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 $^\circ$ to 50 $^\circ$C

Storage Temperature
-20 $^\circ$ to 70 $^\circ$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
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 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 compatiblity with systems requiring Ring Indicator.

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