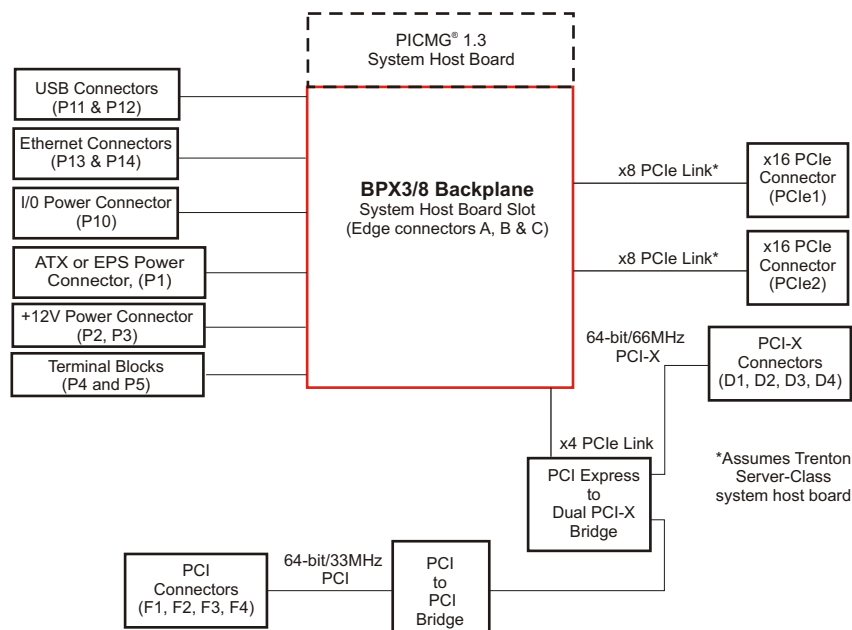# BPX3/8

PICMG® 1.3 PCI EXPRESS® BACKPLANE

FEATURES

- **14-slot form factor supports one PICMG® 1.3 server-class system host board**
- **Two PCI Express®, four PCI-X and four PCI option card slots**
- **PCIe card slot configurations: two PCIe x16 mechanical / x8 electrical**
- **Four 64-bit/66MHz PCI-X and four 64-bit/33MHz PCI option card slots**
- **Optimized for use with Trenton high-performance PICMG 1.3 system host boards**
- **Ideal for system applications where support for PCIe, PCI-X and PCI option cards and longevity are key requirements**
- **Two 10/100/1000Base-T backplane Ethernet ports****
- **Four USB 2.0 backplane I/O connections****
- **ATX/EPS, terminal block and right-angle/high-current input power connector configuration options**
- **Five-year factory warranty**
- **Made in U. S. A.**

TRENTON
Dependable, always.

BLOCK DIAGRAM:

PCI EXPRESS BACKPLANE WITH PCI Express, PCI-X and PCI SLOTS:

The PCIe link design of the Trenton BPX3/8 backplane supports PICMG® 1.3 server-class SHBs. The backplane offers a unique combination of support for the latest PCI Express® cards, as well as PCI-X and legacy PCI option cards. Both PCI Express slots (PCIe1 and PCIe2) are x16 mechanical slots driven with x8 electrical links directly from the system host board. There are four PCI-X slots; labeled SLTD1 through D4, that support 64-bit/66MHz option cards. The remaining four card slots are 64-bit/33MHz PCI slots. The bridge chips used for the PCI-X and PCI card slots ensure secure and reliable data communications.
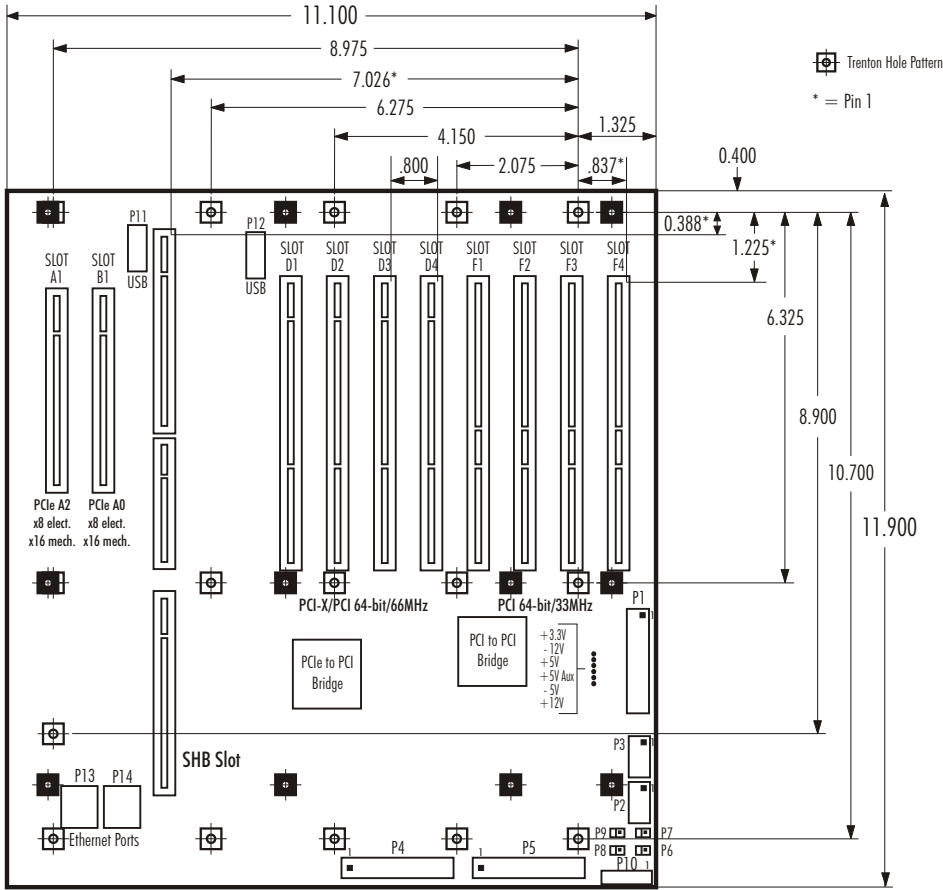
APPLICATION EXAMPLES:

A variety of system designs can take advantage of the unique blend of legacy and state of the art COTS option card technology that is designed into the Trenton BPX3/8 backplane. A few typical applications for the BPX3/8 backplane include drone aircraft communication and control systems, data servers, medical diagnostic systems, storage systems and video servers using PCI-X interface cards. Systems that need to grow and adapt to changing requirements, without incurring significant system upgrade expense are also ideal applications for this backplane.

BACKPLANE MODEL: BPX3/8

MODEL#	MODEL NAME	DESCRIPTION
6377-001	BPX3/8-ATX	ATX connectors with two high-current terminal blocks
6377-004	BPX3/8-EPS	EPS connectors with two high-current terminal blocks

BPX3/8 LAYOUT - TRENTON MOUNTING HOLE PATTERN DIMENSIONS:

Trenton Hole Pattern
* = Pin 1

11.100
8.975
7.026*
6.275
4.150
1.325
.800 2.075 .837*
0.400
0.388*
1.225*
6.325
8.900
10.700
11.900

SLOT A1
SLOT B1
P11
USB
P12
USB
SLOT D1
SLOT D2
SLOT D3
SLOT D4
SLOT F1
SLOT F2
SLOT F3
SLOT F4

PCIe A2
x8 elect.
x16 mech.
PCIe A0
x8 elect.
x16 mech.

PCI-X/PCI 64-bit/66MHz
PCI 64-bit/33MHz
P1

PCIe to PCI Bridge
PCI to PCI Bridge

+3.3V
- 12V
+5V
+5V Aux
- 5V
+12V

SHB Slot
P3
P2
P13 P14
Ethernet Ports
P4 P5
P9 P7
P8 P6
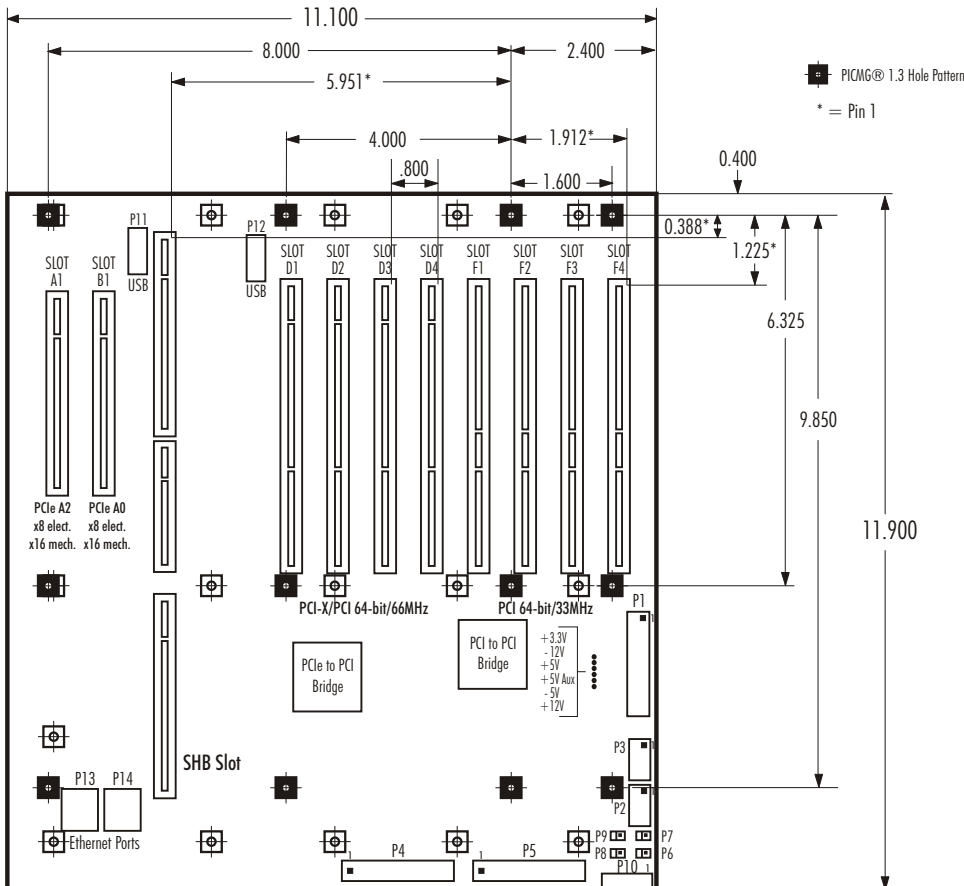P10

ENVIRONMENTAL SPECS.:#

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 BPX3/8 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 BPX3/8 backplane is designed for UL60950 and CAN/CSA C22.2 No. 60950-00.

BPX3/8 LAYOUT - PICMG 1.3 MOUNTING HOLE PATTERN DIMENSIONS:

PICMG® 1.3 Hole Pattern
* = Pin 1

11.100
8.000
2.400
5.951*
4.000
1.912*
.800
1.600
0.400
0.388*
1.225*
6.325
9.850
11.900

SLOT A1
SLOT B1
P11
USB
P12
USB
SLOT D1
SLOT D2
SLOT D3
SLOT D4
SLOT F1
SLOT F2
SLOT F3
SLOT F4

PCIe A2
x8 elect.
x16 mech.
PCIe A0
x8 elect.
x16 mech.

PCI-X/PCI 64-bit/66MHz
PCI 64-bit/33MHz
P1

PCIe to PCI Bridge
PCI to PCI Bridge

+3.3V
- 12V
+5V
+5V Aux
- 5V
+12V

SHB Slot
P3
P2
P13 P14
Ethernet Ports
P4 P5
P9 P7
P8 P6
P10

Engineering Notes:
All power connectors are shown in the layout drawings. The connectors are populated based on model.
Mounting holes: 0.156" diameter
Nominal PCB thickness: 0.080"
All dimensions are inches.
** Optional USB and Ethernet connectivity provided by the PICMG 1.3 System Host Board. Not all SHBs support this capability.

Product Photo Note: The photo of the BPX3/8 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.

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