BPX3/2

SMALL FORM FACTOR PCI EXPRESS® BACKPLANE



FEATURES

- Small Form Factor (SFF) backplane supports one PICMG[®] 1.3 server-class system host board
- Two PCI Express[®] and two PCI-X option card slots
- PCIe card slot configurations: two PCIe x16 mechanical / x8 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.



PICMG[®] 1.3 System Host Board x8 PCIe Link* x16 PCle (A0) Connector (PCle2) **USB** Connectors **BPX3/2 Backplane** (P11 & P12) System Host Board Slot x8 PCIe Link* x16 PCle (Edge connectors A, B & C) (A2) Connector (PCle1) 64-bit/133MHz PCI-X I/0 Power Connecto PCI-X Connector (P10) (A1) x4 PCIe Link PCI-X (B0) Connector (B1) ATX or EPS PCI Express +12V Power 64-bit/133MHz Power to Connector P2 Dual PCI-X PCI-X Connector P1 Bridge *Assumes Trenton server or combo-class

system host board

SMALL FORM FACTOR PCI EXPRESS BACKPLANE:

The PCI Express[®] link design of the Trenton BPX3/2 backplane supports PICMG[®] 1.3 serverclass SHBs. Card slots PCIe1 and PCIe2 are both x16 mechanical slots connected directly to the SHB and driven with x8 PCIe electrical links. The backplane also includes two 64bit/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 BPX3/2 backplane. COTS option card support for up to two PCIe and two PCI-X/PCI cards simultaneously is the ideal application scenario for the Trenton BPX3/2 backplane. The backplane's compact, SFF design offers a good blend of serial PCI Express and parallel PCI-X/PCI interconnect technology that eliminates any service interruptions caused by future technology transitions of COTS option card technology.

BACKPLANE MODEL: BPX3/2

MODEL#	MODEL NAME
6526-007	BPX3/2-CRA
6526-008	BPX3/2-CST

DESCRIPTION Right-angle ATX/EPS and +12V AUX connectors Vertical ATX/EPS and +12V AUX connectors

BLOCK DIAGRAM:



SUGGESTED TRENTON PICMG 1.3 SHBs: DUAL PROCESSOR SYSTEM HOST BOARDS BXT7059 JXT6966

SINGLE PROCESSOR SYSTEM HOST BOARDS TSB7053 BXTS7059 JXTS6966

ENVIRONMENTAL SPECIFICATIONS:#

Operating Temp.: 0° C. to 60° C Storage Temp.: -40° 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 BPX3/2 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 BPX3/2 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.

** 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 6526 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.

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

Copyright © 2014 by TRENTON Systems, Inc., All rights reserved

