

1310nm fiber optic cable for field operations



AI Overview

1310nm fiber optic cables are ideal for medium-distance, high-performance field deployments, offering low dispersion, low attenuation, and options for ruggedized or specialized applications.

Key Characteristics

Wavelength and Performance: 1310nm fibers operate in the O-band (1260–1360 nm), which provides minimal chromatic dispersion, making them suitable for medium-range communication such as metropolitan networks, campus backbones, and field operations where signal integrity is critical over several kilometers. They also exhibit low attenuation, allowing signals to travel longer distances without significant power loss.

Fiber Type: For field operations, single-mode fiber (SMF) is typically preferred due to its longer reach and lower signal distortion compared to multimode fiber (MMF). Single-mode 1310nm fibers can support data rates from 1 Gbps up to 100 Gbps, depending on the module and network design.

Specialized Field-Ready Options

Ruggedized Fibers: Certain fibers, such as the R1310-HTA, are designed for harsh environments. They offer improved radiation resistance and can withstand high electrical field strengths, making them suitable for military, industrial, or outdoor deployments.

Polarization-Maintaining Cables: For applications requiring stable polarization, PM1310 patch cables maintain signal integrity and minimize insertion loss, with high-quality connectors and protective caps to prevent contamination in field conditions.

Practical Considerations for Field Deployment

Connectors: Use high-quality ceramic FC/PC or similar connectors to ensure low return loss and reliable coupling in outdoor conditions.

Environmental Protection: Consider armored or jacketed cables to protect against moisture, abrasion, and temperature extremes.

Distance and Modules: Typical 1310nm modules support up to 10 km on single-mode fiber, making them suitable f...

Article Content

The FOA Reference For Fiber Optics

Topic: Optical Fiber Table of Contents: The FOA Reference Guide To Fiber Optics
Optical Fiber Fiber Optics is the communications medium that works by sending optical signals down hair-thin strands of

FTTH Butterfly Optic Cable Specification | PDF | Optical Fiber ...

The document outlines the specifications for FTTH Butterfly Optic Cable, detailing cable construction, performance parameters, and mechanical and environmental testing criteria. It includes various

Elfcam® – ELF-290 Mini Portable Fiber Optic

· High Performance: With single-mode wavelengths of 1310nm / 1550nm and a power of 24dB / 22dB, it guarantees precise measurements up to 60 km. Intuitive

Everything You Need to Know About 1310nm Optical

1310nm optical modules are essential for efficient data transmission in fiber optic networks, especially for medium distances. These modules offer low

Buy fiber optic couplers from the experts

Our fiber optic couplers impress with their low attenuation and high quality - ideal for all your fiber optic applications. Discover our customized special designs and benefit from our fast, reliable delivery. As

Best 5 Visual Fault Finders of 2025: Professional Fiber Optic Testing ...

Noah Bishop, Senior Fiber Optic Systems Analyst with 12+ years of experience in telecommunications infrastructure. Tested over 150 fiber optic testing devices in real-world field conditions.

Camplex 4-Channel LC Multimode OM1 Fiber Optic Tactical Reel

Extremely Rugged & Lightweight OM1 Orange 62.5 Micron Multimode Tactical Fiber Snakes Designed for Broadcast & Pro-Audio Applications! Ruggedized multi-channel fiber optic cables designed for

ELF-2900-D Mini Single-Mode OTDR with LC/APC Port, for Online

OTDR fiber optic port: LC/APC. Mini Fiber Optic Photometer Power Tester FTTH Optical Cable, Test Range: -50 dBm to +26 dBm VFL Visual Fault Locator 10mW with 650nm±20 to identify

DIGITUS OS2 Fibre Optic Cable

DIGITUS OS2 Fibre Optic Cable - 5 m - LC/APC to LC/APC - Simplex Fibre Optic Cable | SM Singlemode Fiber Optic LAN Cable - Fiber Type 9/125 μ - FTTH, FTTB & FTTx - Yellow: Amazon :

E78CU02GNZ16010M | EDGE™ 1.6 mm Single-mode Patch Cord,

Fiber Optic Cable Assemblies Indoor Cable Assemblies Two Fiber Indoor Cable Assemblies EDGE™ 1.6 mm Single-mode Patch Cord, LSZH™, CPR Dca Find a Distributor

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

This Recommendation describes a single-mode optical fibre and cable which has zero-dispersion wavelength around 1310 nm and can be used in the 1310 nm and 1550 nm regions.

The FOA Reference For Fiber Optics

Typically both transmitters and receivers have receptacles for fiber optic connectors, so measuring the power of a transmitter is done by attaching a test cable to the source and measuring the power at the

Ubiquiti Fiber Optic Patch Network Cable FC-SM-200

Ubiquiti Fiber Optic Patch Network Cable Single-Mode LC Fiber Cable Build your outdoor fiber network using our FiberCable. Lightweight and flexible, FiberCable is ideal for tower deployments of our

G.657.A2 optical fiber – wholesale supplies for telecommunications ...

G.657.A2 fiber optic cable for FTTH, FPV drones, military systems and data transmission. Wholesale supplies, technical documentation and individual conditions.

S1310-CMTA, Pure Silica Core Select Cutoff SM, Optical Fiber

Coherent NuSENSOR pure silica core single-mode fibers are immune to the damaging effects of hydrogen ingress, enabling Brillouin, Rayleigh and FBG based distributed temperature and strain

Camplex 4-Channel LC Multi Mode OM3 Fiber Optic Tactical Reel

Ruggedized multi-channel fiber optic cables designed for multiple deployments for field production in outside broadcast, rental houses and more. Highly flexible tight-buffered tactical cables with internal

ADSS Fiber Optic Cables Types Prices & Technical Specifications

What Is ADSS Cable? ADSS cable is a type of fiber optic cable that is strong enough to support itself between structures without containing conductive metal elements. Both single mode and multimode

Fiber Optic Troubleshooting for Plant and OT Engineers

Fiber optic troubleshooting guide for plant engineers: connector cleaning, VFL, OTDR event interpretation, power meter testing, and when to call a contractor.

2ZR6AA-10

The durable 2ZR6AA-10- 10" Multimode Duplex Fiber Optic Cable with ST-ST connectors help add fiber capability to industrial applications. 10 feet in length, diameter of 62.5/125, wavelength of 1310nm,

R1310-HTA, Radiation Resistant Select Cutoff SM Optical Fiber

R1310-HTA operates identically to SMF-28FA with improved radiation performance and can withstand high electrical field strengths, making it suitable for harsh environments.

Single-Mode Optical Fiber (SMF)

Draka Single-Mode Fiber (SMF) provides optimum performance in both the 1310 nm and 1550 nm wavelength operation ranges (including the 1565 – 1625 nm L-band), with a low dispersion in the

Mini Multimode OTDR ELF-2900-M, for 850nm MM Fiber Optic Test,

Mini Fiber Optic Photometer Power Tester FTTH Optical Cable, Test Range: -50 dBm to +26 dBm VFL Visual Fault Locator 10mW with 650nm $\pm$ 20 to identify an optical fiber, test its continuity, visually

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

Single Mode Fiber

These fibers are designed for operation in the 980 - 1650 nm wavelength range. The SM980-5.8-125 fiber has a mode field diameter (MFD) matched to other fibers

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://umele-pestovani.eu>

Email: info@umele-pestovani.eu

Phone: +49 152 287 6349

Address: Neue Mainzer Straße 66-68, 60311 Frankfurt am Main, Germany

This document is for informational purposes only. Specifications subject to change without notice.

