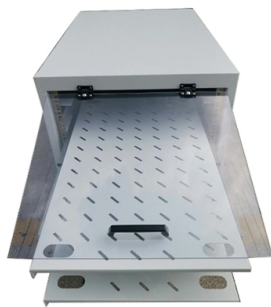


Huawei 10 Gigabit Optical Module Technical Parameters



Overview

10 Gbit/s SFP+ Optical Modules 10 Gbit/s SFP+ optical modules apply to 10 GE optical ports. The wavelength can be 850 nm, 1310 nm, or 1550 nm, and the 10GE.

Key Takeaways

Huawei 10 Gigabit optical modules support various SFP+ and XFP transceivers with single-mode or bidirectional operation, offering transmission distances from 10 km to 80 km, wavelengths from 1270 nm to 1550 nm, and full digital diagnostic monitoring. Key Types and Specifications

1. SFP+ Modules

- SFP-10G-LR: Single-mode fiber, 1310 nm wavelength, 10 km transmission distance, LC connector, supports 10G Ethernet, DDM/DOM enabled .
- SFP-10G-ER-1310: Single-mode fiber, 1310 nm, 40 km transmission, Tx power -2 to 4 dBm, Rx sensitivity -16 dBm, DFB laser, PIN photodiode, operating temperature 0-70°C, compliant with CE, FDA, IEC60825-1, RoHS, SFP MSA .
- Single-fiber bidirectional (BIDI) modules: Must be used in pairs (e.g., SFP-10G-BXD1 with SFP-10G-BXU1), with complementary wavelengths such as 1270/1330 nm for 10G Ethernet over single-mode fiber .

2. XFP Modules

- XFP-10G-1550NM-80KM-SM: Single-mode fiber, 1550 nm wavelength, supports 80 km link length on G.652 fiber, LC connector, DDM/DOM supported, compatible with Huawei Quidway S9303 switches .

Performance Parameters

- Data Rates: 10.31 Gbps for 10G Ethernet, compatible with 1G-8G Fiber Channel and STM-64 SDH/SONET standards .
- Transmit Power: Typically -2 dBm to 4 dBm for SFP-10G-ER-1310.
- Receiver Sensitivity: Around -16 dBm, with overload protection at -1 dBm.
- Dispersion Tolerance: Up to 300 ps/nm for long-distance modules.
- Power Supply: +3.3V single power supply.
- Temperature Range: Standard modules operate from 0°C to 70°C.

Certification and Compatibility

- Huawei requires optical modules to be certified for use on Huawei switches to ensure reliability and service stability. Certified modules display "HUAWEI" on the label, with manufactured dates after July 1, 2013, for 10GE or lower, and after January 1, 2016, for 40GE/100GE modules .
- Non-certified modules may function but can cause link instability or service issues.
- Modules support digital diagnostic monitoring (DDM/DOM) to read real-time parameters such as temperature, voltage, optical power, and laser bias current.

Summary

Huawei 10 Gigabit optical modules provide flexible options for enterprise and data center networks, supporting single-mode, long-range, and bidirectional configurations. Key parameters include wavelength, transmission distance, transmit/receive power, and DDM/DOM support. Ensuring modules are Huawei-certified guarantees compatibility and network stability.

Article Content

10 Gbit/s SFP+ Optical Modules

10 Gbit/s SFP+ optical modules apply to 10 GE optical ports. The wavelength can be 850 nm, 1310 nm, or 1550 nm, and the

10GE SFP+ Optical Modules

Single-fiber bidirectional (BIDI) optical modules must be used in pairs. For example, SFP-10G-BXU1 must be used with SFP-10G-BXD1.

Huawei SFP-10G-USR Guide: Specs, Uses & Compatibility

Explore Huawei SFP-10G-USR specs, features, compatibility, and applications. Learn how this 10G SFP+ module supports efficient

01-10 OPTICAL MODULES

If an optical module is installed in a running device, you can run the display transceiver command to view parameters of the optical

10 Gigabit Single-Mode Single-Core Optical Module 80km Range

The CC-P11448L-xD 10Gb/s SFP+ Optical Transceiver Module, designed for transmission distances up to 80 kilometers, addresses

Huawei 02310MNW Datasheet

Huawei 02310MNW Datasheet Huawei SFP-10G-USR 10GBase-USR Optical Transceiver, SFP+, 10G, Multi-mode Module (850nm,

Huawei XFP-10G-1550NM-80KM-SM Optical Transceiver Sample Report

The switch successfully identified the module, including its type, manufacturer name, connector type, wavelength, and

Can Huawei's 10Gbps optical module be connected to a Gigabit

First, we need to clarify the basic concepts and characteristics of 10Gbps optical modules and Gigabit optical ports. The 10Gbps

Optical Modules in Intelligent Computing Scenarios

In the AI era, Huawei provides a full range of GE to 800GE optical modules, featuring three major capabilities: Spanning (ultra-long

Optical Modules for Huawei S Series Switches

To determine whether optical modules delivered for Huawei switches before January 1, 2016 are certified ones, contact Huawei

Types of Optical Modules

Wavelength division multiplexing modules differ from other optical modules in center wavelengths. A common optical module has a

HUAWEI Transceiver

HUAWEI Transceiver Optical transmitter and receiver products of Gearlink optical transceiver manufacturer are trusted by customers

2X10GL (2-Port 10GE Optical Ports Interface Card)

The 2X10GL is a high-speed WAN access module that provides two 10GE optical interfaces for high-speed uplink connection. A

10GE SFP+ Optical Modules

This document describes hardware components of the S9700, including the cabinet, chassis, power supply facilities,

Huawei Optical Transceiver eSFP GE Single-Mode Module

Description The Optical Transceiver eSFP GE Single-Mode Module (1310 nm, 10 km, LC) is a high-performance Gigabit Ethernet

10 Gbps All-Optical Broadband: China's Journey from Technical ...

10 Gbps all-optical broadband is maturing in technology, standards, and application, and has entered large-scale pilot in China.

Types of Optical Modules

Optical modules are encapsulated in different modes to provide different structures. Huawei switches support optical modules of the

Huawei Optical Module Common Models

Optical modules are important devices in fiber optic communication systems. Huawei Optical Module is manufactured by Huawei

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

