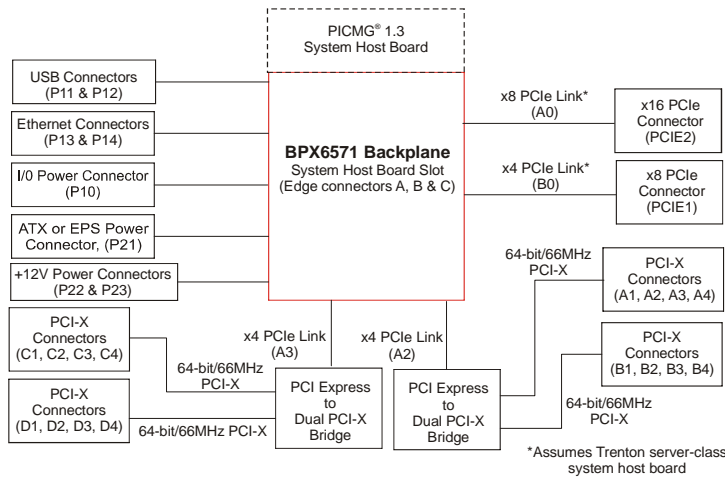




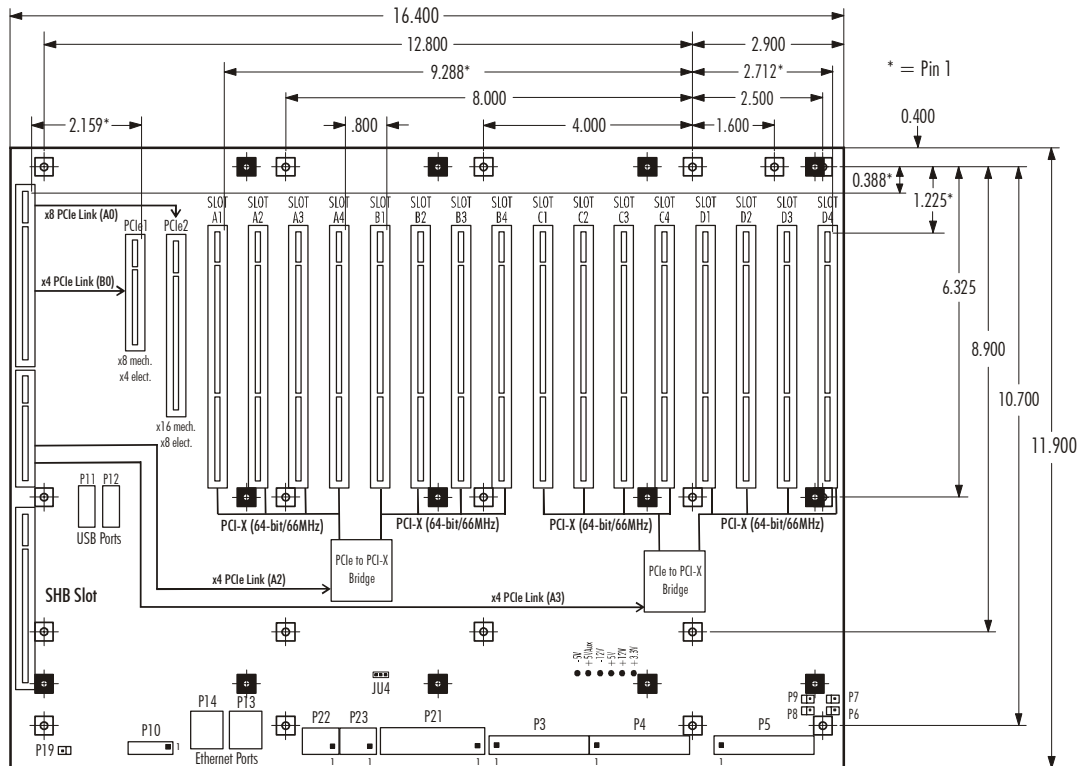
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Technical Information – Jumpers and Connectors BPX6571 (6571) Server-Class PCI Express Backplane

Block Diagram



Layout Diagram – 6571



- Trenton Hole Pattern
- PICMG 1.3 Hole Pattern

Notes:
 Connector spacing: 0.800"
 Connectors are populated based on model.
 Nominal PCB thickness: .080"
 Mounting holes: .156" diameter
 Some holes are common to both hole patterns
 All dimensions are inches.

Notes:
 **Optional USB and Ethernet connectivity provided by PICMG 1.3 SHB. Not all SHBs support this capability.
 To find the center of a PCI-X/PCI option card connector to the left of the reference dimension hole, add 0.150" to the pin 1 location dimension. To find the center of a PCI Express option card connector and the SHB slot add 0.049" to the pin 1 location dimension.



BPX6571 (6571) Configuration Jumper

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

NOTE: For the two-position jumper (3-post), “RIGHT” and “LEFT” 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	+5V Auxiliary Voltage Install on the LEFT 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 RIGHT 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. *

BPX6571 (6571-xxx) Connectors

The connectors available on the BPX6571 vary depending on the version of the backplane you have. Connectors for the 6571-007 (right angle connectors) and 6571- 008 (straight-in connectors) are defined below.

BPX6571 (6571-007) Connectors

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

P3 - Terminal Block Connector
 10 position terminal block, Amp #1-796949-0
 20 Amps per circuit

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



BPX6571 (6571-007) Connectors (continued)

P4 - Terminal Block Connector

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

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

P5 - Terminal Block Connector

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

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

P6 - Power-On Connector

2 pin single row header, Amp #640456-2

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

P7 - Power Button Connector

2 pin single row header, Amp #640456-2

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

P8 - Reset Connector

2 pin single row header, Amp #640456-2

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

P9 - Power Good Connector

2 pin single row header, Amp #640456-2

<u>Pin</u>	<u>Signal</u>
1	PWRGD
2	Gnd



BPX6571 (6571-007) Connectors (continued)

P10 - I/O Power Connector

20 pin right angle dual row header, Molex #87833-2020

<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_IN
17	Gnd	18	+5VAUX_IN
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 shielded RA RJ-45 connector, Molex #43860-0025

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



BPX6571 (6571-007) Connectors (continued)

P14 - 10/100/1000Base-T Ethernet Connector - LAN 1

8 pin shielded RA RJ-45 connector, Molex #43860-0025

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

P21 - ATX/EPS Power Connector

24 pin right angle dual row header, Amp #794516-1

<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	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

P22 - +12V Power Connector

8 pin right angle mini fit JR, 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

P23 - +12V Power Connector

8 pin right angle mini fit JR, 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



BPX6571 (6571-008) Connectors

P3 - Terminal Block Connector

10 position terminal block, Amp #1-796949-0

20 Amps per circuit

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

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

P4 - Terminal Block Connector

10 position terminal block, Amp #1-796949-0

20 Amps per circuit

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

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

P5 - Terminal Block Connector

10 position terminal block, Amp #1-796949-0

20 Amps per circuit

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

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

P6 - Power-On Connector

2 pin single row header, Amp #640456-2

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

1	PS0N#
2	Gnd



BPX6571 (6571-008) Connectors (continued)

P7 - Power Button Connector

2 pin single row header, Amp #640456-2

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

P8 - Reset Connector

2 pin single row header, Amp #640456-2

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

P9 - Power Good Connector

2 pin single row header, Amp #640456-2

<u>Pin</u>	<u>Signal</u>
1	PWRGD
2	Gnd

P10 - I/O Power Connector

20 pin right angle dual row header, Molex #87833-2020

<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	PSO#
13	Gnd	14	SHB_RST#
15	PWRGD	16	+5VAUX_IN
17	Gnd	18	+5VAUX_IN
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



BPX6571 (6571-008) Connectors (continued)

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

8 pin shielded RA RJ-45 connector, Molex #43860-0025

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

P14 - 10/100/1000Base-T Ethernet Connector - LAN 1

8 pin shielded RA RJ-45 connector, Molex #43860-0025

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

P21 - ATX/EPS Power Connector

24 pin dual row mini fit JR, Molex #39-29-6248

<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	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

P22 - +12V Power Connector

8 pin mini fit JR, Molex #39-29-3086

<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



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BPX6571 (6571-008) Connectors (continued)

P23 - +12V Power Connector
 8 pin mini fit JR, Molex #39-29-3086

<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

Trenton SHB Optional Backplane I/O Support For the BPX6571

TRENTON SHB	ETHERNET			USB							
	LAN0	LAN1	LAN2	USB0	USB1	USB2	USB3	USB4	USB5	USB6	USB7
NLT/NLI ¹	-	-	n/a	-	-	X	X	n/a	n/a	n/a	n/a
SLT/SLI ¹	-	-	n/a	-	-	X	X	n/a	n/a	n/a	n/a
MCX-series ²	-	-	X	-	-	-	-	X	X	X	X

¹ Requires factory build option.

² LAN2 is a 10/100/1000BASE-T Ethernet interface when using a MCX-series SHB

Note: The letter X indicates an interface connection routed to SHB edge connector C for use on the backplane

Connector Configuration Illustrated For The BPX6571

MODEL#	MODEL NAME	DESCRIPTION
6571-007	BPX6571-CRA	ATX/EPS right-angle connectors with three high-current terminal blocks
6571-008	BPX6571-CST	ATX/EPS vertical connectors with three high-current terminal block