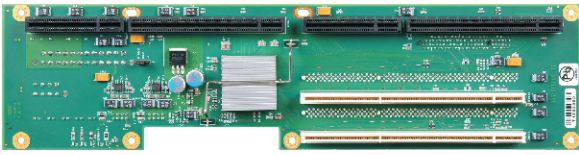


# BPX8087

## 2U BUTTERFLY PCI-X/PCI EXPRESS BACKPLANE

Trenton BPX8087 - Side A



Trenton BPX8087 - Side B

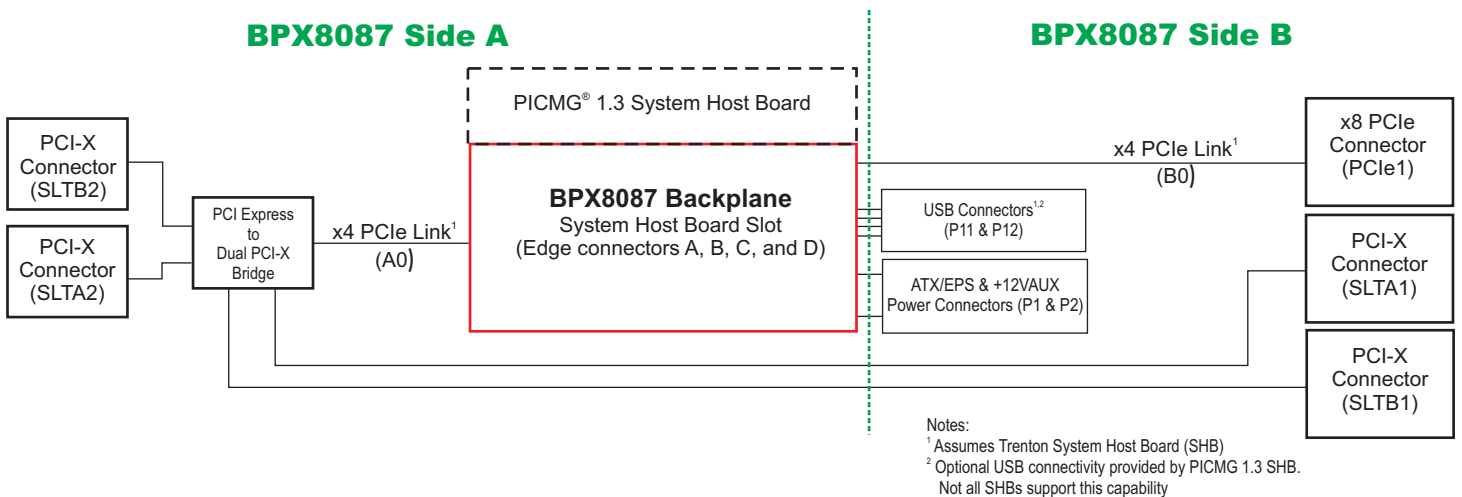


### FEATURES

- PICMG® 1.3 server-class backplane using the butterfly form factor
- Supports one PCI-Express® and four PCI-X plug-in I/O cards
- One PICMG® 1.3 System Host Board/Single Board Computer slot
- One x8 PCI Express mechanical, x4 PCI Express electrical option card slot
- Four 64-bit/66MHz PCI-X I/O card slots
- Four USB 2.0 backplane I/O connections
- One ATX/EPS and one +12V AUX power connector
- Enables PICMG 1.3 2U rackmount computer chassis designs
- Five-year factory warranty
- Made in U. S. A.



### BLOCK DIAGRAM:



### 2U BUTTERFLY PCI-X/PCI EXPRESS BACKPLANE:

The BPX8087 is 2U butterfly backplane from Trenton Systems featuring a PCI Express slot and four PCI-X slots to support a wide variety of plug-in PCIe and PCI-X I/O option cards. The x8 PCIe mechanical slot is driven with a x4 PCIe electrical link while the four PCI-X slots are driven with 64-bit/66MHz interfaces. A total of five I/O option card slots are available for use on the BPX8087 backplane. The card slots on backplane side A include the PICMG 1.3 system host board/single board computer slot and two PCI-X I/O card slots. Backplane side B features two more PCI-X card slot plus the PCIe slot.

The BPX8087 backplane supports industry standard PICMG 1.3 SHBs including Trenton's dual-processor BXT7059 and JXT6966 and single-processor Trenton SBCs like the TSB7053 and TQ9. This 2U backplane also features a four USB 2.0 interfaces, soft-control ACPI signal connection headers, two input power connections for ATX/EPS and +12V AUX inputs from the system power supply and several power level monitoring LEDs.

### APPLICATION EXAMPLES:

The Trenton BPX8087 backplane enables 2U rackmount systems to support a high concentration of plug-in I/O option cards and the latest generation of single board computers. Applications such as telecom systems, airborne surveillance, battlefield communications, missile telemetry, oil and gas exploration and medical diagnostics systems are ideal for compact 2U rackmount computer systems.

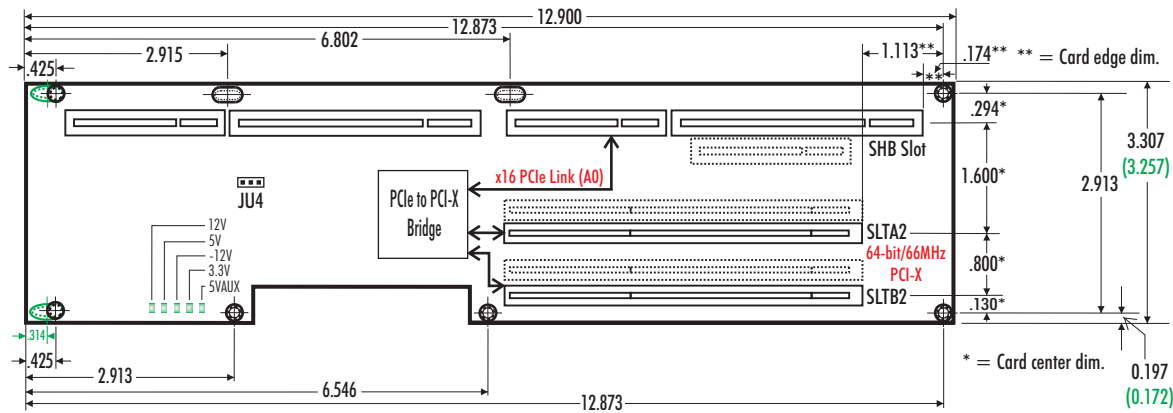
When you face component rack space constraints, a 2U computer design featuring the BPX8087 backplane is an ideal solution. The backplane can be placed efficiently within a 2U rackmount system to enhance SBC and I/O functionality inside the 2U computer chassis.

At Trenton Systems, we offer 2U backplanes such as the BPX8087 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 and a backplane that delivers reliable system operation in robust computing applications.

### BACKPLANE MODEL: BPX8087

MODEL#	MODEL NAME	DESCRIPTION
8087-008	BPX8087-CST	Server-class, Vertical EPS/ATX and +12V AUX connectors with four USB interfaces

## BPX8087 LAYOUT - SIDE A CONFIGURATION



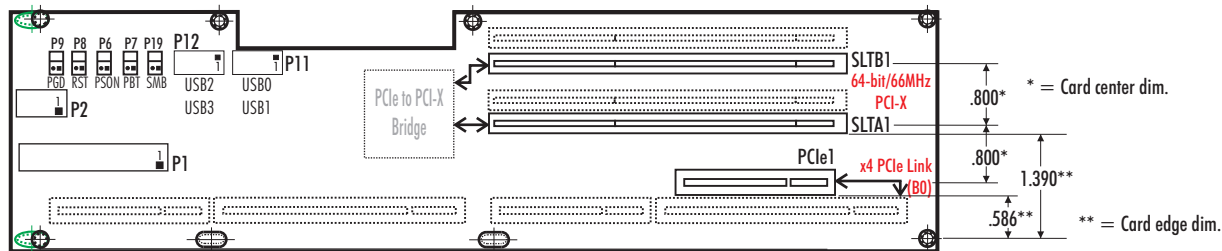
Notes:  
 (Backplane revision -001 dimension)  
 Mounting holes: 0.156" diameter  
 Nominal PCB thickness: 0.080"  
 All dimensions are inches.

### JU4 Jumper setting Details

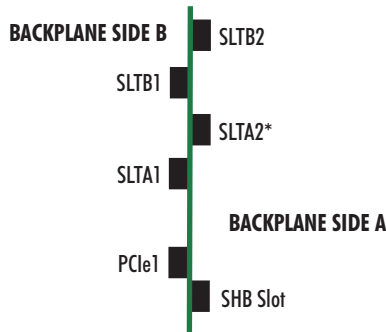
Install on the RIGHT (i.e. towards the status LEDs) if +5V auxiliary voltage is provided by a separate +5VAUX signal input pin. This option is used for ATX or EPS standard power supplies.  
 Install on the LEFT (i.e. towards the bridge chip) if +5V auxiliary voltage is provided by the standard +5V supply. This option is used for systems which do not have either an ATX or EPS standard power input.

NOTE: For the JU4 3-pin/two-position jumper, "LEFT" and "RIGHT" refers to positioning when facing backplane side A and the backplane cut-out is at the top.

## BPX8087 LAYOUT - SIDE B CONFIGURATION:



## TRENTON BPX8087 BACKPLANE - 2U CHASSIS REAR I/O VIEW:



## SUGGESTED TRENTON SYSTEM HOST BOARDS:

### DUAL PROCESSOR SHBs/SBCs

BXT7059\*, JXT6966\*

### SINGLE PROCESSOR SHBs/SBCs

TSB7053, BXTS7059\*, JXTS6966\*, TQ9

\*Backplane slot SLTA2 is not accessible when using these SHBs in the BPX8087 backplane.

Product Photo Note: The photo of the BPX8087 backplane shown on page one is a provided for illustrative purposes only. Actual connector and mounting locations are illustrated in the backplane layout drawing.

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## TRENTON BPX8087 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 BPX8087 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 BPX8087 backplane is designed for UI60950 and CAN/CSA C22.2 No. 60950-00.

