

**Optical Fiber Patch Cord**

**TECHNICAL DATA SHEET**

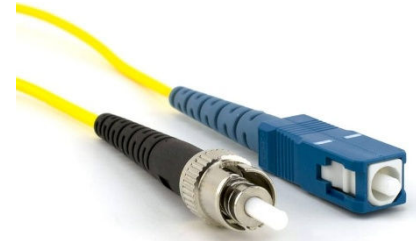
**LSZH Fiber Optic Patch Cord SM  
(G.657A1) 9/125 (SC-UPC/ST-UPC)  
Simplex 3.0 mm**



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

### **Product Description:**

The LSZH Fiber Optic Patch Cord Single Mode G.657.A1 (9/125  $\mu\text{m}$ ) SC-UPC to ST-UPC Simplex 3.0 mm is a hybrid optical cable designed for reliable, low-loss signal transmission in fiber optic networks.



It connects devices with different connector interfaces, combining the **SC/UPC connector** (push-pull type, widely used in telecom and FTTH systems) with the **ST/UPC connector** (bayonet-style, commonly used in legacy and industrial environments).

The simplex structure consists of a single optical fiber for one-way transmission, while the G.657.A1 bend-insensitive fiber ensures stable performance in tight installation conditions. The LSZH outer jacket enhances safety for indoor applications.

### **Features:**

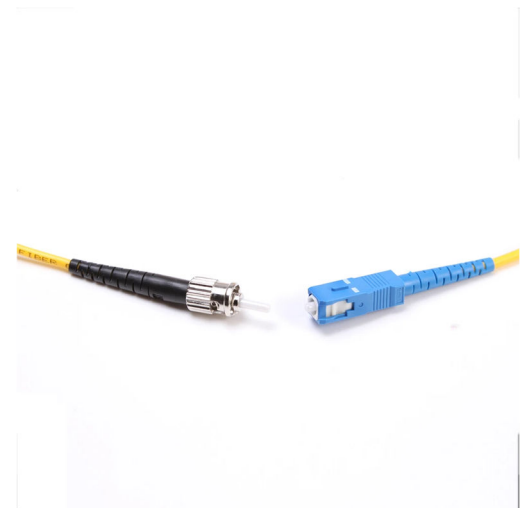
- Hybrid SC to ST connectivity for flexible integration
- Simplex design for single-channel transmission
- G.657.A1 bend-insensitive fiber for tight routing
- LSZH jacket for enhanced fire safety
- Low insertion loss and high return loss performance
- Secure ST bayonet locking mechanism
- Easy installation with SC push-pull connector
- Durable 3.0 mm cable construction
- Reliable long-term optical performance

## Fiber Specifications:

Parameter	Value
Fiber Type	Single Mode
Standard	ITU-T G.657.A1
Core Diameter	9 $\mu\text{m}$
Cladding Diameter	125 $\mu\text{m}$
Operating Wavelength	1310 nm / 1550 nm
Attenuation @1310 nm	$\leq 0.35$ dB/km
Attenuation @1550 nm	$\leq 0.22$ dB/km
Mode Field Diameter	$\sim 8.6\text{--}9.2$ $\mu\text{m}$
Numerical Aperture	$\sim 0.13$
Minimum Bend Radius	$\sim 10$ mm
Compatibility	Fully compatible with G.652.D

## Applications:

- FTTH (Fiber to the Home) networks
- Telecom and backbone infrastructure
- Optical Distribution Frames (ODF)
- Data centers and structured cabling
- Industrial and legacy systems (ST interface)
- Fiber patch panels and network cabinets



## Optical Performance:

Parameter	Value
Insertion Loss	$\leq 0.2 - 0.3$ dB
Return Loss	$\geq 50$ dB (UPC)
Repeatability	$\leq 0.1$ dB
Durability	$\geq 1000$ mating cycles
Signal Stability	High

## Environmental Conditions:

- Operating Temperature:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Storage Temperature:  $-45^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Suitable for indoor telecom and data center environments

## Safety Features:

- LSZH jacket emits **low smoke and zero halogen gases** in case of fire
- Suitable for indoor environments (data centers, telecom rooms, buildings)
- Flame-retardant and environmentally safer than PVC
- Strong resistance to bending, pulling, and mechanical stress