



# GigaPOF<sup>®</sup>-120LD

## Gigabit perfluorinated optical fiber

GigaPOF-120LD is a revolutionary POF offering high performance and unmatched simplicity in a single package. With instant termination, relaxed optical alignment tolerances, and excellent IR and visible transparency, no other multi-gigabit medium is as easy to use.

### Graded-index perfluorinated POF: combining the best of the glass fiber and plastic fiber worlds

Until now, the simplicity of plastic optical fiber came with a heavy price: low performance and a restriction to visible wavelengths. The Chromis GigaPOF<sup>®</sup> line overcomes that trade-off with low attenuation, IR-transparent polymer materials, a graded refractive index, and exacting geometric tolerances. GigaPOF-120LD easily supports Gigabit and 10-Gigabit Ethernet, HDMI, USB 3.0 and other multi-gigabit applications at distances up to 100 meters without dispersion compensation.

### A versatile performer

GigaPOF-120LD meets the need for a multi-gigabit fiber that can be used with large alignment tolerances. The 120- $\mu\text{m}$  core and strong mode coupling of this fiber allow an input offset tolerance of more than 30 microns, but it still couples well to most high-speed detectors.

Like the rest of our GigaPOF<sup>®</sup> line of optical fibers, GigaPOF-120LD can be factory-terminated in seconds with our automated tool, and can be clamped or glued directly into optical sub-assemblies without a ferrule. For field-installable applications, very simple crimp-on connectors and inexpensive tools, make it the easiest-to-install high-speed medium in the world.

### Unequaled speed and flexibility

GigaPOF-120LD not only has a qualitatively higher bandwidth than other large-core optical media, but it can be used over a wavelength range from 780-1310 nm. No other gigabit optical medium offers this combination of simplicity and versatility.



#### Product Specifications

##### Transmission Characteristics

Attenuation at 850 nm (dB/km)	$\leq 60$
Attenuation at 1300 nm (dB/km)	$\leq 60$
Bandwidth at 850 nm (MHz·km)	$\geq 500$
Numerical aperture	$0.185 \pm 0.015$
Macro-bend loss (dB for 10 turns on a 25-mm radius quarter circle)	$\leq 0.60$
Zero dispersion wavelength (nm)	1200–1650
Dispersion slope (ps/nm <sup>2</sup> ·km)	$\leq 0.06$

##### Physical Characteristics

Core diameter ( $\mu\text{m}$ )	$120 \pm 10$
Over-cladding diameter ( $\mu\text{m}$ )	$750 \pm 5$
Core to over-cladding concentricity ( $\mu\text{m}$ )	$\leq 5$
Maximum tensile load (N)	15.0
Long-term bend radius (mm)	10.0

##### Environmental Performance

Temperature induced attenuation at 850 nm from $-20^{\circ}\text{C}$ to $+70^{\circ}\text{C}$ (dB/km)	$\leq 5$
Temperature induced attenuation at 850 nm from $+75^{\circ}\text{C}$ 85 % RH 30 day cycle (dB/km)	$\leq 10$