# Quick Start

Small Form-factor Pluggable

# SFP

2.5G/1.25G, Class C+ SFP for GPON OLT

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## DESCRIPTION

The Total Access 5000 2.5G/1.25G, Class C+ SFP for GPON OLT (Small Form-factor Pluggable) is specifically designed for the Gigabit Passive Optical Network (GPON) Optical Line Terminal (OLT) application. It facilitates high performance, integrated, bidirectional data transmission over one, single mode optical fiber.

The 2.5G/1.25G, Class C+ SFP for GPON OLT can be used with the following Total Access 5000 OLTs:

- 4-Port OLT (P/N 1187502F2)
- 8-Port 2nd Generation OLT (P/N 1187503F2)

The SFP incorporates a 1490 nm, DFB laser diode for streaming 2.488 Gbps downstream data and an APD/TIA burst mode receiver for 1310 nm 1.244 Gbps upstream data.

**NOTE**

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

## FEATURES

The following features are supported on the SFP:

- SC Simplex receptacle
- Hot pluggable
- Transmit wavelength: 1490 nm
- Receive wavelength: 1310 nm

**CAUTION!**

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

## INSTALLATION

Before 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”.

### Installation Guidelines

The following are guidelines for this installation.

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

### Installation Steps

To install the SFP, 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.
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.
4. Continue the installation and turn-up of the host module.

## SPECIFICATIONS

Specifications for the SFP are as follows:

- Optical:
  - Receive wavelength: 1310 nm
  - Transmit wavelength: 1490 nm
  - Data rate:
    - Receive: 1.244 Gbps
    - Transmit: 2.488 Gbps
  - Receiver sensitivity (without upstream FEC): less than –30.0 dBm
  - Receiver sensitivity (with upstream FEC): less than –32.0 dBm (requires FEC support at both ONT and OLT)
  - Optical transmit level: 3.0 dBm to 7.0 dBm
  - Optical connectors: SC
- Environmental
  - Operational temperature range: –40°C to +65°C
  - Storage temperature range: –40°C to +85°C
  - Relative humidity to 95%, non-condensing

# Safety and Regulatory

### WARNING!

Read all warnings and cautions before installing or servicing this equipment.

### CAUTION!

This product is a Class 1 Laser that complies with FDA 21 CFR 1040.10 and 1040.11 and IEC 60825-1 and -2. The product is NRTL Listed and CB Certified to all applicable American and European safety standards.

### 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.

### CAUTION!

- The GPON OLT meets or exceeds all the applicable requirements of NEBS, Telcordia GR-63-CORE, and GR-1089-CORE. The 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).
- This product is intended to operate in ambient temperatures up to 65°C.
- 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

- This product is designed to be deployed in GR-3108-CORE environmental Class 1, 2, & 3.
- This product meets EU RoHS Directive. Refer to www.adtran.com for further information on RoHS/WEEE.
- This product is designed to function without degradation during exposure to all test severities per Class 3.3.
- 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.

Documentation for ADTRAN Network Solutions 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 online documents and resources provide additional information for this product:

ADTRAN Pluggable Optics Compatibility Matrix (online tool, go to: http://www.adtran.com/pluggableoptics)

**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.

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CAUTION!

SUBJECT TO ELECTROSTATIC DAMAGE OR DECREASE IN RELIABILITY

HANDLING PRECAUTIONS REQUIRED

**ADTRAN CUSTOMER CARE:**

**From within the U.S. 1.888.423.8726**

**From outside the U.S. +1 256.963.8716**

**PRICING AND AVAILABILITY 1.800.827.0807**

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