

## DESCRIPTION

The Small Form-Factor Pluggable (SFP) Gigabit Ethernet, Single-Fiber is a bidirectional SFP that plugs into the Central Office Optical Loop Termination (OLT) designed to accept SFPs. The SFP provides a single optical interface to the GigE physical interface. Installed into an appropriate OLT, the SFP provides a Gigabit Ethernet tributary interface to the supporting system.

*NOTE: To ensure compatibility, refer to the documentation provided with the OLT.*

The following features are supported on the SFP:

- ◆ 1000Base-LX 1490 nm Transmitter
- ◆ 1000Base-LX 1310 nm Receiver
- ◆ Optical distance: 20 km maximum

**CAUTION:** Due to compliance certification requirements, only SFPs supplied by ADTRAN should be used. ADTRAN cannot certify system integrity with other SFPs.

## Operational Specifications

- ◆ Optical Specifications:
  - Optical transmit level: -8 dBm to -3 dBm
  - Optical receive level: -22 dBm to -3 dBm
  - Optical budget: 14 dB
  - Optical connectors: LC
- ◆ Extended Environmental Support:
  - Operational temperature range: -40°C to +85°C
  - Storage temperature range: -40°C to +85°C
  - Relative humidity to 95%, noncondensing

## INSTALLATION

To install the SFP into an appropriate module, complete the following steps:

1. Inspect the SFP. If damaged, file a claim with the carrier and then contact ADTRAN Customer Service.
2. Do not remove the protective end cap from the SFP until the fiber optic cable is ready to be connected.
3. Insert the SFP into the SFP receptacle on the OLT. Ensure the manufacturer's label on the SFP is facing upward for correct installation.
4. Slide the SFP all the way into the receptacle until there is an audible "click".

*NOTE: The latch on the SFP is used to remove the SFP from the cage on the circuit card.*

5. Continue the installation and turn-up of the OLT using the instructions in the Job Aid that accompanied that OLT. The Installation and Maintenance Practice (I&M) for the OLT is available online at [www.adtran.com](http://www.adtran.com).



## COMPLIANCE

**CAUTION:** Electrostatic Discharge (ESD) can damage electronic modules. When handling modules, wear an antistatic discharge wrist strap to prevent damage to electronic components. Place modules in antistatic packing material when transporting or storing. When working on modules, always place them on an approved antistatic mat that is electrically grounded.

*The SFP is NRTL Listed to the applicable UL standards. The SFP meets or exceeds all the applicable requirements of NEBS, Telcordia GR-63-CORE, and GR-1089-CORE. The SFP is intended for deployment in Central Office type facilities, EEEs, EECs, and locations where the NEC applies (for example, Customer Premises and is intended to be installed by trained service personnel). Install the SFP in an ADTRAN product located in a restricted access location.*

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by ADTRAN could void the user's authority to operate this equipment.

**CAUTION:** Per GR-1089-CORE the ADTRAN system that the SFP is being deployed in is designed and intended for installation as part of a Common Bonding Network (CBN). The ADTRAN system that the SFP is being deployed in is not designed nor intended for installation as part of an Isolated Bonding Network (IBN).

*Per GR-1089-CORE Section 9, the SFP does not have an internal DC connection between battery return and frame ground. The SFP can be installed in a DC-I (isolated) or DC-C (common) installation. For installations where other cards or the host system have internal connections between battery return and frame ground, the system would be intended for deployment only in a DC-C installation.*

*The ADTRAN system chassis frame ground terminal must be connected to an earth ground to ensure that the metal enclosure of the SFP is properly grounded via the backplane connector.*

**NOTE:** The Gigabit Ethernet port(s) are optical and therefore are not classified as any type of port as defined in Appendix B of GR-1089-CORE Issue 4.

The SFP is designed to meet the following environmental classes:

- ETSI EN 300 019-1-1 "Classification of environmental conditions; Storage," Class 1.2
- ETSI EN 300 019-1-2 "Classification of environmental conditions; Transportation," Class 2.3
- ETSI EN 300 019-1-3 "Classification of environmental conditions; Stationary use at weather-protected locations," Class 3.3

The equipment is designed to function without degradation during exposure to all test severities per Class 3.3.