

MAGNUS™

12 x 1.6 / 2.5 / 2.7 Gbps Parallel Optical Transmitter/Receiver



Key benefits

- Delivers bandwidth to key system bottlenecks
- Reduces inventory costs
- Enables field replacement
- Improves manufacturing yield
- Minimizes impact on system power budget
- Eases system design
- Enables multiple data channel fanout

Applications

- Optical backplane extension
- System interconnect
 - Cross connect switching
 - Network edge devices
 - Access network equipment
 - Mass storage systems
- Massively parallel OC-48 or Gigabit Ethernet extension
- High end CPU interconnect
- Rack-to-rack/Board-to-board interconnect
- HIPPI 6400

PL-TCP-00-SD3 / S53 / SE3 Transmitter PL-RCP-00-SD3 / S53 / SE3 Receiver

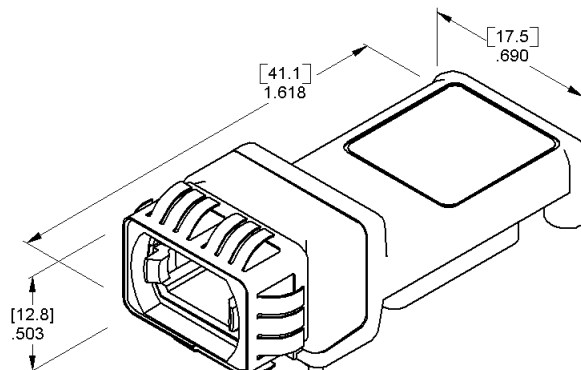
The MAGNUS parallel optical interconnect is a transmitter/receiver pair operating with 12 channels at 1.6, 2.5, and 2.7G for an aggregate bandwidth of 19-, 30-, and 32-G respectively. The parallel modules are another in PicoLight's MAGNUS family of products for optical backplane applications, where high-speed, high-density components are needed to handle increased bandwidth demand. The parallel optical interconnect features PicoLight's highly reliable 850 nm, oxide vertical-cavity surface-emitting laser (VCSEL) array with a standard Ball Grid Array (BGA) connector interface. The module's pluggable, connectorized design enables manufacturers to provision bandwidth on demand, upgrading cards in the field with the snap-on optics. The parallel optical interconnect complies with the IEEE802.3 1000BASE-SX standard.

Highlights

- ◆ **Expands bandwidth across equipment backplanes**, meeting ultra-high capacity demand for faster central office switching
- ◆ **BGA connector attachment enables "snap-on" optics** that improve customers' manufacturing yields, reduce inventory costs, and provide capability for system field upgrade to add bandwidth
- ◆ **Thumb-sized modules consume only 2 watts of power per pair**, lowering system power costs and increasing density
- ◆ **System backplanes become "distance-independent,"** seamlessly connecting equipment from 0 to 600 meters over high-bandwidth fiber, 0 to 300 meters over low-bandwidth fiber
- ◆ **Data rates per channel range from 1.6 Gbps to 2.7 Gbps**, allowing customers to select the optimum model for their applications

PL-xCP-00-SD3 / S53 / SE3 features

- Utilizes a Picolight high reliability, high speed, 850 nm, oxide VCSEL array
- Data rate to 1.6 / 2.5 / 2.7 Gbps per channel for a total link data rate of 19 / 30 / 32 Gbps
- Mass production compatible Ball Grid Array (BGA) connector interface
- Low power consumption (approx. 2 watts per module pair)
- 12 asynchronous independent electrical/optical data channels
- Meets IEEE 802.3z 1000Base-SX std.
- Bit Error Rate < 1×10^{-12} without FEC
- Supports 50/125 μm and 62.5/125 μm multimode fiber
- Industry standard MTP optical interface
- BGA connector compatible with industry standard wave solder and aqueous wash processes
- IEC 60825-1 Amendment 2 (2001-01) Class 1M laser eye safe
- 0°C to 80°C operating range
- Single +3.3 V power supply
- Supplied with process plug



The 12-channel PL-xCP-00-SD3 / S53 / SE3 parallel optical interconnect is the first of its kind to combine the convenience of low-cost, snap-on connector pluggability with the speed of parallel optics. It sets a new standard for ease of design, manufacture, test and field support of ultrahigh-speed optics required across equipment backplane in core switches, routers and multiplexors.

Ordering information

Part Number:	Description:	Contact Information:
PL-TCP-00-SD3-0A	MAGNUS 12 x 1.6 Gbps Transmitter	Picolight Incorporated 4665 Nautilus Court South Boulder, CO 80301 Tel: 303.530.3189 E-mail: sales@picolight.com Web site: www.picolight.com
PL-RCP-00-SD3-0A	MAGNUS 12 x 1.6 Gbps Receiver	
PL-TCP-00-SD3-3A	MAGNUS 12 x 1.6 Gbps Transmitter, without EMI collar	
PL-RCP-00-SD3-3A	MAGNUS 12 x 1.6 Gbps Receiver, without EMI collar	
PL-TCP-00-S53-0B	MAGNUS 12 x 2.5 Gbps Transmitter	
PL-RCP-00-S53-0B	MAGNUS 12 x 2.5 Gbps Receiver	
PL-TCP-00-S53-3A	MAGNUS 12 x 2.5 Gbps Transmitter, without EMI collar	
PL-RCP-00-S53-3A	MAGNUS 12 x 2.5 Gbps Receiver, without EMI collar	
PL-TCP-00-SE3-0A	MAGNUS 12 x 2.7 Gbps Transmitter	
PL-RCP-00-SE3-0A	MAGNUS 12 x 2.7 Gbps Receiver	
PL-TCP-00-SE3-3A	MAGNUS 12 x 2.7 Gbps Transmitter, without EMI collar	
PL-RCP-00-SE3-3A	MAGNUS 12 x 2.7 Gbps Receiver, without EMI collar	