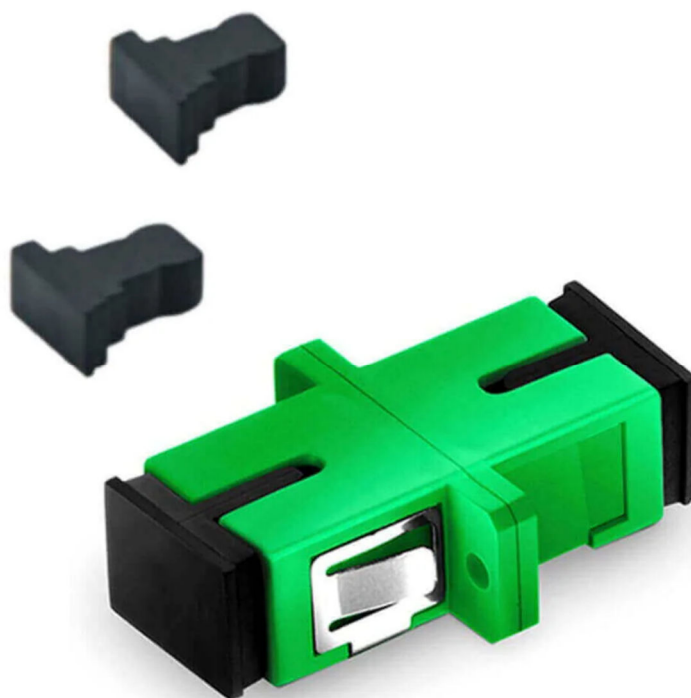


Optical Fiber Adapter

TECHNICAL DATA SHEET

SC Adapter SM-SX-APC 2.5mm SMF



SC Adapter SM-SX-APC 2.5mm SMF

Product Description:

The SC Adapter SM-SX-APC 2.5 mm Single Mode Fiber (SMF) is a precision fiber optic adapter designed to connect two SC/APC simplex single-mode fiber optic connectors with excellent optical performance and minimal signal reflection.

It features a high-precision zirconia ceramic alignment sleeve that ensures accurate fiber alignment and stable signal transmission. The APC (Angled Physical Contact) polish reduces back reflection, making the adapter ideal for high-speed optical communication systems, FTTH networks, CATV, and telecom applications.



Features:

- SC/APC simplex single-mode adapter
- Precision zirconia ceramic sleeve
- Low insertion loss and high return loss
- Excellent back reflection performance
- Stable and reliable optical connection
- Snap-in installation for patch panels and ODFs
- High durability and repeatability
- Compact lightweight design

Applications:

- FTTH (Fiber to the Home)
- CATV optical systems
- Telecom and communication networks
- Optical Distribution Frames (ODF)
- Fiber patch panels
- Data centers and enterprise networks

Benefits:

- Ensures precise fiber core alignment for stable signal transmission
- Minimizes insertion loss and back reflection
- Improves overall network performance and reliability
- APC polishing enhances return loss performance for high-speed applications
- Supports long-term repeated mating cycles with consistent performance
- Easy snap-in installation for patch panels and ODF systems
- Compact design suitable for high-density fiber installations



Technical Specifications:

Parameter	Specification
Connector Type	SC Simplex (SX)
Fiber Type	Single Mode (SMF 9/125 μm)
Ferrule Size	2.5 mm (SC Standard)
Polish Type	APC (8° Angled Physical Contact)
Insertion Loss	≤ 0.2 dB (Typical), ≤ 0.3 dB Max
Return Loss	≥ 60 dB (APC)
Alignment Sleeve	Zirconia Ceramic
Mating Durability	≥ 1000 Cycles
Repeatability	≤ 0.2 dB Variation
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Humidity	Up to 95%
Compliance Standards	IEC 61754-4, TIA/EIA 604-3
RoHS Compliance	Yes
Color	Green (APC Identification)

Environmental Specifications:

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Relative Humidity	Up to 95%
Flame Rating	UL94-V0 (Optional)
Vibration Resistance	Stable Optical Performance Under Vibration
Shock Resistance	High Mechanical Durability
Dust Protection	With Dust Caps
Corrosion Resistance	Resistant to Corrosion and Moisture
Indoor / Outdoor Use	Primarily Indoor Applications
RoHS Compliance	Yes