

Optical Fiber Patch Cord

TECHNICAL DATA SHEET

LSZH Fiber Optic Patch Cord Master SM (G.657A2) 9/125 (SC-APC/FC-APC) Simplex (2.0mm)



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Product Description:

The Fiber Optic FC/APC to SC/APC Master Patch Cord is a high-precision single-mode cable designed for low-loss and ultra-low back reflection transmission. It uses ITU-T G.657.A2 bend-insensitive fiber, allowing tighter bend radii compared to standard fibers, making it ideal for dense installations and limited spaces. The hybrid connector configuration (FC/APC to SC/APC) enables compatibility between different optical interfaces, while APC polishing ensures superior return loss, making it suitable for FTTH, GPON, and telecom applications.

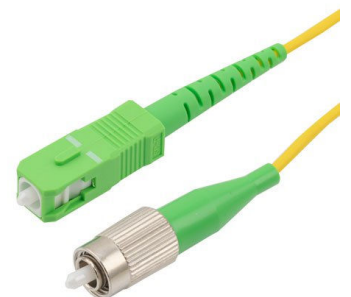


Features:

- Hybrid FC/APC to SC/APC connectivity
- G.657.A2 fiber for superior bend performance
- APC polish (8°) for minimal back reflection
- Compact 2.0 mm cable for high-density installations
- LSZH option for enhanced indoor safety
- High mechanical durability with aramid reinforcement
- Excellent compatibility with standard SM fiber networks
- Reliable long-term optical performance

Applications:

- FTTH (Fiber to the Home) and GPON networks
- Telecom infrastructure and backbone systems
- Optical test and measurement equipment
- Data centers and high-speed optical links
- Optical Distribution Frames (ODF)
- CATV fiber optic systems



Fiber Specifications:

Specification	Value
Fiber Type	Single Mode (SM)
Fiber Standard	ITU-T G.657.A2
Core / Cladding	9 / 125 μm
Cable Structure	Simplex (1 Fiber)
Cable Diameter	2.0 mm
Mode Field Diameter	$\sim 8.6\text{--}9.5 \mu\text{m}$ @ 1310 nm
Operating Wavelength	1310 nm / 1550 nm
Attenuation @1310 nm	≤ 0.35 dB/km
Attenuation @1550 nm	≤ 0.22 dB/km
Minimum Bend Radius	$\sim 7.5\text{--}10$ mm
Compatibility	G.652.D compatible

Optical Performance:

Parameter	Value
Insertion Loss	≤ 0.3 dB
Return Loss (APC)	$\geq 60\text{--}65$ dB
Repeatability	≤ 0.1 dB
Interchangeability	≤ 0.2 dB
Durability	≥ 1000 mating cycles

Environmental & Mechanical:

- Operating Temperature: -40°C to +85°C
- Storage Temperature: -45°C to +85°C
- Tensile Strength: $\geq 100\text{--}200$ N
- High resistance to bending and mechanical stress
- Suitable for tight routing environments