

Millipacs® Compact PCI

DESIGNED IN ACCORDANCE WITH IEC 61076-4-101

Millipacs® 2mm Hard Metric connectors fulfill the interconnection requirement of the PICMG 2.0 Revision 3.0, the Compact PCI core specification.

Millipacs® for Compact PCI is featured with the 2-beam twisted tulip contact, which provides an equalized signal path, two-contact points for reliability and superior performance in an environment subject to shock and vibration. Millipacs® range currently supports 3Gb/s data rate with backward mating compatibility to the standard 2mm HM IEC 61076-4-101 connectors.

- Saves space with a 2.00mm pitch
- Current rating up to 1.5A
- Complies with Compact PCI Bus Architecture
- Hot swapping and EMI Protection



TARGET MARKETS



FEATURES

- Modular and scalable by 25mm to 50mm
- Receptacle Contact: Tulip type
- Three levels of mating contact lengths and different terminal lengths for headers
- Top and bottom shielding options
- Stamped contacts for receptacles
- RoHS compliant and lead-free

BENEFITS

- Standard modular length, without any loss of position
- Equalized signal path and contact reliability
- Suitable for various applications with different PCB thickness, rear plug-up (RPU) applications and hot swapping
- EMI Protection
- Accurate true positioning
- Meets environmental, health, and safety requirements

TECHNICAL INFORMATION

MATERIAL

- Insulator Material: Thermoplastic UL94-V0
- Contact Material: Copper Alloy

MECHANICAL PERFORMANCE

- Mating Force: 0.75N max. per contact pair
- Withdrawal Force: 0.15N min. per contact pair
- Hertz Stress: 200Kpsi min.
- Misalignment: Longitudinal ± 2.00 mm Transversal ± 2.50 mm
- Inclination: $\pm 2.0^\circ$

ELECTRICAL PERFORMANCE

- Operating Current:
 - 1.5A at 20°C
 - 1A at 70°C
- Test Voltage: 750Vrms
- Contact Resistance: 20m Ω max.
- Insulation Resistance: 10,000M Ω min.

PACKAGING

- Tray packaging

APPROVALS & CERTIFICATION

- Designed in accordance with IEC 917 and IEC 61076-4-101
- Fits DIN 43356 and IEEE 1301 Hard Metric Practice
- Telcordia GR-1217-CORE standards
- UL and CSA recognized

TOOLING INFORMATION

- 10146110-VH5A-VHDR 5R TYPE A
- 10146110-VH5AB 22-VHDR 5R TYPE AB22
- 10146110-VH5B 22-VHDR 5R TYPE B22
- 10146110-VH5AB 19-VHDR 5R TYPE AB19
- 10146110-VH5B19 VHDR 5R TYPE B19
- 10146110-VH5B8 VHDR 5R TYPE B8

SPECIFICATION

- Product Specification: GS-12-203
- Packaging Specification: GS-20-022

ENVIRONMENTAL

- Operating Temperature Range: -55°C to +125°C

TARGET MARKETS/APPLICATIONS



Automotive



Communications



Data



Industrial & Instrumentation



Medical

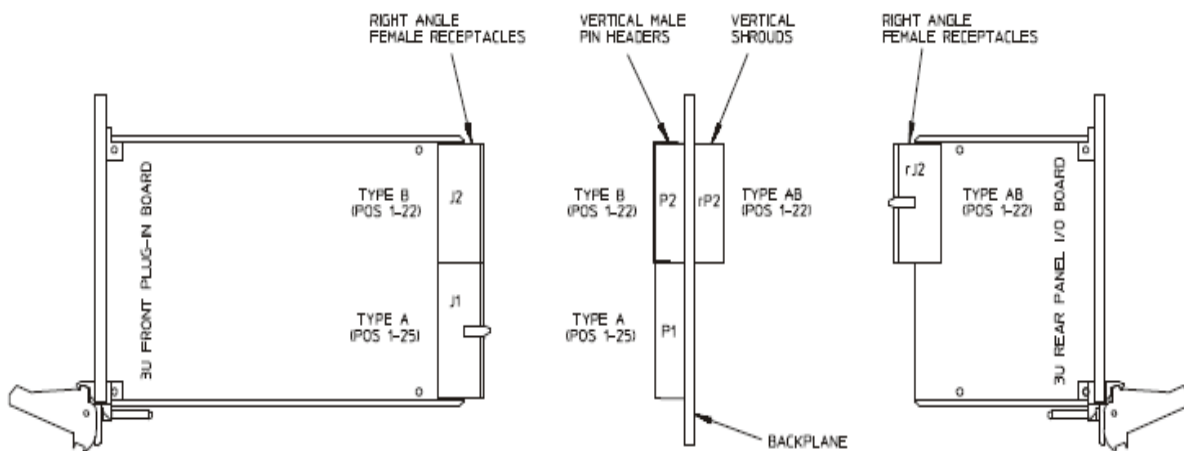


Military

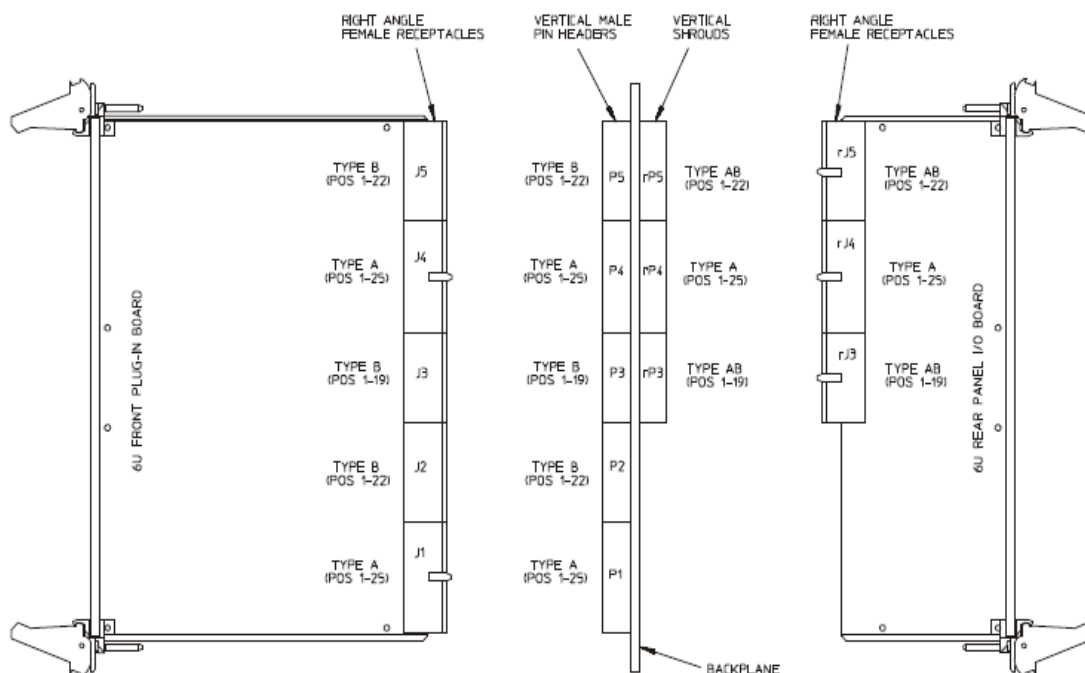
COMPACT PCI PACKAGING APPLICATION

- Type A connectors have alignment features and coding Keys. Type B connectors are plain without these features. Type AB connectors have alignment features without coding keys
- 32-bit PCI and connector keying are implemented on one connector (J1). An additional connector (J2) is defined for 64-bit transfers, for rear-panel I/O or for geographic addressing
- Front plug-in boards have alignment features on the Type A connectors to insure the board mates correctly with the backplane. These are used in locations J1/P1 and J4/P4
- Type AB connectors are specified in the rP2/rP3/rP5 and rJ2/rJ3/rJ5 locations to insure that any combination of connectors used for rear panel I/O always have an alignment feature
- Type B connectors were specified in the rP2/rP3/rP5 and rJ2/rJ3/rJ5 locations. Type AB shrouds are backwards compatible with Type B right angle receptacles

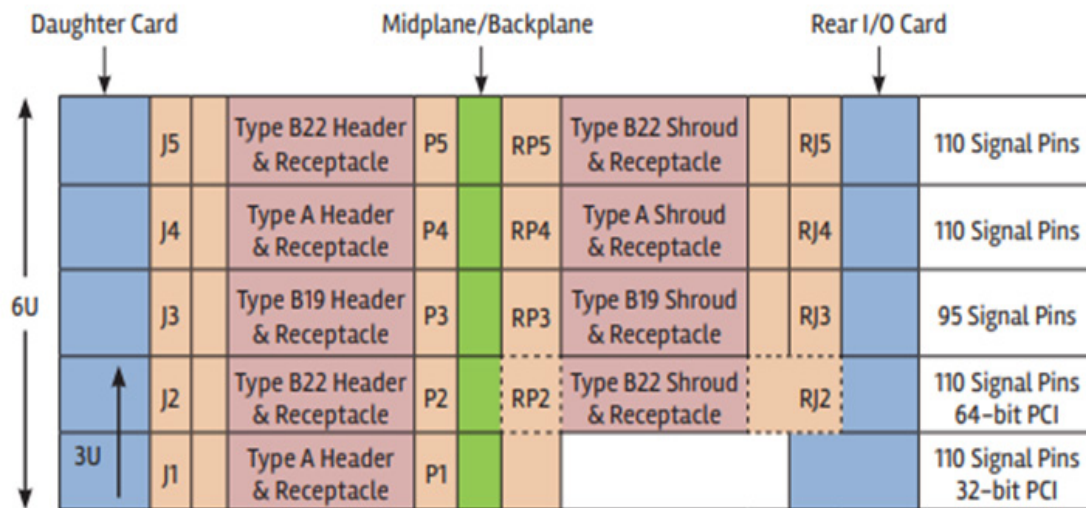
3U Connector Application



6U Connector Application

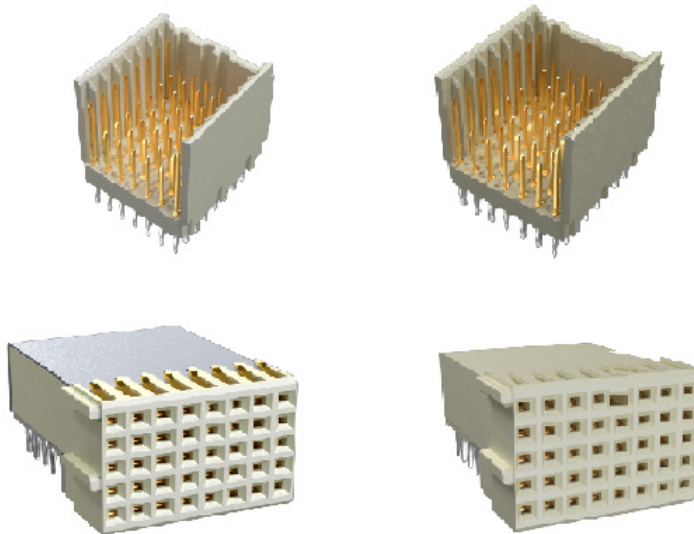


▶ Millipacs® Compact PCI

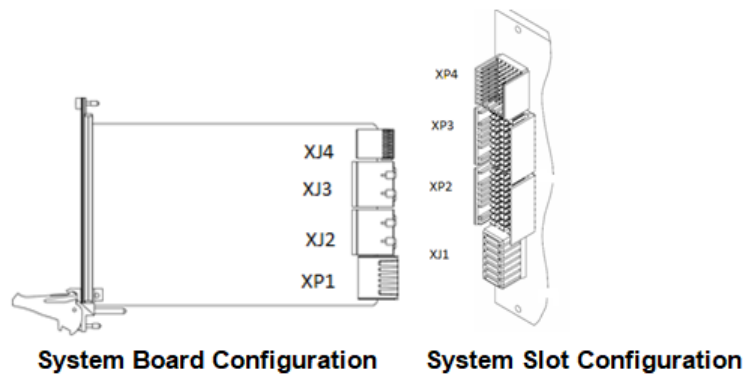


Millipacs® Compact PCI B8 Connector

- Millipacs® B8 connector is designed according to PICMG EXP.0 Compact PCI Express®
- Millipacs® B8 Connector defines a 5–row by 8–column Hard Metric which is used on system slots/boards,. The type of connector provides the Optional Rear I/O or user I/O capability, for typical boards, and some sideband signals



Typical System Board and System Slot Configuration



- The System Board provides two or four PCI Express® Links that lead to the PCI Express® Root Complex, along with their associated PCI Express® reference clocks. It also provides the power supply control signaling, reset, and optionally SMBus master functionality. The System Board connectors include the XJ4 connector (Female Connector)
- The System Slot is unique in a Compact PCI Express® Chassis. It provides pins for the two or four PCI Express® Links for routing from a System Board to PCI Express® Switches, a Switch Slot for Link fan-out, or directly to Peripheral Slots. The System Slot connectors include XP4 connector (Male Connector)

PART NUMBERS

Type	Part Numbers	Description	Pins	Compact PCI Backplane/ Daughter Card Location
A	HM2R10PA5108N9LF	Right Angle Receptacle	110	J1, J4, RJ4
B22	HM2R70PA5108N9LF	Right Angle Receptacle	110	J2, RJ2, J5, RJ5
B19	HM2R71PA5108N9LF	Right Angle Receptacle	95	J3, RJ3, J0 (VME 64 ext), RJ0 (VME 64 ext)
A	HM2R10PACA39N9LF	Right Angle Receptacle	90	Comp Telephony
AB19	HM2R67PA5108N9LF	Right Angle Receptacle	95	RJ0, RJ3
AB22	HM2R66PA5108N9LF	Right Angle Receptacle	110	RJ2, RJ5
B8	HM2R78PA5108N9LF	Right Angle Receptacle	40	XJ4
A	HM2P07PDG1A1N9LF	Vertical Header	110	P1, P4
A	HM2P07PME124GFLF	Vertical Header	110	P1, P4
A	HM2P07PN5114GFLF	Vertical Header	110	P1, P4
A	HM2P07PDU1A1N9LF	Vertical Header	110	P1 (Hot Swap)
B22	HM2P70PDE121N9LF	Vertical Header	110	P2, P5
B22	HM2P70PME124GFLF	Vertical Header	110	P2, P5
B22	HM2P70PN5114GFLF	Vertical Header	110	P2, P5
B22	HM2P70PME129GFLF	Vertical Header	110	P2, P5
B22	HM2P70PN511CGFLF	Vertical Header	110	P2, P5
B19	HM2P71PDE121N9LF	Vertical Header	95	P0, P3
B19	HM2P71PME124GFLF	Vertical Header	95	P0, P3
B19	HM2P71PN5114GFLF	Vertical Header	95	P0, P3
B19	HM2P71PME125GFLF	Vertical Header	95	P0, P3
B19	HM2P71PN5115GFLF	Vertical Header	95	P0, P3
B8	HM2P78PD5110N9LF	Vertical Header	40	XP4
A	HM2P07PDW145N9LF	Vertical Header	84	Comp Telephony
B22	HM2P70PMW1N5GFLF	Vertical Header	110	Comp Telephony
B22	HM2P70PMW1N9GFLF	Vertical Header	110	Comp Telephony
	HM2DK3456PLF	Coding key	Yellow	3.3V
	HM2DK1278RLF	Coding key	Yellow	3.3V
	HM2DK1567PLF	Coding key	Blue	5.0V
	HM2DK2348RLF	Coding key	Blue	5.0V
	HM2DK1248PLF	Coding key	Red	Comp Telephony
	HM2DK3567RLF	Coding key	Red	Comp Telephony

Find part number details using the search box on www.amphenol-cs.com