

# Femtosecond Laser 1550nm

(<500 fs, 100MHz repetition, Benchtop)



The FEML Femtosecond Single Mode Polarization Maintaining Laser is a cost-effective benchtop unit that delivers laser pulses shorter than 500 fs at 1560 nm, with polarization-maintaining capability. It operates using fast gain switching within a rare-earth-doped fiber gain medium. The output is fiber-coupled by default, with options for a high-power connector or collimator.

## Features

- Low Cost
- High Reliability
- Single PM Mode
- USB
- Turn-Key Benchtop

## Applications

- Lab
- OEM
- Sensor
- Instrumentation

## Specifications

Parameters	Min	Typical	Max	Unit
Operation Wavelength	1545	1560	1575	nm
Repetition Rate		100		MHz
Output Power Average *	4			mW
Pulse Duration			500	fs
Pulse Energy	40			pJ
Bam Quality			1.2	M <sup>2</sup>
Spectral Linewidth			30	nm
Polarization Extinction Ratio	12	26	35	dB
Synchronization		Optical		
Operating Temperature	20		30	°C
Storage Temperature	-40		85	°C
Electrical Power Consumption			150	W
Power Input	110		120	VAC
Computer Interface	USB			
Fiber Type	PM1550			

### Laser Safety

The class assigned to the products will be Class 3R. Users must take protective measures for eye and skin to use the laser. The collective measures (enclosures) and administrative measures (working procedures) are applied to properly ensure operator safety.



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## Operation Manual

- Plug AC power
- Turn ON The Power Switch
- The Laser Can be Controlled By a Computer via The USB/GUI Interface
- Turn On The Emission Switch

For Manual Operation (option)

- Adjust The Output Power to Minimum by Turning The Knob All Way Counter Clockwise
- Increase The Out Put Power by Turning The Knob Clockwise

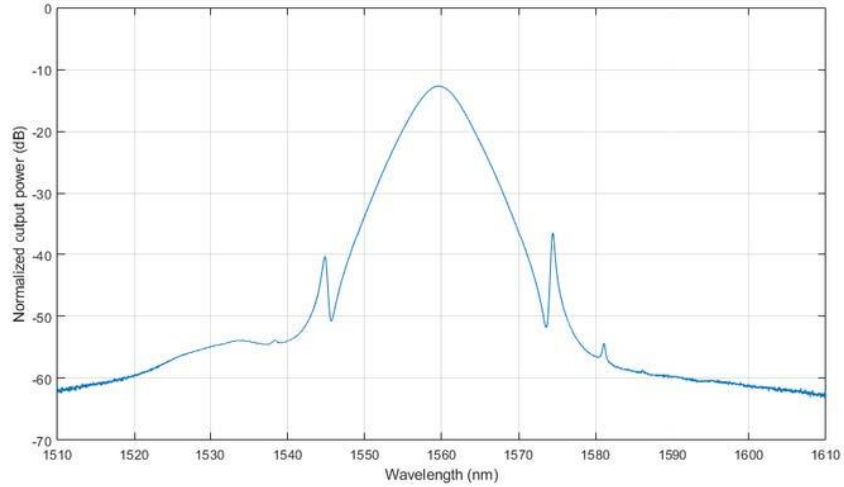
## Mechanical Dimension

\*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

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## Typical Spectrum



## Ordering Information

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>1</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prefix	Wavelength	Output Power <sup>[1]</sup>	Mode <sup>[2]</sup>		Power Supply	Interface	Output	Front Control
<b>FEML-</b>	1550nm = 5	4mW = 01 20mW = 02 40mW = 03 Special = 00	PMER16dB = 1 PMER18dB = 2 PMER25dB = 3 PMER30dB = 4		120-220V = 1	USB = 1 RS232 = 2	FC/PC = 1 Special = 0	Non = 1 Yes = 2 Special = 0

[1]. Average

[2]. PMER- Polarization Maintaining Extinction Ratio

Red is Special Order

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## USB Command List

## Laser Safety

This product meets the appropriate standard in Title 21 of the Code of Federal Regulations (CFR). FDA/CDRH Class 1M laser product. This device has been classified with the FDA/CDRH under accession number 0220191. All versions of this laser are Class 1M laser products, tested according to IEC 60825-1:2007 / EN 60825-1:2007. An additional warning for Class 1M laser products. For diverging beams, this warning shall state that viewing the laser output with certain optical instruments (for example eye loupes, magnifiers, and microscopes) within a distance of 100 mm may pose an eye hazard. For collimated beams, this warning shall state that viewing the laser output with certain instruments designed for use at a distance (for example telescopes and binoculars) may pose an eye hazard.

Wavelength = 1.3/1.5  $\mu$ m.

Maximum power = 30 mW.



\*Caution - Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

\*IEC is a registered trademark of the International Electrotechnical Commission.



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## Questions and Answers

Q: