VCSEL Transceiver

FIBERPRO provides various types of 850nm Multi-Mode Transceivers with availability of customized design for Multi-Gigabit rate short haul applications such as Enterprise Network, Server Farm, and Intranet for ISP/ASP.

FIBERPRO has devoted all efforts to develop high-speed Optical Link Modules to achieve high quality and low cost of its products through innovation of VCSEL and PIN-PD technology.

FIBERPRO, VCSEL experts company using an index guided VCSEL technology, has developed low power consumption and simple packaging. The selective oxidation process plays a key role to get high-speed and low optical jitter of VCSEL transceivers.

As for PIN-PD, FIBERPRO enables lower capacitance PD, which causes the lower packaging cost by securing larger margin in PD alignment as well as the better signal quality in terms of jitter characteristics. Thus, FIBERPRO transceivers offer excellent input sensitivity of -20dBm at minimum by combining in-house PIN-PD with amplifier. Thus, their power budget gets wider.

For mechanical design, a metal chassis enclosure is taken to result in low EMI and to play a role of electrical reservoir to absorb the Electro-Static Discharge. FIBERPRO transceivers are verified or certified in terms of eye safety, EMI / EMS, and component safety by complying with regulation of FCC, FDA, and UL. Additionally, the reliability in application of temperature drift and mechanical harshness is tested in basis of industry or, military test standards.

Features

- High performance of low jitter and wide optical budget
- Cost effectiveness and flexible customization
- Reliability of application environments
High-quality Multi-mode 85

LC Small Form Factor

**M3-125-LAT**
- LC Type (2×5 Small Form Factor)
- Supports 1.25Gbps data transfer rate for Gigabit Ethernet
- Link length: 275m (62.5 μm) / 550m (50 μm)
- Duplex LC connector
- Excellent performance optical jitter
- Low EMI / Metal Case
- Power supply: Both uses for +3.3V and +5.0V
- Operating temperature: 0℃ to +70℃
- Output termination: AC
- SD out type: TTL

**M3-250-LAT**
- LC Type (2×5 Small Form Factor)
- Supports 2.5Gbps data transfer rate for InfiniBand
- Link length: 125m (62.5 μm) / 250m (50 μm)
- Duplex LC connector
- Excellent performance optical jitter
- Low EMI / Metal Case
- Power supply: Both uses for +3.3V and +5.0V
- Operating temperature: 0℃ to +70℃
- Output termination: AC
- SD out type: TTL

**M3-106-LAT**
- LC Type (2×5 Small Form Factor)
- Supports 1.0625Gbps data transfer rate for Fibre Channel
- Link length: 300m (62.5 μm) / 500m (50 μm)
- Duplex LC connector
- Excellent performance optical jitter
- Low EMI / Metal Case
- Power supply: Both uses for +3.3V and +5.0V
- Operating temperature: 0℃ to +70℃
- Output termination: AC
- SD out type: TTL

Applications
- Gigabit Ethernet
- Fiber Channel
- High Speed File Servers
- High Performance Desktops
- InfiniBand
FIBERPRO

Ordering code

M3-AAA-BCD
AAA (Data Transfer Rate): 125 (1.25Gbps) / 106 (1.0625Gbps) / 250 (2.5Gbps) / 212 (2.125Gbps)
Gbit Ethernet or Infiniband: 125 (1.25Gbps) / 250 (2.5Gbps)
Fiber Channel: 106 (1.0625Gbps) / 212 (2.125Gbps)
B (Connector Type): S-SC / L-LC / P-SFP
C (Receiver Termination): A-AC / D-DC
D (Signal Detect Out): P-PECL / T-TTL

Where in case of SFF and SFP, AC termination and TTL signal detect out are only available.

Example: M3-125-SAP
1.25Gbps / SC type / AC / PECL
SC Full Form Factor

**M3-125-SXX**
- SC Type (1×9 Full Form Factor)
- Supports 1.25Gbps data transfer rate for Gigabit Ethernet
- Link length: 275m (62.5 µm) / 550m (50 µm)
- Duplex SC connector
- Excellent performance optical jitter
- Low EMI / Metal Case
- Power supply: Both uses for +3.3V and +5.0V
- Operating temperature: 0°C to +70°C
- XX Options: SD out type - PECL / TTL
- Output termination: AC / DC

**M3-106-SXX**
- SC Type (1×9 Full Form Factor)
- Supports 1.0625Gbps data transfer rate for Gigabit Ethernet
- Link length: 300m (62.5 µm) / 500m (50 µm)
- Duplex SC connector
- Excellent performance optical jitter
- Low EMI / Metal Case
- Power supply: Both uses for +3.3V and +5.0V
- Operating temperature: 0°C to +70°C
- XX Options: SD out type - PECL / TTL
- Output termination: AC / DC

**Dimensions**

- **LC Small Form Factor**
- **LC Small Form Factor Pluggable**
- **SC Full Form Factor**

**www.fiberpro.com**

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