

# GigaPOF-120SR

## Perfluorinated short-reach POF



GigaPOF-120SR is a revolutionary plastic optical fiber offering high performance and unmatched simplicity in a single package. With easy termination, relaxed optical alignment tolerances, and excellent IR and visible transparency, GigaPOF-120SR takes POF to a whole new level.

### 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 heavy price: low performance and a restriction to visible wavelengths. The Chromis GigaPOF line overcomes that trade-off with low attenuation, IR-transparent perfluorinated polymer materials, a graded refractive index, and exacting geometric tolerances. GigaPOF-120SR easily supports Gigabit Ethernet and other high-speed applications at distances up to 100 meters. Fast Ethernet is supported up to 200 meters.



### A versatile performer

GigaPOF-120SR meets the need for a high-performance fiber that can be used with very inexpensive connectors and apparatus. The 120  $\mu\text{m}$  core of this fiber allows wide alignment and dimensional tolerances for components, but still couples well to most high-speed detectors.

Like the rest of our GigaPOF line of optical fibers, GigaPOF-120SR can be easily terminated with simple, inexpensive tools, and tolerates long-term installed bend radii as small as 10 mm.

### Unequaled speed and flexibility

No other large-core optical medium provides the bandwidth and flexibility of GigaPOF-120SR. With minimum installed bend radius less than one third of 100/140 multimode silica fiber, and bandwidth 30 times higher than step-index POF, GigaPOF-120SR is your best choice for high speed in tight spaces.

### 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)	$\geq 300$
Numerical aperture	$0.185 \pm 0.015$
Macrobend 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 ( $\mu\text{m}$ )	$120 \pm 10$
Cladding diameter ( $\mu\text{m}$ )	$490 \pm 7$
Core-cladding concentricity ( $\mu\text{m}$ )	$\leq 5$
Maximum tensile load (N)	7.0
Environmental Performance	
Temperature induced attenuation at 850 nm from -20 C to +70 C (dB/km)	$\leq 5$
Temperature induced attenuation at 850 nm from +75 C 85% RH 30 day cycle (dB/km)	$\leq 10$