FEATURES AND SPECIFICATIONS

1.20 by 2.00mm (.047 by .079”) Pitch HD Mezz™ Connectors

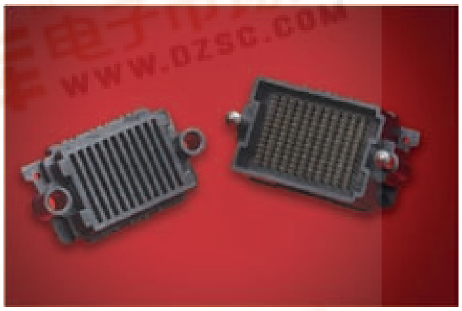
45802 HD Mezz™ Receptacle
45830 HD Mezz™ Plug

Simplify PCB routing, maximize card-slot space and achieve speeds up to 12.5 Gbps with Molex’s HD Mezz; designed for the large and growing high-density and high-performance mezzanine connector market

The High Density Mezzanine (HD Mezz) board-to-board connector is designed for computer, networking, telecommunications, storage and general market applications with high pin-count devices on mezzanine or module printed circuit boards (PCBs). This design provides a flexible tooling approach that allows for multiple stack heights and circuit-size extensions.

HD Mezz provides many benefits. It allows customers to simplify PCB routing without sacrificing performance, avoid the expense of large complex multi-layer boards and utilize space more efficiently within a given card slot area. Option cards may be added or upgraded to increase flexibility in design, production and testing.

The HD Mezz design has superior electrical and mechanical features that are cost competitive. The Molex patented solder-charge technology results in better process yields and a lower applied cost versus equivalent BGA connector products.


Left to right: HD Mezz Receptacle (Series 45802) and HD Mezz Plug (Series 45830)

Features and Benefits

- Molex’s patented solder attach method is more cost effective and reliable than Ball Grid Array (BGA) connector attach methods
- Data rates up to 12.5 Gbps for excellent signal clarity with ample bandwidth for customer requirements in high-speed designs
- Stack heights ranging from 16.00 to 38.00mm (.630 to 1.496”) and circuit sizes of 91 to 403 circuits provides ease in design based on engineering constraints in system envelopes
- Highest contact density on the market with 14 differential pairs per cm^2 is extremely useful for space constrained designs with limited PCB real estate
- Reliable mating interface with 2.00mm (.079”) wipe and two points of contact with sufficient conductive wipe for clean signal transmission and enhanced durability

SPECIFICATIONS

Reference Information

Product Specification: PS-45802-001
Packaging: Tray
UL File No.: TBD
CSA File No.: TBD
Designed in: Millimeters

Electrical

Voltage: 250V AC per contact
Current: 2.0A per contact
Contact Resistance: 25 milliohms nominal
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance:
  Across Wafers – 5000 Megohms min.
  Within Wafers – 1000 Megohms min.

Mechanical

Mating Force: 51g nominal per contact
Unmating Force: 25g nominal per contact
Normal Force: 51g nominal per contact
Durability: 100 cycles

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Copper (Cu) alloy
Plating: Contact Area – 0.75µm Gold (Au) min.
Solder Tail Area – 2.50µm Tin (Sn) min.*
Underplating – 1.25µm Nickel (Ni) overall
Operating Temperature: -55 to +105°C

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*Please contact Molex Customer Service for lead-free solder tail plating options

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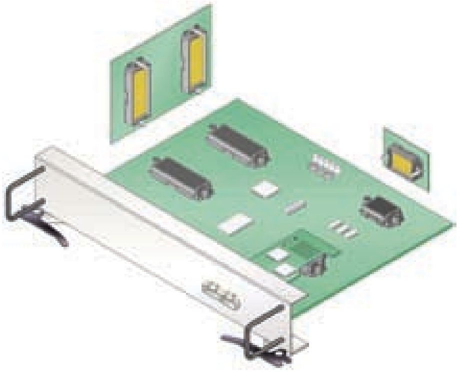
APPLICATIONS

- High and mid-range computers
  - Servers
- Medical
  - Scanning equipment
- Military
- Networking and telecommunications
  - Network routers and switches
  - Mobile base stations



Mezzanine card for a customer application with one and two HD Mezz assemblies per card

ORDERING INFORMATION

Order No. (Lead-free)	Order No. (Tin-Lead)	Component	Circuits†	Height
45802-0311	45802-0011	Receptacle	143	8.00mm (.314″)
45802-0215	45802-0015		195	
45802-0223	45802-0123		299	
45802-1211	45802-1011		143	18.00mm (.708″)
45802-1223	45802-1123		299	
45802-1225	45802-1025		325	
45830-0215	45830-0015	Plug	195	8.00mm (.314″)
45830-0223	45830-0023		299	
45830-2211	45830-2011		143	10.00mm (.393″)
45830-2223	45830-2023		299	
45830-2225	45830-2025		325	
45830-1211	45830-1111		143	18.00mm (.708″)

†Please contact Molex Customer Service for additional circuit sizes and stack heights

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