

Optical Fiber Patch Cord

TECHNICAL DATA SHEET

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



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

Product Description:

The LSZH Fiber Optic Patch Cord Single Mode G.657.A1 (9/125 μm) FC-Connector to FC-Connector Simplex 3.0 mm is a high-precision optical cable designed for stable, low-loss and vibration-resistant fiber optic connections.

It uses FC connectors with a **threaded screw-type locking mechanism**, ensuring high mechanical stability and excellent resistance to vibration—making it suitable for telecom, laboratory, and high-reliability optical systems.



The G.657.A1 bend-insensitive fiber provides strong performance in tight routing conditions, while the LSZH jacket ensures safe indoor installation with low smoke and zero halogen emission.

Features:

- FC-to-FC threaded metal locking for maximum stability
- 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
- High vibration resistance and mechanical durability
- Suitable for precision and telecom-grade systems
- Long service life with stable optical performance

Fiber Specifications:

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

Applications:

- Telecom backbone and optical transport systems
- Laboratory and testing equipment connections
- Data centers and structured cabling
- Optical Distribution Frames (ODF)
- CATV and measurement systems
- High-stability fiber interconnections



Optical Performance:

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

Environmental Conditions:

- Operating Temperature: -40°C to $+85^{\circ}\text{C}$
- Storage Temperature: -45°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