Single-mode dual-core fiber optic connector SC



Overview

Using precision mechanical splice tech, UniCam enables quick, cost-effective fiber installations. With the High-Performance Tool Kit, LC, SC, or ST® connectors install in just 50 seconds to one minute.

Key Takeaways

A single-mode dual-core SC connector is a fiber optic connector with two single-mode fibers in one cable, using SC-type connectors for reliable long-distance data transmission.

Overview

A single-mode dual-core SC connector consists of two single-mode fibers bundled together, each capable of propagating a single light mode, which makes it ideal for long-distance communication and high-speed data transmission.

The S

C (Subscriber Connector) type features a ceramic ferrule and a push-pull coupling mechanism, ensuring precise alignment, low insertion loss, and high return loss. Key FeaturesDual-Core Design: Contains two single-mode fibers, allowing simultaneous bidirectional data transmission or redundancy in networks. Connector Type: SC-type connectors with ceramic ferrules provide high repeatability, interchangeability, and durability.



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Performance: Low insertion loss, typically around 0. 12 dB for single-mode fibers, and high return loss (>50 dB), ensuring minimal signal degradation. Durability: Protective shells and strong tensile resistance make these connectors suitable for long-term installations and repeated handling.

Cable Diameter: Commonly 3 mm for dual-core jumpers, providing mechanical protection while maintaining flexibility. ApplicationsSingle-mode dual-core SC connectors are widely used in: Optical fiber communication systemsOptical fiber access networks (FTTx)Data centers and LAN environmentsTelecommunications networksHigh-speed long-distance data transmission AdvantagesHigh precision and reliability due to ceramic ferrules and SC connector designSupports long-distance transmission with minimal signal lossEasy installation with field-terminable options availableCompatibility with standard single-mode fiber systems and SC ports SummaryA single-mode dual-core SC connector is an efficient solution for high-performance fiber optic networks requiring dual fibers in a single cable, offering low insertion loss, high return loss, and robust mechanical performance.

It is particularly suitable for telecom, data center, and LAN applications where long-distance, high-speed, and reliable connectivity are essential.

Article Content

FuseLite® Connectors SC Single-mode (OS2) UPC

Available in SC, LC, FC, and ST® Compatible, the FuseLite® Connector provides a reliable connectivity option for applications where fusion splicing may be preferred, such as reflectance-sensitive

UniCam® Connectors SC, Single-mode (OS2), Blue

Using precision mechanical splice tech, UniCam enables quick, cost-effective fiber installations. With the High-Performance Tool Kit, LC, SC, or ST® connectors install in just 50 seconds to one minute. The

Single Mode Fiber Optic Connectors

Thorlabs stocks an extensive selection of single mode fiber optic connectors, available for immediate shipping. Choose from FC/PC, FC/APC, ST/PC, LC/PC,

SC Fiber Connectors

Duplex SC connectors include two simplex connectors, plus a duplexing clip. The combination of a pre-radiused ceramic ferrule and precision polymer housing provides consistent long-term mechanical

Single Mode Dual Core SC-SC Fiber Optic Patch Cord

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Featuring excellent reliability, superior adaptability, and improved security, fiber patch cord has ranked the best choice for applications where conventional

Single Mode vs. Multimode Fiber Optic Cables

There are two main types of fiber optic cables: single mode and multimode. Although they can do the same job in some instances, the different

KABEL FIBER OPTIC SINGLE MODE 2 CORE Search Results

View results and find kabel fiber optic single mode 2 core datasheets and circuit and application notes in pdf format.

Fiber Optic Connector Types Guide | LC, SC, MPO, ST & More

Fiber optic connector types explained: LC, SC, ST, MPO, MTP. Learn key differences for your network setup.

Single Mode FC/PC Fiber Optic Patch Cables

Thorlabs offers single mode patch cables with FC/PC connectors on both ends. Each cable is manufactured in our facility on state-of-the-art equipment. Available from stock, these cables feature

Fiber Optic Pigtails Models and Selection Guide

For example, according to the fiber type, they can be divided into single-mode fiber optic pigtails and multi-mode fiber optic pigtails; according to

Single-Mode Optical Fiber

It can transmit higher bandwidth than multimode fiber but requires a light source with a limited spectral range. The terms single-mode optical fiber, single-mode fiber, and mono-mode fiber

Optical fiber connector

Optical fiber connectors are categorized into single-mode and multimode types based on their distinct characteristics. Industry standards ensure compatibility

100M/328FT Outdoor Armored LC to LC Fiber Optic Cable, 4 Core

About This 1 dustrial-Grade Durability: Engineered with a rugged 5.0mm industrial TPU jacket and dual-layer armor (steel tube + stainless mesh), this LC to LC fiber optic cable resists water, UV,

Fiber Optic Pigtails | SC, LC, ST Single Mode & Multimode

High-quality fiber optic pigtails for terminating and splicing in any network environment. We stock a wide variety of pigtail fiber types, including single mode

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Fibwell ST Fiber Optic Adapter Coupler Flange

Fibwell ST fiber optic adapters feature a low 0.2dB attenuation value to ensure signal integrity in radio, television network, and data testing environments.

Masstron (10m) SC/UPC

Specifications General Specifications Flame rating: LSZH™/FRNC Cable assembly type: Two Fibre Fibre Category: single-mode (OS2) Temperature Range Operation: -20 °C to 60 °C Installation and

Fiber Optic Connector Types: A Beginners Guide

The fiber connector types, sometimes referred to as terminations, link fiber optic cables together through terminals, switches, adapters, and patch

Fiber Joints – connectors, alignment tolerances, coupling loss, single ...

Fiber joints are permanent or removable connections between multimode or single-mode fiber ends. Coupling losses depend substantially on the used technology.

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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