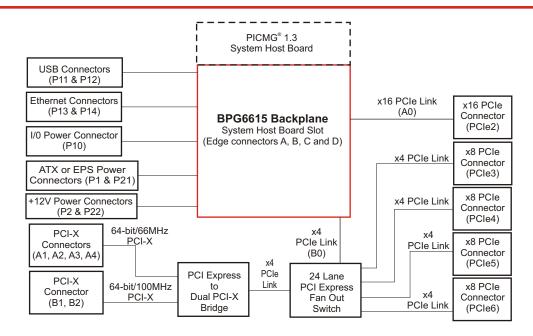


### **FEATURES**

- 14-slot form factor supports one PICMG® 1.3 graphics-class system host board
- Five PCI Express® and six PCI-X/PCI option card slots
- PCIe card slot configurations: one PCIe x16 mechanical / x16 electrical and four
   PCIe x8 mechanical / x4 electrical
- PCI-X card slot configurations: two 64-bit/100MHz and four 64-bit/66MHz
- 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.



### **BLOCK DIAGRAM:**



## PCI EXPRESS BACKPLANE WITH FIVE PCIe and SIX PCI-X/PCI SLOTS:

The PCI Express® link design of the Trenton BPG6615 backplane supports PICMG® 1.3 graphics-class SHBs. As shown in the block diagram, a PCI Express switch is used on the backplane to enable support for four of the PCIe card slots. This high-speed PCIe switch has a very low latency that enables high speed data throughput between the SHB and these card slots. The PCIe2 card slot is connected directly to the SHB via a x16 PCI Express electrical link. Two of the PCI-X slots support 64-bit/100MHz option cards and the remaining four PCI-X slots offer 64-bit/66MHz card support. The PCI-X slots also support universal PCI cards.

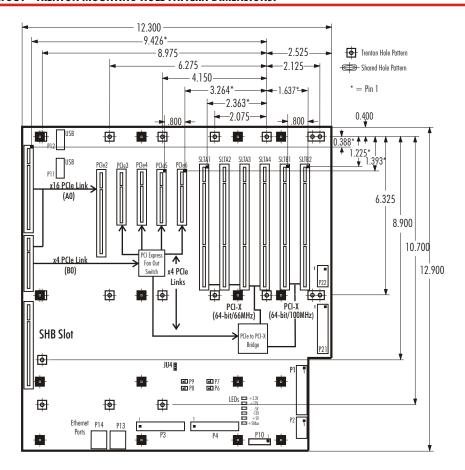
## **APPLICATION EXAMPLES:**

A system design that needs COTS option card support for a mix of PCIe and PCI-X/PCI cards simultaneously is the ideal application scenario for the BPG6615 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 BPG6615 backplane include; medical diagnostics, machine vision inspection, transportation, target acquisition and other military embedded systems.

### **BACKPLANE MODEL: BPG6615**

MODEL# MODEL NAME 6615-010 BPG6615-RAV **DESCRIPTION** 

Right-angle and vertical ATX/EPS and + 12V AUX connectors with two high-current terminal blocks



# SUGGESTED TRENTON GRAPHICS CLASS PICMG 1.3 SHBs:

# DUAL PROCESSOR SYSTEM HOST BOARDS

MCGT MCGT-E

## SINGLE PROCESSOR SYSTEM HOST BOARDS

MCGI 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.

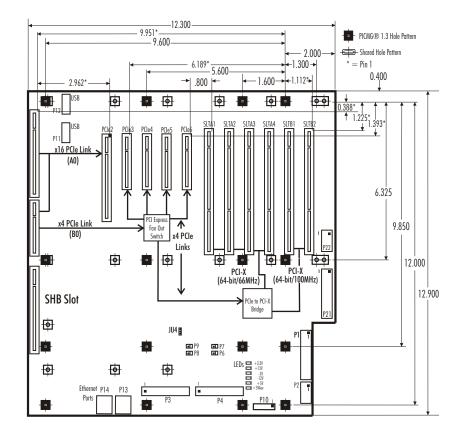
The Trenton BPG6615 is a lead-free, RoHS compliant backplane.

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

The Trenton BPG6615 backplane is designed for UL60950 and CAN/CSA C22.2 No. 60950-00.

Product Photo Note: The photo of the 6615 backplane shown on page one is a provided for illustrative purposes only. Actual connector locations are illustrated in the backplane layout drawings and on the Trenton website.

### **BPG6615 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.

\*\* Optional USB and Ethernet connectivity provided by the PICMG 1.3 System Host Board. Not all SHBs support this capability.

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