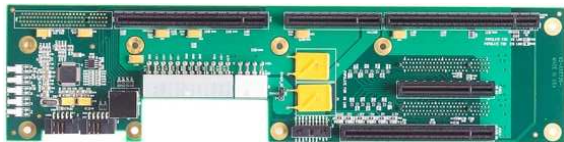# BPX6736

2U BUTTERFLY PCI EXPRESS BACKPLANE

Trenton BPX6736 - Side A

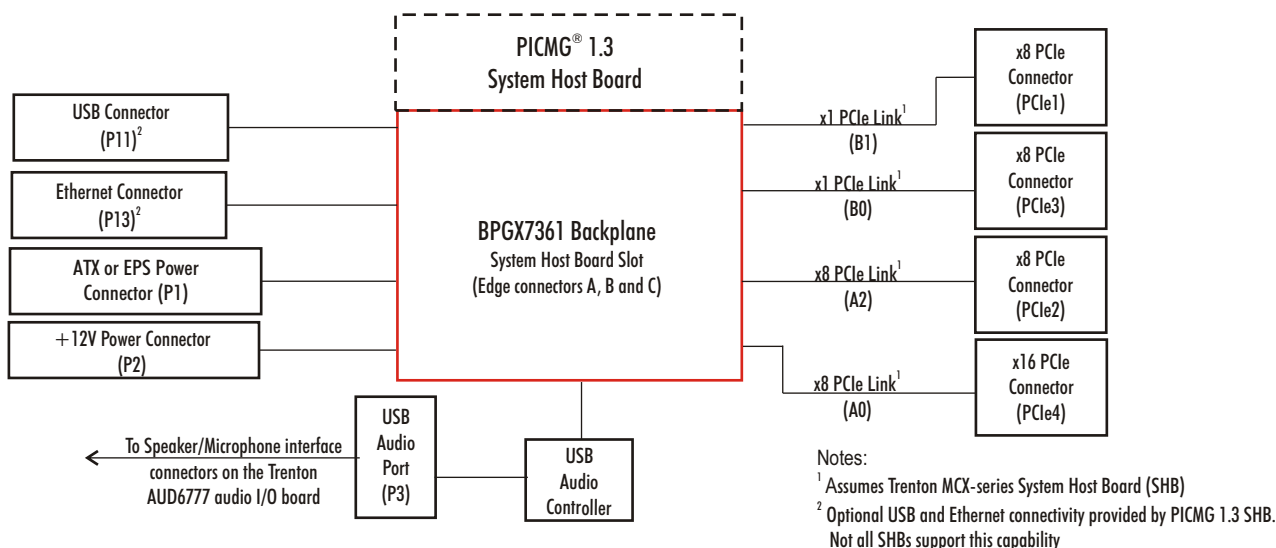**Trenton BPX6736 - Side B**

FEATURES

- **PICMG® 1.3 Server-class backplane**
- **Butterfly form factor supports PCI-Express® option cards**
- **Supports 2U chassis designs**
- **One SHB Express™ (PICMG® 1.3) System Host Board slot**
- **One x16 PCI Express slot (mechanical)**
- **Three x8 PCI Express slots (mechanical)**
- **Audio port for speaker and microphone interface**
- **Two USB 2.0 backplane I/O connections**
- **One 10/100/1000Base-T backplane Ethernet port**
- **Right-angle ATX/EPS and +12V AUX power connectors**
- **Five-year factory warranty**
- **Made in U. S. A.**

TRENTON
Dependable, always.

BLOCK DIAGRAM:

Notes:
[1] Assumes Trenton MCX-series System Host Board (SHB)
[2] Optional USB and Ethernet connectivity provided by PICMG 1.3 SHB. Not all SHBs support this capability

2U BUTTERFLY PCI EXPRESS BACKPLANE - SERVER CLASS:

The 2U butterfly backplane (BPX6736) from Trenton Technology features x16 and x8 PCI Express slots to support PCIe option cards. The x16 mechanical slot is driven with a x8 PCIe electrical link, and Trenton server-class SHBs support the PCI Express link training feature in case you need to support a high-end video/graphics card. A total of three x8 mechanical slots are available. The card slots on backplane side A are driven with x8 PCIe electrical links when using a Trenton MCX-series SHB. The other x8 slots on side B are driven with x1 PCIe links. Other Trenton PICMG 1.3 system host boards supported on the BPX6736 include the Trenton SLT, SLI, NLT and NLI SHBs.

The 2U backplane also features a USB audio controller and a backplane Ethernet interface connection. The audio controller frees up an option card slot, adding to the flexibility and functionality of the Trenton BPX6736 backplane. The 2U butterfly backplane supports two input power connections for ATX/EPS and +12V AUX inputs from the system power supply.

APPLICATION EXAMPLES:

The server-class version of this Trenton 2U backplane enables 2U rackmount systems to support a high concentration of PCI Express option cards. Applications such as telecom systems, missile telemetry, oil and gas exploration and medical diagnostics systems are ideal for these compact 2U rackmount computer systems.
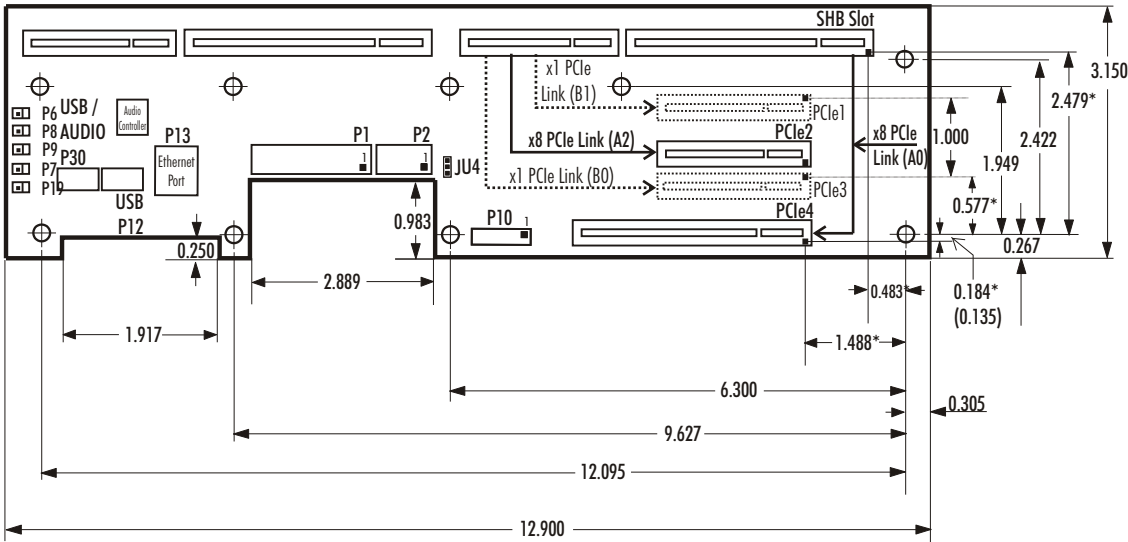
When your organization faces space constraints for its computer systems, the design of 2U computer backplane may be warranted. The backplanes can be placed efficiently within a 2U rackmount system and the butterfly backplane design enables the efficient implementation of multiple PCI Express option cards inside the 2U computer chassis.

At Trenton Technology, we offer 2U backplanes such as the BPX6736 to maximize space utilization while increasing the flexibility of a 2U computer chassis design. The net result of the 2U system deployment is added cost savings due to system space savings.

BACKPLANE MODEL: BPX6736

MODEL#	MODEL NAME	DESCRIPTION
6736-007	BPX6736-CRA	Server-class, Right-angle EPS/ATX and +12V AUX connectors with Ethernet
6736-027	BPX6736-CRA-NE	Server-class, Right-angle EPS/ATX and +12V AUX connectors without Ethernet

BPX6736 LAYOUT - SIDE A CONFIGURATION

SHB Slot

x1 PCIe Link (B1)
x8 PCIe Link (A2)
x1 PCIe Link (B0)
PCIe1
PCIe2
PCIe3
PCIe4
x8 PCIe Link (A0)

P6 USB / AUDIO
P8
P9
P7
P19
P30
Audio Controller
P13
Ethernet Port
USB
P12
P1
P2
JU4
P10

3.150
2.479*
1.000
2.422
1.949
0.577*
0.267
0.483
0.184* (0.135)
1.488*
0.250
2.889
0.983
1.917
6.300
9.627
12.095
12.900
0.305

BPX6736 LAYOUT - SIDE B CONFIGURATION:

x1 PCIe Link (B0)
x1 PCIe Link (B1)
x16 PCIe Link (A0)
PCIe4
PCIe3
PCIe1
SHB Slot

TRENTON BPX6736 BACKPLANE - 2U CHASSIS REAR I/O VIEW:

BACKPLANE SIDE B   BACKPLANE SIDE A
PCIe4
PCIe3
PCIe2
PCIe1
SHB Slot
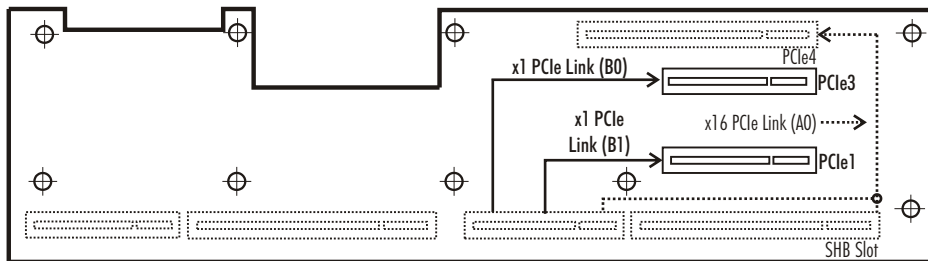
Notes:
Connector spacing: 1.000" centers
The center of PCIe4 is noted in parenthesis.
To find the center of the SHB connector add 0.049" from pin 1 location dimension.
To find the center of the PCIe3 connector subtract 0.049" from pin 1 location dimension on side A.
Mounting holes: 0.156" diameter
Nominal PCB thickness: 0.080"
All dimensions are inches.

NOTE: The photo of the 6736 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.

TRENTON BPX6736 BACKPLANE - ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: 0° C. to 60° C
Storage Temperature: -40° C. to 70° C
Humidity: 5% to 90% non-condensing

The Trenton BPX6736 is a lead-free, RoHS compliant backplane.

This backplane is designed to meet worldwide EMI emissions requirements, CE conformity and immunity characteristics outlined in various international standards. Contact Trenton for the specific standard numbers for this product.

The Trenton BPX6736 backplane is designed for UL60950 and CAN/CSA C22.2 No. 60950-00.

Dependable, always.