

# PCIe® Gen 6 Mini Cool Edge IO Connector

## NEXT-GENERATION HIGH-SPEED INTERCONNECT SOLUTION – UP TO 64G PAM4 FOR PCIe® GEN 6

Amphenol introduces the next-generation OverPass™ solution – Mini Cool Edge IO. The 0.60mm pitch connector comes with a slim form factor design, capable of transmitting high-speed signals up to 64G PAM4/PCIe® Gen 6 and allowing much greater signal path lengths while maintaining SI performance when compared to conventional PCB routing methods.

Mini Cool Edge IO not only provides a SI performance-ready signal transmission but also a new way of system design that is cost-effective, highly modular, scalable, and extremely easy to repair.

- High-speed – 64Gb/s PAM4/PCIe® Gen 6 capability
- Supports both cable and card edge connection



### TARGET MARKETS



### FEATURES

- 0.60mm pitch, vertical and right angle configurations
- Up to 64Gb/s PAM4, PCIe® Gen 6, over 1.0 meter transmission distance
- Supports both cable and card edge applications with one identical connector
- 85Ω impedance and various pin number options – meeting PCIe®/NVMe/SAS specifications

### BENEFITS

- Slim form factor for compact data center system designs
- Extends transmission range far more over the conventional PCB routes
- Provides flexibility in system design to meet highly modular, scalable, and easy-to-repair requirements
- Saves system material cost, engineering, and certification expenses with a high succession of system design

## TECHNICAL INFORMATION

### MATERIAL

- Contact Base Metal: Copper Alloy
- Contact Area Finish: Gold over Nickel
- Solder Area Finish: Tin over Nickel
- Housing & Spacer: High-temperature thermoplastic (UL 94V-0)
- Shorting Bar: Conductive plastic
- Cage: Stainless steel, Nickel plating overall

### MECHANICAL PERFORMANCE

- Durability: 250 mating cycles
- Mating Force: 0.6N/pin max.
- Unmating Force: 0.06N/pin min.

### ELECTRICAL PERFORMANCE

- Contact Resistance: 30m max. initial; 15m max. change after test
- Dielectric Withstanding Voltage: 300VDC

### PACKAGING

- Carrier Tape

### ENVIRONMENTAL

- Humidity: EIA-364-31, Method III, Subject unmated specimens to 24 cycles between 25°C/80%RH and 65°C/50% RH
- Temperature Life: EIA-364-17, Method A Test Condition 2, Test Time Condition C, Subject mated specimens to 105°C for 168 hours
- Thermal Shock: EIA-364-32, Method A Test condition 1, -55°C to 85°C (10 cycles)

### APPROVALS AND CERTIFICATIONS

- UL

### TARGET MARKETS/APPLICATIONS

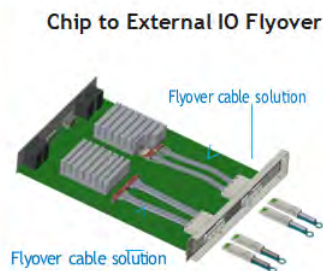
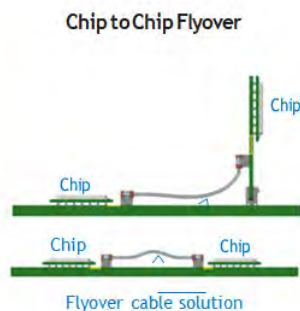
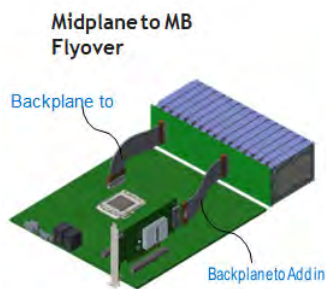


Baseband  
Commercial Systems  
Networking  
Radio Units

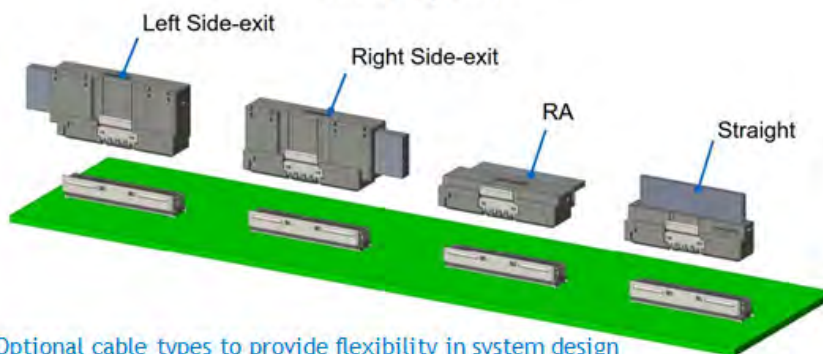


High-end Computing System  
Server and Storage Systems

## AMPHENOL OVERPASS™ APPLICATIONS



### Cable Options



## PART NUMBERS

| Description                          | Part Numbers |
|--------------------------------------|--------------|
| Mini Cool Edge IO(MCIO), PCIe® Gen 6 | GH01X        |

CM10PCI66MCIO102EA4