Small Form-Factor Pluggable Gigabit Ethernet, Copper

jobAid

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Description

The Small Form-Factor Pluggable Gigabit Ethernet, Copper (SFPGC) plugs into ADTRAN Gigabit Ethernet modules designed to accept Small Form-factor Pluggables (SFPs). Installed into an appropriate host module, the SFPGC provides 1000 Mbps full duplex data-links with 5-level Pulse Amplitude Modulation (PAM) signal over unshielded twisted-pair Cat 5 cable.

NOTE

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

The following features are supported on the SFPGC:

- Up to 1.25 Gbps bidirectional datal links
- 100 meter maximum distance over shielded twisted-pair Cat 5 cable

⚠ CAUTION

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

Operational Specifications

- Operational temperature range: –40°C to +65°C
- Operational altitude range: –197 feet (–60 meters) to 13,000 feet (3,962 meters)
  - From –197 feet (–60 meters) to 6,000 feet (1,800 meters) the operating temperature is derated by 1.6°C/1,000 feet.
  - From 6,000 feet (1,800 meters) to 13,000 feet (4,000 meters) the operating temperature is derated by 1.4°C/1,000 feet.
- Storage temperature range: –40°C to +100°C
- Relative humidity to 95%, noncondensing

Installation

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

1. Inspect the SFPGC. If damaged, file a claim with the carrier and then contact ADTRAN Customer Service.
2. Remove the black safety cap from the connector of the SFPGC.
3. Insert the SFPGC into the receptacle on the circuit board of the host module, with the manufacturer's label facing outward. Slide the SFPGC all the way into the receptacle.
4. Using thumb and forefinger, firmly squeeze the receptacle and SFPGC together, to ensure a proper connection.

NOTE

The latch on the SFP is for removal only.

5. Continue the installation and turn-up of the host module using the instructions in the Job Aid or Installation and Maintenance Guide (I&M) provided with that module. Both are available online at www.adtran.com.

Provisioning

The SFPGC is not directly provisionable. To provision the SFPGC, access the menu system of the host module. Refer to the "Provisioning" section of the Job Aid or I&M provided with the host module for provisioning details.

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 SFPGC is NRTL Listed to the applicable UL standards. The SFPGC meets or exceeds all the applicable requirements of NEBS, Telcordia GR-63-CORE, and GR-1089-CORE. The SFPGC is intended for deployment in Central Office type facilities, EEEs, EECs, and locations where the NEC applies (ex. Customer Premises). Install the SFPGC 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.

⚠ WARNING

The Gigabit Ethernet port is classified as Type 2 or Type 4, as defined in Appendix B of GR-1089-CORE Issue 4, and is suitable for connection to intra-building or unexposed wiring or cabling only. Do not metallically connect this port to interfaces which connect to the Outside Plant (OSP) or to the OSP wiring. The Gigabit Ethernet port is designed for use as an intrabuilding interface only (Type 2 or Type 4 ports as described in GR-1089-CORE Issue 4) and requires isolation from exposed OSP cabling. The addition of Primary Protectors is not sufficient protection in order to connect this interface metallically to OSP wiring. The Gigabit Ethernet port is suitable for connection only to shielded intra-building cabling grounded at both ends.

⚠ 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 SFPGC does not have an internal DC connection between battery return and frame ground. The SFPGC 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 an earth ground to ensure that the metal enclosure of the SFPGC is properly grounded via the backplane connector.

The SFPGC 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.

For more information, refer to the Installation and Maintenance Guide (P/N 61184561P4-5) available online at www.adtran.com.

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.

CAUTION!
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

61184561P4-22C