



Finisar® Transceivers, Transponders, and Active Optical Cables

Finisar® 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+/SFP28/SFP56

(optical; longwave, shortwave, DWDM and tunable)

DATACOM applications using 10G, 25G, and 50G Ethernet and 2x/4x/8x/10x/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 53.1 Gb/s (LW, SW), 28.05 Gb/s (DWDM) and 11.3 Gb/s (Tunable)
- Distances from short links up to 80km 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+/SFP28/SFP56

CFP/CFP2/CFP4

(optical; longwave and shortwave)

DATACOM applications using 100G Ethernet

TELECOM applications using OTU4

FEATURES

- Hot-pluggable, MSA-compliant CFP, CFP2, and CFP4 form factors
- Supports 103.1 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



CFP/CFP2/CFP4

QSFP+/QSFP28/QSFP56

(optical; longwave and shortwave)

DATACOM applications using 40G, 100G, and 200G Ethernet and high-density 10G, 25G, and 50G Ethernet

TELECOM applications using OTU3 and OTU4

FEATURES

- Four-channel full duplex transceiver module
- Single-channel full duplex transceiver module (QSFP28 only)
- Hot-pluggable, MSA-compliant QSFP+, QSFP28 and QSFP56 form factors
- Maximum link length of 300m on OM3 MMF, 400m on OM4/OM5 MMF, and 40km on SMF (QSFP+ only)
- 3.3 V operating voltage
- Digital diagnostics
- Wireless CPRI compliant (LW and SW)
- I-Temp variants available



QSFP+/QSFP28/QSFP56

QSFP-DD

(optical; longwave and shortwave)

DATACOM applications using 400G Ethernet and high-density 50G and 100G Ethernet

FEATURES

- Four- or eight-channel full duplex transceiver module
- Hot-pluggable, MSA-compliant QSFP-DD form factor
- Maximum link length of 70m on OM3 MMF, 100m on OM4 MMF, and 10 km on SMF
- 3.3 V operating voltage
- Digital diagnostics



QSFP-DD

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 300m on OM3 MMF and 400m on OM4 MMF
- Multirate capability: supports 1.06 Gb/s to 12.5 Gb/s per channel



CXP

Optical Engines (optical; shortwave)

DATACOM applications for inter-chassis connections

FEATURES

- Twelve-channel full-duplex transceiver modules
- Maximum link length 100m at 10 Gb/s on OM3 MMF 70m at 25 Gb/s on OM4 MMF
- Multirate capability: supports 1 Gb/s up to 28.1 Gb/s per channel



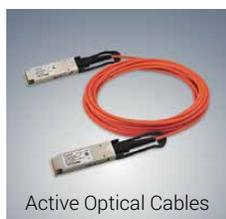
Active Optical Cables

SFP^{wire}

Finisar SFP+ Active Optical Cable for 10G and 25G Ethernet. Also available with Connectivity Diagnostics[®] visual fault alert

quadwire[®]

Finisar 40 Gb/s to 400 Gb/s Parallel Active Optical Cable for 40, 100 and 400 Gigabit Ethernet; InfiniBand[™] QDR, FDR, EDR, HDR and NDR; and Intel[®] Omni-Path Architecture. 40G also available with Connectivity Diagnostics[®] visual fault alert



C.wire[®]

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

Coherent Transceivers (optical; longwave)

TELECOM 100 Gb/s and 200 Gb/s applications

FEATURES

Pluggable CFP2-ACO and CFP4-ACO analog coherent optics modules

- 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 > 200 Gb/s



Digital Diagnostics

Our Finisar[®] 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.

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



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



SFP (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

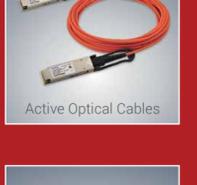


About II-VI

II-VI Incorporated, a global leader in engineered materials and optoelectronic components, is a vertically integrated manufacturing company that develops innovative products for diversified applications in communications, materials processing, aerospace & defense, semiconductor capital equipment, life sciences, consumer electronics, and automotive markets. Headquartered in Saxonburg, Pennsylvania, the Company has research and development, manufacturing, sales, service, and distribution facilities worldwide. The Company produces a wide variety of application-specific photonic and electronic materials and components, and deploys them in various forms, including integrated with advanced software to support our customers. For more information, please visit us at www.ii-vi.com.

The logo for II-VI, consisting of the letters 'II-VI' in a bold, white, serif font, centered on a dark red background. The background features a subtle geometric pattern of overlapping hexagons and lines in a lighter shade of red.

II-VI



SFP | **SFP+** | **CFP** | **CFP2** | **CFP4** | **QSFP** | **QSFP28** | **QSFP56** | **QSFP-DD** | **CXP** | **Active Optical Cables** | **Optical Engines** | **Coherent** | **XFP** | **Endurance** | **XFP** | **Endurance** | **SFP**

Part Number	Port Speed	Wavelength	Technology	Transmitter	Receiver	Distance (km)	Loss (dB)	Power (mW)	Temperature (°C)	Compliance	RoHS	REACH	Other	Notes
FTL852P2BTL	Duplex MMF	850nm Band	VCSEL	PIN	1.25 Gb/s	100 m	-40 to 85	3.3						Pluggable
FTL8519P3ML	Duplex MMF	850nm Band	VCSEL	PIN	2.125 Gb/s	550 m	-40 to 85	3.3						Pluggable
FTL8519P3TL	Duplex MMF	850nm Band	VCSEL	PIN	2.125 Gb/s	550 m	-40 to 85	3.3					Pluggable	
FTL8519P3TL	Duplex MMF	1310nm Band	VCSEL	PIN	2.125 Gb/s	2 km	-40 to 85	3.3					Pluggable	
FTL8519P3TL	Duplex SMF	1310nm Band	Fabry-Perot Laser	PIN	1.25 Gb/s	10 km	-40 to 85	3.3					Pluggable	
FTL8519P3TL	Duplex SMF	1310nm Band	DFB Laser	PIN	2.125 Gb/s	55 km	-10 to 70	3.3					Pluggable	
FTL8519P3TL	Duplex SMF	1550nm	DFB Laser	PIN	1.25 Gb/s	90 km	-40 to 85	3.3					Pluggable	
FTL8519P3TL	Duplex SMF	1550nm	DFB Laser	PIN	2.125 Gb/s	90 km	-10 to 70	3.3					Pluggable	
FTL8519P3TL	Duplex SMF	1550nm	DFB Laser	PIN	2.125 Gb/s	115 km	-10 to 70	3.3					Pluggable	
FTL1323P1xTR	Duplex SMF	1310nm Band	Fabry-Perot Laser	PIN	155 Mb/s	15 km	-40 to 85	3.3					Pluggable	
FTL1323P1xTL	Duplex SMF	1310nm Band	Fabry-Perot Laser	PIN	155 Mb/s	40 km	-40 to 85	3.3					Pluggable	
FTL1523P1xTL	Duplex SMF	1550nm	DFB Laser	PIN	155 Mb/s	80 km	-40 to 85	3.3					Pluggable	
FTL1323P1xTR	Duplex SMF	1310nm Band	Fabry-Perot Laser	PIN	622 Mb/s	15 km	-40 to 85	3.3					Pluggable	
FTL1422P1xTL	Duplex SMF	1310nm Band	DFB Laser	PIN	622 Mb/s	40 km	-40 to 85	3.3					Pluggable	
FTL1522P1xTL	Duplex SMF	1550nm	DFB Laser	PIN	622 Mb/s	80 km	-40 to 85	3.3					Pluggable	
FTL1321P1xTL	Duplex SMF	1310nm Band	Fabry-Perot Laser	PIN	2.67 Gb/s	2 km	-40 to 85	3.3					Pluggable	
FTL1421P1xTL	Duplex SMF	1310nm Band	DFB Laser	PIN	2.67 Gb/s	15 km	-10 to 70	3.3					Pluggable	
FTL1421P1xTL	Duplex SMF	1310nm Band	DFB Laser	PIN	2.67 Gb/s	15 km	-40 to 85	3.3					Pluggable	
FTL1521P1xTL	Duplex SMF	1550nm	DFB Laser	PIN	2.67 Gb/s	15 km	0 to 70	3.3					Pluggable	
FTL1721P1xTL	Duplex SMF	1310nm Band	DFB Laser	APD	2.67 Gb/s	40 km	-10 to 70	3.3					Pluggable	
FTL1621P1xTL	Duplex SMF	1550nm	DFB Laser	APD	2.67 Gb/s	80 km	-10 to 70	3.3					Pluggable	
FWL1523P1x1 (OSC)	Duplex SMF	1511nm	DFB Laser	PIN	155 Mb/s	80 km	-20 to 70	3.3					Pluggable	
FWL1523P1x1 (OSC)	Duplex SMF	1511nm	DFB Laser	PIN	155 Mb/s	80 km	-20 to 85	3.3					Pluggable	
FWL15197Dxx ⁽¹⁾	Duplex SMF	1550nm CWDM	CWDM DFB Laser	PIN	1.25 Gb/s	80 km	0 to 70	3.3					Pluggable	
FWL15197Dxx ⁽²⁾	Duplex SMF	1550nm CWDM	CWDM DFB Laser	APD	1.25 Gb/s	100 km	0 to 70	3.3					Pluggable	
FWL15217Dxx ⁽¹⁾	Duplex SMF	1550nm CWDM	CWDM DFB Laser	PIN	2.67 Gb/s	50 km	0 to 70	3.3					Pluggable	
FWL15217Dxx ⁽²⁾	Duplex SMF	1550nm CWDM	CWDM DFB Laser	APD	2.67 Gb/s	80 km	0 to 70	3.3					Pluggable	
FWL1524P2Vxx	Duplex SMF	1550nm CWDM	CWDM DFB Laser	PIN	4.25 Gb/s	40 km	-5 to 75	3.3					Pluggable	
FWL1625P2Lxx	Duplex SMF	1550nm CWDM	CWDM DFB Laser	APD	4.25 Gb/s	80 km	-5 to 75	3.3					Pluggable	
FWL1632xx ⁽¹⁾	Duplex SMF	C-Band DWDM Fixed	DWDM DFB Laser	APD	2.67 Gb/s	120 km	0 to 70	3.3					Pluggable	
FTEN2x15P1xUN-BC (EPON SFP-ONU)	Single SMF	Bidi 1310nm/1490nm	Fabry-Perot Laser	PIN	1.25 Gb/s	10 km	-30 to 85	3.3					Pluggable	
FTEN2x17P1xUN-BC (EPON SFP-ONU)	Single SMF	Bidi 1310nm/1490nm	DFB Laser	PIN	1.25 Gb/s	20 km	-30 to 85	3.3					Pluggable	
FTL8524P3xNL	Duplex MMF	850nm Band	VCSEL	PIN	3.7 Gb/s	300 m	-40 to 85	3.3					Pluggable	
FTL8526W4BTL	Duplex MMF	850nm Band	VCSEL	PIN	6.144 Gb/s	300 m ⁽¹⁾	-40 to 85	3.3					Pluggable	
FTL1426P2BTL	Duplex MMF	1310nm Band	DFB Laser	PIN	6.144 Gb/s	10/15 km	-40 to 85	3.3					Pluggable	
FTL8528P3xV	Duplex MMF	850nm Band	VCSEL	PIN	8.5 Gb/s	150 m ⁽¹⁾	-5 to 85	3.3					Pluggable	
FTL1428P3BTL	Duplex MMF	1310nm Band	DFB Laser	PIN	8.5 Gb/s	10 km	-5 to 85	3.3					Pluggable	
FTL8540P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	10.3 Gb/s	300 m ⁽¹⁾	-5 to 85	3.3					Pluggable	
FTL8540P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	10.5 Gb/s	300 m ⁽¹⁾	-5 to 85	3.3					Pluggable	
FTL8540P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	10.5 Gb/s	300 m ⁽¹⁾	-40 to 85	3.3					Pluggable	
FTL1317D3BTL	Duplex MMF	1310nm Band	Fabry-Perot Laser	Linear PIN	10.3 Gb/s	220 m ⁽¹⁾	-5 to 70	3.3					Pluggable	
FTL1317D3BTL	Duplex MMF	1310nm Band	Fabry-Perot Laser	Linear PIN	9.830 Gb/s	1.4 km	-40 to 85	3.3					Pluggable	
FTL1475D3BTL	Duplex MMF	1310nm Band	DFB Laser	PIN	10.3 Gb/s	10 km	-5 to 85	3.3					Pluggable	
FTL1475D3BTL	Duplex MMF	1310nm Band	DFB Laser	PIN	10.5 Gb/s	10 km	-40 to 85	3.3					Pluggable	
FTL1475D3BTL	Duplex MMF	1310nm Band	DFB Laser	PIN	10.3 Gb/s	10 km	-40 to 85	3.3					Pluggable	
FTLX2072D3xx (Bidirectional)	Single SMF	Bidi 1271nm/1331nm	DFB Laser	PIN	10.5 Gb/s	10 km	-40 to 85	3.3					Pluggable	
FTLX2672D3xx (Bidirectional)	Single SMF	Bidi 1271nm/1331nm	DFB Laser	PIN	10.5 Gb/s	20/30 km	-40 to 85	3.3					Pluggable	
FTLX2471D0Cxx	Duplex SMF	1310nm Band	CWDM DFB Laser	PIN	10.5 Gb/s	10 km	-5 to 70	3.3					Pluggable	
FTLX1672y3BTL	Duplex SMF	1550nm	EML	PIN	11.3 Gb/s	40 km	-40 to 85	3.3					Pluggable	
FTLX1772M3BTL	Duplex SMF	1310nm Band	DFB Laser	APD	11.3 Gb/s	40 km	-5 to 75	3.3					Pluggable	
FTLX1871y3BTL	Duplex SMF	1550nm	EML	APD	11.3 Gb/s	80 km	-5 to 85	3.3					Pluggable	
FTLX3971y1Cxx	Duplex SMF	C-Band DWDM Fixed	DWDM EML	APD	11.3 Gb/s	40 km	-40 to 85	3.3					Pluggable	
FTLX3671y1Cxx	Duplex SMF	C-Band DWDM Fixed	DWDM EML	PIN	11.3 Gb/s	40 km	-40 to 85	3.3					Pluggable	
FTLX6871MCC	Duplex SMF	C-Band DWDM Tunable	Tunable + InP MZM	Linear APD	11.3 Gb/s	80 km	-5 to 70	3.3					Pluggable	
FTLX6872MCC	Duplex SMF	C-Band DWDM Tunable	Tunable + InP MZM	Limiting APD	11.3 Gb/s	80 km	-5 to 70	3.3					Pluggable	
FTLX6672MCC	Duplex SMF	C-Band DWDM Tunable	Tunable + InP MZM	PIN	11.3 Gb/s	40 km	-5 to 70	3.3					Pluggable	
FTLX6871MCC	Duplex SMF	C-Band DWDM Tunable	Tunable + InP MZM	Linear APD	11.3 Gb/s	80 km	-5 to 85	3.3					Pluggable	
FTLX6872MCC	Duplex SMF	C-Band DWDM Tunable	Tunable + InP MZM	Limiting APD	11.3 Gb/s	80 km	-5 to 85	3.3					Pluggable	
FTLX6875MCC	Duplex SMF	C-Band DWDM Tunable	Tunable + InP MZM, High Power	Linear APD	11.3 Gb/s	80 km	-5 to 70	3.3					Pluggable	
FTLX8611P3x (Bidirectional)	Single SMF	C-Band DWDM Tunable	Tunable + InP MZM	Limiting APD	11.3 Gb/s	30 km	-5 to 85	3.3					Pluggable	
FTLX8611P3x (Bidirectional)	Single SMF	C-Band DWDM Fixed	DWDM EML	APD	11.3 Gb/s	80 km	-5 to 70	3.3					Pluggable	
FTL8529P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	14.025 Gb/s	100 m	0 to 85	3.3					Pluggable	
FTL1429P4BTL	Duplex MMF	1310nm Band	DFB Laser	PIN	14.025 Gb/s	10 km	-5 to 85	3.3					Pluggable	
FTL1429P4BTL	Duplex MMF	1310nm Band	DFB Laser	PIN	14.025 Gb/s	25 km	0 to 70	3.3					Pluggable	
FTL8532P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	28.05 Gb/s	100 m	0 to 85	3.3					Pluggable	
FTL1432P4BTL	Duplex MMF	1310nm Band	DFB Laser	PIN	28.05 Gb/s	10 km	0 to 70	3.3					Pluggable	
FTL1432P4BTL	Duplex MMF	1310nm Band	DFB Laser	PIN	28.05 Gb/s	25 km	0 to 70	3.3					Pluggable	
FTL8536P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	25.78 Gb/s	100 m	0 to 70	3.3					Pluggable	
FTL8536P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	25.78 Gb/s	100 m	0 to 85	3.3					Pluggable	
FTL8536P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	25.78 Gb/s	100 m	-40 to 85	3.3					Pluggable	
FTL8538P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	25.78 Gb/s	300 m	0 to 70	3.3					Pluggable	
FTL8540P4BTL	Duplex MMF	850nm Band	VCSEL	PIN	25.78 Gb/s	300 m	0 to 70	3.3					Pluggable	
FTL1336W4BTL	Duplex SMF	1310nm Band	DFB Laser	PIN	25.78 Gb/s	300 m	-40 to 85	3.3					Pluggable	
FTL1436P4BTL	Duplex SMF	1310nm Band	DFB Laser	PIN	25.78 Gb/s	10 km	0 to 70	3.3					Pluggable	
FTL1436W4BTL	Duplex SMF	1310nm Band	DFB Laser	PIN	25.78 Gb/s	10 km	-40 to 85	3.3					Pluggable	
FTL3436W4BTL	Duplex SMF	CWDM 1310nm Band	DFB Laser	PIN	25.78 Gb/s	10 km	-40 to 85	3.3					Pluggable	
FTL82021P4Tx (Bidirectional)	Single SMF	Bidi 1270nm/1330nm	DFB Laser	PIN	25.78 Gb/s	10 km	-40 to 85	3.3					Pluggable	
FTL1141RDL (CFP4)	Duplex SMF	1310nm Band	4x LWDM DFB Laser	PIN	103.1 Gb/s	10 km	0 to 75	3.3					Pluggable	
FTL1141SDL (CFP4)	Duplex SMF	1310nm Band	4x LWDM DFB Laser	PIN	112 Gb/s	10 km	0 to 75	3.3					Pluggable	
FTL8221RFLM (CFP2)	Parallel MMF	850nm Band	10x VCSEL	PIN	103 Gb/s	300 m ⁽²⁾	0 to 70	3.3					Pluggable	
FTL8221SFLM (CFP2)	Parallel MMF	850nm Band	10x VCSEL	PIN	112 Gb/s	100 m ⁽²⁾	0 to 70	3.3					Pluggable	
FTL1122RDL (CFP2)	Duplex SMF	1310nm Band	4x LWDM DFB Laser	PIN	103.1 Gb/s	10 km	0 to 70	3.3					Pluggable	
FTL1122SFLM (CFP2)	Duplex SMF	1310nm Band	4x LWDM DFB Laser	PIN	112 Gb/s	10 km	0 to 70	3.3					Pluggable	
FTL8281RFLM (CFP)	Parallel MMF	850nm Band	10x VCSEL	PIN	103.1 Gb/s	100 m ⁽¹⁾	0 to 70	3.3					Pluggable	
FTL8281SFLM (CFP)	Parallel MMF	850nm Band	10x VCSEL	PIN	112 Gb/s	100 m ⁽¹⁾	0 to							