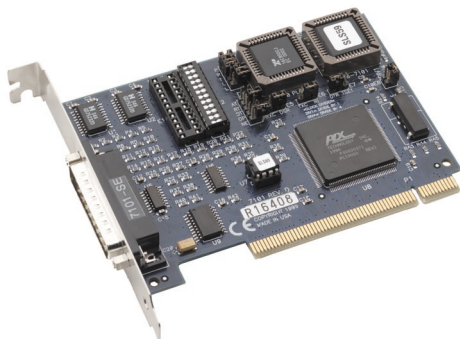




## Description

The new PCI-ULTRA adapter is the fastest, most advanced, single-port asynchronous serial interface in the industry that can be configured for either RS-232, RS-530, RS-422 or RS-485. Designed as the PCI version of our popular ISA ULTRA-485, the new PCI-ULTRA can also run as either a RS-232 or RS-530 port. The PCI-ULTRA when configured for RS-485 has automated RTS control under Windows applications which allows the board to be plug and play.

The advanced PCI-ULTRA features full compatibility with standard 16C550 and 16C650 UARTs, but provides extraordinary 128-byte receive and transmit FIFOs for buffering. This buffering is extremely important when working with high-overhead operating systems such as Windows NT and Windows 98 (drivers supplied).

The extra-deep FIFOs prevent data loss due to overrun and dramatically improve data throughput in all applications. The PCI-ULTRA is our fastest RS-485 serial port card.

Software examples and drivers are supplied for Windows NT and Windows 95/98/2000. These drivers allow the board to be "just another com port" in the system. The PCI-ULTRA comes with driver disk and manual. The PCI-ULTRA is a switchless design and relies on the BIOS plug-and-play functionality to determine address ranges and IRQ settings. The PCI-ULTRA although with added capabilities is upward compatible with our popular ISA ULTRA-485.

## Features

- Single RS-232/530/422/485 Serial Channel
- Auto RTS Control for RS-485
- DOS, Windows 95/98/NT/2000 support
- 16C850 UART w/128 Byte FIFOs
- Compatible w/ 16550 & 16650
- Standard Baud Rates up to 460.8kbps (optional higher rates)
- PCI specification 2.1 compliant (seen over bridge)
- DB25 Male connector (EIA-530)
- Auto IRQ & PCI I/O address selection
- Cable lengths up to 4000 feet

## Support

- Superior pre- and post-sales technical support
- All products carry a two year warranty

## Specifications

### Number of Ports Serial

One RS-232 or RS530 or RS422 or RS485

### UART

Type 16C850 serial

### Throughput

Serial - maximum 460Kbps (optional higher speeds)

### I/O Addressing

Plug-n-Play - auto selection

### Interrupts

Auto selects one interrupt per card on PCI

### Bus Interface

PCI Specification 2.1, works past PCI bridge in Plug-n-Play mode

### Connectors

One 25-pin DB male on rear of card (EIA-530)

### Operating Temperatures

0 ° to 50 °C

### Storage Temperature

-20 ° to 70 °C

### Humidity

10 to 90% (non-condensing)

### MTBF

>150,000 hours (calculated)

### Power Requirements

+5VDC @ 480mA (typical)  
+12VDC @ 50mA  
-12VDC @ 50mA

### Certifications

FCC Class A (47 CFR Part 15, Subpart B)  
UL 1950, 2nd edition 1993  
CE Conformity with:  
EU EMC Directive 89/336/EEC  
EU Low Voltage Directive 72/23/EEC

### OS Support

Dos, Windows 95/98/2000/NT

## Ordering Guide

### PCI-ULTRA

PCI single port RS232, RS422, RS485 or RS530 board, documentation CD, software CD

### PCI-ULTRA-I

Isolated PCI single port RS232, RS422, RS485 or RS530 board, documentation CD, software CD



[www.icsadvent.com](http://www.icsadvent.com)  
**800-523-2320**

## RS-232 Signals (DB-25 Male)

| Signal | Name                                  | Pin #  | Mode   |
|--------|---------------------------------------|--------|--------|
| GND    | Ground                                | 7      |        |
| RD     | Receive Data                          | 3      | Input  |
| CTS    | Clear To Send                         | 5      | Input  |
| DSR    | Data Set Ready                        | 6      | Input  |
| TXC    | Transmit Clock                        | 15     | Input  |
| RXC    | Receive Clock                         | 17     | Input  |
| DCD    | Data Carrier Detect                   | 8      | Input  |
| RI     | Ring Indicator                        | 22     | Input  |
| TD     | Transmit Data                         | 2      | Output |
| RTS    | Request to Send                       | Output |        |
| TSET   | Transmit Signal                       | 24     | Output |
| DTR    | Element Timing<br>Data Terminal Ready | 20     | Output |

Note: These assignments meet the EIA/TIA/ANSI-530 DTE specification.

## RS-422/485/530 Pin Assignments (DB-25 Male)

| Signal      | Name                         | Pin # | Mode   |
|-------------|------------------------------|-------|--------|
| GND         | Ground                       | 7     |        |
| RDB RX+     | Receive Data Positive        | 16    | Input  |
| RDA RX-     | Receive Data Negative        | 3     | Input  |
| CTSB CTS+   | Clear To Send Positive       | 13    | Input  |
| CTSA CTS-   | Clear To Send Negative       | 5     | Input  |
| TXCB TXC+   | Transmit Clock Positive      | 12    | Input  |
| TXCA TXC-   | Transmit Clock Negative      | 15    | Input  |
| RXCB RXC+   | Receive Clock Positive       | 9     | Input  |
| RXCA RXC-   | Receive Clock Negative       | 17    | Input  |
| RIB RI+     | Ring Indicator Positive      | 25    | Input  |
| RIA RI-     | Ring Indicator Negative      | 21    | Input  |
| TDB TX+     | Transmit Data Positive       | 14    | Output |
| TDA TX-     | Transmit Data Negative       | 2     | Output |
| RTSB RTS+   | Request To Send Positive     | 19    | Output |
| RTSA RTS-   | Request To Send Negative     | 4     | Output |
| DTRB DTR+   | Data Terminal Ready Positive | 23    | Output |
| DTRA DTR-   | Data Terminal Ready Negative | 20    | Output |
| TSETB TSET+ | Terminal Timing Positive     | 11    | Output |
| TSETA TSET  | Terminal Timing Negative     | 24    | Output |

Note: These assignments meet the EIA/TIA/ANSI-530 DTE specification with the exception of Ring Indicator, which is not specified. It has been included here for compatibility with systems requiring Ring Indicator.

## Corporate Headquarters

ICS Advent  
6260 Sequence Drive  
San Diego, CA 92121-4371  
Phone: 800 523-2320  
Fax: 858 677-0898  
Email: sales@icsadvent.com  
support@icsadvent.com  
Website: www.icsadvent.com

## International Headquarters

ICS Advent Europe  
Ben Turner Industrial Estate, Unit 9  
Oving Road, Chichester  
West Sussex, PO19 4ET, UK  
Phone: + 44 (0) 1243 523500  
Fax: + 44 (0) 1243 532949  
Email: sales@icsadvent.co.uk  
support@icsadvent.co.uk  
Website: www.icsadvent.co.uk



www.icsadvent.com  
800-523-2320