

# 3 Fiber optic or fiber cable for network use



## Overview

Fiber optic cables are, like their name suggests, a cable that uses light, rather than electricity to transmit information. They're made from silica glass fibers about the same width as a human hair, which allow the light to bounce back and forth down the length of the cabling. To prevent the light leaking out, and ensure it is reflected down the length of the cable, fiber optic cables, from the outside at least, don't look drastically different from many other kinds of cabling, since their outermost layer tends to be a colored plastic or silicon tubing. It's common for them to be white, grey, or black in color, but there are more colorful options available if that's useful. It can sometimes denote a specific fiber type. Fiber optic cables utilize light to transfer information, so they do so at light speed. However, the way the cables are constructed can have a dramatic impact on bandwidth and transmission distance. This isn't entirely different to the way some other cables, like copper patch cables, or HDMI cables, can have different maximum lengths based on the materials. Multimode fiber optic cables are characterized by a much broader internal core, measuring either 50µm or 62.5µm which allows multiple streams of data to be sent down the cable. This allows for the use of more affordable LEDs and vertical-cavity surface-emitting lasers (VCSELs) in their design, which typically makes multimode fiber optic cables much cheaper. Cable Matters produces a wide range of single mode and multi-mode fiber optic cable types, supporting a range of sizes/distances, and performance targets. If you're looking to expand a legacy fiber optic connection, or only need a very short, low-performance fiber optic cable, Cable Matters' OM1 multimode fiber optic cable is available at a low price.

## Article Content

Jul 30, 2025

### Fiber-optic cable

A fiber-optic cable, also known as an optical-fiber cable, is an assembly similar to an electrical cable but containing one or more optical fibers that are used to carry light.

Aug 12, 2025

### Ethernet Cables Types: Cat 3, 5, 5e, 6, 6a, 7, 8 Wires Explained

This tutorial explains the Definition of ethernet cables, ethernet cable types, shielded cables, and Ethernet cables categories like Cat 3, 5, 5E, 6, 6a, 7, 9 ETC.

Jan 14, 2026

### Fiber Optic Cable Types Explained

Our comprehensive guide to types of fiber optic cables. Learn all about the differences between single mode and multimode cables, as well as the various

Nov 02, 2025

### Submarine Cable FAQs

Submarine Cable 101 How many cables are there? As of 2026, we track more than 600 active and planned submarine cables. The total number of active cables is

Oct 28, 2025

### Fiber Optic Cable Market Demand and Growth Insights 2024

Fiber optic cables are essential for long-distance communication networks, submarine cables, and last-mile connectivity in urban and rural areas. Technological advancements in fiber optic cable design,

May 26, 2026

### Fiber Optics and Types

Fiber optics refers to the technology and method of transmitting data as light pulses along a glass or plastic strand or fiber. Fiber optic cables are used

Apr 13, 2026

### FOA Fiber U Lesson Plan: Basic Fiber Optics

Lesson Plan: Basic Fiber Optics, Introduction and Overview - Online Course With Certificate of Completion Intended For: Technicians already working in fiber

Mar 01, 2026

Optical networks

An optical transport network is a high-speed communication system that sends light signals over fiber-optic cables to move large amounts of data across long

May 10, 2026

Optical Fiber | Optical Fiber Products | Corning

Optical fiber broadband brings together a culture of innovation, quality, and manufacturing excellence to create life-changing products.

Dec 16, 2025

Single-mode optical fiber

In fiber-optic communication, a single-mode optical fiber, also known as fundamental- or mono-mode, is an optical fiber designed to carry only a single mode of light

Mar 31, 2026

Custom Cable Assembly Manufacturing | Fibertronics, Inc.

Fibertronics, Inc. is an SBA certified woman-owned small business providing USA manufactured customized fiber optic and low voltage cable assemblies, and

Sep 01, 2025

Types of Network Cables Explained: Cat5e, Cat6, Cat7

Learn about the most common types of network cables — Cat5e, Cat6, Cat6a, Cat7, and Fiber Optic — and how each one boosts your internet

Feb 25, 2026

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

Discover the key differences between OS1 and OS2 singlemode fibers, and OM3, OM4, OM5 multimode cables. Learn how to select the right fiber type

Jun 02, 2026

Cables, Adapters, Fiber, Network Add-ons & Tools | Computer Cable

Cables, Adapters, Fiber, Network Add-ons & Tools This 20m Multimode Duplex OM4 Fiber Optic Patch Cable (50/125) - LC to LC has ceramic ferrules and a 50/125 micron core, this cable is suitable for

Jul 02, 2025

How Many Core In Fiber Optic Cable Do I Need

Among them, the network only needs one route, occupying 2-core optical fiber; monitoring has 4 routes, occupying 1-core optical fiber. A total of 3

Nov 18, 2025

### Fiber Optic Cable Types: A Complete Guide

Choosing the right fiber optic cable is vital for maximizing performance, minimizing loss, and future-proofing your network. By

Aug 18, 2025

### Fiber Optic Splitter: How It Works & Types Guide

This guide demystifies fiber optic splitters, explaining their design, operating principles, types, key specifications, and real-world applications.

May 23, 2026

### Optical ground wire

An optical ground wire (also known as an OPGW or, in the IEEE standard, an optical fiber composite overhead ground wire) is a type of cable that is used in overhead power lines.

Aug 13, 2025

### Types of Fiber Optic Cables: A Comprehensive Guide

Learn about single-mode and multi-mode fiber optic cables, their components, uses, and how to choose the right type for your network needs.

Nov 17, 2025

### Fiber Optic Cable Types & What They Are Used For

What are Fiber Optics Cables Used For? Fiber optic cables (also known as optical fiber cable) are network cables that contain many strands of fine

Mar 24, 2026

### Multi-mode optical fiber

Multi-mode optical fiber is a type of optical fiber mostly used for communication over short distances, such as within a building or on a campus. Multi-mode links can

Aug 16, 2025

### Fiber Optic Cable Supplier, Distributor – Fosco Connect

Stocking distributor of fiber optic installation tools, bulk fiber cables, fiber patch cables, test equipment, cable management, fiber optic training and more.

Aug 29, 2025

### The FOA Reference For Fiber Optics

Measuring over a 40 to 60 dB range is challenging, and reflectance testing adds another problem, how to minimize the errors from other reflecting parts of the

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Home | Fiber SenSys Inc.

Fiber SenSys®, Inc., (FSI) is the market-leading manufacturer of fiber-optic intrusion detection systems for outdoor perimeters and physical data networks. FSI

Aug 19, 2025

### Top 3 Fiber Optic Cable Types and Uses

This article explores the top 3 types of fiber optic cable—single-mode, multi-mode, and plastic optical fiber—and breaks down how each is used in real-world

Jul 28, 2025

### Set Up a Fiber-Optic Network in Your Home or Office

This article will give you an overview of the use cases for fiber-optic networking, some of the terms used in fiber networking, and suggestions for

May 20, 2026

### Fiber Optic Cable Types Explained: Choosing the Right

Choosing the right fiber optic cable is vital for maximizing performance, minimizing loss, and future-proofing your network. By

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