Serial Communications

BPS 2328S

High-Speed RS-232 Interface Card with 8 Pts., 460.8kb Baud Rate, Hardware Handshaking and Interrupt Sharing

USER'S MANUAL

VER. 1.0 • 2003

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• NOTICE •

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Introduction

This manual is applicable to the CyberResearch BPS 2328S unit. Your unit was supplied with 16C954 UARTs. The power-on defaults will cause it to look like standard 16550 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 automatically set the transmitter FIFO level to 80 and the receiver FIFO level to 64.

Hardware Installation

The unit is very simple to install. There are no user hardware parameters to worry about other than the high-speed option header. Simply install the init in any available PCI slot.

Software/Driver Installation

With Windows 98 applications the system will recognize the presence of a new PCI device. When prompted, install your supplied driver disk in drive A: and select the "have disk" 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 disk. The installation software expects the hardware to be physically installed before the software installation can be completely successful. 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 and make the necessary PCI assignments and modifications to the registry.

Interrupts and Addresses

Interrupts and addresses are automatically assigned. This is not a user controllable parameter. The user may influence the IRQ assignments 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 in-installer and then run the installer again.

High-Speed Option Header

At the lower 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 155.2K baud. All standard COMM drivers 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 and 460k baud.

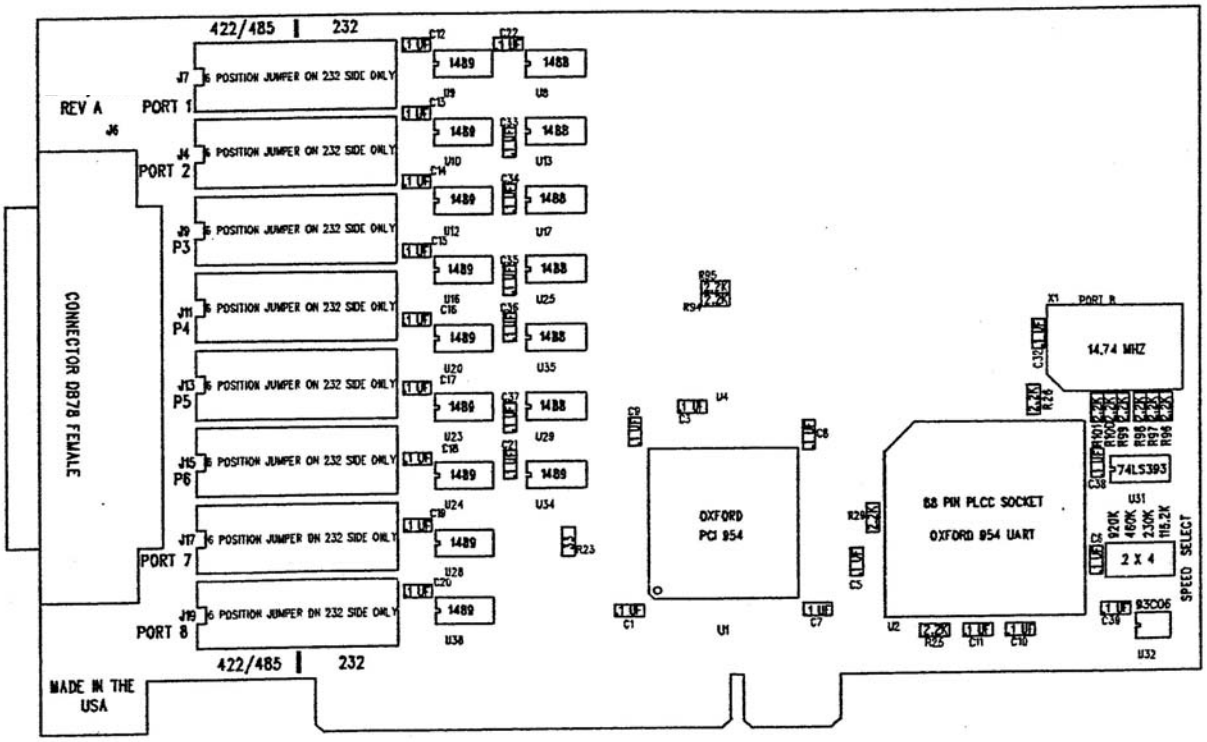
If you are not using a COMM driver that specifically supports these higher speeds then your actual speed will be a multiple of your selected speed. For example, most COMM packages assume a top speed of 115.2k baud, 460k baud is for times this speed.

If you set the jumper for 460k and use a standard COMM driver to select your baud rate then your actual baud rate will be four times whatever you selected. If you selected 9600, your actual rate would be 38,400.

Pin Out

All ports are pinned out as a standard DTE interface. This means it will have the same pin out as a normal RS-232 serial port found on most computers.

PIN	232
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI


422/485
232
REV A
PORT 1
PORT 2
P3
P4
P5
P6
PORT 7
PORT 8
6 POSITION JUMPER ON 232 SIDE ONLY
6 POSITION JUMPER DN 232 SIDE ONLY
CONNECTOR DB78 FEMALE
MADE IN THE USA
OXFORD PCI 954
68 PIN PLCC SOCKET
OXFORD 954 UART
14.74 MHZ
74LS393
2 X 4
SPEED SELECT
93C06

Product Service

Diagnosis and Debug

CyberResearch, Inc. maintains technical support lines staffed by experienced Applications Engineers and Technicians. There is no charge to call and we will return your call promptly if it is received while our lines are busy. Most problems encountered with data acquisition products can be solved over the phone. Signal connections and programming are the two most common sources of difficulty. CyberResearch support personnel can help you solve these problems, especially if you are prepared for the call.

To ensure your call's overall success and expediency:

1) Have the phone close to the PC so you can conveniently and quickly take action that the Applications Engineer might suggest.
2) Be prepared to open your PC, remove boards, report back-switch or jumper settings, and possibly change settings before reinstalling the modules.
3) Have a volt meter handy to take measurements of the signals you are trying to measure as well as the signals on the board, module, or power supply.
4) Isolate problem areas that are not working as you expected.
5) Have the source code to the program you are having trouble with available so that preceding and prerequisite modes can be referenced and discussed.
6) Have the manual at hand. Also have the product's utility disks and any other relevant disks nearby so programs and version numbers can be checked.

Preparation will facilitate the diagnosis procedure, save you time, and avoid repeated calls. Here are a few preliminary actions you can take before you call which may solve some of the more common problems:

1) Check the PC-bus power and any power supply signals.
2) Check the voltage level of the signal between SIGNAL HIGH and SIGNAL LOW, or SIGNAL+ and SIGNAL– . It CANNOT exceed the full scale range of the board.
3) Check the other boards in your PC or modules on the network for address and interrupt conflicts.
4) Refer to the example programs as a baseline for comparing code.

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Warranty Notice

CyberResearch, Inc. warrants that this equipment as furnished will be free from defects in material and workmanship for a period of one year from the confirmed date of purchase by the original buyer and that upon written notice of any such defect, CyberResearch, Inc. will, at its option, repair or replace the defective item under the terms of this warranty, subject to the provisions and specific exclusions listed herein.

This warranty shall not apply to equipment that has been previously repaired or altered outside our plant in any way which may, in the judgment of the manufacturer, affect its reliability. Nor will it apply if the equipment has been used in a manner exceeding or inconsistent with its specifications or if the serial number has been removed.

CyberResearch, Inc. does not assume any liability for consequential damages as a result from our products uses, and in any event our liability shall not exceed the original selling price of the equipment.

The equipment warranty shall constitute the sole and exclusive remedy of any Buyer of Seller equipment and the sole and exclusive liability of the Seller, its successors or assigns, in connection with equipment purchased and in lieu of all other warranties expressed implied or statutory, including, but not limited to, any implied warranty of merchant ability or fitness and all other obligations or liabilities of seller, its successors or assigns.

The equipment must be returned postage prepaid. Package it securely and insure it. You will be charged for parts and labor if the warranty period has expired.

Returns and RMAs

If a CyberResearch product has been diagnosed as being non-functional, is visibly damaged, or must be returned for any other reason, please call for an assigned RMA number. The RMA number is a key piece of information that lets us track and process returned merchandise with the fastest possible turnaround time.

PLEASE CALL FOR AN RMA NUMBER!

Packages returned without an RMA number will be refused!

In most cases, a returned package will be refused at the receiving dock if its contents are not known. The RMA number allows us to reference the history of returned products and determine if they are meeting your application's requirements. When you call customer service for your RMA number, you will be asked to provide information about the product you are returning, your address, and a contact person at your organization.

Please make sure that the RMA number is prominently displayed on the outside of the box.

• Thank You •

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