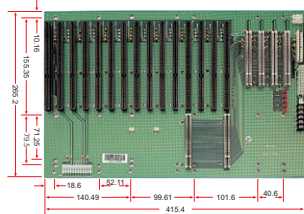# PICMG Backplane

PICMG GENERAL DESCRIPTION

PICMG Backplane in this section are SBC (Single Board Computer)/SHB (Single Host Board) companion that feature expansion slots such as ISA, PCI, PCI-X or PCI Express interface. In addition, backplane also features several power connectors that draw power from power supply to devices on it. Some LEDs are designed on board to indicate status of each power rail.

PICMG 1.0 supports both ISA & PCI, PICMG 1.2 supports dual PCI or PCI-X, and PICMG 1.3 supports PCI Express and PCI expansion. Some bridges or switches can be applied to backplane to support more devices or different kind of expansion interfaces. However, PICMG 1.0, 1.2, and 1.3 are not compatible with each other.
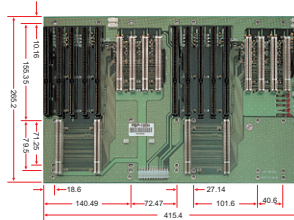
PICMG 1.0 BACKPLANE

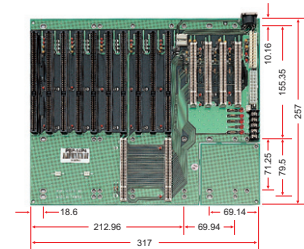### Passive Backplane: Backplane that only support up to four PCI master
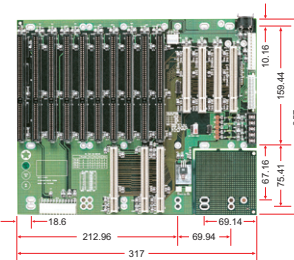
◼ 32-bit PCI/16-bit ISA

PBP-19P4

19-slot (4xPCI) PICMG Backplane

- Fit for 20-slot chassis
- ATX power connector support
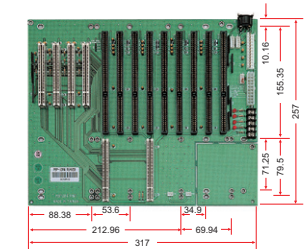- Sufficient ISA slots for CTI application

PBP-18D4

18-slot Dual-system PICMG Backplane

- Fit for 20-slot chassis
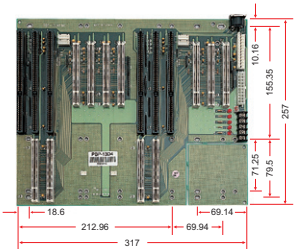- Designed for fault-tolerant computing
- ATX power connector support

PBP-14P4

14-slot (4xPCI) PICMG Backplane

- Fit for 14-slot chassis
- ATX power connector support
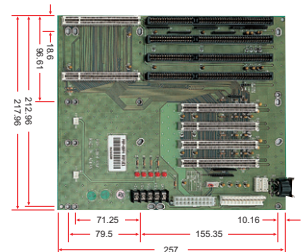- The most popular and reliable PICMG backplane

ACTI-14P4

14-slot (4xPCI) Active PICMG Backplane

- 2.4 mm PCB thickness
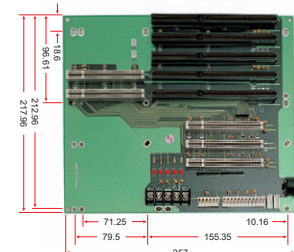- ATX power connector support
- Fit for 14-slot chassis

PBP-13R4

13-slot (4xPCI) PICMG Backplane

- Fit for 14-slot chassis
- Special design for full-length PCI cards
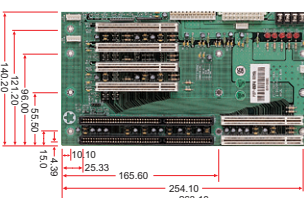- ATX power connector support

PBP-13D4

13-slot Dual-system PICMG Backplane

- Fit for 20-slot chassis
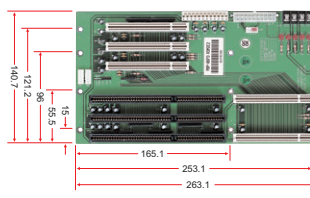- Design for fault-tolerant computing
- ATX power connector support

PBP-08P4

8-slot (4xPCI) PICMG Backplane

- Fit for node chassis and desktop case
- ATX power connector support

PBP-08P3

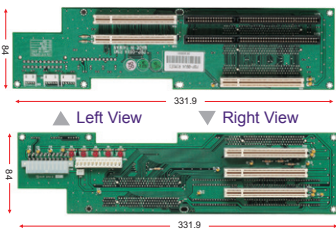**8-slot (3xPCI) PICMG Backplane**

- Fit for node chassis and desktop case

PBP-06P4

6-slot (4xPCI) PICMG Backplane

- Fit for node chassis
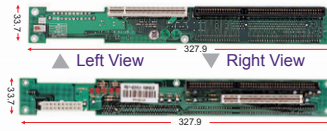- ATX power connector support

PBP-06P3

6-slot (3xPCI) PICMG Backplane
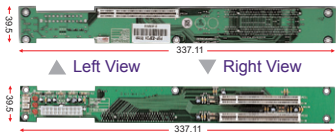
- Fit for node chassis
- ATX power connector support

PICMG Backplane

PBP-06V4

Vertical 6-slot (4xPCI) PICMG Backplane
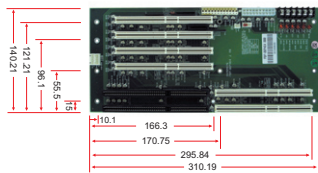- Fit for 2U chassis
- ATX and AT power connector support

▲ Left View   ▼ Right View

PBP-02V1X

Vertical 2-slot (1xPCI) PICMG Backplane
- Fit for 1U chassis
- ATX power connector support

▲ Left View   ▼ Right View

PBP-03P2X

Vertical 3-slot (2xPCI) PICMG Backplane
- Fit for Portwell's 1U chassis
- ATX power connector support

▲ Left View   ▼ Right View

■ 64-bit PCI/16-bit ISA

PBP-06P464

6-slot (4x64-bit PCI) PICMG Backplane
- Fit for node chassis
- ATX and AT power connector support

PBP-06V464

Vertical 6-slot (4x64-bit PCI) PICMG Backplane
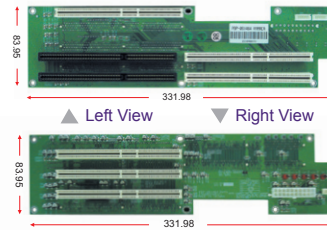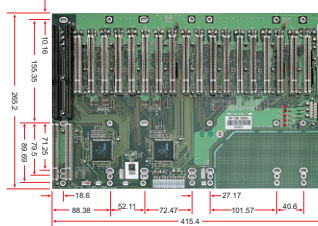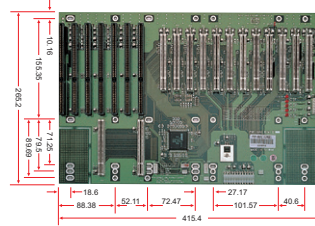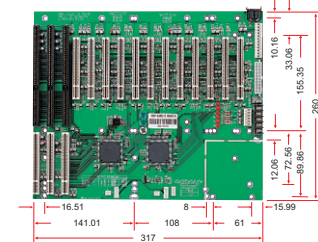- Fit for 2U chassis
- ATX power connector

▲ Left View   ▼ Right View

Active Backplane: Backplane that using bridge to support PCI master beyond four
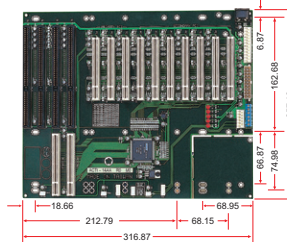
PBP-19AI

19-slot (18xPCI) Active PICMG Backplane

PBP-19AC
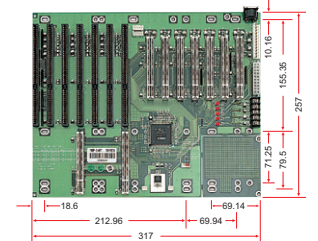
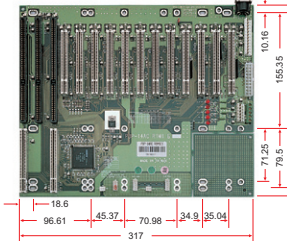**19-slot (12xPCI) Active PICMG Backplane**

PBP-14AC-B

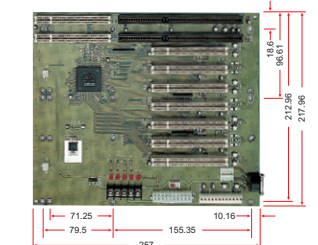**14-slot (12xPCI) Active PICMG Backplane**

ACTI-14AA

14-slot (10xPCI) Active PICMG Backplane
- 2.4 mm PCB thickness
- ATX power connector support
- Fit for 14-slot chassis

PBP-14A7
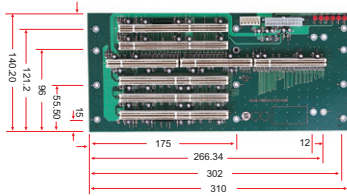
14-slot (7xPCI) Active PICMG Backplane

PBP-14AC

14-slot (12xPCI) Active PICMG Backplane

PBP-08A7

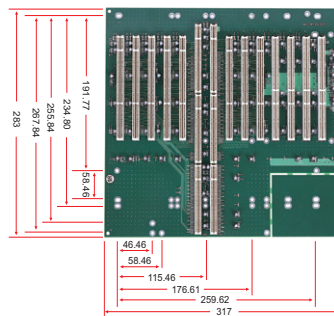**8-slot (7xPCI) Active PICMG Backplane**

PICMG Backplane

PICMG 1.2 BACKPLANE

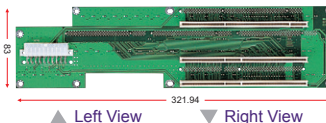### PBP-06P564

**6-slot (2xPCI-X, 3xPCI)
64-bit PICMG 1.2 Backplane**

- Fit for 6-slot node chassis
- ATX & aux power connectors support

PBP-06V564

**Vertical 6-slot (2xPCI-X, 3xPCI)
64-bit PICMG 1.2 Backplane**

- Fit for 2U chassis
- ATX power connector support

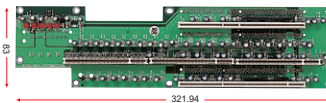▲ Left View   ▼ Right View

PBP-14PD64

**14-slot (8xPCI-X, 4xPCI)
64-bit PICMG 1.2 Backplane**

- Support 4 independent buses with
  ROBO-8820VG2H & PA-B1
- Three PCI-X buses; one PCI bus
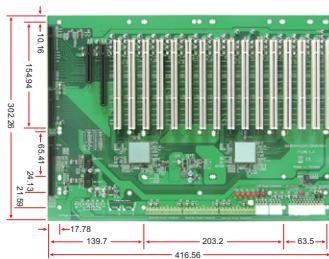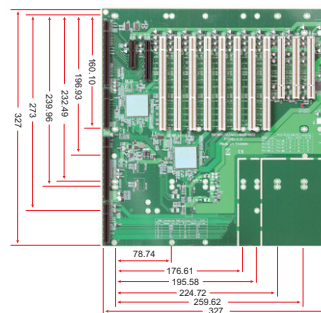- ATX & AUX power connectors support

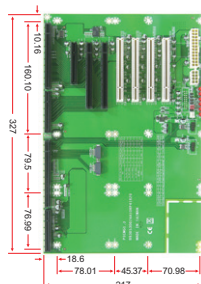## PICMG 1.3 BACKPLANE

Server Grade Backplane

PBPE-19AG64

**19-slot [PCI-E x8 (1), PCI-E x4 (1),
PCI-X (16)]**

- Fit for 4U up chassis
- Dedicated to ROBO-8920VG2
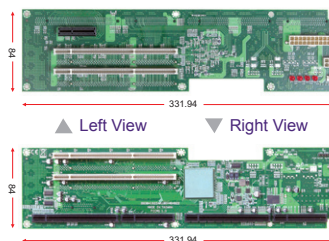- Four PCI-X buses support 16 PCI-X
  expansion slots

PBPE-14AD64

**14-slot [PCI-E x4 (1), PCI-E x8 (1), PCI-X (8),
PCI (3)]**

- Fit for 4U chassis
- Dedicated to ROBO-8920VG2
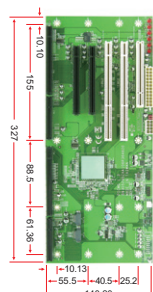- Four PCI-X buses support eight PCI-X
  expansion slots

PBPE-08P41

**8-slot [PCI-E x8 (1, x4 signal), PCI-E x16
(2, x8 signal), PCI (4)]**

- Fit for Node chassis
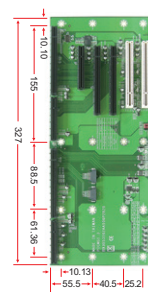- Dedicated to ROBO-8920VG2
- Four USB ports

PBPE-06V464

Vertical 6-slot [PCI-E x4 (1), PCI-X (4)]

- Fit for 2U chassis
- Dedicated to ROBO-8920VG2
- Dual PCI-X buses support four PCI-X slots

▲ Left View   ▼ Right View

PBPE-06A364

**6-slot [PCI-E x16 (2, x8 signal), PCI-X (2),
PCI (1)]**

- Fit for Node chassis
- Dedicated to ROBO-8920VG2
- Four USB ports
- Dual SATA ports
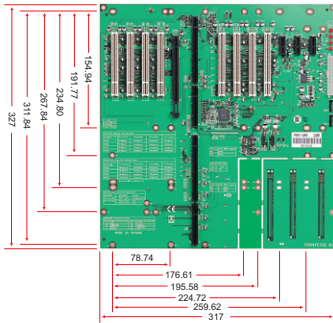- Two PCI-X buses support two PCI-X
  expansion slot

PBPE-06P2

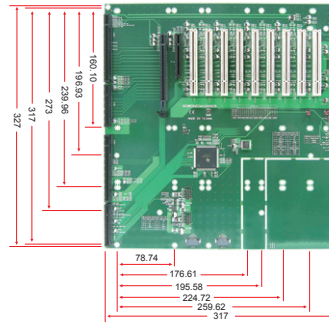**6-slot [PCI-E x8 (1, x4 signal), PCI-E x16
(2, x8 signal), PCI (2)]**

- Fit for Node chassis
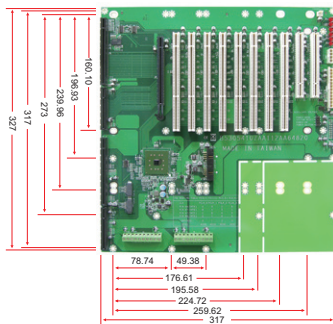- Dedicated to ROBO-8920VG2
- Four USB ports
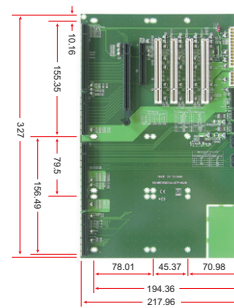
Non-Server Grade Backplane

PBPE-13A8

13-slot [PCI-E x1 (3), PCI-E x16 (1), PCI (8)]

- Fit for 4U chassis
- Dedicated to ROBO-8912VG2AR
- Four USB ports
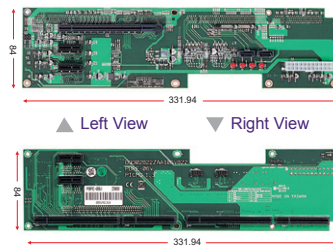- Dual SATA ports
- 24-pin ESP12V power connector

PBPE-12A9

12-slot [PCI-E x16 (1), PCI-E x8 (1, x4 signal), PCI (9)]

- Fit for 4U chassis
- Dedicated to ROBO-8912VG2AR
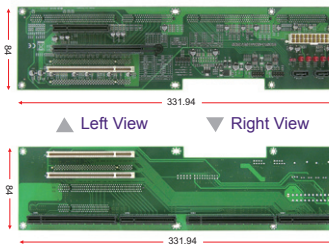- Four USB ports
- Dual SATA ports

PBPE-12AA64

12-slot [PCI-X (8), PCI-E x16 (1), PCI (2)]

- Fit for 4U chassis
- Dedicated to ROBO-8912VG2AR
- Four USB ports
- Dual SATA ports
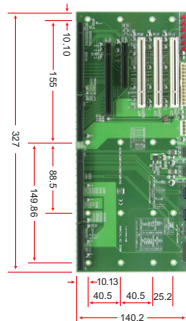- Two PCI-X buses support eight PCI-X expansion slot

PBPE-07P4

7-slot [PCI-E x4 (1), PCI-E x16 (1), PCI (4)]

- Fit for Node chassis
- Dedicated to ROBO-8912VG2AR
- Four USB ports
- Dual SATA ports
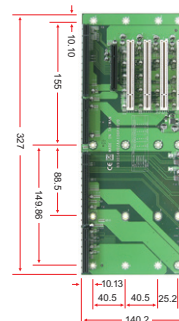
PBPE-06V

Vertical 6-slot [PCI-E x1 (4), PCI-E x16 (1)]

▲ Left View   ▼ Right View

- Fit for 2U chassis
- Dedicated to ROBO-8912VG2AR
- Four USB ports
- Dual SATA ports
- 24-pin ESP 12V power connector

PBPE-06V3

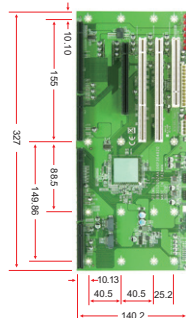**Vertical 6-slot [PCI-E x4 (1), PCI-E x16 (1), PCI (3)]**

▲ Left View   ▼ Right View

- Fit for 2U chassis
- Dedicated to ROBO-8912VG2AR
- Four USB ports
- Dual SATA ports

PBPE-06P3

6-slot [PCI-E x16 (1), PCI-E x4 (1), PCI (3)]

- Fit for Node chassis
- Dedicated to ROBO-8912VG2AR
- Four USB ports
- Dual SATA ports

PBPE-06P4

6-slot [PCI-E x8 (1, x4 signal), PCI (4)]

- Fit for Node chassis
- Dedicated to ROBO-8912VG2AR
- Four USB ports
- Dual SATA ports

PBPE-05A364

5-slot [PCI-E x16 (1), PCI-X (2), PCI (1)]

- Fit for Node chassis
- Dedicated to ROBO-8912VG2AR
- Four USB ports
- Dual SATA ports
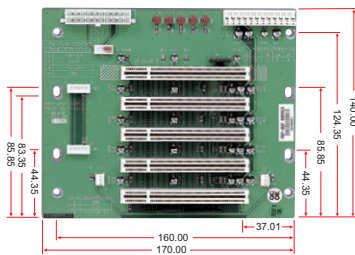- Two PCI-X buses support two PCI-X expansion slot

PCI & ISA Backplane

PCI GENERAL DESCRIPTION

- Compact size backplane for half size PCI SBC
- PICMG 1.0 Rev 2.1 Compliant (PCI golden finger only)
- Support AT or ATX type power connector
- 4-layer PCB with power and ground planes to reduce power noise and keep lower impedance
- Frame rated PCB at 94-V0
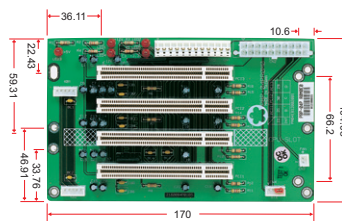- User friendly design supports external K/B connector, power for chassis fan and power indicator

PBP-05P
5-slot Passive PCI Backplane

PBP-04P
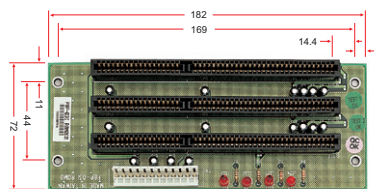**4-slot Passive PCI Backplane**

ISA GENERAL DESCRIPTION

- 4-layer PCB with ground and power planes for reducing noise and keeping lower impedance
- Frame Rated PCB at 94-V0
- LED power indicator for +5V, +12V, -5V and 12V
- Heavy duty terminal block connector for industrial power supply wiring(*)
- Equipped with gold-plated socket for good contact
- Easy cut for dual or multi systems(*)
- Plug-in sockets of termination resistors for high-speed signal.(*)
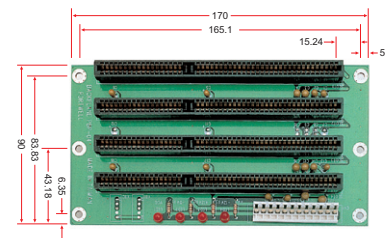
  "*"means for most part of products

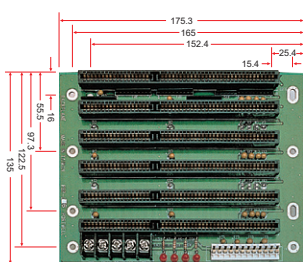### PBP-03I
3-slot Passive ISA Backplane

PBP-04I
4-slot Passive ISA Backplane

PBP-06I
6-slot Passive ISA Backplane

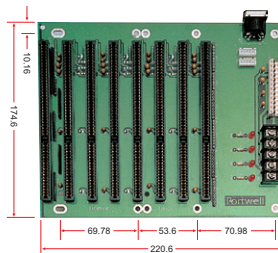### PBP-08I
8-slot Passive ISA Backplane

PBP-14I
14-slot Passive ISA Backplane