PBP-20Q3   2 PICMG/3 PCI Quad System Passive Backplane

T He PBP-20Q3 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

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

4 x Three 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 , +3.3Vvoltages, Ground, and Power Good signal.

One ATX control connector to distribute signals coming from the CPU boards onto connector for soft on/off an ATX power supply.

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.

Twenty-six mounting holes are provided and are located to conform to the baby AT form factor. Mounting holes are connected to Signal Ground internally.
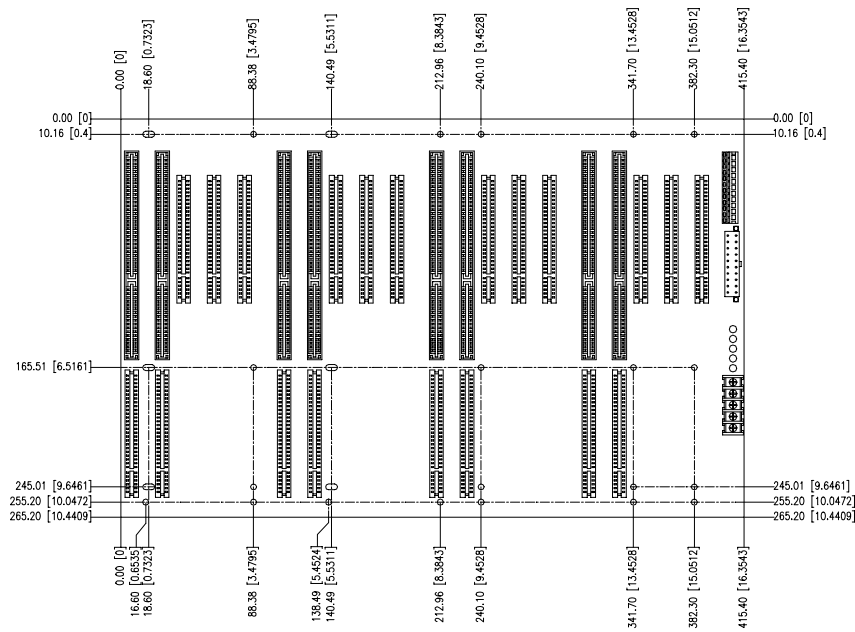
Operating temperature : $0℃ \sim 55℃$

Storage temperature : $-20℃ \sim 75℃$

Standard

PCI- conforms to PICMG rev. 2.1 specification

ISA- conforms to IEEE P996 specification.

1. JUMPERS and CONNECTORS:

JUMPER/ CONNECTOR	DESCRIPTION
PCI A1~A4 PCI B1~B4 ISA Slot 1~8	PICMG connectors
PPCI1-12	32BIT PCI BUS connectors
KB1-8	Keyboard connector
CN1	P8/P9 power connector
CN2	ATX power connector
CN3	ATX P/S control connector
CN4	Power extension terminal block
CN5-8	Fan Connector
CN9	Horizontal P8/P9 power connector

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~KB8	
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.

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

CN4	
PIN	NAME
1	GND
2	+12V @ 5A
3	+5V @ 5A
4	-12V @ 0.5A
5	-5V @ 0.5A

CN3* (For ATX P/S only)	
PIN	NAME
1	PW-OK
2	5VSB
3	PS-ON
4	GND

***Note**: If you are using a non-ATX featured SBC board with ATX power supply, you can turn the ATX power supply into AT type by adding an on-off switch over pin3 and 4. By default, pin 3 and 4 is short to trigger the ATX power supply to ON status.

CN 5~8	
PIN	NAME
1	+12V
2	GND

CN10~13	
PIN	NAME
1	+12V
2	GND
3	GND
4	+5V