

**Molex's X2 Pluggable Copper Transceiver meets broad market demands for high-speed interconnects in distances up to 15 meters**

Molex's X2 copper transceiver is designed for high-speed, 10 Gigabit Ethernet applications. The transceiver design is based on a 3.125 Gbps XAUI (10 Gigabit Attachment Unit Interface) to XAUI re-timer, with transmit pre-emphasis and receive equalization. This design ensures the signal can be boosted to compensate for signal loss at high frequencies. Pre-emphasis is achieved by boosting the high-frequency content of a transmitted signal or attenuating low-frequency content to compensate for high-frequency loss in the cable assembly. Receiver equalization is a similar process applied to the receiver. The re-timer also incorporates clock and data recovery as well as XAUI lane alignment.

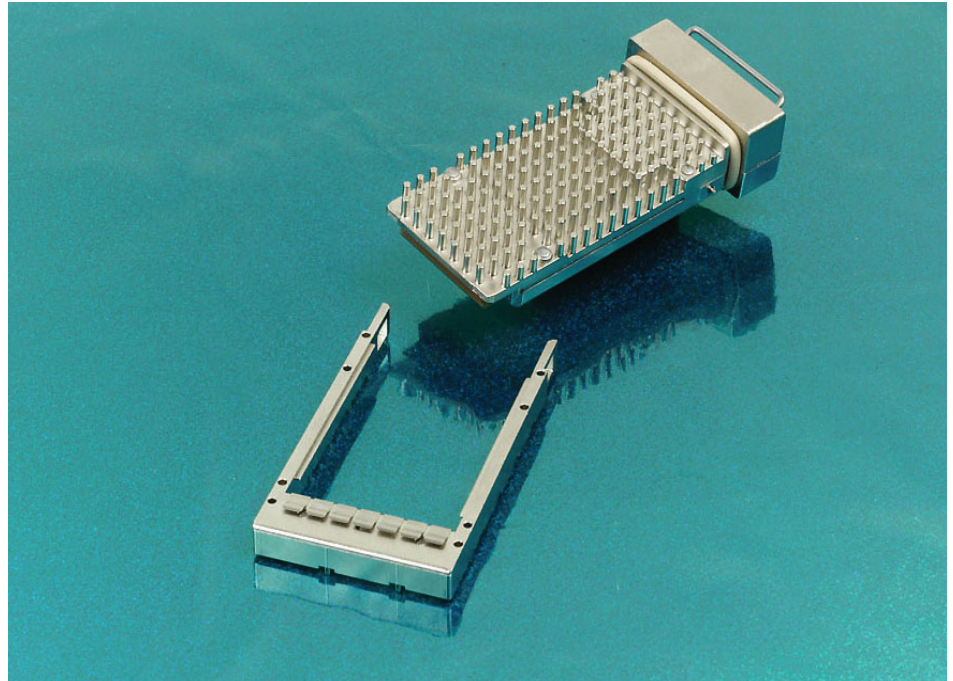
The Molex X2 transceiver utilizes an industry standard 10Gbase CX4 cable interface (LaneLink Series 74526) and combines with the X2 guide rail (Molex Series 74744) and 70-circuit X2 connector (Molex Part 74441-0013) for a total system solution. The Molex pluggable 10 Gbps transceiver meets Gigabit Ethernet standards IEEE 802.3ak for CX4 and IEEE 802.3ae for XAUI.

The die-cast guide frame provides transceiver retention and a sturdy transmit-to-receive interface.

For more information on Molex's extensive X2 product offering, please visit: [www.molex.com/product/x2.html](http://www.molex.com/product/x2.html).

**Features and Benefits**

- Transmits 10 Gbps data up to 15 meters over Copper (Cu) cable enabling high-speed data transmission
- Hot-swappable design enables transceiver to be removed or installed without powering-down
- Zinc die-cast backshells provide 360° Electro Magnetic Interference (EMI) Shielding
- Designed to meet Gigabit Ethernet standards IEEE 802.3ak for CX4 and IEEE 802.3ae for XAUI for compliance with X2 MSA
- Threaded screw holes for rail provide screw down feature for increased retention to the PCB
- Positive latching function on the guide frame provides proper transceiver retention
- Die-cast guide frame provides sturdy, robust transceiver-to-chassis interface
- Guide frame alignment posts provide stability for placement on PCB



**SPECIFICATIONS**

**Reference Information**

Packaging: Static resistant bag and box  
 Transceiver Mates with: Host Connector (Series 74441), LaneLink™ CX4 Cable Assembly (Series 74526)  
 Use with: X2 Transceiver (Series 74735) and X2 Rail (Series 74744) used together  
 Designed In: Millimeters

**Electrical**

Voltage: 3.3V  
 Current: 3.3V

**Mechanical**

Mating Force:  
 Min.: 20N (4.5 lbf)  
 Max.: 40N (9 lbf), 80N (18 lbf) max. allowed by MSA  
 Unmating Force:  
 Min.: 8N (1.79 lbf)  
 Max.: 35N (7.9 lbf)  
 Durability: 100 cycles

**Physical**

Housing: Zinc (Zn)  
 Housing Plating: Nickel (Ni)  
 PCB contact: 0.76µm (30µ") Gold (Au)  
 PCB Thickness: 1.00mm (.393") +/- 0.10mm (.004")  
 Operating Temperature: -40 to +85° C

## APPLICATIONS

# molex® X2 10 Gbps System

## 74735 Transceiver

## 74744 Rail

- Telecommunication
  - Hubs
  - Servers
  - Routers
- Data Communication
- Storage Area Network
- Industry Standards
  - XPAK MSA
  - IEEE 802.3ak CX4
  - IEEE 802.3ae XAUI



## ORDERING INFORMATION

| Order No.  | Description    |
|------------|----------------|
| 74735-0010 | X2 Transceiver |
| 74744-0220 | X2 Guide Rail  |

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