What is the Huijue XGE optical interface module



Overview

It has 10 Gigabit Ethernet technology, designed for expanding networks with greater bandwidth and speed. Compatible with SFP+ port Intelbras OLTs.

Key Takeaways

The Huijue XGE optical interface module is a 10 Gigabit Ethernet (10GE) optical transceiver designed for high-speed, full-duplex data transmission over fiber networks.

Overview

The Huijue XG

E module is an optical interface module that supports 10 Gbit/s transmission rates, commonly used in enterprise, data center, and campus networks.

XG

E stands for 10 Gigabit Ethernet, and the module typically uses the SFP+ (Small Form-factor Pluggable Plus) form factor, which is compact and hot-swappable, allowing easy installation and replacement without powering down the network device.

Key Features

Data Rate: 10 Gbit/s full-duplex, with backward compatibility to 1 Gbit/s in some configurations. Duplex Mode: Full-duplex operation ensures simultaneous sending and receiving of data. Transmission Medium: Works with single-mode fiber (SMF) for long-distance links or multimode fiber (MMF) for shorter distances.

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Connector Type: Typically uses LC connectors for fiber connections.

Auto-

Negotiation: Not supported for 10GE optical interfaces, but flow control is supported. Distance: Depending on the specific module variant, it can support distances up to 10 km over single-mode fiber.

Function and Use Cases

The Huijue XG

E module is primarily used to interconnect switches, routers, servers, and network interface cards (NICs) in high-speed networks. It is suitable for: Data center uplinks: Connecting top-of-rack switches to aggregation or core switches. Campus networks: Providing high-speed links between buildings or network segments.

Enterprise backbones: Supporting high-bandwidth applications such as virtualization, storage, and video streaming. Technical ContextXGE optical modules like the Huijue XGE are part of the 10GBASE standard, which defines the physical layer for 10 Gigabit Ethernet over fiber. They may use wavelength division multiplexing (WDM) for bi-directional communication over a single fiber strand, effectively doubling the data capacity without additional cabling.

The module integrates a transmitter (laser diode) and a receiver (photodiode with transimpedance amplifier) to handle optical signals efficiently.

Summary

In essence, the Huijue XGE optical interface module is a high-performance, 10G SFP+ transceiver designed for reliable, long-distance, full-duplex Ethernet communication over fiber networks. It is widely used in modern enterprise and data center environments to ensure high-speed connectivity and efficient network scaling.

Article Content

XGE SFP+ Converter Module 10KM

It has 10 Gigabit Ethernet technology, designed for expanding networks with greater bandwidth and speed. Compatible with SFP+ port Intelbras OLTs.

10GE SFP+ Optical Modules

This document provides an overall description of the CE12800 series switches hardware, helping you obtain detailed information about each chassis, power module, fan module, card, cable, and

Types of Optical Modules

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Optical modules are encapsulated in different modes to provide different structures. Huawei S series devices support optical modules of the following encapsulation types: CFP, QSFP+, QSFP28, XFP,

XGE SFP+ Module 10KM 10KM

The XGE SFP+ 10KM Module has 10 Gigabit Ethernet technology and was designed mainly for expansion of 10 Gigabit Ethernet networks, with greater bandwidth and speed, being fully compatible

XG-SFP-LR-SM1310 10GBASE-LR SFP+ 1310-nm 10-km DOM

The XG-SFP-LR-SM1310 is aligned to IEEE 10GBASE-LR optical specifications and supports a link length of up to 10 kilometers over a single-mode fiber (SMF) with an LC connector.

Microsoft Word

The XGE4140-XMC provides a quad port optical 1 GbE TOE XMC with a PCIe x8 host interface. The XGE4140 offloads TCP/IP, RDMA, and UDP Direct Stream protocols to dedicated silicon protocol

Huijue checks optical module specifications

This guide dives into the key SFP Optical Module Specifications that engineers, network architects, and procurement professionals rely on when evaluating optical transceivers.

What is the purpose, study case for XGE on SCBE2, SCBE3 ? | Routing

Two Ethernet ports, labeled XGE, provide 10 GbE/1 GbE SFP+ interfaces. These ports also are connected to the Ethernet control switch which limits the traffic for the 10 GbE port and

Interface Management

Which Type of Optical Modules Can Be Used on QSFP+ Optical Ports of CloudEngine Series Switches? How Do I Query the Optical Power of an Interface? How Can I View the Serial Number of an Optical

Configuring an XGE Interface to Work in LAN/WAN Mode

WAN mode: XGE interfaces working in WAN mode transmit synchronous optical network (SONET)/synchronous digital hierarchy (SDH) frames and connect to upper-layer SONET/SDH

Configuring an XGE Interface to Work in LAN/WAN Mode

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Based on the physical feature, XGE interfaces work in the following modes: LAN mode: XGE interfaces working in LAN mode transmit Ethernet packets and connect to Ethernet networks. XGE interfaces

What Is an Optical Module and Its FAQs (V200)

What Is an Optical Module and Its FAQs (V200) Describes what an optical module is and FAQs, including the fundamentals, appearance and structure, key performance counters, common types,

Checking Whether the Optical Fiber and Optical Module Match

1550 nm: single-mode optical modules. They are often used for long-distance transmission. GE and 10GE optical modules have the same appearance. You can distinguish them based on the interface

What Can I Do If a Message Is Displayed Indicating that an Optical ...

For example, if a non-XGE optical module is installed on an XGE port, the rate of the optical module does not match the port rate. In this case, replace the optical module with a supported one and then

Configuring Attributes for an Optical Interface

If the 40GE interface is connected to a remote 40GE interface that is also split, the two 40GE interfaces can have the same type of 40GE QSFP+ optical modules installed and be connected using an

Optical Module: Typical Optical Module Troubleshooting Procedure

If it is not a Huawei-certified optical module, replace it with a Huawei-certified optical module. If the optical module is installed on a GE port, run the display interface GigabitEthernet x/x/x command to

XGE SFP+ Converter Module 10KM

International standard connector The XGE SFP+ 10 km has standard LC/PC connector SFP, the most used model for fiber optic connection.

Configuring Interface Split and Merge

Configuring the Rate and Mode Configuring Common Attributes of Optical and Electrical Interfaces Configuring Optical Interface Attributes Configuring an XGE Interface to Work in LAN/WAN Mode

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

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