Mirror Mezz Connectors

Features and Advantages

- Hermaphroditic Mirror Mezz Connectors in 2.50 and 5.50mm (prototype only) height configurations (Remark: Picture on the right shows a 2.50mm connector mated to the 5.50mm version)
- Intricately designed terminal structure
  Provides numerous mechanical strengths while also benefiting from cutting-edge electrical features for some of the faster speeds in the industry
- Stitched BGA design
  Offers more cost savings than insert-molded BGA attachments. Stitched contact structure reduces lead-times and the connector design allows for simplified product matrix
- Open pin field rows
  - Support differential signal up to 17 GHz with offset GSSG pinout
  - Provide 9 signal pins on 8.10mm pitch
- Flex cable links for Mezz
  - Offer cost savings and excellent SI with controlled channels and pinned grounds
  - Enable relaxed tolerancing for offsets between boards and flexible architectures
- Differential pair pitch = 4.00mm (2 signals + 1 ground)
- 2 differential pair pitch = 8.00mm (4 signals + 2 grounds)

Footprint-compatible Hermaphroditic Mirror Mezz connector lowers application costs with stackable mating to support data speeds up to 56 Gbps per differential pair for telecommunications, networking and other applications
**Mirror Mezz Connectors**

**Wider ground pins**
Balance the electrical field and shield the differential pair from surrounding transmission lines.

**2 electrically tuned signal contacts**
Cleanly transmit high-speed signals for maximum signal integrity.

**Robust shrouded housing design**
Encapsulates the pin field, protecting the pins and offering blind-mate guidance to eliminate any possibility of mis-mating.

**Contact beam structure of a mated combination**
The contact beam is supported to prevent vibrations or terminal lift to ensure a constant 2-points of contact (indicated by white arrows) for electrical reliability. The beam geometry offers reliable normal force for harsh environments; and 1.50mm of nominal contact wipe to ensure sufficient engagement, even in high-vibration or partially unmated conditions.

**The bend direction of paddle-to-contact is different between rows to reduce cross-talk occurring between rows**

**The Mirror Mezz Connector** has pin fields populated with a precisely arranged combination of signals and grounds to maximize high-speed performance and clean routing out of the connector footprint.

**Applications**

Data/Computing
- Server
- Networking
- Storage

Telecommunications/Networking
- Infrastructure
- Networking

Storage Networking
Specifications

REFERENCE INFORMATION
Reference Information
Packaging: Tape and Reel
Mates With: 2.50 and 5.50mm height connectors can self- or cross-mate.
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes
Glow Wire Compliant: NA

ELECTRICAL
Voltage (max.): 30V AC
Current (max.): 1A per contact
Low Level Contact Resistance (max. initial): 30 milliohm for 5mm stack height
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 1000 Megohm
Impedance: 92 ohms

MECHANICAL
Average Mating Force: 0.5N per pin (max.)
Unmating Force: 0.045N per pin (min.)
Contact Normal Force (min.): 0.2N per pin
Durability (max.): 100 cycles

PHYSICAL
Housing: High Temperature Thermoplastic, UL94-V0
Contact: High Performance Copper Alloy
Plating: Selective Gold
Contact Area — 0.76 micron Gold (Au)
Solder Tail Area — 2.54 micron Tin (Sn)
Underplating — 1.27 micron Nickel (Ni)
Operating Temperature: -55 to 105°C

Ordering Information

<table>
<thead>
<tr>
<th>Series No.</th>
<th>No. of rows</th>
<th>No. of differential pairs per row in Zone 1, 2 and 3</th>
<th>Total No. of differential pairs (excluding orphan pair)</th>
<th>Total No. of orphan pairs</th>
<th>Dimension</th>
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<tbody>
<tr>
<td>202828</td>
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<td>Refer to Sales Drawings</td>
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www.molex.com/link/mirrormezz.html

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