



Member of LEONI Group

Multimode HPSC Fiber Series

Ultra-High Stability in High Power Laser Transmission

Laser projection based technologies as well as advanced sensing applications require fibers that provide ultra-high stability in high power laser transmission.

Lifetime is the critical issue. The performance of standard fibers available in the market drops after few hours transmission time.

j-fiber offers the Multimode HPSC optical fiber (High Power Small Core), which has been specially designed to provide high power transmission in the near-UV and visible range (280nm up to 750nm). It provides an unsurpassed durability and reliability in transmission time stability.

The right Choice for special Laser Transmission Applications

Its improved performance and lifetime makes the j-fiber Multimode HPSC the fiber of choice for laser signal transmission in sensing, photonics and material handling applications.

Application: Next Generation Laser-Display Systems

j-fiber Multimode HPSC is the fiber of choice for the future in high performance laser transmission: next generation laser display systems using laser projection and big screens for high brightness and high resolution. Such systems require a fiber with ultra-high stability in high power laser transmission which can bridge beam distances of up to 30m between the system's laser modulation unit and the scanning unit.

Key Applications

- Signal transmission
- Sensors
- High precision material handling
- Laser transmission for TV

Key Features

- Undoped pure silica core
- Fluorine-doped cladding
- Excellent geometry control

Key Benefit

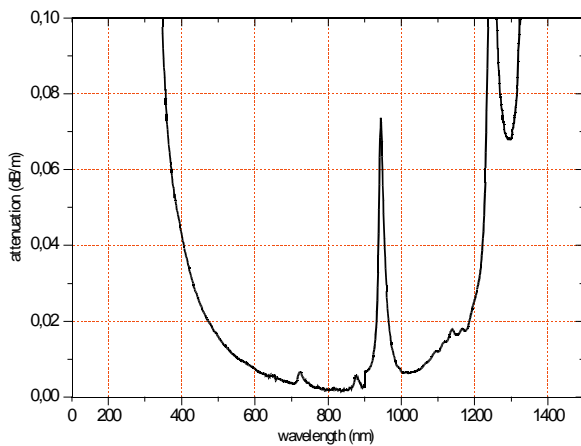
- Unsurpassed stability and reliability in high power transmission

For further information about our HPSC Fiber and other j-fiber products and services, please contact us:

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Attenuation curve of a high power transmission fiber



Coating

j-fiber Multimode optical fiber is protected with our FCC, an enhanced coating material that guarantees long-term performance and reliability. The dual layer acrylate material is user friendly and compatible in all cable constructions, such as tight buffer and loose tube designs with low bending loss. Optimized for Multimode fiber the coating shows best-in-class low microbending sensitivity. The coating is mechanically strippable and leaves no residue.

Fiber Specification

Transmission Stability

	Spec. Values	Unit
Time for Transmission drop to 90% (1.0W, 446nm)	> 5 (high) > 40 (ultra-high)	h h

Key Optical Specification

	Spec. Values	Unit
Operating Wavelength	280 ... 750	nm
Numerical Aperture	0.100 ± 0.015	
Attenuation at 600nm	≤ 20	dB/km

Key Geometric Specification

	Spec. Values	Unit
Core Diameters ¹	10/15/20/25 ± 3.0	μm
Cladding Diameter ¹	125.0 ± 2.0	μm
Coating Diameter ¹	245 ± 10	μm
Core/Clad Concentricity ¹	< 1.0	μm

¹Other tolerances available upon request

Other Specification

	Spec. Values	Unit
Two-layer Acrylate Coating		
Operating Temperature ²	-60 to + 85	°C
Proof Test	≤ 100	kpsi

²Standard Acrylate Coating

Ordering Information

To order j-fiber HPSC please call, fax or email us and specify the following parameters:

Fiber Type:	j-fiber Multimode HPSC
Core Diameter	μm
Transmission Stability	hours
Fiber Quantity:	m
Other:	desired ship date, special requests

All fibers and preforms are subject to j-fiber's ongoing process and quality improvement programs ensuring excellent performance and high reliability. We reserve the right to make changes to the above specification without notice.

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