

UltraPass™ OverPass™ Assemblies

224G CONNECTION DIRECTLY FROM CHIP SITE TO EXTERNAL PORTS

UltraPass™ enables arrayed connector layouts for near-chip and on-package IO solutions, providing the highest differential pair count interconnect offering in the market.

- Full support of up to 224G signaling speeds
- Reduced overall system cost
- Lower loss interconnect from chip site to chip site
- Short signal travel length from cable to board pad
- Delivers superior signal integrity performance



TARGET MARKETS



FEATURES

- Direct point-to-point connection; high-density two-piece IO connector and cable system
- Full support of up to 224G signaling speeds
- Ease of application and termination; pick-in-place board connector and guided cable mating
- Full performance testing and characterization on 100% of product
- Full vertical integration of product components: Connectors and cable supplied, processed, terminated and tested by Amphenol
- 16, 40, and 64 differential pair configurations
- Pairs with OSFP, QSFP DD and QSFP OverPass™ interfaces to provide high speed external IO port products with a direct link to processor chips
- Eliminates the need for re-timers and expensive low-loss PCB laminates
- RoHS 2 compliant

BENEFITS

- Up to 10X Reduction in signal loss; addresses system thermal and mechanical needs
- Highest signal speed in the market today
- Ease of assembly into hardware systems
- Full signal integrity performance compatibility
- Provides full confidence in the whole system reliability
- Choice of multiple IO solutions to address differential pair count and performance
- Highest density internal cable solution on the market
- Lowers system costs in initial design and any future upgrades
- Environmentally friendly

TECHNICAL INFORMATION

MATERIAL

- Contacts: High performance Copper Alloy
- Board Connector Frame: Stainless Steel
- Housings: High performance thermoplastics, UV94V-0
- Cable: Silver and Tin plated Copper wire, Aluminized mylar shields, fluorinated Polymer insulation (32AWG or 30AWG)

ELECTRICAL PERFORMANCE

- 93Ω characteristic impedance
- Supports Ethernet protocol signaling speeds and performance – 10G, 28G, 56G, 112G, and 224G
- 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

SPECIFICATIONS

- UltraPass™ Product Specification: HS-07-0029

PACKAGING

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

TARGET MARKETS/APPLICATIONS



Switches
Routers
Wireless Infrastructure
Telecom



Servers
Data Centers
Supercomputers
Datacom
Optical Transport

PART NUMBERS

Description	Part Numbers
OVERPASS™ DOUBLE END CABLE UltraPass™ 40PR (4X10)	K1BZ02-AD-0XXXA02
OVERPASS™ DOUBLE END CABLE UltraPass™ 16PR (4X4)	K1BZ06-8D-0XXXA02
OVERPASS™ DOUBLE END CABLE UltraPass™ 64PR (8X8)	K1BZ05-6D-1XXXA02
UltraPass™ 4x4 Fence	K2BA07-8F-20000BT