

# BPE-1308A2

## PICMG 1.3 Backplane for Full-size SBC User Manual

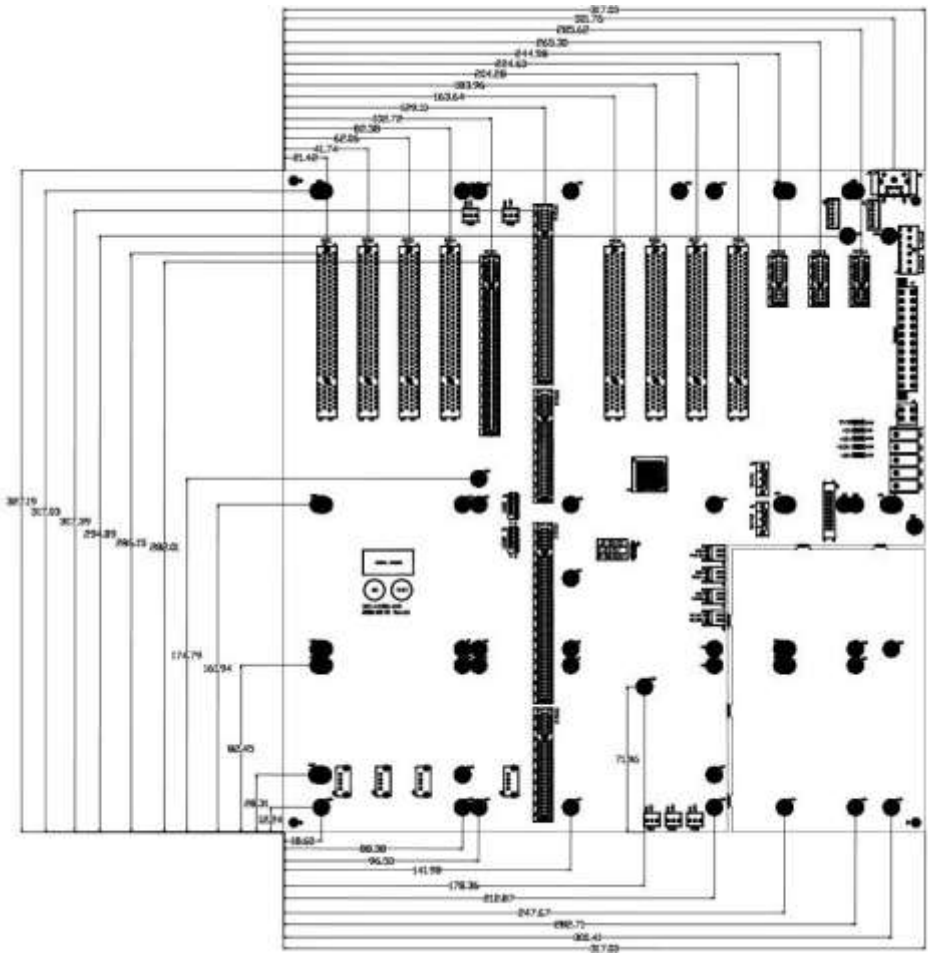
### Specifications:

- 13-Slot PICMG 1.3 Backplane
- PICMG ver. 1.3 RC1.0 SHB slot for SHB Express
- PCIe x16 slot, (3) PCIe x1 slot, (8) PCI 32-bit 5V slots, (2) SATA connectors, (4) USB ports (A type female) or by Pin Header,
- Supports ATX 24P power connector, (2) Connectors for 3-pin fans
- AT keyboard connector, Power Indicator LEDs,
- Multilayer PCB
- PCIe x16 slot also supports PCIe x1/x4/x8 PCIe add-on card

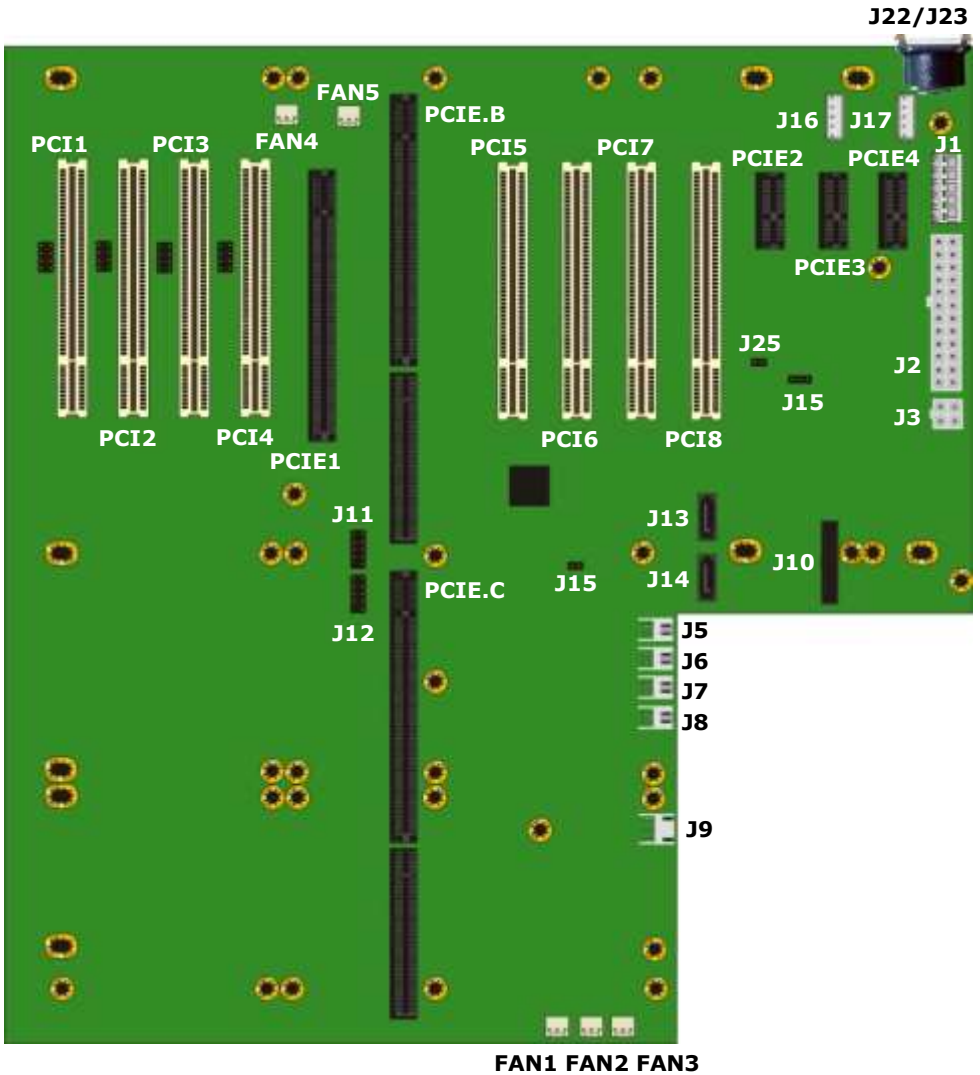
# Mechanical Drawing:

PCB Layout: 4 layers

Dimension : 327.19 mm X 317.00 mm X 1.6 mm



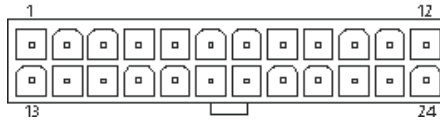
# Backplane Layout:



## Connectors:

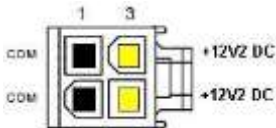
Connector	Description
PCIE.A,B,C,D	PICMG Ver 1.3RC1.0 SHB slot
PCIE1	PCIe x16 connector
PCIE2~PCIE4	PCIe x1 connectors
PCI1~8	PCI 32 bit connectors
J2	ATX 24 pin power connector
J3	4 pin 12V power connector
J5	2 PIN WAFER— POWER BOTTON
J6	2 PIN WAFER— RESET
J7	2 PIN WAFER— PWRGD
J8	2 PIN WAFER— SM_DA & SM_CL
J9	3 PIN WAFER— PME
J10	2X10 BOX HEADER
J11	2X5 PIN HEADER— USB
J12	2X5 PIN HEADER— USB
J13	7 PIN SATA connector
J14	7 PIN SATA connector
J15	3 PIN HEADER— SVIO
J16	Keyboard signal
J17	Keyboard signal
J28~J31	PCI1-PCI4 AD SET
FAN1~FAN5	FAN cooler

## J2: ATX power connector



PIN assignment			
1	3.3V	13	3.3V
2	3.3V	14	-12V
3	GND	15	GND
4	5V	16	PS_ON
5	GND	17	GND
6	5V	18	GND
7	GND	19	GND
8	PW_OK	20	-5V
9	5V_SB	21	5V
10	12V	22	5V
11	12V	23	5V
12	3.3V	24	GND

## J3: 4 pin 12V power connector



Pin	Name	Color	Description
1	GND	Black	Ground
2	GND	Black	Ground
3	+12VDC	Yellow	+12 VDC
4	+12VDC	Yellow	+12 VDC

### J5 pin out:



Pin	Signal	Pin	Signal
1	PWRBT	2	GND

### J6 pin out:



Pin	Signal	Pin	Signal
1	RESET	2	GND

### J7 pin out:



Pin	Signal	Pin	Signal
1	PWRGD	2	GND

### J8 pin out:



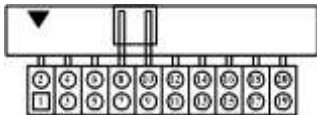
Pin	Signal	Pin	Signal
1	SM_CL	2	SM_DA

### J9 Connector:



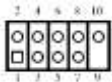
Pin	Signal	Pin	Signal	Pin	Signal
1	+5VSB	2	GND	3	PME

## J10 PIN OUT:



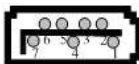
PIN	Define	PIN	Define
1	GND	2	-12V
3	+12V	4	GND
5	IB_DA	6	+5VSB
7	GND	8	GND
9	IP_CL	10	+5VSB
11	+5V	12	PWRGD
13	SM_DA	14	RESET
15	5VSB	16	GND
17	SM_CL	18	PS_ON
19	+3.3V	20	PWRBT

## J11, J12 pin headers:



Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
2	USB5V	4	UDAT1-	6	UDAT1+	8	GND	10	N/C
1	USB5V	3	UDAT0-	5	UDAT0+	7	GND	9	KEY

## J13, J14 connectors:



Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal		
7	GND	6	RXP	5	RXN	4	GND	3	TXN	2	TXP	1	GND

### J15 jumper:

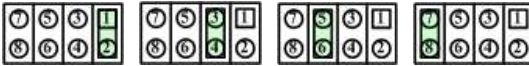


PIN	Signal
1-2 Short(Default)	PCI SVIO +5V
2-3 Short	PCI SVIO +3.3V

### J16, J17 keyboard connector:

Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal	Pin	Signal
1	KB-CLK	2	KB-DATA	3	KB-NC	4	GND	5	KB-VCC

### J28, J29, J30, J31 SET TABLE:



PIN	PCI 1-4 AD SET
1-2	AD31(PCI1 Default)
3-4	AD30(PCI2 Default)
5-6	AD29(PCI3 Default)
7-8	AD28(PCI4 Default)

### FAN1~FAN5 Connectors:



Pin	Signal	Pin	Signal	Pin	Signal
1	GND	2	+12VDC	3	N/C