

**Optical Fiber Adapter**

**TECHNICAL DATA SHEET**

**FC Metallic Adapter UPC SX 2.5 mm**



## **FC Metallic Adapter UPC SX 2.5 mm**

### **Product Description:**

The FC Metallic Adapter UPC SX 2.5 mm is a high-precision fiber optic adapter designed to connect two FC/UPC simplex fiber optic connectors.

It features a durable metal housing and a precision ceramic alignment sleeve that ensures accurate fiber core alignment, low insertion loss, and stable optical performance.

This adapter is widely used in single-mode and multimode fiber networks, including telecom systems, testing equipment, patch panels, and optical distribution frames (ODF).

### **Features:**

- FC/UPC simplex high-precision adapter
- Metal housing for high durability and mechanical strength
- Zirconia ceramic alignment sleeve for precise fiber alignment
- Low insertion loss and stable optical performance
- Threaded FC locking mechanism for secure connection
- High repeatability for repeated connections
- Compatible with single-mode and multimode fibers



**Applications:**

- Telecom and communication networks
- Optical test equipment (OTDR, power meters, VFL)
- Data centers and enterprise networks
- Optical Distribution Frames (ODF)
- Fiber patch panels
- CATV and broadband systems

**Benefits:**

- Provides very stable and secure fiber connection
- Reduces optical signal loss and reflections
- Ensures long-term mechanical reliability
- Supports high-precision telecom and test applications
- Easy installation in FC-type bulkheads
- Suitable for high-vibration environments
- Long service life with consistent performance
- Ideal for professional fiber optic networks

**Technical Specifications:**

<b>Parameter</b>	<b>Specification</b>
Connector Type	FC Simplex (SX)
Ferrule Size	2.5 mm (FC Standard)
Polish Type	UPC
Insertion Loss	$\leq 0.2$ dB (Typical), $\leq 0.3$ dB Max
Return Loss	$\geq 50$ dB
Alignment Sleeve	Zirconia Ceramic
Mating Durability	$\geq 1000$ Cycles
Repeatability	$\leq 0.2$ dB Variation
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Humidity	Up to 95%
Compliance Standards	IEC 61754-13, TIA/EIA-604-4
RoHS Compliance	Yes

**Environmental Specifications:**

<b>Parameter</b>	<b>Specification</b>
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Relative Humidity	Up to 95%
Vibration Resistance	High mechanical stability under vibration
Shock Resistance	Resistant to mechanical impact
Corrosion Resistance	Metal body with anti-corrosion coating
Dust Protection	With protective dust caps
Indoor / Outdoor Use	Indoor & controlled outdoor environments
RoHS Compliance	Yes