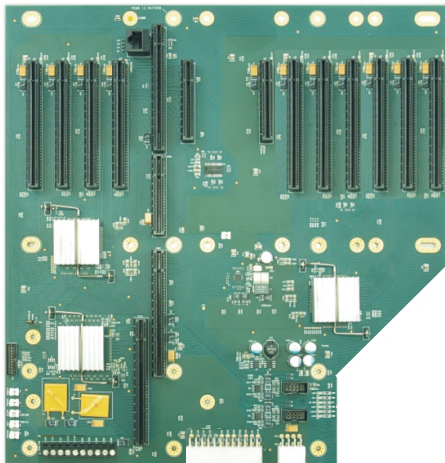


BPC7009

PCI EXPRESS GEN 2 COMBO BACKPLANE

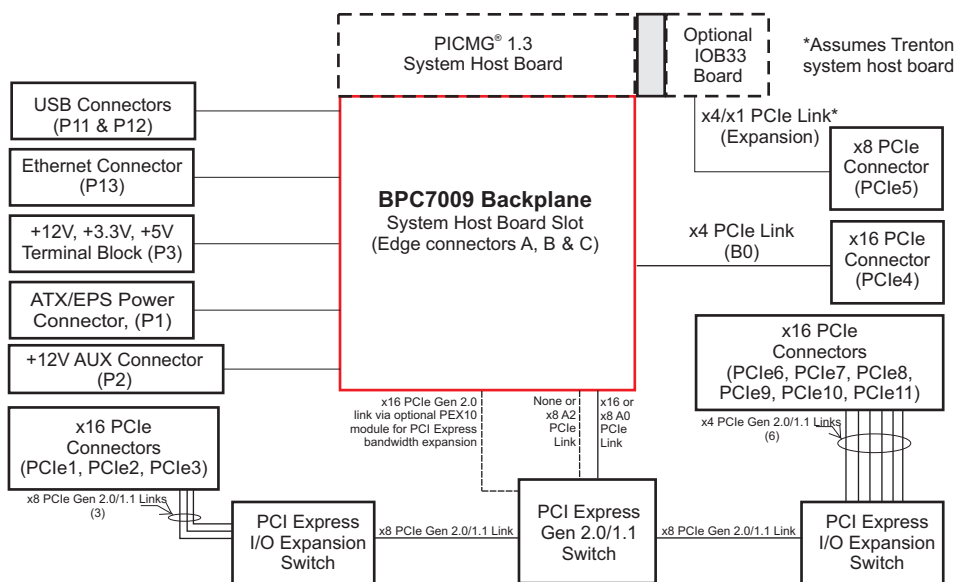


FEATURES

- 14-slot form factor supports one PICMG® 1.3 system host board
- Supports BXT7059, TSB7053, JXT6966 plus other Trenton server or graphics-class SHBs
- Supports PCI Express® Gen 2.0 and Gen 1.1 option cards
- Ten x16 mechanical slots and one x8 PCIe mechanical slot
- PCIe card slot electrical configuration: Three (3) PCIe x8, seven (7) PCIe x4 and one (1) PCIe x1/x4
- Offers PCI Express bandwidth expansion via an extra x16 or four x4 PCIe Gen 2 links
- One 10/100/1000Base-T backplane Ethernet port**
- Four USB 2.0 backplane I/O connections**
- ATX/EPS, + 12V AUX and terminal block input power connectors
- Five-year factory warranty
- Made in U. S. A.



BLOCK DIAGRAM:



ELEVEN SLOT PCI EXPRESS COMBO BACKPLANE:

The PCI Express® link design of the Trenton BPC7009 backplane supports Trenton's BXT7059, TSB7053 and JXT6966 combo-class SHBs as well as other types of PICMG® 1.3 server or graphics-class SHBs. The backplane's PCI Express switches sense the SHB and option card's PCIe link type and design to automatically establish communications. This enables the BPC7009 to support PCI Express Gen 2.0 or Gen 1.1 option cards as well as different types of PICMG 1.3 SHBs. PCIe1 through PCIe3 are x16 mechanical slots driven with x8 PCI Express Gen 2.0 or 1.1 electrical links. The other x16 slots (PCIe4 and PCIe6 through PCIe11) are driven with x4 PCIe links. PCIe5 is a x8 mechanical slot driven with a x1/x4 link from an SHB's optional expansion board. See the backplane layout drawings on page two for more details. The BPC7009 backplane is available with either vertical or right angle ATX/EPS and 12V AUX power connectors plus a terminal block to meet expanded system power demands.

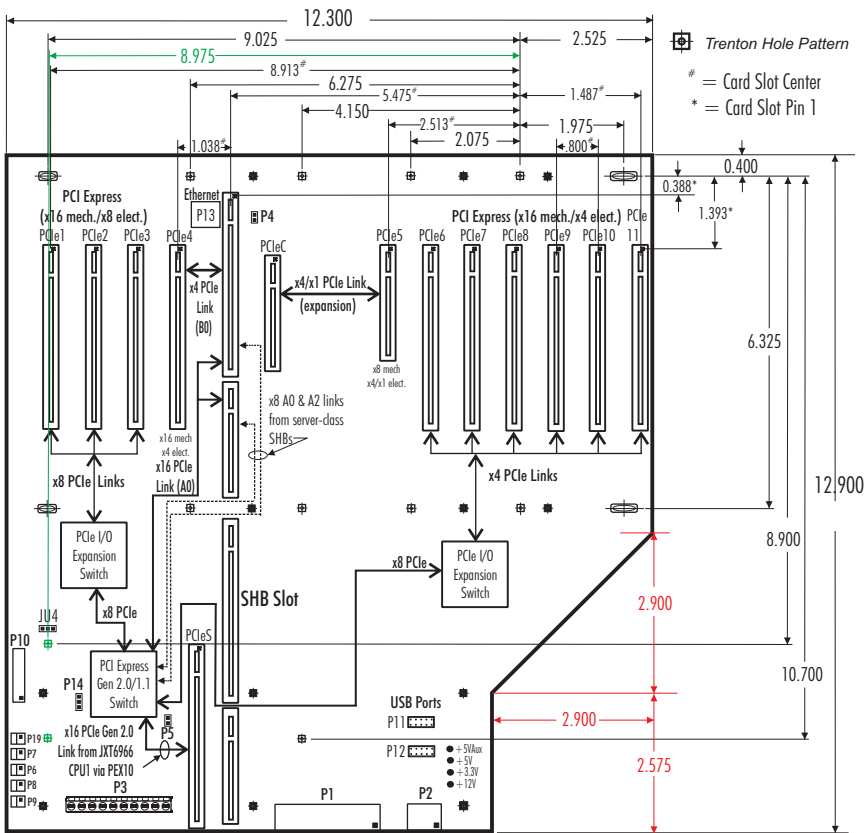
APPLICATION EXAMPLES:

Any system design that only deploys PCI Express option cards is a good candidate for the BPC7009 backplane. The ability of the backplane to automatically support either PCI Express Gen 2.0 or 1.1 cards builds an element of scalability into any COTS rackmount computer design. The backplane brings the added value of flexibility to the system by supporting many different types of PICMG 1.3 system host boards. The backplane's smaller 14-slot form factor lends itself well to medical diagnostics, military/aerospace, and communication system designs. The slot support of the backplane enables system designs that can grow and adapt to changing requirements without incurring significant system upgrade expense. The BPC7009's ability to support up to eleven PCI Express COTS cards, coupled with the backplane's advanced PCI Express features enable system designs that offer robust data communications with maximum PCI Express option card flexibility.

BACKPLANE MODEL: BPC7009

MODEL#	MODEL NAME	DESCRIPTION
7009-007	BPC7009-CRA	ATX/EPS and 12V AUX right-angle power connectors, one terminal block and supports two x16 PCIe links from SHB (A0 & PEX10)
7009-107	BPC7009G-CRA	ATX/EPS and 12V AUX right-angle power connectors, one terminal block and supports one x16 PCIe link from SHB (A0)
7009-207	BPC7009S-CRA	ATX/EPS and 12V AUX right-angle power connectors, one terminal block and supports two x8 PCIe links from SHB (A0 & A2)

BPC7009 LAYOUT - TRENTON MOUNTING HOLE PATTERN DIMENSIONS:



SUGGESTED TRENTON PICMG 1.3 SYSTEM HOST BOARDS:

DUAL PROCESSOR SYSTEM HOST BOARDS

BXT7059 JXT6966 MCXT SLT

SINGLE PROCESSOR SYSTEM HOST BOARDS

TSB7053 BXTS7059 JXTS6966 TQ9 TML MCXI SLI

PCI EXPRESS LINK CONFIGURATION JUMPERS:

The BPC7009 backplane ships from the factory configured to the PCIe link arrangement specified by the backplane's model number. The P4, P5 and P14 jumpers enable field changes to the PCIe link configuration in order to accommodate SHB application changes.

Model No.	Description	P4	P5	P14
BPC7009-007	2, x16 links (A0 & PEX10)	Open	1-2	1-2
BPC7009-107	1, x16 link (A0)	Open	Open	Open
BPC7009-207	2, x8 Links (A0 & A2)	1-2	1-2	2-3

ENVIRONMENTAL SPECS.:

Operating Temp.: 0° C to 60° C

Storage Temp.: -40° C to 70° C

Humidity: 5% to 90%, non-condensing

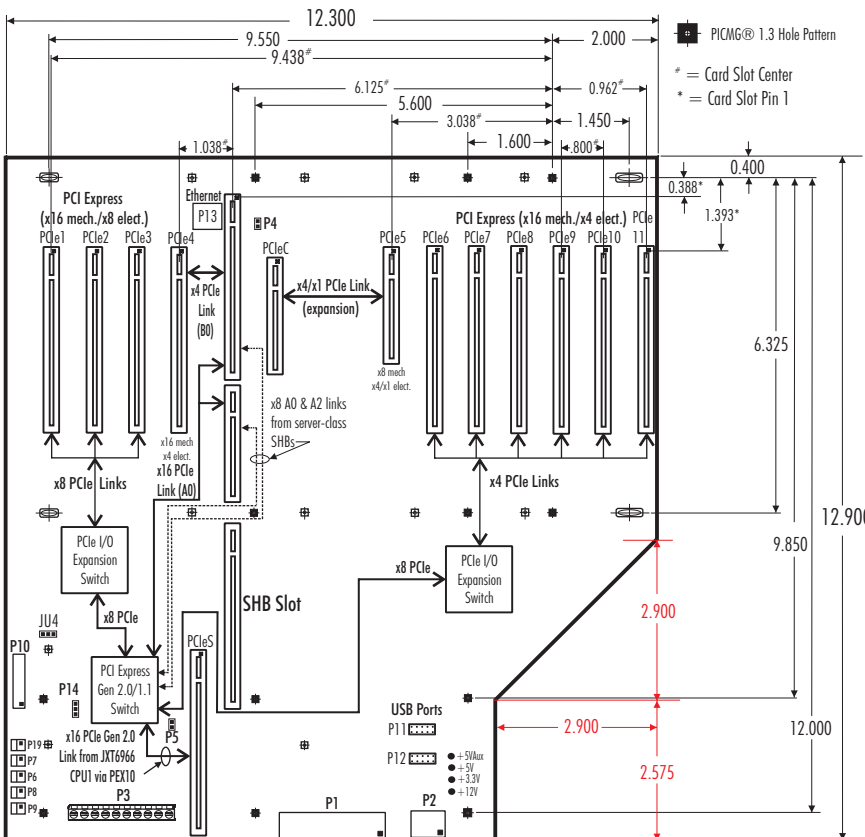
*Environmental specifications for system host boards / single board computers are usually lower than those of the backplane. Check with your SHB/SBC vendor.

The Trenton BPC7009 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 BPC7009 backplane is designed for UL60950 and CAN/CSA C22.2 No. 60950-00.

BPC7009 LAYOUT - PICMG 1.3 MOUNTING HOLE PATTERN DIMENSIONS:



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.

Application Note:

A system's off-board video card must be placed in the PCIe1, PCIe2 or PCIe3 backplane card slot.

** 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 7009 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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