CompactPCI®

EM Compact

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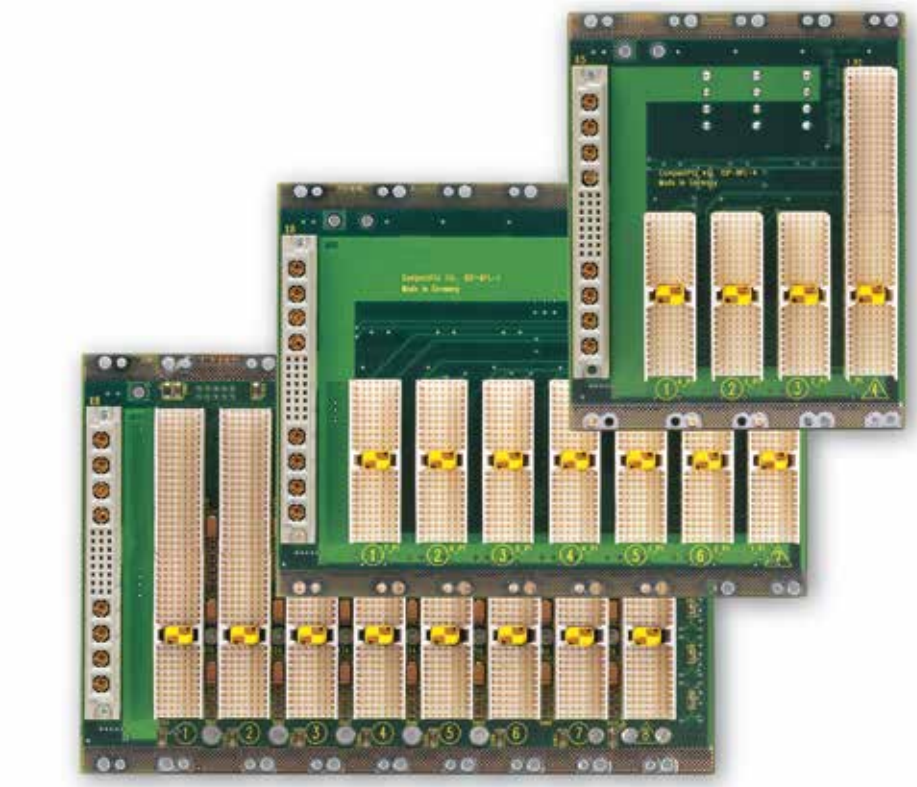
ICP-BPL

PICMG 2.0 R3.0 CompactPCI Backplanes

APPLICATIONS

The EMTrust 3U backplanes are designed according the PICMG 2.0 R3.0 specification, and are an essential commodity for all 3U CompactPCI applications in:

- ▶ Rugged Embedded Systems
- ▶ Avionics/Military
- ▶ Robotics
- ▶ Environment Management
- ▶ Energy Management
- ▶ Industrial Control and Automation
- ▶ Multimedia "Infotainment"
- ▶ Traffic and Tranportation
- ▶ Multiprocessing Environments



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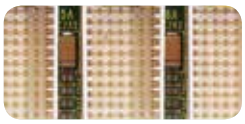
FEATURES

- ▶ Single slot to eight slot
- ▶ Rear I/O on system slot
- ▶ Optional rear I/O on all slots
- ▶ Zero-slot power backplane
- ▶ DIN 41612 type M power connector
- ▶ For use at extended operational temperatures
- ▶ Extremely robust, thick PCB
- ▶ 3.3V I/O or 5.0 V I/O options

BENEFITS

- ▶ System optimization through slot multiplicity
- ▶ Passive technology for long operational life
- ▶ Industrial rigidity & stability
- ▶ Long-term product availability
- ▶ Superior compatibility
- ▶ Open standard architecture



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OVERVIEW

A passive backplane is a circuit board without any active elements (silicon) but does include peripheral board connection slots into which I/O devices, processors, and other computer and networks components may be installed.

In a passive backplane system, the system bus is used to interconnect a plug-in processor board and multiple plug-in add-on boards.

This architecture makes rapid repair by board substitution possible, and system upgrades and changes are greatly simplified, with minimum resulting system downtime. In fact, the development of passive backplane based systems has been driven by the desire to improve the mean time to repair (MTTR) and to provide an easier path for system upgrade.

SPECIFICATION SUMMARY:

- ► PICMG 2.0 R3.0
- ► 1 to 8 slots
- ► '0' slot power backplane
- ► DIN 41612 type M power connector
- ► Extended operational temperature

SPECIFICATIONS

COMPLIANCE

PICMG 2.0 R3.0

INTERFACES

The standard 1 to 8 slot backplanes all have the following interfaces:

- ‣DIN 41612 type M connector
- ‣1 to 8 32-bit J1 connectors
- ‣J2 on master slot only
- ‣Master slot rear I/O connector
- ‣Molex power connector

The zero slot or power backplane observes the following:

- ‣DIN 41612 type M connector
- ‣Power rails for connectivity
- ‣ATX power connector

PLUG-IN CONNECTORS

2 mm press-fit connectors, grade 2 quality

POWER SUPPLY

Screw-type terminals, blade connectors, ATX connectors, socket connectors to DIN 41 612 type M, depending on variant

SUPPLY VOLTAGE (V I/O)

3.3V / 5 V jumper selected

8-SLOT TERMINATION

On-board Schottky barrier diodes

TRANSFER MODE

32-bit

CLOCK FREQUENCY

33 MHz

PCB THICKNESS

2.8 mm to 3.5 mm (± 10%) depending on backplane size (number of slots)

MASS (PER SLOT)

45g + (No. slots x 25g) ± 10%

DIMENSIONS

All dimensions are given in mm (height x width)
A 128 x 22.3 + (No. slots x 20.32)

CLIMATIC CONDITIONS

-40°C to +85°C (standard)
-40°C to +85°C (storage)
Humidity 0% to 90% @ 40°C (non-condensing)

MANUFACTURE

Manufactured using fibreglass epoxy according to DIN 40802 (type FR4), this design is optimized for best HF behaviour

ORDERING INFORMATION

PRODUCT	DESCRIPTION
ICP-BPL-nM50-3.0	One to eight slot, PICMG 2.0 R3.0 3U CompactPCI passive backplane with 5.0 V I/O complete with DIN 41612 type M power connector. Replace 'n' with the no. of slots for the complete ordering code
ICP-BPL-0M00	Zero slot or power backplane with DIN 41612 type M power connector and power-rails
	Notes: Other backplanes including 64-bit, full rear I/O, 3.3 V I/O, or powerless may be available. Please contact an EMTrust sales representative for more information

EM TRUST
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EMTrust GmbH
Headquarters
Gewerbering 1
85258 Weichs - Germany
Phone +49 8136 80 677-800
Fax +49 8136 80 677-809
sales@emtrust.de
www.emtrust.de

Trucomp, Inc.
11555 Heron Bay Blvd
Suite 200
Coral Springs, FL 33076 - USA
Phone +1 954 603-0582
Fax +1 954 603-0581
sales@trucompusa.com
www.trucompusa.com

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