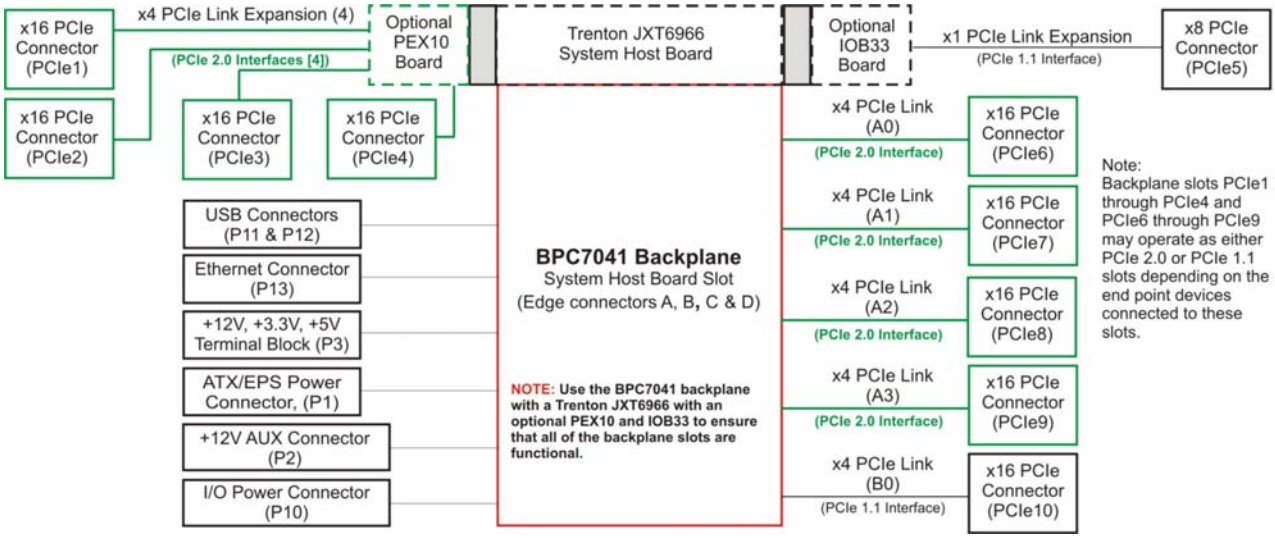
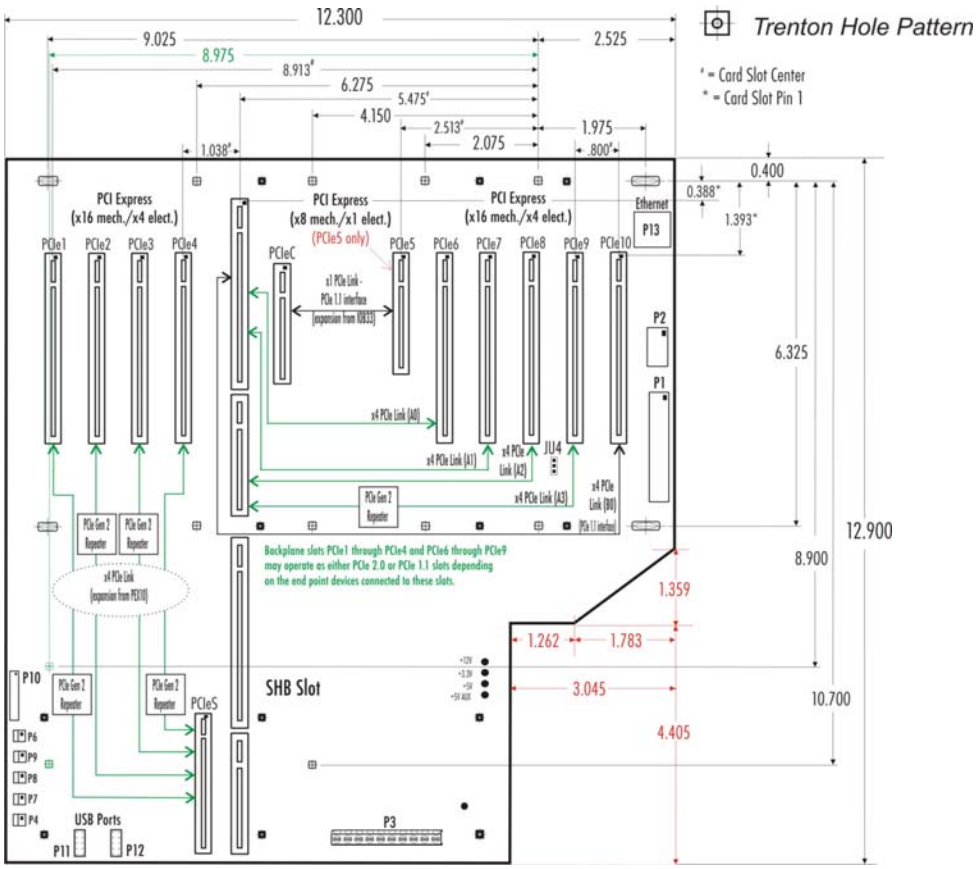
TRENTON Technology Inc.
2350 Centennial Drive • Gainesville, Georgia 30504
Sales (800) 875-6031 • Phone (770) 287-3100 • Fax (770) 287-3150

Technical Information – Jumpers and Connectors
BPC7041 (7041) PCI Express Gen 2 Backplane

Block Diagram

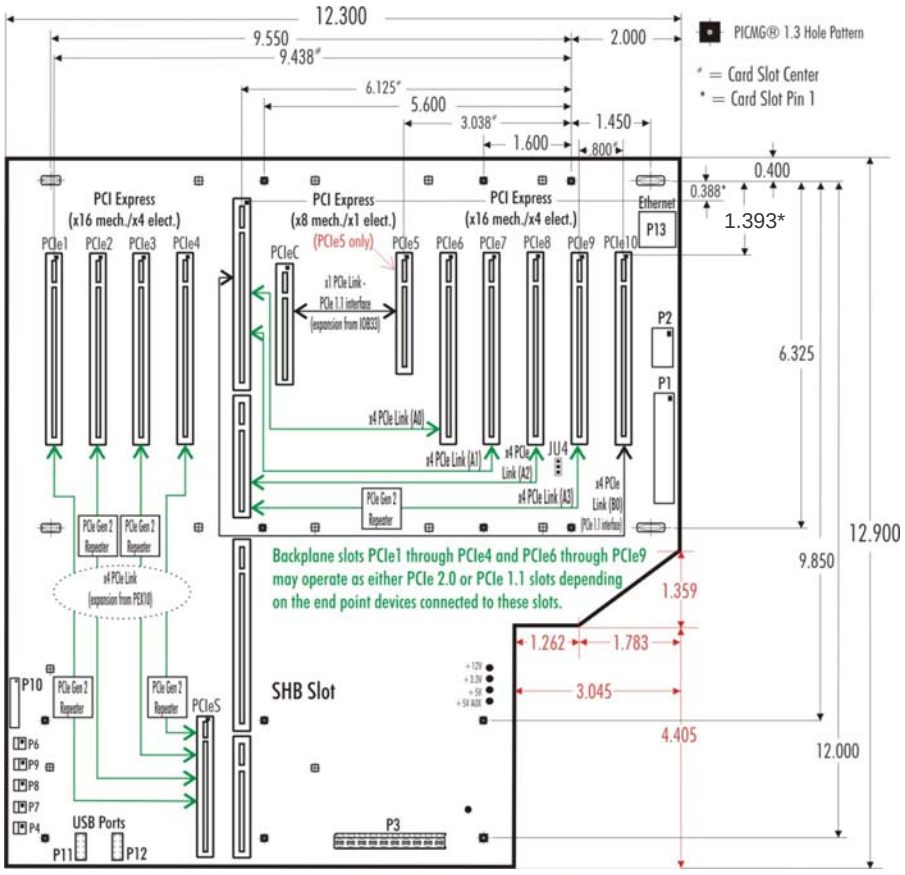


Layout Diagram – Trenton Hole Pattern Dimensions



TRENTON Technology Inc.
2350 Centennial Drive • Gainesville, Georgia 30504
Sales (800) 875-6031 • Phone (770) 287-3100 • Fax (770) 287-3150

Layout Diagram – PICMG 1.3 Hole Pattern Dimensions



Notes:

- Typical PCIe connector centers are 0.049" from pin 1
- Mounting holes have a nominal 0.156" diameter
- Nominal PCB thickness: 0.080"
- All dimensions are inches.
- Suggested Trenton PICMG 1.3 SHBs for use with the BPC7041 backplane:
  - Dual-processor SHB: JXT6966
- A Trenton JXT6966 with an optional PEX10 and IOB33 must be used with the BPC7041 backplane to ensure that all of the backplane slots are functional. This hardware combination provides all of the necessary PCI Express communication links needed for option card slot functionality.
- A system's off-board video card must be placed in the PCIe6, PCIe7, PCIe8, PCIe9 or PCIe10 backplane card slot.

TRENTON Technology Inc.
2350 Centennial Drive • Gainesville, Georgia 30504
Sales (800) 875-6031 • Phone (770) 287-3100 • Fax (770) 287-3150

BPC7041 (7041) Configuration Jumpers

The setup of configuration jumper on the backplane is described below. * indicates the default value of the jumper.

NOTE: For the two-position jumper (3-post), "TOP" and "BOTTOM" refer to positioning when the backplane is viewed with the slots at the top end of the backplane.

Jumper	Description
JU4	**+5V Auxiliary Voltage** Install on the BOTTOM 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. This mode provides the necessary +5V for the SHB's +5VAUX signal lines. Sleep mode recovery is not supported using non- ATX/EPS power supplies. Install on the TOP if +5V auxiliary voltage is provided by a separate +5VAUX signal input pin. This enables the necessary SHB power signaling and allows recovery from sleep mode. This option is used for ATX or EPS standard power supplies. *

BPC7041 (7041) Connectors

NOTE: Pin 1 on the connectors is indicated by the square pad on the PCB.

P1 - ATX/EPS Power Connector

24 pin vertical dual row, Molex #44206-0007

Pin	Signal	Pin	Signal
1	+3.3V	13	+3.3V
2	+3.3V	14	-12V
3	Gnd	15	Gnd
4	+5V	16	PSON#
5	Gnd	17	Gnd
6	+5V	18	Gnd
7	Gnd	19	Gnd
8	PWRGD	20	-5V
9	+5VAUX	21	+5V
10	+12V	22	+5V
11	+12V	23	+5V
12	+3.3V	24	Gnd

TRENTON Technology Inc.
2350 Centennial Drive • Gainesville, Georgia 30504
Sales (800) 875-6031 • Phone (770) 287-3100 • Fax (770) 287-3150

BPC7041 (7041) Connectors (continued)

P2 - +12V Power Connector

8 pin vertical dual row, Molex #44206-0005

Pin	Signal	Pin	Signal
1	Gnd	5	+12V
2	Gnd	6	+12V
3	Gnd	7	+12V
4	Gnd	8	+12V

P3 - Terminal Block Connector

10 position terminal block, Amp #1-796949-0
20 Amps per circuit

Pin	Signal
1	+12V
2	+12V
3	+5V
4	+3.3V
5	+3.3V
6	Gnd
7	Gnd
8	Gnd
9	Gnd
10	Gnd

P4 - SMBus Connector

2 pin vertical single row header, Amp #640456-2

Pin	Signal
1	SMBus#
2	Gnd

P6 - Power-On Connector

2 pin vertical single row header, Amp #640456-2

Pin	Signal
1	PSON#
2	Gnd

P7 - Power Button Connector

2 pin vertical single row header, Amp #640456-2

Pin	Signal
1	PWRBT#
2	Gnd

P8 - Reset Connector

2 pin vertical single row header, Amp #640456-2

Pin	Signal
1	SHB_RST#
2	Gnd

P9 - Power Good Connector

2 pin vertical single row header, Amp #640456-2

Pin	Signal
1	PWRGD
2	+5V

TRENTON Technology Inc.
2350 Centennial Drive • Gainesville, Georgia 30504
Sales (800) 875-6031 • Phone (770) 287-3100 • Fax (770) 287-3150

BPC7041 (7041) Connectors (continued)

P10 - I/O Power Connector

20 pin vertical dual row header, Molex #87831-2020

Pin	Signal	Pin	Signal
1	Gnd	2	+12V
3	IPMB_DA	4	Gnd
5	IPMB_CL	6	+5V
7	SMDAT	8	+5VAUX
9	SMCLK	10	+3.3V
11	PWRBT#	12	PSON#
13	Gnd	14	SHB_RST#
15	PWRGD	16	5VAUX
17	Gnd	18	5VAUX
19	Gnd	20	-12V

P11 - Universal Serial Bus (USB) Connector

10 pin dual row header, AMP #1761602-3
(+5V fused with self-resetting fuses)

Pin	Signal	Pin	Signal
1	+5V-USB0	2	+5V-USB1
3	USB0-	4	USB1-
5	USB0+	6	USB1+
7	Gnd-USB0	8	Gnd-USB1
9	NC	10	NC

P12 - Universal Serial Bus (USB) Connector

10 pin dual row header, AMP #1761602-3
(+5V fused with self-resetting fuses)

Pin	Signal	Pin	Signal
1	+5V-USB2	2	+5V-USB3
3	USB2-	4	USB3-
5	USB2+	6	USB3+
7	Gnd-USB2	8	Gnd-USB3
9	NC	10	NC

P13 - 10/100/1000Base-T Ethernet Connector - LAN 0

8 pin right angle shielded RJ-45 connector, Molex #85508-5001

Pin	Signal
1	TRP1+
2	TRP1-
3	TRP2+
4	TRP3+
5	TRP3-
6	TRP2-
7	TRP4+
8	TRP4-