

SC-type fiber optic cable



AI Overview

SC (Subscriber Connector) fiber optic cables are widely used for reliable, high-performance optical connections in telecom, data centers, and FTTH networks.

Overview of SC Fiber Optic Cables

SC fiber optic cables use a 2.5 mm ceramic ferrule housed in a square push-pull connector, providing a secure and easy-to-use connection. They are compatible with both single-mode (OS2) and multimode (OM3/OM4/OM5) fibers, making them versatile for long-distance and short-distance applications. SC connectors are known for low insertion loss (~ 0.25 dB) and high return loss, ensuring minimal signal degradation over time.

Types of SC Connectors

- SC-UPC (Ultra Physical Contact):** Features a flat end-face polish, suitable for general data transmission in LANs, data centers, and Ethernet networks. Return loss is typically ≥ 50 dB.
- SC-APC (Angled Physical Contact):** Has an 8° angled end-face to minimize back reflection, ideal for GPON, CATV, and high-speed telecom applications. Return loss is typically ≥ 60 dB.

Connector Configurations

- Simplex SC:** Single fiber for unidirectional data flow, used in point-to-point connections.
- Duplex SC:** Two fibers for bidirectional communication, commonly used in FTTH and data center links.
- Hybrid SC-LC:** Allows connectivity between SC and LC cables using adapters or hybrid patch cords.

Applications

- Telecom Networks:** SC/APC connectors in PON systems reduce reflections and maintain signal integrity.
- Data Centers:** Duplex SC connectors support short-reach multimode links and structured cabling.
- FTTH Deployments:** SC connectors provide reliable subscriber connections with easy installation and maintenance.
- CATV and Video Systems:** SC-APC ensures minimal signal loss and high-quality transmission.

Installation and Maintenance

- Preparation:** Use fiber cleavers, strippers, and testing instruments to prepare the cable.
- Connector Attachment:** Insert the cleaved fiber into the SC ferrule and secure it; polish if required to reduce back reflection.
- Testing:** Measure insertion loss and return loss u...

Article Content

TeciSoft Axiom Sc/St, 3M Fibre Optic Cable Om3 Blue

SC/ST 10G Multimode Duplex OM3 50/125 Fiber Optic Cable 3m Axiom SC/ST, 3m. Cable length: 3 m, Fibre optic type: OM3, Connector 1: SC, Connector 2: ST, Core diameter: 50 µm, Full duplex Axiom

Everything you need to know about fiber optic termination

Fiber Optic Termination Tutorial We terminate fiber optic cable two ways - with connectors that can mate two fibers to create a temporary joint and/or connect

Infinite Cables US OS2 Singlemode Simplex LC/SC 9 Micron

Physical Characteristics Color Yellow Cable Diameter 3mm Fiber Size 9/125 micron Fiber Type Singlemode Glass Manufacturer Corning Glass (ClearCurve LBL) Connector Ferrules Ceramic Fiber

Complete Guide to Fiber Optic Cables for Data Centers

Everything you need to know about fiber optic cables for data center deployments. Covers OS2, OM3, OM4, OM5 cable types, LC/SC/MPO connectors, and

Pre-Terminated FTTH Flat Drop Cable | Manufacturer

Factory-assembled pre-terminated FTTH flat drop cable with SC/UPC or SC/APC connectors for fast plug. Wholesale from AIMIFIBER Fiber Optic Cable.

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SC to LC 20m Fiber Optic Cable OS1

Get fast, reliable data transmission with the 20m SC to LC fiber optic cable. Perfect for data centers and home networks. Shop now for seamless connectivity!

Types of Fiber Connectors | LC, ST, SC

SC is arguably the most common type of fiber optic connector used today. Designed to be simple to use and inexpensive to produce, SC uses a

HOLIGHT Fiber Optic Manufacturer in China | Patch Cords

HOLIGHT is a global fiber optic manufacturer in China, providing patch cords, adapters, terminal boxes and FTTH solutions for worldwide telecom projects.

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Fiber Connector Types: A Comprehensive Guide 2025

The SC connector is one of the earliest and most enduring types in the fiber optic world. Known for its square shape and push-pull coupling, SC is

Understanding Fiber Connector Types ST SC LC FC

When working with fiber optic technology, you'll frequently encounter terms like SC UPC, LC UPC, SC APC, LC APC, FC APC, and FC UPC. These designations

Fiber Optic Cable Assembly Guide | LC, SC & ST Connectors Explained

Learn how to select and test LC, SC, and ST connectors for reliable fiber optic cable assemblies. Includes polish types, OFC

Fiber Connector Types

SC fibre optic connectors stand for square fiber optical connector, which features a square push-pull structure. The ferrule diameter of the SC

SC Fiber Connector Guide | Uses and Benefits

These diverse SC fiber connectors cater to a wide range of network needs, offering flexibility and compatibility in fiber optic connections. Whether you're setting up a

P-1101-5 5pcs SC Type Optical Fiber Waterproof Protective Box

1. ABS material, corrosion resistant, wear resistant, high hardness, high toughness 2. High temperature and heat resistant, tool-free installation, strong sealing 3. Fiber optic extension, tightly waterproof,

LC vs SC vs FC vs ST: A Complete Fiber Optic Connector Guide

The following guide systematically describes each connector type to help you make an informed selection for the connector that best suits your fibre-optic networking system.

The 2026 Fiber Optic Pigtail Guide: SN/CS/MDC, Bend

Discover the 2026 Fiber Optic Pigtail Guide—covering SN/CS/MDC VSFF connectors, bend-insensitive OS2 G.657.A2, OM5 ribbon pigtails and AI

Fiber Connectors

Fiber Optic Connectors are used to connect two runs of fiber optic cable and consist of an adapter assembly along with two plugs. The most popular versions include, push-on Square Connectors

Fiber Optic Connector Types Explained

Make sure you're choosing the correct fiber optic connector for peak performance. Learn more about fiber connector types in our guide.

3M Fiber Optic Patch Cords and Pigtails

3MTM Fiber Optic Patch Cords and Pigtails 3MTM Patch Cords provide the interface between distribution cables and active optical equipment. Patch cords are offered in simplex and duplex cable

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Differences Between ST, SC, FC, and LC Fiber

Q3: What is the difference between SC and LC connectors? A: LC is smaller (half the size of SC) and supports higher port density, making it the

What are SC connectors? | Connector Supplier

SC fiber-optic cable connectors are widely used in optical network applications, such as internet and cable TV. The name comes from the shape (square connector),

Fiber Pigtails

CommScope engineers and manufactures a complete line of high quality fiber pigtails

4 Core PLC/SC Adapter Fiber Optic Distribution Box

Efficient Fiber Organization□ Separate paths for cables, pigtails, and patch cords prevent interference, ensuring smooth operation and easy

StarTech 25m (82ft) LC to SC (UPC) OS2 Single Mode Duplex Fiber ...

OS2 LC to SC Single Mode Duplex Fiber Optic Patch cable facilitates connectivity across 100G networks. It supports Coarse Wavelength Division Multiplexing (CWDM) across an extended

What is an SC cable and how does it work? – Fiber

An SC cable, often referred to as an SC connector cable, is a type of fiber optic cable terminated with SC (Subscriber Connector) connectors on both

Contact Us

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

Website: <https://www.sky-connect.co.za>

Email: info@sky-connect.co.za

Phone: +44 20 7946 0958

Address: 1 Cornhill, London EC3V 3ND, United Kingdom

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