



L3 Series Specifications

L3 and L3S Specifications

Model	L3	L3S
Wavelength (µm)	10.3 - 10.7	10.3 - 10.7
CW Minimum Power (W) ¹	0.4	0.4
Power Stability ²	±20%	±2%
Mode Quality (M ²) ³	<1.1	<1.1
Beam Waist Diameter	2.4 mm	2.4 mm
Waist Location	Output Coupler	Output Coupler
Full Div. Angle	5.5 mrad	5.5 mrad
Polarization ⁴	Random	Random
Rise Time (µs)	250	250
Fall Time (µs)	250	250
Supply Voltage	12VDC 20W Regulated	12VDC 20W Regulated
Electronic PWM Parameters	Frequency up to 100 kHz, duty cycle 0-100%	Frequency up to 100 kHz, duty cycle 0-100%
Heat Dissipation	< 20W	< 20W
Minimum Cooling Requirement	Air Cooled	Fan Cooled Closed Loop
Working Temperature	5-40° C	5-40° C
Laser Weight ⁵	2.1 lbs.	4 lbs.
RF Driver Weight	1 lbs.	1 lbs.
Approx. Dimensions (L x W x H inch)	7.5 x 2 x 2.5	7.5 x 4 x 2.5

*All specifications are taken in a 20°C environment.
Specifications are subject to change without notice.

¹ Maximum average power may range up to 2W.
For information on the class IIIb variant, please contact our sales team.

² Power Stability is based on $\pm (P_{max}-P_{min})/(2*P_{max})$ at constant duty cycle after thermal equilibrium.

³ Beam specifications are measured at $1/e^2$.

⁴ Light produced is linearly polarized at a random angle pending the lasing transition line.

⁵ Laser weight is for fan cooled model.

Water Cooling

Min Flow Rate: 1 lpm (.264 gpm)
Recommended Flow Rate: 2 lpm (.528 gpm)
Max Pressure: 2.75 bar (40 psi)
Temperature Range: 15-30° C (59-86° F)
Required temperature stability of +/- 0.1°C or better unless otherwise specified

Options Available

- Fan Cooled, Fan Cooled Closed Loop, Water Cooled, or Water Cooled Closed Loop (L3S)
- Stabilization to ±2% *(L3S)
- Real Time Power Sampling
- 13CO₂ or Oxygen18 isotope gas fills
- Horizontal Linear Polarization
- Line Tracker on L3S model
- Class IIIb Certification (L3S model only)