

ST series



Optical Cable Specifications - Pigtail

Application

A pigtail is a fiber optic cable assembly that has an appropriate connector on one end and an unterminated fiber on the other. It is designed to patch into an existing line or to terminate the ends of a long run. Normally used in applications wherein a splice is convenient for terminating a device with a connector.

Optical fibers

- ❖ Singlemode 9/125um
- ❖ Multimode 50/125um
- ❖ Multimode 62.5/125um

Connector features

Connector type: ST

Ferrule: Zirconia

Ferrule ID(mm): 0.125 – 0.127

Ferrule OD(mm): 2.499 ± 0.0005

Boot ID(mm): 0.9

Optical performance

Type	Singlemode (UPC)	Multimode (UPC)
Insertion loss	0.1 - 0.3dB	0.1 - 0.3dB
Return loss	≥ 50dB	≥ 25dB
Operating temperature	-40°C to +75°C	

Optical specifications

Fiber Type	Singlemode 9/125um	Multimode 50/125um	Multimode 62.5/125um
Cladding diameter	125.0 ± 0.7μm	125.0 ± 2.0μm	125.0 ± 2.0μm
Mode field diameter (@1310nm)	9.2 ± 0.4μm		
Mode field diameter (@1550nm)	10.4 ± 0.8μm		
Cable cut-off wavelength λ_{ccf}	≤ 1260nm		
Attenuation (@850nm)		≤ 2.4dB/km	≤ 2.9dB/km
Attenuation (@1300nm)		≤ 0.7dB/km	≤ 0.6dB/km
Attenuation (@1310nm)	0.33 - 0.35dB/km		
Attenuation (@1550nm)	0.19 - 0.20dB/km		
Chromatic dispersion (@1550nm)	< 18 ps/nm·km	≥ 25dB	≥ 25dB
Numerical Aperture	0.14	0.200 ± 0.015μm	0.275 ± 0.015μm

Dimensional specifications

Fiber Type	Singlemode 9/125um	Multimode 50/125um	Multimode 62.5/125um
Cladding non-circularity	≤ 0.7%	≤ 1.0%	≤ 1.0%
Core-clad concentricity	≤ 0.5μm	≤ 1.5μm	≤ 1.5μm
Coating diameter	245 ± 5μm	245 ± 5μm	245 ± 5μm
Coating-cladding concentricity	< 12 μm	< 12 μm	< 12 μm
Fiber primary coating	Acrylate	Acrylate	Acrylate