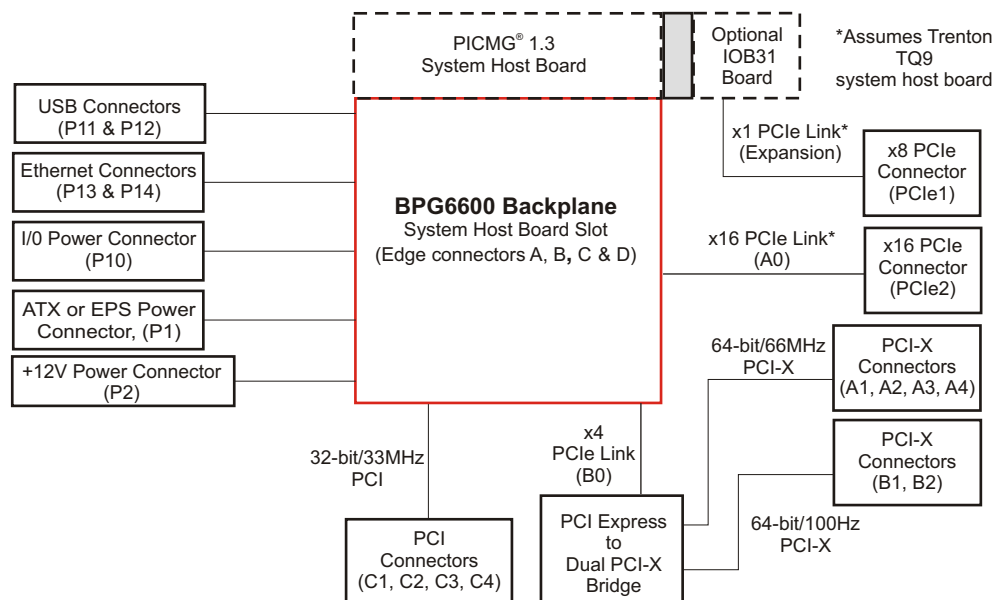# BPG6600

PICMG® 1.3 PCI EXPRESS® BACKPLANE

FEATURES

- **14-slot form factor supports one PICMG® 1.3 graphics-class system host board**
- **Two PCI Express®, six PCI-X and four PCI option card slots**
- **PCIe card slot configurations: one PCIe x16 mechanical / x16 electrical and one PCIe x8 mechanical / x1 electrical***
- **PCI-X card slot configurations: two 64-bit/100MHz and four 64-bit/66MHz**
- **PCI card slot configurations: four 32-bit/33MHz**
- **Optimized for use with Trenton high-performance PICMG 1.3 system host boards**
- **Two 10/100/1000Base-T backplane Ethernet ports****
- **Four USB 2.0 backplane I/O connections****
- **ATX/EPS, +12V AUX and terminal block input power connector configuration options**
- **Five-year factory warranty**
- **Made in U. S. A.**

TRENTON
Dependable, always.

BLOCK DIAGRAM:

PCI EXPRESS BACKPLANE WITH PCIe, PCI-X and PCI SLOTS:

The PCI Express® link design of the Trenton BPG6600 backplane supports PICMG® 1.3 graphics-class SHBs. The PCIe2 card slot connects directly to the SHB via a x16 PCI Express electrical link making it an ideal slot for high-end PCI Express graphics and video cards. PCIe1 is a x8 mechanical slot driven with a x4 electrical link delivered to the card slot via an IOB31 module installed on a Trenton TQ9 SHB. The 32-bit/33MHz PCI card slots are also connected directly to the SHB. The PCI-X slots connect to the SHB via a bridge chip that ensures secure data communications between high-speed PCI-X option cards and the SHB.

APPLICATION EXAMPLES:

A system design that needs COTS option card support for a mix of PCIe, PCI-X and 32-bit/33MHz PCI cards simultaneously is the ideal application scenario for the BPG6600 backplane. The x16 electrical link on slot PCIe2 enables support for high-performance PCI Express graphics and video cards. The backplane design maximizes the system's overall ROI by easing any potential support problems caused by option card interface technology transitions. Example applications for the BPG6600 backplane include; medical diagnostics, machine vision inspection, transportation, target acquisition and other military systems.

BACKPLANE MODEL: BPG6600

MODEL#	MODEL NAME	DESCRIPTION
6600-004	BPG6600-EPS	Vertical ATX/EPS and +12V AUX connectors with two high-current terminal blocks
6600-007	BPG6600-CRA	Right-angle ATX/EPS and +12V AUX connectors with two high-current terminal blocks

BPG6600 LAYOUT - TRENTON MOUNTING HOLE PATTERN DIMENSIONS:
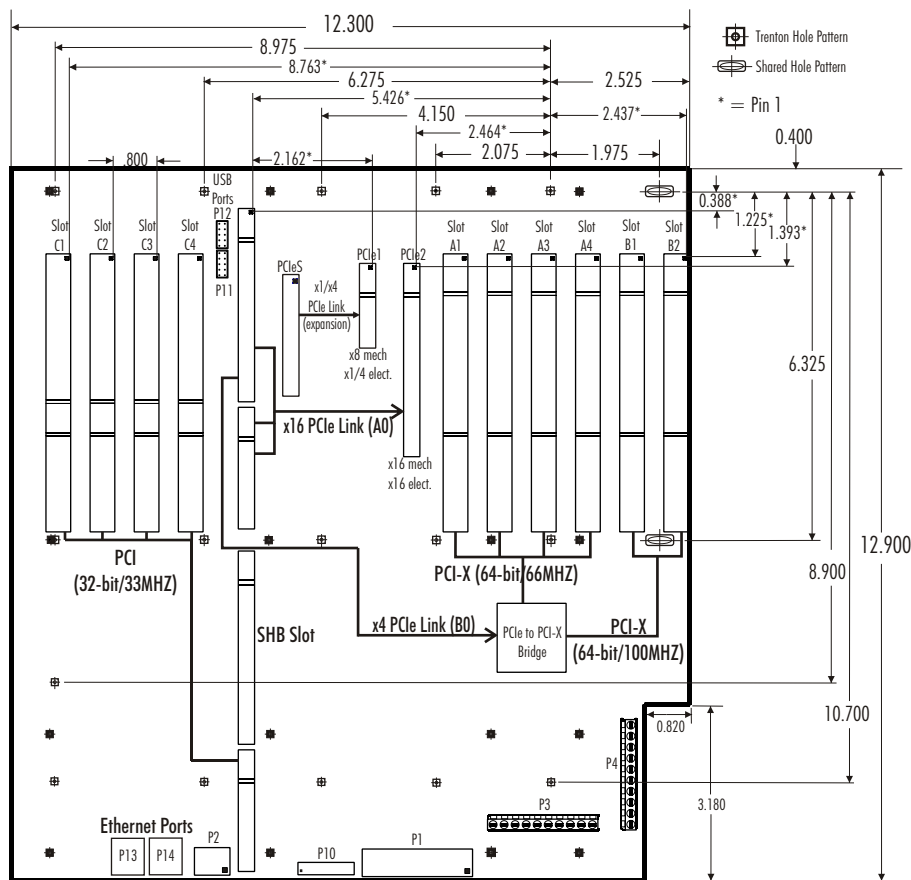
SUGGESTED TRENTON GRAPHICS CLASS PICMG 1.3 SHBs:

TQ9   TML   T4L

ENVIRONMENTAL SPECIFICATIONS:#

Operating Temp.: 0° C. to 60° C
Storage Temp.: -20° C. to 70° C
Humidity: 5% to 90%, non-condensing

Environmental specifications for system host boards / single board computers are usually lower than those of the backplane. Check with your SHB/SBC vendor.

The Trenton BPG6600 is a lead-free, RoHS compliant backplane.

This backplane is designed to meet worldwide EMI emissions requirements, CE conformity and immunity standards. Contact Trenton for specific standard numbers.

The Trenton BPG6600 backplane is designed for UL60950 and CAN/CSA C22.2 No. 60950-00.

Product Photo Note: The photo of the 6600 backplane shown on page one is provided for illustrative purposes only. Actual connector locations are illustrated in the backplane layout drawings and on the Trenton website.

BPG6600 LAYOUT - PICMG 1.3 MOUNTING HOLE PATTERN DIMENSIONS:
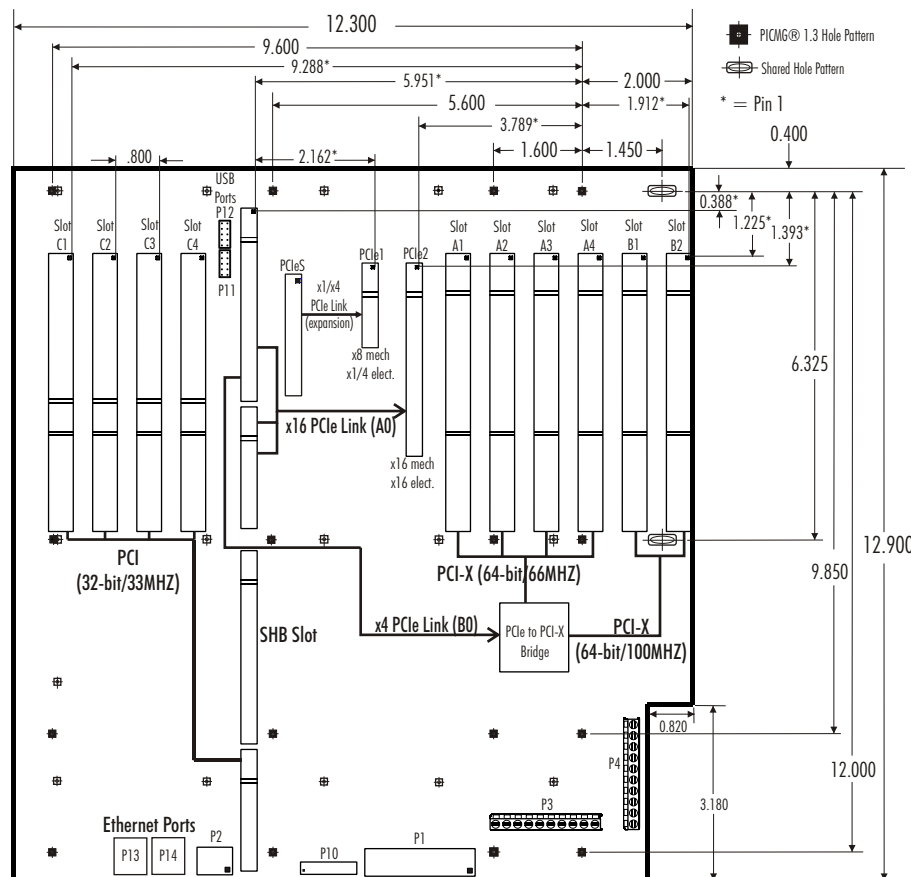
Engineering Notes:

All power connectors are shown in the layout drawings. The connectors are populated based on model.
Nominal PCB thickness: 0.080"
Connector spacing: .800" centers
To find the center of a PCI-X/PCI option card connector to the left of the reference dimension hole, add 0.150" to the pin 1 location dimension. To find the center of a PCI Express option card connector and the SHB slot add 0.049" to the pin 1 location dimension.
Mounting holes: 0.156" diameter
All dimensions are inches.
*PCIe1 slot functionality requires an IOB31 installed on the SHB. The Trenton TQ9, TML and T4L-class of SHBs deliver a x1 PCIe link to the option card slot.
** Optional USB and Ethernet connectivity provided by the PICMG 1.3 System Host Board. Not all SHBs support this capability.

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