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

**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 40 km on SMF
- 3.3 V operating voltage

**CXP (optical; shortwave)**

**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

**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
- 3.3 V operating voltage

**Active Optical Cables**

**SFPwire**
SFP+ Active Optical Cable for 10G and 25G Ethernet. Also available with Connectivity Diagnostics®

**quadwire**
40 Gb/s to 100 Gb/s Parallel Active Optical Cable for 40GbE and 100GbE, InfiniBand 4xQDR, InfiniBand 4xFDR, InfiniBand 4xEDR and Intel® Omni-Path Architecture. Also available with Connectivity Diagnostics®

**C.wire®**
150 Gb/s Parallel Active Optical Cable for 100GbE and InfiniBand 12xQDR.
Finisar’s Digital Diagnostics

Finisar’s transceivers feature a microprocessor and diagnostics interface that provide 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 patented digital diagnostic functions provide network managers with a highly accurate, cost-effective tool for implementing reliable performance monitoring.

Optical Engines (optical; shortwave)

**DATACOM** applications for inter-chassis connections

**Features**
- Twelve-channel full-duplex transceiver modules
- Maximum link length of 100m at 10 Gb/s on OM3 MMF or 70m at 25 Gb/s on OM4 MMF
- Multirate capability: supports 1 Gb/s up to 28.05 Gb/s per channel

Coherent (optical; longwave)

**TELECOM** 100Gbs and 200Gbs applications

**Features**
- Pluggable CFP2-ACO analog coherent optics module
  - Highest density coherent interface
  - Enables "pay-as-you-grow" deployment of coherent optics
  - Analog interface is compatible with any external DSP
  - Modulation format independent, supports data rates > 200Gb/s

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

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/16x Fibre Channel
- Board-mounted for an edge optical interface or internal mounting
- Designed for rugged applications

SFF (optical; longwave and shortwave)

**DATACOM** applications using Gigabit Ethernet, 1x/2x/4x Fibre Channel

**TELECOM** applications using OC-192/STM-64

**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 Connectivity Diagnostics

Several of Finisar’s products feature the Connectivity Diagnostics® suite of tools, which helps data center technicians quickly and intuitively find specific modules in a sea of sockets using a visual indicator. LynkFind™ allows an operator to light up the pull-tab of the module at the far-end of a link by pressing the pull-tab of the near-end module. LynkGuardian™ lights up a module experiencing a fault and sends alarms and warnings. LynkCommander™ allows a network operations center to light up a module for easy identification on the data center floor. Together, these patented tools bring the intelligence normally available through data center monitoring software to a simple and intuitive visual indicator. The benefits to the data center operator enable faster installation and maintenance, easier troubleshooting, and simplified operations.
Technology Innovator.

Broad Product Portfolio.

Trusted Partner.
<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>Band Width</th>
<th>Application</th>
<th>Distance (km)</th>
<th>Data Rate (Gb/s)</th>
<th>Notes</th>
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<tbody>
<tr>
<td>FTL41008C (QSFP+)</td>
<td>Parallel MMF 850nm Band 4x VCSEL PIN 41.2 Gb/s</td>
<td>100 m</td>
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<td>Duplex SMF 850nm Band 4x DFB Laser PIN 41.2 Gb/s</td>
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**Notes:**
- **OC-48** refers to OC-48 classification.
- **OC-768** refers to OC-768 classification.
- **Using OM3 multimode fiber.**
- **Extended case temperature ranges and reaches are available upon request.**
- **100m using OM4 multimode fiber and FEC.**
- **30m/50m** indicates different lengths.

Wireless CPRI include the following data rates (Gb/s): 1.23, 3.07, 4.92, 6.14, 9.83

02/17