Alcatel 6930
50/125 Multimode Fiber

Alcatel graded index Multimode fibers operate in both the 850nm and 1300nm regions and are ideally suited for use in Local Area Networks (LANs) for data, voice, and video transmissions.

The 50/125 Multimode fiber is an economical solution fully compatible with all of the major industry network standards available on the market today, including FDDI, Ethernet, Fast Ethernet, ATM, and Token Ring. The 50/125 Multimode fiber is also 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 unique processes, including the Alcatel Fiber Coating (AFC™) process. The AFC™ coating ensures fiber durability and robustness even in harsh environments. Additionally, Alcatel's Multimode fibers benefit from their Furnace Chemical Vapor Deposition (FCVD) process. The FCVD process ensures superior geometry and uniformity, as well as enhanced purity.

Alcatel's 50/125 Multimode graded index fiber is one of Alcatel's preeminent fibers for Multimode applications. The fibers have been designed to satisfy the increasing pressure on 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 a total end-to-end solution to support your fiber, cable, and systems requirements.

FEATURES	BENEFITS
Operates at both 850nm and 1300nm wavelengths	Enhanced transmission capacity
Optimized to take advantage of lower-cost transceivers (LEDs)	Significant cost savings
Compatible with all major network standards, including FDDI, Ethernet, Fast Ethernet, Token Ring and ATM	Operational flexibility
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 AFC™ fiber coating, specially formulated 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

Rev 0, Jan. 02

ALCATEL

ARCHITECTS OF AN INTERNET WORLD

Alcatel 6930
50/125 Multimode Fiber

Optical Specifications

Typical Spectral Attenuation and Bandwidth (modal dispersion)

Attenuation 850/1300nm	Bandwidth 850/1300nm
2.4/0.6 dB/km	600/1200 MHz.km
2.5/0.7 dB/km	400/800 MHz.km
2.8/1.0 dB/km	300/300 MHz.km

Point Discontinuity

@850nm/1300nm	≤ 0.2 dB

Bending Sensitivity Attenuation

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

100 turns on 75mm diameter	≤ 0.5 dB

Chromatic Dispersion

Zero Dispersion Wavelength (λo)	1295 to 1320nm
Zero Dispersion Slope (So):	
for 1300nm < λo <1320nm is typically	≤ 0.11 ps/nm^2•km
for 1295nm < λo <1300nm is typically	≤ 0.001 *(λo-1190)ps/nm^2•km

Numerical Aperture (NA)

Numerical Aperture	0.200 ± 0.015

Effective Group Index of Refraction

@ 850nm	1.482
@1300nm	1.480

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.

General Specifications

Core Diameter	50 ± 3µm
Core Non-Circularity	≤ 6%
Cladding Diameter	125 ± 2µm
Cladding Non-Circularity	≤ 2%
Core/Cladding Concentricity Error	≤ 3µm
Coating Diameter	245 ± 15µm
Coating Non-Circularity	≤ 6%
Coating/Cladding Concentricity Error	≤ 12.5µm

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 > 100 kpsi.

Other Values

Stress corrosion factor (n)	≥ 20
Strippability (50-500mm/minute)	> 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

Rev 0, Jan. 02

ALCATEL

ARCHITECTS OF AN INTERNET WORLD

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

www.alcatel.com/opticalfiber

Brazil ..... +55 11 3068 9993
France ..... +33 1 55 51 51 36
France (HQ) ..... +33 1 39 19 12 00
Germany ..... +49 2166 27 2164
India ..... +91 11 335 9650
Spain ..... +34 942 247 111
UK ..... +44 1633 413 600
North America ..... +1 828 459 9787
800 879 9862