

Article Overview

Outdoor single mode fiber optic cables are designed for long-distance, high-speed data transmission with robust environmental protection and ITU-T G.652.D compliance.

Key Features

Single mode fiber has a 9-micron core and 125-micron cladding, optimized for light wavelengths of 1310nm and 1550nm, making it ideal for long-distance communication . Outdoor-rated cables are typically indoor/outdoor hybrid, allowing installation in both aerial, duct, or direct-buried applications while resisting water, UV, and mechanical stress . Construction often includes:

- o Water-blocking Aramid yarn for tensile strength and moisture resistance
- o Black PVC or UV-resistant polyethylene jacket for environmental protection
- o Riser-rated (CMR) or gel-free designs for vertical tray or duct installations

Strand Count and Configurations

Outdoor single mode cables are available in various strand counts, commonly 2, 6, 12, or up to 144 fibers, depending on network requirements . Ribbon-style designs, such as SST-Ribbon, allow compact stacking of multiple fibers for high-density applications while minimizing ribbon movement during vibration .

Compliance and Standards

High-quality outdoor single mode cables are ITU-T G.652.D compliant, ensuring compatibility with legacy single mode fibers and supporting low-loss, high-speed transmission . Many cables also meet UL-1666 for riser applications and are RoHS compliant, ensuring safety and environmental standards .

Applications

These cables are suitable for:

- o Long-distance backbone networks
- o Inter-building connections
- o Vertical riser installations in buildings
- o Outdoor aerial or duct deployments
- o High-speed data centers requiring durable, low-loss fiber

Example Product



Outdoor Single-Mode Fiber Optic

A typical example is a 1000-foot spool of 6-fiber outdoor single mode cable with a black PVC jacket, water-blocking Aramid yarn, and Corning SMF-28(R) Ultra fiber, supporting 1310/1550nm wavelengths and exceeding ITU-T G.657.A1 bend radius requirements . Outdoor single mode fiber optic cables provide a reliable, high-performance solution for both indoor and outdoor network installations, combining long-distance capability with environmental durability.

Fiber cable assembly, indoor/outdoor, singlemode, riser, tight buffer, 2mm - 18? breakout, SC, SC, simplex, built to specified length,

CommScope outside plant fiber optic cables are meticulously designed to withstand the rigors of outdoor environments while

Product Description This is a black 500 foot spool of indoor/outdoor rated fiber optic distribution cable intended for long distance runs

Draka Single-Mode Fiber (SMF) provides optimum performance in both the 1310 nm and 1550 nm wavelength operation ranges

Learn more about high-performance indoor/outdoor fiber cables by CommScope. Enhance connectivity with precision.

How do you choose between single mode and multimode fiber? Compare their differences in core size, light source,

Our Armored Singlemode Fiber Optic Cables are designed for optimal performance and reliability in

This is an Outdoor gel-filled cable which provides extra protection against water penetration. Its dry

The flexible craft-friendly buffer tubes are easy to route in closures, and the SZ

High-Speed Performance--- The OS2 LC to LC Industrial TPU outdoor fiber optic cable is specifically

More information *SHIPS WITHIN 4-5 BUSINESS DAYS o FOR CUSTOM LENGTHS CALL US AT 855-880-8010***** 24 Strand

Not sure which fiber optic cable you need? Compare single mode vs multi mode,

Tightly buffered in a flexible, black, in/outdoor, water & UV resistant jacket, this fiber optic assembly



Outdoor Single-Mode Fiber Optic

comes with durable ceramic

GYXTW is an outdoor use optical fiber cable suitable for duct and aerial applications. We supply GYXTW

Fiber Optic Cable, Tight Buffer, Single-Mode, 12 Strand, TeraFlex®; Reduced water peak, 900 Micron, OFNR, Riser, Indoor/Outdoor,

Corning Cable Systems FREEDM®; One Cables are flame -retardant, UV

Web: <https://www.millstraining.co.za>

