

Article Overview

An SC single-core single-mode pigtail fiber is a short optical fiber with a single-mode core, pre-terminated with an SC connector on one end and a bare fiber on the other, used for fusion splicing and high-speed, long-distance optical transmission.

Definition and Structure

An SC single-core single-mode pigtail fiber consists of a short length of optical fiber with a single-mode core (typically 9/125 μm core/cladding) and a pre-terminated SC connector on one end, while the other end remains bare for splicing. The SC (Subscriber Connector) features a push-pull coupling mechanism, and the connector can be polished as UPC (Ultra Physical Contact) or APC (Angled Physical Contact). APC connectors have an 8° angled ferrule to minimize back reflection, making them ideal for sensitive optical networks.

Function and Applications

The primary purpose of a pigtail fiber is to connect bare distribution fibers to pre-terminated fiber-optic components while maintaining low insertion loss and high signal integrity. The bare end is typically fusion-spliced to a fiber in a distribution cable or network panel, and the connectorized end plugs into adapters, patch panels, or active equipment. SC single-core single-mode pigtails are widely used in:

- o FTTH (Fiber to the Home) and GPON networks
- o Telecommunications backbone links
- o Data centers and enterprise LANs
- o CATV and high-precision optical systems

Key Specifications

- o Fiber Type: Single-mode (OS2)
- o Core/Cladding Diameter: 9/125 μm
- o Connector Type: SC (UPC or APC)
- o Insertion Loss: Typically ≤ 0.2 dB for SC/APC pigtails
- o Jacket: Often LSZH (Low Smoke Zero Halogen) for indoor safety

Advantages

- o Low back reflection with APC connectors (< -60 dB)
- o High-speed, long-distance transmission capability
- o Ease of installation via fusion splicing



Single-core single-mode pigtail fiber SC

o Compatibility with standard SC adapters and panels In summary, an SC single-core single-mode pigtail fiber is a critical component in optical networks, providing a reliable interface between bare fibers and connectorized equipment, ensuring minimal signal loss and high-quality transmission over long distances .

These fiber optic pigtails keep the light that bounces back low, around 40 dB. You can use them where it is

FIBER OPTIC COMPONENTS - SM PIGTAILS D-Link offers quality optical fiber pigtails which are single ended with connectors. D

FS offers single mode & multimode fiber pigtails with tight buffer design for easy fusion or mechanical splicing. Quality assurance by

SC connectors are commonly used in data centers and telecommunication applications. SC fiber optic pigtails are available in

CommScope engineers and manufactures a complete line of high quality fiber pigtails

Pigtail is a short section of fiber-optic cable in the coating, one side factory terminated connector, on the other side exposed fiber.

fiber pigtail cables are available,we offer single mode and multimode fiber optic pigtails with

SINGLE-MODE SINGLE-CORE JUMPER: high-quality environmentally friendly PVC material, sturdy and durable, the tensile

Singlemode Simplex Pigtails Our Singlemode Simplex Pigtails are the ideal solution for fast, reliable data transfer in fiber optic

Product Details Single Mode Pigtails Fiber Optic Pigtail assemblies are utilised in terminating fiber optic cables via fusion splicing.

Pigtail SC/UPC, SM, 9/125, 0,9mm, G652D fiber, 3m Singlemode fiber optic pigtail with SC/UPC connector and G652D fiber. Length 3m

Single Mode Pigtails - OS1/OS2 utilised in terminating fiber optic cables via fusion splicing. Iveonet™ offers a wide range of pigtails,

Simplify fiber termination with ZERO Connect's high-quality fiber pigtails. Our single-mode and multi-mode assemblies, available with

Single-core single-mode pigtail fiber SC

Leviton fiber optic pigtail kits are a good solution for mechanical or fusion splicing applications. Available in

This is a high-quality singlemode OS2 9/125µm fiber optic pigtail featuring SC/UPC connectors. Built with premium zirconia ferrules

High quality fiber optic pigtails, single mode, with connectors: LC/UPC, SC/APC. Proven quality at the best price.

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