

[Manuals.plus](#) /

› [10Gtek](#) /

› 10GTEK 25G SFP28 SFP+ Transceiver User Manual

10Gtek AZS13-S28-10(Cisco-1pc)

10GTEK 25G SFP28 SFP+ Transceiver User Manual

Model: AZS13-S28-10(Cisco-1pc) | Brand: 10Gtek

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the 10GTEK 25G SFP28 SFP+ Transceiver. This optical module is designed for high-speed data transmission in networking environments, offering reliable connectivity over singlemode fiber.

2. PRODUCT FEATURES

- **Data Rate:** 25Gb/s
- **Interface:** Dual LC connectors
- **Reach:** Up to 10 km
- **Fiber Type:** Dual LC OS2 singlemode fiber
- **Compatibility:** Compatible with Cisco SFP-25G-LR-S and other major brands.
- **Digital Diagnostic Monitoring (DDM):** Real-time monitoring of critical parameters.
- **Hot-Pluggable:** Supports plug-and-play functionality with ESD protection.

3. SPECIFICATIONS

Parameter	Value
Model Number	AZS13-S28-10(Cisco-1pc)
Data Rate	25 Gb/s
Wavelength	1310 nm

Max Reach	10 km
Fiber Type	Dual LC OS2 Singlemode Fiber
Power Consumption	≤1.5W
Operating Temperature	0°C to 70°C
Dimensions	3.7 x 1.38 x 0.75 inches
Weight	1.45 ounces

4. SETUP AND INSTALLATION

The 10GTEK 25G SFP28 SFP+ Transceiver is designed for easy installation due to its hot-pluggable nature.

- Preparation:** Ensure the host device (e.g., network switch, NIC) has a compatible SFP28 port. Handle the transceiver with care, avoiding static discharge.
- Insertion:** Gently insert the SFP28 transceiver into the designated SFP28 port on your network device until it clicks into place. The module is designed for plug-and-play operation.
- Fiber Connection:** Connect a Dual LC OS2 singlemode fiber optic cable to the duplex LC connectors on the transceiver. Ensure the fiber ends are clean before connection.
- Verification:** Once connected, verify the link status indicators on your network device. A stable link light indicates successful connection.

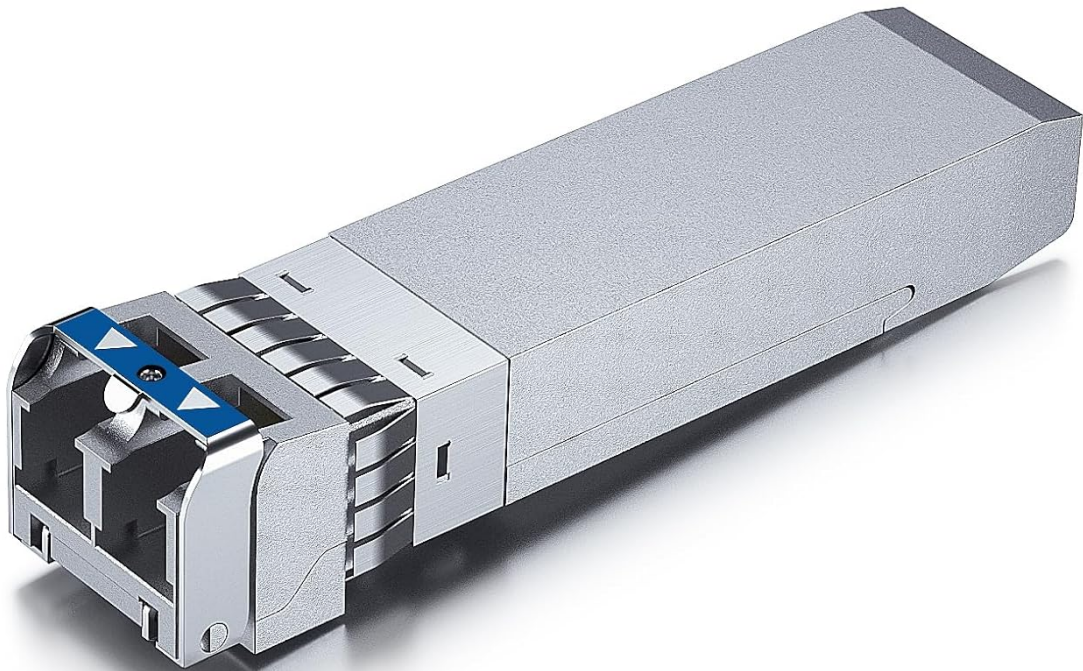


Figure 4.1: The 10GTEK 25G SFP28 SFP+ Transceiver module, showing its compact design and LC connectors.

Esay to use

Plug and play, fully hot-pluggable
with ESD protection.

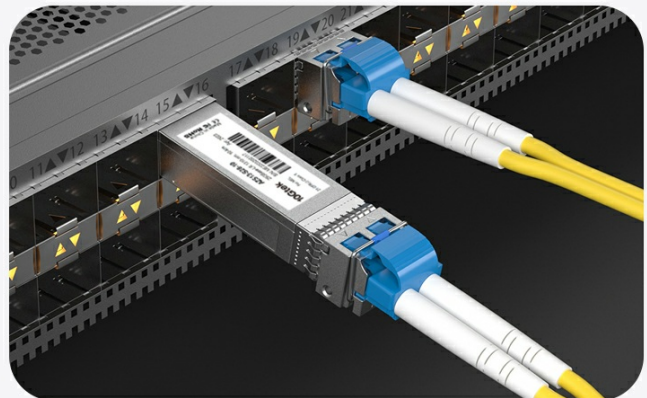


Figure 4.2: Illustration of the transceiver being installed into a network switch, demonstrating its easy plug-and-play functionality.

25G Transceiver Application

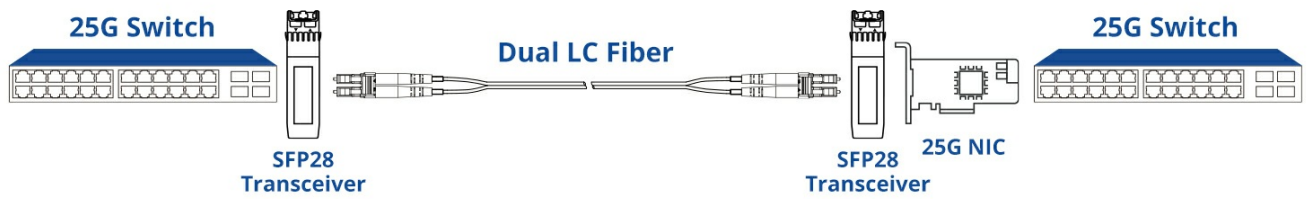


Figure 4.3: Diagram illustrating a typical 25G transceiver application, connecting two 25G switches via SFP28 transceivers and dual LC fiber.

5. OPERATING PRINCIPLES

The 10GTEK 25G SFP28 SFP+ Transceiver operates by converting electrical signals to optical signals for transmission over fiber optic cables and vice-versa. It supports a 25 Gigabit Ethernet link over singlemode fiber up to 10 kilometers.

5.1 Digital Diagnostic Monitoring (DDM)

The transceiver incorporates Digital Diagnostic Monitoring (DDM) functionality, allowing real-time access to critical operating parameters. This feature enables network administrators to monitor the performance of the transceiver and identify potential issues proactively.

- **Temperature:** Monitors the internal temperature of the module.
- **RX Power:** Measures the received optical power.
- **TX Power:** Measures the transmitted optical power.
- **Voltage:** Monitors the supply voltage to the module.
- **Bias Current:** Monitors the laser bias current.

Digital Diagnostic Monitoring

Monitor the critical information of the transceivers in real-time.

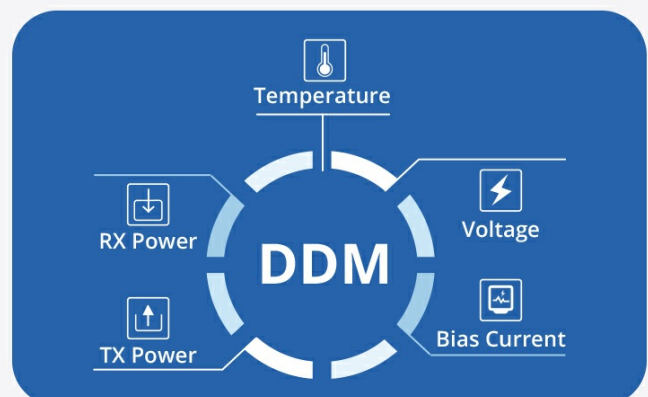


Figure 5.1: Diagram illustrating the parameters monitored by Digital Diagnostic Monitoring (DDM).

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your 10GTEK SFP28 transceiver.

- **Cleanliness:** Always ensure fiber optic connectors are clean before insertion. Dust and contaminants can significantly degrade optical performance. Use appropriate fiber cleaning tools.
- **Handling:** Handle the transceiver by its metal casing. Avoid touching the optical interfaces or electrical contacts.
- **Storage:** When not in use, store the transceiver with its protective dust caps in place in a clean, dry environment.
- **Environmental Conditions:** Operate the transceiver within the specified temperature range (0°C to 70°C) to prevent damage and ensure stable operation.

7. TROUBLESHOOTING

This section provides guidance for common issues encountered with optical transceivers.

Problem	Possible Cause	Solution
No Link Light / Link Down	Incorrect transceiver insertion. Dirty or damaged fiber connectors. Incompatible host device or firmware. Damaged fiber optic cable. Transceiver fault.	Re-insert the transceiver firmly. Clean fiber connectors thoroughly. Verify host device compatibility and update firmware if necessary. Test with a known good fiber cable. Test with another transceiver if available.
Poor Performance / Low Throughput	Excessive optical power (for short distances). Dirty fiber connectors. Fiber cable issues (e.g., bends, damage). Network configuration issues.	Consider using an optical attenuator for very short distances to prevent receiver saturation. Clean fiber connectors. Inspect fiber cable for damage; replace if necessary. Check network device settings (e.g., speed, duplex).
Intermittent Connectivity	Loose connection. Environmental factors (temperature fluctuations). Compatibility issues with specific network hardware (e.g., Ubiquiti switches as noted in some user experiences).	Ensure transceiver is fully seated. Ensure operating environment is within specified temperature range. Consult 10Gtek support for specific compatibility concerns with your network equipment.

For further assistance, please refer to the support section or contact 10Gtek technical support.

8. WARRANTY AND SUPPORT

10Gtek products are manufactured under strict quality control and are 100% tested before shipment to ensure reliability and performance.

For technical support, product information, or warranty inquiries, please visit the official 10Gtek support website:

[10Gtek Transceiver Support](#)

You can also find more information about 10Gtek's product range and company details on their [Amazon Brand Store](#).