

Finisar[®]

25 CELEBRATING
25 YEARS

Product Guide

Transceivers, Transponders, and Active Cables for
Datacom and Telecom Applications



CFP



QSFP



SFP+



XFP



BOA



Active Cable

Finisar's broad product selection and innovative technology have made us the optical module manufacturer of choice for all major networking equipment vendors worldwide. We have taken a leading role in transforming the datacommunications and telecommunications equipment market from utilizing discrete optical components to leveraging the design and pay-as-you-grow flexibility offered by pluggable modules. Our products are fully compliant with Ethernet, Fibre Channel, Infiniband, SONET/SDH/OTN and PON standards and operate at data rates up to 100 Gb/s. They are capable of distances ranging from very short reach within a datacenter to campus, access, metro, and long-haul reaches. They feature outstanding performance over extended voltage and temperature ranges, while minimizing jitter, electromagnetic interference (EMI) and power dissipation.

Finisar Modules are available in a wide variety of form factors:

SFP (copper and optical; longwave, shortwave and WDM)

- **DATACOM** applications using Fast Ethernet, Gigabit Ethernet, 1x/2x/4x Fibre Channel
- **TELECOM** applications using OC-3/STM-1, OC-12/STM-4 and OC-48/STM-16 across all reaches

Features

- 3.3 V operating voltage
- Distances from very short links up to 100+ km
- Wide operating temperature range
- Metal enclosure for lower EMI
- Digital diagnostics
- Wireless CPRI/OBSAI compliant



SFP

SFP+ (optical; longwave and shortwave)

- **DATACOM** applications using 10 Gigabit Ethernet and 2x/4x/8x/16x Fibre Channel

Features

- 3.3 V operating voltage
- Supports bit rates up to 14.025 Gb/s
- Distances from short links up to 80 km metro links
- Wide operating temperature range
- Digital diagnostics
- Wireless CPRI/OBSAI compliant



SFP+

CFP (optical; longwave and shortwave)

- **DATACOM** applications using 40G and 100G Ethernet
- **TELECOM** applications using OTU3 and OTU4

Features

- Hot-pluggable CFP form factor
- Supports 39.8 Gb/s to 112 Gb/s aggregate bit rates
- CFP MSA-compliant form factor
- Maximum link length of 100m on OM3 MMF, 150m on OM4 MMF, 10km on SMF, and 500km in Amplified DWDM Applications
- Single 3.3 V power supply



CFP

QSFP (optical; longwave and shortwave)

- **DATACOM** applications using 40G Ethernet
- **TELECOM** applications using OTU3

Features

- Four-channel full-duplex transceiver module
- Hot Pluggable, MSA-compliant QSFP+ form factor
- Maximum link length of 100 m on OM3 MMF, 150 m on OM4 MMF, and 10 km on SMF
- Multirate capability; supports 1.06 Gb/s to 11.15 Gb/s per channel



QSFP

CXP (optical; shortwave)

- **DATACOM** applications using 100G Ethernet and chassis interconnections

Features

- Twelve-channel full-duplex transceiver module
- Hot Pluggable CXP form factor
- Maximum link length of 100m on OM3 MMF and 150m on OM4 MMF
- Multirate capability; supports 1.06 Gb/s to 12.5 Gb/s per channel



CXP

Active Optical Cables



10 Gb/s Serial Active Optical Cable for 1/10GbE and 1/2/4/8x Fibre Channel



10 Gb/s SFP+ Active Optical Cable for 10G Ethernet



40 Gb/s to 56 Gb/s Parallel Active Optical Cable for 40GbE, InfiniBand 4xQDR, and InfiniBand 4xFDR



150 Gb/s Parallel Active Optical Cable for 100GbE and InfiniBand 12xQDR



Active Optical Cables

ENDURANCE Compact Transceivers (optical; longwave and shortwave)

Features

- Compact form-factor for high-density solutions
- Data rate flexibility including 10GbE, GbE, 8G/4G/2G/1G Fibre Channel
- Board-mounted for an edge optical interface or internal mounting
- Designed for rugged applications

Optical Engines (optical; shortwave)

- DATACOM applications for inter-chassis connections

Features

- Twelve-channel full-duplex transceiver modules (BOA)
- Twelve-channel transmitter and receiver modules (SNAP12)
- Maximum link length of 100m at 10 Gb/s on OM3 MMF Fiber (BOA)
- Maximum link length of 600m at 2.5 Gb/s on OM3 MMF Fiber (SNAP12)
- Multirate capability: supports 1 Gb/s up to 28.05 Gb/s per channel

XFP (optical; longwave, shortwave, DWDM, and Tunable)

- DATACOM applications using 10 Gigabit Ethernet and 10x Fibre Channel
- TELECOM applications using OC-192/STM-64

Features

- Supports bit rates up to 11.3 Gb/s
- Distances up to 80 km
- Digital diagnostics

X2/XENPAK (optical; longwave and shortwave)

- DATACOM applications using 10 Gigabit Ethernet and 10x Fibre Channel

Features

- 1.2 V, 3.3 V and 5 V operating voltage
- Supports bit rates up to 10.5 Gb/s
- Distances up to 10 km
- Digital diagnostics

300 PIN (optical; longwave)

- TELECOM 10 Gb/s and 40 Gb/s applications

Features

- Supports bit rates up to 43.1 Gb/s
- Available in RZ-OOK (10G), NRZ-OOK (10G/40G), and NRZ-DPSK (40G) formats
- Compliant to industry standards (ITU-T; SFI-4/5; 300 PIN MSA)
- DWDM broadly 50GHz spaced tunability across C or L bands

SFF (optical 2x5, 2x7 and 2x10; longwave and shortwave)

- DATACOM applications using Gigabit Ethernet, 1x/2x/4x Fibre Channel
- TELECOM applications using OC-3/STM-1, OC-12/STM-4 and OC-48/STM-16 across all reaches

Features

- 3.3 V operating voltage
- Distances from very short links up to 80 km
- Wide operating temperature range
- Metal enclosure for lower EMI
- 2x7 and 2x10 incorporate digital diagnostics

PON (optical; longwave)

- TELECOM access applications for GPON and EPON

Features

- 3.3 V operating voltage
- EPON stick incorporates full EPON ONU functionality
- Distances up to 20 km, Class B+, PX-20+
- Digital diagnostics

Finisar's Patented Digital Diagnostics

Finisar's XFP, XPAK, X2, XENPAK, 300 PIN, SFP, SFP+, and 2x7 and 2x10 SFF transceivers feature a microprocessor and diagnostics interface that provides performance information on the data link. Users can remotely monitor—in real-time—received optical power, transmitted optical power, laser bias current, transceiver input voltage and transceiver temperature of any transceiver in the network. These digital diagnostic functions provide network managers with a highly accurate, cost-effective tool for implementing reliable performance monitoring.



ENDURANCE



Optical Engines



XFP



XENPAK and X2



300 PIN



SFF



PON

World's Largest Supplier of Optical Communication Components and Subsystems

Visit our website



Finisar®

1389 Moffett Park Drive
Sunnyvale, CA 94089-1133
Telephone: +1 408-548-1000
Sales: +1 408-541-5690

Email: sales@finisar.com
Blog: www.finisar.com/blogs/lightspeed
www.finisar.com

