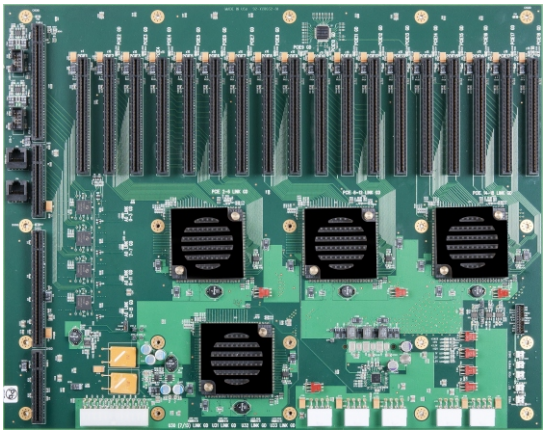
BPG8032

HIGH-DENSITY x16 PCI EXPRESS 2.0 GRAPHICS BACKPLANE



FEATURES

- Ideal for building block for video wall controllers and GPU computing systems
- Supports up to seventeen high-end video and graphics processing cards with high speed and low-latency x16 PCIe 2.0 links
- Enables scalable video wall controller and data solutions using the latest PCI Express® cards and Trenton high-performance system host boards
- Enables system designs with built-in expansion capability and longevity
- Latest PCI Express 2.0 switch technology and backplane layout minimizes data latency
- PCIe 2.0 x16 link redrivers maximizes high-speed data path signal integrity
- Two 10/100/1000Base-T backplane Ethernet ports**
- Four USB 2.0 backplane I/O connections**
- ATX/EPS vertical and right-angle input power connector options
- Five-year factory warranty / Made in U. S. A.

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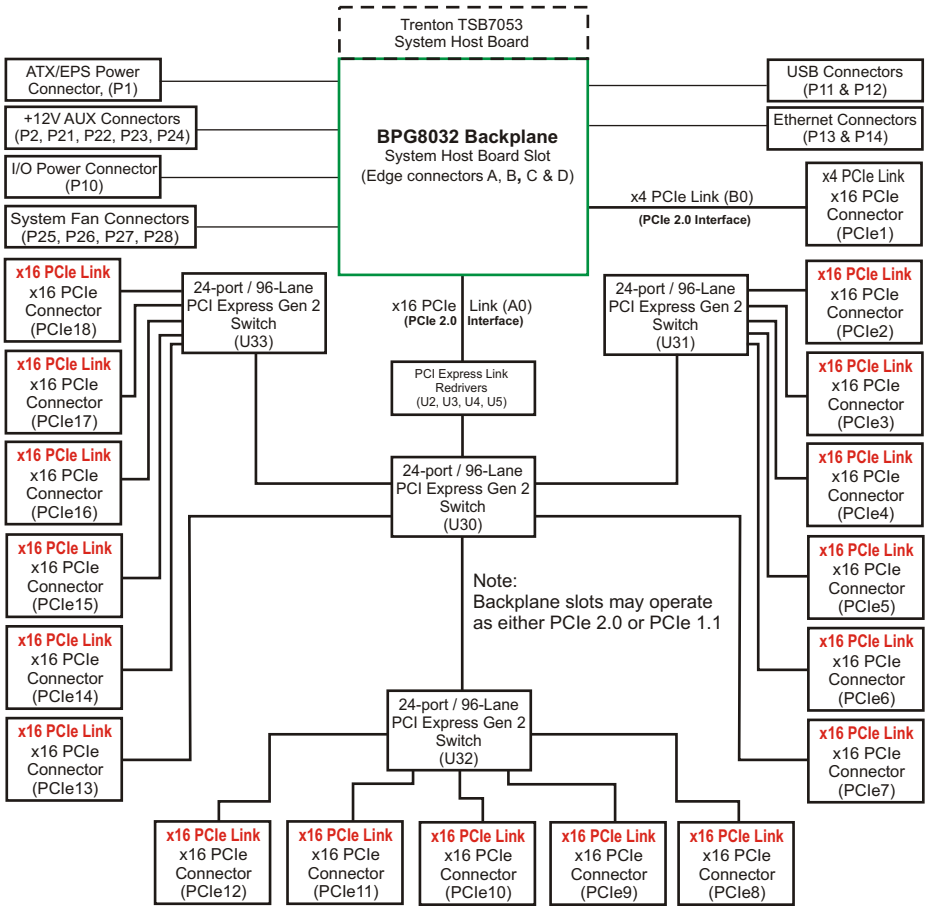
BLOCK DIAGRAM:



EIGHTEEN SLOT PCI EXPRESS BACKPLANE:

The PCI Express® link design of the Trenton BPG8032 backplane supports PICMG® 1.3 graphics-class and combo-class system host boards (SHBs) such as Trenton's single processor TSB7053, TQ9 and TML plus the dual-processor JXT6966. All backplane slots use PCIe x16 mechanical connectors with seventeen slots driven with x16 links. The remaining slot is driven with a x4 link. The backplane's PCIe link redrivers plus the latest in PCI Express switch technology ensures maximum data throughput speeds with superior communication signal integrity between the SHB and the PCI Express option cards.

APPLICATION EXAMPLES:

Scalable video wall controllers and graphics processing systems that support a large number of x16 PCI Express 2.0 video & graphics boards are typical applications for the Trenton BPG8032 backplane. The card support of the backplane enables video controller designs based on the latest x16 PCIe Gen 2 boards that can grow and adapt to changing requirements without incurring significant system upgrade expenses. The BPG8032 backplane's x16 PCIe card support features, coupled with advanced PCIe switches and link routing enable designs to deliver robust performance and PCI Express option card flexibility.

BACKPLANE MODEL: BPG8032

MODEL#	MODEL NAME	DESCRIPTION
8032-007	BPG8032-CRA	ATX/EPS (right-angle connector) and five right-angle 12V Aux power connectors
8032-008	BPG8032-CST	ATX/EPS (vertical connector) and five vertical 12V Aux power connectors

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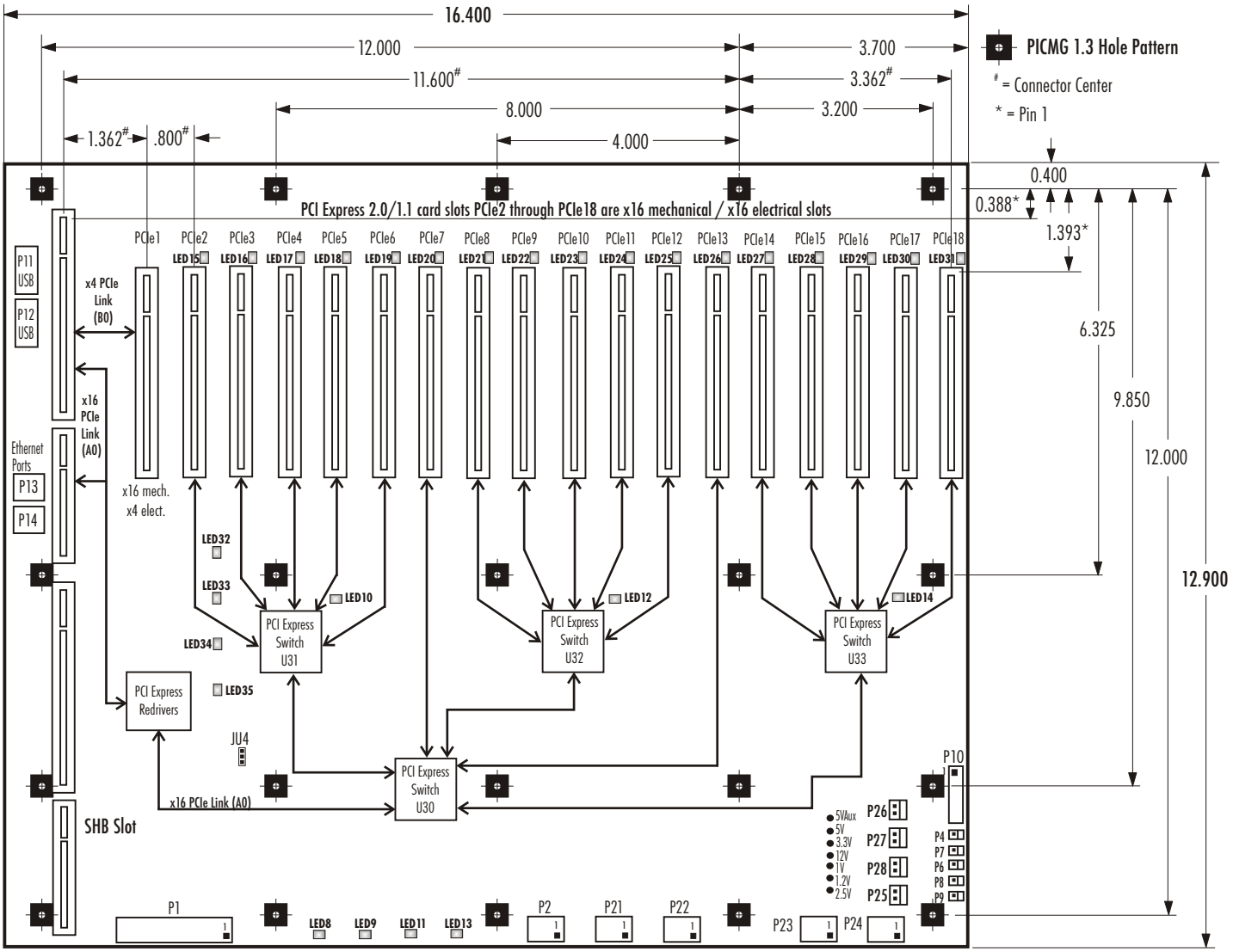
BPG8032 LAYOUT - PICMG 1.3 MOUNTING HOLE PATTERN DIMENSIONS:



SUGGESTED TRENTON PICMG 1.3 SHBs:

DUAL PROCESSOR SYSTEM HOST BOARDS
JXT6966

SINGLE PROCESSOR SYSTEM HOST BOARDS
TSB7053 TQ9 JXTS6966 TML

ENGINEERING NOTES:

1. All power connectors are shown in the backplane layout drawing. The specific combination of power connectors and the power connector type may be populated based on a specific model number.
2. Mounting holes: 0.156" diameter
3. The nominal backplane thickness is 0.080"; however, the backplane mounting holes are recessed 0.018" on the bottom to provide an effective PCB thickness of 0.062" for use in the chassis design process.
4. All dimensions are inches.
5. USB and Ethernet connectivity is a option that is provided by the PICMG 1.3 System Host Board. Not all SHBs support this optional interface capability. Check with you SHB supplier for details on your specific system host board model.

ENGINEERING NOTES (continued):

6. The total stack-up height of the SHB's cooling solution and/or the placement of the cooling solution on the SHB may cause an interference issue when trying to plug option cards into either BPG8032 backplane slot PCIe1 and/or PCIe2. This potential interference may prevent the usage of one or both of these slots in some applications.

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 BPG8032 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 the specific standard numbers this product.

The Trenton BPG8032 backplane is designed for UL60950 and CAN/CSA C22.2 No. 60950-00.

ENVIRONMENTAL SPECIFICATIONS (con't.):

The BPG8032 is designed for CE conformity approval to the following electromagnetic emission (EMI) test specifications: EN55022:1998, CLASS A, EN61000-4-2:1995, EN61000-4-3:1997, EN61000-4-4:1995, EN61000-4-5:1995, EN61000-4-6:1996, EN61000-4-11:1994

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