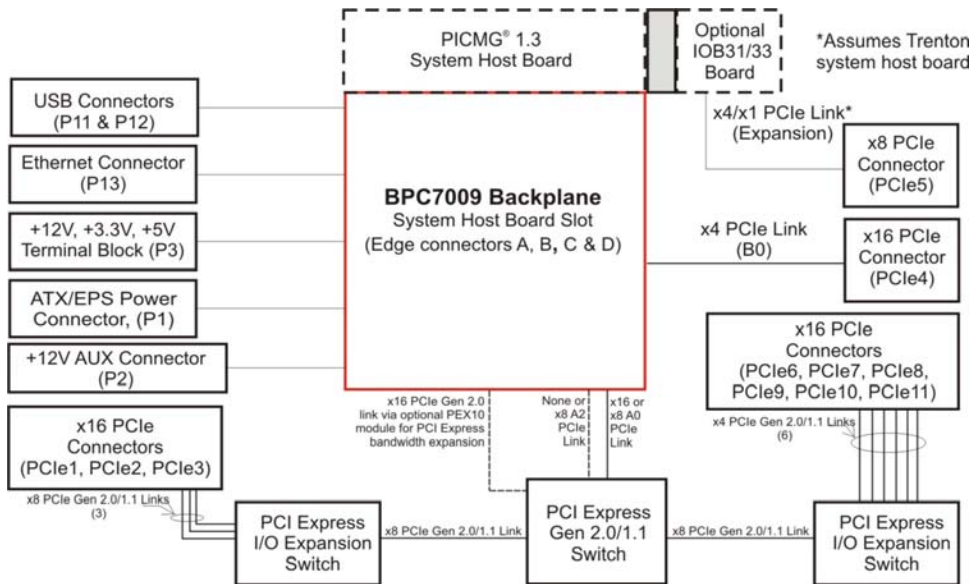




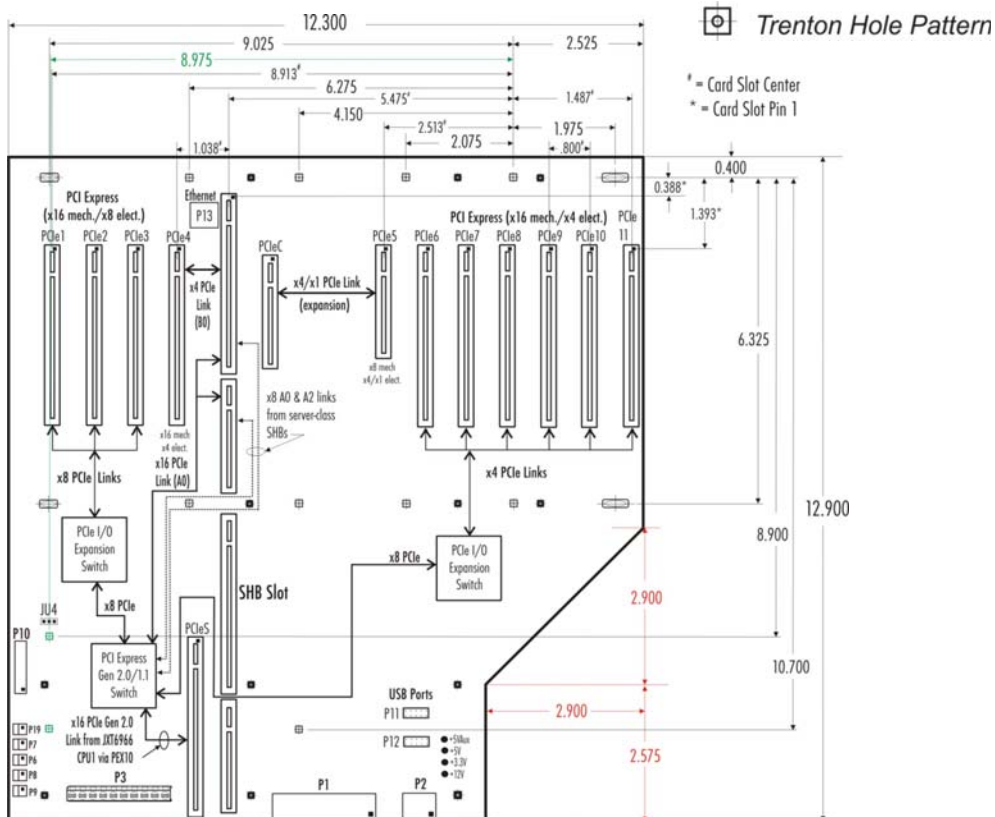
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Technical Information – Jumpers and Connectors BPC7009 (7009) PCI Express Gen 2 Backplane

Block Diagram



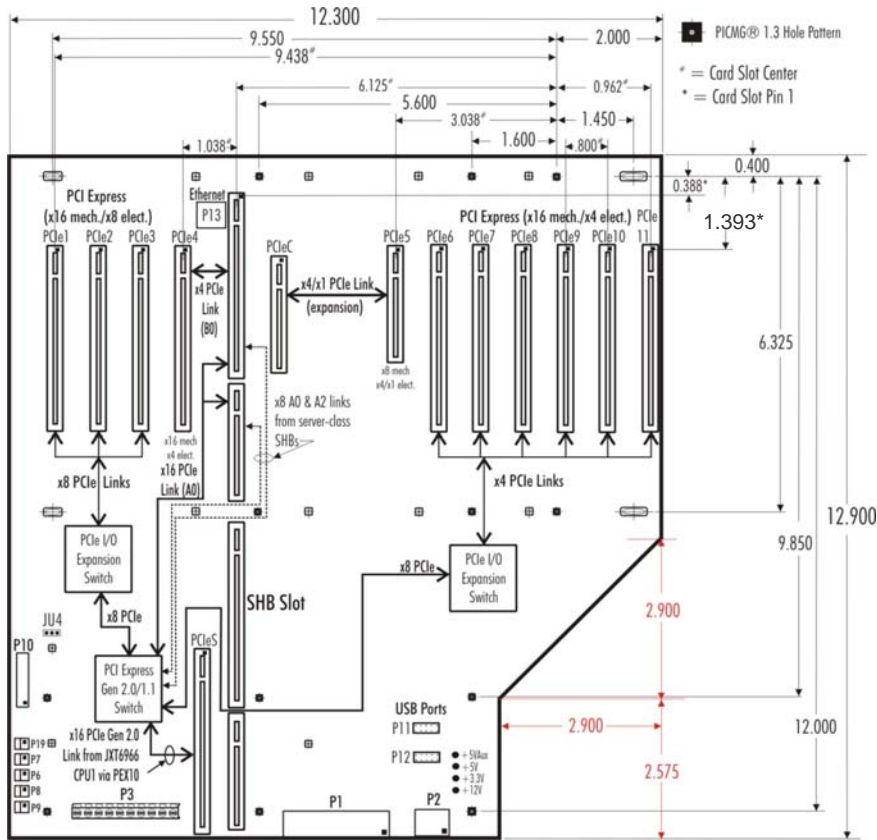
Layout Diagram – Trenton Hole Pattern Dimensions





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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 BPC7009 backplane:
 - Use BPC7009 board tabs –007 and –008 for:
 - Dual-processor SHB: JXT6966 with PEX10
 - Use BPC7009 board tabs –107 and –108 for:
 - Single-processor SHBs: JXTS6966, MCGI, TQ9 & TML
 - Dual-processor SHBs: MCGT & MCGT-E
 - Other PICMG 1.3 Graphics-Class system host boards
 - Use BPC7009 board tabs –207 and –208 for:
 - Single-processor SHBs: MCXI, SLI & NLI
 - Dual-processor SHBs: MCXT, MCXT-E, NLT, & SLT
 - Other PICMG 1.3 Server-Class system host boards
- For backplane tabs -007 & -008, a Trenton JXT6966 with an optional PEX10 and IOB33 must be used to ensure that all of the backplane slots are functional.
- For all other BPC7009 backplane tabs, a Trenton IOB33 or IOB31 is needed to ensure backplane slot PCIe5 is active.
- A system's off-board video card must be placed in the PCIe1, PCIe2 or PCIe3 backplane card slot.



BPC7009 (7009) 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), “LEFT” and “RIGHT” refer to positioning when the backplane is viewed with the slots at the top end of the backplane.

<u>Jumper</u>	<u>Description</u>
JU4	<p>+5V Auxiliary Voltage</p> <p>Install on the RIGHT 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.</p> <p>Install on the LEFT 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. *</p>

BPC7009 (7009) Connectors

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

P1 -	ATX/EPS Power Connector			
	24 pinright angle dual row, Molex #39-30-1240			
	<u>Pin</u>	<u>Signal</u>	<u>Pin</u>	<u>Signal</u>
	1	+3.3V	13	+3.3V
	2	+3.3V	14	-12V
	3	Gnd	15	Gnd
	4	+5V	16	PS0N#
	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



BPC7009 (7009) Connectors (continued)

- P2 - +12V Power Connector**
8 pin right angle dual row, Molex #39-30-0080
- | <u>Pin</u> | <u>Signal</u> | <u>Pin</u> | <u>Signal</u> |
|------------|---------------|------------|---------------|
| 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
- | <u>Pin</u> | <u>Signal</u> |
|------------|---------------|
| 1 | +12V |
| 2 | +12V |
| 3 | +5V |
| 4 | +3.3V |
| 5 | +3.3V |
| 6 | Gnd |
| 7 | Gnd |
| 8 | Gnd |
| 9 | Gnd |
| 10 | Gnd |
- P6 - Power-On Connector**
2 pin vertical single row header, Amp #640456-2
- | <u>Pin</u> | <u>Signal</u> |
|------------|---------------|
| 1 | PSO# |
| 2 | Gnd |
- P7 - Power Button Connector**
2 pin vertical single row header, Amp #640456-2
- | <u>Pin</u> | <u>Signal</u> |
|------------|---------------|
| 1 | PWRBT# |
| 2 | Gnd |
- P8 - Reset Connector**
2 pin vertical single row header, Amp #640456-2
- | <u>Pin</u> | <u>Signal</u> |
|------------|---------------|
| 1 | SHB_RST# |
| 2 | Gnd |
- P9 - Power Good Connector**
2 pin vertical single row header, Amp #640456-2
- | <u>Pin</u> | <u>Signal</u> |
|------------|---------------|
| 1 | PWRGD |
| 2 | +5V |



BPC7009 (7009) Connectors (continued)

P10 - I/O Power Connector

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

<u>Pin</u>	<u>Signal</u>	<u>Pin</u>	<u>Signal</u>
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

8 pin dual row header, Molex #702-46-0801

(+5V fused with self-resetting fuses)

<u>Pin</u>	<u>Signal</u>	<u>Pin</u>	<u>Signal</u>
1	+5V-USB0	2	+5V-USB1
3	USB0-	4	USB1-
5	USB0+	6	USB1+
7	Gnd-USB0	8	Gnd-USB1

P12 - Universal Serial Bus (USB) Connector

8 pin dual row header, Molex #702-46-0801

(+5V fused with self-resetting fuses)

<u>Pin</u>	<u>Signal</u>	<u>Pin</u>	<u>Signal</u>
1	+5V-USB2	2	+5V-USB3
3	USB2-	4	USB3-
5	USB2+	6	USB3+
7	Gnd-USB2	8	Gnd-USB3

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

8 pin right angle shielded RJ-45 connector, Molex #42878-8410

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

P19 - SMBus Connector

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

<u>Pin</u>	<u>Signal</u>
1	SMBus#
2	Gnd