

Optical Fiber Pigtail

TECHNICAL DATA SHEET

ST Multi Mode Fiber Optic Pigtail UPC OM3 ITU-T G.651 12 Fiber



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Product Description

The Fiber Optic Pigtail ST/UPC to Underterminated is a factory-terminated 12-fiber optical pigtail designed for high-density fiber termination and fusion splicing applications. It features ST/UPC connectors on one end and unterminated fibers on the opposite end, enabling efficient installation in Optical Distribution Frames (ODFs), patch panels, fiber termination boxes, and enterprise optical networks.

Manufactured with OM3 laser-optimized multimode (50/125 μm) optical fiber compliant with ITU-T G.651.1, and protected by a Low Smoke Zero Halogen (LSZH) jacket, this pigtail delivers excellent optical performance for Gigabit Ethernet, 10 Gigabit Ethernet, storage area networks (SAN), and data center applications.

Product Features

- ST/UPC connectors on one end, unterminated fibers on the other
- 12-fiber construction
- OM3 laser-optimized multimode fiber (50/125 μm)
- Compliant with **ITU-T G.651.1**
- Low insertion loss and excellent return loss
- High-precision zirconia ceramic ferrules
- LSZH (Low Smoke Zero Halogen) jacket
- Aqua-colored cable for OM3 identification
- Factory polished and 100% optically tested
- Excellent mechanical durability and reliability

Applications

- Optical Distribution Frames (ODF)
- Fiber Termination Boxes (FTB)
- Enterprise LAN Networks
- Industrial Ethernet
- Campus Networks
- Patch Panels
- Telecommunications Networks
- Optical Communication Systems

Product Parameters

Item	Specification
Connector A	ST/UPC
Connector B	Unterminated
Fiber Count	12 Fibers
Fiber Type	OM3 (50/125 μm)
Fiber Standard	ITU-T G.651.1
Cable Construction	12-Fiber
Jacket Material	LSZH

Optical Specifications

Parameter	Value
Fiber Type	OM3 (50/125 μm)
Fiber Standard	ITU-T G.651.1
Connector Type	ST/UPC
Polish Type	UPC
Operating Wavelength	850 / 1300 nm
Insertion Loss	≤ 0.30 dB (Typical ≤ 0.20 dB)
Return Loss	≥ 35 dB
Repeatability	≤ 0.20 dB
Interchangeability	≤ 0.20 dB
Durability	≤ 0.20 dB change after 500 mating cycles

Environmental Performance

Test Item	Condition	Requirement
High Temperature	+85°C, 96 Hours	$\Delta\text{IL} \leq 0.2$ dB
Low Temperature	-40°C, 96 Hours	$\Delta\text{IL} \leq 0.2$ dB
Thermal Cycling	-40°C to +85°C	$\Delta\text{IL} \leq 0.2$ dB
Humidity	95% RH, 96 Hours	Stable Performance

Mechanical Reliability

Test Item	Requirement
Mating Durability	≥ 500 Cycles
Tensile Strength	≥ 10 N
Vibration Resistance	$\Delta IL \leq 0.2$ dB
Shock Resistance	$\Delta IL \leq 0.2$ dB
Twist Test	Meets IEC Requirements