

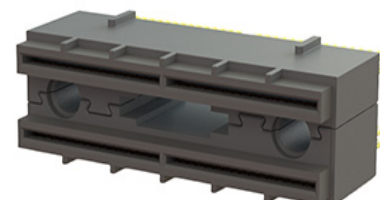
XPO OverPass™ Assembly

CONNECTS 128 DIFFERENTIAL PAIRS TO XPO-LPO OPTICAL TRANSCEIVER

Amphenol's XPO OverPass™ Assembly is designed to unlock the full performance potential of next-generation 12.8 Tb/s XPO-LPO optical transceivers. Delivering 4× the front I/O signal density of traditional OSFP modules, the solution enables hyperscale and AI infrastructure to scale bandwidth without sacrificing signal integrity or routing flexibility. The XPO OverPass™ Assembly provides the high-speed mating interface between the XPO pluggable transceiver and system architecture, efficiently routing 64 high-speed lanes directly to the chip (NPC/CPC) or to the backplane. Using 30 AWG or 32 AWG OverPass™ cable assemblies, the design supports flexible routing while maintaining reliable high-speed performance across demanding data center environments.

Engineered for Open Compute Project (OCP) architectures and next-generation AI clusters, the XPO OverPass™ assembly enables scalable front-panel bandwidth and supports up to 204.8 Tb/s of front I/O density per OCP rack. With compatibility across Amphenol's high-performance backplane portfolio, including UltraPass™, UltraPass™ XR, UltraPass™ HD, XtremePass™, and Paladin™ HD2 backplane connectors, the solution provides system designers with the flexibility needed to build high-density, high-performance platforms.

- Maximizes the value of 12.8 Tb/s XPO-LPO optical pluggable transceiver
- Reliably connects the XPO-LPO transceiver to the chip (NPC/CPC) or backplane
- Provides routing flexibility by 30 and 32 gauge wire options
- Enables front I/O density to 204.8 Tb/s per OCP rack



TARGET MARKETS



FEATURES

- Provides the mating interface to XPO pluggable transceiver
- The OverPass™ can terminate in one or several UltraPass™, UltraPass™ HD, UltraPass XR™, XtremePass™ or Paladin® HD2 backplane connectors
- Available in 30 AWG or 32 AWG wire options from 200 mm to 2000 mm in length
- Packs 64 high-speed lanes into a compact 1 OU package

BENEFITS

- Maximizes value of 12.8 Tb/s XPO-LPO pluggable transceiver
- Reliably connects XPO-LPO transceiver to chip (NPC/CPC) or backplane
- Provides routing flexibility to choose between 30 and 32 gauge wire in any length required by the application
- Enables front I/O density to 204.8 Tb/s per OCP rack (4 times higher compared to OSFP)

TECHNICAL INFORMATION

MATERIAL

- Housing: Black color, glass–reinforced thermoplastic
- Contacts: Copper Alloy
- Plating Mating Area: Gold

ELECTRICAL PERFORMANCE

- Input Voltage: 40–60 V DC

MECHANICAL PERFORMANCE

- Durability: 100 mating cycles
- Mating force: 196 N max.
- Unmating force: 129 N max.
- High–Speed Paddle Card Thickness: 1.20±0.10 mm

ENVIRONMENTAL

- Operating and Storage Temperature: –40 °C to +85 °C

PACKAGING

- Depends on the complete OverPass™ cable configuration

INDUSTRY STANDARDS

- Arista intends for XPO to become a MSA

TARGET MARKETS/APPLICATIONS



High Performance Computing
Data Centers
Artificial Intelligence

PART NUMBERS

Description	Part Numbers
XPO to XPO double–ended cable assembly	KKGD02–1X

Find part number details using the search box on www.amphenol-cs.com

EXPLORE THE PRODUCT DETAILS ONLINE
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