ADTRAN Pluggable Optics

May 2019
61442548F2C-13B

XFP

Quick Start

10 Gig XGS-PON N2 OLT

P/N: 1442548F2C

DESCRIPTION

The 10 Gig XGS-PON Optical Line Termination (OLT) Class N2 Small Form-factor Pluggable (XFP) is a single-mode fiber XFP. It plugs into an ADTRAN optical interface that is designed to accept XFPs. The XFP provides a single optical interface to a physical interface, and is intended for use with a 9.953 Gbps Passive Optical Network (PON) OLT module. The XFP provides a 9.953 Gbps XGS-PON interface to the supporting system when installed into an appropriate module.

The XFP is configured with an L-band 9.953 Gbps downstream transmitter and a C-band 9.953 Gbps upstream receiver, which work in a TDM configuration. The XFP is designed to support up to 32 subscribers over distances of up to 20 Km in the Optical Distribution Network (ODN). It is FDA 21CFR1040.10 and IEC 60825-1 Class I laser safety compliant and meets EU RoHS Directive.

This XFP supports the following features:

- ODN Class N2 Transceiver
- Data rate: 9.953 Gbps
- Optical Receive Wavelength: 1270 – 1280 nm
- Optical Transmit Wavelength: 1577 –1580 nm
- Optical distance: 20 Km maximum
- Hot Pluggable

Applications:

- XGS-PON Access networks
- Fiber to the Home (FTTP)
- Fiber to the Building (FTTB)
- Fiber to the Curb (FTTC)

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

INSTALLATION

Before installing the equipment, 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 the warranty.

Installation Steps

To install the XFP into an appropriate device, complete the following steps:

ℹ️ NOTE

Do not remove the protective end cap from the XFP until the fiber optic cable is ready to be connected.

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

ℹ️ NOTE

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

❗ NOTICE

Do not remove the protective end cap until the optical fiber connection is made. Ensure that you keep the protective end cap on whenever the transceiver optical fiber connector is not inserted.

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

SPECIFICATIONS

Specifications for this XFP are as follows:

- General
  - ◆ Module Type: XFP
  - ◆ Media Type: Fiber
    - Single-Mode
    - BIDI
  - ◆ Signal Data Rate:
    - Maximum: 9.953 Gbps
  - ◆ Distance: 20 Km
  - ◆ Compatible with XFP MSA
- Optical
  - ◆ Transmitter
    - Laser Diode Type: DFB
    - Transmit Wavelength: 1577 nm
    - Tx Power: +4.0 dBm to +8.0 dBm
    - Spectral Width: 1 nm
    - SMSR: 30 dBm
    - Extinction Ratio: 8.2 dB
    - Dispersion Penalty: 1 dB
  - ◆ Receiver
    - Type: APD
    - Central Wavelength: 1270 nm
    - Receiver Sensitivity: –28 dBm
    - Receiver Overload: –7 dBm
- Environmental
  - Operational Temperature Range: –5°C to +55°C
  - Operational Case Temperature Range: 0°C to +70°C
  - Storage Temperature Range: –40°C to +85°C
  - Relative Humidity 5% to 85%

SAFETY AND REGULATORY

ENGLISH

⚠️ WARNING!

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

☢️ CAUTION!

This product is a Class 1 Laser module that complies with FDA 21 CFR 1040.10 and 1040.11 and IEC 60825-1. This product is NRTL Listed and CB Certified to all applicable American and European safety standards. For continued compliance with the above standards, install only ADTRAN-approved Class 1 Laser Modules in ADTRAN products.

ADTRAN®

⚠ 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 system is designed and intended for installation as part of either a Common Bonding Network (CBN) or Isolated Bonding Network (IBN).
- This product is designed and intended only for deployment in a DC-C (common) bonding and grounding configuration. This product is not intended or designed for deployment in a DC-I (isolated) bonding and grounding system.
- The chassis frame ground terminal must be connected to an earth ground to ensure that the exposed metal (i.e. front panels, SFP/XFP modules) on the product is properly grounded via the backplane connector.
- This product is designed to be deployed in GR-3108-CORE environmental Class 1.
- This product is NRTL Listed to the applicable UL Standards. The product is designed to meet the applicable requirements of Telcordia GR-63-CORE and GR-1089-CORE.
- This product has also been evaluated to international safety standards EN 60950-1, AS/NZS 60950.1, and IEC 60950-1. This product meets the requirements for CE marking under the EMC Directive and Low Voltage Directive. Standards used to demonstrate Compliance are EN 300 386 and EN 60950.
- This product is intended for deployment in Central Office type facilities, EEEs, EECs, and locations where the NEC applies (for example, Customer Premises).
- 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 meets EU RoHS Directive. Refer to www.adtran.com for further information on RoHS/WEEE.

FRANÇAIS

⚠ AVERTISSMENT!

Lisez tous les avertissements et mises en garde avant l'installation de cet équipement ou la réalisation de toute opération de maintenance.

☀ ATTENTION!

Ce produit est un module laser de classe 1 qui est conforme à la FDA 21 CFR 1040.10 et 1040.11 et IEC 60825-1. Ce produit est NRTL et Certifié CB à toutes les normes de sécurité applicables américains et européens. Pour maintenir la conformité avec les normes ci-dessus, installer des modules laser de classe 1 ne ADTRAN approuvés dans les produits d'ADTRAN.

⚠ ATTENTION!

- L'ESD (décharge électrostatique) peut endommager les modules électroniques. Lors de la manipulation des modules, portez un bracelet de décharge antistatique pour éviter d'endommager les composants électroniques. Placez les modules dans un emballage antistatique lors du transport ou du stockage. Lorsque vous travaillez sur les modules, placez-les toujours sur un tapis antistatique certifié muni d'un branchement de mise à la terre.
- Ce système est conçu et prévu pour une installation intégrée à un réseau de masse maillé ou à un réseau de masse isolé.
- Ce produit est conçu et prévu uniquement pour être déployé dans une configuration de circuit de régulation et de mise à la terre DC-C (commun). Ce produit n'est pas prévu ou conçu pour être déployé dans une configuration de circuit de régulation et de mise à la terre DC-I (isolé).
- La borne de terre de châssis doit être connecté à une prise de terre pour assurer que le métal exposé (tels que les panneaux avant, des modules SFP / XFP) sur le produit est correctement mis à la terre via le connecteur de fond de panier.

ℹ REMARQUE

Ce produit est conforme à la directive européenne RoHS. Reportez-vous à www.adtran.com pour de plus amples renseignements sur RoHS.

DEUTSCH

⚠ WARNUNG!

Lesen Sie sich alle Warn- und Sicherheitshinweise durch, bevor Sie dieses Gerät installieren oder warten.

☀ VORSICHT!

Dieses Produkt ist ein Klasse 1 Laser -Modul, das mit der FDA 21 CFR 1040.10 und 1040.11 und IEC 60825-1 entspricht. Dieses Produkt wurde NRTL gelistet und CB Certified allen geltenden amerikanischen und europäischen Sicherheitsstandards. Für die ständige Einhaltung der oben genannten Normen, installieren Sie nur ADTRAN zugelassene Klasse 1 Lasermodule in ADTRAN Produkte.

⚠ VORSICHT!

- Elektrostatische Entladung können elektronische Module beschädigen. Tragen Sie beim Umgang mit Modulen ein Erdungsarmband, um Schäden an den elektronischen Komponenten zu vermeiden. Transportieren oder lagern Sie Module in antistatischem Verpackungsmaterial. Bei der Arbeit an den Modulen, achten Sie darauf, diese stets auf antistatische, elektrisch geerdete Matten zu legen.
- Dient dieses System zur Installation entweder in einer gemeinsamen Potentialausgleichsanlage (CBN) oder in einer isolierten Potentialausgleichsanlage (IBN).
- Dieses Produkt ausschließlich in einer DC-C (gemeinsamen) Anlage zum Potentialausgleich und Erdung installiert werden. Es ist hingegen nicht für DC-I (isolierte) Anlagen zum Potentialausgleich und Erdung bestimmt.
- Der Fahrgestellrahmen Erdanschluß muß zu einer Erde verbunden werden, um sicherzustellen, dass das freiliegende Metall (dh Frontplatten, SFP / XFP-Module) auf dem Produkt richtig über den Backplane-Anschluss geerdet ist.

ℹ HINWEIS

Dieses Produkt erfüllt die EU RoHS Richtlinie. Bitte besuchen Sie www.adtran.com für ausführlichere Informationen zu RoHS/WEEE.

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)

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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