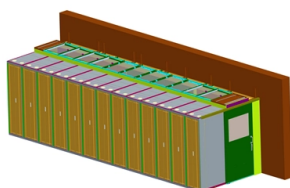


Which manufacturers produce single-mode optical fiber



Overview

In 1961, while working at American Optical published a comprehensive theoretical description of single mode fibers in the. At the Corning Glass Works (now), Robert Maurer, Donald Keck and Peter Schultz started with fused silica, a material that can be made extremely pure, but has a high melting point and a low refractive index. They made cylindrical preforms by depositing purified materials from the vapor phase.

Key Takeaways

Some leading manufacturers of single-mode optical fiber include Corning, OFS, Sumitomo, CommScope, and AFL.

Global Leaders in Single-Mode Fiber Production

- Corning Inc.: A pioneer in low-loss optical fiber technology, Corning holds a significant share of the global fiber-optic market and produces a wide range of single-mode fibers for long-haul, metro, and data center applications .
- OFS (Furukawa Electric Group): Offers standard and specialty single-mode fibers, including bend-insensitive and low-loss fibers suitable for telecom and high-capacity networks .
- Sumitomo Electric: Manufactures single-mode fibers for both standard and submarine applications, including G.652, G.655, and G.657 fiber types .



- CommScope: Provides single-mode fiber optic cables designed for reliable, high-speed data transmission in LANs, data centers, and long-distance networks .
 - AFL: Supplies single-mode fibers and related components for telecommunications, fiber lasers, and sensing applications, often meeting strict industry standards .
- Other Notable Manufacturers and Suppliers
- Superior Essex: Produces domestically manufactured single-mode fibers compliant with Build America, Buy America requirements .
 - Custom Wire Industries: Offers single-mode fiber optic cables for high-speed data transmission .
 - ENET Fiber Optic: Provides low-latency, optimized single-mode fiber solutions for network connectivity .

Types of Single-Mode Fibers Offered

Manufacturers typically produce fibers in various categories to meet specific applications :

- Standard Single-Mode Fibers (G.652.D): Commonly used in campus, metro, regional, and long-haul networks.
- Cut-off Shifted Single-Mode Fibers (G.654.D): Ultra-low loss fibers for transoceanic and submarine links.
- Non-Zero Dispersion Shifted Fibers (G.655): Designed for high-capacity, long-haul systems with reduced chromatic dispersion.
- Bend-Insensitive Fibers (G.657.A2): Flexible fibers with reduced bend radius for challenging installation environments.

Supplier Directories

For sourcing a broader range of manufacturers, platforms like Volza provide access to over 1,000 verified single-mode fiber suppliers across 51 countries, including shipment data, pricing, and contact information . This is useful for procurement teams seeking high-volume or cost-effective suppliers.

These manufacturers and suppliers cover a wide spectrum of applications, from standard telecom networks to specialized fiber lasers, sensors, and high-performance data center deployments.

Article Content

10 Best Fiber Optic Manufacturers for 2026

Discover the best fiber optic manufacturers globally, offering cutting-edge multimode and single mode fiber solutions.

Single-mode optical fiber

OverviewHistoryCharacteristicsConnectorsFiber optic switchesQuadruply clad fiberExternal links

In 1961, Elias Snitzer while working at American Optical published a comprehensive theoretical description of single mode fibers in the Journal of the Optical Society of America. At the Corning Glass Works (now Corning Inc.), Robert Maurer, Donald Keck and Peter Schultz started with fused silica, a material that can be made extremely pure, but has a high melting point and a low refractive index. They made cylindrical preforms by depositing purified materials from the vapor phase

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FOA Tech Topics: Manufacturing optical fiber

Manufacturing Optical Fiber Students often ask how fiber is made. It's certainly not obvious how something

Single Mode Fiber Optic Cable Manufacturers

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Fiber Optic Cables | Corning

With 2 billion kilometers of fiber optic cables installed around the globe, Corning continues to lead the industry in product quality and

109 Fiber Optic Cable Manufacturers in 2026

This section provides an overview for fiber optic cables as well as their applications and principles. Also, please take a look at the list

Fiber Optic Cable Types – Multimode and Single Mode

Fiber Optic Cable Types – Multimode and Single Mode Application Fiber Optic connectors and cables are present in

Fiber Optic Cables Manufacturers and Suppliers in the USA

A list of the top fiber optic cable suppliers and manufacturers in the USA and Canada, including the top fiber optic cable

Top US Fiber Optic Cable Manufacturers & Best Global

Looking for top fiber optic companies in the USA? We review leaders like Corning & AFL, and

Single Mode Optical Fiber – AZ Cables

Healthcare: Used in medical imaging, diagnostics, and surgical procedures, single-mode fibers provide the

Fiber-optic communication

An optical fiber patching cabinet. The yellow cables are single-mode fibers; the orange and blue cables are multi-mode fibers:

Popular Single Mode Optical Fibers

Updated in 2021 from the original article in 2010, below is a current list of single mode fibers from leading

Top 10 Single mode fiber optic cable manufacturers in the World 2025

Are you curious about which single mode fiber optic cable manufacturers stand out in the industry? Understanding the top factories is

2024 Optical Fiber Reference Guide

The Optical Fiber Reference Guide is intended to provide a comprehensive list of single mode and multimode optical fibers currently

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With centres of excellence the Netherlands and France, and five production sites around the world, we are a world

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