

SWIR Fiber Collimators

1500nm to 2300nm



Features

- Adjustable focus
- High transmission
- Low wavefront error
- No epoxy in the optical path

Applications

- Gas and chemical sensing
- Spectroscopy
- Medical
- Lidar
- Free space communications

All our High Performance Fiber Collimators are available with our SWIR coating which covers the range from 1500nm to 2300nm.

In spite of the absorption bands in the 1500nm to 2300nm being weaker and not as defined compared to the fundamental bands in the mid or longer IR region, there are advantages in this region. First, detectors, cameras and spectrometers are cheaper than those in the mid or longer IR region. Also optical components and systems use the more common type of optics versus specialized optical materials used in the mid to long IR region.

Many types of lasers are now available for this region. Our fiber collimators can be tuned to center wavelength of these lasers and locked down. For OEM users, we can fix the fiber collimator to the center wavelength of your laser.

FC3 and FC5 can be used in applications such as skin

treatments, water sensing while larger collimators such as FC20 can be used for monitoring gases at a distance such as in power plants, refineries, air pollution in cities.

Applications include skin treatment (near 1900nm), lipids (near 1700nm), water at 1930nm and 1975nm, power plant monitoring of gases such as CO₂, NiO_x, SiO_x and methane, sensing in city or industrial plants, for environmental hazards such as CO₂.

Other areas include explosive detection at large stand-off distance, aerial monitoring, lidar and free space communications.

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Specifications

Wavelengths:	1500nm to 2300nm
Beam sizes: (at 1/e ² points)	1mm, 2mm, 3mm, 5.5mm, 11mm, 23mm, 33mm, 50mm
Collimation:	Tunable with lock down
Wavefront:	<1/10 wave rms at 1/e ² points
Body:	Stainless steel
Connectors:	FC or FC/APC

See brochures on “**Standard Fiber Collimators**” and “**Large Fiber Collimators**” for more details.

Mounts are available for all Fiber Collimators.

Mid IR Fiber Collimators are also available.

We manufacture all our collimators and optics in our facility in California, USA.

Please call 714-898-6001 or email info@microlaser.com for you particular application.