

# AVDAT 4X™

## InfiniBand Interconnect Solution

AVDAT 4X™ is a highly compact four-lane optical transceiver ideal for use in InfiniBand™ SDR/DDR, 10Gb Ethernet XAUI optical interfaces and Fibre Channel switches. AVDAT 4X™ features an aggregate bandwidth of 20 GBaud in each direction over a standard multimode 12-fiber ribbon with MPO ribbon fiber connectors.

Optical, electrical and high-speed signaling specifications are compliant with InfiniBand™ SDR/ DDR specifications. The AVDAT 4X signal, reaches at 5 GBaud line rate per channel, are at least 50 and 100 meters over 62.5um and 50um MMF, respectively.

The AVDAT 4X™ transceiver is footprint and contact-pattern compatible with CX4, four-channel electrical connector receptacle defined by InfiniBand™ Architecture Release 1.2, section 7.4. Host board changes are not required to insert an AVDAT transceiver in place of an electrical CX4 receptacle.

The AVDAT 4X™ is a self-contained transceiver and uses any host-board Media Detection Circuitry compliant with InfiniBand™ and FC-P12.

Integrated into the product board, AVDAT 4X™ contributes to increased overall system reliability, involving less external copper-to-fibre connections.

With minimal MTP®/MPO fiber cable bending radius, and full flexibility in cable length selection, AVDAT 4X™ provides the highest serviceability solution for large and complex fabrics.

AVDAT 4X™ is powered by iFlame, XLoom's advanced wafer-level optical chip using state-of-the-art 850 nm VCSEL - vertical-cavity surface-emitting lasers and integrated multi-channel architecture.

Laser safety classification: Class 1M.

### Highlights

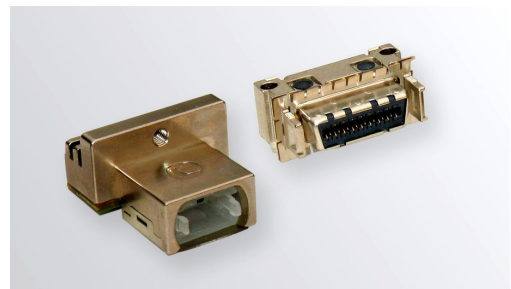
- Optical drop-in replacement for InfiniBand 4X electrical connector receptacle, requires no host-board changes – uses the same PCB layout as the CX4 connector
- Miniature fiber-optic transceiver with 20 GBaud bandwidth in each direction
- Uses standard multimode 12-fiber ribbons with standard MPO connectors
- Four channels in each direction; 5 GBaud (DDR) line rate per channel
- Power consumption less than 1W
- 3.3-V power supply

### Applications

- 4X InfiniBand optical links supporting IB-4X-SX-SDR and DDR, allowing for switch-to-HCA and in-between-switches connectivity.
- High-speed, rack-to-rack, intersystem links, up to 20 GBaud per link
- Gigabit Ethernet, Fibre Channel aggregation
- Allows patch panel use

### Standards Compliance

- InfiniBand Trade Association Specification Release 1.2.
- MTP®/MPO fiber cable interface



AVDAT 4X™ (left) next to a CX4 connector

