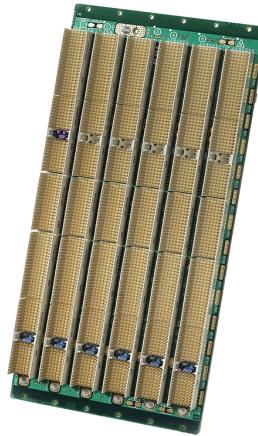


## PICMG 2.16 CompactPCI Packet Switching Backplane

### About PICMG 2.16

The CompactPCI Packet Switching Backplane (cPSB) is an extension to the PICMG 2.x family of specifications that overlays a packet-based switching architecture on top of CompactPCI to create an Embedded System Area Network (ESAN). It supplements the robust, reliable and hot-swap capable CompactPCI architecture with the easily integrated, low-cost, high-performance and extensible Ethernet. This creates a platform well suited to the integration of components for the most demanding systems and empowers system integration and design to ascend to higher layers of the Open Systems Interconnection (OSI) protocol stack, thus reducing system integration time. A Packet Switching Backplane is composed of Node Slots, Fabric Slots, and the Links that interconnect them. The PSB topology is a star (not a bus). Each line interconnecting a Node Slot and Fabric Slot represents a Link that is a 10/100/1000 Mbps full-duplex Ethernet connection. Node Boards communicate by transferring/receiving packets to/from the Fabric Board, which transfers the packet to/from one or more Node Boards. Thus, every Node Board can communicate with every other Node Board and form a fabric.



### Features

#### ELECTRICAL

- According to PICMG 2.0 R.3.0
- VI/O configurable to +3.3 V or +5 V (+5 V factory settings)
- Clock frequency: 33 MHz or 66 MHz (2-5 Slot)
- Bus width: 32/64 bit
- Data transfer rate:
  - cPCI: max. 533 Mbyte/s (66 MHz/64 bit)
  - Ethernet: 10/100/1000 Mbyte/s
- Impedance Z0 without connectors and daughter cards:
  - cPCI 65 Ohm +/-10 %
  - Ethernet 100 Ohm +/-10 %
- Termination with Schottky Diode Array: only optional for 8 slot with rear card
- Current carrying capacity of power planes
  - +3.3 V/GND: 10 A/slot
  - +5 V/GND: 8 A/slot
- Max. voltage drop (center to boardout): 20 mV

#### CLIMATIC

- Operating temperature -40 °C up to +85 °C
- Storage temperature -55 °C up to +85 °C
- Climatic conditions category to IEC 68/1: 25/085/21

#### MECHANICAL

- Flammability:
  - PCB: UL 94 V-0
  - Connectors: UL 94 V-0/-1
- Vibration:
  - According to DIN 41640 part 15:
  - 10 Hz to 500 Hz 5 g rms
  - Impact (10 impacts per axis x,y,z) 50 g, 6 ms
- Layerstackup 10 layers/8 layers (2 Slot)
- Connector: 2 mm pitch, 7 rows,
  - Quality class 2 compliant to spec.
  - IEC 61076-4-101 and BELLCORE GR-1217-CORE
  - Insertion force 0.75 N and extraction force 0.15 N of every contact

### Order Code

Option	Code and description	8	0	9	6	5	-	0		-	6		0
System Slot	5 - left side 6 - right side												
Fabric Slot	5 - left side 6 - right side												
Clock frequency	0 - 33 MHz, V(I/O) +5 V (coding key brilliant blue) 3 - 33 MHz, V(I/O) +3.3 V (coding key yellow) 6 - 66 MHz, V(I/O) +3.3 V (coding key yellow up to 5 slots only)												
Number of slots	04 to 08 (more slots on request)												
Bridge	6 - without bridge												
Power connection	8 - Power bolts 9 - DIN 41612 Type M connector H - ATX cable J - Positronic P47												
Bus width	0 - 64 bit 1 - 32 bit (on request)												
Contact plating	0 - Power inputs tinned IEC pins gold-plated class 2												