

What does fiber optic cable fiber number mean



Article Overview

The numbers on a fiber optic cable indicate its specifications, including fiber type, core and cladding size, fiber count, bandwidth, and other installation-related parameters.

Fiber optic cables carry essential information for network design and installation, and the numbers printed on the cable provide this data. Common elements include:

- 1. Fiber Type:** Cables are often labeled as SM (single-mode) or MM (multi-mode). Single-mode fibers are used for long-distance communication with a small core (around 8-10 μm), while multi-mode fibers are for shorter distances with larger cores (50-62.5 μm).
- 2. Core and Cladding Diameter:** Numbers like 50/125 indicate the core diameter (50 μm) and cladding diameter (125 μm). The cladding surrounds the core and keeps light confined through total internal reflection.
- 3. Fiber Count:** A number such as 864F shows the cable contains 864 individual fibers. Higher fiber counts allow more data channels and redundancy.
- 4. Bandwidth and Transmission Distance:** Some cables include numbers in MHz-km, representing the data-carrying capacity over a distance. For example, 500 MHz-km means the cable can carry 500 MHz of data over one kilometer.
- 5. Physical and Installation Parameters:** Other numbers may indicate buffer coating diameter (e.g., 250 μm), cable diameter (e.g., 0.89 inches), weight per length, minimum bend radius, and maximum pulling tension. These are critical for proper handling, splicing, and installation.
- 6. Wavelength Optimization:** Some markings specify the wavelength the fiber is optimized for, such as 1310 nm or 1550 nm for single-mode fibers, which affects attenuation and signal quality.
- 7. Model and Distance Markings:** Cables may also include a model number and distance markings...

Article Content

Jan 20, 2026

The Ultimate Fiber Optic Cable Size Reference Chart

Fiber optics come in several variations, with differences in core size, attenuation, and alignment requirements. Here's

Sep 05, 2025

Fiber Type: Identifying Installed Fiber Optic Cables

OFCP: Optical Fiber Conductive Plenum LSZH: Low Smoke Zero Halogen OSP: Outside Plant Conductivity (Nonconductive vs

May 21, 2026

What do the numbers on fiber optic cable mean?

The numbers on fiber optic cables provide valuable information about the cable's specifications. These

Sep 12, 2025

Fiber Optic Cable Color Codes

Color codes are used in fiber optics to identify fibers, cables and connectors. In the photos above, on the

Nov 21, 2025

Fiber Color Code: A Simple Guide for Beginners (2024)

Therefore, we can quickly identify fiber optic cables that contain only one cable type by color. However, when the

Jun 10, 2026

Fiber-optic cable

Active elements are in white tubes and yellow fillers or dummies are laid in the cable to fill it out, depending on how many fibers and

Dec 09, 2025

What Do All The Colors Mean? Fiber Optic Color Code Explained

Fiber Optic Cable Jacket Colors These are used to determine the fiber classifications, fiber numbers, and sizes of

Jul 21, 2026

Fiber Optic Color Code: The Ultimate TIA-598-C Guide (2026)

Unless otherwise noted, in-building cables containing multiple fiber types must carry a printed legend on the jacket specifying the

Sep 16, 2025

Fiber Optic Cable Cheat Sheet dd

FIBER OPTIC CABLE CHEAT SHEET Key questions to help identify the correct fiber optic cable: 1. Do you know the fiber optic

Jul 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,

Sep 22, 2025

Multimode Fiber Types: OM1 vs OM2 vs OM3 vs OM4 vs OM5

Identified by ISO 11801 standard, multimode fiber optic cables can be classified into OM1 fiber, OM2 fiber, OM3 fiber,

Aug 30, 2025

The FOA Reference For Fiber Optics

Fiber optic cables come in lots of different types, depending on the number of fibers and how and where it

Mar 31, 2026

What Do All The Colors Mean? Fiber Optic Color Code Explained

Understand the fiber optic color code! Learn the meaning behind each color (blue, orange, green, etc.) for easy

Dec 23, 2025

What Is Fiber Optics? A Guide

Fiber optics technology uses light pulses to transmit data, resulting in quicker, more reliable data transfers between

Jan 18, 2026

Optical cable model meaning and optical cable specifications

The two digits are the thousands and hundreds digits of the fiber optic mode bandwidth classification value (MHz·km) in

Apr 27, 2026

What do the numbers on fiber optic cable mean?

Practical Applications Understanding the numbers on fiber optic cables is essential for several practical applications, including

Sep 08, 2025

Fiber Optic Cable 101

Understanding what these markings mean, how different fiber types behave, and where each one is typically used

Apr 11, 2026

Understanding Fiber Optic Cables and Connectors

Fiber Optic Cable Types and Attributes 2.2 Singlemode (SMF) vs. Multimode (MMF)
Fiber Optic Cables As

Jul 04, 2026

How to Choose the Suitable Number of Fiber Cores for Your Network

Fiber optic cables are essential to modern networks, enabling high-speed and reliable data transmission. Among their many features,

Jun 10, 2026

Fiber Optic Color Code: Comprehensive Guide | BradyID

Fiber optic cables are thin, flexible strands of glass or plastic used in telecommunications, data transmission and other applications

Jul 05, 2026

What are the count sizes of fiber optic cables?

Ultra-high count fiber optic cables (1,728 fibers) are installed to provide the maximum data throughput and future-proof the network.

Jul 21, 2026

Fiber Optics and Types

Fiber optic cables are used for long-distance and high-performance data networking. They are capable of transmitting

Feb 12, 2026

Fiber Optic Color Code Chart For 144 and 288 Count Cables

This is an update on a post we made a few years ago for a 144 count fiber color identification chart. Since then we have noticed

Nov 24, 2025

How Fiber Optics Work

Fiber-optic lines have revolutionized phone calls, cable TV and the internet. It's a really cool technology that enables the long

Contact Us

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

Website: <https://khanimamboguesthouse.co.za>

Email: sales@khanimamboguesthouse.co.za

Phone: +27 64 852 1973

Address: Unit 7, Greenway Business Park, 8 Innovation Drive, Centurion, 0157, South Africa

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

