

# Product Guide

Transceivers, Transponders,  
and Active Optical Cables

**FINISAR<sup>®</sup>**



# Transceivers, Transponders, and Active Optical Cables

## 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, OC-48/STM-16, EPON/GPON and Wireless/CPRI 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 compliant



SFP

## SFP+ (optical; longwave, shortwave, DWDM and tunable)

**DATACOM** applications using 10G and 25G Ethernet and 2x/4x/8x/16x/32x Fibre Channel (LW and SW)

**TELECOM** applications using either OC-192/STM-64, 10G Ethernet, or Wireless/CPRI

### Features

- 3.3 V operating voltage
- Supports bit rates up to 28.05 Gb/s (LW, SW, and DWDM) and 11.3 Gb/s (Tunable)
- Distances from short links up to 80 km metro (LW, SW, and DWDM) and 80km (Tunable)
- Wide operating temperature range
- Digital diagnostics
- Wireless CPRI compliant (LW and SW)
- Bi-directional SFP+ transceiver available



SFP+

## CFP/CFP2/CFP4 (optical; longwave and shortwave)

**DATACOM** applications using 40G and 100G Ethernet

**TELECOM** applications using OTU3 and OTU4

### Features

- Hot-pluggable, MSA-compliant CFP, CFP2 and CFP4 form factors
- Supports 39.8 Gb/s to 112 Gb/s aggregate bit rates
- Maximum link length of 100m on OM3 MMF, 150m on OM4 MMF, 10km on SMF, and 500km in Amplified DWDM Applications
- 3.3 V operating voltage



CFP/CFP2/CFP4

## QSFP+/QSFP28 (optical; longwave and shortwave)

**DATACOM** applications using 40G and 100G Ethernet, 128G Fibre Channel and high-density 10G and 25G Ethernet

**TELECOM** applications using OTU3 and OTU4

### Features

- Four-channel full-duplex transceiver module
- Hot-pluggable, MSA-compliant QSFP+ and QSFP28 form factors
- Maximum link length of 300m on OM3 MMF, 400m on OM4 MMF, and 10 km on SMF
- 3.3 V operating voltage



QSFP+/QSFP28

## 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

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

**quadwire** 40 Gb/s to 100 Gb/s Parallel Active Optical Cable for 40GbE, InfiniBand 4xQDR, Infiniband 4xFDR, and Infiniband 4xEDR

**C.wire** 150 Gb/s Parallel Active Optical Cable for 100GbE and InfiniBand 12xQDR



Active Optical Cables

## 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 or 70m at 25 Gb/s on OM4 MMF (BOA)
- Maximum link length of 600m at 2.5 Gb/s on OM3 MMF (SNAP12)
- Multirate capability: supports 1 Gb/s up to 28.05 Gb/s per channel



## X2 (optical; longwave and shortwave)

**DATACOM** applications using 10G Ethernet

### Features

- Supports bit rates up to 10.5 Gb/s
- Distances up to 10 km
- Digital diagnostics



## Coherent (optical; longwave)

**TELECOM** 100Gb/s and 200Gb/s applications

### Features

- Pluggable CFP2-ACO with analog interface
  - Analog host interface is compatible with any external DSP
  - Modulation format independent
- 5"x7" module supporting multiple modulation formats with internal DSP
  - Platform supports DP-BPSK, DP-QPSK, or DP-16QAM at up to 32Gbaud
  - Best in class OSNR performance



## Endurance Compact Transceivers (optical; longwave and shortwave)

### Features

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



## XFP (optical; longwave, shortwave, DWDM, and tunable)

**DATACOM** applications using 10G 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 200 km (LW, SW, and DWDM) and 80 km (Tunable)
- Digital diagnostics
- Wide operating temperature range versions available



## SFF (optical; 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

- Distances from very short links up to 80 km
- Wide operating temperature range
- Available in 2x5, 2x7 or 2x10. 2x7 and 2x10 incorporate digital diagnostics



## Finisar's Patented Digital Diagnostics

Finisar's 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.



Technology Innovator.  
Broad Product Portfolio.  
Trusted Partner.

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