PBP-18D4   2 PICMG/4 PCI Dual System Passive Backplane

T He PBP-18D4 backplane is fully PICMG Rev 2.1 compliant. It is a member of PBP's PCI product family and is intended to support all PICMG compliant boards on the market.

The board's main features include:

Connector

2 x Dual slot PCI/ISA for the CPU board for each single system

2 x Four 5V 32bit PCI slots for full-size boards on the Primary bus. These slots are Master/Slave configurable by using Bus Mastering Scheme for each single system

One AT standard power connector and one flush-mount AT standard power connector: 12 pins, 5A max. per pin for +5V, -5V, +12V, -12V voltages, Ground, and Power Good signal.

One ATX standard power connector: 20 pins, 5A max. per pin for +5V, -5V, +12V, -12V , +3.3V voltages, Ground, and Power Good signal.

*One ATX power switch to apply toggle switch for ATX power adoption.

Pairs of header for local connection of a keyboard and fan power for each single system

Power LED

PCB

The Printed Circuit Board's (PCB) overall dimensions are 265.2mm x 415.4mm (104.41"x163.54"), and total thickness is 1.6mm.

Mounting holes are provided and are located to conform to the baby AT form factor. Mounting holes are connected to Signal Ground internally.
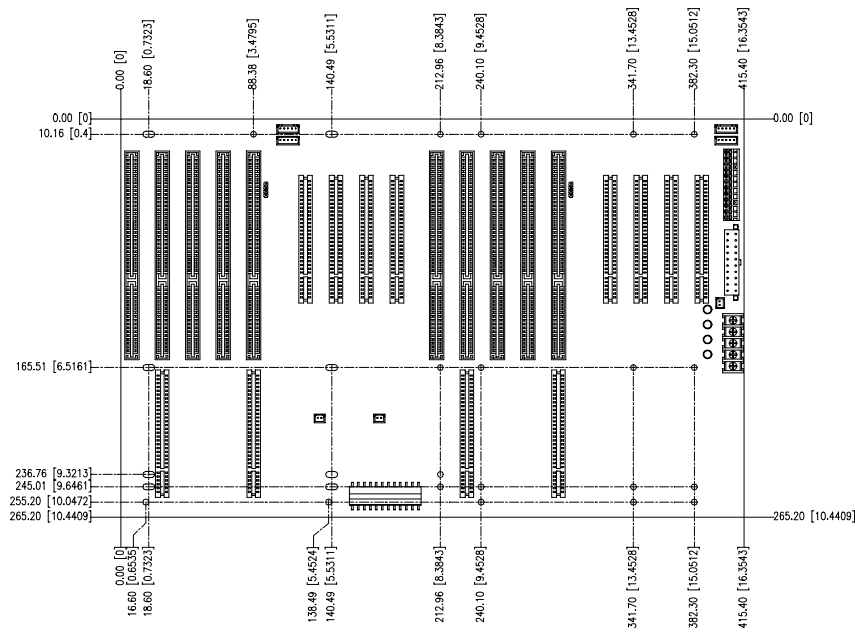
Operating temperature : $0°C \sim 55°C$

Storage temperature : $-20°C \sim 75°C$

Standard

PCI- conforms to PICMG rev. 2.1 specification

ISA- conforms to IEEE P996 specification.

* Please note that PBP-18D4 provides a 2-pin ATX power switch so that users may adopt a toggle switch to start the system when ATX power supply is applied. This is different from the way we usually do for ATX power supply system, where the toggle switch is connected with SBC and a 4-pin ATX control connector is provided on backplane to distribute ATX power signal from backplane onto SBC.

0.00 [0]
-18.60 [0.7323]
-88.38 [3.4795]
140.49 [5.5311]
212.96 [8.3843]
240.10 [9.4528]
341.70 [13.4528]
382.30 [15.0512]
415.40 [16.3543]

0.00 [0]
10.16 [0.4]

0.00 [0]

165.51 [6.5161]

236.76 [9.3213]
245.01 [9.6461]
255.20 [10.0472]
265.20 [10.4409]

265.20 [10.4409]

0.00 [0]
16.60 [0.6535]
18.60 [0.7323]
138.49 [5.4524]
140.49 [5.5311]
212.96 [8.3843]
240.10 [9.4528]
341.70 [13.4528]
382.30 [15.0512]
415.40 [16.3543]

1. JUMPERS and CONNECTORS:

JUMPER/ CONNECTOR	DESCRIPTION
PCI A, B, C, D ISA slot 2, 5, 7, 10	PICMG connectors
PCI5-8	32BIT PCI BUS connectors
KB1-4	Keyboard connector
CN1, CN2	Chassis fan power connectors
CN3	Horizontal P8/P9 power connector
CN4, CN5	Fan Connector
CN6	ATX power switch
CN7	P8/P9 power connector
CN8	ATX power connector
CN9	Power extension terminal block

2 PIN ASSIGNMENT

ATX			
PIN	NAME	PIN	NAME
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	GND	13	GND
4	+5V	14	PS-ON
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	PWR-OK	18	-5V
9	5V SB	19	+5V
10	+12V	20	+5V

KB1~KB4	
PIN	NAME
1	CLK
2	DATA
3	NC
4	GND (Via SBC)
5	+5V (Via SBC)

*Note: this keyboard assignment varies if a non-ROBO SBC is used with the backplane.

CN3, CN7 - P8/P9	
PIN	NAME
1	NC
2	+5V
3	+12V
4	-12V
5	GND
6	GND
7	GND
8	GND
9	-5V
10	+5V
11	+5V
12	+5V

CN9	
PIN	NAME
1	GND
2	+12V @ 5A
3	+5V @ 5A
4	-12V @ 0.5A
5	-5V @ 0.5A

CN 4, CN5	
PIN	NAME
1	+12V
2	GND

CN1, CN2	
PIN	NAME
1	+12V
2	GND
3	GND
4	+5V