

## Optical Fiber

### TECHNICAL DATA SHEET

### Fiber Optic LC/APC SX Connector blue



## Fiber Optic LC/APC SX Connector Green

### Product Description:

The LC APC SX Connector is a single-mode simplex fiber optic connector designed for high-density optical networking applications. It features an LC (Lucent Connector) small form-factor interface with an APC (Angled Physical Contact) polish, reducing back reflection and ensuring superior optical performance in long-distance and high-speed fiber networks.



### Applications:

- FTTH (Fiber-to-the-Home) access networks
- Passive Optical Networks (PON)
- Telecom backbone and metro fiber networks
- High-density data centers and server racks
- LAN / WAN fiber optic infrastructure
- Optical Distribution Frames (ODF)
- Fiber patch panels and patch cords
- CATV (Cable TV) optical transmission systems
- GPON / EPON systems
- Optical testing and measurement equipment

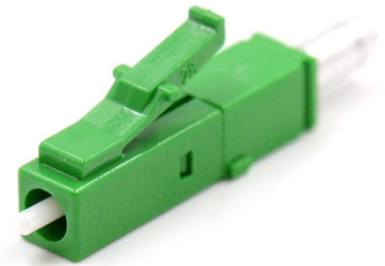


## Technical Specifications:

Parameter	Specification
Connector Type	LC (Lucent Connector), Simplex (SX)
Polish Type	APC (Angled Physical Contact, 8°)
Fiber Type	Single-Mode (9/125 μm)
Ferrule Material	Zirconia Ceramic
Ferrule Diameter	1.25 mm
Insertion Loss (IL)	≤ 0.3 dB (Typical)
Return Loss (RL)	≥ 60 dB
Operating Wavelength	1310 nm, 1490 nm, 1550 nm
Cable Jacket Diameter	2.0 mm / 3.0 mm
Operating Temperature	-40 °C to +85 °C
Durability (Mating Cycles)	≥ 500 cycles
Housing Material	PBT (Polybutylene Terephthalate)
Boot Material	TPU / TPV
Insertion / Extraction Force	10–20 N (Typical)
Standards Compliance	IEC 61754-20, Telcordia GR-326-CORE
RoHS Compliance	Yes

### Benefits:

- **Very Low Back Reflection** – APC 8° angled polish provides high return loss ( $\geq 60$  dB), ideal for long-distance and high-speed single-mode networks.
- **Low Insertion Loss** – Ensures efficient signal transmission with minimal attenuation ( $\leq 0.3$  dB typical).
- **High-Density Design** – LC small form factor (1.25 mm ferrule) allows more ports in limited space, perfect for data centers and patch panels.
- **Secure Latch Mechanism** – Push-pull locking system ensures stable and reliable connection.
- **Precise Fiber Alignment** – Zirconia ceramic ferrule guarantees accurate core alignment and consistent performance.
- **Compact Simplex Configuration** – Single-fiber design ideal for point-to-point connections.
- **Wide Operating Temperature Range** – Suitable for environments from  $-40$  °C to  $+85$  °C.



### Raw Materials Detailed List:

Item	Part	Material	RoHS Compliance
1	Anti-dust Cap	LDPE (Low-Density Polyethylene)	Yes
2	Housing	PBT (Polybutylene Terephthalate)	Yes
3	Inner Core	PBT (Polybutylene Terephthalate)	Yes
4	Ferrule	Zirconia Ceramic (2.5 mm)	Yes
5	Spring	SUS304 Stainless Steel	Yes
6	Crimp Ring	Nickel-Plated Copper / Copper Alloy	Yes
7	Boot (Strain Relief)	TPU / TPV (Thermoplastic Elastomer)	Yes