

50/125 μm Multi-mode Optical Fiber

SF-MM5

Product Information

SAMSUNG 50/125 μm multi-mode optical fiber is a graded index fiber with a 50 μm core and 125 μm cladding diameter. It is suitable for fiber optic networks based on Ethernet, Fibre Channel, FDDI, ATM, and Token Ring protocols. It offers superior performance and reliability for backbone, riser, and horizontal applications in premise networks.

PI-1215

ISSUED : 06/02

FEATURES / BENEFITS

- Optimized for 850 nm and 1300 nm dual wavelength ranges
- Coated with a high performance dual acrylate coating for long-term reliability
- Excellent compatibility with any commercial fiber in legacy network systems

APPLICATIONS

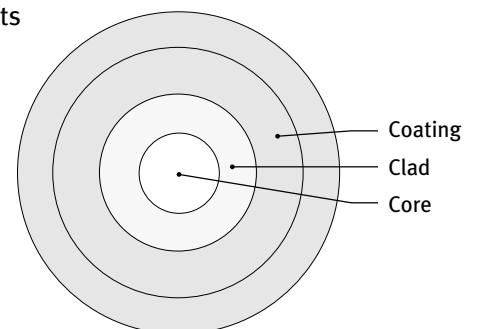
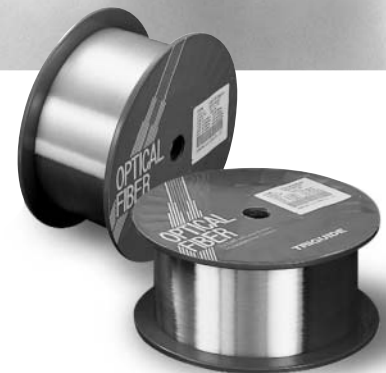
- Local Area Networks and campus networks with high data-rate voice, video and data communication systems using LEDs, VCSEL or Fabry-Perot lasers

QUALITY TESTING

- Every spool of fiber is tested to assure top quality and performance
- All test procedures comply with ITU recommendations, IEC and EIA Standards

DESIGN

- **Core** Center of the optical fiber, which carries the light
- **Clad** Confines the light to the core, using total internal reflection principles
- **Coating** A dual layer provides a microbend free environment, which also protects the optical fiber from external influences and absorbs shear forces



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OPTICAL SPECIFICATIONS

ATTENUATION AND BANDWIDTH

Parameters		Premium	Standard
Attenuation (dB/km)	@ 850 nm	≤ 2.4	≤ 2.5
	@ 1300 nm	≤ 0.6	≤ 0.7
Point Discontinuity (@ 850 nm & 1300 nm)		≤ 0.10 dB	
Bandwidth (MHz·km)	@ 850 nm	≥ 600	≥ 400
	@ 1300 nm	≥ 1000	≥ 600

Note) Other attenuation and bandwidth cells are available on request

NUMERICAL APERTURE

- 0.200 ± 0.015

MACROBENDING LOSS

Mandrel Diameter (mm)	Number of Turns	Wavelength (nm)	Induced Attenuation (dB)
75	100	850 / 1300	≤ 0.5

DIMENSIONAL SPECIFICATIONS

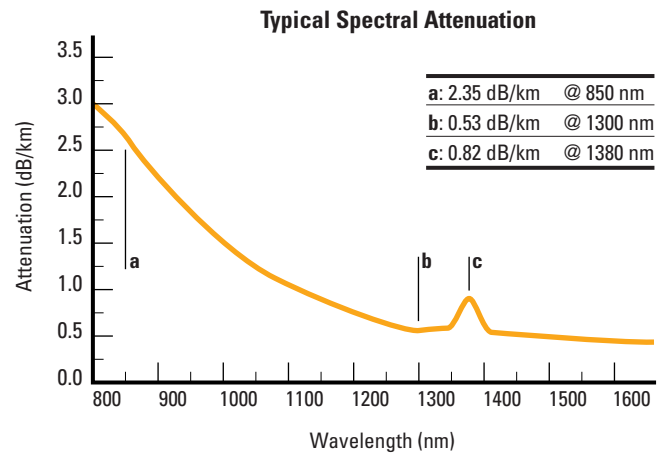
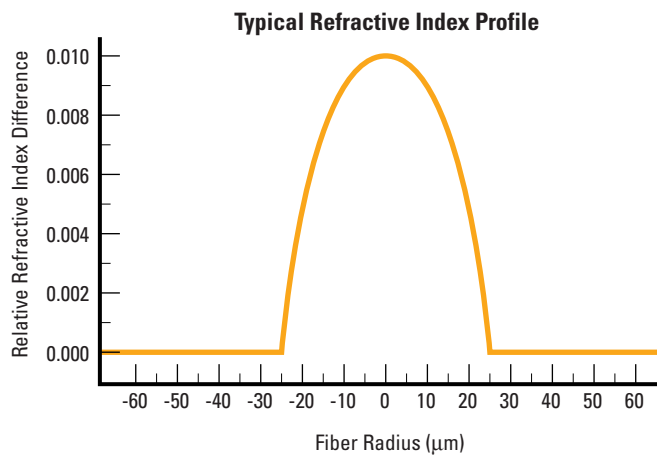
Parameters		Unit	Specification
Glass	Core Diameter	μm	50.0 ± 3.0
	Clad Diameter	μm	125.0 ± 1.0
	Clad Non-Circularity	%	≤ 2.0
	Core-Clad Concentricity Error	μm	≤ 3.0
Coating	Coating Diameter	μm	245 ± 10
	Coating Concentricity Error	μm	≤ 10.0

STANDARD FIBER LENGTH

- 1.1 ~ 8.8 km per spool

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Parameters	Specifications
Proof Test Level	≥ 100 kpsi
Temperature Dependence (-60°C ~ +85°C)	≤ 0.2 dB/km @ 850 nm & 1300 nm
Temp.-Humidity Cycling (-10°C ~ +85°C, 98% RH)	≤ 0.2 dB/km @ 850 nm & 1300 nm
Coating Strip Force	1.3 ~ 5.5 N



ORDERING INFORMATION

Product Type	Description	Specification (x)
SF-MM5 - x	50/125 μm Multi-mode fiber	P : Premium S : Standard

* Change x in the left column with the code in the right column for your choice

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REGISTERED TO ISO9001
CERTIFICATE NO.9243



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REGISTERED TO TL9000
CERTIFICATE NO.9243



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