ADTRAN Pluggable Optics - Buy American

SFP

CPT BIDI 1490/1310 nm, 20 km

September 2021
61442020G1B-13A

P/N: 1442020G1BA

Quick Start

DESCRIPTION

The CPT BIDI 1490/1310 nm, 20 km Small Form-factor Pluggable (SFP) provides two bi-directional (BIDI) links on duplex single-mode fiber. The SFP has a duplex LC connector and is designed for point to point optical data communication.

This SFP supports the following features:

- Two-channel bi-directional link
- Duplex LC receptacle
- 1490 nm DFB transmitter
- 1310 nm PIN receiver
- 20 km point-to-point transmission
- Compact SFP MSA option 2 compliant
- SFF-8472 digital diagnostic function
- 1.25 Gbps IEEE802.3ah
- 1000BASE-BX10-D compatible
- Serial ID functionality support
- Class 1 laser safety standard IEC 60825 compliant
- Low power dissipation

Applications:

- FTTx
- Gigabit ethernet switches and routers
- High speed I/O for file servers
- Switch backbone applications

Due to compliance certification requirements, use only pluggable optics supplied by ADTRAN. ADTRAN cannot certify system integrity with other pluggable optics.

Installation

Before installing the equipment, 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 the warranty.

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

Do not remove the protective dust cover from the SFP until the fiber optic cable is ready to be connected.

1. Insert the SFP into the SFP cage on the module. Ensuring that the latch handle on the SFP is facing upward, slide the SFP all the way into the SFP cage until there is an audible "click".

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

2. Do not remove the protective dust cover until the optical fiber connection is made.

> ℹ️ **NOTE**
> ADTRAN recommends that the protective dust cover remain on whenever the transceiver optical fiber connector is not inserted.

3. Continue the installation and turn-up of the host module using the instructions in the Quick Start or Job Aid provided with the module or other system-level documentation available online at www.adtran.com.

Maintenance

The SFP does not require routine hardware maintenance for normal operation. ADTRAN does not recommend that repairs be attempted in the field. Repair services may be obtained by returning the defective unit to ADTRAN. Refer to the warranty for further information. Field support for software is provided through upgrade facilities.

⚠️ **WARNING!**
WARNING indicates a hazard which, if not avoided, could result in death, injury or serious property damage.

⚠️ **CAUTION!**
CAUTION indicates a hazard which, if not avoided, could result in service interruption, damage to the equipment, or minor property damage.

ℹ️ **NOTE**
NOTES inform the user of additional, but important, information or features.

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SPECIFICATIONS

Specifications for the SFP are as follows:

General

- Module Type: SFP
- Media Type: Fiber
  - Single-Mode
  - Dual-Fiber
- Signal Data Rate: 1250 Mbps
- Distance: 20 km
- SFP MSA compliant
- Applications:
  - FTTx
  - Gigabit ethernet switches and routers
  - High speed I/O for file servers
  - Switch backbone applications
- Optical Connector: LC

Optical

- Transmitter
  - Laser Diode Type: DFB LD
  - Transmit Wavelength: 1480 nm to 1500 nm
  - Tx Power: –8 dBm to –2 dBm
  - Spectral Width: 1 nm
  - SMSR: 30 dB
  - Extinction Ratio: 6 dB
- Receiver
  - Type: InGaAs Pin-TIA
  - Central Wavelength: 1260 nm to 1360 nm
  - Receiver Sensitivity: –23 dBm
  - Receiver Overload: –2 dBm

Environmental

- Protected Equipment Severe Environment (Outdoor)
  - System Ambient Operational Temperature Range: –40°C to +70°C
  - Storage Temperature Range: –40°C to +85°C
  - Relative Humidity 5% to 95%, non-condensing

SAFETY AND REGULATORY

⚠ WARNING!

Read all warnings, cautions, notes, and installation instructions before installing or servicing this equipment.

☀ CAUTION!

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

⚠ CAUTION!

- Electrostatic Discharge (ESD) can damage electronic devices. When handling devices, wear an antistatic discharge wrist strap to prevent damage to electronic components. Place in antistatic packing material when transporting or storing. When installing or maintaining, always place devices on an approved antistatic mat that is electrically grounded.

- This product is intended for deployment in locations such as telecommunications facilities (such as Central Offices, outdoor electronic equipment cabinets, and inside sealed outdoor enclosures). This product is to be installed and serviced by trained and qualified service personnel only.

- This product and host system are designed and intended for installation as part of a Common Bonding Network (CBN) or Isolated Bonding Network (IBN).

- This product's outer case is "electrically isolated" from other circuits, as a result, this product can be used in systems that are installed either in a DC-I (isolated) or DC-C (common) configuration. For Systems where other installed modules or the host system itself have internal connections between battery return and frame ground, the system can only be deployed in a DC-C configuration.

- If the host system has a protective earth (PE) terminal, the PE terminal of the host system must be connected to PE to ensure that the exposed metal (front panels, optical modules) on the product is properly grounded.

ⓘ NOTE

- This product is designed to be deployed in GR-3108-CORE environmental class 1,2, or 3.

- This product is NRTL Listed to the applicable UL Standards. The product is designed to meet the applicable requirements of Telcordia GR-63-CORE, GR-3108-CORE, and GR-1089-CORE.

- This product has been evaluated to applicable international standards for CE marking.

- 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

- This product is designed to function without degradation during exposure to all test severities per Class 3.3 of ETSI EN 300 019-1-3.

- This product meets EU RoHS Directive. Refer to www.adtran.com for further information on RoHS/WEEE.

FRANÇAIS

⚠ AVERTISSMENT!

Lisez toutes les mentions de danger et de prudence et les remarques, ainsi que la notice d'installation, avant d'effectuer l'installation ou l'entretien de cet équipement.

DEUTSCH

⚠ WARNUNG!

Lesen Sie alle Warnungen, Gefahrenhinweise, Anmerkungen und Installationsanweisungen bevor Sie dieses Gerät installieren oder warten.

ADTRAN

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.   1.888.423.8726
From outside the U.S. +1 256.963.8716

PRICING AND AVAILABILITY 1.800.827.0807

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