

Parameter Table for Ordinary Optical Cables



AI Overview

Ordinary optical cables are characterized by their core and cladding dimensions, attenuation, dispersion, bandwidth, and transmission wavelength, which together determine their performance in data transmission.

Geometric Parameters

- Core Diameter: Single-mode fibers typically have a core of about 8–10 microns, while multimode fibers range from 50 to 62.5 microns .
- Cladding Diameter: Standard cladding is usually 125 microns for both single-mode and multimode fibers .
- Coating/Buffer: Protective polymer layers around the cladding, often 250 or 900 microns, provide mechanical protection .
- Mode Field Diameter (MFD): For single-mode fibers, MFD measures the transverse extent of the light field, typically around 9 microns at 1310 nm .

Optical Parameters

- Attenuation (Loss Coefficient): Measures power loss per kilometer, expressed in dB/km. Typical values are ≤ 0.18 dB/km for low-loss single-mode fibers at 1550 nm, and 0.4 dB/km at 1310 nm for standard OS1 fibers .
- Dispersion: Includes chromatic dispersion (pulse spreading due to wavelength dependence) and modal dispersion (in multimode fibers). Single-mode fibers like G.652 have chromatic dispersion around 17 ps/nm·km at 1550 nm

Article Content

Jun 16, 2026

Fiber Optic Cables

APPLICATION Optical cable for industrial environments. The cable is suitable for both indoor and outdoor installation. The outer

Nov 04, 2025

Fiber Optic Cable Specifications Guide

This document provides specifications for single mode and multimode optical fibers according to various ITU-T and IEC standards.

Jan 06, 2026

Optical Fiber and Cable Characteristics

In Table 1 (G.652.B) new Note 3 and Table 2 (G.652.D) new Note 5 describe usability of high PMD fibre and cable for system with

Mar 12, 2026

The FOA Reference For Fiber Optics

Topic: Optical Fiber Table of Contents: The FOA Reference Guide To Fiber Optics
Optical Fiber Fiber

Aug 10, 2025

Fiber optic cable Catalog

Fiber Optic Cables Technical Catalogue FTTH Optic Fiber Micro Cable Sample Fiber
Optic Micro Cable Optical Fiber Core

Feb 16, 2026

Optical fiber tables and chromatic dispersion specs

In this table, 802.3 has analyzed available information on connector loss, optical return loss and PMD in order to define optical

Mar 23, 2026

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

Nov 26, 2025

Mechanical Properties of Optical Fibers

Finally, we studied the effect of seawater in the zero stress aging of coated optical fibers. Such values are extremely relevant,

Jul 23, 2026

Specifications For Fiber Optic Networks

The Fiber Optic Association - Reference Guide Specifications For Fiber Optic Networks
Per current standards and specs, maximum

Jan 14, 2026

Single-Mode Optical Fiber (SMF)

First class reliability thanks to Draka proprietary processes and coating system Draka Single-Mode Fiber (SMF) provides optimum

Jun 30, 2026

Fiber Optic Cable Specifications Guide

Fiber Optic Cable Specifications Guide This document provides specifications for single mode and multimode optical fibers according

Jul 09, 2026

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

Characteristics of a single-mode optical fibre and cable Summary Recommendation ITU-T G.652 describes the

Mar 27, 2026

FIBER PROPERTIES & SPECIFICATIONS

General Description There are various types of fibers with their unique properties and specifications that made them suitable for

Mar 23, 2026

Optical fiber tables and chromatic dispersion specs

Optical fiber and cable characteristics Clause 151.11 specifies fiber cables meeting G.652B/D and G.657A1/A2 satisfy the

Aug 11, 2025

Optical Fibre Cable Technical Specification

The standard optical cable structure is shown in the following table, other structure and fibre count are also available according to

Oct 19, 2025

7 Important Parameters of Optical Fiber

As optical fiber forms just one aspect of wider passive infrastructure, it's important to have an

Apr 30, 2026

Reference Guide to Fiber Optic Testing

Fiber optic systems provide greater capacity than copper or coaxial cable systems. lighter and smaller than copper cable. Therefore,

Dec 07, 2025

Optical Fiber Parameters Ep1

Communication with Fiber Optic Cable(Optical Fiber Parameters) Main network connection Mobile phones, Internet or data

Jul 17, 2026

Fibre Optic Cable

Categories OS1 and OS2 are related to cable transmission performance. See table bellow. The cable must meet the requirements of

Nov 10, 2025

Optical Fiber and Cables | Springer Nature Link

This chapter gives an overview and introduces application scenarios for optical fibers and cables in optical communications. The use

Apr 29, 2026

Handbook Optical fibres, cables and systems

The optical fibres are specified in ITU-T with reference to the geometrical, optical, transmission and mechanical attributes listed in

Sep 09, 2025

The FOA Reference For Fiber Optics

Designers of fiber optic cable plants and networks depend on these specifications to determine if networks

May 27, 2026

Fiber Optic Basics

Fiber Optic Basics Optical fibers are circular dielectric wave-guides that can transport optical energy and information. They have a

Oct 25, 2025

Fiber Optic Cables

Armoured and Flame retardant optical fibre cable, AICI - code F104 NEK TS 606:2016 (available also in MUD protected version).

Jul 26, 2025

Optical Fiber Product Information Sheets

An all inclusive list of the various optical fiber specification sheets.

Contact Us

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

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

Email: sales@ntmmgroup.co.za

Phone: +27 82 471 2596

Address: Unit 7, Optic Park, 24 High-Tech Lane, Century City, Cape Town, 7441, South Africa

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

