

RIVO MULTITRADE OPTICAL SYSTEMS

Single-mode fiber LCST dual-core



Overview

1 Meter LC/ST Singlemode Duplex Fiber Optic Cable, Product Description This 1 Meter (~3 foot) fiber optic cable is terminated with an LC (Lucent Connector).

Key Takeaways

A single-mode LCST dual-core fiber is a duplex optical cable with a 9/125 μm single-mode core, terminated with LC and ST connectors, designed for long-distance, high-speed data transmission.

A single-mode fiber carries light in a single transverse mode, allowing minimal signal loss and high bandwidth over long distances. The core diameter is typically 9 microns, with a cladding diameter of 125 microns, which ensures precise light propagation and low dispersion. Single-mode fibers are ideal for telecommunications, data centers, and long-haul networks.

Dual-Core (Duplex) Configuration

The term dual-core or duplex refers to a fiber cable containing two separate cores within the same jacket. This allows simultaneous bidirectional communication, effectively doubling the data throughput compared to a single-core fiber. Each core can transmit or receive signals independently, making it suitable for high-speed networking applications.

LC and ST Connectors

- LC (Lucent Connector): A small form-factor connector that provides precise alignment and low insertion loss, commonly used in modern high-density network equipment .
- ST (Straight Tip/Bayonet Connector): A traditional connector with a twist-lock mechanism, widely used in legacy systems and industrial networks . An LCST dual-core cable has an LC connector on one end and an ST connector on the other, providing flexibility for connecting different types of network devices.

Performance and Standards

- Fiber Type: Single-mode (OS2 or G.652 standard)
- Core/Cladding: 9/125 μm
- Insertion Loss: Typically ≤ 0.2 dB
- Return Loss: Typically ≥ 50 dB
- Jacket Options: PVC (OFNR) or LSZH for fire safety
- Transmission Distance: Supports long-haul communication, often several kilometers without repeaters

Applications

- High-speed data networks in telecommunications and enterprise environments
 - Data centers requiring duplex connections for servers and switches
 - Industrial networks where mixed connector types (LC/ST) are needed
 - Long-distance fiber links where low signal loss is critical
- In summary, a single-mode LCST dual-core fiber combines the advantages of single-mode transmission, duplex communication, and flexible connector compatibility, making it a reliable choice for high-performance, long-distance optical networks .

Article Content

9/125, Single mode Fiber Cable, Dual ST /Dual LC, 3.0m

L-com's 9/125 Duplex Singlemode fiber optic cables are constructed of the highest quality components and are covered by a one

LC-ST Singlemode, Duplex, 9/125, Fiber Optic Cables

[Home > Single Mode Patch Cables > Single Mode, Duplex, 9/125 (OS2) > LC-ST Singlemode, Duplex, 9/125, Fiber Optic Cables]

fiber optic cable multimode versus singlemode duplex vs simplex

Singlemode Singlemode fiber optic cable has a small core and only one pathway of light. With only a single wavelength of light

Understanding Single Mode LC Connector: A Comprehensive Guide to Fiber ...

Discover the essentials of Single Mode LC Connectors in our comprehensive guide. Explore our range of fiber optic

Fiber Patch Cords

Related Parts DCX system, FX UHD Patch Panels, ECX Patch Panels, FX Patch cords, FX MPO Trunks, FX Multi-fiber Trunks

Types of Fiber Connectors | LC, ST, SC | ShowMeCables

ShowMeCables offers both single mode and multimode fiber optic patch cables with all types of connectors available.

1m Fiber Optic Cable

1m Fiber Optic Cable - Single-Mode Duplex 9/125 LSZH Fiber Jumper Cord - LC/LC Connect fiber network devices for high-speed

LC Fiber Patch Cables | Singlemode & Multimode with LC Fiber

View all LC fiber patch cables and LC fiber connectors we offer. Singlemode & Multimode duplex LC fiber jumper cords. OM1-OM4,

Difference Between Single and Dual Fiber Optical Transceivers

Know the key differences between Single and dual-fiber optical transceivers for efficient network deployment and

OS2 & OS1 Singlemode Fibre Patch Leads

Reliable OS2 and OS1 singlemode fibre patch leads for backbone and long-distance links. Multiple lengths and connector types.

LC/UPC to LC/UPC Duplex Fiber Optic Patch Cable Singlemode ...

Singlemode Fiber Optic Patch Cable Features & Specifications 100% Optically inspected and tested for insertion loss Pull-Proof

Single Mode Fiber Patch Cable | In/Outdoor Duplex OS2 9/125 LC SC

OS2 LC LC Indoor/Outdoor Fiber Patch Cables | Duplex Single-Mode Fiber Jumper with Corning 9/125um core/cladding. A rugged,

LC Vs SC Vs FC Vs MPO Fiber Optic Connectors: Expert Guide

1. Transmission Media: Single-Mode vs. Multi-Mode 2. Structural Variations: A World of Models 3. Pin End Surface:

LC-ST OS2 Singlemode Duplex Fiber Patch Cable

As an important component commonly used in fiber-optic networks, high-quality fiber patch cables are essential for any high

Understanding the Duplex LC Connector: The Go-To Fiber Network

To summarize it all up, single-mode fiber works great with long-haul applications requiring high bandwidths, while

8ware Fibre Upc Lc-lc Single Mode Os2 Dual-core Optic Duplex

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Single Mode Fiber Cables, Single-mode Duplex Cables, OS2 Patch

OS2 LC LC Indoor/Outdoor Fiber Patch Cables | Duplex Single-Mode Fiber Jumper with Corning 9/125um core/cladding. A rugged,

OS2 Duplex Single Mode LC / ST 9 /125 Fiber Optic Cable

Our high-quality 9/125 single-mode fiber cable with LC/ST connectors is perfect for fast Ethernet, gigabit Ethernet, and other data

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