Fiber Optic Transceiver, SFP, BiDi, OC-3 DDM, Adtran Compatible

FXC-SFB-wwxx-03-ADT

Features

- Operating Data Rates up to 155 Mbps
- Distance Range 15 km
- Pluggable Bi-Directional SFP Simplex LC Connectors
- Standard Temperature Range (available in Industrial Operating Temperatures)
- Compliant with Adtran system level specifications

Applications

- Telecommunication Service Providers
- Metro Ethernet
- OTN And Other Optical Links
- Transport Networks
- Enterprise Optical Networks
- Carrier Ethernet

Description

The L-com FXC-SFB-wwxx-03-ADT is the highest quality Bi-Directional SFP transceiver series in the industry that delivers a dependable 155 Mbps SONET OC-3 data rate. This SFP transceiver series has been designed, programmed and tested to be 100% compliant with the Adtran system level specifications. The L-com FXC-SFB-wwxx-03-ADT series has different distances option of 15 km to meet current and future networking requirements. The L-com FXC-SFB-wwxx-03-ADT series features digital diagnostics for performance monitoring of this transceiver. The L-com FXC-SFB-wwxx-03-ADT series is one of thousands of fiber optic connectivity products available with 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	0.1 Gbps
Form Factor	SFP
Connector	LC
Connector Mode	Simplex
Mfg Platform Compatibility	Adtran

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Power Supply Voltage	3.15	3.3	3.45	V
Power Supply Current			300	mA

*See table below

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications:
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Optical Specifications

Base Part Number	Distance (km)	Wavelength pair designator (ww)	Transmitter center wavelength (nm)	Receiver center wavelength (nm)	Transmitter Output (min/max) dBm	Receiver Sensitivity (min) dBm
FXC-SFBww15-03	15	35	1310	1550	-15/8	-28
		53	1550	1310	-15/8	-28

Size

Length	1.755 in [44.58 mm]
Weight	0.05 lbs [22.68 g]

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:

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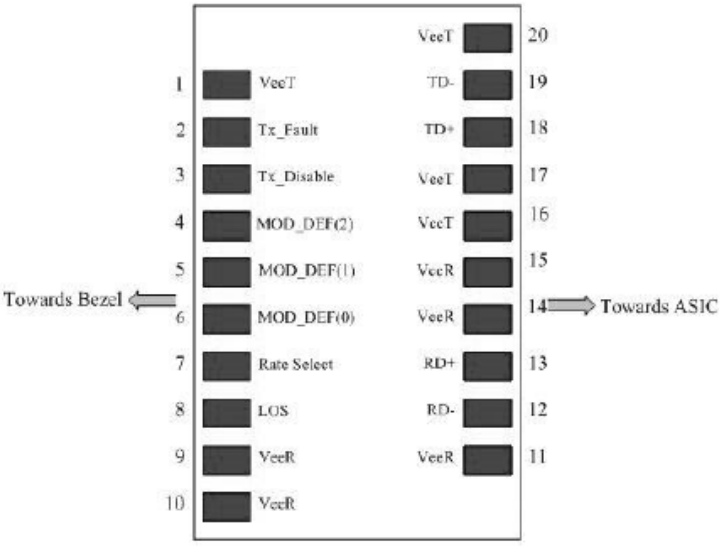
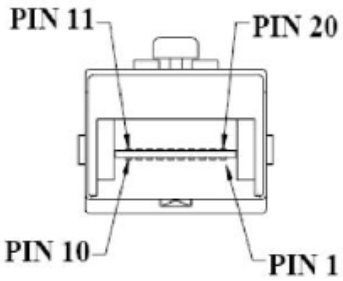
SFP Transceiver Electrical Pad Layout





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Pin Function Definitions

Pin Num.	Name	Function	Plug Seq.	Notes
1	VeeT	Transmitter Ground	1	5)
2	TX Fault	Transmitter Fault Indication	3	1)
3	TX Disable	Transmitter Disable	3	2) Module disables on high or open
4	MOD-DEF2	Module Definition 2	3	3) Data line for Serial ID.
5	MOD-DEF1	Module Definition 1	3	3) Clock line for Serial ID.
6	MOD-DEF0	Module Definition 0	3	3) Grounded within the module.
7	Rate Select	Not Connect	3	Function not available
8	LOS	Loss of Signal	3	4)
9	VeeR	Receiver Ground	1	5)
10	VeeR	Receiver Ground	1	5)
11	VeeR	Receiver Ground	1	5)
12	RD-	Inv. Received Data Out	3	6)
13	RD+	Received Data Out	3	6)
14	VeeR	Receiver Ground	1	5)
15	VccR	Receiver Power	2	7) 3.3 ± 5%
16	VccT	Transmitter Power	2	7) 3.3 ± 5%
17	VeeT	Transmitter Ground	1	5)
18	TD+	Transmit Data In	3	8)
19	TD-	Inv. Transmit Data In	3	8)
20	VeeT	Transmitter Ground	1	5)

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Notes:

1) TX Fault is an open collector/drain output, which should be pulled up with a 4.7K – 10KΩ resistor on the host board. Pull up voltage between 2.0V and VccT, R+0.3V. When high, output indicates a laser fault of some kind. Low indicates normal operation. In the low state, the output will be pulled to < 0.8V.

2) TX disable is an input that is used to shut down the transmitter optical output. It is pulled up within the module with a 4.7 – 10 KΩ resistor. Its states are:
Low (0 – 0.8V): Transmitter on
(>0.8, < 2.0V): Undefined
High (2.0 – 3.465V): Transmitter Disabled
Open: Transmitter Disabled

3) Modulation Absent, connected to VEET or VEER in the module.

4) LOS (Loss of Signal) is an open collector/drain output, which should be pulled up with a 4.7K – 10KΩ resistor. Pull up voltage between 2.0V and VccT, R+0.3V. When high, this output indicates the received optical power is below the worst-case receiver sensitivity (as defined by the standard in use). Low indicates normal operation. In the low state, the output will be pulled to < 0.8V.

5) VeeR and VeeT may be internally connected within the SFP module.

6) RD-/+: These are the differential receiver outputs. They are AC coupled 100Ω differential lines which should be terminated with 100Ω (differential) at the user SERDES. The AC coupling is done inside the module and is thus not required on the host board. The voltage swing on these lines will be between 400 and 2000 mV differential (200 –1000mV single ended) when properly terminated.

7) VccR and VccT are the receiver and transmitter power supplies. They are defined as 3.3V ±5% at the SFP connector pin. Maximum supply current is 300mA. Recommended host board power supply filtering is shown below. Inductors with DC resistance of less than 1 ohm should be used in order to maintain the required voltage at the SFP input pin with 3.3V supply voltage. When the recommended supply-filtering network is used, hot plugging of the SFP transceiver module will result in an inrush current of no more than 30mA greater than the steady state value. VccR and VccT may be internally connected within the SFP transceiver module.

8) TD-/+: These are the differential transmitter inputs. They are AC-coupled, differential lines with 100Ω differential termination inside the module. The AC coupling is done inside the module and is thus not required on the host board. The inputs will accept differential swings of 400 – 2000mV (200 – 1000mV single-ended).

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Fiber Optic Transceiver, SFP, BiDi, OC-3 DDM, Adtran 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.

L-com CAD Drawing