

# QSFP DD OverPass™ Assemblies

## 56G AND 112G DIRECT HIGH SPEED CONNECTION FROM CHIP SITE TO IO PORT

QSFP DD OverPass™ products remove high speed signaling from the PCB and create an eight channel direct lower loss interconnection between the ASIC site and the external QSFP DD IO port by overpassing the PCB. This helps to enable 56G and 112G hardware system designs and a technology for future 224G systems. Using these solutions results in lower over signal loss, less PCB design complexity and reduces PCB costs. Fully compatible with QSFP DD industry standards and with both 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 micro-LinkOVER™ and DensiLink® with press fit sidebands or cabled sidebands to a separate Minitek® cable connector.

- Lower loss interconnect from chip site to external port
- Enables 56G and 112G hardware system design
- Superior signal integrity performance
- Fully engineered and tested cabling solution with straight forward application and assembly into systems



### TARGET MARKETS



### FEATURES

- Direct chip to IO port connection; accommodates straight and cross over wiring; custom IO mapping; heat sinks and light pipes
- Direct wire attachment to connector contact & robust shield termination coupled with high performance differential pair cabling
- Full QSFP DD industry standard compatibility
- Full support of 56G & 112G signaling speeds and anticipated 224G
- Integrated system solution including assembly aids
- 100% full performance testing and characterization
- Full vertical integration of product components
- Multiple near chip / on package IO connector options

### BENEFITS

- Significant reduction in signal loss transmission; addresses system thermal and mechanical needs
- Delivers superior signal integrity performance
- Assures proper mating of cables, AOC's and optical modules
- Full signal integrity performance compatibility
- Ease of assembly into hardware systems
- Assures full product functionality
- Connectors and cable supplied, processed, terminated & tested by Amphenol
- Choice of multiple IO solutions to address signal integrity performance and mechanical requirements

## 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, 56G and 112G
- 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

- DensiLink® OverPass product specification: HS-07-0017
- micro-LinkOVER™ product specification

### PACKAGING

- Product specific: Usually package in antistatic bags or plastic 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  
Telecom  
Optical Transport



Servers  
Data Centers  
Supercomputers  
Datacom

## PART NUMBERS

Description	Part Numbers
1x1 QSFP DD OverPass™ connector & cage to single 16DP DensiLink® cable connector, PF sidebands	V59-YB006
1x1 QSFP DD OverPass™ connector & cage to single 16DP micro-LinkOVER™ cable connector, SMT mount, PF sidebands	V59-YB007
1x1 QSFP DD OverPass™ connector & cage to single 16DP micro-LinkOVER™ cable connector, Screw mount, PF sidebands	V59-YB008