SC connector and FC interface



Overview

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.

Key Takeaways

To connect an SC connector to an FC interface, you can use an SC-to-FC fiber optic adapter or a hybrid SC-FC patch cable.

Understanding SC and F

C ConnectorsSC (Subscriber Connector) features a square body with a push-pull latch, a 2. 5 mm ceramic ferrule, and is widely used in telecom, FTTH, and data center applications for its ease of installation and reliable performance.

F

C (Ferrule Connector) has a round, threaded body with a 2. 5 mm ferrule, providing secure connections in high-vibration environments such as industrial or long-haul telecom systems.

F

C connectors are known for precise alignment and low signal loss but are less common in modern high-density data centers compared to SC or LC connectors.

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Connecting SC to FC

Since S

C and FC connectors have different shapes and locking mechanisms, direct mating is not possible. You have two main options: SC-to-FC AdapterA small mechanical device that allows an SC plug to mate with an FC receptacle. Maintains proper ferrule alignment to minimize insertion loss and reflection.

Available in single-mode or multimode versions, and with different polish types (UPC or APC) to match the fiber performance requirements. Hybrid SC-FC Patch CableA fiber optic cable terminated with an SC connector on one end and an FC connector on the other. Provides a ready-to-use solution without requiring an adapter.

Useful for connecting equipment with different connector types in patch panels or test setups.

Considerations

Polish Type Compatibility: Ensure both connectors use compatible polish types (UPC or APC) to avoid high return loss or signal reflection. Fiber Type: Match single-mode or multimode fiber to maintain optimal transmission. Insertion Loss: Using an adapter or hybrid cable introduces minimal additional loss if properly installed, typically less than 0.

5 dB. Environment: FC connectors are preferred in high-vibration or industrial settings, while SC connectors are easier to handle in standard telecom racks. By selecting the appropriate adapter or hybrid cable, you can seamlessly connect SC-terminated cables to FC interfaces while maintaining signal integrity and mechanical reliability.

Article Content

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

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

Compare LC, SC, FC & ST fiber-optic connectors — size, coupling, and ideal use cases — to help you choose the best fit for your network setup.

Differences Between ST, SC, FC, and LC Fiber

Learn the differences between ST, SC, FC, and LC fiber connectors. Explore connector types, PC/UPC/APC polish, single-mode vs multi-mode

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Fiber Connector Types: A Comprehensive Guide 2025

Discover the common fiber connector types. Learn the differences, uses, and best practices for SC, LC, ST, FC, MPO/MTP connectors.

SC vs LC vs FC vs ST Connectors Explained

Technical comparison of SC, LC, FC and ST fiber connectors including structure, ferrule design, coupling mechanism, and application use cases.

Fiber Connector Types

However, the widely used types are about a dozen of fiber optic connectors, which can be divided into single-fiber, duplex fiber connectors (such

Optical Fiber Termination Types Chart: SC, LC, FC, ST Comparison

Compare optical fiber termination types, including SC, LC, FC, and ST. View our chart and learn how to choose the right connector for your network.

Fiber Connector Types: Lc Vs Sc Vs St Vs Fc — Which

Compare LC, SC, ST and FC fiber connectors by form factor, insertion loss, durability and best use cases. Clear guidance for data center, FTTH, industrial

SFP Fiber Optic Connector Types: LC, SC, MPO Explained

Explore common SFP fiber optic connector types, including LC, SC, and MPO/MTP. Learn their differences, use cases, and compatibility.

Fiber Connectors Explained: SC, LC, FC, MPO & VSFF

Within the physical layer, fiber connectors define optical termination and interface boundaries. They sit between continuous transmission media (fiber) and system

SC/APC Fiber Optic Adapter: A Beginner''s Guide

An SC/APC fiber optic adapter is a passive mechanical interface used to join two SC connectors that have angled physical contact (APC) ferrules,

Tempo ASC-108/C Universal Connector Interface for the XL

This is a universal connector interface for the XL fiberTOOLS series, featuring an SC-PC ceramic connector. Ensures precise alignment, durability, and stable performance.

LVS EN 61754-4-100:2016

Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 4-100: Type SC connector family - Simplified receptacle SC-PC connector interfaces.

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Visual Fault Locator 50MW Rechargeable VFL Fiber Optic Cable Tester SC ...

Universal Compatibility: Equipped with a universal 2.5mm interface, this device is compatible with SC, FC, and ST connectors, ensuring wide usability across various fiber optic setups.

Fiber Optic Connectors Information

Shown in actual size: A connector size comparison between ST, SC, FC, and LC styles. The LC connector advantages are precision keying, low interface losses, and about 50% space savings.

Fiber Optic Connectors Guide: LC vs SC vs FC vs ST vs MTP/MPO –

Compare LC, SC, FC, ST, and MTP/MPO fiber connectors. Learn their structures, applications, advantages, and drawbacks to choose the right type for your network.

BYXGD Rack Mount Fiber Optic Terminal Box 4/8/12/24 Port SC/FC

Supporting SC/FC/ST/LC interfaces and available in multiple port configurations, it delivers impact resistance, easy installation, and long-term quality assurance for critical communication systems.□□

Optical Light Source | Cutting-Edge Optical

With a LC / SC patch cord, the Light Source can be used for most widespread fiber interfaces such as LC / ST / SC / FC connectors. It is suitable to test both

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