ENGINNERING TEAM
Connect Tech employs a team of professionally accredited Hardware, Software, and Mechanical Engineers, backed by years of experience in the field. From board level through to finished packaged goods, Connect Tech can provide an end to end solution.

CUSTOM DESIGN PROCESS
Our first step is to gain understanding of the Customers’ requirement; from there we create a preliminary hardware specification to relay our understanding and demonstrate our approach to meeting the design need. Once we have an agreed upon specification we clearly define a statement of work including schedule, deliverables, terms and conditions. We pride ourselves on providing our customers with quick time to market and on-time project completion. On average we are delivering fully verified, functional prototypes within an 8 week period.

COMPLIANCE & CERTIFICATION
All standard and custom designed products use a “design for certification” approach as we know that many of our products will require some level of certification for the various markets that we support. Connect Tech has tested and passed compliance with MIL-STD 810G, DO-160G, FCC, CE, UL, CSA and more. We are an ISO-9001 (2008) certified company.

CONCEPT TO SOLUTION FACILITY
Our facility is well equipped from Engineering through to Manufacturing. Our team has full access to current design tools and the required equipment to test and validate high speed signaling used in many of our circuit board designs. We are equipped with a thermal chamber, 3D printer, Multiple Dual In-line High Speed SMT with 7 + 2 zone oven, Aqueous Wash System, Selective Soldering Machine, AOI and X-ray and BGA replacement station.

TECHNICAL SUPPORT
Our technical support team is easily accessible and allows for direct contact with an Engineer. From pre-sales through to installation and troubleshooting our team will have you up and running in no time. Our team follows a strict escalation process to ensure all concerns are addressed in a timely fashion.

CUSTOMER SERVICE
We strive to provide quick and thorough responses to all current and potential clients and recognize that each of our customers has unique needs. In the case of highly technical sales inquiries we are quick to get our Engineering team involved, arranging for “Engineer-to-Engineer” conference calls and web based meetings. Quick access to inventory; whether it be for an order or an evaluation; is extremely important to us. We carry a large inventory of our popular products and fill most orders within a 2-5 day lead time.
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*NOTE:* Specifications found in this guide are subject to change without notice.
## COM Express Type 6

### COM Express® Type 6 Carrier
- Utilizes dual High Density connectors to rapidly advance project development. Use with off the shelf breakout boards for development while your custom breakout is designed to meet your needs.

**Features**
- 95mm x 125mm (3.74" x 4.92")
- 3x Mini PCIe Modules
- 4x GbE Ports with On-Board Magnetics
- Rich I/O Feature Set
- -40°C to +85°C

### COM Express® + GPU Carrier
- Bring exceptional desktop-level graphics and GPU processing power to the PCIe/104 and COM Express® form factors. Supports 6th Generation Intel® Core™ i7 Processors and high-end NVIDIA® Pascal™ and Maxwell™ GPU architectures.

**Features**
- 95mm x 125mm (3.74" x 4.92")
- 2x Mini PCIe, 4x SATA, 2x GbE, 2x RS-232, 2x RS-422/485, 8x USB 2.0, VGA, LVDS
- Rugged Locking Pin Headers
- -40°C to +85°C

### COM Express® Type 6 Rugged Ultra Lite Carrier
- A small carrier board, offering durability with locking, rugged pin headers.

**Features**
- 95mm x 125mm (3.74" x 4.92")
- 2x Mini PCIe, 4x SATA, 2x GbE, 2x RS-232, 2x RS-422/485, 8x USB 2.0, VGA, LVDS
- On-Board DisplayPort/HDMI/DVI Display Switching
- -40°C to +85°C

### COM Express® Type 6 PCIE/104e
- A compact carrier board matching the dimensions of a COM Express® Basic module with a PCIe/104 Expansion Bus.

**Features**
- 4x USB 3.0, 2x GbE, 2x RS-232/485, LVDS (2x24), VGA
- PCIe/104 Type 1 and 2 Expansion Stack
- -40°C to +85°C

### COM Express® Type 6 PMC/XMC Ultra Lite Carrier
- Offers dual PMC/XMC and Mini-PCIe expansion.

**Features**
- Small form factor
- 2x PMC/XMC Expansion
- 3x USB 3.0, 2x GbE, LVDS (2x24), VGA
- -40°C to +85°C
COM Express® Type 6 Ultra Lite Carrier is ideal for space constrained applications. Supports multiple processor options.

**Features**
- 95mm x 125mm (3.74” x 4.92”)
- 4x USB 3.0, 2x GbE, 2x Mini PCIe/mSATA, 2x External SATA, LVDS (2x24), HDMI, DisplayPort
- -40°C to +85°C

COM Express® Type 6 PMC/XMC Carrier is a highly advanced, feature-rich carrier which offers PMC/XMC and Mini-Pclex expansion.

**Features**
- 381mm x 190mm (15” x 7.48”)
- Designed for 1U or 2U Rack Mount Chassis
- 2x PMC/XMC Expansion
- 4x Mini-PCIe, 8x RS-232/485
- -40°C to +85°C

COM Express® Type 2 Carrier is a full-featured, compact carrier board that is compatible with COM Express® Type 2 Basic and Compact modules.

**Features**
- 175mm x 115mm
- 15.6” x 4.52”
- COM Express Type 2
- PCI-104 and PCIe/104 Expansion
- 4x RS-232, 4x RS-485
- -30°C to +80°C

COM Express® Type 7 Lite Carrier Board is based on the PICMG COM Express® COM.0 R3.0 specification. It includes 2x 10G Ethernet from SFP+ modules, 2x GbE ports (RJ45), 4x USB 3.0, 2x USB 2.0, full and half size Mini PCIe expansion slots, 1x USB 2.0 Micro-B Connector to FTDI USB UART, 4x 3.3V buffered GPIO, and 4-pin PWM controlled fan connector.

The carrier board is ideal for high-compute, enterprise level applications that have a need for a rugged solution providing high-speed interconnects and up to 32Gb memory.

**Features**
- COM Express Type 7 Module Support
- Dual 10GbE Ethernet
- Ultra High Speed Storage with M.2 NVMe SSD support
- Small Form Factor: 125 x 95mm
- Extended Temperature Range, -40°C to +85°C
<table>
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</tbody>
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* can be used as HDMI, DVI, or VGA via dongle
** Available as High Density Connector
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<th>COM Express® Type 7 Carrier</th>
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</tbody>
</table>

**COM Express® Type 10 Mini Rugged Latching Carrier** is an extremely small carrier board featuring rugged, locking connectors and offers the ultimate durability.

**Features**
- 84mm x 55mm (3.307” x 2.165”)
- 2x Half Sized Mini PCIe
- +6V to +14V Input Power
- -40°C to +85°C

<table>
<thead>
<tr>
<th>CCG010, CCG020</th>
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<tr>
<td>84mm x 73.415mm</td>
</tr>
<tr>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>-40°F to 185°F</td>
</tr>
<tr>
<td>PC style and locking pin header</td>
</tr>
</tbody>
</table>

**COM Express® Type 10 I/O Stacking Carrier** utilizes a high density connector to rapidly advance project development. Use with off the shelf breakout boards or easily design a custom breakout to meet your needs.

**Features**
- 84mm x 55mm (3.307” x 2.165”)
- 1x High Density Connector for Breakout Board Utilization
- -40°C to +85°C

<table>
<thead>
<tr>
<th>CCG030</th>
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<td>84mm x 55mm</td>
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<tr>
<td>-40°C to +85°C</td>
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<td>-40°F to 185°F</td>
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**COM Express® Type 10 PC Connectors Carrier**

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<td>8x 3.3 buffered GPIO</td>
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</table>

**COM Express® TK1** is based on the NVIDIA® Tegra K1 SoC. It is compliant with the COM Express® Type 6 pinout.

**Features**
- Small Form Factor: 95mm x 95mm (3.74” x 3.74”)
- 2x MIPI CSI, 1x GbE, 1x SATA, 1x micro SD, 5x USB 2.0, 1x USB 3.0, 4x UARTS
- 15 watts max (+12VDC)
- Ubuntu 14.04 LTS Operating System

**NEW**

**COM Express® TK1**

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<th>CMG601</th>
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<tr>
<td>125mm x 95mm</td>
</tr>
<tr>
<td>1x M.2 NVMe</td>
</tr>
<tr>
<td>2 miniPCIe, 1x M.2 NVMe</td>
</tr>
</tbody>
</table>

**NEW**

**COM Express® Type 10 Carrier** is an extremely small carrier board featuring a combination of PC style connectors and locking pin header connectors.

**Features**
- Small size 84mm x 73.415mm
- Combination of PC style and locking pin header connectors
- Support for the latest generation of low-powered CPUs
- -40°C to +85°C
**Managed Ethernet Switches**

**Xtreme/GbE 24-Port Managed Carrier Ethernet Switch** provides high density, high port count, Carrier Grade Ethernet switching capabilities in an extremely small embedded form factor. Excellent for any space constrained, mission-critical application needing an embedded high-density/high-port count managed Ethernet Switch.

**Features**
- 24 Port Gigabit Ethernet (10/100/1000 Mbps) Switch
- All 24 Port Magnetics Integrated on-board
- High-Density Ruggedized Board-to-Board/Board-to-Cable Port Breakout
- Extremely Small Footprint of 90mm x 96mm (3.550” x 3.775”)
- Conduction cooled Heatplate or Air cooled Heatsink Options
- -40°C to +85°C
1GbE and 10G Solutions

Xtreme/GbE Managed Carrier Ethernet Switch

- Provides Carrier Grade Ethernet switching capabilities in an extremely small embedded form factor.
- Features:
  - 8, 12, or 24 Port (10/100/1000 Mbps) Switch
  - Conduction cooled or Air cooled
  - Web GUI or CLI Management
  - With RJ-45 or Rugged Locking connectors
  - -40°C to +85°C

LINQ/GbE

- LINQ/GbE is a Rugged Managed Ethernet Switch Box. Offering 12 or 24 GbE Ports (10/100/1000 Mbps). The LINQ/GbE is ideal for Harsh and Rugged Environments.
- Features:
  - 12 and 24 GbE Port (10/100/1000 Mbps) Switch Box
  - IP68 Dust and Waterproof Solid Aluminum Enclosure
  - Layer 2+ Carrier Ethernet Management
  - -40°C to +85°C

GraphiteVPX/GbE Managed Ethernet Switch

- Provides Carrier Grade Ethernet switching capabilities in a small 3U embedded form factor.
- Features:
  - Conduction cooled or Air cooled
  - 20 x GbE (10/100/1000 Ethernet) Ports - 16 to VPX backplane, 4 to front panel I/O
  - Web GUI or CLI Management
  - Available with RJ-45 Front panel
  - Supports 3U OpenVPX profile: MOD3-SWH-16T-16.4.7-1
  - -40°C to +85°C

Xtreme/10GbE Managed Ethernet Switch

- Provides high-density, high port count Layer 2 switching and Layer 3 routing with 10 GbE uplinks.
- Features:
  - 36 switchable ports (4x 10GbE; 8x 1GbE [SGMII]; 24x 1GbE)
  - High-density board-to-board connector
  - -4V to 14V input range
  - 85mm x 85mm module
  - -40°C to +85°C

PCIe/104 10GbE Controller

- Provides dual-port 10 GbE connectivity for PCIe/104 platforms.
- Features:
  - 10 GbE connectivity for PCIe/104
  - Powered by Intel’s X710 Ethernet Controller
  - Provides support for network and server virtualization
  - LAN and SAN flexibility
  - 0°C to +55°C
GraphiteVPX/CPU-TX2/TX1 is a VITA 65 compliant 3U VPX single board computer that brings the NVIDIA® Jetson™ TX2/TX1 embedded computing platform to the VPX form factor.

**Features**
- 1 TFLOP/s, 256 CUDA cores with NVIDIA® Pascal™ or Maxwell™ GPU Architecture
- The onboard PCIe Gen 3.0 switch supports two x4 port dataplane connections
- -40°C to +70°C

GraphiteVPX/CPU is a VITA 65 compliant 3U single board computer based on the Intel® Atom™ E3845 (Bay Trail) Quad Core processor.

**Features**
- Intel® Atom™ E3845 (Bay Trail) Quad Core processor
- Supports 3U VPX profiles: MOD3 PAY 2F2T-16.2.5-2,3 and MOD3-PAY-2F2U-16.2.3-2,3
- Operating Supply from VS1 or VS3 or both
- Wide Variety of IO Interfaces
- -40°C to +85°C

GraphiteVPX/XMC-PMC is a PCIe Gen 3.0 Solution XMC or PMC 64bit 133MHz PCIX capable carrier.

**Features**
- Conduction Cooled or Air-Cooled options available
- The onboard PCIe Gen 3.0 switch supports multiple Dataplane options: one x8 or two x4 ports with NT capabilities
- I/O options: PMC I/O x64s or XMC I/O x12d+x8d+x38s
- -40°C to +85°C

GraphiteVPX/GPU, with NVIDIA GTX 950M GPU, PCIe Gen 3.0 Solution.

**Features**
- NVIDIA GeForce GTX 950M/2GB GDDR5
- Conduction Cooled only
- The onboard PCIe Gen 3.0 switch supports multiple Dataplane options: one x8 or two x4 ports with NT capabilities
- I/O support up to 6 DisplayPort outputs and/or 2 DVI output
- -40°C to +70°C

GraphiteVPX/GbE is a 20 port Managed Carrier Ethernet Switch.

**Features**
- Conduction cooled or Air cooled Heatsink option
- Web GUI or CLI Management
- Carrier Grade Ethernet Switching Available with RJ-45 Front panel for easy interfacing
- Supports 3U OpenVPX profile: MOD3-SWH-16F-16.4.7-1
- -40°C to +85°C

RTMs available for Graphite CPU-TX2/TX1, CPU, GPU, and GbE options.
Mini PCIe GbE series boards are rugged, low cost Gigabit Ethernet Mini PCIe modules, ideal for adding extra Ethernet capabilities to a system without great increase to overall size/power consumption.

**Features**
- Single or Dual Channel options
- Compatibility with a variety of operating systems
- -40°C to +85°C

Mini PCIe GPS is a ruggedized GPS module based on the very small industry standard PCIe “Full” module format.

**Features**
- Used in any Mini PCIe socket that supports USB
- Compatibility with Windows & Linux operating systems
- -40°C to +85°C

Mini PCIe Serial series are rugged Mini PCIe modules that are ideal for adding extra serial port capabilities to any system.

**Features**
- PCI Express x1 Lane or USB-2 Host Bus Interface
- 2 ports, optional isolation, swappable RS-232/422/485
- Supports full duplex (4 wire), half duplex (2 wire) with auto TxD echo cancellation modes in RS-422/485
- -40°C to +85°C

Mini PCIe ADC is an analog to digital converter peripheral board for the embedded marketplace. Ideal for data acquisition, measurement, and control applications.

**Features**
- 16 ADC input channels
- 500kSPS
- 16-bit resolution
- -40°C to +85°C

M.2 GPS is a GNSS receiver based on the very small industry standard M.2 Type-2242-S3-B form factor.

**Features**
- Provides global positioning and time-stamp information
- Uses little space and power within a system
- Easily integrated into any existing system
- -40°C to +85°C
Engineered solutions are designed to MIL-STD-810G ratings for Vibration, Shock, Immersion, Sand & Dust and Acceleration and an operating temperature of -40°C to +85°C.

**Processor Options:**
- High Performance Intel® Core i3/i5/i7 Series,
- Low Power Intel Atom Series

**Optional:**
- Wide range MIL-STD Input Power +16V to 50V DC
- Transient Protection to MIL-STD-704
- EMI Filtering to MIL-STD-461

**Ruggedized Embedded Systems**
- Engineered solutions are designed to MIL-STD-810G ratings for Vibration, Shock, Immersion, Sand & Dust and Acceleration and an operating temperature of -40°C to +85°C.

**Rudi**
- Embedded System holds a lot of power in a small package. Rudi is pre-integrated with the NVIDIA® Jetson™ TX2 or TX1.

**Features**
- 1 TFLOP/s, 256 CUDA cores with NVIDIA® Pascal™ and Maxwell™ GPU Architecture
- Extremely small footprint 135mm x 50mm x 105mm
- -20°C to +80°C

**ESG503**

**Rosie**
- is a small form factor, rugged embedded system based on the NVIDIA® Jetson™ TX2 and TX1.

**Features**
- 163.6mm x 108.0mm x 96.3mm (6.438” x 4.250” x 3.790”)
- 1x HDMI, 2x GbE, 2x USB 2.0, IEEE 802.11 ac, 1x RS-232, 4x SMA Video Inputs
- 9V to +36V Power Input
- Designed to MIL-STD 810g, DO-160G shock and vibration
- Designed to IP68 ingress rating

**ESG501**

**Kube**
- is a small form factor rugged processor system based on Intel® Atom E3845. With a design rating of IP67/68, DO-160, and MIL-810, it can withstand harsh climates.

**Features**
- 163.6mm x 108.0mm x 96.3mm (6.438” x 4.250” x 3.790”)
- 1x HDMI, 2x GbE, 2x USB 2.0, 802.11 a/b/g/n, 1x RS-232
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**ESG401**

**LINQ/GbE**
- is a Rugged Managed Ethernet Switch Box. Offering 12 or 24 GbE Ports (10/100/1000 Mbps). The LINQ/GbE is ideal for harsh and rugged environments.

**Features**
- 12 or 24 GbE Port (10/100/1000 Mbps) Switch Box
- IP68 Dust and Waterproof Solid Aluminum Enclosure
- Layer 2+ Carrier Ethernet Mngt
- MIL-STD-810G & DO-160 compliance
- -40°C to +85°C

**ESG301, ESG302**

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- MIL-STD-810G & DO-160 compliance
- -40°C to +85°C

**ESG301, ESG302**
Graphics Processing Solutions

COM Express® + GPU  |  Xtreme/GPU  |  MXM Graphics Module

Connect Tech’s GPU solutions bring exceptional desktop-level graphics, outstanding multimedia features, and GPU processing power to the PCIe/104 and COM Express® form factors. Choose from AMD Radeon or NVIDIA GeForce GPUs. Ideal for driving multiple displays or with access to the NVIDIA CUDA™ Cores, the GPU can become a parallel computational CPU for non-graphical applications. Now with Gen 6 Intel Processors.

**Features**
- GbE, USB 3.0 & 2.0, DisplayPort++, VGA, LVDS, SATA III, GPIO, I2C, mSATA, miniPCIe, PCIe/104, and SD Card Expansion
- Uses all locking ruggedized positive latching connectors
- Unified Thermal Extraction Baseplate
- PCIe/104
- 4x Dual-Mode Mini DisplayPort
- PCIe x1 Up/Down stack compatible
- PCIe x16 Down stack compatible
- PCIe x16 Up stack available
- Additional rugged options available

**NEW**

**Embedded MXM GPU Modules**
The most compact, thinnest COTS solutions, provide access to the latest GeForce technology from NVIDIA. Supporting industry standard MXM 3.0/3.1 in both Type A and Type B footprints and variety of temperature ranges.

**Options**
- GeForce® GTX1050
- GeForce® GTX1060
- GeForce® GTX1070
- GeForce® GTX1080

**NEW**

Introducing...

A whole product line designed to work with the NVIDIA® Jetson™ TX2 and Jetson™ TX1.

Connect Tech continues to add new products to its specially designed NVIDIA® Jetson™ TX2 and TX1 driven solutions for any system, application and environment! (See page 12, 13 and 14)

**NEW**

- USES Integrated UTX1AS Cluster Server -

Don’t see what you need? NO PROBLEM! We do custom design as well!

Bring your ideas to the table and we’ll take it from there.

WWW.CONNECTTECH.COM
NVIDIA® Jetson™ TX2 & TX1 Solutions

**Spacely** Carrier for NVIDIA® Jetson™ TX2 and TX1 is an ideal product for unmanned vehicle applications, or any application where situational awareness is critical.

**Features**
- Up to 6 MIPI CSI-2 Camera Inputs
- Tailored IO for easy connection to Pixhawk Autopilot
- 2x UART, I2C, SPI, 14 GPIO at +3.3V IO, CAN, 2x USB 3.0, 2x USB 2.0
- -40°C to +85°C

**Cogswell** Carrier for NVIDIA® Jetson™ TX2 and TX1 is designed to match the NVIDIA® Jetson™ TX2 and TX1 module form factor.

**Features**
- Extremely Small Size: 87mm x 50mm
- 1x Gigabit Ethernet Ports 4 x PoE, 2x PoE+ PSE Gigabit Ports
- Only a single +12V input required
- 1x USB 3.0, 1x USB 2.0, 1x USB OTG, 2x RS-232, 1x minPCIe, 1x mSATA
- +9V to +16V DC Input Range
- -40°C to +85°C

**Sprocket** Carrier for NVIDIA® Jetson™ TX2 and TX1 is designed to match the NVIDIA® Jetson™ TX2 and TX1 module form factor.

**Features**
- Lowest height profile, all components fit “under” TX2/TX1 module
- Small Size: 87mm x 50mm (3.425” x 1.968”)
- 1x Gigabit Ethernet Port, 1x USB OTG, 1x 4 lane MIPI CSI-2, 2x 3.3V UART, I2C, 4x GPIO
- +9V to +14V DC Input Range
- -40°C to +85°C

**Orbitty** Carrier is designed to match the NVIDIA® Jetson™ TX2 and TX1 module form factor. Ideal for robotics and unmanned applications.

**Features**
- Extremely Small Size: 87mm x 50mm (3.425” x 1.968”)
- 1x Gigabit Ethernet Port, 1x USB 3.0, 1x USB 2.0, 1x HDMI, 1x MicroSD, 2x 3.3V UART, I2C, 4x GPIO
- +9V to +14V DC Input Range (+19V Peak)
- -40°C to +85°C

**Elroy** Carrier for NVIDIA® Jetson™ TX2 and TX1 brings a low cost deployable Jetson TX2 and TX1 Solution to the market. Designed for use in a small form factor rugged environment.

**Features**
- Extremely Small Size: 87mm x 50mm (3.425” x 1.968”)
- Head-to-Head Dual Mini-Pcie
- Dual x2 MIPI CSI-2 Video Inputs
- Mini-Pcie/mSATA expansion, HDMI Video, USB 3.0 and 2.0, and two Serial Ports for RS-232/485
**NVIDIA® Jetson™ TX2 & TX1 Solutions**

---

**Astro**

Carrier for NVIDIA® Jetson™ TX2/TX1 is specifically designed to work with the Jetson™ TX2/TX1 supercomputer-on-module.

**Features**
- Extremely Small Size: 87mm x 57mm (3.425" x 2.24")
- 2 Gigabit (10/100/1000) Ports
- USB and HDMI Ports
- Multiple Video Input Channels
- Use with COTS or custom breakout boards
- -40°C to +85°C

**Rudi**

Embedded System holds a lot of power in a small package. Rudi is pre-integrated with the NVIDIA® Jetson™ TX2 or TX1.

**Features**
- 1 TFLOP/s, 256 CUDA cores with NVIDIA® Pascal™ or Maxwell™ GPU Architecture
- Fanless system
- Extremely small footprint 135mm x 50mm x 105mm
- -20°C to +80°C

**Rosie**

is a small form factor, rugged embedded system based on the NVIDIA® Jetson™ TX2 and TX1.

**Features**
- 163.6mm x 108.0mm x 96.3mm (6.438" x 4.250" x 3.790")
- 1x HDMI, 2x GbE, 2x USB 2.0, IEEE 802.11 ac, 1x RS-232, 4x SMA Video Inputs
- +9V to +36V Power Input
- Designed to MIL-STD 810g, DO-160G shock and vibration
- Designed to IP68 ingress rating
- -40°C to +85°C

---

**GraphiteVPX/CPU-TX2/TX1**

is a VITA 65 compliant 3U VPX single board computer that brings the NVIDIA® Jetson™ TX2/TX1 embedded computing platform to the VPX form factor.

**Features**
- 1 TFLOP/s, 256 CUDA cores with NVIDIA® Pascal™ or Maxwell™ GPU Architecture
- The onboard PCIe Gen 3.0 switch supports two x4 port dataplane connections
- -40°C to +70°C

---

Accelerate your development process and reduce time to market with our standard off-the-shelf Enclosure solutions, or let Connect Tech’s engineering experts develop your custom solution.
<table>
<thead>
<tr>
<th>Name</th>
<th>Astro Carrier</th>
<th>Elroy Carrier</th>
<th>Orbitty Carrier</th>
<th>Spacely</th>
<th>Cogswell</th>
<th>Sprocket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
<td>ASG001 w/ XBG201</td>
<td>ASG002</td>
<td>ASG003</td>
<td>ASG006</td>
<td>ASG007</td>
<td>ASG008</td>
</tr>
<tr>
<td>Dimensions</td>
<td>87mm x 57mm (3.43” x 2.24”)</td>
<td>87mm x 50mm (3.425” x 1.968”)</td>
<td>87mm x 50mm (3.425” x 1.968”)</td>
<td>125mm x 95mm (4.92” x 3.74”)</td>
<td>178mm x 147.5mm (7.008” x 5.81”)</td>
<td>87mm x 50mm (3.425” x 1.968”)</td>
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<tr>
<td>Mini-PCIe/ mSATA</td>
<td>1x Mini-PCIe/mSATA half or full size (use of full size removes secondary Mini-PCIe slot)</td>
<td>1x miniPCIe Slot, mSATA Slot</td>
<td>1 x miniPCIe Slot with PCIe, USB + SIM, 1x mSATA Full Sized Slot</td>
<td>1 x miniPCIe Slot with PCIe &amp; USB, x mSATA Full Sized Slot</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>SATA</td>
<td>1x SATA Link</td>
<td>1x mSATA half or full size (use of full size removes secondary Mini-PCIe slot)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Display</td>
<td>1x HDMI</td>
<td>1x HDMI</td>
<td>1x HDMI</td>
<td>1x HDMI</td>
<td>1x HDMI</td>
<td>N/A</td>
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<tr>
<td>Serial</td>
<td>2x RS-232/RS-485</td>
<td>2x 3.3V UART through discreet connector</td>
<td>2x 3.3V from TX2/TX1 UART0 and UART1</td>
<td>2x RS-232</td>
<td>N/A</td>
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<tr>
<td>USB</td>
<td>1x USB 3.0, 2x USB 2.0</td>
<td>1x USB 3.0 (Integrated USB 2.0), 1x USB 2.0</td>
<td>1x USB 3.0, 1x USB 2.0 OTG</td>
<td>2x USB 3.0 Ports, 1x USB OTG, 2x USB 2.0, 1x USB 2.0 to miniPCIe Slot</td>
<td>1 x USB 3.0 Part (Type-A), 1 x USB OTG (Micro-AB), 1 x USB 2.0 (Type-A), 1 x USB 2.0 to miniPCIe Slot</td>
<td>1 x USB OTG (Micro-AB)</td>
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<tr>
<td>Ethernet</td>
<td>2x GbE</td>
<td>1x GbE</td>
<td>1x GbE</td>
<td>2x GbE</td>
<td>5 x GbE (4x PoE, 2x PoE+)</td>
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<tr>
<td>Audio</td>
<td>HD Audio Link: 1x Output</td>
<td>1x HDMI Integrated Audio</td>
<td>1x HDMI Integrated Audio</td>
<td>N/A</td>
<td>N/A</td>
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<td>SD Card</td>
<td>1x microSD Card Slot</td>
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<td>1x microSD Card Slot</td>
<td>1x microSD Card Slot</td>
<td>1x microSD Card Slot</td>
<td>N/A</td>
</tr>
<tr>
<td>Video Inputs</td>
<td>1x CSI-2 (x2) interface, 2x CSI-2 (x4) interfaces via U.FL connector accepting GM6L signalling</td>
<td>2x 2-Lane (2x) MIPI CSI 2.0</td>
<td>N/A</td>
<td>6 x 2 Lane MIPI CSI-2 OR 3 x 4 Lane MIPI CSI-2</td>
<td>5x capable ports</td>
<td>1 x 4 lane MIPI CSI-2</td>
</tr>
<tr>
<td>Misc</td>
<td>1x 12C Link 1x System Control (PWR and RST buttons, etc.), 1x RTC Battery Input, 4x GPIO</td>
<td>1x 12C Link, 1x SPI Link, 1x System Control (PWR and RST buttons, etc.), 1x RTC Battery Input, 4x GPIO</td>
<td>I2C, 4x GPIO</td>
<td>1x USB OTG, I2C, CAN, GPIO, 1x GPS/GNSS (optional), SPI Channel @ 3.3V IO</td>
<td>1x USB OTG, I2C, CAN 2.0, GPIO</td>
<td>1x USB OTG, I2C, 4x GPIO</td>
</tr>
<tr>
<td>Power Requirements</td>
<td>+9V to +36V Input</td>
<td>DC Input Range +12V DC Nominal Input</td>
<td>+9V to +14V DC Nominal (+ 19V Peak)</td>
<td>Wide Input +12V to +22V DC</td>
<td>+12 DC Only</td>
<td>+9V to +16V DC</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to + 85°C (-40°F to + 185°F)</td>
<td>-40°C to + 85°C (-40°F to + 185°F)</td>
<td>-40°C to + 85°C (-40°F to + 185°F)</td>
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</table>
SMARC/SL ideal for low power applications in a small footprint (10 x 5.75cm/3.94" x 2.26"), the SMARC/SL offers extreme flexibility.

Features
- Super Small Form Factor
- Feature Packed (HDMI, SATA, 2-Lane MIPI CSI Camera)
- External SATA/mSATA Switching Circuitry
- Single Wide Range Input Voltage +6V to +36V DC
- -40°C to +85°C

SMARC 2.0 is a small SMARC carrier ideal for low power applications, enabling latest gen. SMARC 2.0 modules using Apollo Lake and beyond.

Features
- 105.8 x 82.4mm (4.165" x 3.244")
- Feature Packed (HDMI, SATA, 2x MIPI CSI-2 Camera Interfaces)
- 2x USB 3.0, 2x USB 2.0, 2x USB 2.0 to miniPCIe
- External SATA/mSATA Switching
- Input Voltage +5V DC only
- -40°C to +85°C

Don't see what you need? NO PROBLEM! We do custom design as well!

Bring your ideas to the table and we'll take it from there.
## Qseven Carrier Boards

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Gen 2.0</th>
<th>Ultra Lite</th>
<th>Lite</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>QCG021</strong></td>
<td>QCG005</td>
<td>QCG011</td>
<td>QCG015</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>NanoITX, 120 x 120mm</td>
<td>PicotX, 72x100mm</td>
<td>PicotX, 72x100mm</td>
</tr>
<tr>
<td><strong>Mini-PCIe Connector</strong></td>
<td>2 (MiniPCIe/mSATA)</td>
<td>1</td>
<td>-</td>
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<tr>
<td><strong>mSATA</strong></td>
<td>-</td>
<td>-</td>
<td>1</td>
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<tr>
<td><strong>SIM Card Connector</strong></td>
<td>2</td>
<td>1</td>
<td>1</td>
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<tr>
<td><strong>LVDS Video &amp; Back Light Controls</strong></td>
<td>-</td>
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<tr>
<td><strong>HDMI Video/Audio</strong></td>
<td>-</td>
<td>-</td>
<td>1x HDMI</td>
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<td><strong>Power Connectors:</strong></td>
<td>Optional* ✓</td>
<td>Optional* ✓</td>
<td>Optional* ✓</td>
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<tr>
<td>• Molex Power</td>
<td>✓</td>
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<td>✓</td>
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<tr>
<td>• 2 PC Screw Term Connector</td>
<td>Optional* ✓</td>
<td>Optional* ✓</td>
<td>Optional* ✓</td>
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<td><strong>USB 2.0 Ports</strong></td>
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<td><strong>USB 3.0 Ports</strong></td>
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<td><strong>USB Client Port</strong></td>
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<td><strong>RS-232/RS-485</strong></td>
<td>1 RS-232</td>
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<td><strong>CAN</strong></td>
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</tr>
<tr>
<td><strong>SATA Ports</strong></td>
<td>Up to 2x SATA</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>microSD Card</strong></td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>RTC Battery</strong></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
<td>-40°C to 85°C (-40°F to 185°F)</td>
</tr>
<tr>
<td><strong>Power Requirements</strong></td>
<td>+5V Input</td>
<td>+5V 6A, +12V 200ma</td>
<td>+5V 6A, +12V 200ma</td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td>Optional Cable Kit*</td>
<td>Optional Cable Kit*</td>
<td>Optional Cable Kit*</td>
</tr>
</tbody>
</table>
**Qseven Carrier Boards**

<table>
<thead>
<tr>
<th>Board Type</th>
<th>Description</th>
<th>Features</th>
<th>Features</th>
</tr>
</thead>
</table>
| Qseven Gen 2.0 Carrier Board | is a compact ruggedized carrier that integrates with any industry standard Qseven Gen 2.0 module. | **NanoITX 170mm x 170mm (6.69” x 6.69”)**  
**1x DisplayPort/HDMI (On-Board Switching)**  
**2x Mini PCIe/mSATA with External SATA Switching**  
**-40°C to +85°C** | **PCI-104 Compliant**  
**Allows for up to 4x PCI-104 Board Expansion**  
**Feature Set and Temperature Range Dependant upon Processor Selection** |
| PCI-104 Qseven Carrier Board | is a small embedded carrier board that allows complete integration of PCI-104 with any industry standard Qseven Gen 1.0 module. | **PCI-104 Compliant**  
**Allows for up to 4x PCI-104 Board Expansion**  
**Feature Set and Temperature Range Dependant upon Processor Selection** | **PCI-104 Compliant**  
**Allows for up to 4x PCI-104 Board Expansion**  
**Feature Set and Temperature Range Dependant upon Processor Selection** |
| PCle/104 Qseven Carrier Board | is a small embedded carrier board that allows complete integration of PCle/104 with any industry standard Qseven Gen 1.0 module. | **PCle/104 Compliant**  
**Allows for up to 4x PCle/104 Board Expansion**  
**Feature Set and Temperature Range Dependant upon Processor Selection** | **PCle/104 Compliant**  
**Allows for up to 4x PCle/104 Board Expansion**  
**Feature Set and Temperature Range Dependant upon Processor Selection** |
| Lite Qseven Carrier Board | is a low cost, feature rich design that integrates with any industry standard Qseven Gen 1.0 module. | **128mm x 100mm (5.04” x 3.93”)**  
**1x HDMI, 8x USB 2.0, 2x External SATA**  
**-40°C to +85°C** | **NanoITX 72mm x 100mm (2.83” x 3.93”)**  
**1x LVDS, 4x USB 2.0, 1x HDMI (QCG015), 1x External SATA**  
**-40°C to +85°C** |
| Ultra Lite Qseven Carrier Board | in the Pico-ITX form factor, integrates with any industry standard Qseven Gen 1.0 module. | **NanoITX 72mm x 100mm (2.83” x 3.93”)**  
**1x LVDS, 4x USB 2.0, 1x HDMI (QCG015), 1x External SATA**  
**-40°C to +85°C** | **NanoITX 72mm x 100mm (2.83” x 3.93”)**  
**1x LVDS, 4x USB 2.0, 1x HDMI (QCG015), 1x External SATA**  
**-40°C to +85°C** |
**FPGAs**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>FreeForm/Express S6</th>
<th>Xtreme I/O Opto</th>
<th>FreeForm/PCI-104</th>
<th>FreeForm/104</th>
<th>FreeForm/104 Daughter Board</th>
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</thead>
<tbody>
<tr>
<td><strong>Form Factor</strong></td>
<td>PCI Express Card</td>
<td>PCI-104 or PC/104-Plus</td>
<td>PCI-104</td>
<td>PC/104</td>
<td>PC/104</td>
</tr>
<tr>
<td><strong>Ports</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td><strong>FPGA</strong></td>
<td>Xilinx Spartan-6 LX45T</td>
<td>Actel ProASIC3 (PCI IP Core)</td>
<td>Xilinx Virtex-5 LX30T, LX50T &amp; FX30T</td>
<td>Xilinx Spartan-3E</td>
<td>-</td>
</tr>
<tr>
<td><strong>Bus Interface</strong></td>
<td>Spartan-6 PCIe Gen 1 Endpoint</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Interface</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>RS-232, RS-422, RS-449</td>
</tr>
<tr>
<td><strong>Mezzanine Card</strong></td>
<td>1x low pin count LPC FMC</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Connectors</strong></td>
<td>-</td>
<td>2 x 25 (50 position) 0.1&quot; (DIL) pin headers</td>
<td>-</td>
<td>-</td>
<td>PC/104 pass-through 2 x 50 pin connector 2 x 26 pin header connectors</td>
</tr>
<tr>
<td><strong>Control Signals</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>TxD, RxD, DTR, RTS, CTS, DCD, TxClk, RxClk</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>+3.3V DC and +12V DC</td>
<td>+5V DC</td>
<td>+5V DC</td>
<td>+5V DC (± 5%)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>-40°C to 85°C -40°F to 185°F</td>
<td>-40°C to 85°C -40°F to 185°F</td>
<td>-40°C to 85°C -40°F to 185°F</td>
<td>-40°C to 85°C -40°F to 185°F</td>
<td>-40°C to 85°C -40°F to 185°F</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>16.76 x 11.11cm 6.6&quot; x 4.375&quot;</td>
<td>9.5885 x 9.017cm 3.775&quot; x 3.55&quot;</td>
<td>9.5885 x 9.0805cm 3.775&quot; x 3.575&quot;</td>
<td>9.5885 x 9.017cm 3.775&quot; x 3.55&quot;</td>
<td>9.5885 x 9.017cm 3.775&quot; x 3.55&quot;</td>
</tr>
</tbody>
</table>

---

**Custom FPGA Design**

**Need assistance with a custom FPGA design?**

*We can help at any stage of a project!*

Connect Tech's Engineering Team would be happy to discuss your unique requirements. Our team of highly skilled engineers are dedicated, knowledgeable, and experienced. We offer several years of experience in custom FPGA designs and will work with you to implement a solution that will meet your needs.
**FreeForm/Express S6**

*As shown with Epiq Solutions’ Bitshark FMC-TRX RF receiver*

**Features**
- Allows for 1 FMC LPC Module to be installed
- Integrated PCI Express Blocks
- 3.125 Gbps Low-Power Transceivers with 128MB DDR3
- 2x GbE, 1x RS-232

**FreeForm/Express S6** is a reconfigurable Xilinx Spartan-6 LX45T FPGA.

---

**Xtreme I/O Opto**

**Features**
- 24 optic ally isolated inputs
- 24 optically isolated outputs
- 3kV of Isolation on all I/O
- +0 to +40V DC Output voltage range

**Xtreme I/O Opto** is a 48-bit PCI-104 isolated digital I/O board.

---

**FreeForm/PCI-104**

**Features**
- Based on the Xilinx Virtex-5 FPGA (LX30T, LX50T & FX30T)
- 32-Bit/33MHz PCI-104 interface
- 8MB Flash, 128MB DDR2-400 memory, 2x Ethernet (10/100), 2x RS-485, 4x Rocket I/O

**FreeForm/PCI-104** is a reconfigurable FPGA development board.

---

**FreeForm/104**

**Features**
- Based on the Xilinx Spartan-3E
- External 5V power connection
- Four user configurable LEDs
- Eight position rotary switch

**FreeForm/104** is a PC/104 based card that features a reconfigurable FPGA through JTAG or SPI flash (4Mb).

---

**FreeForm/104 Daughter Board**

**Features**
- Enables users to capture and process synchronous and asynchronous RS-232 or RS-422/485 serial data with customizable FPGA implementations

---

**FreeForm/104 Daughter Board** is an adapter for Connect Tech’s **FreeForm/104** board.
<table>
<thead>
<tr>
<th>Specifications</th>
<th>CANpro/104 Opto</th>
<th>CANpro/104-Plus Opto</th>
<th>Xtreme/Multi-I/O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part #</td>
<td>CNG001</td>
<td>CRG001</td>
<td>XMG001</td>
</tr>
<tr>
<td>Form Factor</td>
<td>PC/104</td>
<td>PCI-104</td>
<td>PC/104</td>
</tr>
<tr>
<td>CAN Controller (CAN 2.0B Compliant)</td>
<td>x2 NXP SJA1000</td>
<td>x2 NXP SJA1000</td>
<td>x2 NXP SJA1000 J1708</td>
</tr>
<tr>
<td>BasicCAN &amp; PeliCAN Modes (SJA1000)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SJA1000 Input Clock</td>
<td>16MHz</td>
<td>16MHz</td>
<td>16 or 24MHz</td>
</tr>
<tr>
<td>Isolated CAN Interface</td>
<td>3kV TI ISO1050</td>
<td>3kV TI SN65HVD251</td>
<td>ADM3053</td>
</tr>
<tr>
<td>Memory Mapped Addressing</td>
<td>-</td>
<td>✓</td>
<td>✓ Jumperless</td>
</tr>
<tr>
<td>General Purpose I/O</td>
<td>-</td>
<td>8-bit 3.3V I/O Header</td>
<td>-</td>
</tr>
<tr>
<td>Supports 1Mbps Operation</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to 85°C</td>
<td>-40°C to 85°C</td>
<td>-40°C to 85°C</td>
</tr>
<tr>
<td>Temperature</td>
<td>-40°F to 185°F</td>
<td>-40°F to 185°F</td>
<td>-40°F to 185°F</td>
</tr>
<tr>
<td>I/O &amp; Memory Space Selectable</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Single or Dual Interrupts</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>Free Technical Support</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Ideal for a broad range of applications**
## Rugged Tablets

<table>
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<tr>
<th>FieldTab7</th>
<th>FieldTab7B</th>
<th>FieldTab10/VM</th>
<th>FieldTab10B</th>
<th>FieldTab10R</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FTG001</strong></td>
<td><strong>FTG015</strong></td>
<td><strong>FTG005</strong></td>
<td><strong>FTG003, FTG010, FTG011</strong></td>
<td><strong>FTG007, FTG008, FTG009, FTG012</strong></td>
</tr>
</tbody>
</table>

### FieldTab7
- **is a rugged built tablet for use in the most extreme environmental conditions.**

#### Features
- IP65, MIL-STD-810G
- Up to 9 hours of battery life
- 2MP and 5MP cameras, with auto focus and LED flash
- Optional MSR and barcode reader 2-in-1 module
- Compact vehicle dock with wide range voltage power

### FieldTab7B
- **is a 7” full rugged Windows Tablet, with built-in multiple interfaces and a wide variety of accessories to meet different deployment needs.**

#### Features
- IP65, MIL-STD-810G
- Sunlight readable solution
- Seamless communication, optional 4G
- 2MP and 8MP cameras with auto focus and LED flash
- Windows 10 IoT Enterprise for Small Tablet option

### FieldTab10/VM
- **is an ultra rugged vehicle mount computer providing rugged performance and functionality for demanding vehicle environments.**

#### Features
- 0.1 nits hyper dimming to 1,000 nits sunlight readable screen
- 70,000 hours long life LED backlight
- Seamless communications – GNSS, Bluetooth, 802.11 ac
- Built-in backup battery

### FieldTab10B
- **is an ultra-rugged tablet powered by an Intel E3827 1.75 GHz dual-core processor. Tested to MIL-STD-810g for shock, vibration, and temperature.**

#### Features
- IP65, MIL-STD-810G, 6 feet drop resistance
- Programable function keys
- Supports glove touch
- 2 Mega-pixel camera (front); 5 Mega-pixel camera with LED flash light (back)

### FieldTab10R
- **has an ultra bright 1,000 nit optically-bonded display, high-speed 802.11ac connectivity, hot swappable dual battery design, and glove touch capability.**

#### Features
- Sunlight readability, critical for working outdoors
- Bluetooth 4.0 and 4G LTE, mobile
- Dual pass through port to connect via vehicle dock for improved GNSS, WLAN, or WWAN reception
Xtreme/104 offers four or eight asynchronous RS-232 and/or RS-422/485 serial ports.

- **Ports**: 4/8
- **Interface**: RS-232/422/485
- **Control Signals**: RS-232: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD
  - RS-422/485: Tx0±,Rx0±,CTS±,RTS±
- **Baud**: RS-232: 50 bps to 230 Kbps/Custom
  - RS-422/485: 50 bps to 460.8 Kbps/Custom
- **Temperature**: 0°C to 70°C/32°F to 158°F
  - Optional: -40°C to +85°C
- **Dimensions**: 9.60 x 10.41 x 1.12cm/3.77” x 4.09” x 0.44”

Xtreme/104 RS-232 offers four or eight asynchronous RS-232 serial ports.

- **Ports**: 4/8
- **Interface**: RS-232
- **Control Signals**: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD
- **Baud**: 50 bps to 230 Kbps/Custom
- **Temperature**: 0°C to 70°C/32°F to 158°F
- **Dimensions**: 9.60 x 10.41 x 1.12cm/3.77” x 4.09” x 0.44”

Xtreme/104 Opto offers two or four asynchronous serial ports with 3kV optical isolation on all signals and ports.

- **Ports**: 2/4
- **Interface**: RS-232/422/485
- **Control Signals**: RS-232: Tx,Rx,RTS,CTS
  - RS-422/485: Tx0±,Rx0±,CTS±,RTS±
- **Temperature**: 0°C to 70°C/32°F to 158°F
  - Optional: -40°C to +85°C
- **Dimensions**: 9.60 x 10.41 x 1.12cm/3.77” x 4.09” x 0.44”

Xtreme/104 Opto offers two or four asynchronous serial ports.

- **Ports**: 2/4
- **Interface**: RS-232/422/485
- **Control Signals**: RS-232: Tx,Rx,RTS,CTS
  - RS-422/485: Tx0±,Rx0±,CTS±,RTS±
- **Temperature**: 0°C to 70°C/32°F to 158°F
- **Dimensions**: 9.60 x 10.41 x 1.12cm/3.77” x 4.09” x 0.44”

ComSync/104 offers two synchronous/asynchronous RS-232, RS-422, RS-449, EIA-530, EIA-530/A, V.35 and X.21 serial channels.

- **Ports**: 2
- **Interface**: Synchronous/Asynchronous Serial Channels
- **Control Signals**: Tx±,Rx±,DCD±,RTS±,CTS±,DSR±,DTR±,SYNC±,TRxC±,RTxC±
- **Temperature**: 0°C to 70°C/32°F to 158°F
- **Dimensions**: 9.60 x 10.41 x 1.12cm/3.77” x 4.09” x 0.44”
FreeForm/104 Daughter Board is a FreeForm/104 adapter board that enables users to capture and process synchronous and asynchronous RS-232 or RS-422/485 serial data with customizable FPGA implementations.

**Ports:** 2
**Interface:** RS-232, RS-422, RS-449
**Control Signals:** TxD, RxD, DTR, RTS, CTS, DCD, TxC, RxC
**Connectors:** PC/104 pass-through 2x50 pin connector to connect to FreeForm 2x26 pin header connectors
**Temperature:** -40°C to 85°C/-40°F to 185°F

Xtreme/104 Isolated 12 Port is a high density adapter which offers 12 asynchronous serial ports and complies with PC/104 form factor standards. It features eight jumper selectable RS-232/422/485 ports with support for all three RS-485 modes, and includes four dedicated RS-232 ports.

**Ports:** 12
**Control Signals:** RS-232: TxD, RxD, RTS, CTS, ISOGND
RS-422/485: (TxD, RxD, CTS, RTS) ±, ISOGND
**Connectors:** 10-pin connectors: RS-232/422/485 ports 6-pin connectors: RS-232 ports
**Temperature:** -40°C to 85°C/-40°F to 185°F
**Power:** +5V DC 500mA (typical), 1A (maximum)

FreeForm/104 is a PC/104 based FPGA development board for digital I/O and control applications.

**FPGA:** Xilinx Spartan-3E FPGA, 500,000 gates
**Connector:** 2 x 50 pin headers, 1 x 26 pin header
**Frequency:** 66 MHz, internally scalable
**Temperature:** -40°C to 85°C/-40°F to 185°F
**Power:** +5V DC (± 5%)

Xtreme/PSU-UC
- Wide input range, +8 to 36V DC, Total power output 115W (+12V and +5V Standby) Ultracaps for uninterrupted power supply

Xtreme/PSU-UPS
- SMART battery charging for uninterrupted power supply
- 125W+ output power (+5V, +12V, -12V, +3.3V, +5V standby)

Xtreme/PSU-XP
- 160W total output power (+5V @ 10A, +3.3V @10A, +12V @ 5A, -12V @ 1A and +5V standby @ 1A), and +6V to +36V DC input voltage

Xtreme/PSU Isolated
- 195W total output power (+5V @ up to 15A, +3.3V @ up to 20A and +12V @ up to 10A), +9V to +36V DC input voltage, and up to 2.25kV of isolation

Xtreme/PSU Low Cost!
- 115W total output power (+5V @ 10A, +12V @ 5A, and +5V standby @ 1A), and +6V to +36V DC input voltage
**Xtreme/104-Plus**

*(form factor) PC/104-Plus

*Ports* 2/4/8

*Control Signals*
- RS-232: TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD and SG
- RS-422/485: TxD, RxD, RTS, CTS, TxD± and SR
- RS-423: TxD-, RxD±, RTS-, RTSRef, CTS±

*Temperature* -40°C to 85°C/-40°F to 185°F

*Power* +5V DC 500mA (maximum) VI/O of +5V or 3.3V DC

---

**Xtreme/104-Plus 16 Port**

*Form Factor* PC/104-Plus

*Ports* 16

*Interfaces* RS-232/422/485

*Power* 5V bus power required. On-board regulator makes its own 3.3V +5V 400mA maximum

*Temperature* -40°C to 85°C/-40°F to 185°F

---

**Xtreme/104-Plus Opto**

*Form Factor* PC/104-Plus

*Ports* 2/4

*Control Signals*
- RS-232: TxD, RxD, RTS, CTS and SG
- RS-422/485: (TxD, RxD, RTS, CTS)± and SR

*Temperature* -40°C to 85°C/-40°F to 185°F

*Power* +5V DC (±5%) @ 500mA (maximum)

---

**Xtreme I/O Opto**

*Form Factor* PCI-104 or PC/104-Plus

*Connectors* 2 x 25 (50 position) 0.1” (DIL) pin headers

*Isolation* 3kV isolation on all channels

*Inputs/Outputs* 24 optically isolated inputs and 24 optically isolated outputs

*Temperature* -40°C to 85°C/-40°F to 185°F

---

**ALL PCI-104 and PC/104-Plus boards are now available with a 22mm Connector to extend the stack height of your application!**
### Xtreme I/O ADC-DAC

**Form Factor**
- PCI-104

**Analog Inputs**
- 32 Single Ended/16 Differential Channels, 12/14/16 bit 100kps, Software-Programmable Input Ranges

**Analog Outputs**
- 4 Channels, 12/14/16 bit resolution, 6 programmable output ranges

**Digital I/O**
- 16 bit Bi-directional I/O

**Temperature**
- -40°C to 85°C/-40°F to 185°F

**Xtreme I/O ADC-DAC** is an analog data acquisition board for the small form factor embedded market place.

### FreeForm/PCI-104

**Form Factor**
- PCI-104

**FPGA**
- Virtex-5 FPGA options include LX30T, LX50T and FX30T

**Power**
- 5 V DC (+/- 5%). May vary by application.

**Temperature**
- -40°C to 85°C/-40°F to 185°F

**Dimensions**
- PCI-104 1.0 Compliant

**FreeForm/PCI-104** is a reconfigurable FPGA development board with high speed digital I/O that combines a user programmable FPGA with a 32-Bit, 33MHz PCI-104 interface.

### PCI-104 Qseven Carrier Board

**Form Factor**
- PCI-104

**Interfaces**
- 2x SATA, 4x USB 2.0, 1x Gigabit Ethernet, LVDS & VGA Video, 2x RS-232, 2x RS-422/485

**Power**
- ATX or +5V/+12V only

**Temperature**
- -20°C to 70°C/-4°F to 158°F

**PCI-104 Qseven Carrier Board** is a small embedded carrier board that allows complete integration with any industry standard Qseven module. This carrier board utilizes the PC/104 form factor and the PCI-104 bus, and allows installation of up to 4 PCI-104 boards.

### Xtreme/SBC PCI-104

**Form Factor**
- PCI-104

**FPGA**
- Virtex-5 FPGA options include LX30T, LX50T and FX30T

**Power**
- 5 V DC (+/- 5%). May vary by application.

**Temperature**
- -40°C to 85°C/-40°F to 185°F

**Dimensions**
- PCI-104 1.0 Compliant

**FreeForm/PCI-104** is a reconfigurable FPGA development board with high speed digital I/O that combines a user programmable FPGA with a 32-Bit, 33MHz PCI-104 interface.

### PC/104-Plus & PCI I-104

**Form Factor**
- PCI-104

**Interfaces**
- 2x SATA, 4x USB 2.0, 1x Gigabit Ethernet, LVDS & VGA Video, 2x RS-232, 2x RS-422/485

**Power**
- ATX Supply Input or +5V/+12V only

**Temperature**
- -20°C to 70°C/-4°F to 158°F

**Xtreme/SBC PCI-104 Single Board Computer** utilizes the PCI-104 form factor, supporting four peripheral boards. Instantly access a variety of features using the SBCs on-board connectors. Embedded processor options include AMD Fusion/G-Series, Intel® Atom™ Z500 & E600, Freescale i.MX51 & i.MX6, Texas Instruments OMAP, NVIDIA Tegra and VIA Nano E-Series.
Xtreme/PCI-104 Opto 12 Port

Xtreme/PCI-104 Opto offers 12 ports on a PCI-104 card, with the added protection of 1kV optical isolation on a rugged and compact form factor.

Form Factor: PCI-104
Interfaces: RS-232/422/485
Temperature: -40°C to 85°C/-40°F to 185°F
Power: +5V DC 750mA to 950mA
Dimensions: 9.5885 x 9.017 cm/3.775" x 3.550"

Power Supplies

Connect Tech’s Power Supplies power all of the PC/104 family expansion buses including PC/104, PC/104-Plus, PCI-104, PCI/104-Express, and PCIe/104.

ComSync/PCI-104

ComSync/PCI-104 which is based on the PCI bus, is a two-channel, multi-protocol serial adapter which offers high performance, reliable, synchronous or asynchronous serial communications.

Form Factor: PCI-104
Interface: RS-232, RS-422, RS-449, EIA-530, EIA-530/A, V.35 & X.21
Modes: NRX: NRZI, NRZIB, NRZI-Mark, NRZI-Space
Biphase: BiPhase-Space, BiPhase Level, Differential BiPhase
Temperature: -40°C to 85°C/-40°F to 185°F
Power: 5V DC @ 1 Amp (maximum)

Xtreme I/O Express ADC-DAC

Xtreme I/O Express ADC-DAC is an analog and digital peripheral board for the PCIe/104 small form factor embedded marketplace, ideal for data acquisition, measurement, and control applications.

Form Factor: PCIe/104
Analog Inputs: 32 Single Ended/16 Differential Channels, 16-bit 500kps, Up to +/- 10.24V Input Range
Analog Outputs: 4 Channels, 16 bit resolution, 6 us Settling Time, Up to +/-10.24V Output Swing
Digital I/O: 16-bit bidirectional I/O, +3.3V or +5V, 24mA Drive
Temperature: -40°C to 85°C/-40°F to 185°F
Xtreme/104-Express

**Form Factor**
PCI/104-Express

**Ports**
8

**Line Interface**
RS-232/422/485, RS-232 or RS-422/485

**Control Signals**
RS-232: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD,SG
RS-422/485: TxD±,RxD±,CTS±,RTS±,SR

**Baud**
RS-232: 50 bps to 921.6 Kbps
RS-422/485: up to 15.625 Mbps

**UART**
Octal PCI Express, 128 Byte FIFO

**Temperature**
-40°C to 85°C/-40°F to 185°F

---

Xtreme/104-Express Opto

**Form Factor**
PCIe/104

**Ports**
4/8

**Line Interface**
RS-232/422/485, RS-232 or RS-422/485

**Control Signals**
RS-232: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD,SG
RS-422/485: TxD±,RxD±,CTS±,RTS±,SR

**Baud**
RS-232: 50 bps to 1 Mbps
RS-422/485: up to 7.8125 Mbps

**UART**
Quad/Octal PCI Express, 256 Byte FIFO

**Temperature**
-40°C to 85°C/-40°F to 185°F

---

PCI/104-Express & PCIe/104

---

PCl/104 Qseven Carrier Board

**Form Factor**
PCIe/104, 4x PCIe Lanes

**Interfaces**
2x SATA, 4x USB 2.0, 1x Gigabit Ethernet, LVDS & VGA Video, 2x RS-232, 2x RS-422/485

**Power**
ATX Supply Input or +5V/+12V only

**Temperature**
-20°C to 70°C/-4°F to 158°F

---

Xtreme/SBC PCIe/104 Single Board Computer

utilizes the PCIe/104 form factor with 4 x 1 PCIe lanes. Instantly access a variety of features using the SBCs on-board connectors. Embedded processor options include AMD Fusion/G-Series, Intel® Atom™ Z500 & E600, Freescale i.MX51 & i.MX6, Texas Instruments OMAP, NVIDIA Tegra and VIA Nano E-Series.

**Form Factor**
PCIe/104, 4x PCIe Lanes

**Interfaces**
2x SATA, 4x USB 2.0, 1x Gigabit Ethernet, LVDS & VGA Video, 2x RS-232, 2x RS-422/485

**Power**
ATX Supply Input or +5V/+12V only

**Temperature**
-20°C to 70°C/-4°F to 158°F

---

Xtreme/SBC PCIe/104 Single Board Computer

---

Xtreme/104-Express Opto is a PCIe/104 serial card with 3 kV optical isolation for rapid data transfer and high reliability.

**Form Factor**
PCIe/104

**Ports**
4/8

**Line Interface**
RS-232/422/485, RS-232 or RS-422/485

**Control Signals**
RS-232: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD,SG
RS-422/485: TxD±,RxD±,CTS±,RTS±,SR

**Baud**
RS-232: 50 bps to 1 Mbps
RS-422/485: up to 7.8125 Mbps

**UART**
Quad/Octal PCI Express, 256 Byte FIFO

**Temperature**
-40°C to 85°C/-40°F to 185°F

---

PCI/104 Qseven Carrier Board is a small embedded carrier board that allows complete integration with any industry standard Qseven module. This carrier board utilizes the PCI/104 form factor with 4 x 1 PCIe lanes and the PCIe/104 bus.

**Form Factor**
PCIe/104, 4x PCIe Lanes

**Interfaces**
2x SATA, 4x USB 2.0, 1x Gigabit Ethernet, LVDS & VGA Video, 2x RS-232, 2x RS-422/485

**Power**
ATX Supply Input or +5V/+12V only

**Temperature**
-20°C to 70°C/-4°F to 158°F

---

Xtreme/104-Express is a PCI/104-Express multi-port serial board which provides a PCI-104 pass-through connector. Fully PCI/104-Express compliant.

**Form Factor**
PCI/104-Express

**Ports**
8

**Line Interface**
RS-232/422/485, RS-232 or RS-422/485

**Control Signals**
RS-232: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD,SG
RS-422/485: TxD±,RxD±,CTS±,RTS±,SR

**Baud**
RS-232: 50 bps to 921.6 Kbps
RS-422/485: up to 15.625 Mbps

**UART**
Octal PCI Express, 128 Byte FIFO

**Temperature**
-40°C to 85°C/-40°F to 185°F
**PCI Express to PCIe/104 Adapter**

PCI Express to PCIe/104 Adapter allows a PCIe/104 or PCI/104-Express card to be installed into a standard PCI Express system slot.

**Features**
- x1 lane PCI Express card edge for installation in any slot width

**Connector**
- PCIe/104 156-pin

**Dimensions**
- 11.11 x 10.29 cm/4.375" x 4.050"

**PCIe/104 to PCI Express Adapter - Top Stacking**

PCIe/104 to PCI Express Adapter - Top Stacking model allows a PCI Express card to be installed into a PCIe/104 or PCI/104-Express single board computer system in a stack up configuration.

**Features**
- x16 lane vertical PCI Express card edge (supports x1, x4, x8 or x16)

**Connector**
- 156 pin PCIe/104 bottom connector

**Dimensions**
- 9.5885 x 9.017cm/3.775" x 3.550"

**PCIe/104 to PCI Express Adapter - Bottom Stacking**

PCIe/104 to PCI Express Adapter - Bottom Stacking model allows a PCI Express card to be installed into a PCIe/104 or PCI/104-Express single board computer system in a stack down configuration.

**Features**
- x16 lane vertical PCI Express card edge (supports x1, x4, x8 or x16)

**Connector**
- 156 pin PCIe/104 top connector; footprint for 2x USB Type B connector

**Dimensions**
- 19.3 x 15.2cm/7.6" x 6"

**Power Supplies**

Connect Tech’s Power Supplies power all of the PC/104 family expansion buses including PC/104, PC/104-Plus, PCI-104, PCI/104-Express, and PCIe/104.

**Connect Tech’s Power Supplies**

- **Xtreme/PSU-UC**
  - Wide input range, +8 to 36V DC, Total power output 115W (+12V and +5V Standby) Ultracaps for uninterrupted power supply

- **Xtreme/PSU-UPS**
  - SMART battery charging for uninterrupted power supply
  - 125W+ output power (+5V, +12V, -12V, +3.3V, +5V standby)

- **Xtreme/PSU-XP**
  - 160W total output power (+5V @ 10A, +3.3V @10A, +12V @ 5A, -12V @ 1A and +5V standby @ 1A), and +6V to +36V DC input voltage

- **Xtreme/PSU Isolated**
  - 195W total output power (+5V @ up to 15A, +3.3V @ up to 20A and +12V @ up to 10A), +9V to +36V DC input voltage, and up to 2.25kV of isolation

- **Xtreme/PSU Low Cost!**
  - 115W total output power (+5V @ 10A, +12V @ 5A, and +5V standby @ 1A), and +6V to +36V DC input voltage
Single Board Computers

**Xtreme/SBC PCIe/104**
Xtreme/SBC PCIe/104 Single Board Computer utilizes the PCIe/104 form factor with 4 x1 PCIe lanes.

**Xtreme/SBC PCI-104**
Xtreme/SBC PCI-104 Single Board Computer utilizes the PCI-104 form factor, supporting four peripheral boards.

**Features**
- 2x SATA, 1x Gigabit Ethernet, 4x USB 2.0, LVDS and VGA Video, 2x RS-232 and 2x RS-422/485 serial ports
- Choose from a variety of processors including AMD, Intel® Atom™, Freescale i.MX6
- Requires Qseven module

**ArcticEdge/iMX6**
The iMX6Q 800MHz Cortex-A9 processor gives the reliability needed for long life critical applications.

**Features**
- PicoITX Form Factor
- HDMI and LVDS Display Outputs
- i.MX6 Quad Core 800MHz ARM Cortex-A9 Processor
- Linux and Android BSPs Available
- Temp Range -40°C to +85°C

**TrailBlazer/SBC**
a rugged single board computer specifically designed for the Intel® Bay Trail series CPU. TrailBlazer is available with Quad Core Atom™ E3845, Dual Core Atom™ E3825, or Single Core Atom™ E3815.

**Features**
- External SATA/mSATA Switching Circuitry
- Single Wide Range Input Voltage +12V to +36V DC Input

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**Connect Tech on the Road**
Connect Tech is regularly on the road at industry events around the globe.

Visit our website at www.connecttech.com to find out where you can see us next!
## Blue Heat/Net Sync

**Blue Heat/Net Sync** offers a synchronous Ethernet-to-serial solution for data communications.

<table>
<thead>
<tr>
<th>Ports</th>
<th>4 Synchronous/Asynchronous Serial Ports</th>
</tr>
</thead>
</table>
| Control Signals| Single ended: TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD, RxClock, TxClock  
                | Differential: (TxD, RxD, CTS, RTS, DTR, DCD, DSR)±, RxClock, TxClock |
| LAN Interface  | Auto sensing 10Base-T, 100Base-TX       |
| Line Interface | 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 |
| Temperature    | 0°C to 60°C/32°F to 140°F               |
| Dimensions     | 11.56 x 11.68 x 3.43cm/4.55 x 4.50 x 1.35" |
| Power          | 5V DC (2.5A) - 28V DC (450 mA)          |

## Blue Heat/Net 2

**Blue Heat/Net 2** is a compact Ethernet-to-serial device which offers 2 software selectable RS-232/422/485 serial ports, and allows connection of any RS-232 or RS-422/485 serial device to an Ethernet LAN.

<table>
<thead>
<tr>
<th>Ports</th>
<th>2</th>
</tr>
</thead>
</table>
| Control Signals| RS-232: TxD, RxD, CTS, RTS, DTR, DCD, DSR, RI, GND  
                | RS-422/485: (TxD, RxD, CTS, RTS)±, SR                  |
| Baud           | 50 bps to 460.8 Kbps/Custom               |
| Dimensions     | 11.56 x 11.68 x 3.43cm/4.55 x 4.50 x 1.35" |
| Power          | Multi-mode power adapter, 5V –30V DC, 500 mA  
                | PoE model: 30 mA@ 48V DC  
                | Screw Terminal Connector model: 36V-56V DC  
                | -40°C to 85°C/-40°F to 185°F  
                | PoE: -40°C to 74°C/-40°C to 165°F |
| Temperature    | 0°C to 70°C/32°F to 158°F               |

## Blue Heat/Net 4 or 8 RJ-45

**Blue Heat/Net 4 or 8 RJ-45** is an Ethernet-to-serial device which offers 4 or 8 RS-232 serial ports.

<table>
<thead>
<tr>
<th>Ports</th>
<th>4/8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Signals</td>
<td>Tx, Rx, RTS, CTS, DTR, DSR, DCD, GND</td>
</tr>
<tr>
<td>LAN Interface</td>
<td>Auto sensing 10Base-T,100Base-TX</td>
</tr>
<tr>
<td>Line Interface</td>
<td>RS-232</td>
</tr>
<tr>
<td>Baud</td>
<td>50 bps to 230.4 Kbps/Custom</td>
</tr>
<tr>
<td>Dimensions</td>
<td>18.42 x 13.34 x 3.43cm/7.25&quot; x 5.25&quot; x 1.35&quot;</td>
</tr>
<tr>
<td>Power</td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>0°C to 70°C/32°F to 158°F</td>
</tr>
</tbody>
</table>
Blue Heat/Net 4 or 8 DB-9 is an Ethernet-to-serial device which offers 4 or 8 RS-232 or software selectable RS-232/422/485 serial ports over Ethernet LAN.

Blue Heat/Net 4 or 8 DB-9

- **Ports**: 4/8
- **Control Signals**: RS-232: TxD, RxD, CTS, RTS, DTR, DSR, DCD, RI, GND; RS-422/485: (TxD, RxD, RTS, CTS)±, SR
- **LAN Interface**: Auto sensing 10Base-T, 100Base-TX
- **Line Interface**: RS-232/422/485
- **Baud**: 50 bps to 460.8 Kbps/Custom
- **Dimensions**: 24.41 x 13.34 x 4.29 cm
- **Temperature**: 0°C to 70°C/32°F to 158°F

Blue Heat/Net 16

Blue Heat/Net 16 is an Ethernet-to-serial device which allows serial devices to connect directly to an Ethernet LAN via 16 software selectable RS-232/422/485 ports.

Blue Heat/Net 16

- **Ports**: 16
- **Control Signals**: RS-232: DTR, DSR, RTS, CTS, TxD, RxD, RI, DCD, GND; RS-422/485: (TxD, RxD, RTS, CTS)±, SR
- **LAN Interface**: Auto sensing 10Base-T, 100Base-TX
- **Line Interface**: RS-232/422/485
- **Protocols**: IP, TCP, UDP, ARP, RARP, TFTP, DHCP, BootP, HTTP, Telnet, ICMP, PPP
- **Temperature**: -40°C to 60°C/-40°F to 140°F
- **Baud**: 50 bps to 460.8 Kbps/Custom
- **Dimensions**: 43.7 x 16 x 4.4 cm/17.25" x 6.25" x 1.74"
- **Power**: 110/240V AC, 50/60 Hz, 24-56 V DC

**WWW.CONNECTTECH.COM**
### PCI Serial

<table>
<thead>
<tr>
<th>Ports</th>
<th>Line Interface</th>
<th>Control Signal</th>
<th>Baud</th>
<th>UART</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>RS-232</td>
<td>Tx, Rx, RTS, CTS, RI, DTR, DSR, DCD, GND</td>
<td>50 bps to 921.6 Kbps/Custom</td>
<td>Dual/Quad/Octal 64 Byte FIFO</td>
</tr>
<tr>
<td>4</td>
<td>RS-232</td>
<td>Tx, Rx, RTS, CTS, RI, DTR, DSR, DCD, GND 2+2 Ports RS-232+RS-422/485</td>
<td>50 bps to 921.6 Kbps/Custom</td>
<td>Dual/Quad/Octal 64 Byte FIFO</td>
</tr>
<tr>
<td>8</td>
<td>RS-232</td>
<td>Tx, Rx, RTS, CTS, RI, DTR, DSR, DCD, GND 4+4 Ports RS-232+RS-422/485</td>
<td>50 bps to 921.6 Kbps/Custom</td>
<td>Dual/Quad/Octal 64 Byte FIFO</td>
</tr>
</tbody>
</table>

**BlueStorm/LP RS-422/485**

<table>
<thead>
<tr>
<th>Ports</th>
<th>Line Interface</th>
<th>Control Signal</th>
<th>Baud</th>
<th>UART</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>RS-422/485</td>
<td>TxD±, RxD±, RTS±, CTS±, GND</td>
<td>50 bps to 1.8432 Mbps/Custom</td>
<td>Dual/Quad/Octal 64 Byte FIFO</td>
</tr>
<tr>
<td>4</td>
<td>RS-422/485</td>
<td>TxD±, RxD±, RTS±, CTS±, GND 2+2 Ports RS-232+RS-422/485</td>
<td>50 bps to 1.8432 Mbps/Custom</td>
<td>Dual/Quad/Octal 64 Byte FIFO</td>
</tr>
<tr>
<td>8</td>
<td>RS-422/485</td>
<td>TxD±, RxD±, RTS±, CTS±, GND 4+4 Ports RS-232+RS-422/485</td>
<td>50 bps to 1.8432 Mbps/Custom</td>
<td>Dual/Quad/Octal 64 Byte FIFO</td>
</tr>
</tbody>
</table>

*Low profile models are available with standard height brackets.*
BlueStorm/SP is a high-speed multi-port adapter which offers 8 ports of RS-232/422/485 connectivity.

**Ports**: 8
**Line Interface**: RS-232/422/485
**Control Signals**: RS-232: Tx,Rx,CTS,RS,DSR,DCD,GND
RS-422/485: (Tx,Rx,CTS,RTS)±,GND
**Baud**: RS-232: 50 bps to 921.6 Kbps
RS-422/485: 50 bps to 1.843 Mbps
**UART**: Octal, 64 Byte FIFO
**Temperature**: 0°C to 70°C/32°F to 158°F
**Dimensions**: 14.702 x 10.605cm/5.788" x 4.175"

BlueStorm/SP RJ-11 is a high-speed multi-port adapter which offers 8 independently configurable RS-232 ports, along with +5 VDC or +12 VDC power on 6 RJ-11 ports.

**Ports**: 8
**Line Interface**: RS-232, 6 RJ-11 connectors/2x10 pin headers
**Control Signals**: Tx,Rx,CTS,GND,DC Power
10 Pin Header: Tx,Rx,CTS,DTR,DR,DCD,R,S,G
**Baud**: 50 bps to 921.6 Kbps
**UART**: Octal, 64 Byte FIFO
**Temperature**: 0°C to 70°C/32°F to 158°F
**Dimensions**: 12.129 x 10.668cm/4.775" x 4.2"

BlueStorm/SP Opto is a high-speed multi-port adapter which offers 4 ports of RS-232/422/485 connectivity, along with 3kV optical isolation.

**Ports**: 4
**Line Interface**: RS-232/422/485, 3kV optical isolation
**Control Signals**: RS-232: Tx,Rx,CTS,GND
RS-422/485: TxD±,RxD±,RTS±,CTS±,GND
**Baud**: RS-232: 50 bps to 921.6 Kbps
RS-422/485: 50 bps to 1.8432 Mbps
**UART**: Dual, 64 Byte FIFO
**Temperature**: 0°C to 70°C/32°F to 158°F
**Dimensions**: 14.702 x 10.605cm/5.788” x 4.175”

BlueStorm/LP is a high-speed multi-port Universal PCI adapter designed for low profile and standard height PCI computers.

**Features**
- Available in 2, 4, and 8 port RS-232 serial interface models, and 1 plus 1, 2 plus 2, and 4 plus 4 RS-232 plus RS-422/485 serial interface models.

**Ports**: 2/4/8
**Temperature**: 0°C to 70°C/32°F to 158°F
**Dimensions**: 12.72 x 1.5 x 6.44 cm/5.01” x .59” x 2.54”
**BlueStorm/Express**  

BlueStorm/Express is a standard profile PCI Express serial card available in 2, 4, 8, or 16 ports of RS-232/422/485 connectivity.

<table>
<thead>
<tr>
<th>Ports</th>
<th>Control Signal</th>
<th>Baud</th>
<th>UART</th>
</tr>
</thead>
</table>
| 2     | RS-232: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD,GND  
|       | RS-422/485: (Tx,Rx,CTS,RTS)±,GND | RS-232: 1 Mbps  
|       | RS-422/485: 7.8 Mbps | Dual PCIe |
| 4     | RS-232: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD,GND  
|       | RS-422/485: (Tx,Rx,CTS,RTS)±,GND | RS-232: 1 Mbps  
|       | RS-422/485: 7.8 Mbps | Quad PCIe |
| 8     | RS-232: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD,GND  
|       | RS-422/485: (Tx,Rx,CTS,RTS)±,GND | RS-232: 921.6 Kbps  
|       | RS-422/485: 1.843 Mbps | Octal PCIe |
| 16    | RS-232: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD,GND  
|       | RS-422/485: (Tx,Rx,CTS,RTS)±,GND | RS-232: 921.6 Kbps  
|       | RS-422/485: 1.843 Mbps | 2x Octal PCIe |

**BlueStorm/Express 8/16 Port RS-232**  

BlueStorm/Express 8/16 Port RS-232 is a standard profile PCI Express serial card which offers 8 or 16 ports of RS-232 connectivity, and is compatible with any PCI Express slot.

<table>
<thead>
<tr>
<th>Ports</th>
<th>8/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Interface</td>
<td>RS-232</td>
</tr>
<tr>
<td>Control Signals</td>
<td>TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD</td>
</tr>
<tr>
<td>Baud</td>
<td>50 bps to 1 Mbps</td>
</tr>
<tr>
<td>UART</td>
<td>Octal, 256 Byte FIFO</td>
</tr>
<tr>
<td>Temperature</td>
<td>-40°C to 85°C/-40°F to 185°F</td>
</tr>
<tr>
<td>Dimensions</td>
<td>14 x 10.7cm/5.5&quot; x 4.2&quot;</td>
</tr>
</tbody>
</table>

**BlueStorm/Express Opto**  

BlueStorm/Express Opto is a standard profile PCI Express serial card which offers 4 ports of RS-232/422/485 connectivity, and 3kV optical isolation. These x1 lane cards are compatible with x1, x4, x8, x16 lane PCI Express slots.

<table>
<thead>
<tr>
<th>Ports</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolation</td>
<td>3kV</td>
</tr>
<tr>
<td>Line Interface</td>
<td>RS-232/422/485</td>
</tr>
</tbody>
</table>
| Control Signals | RS-232: Tx,Rx,RTS,CTS,GND  
|       | RS-422/485: (Tx,Rx,CTS,RTS)±,GND |
| Baud | RS-232: 921.6 Kbps  
|       | RS-422/485: 1.843 Mbps |
| UART | 2x Dual PCI, 64 Byte TX, and RX FIFOs |
| Temperature | 0°C to 70°C/32°F to 158°F |
| Dimensions | 14.699 x 11.049cm/5.787" x 4.350" |
BlueStorm/Express Opto (1kV)

BlueStorm/Express Opto (1kV) is a standard profile PCI Express serial card which offers 8 ports of RS-232/422/485 connectivity, and 1kV optical isolation on 4 of 8 ports.

- **Ports**: 8
- **Isolation**: 1kV (4 Ports)
- **Line Interface**: RS-232/422/485
- **Control Signals**: RS-232: Isolated: Tx,Rx,RTS,CTS,GND
  Non-Isolated: Tx,Rx,RTS,CTS,RI,DTR,DSR,DCD,GND
- **Baud**: RS-232: 921.6 Kbps
- **UART**: Octal PCI, 64 Byte TX, and RX FIFOs
- **Temperature**: 0°C to 70°C/32°F to 158°F
- **Dimensions**: 14.702 x 10.605cm/5.788" x 4.175"

BlueStorm/Express Isolated

BlueStorm/Express Isolated is a standard profile PCI Express serial card which offers 8 ports of RS-232 connectivity, and 2kV optical isolation on all 8 ports.

- **Ports**: 8
- **Isolation**: 2kV isolation, 3kV on board
- **Line Interface**: RS-232
- **Control Signals**: Tx,Rx,RTS,CTS,DCD,DTR
- **Baud**: RS-232: 1 Mbps, RS-422/485: 7.8 Mbps
- **UART**: Octal PCI, 256 Byte TX, and RX FIFOs
- **Temperature**: 0°C to 70°C/32°F to 158°F
- **Dimensions**: 14.699 x 6.891cm/5.787" x 2.713"

BlueStorm/Express LP

BlueStorm/Express LP is a low profile PCI Express serial card which offers 8 ports of RS-232/422/485 connectivity.

- **Ports**: 8
- **Line Interface**: RS-232/422/485
- **Control Signals**: RS-232: Tx,Rx,CTS,RU,DTR,DSR,DCD,GND
  RS-422/485: (Tx ±,Rx ±,CTS ±,RTS ±),GND
- **Baud**: RS-232: 1 Mbps, RS-422/485: 7.8 Mbps
- **UART**: Octal PCI, 64 Byte TX, and RX FIFOs
- **Temperature**: 0°C to 70°C/32°F to 158°F
- **Dimensions**: 14.699 x 6.891cm/5.787" x 2.713"

BlueStorm/Express LP Opto

BlueStorm/Express LP Opto is a low profile PCI Express serial card which offers 2 ports of RS-232/422/485 connectivity, along with 3kV optical isolation on both ports.

- **Ports**: 2
- **Line Interface**: RS-232/422/485
- **Control Signals**: RS-232: Tx,Rx,CTS,RU,DTR,DSR,DCD,GND
  RS-422/485: (Tx ±,Rx ±,CTS ±,RTS ±),GND
- **Baud**: RS-232: 1 Mbps, RS-422/485: 7.8 Mbps
- **UART**: Dual PCIe, 265 Byte TX, and RX FIFOs
- **Temperature**: 0°C to 70°C/32°F to 158°F
- **Dimensions**: 15.7 x 6.9cm/6.2" x 2.7"
Synchronous Serial

**ComSync/PCI-104 Gen 3**

**Features**
- Two synchronous/asynchronous serial channels
- Multiple communication protocols supported: RS-232, RS-422, RS-485, HDSL, SDLC, MonoSync, BiSync and Async
- Operating temperature range of -40°C to 85°C

**Ports**
- 2 Synchronous/Asynchronous Serial Channels

**Dimensions**
- PC/104 v.2.3 Compliant

**Blue Heat/Net Sync**

**Features**
- Offers an Ethernet to synchronous serial solution for data communications.

**Ports**
- 4 Synchronous/Asynchronous Serial Ports

**Control Signals**
- Single ended: TxD, RxD, RTS, CTS, RI, DTR, DSR, DCD, RxClock, TxClock
- Differential: (TxD, RxD, CTS, RTS, DTR, DCD, DSR)±, RxClock, TxClock

**LAN Interface**
- Auto sensing 10Base-T, 100Base-TX Ethernet

**Line Interface**
- V.28, V.10, V.11, V.35, EIA-530, V.36

**Protocols**
- SDL, HDLC, MonoSync, BiSync, Transparent BiSync, Async
- Ethernet Protocols: IP, TCP, UDP, ARP, RARP, TFTP, DHCP, BootP, HTTP, Telnet, ICMP, PPP

**Temperature**
- 0°C to 60°C/32°F to 140°F

**Dimensions**
- 11.56 x 11.68 x 3.43cm/4.55" x 4.50" x 1.35"

**Power**
- 5V DC (2.5A) - 28V DC (450 mA)

**Xtreme/Multi-I/O**

**Features**
- 2500V isolation protection
- 2x SJA1000 controllers, 1Mbp/s
- 4x RS-232/1x RS-485/1708
- 2x MultiTech compatible sockets
- 5x isolated LEDs, 1x USB
- Extended operating temperature

**Ports**
- 2500V isolation protection

**Control Signals**
- 2x SJA1000 controllers, 1Mbp/s

**Temperature**
- 0°C to 60°C/32°F to 140°F

**Dimensions**
- 11.56 x 11.68 x 3.43cm/4.55" x 4.50" x 1.35"

**Power**
- 5V DC (2.5A) - 28V DC (450 mA)
Mini PCIe ADC is an analog to digital converter peripheral board for the embedded marketplace. Ideal for data acquisition, measurement, and control applications.

**Features**
- 16 ADC input channels
- 500 kSPS
- 16-bit resolution
- Used in any Mini PCIe socket
- -40°C to +85°C

**Xtreme I/O Express ADC-DAC** is an analog and digital peripheral board for the PCIe/104 small form factor embedded marketplace.

**Analog Inputs:** 32 Single Ended/16 Differential Channels, 16-bit 500 kSPS, Up to +/- 10.24V Input Range

**Analog Outputs:** 4 Channels, 16 bit resolution, 6 μs Settling Time, Up to +/- 10.24V Output Swing

**Digital I/O:** 16-bit bidirectional I/O, +3.3V or +5V, 24mA Drive

**Temperature:** -40°C to +85°C

**Mini PCIe ADC**

**Xtreme I/O Express ADC-DAC**

**Xtreme I/O ADC-DAC**

**Xtreme I/O Opto**

**FreeForm/104**

**Mini PCI Express ADC**

**Xtreme I/O Express ADC-DAC**

**Xtreme I/O ADC-DAC**

**Xtreme I/O Opto**

**FreeForm/104** is a PC/104 card that features a reconfigurable FPGA for digital I/O and control applications.

**FPGA:** Xilinx Spartan-3E, 500,000 gates, 360K RAM

**Standard:** 96 digital I/O

**Digital I/O Opto** is a 48-bit isolated digital input/output board.

**Connectors:** 2 x 25 (50 position) 0.1" (DIL) pin headers

**Isolation:** 3kV isolation

**Inputs:** 24 optically isolated inputs (24-bits), input voltage range +0 up to +40V DC

**Outputs:** 24 optically isolated outputs (24-bits), output voltage range +0 up to +40V DC

**Temperature:** -40°C to +85°C

**Analog Inputs:** 32 Single Ended/16 Differential Channels, 16/14/12 bit 100 kSPS, Software-Programmable Input Ranges

**Analog Outputs:** 4 Channels, 16/14/12 bit resolution, 6 programmable output ranges

**Digital I/O:** 16 bit bi-directional I/O

**Analog I/O:** 12 TTL inputs (26 pin connector)

**Mini PCIe ADC**

**Xtreme I/O Express ADC-DAC**

**Xtreme I/O ADC-DAC**

**Xtreme I/O Opto**

**FreeForm/104**

**Mini PCI Express ADC**

**Xtreme I/O Express ADC-DAC**

**Xtreme I/O ADC-DAC**

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**Analog I/O**
PCIe/104 to M.2 Adapter

allows for the implementation of two M.2 next generation form factor expansion slots. Supported cards are B, B&M, E, and A&E key type.

**Features**
- Additional connectors include 2 SIM card slots for cellular applications and 2 wireless status signal headers to aid with integration in custom enclosures
- Extended Temperature Range -40°C to +80°C

PCIe/104 Quad Mini PCIe/mSATA

board supports up to four mini PCIe modules simultaneously for applications in the PCIe/104 small form factor embedded market place.

**Features**
- Supports up to four Mini PCIe modules simultaneously
- Supports any “Half” or “Full” Mini PCIe/mSATA product
- Maximum flexibility keeping the PCIe/104 stack small

Single and Dual Mini-PCIe Carriers easily enable the integration of a Mini-PCIe Card into a PCIe/104 or PCI/104-Express System. Fully compatible with any Mini-PCIe Peripheral.

**Features**
- PCIe/104 Compliant
- On-Board USB Switching
- Extended Temperature Range -40°C to +85°C

PCI/104-Express to Single/Dual Mini-PCIe Adapter

enables the integration of a Mini-PCIe (PCI Express Mini Card) into a PCIe/104 (PCI/104-Express) system.

**Connector**
- PCI/104 x 1

**Features**
- 3.3V and 1.5V DC power
- SIM card, Half-Mini and Full-Mini-PCIe cards supported
- 3 Mini-PCIe status LEDs
- Optional PCI Express Mini-Card Specification Revision 2.0 which adds a DisplayPort connection

PCI-104 to Mini-PCIe Adapter

enables the integration of a Mini-PCIe (PCI Express Mini) card into a PCI-104 system.

**Connector**
- PCI-104 x 1

**Features**
- 3.3V and 1.5V DC power
- SIM card, Half-Mini and Full-Mini-PCIe cards supported
- 3 Mini-PCIe status LEDs
- Optional PCI Express Mini-Card Specification Revision 2.0 which adds a DisplayPort connection
SMART Battery Adapter enables users to add up to four PCI-104 compatible boards into either a stack up or stack down configuration.

**Features**
- Use of PCI-104 Boards in PCIe/104 Stack
- Up/Down Stack Compatible
- PCIe/104 Compliant

Size
- 9.017 x 9.589cm/3.55” x 3.775”

SMART Battery Adapter allows for easy integration of a SMART battery into an existing PC/104 system.

**Features**
- Easily integrates SMART battery into a PC/104 Stack
- Use with Xtreme/PSU-UPS (SCG001)

PCle/104 to PCI-104 Adapter enables users to add four PCI-104 compatible boards into either a stack up or stack down configuration.

**Features**
- Use of PCI-104 Boards in PCIe/104 Stack
- Up/Down Stack Compatible
- PCIe/104 Compliant

Size
- 96.018mm x 152.4mm (3.780” x 6.0”)
- -40°C to +85°C

SMART Battery Adapter

PCle/104 to PCI-104 Adapter

XMC to PCIe/104 Adapter is an engineering tool for the purpose of enabling rapid development of systems requiring the use of next generation form factor peripheral cards.

**Features**
- PCIe/104 Compliant
- Type 1 PCIe/104 & XMC Connectors
- 96.018mm x 152.4mm (3.780” x 6.0”)
- -40°C to +85°C

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Adapters/Development Tools

**COM® Express Bus Extender**
- Allows full Type 2 or Type 6 COM Express functionality without compromising the testing process.
- **Size**
  - 9.5cm x 12.5cm/3.75" x 4.92"
- **Connectors**
  - COM Express
- **Features**
  - COM Express Type 2/Type 6 Compatible
  - Supports Compact and Basic COM Express Modules
  - Impedance Controlled Design

**PCI/PCIe to PMC/XMC Adapter**
- Connects a PCIe card to a XMC Carrier, or a PCI card to a PMC Carrier.
- **Size**
  - 14.9cm x 7.4cm/5.87" x 2.91"
- **Connectors**
  - XMC, PMC, PCIe (x16 Card accepted, x8 Compatible), PCI (32-bit)
- **Features**
  - XMC to PCIe Connection
  - PMC to PCI Connection
  - BUSMODE LEDs with Jumper Selection for Testing

**Qseven to COM® Express Adapter**
- Installs a Qseven module into any COM Express® Carrier Board.
- **Size**
  - Compact: 9.5 x 9.5cm/3.75" x 3.75"
  - Basic: 9.5 x 12.5cm/3.75" x 4.92"
- **Connectors**
  - Single or double row COM Express Module Connectors
  - Qseven Connectors
- **Features**
  - Compatible with COM Express Type 2 and Type 6

**PCI-104 Adapter to PC/104 Adapter**
- Enables testing and development of PC/104 (ISA) devices in a PCI-104 (PCI) only system.
- **Connector**
  - PCI-104, PC/104
- **Features**
  - PCI Memory and IO interface to operate, control, and monitor peripherals on the PC/104 (ISA) bus
  - PCI driven interrupt controller monitors and relays triggered IRQ lines on the PC/104 bus

**SUMIT to PCIe/104 Adapter**
- Integrates a PCIe/104 or PCI/104-Express card into a SUMIT-104 system.
- **Connector**
  - SUMIT A and B, PCIe/104 x1
- **Features**
  - 2 x USB (from SUMIT) via Mini USB connectors
PCIe/104 to PCI Express Adapter - Bottom Stacking enables the installation of a PCI Express card into a PCIe/104 or PCI/104-Express single board computer system in a stack down configuration.

**Size**
- 19.3 x 15.2cm/6" x 7.6"

**Connector**
- 156 pin PCIe/104 top connector; footprint for 2x USB Type B connector

**Features**
- x16 lane vertical PCI Express card edge (supports x1, x4, x8 or x16)

---

PCIe/104 to PCI Express Adapter - Top Stacking enables the installation of a PCI Express card into a PCIe/104 or PCI/104-Express single board computer system in a stack up configuration.

**Size**
- 9.5885 x 9.017cm/3.75" x 3.550"  

**Connector**
- 156 pin PCIe/104 bottom connector

**Features**
- x1 PCIe/104 lanes connected via PCI Express cable

---

PCIe to PCIe-104 Adapter enables the installation of a PCIe/104 or PCI/104-Express card into a standard PCIe Express slot.

**Size**
- 11.11 x 10.29cm/4.375" x 4.050"

**Connector**
- PCIe cable connector, PCI-104/Express 156 pin top and bottom connectors

**Features**
- x1 PCIe/104 lanes connected via PCI Express cable

---

PCIe/104 Bus Extender allows one additional card height spacing between peripherals in a PCIe/104 or PCI/104-Express stack.

**Size**
- 9.02 x 1.4605cm/3.55" x .575"

**Connector**
- 156 pin PCIe/104 bottom connector

**Features**
- PCIe/104 x16 bus connector
Adapters/Development Tools

**PCI to PC/104-Plus Adapter**
- Enables a PCI-104 or PC/104-Plus serial card to be installed into a standard Universal PCI slot.
- **Size**
  - 10.69 x 12.48 cm/4.2" x 4.913"
- **Connector**
  - PCI-104, 120 pin and PC/104, 64 and 40 pin stack-through connectors
- **Features**
  - Compatible with standard Universal 3.3V or 5V slot

**ISA to PC/104 Adapter**
- Enables an 8 or 16-bit PC/104 card to be installed into a standard ISA system.
- **Size**
  - 15.62 x 10.68 cm/6.145" x 4.2"
- **Connector**
  - PC/104, 64 and 40 pin passive stack-through connectors
- **Features**
  - 16x11 (.100" grid) breadboarding area for assembly and testing

**PC/104-Plus to Mini PCI Adapter**
- Enables a Mini PCI card to be installed into a standard PC/104-Plus stack.
- **Connector**
  - PC/104-Plus, 120 pin and PC/104, 64 and 40 pin stack-through connectors
- **Features**
  - 3.3V regulator delivers 2 watts of power to the Mini PCI card

**PCI-104 to PMC Adapter**
- Enables a PMC card to be installed into a PCI-104 or PC/104-Plus stack.
- **Size**
  - 9.02 x 16.58 cm/3.550" x 6.526"
- **Connector**
  - PCI-104 120 pin stack-through, 2x64 pin passive PMC connectors
- **Features**
  - Operates multiple PMC cards in a PCI-104 stack with multiple adapters

**PCI to CompactPCI Adapter**
- Enables a CompactPCI card to be installed into a standard Universal PCI system.
- **Size**
  - 12.00 x 6.40 cm/4.721" x 2.525"
- **Connector**
  - CompactPCI 110 pin male A connector for connection to host system
- **Features**
  - 16x11 (.100" grid) breadboarding area for assembly and testing
PCI Dump Switch Card allows debugging during system hang-ups.

**Size**
- 11.99 x 6.44cm/4.72" x 2.54"

**Connector**
- Transparent PCI to PCI bridge

**Features**
- Universal 32-bit PCI card (PCI 2.3 compliant)

PCI Express Dump Switch Card allows debugging during system hang-ups.

**Size**
- 6.7 x 6.8cm/2.64" x 2.68"

**Connector**
- Transparent PCIe to PCI bridge

**Features**
- x1 lane PCIe (PCI Express 1.0 compliant)

PCI Express Burn-in Rack Adapter burns up to 10 (15W or 25W) PCI Express cards simultaneously with lane widths from x1 to x16 in any combination.

**Size**
- 31.5 x 13.97cm/12.4" x 5.5"

**Connector**
- ATX power supply connectors to power common components

**Features**
- Quick verification of power conditions and lane widths via on-board LEDs

SSD/104 SATA is a rugged stackable storage solution that allows installation of up to two mSATA SSD modules into any PC/104-Plus, PCI-104, PCI/104-Express and PCIe/104 stack or embedded system.

**Capacity**
- Limited only by the choice of SSD

**Connector**
- Standard right angle 7-pin SATA

**Flash**
- MLC and SLC

**Temperature**
- -40°C to 85°C (-40°F to 185°F)

**Power**
- +3.3V ±5%

SSD/104 SATA 2.5" Drive Carrier is a stackable storage solution that allows any 2.5" SATA hard drive to be installed into any Type II PCIe/104 stack or embedded system.

**Features**
- Use any 2.5" Hard Drive
- Supports all SATA III
- For PCIe/104 Type 2 stack
Connect Tech's **Power Supplies** power all of the PC/104 family expansion buses including PC/104, PC/104-Plus, PCI-104, PCI/104-Express, and PCIe/104.

**Xtreme/PSU:** 115W total output power (+5V @ 10A, +12V @ 5A, and +5V standby @ 1A), and +6V to +36V DC input voltage

**Xtreme/PSU-XP:** 160W total output power (+5V @ 10A, +3.3V @ 10A, +12V @ 5A, -12V @ 1A and +5V standby @ 1A), and +6V to +36V DC input voltage

**Xtreme/PSU Isolated:** 195W total output power (+5V @ up to 15A, +3.3V @ up to 20A and 12V @ up to 10A), +9V to +36V DC input voltage, and up to 2.25kV isolation

**Xtreme/PSU-UPS:**
- SMART battery charging for uninterrupted power supply
- 125W+ output power (+5V, +12V, -12V, +3.3V, +5V standby)

**Xtreme PSU-UC** is a high efficiency, high powered PC/104 form factor power supply featuring Ultracapacitor backup for uninterrupted power supply.

**Size**
- 90mm x 96mm/3.55" x 3.775"

**Connector**
- ATX power supply connectors to power common components

**Features**
- Ultracapacitor backup for uninterrupted power supply

**SMART Battery Adapter** allows for easy integration of a SMART battery into an existing PC/104 system.

**Size**
- 90mm x 96mm/3.55" x 3.775"

**Connector**
- SMART Battery connector (5787428-1)

**Features**
- Easily integrates SMART battery into a PC/104 Stack
Connect Tech is a hardware design and manufacturing company that specializes in rugged, small form factor solutions. Our products support a wide variety of industry standards including COM Express®, SMARC, Qseven, 3U VPX, and PC/104. Our peripheral solutions include Managed Gigabit and 10G Ethernet switches, NVIDIA® GPU solutions, Digital & Analog I/O, CAN Controllers, Multi-Port Serial, FPGA, and Power Supplies. Additionally, CTI offers a line of Rugged Tablets. We have a nimble engineering team ready to engage in Custom Design when “off-the-shelf” is not an option. Connect Tech has built a global reputation for delivering quality, cost-effective devices backed by stellar customer support.

Mission Statement

Connect Tech is a designer and manufacturer of computer interface products for the global market. Our commitment is customer satisfaction through fair and ethical relationships with our customers, suppliers and employees.

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