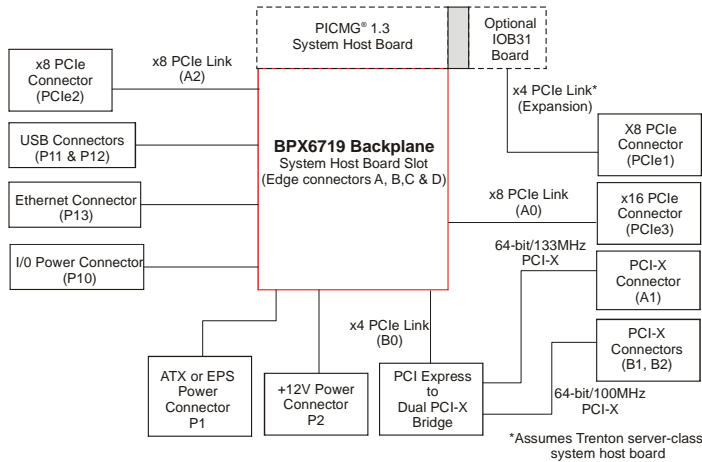




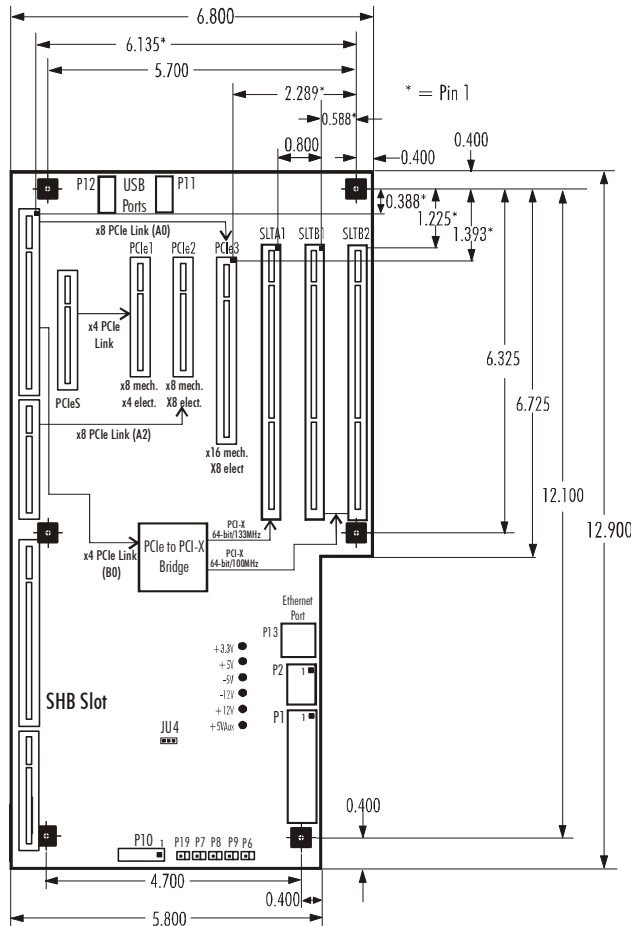
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## Technical Information – Jumpers and Connectors BPX6719 (6719) Small Form Factor PCI Express Backplane

### Block Diagram



### Layout Diagram – 6719



- 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"
  - To find the center of a PCI-X/PCI option card connector, add 0.150" to the pin 1 location dimension. To find the center of the SHB or a PCI Express option card connector, add 0.049" to the pin 1 location dimension.
  - Nominal PCB thickness: .062"
  - Mounting holes: .156" diameter
  - All dimensions are inches.



## **BPX6719 (6719) 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>  |
|---------------|---|
| <b>JU4</b>    | <p><b>+5V Auxiliary Voltage</b></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> |

## **BPX6719 (6719) 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, 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         | 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           |

**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          |



## **BPX6719 (6719) Connectors (continued)**

### **P6 - Power-On Connector**

2 pin right angle single row header, Molex #22-05-3021

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

### **P7 - Power Button Connector**

2 pin right angle single row header,  
Molex #22-05-3021

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

### **P8 - Reset Connector**

2 pin right angle single row header,  
Molex #22-05-3021

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

### **P9 - Power Good Connector**

2 pin right angle single row header,  
Molex #22-05-3021

| <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         |
| 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      |



**BPX6719 (6719) Connectors (continued)**

**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 #43202-8919

| <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 right angle single row header, Molex #22-05-3021

| <u>Pin</u> | <u>Signal</u> |
|------------|---------------|
| 1          | SMBUS         |
| 2          | Gnd           |

**Trenton SHB Optional Backplane I/O Support For the BPX6719**

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

<sup>1</sup> Requires factory build option

<sup>2</sup> 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