

Finisar[®]

Product Guide

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



CFP



QSFP



SFP+



XFP



300 PIN



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, 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 across all reaches

Features

- Hot-pluggable CFP form factor
- Supports 39.8 Gb/s to 103.1 Gb/s aggregate bit rates
- CFP MSA-compliant form factor
- 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 11.3 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



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

SNAP12 (optical; shortwave)

- **DATACOM** applications for inter-chassis connections

Features

- Twelve-channel transmitter and receiver modules
- Pluggable MegArray connector and unretimed electrical interface
- Maximum link length of 600m at 2.5Gb/s on OM3 MMF Fiber
- Multirate capability: 1 Gb/s to 2.7 Gb/s per channel



SNAP12

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



XFP

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



X2

300 PIN (optical; longwave)

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

Features

- Supports bit rates up to 44.6 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



XENPAK

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



300 PIN

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



SFF

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.



PON

World's Largest Supplier of Optical Communication Components and Subsystems

The image features a repeating pattern of binary digits (0s and 1s) in a light blue hue. The digits are arranged in a grid-like structure, creating a sense of digital data flow. The background is white, making the blue binary digits stand out clearly.

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SFP



SFP+



SFF



POD



XFP



X2



1



300 PIN



CFI



SNAP12



/0SEP/CXP

Part Number		Rate (Gb/s)	Rate Select	Media Type	Wavelength (nm)	Transmitter	Receiver	Data Rate (Gb/s)	Wavelength (nm)	Optical Fiber Ethernet	Optical Fiber Bi-Directional	1x Fibre Channel	2x Fibre Channel	4x Fibre Channel	8x Fibre Channel	16x Fibre Channel	SQW104C3	SQW104C12	SQW104C48	SQW104192	SQW104728	0710703	0710704	10x Fibre Channel	10x Gigabit Ethernet	10x Ethernet	10x FDDI	10x ATM	10GbE SFP	10GbE SFP+	10GbE SFP12	10GbE SFP24	Wireless P/N/BS/WL	Gas Temperature Range (°C)	Connector	Module Type	Dimensions (mm)	Weight (g)
FCLF8520/21-3	✓	Copper	N/A	N/A	N/A	N/A	1.25 Gb/s	3.3																			● 0 to 85	RJ-45	Pluggable	N/A	100 m							
FCLF852xP2BTL	✓	Copper	N/A	N/A	N/A	N/A	1.25 Gb/s	3.3																			● 40 to 85	RJ-45	Pluggable	N/A	100 m							
FTLF8519P3xNL	✓	Multimode	850	Oxide VCSEL	PIN	2.125 Gb/s	3.3		● ● ● ●	● ● ● ●																● 20 to 85	LC	Pluggable	Digital	550 m								
FTLF8519P3xTL	✓	Multimode	850	Oxide VCSEL	PIN	2.125 Gb/s	3.3		● ● ● ●	● ● ● ●																● 40 to 85	LC	Pluggable	Digital	550 m								
FTLF8524P3xNL	✓	Multimode	850	Oxide VCSEL	PIN	3.7 GB/s	3.3		■ ■ ■ ■	■ ■ ■ ■																● 40 to 85	LC	Pluggable	Digital	300 m								
FTLF8524P2xNV	✓	Multimode	850	Oxide VCSEL	PIN	4.25 Gb/s	3.3		● ● ● ●	● ● ● ●	● ● ● ●															● 20 to 85	LC	Pluggable	Digital	550 m								
FTLF1217P2xTL	✓	Multimode	1310	LED	PIN	200 Mb/s	3.3	●																		● 40 to 85	LC	Pluggable	Digital	2 km								
FTLF1318P2xCL	✓	Single Mode	1310	Fabry-Perot Laser	PIN	1.25 Gb/s	3.3	● ●																		● 0 to 70	LC	Pluggable	N/A	10 km								
FTLF1318P3xTL	✓	Single Mode	1310	Fabry-Perot Laser	PIN	1.25 Gb/s	3.3	● ●																		● 40 to 85	LC	Pluggable	Digital	10 km								
FTLF1419P1xCL	✓	Single Mode	1310	DFB Laser	PIN	2.125 Gb/s	3.3	● ●																		● 10 to 70	LC	Pluggable	Digital	55 km								
FTLF1518P1xTL	✓	Single Mode	1550	DFB Laser	PIN	1.25 Gb/s	3.3	● ●																		● 40 to 85	LC	Pluggable	Digital	90 km								
FTLF1519P1xCL	✓	Single Mode	1550	DFB Laser	PIN	2.125 Gb/s	3.3	● ●																		● 10 to 70	LC	Pluggable	Digital	90 km								
FTLF1519P1xNL	✓	Single Mode	1550	DFB Laser	PIN	2.125 Gb/s	3.3	● ●																		● 5 to 85	LC	Pluggable	Digital	90 km								
FTLF1619P1xCL	✓	Single Mode	1550	DFB Laser	APD	2.125 Gb/s	3.3	● ●																		● 10 to 70	LC	Pluggable	Digital	115 km								
FTLF1324P2xTL	✓	Single Mode	1310	Fabry-Perot Laser	PIN	4.25 Gb/s	3.3	■																		● 40 to 85	LC	Pluggable	Digital	4 km								
FTLF1324P2xTV	✓	✓	Single Mode	1310	Fabry-Perot Laser	PIN	4.25 Gb/s	3.3	● ●																	● 40 to 85	LC	Pluggable	Digital	4 km								
FTLF1424P2xCR	✓	Single Mode	1310	DFB Laser	PIN	4.25 Gb/s	3.3	■																	● 10 to 70	LC	Pluggable	Digital	10 km									
FTLF1424P2xCD	✓	✓	Single Mode	1310	DFB Laser	PIN	4.25 Gb/s	3.3	● ●																● 10 to 70	LC	Pluggable	Digital	10 km									
FTLF1424P2xTR	✓	Single Mode	1310	DFB Laser	PIN	4.25 Gb/s	3.3	■																	● 40 to 85	LC	Pluggable	Digital	10 km									
FTLF1424P2xTD	✓	✓	Single Mode	1310	DFB Laser	PIN	4.25 Gb/s	3.3	● ●																● 40 to 85	LC	Pluggable	Digital	10 km									
FTLF1424P2xCL	✓	Single Mode	1310	DFB Laser	PIN	4.25 Gb/s	3.3	● ●																	● 10 to 70	LC	Pluggable	Digital	30 km									
FTLF1424P2xCV	✓	✓	Single Mode	1310	DFB Laser	PIN	4.25 Gb/s	3.3	● ●																● 10 to 70	LC	Pluggable	Digital	30 km									
FTLF1323P1xTR	✓	Single Mode	1310	Fabry-Perot Laser	PIN	155 Mb/s	3.3	■																	● 40 to 85	LC	Pluggable	Digital	15 km									
FTLF1323P1xTL	✓	Single Mode	1310	Fabry-Perot Laser	PIN	155 Mb/s	3.3	■																	● 40 to 85	LC	Pluggable	Digital	40 km									
FTLF1523P1xCL	✓	Single Mode	1550	DFB Laser	PIN	155 Mb/s	3.3	■																	● 40 to 85	LC	Pluggable	Digital	80 km									
FTLF1322P1xTR	✓	Single Mode	1310	Fabry-Perot Laser	PIN	622 Mb/s	3.3																		● 40 to 85	LC	Pluggable	Digital	15 km									
FTLF1422P1xTL	✓	Single Mode	1310	DFB Laser	PIN	622 Mb/s	3.3																		● 40 to 85	LC	Pluggable	Digital	40 km									
FTLF1522P1xCL	✓	Single Mode	1550	DFB Laser	PIN	622 Mb/s	3.3																		● 40 to 85	LC	Pluggable	Digital	80 km									
FTLF1321P1xTL	✓	Single Mode	1310	Fabry-Perot Laser	PIN	2.67 Gb/s	3.3	■	● ●	● ●	● ●														● 40 to 85	LC	Pluggable	Digital	2 km									
FTLF1421P1xCL	✓	Single Mode	1310	DFB Laser	PIN	2.67 Gb/s	3.3	■	● ●	● ●	● ●														● 10 to 70	LC	Pluggable	Digital	15 km									
FTLF1521P1xCL	✓	Single Mode	1550	DFB Laser	PIN	2.67 Gb/s	3.3	■	● ●	● ●	● ●														● 0 to 70	LC	Pluggable	Digital	15 km									
FTLF1721P1xCL	✓	Single Mode	1310	DFB Laser	APD	2.67 Gb/s	3.3	■	● ●	● ●	● ●														● 10 to 70	LC	Pluggable	Digital	40 km									
FTLF1721P2xTL	✓	Single Mode	1310	DFB Laser	APD	2.67 Gb/s	3.3	■	● ●	● ●	● ●														● 40 to 85	LC	Pluggable	Digital	40 km									
FTLF1621P1xCL	✓	Single Mode	1550	DFB Laser	APD	2.67 Gb/s	3.3	■	● ●	● ●	● ●														● 10 to 70	LC	Pluggable	Digital	80 km									
FWLF1519Dxx(**)	✓	Single Mode	1471, 1491, 1511, 1531 1551, 1571, 1591, 1611	CWDM DFB Laser	PIN	1.25 Gb/s	3.3	■	● ●	● ●	● ●														● 0 to 70	LC	Pluggable	Digital	80 km									
FWLF1619-7-Dxx(**)	✓	Single Mode	1471, 1491, 1511, 1531 1551, 1571, 1591, 1611	CWDM DFB Laser	APD	1.25 Gb/s	3.3	■	● ●	● ●	● ●																											



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помошь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помошь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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