DATASHEET

CROSSWIND 600

MODULAR 3U VPX CHASSIS

Features:

- **6 Slots ATR style**
- **ATR mountable**
- **VPX, VPXi, OpenVPX**
- **Modular Backplane**
- **PCIe GEN2**
- **Embedded Switching**
- **Field Transport Case**

The chassis is a **OpenVPX COTS** product for **3U** and can be used for multiple applications by changing the backplane mezzanine to suit your needs.

High speed **ERNI 10Gig** connectors connect the backplane and the mezzanine cards and all active components are conduction cooled. The backplane and the mezzanine cards are held in place using a special rubber type insert, therefore it dampens the backplane/mezzanine assembly against vibrations. The cards **do not** experience stress on the connectors as it is usually the case in traditional backplanes which are screwed down at different points and apply stress during assembly, during wedgelock screw down and during extended temperature ranges as well as shock and vibration to all parts on those PCBs.

PCIe GEN 2 "noStub" routing is used throughout the system to maximize data throughput. Inter slot high speed communication connections are done on the mezzanine PCB. Also it is possible to use a Gb Ethernet switch and a serial Rapid I/O switch on this mezzanine, if needed.
On this mezzanine card a **GPS** module, a **WiFi** module, a **temperature** and **humidity** sensor and a **3D shock sensor** IC are integrated. The values can be read over a I2C bus which is connected to all applicable slots as per VITA specification.

The rear I/O PCB can be equipped with MIL-C-38999 series 3 connectors. We offer various standard I/O pin configurations to keep NRE out of the purchase order.

The chassis is chromatized on all surfaces before applying custom primary and secondary coatings. EMI is therefore minimized and can be further minimized by using SSC in the system.

- The chassis is manufactured from aluminum to guarantee maximum ruggedness at minimum weight. M
- Power dissipation of the installed boards and power supply is by conduction cooling through the walls of the chassis and cooling fins.
- Boards are fixed in place with Wedge-Locks to insure good heat conduction to the chassis
- The backplane, mezzanine and rear I/O PCB's are mounted floating for vibration control.

PCI-SYSTEMS 1, 2, 3 !

Step 1: Lab kit for prototyping with external power adapter and rear I/O utilizing D-SUB connectors.
Step 2: Exchange backplane mezzanine with MIL-STD connectors

Step 3: Seal and deploy production units!

Carrying Case

CONDUCTION COOLED

Conduction cooling conducts heat away from the hot spots of the board and transfers the heat to the card edges and to the system chassis. The heat frame layer transfers heat and integrated wedge locks stiffen the carrier, enabling the board to resist high shock and vibration.

WHAT WE DO

PCI-SYSTEMS manufactures a variety of COTS modular designed conduction cooled chassis for VPX and CPCI applications, including **ATR** and **ARINC 600** enclosures.

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MEMBER VITA Open Standards, Open Markets

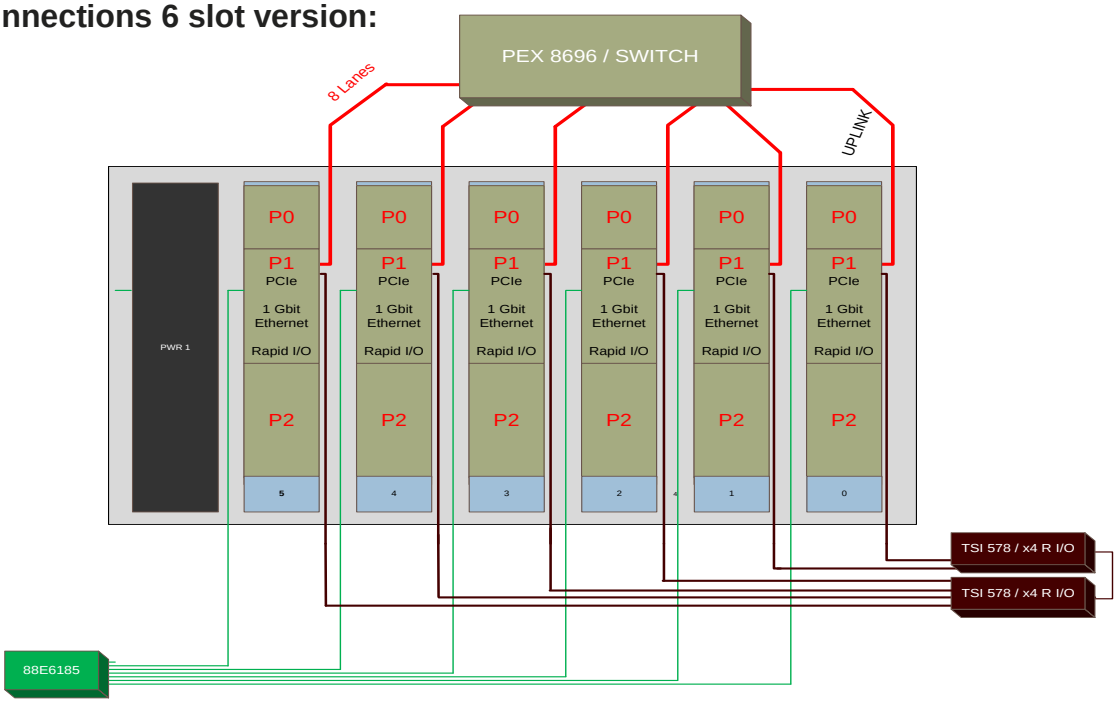
OpenVPX™

PCI-SYSTEMS EMBEDDED COMPUTER SOLUTIONS

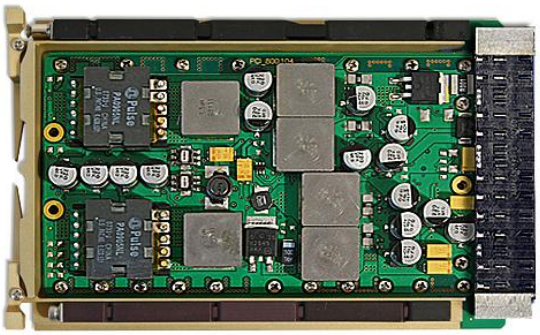
CROSSWIND 600

MODULAR 3U VPX CHASSIS

Diagram slot connections 6 slot version:



1 GBit Ethernet + 1 GBit Ethernet



Power Supply options:

The standard rugged conduction cooled power supplies can provide from 200 isolated watts up to 450 isolated watts. They have a 14-36VDC (28VDC nominal) power input requirement. Special versions for 110 AC 400Hz are available.

An external AC adapter is provided for development use.

ORDERING:

6 Slot ATR Style 3U VPX Chassis -- PCI_800.470

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