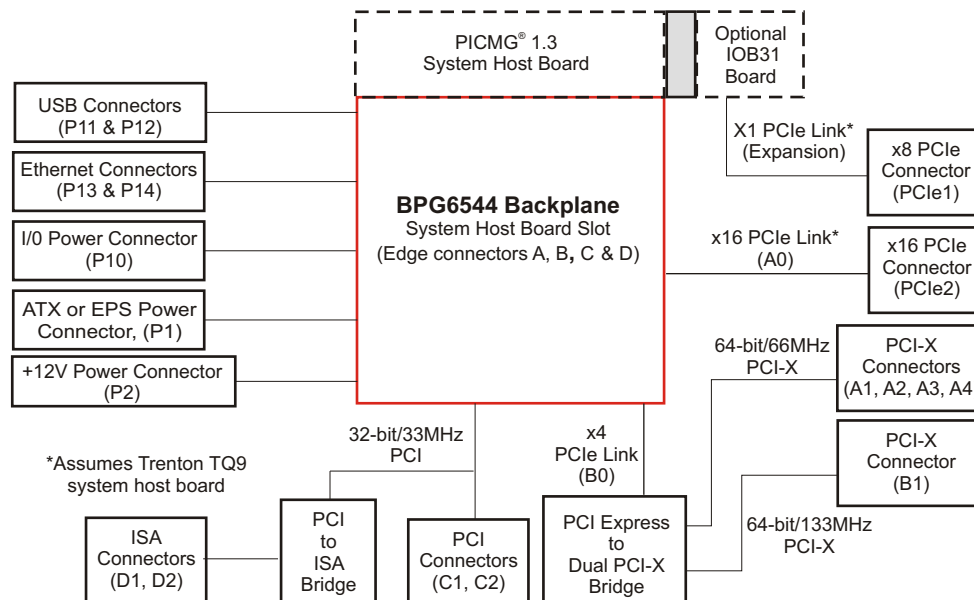


### FEATURES

- 14-slot form factor supports one PICMG® 1.3 graphics-class system host board
- Two PCI Express®, five PCI-X, two PCI and two ISA 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: one 64-bit/133MHz and four 64-bit/66MHz
- PCI card slot configurations: two 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.



### BLOCK DIAGRAM:



\*Assumes Trenton TQ9 system host board

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

The PCI Express® link design of the Trenton BPG6544 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. The two ISA card slots connect to the SHB by way of a PCI-to-ISA bridge chip.

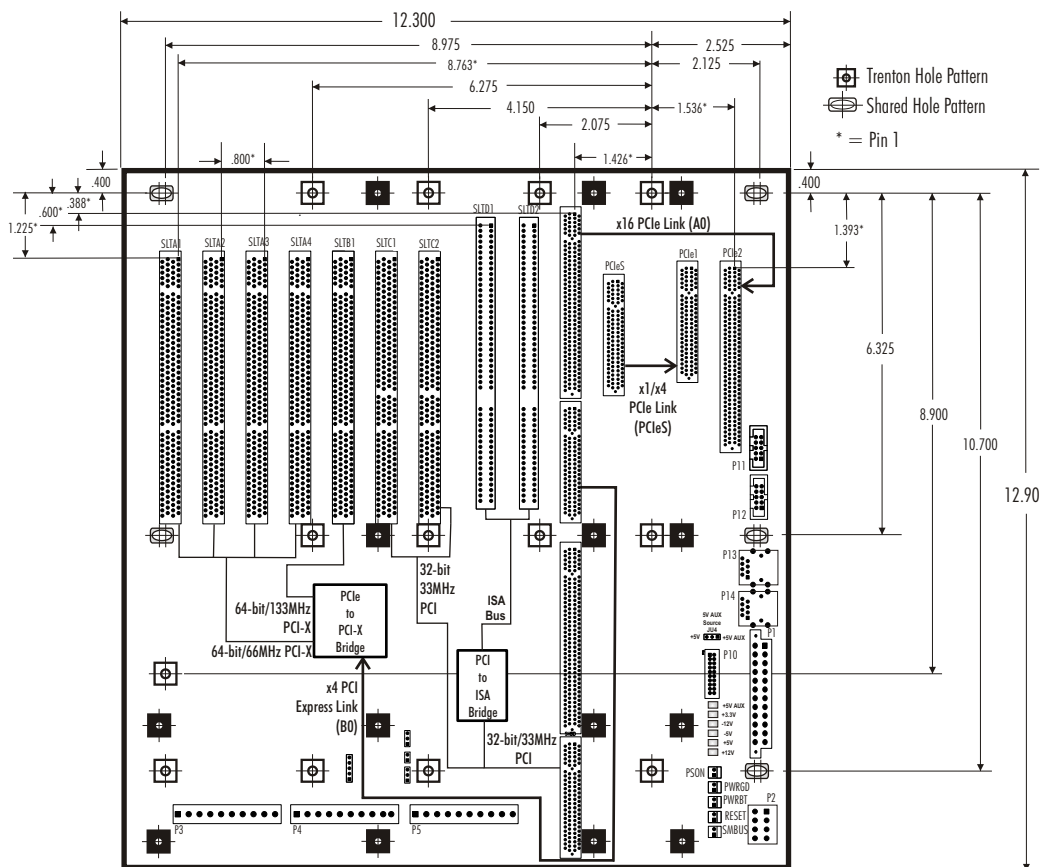
### APPLICATION EXAMPLES:

A system design that needs COTS option card support for a mix of PCIe, PCI-X, 32-bit/33MHz PCI and ISA cards simultaneously is the ideal application scenario for the BPG6544 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. The BPG6544 backplane saves costly re-engineering expenses by supporting two purpose-built ISA option cards. Example applications include; medical diagnostics, machine vision inspection, transportation, target acquisition and other military embedded systems.

### BACKPLANE MODEL: BPG6544

MODEL#	MODEL NAME	DESCRIPTION
6544-003	BPG6544-E+S	Vertical ATX and +12V AUX connectors with three high-current terminal blocks
6544-004	BPG6544-EPS	Vertical EPS and +12V AUX connectors with three high-current terminal blocks
6544-007	BPG6544-CRA	Right-angle ATX/EPS and +12V AUX connectors with three high-current terminal blocks
6544-008	BPG6544-CST	Vertical ATX/EPS and +12V AUX connectors with three high-current terminal blocks

## BPG6544 LAYOUT - TRENTON MOUNTING HOLE PATTERN DIMENSIONS:



## SUGGESTED TRENTON GRAPHICS CLASS

### PICMG 1.3 SHBs:

TQ9	TML	T4L
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## 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.

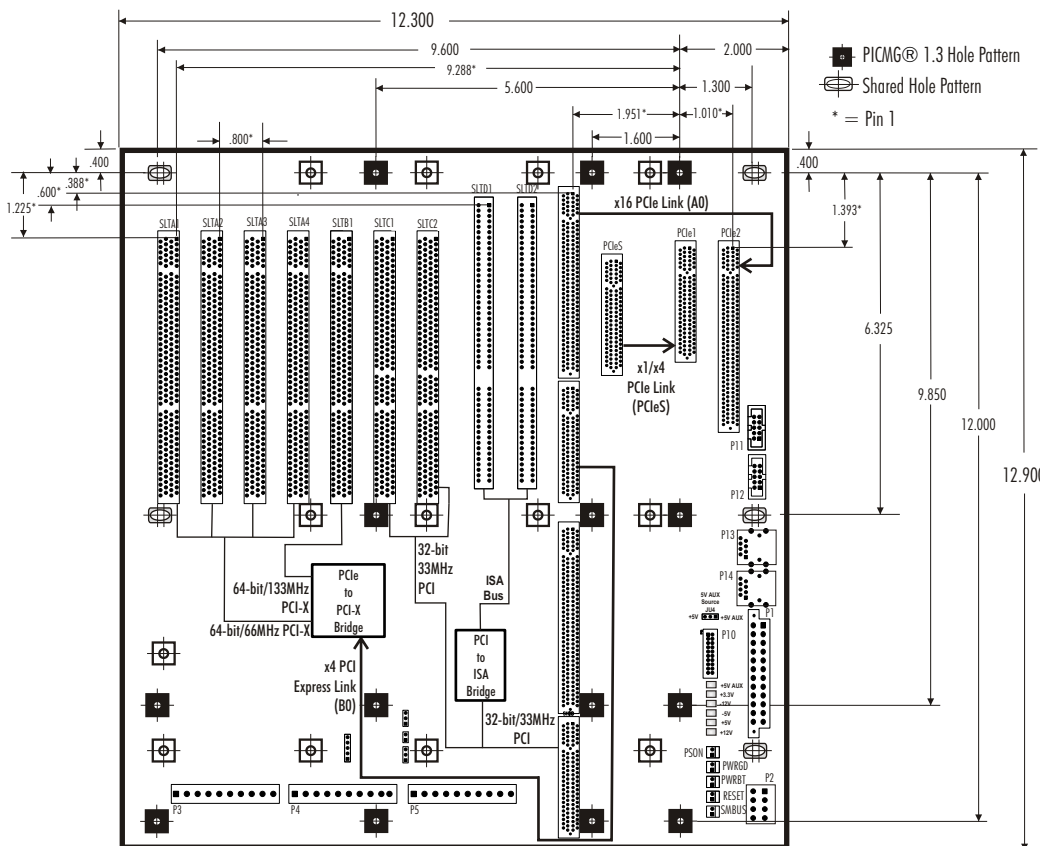
The Trenton BPG6544 is a lead-free, RoHS compliant backplane.

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

The Trenton BPG6544 backplane is designed for UL60950 and CAN/CSA C22.2 No. 60950-00.

*Product Photo Note: The photo of the 6544 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.*

## BPG6544 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.

\*PCIe 1 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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