

How to check if the optical module is OM3



Overview

How to Tell if My SFP is Single-Mode or Multimode?

Employ a power meter or an Optical Time-Domain Reflectometer (OTDR) to ascertain the optical attributes.

Key Takeaways

You can determine if an optical module is OM3 by checking its specifications, fiber core size, jacket color, or using device commands to display transceiver information.

Visual and Physical Inspection

Fiber Core Size: OM3 multimode fiber has a 50 μm core diameter and is laser-optimized for VCSELs, unlike OM1 (62.5 μm) or OM2 (50 μm but LED-optimized) fibers. Jacket Color: OM3 cables typically have an aqua-colored jacket, which distinguishes them from OM1/OM2 (orange) and OM4 (also aqua but with labeling),.

Labeling: Many OM3 modules or cables are labeled with “OM3” on the connector or packaging.

Using Device Commands



If the module is installed in a switch or router, you can use commands to check its type: Huawei Devices: Run `display transceiver [interface interface-type interface-number | slot slot-id]` to view detailed optical module information, including type, wavelength, and supported distances. Diagnostic Commands: `display transceiver diagnosis interface [interface-type interface-number]` provides digital diagnostic monitoring (DDMM) data, which can indicate whether the module is multimode and its specifications. Other Vendors: Most modern switches support similar commands (e.g., Cisco's `show interface transceiver`) to display module type, speed, and supported fiber type.

Performance-

Based Verification

Bandwidth and Distance: OM3 supports 2000 MHz·km modal bandwidth and is suitable for 10G Ethernet up to 300 meters, 25G up to 70 meters, and 40G/100G up to 100 meters. If your module supports these distances and speeds over multimode fiber, it is likely OM3.

VCSE

L Compatibility: OM3 is laser-optimized, so modules designed for VCSEL-based transmission are typically OM3 or higher.

Summary

To confirm an optical module is OM3: Check the fiber core size (50 µm) and jacket color (aqua). Look for OM3 labeling on the module or cable. Use device commands to display transceiver information and verify multimode type, wavelength, and supported distances.

Confirm performance specifications match OM3 standards (2000 MHz·km, 10G/25G/40G/100G support). Combining visual inspection with device diagnostics ensures accurate identification of OM3 optical modules.

Article Content

How to Tell if My SFP is Single-Mode or Multimode?

Employ a power meter or an Optical Time-Domain Reflectometer (OTDR) to ascertain the optical attributes of your SFP (Small Form-Factor Pluggable) module and discern whether it

Multimode Fiber: OM1 to OM5 – MapYourTech

This comprehensive guide explores the five primary categories of multimode fiber—designated as OM1, OM2, OM3, OM4, and OM5—each representing progressive

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4 vs OM5

Identified by ISO 11801 standard, multimode fiber optic cables can be classified into OM1 fiber, OM2 fiber, OM3 fiber, OM4 fiber and newly released OM5 fiber. The next part will compare

OM1 vs OM2 vs OM3 vs OM4 vs OM5 Multimode Fiber Guide | EDGE

Compare OM1, OM2, OM3, OM4, and OM5 multimode fiber specs, distances, bandwidth, and applications. Essential guide for data center fiber selection.

Multimode Fiber Guide: OM1 to OM5 | PHILISUN

OM3 is a laser-optimized multimode fiber commonly used for 10G links and shorter 40G or 100G multimode connections. It is a practical option when link distances are modest and the project

Displaying Optical Module Information

Run the display transceiver diagnosis interface [interface-type interface-number] command to view diagnostic information about a specified optical module. This command displays the digital diagnostic

Fiber Type: Identifying Installed Fiber Optic Cables

The OM3 notation indicates that this cable is multimode grade OM3. On other cables, you might see codes like this incorporating -OM2, -OM4, or -OS2, which also correspond to the grade of optical glass.

2025 How to Identify Single-Mode vs. Multimode SFP Modules for

Learn how to identify single-mode and multimode SFP modules with our comprehensive guide. Explore SFP features, testing methods, and compatibility.

How to distinguish whether an optical fiber module is single-mode or ...

First, we can look at the wavelength parameters of the optical module. Generally, the wavelength of the optical fiber module is 850nm, and the optical fiber module is a multimode optical

How To View Optical Transceiver Information On H3C Switches

Optical modules are commonly used in switches, network cards, routers and other communications equipment, in the process of using the optical module information can be read to

Optical module – A comprehensive exploration

The optical module is one of the core devices of the optical communication system, and its development has a vital impact on its related industrial chain. So, what is an optical module? How

400G Optical Modules Explained: SR4 Vs. DR4 Vs. FR4 Vs. LR4

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Cisco 10GBASE SFP+ Modules Data Sheet

Product overview The Cisco® 10GBASE SFP+ modules (Figure 1) give you a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise wiring closet, and service provider transport

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Core Diameter: 9/125µm OS2 vs 50/125µm OM3 The core diameter dictates what wavelength of light the cable carries. OS2 single-mode fiber uses a 9µm core for 1310nm to 1550nm lasers, which

Optical Module Troubleshooting

Check whether an optical module that is certified for Huawei data center switches is installed on the optical interface. The CE series switches must use optical modules that are certified

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Optical Module Technology Roadmap | 800G to 3.2T Evolution

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

