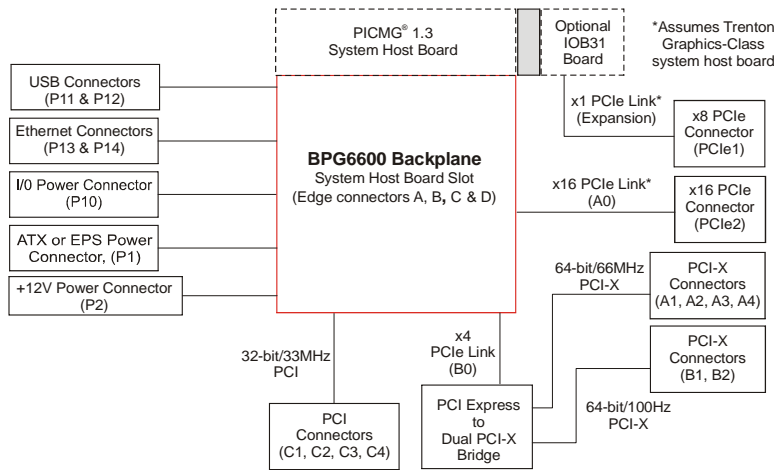




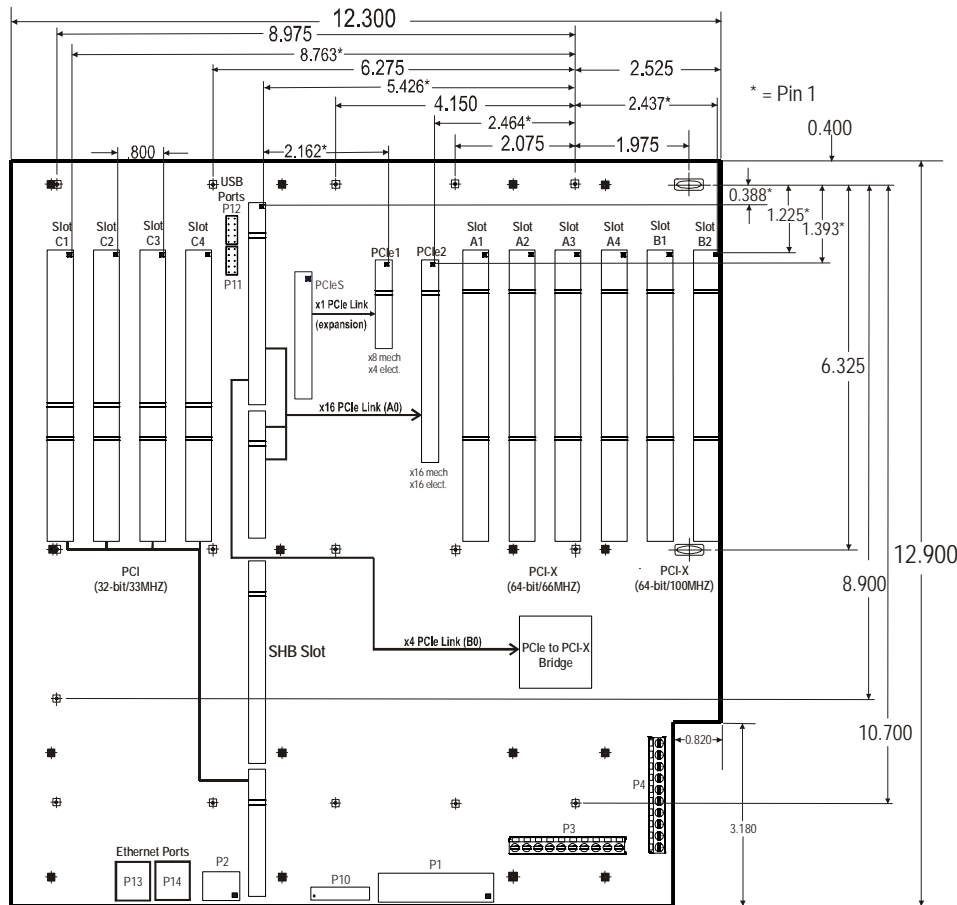
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Technical Information – Jumpers and Connectors BPG6600 (6600) Graphics-Class PCI Express Backplane

Block Diagram



Layout Diagram – 6600



- Notes:
- *IOB31 required to provide PCI Express link to PCIe1 slot
 - **Optional USB and Ethernet connectivity provided by PICMG 1.3 SHB. Not all SHBs support this capability.
 - Connector spacing: 0.800"
 - Nominal PCB thickness: .080"
 - Mounting holes: .156" diameter
 - Connectors are populated based on model.
 - Some holes are common to both hole patterns
 - All dimensions are inches.



BPG6600 (6600) 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	<p>+5V Auxiliary Voltage</p> <p>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.</p> <p>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. *</p>

BPG6600 Connectors

The connectors available on the BPG6600 vary depending on the version of the backplane you have. Connectors for the 6600-004 (-EPS) and 6600-007 (-CRA) are defined below.

BPG6600 (6600-004) Connectors

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

P1 - 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	PSO#
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



BPG6600 (6600-004) Connectors (continued)

P2 - +12V Power Connector

8 pin mini fit JR, Amp #1586037-8

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

P6 - Power-On Connector

2 pin single row header, Amp #640456-2

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

P7 - Power Button Connector

2 pin single row header, Amp #640456-2

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



BPG6600 (6600-004) CONNECTORS (CONTINUED)

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 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_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



BPG6600 (6600-004) CONNECTORS (CONTINUED)

P13 - 10/100/1000Base-T Ethernet Connector - LAN 0
 8 pin shielded RJ-45 connector, Molex #85508-0001

Pin Signal

- 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 RJ-45 connector, Molex #85508-0001

Pin Signal

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

P19 - System Management Bus Connector
 2 pin single row header, Amp #640456-2

Pin Signal

- 1 SMB Clock
- 2 SMB Data

BPG6600 (6600-007) Connectors

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

P1 - ATX/EPS Power Connector
 24 pin right angle dual row mini fit JR, Amp #1-794516-10

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 |



BPG6600 (6600-007) Connectors (continued)

P2 - +12V Power Connector

8 pin right angle mini fit JR, Molex #35318-0820

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

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



BPG6600 (6600-007) Connectors (continued)

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 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_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



BPG6600 (6600-007) Connectors (continued)

P13 - 10/100/1000Base-T Ethernet Connector - LAN 0
 8 pin shielded RJ-45 connector, Molex #85508-0001

<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 RJ-45 connector, Molex #85508-0001

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

P19 - System Management Bus Connector
 2 pin single row header, Amp #640456-2

<u>Pin</u>	<u>Signal</u>
1	SMB Clock
2	SMB Data

Trenton SHB Optional Backplane I/O Support For the BPG6600

TRENTON SHB	ETHERNET			USB							
	LAN 0	LAN 1	LAN 2	USB 0	USB 1	USB 2	USB 3	USB 4	USB 5	USB 6	USB 7
TQ9 ^{1,4}	-	-	X	-	-	-	-	X	X	X	X
T4L ^{1,2}	-	-	X	-	-	-	-	X	X	X	X
TML ^{1,2}	-	-	X	-	-	-	-	X	X	X	X
MCG-series ³	-	-	X	-	-	-	-	X	X	X	X

¹ LAN2 is a 10/100BASE-T Ethernet interface when using the TQ9, T4L or TML
² Backplane routings of USB interfaces 4 & 5 are factory build options on the T4L and TML
³ LAN2 is a 10/100/1000BASE-T Ethernet interface when using a MCG-series SHB
⁴ USB interfaces 4, 5, 6 and 7 are logical USB interfaces 8, 9, 10 and 11 on the TQ9 system host board

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