

What is FC in connector interface



AI Overview

An FC connector is a fiber optic connector with a threaded body designed for secure, low-loss connections in high-vibration environments.

Overview The FC connector (Ferrule Connector or Fiber Channel) is a type of fiber optic connector originally developed by NTT (Nippon Telegraph and Telephone) in the late 1970s as the "Field-Assembly Connector". It features a threaded screw-on mechanism that ensures a secure connection, making it ideal for environments subject to vibration, such as industrial, railway, or aviation systems. The connector is compatible with single-mode fibers and polarization-maintaining fibers, and it has historically been used in telecommunications, datacom, measurement equipment, and single-mode lasers.

Design and Components

- Ferrule:** The fiber end is embedded in a 2.5 mm ferrule, typically made of zirconia ceramic or stainless steel.
- Polish Types:** FC connectors can have different end-face polishes:
 - FC/PC (Physical Contact):** Standard rounded polish for low insertion loss.
 - FC/SPC (Super Physical Contact) and FC/UPC (Ultra Physical Contact):** Higher-grade polishes for reduced back-reflection.
 - FC/APC (Angled Physical Contact):** Polished at an 8° angle to minimize reflected light, suitable for very low back-reflection applications.
- Alignment Key:** Prevents the fiber from rotating during mating, ensuring precise core alignment.
- Threaded Body:** The screw-on design provides a dust-resistant, vibration-resistant connection, unlike push-pull or bayonet-style connectors.

Applications FC connectors are commonly used in:

- Telecommunications networks for secure fiber connections.
- High-precision measurement equipment.
- Single-mode laser systems.
- High-vibration industrial environments where stability is critical.

Although FC connectors are gradually being replaced by SC and LC connectors in modern high-density networks due to easier handling, they remain valued for their mechanical reliability and low signal loss.

Key Advantages Secure threaded connection prevents accidental disconnection. Low insertion loss.

Article Content

Fiber Connector Types • ST, FC, SC, LC, & MTP/MPO •

MTP connectors are equipped with a housing that is removeable so you can change, re polish or even change the gender of the connection from male to

Detailed Explanation of FC, ST, SC, and LC Fiber-Optic Interfaces

3.3 LC optical fiber connector: It is a small square connector made using the latch mechanism of a modular jack (RJ). The diameter of the ferrule and sleeve it uses is 1.25mm, which is

Fiber Connectors

Fiber connectors are connectors used as terminations of optical fiber cables. They are widely used in optical fiber communications and various other areas.

SC vs LC vs FC vs ST Connectors Explained

SC, LC, FC, and ST are the four most widely used connector interfaces in optical communication systems. Each connector differs in ferrule

Fiber Connector Types: A Complete Guide (2024)

A fiber connector is a precise coupling device to join fiber cables quickly. This guide introduces LC, SC, FC, ST, MPO, CS and many others.

Fibre Channel

Fibre Channel was designed as a serial interface to overcome limitations of the SCSI and HIPPI physical-layer parallel-signal copper wire interfaces.

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.

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

Fiber Connector Types: A Comprehensive Guide 2025

FC (Ferrule Connector) The FC connector features a threaded coupling, making it highly secure in high-vibration environments such as factories, railway networks, or aviation systems.

Understanding Fiber Connector Types ST SC LC FC with UDP or

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 refer to both the type of connector (LC,

Optical Fiber Connectors: FC, SC, ST, LC, and DIN Explained

Explore different types of optical fiber connectors like FC, SC, ST, LC, and DIN, their functions in connecting fiber cables and devices.

Fiber Connectors

FC Connector The FC was the first optical fiber connector to use a ceramic ferrule, but unlike the plastic-bodied SC and LC, it utilizes a round screw-type fitment

FuzzList/List-1 at main · KiRaaDz/FuzzList · GitHub

Contribute to KiRaaDz/FuzzList development by creating an account on GitHub.

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.

FC connector

The FC connector is a fiber-optic connector with a threaded body, which was designed for use in high-vibration environments. It is commonly used with both

Optical Fiber Connectors Explained: FC, SC, ST, and

Optical Fiber Connectors Explained: FC, SC, ST, and LC Optical fiber connectors are the physical interface of light-based communication, ensuring

FC Connector Explained

FC/APC Connectors come with different key widths tailored to specific loss requirements. Assembly of the FC Connector requires specific

LC Vs SC Vs FC Vs MPO Fiber Optic Connectors:

Compare LC, SC, FC, ST, MPO & MTP fiber optic connectors with expert insights. Learn which connector fits your data center or enterprise network

What is SC, ST, FC, LC fiber connectors?

FC connectors take longer to unplug compared to newer fiber optic connectors due to their threaded screw-on design. Additionally, the more

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 as FC, LC, SC), and multi-fiber connectors

The Ultimate Guide to FC Connector: Everything You

The FC connector or ferrule connector is synthesized for singlemode fiber optic optics and has become very popular because of its reliability. It has a

FC Connector Explained

Developed by NTT (Nippon Telegraph and Telephone) in the late 1970s as the "Field-Assembly Connector," FC Connectors were the first to feature a ceramic ferrule. They are compatible

FC connector

The FC connector (Fiber Connector) is a type of fiber optic connector that is commonly used in high-speed networking and telecommunications applications. It was originally developed by

Fiber Optic Connector Types Explained

What is a Fiber Optic Connector? Fiber optic connectors are an essential component of any fiber optic network, allowing for the connection and

Optical fiber connector

Optical fiber connector LC (top) and ST (bottom) optical fiber connectors, both with protective caps in place An optical fiber connector is a device used to link optical

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