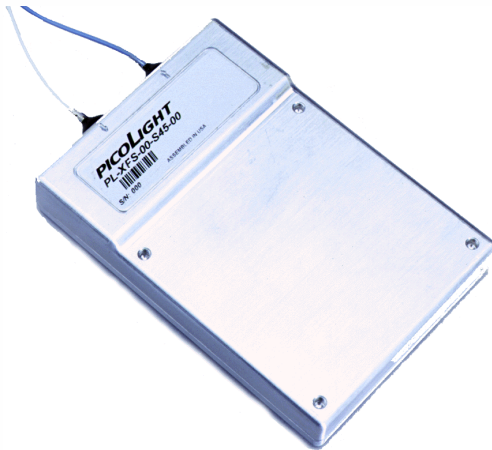


Accelar™

10 Gigabit Ethernet XAUI Shortwave Transceiver



Key benefits

- High reliability
- In-house precision alignment
- Industry-wide physical and optical specification
- Enhanced thermal solution
- Denser I/O implementation
- Multivendor availability
- Proven field reliability and robustness

Applications

- 10 Gigabit Ethernet (LAN PHY) 10GBASE-SR
- Cross-connect switches
- Router interconnect
- MAN aggregation links
- Short reach LAN/MAN interconnects
- Computer cluster cross-connect
- Custom high-speed data pipes

PL-XFS-00-S45

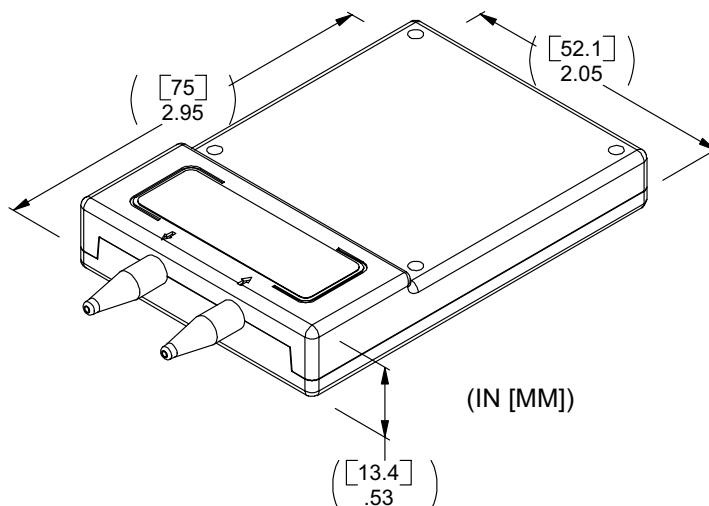
The 10G serial transceiver is the first standards-endorsed solution to implement 10G Attachment Unit Interface (XAUI) technology, and is another in Picolight's *Accelar* family of products customized for short reach LAN, SAN and intra-POP applications. The transceiver features Picolight's high reliability 850 nm oxide vertical-cavity surface-emitting laser (VCSEL) coupled to pigtailed optical connectors. The XAUI electrical interface employs only four differential data channels for communications within the module, and satisfies electrical and optical requirements defined by the P802.3ae IEEE 10 Gigabit Ethernet. The transceiver's mechanical footprint complies with the 300 pin multisource agreement (MSA) for 10G serial transmission. With the combination of XAUI transceiver chips and 10 Gigabit optics, this module provides a compact, pluggable, low power solution that simplifies manufacturers' systems, allowing current router or switch upgrades to 10 Gigabit Ethernet without a mechanical overhaul.

Highlights

- ◆ **Industry's first serial XAUI optical module for 10G Ethernet**, propelling deployment of 10G links and delivering cost efficient optics to the network bottlenecks
- ◆ **Reliable, field-proven mechanical design** based on existing 300 pin form factor; no system mechanical overhaul required
- ◆ **Enables flexible designs for backplanes and extended line cards** using XAUI interface for up to 20 inch PC board traces
- ◆ **System monitoring and component mapping** via MDC/MDIO management interface
- ◆ **Design based on high volume optoelectronics packaging**
- ◆ **Controlled supply chain and reliable long-term supply** based on Picolight's reliable VCSELs and PIN diodes

PL-XFS-00-S45 features

- Uses a Picolight high speed, 850 nm, oxide VCSEL and PIN diode
- Low power consumption (< 5W)
- Mechanical design features based on 300 pin 10G serial transponder MSA
- 0°C To 55°C ambient operating range (with 200 lfpm airflow)
- 10.3125 Gbit/s serial optical interface
- SC connector pigtailed optical fiber
- Integrated MUX/DEMUX and deskew functionality
- XAUI compatible electrical interface, 4 channels operating at 3.125 Gbit/s
- BGA socket 300 pin electrical connector
- Bit error rate < 1×10^{-12}
- 300 m minimum range over 2000 MHz-km, 50/125µm multimode fiber
- 86 m minimum range over 500 MHz-km 50/125µm multimode fiber
- Transmit disable and signal detect functions
- MDC/MDIO compatible management interface
- Data and clock recovery
- IEC 60825-1 Class 1 laser eye safe
- FCC Class B compliant
- ESD Class 2 per MIL-STD 883 Method 3015
- UL-94 V-0 certified



The eye safe, cost effective PL-XFS-00-S45 transceiver complies with the draft IEEE P802.3ae 10 Gigabit Ethernet serial short wavelength specification known as 10GBASE-SR. The module's 300-pin packaging enables switch manufacturers to extend their systems with minimal chassis and blade redesign.

Ordering information

Part Number:	Description:	Contact Information:
PL-XFS-00-S45-4B	Shortwave duplex SC connectorized XAUI 10 Gigabit transceiver module with EMI gasket and insulating bottom cover	Picolight Incorporated 4665 Nautilus Court South Boulder, CO 80301 Tel: 303.530.3189 E-mail: sales@picolight.com Web site: www.picolight.com