

Fermion I Series

Singlemode Fiber Coupled Lasers



Features

- 405nm to 1550nm
- Singlemode fiber
- 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 10-200mW 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:	10mW 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-25-TE/FC	405±5 nm	25mW
FI1 450M-12-TE/FC	450±10 nm	12mW
FI1 473M-30-TE/FC	473±5 nm	30mW
FI1 488M-20-TE/FC	488±5 nm	20mW
FI1 520M-12-TE/FC	520±10 nm	12mW
FI1 637M-70-TE/APC	637±5 nm	70mW
FI1 638S-10-TE/APC	638±5 nm	10mW
FI1 642M-50-TE/APC	642±5 nm	50mW
FI1 647M-50-TE/APC	647-650 nm	50mW
FI1 660M-60-TE/APC	660±5 nm	60mW
FI1 705S-12-TE/APC	705±10 nm	12mW
FI1 730S-12-TE/APC	730±10 nm	12mW
FI1 830M-100-TE/APC	830±5 nm	100mW
FI1 976N-300-TE/APC	976+/-1 nm	300mW
FI1 1064N-220-TE/APC	1064+/-2 nm	220mW
FI1 1310M-130-TE/APC	1310+/-10nm	130mW
FI1 1550M-130-TE/APC	1550+/-10nm	130mW



Model:	S/N:
Wavelength:	Max. Power:
It's:	Top:
Manufactured:	
Micro Laser Systems, Inc.	

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

Specifications subject to change without notice.

Narrow Line Lasers			
Model #	Wavelength	Power	Spectral Width
FI1 633N-10-TE/APC	633±1 nm	10mW	150MHz
FI1 633N-20-TE/APC	633±1 nm	20mW	150MHz
FI1 786N-150-TE/APC	786±1 nm	150mW	<0.04pm
FI1 976N-200-TE/APC	976±1 nm	200mW	<0.04pm
FI1 1064N-200-TE/APC	1064±1 nm	200mW	<0.04pm
FI1 1310D-16-TE/FC	1310±20 nm	16mW	<10MHz
FI1 1550D-8-TE/APC	1550±1 nm	8mW	<10MHz
FI1 1550D-20-TE/APC	1550±1 nm	20mW	<10MHz
FI1 1550D-40-TE/APC	1550±1 nm	40mW	<10MHz

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

Accessories include a large selection of Fiber Collimators and Fiber Splitters