

# High Stability Red Diode Lasers



## Features

- Circular Gaussian beam
- Narrow linewidth
- Variable output power
- TE cooled for high stability
- Many accessories
- Certified system
- OEM modules

## Applications

- Ophthalmology
- Interferometry
- Confocal microscopes
- Raman spectroscopy
- Optical tweezers
- Cytometry
- Material analysis
- High resolutions scanning

There are many applications which require a highly stable diode laser. Our Lepton IV Series Stabilized 638nm and 660nm Diode Laser provides an affordable alternative to more costly gas, solid state or external cavity lasers.

A simple turnkey laser system is optimal so that you can concentrate on your experiment and not the laser itself. This laser has very high beam quality, narrow linewidth and high stability. All you do is plug it in and turn it on. No additional heat sinks or power supplies are required.

This laser can operate in a single longitudinal mode without mode hops for a long time. Output power of the laser and temperature can be adjusted to set a single laser line.

Accessories include beam expanders, focusing optics, filters, polarizers, beam splitters, etc. Adapter plates and rings are available to mount the laser with common optical mounts found in any lab.

OEM versions of these lasers are available with full control of all laser parameters.



OEM laser module.



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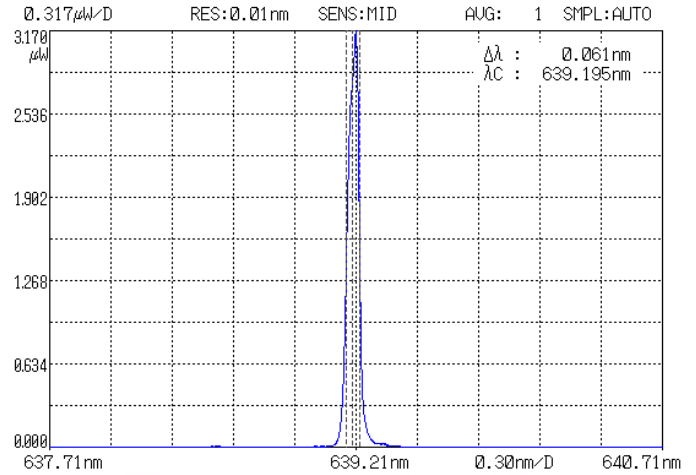
# High Stability Red Diode Lasers

## Specifications

Wavelength:	638±5nm, 660±5nm, 705±5nm
Linewidth:	0.06 to 0.025nm typical, <0.1nm max.
Beam diameter:	~ 3.5mm
Beam divergence:	<0.7mrad
Wavefront error:	<1/10 wave rms
Optical power:	Adjustable
Power stability (24 hrs):	<0.6% typical, <1% max.
Power requirements:	90-125 VAC, 190-250 VAC, 47-63 Hz for turnkey system.  5 VDC, 2 Amps for OEM system.
Connections:	Interlock, shorting BNC Laser monitor BNC Temperature adjust pot Temperature monitor BNC Modulation BNC for turnkey system.  Board pins for external output power adjustment, temperature control and monitoring pins for OEM system.
Operating temperature:	15°C (or dew point) to 30°C
Storage temperature:	0°C to 50°C
Compliance:	CDRH 21CFR 1040.10 certified as applicable and compliant to IEC 60825-1.2

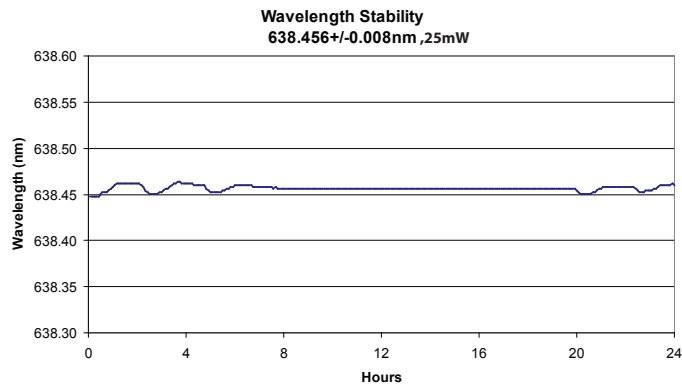
## Ordering Information

Model #	Description
L4 638S-25-TE/ESYS	638nm, 0 to 25mW
L4 660S-70-TE/ESYS	660nm, 0 to 70mW
L4 705S-32-TE/ESYS	705nm, 0 to 32mW
ISO-638, -660, -705	Optical isolator

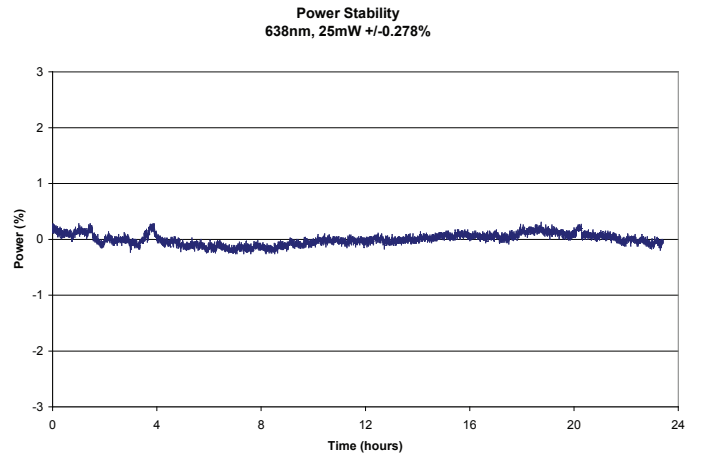


Typical spectral line <0.1nm.

Spectral width measurement limited by resolution of spectrometer



Spectral stability over 24 hours <10pm total.



24 hour power stability <1% total.

Specifications subject to change without notice.



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