

Optical Fiber Patch Cord

TECHNICAL DATA SHEET

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



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Product Description:

The LC/APC to LC/APC Simplex Single Mode Fiber Optic Patch Cord is a high-performance optical jumper designed for reliable single-mode optical signal transmission in telecommunications, FTTH, FTTx, data center, and fiber distribution applications.

The patch cord uses ITU-T G.657.A1 bend-insensitive single-mode fiber, 9/125 μm , providing improved resistance to macrobending losses compared with conventional single-mode fiber. G.657.A1 fiber is suitable for applications requiring improved bending performance and is compatible with ITU-T G.652.D-based networks.

Both ends are terminated with LC/APC (Lucent Connector / Angled Physical Contact) connectors, providing an angled polished optical interface designed to achieve low back reflection and reliable optical coupling.

The cable construction consists of a 3.0 mm LSZH (Low Smoke Zero Halogen) outer jacket, providing enhanced mechanical protection and reduced smoke and halogen emissions in case of fire, making it suitable for indoor telecommunications and network installations.



Features:

- Single Mode optical fiber, 9/125 μm
- Fiber compliant with ITU-T G.657.A1
- Bend-insensitive fiber construction
- LC/APC to LC/APC connector configuration
- Simplex configuration – one optical fiber
- 3.0 mm nominal cable diameter
- LSZH outer jacket

- Angled Physical Contact (APC) connector polishing
- Low insertion loss
- High return loss
- Excellent resistance to macrobending
- Compatible with ITU-T G.652.D single-mode fiber networks
- Suitable for high-density fiber installations

Fiber Specifications:

Parameter	Specification
Fiber Type	Single Mode (SM)
Standard	ITU-T G.657.A1
Core Diameter	9 μm
Cladding Diameter	125 μm
Mode Field Diameter @ 1310 nm	8.6–9.2 μm
Operating Wavelengths	1310 / 1550 nm
Attenuation @ 1310 nm	≤ 0.35 dB/km
Attenuation @ 1550 nm	≤ 0.22 dB/km
Bend Performance	G.657.A1
Minimum Design Radius	10 mm
Numerical Aperture	~ 0.13
Compatibility	G.652.D

Applications:

- FTTH and FTTx networks
- Telecom networks
- Fiber Distribution Frames (ODF)
- Optical Distribution Boxes
- Fiber Patch Panels
- Data center fiber interconnections
- LAN/WAN optical networks
- Telecom equipment interconnection
- Access network applications
- Indoor fiber optic installations

Optical Performance

Parameter	Specification
Insertion Loss	≤ 0.30 dB Typical
Return Loss	≥ 60 dB Typical
Test Wavelength	1310 / 1550 nm
Testing	Factory Tested

Mechanical & Environmental Specifications

Parameter	Specification
Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C

Installation Temperature	-5°C to +50°C
Minimum Bend Radius – Installation	≥ 30 mm
Minimum Bend Radius – Operation	≥ 15 mm
Jacket Material	LSZH

Standards

Standard	Description
ITU-T G.657.A1	Bend-insensitive Single Mode Optical Fiber
ITU-T G.652.D	Single Mode Fiber Compatibility
IEC 61754-20	LC Connector Interface
IEC 60793	Optical Fiber Specifications
IEC 60794	Optical Fiber Cable Specifications