

Features of Fiber Optic FC Interface



AI Overview

A fiber optic FC interface is a threaded ferrule connector designed for high-precision, low-loss optical connections, commonly used in single-mode fiber systems. Overview The FC (Ferrule Connector) interface is a type of fiber optic connector that uses a screw-on mechanism to secure the connection, making it highly reliable in environments with vibration or mechanical stress. It is primarily used with single-mode optical fibers and sometimes with polarization-maintaining fibers, ensuring stable signal transmission in telecommunications, data communication, and measurement equipment. Structure and Design An FC connector typically consists of three main components: Ferrule: Usually made of zirconia ceramic, stainless steel, or plastic, the ferrule holds the fiber in precise alignment to minimize signal loss. Threaded metal barrel: Provides the screw-type locking mechanism that prevents accidental disconnection and maintains a secure connection under vibration. Coupling nut: Engages with the threaded barrel to tighten the connection and ensure proper mating of fiber cores. The fiber end is polished to a physical contact (PC) finish, which allows the fiber cores to touch directly, reducing insertion loss and back-reflection. Variants include FC/PC, FC/SPC, and FC/UPC, with higher polish grades offering better performance. Applications FC interfaces are widely used in: Telecommunications networks for long-distance single-mode fiber links. Data communication systems where low insertion loss and high return loss are critical. High-precision measurement equipment and single-mode lasers. Environments with vibration, such as industrial or laboratory setups, due to the screw-on design. Advantages Secure connection: Threaded design prevents accidental disconnection. Low signal loss: Precision ferrule alignment and polished fiber ends reduce insertion loss. High reliability: Suitable for high-vibration or high-precision applications. Compatibility: Standardized under TIA/EIA-604-4 for intermateability. C...

Article Content

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

FC Connector Key Features

The FC Connector offers durability, support for high-speed data transmission (up to 64 Gb), and secure, stable connections with a threaded design. Learn more.

9 Best Fiber Optic Modem Router Combo | Skip the SFP+ Confusion

After examining nine models from brands like TP-Link, GL et, Synology, and ASUS, this guide cuts through the marketing to recommend the best fiber optic modem router combo for your specific

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.

Evolution Fiber Optic Sensor Data Acquisition Module by FISO ...

Overview The Evolution Fiber Optic Sensor Data Acquisition Module is a precision-engineered platform developed by FISO Technologies (Canada) for high-fidelity interrogation of Fabry-Pérot

FC Connector | Precision Fiber Optic with ACA Technology

The FC connector delivers stable, low-loss fiber connections using threaded coupling and Diamond's Active Core Alignment - ideal for telecom, industrial, and high-performance optical systems.

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

All Kinds of Fiber Optic Patch Cords – SC, LC, FC, ST Explained

Learn about SC, LC, FC, and ST fiber optic patch cords, their uses in FTTH, telecom, and data centers, and how to choose the right type.

Zhongke optoelectronics armored tpu fiber optic patch cord | sc/lc/fc ...

Zhongke Optoelectronic Armored Tpu Single-Mode Optical Fiber Jumper Single-Mode Dual-Core Dual-Material Optical Cable Pigtail Upc Carrier-Grade Sc-Sc to Lc-Lc-Fc-St Jumping

Fibre Channel (FC) interface

These modules may have Fibre Channel ports, Ethernet/iSCSI ports, or even NVMe-over-FC support. They ensure high-speed data transmission and redundancy in enterprise storage solutions.

Handheld TL-560 Fiber Optic Power Meter 10MW Laser Light Source

Handheld TL-560 Fiber Optic Power Meter 10MW Laser Light Source Visual Fault Locator Optical Communication Test Popis Color: As shown Material: Plastic Features High sensitivity, large

Fiber Optic Patch Panel | ODF Optical Distribution Frame (Rack

Optimize your network management with our high-density Fiber Optic Patch Panels and ODFs. Available in 1U/2U/4U rack mount and wall mount configurations, supporting SC, LC, FC, and ST

FI-7000 FiberInspector Pro Fiber Optic Inspection Scope

Fluke Networks FI-7000 FiberInspector Pro fiber optic inspection scope featuring 1-second automated PASS/FAIL certification of fiber optic connector end-faces.

Top 5 Fusion Splicers for 2025: Precision Tools for Fiber Optic Experts

Highlights Fusion splicers are essential for creating low-loss, high-performance fiber optic connections in telecom, FTTH, and data center applications. The best splicers offer core alignment,

Fiber Optic Patch Cord

Fiber Optic Patch Cord In this category, you will find various duplex and simplex LC/SC/FC/ST/Uniboot LC/MDC fiber optic patchcords, which are used to

8 Best OTDR Fiber Optic Testing Equipment (June

Discover the 8 best OTDR fiber optic testing equipment (June 2026). Our expert reviews highlight reliable, high-performance tools for accurate fiber

Harrick FiberMate2 Fiber Optic Coupler

OriginUSAManufacturer TypeDistributorOrigin CategoryImportedModelFIBERMATE 2PricingUpon Request Overview The Harrick FiberMate2 Fiber Optic Coupler is an engineered optical interface

Basics of Fiber Optics

Mark Curran/Brian Shirk Fiber optics, which is the science of light transmission through very fine glass or plastic fibers, continues to be used in more and more applications due to its inherent advantages

Understanding Fiber Connector Types ST SC LC FC with UDP or

It features a slightly curved end face that helps reduce air gaps between connected fibers. However, with a return loss of only ~40 dB, it has largely been replaced by more advanced versions.

Fiber Optic Couplers | Fiber Optical ST Couplers for Sale | RS

Discover fiber optic couplers for dependable light signal transmission and networking. Review types and order the right coupler now.

EGUAR EGDCRM-40M-A Coherent Receiver Module for Distributed Fiber Optic ...

FC/APC or FC/PC optical interface options support seamless coupling to both laboratory testbeds and ruggedized outdoor fiber networks. Low-power consumption (≤ 1.5 W) and compact form factor (120 ×

Fibre Optic Termination Techniques – Wray Castle

Introduction to Fibre Optic Termination Fibre optic termination is the process of preparing the end of a fiber optic cable so it can connect to network equipment, another cable, or a patch

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

It is an optical fiber connector that can be configured as duplex, triplex, or quadruplex, and is widely used in local area networks, fiber to the home, and the connection of optical modules in

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

10 Best Fiber Optic Fusion Splicer Machines (June

Discover the 10 best fiber optic fusion splicer machines (June 2026). Our expert reviews highlight reliable, high-precision splicers ideal for efficient

FC Connector Explained

The FC Connector offers a durable, threaded design for secure fiber optic connections. It is cost-effective and supports high-speed data transmission.

Contact Us

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