PBP-14AC   2ISA/12 PCI/2 PICMG Active Backplane

T He PBP-14AC 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

Dual slot PCI/ISA for the CPU board

Two ISA slots for full-size ISA boards.

Three 5V 32bit PCI slots for full-size boards on the Primary bus. These slots are Master/Slave configurable by using Bus Mastering Scheme.

ine 5V/3.3V 32-bit PCI slots for full-size boards on the Secondary bus.

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

One P10 standard power connector, 5A max. per pin for +5V and Ground.

Pairs of header for local connection of a keyboard, fan power, and Power LED.

One Keyboard DIN connector.

PCB

The Printed Circuit Board's (PCB) overall dimensions are 257mm x 317mm (101.2"x124.8"), 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.
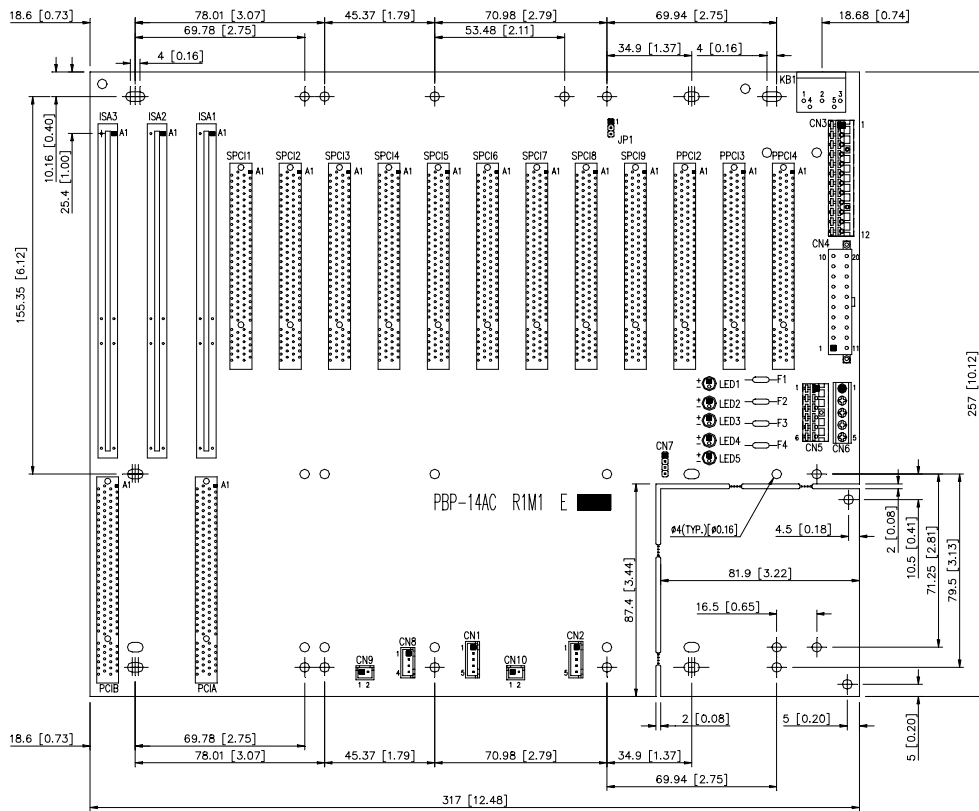
Operating temperature : $0^{\circ}\text{C} \sim 55^{\circ}\text{C}$

Storage temperature : $-20^{\circ}\text{C} \sim 75^{\circ}\text{C}$

Standard

PCI- conforms to PICMG rev. 2.1 specification

ISA- conforms to IEEE P996 specification.

PBP-14AC R1M1 E

1. JUMPERS and CONNECTORS:

JUMPER/ CONNECTOR	DESCRIPTION
PCI A,B/ISA 1,4	PICMG connectors
PPCI2-4	32BIT PCI BUS connectors (primary)
SPCI1-4	32BIT PCI BUS connectors (secondary)
CN1,CN2, KB1	keyboard connector
CN3	P8/P9 power connector
CN4	ATX power connector
CN5	P10 power connector
CN6	Power extension terminal block
CN7	Power extension pins
CN8	ATX P/S control connector
CN9, CN10	Fan connector
JP1	Secondary PCI slot VIO 3.3V/5V select

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 STB	19	+5V
10	+12V	20	+5V

CN1, CN2 and KB1	
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

P10	
PIN	NAME
1	+5V
2	+5V
3	+5V
4	GND
5	GND
6	GND

CN7	
PIN	NAME
1	+12V
2	GND
3	GND
4	+5V

CN6	
PIN	NAME
1	GND
2	+12V @ 5A
3	+5V @ 5A
4	-12V @ 0.5A
5	-5V @ 0.5A

CN8* (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 9, 10	
PIN	NAME
1	+12V
2	GND

JP1*	
1-2 short	1-2: 5V
2-3 short	2-3: 3.3V

*Note: JP1 can set the Secondary PCI slots working voltage to 3.3V if 3.3V PCI cards are used. Default setting is 5V.