molex® 70-Pin Z-Axis
Pluggable Host Connector
for 10-Gigabit Transceivers

Features and Benefits

- 70-pin, 0.80mm (.031") pitch connector with SMT leads for high-speed data transmission
- Coplanarity of solder terminals within 0.15mm (.006") for processing reliability
- Card entry slot accepts 1.0mm (.039") thick integrated circuit board for use with MSA-compliant pluggable transceivers
- Alignment posts provide stable placement on the PCB during processing
- Standoffs allow easy PCB cleaning after soldering
- Tape-and-reel packaging for SMT robotic placement (480 units per reel)
- SMT design provides option for connector placement on either side of the PCB
- High-temperature thermoplastic, UL94V-0, for dimensional stability
- Select-gold plated interface with a choice of plating thicknesses for optimizing cost and performance

Molex's 70-pin Z-Axis Pluggable host connector extends an already complete line of Small Form-Factor Pluggable (SFP) products. This connector enables the use of emerging 10-Gigabit pluggable transceivers for horizontal front panel access. It conforms to the host board layout as defined in the XENPAK and XGP Multi-source Agreements (MSA) and supports the 10-Gigabit Ethernet IEEE 802.3ae standard.

MSAs provide plug-and-play interoperability among multiple manufacturers to assure supply for meeting market demand. The Z-Axis Pluggable host connector allows a "pay as you populate" cost structure for the end user after installation.

This connector also provides "postponement manufacturing" by allowing configuration to the host just prior to shipment, increasing configuration flexibility and inventory cost advantages. Its pluggable modules enable more efficient system upgrades or reconfigurations.

The 70-pin host connector features SMT leads in an edge-card configuration and is part of the Z-Axis Pluggable family of products. The connector provides a compact, high bandwidth interface to support the emerging XAUI *("zowie")* data transfer protocol.

XAUI, an acronym for 10-Gigabit Attachment Unit Interface, is the architecture proposed for 10-Gigabit Ethernet in the IEEE 802.3ae standard. The XAUI interface defines four different channels, each operating at 3.125 Gigabits per second (Gbps) to provide an aggregate raw bandwidth of 12.5 Gbps, netting 10 Gbps of Ethernet data. Two MSA committees define the 70-pin host connector to attach XENPAK and XGP pluggable transceivers functioning under the XAUI protocol.

This technology is being driven by the proliferation of new, bandwidth-intensive requirements, including such applications as 10-Gigabit uplinks for routers and switches in wide area networks (WAN), metropolitan area networks (MAN), and local area networks (LAN).
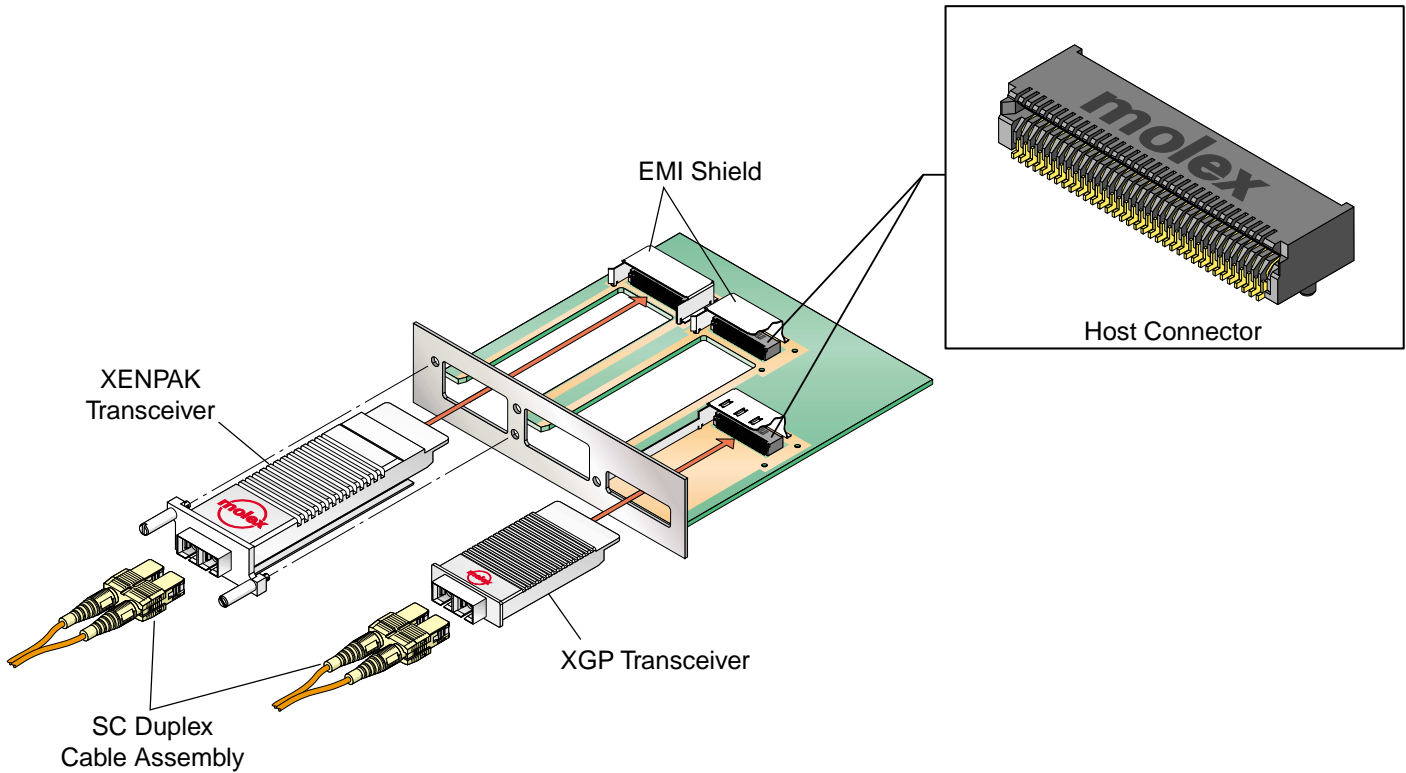
Initial implementations will utilize a standard SC duplex fiber optic connector and will be compliant with IEEE 802.3 mediums such as 850 nm serial, 850 nm coarse wavelength division multiplexing (CWDM), 1310 nm serial , 1310 nm CWDM, and 1550 nm serial transceiver applications.

The 70-pin host connector attaches 10-Gigabit pluggable transceivers in a horizontal Z-axis to the host PCB for use in various data networking equipment:

- Switches
- Routers
- Servers
- Storage devices

EMI Shield

Host Connector

XENPAK Transceiver

XGP Transceiver

SC Duplex Cable Assembly

10-Gigabit Pluggable Solutions

ORDERING INFORMATION AND DIMENSIONS

Order No.	Select Gold Plating Thickness
74441-0003	0.38µm (15µ")
74441-0013	0.76µm (30µ")