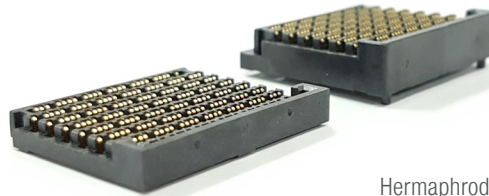
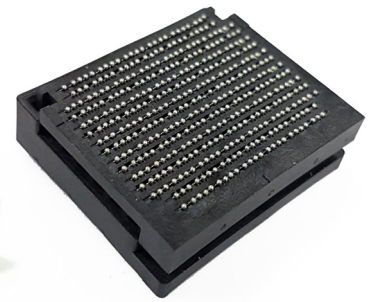


Mirror Mezz Connectors



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

Features and Advantages

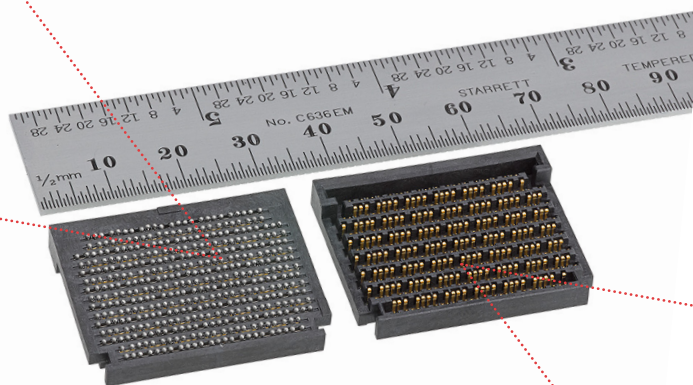


Hermaphroditic Mirror Mezz Connectors in 2.50 and 5.50mm (prototype only) height configurations (Remark: Picture on the right shows a 2.50mm connector mated to the 5.50mm version)



Stitched BGA design

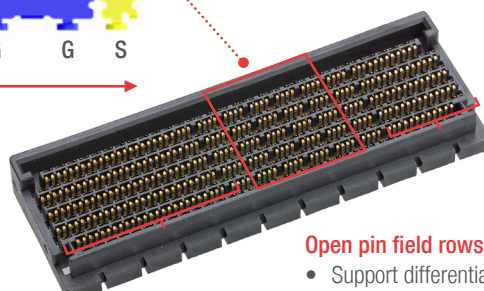
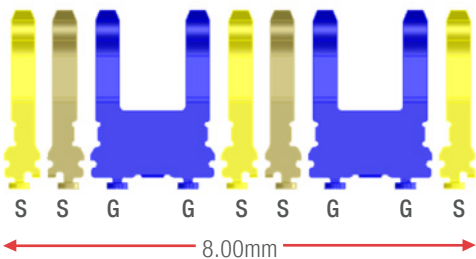
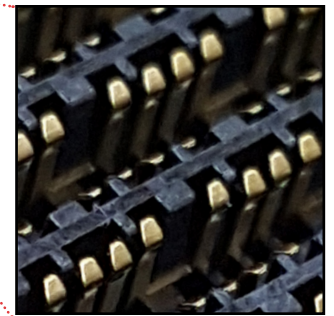
Offers more cost savings than insert-molded BGA attachments. Stitched contact structure reduces lead-times and the connector design allows for simplified product matrix



Bottom (left) and top-side (right) perspectives of the 2.50mm height Mirror Mezz Connector

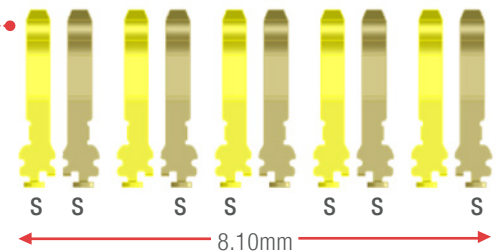
Intricately designed terminal structure

Provides numerous mechanical strengths while also benefiting from cutting-edge electrical features for some of the faster speeds in the industry



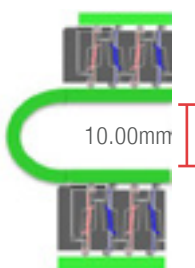
Open pin field rows

- Support differential signal up to 17 GHz with offset GSSG pinout
- Provide 9 signal pins on 8.10mm pitch



Differential pair pitch = 4.00mm (2 signals + 1 ground)

2 differential pair pitch = 8.00mm (4 signals + 2 grounds)



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

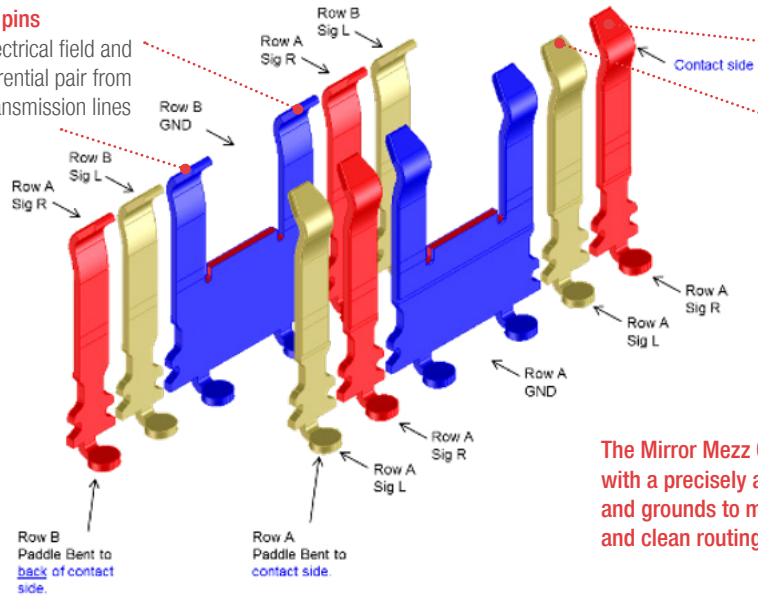
Using two 5.00mm stack height Mirror Mezz Connectors with 10.00mm flex provides 20.00 to 120.00mm stack heights

Mirror Mezz Connectors



Wider ground pins

Balance the electrical field and shield the differential pair from surrounding transmission lines



2 electrically tuned signal contacts

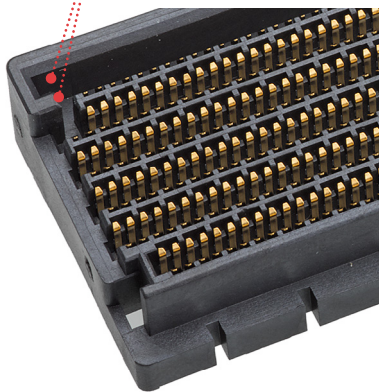
Cleanly transmit high-speed signals for maximum signal integrity

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

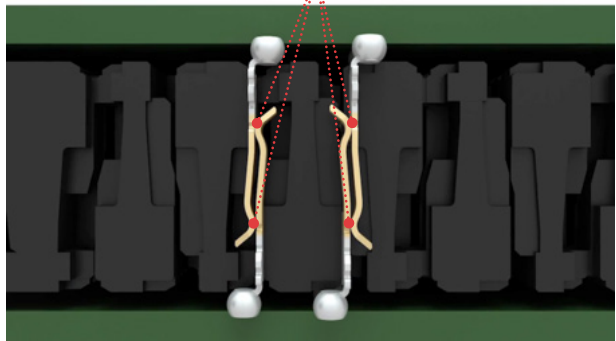
The Mirror Mezz Connector has pin fields populated with a precisely arranged combination of signals and grounds to maximize high-speed performance and clean routing out of the connector footprint

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.

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

Series No.	No. of rows	No. of differential pairs per row in Zone 1, 2 and 3	Total No. of differential pairs (excluding orphan pair)	Total No. of orphan pairs	Dimension
202828			Refer to Sales Drawings		