

The color of the optical module pull ring mainly indicates



Overview

The meaning of the optical module with different color pull ring Their main function is to identify the type, wavelength, and function, allowing technicians.

Key Takeaways

The color of an optical module pull ring indicates its wavelength, fiber type, and transmission distance, allowing technicians to quickly identify the module without removing it. Core Function of Pull Ring Colors

The pull ring color on an optical module is not merely decorative; it serves as a visual identifier for the module's operating wavelength, fiber type (single-mode or multi-mode), and typical transmission distance. This helps technicians perform rapid installation, troubleshooting, and inventory management without needing to read detailed labels or datasheets .

Common Color Codes for SFP/SFP+ Modules

- Black (850nm) – Multimode fiber, short-distance transmission (up to ~550m)
- Blue (1310nm) – Single-mode fiber, medium-distance transmission (up to ~10km)
- Purple (1490nm) – Often used for bidirectional (BiDi) single-fiber modules, medium-distance applications such as GPON/FTTx

- Yellow/Green (1550nm) – Single-mode fiber, long-distance transmission; yellow typically for 40km+, green for ultra-long distances up to 80km or more
- BiDi (Bidirectional) Modules

BiDi modules transmit and receive on a single fiber using different wavelengths in each direction. Pull ring colors indicate the Tx/Rx wavelength pairing, ensuring correct module matching at both ends of the fiber link .

CWDM Modules

Coarse Wavelength Division Multiplexing (CWDM) modules use 18 distinct wavelengths from 1270nm to 1610nm, each with a unique pull ring color. This allows technicians to quickly select the correct wavelength module for dense wavelength deployments and simplifies port mapping in complex networks .

High-Speed Modules (10G/40G)

- 10G SFP+: Red pull tab = ER 40km, White pull tab = ZR 80km
- 40G QSFP+: Beige pull tab = 850nm SR4, short-distance high-speed transmission (~150m) These color codes help distinguish high-speed modules and their transmission ranges .

Notes on Usage

- Color universality limitations: The same color may represent different wavelengths in different module types (e.g., green in conventional vs. CWDM modules).
- Manufacturer variations: Some vendors may use custom color schemes; always verify with the module label or datasheet.
- Package types: SFP, SFP+, QSFP, and QSFP28 generally follow similar color coding rules, but high-speed or special-wavelength modules may have unique colors . Using pull ring colors effectively reduces installation errors, ensures proper wavelength matching, and improves network reliability. Always confirm the color with the module label and network documentation before deployment .

Article Content

The meaning of the optical module with different color pull ring

Their main function is to identify the type, wavelength, and function, allowing technicians to quickly determine its type and use case

Meaning of Optical Module Pull Tap Colors

The color of the optical module pull tap is not just for aesthetics. Its core function is to quickly identify the module's applicable fiber

How to Identify Optical Transceiver Wavelengths by Pull-Tab Color□

In the field of fiber optic networking, identifying the right transceiver quickly is essential to maintain high performance

How to Distinguish the Wavelength by the Color of the Pull Ring of the ...

10G dual-fiber optical module mainly has three wavelengths: 850nm, 1310nm, and 1550nm. The color of the pull ring corresponding

Optical Module Pull Tab Colors: The Ultimate Guide to SFP, QSFP,

While small, the colored pull tab on an optical module holds essential technical information. This guide explains how to

Color of the pull ring for a single-fiber optical module

The color of the optical module pull tap is not just for aesthetics. Its core function is to quickly identify the module's applicable fiber

Introduction of SFP Optical Module| Four-Faith

Generally, manufacturers will distinguish the color of the pull ring. For example, the black pull ring is multi-mode and

How to Identify Optical Transceiver Wavelengths by Pull-Tab Color□

One key method of visual identification is the color of the transceiver's pull tab, which corresponds to its wavelength.

How to distinguish the wavelength by the color of the pull ring of the ...

See the table for details: For the CWDM optical module,the color of its pull ring is colorful,with a total of 18 wavelengths.The

THE MEANING OF THE OPTICAL MODULE WITH DIFFERENT COLOR PULL RING

QSFP optical module pull ring color transmission distance ① Multimode fiber optic module: The pull tap is black, corresponding to a

The blue pull ring on the optical module indicates single-mode

The blue pull ring on the optical module indicates single-mode The pull tab color is a visual coding system designed for rapid

Color of the pull ring for a single-fiber optical module

10G single fiber optical module wavelength and pull ring color are 1270nm (black), 1330nm (blue), 1490nm (purple), 1550nm (yellow).

Explanation Of SFP Optical Module Plugging And Unplugging

After installing the optical module, insert the corresponding fiber jumper horizontally into the module (multimode fiber)

Titanium alloy optical module pull ring

The existing optical module pull ring is mainly characterized in that a colored sleeve made of high-temperature-resistant PVC

The optical module must have a pull ring

The external accessories are composed of a shell, a base, a PCBA, a pull ring, a buckle, a unlocking piece, and a rubber plug. The

Understanding SFP Modules: Wavelength and Color Codes

Each SFP module operates at a specific wavelength, and to avoid confusion, manufacturers use color-coded pull rings for easy

Color Distance of Optical Module Pull Ring | SFS Enclosure Systems

The meaning of the optical module with different color pull ring Their main function is to identify the type, wavelength, and function,

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