

Fiber Collimators



No Rings, No Beam Distortions

Features

- Large apertures
- Clean Gaussian beams at any distance
- Adjustable collimation / focus
- No epoxy in the optical path
- For singlemode, PM fibers or Fiber lasers
- FC, FC/APC, SMA or pigtails
- Usable from 370nm to 2000nm

Our Fiber Collimators are designed specifically for various wavelength singlemode and polarization maintaining fibers. Our unique design ensures you get a clean Gaussian beams at any distance.

We offer various aperture sizes from 5mm to 45mm to accommodate various beam sizes. Output beam is user adjustable so you can optimize collimation to your operating wavelength and lock it down. All collimators have an FC or FC/APC receptacle as standard. The smaller collimators have fine 80 pitch threads for fine focus/collimation adjustment. Larger collimators have focus adjustment with no rotation and a second lockdown for vibrations.

Three wavelength regions cover the spectrum from 370nm to 1700nm. Other wavelength regions cover the 2 μ m region.

A series of adapter rings and mounts are available to mount the collimators to common optical mounts, tables

and tripods. Typical applications include lidar, free space communications, interferometry, confocal microscopy, large structure alignment and any application requiring excellent beam quality with low beam divergence.



FC45 mounted on tripod

 **Micro Laser Systems, Inc.**

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Fiber Collimators

Specifications

	FC5	FC10	FC20	FC40	FC45
Aperture:	5 mm	10 mm	22 mm	46 mm	46 mm
Beam size at 1/e ² points, NA = 0.13 fiber at 635 nm	2 mm	5.5 mm	11 mm	23 mm	32 mm
Beam divergence:	< 0.5 mrad	< 0.25 mrad	< 0.1 mrad	<0.067 mrad	< 0.05 mrad
Wavefront error at 1/e ² points rms:	< 1/10 wave	< 1/10 wave	< 1/10 wave	<1/10 wave	< 1/10 wave
Receptacle:	FC or FC/APC	FC or FC/APC	FC or FC/APC	FC or FC/APC	FC or FC/APC
Collimation:	Adjustable 80 tpi	Adjustable 80 tpi	Adjustable	Adjustable with no rotation	Adjustable with no rotation
Locking:	yes	yes	yes	yes	yes
Housing material:	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
Weight:	45 g (1.6 oz.)	85 g (3.0 oz.)	286 g (10.1 oz.)	0.83 kg (1.83 lb)	1.12 kg (2.46 lb.)

Ordering Information

Model #	Description
FC5-λ-T	6 mm aperture, FC receptacle
FC5-λ-T/A	6 mm aperture, FC/APC receptacle
FC10-λ-T	10 mm aperture, FC receptacle
FC10-λ-T/A	10 mm aperture, FC/APC receptacle
FC20-λ-T	22 mm aperture, FC receptacle
FC20-λ-T/A	22 mm aperture, FC/APC receptacle
FC40-λ-T	45 mm aperture, FC receptacle
FC40-λ-T/A	45 mm aperture, FC/APC receptacle
FC45-λ-T	45 mm aperture, FC receptacle
FC45-λ-T/A	45 mm aperture, FC/APC receptacle
Accessories	
FC5R-1.0	FC5 adapter for 1 in. optical mounts
FC10R-1.0	FC10 adapter for 1 in. optical mounts
FC20R-2.0	FC20 adapter for 2 in. optical mounts
FC45M	FC40 and FC45 mount for tables or tripods
Tripod	Tripod

Use -VIS for $\lambda = 370\text{nm}$ to 600nm
 Use -NIR for $\lambda = 600\text{nm}$ to 1000nm
 Use -IR for $\lambda = 1000\text{nm}$ to 1700nm

All collimators are stock items.

Collimators can be made vacuum compatible, non-magnetic, radiation resistant or made for flight or space applications. Special beam sizes or wavelength ranges have also been manufactured.

Please call 714-898-6001 or email sales@microlaser.com for your particular application.



Ring adapters to mount collimator onto common optical mounts

Specifications subject to change without notice.



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