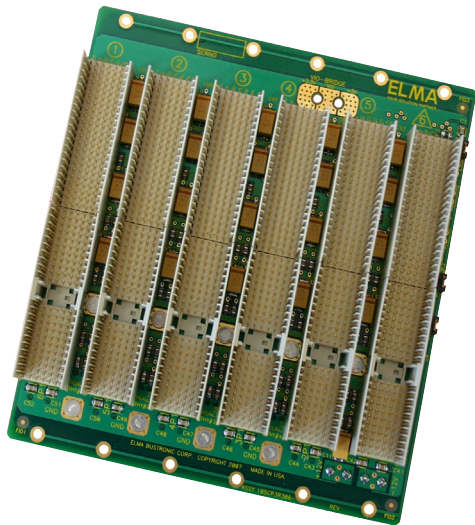


32-Bit CompactPCI® Backplanes

Low Profile P1 & P2 Connectors



Description

All of Elma's Bustronic CompactPCI backplanes conform to the PICMG base specification 2.0 R2.1 and Hot Swap specification 2.1 R2.0.

Unlike 64-bit CPCI backplanes, where all the pins are defined by the specification, the 32-bit backplanes make available user-defined I/O pins. All other signal lines, power and ground pins are bussed according to the CPCI standard.

Elma's Bustronic CPCI backplanes are designed to maximize performance, minimize noise, and give the customer the most reliable, cost-effective products possible. Two 2 oz. copper voltage planes allow us to maximize power distribution while they act as virtual ground planes to minimize noise and crosstalk. There is also a full VI/O plane. Stripline design eliminates a significant source of EMI/RFI radiation and gives all the signals similar characteristic impedances, virtually identical propagation delays, and minimal signal skew. All these items enable higher data transfer rates.

Features

- Conforms to PICMG base specification 2.0 R3.0
- Conforms to PICMG Hot Swap specification 2.1 R2.0
- 32-bit design
- 8-layer controlled impedance stripline design
- Virtually zero crosstalk
- Logical slot #1 (system controller) is right or left justified
- Comes in EasyCable and Low Profile versions

Board Specifications

- 8-layer board
- 2 oz. copper power and ground
- PCB UL recognized 94V-0
- PCB FR-4 or equivalent
- PCB .125" thick (.128" for 3U 3-slot)

Mechanical Specifications

- 3U – 3, 8 slots
- 6U – 6, 8 slots
- 32-bit design

Related Products and Applications

Highly integrated applications such as:

- Transportation/Railways
- Communication
- Safety/Security
- Industrial
- Building technologies



- CompactPCI Serial CPU cards
- Peripheral Boards
- CompactPCI system chassis

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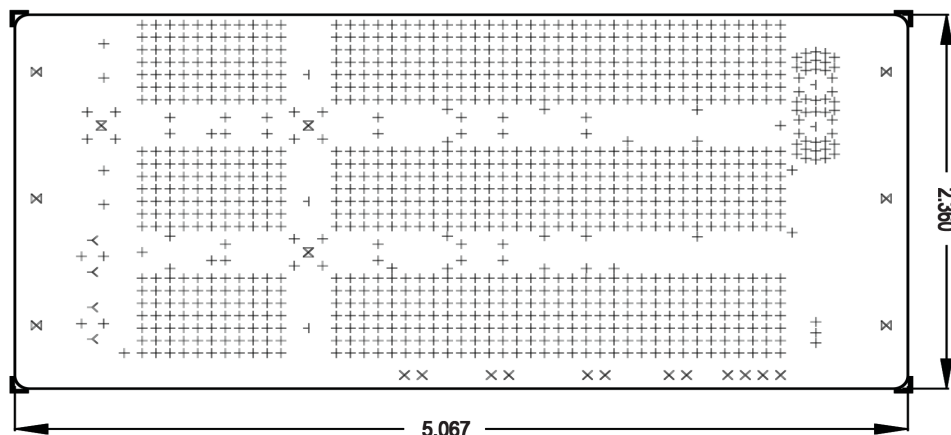


PICMG



Backplanes

Line Drawing



Order Information

Height	Total Slots	Width in.	Width mm	Description	Part Number
3U	3	2.361	59.969	Low Profile, System Slot on Right	105CP3R303
3U	6	4.777	121.336	Low Profile, System Slot on Right	105CP3R306
3U	8	7.203	182.956	Easy Cable, System Slot on Right	102CP3R308
6U	6	4.777	121.336	Low Profile, System Slot on Left	105CP3L606
6U	8	6.377	161.976	Low Profile, System Slot on Left	105CP3L608

Design Elements

Power Distribution

The Elma Bustronic 32-bit CPCI backplane series come in various power option styles. The Low Profile versions use 6/32 PEM studs distributed between the slots throughout the backplane. The EasyCable style uses 6/32 power nuts. Adequate numbers of power studs or nuts and faston blades are available to accommodate more power than the 28amps required per slot.

Signal Layout

The Elma Bustronic design conforms to the PICMG basic specification 2.0 R3.0 and basic Hot Swap specifications 2.0 R2.0. Some 6U versions comply with the PICMG 2.5 R 1.0 Computer Telephony and/or PICMG 2.16 Packet Switching specifications. A minimum stub length is utilized in routing and interconnecting to the signal traces. Our design techniques avoid crosstalk and noise caused by inadequate ground and power.

Jumpering

Jumpers can be installed to close a circuit. The backplane has labeled areas for jumper installation. The following applies to all of Elma Bustronic's CompactPCI and H.110 backplanes in 2-8 slot sizes. Configurations with 2-5 slots have an additional jumper consideration, the M66EN# jumper.