NeoPress High-Speed Mezzanine System

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Modular NeoPress High-Speed Mezzanine System enables design flexibility on space-constrained PCBs with tunable differential pairs, low stack heights and compliant-pin terminations while offering data rates up to 28 Gbps

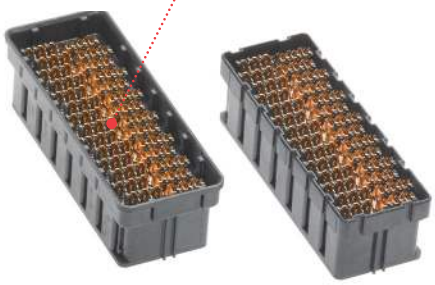
NeoPress* High-Speed Mezzanine SystemTop: Plug, Bottom: Receptacle6-by-14 (84 triads)

Features and Benefits

High-speed triad wafers comprise three pins per differential pair (two signal pins and one shielded ground pin)
Provide standalone 28+ Gbps fully shielded differential pairs with dedicated grounds

Patent-pending modular triad wafer design offers high-speed differential pairs that can be tuned to 85- or 100-Ohm impedances
Provides a customized system for design flexibility

Proven Impel press-fit compliant-pin termination design with data rates up to 28 Gbps
Enables solderless termination with easy board rework without sacrificing data speed

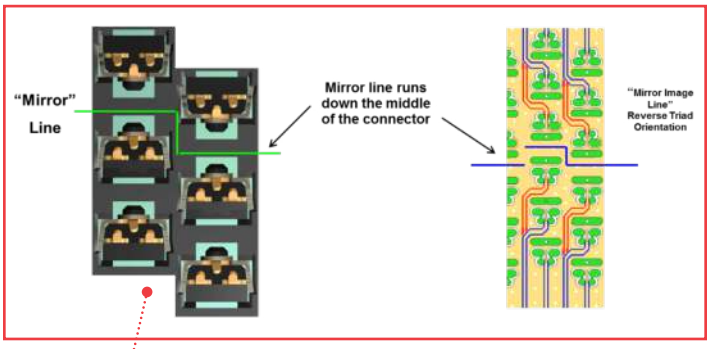


Connectors feature a density of 76 differential pairs / triad per square inch
Offers ultra-high-density press-fit signal solution with optimal signal integrity performance

Durable housing material
Delivers a robust system with mechanical stability

Options include four triad configurations, high-speed single-ended traces, low-speed single-ended lines and power contacts
Offers real-estate savings on PCB by supporting requirements for low- and high-speed signals and power within one compact connector

Ground plate on upper and lower housings
Minimizes crosstalk. Provides added alignment for pin stitching

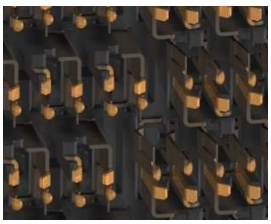


Reliable mating interface with 1.50mm wipe
Sufficient conductive wipe for clean signal transmission and enhanced performance

Hermaphroditic interface ensures that the receptacle beams are protected by the plug and shield contacts
Prevents terminal damage by protecting the mating contact interface

Mirror-image triad layout
Simplifies PCB routing. Lowers system costs by decreasing the number of PCB layers required for signal routing

Available in 9.00 to 45.00mm mated stack heights
Addresses engineering constraints in system envelopes



Staggered footprint within connector
Ensures zero-skew routing and minimized crosstalk

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Applications

Telecommunication / Networking
- Hubs
- Servers
- NAS Towers
- Rack Mount Servers

Industrial Automation
- Controller Personality Cards

Medical

Industrial Controller

Servers

Network Interface Cards / Modules on a Rack

Specifications

REFERENCE INFORMATION
Packaging: Tray
Mates With: NeoPress 100-Ohm Vertical Plug (Series 172801) mates with NeoPress 100-Ohm Vertical Receptacle (Series 172832); NeoPress 85-Ohm Vertical Plug (Series 203341) mates with NeoPress 85-Ohm Vertical Receptacle (Series 203340)
Designed In: Millimeters
RoHS: Yes
Halogen Free: Yes

ELECTRICAL
Voltage (max.): 30V AC RMS
Current (max.): 1.0A
Contact Resistance (max.): 10 milliohms
Dielectric Withstanding Voltage: 200V AC RMS
Insulation Resistance (min.): 1000 Megohms

MECHANICAL
Mating Force (max.): 0.75N
Unmating Force (min.): 0.25N
Durability (min.): 100 cycles

PHYSICAL
Housing: High-Temperature LCP
Contact: Copper (Cu)
Plating:
Contact Area — 30µ" Gold (Au)
Compliant Pin Area —Selective Tin (Sn) over 50µ" Nickel (Ni) Overall
Operating Temperature: -55 to +85°C

Ordering Information

PLUG

Series No.	Impedance (Ohms)	Plating	Connector Height	Triad Wafer Configuration (row-by-column)
172801	100	0.762µ (30µ") Gold	4.50 to 22.50mm	Easily support grids 2-by-4 to 10-by-30
203341	85			

RECEPTACLE

Series No.	Impedance (Ohms)	Plating	Connector Height	Triad Wafer Configuration (row-by-column)
172832	100	0.762µ (30µ") Gold	4.50 to 22.50mm	Easily support grids 2-by-4 to 10-by-30
203340	85			

www.molex.com/link/neopress.html

Order No. 987651-3181 Rev. 1 USA/0k/GF/2017.09