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Introduction

This manual is applicable to Blastronix model AN1/8S-PCI unit. Your unit was supplied with the 16C954 UARTs. The power-on defaults will cause it to look like standard 16C550 UARTs. The 16C550 is equipped with 16 byte transmit and receive FIFO's to help insure against loss of data and maximize hardware efficiency. The UARTs can be configured for 128 byte transmit and receive FIFO's. In NT systems the INF file will set the transmitter FIFO level to 80 and the receiver FIFO to 64.

Hardware Installation

The unit is very simple to install. If you are using "422" (4 wire applications including multi-drop) or "485" (2 wire applications) set the jumpers at the right hand side of the card accordingly for each port. For example the factory default will have the jumpers at the right all in the "422" position. This setting assumes a 4 wire application. If the port is being used for 422 then nothing needs to be done to the jumpers. However, if you are using the port for "485" operation (2 wire operation) then you need to move the 2 jumpers in the "422" location to the right into the "485" location. The "TST" location is for factory test purposes. In "485" mode SW1 (NT only, not used for other operating systems) causes the drivers and receivers to automatically be controlled by the hardware on the card. With the associated switch position closed, the driver will automatically be turned on during transmission from the card with the receiver off and when done transmitting the driver is turned off and the receiver is instantly turned on. If you alter a switch position after driver installation, you must reboot the computer. (See switch example for 485 mode)

Software / Driver Installation for NT

With Windows 95, 98, ME, 2000, & XP applications, the system will recognize the presence of a new PCI device. When prompted install your CD in the CD ROM and select the "CD" option when the operating system is asking you where to look for the proper device driver. For NT applications, simply click on the install icon from the NT directory on your installation CD. You may copy the files to your hard drive to a folder of your choice. Double click on the install Icon. The installer will find the card an make the necessary PCI assignments and modifications to the registry.

Interrupts and Addresses

The installation and addresses are automatically assigned. This is not a user controllable parameter. The user may influence the IRQ assignment by changing PCI slots or installing different cards in a different order. Machines with an AMI BIOS also give you the ability to influence the PCI selection to some extent. If you move a card to a different slot, you must run the un-installer first, reboot, and then run the installer again.

High Speed Option Header

At the right side of the unit is the jumper option for high speed applications. The factory default will have the 115K option selected. This sets the top speed for the card at 115.2 K baud. All standard communication packages support this setting. If you wish to use the higher speed setting simply move the jumper to the desired top speed. The other options are 230K baud 460K and 920K baud. If you are not using a communications application that specifically supports these higher speeds, then your actual speed will be a multiple of your selected speed. For example most packages assume a top speed of 115.2K baud. 460K baud is four times this speed. If you set the jumper for 460K and use a standard communications driver to select your baud rate then your actual baud rate will be four times as fast.

Terminating Resistors

The terminating resistor shunts should be installed for normal end to end transmission in 422 mode. The shunts should be removed if the port sits somewhere in between other ports as in a multi drop environment. The jumper for the terminating resistor is labeled TRM and is the last jumper on each header block.

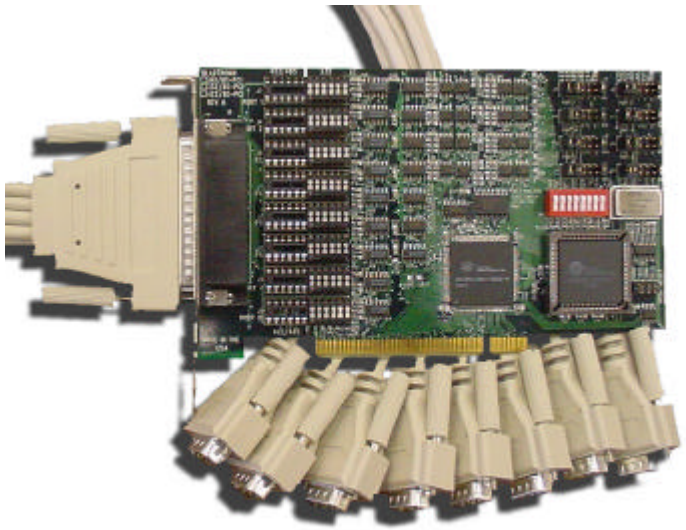
Pin-Out

With the 422 jumpers installed, the ports will have the transmit signals on connector pins 3 & 8. The receive signals are on pins 2 & 7. This functionality is summarized in the table below. If you are using 485 operation, then TX/RX+ will be on pin 7 and TX/RX- will be on pin 2. With the 6 position jumper set in RS232 position, the port will be pinned out as a standard DTE interface. This means it will have the same pin-out as a normal RS232 serial port found on most computers.

PIN #	422	485	232
1	CHASSIS GND	CHASSIS GND	DCD
2	RX-	TX-/RX-	RXD
3	TX+	-	TXD
4	-	-	DTR
5	GND	GND	GND
6	-	-	DSR
7	RX+	TX+RX+	RTS
8	TX-	-	CTS
9	-	-	RI

Switch SW1 and 485 Mode (Example)

If a port is being used in 422 mode, the associated switch position should be in the open position. (This switch is for NT only) For example, if ports 1 & 2 are being used for 2 wire operation with the rest of the ports being used for 422 4 wire operation, then positions 1 & 2 of the switch should be closed with positions 3 through 8 open. **To configure the driver for 2 wire 485 mode in Win98, ME, 2000 or XP go to: System/hardware/device manager/com & lpt ports (double click on com port), select "settings", select 485 & DTR function as "Active High".**



BLASTRONIX

AN1/8S-PCI

USER MANUAL

VERSION 2.0

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