

Millipacs® series 2mm Hardmetric connectors for CompactPCI®

Product Presentation

Amphenol Information Communications
and Commercial Products

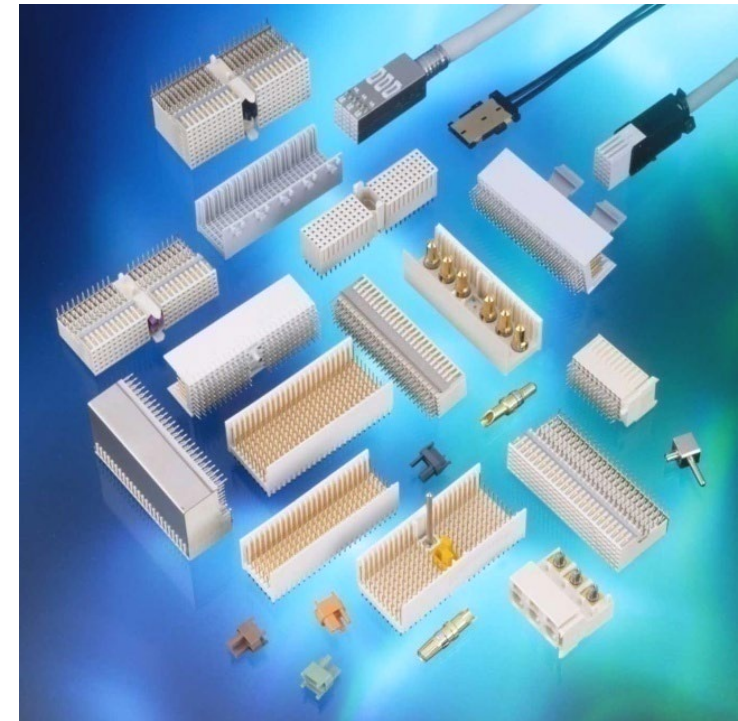
≡ **FCi Basics**

Amphenol ICC

Millipacs® Overview

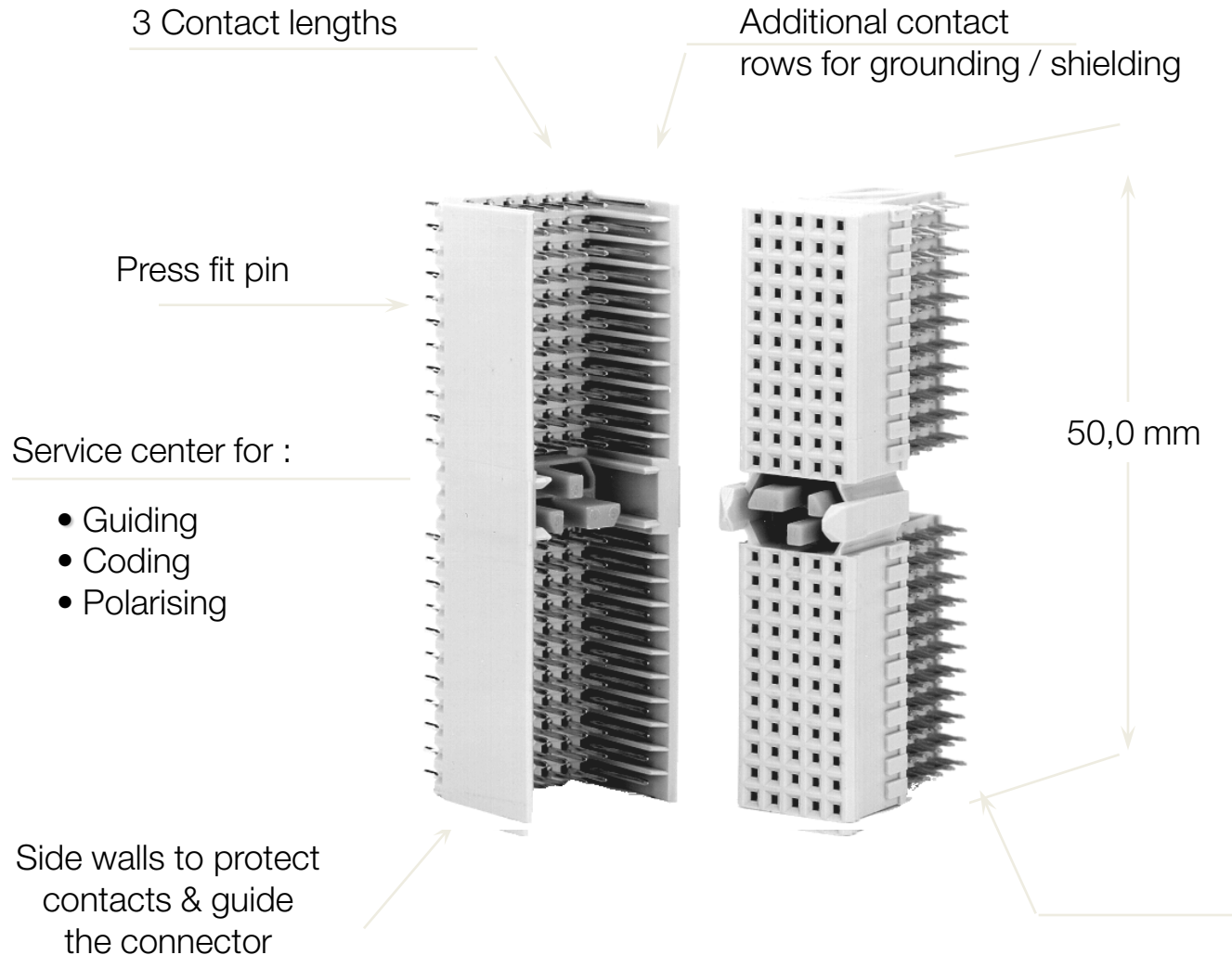
Popular version for Compact PCI application

- Millipacs® 2mm HardMetric Connectors fulfill the interconnection requirement of Compact PCI (cPCI) bus architecture. Connectors are designed in accordance to IEC 61076-4-101
- Millipacs Hard Metric Connectors covers the entire range of range of 2mm connectors required by Compact PCI Board
 - Vertical Headers
 - Right Angle Receptacles
 - Backpanel Shrouds
 - Colour coding Keys
- Other options in the range
 - Higher data rate up to 25Gbps
 - Mix of low power and high power
 - Mezzanine, Co-Planar or IO
 - Protective covers



2.0mm Hard Metric Interconnect

Best in class features for reliability and ruggedness

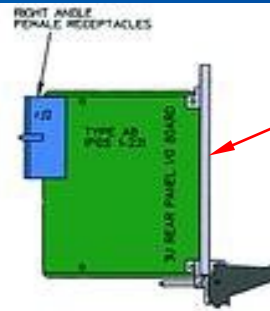
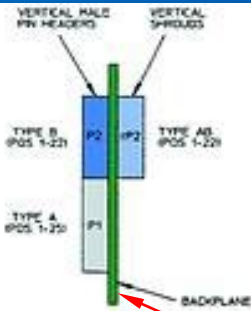
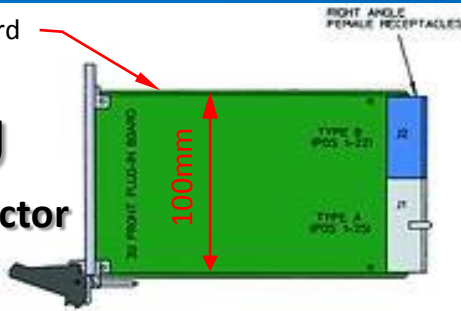


PICMG 2.3 CompactPCI[®] Architecture **FCi Basics**

3U & 6U Packaging Form Factors

3U Front Card

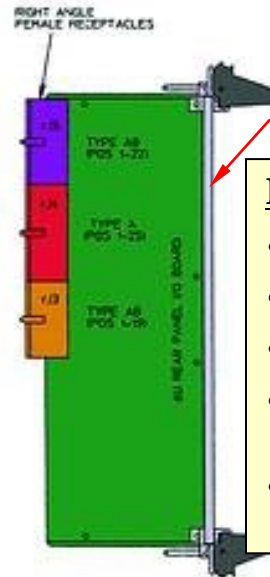
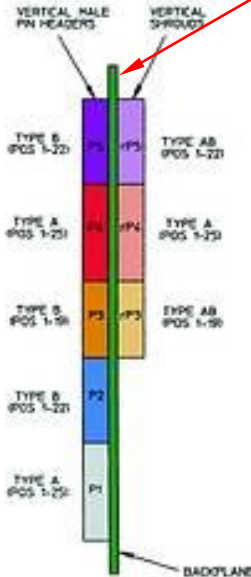
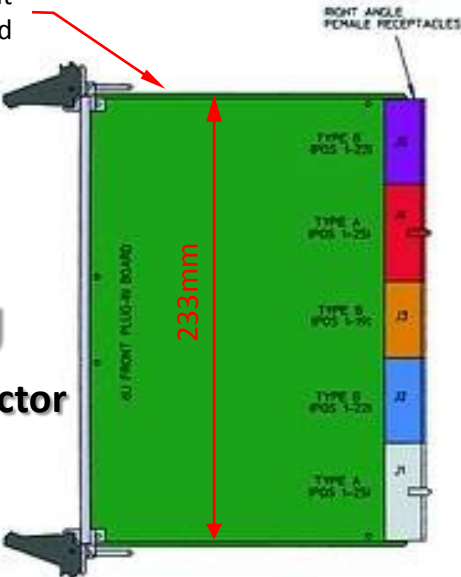
3U
Form Factor



3U Rear Transmission Card

6U Front Card

6U
Form Factor



Backplane / Mid-Plane

6U Rear Transmission Card

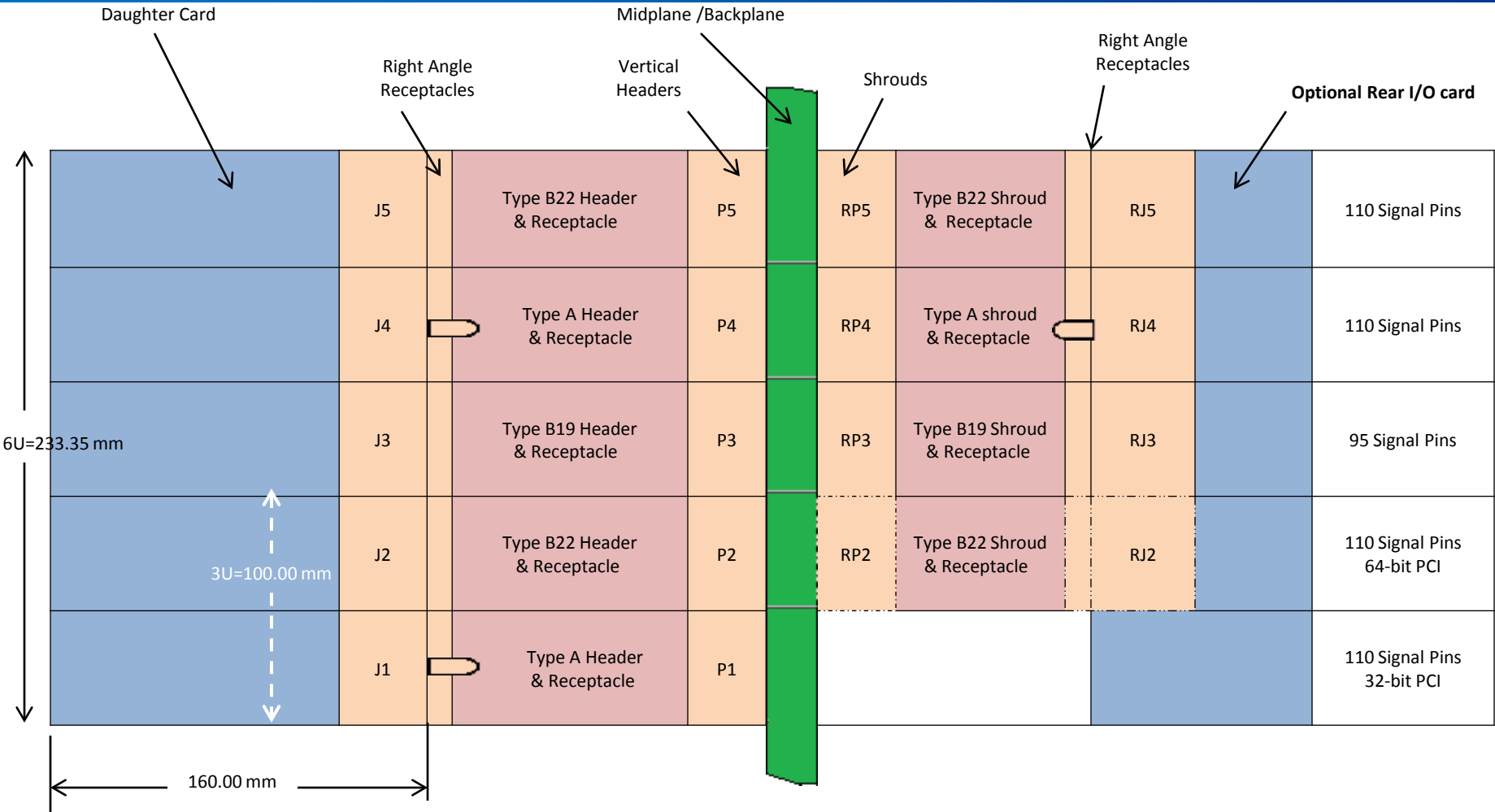
IEC 61076-4-101 Connector Utilization:

- J1/P1 for 32bit PCI bus (Type A, 110 pins)
- J2/P2 for 64bit PCI Buss Ext. (Type B, 110 pins)
- J3/P3 for Rear IO (Type AB, 95 pins)
- J4/P4 for H.110 CT Bus or Rear IO (Type A, 110 pin)
- J5/P5 for general purpose or telecom IO (Type AB, 110 pin)

▪ Millipacs series 2mm Hard metric connectors is available in Type A,B & AB meeting cPCI architecture

CPCI Packaging Applications

Milliacs offers stackability without loss of positions



Range

Connector, Shrouds, Accessories

- **Vertical Headers**

- Type A,B 22, B19,AB22 & AB19

- **Right Angle Shielded Receptacles**

- Type A,B22, B19,AB22 & AB19

- **Shrouds**

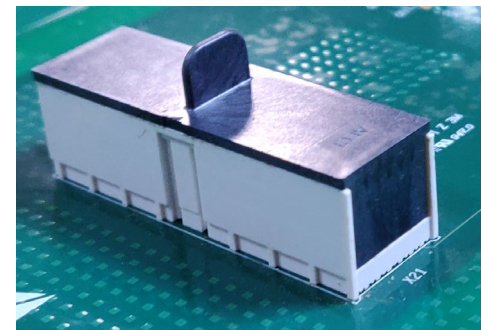
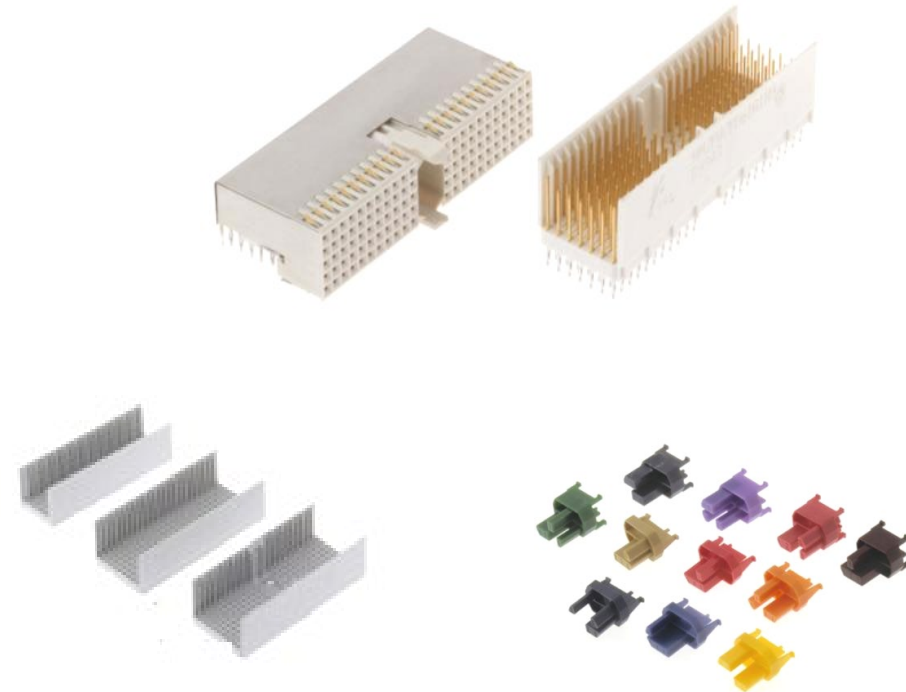
- Type A,B22, B19,AB22 & AB19

- **Accessories**

- Colour coding keys

- **Protective Covers**

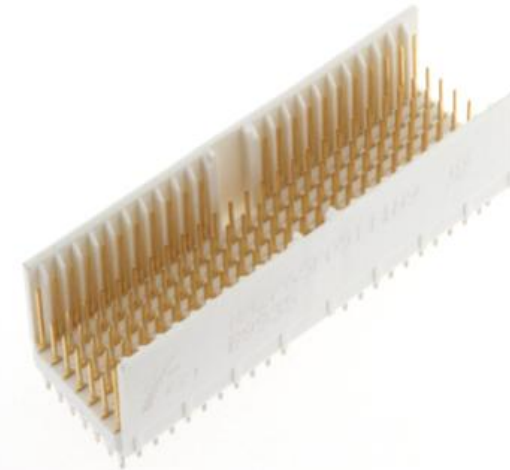
- Type A,B,AB for column numbers 19,22 or 25



Vertical Header

Features & Benefits

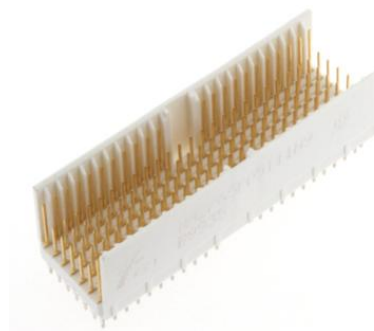
- Modular and scalable by 25 mm to 50mm
 - Standard modular length, without any loss of position
- Three levels of mating contact lengths
 - Hot Swapping/ FMLB options
 - Custom loading
- Different terminal lengths.
 - Suitable for various applications with different PCB thickness, rear plug up applications
- Multipurpose center, Guiding feature and Location peg
 - Easy guiding and location of Connectors
- Two outer rows
 - Shielding



Vertical Header

Typical Part Number

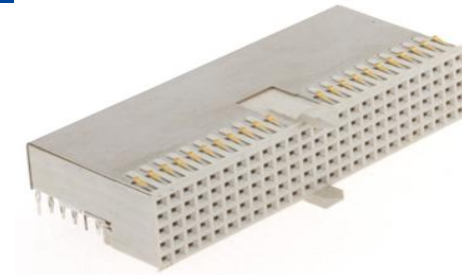
Headers with Straight Press fit termination			
Type	FCI Part Number	Pins	Compact PCI Backplane Location
A	HM2P07PDG1A1N9LF	110	P1,P4
A	HM2P07PME124GFLF	110	P1,P4
A	HM2P07PN5114GFLF	110	P1,P4
A	HM2P07PDU1A1N9LF	110	P1(Hot Swap)
B22	HM2P70PDE121N9LF	110	P2,P5
B22	HM2P70PME124GFLF	110	P2,P5
B22	HM2P70PME129GFLF	110	P2,P5
B22	HM2P70PN511CGFLF	110	P2,P5
B19	HM2P71PDE121N9LF	95	P0,P3
B19	HM2P71PME124GFLF	95	P0,P3
B19	HM2P71PN5114GFLF	95	P0,P3
B19	HM2P71PME125GFLF	95	P0,P3
B19	HM2P71PN5115GFLF	95	P0,P3
A	HM2P07PDW145N9LF	84	Computer Telephony
B22	HM2P70PMW1N5GFLF	110	Computer Telephony



Right Angle Receptacle

Features & Benefits

- Modular and Scalable by 25 mm to 50mm
 - Standard Modular length, without any loss of position
- 2-beam tulip contact
 - Equalized signal path and contact reliability
- Multipurpose center, Guiding feature
 - Easy guiding and visual identification preventing wrong mating
- Stamped & Stitched contacts
 - Accurate True Position, Custom loading with blank position
- Two outer rows for shielding
 - Top & bottom shielding

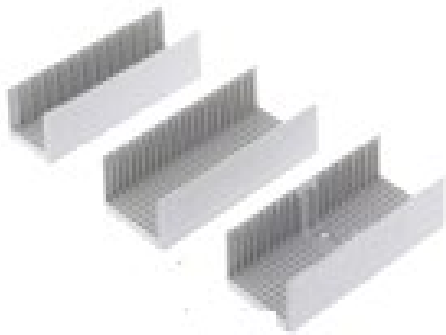


Receptacles with Right Angled Press-Fit termination			
Type	FCI Part Number	Pins	Compact PCI Card Location
A	HM2R10PA5108N9LF	110	J1,J4,RJ4
B22	HM2R70PA5108N9LF	110	J2,RJ2,J5,RJ5
B19	HM2R71PA5108N9LF	95	J3,RJ3,J0(VME 64 ext),RJ0(VME 64 ext)
A	HM2R10PACA39N9LF	90	Computer Telephony
AB19	HM2R67PA5108N9LF	95	R3,RJ0
AB22	HM2R66PA5108N9LF	110	RJ2,RJ5

Backplane Shrouds

Features and Benefits

- Shroud retention by forced-fit over the long tails of vertical headers/receptacles for RPU applications
 - No mounting hardware required
- Integrated Multipurpose center for polarization, guiding and coding
 - Easy guiding and visual identification. Prevents wrong mating
- Stand-off for different shroud heights
 - Flexibility on Backplane thickness



Backplane Shrouds		
Type	Part Number	Compact PCI Backplane Location
A	HM2H07P1XXLF	RP4
B19	HM2H71P1XXLF	RP3,RP0
B22	HM2H70P1XXLF	RP2,RP5
AB22	HM2H66P1XXLF	RP2,RP5
AB19	HM2H67P1XXLF	RP3,RP0(VME 64 Ext)

Coding Keys

Features and benefits

- Polarization
 - Prevents incorrect insertion of PCBs and daughter cards
- Well defined colors
 - Easy identification

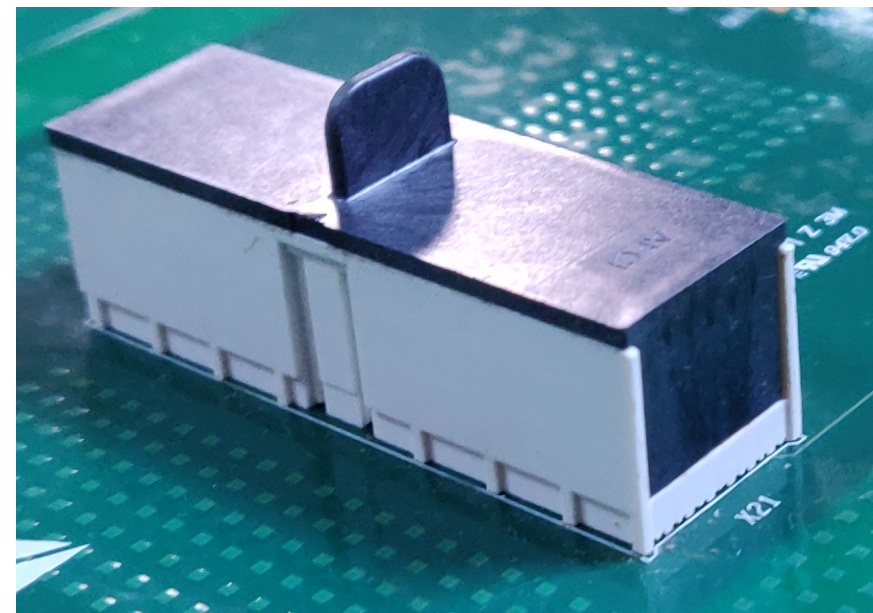


Part Number	Description	Colour	Backplane Identification
HM2DK3456PLF	For Header Connector	Cadmium Yellow	3.3V
HM2DK1278RLF	For Receptacle Connector	Cadmium Yellow	3.3V
HM2DK1567PLF	For Header Connector	Brilliant Blue	5.0V
HM2DK2348RLF	For Receptacle Connector	Brilliant Blue	5.0V
HM2DK1248PLF	For Header Connector	Strawberry Red	Computer Telephony
HM2DK3567RLF	For Receptacle Connector	Strawberry Red	Computer Telephony

Protective covers

Features and benefits

- Covers for Backplane Vertical headers
 - Prevents dust while in unmated condition
 - Prevents bend pins due to accidental touching
 - Easy insertion or removal

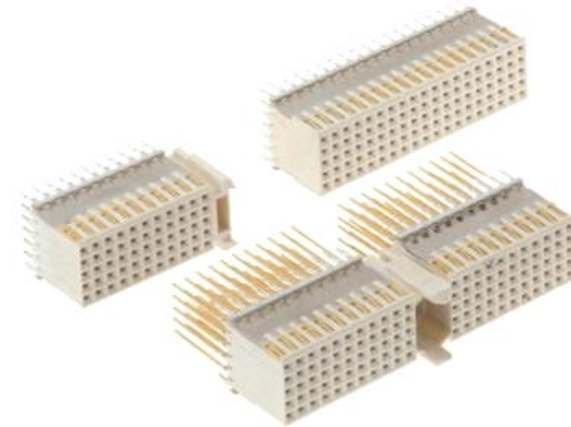
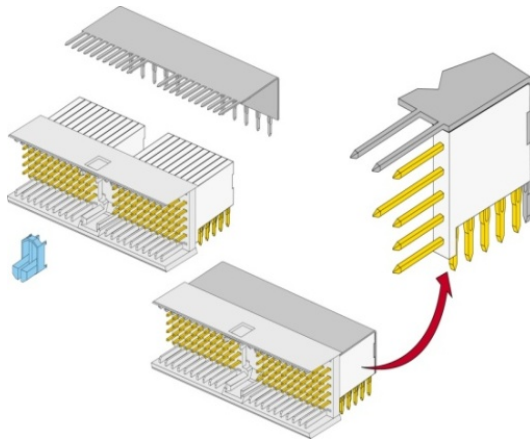


Type	Part Number	Length in mm
A, B or AB	10151863-001LF	50
B22 or AB22	10151863-002LF	44
B19 or AB19	10151863-003LF	38
C	10151863-004LF	25

Reverse gender application

Vertical receptacle and Right Angle Header

- Mating configuration
 - Vertical Receptacle and Right Angle Header
- CPCI configurations possible in reverse gender



- Test & Measurements
 - Data Acquisition
- Medical
 - MRI Scanners
- Transportation
 - Railway Traffic Management & Control Systems
- Industrial Automation
 - Control Systems for Process , Energy & Power Industries
- Aerospace
 - Avionics : In-flight Entertainment & Communication
 - Aircraft Engine :EEC
- Instrumentation
 - Digital Image Processing, Multimedia, Singage, Video Surveillance
- Military
 - Radar, Sonar System, UAV
- Telecom
 - Switches, Servers, Routers, Radio Communications

Amphenol ICC

Thank You