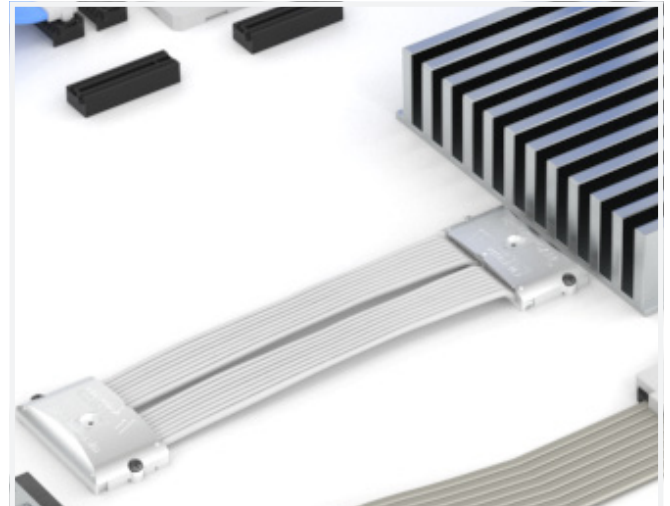


micro-LinkOVER™ Above PCB Connector System

CUTTING-EDGE-NEAR-CHIP TERMINATION IN AMPHENOL'S OVERPASS™ PORTFOLIO

micro-LinkOVER is an above PCB twinaxial connector system that provides system designers and layout engineers a cost effective approach to unlock the design flexibility needed to manage the technical challenges of PAM4 56G and 112G systems and beyond. Supporting data rates from 10G to more than 112G PAM4 per lane with high signal-to-noise ratio & low VSWR. micro-LinkOVER's direct to PCB compression mount solution eliminates the need for any lossy paddle cards, minimizing transitions and losses on system budgets. micro-LinkOVER's modular design allows for multiple form factors in dense footprints to fit in crowded real estate environments. micro-LinkOVER is an ideal solution for 100G/200G/400G Systems, Infiniband™, PCIe®, Chip-to-Chip links, and 5G systems.



TARGET MARKETS



FEATURES

- Utilizing Ardent's patented compression mount contacts
- SKEWCLEAR® drainless parallel pair twinax
- High density footprint – Pitch (Cable) 2.4mm
- Passive copper connector system

BENEFITS

- Performance up to 112G+ PAM4 per lane (demonstrated 100 Gbaud per lane)
- Signal-to-noise performance of >30dB of Insertion Loss to Crosstalk @ 50 GHz
- Eliminates complicated and lossy trace routing
- Designed specifically for differential pairs/routing
- Extremely short trace routing from IC to connector
- Lowers power requirements significantly compared to optical engines

TECHNICAL INFORMATION

SIGNAL INTEGRITY PERFORMANCE

- Frequency Range/Data Rates: Supports 56Gb/s & 112Gb/s PAM4, PCIe® Gen 5, 100G/200G/400G Systems
- Return Loss, 14 GHz (dB) (8" Twinax, two terminations, 2mm stripline on each end): <-17
- Return Loss, 28 GHz (dB) (8" Twinax, two terminations, 2mm stripline on each end): <-13
- Insertion Loss, 14 GHz (8" Twinax, two micro-LO terminations) (db): >-2
- L2 Powersum Crosstalk, 14GHz (dB): >-4.5
- L2 Powersum Crosstalk, 28GHz (dB): <-65
- Impedance (ohms): 95±5
- Intrapair Skew (ps): <2
- Insertion Loss, 14 GHz (Twinax Cable Only) (db/in): -0.19
- Insertion Loss, 28 GHz (Twinax Cable Only) (db/in): -0.28

MECHANICAL PERFORMANCE

- Form Factor: 16 Differential Pair (24 Differential Pair, 32 Differential Pair In Development)
- Pitch (Signal): 0.54mm
- Pitch (Cable): 2.4mm
- Cable Length: 203mm-1000mm, Custom
- Mounting Options: Screw Mount, SMT
- Mating Force (g): 150 per pair
- Mounting Screw Torque (in-lbs): 0.5
- Cable Type: Spectra-Strip 32 AWG Drainless, FEP, 95 ohm

ENVIRONMENTAL

- Meets EIA-364 Specifications, Contact Factory for Details

SPECIFICATION

- 16 Differential Pair SMT Application Specification – AS-001

PACKAGING

- Contact factory for packaging information

TARGET MARKETS/APPLICATION

- 100G/200G/400G Systems
- 5G
- Infiniband™
- PCIe®
- Data centers
- Backside PCB interconnect
- Backplanes
- Future-proofing for 400G designs
- Chip-to-Chip link

EXAMPLE TERMINATIONS

END ONE	END TWO
micro-LinkOVER	micro-LinkOVER
micro-LinkOVER	QSFP-DD
micro-LinkOVER	OSFP
micro-LinkOVER	Paladin®