Lc port optical module



Overview

LC is the default and most widely used fiber optic connector for SFP modules due to its small size and broad compatibility.

Key Takeaways

An LC optical port module is a compact fiber optic interface using the Lucent Connector (LC) to connect SFP transceivers to fiber networks, enabling high-speed, low-loss data transmission in high-density environments.

Overview

An L

C optical port module combines a Small Form-factor Pluggable (SFP) transceiver with an LC connector, creating a hot-swappable interface for network devices such as switches, routers, and NICs.

The L

C connector uses a 1. 25 mm ferrule and a push-pull latch mechanism, allowing secure, precise connections while saving space, which is ideal for high-density patch panels and transceiver cages. These modules support both single-mode and multimode fibers, accommodating various protocols like Gigabit Ethernet, Fiber Channel, and SONET/SDH.

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Key Features

Compact Size: LC connectors are half the size of SC connectors, enabling higher port density in modern networking equipment. Low Insertion Loss: Fine alignment mechanisms reduce signal loss and maintain optical performance, critical for high-bandwidth applications.

Hot-

Swappable: SFP LC modules can be inserted or removed without powering down devices, facilitating network upgrades and maintenance. Versatility: Compatible with various fiber types and network standards, making them suitable for enterprise, data center, and telecom environments. ApplicationsLC optical port modules are widely used in: Data Centers: High-density leaf-spine architectures and backbone links.

Telecommunications: Long-reach single-mode fiber connections. Industrial Networks: Mission-critical systems requiring robust, low-loss connections.

FTT

A (Fiber to the Antenna): Compact, reliable connections for telecom towers.

Deployment Considerations

Connector Compatibility: Ensure the LC connector matches the fiber patch cable type; mismatches may require adapters and can increase insertion loss. Polish Type: LC connectors come in UPC (Ultra Physical Contact) or APC (Angled Physical Contact) variants, affecting return loss and signal quality. Maintenance: Clean end-faces regularly to prevent signal degradation.

Port Density: LC modules allow more connections per rack unit compared to SC or ST connectors, optimizing space in high-density environments.

Summary

The L

C optical port module is a standard solution for modern fiber optic networks, combining the modularity of SFP transceivers with the compact, high-performance LC connector. Its design ensures efficient, reliable, and scalable optical connectivity, making it essential for high-speed, high-density networking applications.

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Article Content

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Hirschmann optical module M-SFP-LX LC

Model: M-SFP-LX LC Brand: Hirschmann Size: 16*12*8CM Weight: 0.1KG Producer country : China Description: Hirschmann optical module M-SFP-LX LC

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