Connect Tech Inc.
Industrial Strength Communications

Product Guide

1ST/2ND QUARTER 2010

- Reconfigurable FPGAs
- Solid State Drives
- Multi-port Serial
- Ethernet-to-Serial
- CAN Controllers
- Wireless Radio Modems
- Engineering Tools

www.connecttech.com

Connect Tech Inc.
Industrial Strength Communications

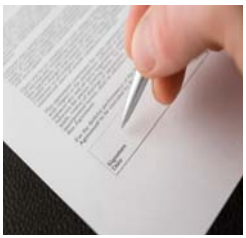
Powerful, cost-effective connectivity solutions to meet product development requirements

Connect Tech Inc. delivers high performance, advanced connectivity solutions that improve design efficiency and cost effectiveness for industrial and embedded technology applications. For 25 years, Connect Tech has built a solid reputation for expertise in professional design, unsurpassed technical support and innovative products for the industrial and embedded PC markets.

Mission

Connect Tech aims to be the leading manufacturer of quality computer interface products for the global market by providing superior products, outstanding support and the best warranty in the industry. We are committed to fairness and ethical relationships with customers, suppliers and employees.

Commitment



Committed to excellence in both product design and customer service, CTI continues to build a reputation for manufacturing high quality, high performing and reliable products. Our commitment is demonstrated by our on-going willingness to comply with important certifications and approvals that guarantee product integrity.

Contact Us

For more information about Connect Tech Inc. or our products, please contact us at:

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Connect Tech Satisfaction Guarantee

The key to our success: we're driven by the belief that customer satisfaction is as important as quality products. We build solid relationships with our customers by providing quality products around the world, backed by exceptional customer support.

Customer Support

CTI offers a 30 day free trial of any of our products at no charge. Our dedicated design engineering team offers free technical support to customers worldwide. We are accessible Monday to Friday, 8:30 am to 5:00 pm EST via telephone, fax and email. Product manuals, installation guides and software drivers are available on our website.

Quality Assurance

All CTI products undergo critical testing and inspection programs to ensure product performance and reliability. Connect Tech's commitment to quality is recognized globally through our ISO 9001:2000 certification. Visit our website to view our FCC, CE and UL approved products.

Connect Tech Inc. is ISO 9001:2000 certified.

Global Service

Connect Tech acknowledges that being at arms length with customers enables the ability to provide faster quotes, shorter lead times and lower shipping costs. Connect Tech has made partnerships around the world to ensure you are served in a timely and cost-effective manner.

Lifetime Warranty

Connect Tech provides a Lifetime Warranty for our hardware products. We warrant each product to be in good working order for the product's life cycle. Visit our web site at www.connecttech.com for complete details.

Product Portfolio

System integrators, VARs and OEMs choose our products based on quality, performance and reliability. Our standard product line includes:

PCI • PCI Express • CompactPCI • PCI/104-Express • PC/104 • PC/104-*Plus*
ISA Bus Compatible Boards • Wireless Radio Modems • Solid State Drives • CAN Controllers
Ethernet-to-serial • FPGA and Digital I/O • USB-to-Serial Devices

Solutions for Varied Applications

Extremely versatile, our products are suited to a varied range of industries including communications, industrial automation, transportation, government, scientific, medical, educational, point of sale and office automation -- to name a few.

An Exact Fit

We recognize the unique requirements of every application. As a result, we have made product customization an important part of our business. We can troubleshoot compatibility issues, solve space constraint problems, suggest alternatives and improvements to existing designs and find communications solutions for legacy systems. Our experience ensures that we can develop cost-effective, custom solutions within a narrow time line that will suit your specific needs.

Integration Services

As part of our ongoing commitment to delivering exceptional customer service, CTI offers Integration Services -- bringing your design and specifications together with our expertise in hardware and software systems. From sourcing raw materials to shipping the final tested product to your customer, we provide everything your project needs. By utilizing our experience and quality control systems, you are able to focus your valuable in-house resources on critical tasks that deserve attention.

Table of Contents

NOTE: Specifications found in this guide are subject to change without notice.

New Product Showcase

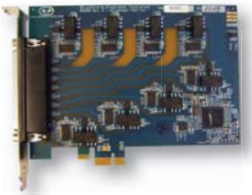
Connect Tech provides industrial strength product solutions for any environment. We recognize the unique requirements of our customers and, as a result, have designed new products to meet specific needs. We are pleased to announce the release of new Connect Tech products:

PC/104

Xtreme/104-Express Opto

Our new Xtreme/104-Express Opto serial card offers 4 or 8 switchable RS-232, RS-422 or RS-485 ports, with 3 kV optical isolation on each port .

PCI Express



BlueStorm/Express Isolated

Standard height PCI Express serial cards are available in 8 ports of RS-232 communications and includes 2kV isolation on all 8 ports (3kV on board).

Engineering Tools

PCI/104-Express to PCI Express Adapter

This convenient adapter boards allows users to install any x1, x4, x8 or x16 lane PCI Express card into a PCI/104-Express stack.

Product customization is an important part of our business. Connect Tech can troubleshoot compatibility issues, solve space constraint problems, suggest alternatives and improvements to existing designs and find communications solutions for legacy systems. Contact our sales team at sales@connecttech.com for your exact fit.

Design. Develop. Deploy.

FreeForm FPGA Modules for the Entire Design Cycle

Rapidy move through all design stages, reduce development costs, and maximize your ROI... with a single FPGA module

Based on the Xilinx Virtex-5 and Spartan-3E FPGAs, our FreeForm products are supported by:

- Reference designs including software and FPGA IPs:
  - Local Bus Slave Transfers
  - GPIO Control
  - Transferring Ethernet Packages
  - RS-485 Serial Data Transfers
  - Programming SPI Flash
  - Interfacing with Rocket I/O
  - Reading/Writing to Serial EEPROM
  - Reading/Writing to DDR2 Memory
- FREE ISE WebPACK Software
- Engineering Services

FreeForm/PCI-104

FreeForm/PCI-104 Features

Highly versatile FreeForm/PCI-104 offers a reconfigurable FPGA on a powerful platform for system development.

- Virtex-5 FPGA options include LX30T, LX50T and FX30T
- Customizable PCI-104 (32-Bit/33MHz) board based on the Xilinx multi-platform Virtex-5 FPGA
- 50 MHz & 100 MHz oscillators
- 8MB flash for embedded code storage
- 128MB DDR2-400 memory
- Up to 5 million logic gates
- 2 x 10/100 Ethernet with modular jacks
- 2 x RS-485 serial interface
- External 5V power connector for programming
- 64 single ended or 32 LVDS general purpose I/O
- 4 Rocket I/O transceivers
- Industrial temperature range
- Designed for embedded processing using MicroBlaze™ or NEW! PowerPC 440
- Full featured reference designs

Specs

FPGA	Xilinx Virtex-5 FPGA Up to 5 million logic gates PowerPC 440 core (optional)
Memory	8MB Flash, 128MB DDR2-400
Connectors	Two RJ-45 modular jacks (Ethernet) Two 2 x5 0.100" headers (RS-485) One 2x40 0.050 "x 0.100" header (general I/O) One 1x7 0.001" header (JTAG programming) One 1x6 0.100" header (flash programming)
Operating Temperature	**Industrial temperature model:** -40˚C to 85˚C (-40˚F to 185˚F)
Power	+5V DC (± 5%)
Warranty	Lifetime

At A Glance

- PCI-104 bus
- Reconfigurable, multi-platform Virtex-5 FPGA
- 64 single ended or 32 LVDS I/O
- 2 x RS-485 serial interface
- 2 x 10Base-T, 100Base-TX interface
- 4 Rocket I/O transceivers
- Designed for embedded processing using MicroBlaze™ or NEW! PowerPC 440

✓RoHS

FreeForm/104

FreeForm/104 Features

PC/104 board provides an off-the-shelf solution for standard digital I/O and counter/timer applications. Users may also completely reconfigure the FPGA to suit their requirements.

- Customizable PC/104 board based on the Xilinx Spartan-3E FPGA
- FPGA configured from on-board flash memory
- Reprogrammable in the field for standard and custom designs
- External 5V power connection for stand-alone usage
- User configurable LEDs and rotary switch
- Standard configurations:
  - 96 digital I/O or 48 Opto-22 I/O (8255 compatible)
  - 6 counter/timers (8254 compatible)

Specs

FPGA	Xilinx Spartan-3E FPGA 500,000 gates
Connector	2 x 50 pin headers, 1 x 26 pin header
Operating Frequency	66 MHz, internally scalable
Operating Temperature	0°C to 70°C (32°F to 158°F) **Industrial temperature model:** -40°C to 85°C (-40°F to 185°F)
Power	+5V DC (± 5%)
Warranty	Lifetime

At A Glance

- PC/104 bus
- Digital I/O applications
- Stand-alone usage
- Opto-22 compatible
- 6 counter/timers
- Reconfigurable FPGA

✓RoHS

Blue Heat/Net Sync

Blue Heat/Net Sync Features

- Four synchronous/asynchronous serial ports; software switchable: V.28 (RS-232), V.10 (RS-423), V.11 (RS-422, X21), V.35, EIA-530, EIA-530A, V.36 (RS-449) - termination resistors for V.11 and V.35
- Supports a number of Ethernet and synchronous protocols (with 16 and 32 bit CRC checking)
- Customizable firmware uses uClinux operating system
- Software Development Kit includes open source development tools for customized protocols
- Configure over serial interface , Telnet or via a user-friendly Web browser interface
- 1U, 19" rack mountable, optional rack mount kit available
- Auto sensing 10 Base-T, 100 Base-TX Ethernet LAN interface and auto MDI/MDIX
- High performance CPU featuring 16MB SDRAM and 8MB Flash
- Data communications speeds up to 230.4 Kbps (asynch) and 10 Mbps (sync)
- Bipolar reference clock input accepts sine/square wave signals up to ± 10 volts p-p

Specs

Control Signals	**Single ended:** TxD, RxD, CTS, RTS, DTR, RI, DCD, DSR, RxClock, TxClock and Signal Ground **Differential:** (TxD, RxD, CTS, RTS, DTR, DCD, DSR, RxClock, TxClock)± and Signal Reference
Interfaces	V.28, V.10, V.11, V.35, EIA-530, V.36
Protocols	SDLC, HDLC, MonoSync, BiSync, Transparent BiSync, Async
Ethernet Protocols	IP, TCP, UDP, ARP, RARP, TFTP, DHCP, BootP, HTTP, Telnet, ICMP, PPP
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Power	5V (2.5A) - 30V DC (450 mA) using DC barrel or Phoenix screw terminal connector
Warranty	Lifetime

At A Glance

- Ethernet-to-serial device
- Four synchronous/asynchronous serial ports
- Bipolar reference clock input accepts sine/square wave signals
- uClinux embedded operating system
- ✓RoHS

Blue Heat/Net 2

Blue Heat/Net 2 Features

- Two asynchronous serial ports; software selectable RS-232/422/485 models available
- Supports a number of protocols including; Raw TCP, PPP client and server and industrial protocols
- Industrial protocol support includes; Modbus, Allen Bradley/Rockwell Automation, BACnet and DNP3
- Customizable firmware uses uClinux operating system
- Software Development Kit includes open source development tools for customized protocols
- Configure over serial interface or Telnet or via a user-friendly Web browser interface
- Built in wall mount with DIN Rail mounting option
- Auto sensing 10 Base-T, 100 Base-TX Ethernet LAN interface and auto MDI/MDIX
- High performance CPU featuring 16MB SDRAM and 2 or 4 MB Flash
- Data communications speeds up to 460.8 Kbps
- Supports full duplex (4 wire), half duplex (2 wire) and multi-drop (4 wire) modes in RS-422/485

Specs

Control Signals	**RS-232:** TxD, RxD, CTS, RTS, DTR, DCD, DSR, RI and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference
Protocols	IP, TCP, UDP, ARP, RARP, TFTP, DHCP, BootP, HTTP, Telnet, ICMP, PPP
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F **Power over Ethernet (PoE) model:** -40˚C to 74˚C -40˚C to 165˚F
Power	**All models:** Multi-mode power adapter, 5V -30V DC, 500 mA **Power over Ethernet (PoE) model:** 30 mA@ 48V DC **Screw Terminal Connector (PoE) model:** 36V - 56V DC
Warranty	Lifetime

At A Glance

- Ethernet-to-serial device
- Two RS-232 or selectable RS-232/422/485 ports
- uClinux embedded operating system
- Power over Ethernet (PoE)
- Industrial protocol models

✓RoHS

Blue Heat/Net

Blue Heat/Net Features

- Four, eight or 16 RS-232 or software selectable RS-232/422/485 asynchronous serial ports
- Supports a number of protocols, including Raw TCP, PPP client and server, and industrial protocols
- DB-9 and compact RJ-45 models
- Customizable firmware uses uClinux operating system
- Software Development Kit includes open source development tools for customized protocols
- Configure over serial interface or Telnet, or via a user-friendly Web browser interface
- DIN rail mounting option (DB-9 models)
- Auto sensing 10Base-T, 100Base-TX Ethernet LAN interface
- ColdFire CPU featuring 16MB SDRAM, 2 or 4MB Flash (16 port models -32MB SDRAM and 8MB Flash)
- Data communications speeds up to 230.4 Kbps (RS-232) and 460.8 Kbps (RS-422/485)

Specs

Control Signals	**RS-232:** DTR, DSR, RTS, CTS, TxD, RxD, RI*, DCD, GND and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference **DB-9 version only*
Protocols	IP, TCP, UDP, ARP, RARP, TFTP, DHCP, BootP, HTTP, Telnet, ICMP, PPP
Operating Temperature	**4 or 8 ports:** 0˚C to 70˚C (32˚F to 158˚F) **16 ports:** -40˚C to 60˚C (-40˚F to 140˚F)
Power	**RS-232 external AC/DC power adapter:** 5 - 6V DC, 1000mA **RS-232/422/485:** Universal 5V DC, 2.5A **16 port model:** 24-56V DC input, 250 mA AC/DC power supply 90-24V AC50/60Hz IEC320 detachable power line cord
Warranty	Lifetime

At A Glance

- ✔ Ethernet-to-serial device
- ✔ 4, 8 and 16 ports
- ✔ RS-232 and RS-232/422/485
- ✔ uClinux embedded operating system
- ✔ Surge suppression
- ✔ Cabling, power supply and rack mount options

✓RoHS

Protocol Converter IP 8000

IP 8000 Features

Gandacar Consulting in partnership with Connect Tech and QNX provides a tightly integrated solution for institutions and ATM (Automatic Teller Machine) service providers. IP 8000 connects serial interface ATMs to an IP network.

- Two to eight synchronous/asynchronous serial ports
- Incorporates a custom designed PC/104 communications card from Connect Tech
- POSIX, embedded RTOS (Real Time Operating System) - QNX 6
- Alternative IP routing to different servers on network failures
- Centralized software configuration download
- Fail-over safe boot
- SDK (Software Development Kit) included
- 10Base-T, 100Base-TX Ethernet LAN interface (auto-sensing)
- High performance, low power CPU featuring 256MB SDRAM and 1GB Flash
- Remote configuration

Specs

Interfaces	RS-232, RS-422, RS-449, EIA-530, V.35, X.21, DCE or DTE per port
Serial Protocols	FM0, FM1, Bit Oriented (ASYNC/BISYNC), SNA, LU2, PU2 3270, 3274 BSC, 2780/3780 BSC, TC 500/700 poll select (ASYNC/SYNC)
Protocols	IP, TCP, UDP, Telnet, FTP
Operating Temperature	0˚C to 60˚C (32˚F to 140˚F) Humidity: 10% -95% relative humidity
Power	115/230V AC, 50-60Hz

At A Glance

- Synchronous/asynchronous Ethernet-to-serial device
- 2 to 8 serial ports
- Ports operate in DTE or DCE mode (internal or external clocking)
- DMA operation - speeds up to 2MB/s
- TCP fail over
- Custom serial protocol development available

✓RoHS

FlashDrive/104

FlashDrive/104 Features

Flash based, solid state storage module designed as a drop-in replacement for magnetic hard drives. No mechanical failures!

Hard Disk Interface:

- Industry standard ATA/IDE interface
- Read/write performance up to 10MB per second
- Supports up to PIO (programmed input/output) Mode-4
- Supports up to multi-word DMA Mode-2
- Standard master/slave selection

Flash Storage:

- 4, 8, 16 or 32GB models available
- Global write protection
- On-board Flash controller featuring:
  -Wear leveling algorithms for flash longevity
  -Bad block management and error code correction

Specs

Capacity	4, 8, 16 or 32GB
Connector	Standard 40-pin, 100" and 2.5" - 44-pin, 2mm
Hard Disk Interface	ATA/IDE
Current	**Idle state:** 5 mA **During read/write cycles:** 150 mA
Operating Temperature	**Industrial temperature models:** -40˚C to 85˚C (4, 8, 16 or 32GB models)
Power	+5V DC (± 5%)
Warranty	Lifetime

At A Glance

- PC/104 bus and suitable for any platform
- 4, 8, 16 or 32GB models
- Withstands extreme temperatures, shock and vibration
- Usable with any standard operating system
- Read/write performance up to 10MB/s
- Global write protection

✓RoHS

CANpro/104 Opto & CANpro/104 *Plus* Opto

CANpro/104 Opto & CANpro/104-*Plus* Opto Features

PC/104 or PC/104-*Plus* based CAN controller card featuring optical isolation for maximum data protection.

- Two port card featuring two independent NXP SJA1000 CAN controllers
- 3 kV isolation for each CAN port from the host system
- High input impedance transceivers support 1.0Mbps and over 110 nodes on the bus
- Decoded address range is configurable for BasicCAN and PeliCAN to prevent wasted address space
- **CANpro/104 Opto** - Jumper configurable:
  -base address
  -memory or I/O space mappable with software controlled memory space enable (using a single byte I/O address)
  -interrupt selection and interrupt sharing
  -output slew rate limiting for lower radiated emissions
  -CAN bus termination
- **CANpro/104-*Plus* Opto**
  -PCI bridge - PLX 9030
  -additional 8-bit GPIO header

Specs

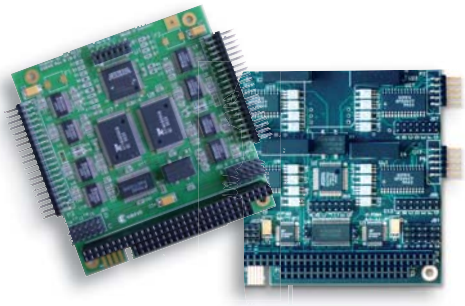
Clock	16MHz CAN controller clock
Connector	***Standard***: 10-pin, right angled header ***Optional:*** DB-9
CAN Controller	Two NXP SJA1000 CAN controllers
CAN Interface	TI SN65HVD251
Operating Temperature	-40°C to 85°C
Power	+5V DC 500mA (max.)
Warranty	Lifetime

At A Glance

- PC/104 or PC/104-*Plus*
- Two NXP SJA1000 CAN controllers
- Configurable for BasicCAN and PeliCAN modes
- 3 kV isolation
- CAN tranceivers support 1.0 Mbps operation

✓RoHS

Xtreme/104 and Xtreme/104 Opto



Xtreme/104 and Xtreme/104 Opto Features

- Four and eight asynchronous RS-232, and/or RS-422/485 serial ports (jumper selectable Xtreme/104)
- Opto models feature two and four ports with each port individually isolated up to 3.0kV AC peak to peak
- Supports data communications speeds up to 230.4 Kbps (RS-232) or 460.8 Kbps(RS-422/485). Custom baud rates available
- 16C654 UARTs control each port providing 64 bytes of transmit and receive FIFO buffers (16C2850 UARTs and 128 bytes for Opto models)
- Supports two RS-422/485 modes: full duplex (4-wire) and half duplex (2-wire) with auto TxD echo cancellation
- Each RS-422/485 transmitter and receiver has a jumper selectable 120 Ohm termination resistor
- IRQ lines are jumper selectable and each Xtreme/104 board can be set to run on one or two interrupts
- Independent port configuration with data bits of 5, 6, 7 or 8; stop bits of 1, 1.5, or 2, and odd, even, or stick parity
- Available in industrial temperature range and custom feature models

Specs

Control Signals	**RS-232:** DTR, DSR, RTS, CTS, RI, TxD, RxD, DCD and Signal Ground **RS-232 Opto:** RTS, CTS, TxD, RxD and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F **Industrial temperature model:** -40˚C to 85˚C -40˚F to 185˚F
Power	**Xtreme/104:** +5V DC (±5%) @ 100mA (max.) **Xtreme/104 Opto:** +5V DC (±5%) @ 200mA (max.)
Warranty	Lifetime

At A Glance

- PC/104 bus
- 2, 4 and 8 ports
- RS-232 and/or RS-422/485
- Optical isolation
- Industrial temperature range

✓RoHS

Xtreme/104 Isolated

Xtreme/104 Isolated Features

- Twelve asynchronous ports, including eight jumper selectable RS-232/422/485 ports and four RS-232 ports
- One small PC/104 footprint
- Supports three RS-422/485 modes: full duplex (4-wire), half duplex (2-wire) and multi-drop (4-wire)
- Provides 1 kV AC point-to-point electrical isolation on every port using Analog Device's iCoupler® technology
- Supports data communications speeds up to 115.2 Kbps (RS-232) and 460.8 Kbps (RS-422/485). Custom baud rates are also available
- 16C2850 Dual UARTs control each port providing 128 bytes of transmit and receive FIFO buffers
- Jumper selectable RS-485 bias and termination available
- Eight jumper selectable I/O address ranges
- IRQ lines, interrupts and modes are jumper selectable

Specs

Control Signals	**RS-232:** RTS, CTS, TxD, RxD and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference
Connectors	10 pin connectors for RS-232/422/485 ports 6 pin connectors for RS-232 ports
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F
Power	+5V DC @ 500mA (typical), 1A (max)
Warranty	Lifetime

At A Glance

- PC/104 bus
- 12 ports
- 8 RS-232/422/485 + 4 RS-232
- Electrical isolation
- Industrial temperature range

ComSync/104

ComSync/104 Features

- Two synchronous/asynchronous serial channels
- Seven software programmable electrical interfaces
- Multiple communication protocols supported
- Eight pre-defined sets of I/O addresses are DIP switch selectable
- Supports factory programmable security features such as customer ID, software ID, configuration, etc.
- Industrial temperature range model available
- A 20 MHz Zilog 85230 ESCC controls each channel (16MHz on the industrial temperature model)
- Data communications speeds up to 4.9 Mbps per channel
- IRQ lines are software selectable for 3, 5, 7, 9, 10, 11, 12 and 15
- Optional ribbon cables with female 26 pin IDC to female DB-25 connectors available

Specs

Interface Options	RS-232, RS-422, RS-449, EIA-530, EIA-530/A, V.35 and X.21
Control Signals	TX ±, RX ±, DCD ±, RTS ±, CTS ±, DSR ±, DTR ±, SYNC ±, TRxC ±, RTxC ± (varies with line interface mode)
Protocols	HDLC, SDLC, MonoSync, BiSync, Async
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F **Industrial temperature models:** -40˚C to 85˚C -40˚F to 185˚F
Power	+5V DC ±5% @ 190 to 660 mA (typical) (varies with line interface mode and data transmission speed)
Warranty	Lifetime

At A Glance

- PC/104 bus
- Synchronous/asynchronous
- 2 channels
- Industrial temperature ranges
- 7 programmable interface options
- Vertical headers available

✓RoHS

Xtreme/104 Radio Modem

Xtreme/104 Radio Modem Features

- Choose from 900 MHz or 2.4 GHz Frequency Hopping Spread Spectrum (FHSS) modules
- 2.4 GHz available with roaming capability
- Outdoor operating ranges up to 20 miles (900 MHz model)
- License-free operation
- PC/104 bus (2.5 compliant)
- Data transfer speeds up to 230.4 Kbps
- Jumper selectable I/O addresses
- Jumper selectable interrupt selection
- Hardware flow control
- Antenna accessories and cabling available
- Operating temperature range of 0˚C to 70˚C
- Powered via PC/104 bus (requires only 5V DC)

Specs

Transceiver Modules and Operating Ranges	Available in three designs featuring the following Cirronet modules: WIT910 900 MHz (Up to 20 miles) WIT2450 2.4 GHz (Up to 5 miles) WIT2410 2.4 GHz Roaming (Up to 6 miles)
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Dimensions	**Height:** 9.60 cm (3.77 inches) **Length:** 10.41 cm (4.09 inches)
Warranty	One year limited

At A Glance

- PC/104 bus
- 900 MHz, 2.4 GHz
- License free
- FCC certified
- CE certified

✓RoHS

Xtreme/104-Express

Xtreme/104-Express Features

- Fully PCI/104-Express compliant for easy transition from legacy PCI-104 cards to PCI Express stacks
- Eight asynchronous hardware selectable RS-232/422/485 serial ports
- Supports data communications speeds up to 15.625 Mbps. Built-in baud rate prescaler allows almost any baud rate to be matched accurately
- One G66874 octal UART controls each port providing 128 bytes of transmit and receive FIFO buffers
- Supports full duplex (4-wire), half duplex (2-wire) and multi-drop (4-wire) in RS-422/485 mode
- 1/8 load RS-485 tranceivers allow up to 256 devices on a bus
- Filtering on all ports to improve immunity to EMI and noisy transmission lines
- Supports 9-bit data mode
- Industrial temperature range (-40˚C to 85˚C) operation

Specs

Control Signals	**RS-232:** DTR, DSR, RTS, CTS, RI, TxD, RxD, DCD and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F
Power	5V DC @ 100mA (typical) 5V DC @ 650mA (max.)
Warranty	Lifetime

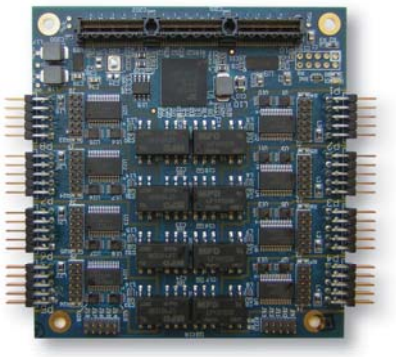
At A Glance

- PCI/104-Express or PCI/e104 bus
- 8 RS-232/422/485 serial ports
- Baud rates up to 15.625 Mbps
- 9-bit data mode support
- Industrial temperature range

✓RoHS

Xtreme/104-Express Opto

NEW!



Xtreme/104-Express Opto Features

- Fully PCIe/104 compliant
- Eight asynchronous hardware selectable RS-232/422/485 serial ports
- Supports data communications speeds up to 7.8125 Mbps
- One quad or octal PCI Express UART with 256 bytes of transmit and receive FIFO buffers
- Supports full duplex (4-wire), half duplex (2-wire) and multi-drop (4-wire) in RS-422/485 mode
- 1/8 load RS-485 tranceivers allow up to 256 devices on a bus
- Features filtering on all ports to improve immunity to EMI and noisy transmission lines
- Supports 9-bit data mode
- Industrial temperature range (-40˚C to 85˚C) operation

Specs

Control Signals	**RS-232:** TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD and Signal Ground **RS-422/485:** (TxD, RxD, RTS, CTS, DCD)± and Signal Reference
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F
Power	5V DC @ 500mA (typical) 1.0 A (max.)
Warranty	Lifetime

At A Glance

- PCI/e104 bus
- 4 and 8 ports RS-232/422/485
- Baud rates up to 7.8125 Mbps
- 9-bit data mode support
- Industrial temperature range
- Large FIFO buffers improve performance and reduce system load

✓RoHS

ComSync/PCI-104

ComSync/PCI-104 Features

- Universal PCI-104 bus - 33MHz/32-bit PCI interface
- Two synchronous/asynchronous software switchable serial ports; RS-232, RS-422, RS-449, EIA-530, EIA-530A, V.35 and X.21
- Multiple communication protocols supported; HDLC, SDLC, MonSync, Transparent BiSync, Async, external character sync and others
- Supports several data encoding methods: NRZI, NRZIB, NRZI-Mark, NRZI-Space, BiPhase-Space, BiPhase-Level, Differential BiPhase
- DMA Modes; single buffer, pipelined, array chained and linked array
- Two Z16C32 IUSC's, each with 32 byte transmit and receive FIFO buffers on each port
- Baud rates up to 10 Mbps (synchronous), 230.4 Kbps (asynchronous)

Specs

Interface Options	RS-232, RS-422, RS-449, EIA-530, EIA-530/A, V.35 and X.21
NRZI/BiPhase Modes	NRZI, NRZIB, NRZI-Mark, NRZI-Space, BiPhase-Space, BiPhase-Level, Differential BiPhase
Protocols	HDLC, SDLC, MonoSync, BiSync, Async, external character sync and others
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Power	5V DC @ 1 Amp (max.)
Warranty	Lifetime

At A Glance

- PCI-104 form factor
- Synchronous/asynchronous
- 2 channels
- Several NRZI and BiPhase clock modes
- 7 programmable interface options
- Baud rates up to 10 Mbps (synchronous)

✓RoHS

Xtreme/104-*Plus* Opto

Specs

Control Signals	**RS-232:** TxD, RxD, RTS, CTS and Signal Ground **RS-422/485:** (TxD , RxD , RTS , CTS)± and Signal Reference
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F
Power	+5V DC (±5%) @ 500mA (max.)
Warranty	Lifetime

Xtreme/104-*Plus* Opto Features

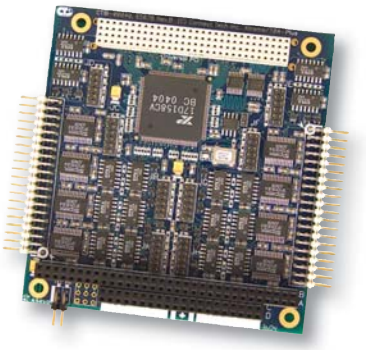
- Two or four asynchronous serial ports with jumper selectable RS-232/422/485 interface
- Each port features 3.0kV AC peak to peak optical isolation
- Supports three RS-422/485 modes: full duplex (4-wire), half duplex (2-wire) and multi-drop (4-wire)
- Bidirectional data speeds up to 1.8432 Mbps (RS-422/485)
- Selectable tri-state on power up in RS-485 HD/MDS mode
- Operational temperature range of -40ºC to 85ºC
- Each port can be configured independently for baud rate, parity, data and stop bits
- DB-9 cabling options available

At A Glance

- PC/104-*Plus* bus
- 2 or 4 ports
- Switchable RS-232/422/485 interface
- 3kV optical isolation on each port

✓RoHS

Xtreme/104-*Plus*



Xtreme/104-*Plus* Features

- Four or eight asynchronous serial ports with jumper selectable RS-232/422/485 interface options
- Two or four port models available with dedicated RS-423 interface
- Eight port models available with selectable RS-232/422/485/TTL
- TTL models offer option of disabling ports not in use
- Supports three RS-422/485 modes: full duplex (4-wire), half duplex (2-wire) and multi-drop (4-wire)
- Maximum data speeds of 115.2 Kbps(RS-423), 921.6 Kbps (RS-232 and TTL) and 1.843 Mbps (RS-422/485)
- Industrial temperature operating range of -40ºC to 85ºC
- Each port can be configured independently for baud rate, parity, data and stop bits
- DB-9 cabling options available

Specs

Control Signals	**RS-232:** TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD and Signal Ground **RS-422/485:** (TxD, RxD, RTS, CTS)± and Signal Reference **RS-423:** TxD-, TxDRef, RxD±, RTS-, RTSRef, CTS±
Dimensions	Fully PC/104-*Plus* compliant
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F
Power	+5V DC 500mA (max.) VI/O of +5V or 3.3V DC
Warranty	Lifetime

At A Glance

- PC/104-*Plus* bus
- 4 and 8 ports RS-232/422/485
- 2 and 4 ports dedicated RS-423
- 8 ports RS-232/422/485/TTL
- Industrial temperature range
- Available with or without PC/104 pass-through connector

✓RoHS

Titan/104-*Plus*

Titan/104-*Plus* Features

- Eight asynchronous serial ports with jumper selectable RS-232/422/485 interface options
- Each port can be configured independently for baud rate, parity, data and stop bits; including 9-bit data support
- Supports three RS-422/485 modes: full duplex (4-wire), half duplex (2-wire) and multi-drop (4-wire)
- Quad Oxford UARTs provide 128 bytes of transmit and receive FIFO buffers for each port
- Maximum data speeds of 921.6 Kbps (RS-232) and 1.8432 Mbps (RS-422/485)

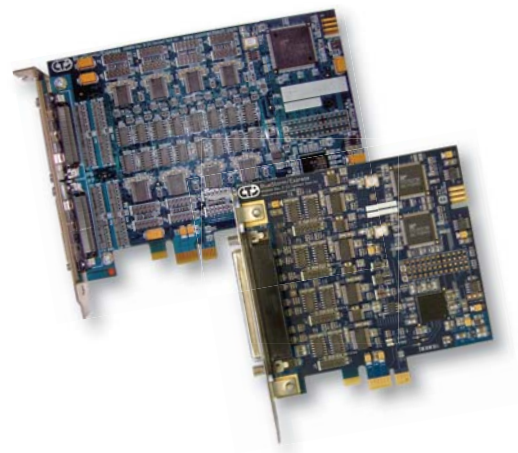
Specs

Control Signals	**RS-232:** TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD and Signal Ground **RS-422/485:** (TxD, RxD, RTS, CTS)± and Signal Reference
Dimensions	Fully PC/104-*Plus* 2.0 compliant
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Warranty	Lifetime

At A Glance

- PC/104-*Plus* bus
- 8 ports
- Switchable RS-232/422/485 interface
- 9-bit data support
- Large 128 byte FIFOs reduce system load

BlueStorm/Express



BlueStorm/Express Features

- 2, 4, 8 or 16 ports
- PCI Express x1 lane serial card compatible with x1, x4, x8, x16 lane PCI Express slots
- RS-232/422/485 jumper selectable
- Supports full duplex (4 wire) with RTS/CTS flow control, half duplex (2 wire) with auto TxD echo cancellation and multi-drop (4 wire) modes in RS-422/485
- Bidirectional data speeds to 921.6 Kbps (RS-232) and 1.843 Mbps (RS-422/485)
- Selectable tri-state on power up in RS-422/485 mode
- Multi-strike surge suppression on all ports
- Operating temperature range of 0°C to 70°C

Specs

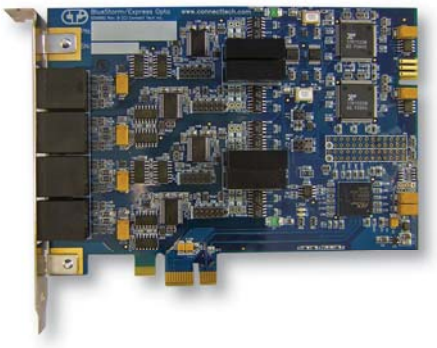
Control Signals	**RS-232:** TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference
UARTS	Dual or octal UARTs with up to 64 byte transmit and receive FIFO buffers for each port
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Power	3.3V DC @ 400mA (2, 4, 8 ports), 750mA (16 ports)
Warranty	Lifetime

At A Glance

- PCI Express x1 lane
- 2, 4, 8 or 16 ports
- Hardware selectable RS-232/422/485
- Surge suppression

✓RoHS

BlueStorm/Express Opto



BlueStorm/Express Opto Features

- Four ports
- 3kV optical isolation on all ports
- PCI Express x1 lane serial card compatible with x1, x4, x8, x16 lane PCI Express slots
- RS-232/422/485 jumper selectable
- Supports full duplex (4 wire) with RTS/CTS flow control, half duplex (2 wire) with auto TxD echo cancellation and multi-drop (4 wire) modes in RS-422/485
- Bidirectional data speeds to 921.6 Kbps (RS-232) and 1.843 Mbps (RS-422/485)
- Selectable tri-state on power up in RS-422/485 mode
- Operating temperature range of 0°C to 70°C

Specs

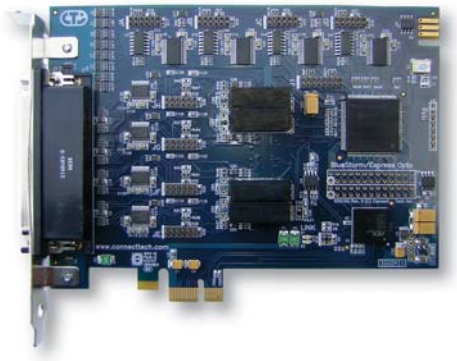
Control Signals	**RS-232:** TxD, RxD, RTS, CTS and Signal Ground **RS-422/485:** (TxD, RxD, RTS, CTS)± and Signal Reference
UARTS	Dual UARTs with up to 64 byte transmit and receive FIFO buffers for each port
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Warranty	Lifetime

At A Glance

- PCI Express x1 lane
- 4 ports
- Hardware selectable RS-232/422/485
- 3kV optical isolation on each port

✓RoHS

BlueStorm/Express Opto (1kV)



BlueStorm/Express Opto (1kV) Features

- Eight ports
- 1kV optical isolation on 4 of 8 ports
- Multi-strike surge suppression on 4 of 8 ports
- PCI Express x1 lane serial card compatible with x1, x4, x8, x16 lane PCI Express slots
- RS-232/422/485 jumper selectable
- Supports full duplex (4 wire) with RTS/CTS flow control, half duplex (2 wire) with auto TxD echo cancellation and multi-drop (4 wire) modes in RS-422/485
- Bidirectional data speeds to 921.6 Kbps (RS-232) and 1.843 Mbps (RS-422/485)
- Selectable tri-state on power up in RS-422/485 mode
- Built-in CTS/RX biasing and termination
- Operating temperature range of 0°C to 70°C

Specs

Control Signals	**Isolated Ports:** RS-232: TxD, RxD, RTS, CTS and Signal Ground RS-422/485: (TxD, RxD, RTS, CTS)± and Signal Reference **Non-isolated Ports:** RS-232: TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD and Signal Ground RS-422/485: (TxD, RxD, RTS, CTS)± and Signal Reference
UARTS	Octal UART with up to 64 byte transmit and receive FIFO buffers for each port
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Warranty	Lifetime

At A Glance

- PCI Express x1 lane
- 8 ports
- 1kV optical isolation
- Surge suppression

✓RoHS

BlueStorm/Express LP

BlueStorm/Express LP Features

- Eight ports
- Low profile PCI Express x1 lane serial card compatible with x1, x4, x8, x16 lane PCI Express slots
- RS-232/422/485 jumper selectable
- Supports full duplex (4 wire) with RTS/CTS flow control, half duplex (2 wire) with auto TxD echo cancellation and multi-drop (4 wire) modes in RS-422/485
- Bidirectional data speeds to 921.6 Kbps (RS-232) and 1.843 Mbps (RS-422/485)
- Selectable tri-state on power up in RS-422/485 mode
- Multi-strike surge suppression on all ports
- Operating temperature range of 0°C to 70°C

Specs

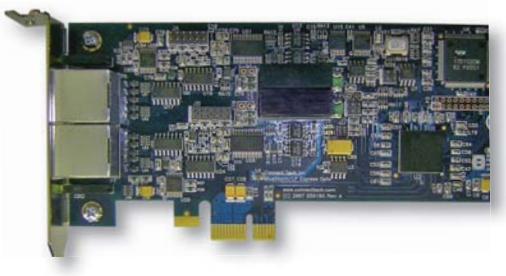
Control Signals	**RS-232:** TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD and Signal Ground **RS-422/485:** (TxD±, RxD±, CTS±, RTS)± and Signal Reference
UARTS	Octal UART with up to 64 byte transmit and receive FIFO buffers for each port
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Power	3.3V DC @ 400mA (typical)
Warranty	Lifetime

At A Glance

- Low profile PCI Express x1 lane
- 8 ports
- Hardware selectable RS-232/422/485
- Surge suppression

✓RoHS

BlueStorm/Express LP Opto



BlueStorm/Express LP Opto Features

- Two ports individually optically isolated
- PCI Express x1 lane serial card compatible with x1, x4, x8, x16 lane PCI Express slots
- RS-232/422/485 jumper selectable
- Supports full duplex (4 wire) with RTS/CTS flow control, half duplex (2 wire) with auto TxD echo cancellation and multi-drop (4 wire) modes in RS-422/485
- Bidirectional data speeds to 921.6 Kbps (RS-232) and 1.843 Mbps (RS-422/485)
- Selectable tri-state on power up in RS-422/485 mode
- TX/RX LEDs
- 3kV optical isolation on all ports
- Operating temperature range of 0°C to 70°C

Specs

Control Signals	**RS-232:** TxD, RxD, RTS, CTS and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference
UARTS	Dual UART with up to 64 byte transmit and receive FIFO buffers for each port
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Power	3.3V DC @ 200mA, 12V DC @ 180mA
Warranty	Lifetime

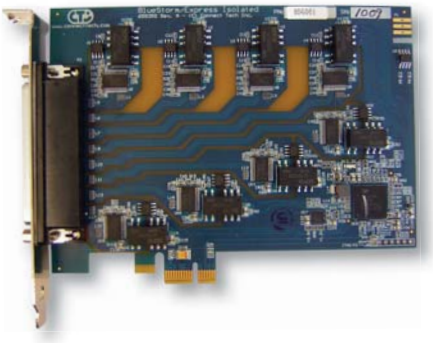
At A Glance

- Low profile PCI Express x1 lane
- 2 ports
- Hardware selectable RS-232/422/485
- 3kV optical isolation

✓RoHS

BlueStorm/Express Isolated

NEW!



BlueStorm/Express Isolated Features

- Connect up to 8 isolated serial devices to one PCI Express card
- Modem control signals enable compatibility with serial devices
- Compatible in x1, x4, x8 or x16 lane standard profile PCI Express slot
- 2kV signal and power isolation port to port (3kV on-board)
- Operating temperature -40˚C to 85˚C
- RS-232 data communications up to 1 Mbps

Specs

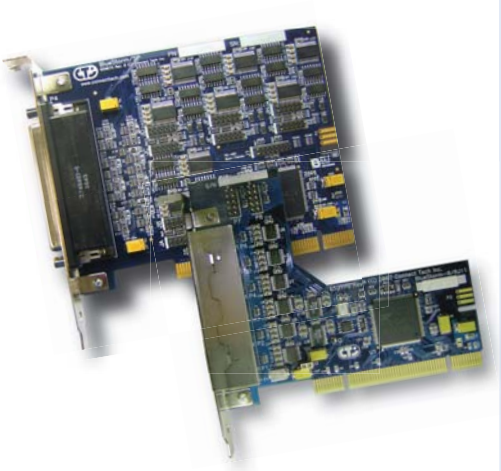
Control Signals	**RS-232:** TxD, RxD, RTS, CTS, DCD, DTR
UARTS	One Exar 17V358 octal UART with up to 256 bytes transmit and receive FIFO buffers for each port
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F
Power	3.3VD @ 500mA
Warranty	Lifetime

At A Glance

- Low profile PCI Express x1 lane
- 8 ports
- 2kV isolation port to port
- Industrial temperature range

✓RoHS

BlueStorm/SP & BlueStorm SP RJ-11



BlueStorm/SP Features

- Eight ports
- Built for installation in standard height chassis
- RJ-11 model option
- RS-232 (RJ-11) or RS-232/422/485 jumper selectable
- Supports full duplex (4-wire) with RTS/CTS flow control, half duplex (2-wire) with auto TxD echo cancellation and multi-drop (4-wire) modes in RS-422/485
- Bidirectional data speeds of 921.6 Kbps (RS-232) and 1.8432 Mbps (RS-422/485)
- Selectable tri-state on power up in RS-422/485 mode
- Multi-strike surge suppression on all ports
- Operating temperature range of 0°C to 70°C

Specs

Control Signals	**RS-232:** TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD and Signal Ground **RS-422/485:** (TxD, RxD, RTS, CTS)± and Signal Reference **RJ-11:** TxD, RxD, RTS, DSR, and Signal Ground, DC Power
UARTS	Octal PCI UART with up to 64 bytes transmit and receive FIFO buffers for each port
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Warranty	Lifetime

At A Glance

- 32-bit Universal PCI
- 8 ports
- Standard profile
- RJ-11 model option
- Surge suppression

✓RoHS

BlueStorm/SP Opto

BlueStorm/SP Opto Features

- Four ports
- 3kV optical isolation on all ports
- RS-232/422/485 jumper selectable
- Supports full duplex (4-wire) with RTS/CTS flow control, half duplex (2-wire) with auto TxD echo cancellation and multi-drop (4-wire) modes in RS-422/485
- Bidirectional data speeds of 921.6 Kbps (RS-232) and 1.843 Mbps (RS-422/485)
- Selectable tri-state on power up in RS-422/485 mode
- Operating temperature range of 0°C to 70°C
- Built for installation in standard height chassis

Specs

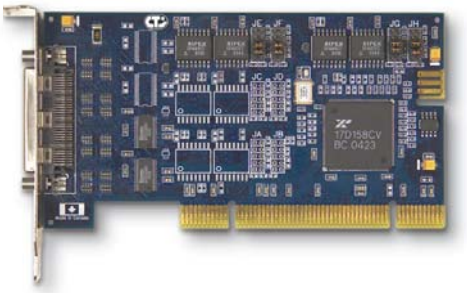
Control Signals	**RS-232:** TxD, RxD, RTS, CTS and Signal Ground **RS-422/485:** (TxD, RxD, RTS, CTS)±, and Signal Reference
UARTS	Dual UARTs with up to 64 bytes transmit and receive FIFO buffers for each port
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Warranty	Lifetime

At A Glance

- 32-bit Universal PCI
- 4 ports
- Standard profile
- Hardware selectable RS-232/422/485
- 3kV optical isolation on each port

✓RoHS

BlueStorm/LP



BlueStorm/LP Features

- Two, four or eight asynchronous serial ports in various electrical interface configurations
- Small MD1 low profile form factor
- PCI and Universal PCI models available
- Supports three RS-422/485 modes: full duplex (4-wire) with RTS/CTS flow control, half duplex (2-wire) with auto TxD echo cancellation, and multi-drop (4-wire)
- Maximum data speeds of 921.6 Kbps(RS-232) and 1.843 Mbps (RS-422/485)
- Optional multi-strike surge suppression on all ports
- Each port can be independently configured for baud rate, parity, data and stop bits
- Available with brackets for installation in standard height chassis and/or low profile chassis

Specs

Control Signals	**RS-232:** DTR, DSR, RTS, CTS, TxD, RxD, RI, DCD and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference
UARTS	Dual, quad or octal Exar PCI UARTs with 64 bytes transmit and receive FIFO buffers for each port
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Power	**2 ports:** +5V DC @ 75mA, ±12V DC @ 25mA **4 ports:** +5V DC @ 150mA, ±12V DC @ 50mA **8 ports:** +5V DC @ 75mA, +12V DC @ 150mA
Warranty	Lifetime

At A Glance

- PCI bus
- Universal PCI bus
- 2, 4 and 8 ports
- Low profile MD1 form factor
- Surge suppression
- Standard and low profile option

✓RoHS

Titan/cPCI (Rear and Front I/O)

Titan/cPCI (Rear and Front I/O) Features

- Two or four asynchronous RS-232 and/or RS-422/485 serial ports (jumper selectable interface)
- 16C950 quad UARTs with 128 bytes of transmit and receive FIFO buffers control each port
- Supports three RS-422/485 modes: full duplex (4-wire), half duplex (2-wire) and multi-drop (4-wire)
- Each RS-422/485 transmitter and receiver has jumper selectable 150 Ohm termination and bias resistors
- Independent port configuration with baud rates from 50 bps to 1.8342 Mbps (RS-422/485) or from 50 bps to 230.4 Kbps (RS-232); data bits of 5, 6, 7 or 8; stop bits of 1, 1.5, or 2, and odd, even, or stick parity
- Male DB-9 connectors or male DB-25 connectors (four port model only). Custom cabling options available
- Rear I/O available in two and four ports with optional 3.0kV AC peak to peak optical isolation
- Multi-strike surge suppression on all ports

Specs

Control Signals	**RS-232:** DTR, DSR, RTS, CTS, TxD, RxD, RI, DCD and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference
Dimensions	CompactPCI PICMG 2.0, version 3.0 compliant
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Power	+5V DC ±5% @ 300 mA (typical)
Warranty	Lifetime

At A Glance

- CompactPCI bus
- 2 and 4 ports
- RS-232/422/485
- Optical isolation
- Rear and Front I/O
- Surge suppression

WhiteHEAT/USB

WhiteHEAT/USB Features

- Four asynchronous serial ports
- RS-232 electrical interface
- Supports data communications speeds up to 460.8 Kbps
- 16C654 quad UARTs with 64 bytes of transmit and receive FIFO buffers control each port
- Independent port configuration with baud rates from 50 bps to 460.8 Kbps; data bits of 5, 6, 7 or 8; stop bits of 1, 1.5, or 2, and odd, even, or stick parity
- Male DB-9 connectors for the serial ports and a USB Type B connector for the host connection
- Easy installation
- IEC 1000–4 compliant ESD protection on all ports

Specs

Control Signals	**RS-232:** RTS, CTS, TxD, RxD, DCD, DTR, DSR, RI and Signal Ground
ESD Protection	± 8kV (IEC 1000-4-2, contact discharge) ± 15kV (IEC 1000-4-2, air gap discharge)
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Power	120 mA (bus powered device)
Warranty	Lifetime

At A Glance

- USB-to-serial device
- 4 ports
- RS-232
- ESD protection

Echo/ISA

Echo/ISA Features

- Eight asynchronous serial ports
- RS-232 and/or RS-422/485 electrical interfaces
- Supports data communications speeds up to 115.2 Kbps
- ST16C554 UARTs with 64 bytes of transmit and receive FIFO buffers control each port
- Eight pre-defined sets of I/O addresses are DIP switch selectable
- IRQ lines are jumper selectable with a choice of IRQ lines 3, 4, 5, 7, 10, 11, 12, 15
- Echo/ISA adapters can be set to run on one, two or no interrupts
- Independent port configuration with baud rates from 50 bps to 115.2 Kbps, data bits of 5, 6, 7 or 8; stop bits of 1, 1.5, or 2, and odd, even, or stick parity
- A choice of DB-9 or DB-25 cable harness connectors, RJ-45 module or DB-9 external connector box. Custom connector solutions available

Specs

Control Signals	**RS-232:** RTS, CTS, TxD, RxD, DCD, DTR, DSR, RI and Signal Ground **RS-422/485:** (TxD, RxD, CTS, RTS)± and Signal Reference
Connectors	DB-9 or DB-25 male cable or connector box (custom connectors offered)
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Power	**RS-232:** +5V ±5% @ 100 mA+12V ±10% @ 5 mA (no driver loads) @ 100 mA (all drivers loaded) -12V ±10% @ 4 mA (no driver loads) @ 100 mA (all drivers loaded) **RS-422/485:** +5V ±5% @ 125mA (no driver loads) @ 445mA (all drivers loaded)
Warranty	Lifetime

At A Glance

- ISA bus
- 8 ports
- RS-232 and/or RS-422/485

✓RoHS

PCI Express to PCIe/104 Adapter

PCI Express to PCIe/104 Adapter Features

- Allows a PCIe/104 or PCI/104-Express card to be installed in a standard PCI Express system slot
- PCIe/104 156-pin stack through connector
- PCI-104 120-pin stack-through connector
- x1 lane PCI Express card edge enables installation for any slot width
- PCI input signals are tied off to safe levels to prevent damage to a dual-bus card
- Note - this card requires the connection of an IDE power cable to the P3 connector in order to provide the 5V rail for this add-in card

Specs

Board Construction	Four layer, printed circuit board, PCI-104 connector and shroud, PCIe/104 connector, standard PC drive power connectors for auxiliary power.
Temperature	-40˚C to 85˚C -40˚F to 185˚C
Dimensions	**Height:** 11.11 cm (4.375 inches) **Length:** 10.29 cm (4.050 inches)
Warranty	Lifetime

At A Glance

- PCIe/104 and PCI/104-Express compatible
- Features two stack-through connectors
- Industrial temperature range

✓RoHS

PCI/104-Express to PCI Express Adapter

NEW!

PCI/104-Express to PCI Express Adapter Features

- Allows designers to install any x1, x4, x8 or x16 lane PCI Express card into a PCI/104-Express stack
- PCIe/104 156-pin stack through connector
- Optional PCI-104 120-pin stack-through connector
- Custom support bracket to ensure PCIe card stability
- Available in top or bottom stacking configuration

Specs

Board Construction	Four layer, printed circuit board, PCI-104 connector and shroud, PCIe/104 connector, standard PC drive power connectors for auxiliary power.
Temperature	-40˚C to 85˚C -40˚F to 185˚C
Dimensions	Fully PCIe/104 compliant
Warranty	Lifetime

At A Glance

- PCIe/104 and PCI/104-Express compatible
- Features two stack-through connectors
- Industrial temperature range

✓RoHS

PCI-104 to PMC Adapter

Specs

Board Construction	Constructed with dedicated GND and power planes for superior signal integrity
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F
Dimensions	**Height:** 9.02 cm (3.550 inches) **Length:** 16.58 cm (6.526 inches)
Warranty	Lifetime

PCI-104 to PMC Adapter Features

- Enables PMC IEEE 1386.1 cards to be easily incorporated into an existing PCI-104 or PC/104-*Plus* stack
- PCI-104 and PC/104-*Plus* bus compatible (mechanically larger to fully support a mounted PMC card)
- Design includes signal multiplexing circuits to allow multiple PMC cards to operate in a PCI-104 or PC/104-*Plus* stack using multiple adapters simultaneously
- PCI-104 120 pin stack-through connector
- Includes two 64 pin passive PMC connectors
- Slot selector switch for PCI-104, "slot assignment"
- Mounting and voltage-keying holes for PMC card

At A Glance

- PCI-104 and PC/104-*Plus* compatible
- Operates multiple PMC cards in a PCI-104 stack simultaneously with multiple adapters
- Stack-through connector

✓RoHS

PCI Express Burn-in Rack Adapter

Specs

Board Construction	Two layer printed circuit board, 2oz copper Two power layers; one split power plane, and one solid ground plane Ten x16 PCI Express connectors
Operating Temperature	0˚C to 70˚C 32˚F to 158˚F
Dimensions	**Width:** 13.97 cm (5.5 inches) **Length:** 31.50 cm (12.4 inches)
Warranty	Lifetime

PCI Express Burn-in Rack Adapter Features

- Burns ten 15W or 25W PCI Express cards with lane widths from x1 to x16 in any combination
- Front-located test points for easy measurement of both +3.3V and +12V rails
- Binding posts for connection to DMM , monitoring equipment or bench power supplies
- Standard ATX power supply connectors provide easy powering with common components
- Features thick copper construction to ensure low temperature rise even for very high loads
- Individually fused slots with per slot power filtering and decoupling
- Quick verification of power conditions and lane widths via on board LEDs

At A Glance

- Burn-in ten PCI Express cards simultaneously
- Individually fused and filtered slots protect boards from surges
- Binding post and ATX powering options
- On/Off switch controls ATX power supplies

✓RoHS

ISA to PC/104 Adapter

ISA to PC/104 Adapter Features

- Enables designers to mount an 8 or 16-bit PC/104 card into a standard ISA system
- Passive extender card
- Operating temperature range of -30˚C to 65˚C
- Reset button enables push-button resetting of the connected test card
- Includes a .100" grid, 16 x 11 hole breadboarding area for easy electrical circuit assembly and testing
- Includes separate 14 hole +5V and Ground rows
- PC/104 stack-through connectors
- No cabling or hardware configuration required

Specs

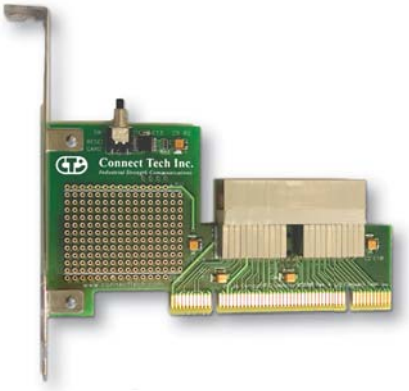
Board Construction	Two layer printed circuit board Two signal layers PC/104 stack-through connector ISA ORB
Operating Temperature	-30˚C to 65˚C -22˚F to 149˚F
Dimensions	**Height:** 10.68 cm (4.200 inches) **Length:** 15.62 cm (6.145 inches)
Warranty	Lifetime

At A Glance

- ISA to PC/104 bus
- PC/104 connectors
- Reset button
- Stack-through connectors
- No configuration required

✓RoHS

PCI to CompactPCI Adapter



PCI to CompactPCI Adapter Features

- Enables designers to mount a CompactPCI card in a standard 3.3V or 5V PCI bus system
- Passive extender card
- Operating temperature range of -30˚C to 65˚C
- Reset button enables push-button resetting of the connected test card
- Includes a .100" grid, 16 x 11 hole breadboarding area for easy electrical circuit assembly and testing
- Includes separate 14 hole +5V and ground rows
- CompactPCI 110 pin male A connector for connection between the CompactPCI card and host system
- No cabling or hardware configuration required

Specs

Board Construction	Four layer printed circuit board Two signal layers, one split power plane (+5V, +VI/O, +3.3V) and one ground plane CompactPCI male A connector Low profile or standard profile PCI ORBs
Operating Temperature	-30˚C to 65˚C -22˚F to 149˚F
Dimensions	**Height:** 6.40 cm (2.525 inches) **Length:** 12.00 cm (4.721 inches)
Warranty	Lifetime

At A Glance

- PCI to CompactPCI bus
- 3.3V or 5V compatibility
- Reset push-button
- MD1 format
- No configuration required

✓RoHS

PC/104-*Plus* to Mini PCI Adapter

PC/104-*Plus* to Mini PCI Adapter Features

- Mount and test a Mini PCI card in a standard PC/104-*Plus* stack
- Compatible with standard Universal, 3.3V or 5V PC/104-*Plus* stack
- Industrial temperature operating range (-40°C to 85°C)
- Mini PCI Type III 124 pin female socket
- PC/104-*Plus* 120 pin stack-through connector
- PC/104 passive stack-through connectors
- 3.3V regulator capable of delivering 2 watts of power to the Mini PCI card
- No cabling or hardware configuration required

Specs

Control Signals	Four layer printed circuit board Two signal layers, one split power plane (+5V, +3.3V) and one ground plane Mini PCI Type III socket PC/104-*Plus* and PC/104 stack-through connectors 3.3V regulator
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F
Dimensions	**Height:** 9.60 cm (3.78 inches) **Length:** 9.02 cm (3.55 inches)
Warranty	Lifetime

At A Glance

- PC/104-*Plus* to Mini PCI
- 3.3V or 5V compatibility
- Stack-through connectors
- 3.3V regulator for Mini PCI
- No configuration required

✓RoHS

PCI to PC/104-*Plus* Adapter

PCI to PC/104-*Plus* Adapter Features

- Enables designers to mount a PCI-104 or PC/104-*Plus* card into a Universal PCI bus system
- Passive extender card
- Stack-through connectors for installation of test card on either side of adapter
- Compatible with standard Universal, 3.3V or 5V slot
- Industrial temperature operating range (-40˚C to 85˚C)
- PCI-104 120 pin stack-through connector with shroud for connection to the host CPU board
- PC/104 passive stack-through connectors
- Designed so cables can exit from the host PC for easy connection to external devices
- No configuration required under normal circumstances

Specs

Board Construction	Four layer printed circuit board PC/104-*Plus* connector and shroud PC/104 connector PCI ORB
Operating Temperature	-40˚C to 85˚C -40˚F to 185˚F
Dimensions	**Width:** 12.48 cm (4.913 inches) **Length:** 10.69 cm (4.200 inches)
Warranty	Lifetime

At A Glance

- PCI to PC/104-*Plus* bus
- Stack-through connector
- Universal PCI, 3.3V or 5V compatibility
- Industrial temperature range
- No configuration required

✓RoHS

PCI, PCIe Dump Switch

PCI, PCIe Dump Switch Card Features

- Designed with device driver developers in mind, this card generates a crash dump or drops into a debugger when the system hangs
- Exterior push button generation of a Non-Maskable Interrupt (NMI)
- Operating temperature range of 0°C to 65°C
- Transparent PCI to PCI bridge
- MD1 low profile format
- PCI Dump Switch - Universal 32-bit PCI card (PCI 2.3 compliant)
- PCIe Dump Switch - x1 lane PCIe (PCI Express 1.0 compliant)

Specs

Board Construction	Four layer printed circuit board 2 signal layers, 2 power planes, 1 split power plane, 1 ground plane Universal PCI (32-bit) connector or x1 lane PCIe - standard height bracket
Operating Temperature	0˚C to 65˚C 32˚F to 149˚F
Dimensions	**Height:** 6.44 cm (2.54 inches) **Length:** 11.99 cm (4.72 inches)
Warranty	Lifetime

At A Glance

- Universal PCI or PCI Express bus
- Push button NMI trigger
- Low profile (MD1) format

✓RoHS

RoHS Statement & Software Support

✓RoHS

The European Union Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) is an important environmental protection measure aimed at reducing hazardous materials in the components and manufacturing process of electronic equipment.

Connect Tech has been working diligently with suppliers to ensure our products and product components will meet the material restrictions requirements under RoHS with little or no disruption to our customers. We are committed to the RoHS initiative, but also to our customers. As a result, we will continue to support our legacy customers with any leaded products they require for as long as possible. Look for this symbol ✓RoHS for RoHS compliant parts.

Software Support

Connect Tech continues to support the most popular operating systems. Our software engineers are constantly updating this list. Check with Connect Tech for the latest driver information.

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