Metral® product family offers the widest range of backplane connector solutions which includes vertical header and right angle receptacle series. The connectors are designed in accordance with IEC 61076-4-104 and Telcordia GR-1217-CORE.

Metral® vertical headers and right angle receptacles offer high contact density of 250 contacts per 100mm connector length, and a contact pitch of 2mm. They are available in 4 and 5 row versions.

Metral® vertical headers can be used with vertical receptacles for mezzanine application.

Metral® backplane connectors meet Futurebus+ standards to support applications in data, industrial and instrumentation, medical, and telecom markets.

**FEATURES**

- Modular and scalable, available in 1, 2, 4 and 8 modules
- 250 contacts per 100mm connector length
- Press-fit, Solder-to-Board and Pin-in-Paste terminations
- Varying pin length enables first-mate, last-break capability
- 4 and 5 row versions available
- Different length contacts at any position for Headers
- Dual beam contact design for receptacles
- Locating pegs option available
- Stackable connector to Metral® high speed range

**BENEFITS**

- Flexible modular length without any loss of contact position
- High signal density
- Caters to different application requirement
- Allows sequential connection of pins for design flexibility and offers protection
- Caters to different connector sizes
- Custom loading
- Provides electrical reliability and withstands vibration
- Enables accurate positioning of connector on PCB, holds connector in place
- Allows flexibility of low and high speed signals
METRAL® VERTICAL HEADER AND RIGHT ANGLE RECEPTACLE

TECHNICAL INFORMATION

MATERIALS
- Housing: High temperature thermoplastic; UL 94V-0
- Contact: Copper Alloy
- Plating: Performance-based plating

MECHANICAL PERFORMANCE
- Mating Force: 0.45N max. per pin
- Unmating Force: 0.15 N min. per pin

APPROVALS AND CERTIFICATIONS
- IEC 61076-4-104
- GR-1217-CORE

PACKAGING
- Tube for Press-fit and Solder-to-Board terminations
- Tape and Reel for Pin-in-Paste termination

ENVIRONMENTAL
- Operating Temperature: −55°C to +125°C

TARGET MARKETS/APPLICATIONS
- Data
- Industrial & Instrumentation
- Medical
- Telecom

SPECIFICATIONS
- Product Specifications: GS–12–180, 453
- Application Specifications: BUS–20–073, 061

ELECTRICAL PERFORMANCE
- Dielectric Withstanding Voltage: 1000Vrms
- Insulation Resistance: 5000MΩ min.
- Current Rating: 1A (all contacts powered)

PART NUMBERS

<table>
<thead>
<tr>
<th>Right Angle Receptacle (RAR)</th>
<th>Module</th>
<th>Termination</th>
<th>Vertical Header (VH)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>89035–102LF</td>
<td>85863–102LF</td>
<td>1</td>
<td>Solder-to-Board</td>
</tr>
<tr>
<td>89038–102LF</td>
<td>85866–102LF</td>
<td>8</td>
<td>Solder-to-Board</td>
</tr>
<tr>
<td>–</td>
<td>10126372–102LF</td>
<td>1</td>
<td>Pin-in-Paste</td>
</tr>
</tbody>
</table>