

Graded Index Polymer Clad Multimode Fiber j-GIPC50 – 50/200/230/500

Perfect precision. Efficient performance.

j-GIPC50 – fiber combines the best of two worlds: same high bandwidth as a 50/125 standard telecommunication fiber plus mechanical toughness provided by a 200 μm silica cladding, harnessed by 500 μm ETFE buffer material.

This fiber is best suited for increased data transfer rates in industrial environments by demonstrating an OM2 – performance on the optical link. The 200 μm - form factor enables the fiber to withstand a threefold higher mechanical load compared to standard fiber (30 vs.10 N).

Equipped with our JFC-23 special coating and JFB-16 buffer material, the fiber proves excellent temperature performance.

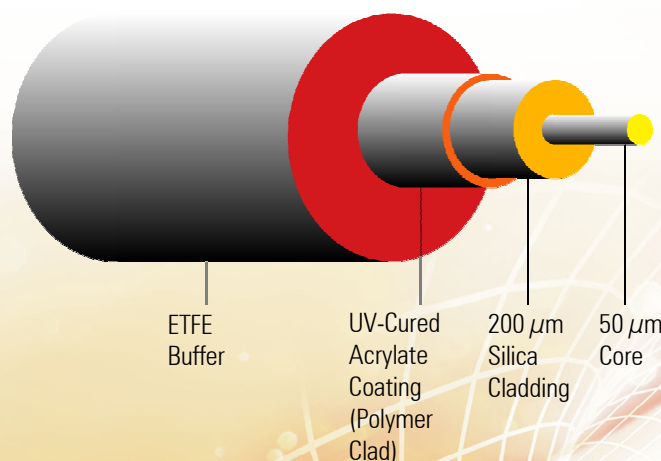
Features & Benefits

- OM2 bandwidth range (>500/500 MHz*km @ 850/1300 nm)
- Up to 1 Gbit/s data transfer rate over 600/600 m link length @ 850/1300 nm
- Robust construction by fiber form factor and buffer material
- Easy strippable ETFE buffer construction for fast and efficient connectorization
- Low interconnection losses based on excellent fiber geometry

Applications

- Factory automation
- Short to medium distance communications
- Industrial environments

Fiber Construction j-GIPC50



For further information about our j-GIPC - Graded Index Polymer Clad Fibers and other j-fiber products and services, please contact us:

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Geometrical Characteristics

	Spec. Values	Unit
Core Material	Ge-doped synthetic quartz	
Core Diameter	50 ± 2.5	μm
Core Non-Circularity	≤ 5	%
Profile	Graded Index	
Cladding Material	Synthetic quartz	
Cladding Diameter	200 ± 3	μm
Cladding Non-Circularity	≤ 1	%
Core/Clad Concentricity Error	≤ 1.5	μm
Coating Material	UV-cured acrylate	
Coating Diameter	232 (+0/-4)	μm
Core/Coating Concentricity Error	≤ 3	μm
Buffer Diameter	500 ± 30	μm
Buffer Material	ETFE	

Optical Characteristics

	Spec. Values		Unit
	@ 850nm	@ 1300nm	
Attenuation	≤ 2.4	≤ 0.8	dB/km
Bandwidth	> 500	> 500	MHz·km
Link length at 1 Gb/s	> 600	> 600	m
Numerical Aperture	0.200 +/-0.015		

Mechanical Characteristics

	Spec. Values	Unit
Operating Temperature	-60 to +125	°C
Proof Test	0.5 ± 0.1	GPa
Bend Radius		
short term	10	mm
long term	16	mm
Buffer Strip Force	≤ 3	N
Buffer Strip Length	> 8	cm

Environmental Characteristics

	Spec. Values	Unit
	@ 850/1300	nm
Change of Temperature Attenuation increase, -60°C to +125°C	≤ 0.3	dB/km
Dry Heat Attenuation increase, 30 days @ 125°C	≤ 0.3	dB/km
Damp Heat Attenuation increase, 30 days @ 85°C/ 85% R.H.	≤ 0.3	dB/km

Connectorized Performance¹

Insertion Loss Typical	Value	Unit
Crimp&Cleave, V-pin type	< 3.5	dB
ST, SC (polished)	< 2.5	dB

¹ Precision ferrules required

Crimp & Cleave

		Unit
Recommended Cleave Tools	Micro-Strip	
Recommended Blade Size	300	μm

Ordering Information

To order j-GIPC50 fibers please call, fax or email us and specify the following parameters:

Fiber Type:	j-GIPC50
Desired Attenuation, Bandwidth:	@ 850 nm/1300 nm
Fiber Quantity:	ms / kms

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 specifications without notice.

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j-fiber is an officially registered facility according to EWG No. 761/2001

