## SMALL FORM FACTOR PCI EXPRESS® BACKPLANE

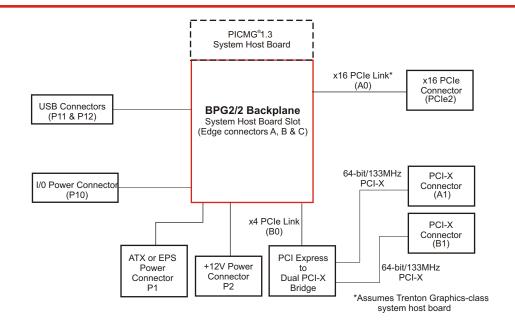


## **FEATURES**

- Small Form Factor (SFF) backplane supports one PICMG<sup>®</sup> 1.3 server-class system host board
- One PCI Express<sup>®</sup> and two PCI-X option card slots
- PCIe card slot configuration: PCIe x16 mechanical / x16 electrical
- PCI-X card slot configurations: two 64-bit/133MHz
- Optimized for use with Trenton high-performance PICMG 1.3 system host boards
- Four USB 2.0 backplane I/O connections\*\*
- ATX/EPS, +12V AUX vertical and right-angle input power connector configuration options
- Five-year factory warranty
- Made in U. S. A.



#### **BLOCK DIAGRAM:**



## **SMALL FORM FACTOR PCI EXPRESS BACKPLANE:**

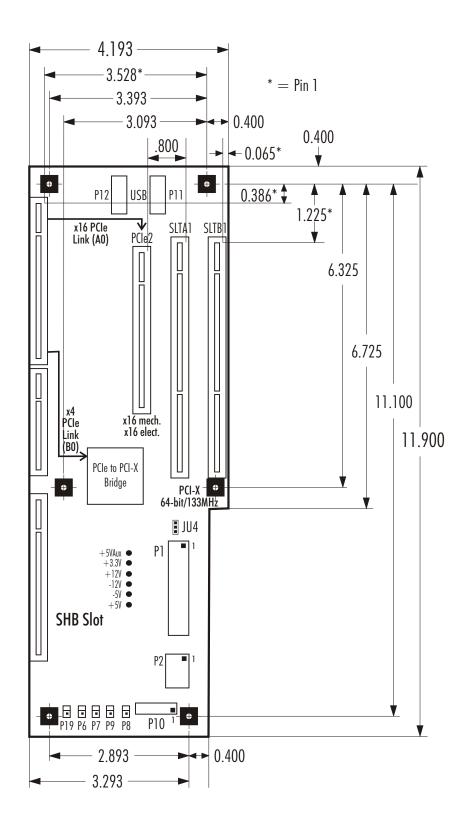
The PCI Express® link design of the Trenton BPG2/2 backplane supports PICMG® 1.3 graphics-class SHBs. Card slot PCle2 is a x16 mechanical slot connected directly to the SHB and driven with a x16 PCle electrical link. The backplane also includes two 64-bit/133MHz card slots connected to the SHB via a x4 PCI Express link and a PCI Express-to-PCI-X bridge chip. The bridge chip ensures secure data communications between the SHB and the PCI-X/PCI cards. The chip also throttles-down the bus interface speed to match any card placed in either slot A1 or B1 that has an interface bus speed less than 133MHz.

### **APPLICATION EXAMPLES:**

A system design that needs a small form factor (SFF) backplane to fit inside a tight location within a machine such as a medical diagnostic unit or a silicon wafer processing machine are typical applications for the BPG2/2 backplane. COTS option card support for one x16 PCle video/graphics card and two PCl-X/PCl cards simultaneously is the ideal application scenario for the Trenton BPG2/2 backplane. The backplane's compact, SFF design offers a good blend of serial PCl Express and parallel PCl-X/PCl interconnect technology. This eliminates service interruptions caused by video and graphics cards technology transitions.

#### **BACKPLANE MODEL: BPG2/2**

MODEL#	MODEL NAME	DESCRIPTION
6532-007	BPG2/2-CRA	Right-angle ATX/EPS and $+$ 12V AUX connectors
6532-008	BPG2/2-CST	Vertical ATX/EPS and $+12V$ AUX connectors



# 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 BPG2/2 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 BPG2/2 backplane is designed for UL60950 and CAN/CSA C22.2 No. 60950-00.

## **Engineering Notes:**

All power connectors are shown in the layout drawings. The connectors are populated based on model.

Nominal PCB thickness: 0.062"
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.

\*\* Ontional USB connectivity provi

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

Product Photo Note: The photo of the 6532 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.

PICMG is a registered trademark of the PCI Industrial Computer Manufacturers Group. All other product names are trademarks of their respective owners.

Copyright © 2009 by TRENTON Technology Inc. All rights reserved

