



SCFF On-Board Transceiver

28Gbps High-Speed 1-TRX Optical Module

Amphenol AOP 28Gbps SCFF High-Speed 1-TRX Optical Module - Small Cubic Form Factor - rugged, it is designed for extended temperatures and highly challenging applications where both reliability and performance are critical. A single channel device capable of data rates up to 10Gbps or up to 28 Gbps, choose the speed your applications needs.

Key Features

Duplex LC optical cavities that optimizes rack space, reaching distance of 70 m at 1.25Gbps up to 28.05Gbps (OM4 cable) and distances up to 300m at 10Gbps (OM3 cable).

Less than 1.1 W of power consumption to power up the SCFF at 28Gbps, including CDR, transceiver optimization and monitoring connection discovery, channel diagnostics, and signal status monitoring.

Die casting housing that uses 2x less board space than SFP+ form factor.

Embedded solderable with a 12-pin electrical interface complying with SFF-8431 specs for high-speed interfaces, the SCFF is state of the product.

Upgrade to 28Gbps without board design change by using the same footprint pin layout. A easy swap to the next generation.

Dual sourcing friendly, the DUAL SCFF aggregates 56Gbps in one generic daughter card.



Applications

Industrial Control

Military Vehicles

Commercial Aerospace

Military aerospace



Contact Us

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Features

- Size of 13,8 x 26,2 x 10,6 mm - including pins
- Data rate transparent from 1.25Gbps to 28.05Gbps*
- Duplex LC
- SFF-8472 compliant two-wire control and diagnostic interface (i²c)
- Enhanced Bit Error Rate (1e-12) requires no or limited FEC
- Programmable input equalization
- Programmable output amplitude and de-emphasis
- Clock and Data Recovery*

* for 25Gbps version only

Supported Standards

- 25Gbps Ethernet*
- 1.25Gbps to 25Gbps* proprietary links
- 10GbE
- EDR Infiniband*
- 8G/16G/32G Fiber Channel*
- CPRI*

Electrical Performance

- Power Supply Voltage: 3.3V only
- Bit Error Rate
 - BER < 10⁻¹² @ 25.78Gbps, PRBS31 (CDR ON)
 - BER < 10⁻¹² at 10.31Gbps, PRBS31
- Lanes per device: 1 Transmit and 1 Receive
- Low Power Consumption (<1W @25G)
- Transmitter Type: 850nm VCSEL Laser
- Receiver Type: PIN Photodiode

Environmental

- RoHS compliant
- Case Operating Temperature: -40° to 85°C
- Conformal coating option
- Shock MIL-STD 883: Method 2002.4 (500g; 1ms)
- Vibe MIL-STD 883: Method 2007.3 (20g)

Packaging

- Individual Blister Package

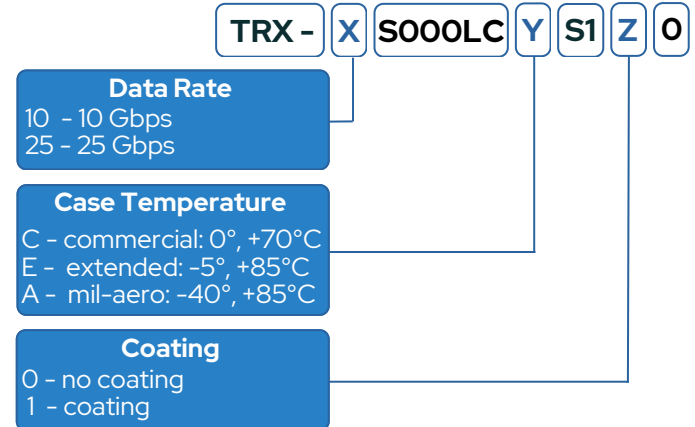
Benefits

- Supports standard and non-standard protocols in this range of data rates (10GbE, 25GbE, 8G/16G/32G Fiber Channel...)
- Ideal for applications requiring safe optical connection
- Lower system latency and better system performance
- 16dB of signal peaking at 14GHz to compensate for suboptimal signal condition*
- Compensate for PCB traces loss for proper signal conditioning
- Guaranteed performance over full data rate range

Material

- Optical interface mates with LC terminated Amphenol optical cables: contact us

Part Number Selector



Evaluation Kit

Try out the power of the SCFF through our evaluation kits. Ships together with Application Notes and a Graphical User Interface (GUI) to simulate various scenarios in a very simply and effective way.

Get in touch for more.

