

Optical cable OS1



Summary of Content

OS1 is a single-mode fiber optic cable designed for indoor, short- to mid-range applications, offering low attenuation and high-bandwidth transmission over distances up to 10 km.

Overview of OS1 Fiber

OS1 is a type of single-mode fiber (SMF) with a very small core diameter of approximately 9 microns, allowing light to travel in a single path, which minimizes signal dispersion and supports high-speed data transmission. This design makes OS1 ideal for indoor installations, such as inter-rack connections in data centers, enterprise backbones, and campus networks.

Technical Specifications

- Core Diameter: 9 μm
- Attenuation: Maximum 0.4 dB/km at 1310 nm and 0.3 dB/km at 1550 nm
- Bandwidth: 200 MHz·km at 1310 nm
- Maximum Distance: Up to 10 km at 10 Gbps without signal amplification
- Construction: Tightly buffered with dual-layer protective coating (plastic + waterproof acrylate), enhancing flexibility and crush resistance

Applications

OS1 is primarily used for indoor, short-distance links where single-mode performance is required. Typical use cases include:

Article Content

OS1 vs OS2 Fiber, What is the Difference?

OS1 fibers are encased in a thick polymer jacket and are typically used in cable

Fiber Optic Cables: Unraveling the Differences Between

While a comprehensive list of design differences could fill several volumes, this concise

What is the difference between OS1 and OS2 SMF fiber

Among the different types of fiber optic cables, single-mode fiber (SMF) cables, such as

Single-Mode Fiber Cable Guide: Types, Specs & Selection

This comprehensive guide explores Single-Mode Fiber Optic Cable, covering technical specifications, deployment

OS1 vs OS2: Which Single Mode Fiber Optic Cable Is Right for You?

Picture OS1 vs OS2 as two skilled architects—one designing a cozy office retreat, the other a sprawling urban

Fiber OS1 OS2 OM3 OM4 OM5: Practical Network Cabling Guide

OS1 and OS2 have the same 8-10 μm core and are optically compatible — transceivers designed for OS1 work with OS2 and vice

OS1/OS2 Singlemode Optical Fiber

PANDUIT OS1/OS2 fibers meet or exceed numerous standards for optical fiber, including ITU-TG.652 (Categories A, B, C and D),

OS1 vs OS2: The Ultimate Guide to Single-Mode Fiber Optic Cables

In the world of telecommunications and high-speed networking, single-mode fiber optic cables are the gold standard

Differences between OS1, OS2, & OM1, OM2, OM3,

OM and OS are fiber optic cable categories used to describe multimode and singlemode

Differences_between_OM1__OM2__OM3__OM4_ copy

What are OM and OS type fiber optic cables? Fiber optic cables used in telecommunication are broadly categorized in two types -

Fiber Optic Cable Types * | Single Mode

OS1 (Optical Single Mode 1) is a single mode fiber optic cable which has tight-buffered structure. This type of fiber optic cable is

OS1 vs OS2 Single Mode Fiber: Key Differences, Use Cases & Best ...

Discover the key differences between OS1 and OS2 single mode fiber. Learn specifications, applications, and which

OS1 Vs OS2 Fiber, What Is The Difference? (2026)

OS1 optical fiber cables are specifically designed for indoor network infrastructures, making them an excellent choice

OS2 vs OM1 OM2 OM3 OM4 OM5 Fiber Cable Differences

Understand OS2, OM1, OM2, OM3, OM4, OM5 fiber optic cable types and their applications in networking systems.

OS1 vs OS2 Fiber, What is the Difference?

Q: What single-mode fiber cable do you provide? A: We can provide both OS1 and OS2

Fiber Optic Cable Types: OS1, OS2, OM1-OM5 Explained

This guide decodes every fiber optic cable type that matters in real-world structured cabling projects: the two

OS1 vs. OS2, OM3 vs. OM4 vs. OM5

Entdecken Sie die wichtigsten Unterschiede zwischen OS1- und OS2-Singlemode-Fasern und OM3-, OM4- und OM5

Single Mode Fiber: Types and Applications

Single mode fiber (SMF) is a type of fiber optic cable that only allows one light mode to transmit at a time. Generally,

OS1 vs. OS2

Single-mode optical fiber cable (SMF) is classified into two categories; OS1 and OS2. These two kinds of optical fiber

OS1 vs OS2: The Ultimate Guide to Single-Mode Fiber Optic Cables

OS1, often called “indoor” or “premises” fiber, is optimized for tight-buffered constructions in controlled environments.

OS1, OS2 vs OM1-OM5 Fiber Cables: Differences, Speeds, and

Explore the differences between OS1, OS2 (single-mode) and OM1, OM2, OM3, OM4, OM5 (multimode) fibers. Learn

OS1 vs OS2 Fibre Cable: A Complete Comparison

When you decide to install fibre optic cables, you have to be familiar with every type, as each serves a different

Single Mode Fiber: OS1 vs OS2 Fiber

While both are single-mode fibers designed for long-distance, high-bandwidth transmission, understanding the key

OS1 vs OS2, OM3 vs OM4 vs OM5 - Fiber Optic Cable

Discover the key differences between OS1 and OS2 singlemode fibers, and OM3, OM4,

Contact Us

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