# ADTRAN®

## Small Form-Factor Pluggable
## 11.3G XFP, 1550 nm, Commercial Temperature

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**Product P/N: 1442980G1C**

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Documentation for ADTRAN Access and Aggregation products is available for viewing and download directly from the ADTRAN Support Community website.

Go to: https://supportforums.adtran.com/welcome

Registration is required.

ADTRAN offers training courses on our products, including customized training and courses taught at our facilities or at customer sites.

For inquiries, go to: http://adtran.com/training

The following documents provide additional information for this product:
*SFP/XFP/SFP+ Compatibility Matrix* (online tool, go to: http://www.adtran.com/sfp
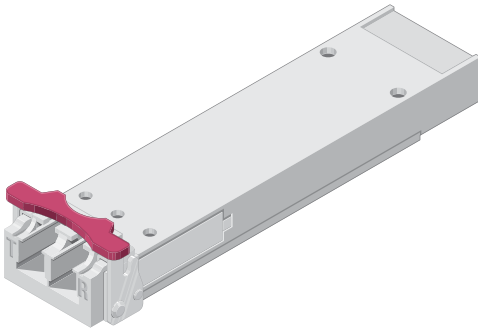


## DESCRIPTION

The Small Form-Factor Pluggable 11.3G XFP, 1550 nm, Commercial Temperature  (XFP) optical transceiver is a fully duplex serial electric, serial optic device with both transmit and receive functions contained in a single module that provides a high speed serial link at 10 Gbp/s. Installed into an appropriate host module, the XFP provides a 10 Gigabit interface to the supporting system.

The transmit side of the XFP converts serial NRZ electrical date at the 10 Gbp/s line rate to a standard compliant optical signal. The receive side of the XFP converts the incoming DC balanced serial NRZ optical data at the 10 Gbp/s line rate into serial electrical data.

### NOTE

To ensure compatibility, refer to the documentation provided with the host module.

## FEATURES

The following features are supported on the XFP:

- 1550 nm optical signals for up to 80 km reach
- Low power consumption (<3.5 W max)
- Excellent EMI performance
- Bit error rate 10^-12

### ⚠ CAUTION

Due to compliance certification requirements, only XFPs supplied by ADTRAN are to be used with the host module. ADTRAN cannot certify system integrity with other XFPs.

## INSTALLATION

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

### Installation Guidelines

The following are guidelines for this installation.

- The latch on the XFP is for removal only. When removing the XFP, rotate the latch away from the XFP. The XFP should slide easily out of the cage.
- It is recommended that the dust cover remain on whenever the transceiver optical fiber connector is not inserted.

### Installation Steps

To install the XFP, complete the following steps:

1. Insert the XFP into the XFP cage on the circuit board of the host module with the latch handle facing outward. Slide the XFP all the way into the cage.
2. Exert adequate pressure to ensure the XFP is completely seated in the XFP cage.
3. Do not remove the dust cover until the optical fiber connection is made.
4. Continue the installation and turn-up of the host module.

## SPECIFICATIONS

- Optical Specifications:
  - Transmit Wavelength: 1550 nm
  - Receive Wavelength: 1270 to 1600 nm
  - Data rate: 9.95 Gbp/s to 11.3 Gbp/s
  - Optical transmit level: 0 to +4.0 dBm
  - Optical receive level: greater than –23.0 dBm
  - Optical distance: 80 km maximum
  - Optical connectors: LC
- Extended Environmental Support:
  - Operational temperature range: 0°C to +65°C
    - Case temperature hardened range: 0°C to +85°C
  - Storage temperature range: –40°C to +85°C
  - Relative humidity to 85%, noncondensing

# SAFETY AND REGULATORY COMPLIANCE

### ⚠ WARNING

Read all warnings and cautions before installing or servicing this equipment

### ⚠ CAUTION

The product is a Class 1 Laser Product and complies with the Laser Safety requirements of FDA 21CFR 1040.10 and 1040.11, and EN60825-1 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.

### ⚠ 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.

- This product meets or exceeds all the applicable requirements of NEBS, Telcordia GR-63-CORE, and GR-1089-CORE. This product is intended for deployment in Central Office type facilities, EEEs, EECs, and locations where the NEC applies (for example, Customer Premises). This product is to be installed in ADTRAN products in Restricted Access Locations only, and installed by trained service personnel.

- Per GR-1089-CORE the ADTRAN system that this product is being deployed in is designed and intended for installation as part of a Common Bonding Network (CBN). The ADTRAN system that this product 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, this product does not have an internal DC connection between battery return and frame ground. This product 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 a reliable earth ground to ensure that the metal enclosure of this product 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.

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.

This product 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.

This product meets EU RoHS Directive 2002/95/EC and/or applicable exemptions. Refer to www.adtran.com for further information on RoHS/WEEE.

**C A U T I O N !**
SUBJECT TO ELECTROSTATIC DAMAGE
OR DECREASE IN RELIABILITY
HANDLING PRECAUTIONS REQUIRED

**ADTRAN CUSTOMER CARE:**
**From within the U.S.     1.800.726.8663**
**From outside the U.S. +1 256.963.8716**
PRICING AND AVAILABILITY  1.800.827.0807

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