

How to determine 100Mbps or 1Gbps speeds for optical modules



AI Overview

100Mbps optical modules are typically labeled as 100Base or FE, while 1Gbps modules are labeled as 1G, 1.25G, 1000Base, or GE. Speed Labeling and Identification Optical modules indicate their speed through standard markings on the module itself or in product specifications. For 100Mbps modules, look for labels such as 155M, 100Base, or FE. For 1Gbps modules, common labels include 1G, 1.25G, 1000Base, or GE. These labels are standardized and help quickly identify the module's supported data rate without testing the connection.

Form Factor Considerations Both 100Mbps and 1Gbps modules often use the SFP (Small Form-factor Pluggable) package. SFP modules were originally designed for Gigabit Ethernet, but some older 100Mbps modules also use the same SFP form factor. Higher-speed modules, such as 10Gbps, use SFP+, while 25Gbps and above use SFP28 or QSFP variants.

Fiber Type and Transmission Distance The type of fiber can also provide clues: **Multimode fiber (OM1/OM2):** OM1 was commonly used for 100Mbps, while OM2 and above support 1Gbps over longer distances. **Single-mode fiber (OS1/OS2):** Both 100Mbps and 1Gbps can operate over single-mode fiber, but 1Gbps modules typically support longer distances (up to 80–100 km for 1Gbps vs shorter for 100Mbps) depending on the module type.

Practical Tips Check the module label: Speed is usually printed on the transceiver. Verify the part number: Manufacturer datasheets specify the supported speed. Consider the network device: Some switches or routers may only support certain speeds per port. Observe the fiber type and distance: 100Mbps modules are often limited to shorter distances and older multimode fibers, while 1Gbps modules are compatible with modern multimode and single-mode fibers for longer runs. By combining label inspection, form factor, and...

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Yangtze Optical Fibre and Cable Joint Stock Limited Company*

– Optical transmission components-mainly including optical components and modules, active optical cables, passive preassembled jumper cables, high-speed copper datacom cables and other

100M SFP vs 1G SFP vs 2.5G SFP

This article aims to compare the advantages and disadvantages of 100M, 1G, and 2.5G SFP modules. If you want to know this, please read.

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Cisco SFP Modules for Gigabit Ethernet Applications

This data sheet describes the benefits, specifications, and ordering information for the Cisco SFP Modules for Gigabit Ethernet Applications.

Contact Us

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