

MILLIPACS® 2mm HARD METRIC **SERIES - RIGHT ANGLE RECEPTACLE CONNECTORS**

OVERVIEW

Millipacs® is a 2mm modular, Board-To-Board and Cable-To-Board Interconnection System in Hard Metric (HM) configuration designed in accordance with IEC 917, IEC 61076-4-101 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 costeffectiveness, user flexibility, standardization and availability of its broad range. Millipacs® connector system is extensively used for chassis-based packaging in the Communications, Data, 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 headers receptacles mate with vertical headers and right angle headers.



FEATURES

- · Hard Metric
- · 2mm pitch

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
- · 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

- · 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
- · Optional shielding

MILLIPACS® 2mm HARD METRIC SERIES − RIGHT ANGLE RECEPTACLE CONNECTORS

TECHNICAL INFORMATION

MATERIALS

- 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

ELECTRICAL PERFORMANCES

Operating current: 1.5 A at 20°C
: 1.0 A at 70°C

• Test voltage: 750 Vrms

• Contact resistance: $20 \text{ m}\Omega$ max • Insulation resistance: $10^4 \text{ M}\Omega$ min

MECHANICAL PERFORMANCE

• Mating force: 0.75 N max per contact pair

• Withdrawal force: 0.15 N min per contact pair

· Hertz stress: 200 Kpsi min

Misalignment: Longitudinal ± 2.0mm
Transversal ± 2.5mm

• Inclination: ±2.0°

SPECIFICATIONS

• Product specification: GS-12-203

• Application specification: GS-20-022

ENVIRONMENTAL

• Operating temperature: -55°C to +125°C

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

TARGET MARKETS/APPLICATIONS

- Communications
 - 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
- Data
 - Servers
 - · Storage units
- · Industrial & Instrumentation
 - Data Acquisition systems for Test & Measurements
 - · Railway Traffic Management & Control Systems
 - · Control Systems for Process
 - · Energy & Power Industries
 - · In-flight Entertainment & Communication for Avionics
 - · Digital Image Processing
 - · Multimedia
 - Signage
 - Video Surveillance
 - Radar
 - · Sonar System
 - UAV
- Medical
 - · MRI Scanners
 - · Diagnostic Equipment

PART NUMBERS

| No. of signal rows | Туре | Features | Right Angle Receptacle series | Max. No. of signal pins | Mounting style |
|-----------------------|------|--|-------------------------------------|-------------------------------|-------------------|
| 5 | Α | 22 column, 50mm + MPC | HM2R10P | 110 | Press-fit |
| | Α | 22 column, 50mm + MPC + location peg | HM2R01P | 110 | Press-fit |
| | Α | 12 column, 30mm + MPC | HM2R27P | 60 | Press-fit |
| | Α | 22 column, 50mm + MPC + recess for guide pin + location peg | HM2R29P | 110 | Press-fit |
| | В | 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 |
| | С | 11 column, 25mm + end polarization | HM2R30P | 55 | Press-fit |
| | С | 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 Spl. | Press-fit |
| | М | 50 mm, 55 signal + 3 power/coax + MPC | HM2R05P | 3 Spl.+ 55 | Press-fit |
| | N | 25mm, 3 power/coax + end polarization | HM2E32P | 3 Spl. | 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 |

^{*} MPC - Multi purpose center for polarization and coding

2 - 250 mating cycles;

1 - 500 mating cycles.

^{*} 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;