Low-profile EdgeLine® High-Speed Edge Card Connectors support data rates up to 25 Gbps and are available in multiple orientations and PCB thicknesses for use in high-signal transmissions and high-density signal applications.

**Features and Benefits**

<table>
<thead>
<tr>
<th>Feature/Multiple Options</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-speed differential contact design</td>
<td>Provides excellent signal integrity; performance up to 25 Gbps, depending upon the application</td>
</tr>
<tr>
<td>Multiple PCB thicknesses (1.57 to 3.18mm)</td>
<td>Accommodates a variety of PCB thicknesses on complex product designs</td>
</tr>
<tr>
<td>Surface mount terminal options</td>
<td>Enables high-speed pick-and-place assembly, as well as back-to-back connector placement</td>
</tr>
<tr>
<td>Press-fit, compliant-pin terminal options</td>
<td>Allows easy board termination using flat-rock tooling</td>
</tr>
<tr>
<td>Common (singulated) ground</td>
<td>Optimizes connector performance with dedicated differential pairs, or provides the maximum flexibility of an open array</td>
</tr>
<tr>
<td>Center key available on certain circuit sizes</td>
<td>Improves PCB alignment during mating</td>
</tr>
<tr>
<td>Multiple circuit sizes available</td>
<td>Facilitates design flexibility for signal and power assignment</td>
</tr>
<tr>
<td>Low profiles: CoPlanar connector 6.44mm above PCB; CoEdge connector 3.50mm above and below PCB</td>
<td>Provides enhanced air flow and thermal management</td>
</tr>
<tr>
<td>Keying and locking features available (0.80mm pitch CoEdge connectors only)</td>
<td>Secures the connector to the PCB and improves board alignment during mating</td>
</tr>
</tbody>
</table>

**Applications**

- **Telecommunications**
  - Storage
- **Networking**
  - Computing systems
  - PCIe
  - SAS
  - SATA
  - Storage systems
- **Industrial**
  - Signal
  - Connectivity
- **MIL/Aerospace**
  - Computing systems
  - C4ISR
Specifications

REFERENCE INFORMATION
Packaging: Tray/Tube
UL File No.: ECBT2.E29179
Mates With: Plug-in Card
Product Specification: CoPlanar:
  EdgeLine CoPlanar+: PS-170305-001
  EdgeLine CoPlanar: PS-76291-001
  EdgeLine CoEdge: PS-46720-001
Product Specification: Vertical:
  EdgeLine 25: PS-171774-0001
  EdgeLine ESP: PS-76861-100
  EdgeLine Edge Card PS-75594-999

ELECTRICAL
Voltage (max.):
  EdgeLine CoPlanar+: 250V AC (RMS)/DC
  EdgeLine CoPlanar: 50V AC (RMS)/DC
  EdgeLine CoEdge: 240V AC
  EdgeLine CoBridge: 240V AC
  EdgeLine 25: 250V AC
  EdgeLine ESP: 250V AC(RMS)/DC
  EdgeLine Edge Card: 250V AC
Current (max.):
  EdgeLine CoPlanar+: 0.5A
  EdgeLine CoPlanar+ ESP: 0.5A
  EdgeLine CoPlanar: 1.5A
  EdgeLine CoEdge: 1.0A
  EdgeLine CoBridge: 1.0A
  EdgeLine 25: 1.5A
  EdgeLine ESP: 3.0A
  EdgeLine Edge Card: 1.5A
Contact Resistance (max.): 10 miliohms
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance (min.): 10 Megohms

MECHANICAL
Durability (min.): 25 to 200 cycles options available

PHYSICAL
Housing: High Temperature Thermoplastic, 94-VO, Black
Contact: Copper (Cu) Alloy
Plating (min.):
  Contact Area: 0.76μm Gold (Au)
  Solder Tail Area: 0.76 to 1.52μm Tin (Sn)
  Underplating: 1.27μm Nickel (Ni)
Operating Temperature:
  EdgeLine CoPlanar+ ESP: -40 to +105°C
  EdgeLine CoPlanar+: -40 to +105°C
  EdgeLine CoPlanar: -40 to +85°C
  EdgeLine CoEdge: -55 to +85°C
  EdgeLine CoBridge: -55 to +85°C
  EdgeLine 25: -40 to +105°C
  EdgeLine+ ESP: -40 to +105°C
  EdgeLine Edge Card: -40 to +105°C

Ordering Information

<table>
<thead>
<tr>
<th>Series No.</th>
<th>Product Name</th>
<th>Orientation</th>
<th>Data Rate</th>
<th>Pitch</th>
<th>PCB Thickness Recommended</th>
<th>Termination</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>170082 CoPlanar+</td>
<td>CoPlanar</td>
<td>15 Gbps</td>
<td>0.80mm</td>
<td>2.36mm</td>
<td>Press Fit</td>
<td>Differential Pair</td>
<td>Open Array</td>
</tr>
<tr>
<td>170305 CoPlanar+ ESP</td>
<td>CoPlanar</td>
<td>6 Gbps</td>
<td>0.75mm</td>
<td>1.57mm</td>
<td></td>
<td>Differential Pair</td>
<td>Open Array</td>
</tr>
<tr>
<td>172066 CoPlanar</td>
<td>25 Gbps</td>
<td>0.80mm</td>
<td>1.57mm</td>
<td>SMT</td>
<td>SMT/Through Hole</td>
<td>Differential Pair</td>
<td>Open Array</td>
</tr>
<tr>
<td>76291 CoBridge</td>
<td>10 Gbps</td>
<td>0.80mm</td>
<td>2.36mm</td>
<td></td>
<td></td>
<td>Differential Pair</td>
<td>Open Array</td>
</tr>
<tr>
<td>46720-0xx CoEdge 100 Ohm</td>
<td>CoEdge</td>
<td>25 Gbps</td>
<td>0.80mm</td>
<td>1.57mm</td>
<td></td>
<td>Mechanical</td>
<td>Open Array</td>
</tr>
<tr>
<td>46810 CoEdge 85 Ohm</td>
<td>10 Gbps</td>
<td>0.80mm</td>
<td>1.57mm</td>
<td></td>
<td></td>
<td>Open Array</td>
<td>Z-Axis Mate</td>
</tr>
<tr>
<td>46720-9xx CoBridge</td>
<td>CoBridge</td>
<td>12.5 Gbps</td>
<td>0.80mm</td>
<td>2.36mm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

www.molex.com/link/edgeline.html

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