



Optical Fiber CABLE

TECHNICAL DATA SHEET

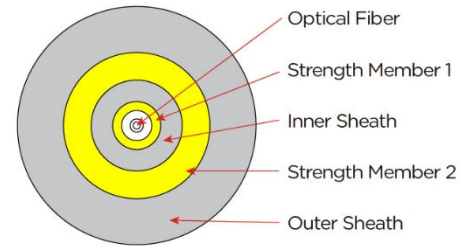
Round Simplex Optical Fiber Cable Indoor 1 Core Single Mode / Multi Mode



Round Simplex Optical Fiber Cable Indoor 1 Core **Single Mode / Multi Mode**

Product Description

The Round Simplex Optical Fiber Cable is a compact and flexible indoor optical fiber cable designed for reliable fiber transmission and easy installation in indoor telecommunication and data communication networks.



The cable consists of one optical fiber protected by a tight-buffer layer, aramid yarn strength members and an outer LSZH jacket. It is available in both Single Mode and Multi Mode fiber types and is suitable for indoor connections, patch cords, pigtails, equipment connections and FTTx applications.

The tight-buffered construction provides good mechanical protection and allows easy stripping and direct termination during installation.

Features

- 1 Core optical fiber construction
- Available in Single Mode and Multi Mode
- Compact and lightweight round cable design
- Tight-buffered optical fiber construction
- Aramid yarn strength member for mechanical protection
- LSZH outer jacket for indoor applications
- Excellent flexibility and easy routing
- Easy stripping and field termination
- Good tensile and crush resistance



- Suitable for tight installation spaces
- Excellent mechanical and environmental characteristics

Applications

- Indoor Fiber Optic Cabling
- FTTH and FTTx Networks
- Data Center Cabling
- Telecommunication Networks
- Indoor Distribution
- Fiber Optic Patch Cords
- Fiber Optic Pigtails
- Equipment Interconnection
- Optical Distribution Frames (ODF)

Cable Construction

Item	Cable Element	Description
1	Optical Fiber	1 Core Single Mode / Multi Mode
2	Fiber Coating	250 μm
3	Tight Buffer	600 μm / 900 μm
4	Strength Member	Aramid Yarn
5	Outer Jacket	LSZH
6	Cable Structure	Round Simplex
7	Fiber Count	1 Core

Fiber Type

Fiber Category	Fiber Specification
Single Mode	9/125 μm
Single Mode	G.652.D / G.657.A1 / G.657.A2
Multi Mode	50/125 μm OM1 / OM2 / OM3 / OM4
Multi Mode	62.5/125 μm OM1

Single Mode Optical Characteristics

Parameter	G.652.D	G.657.A1/A2
Fiber Type	Single Mode	Single Mode
Fiber Size	9/125 μm	9/125 μm
Attenuation @ 1310 nm	≤ 0.40 dB/km	≤ 0.40 dB/km
Attenuation @ 1550 nm	≤ 0.30 dB/km	≤ 0.30 dB/km
Cable Cut-off Wavelength	≤ 1260 nm	≤ 1260 nm
Operating Wavelength	1310 / 1550 nm	1310 / 1550 nm

Multi Mode Optical Characteristics

Parameter	OM1 62.5/125 μm	OM2/OM3/OM4 50/125 μm
Fiber Type	Multi Mode	Multi Mode
Core Diameter	62.5 μm	50 μm
Cladding Diameter	125 μm	125 μm
Attenuation @ 850 nm	≤ 3.5 dB/km	≤ 3.5 dB/km
Attenuation @ 1300 nm	≤ 1.5 dB/km	≤ 1.5 dB/km
Operating Wavelength	850 / 1300 nm	850 / 1300 nm
Typical Application	LAN / Data Communication	High-Speed LAN / Data Center

Cable Mechanical Characteristics

Parameter	Specification
Fiber Count	1 Core
Tight Buffer Diameter	600 μm / 900 μm
Outer Cable Diameter	1.6–3.0 mm

Strength Member	Aramid Yarn
Jacket Material	LSZH
Tensile Strength – Short Term	100 N
Tensile Strength – Long Term	60 N
Crush Resistance – Short Term	500 N/100 mm
Crush Resistance – Long Term	100 N/100 mm
Minimum Bend Radius – Installation	10 × Cable OD
Minimum Bend Radius – Static	10 × Cable OD
Operating Temperature	-20°C to +60°C
Storage Temperature	-20°C to +60°C

Jacket Characteristics

Parameter	Specification
Jacket Material	LSZH
Jacket Type	Low Smoke Zero Halogen
Jacket Colour	According to fiber type / customer requirement
Construction	Round
Application	Indoor
Flame Retardancy	According to applicable standard

Smoke Emission	Low Smoke
Halogen Content	Zero Halogen

Dimensional Characteristics

Parameter	Typical Value
Tight Buffer Diameter	0.6 / 0.9 mm
Cable Diameter	1.6 / 1.8 / 2.0 / 2.4 / 2.8 / 3.0 mm
Cable Shape	Round
Number of Fibers	1
Approx. Cable Weight	2.5–8.0 kg/km

Environmental Characteristics

Parameter	Specification
Operating Temperature	-20°C to +60°C
Installation Temperature	-10°C to +50°C
Storage Temperature	-20°C to +60°C
Indoor Application	Suitable
Water Blocking	Not Applicable for Standard Indoor Version
UV Resistance	Not Required for Standard Indoor Version

Standards and Compliance

The cable shall be manufactured and tested in accordance with applicable optical fiber and cable standards, including:

- IEC 60794 – Optical Fiber Cables
- IEC 60793 – Optical Fibers
- IEC 60794-2 – Indoor Optical Fiber Cables
- IEC 60332 – Tests on electric and optical fiber cables under fire conditions
- IEC 60754 – Test on gases evolved during combustion of materials
- IEC 61034 – Measurement of smoke density
- YD/T 1258.2 – Indoor Optical Fiber Cables