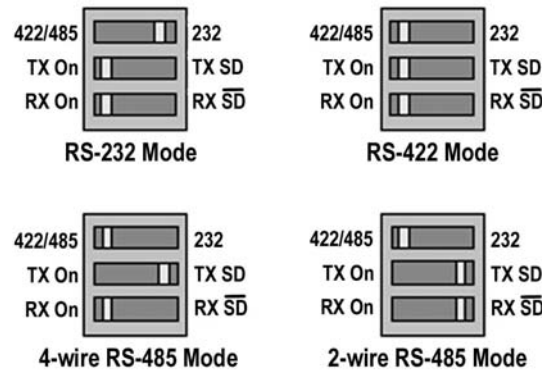
- ❑ FCC Class B
- ❑ CE
  - EN 55022: 2006 Class B, EN 61000-4-2: 2008, EN 61000-4-3: 2006, EN 61000-4-4: 2004, EN 61000-4-6: 2005.

A detailed declaration of conformity is available for download at [www.bb-elec.com](http://www.bb-elec.com)

## 3. Hardware Installation

- ❑ Caution: Ensure your PC is powered OFF before installing the MIPort™ Universal PCI Card.
- ❑ Caution: Ensure ESD precautions are taken while installing the circuit card.
- ❑ There is a DIP Switch associated with each port on the circuit card. RS-232/422/485 Ports have a three position DIP Switch. RS-422/485 Ports have a two position DIP Switch. The diagrams below show the settings for each mode.

### RS-232/422/485 Port Switch Settings



### RS-422/485 Port Switch Settings

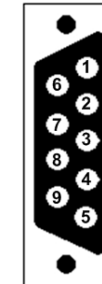


- ❑ Refer to the User Manual on the CD for information concerning termination and biasing.
- ❑ Install the circuit card into the PCI expansion slot on your PC.

## 4. Driver Installation

- ❑ The CD contains drivers for the following operating systems. Windows XP, Windows 2008 Server (32/64 bit), Windows Vista (32/64 bit), Windows 7 (32/64 bit). Linux Kernel 2.6.x is also supported in the following distributions: Ubuntu Desktop Edition (32/64 bit) and Ubuntu Server Edition (32/64 bit). Linux installation information is contained in the user manual.
- ❑ The user manual contains more information concerning driver installation. Window 7 does not use a "Found New Hardware Wizard" so manual installation is necessary.
- ❑ Since the drivers are contained on the CD, do not allow Windows to attempt to locate them on-line.
- ❑ A dialog box may appear stating that the device has not been Windows Logo Certified. Select "Continue Anyway."
- ❑ Drivers will be installed for the circuit card and each port on the circuit card. For example, if you have installing the drivers for a two port card, the driver installation process will run three times (once for the card, and once for each port.) Do not abort or cancel the installation until all ports are installed.

## 5. DB9 Male Pin-out



RS-232 (DTE)		
Signal	Direction	Pin
DCD	Input	1
RD	Input	2
TD	Output	3
DTR	Output	4
GND	-----	5
DSR	Input	6
RTS	Output	7
CTS	Input	8
RI	Input	9

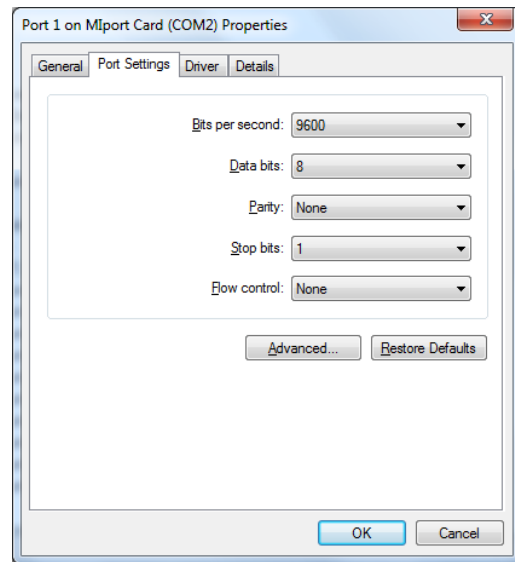
RS-422/485 4-Wire		
Signal	Direction	Pin
RDA (-)	Input	1
TDB (+)	Output	2
TDA (-)	Output	3
GND	-----	5
RDB (+)	Input	9

RS-485 2-Wire **	
Signal	Pin
Data A (-)	1
Data B (+)	2
Data A(-)	3
GND	5
Data B (+)	9

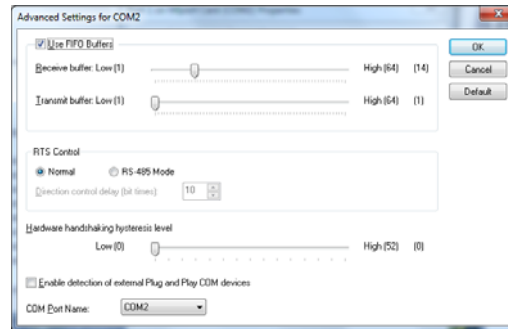
\*\* Note: For RS-485 2-Wire, Data A (-) must be connected to both pins 1 and 3. Data B (+) must be connected to both pins 2 and 9

## 6. Data Rate / RTS Control

- ❑ In Windows, open the system properties dialog box.
- ❑ On the Hardware Tab, select Device Manager.
- ❑ Expand the Port List (COM & LPT), double click the name of the port you want to configure.
- ❑ On the Port Properties box, click the port Settings tab. The dialog box will display the current settings for bits per second, data bits, parity, stop bits, and flow control. These items can be changed using the pull down menu,



- ❑ Click Advanced. The Advanced Port Settings dialog box will appear. Under RTS Control, click Normal for RS-232 or RS-485 Mode for RS-485. RTS Control can be in either mode for RS-422.
- ❑ **NOTE: 3PCI0U4 has two ports that are only capable of RS-422/485. These ports may default to "Normal". Ensure "RS-485 Mode" is selected for RS-485 operation.**



## 7. Testing (RS-232 Mode)

- ❑ See Chapter 9 and Appendix C of the User Manual for more details.
- ❑ Create loopback plugs or jumper TD and RD on each port.
- ❑ Install and run COMTEST (included on the CD).
- ❑ Select the COM port you want to access or test. (The drop down box shows available ports that are not currently in use).
- ❑ Click OK. The Configure Port dialog will appear.
- ❑ Select the desired baud rate, parity, data bits, stop bits. (Defaults are common settings).
- ❑ Type characters. They will appear in the upper window.

## 8. Testing (RS-422/485 4-Wire)

- ❑ See Chapter 9 and Appendix C of the User Manual for more details.
- ❑ Jumper TDA(-) to RDA(-) and TDB(+) to RDB(+).
- ❑ Install and run COMTEST (included on the CD).
- ❑ Select the COM port you want to access or test. (The drop down box shows available ports that are not currently in use).
- ❑ Click OK. The Configure Port dialog will appear.
- ❑ Select the desired baud rate, parity, data bits, stop bits. (Defaults are common settings).
- ❑ Type characters. They will appear in the upper window.

## 9. Testing (485 2-Wire)

- ❑ See Chapter 9 and Appendix C of the User Manual for more details.
- ❑ For multi-port models, cross connect one port to another and run separate instances of COMTEST for each port. You should be able to send data between ports.
- ❑ For the single-port model, communicate with an external device or test the port in RS-232 or RS-422/485 4-wire mode.