Lc fiber optic interface module



Overview

LC Fiber Optics: Guide to LC Connectors, ULL Cables, LC (Lucent Connector) is the world's dominant duplex optical interface, used across enterprise network.

Key Takeaways

An LC fiber optic interface module is a transceiver or network module that uses LC connectors to connect optical fibers, enabling high-density, low-loss data transmission in modern networks.

Overview of L

C ConnectorsLC stands for Lucent Connector, originally developed by Lucent Technologies for telecommunication applications. It is a small form factor (SFF) connector, roughly half the size of traditional SC connectors, making it ideal for high-density network environments such as data centers and enterprise LANs.

L

C connectors use a retaining tab mechanism and provide precise fiber alignment, ensuring low insertion loss and reliable optical signal transmission. They are compatible with both singlemode and multimode fibers and conform to TIA/EIA 604 standards.

L

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C Fiber Optic ModulesLC fiber optic interface modules, such as SFP or SFP+ transceivers, integrate LC connectors to physically interface with fiber patch cables. These modules convert electrical signals from network devices into optical signals for transmission over fiber, supporting high-speed data rates (e.g., 1G, 10G, or higher) and long-distance communication.

The L

C connector ensures precise light coupling between the module and the fiber, minimizing signal loss and maintaining high transmission quality. Key FeaturesHigh-density compatibility: Small form factor allows multiple modules in a single chassis or patch panel. Low insertion loss: Optimized fiber core alignment reduces signal degradation.

Versatility: Available in pre-assembled or multi-piece designs for on-site or factory assembly. Durability: Many modules feature robust metal casings and gold-plated contacts for stable performance in harsh environments. ApplicationsLC fiber optic modules are widely used in: Data centers: High-density leaf-spine architectures and backbone connections.

Enterprise networks: LAN and campus fiber deployments. Telecom and industrial networks: Long-reach or mission-critical fiber links.

FTT

A (Fiber to the Antenna): Wireless infrastructure requiring compact, reliable optical connections.

Related LC Products

The L

C ecosystem includes: LC patch cables for connecting modules to network devicesLC adapters and patch panels for structured cabling and fiber managementLC attenuators and media converters for signal optimization and protocol conversionMTP/MPO-to-LC cassettes for high-density backbone integration Deployment ConsiderationsWhen deploying LC fiber optic modules: Ensure connector type matches the patch cable to avoid adapters and additional insertion loss. Maintain cleanliness and proper alignment to prevent signal degradation. Consider module type and data rate compatibility with network switches or routers.

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C fiber optic interface modules provide a compact, reliable, and high-performance solution for modern optical networks, supporting scalable, high-speed, and low-loss fiber connectivity across diverse applications.

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Article Content

LC Fiber Optics: Guide to LC Connectors, ULL Cables,

LC (Lucent Connector) is the world''s dominant duplex optical interface, used across enterprise networks, telecom infrastructure, and especially

LC Fiber Optics: A Comprehensive Guide

LC fiber optic solutions encompass a wide range of types and applications, including LC connectors, fiber patch cables, adapters and patch

LC Fiber Optics: Complete Guide 2026 to Patch Cables,

This guide provides a fully updated and industry-ready overview of LC fiber optics, explaining the origin and design of LC connectors, their key features, and the

LC vs SC SFP Module Interface: 2025 Buying Guide for

Confused about the LC vs SC SFP module choice? We explain the physical differences, density benefits, and why Wolontek recommends LC for data

Optical fiber connector

An optical fiber connector is a device used to link optical fibers, facilitating the efficient transmission of light signals. An optical fiber connector enables quicker

Cisco 40GBASE QSFP Modules Data Sheet

The QSFP-40G-CSR-S is a pluggable optical transceiver with a duplex LC connector interface used for connectivity using MultiMode Fiber (MMF). The Cisco 40GBASE-CSR Modules

Addon Networks 1442705Pg2-Ao Network Transceiver Module Fiber Optic

SMF, SFP, LC, BX, max. 15 km, 10G, 1550nmTx/1310nmRx, Non-DOM AddOn Networks 1442705PG2-AO. SFP transceiver type: Fiber optic, Interface type: SFP, Fiber optic connector: LC. Product colour:

Generic Compatible 50GBASE-SR SFP56 850nm 100m Duplex LC

The module features a duplex LC/UPC optical interface and integrates a Semtech chip with a built-in CDR (Clock and Data Recovery) for both transmit and receive channels, operating with a maximum

Global Leader in Materials, Networking, and Lasers

Silicon photonics-based 1.6T-DR8 transceiver module using a Marvell® Ara 3 nm optical digital signal processor (DSP), featuring 200 Gbps electrical and optical

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Cisco 40GBASE QSFP Modules Data Sheet

Cisco QSFP-40G-SR-BD (40G BiDi) The Cisco QSFP 40-Gbps BiDirectional (BiDi) transceiver (Figure 1) is a pluggable optical transceiver with a duplex LC connector interface for short-reach data

OEM ODM 10G BIDI SFP+ Optical Transceiver Module 10km Single Mode Fiber ...

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100GBASE QSFP-100G Modules Data Sheet

The Cisco QSFP-100G-SR-S Module is a pluggable optical transceiver with a duplex LC connector interface supporting link lengths of 70

APC, UPC, PC Fiber Connector Types Comparison and

The return loss of the fiber optic APC connector is typically -60dB, which is the smallest among the three types of UPC, APC and PC fiber

Cisco SFP and SFP+ Transceiver Module Installation Notes

This installation note provides the installation instructions for the Cisco small form-factor pluggable (SFP) and SFP+ transceiver modules. These transceiver modules are hot-swappable

Optical Module 10 Gigabit SFP Interface Single Mode 10KM Dual Fiber LC ...

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CTP-SFP-1GE-SX Juniper 1Gbps SFP Duplex LC Multimode Fiber

The CTP-SFP-1GE-SX is a fiber optic transceiver that facilitates 1 gigabit per second data transfers over multimode fiber cables. It fits into standard SFP ports, providing a duplex LC interface and supporting

Axiom Sfp-10G-Zr-S-Ax Network Transceiver Module Fiber Optic

10GBASE-ZR, SFP+, LC, 1550 nm, 80 km, IEEE 802.3ae Axiom SFP-10G-ZR-S-AX. SFP transceiver type: Fiber optic, Maximum data transfer rate: 100000 Mbit/s, Interface type: SFP+. Number of

400G QDD-400G-ZR-L Tunable DWDM Transceiver 120KM SMF LC Interface

400G QDD-400G-ZR-L Tunable DWDM Transceiver 120KM SMF LC Interface Long Haul Optical Module No reviews yet $3,500 - 4,000 Minimum order quantity: 1 piece

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