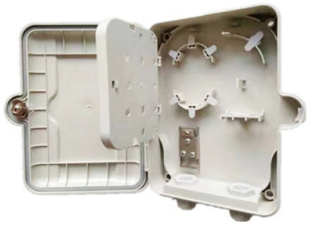
Four-core household optical fiber cable



Overview

Dimension 1.6mm±0. Imm(branch cord)/2.8mm±0. Imm (main cord) Material Stainless Steel Color Silvery White.

Key Takeaways

A four-core optical fiber cable contains four individual fibers within a single jacket, supporting duplex communication and redundancy for home or small-scale networks.

Structure and Components

A typical 4-core optical fiber cable consists of: Optical Fibers: Four strands of glass or plastic that carry light signals independently, allowing two duplex links or one duplex link with two backup fibers for redundancy. Buffer Tubes: Loose or tight buffers protect the delicate fibers; some cables use gel-filled tubes for additional protection. Strength Members: Aramid yarn (Kevlar) for indoor cables or steel wire for outdoor cables prevents stretching and mechanical damage.

Outer Jacket: Materials like LSZH (Low Smoke Zero Halogen) for indoor safety or PE (Polyethylene) for outdoor waterproofing.

Single-

Mode vs. MultimodeSingle-Mode (OS2): Supports long-distance transmission up to 100 km, ideal for FTTH connections. Multimode (OM3/OM4): Suitable for shorter distances within homes or buildings, typically used for LAN or campus networks.

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ApplicationsFour-core cables are commonly used for: Fiber-to-the-Home (FTTH) connections, linking the final user to the GPON line. Home or small office networks, providing high-speed internet and data transmission. Redundant links, ensuring network reliability with backup fibers.

Color Coding

Following the TIA-598-C standard, the first four fibers are typically colored Blue, Orange, Green, and Brown, which is important for splicing and termination. Testing and QualityHigh-quality 4-core cables undergo testing with Optical Time Domain Reflectometers (OTDR) to verify splice loss, measure length, and detect faults. Testing wavelengths often include 1310, 1550, and 1625 nm.

Pricing

Prices vary based on type, length, and jacket material: Basic indoor LSZH cables: around $0. 40 per meter. Ruggedized outdoor or armored cables: up to $1.

80 per meter. A 100-meter reel of single-mode OS2 cable typically costs $60–$90, with bulk discounts available for larger orders.

Summary

A four-core optical fiber cable is a versatile, reliable solution for household or small-scale networking, offering high-speed data transmission, redundancy, and compatibility with both single-mode and multimode systems. Proper selection of cable type, jacket material, and testing ensures long-term performance and safety.

Article Content

The Ultimate Guide to 4 Core Optical Cable: Specs,

This guide covers everything you need to know about 4 core fiber, including its internal structure, TIA standard color coding, and how to choose the

4 Core Optical Fiber Cable_Specification

Dimension 1.6mm±0. Imm(branch cord)/2.8mm±0. Imm (main cord) Material Stainless Steel Color Silvery White. UL94 V-0 (*Burning stops within 10 seconds on a veritcal specimen, no drips of

Opti-Core Fibre Optic Indoor-Outdoor 4 Fibre Cable ...

This cable has flame retardant and LSZH properties and is ideal for indoor installations The cable is water-blocked and well suited for installation in ducts and on trays indoors and limited outdoor use in

4 Core Optical Fiber Cable

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Our 4 Core FTTH Single Mode Optical Fiber Cables are designed to meet the specific needs of telecom operators and ISPs. They provide high-performance

How Many Cores Do You Need in Your Fiber Optic Cable?

One key factor is the number of cores, which impacts how much data you can transmit. This post will guide you through understanding fiber optic cores and selecting the perfect cable for...

4 Core Fiber Optic Cable Price List with OWIRE Solutions

Known for its commitment to engineering excellence and customer-focused innovation, OWIRE offers a comprehensive range of 4 core fiber optic

Nexans 4-core fiber optic cable, MM 50 multimode, IN / OUT

These specifications meet the general requirements and performance of Nexans 4-core fiber optic cable, which provides optical specifications, mechanical specifications and geometric specifications.

The Ultimate Fiber Optic Cable Size Reference Chart

How to Use This Chart Understanding fiber optic measurements doesn''t have to be overwhelming. Our comprehensive chart simplifies the process by outlining the key

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Quick Answer: Why Fibre Optics Is So Fast Fibre optic cables send data as laser or LED light pulses through thin strands of ultra-pure glass, travelling at approximately 200,000 kilometres

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How does fiber optics work?

An easy-to-understand introduction to fiber optics (fibre optics), the different kinds of fiber optic cables, and how light travels down them.

Recommendation ITU-T G.652 (08/2024)

This document outlines the specifications for a single-mode optical fiber and cable designed for use around the 1310 nm zero-dispersion wavelength, suitable for

Fiber-to-the-Home Market CAGR, size, share, trends, growth, value,

Fiber To The Home Market Fiber-to-the-Home Market Forecasts to 2034 - Global Analysis By Component (Optical Line Terminal (OLT), Optical Network Terminal (ONT), Optical Distribution

4-Core Single mode Fiber Optic Cable

4-Core Single mode Fiber Optic Cable also called 4-core Optical fiber cable,is a type of communications optic cable which has the same transmission speed as

Single-mode optical fiber

In fiber optics, a quadruply clad fiber is a single-mode optical fiber that has four claddings. Each cladding has a refractive index lower than that of the core.

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