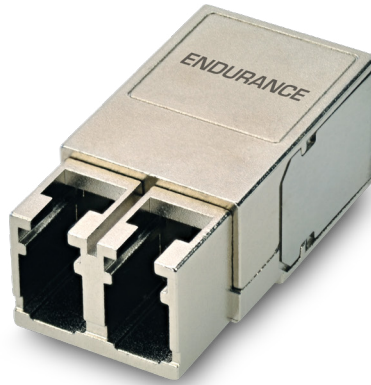


ENDURANCE

Rugged and Compact 125 Mb/s to 10 Gb/s Optical Transceivers

Endurance® is a family of compact transceiver modules designed to be rugged and robust so they are optimal for industrial and military applications. They have a wide operating temperature range, a metal housing to minimize effects of Electro-Magnetic Interference, two through-hole mounting posts to stabilize under shock and vibration conditions, and the pins are soldered directly to the Printed Circuit Board (PCB) to ensure constant connectivity. Endurance modules are available with conformal coating for additional reliability in harsh environments. They have been qualified to Telcordia and Military standards. The simple serial interface is independent of protocol and can thus be used in a wide range of applications. Digital diagnostic functions for monitoring and control of the module are provided via a 2-wire serial interface.



FEATURES

- Full-duplex transceivers for optical data links over two glass optical fibers
- Short-Reach 850nm VCSEL Multi-mode or Long-Reach 1310nm DFB Single-mode available
- Multi-rate and Rate Select versions available
- Compact form-factor: Half the size of SFF transceivers
- Board-mounted
- Built-in digital diagnostic functions
- Duplex LC optical connection
- Single 3.3V power supply
- Interoperable with standard SFP and SFP+ optical transceivers
- Extended operating temperature range of -40°C to 85°C
- Extreme storage temperature range from -57°C to 100°C
- Option for conformal coating for high reliability in corrosive environments
- Qualified to applicable tests in MIL-STD-810G, MIL-STD-883 and GR-486-CORE
- Meets applicable requirements for Gigabit Ethernet, 10 Gigabit Ethernet, and Fibre Channel
- MDIO management interface

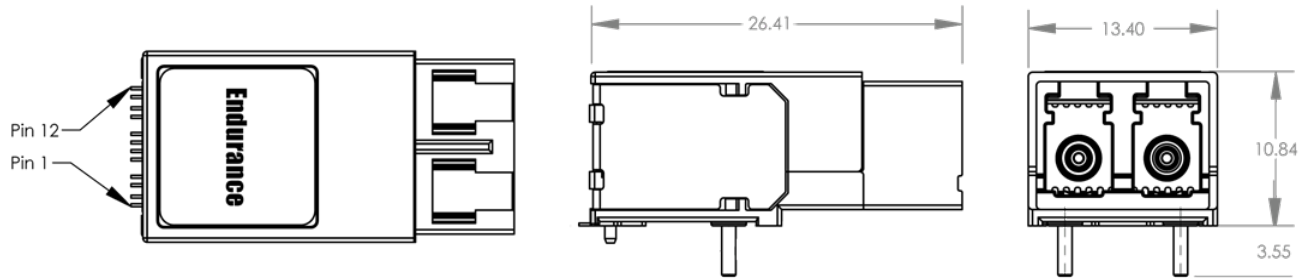
APPLICATIONS

- Fast Ethernet
- 10 Gigabit Ethernet
- 1 Gigabit Ethernet
- 8G Fibre Channel
- 4G Fibre Channel
- 2G Fibre Channel
- Proprietary high-speed data links

Key Advantages

- Robust for environments with extreme temperatures, shock and vibration, electromagnetic interference, and corrosion
- Saves valuable board space with its compact size
- Light weight fiber optic solution for data links compared to coaxial cable
- Low power consumption
- Utilizes Finisar's vertically integrated and highly reliable laser technology and integrated circuit capabilities

Module performance is not guaranteed beyond the operating range (see Section VI). Exceeding the limits below may damage the transceiver module permanently.



Measurements are in mm

Specifications

Parameter	Short-Reach/Short-Wave	Long-Reach/Long-Wave
Supply Voltage	3.3 Volts	3.3 Volts
Supply Current, Max	300 mA	250 mA
Laser Source	850 nm VCSEL Multi-mode	1310nm DFB Single-mode
Operating Temperature Range	-40°C to +85°C	-40°C to + 85°C
Link Distance	26 to 300 meters* (10 Gb/s) 70 to 150 meters* (4 Gb/s) 300 to 550 meters* (1 Gb/s)	10 km

*Dependent on multi-mode fiber type

Product Selection

Part Number	Description
FTE8510K1LTN	Endurance, Short-Reach, 10 GbE, -40°C to 85°C, No Conformal Coating
FTE8510K1LTY	Endurance, Short-Reach, 10 GbE, -40°C to 85°C, Conformal Coating
FTE8511K1LTN	Endurance, Short-Reach, 10 GbE/1 GbE Rate-select, -40°C to 85°C, No Conformal Coating
FTE8511K1LTY	Endurance, Short-Reach, 10 GbE/1 GbE Rate-select, -40°C to 85°C, Conformal Coating
FTE8504K1LTN	Endurance, Short-Reach, 125 Mb/s to 4 Gb/s Rate-select, -40°C to 85°C, No Conformal Coating
FTE8504K1LTY	Endurance, Short-Reach, 125 Mb/s to 4 Gb/s Rate-select, -40°C to 85°C, Conformal Coating
FTE8501K1LTN	Endurance, Short-Reach, 125 Mb/s to 1 Gb/s, -40°C to 85°C, No Conformal Coating
FTE1411K1LTN	Endurance, Long-Reach, 10 GbE/1 GbE Rate Select, -40°C to 85°C, No Conformal Coating

Contact Finisar for other product options.

Size Comparison



SFF



Endurance