

## Lensed Fiber Technology

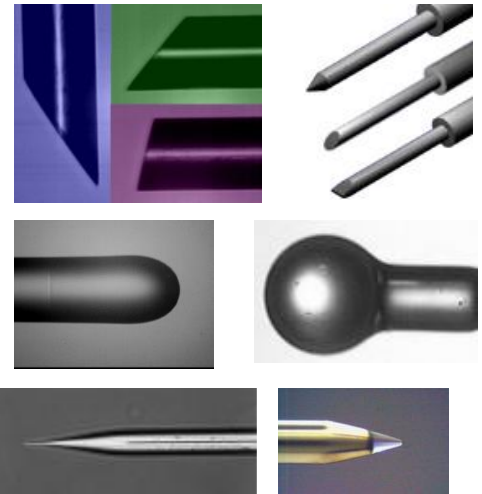
LaseOptics Lensed Fibers are rapidly becoming the method of choice for interfacing optical fiber to active devices and waveguides. Lensing technology provides highly efficient couplings and collimating while consuming a fraction of the space and costs of bulk optic alternatives.

LaseOptics telecommunications proprietary laser fusion shaping technology enables high-end lensed to be manufactured in volume at low costs. The laser quickly shapes the fiber tip into a precise geometry using an optimized numerical solution based on the targeted far-field profile. In-line far-field monitoring ensures repeatability and high coupling efficiency.

This technology provides 12 times the throughput of conventional mechanical methods. Furthermore, the yield loss from laser shaping is less than one percent, compared to 10-20 percent for opto-mechanical matching. These exceptional yields allow high-value fiber of Polarization Maintaining, Fiber Bragg Grating, metallized lensed fibers to be lensed at minimal costs while maintaining process flow flexibility.

LaseOptics Advanced Lensed Fibers Assembly platform allows OEMs to consolidate suppliers of metallized fiber, hermetic sleeves, AR coatings, Lensing, Fiber Bragg Gratings and connectorization into a single source for the entire pigtail assembly.

LaseOptics offer different spot sizes, shapes of single mode and multimode fibers according to customers' specifications. Additionally, we are producing tapered fibers for other applications.



### FEATURES:

- Increased Coupling Efficiency
- Increased Performance
- Increased Reliability
- Increased Reproducibility
- Increased Value & Flexibility

### APPLICATIONS:

- Laser Coupling Assembly
- MEMS & VCSEL's
- Pump Modules & Collimating
- Bio-Medical & Sensors

|   |   |
|---|---|
| Fiber Type                              | SMF-28, 50/125, 62.5/125...or Multi Mode; PM    |
| Jacket, Protection Type                 | 250µm Bare Fiber, 900µm Tube, 3mm Jacket        |
| Connector Type                          | FC/PC, FC/APC, SC, ST, SMA, LC                  |
| Strip-off Length (mm)                   | 7 ±1mm Typical; or otherwise specified          |
| Operation Wavelength Range              | 400nm – 1700nm                                  |
| Spot Size (µm)                          | 1-12 (µm) Typical                               |
| Focal Length/Working Distance (µm)      | 5-500 (µm) Typical                              |
| Tapering Angle (degree)                 | 30- 170   |
| Ferrule Accessories, V-Groove           | Kovar Ferrule, Steel Ferrule or Silica V-Groove |
| Radius of Lensed Fiber-End Surface (µm) | 5-50 (µm)                                       |
| End Surface Coating                     | Option: AR Coating or Mirror Coating            |



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**LaseOptics: Laser applications in science & engineering with Fiber Optics**

