

Fiber Optic Transceiver Series, XFP, DWDM,
80 km, 10G DDM, MSA Compatible



FXC-XFPDxxZR-10G-MSA

Features

- Operating Data Rates up to 11.3 Gbps
- Distance Range 80 km
- Pluggable XFP Duplex LC Connectors
- Standard Temperature Range (available in Industrial Operating Temperatures)
- Compliant with MSA system level specifications

Applications

- Telecom (Service Providers)
- Datacom
- Enterprise Networks
- Government
- Fiber to the home/business

Description

The L-com FXC-XFPDxxZR-10G-MSA is the highest quality XFP transceiver series in the industry that delivers a dependable 10G data rate at wavelengths from 1530.33 to 1561.42 nm. This XFP DWDM transceiver series has been designed, programmed and tested to be 100% compliant with the MSA standards. The L-com FXC-XFPDxxZR-10G-MSA series supports a distance up to 80 km to meet current and future networking requirements. The L-com FXC-XFPDxxZR-10G-MSA series features digital diagnostics for performance monitoring of the transceiver. The L-com FXC-XFPDxxZR-10G-MSA series is one of thousands of fiber optic connectivity products available from L-com's in-stock inventory and ready to ship. Contact our technical support and sales staff with your questions on fiber optic connectivity or other L-com products.

Configuration

Data Rate	10 Gbps
Form Factor	XFP
Connector	LC
Connector Mode	Duplex
Mode	Single Mode
Distance	80 km
Mfg Platform Compatibility	MSA

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Power Supply Voltage (Vcc3)	3.13	3.3	3.45	V
Power Supply Current (Icc3)			700	mA
Module Total Power			3.5	W
Power Supply Voltage (Vcc5)	4.75		5.25	V
Power Supply Current (Icc5)			400	mA

Optical Specifications

Description	Minimum	Typical	Maximum	Units
TX Center Wavelength	1530.33		1561.42	nm

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[FXC-XFPDxxZR-10G-MSA](#)

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TX Data Rate		11.3	Gbps
TX Average Output Power	0	4	dBm
TX Extinction Ratio	8.2	9	dB
RX Center Wavelength	1530.33	1561.42	nm
RX Receiver Sensitivity		-23	dBm
RX Receiver Overload	-10		dBm

*See table below

Wavelength Channel No.

Size

Length	3 in [76.2 mm]
Weight	0.085 lbs [38.56 g]

Environmental Specifications

Temperature

Operating Range	-20 to +75 deg C
Storage Range	-40 to +85 deg C

Notes:

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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Wavelength Channel No.

Channel	Frequency	Wavelength	Channel	Frequency	Wavelength
xx	THz	nm	xx	THz	nm
20	192.0	1561.41	40	194.0	1545.32
21	192.1	1560.61	41	194.1	1544.53
22	192.2	1559.79	42	194.2	1543.73
23	192.3	1558.98	43	194.3	1542.94
24	192.4	1558.17	44	194.4	1542.14
25	192.5	1557.36	45	194.5	1541.35
26	192.6	1556.55	46	194.6	1540.56
27	192.7	1555.75	47	194.7	1539.77
28	192.8	1554.94	48	194.8	1538.98
29	192.9	1554.13	49	194.9	1538.19
30	193.0	1553.33	50	195.0	1537.4
31	193.1	1552.52	51	195.1	1536.61
32	193.2	1551.72	52	195.2	1535.82
33	193.3	1550.92	53	195.3	1535.04
34	193.4	1550.12	54	195.4	1534.25
35	193.5	1549.32	55	195.5	1533.47
36	193.6	1548.51	56	195.6	1532.68
37	193.7	1547.72	57	195.7	1531.9
38	193.8	1546.92	58	195.8	1531.12
39	193.9	1546.12	59	195.9	1530.33

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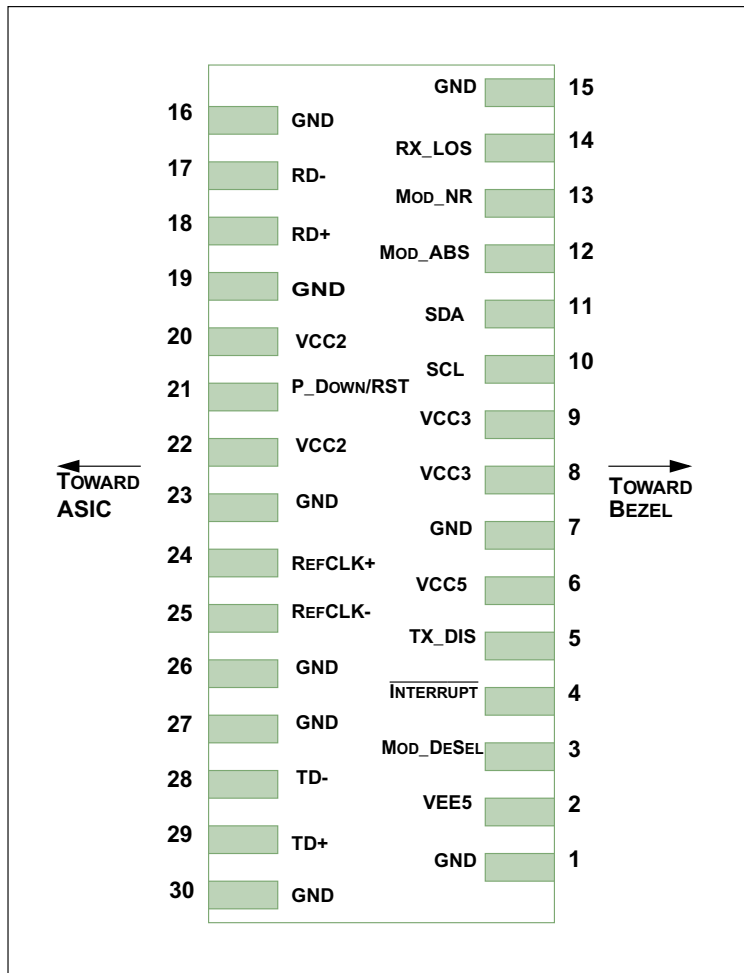


Figure 1 Host PCB XFP Pinout Top View

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Table 1 Module Electrical Pin Definition

Pin	Logic	Symbol	Name/Description	Note
1		GND	Module Ground	1
2		VEE5	Optional -5.2V Power Supply	
3	LVTTL-I	Mod_DeSel	Module De-select; When held low allows module to respond to 2-wire serial interface	
4	LVTTL-O	Interrupt	Interrupt; Indicates presence of an important condition which can be read over the 2-wire serial interface	2
5	LVTTL-I	TX_DIS	Transmitter Disable; Turns off transmitter laser output	
6		VCC5	+5V Power Supply	
7		GND	Module Ground	1
8		VCC3	+3.3V Power Supply	
9		VCC3	+3.3V Power Supply	
10	LVTTL-I/O	SCL	2-Wire Serial Interface Clock	2
11	LVTTL-I/O	SDA	2-Wire Serial Interface Data Line	2
12	LVTTL-O	Mod_Abs	Indicates Module is not present. Grounded in the Module	2
13	LVTTL-O	Mod_NR	Module Not Ready; Indicating Module Operational Fault	2
14	LVTTL-O	RX_LOS	Receiver Loss Of Signal Indicator	2
15		GND	Module Ground	1
16		GND	Module Ground	1
17	CML-O	RD-	Receiver Inverted Data Output	
18	CML-O	RD+	Receiver Non-Inverted Data Output	
19		GND	Module Ground	1
20		VCC2	+1.8V Power Supply	3
21	LVTTL-I	P_Down/RST	Power down; When high, requires the module to limit power consumption to 1.5W or below. 2-Wire serial interface must be functional in the low power mode. Reset; The falling edge initiates a complete reset of the module including the 2-wire serial interface, equivalent to a power cycle.	
22		VCC2	+1.8V Power Supply	3
23		GND	Module Ground	1
24	PECL-I	RefCLK+	Reference Clock Non-Inverted Input, AC coupled on the host board	
25	PECL-I	RefCLK-	Reference Clock Inverted Input, AC coupled on the host board	
26		GND	Module Ground	1
27		GND	Module Ground	1
28	CML-I	TD-	Transmitter Inverted Data Input	
29	CML-I	TD+	Transmitter Non-Inverted Data Input	
30		GND	Module Ground	1

1. Module ground pins Gnd are isolated from the module case and chassis ground within the modul
2. Shall be pulled up with 4.7K-1 ohms to a voltage between 3.15V and 3.45V on the host board.
3. The 1.8 V wer supply can be optionally programmed to voltages lower than 1.8 V in modules supporting the variable power supply.

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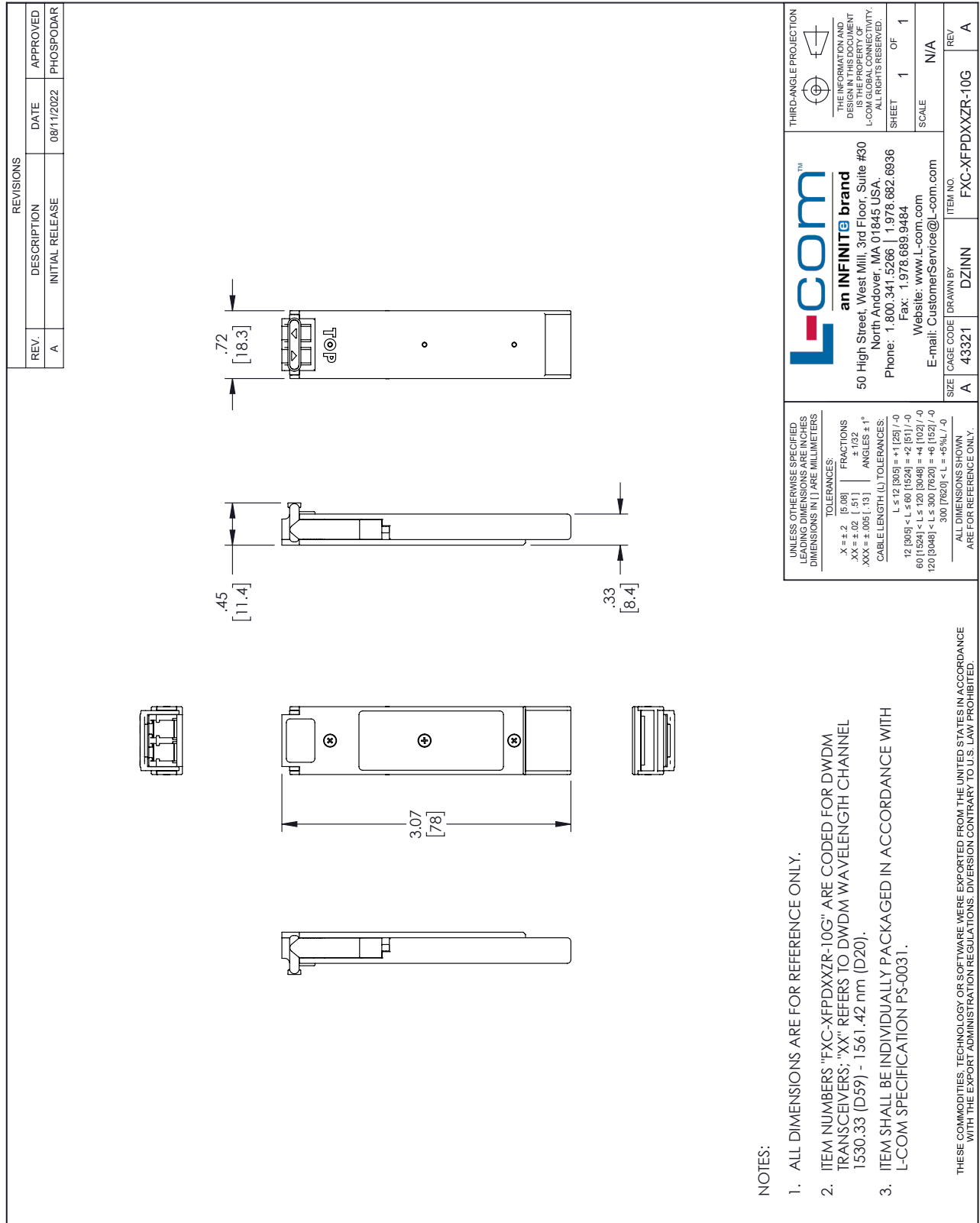


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Fiber Optic Transceiver Series, XFP, DWDM, 80 km, 10G DDM, MSA Compatible from L-com has same day shipment for domestic and International orders. Our portfolio includes coaxial cable assemblies, connectors, adapters and custom products as well as lightning and surge protectors, NEMA rated enclosures, and an RF product line which includes antennas, amplifiers, passive, and active components.

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to impliment improvements. L-com reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. L-com does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and L-com does not assume liability arising out of the use of any part or document.

L-com CAD Drawing



NOTES:

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY.
2. ITEM NUMBERS "FXC-XFPDXXZR-10G" ARE CODED FOR DWDM TRANSCEIVERS; "XX" REFERS TO DWDM WAVELENGTH CHANNEL 1530.33 (D59) - 1561.42 nm (D20).
3. ITEM SHALL BE INDIVIDUALLY PACKAGED IN ACCORDANCE WITH L-COM SPECIFICATION PS-0031.

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:

.X = ±.2 [5.08] FRACTIONS ± 1/32

.XX = ±.02 [.51] ANGLES ± 1°

.XXX = ±.005 [.13]

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305] < L ≤ 60 [1524] = ±1 [25] / -0

60 [1524] < L ≤ 120 [3048] = ±4 [102] / -0

120 [3048] < L ≤ 300 [7620] = ±6 [152] / -0

300 [7620] < L = ±5%L / -0

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THIRD-ANGLE PROJECTION

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SHEET 1 OF 1

SCALE N/A

ITEM NO. FXC-XFPDXXZR-10G

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CAGE CODE A 43321

REVISION A

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