

## DESCRIPTION

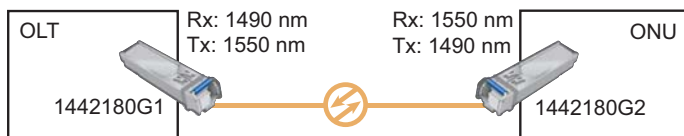
The Small Form-Factor Pluggable (SFP) Gigabit Ethernet, Single-Fiber is a bidirectional SFP that plugs into an Optical Line Terminal (OLT) designed to accept SFPs. The SFP provides a single optical interface to the GigE physical interface. Installed into an appropriate OLT, the SFP provides a Gigabit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

### NOTE

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

### NOTICE

In a deployment consisting of an OLT with a 1442180G1 SFP installed; the Optical Network Unit (ONU) should have a complementary 1442180G2 SFP installed.



The following features are supported on the SFP:

- ◆ 1000Base-LX 1550 nm Transmitter
- ◆ 1000Base-LX 1490 nm Receiver
- ◆ Optical distance: 80 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:
  - ◇ Transmit wavelength: 1550 nm
  - ◇ Receive wavelength: 1490 nm
  - ◇ Optical transmit level: -2 dBm to +3 dBm
  - ◇ Optical receive level: -25 dBm to -3 dBm
  - ◇ Optical distance: 80 km
  - ◇ Optical connectors: LC
- ◆ Extended Environmental Support:
  - ◇ Operational temperature range: -40°C to +70°C
  - ◇ Storage temperature range: -40°C to +85°C
  - ◇ Relative humidity to 95%, noncondensing

## INSTALLATION

Prior to installation, inspect the SFP. If damage has occurred during shipping, file a claim with the carrier, and then contact ADTRAN Customer Support. For more information, refer to "Warranty".

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

1. Insert the SFP into the SFP cage on the circuit board of the host module with the latch handle facing outward. Slide the SFP all the way into the cage.

### NOTE

The latch on the SFP is for removal only. When removing the SFP, rotate the latch away from the SFP, the SFP should slide easily out of the cage.

2. Exert adequate pressure to ensure the SFP is completely seated in the SFP cage.
3. Do not remove the connector plug until the optical fiber connection is made.

### NOTICE

It is recommended that the connector plug remain on whenever the transceiver optical fiber connector is not inserted.

4. Continue the installation and turn-up of the host module using the instructions in the Job Aid provided with the module, or using the Installation and Maintenance Practice (I&M) available online at [www.adtran.com](http://www.adtran.com).

## SAFETY AND REGULATORY 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) configuration. 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 configuration.
- ◆ 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.

### ⚠ CAUTION

The XFP is a Class 1 Laser Product and complies with the Laser Safety requirements of FDA 21CFR 1040.10 and 1040.11, and IEC60825-1 and -2. The XFP is NRTL listed and CB Certified to all applicable American and European safety standards.

For continued compliance with the above laser safety standards, only approved Class 1 modules from our approved vendor list, located on the ADTRAN website, should be installed in ADTRAN products.

### 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 5.

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 of ETSI EN 300 019-1-3.

The SFP meets the EU's RoHS Directive 2002/95/EC and/or applicable exemptions. Refer to [www.adtran.com](http://www.adtran.com) for further information on RoHS/WEEE.

**Warranty:** ADTRAN will replace or repair this product within the warranty period if it does not meet its published specifications or fails while in service. Warranty information can be found online at [www.adtran.com/warranty](http://www.adtran.com/warranty).

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