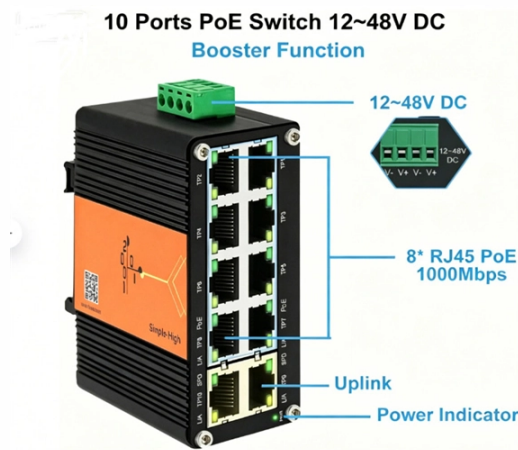


Single-mode fiber OS2



Article Overview

OS2 is a single-mode fiber optimized for long-distance, high-speed outdoor applications, offering low attenuation and support for up to 100 Gbit/s over distances up to 200 km.

Overview

OS2 fiber is a single-mode, low-water-peak fiber that complies with ITU-T G.652C and G.652D standards, typically referring to G.652D in practical deployments . Unlike OS1, which is designed for indoor, short-distance use, OS2 is engineered for long-distance transmission and outdoor environments, making it ideal for backbone networks, campus interconnections, and high-speed Ethernet links .

Key Characteristics

- Core Size: Approximately 9 μm , guiding light in a single straight path to minimize modal dispersion .
- Attenuation: Maximum of 0.4 dB/km at 1310 nm and 1550 nm, significantly lower than OS1's 1.0 dB/km, enabling longer transmission distances .
- Maximum Distance: Supports up to 200 km, compared to OS1's 10 km, depending on network speed and wavelength .
- Speed Support: Capable of handling 1G, 10G, 40G, and 100G Ethernet connections, making it suitable for modern high-bandwidth networks .
- Cable Construction: Typically uses a loose-tube or blown fiber design, allowing the fiber to stretch without tension, which protects it in outdoor installations .
- Wavelength Range: Supports full-band CWDM and DWDM applications due to low...

Article Content

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ISO/IEC 11801 fiber optic labels: OS for singlemode, OM for multimode. OM1-OM4 & OS1-OS2 vary by performance & material.

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Single-mode optical fiber

In fiber-optic communication, a single-mode optical fiber, also known as fundamental- or mono-mode, is

Aug 23, 2025

Comprehensive Resolve OS2 Single Mode Fibers FAQ

Comprehensive Resolve OS2 Single Mode Fibers FAQ By fiberlife. Posted on July 4, 2024 In today's information age,

Contact Us

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