Fiber Optic Transceiver Series, SFP+, DWDM,
40 km, 10G DDM, MSA Compatible

FXC-SFPPDxxER10G-MSA

Features

- Operating Data Rates up to 11.3 Gbps
- Distance Range 40KM
- Pluggable SFP+ Duplex LC Connectors
- Standard and Industrial Operating Temperatures
- Compliant with MSA Specification

Applications

- Telecom (Service Providers)
- Datacom
- Enterprise Networks
- Government
- Fiber to the Home / Business

Description

The L-com FXC-SFPPDxxER10G-MSA is the highest quality SFP+ transceiver series in the industry that delivers a dependable 10G data rate at operating wavelengths from 1530.33 to 1561.42 nm. This SFP+ DWDM transceiver series has been designed, programmed and tested to be 100% compliant with the MSA system level specifications. The L-com FXC-SFPPDxxER10G-MSA series supports a distance up to 40 km to meet current and future networking requirements. The L-com FXC-SFPPDxxER10G-MSA series features digital diagnostics for performance monitoring of the transceiver. The L-com FXC-SFPPDxxER10G-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 knowledgeable technical support and sales staff with your questions on fiber optic connectivity or other L-com products.

Configuration

Data Rate	11.3 Gbps
Form Factor	SFP+
Connector	LC
Connector Mode	Duplex
Mode	Single Mode
Distance	40 km
Mfg Platform Compatibility	MSA

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Power Supply Voltage	3.15	3.3	3.45	V
Power Supply Current		350	435	mA
Module Total Power			1.5	W

Optical Specifications

Description	Minimum	Typical	Maximum	Units
TX Center Wavelength	1530		1562	
TX Data Rate		10		Gbps
TX Average Output Power	-1		4	dBm

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
FXC-SFPPDxxER10G-MSA

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TX Extinction Ratio	3.5		dB
RX Center Wavelength	1530	1562	nm
RX Receiver Sensitivity		-15	dBm
RX Receiver Overload	-1		dBm

*See table below

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Wavelength Channel No.

Channel xx	Frequency THz	Wavelength nm		Channel xx	Frequency THz	Wavelength 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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Environmental Specifications

Temperature

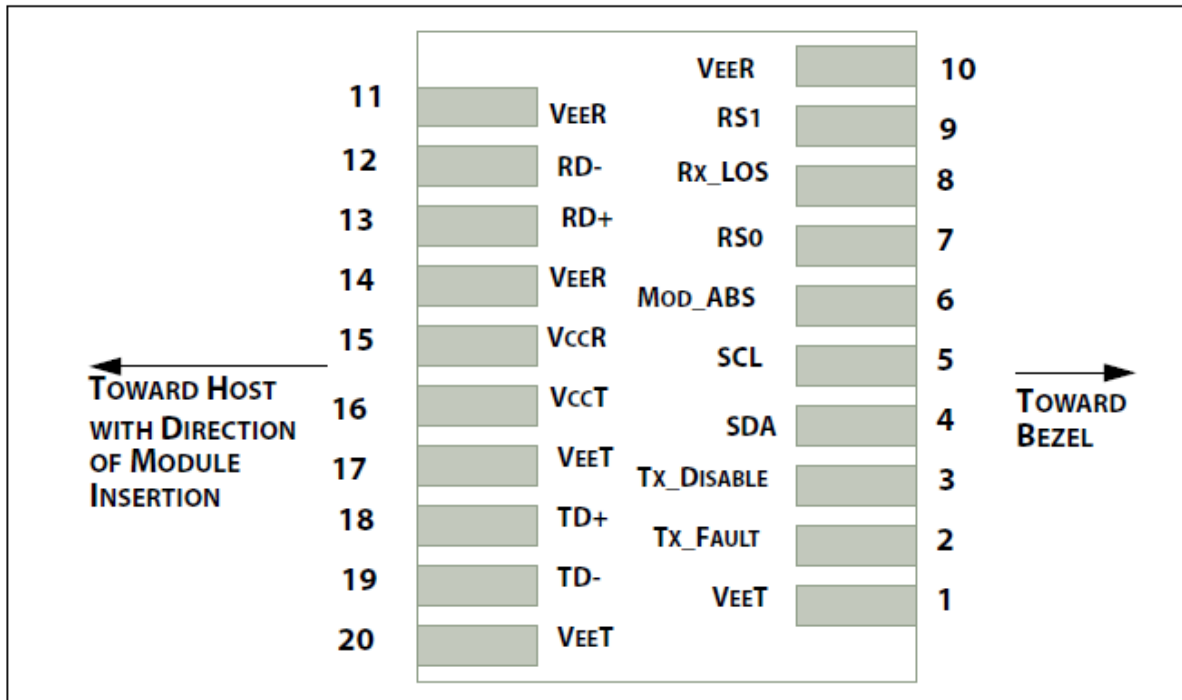|	
Operating Range	0 to +70 deg C
Storage Range	-40 to +85 deg C

Notes:

Compliance Certifications (see product page for current document)

Plotted and Other Data

Notes:

Pin	Signal		Signal	Pin
		VEER		10
11	VEER	RS1		9
12	RD-	Rx_LOS		8
13	RD+	RS0		7
14	VEER	MOD_ABS		6
15	VccR	SCL		5
16	VccT	SDA		4
17	VEET	Tx_DISABLE		3
18	TD+	Tx_FAULT		2
19	TD-	VEET		1
20	VEET			

TOWARD HOST WITH DIRECTION OF MODULE INSERTION

TOWARD BEZEL

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Contacts	Logic [1]	Symbol	Power Sequence Order	Name/Description	Note
case		case	See 2	Module case	
1		VeeT	1st	Module Transmitter Ground	3
2	LVTTL-O	Tx_Fault	3rd	Module Transmitter Fault	4
3	LVTTL-I	Tx_Disable	3rd	Transmitter Disable; Turns off transmitter laser output	5
4	LVTTL-I/O	SDA	3rd	2-wire Serial Interface Data Line (Same as MOD-DEF2 in INF-8074i)	6
5	LVTTL-I/O	SCL	3rd	2-wire Serial Interface Clock (Same as MOD-DEF1 in INF-8074i)	6
6		Mod_ABS	3rd	Module Absent, connected to VeeT or VeeR in the module	7
7	LVTTL-I	RS0	3rd	Rate Select 0, optionally controls SFP+ module receiver.	8
8	LVTTL-O	Rx_LOS	3rd	Receiver Loss of Signal Indication (In FC designated as Rx_LOS and in Ethernet designated as Signal Detect)	4
9	LVTTL-I	RS1	3rd	Rate Select 1, optionally controls SFP+ module transmitter	8
10		VeeR	1st	Module Receiver Ground	3
11		VeeR	1st	Module Receiver Ground	3
12	CML-O	RD-	3rd	Receiver Inverted Data Output	
13	CML-O	RD+	3rd	Receiver Non-Inverted Data Output	
14		VeeR	1st	Module Receiver Ground	3
15		VccR	2nd	Module Receiver 3.3 V Supply	
16		VccT	2nd	Module Transmitter 3.3 V Supply	
17		VeeT	1st	Module Transmitter Ground	3
18	CML-I	TD+	3rd	Transmitter Non-Inverted Data Input	
19	CML-I	TD-	3rd	Transmitter Inverted Data Input	
20		VeeT	1st	Module Transmitter Ground	3

1. Labeling as inputs (I) and outputs (O) are from the perspective of the module
2. The case makes electrical contact to the cage before any of the board edge contacts are made.
3. The module signal ground contacts, VeeR and VeeT, should be isolated from the module case.
4. This contact is an open collector/drain output contact and shall be pulled up on the host see 2.4.1 and 2.4.6. Pull ups can be connected to one of several power supplies, however the host board design shall ensure that no module contact has voltage exceeding module VccT/R + 0.5 V.
5. Tx_Disable is an input contact with a 4.7 kΩ to 10 kΩ pullup to VccT inside the module.
6. See 4.2.
7. See 2.4.4.
8. For SFF-8431 rate select definition see section 2.4.3 and 2.5. (If implementing SFF-8079 contact 7 and 9 in SFF-8431 are used for AS0 and AS1 respectively).

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Fiber Optic Transceiver Series, SFP+, DWDM, 40 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.

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L-com CAD Drawing

NOTES:
1. THE ITEM NUMBER "FXC-SFPPDXXER10G" IS CODED FOR SFPP DWDM TRANSCEIVERS, XX REFERS TO DWDM WAVELENGTH CHANNEL 1530.33 nm (D59) - 1561.42 nm (D20).

2. ITEM SHALL BE INDIVIDUALLY PACKAGED IN ACCORDANCE WITH L-COM SPECIFICATION PS-0031.

T-Rev.0