

Fiber Optic Transceiver, SFP+, 1310nm, LR SMF 10km, 10G DDM, RAD



## FXC-SFPP-LR-10G-RAD

### Features

- Operating Data Rate up to 11.30 Gbps
- Distance Range 10KM
- Single 3.3V Power Supply and TTL Logic Interface
- Pluggable SFPP Duplex LC Connector
- Standard and Industrial Operating Temperature
- Compliant with RAD SFPP Specification

### Applications

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

### Description

The L-com FXC-SFPP-LR-10G-RAD is an SFPP form-factor transceiver, supporting 10G Ethernet rates. The L-com FXC-SFPP-LR-10G-RAD supports 10KM distance and it is RAD compliant transceiver. The L-com FXC-SFPP-LR-10G-RAD features digital diagnostics for performance monitoring of the transceiver. The L-com FXC-SFPP-LR-10G-RAD is one of thousands of fiber optic connectivity products available from L-com in-stock and ready to ship. Contact our knowledgeable technical support and sales staff for your answers on fiber optic connectivity or other L-com products.

### Configuration

|                            |             |
|----------------------------|-------------|
| Data Rate                  | 10 Gbps     |
| Form Factor                | SFP+        |
| Connector                  | LC          |
| Connector Mode             | Duplex      |
| Mode                       | Single Mode |
| Distance                   | 10 km       |
| Mfg Platform Compatibility | RAD         |

### Electrical Specifications

| Description          | Minimum | Typical | Maximum | Units |
|----------------------|---------|---------|---------|-------|
| Wattage              |         |         | 1.04    | W     |
| Power Supply Voltage | 3.15    | 3.3     | 3.45    | V     |
| Power Supply Current |         |         | 300     | mA    |

### Optical Specifications

| Description             | Minimum | Typical | Maximum | Units |
|-------------------------|---------|---------|---------|-------|
| TX Center Wavelength    | 1270    | 1310    | 1355    | nm    |
| TX Data Rate            | 0.6     |         | 11.3    | Gbps  |
| TX Spectral Width       |         |         | 1       | nm    |
| TX Average Output Power | -8.2    | -1      | 0.5     | dBm   |
| TX Extinction Ratio     | 8.2     |         |         | dB    |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:  
[Fiber Optic Transceiver, SFP+, 1310nm, LR SMF 10km, 10G DDM, RAD FXC-SFPP-LR-10G-RAD](#)

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## FXC-SFPP-LR-10G-RAD

|                         |       |      |     |
|-------------------------|-------|------|-----|
| RX Center Wavelength    | 1260  | 1565 | nm  |
| RX Receiver Sensitivity | -14.4 |      | dBm |
| RX Receiver Overload    |       | 0.5  | dBm |

### Environmental Specifications

#### Temperature

Operating Range

0 to +70 deg C

Storage Range

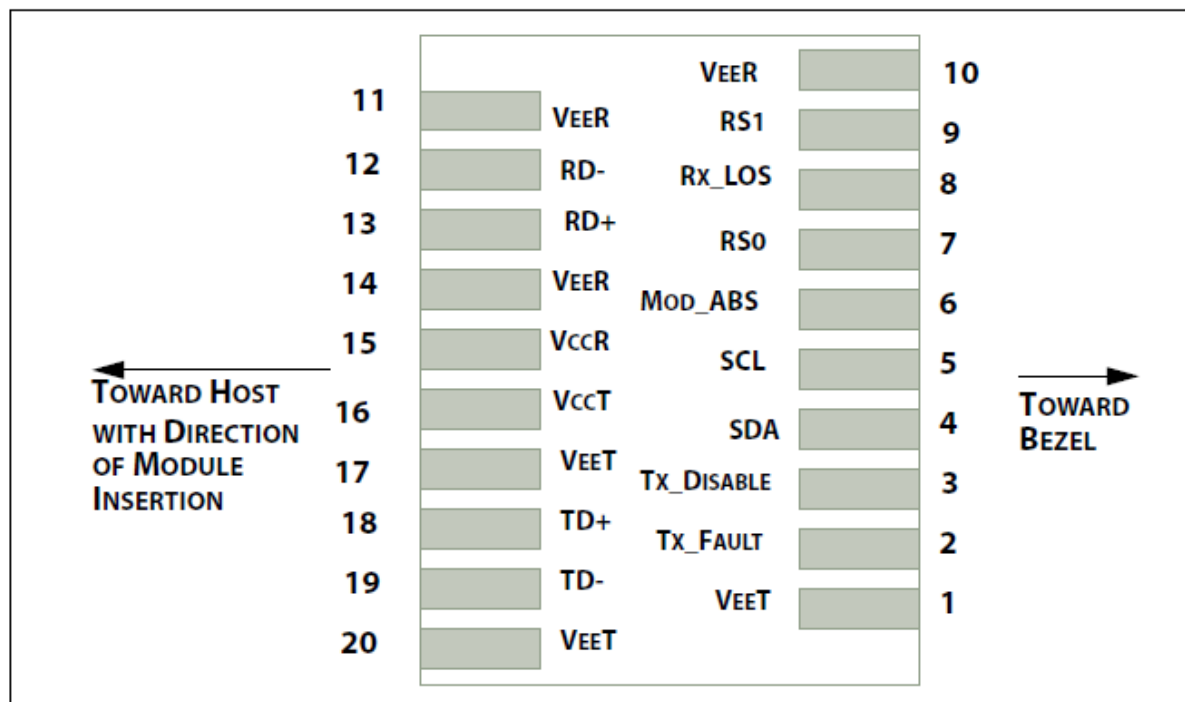
-40 to +85 deg C

Notes:

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

### Plotted and Other Data

Notes:



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## FXC-SFPP-LR-10G-RAD

| Contacts | Logic <sup>1</sup> | Symbol     | Power Sequence Order | Name/Description                                                                                            | Note |
|----------|--------------------|------------|----------------------|-------------------------------------------------------------------------------------------------------------|------|
| case     |                    | case       | See 2                | Module case                                                                                                 |      |
| 1        |                    | VeeT       | 1st                  | Module Transmitter Ground                                                                                   | 3    |
| 2        | LVTTTL-O           | Tx_Fault   | 3rd                  | Module Transmitter Fault                                                                                    | 4    |
| 3        | LVTTTL-I           | Tx_Disable | 3rd                  | Transmitter Disable; Turns off transmitter laser output                                                     | 5    |
| 4        | LVTTTL-I/O         | SDA        | 3rd                  | 2-wire Serial Interface Data Line (Same as MOD-DEF2 in INF-8074i)                                           | 6    |
| 5        | LVTTTL-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        | LVTTTL-I           | RS0        | 3rd                  | Rate Select 0, optionally controls SFP+ module receiver.                                                    | 8    |
| 8        | LVTTTL-O           | Rx_LOS     | 3rd                  | Receiver Loss of Signal Indication (In FC designated as Rx_LOS and in Ethernet designated as Signal Detect) | 4    |
| 9        | LVTTTL-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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## FXC-SFPP-LR-10G-RAD

Fiber Optic Transceiver, SFP+, 1310nm, LR SMF 10km, 10G DDM, RAD 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 implement 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.

