

# FINISAR®

## Key Features

- ▶ Supports 125 Mb/s to 14 Gb/s optical data links over multi-mode fibers
- ▶ Short-Reach 850nm VCSEL Multi-mode or Long-Reach 1310nm DFB Single-mode available
- ▶ Multi-rate versions available
- ▶ Compact form-factor: Half the size of SFP transceivers
- ▶ Multiple modules can be mounted side-by-side on a Printed Circuit Board
- ▶ Built-in digital diagnostic functions
- ▶ Duplex LC optical connection
- ▶ Single 3.3V power supply
- ▶ Interoperable with equivalent SFP and SFP+ optical transceivers
- ▶ Meets applicable requirements for Gigabit Ethernet, 10 Gigabit Ethernet, and Fibre Channel

## Applications

- ▶ Fast Ethernet
- ▶ 10 Gigabit Ethernet
- ▶ 1 Gigabit Ethernet
- ▶ 16G Fibre Channel
- ▶ 8G Fibre Channel
- ▶ 4G Fibre Channel
- ▶ 2G Fibre Channel
- ▶ Proprietary high-speed data links

# Endurance®

## For Datacom Applications

### Compact 125 Mb/s to 14 Gb/s Optical Transceivers

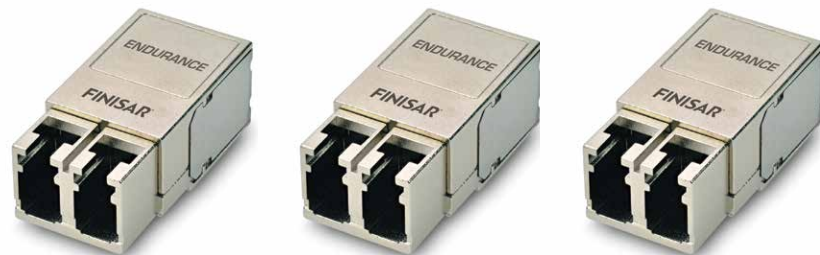
#### Overview

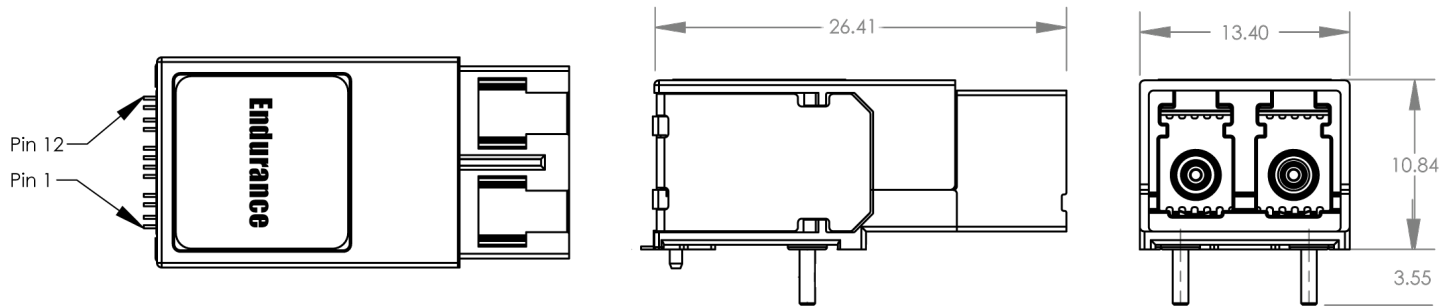
Endurance® is a family of compact transceiver modules designed for Fibre Channel and Ethernet optical data links. It utilizes Finisar's internally developed ICs, which enables the compact form-factor and low power consumption. Because Endurance has two through-hole mounting posts and the pins are soldered directly to the board, it does not use a host cage. The compact module saves valuable board space and allows multiples of them to be mounted side-by-side on a Printed Circuit Board (PCB) for high-density port counts.

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.

#### Key Advantages

- ▶ Saves valuable board space with its compact size
- ▶ Low power consumption, less than 0.6 Watts
- ▶ Utilizes Finisar's vertically integrated and highly reliable laser technology and integrated circuit capabilities
- ▶ Board-mount solution guarantees equipment providers will capture the value of the optical module versus pluggable optics





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	180 mA	250 mA
Tx Optical Wavelength	850 nm VCSEL Multi-mode	1310nm DFB Single-mode
Operating Temperature Range	0°C to +70°C	0°C to +70°C
Link Distance	26 to 300 meters* (10 Gb/s) 70 to 150 meters* (4 Gb/s) 300 to 550 meters* (1 Gb/s) 35 to 100 meters (14 Gb/s)	10 km

\*Dependent on multi-mode fiber type

## Product Selection

Part Number	Description
FTE8510N1LCN	Endurance, Short-Reach, 10 GbE, 0°C to 70°C
FTE8508N1LCN	Endurance, Short-Reach, 8x/4x/2x Fibre Channel, Rate Select, 0°C to 70°C
FTE8504N1LCN	Endurance, Short-Reach, 1 GbE & 4x/2x/1x Fibre Channel, Rate Select, 0°C to 70°C
FTE1411N1LCN	Endurance, Long-Reach, 10 GbE/1 GbE, Rate Select, 0°C to 70°C
FTE8516N1LCN**	Endurance, Short-Reach, 16x/8x/4x Fibre Channel, Rate Select, CDR, 0°C to 70°C

\*\*16G FC version has 13 pins, Clock and Data Recovery, Electrical Loopback, and Optical Loopback.  
Contact Finisar for other product options.

## Size Comparison

