

SFP OverPass™ Assemblies

DIRECT HIGH SPEED CONNECTION FROM CHIP SITE TO IO PORT

SFP OverPass™ products remove high speed signaling from the PCB and create a direct connection between the ASIC site and the external IO port by overpassing the PCB. This helps to enable 28G and 56G hardware system designs. This results in lower over signal loss, PCB design complexity and reduces PCB costs. Fully compatible with SFP industry standards and both with high speed and sideband signal requirements. These cable assemblies lower system costs by eliminating the need for re-timers and expensive low loss PCB laminates.

They can be paired with multiple near chip IO solutions including Amphenol's SlimSAS™, MiniCoolEdge, Flash and with cabled sidebands to either the near chip connector or a separate Minitek® cable connector.

- Lower loss interconnect from chip site to external port
- Enables 28G and 56G hardware system design
- Reduced overall system cost
- Direct wire attachment to connector contact and coupled with high performance differential pair cabling
- Fully engineered and tested cabling solution with straightforward assembly in systems



TARGET MARKETS



FEATURES

- Direct chip to IO port connection; accommodates straight and cross over wiring; Custom IO mapping; heat sinks and light pipes
- Full SFP industry standard compatibility
- Full support of 28G and 56G signaling speeds
- Integrated system solution including assembly aid
- 100% full performance testing and characterization
- Full vertical integration of product components
- Multiple near chip IO connector options
- Flexible sideband signal termination options

BENEFITS

- Significant reduction in signal loss transmission; addresses system thermal and mechanical needs
- Assures proper mating of cables, AOC's and optical modules
- Full signal integrity performance compatibility
- Ease of assembly in hardware systems
- Assures full product functionality
- Connectors and cable supplied, processed, terminated and tested by Amphenol
- Choice of multiple IO solutions available to address signal integrity performance and requirements
- Cabled to either Minitek® cable connector or to the near chip IO connector

TECHNICAL INFORMATION

MATERIAL

- Contacts: High performance copper alloy
- Cages: Stainless steel
- Housings: High performance thermoplastics – UV94V-0
- Cable: Silver & tin plated copper wire, aluminized mylar shields, fluorinated polymer insulation

ELECTRICAL PERFORMANCE

- 93Ω characteristic impedance
- Supports Ethernet protocol signaling speeds & performance – 10G, 28G and 56G
- EIA -364 series

MECHANICAL PERFORMANCE

- Durability: 25 cycles

ENVIRONMENTAL

- EIA-364-1000
- Operating Temperature Range: -40°C to +85 °C

APPROVALS AND CERTIFICATIONS

- UL 94V-0

SPECIFICATION

- SFP OverPass™ product specification
- MiniCoolEdge product specification
- Flash product specification

PACKAGING

- Product Specific: Usually package in antistatic bags or clamshells
- Cable is bulked via either a series of cable wraps or snakeskin jacket
- Protective covers on cable ends for worry free system assembly

TARGET MARKETS/APPLICATIONS



Switches
Routers
Wireless infrastructure



Servers
Data Centers
Supercomputers

PART NUMBERS

| Description | Part Numbers |
|---|-------------------|
| Single SFP OverPass™ connector (no cage) to single 38 pos MCIO, straight cable exit, sidebands cabled to MCIO | 10155151 |
| Dual SFP OverPass™ connectors (no cage) to single 38 pos MCIO, straight cable exit, sidebands cabled to MCIO | 10155152 |
| Single SFP OverPass™ connector (no cage) to single 50 pos Flash 2.0, straight cable exit, sidebands cabled to Flash | 10153973 |
| 1x1 SFP OverPass™ cage assembly and cover | U59-B1-K00-000000 |