Alcatel 6931

Multimode GLIGHT™ 62.5/125 Fiber

Alcatel's GLight™ fibers are guaranteed for up to 1Gb/s Ethernet transmission at 850nm and 1300nm over distances of 275 to 1200 meters, without the need for a mode conditioning patch-cord. GLight™ fibers are also fully compatible with all the major industry network protocols available on the market today, including Gigabit Ethernet, Fast Ethernet, FDDI, ATM, and Token Ring.

Additionally, GLight™ fibers are guaranteed for use in a variety of cables, including loose tube and tight buffer cable. All of Alcatel's Multimode fibers are further enhanced with Alcatel's revolutionary and unique processes, including the Alcatel Fiber Coating (AFC™) process. The AFC™ coating ensures a level of fiber durability and robustness even in harsh environments. Additionally, Alcatel's Multimode fibers benefits from the Furnace Chemical Vapor Deposition (FCVD) process. The FCVD process ensures superior geometry and uniformity as well as enhanced purity.

Alcatel's GLight™ 62.5/125 family of multimode fibers is the new generation of graded index Multimode fibers designed specifically for laser applications and high bit-rate networks. The fibers have been designed to satisfy the increasing pressure for Service Providers to support the exponential growth in high-speed transmission over shorter distances, including corporate and campus environments.

As one of the world's largest manufacturers of communications products, Alcatel has the expertise, technology and manufacturing resources to provide end-to-end solution to support your fiber, cable, and systems requirements.

FEATURES	BENEFITS
Optimized to take advantage of lower-cost transceivers (LEDs, VCSELs)	Significant cost savings
Guaranteed for up to 1 Gb/s Ethernet transmission at 850nm and 1300nm over extended distances, without a mode conditioning patchcord	Enhanced transmission performance and distance Operational flexibility
Compatible with all major network standards, including FDDI, Ethernet, Fast Ethernet, Token Ring and ATM	Safeguards the future evolution of your network
Utilizes Alcatel's proprietary Furnace Chemical Vapor Deposition (FCVD) process	Ensures fiber with superior geometry and uniformity, as well as enhanced purity
Utilizes Alcatel's unique Fiber coating AFC™ coating, specially modified for Multimode	Provides superior durability and robustness even in the harshest conditions, resulting in lower maintenance and replacement costs

KEY INDUSTRY LEADING MILESTONES

- **1999**- Introduced Alcatel's AFC™ coating specifically designed to provide superior aging performance for Multimode fibers and better stability during the coating process
- **2000**- Introduced Alcatel's proprietary Furnace Chemical Vapor Deposition (FCVD) fiber production process to ensure the highest quality fiber
- **2000**- Introduced GLight™ family of Multimode fibers, specifically designed to support 1 Gb/s Ethernet transmission at 850nm and 1300nm

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Optical Specifications

Spectral Attenuation and Bandwidth (modal dispersion)

Attenuation @ 850/1300 nm	2.9/0.8 db/km Maximum
Bandwidth @ 850/1300 nm	200/500MHz.km Minimum

Point Discontinuity

@850nm/1300 nm	0.2dB Maximum

Bending Sensitivity Attenuation

The maximum attenuation with bending does not exceed the following values @ 850 nm and 1300nm:

100 turns on 75 nm diameter	≤ 0.5 dB/km

Chromatic Dispersion

Zero Dispersion Wavelength (λo) is between	1320 and 1365 nm
Zero Dispersion Slope (So)	
for 1320 nm < λo <1348 nm is typically	≤ 0.11 ps/nm^2•km
for 1348 nm < λo <1365 nm is typically	≤ 0.001 *(1458-λo) ps/nm^2•km

Numerical Aperture (NA)

Numerical Aperture	0.275 ± 0.015

Effective Group Index of Refraction

@ 850nm	1.497
@1300nm	1.492

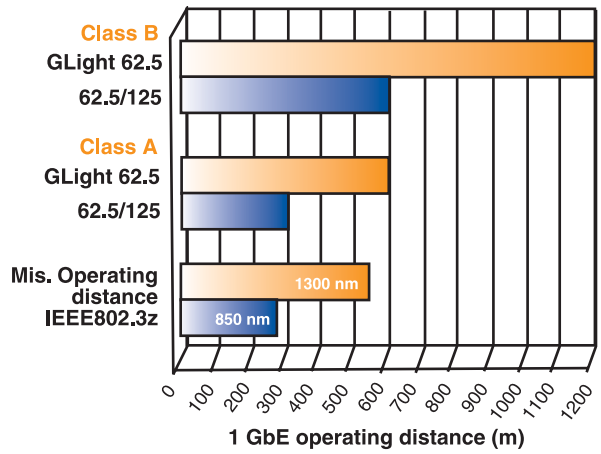
General Specifications

Core Diameter	62.5 ± 3 µm
Core Non-Circularity	6% Maximum
Cladding Diameter	125 ± 2 µm
Cladding Non-Circularity	2% Maximum
Core/Cladding Concentricity Error	6% Maximum
Coating Diameter	245 ± 15µm
Coating Non-Circularity	6% Maximum
Cladding Concentricity Error	12.5 µm Maximum

Fibers with different characteristics and lengths available upon request

References for products: IEC pub 60793/2 EN 188000-206

Alcatel reserves the right to change specifications without prior notice.



Environmental Specifications

Induced Attenuation Change@ 850 &1300nm

Operating Temperature -60 to +85°C	≤ 0.2 dB/km
Temperature/Humidity Cycling -10/+70°C RH 95%	≤ 0.2 dB/km

Mechanical Specifications

Proof-test

The entire length is subjected to a tensile proof-test @1% strain for 0.5 s, or equivalent. This exceeds the requirements of 100 Kpsi stress proof-testing.

Other Values

Stress corrosion factor (n)	> 20
Strippability (50-500mm/mn)	> 1 N

Delivery Lengths

1.1, 2.2, 3.3, 4.4, 5.5, 6.6, 7.7,8.8 km

References for measurements
EC Pub 60793 1-1, 1-2, 1-3, 1-4, 1-B6
EIA-TIA 455-31C/46A/58A/59/168A/173/176/177A/204

For additional information visit Alcatel online or call your nearest Optical Fiber Sales Representative

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