

NeoPress High-Speed Mezzanine System

molex[®]

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

Features and Benefits

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

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



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

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

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

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

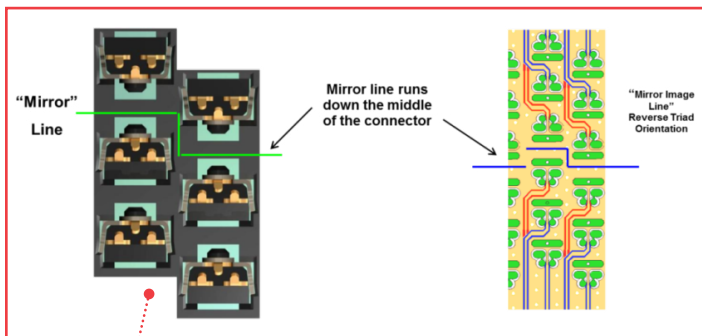
Ground plate on upper and lower housings
Minimizes crosstalk. Provides added alignment for pin stitching

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

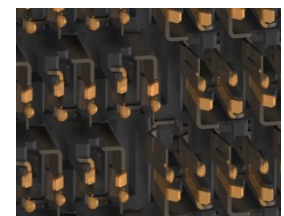


Mirror-image triad layout

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



NeoPress High-Speed Mezzanine System



Applications

Telecommunication / Networking

Hubs
Servers
NAS Towers
Rack Mount Servers

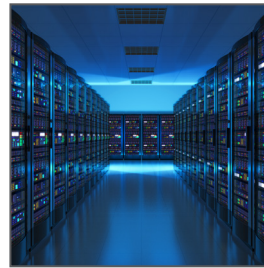
Industrial Automation

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			

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