

Millipacs® 2mm Hard Metric Series – Right Angle Receptacle Connectors

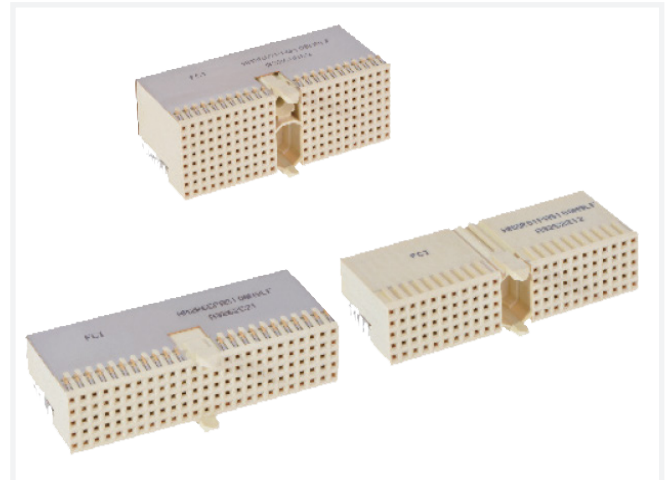
HIGH CURRENT POWER INTERCONNECTION!

Millipacs® is a 2mm modular, Board-To-Board Interconnection System in Hard Metric (HM) configuration designed in accordance with IEC 917, IEC61076-4-101 and Telcordia GR-1217-CORE standards. The 2mm HM connector is one of the most popular backplane connector system. Millipacs® series offers attractive propositions for all market segments due to the cost effectiveness, user flexibility, standardization and availability of its broad range. Millipacs® connector system is extensively used for chassis-based packaging in the Communications, Data, Energy, Medical and Industrial & Instrumentation segments.

Millipacs® series HM right angle receptacles are offered in standard signal modules of 5 and 8 rows. 5 row modules are available up to maximum of 125 signal contacts and 8 row modules are available up to maximum 200 signal contacts per 50mm length. Besides signal module, hybrid modules are available with signal pins, power and coax contacts. Right angle receptacles mate with vertical headers and right angle headers.

FEATURES

- Hard Metric
- 2mm pitch
- Modular and scalable by 25mm to 50mm
- 2-beam tulip contact
- Multipurpose center, Coding feature, Guiding feature, and location peg
- Stamped contacts
- Blank position feasibility
- Hybrid connectors with signal, power, and coaxial contacts
- Two outer rows



TARGET MARKETS



BENEFITS

- Popular equipment practice standard. Millipacs® co-exists with all HM compatible connectors and accessories
- Adequate spacing for routing PCB traces and thereby optimizing board layers, Reduces PCB real estate Vs 2.54mm
- Standard modular length, without any loss of position
- Equalized signal path and contact reliability
- Easy guiding and visual identification prevents wrong mating
- Accurate true position
- Improves creepage distance, custom loading
- Enables versatile circuit design with data rate of 3Gb/s
- Optional shielding

TECHNICAL INFORMATION

MATERIAL

- Insulator Material: High-temperature Polymer
- Contact Material: Copper Alloy
- Contact Plating: Gold/Palladium Nickel on mating areas and
- Tin over Nickel on press-fit/terminal area

MECHANICAL PERFORMANCE

- Mating Force: 0.75N max. per contact pair
- Withdrawal Force: 0.15N min per contact pair
- Hertz Stress: 200Kpsi min.
- Misalignment: Longitudinal $\pm 2.0\text{mm}$
Transversal $\pm 2.5\text{mm}$
- Inclination: $\pm 2.0^\circ$

APPROVALS AND CERTIFICATIONS

- 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

PACKAGING

- Tray Packaging

ELECTRICAL PERFORMANCES

- Operating Current: 1.5A at 20°C
1.0A at 70°C
- Test Voltage: 750Vrms
- Contact Resistance: 20M Ω max.
- Insulation Resistance: 10⁴M Ω min.

ENVIRONMENTAL

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

SPECIFICATIONS

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

TARGET MARKETS/APPLICATIONS



IP, Internet Backbone Driving High Bandwidth Requirements
LAN / WAN Interfaces & Data Over Public Networks
Core Switches
Routers
Hubs
Base Station
Wireless Base Station
Transmission Access Systems



Server
Storage Units



Energy Management System
Data Acquisition systems for Test & Measurements
Control Systems for Process/ Factory Automation
Railway Traffic Management & Control Systems
In-flight Entertainment & Communication for Avionics
Digital Image Processing
Video Surveillance
Radar
Sonar System
UAV



MRI Scanners
Diagnostic Equipment

PART NUMBERS

No. of Signal Rows	Type	Features	Right Angle Receptacle Series	Max. No. of Signal Pins	Mounting Style
5	A	22 column, 50mm + MPC	HM2R10P	110	Press-fit
	A	22 column, 50mm + MPC + location peg	HM2R01P	110	Press-fit
	A	12 column, 30mm + MPC	HM2R27P	60	Press-fit
	A	22 column, 50mm + MPC + recess for guide pin + location peg	HM2R29P	110	Press-fit
	B	25 column, 50mm	HM2R02P	125	Press-fit
	B22	22 column, 44mm	HM2R70P	110	Press-fit
	B19	19 column, 38mm	HM2R71P	95	Press-fit
	AB	25 column, 50mm + polarization	HM2R65P	125	Press-fit
	AB22	22 column, 44mm + polarization	HM2R66P	110	Press-fit
	AB19	19 column, 38mm + polarization	HM2R67P	95	Press-fit
	C	11 column, 25mm + end polarization	HM2R30P	55	Press-fit
	C	11 column, 25mm + end polarization + location peg	HM2R03P	55	Press-fit
	CR	11 column, 25mm + reversed + end polarization + location peg	HM2R20P	55	Press-fit
	L	50mm, 6 power/coax + MPC	HM2E30P	6 Pwr	Press-fit
	M	50mm, 55 signal + 3 power/coax + MPC	HM2R05P	3 Pwr+ 55	Press-fit
	N	25mm, 3 power/coax + end polarization	HM2E32P	3 Pwr	Press-fit
8	D	22 column, 50mm + MPC	HM2R81P	176	Press-fit
	D	22 column, 50mm + MPC + location peg	HM2R87P	176	Press-fit
	DE	25 column, 50mm + polarization	HM2R95P	200	Press-fit
	E	25 column, 50mm	HM2R88P	200	Press-fit
	F	11 column, 25mm + end polarization	HM2R83P	88	Press-fit
	F	11 column, 25mm + end polarization + location peg	HM2R89P	88	Press-fit

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

* MPC – Multi purpose center for polarization and coding

* Application tooling are available on request

* Compact PCI Connectors are available for Types A, B22, B19, AB22, and AB19

* Performance levels: 3 – 50 mating cycles;
2 – 250 mating cycles;
1 – 500 mating cycles.

Mouser Electronics

Authorized Distributor

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HM2R01PA5100N9LF	HM2R02PA5108N9LF	HM2R70PA5100N9LF	HM2R02PA5100N9LF	HM2R10PA5108N9LF
HM2R70PA5108N9LF	HM2R10PA5100N9LF	HM2R71PA5108N9LF	HM2R01PA5100L9LF	HM2R01PACA39N9LF
HM2R02PA5100E9LF	HM2R02PA5101E9LF	HM2R02PA5108E9LF	HM2R02PA510FN9LF	HM2R02PACA10N9LF
HM2R03PA5100L9LF	HM2R03PA5108N9LF	HM2R10PA5100E9LF	HM2R10PA5100L9LF	HM2R10PA5108E9LF
HM2R10PA510FE9LF	HM2R10PA5300N9LF	HM2R10PACA39N9LF	HM2R20PA5100L9LF	HM2R20PA5100N9LF
HM2R20PA5101N9LF	HM2R20PA5108N9LF	HM2R21PA5108N9LF	HM2R30PA5100L9LF	HM2R30PA5101L9LF
HM2R30PA5108N9LF	HM2R30PA5300N9LF	HM2R30PACA20N9LF	HM2R30PACAJ0N9LF	HM2R65PA5100N9LF
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HM2R81PA8101N9LF	HM2R83PA8100N9LF	HM2R83PA8101N9LF	HM2R87PA8100N9LF	HM2R87PA8101N9LF
HM2R88PA8100N9LF	HM2R88PA8101N9LF	HM2R89PA8100N9LF	HM2R89PA8101N9LF	HM2R95PA8100N9LF
HM2R01PA5102N9LF	HM2R02PA5108L9LF	HM2R03PA5108L9LF	HM2R10PA5108L9LF	HM2R30PA5108N9STLF
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HM2R88PA8108N9LF	HM2R88PA810FN9LF	HM2R89PA8108N9LF	HM2R95PA8100Z1LF	HM2R95PA810FN9LF
HM2R02PA5101N9LF	HM2R01PA510FN9LF	HM2R30PA5100AALF	HM2R01PA5101N9LF	HM2R03PA5101N9LF
HM2R10PA5101N9LF	HM2R30PA5101N9LF	HM2R03PA5100N9LF	HM2R01PA5108N9LF	HM2R71PA510FN9LF
HM2R30PA5100N9LF	HM2R02PA5100AALF	HM2R95PA8108N9LF	HM2R03PA5101AALF	HM2R81PA8100AALF
HM2R10PA5100AALF	HM2R10PA5108AALF	HM2R95PA8100AALF	HM2R67PA5100N9LF	HM2R21PA5100N9LF
HM2R70PA510FN9LF	HM2R10PA510FN9LF	HM2R02PA5100L9LF	HM2R65PA510FN9LF	HM2R95PA8108AALF
HM2R02PA5101AALF	HM2R71PA5108AALF	HM2R89PA8101AALF	HM2R03PA510FN9LF	HM2R88PA8108AALF