

**Optical Fiber Patch Cord**

**TECHNICAL DATA SHEET**

**LSZH Fiber Optic Patch Cord SM  
(G.657A1) 9/125 (SC-UPC/SC-UPC)  
Simplex (3.0mm)**



## **LSZH Fiber Optic Patch Cord SM (G.657A1) 9/125 (SC-UPC /SC-UPC) Simplex (3.0 mm)**

### **Product Description:**

LSZH Fiber Optic Patch Cord Single Mode G.657.A1 (9/125  $\mu\text{m}$ ) with SC to SC connectors in simplex 3.0 mm construction is a high-performance optical jumper designed for reliable data transmission in FTTH, telecom, and data center environments.



It uses bend-insensitive G.657.A1 fiber, which allows installation in tight spaces without significant signal loss, making it ideal for modern high-density networking. The SC connectors provide stable and secure connections with low insertion loss and high return loss, ensuring efficient signal integrity over long distances.

The LSZH (Low Smoke Zero Halogen) jacket enhances safety by reducing toxic emissions and smoke in case of fire, making it suitable for indoor installations such as buildings, server rooms, and distribution frames.

This patch cord is widely used in fiber distribution networks, optical patch panels, and last-mile FTTH connections due to its durability, flexibility, and consistent optical performance.

### **Features:**

- Single Mode fiber compliant with ITU-T G.657.A1 standard (bend-insensitive performance)
- 9/125  $\mu\text{m}$  core/cladding for low-loss long-distance transmission
- SC–SC connectors with high precision alignment and stable coupling
- Simplex design for efficient point-to-point connectivity
- LSZH (Low Smoke Zero Halogen) jacket for enhanced indoor safety
- 3.0 mm outer diameter for improved mechanical strength and durability

- Low insertion loss and high return loss for reliable signal quality
- Excellent macrobending resistance for tight installation spaces
- High compatibility with G.652.D standard fiber networks
- Suitable for high-density telecom and data center environments
- Stable performance over wide temperature range and long operational life

## Fiber Specifications:

Specification	Value
Fiber Type	Single Mode (SM)
Standard	ITU-T G.657.A1 (bend-insensitive)
Core Diameter	9 $\mu\text{m}$
Cladding Diameter	125 $\mu\text{m}$
Mode Field Diameter	~8.6–9.2 $\mu\text{m}$ (at 1310 nm)
Operating Wavelengths	1310 nm / 1550 nm
Attenuation (1310 nm)	$\leq 0.35$ dB/km
Attenuation (1550 nm)	$\leq 0.22$ dB/km
Bend Performance	High macrobending resistance (G.657.A1)
Dispersion	Low chromatic dispersion
Numerical Aperture	~0.13 (typical)
Compatibility	Compatible with G.652.D networks

## Applications:

- FTTH (Fiber to the Home) connections for residential broadband networks
- Telecom backbone and metro optical communication systems
- Data center interconnections between switches, servers, and ODFs
- LAN/WAN structured cabling in enterprise networks
- Optical Distribution Frames (ODF) patching and cross connections
- FTTx deployments (FTTB, FTTC, FTTH) last-mile connectivity



### **Note That:**

The connector is designed with two color markings on both ends for identification purposes: blue and white.