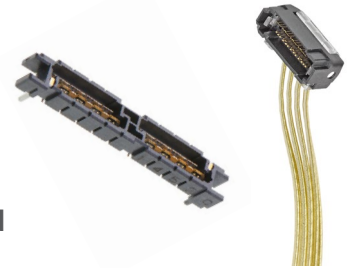


NearStack 100-Ohm Connectors and Cable Assemblies >

Enabling speed upgrades in space-constrained telecommunications and data center applications tuned for 100-Ohm impedance, NearStack 100-Ohm Connectors and Cable Assemblies deliver a dense, low-profile, near-ASIC cabled solution for jumper-type and I/O BiPass connections up to 56 Gbps PAM-4.



ADVANTAGES AND FEATURES

Reduces insertion loss for high-speed data applications

The double-ground structure between differential pairs (DPs) and direct-to-contact weld termination removes the paddle card and improves electrical performance for 56 Gbps PAM-4 applications.

Optimizes PCB real estate in space-constrained applications

With a 0.60mm pitch between contacts and 2.40mm pitch between DPs, the dense connector design fits 30 to 50 DPs per square inch to deliver high data rates in a small footprint for networking and top-of-rack (TOR) applications tuned for 100 Ohms.

Enables expansion of DP sizes with minimal tooling investment

Contact wafers are arranged in "bays" to enable simple expansion from 8 to 16 DPs.

Impedance	100 Ohms
Differential Pairs (DPs)	8 and 16
Pitch	0.60mm between contacts, 2.40mm between DPs
Data Rate	56 Gbps PAM-4
Mated Height	8.60mm
Cable	34 AWG twinax
Operating Temperatures	-40 to +85°C

Delivers secure connectivity for dense installations

An integrated "dual hasp" system offers up to 25N of retention force while an available positive lock with a pull bale increases the unlatch force to approximately 50N.

Offers robust attachment to the PCB

Tin-plated, Stainless Steel solder nails are pin-in-paste processed to ensure the plug is reliably attached to the PCB.

MARKETS AND APPLICATIONS

Servers and Storage

TOR switches
Core routers
Data center switches

Telecommunications

Cell towers
Remote radio units (part of 5G)

Networking

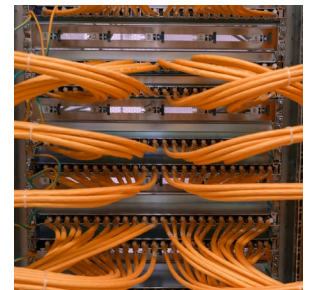
Ethernet applications
Cable trays



Core Routers



Cell Towers



Ethernet Applications

NearStack 100-Ohm Connectors and Cable Assemblies

SPECIFICATIONS

Reference Information

Packaging: Tape and reel
Designed in: Millimeters
RoHS: Yes
Halogen Free: Yes

Electrical

Voltage (max.): 29.9V AC RMS
Current (max.): 0.25A per rated pair
Impedance: 100 Ohms
Contact Resistance (max.): 30 milliohms
Dielectric Withstanding Voltage: 300V AC RMS
Insulation Resistance: 10 Megohms
Signal Continuity: No interrupts greater than
1 microsecond

Mechanical

Pitch: 0.60mm (between SMT contacts),
2.40mm (between DPs)
Mated Height: 8.70mm
PCB Footprint: 8.40 by 17.50mm
Cable Exit: 45-degree angle
Latching Style: Dual side hasps
Pin Count: 32 or 64 pins (8 or 16 DPs)
Mating Force (max.): 2N
Unmating Force: 25N
Durability (min.): 100 cycles

Physical

Housing: LCP UL 94 V-0, black
Contact: Copper
Plating:
Contact Area—0.76µm selective Gold
SMT Tail Area—0.05µm selective Gold over
1.27µm Nickel overall
Operating Temperatures: -40 to +85°C