

Fermion I Series

Singlemode Fiber Coupled Lasers



Features

- 405nm to 1550nm
- Narrow linewidths
- High stability
- Variable output
- Modulation
- Temperature stabilized
- Many accessories
- Certified Turnkey System

Applications

- Confocal microscopy
- Optical tweezers
- Raman spectroscopy
- Fluorescence excitation
- Ophthalmology
- Plasmonics
- Interferometry
- Material analysis
- Sensing
- Metrology

The Fermion I Series of Turnkey Fiber Coupled Lasers are designed to make using lasers easy and convenient. You just plug it in and turn it on. No additional power supplies or heat sinks are needed.

These systems typically have 5-200mW output from the end of singlemode fiber. All lasers are temperature controlled for high stability and low noise. A range of discrete wavelengths cover the span from 405nm to 1550nm.

Internally the lasers are coupled to singlemode fiber for that particular wavelength. This gives a spatially filtered output beam with a smooth Gaussian profile. A series of lasers oscillate in a single longitudinal mode or narrow spectral line. Laser can run in CW or be modulated from zero to full output using the front panel knob or an external voltage source. A one meter length of detachable fiber patch cord is included.

Output of the fiber can be collimated using our Fiber Collimators. They are available in different beam sizes with adjustable focus. Output is diffraction limited with low divergence and low wavefront error. Please see the Fiber Collimator Series.

Other accessories include different cable lengths, fiber splitters and wavelength combiners.

Fermion I Series

Specifications

Wavelengths:	405nm to 1550nm
Wavelength tolerance:	+/-1 to +/-10nm
Spectral width:	<10MHz to 2nm
Output power:	5mW to 200mW
Power stability:	<1% for most
Internal fiber:	singlemode for wavelength
Interlock:	BNC - shorting
Laser monitor:	BNC - voltage output
Modulation:	BNC - Analog to 1 MHz
Fiber connection:	FC/APC or FC/PC
Power requirements:	90-125 VAC, 190-250 VAC, 47-63 Hz
Operating temperature:	15 to 30 ^o C non condensing
Storage temperature:	0 to 50 ^o C
Compliance:	CDRH 21 CFR 1040.10 certified system and IEC 60825-1.2 compliant for end users

Ordering Information

Model #	Wavelength	Power
FI1 405M-15-TE/FC	405±5 nm	15 mW
FI1 450M-10-TE/FC	450±10 nm	10 mW
FI1 488M-15-TE/FC	488±5 nm	15 mW
FI1 520M-10-TE/FC	520±10 nm	10 mW
FI1 635M-35-TE/APC	635 ±5 nm	35 mW
Fi1 638M-60-TE/APC	638±5 nm	60 mW
FI1 808M-200-TE/APC	808±5 nm	200 mW
FI1 830M-70-TE/APC	830±5 nm	70 mW
FI1 980M-200-TE/APC	980±5 nm	200 mW
FI1 1064M-200-TE/APC	1064±5 nm	200 mW

Narrow Line Lasers

Model #	Wavelength	Power	Spectral Width
FI1 633D-05-TE/APC	633±1 nm	5 mW	<10 MHz
FI1 780D-40-TE/APC	780±1 nm	40 mW	<10 MHz
FI1 785D-40-TE/APC	785±1 nm	40 mW	<10 MHz
FI1 852D-50-TE-APC	852±1 nm	50 mW	<10 MHz
FI1 1064D-50-TE/APC	1064±2 nm	50 mW	< 10 MHz
FI1 1310D-15-TE/APC	1310±1 nm	15 mW	< 10 MHz
FI1 1550D-8-TE/APC	1550±1 nm	8 mW	<10 MHz
FI1 1550D-20-TE/APC	1550±1 nm	20 mW	<10 MHz
FI1 1550D-100-TE/APC	1550±1 nm	100 mW	<10 MHz



Model:	S/N:
Wavelength:	Max. Power:
fn:	lop:
Manufactured: Micro Laser Systems, Inc.	

Labels are illustrated here to comply with 21 CFR 1040.10 as applicable.

Specifications subject to change without notice.

Please call about other wavelengths. PM fiber and higher power multimode fiber versions are also available.

Accessories include a large selection of Fiber Collimators, Fiber Focusers and Fiber Splitters.

All lasers and optics are manufactured in California, USA.