



Chameleon Vision-S

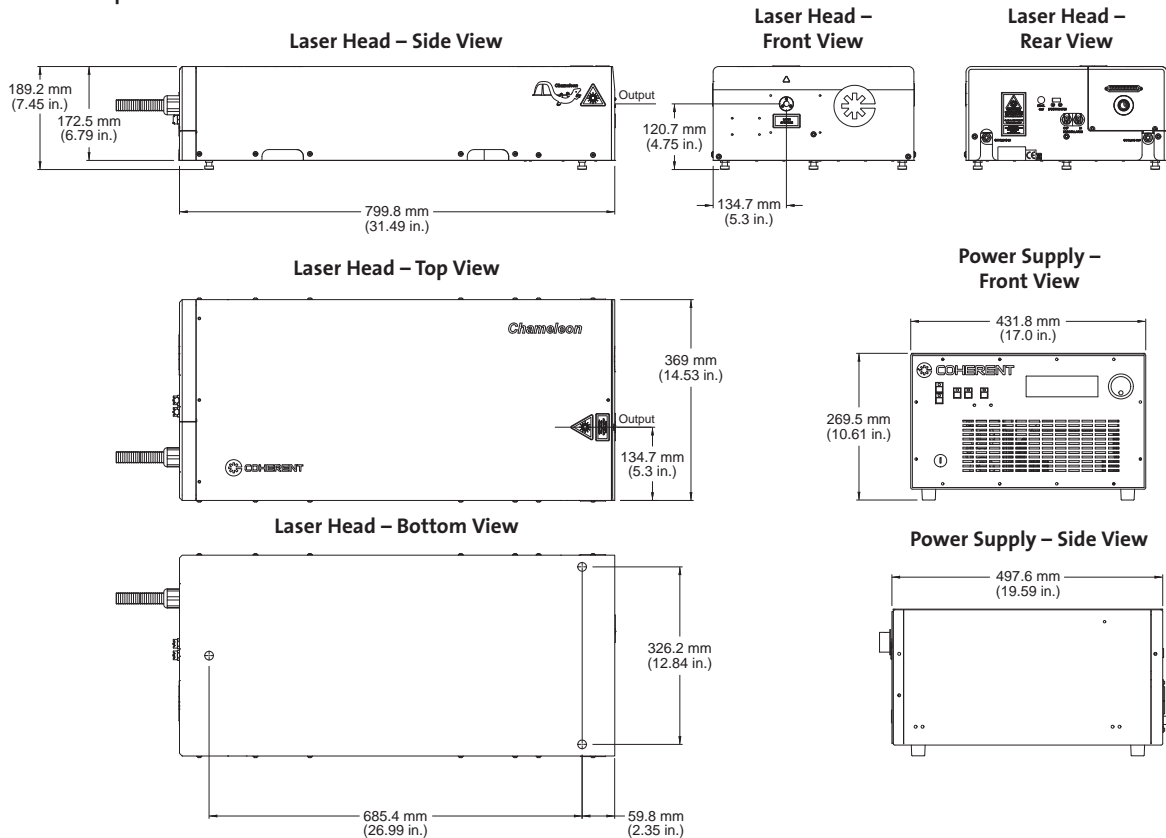
Widely-Tunable, High Peak Power, Single Box Precompensation, Hands-Free, Modelocked Ti:S Laser



Features

- Hands-free operation
- Sealed maintenance-free design
- Ultrawide tuning range (360 nm)
- Automated dispersion precompensation in a single box
- Fully-controllable dispersion precompensation down to 0 at all wavelengths
- High output power (up to >2.3W)
- Highest peak and average power
- Ultra wide dispersion compensation range from 0 to >43,000 fs²
- Tuning above 920 nm provided by MRU air recirculator (included)
- Simple menu-driven GUI or RS-232 operator interface for laser and precompensation features
- PowerTrack™ active alignment for long-term stability
- On-board spectrometer with simple USB interface shows wavelength

Mechanical Specifications



Superior Reliability & Performance

Chameleon™ Vision-S

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System Specifications

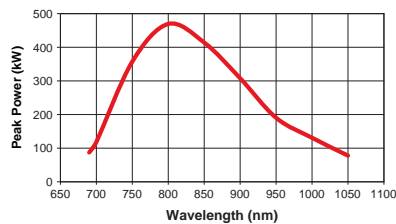
Tuning Range (nm)	690 to 1050
Average Power at Peak (W)	2.3
Peak Power at Peak (kW)	>380
Peak Power Specifications	60 kW at 690 nm 380 kW at 800 nm 215 kW at 920 nm 50 kW at 1050 nm
Dispersion Compensation Range	0 to 43,000 fs ² at 690 nm 0 to 22,000 fs ² at 800 nm 0 to 9,500 fs ² at 1050 nm
Tuning Speed ² (nm/s)	>25
Pulse Width ^{1,3} (fs)	75
Noise ^{1,4} (%)	<0.15
Output Power Stability ^{1,5}	<±0.5
Spatial Mode ¹	TEM ₀₀
Beam Diameter ^{1,6} (mm)	1.2 ±0.2
Beam Ellipticity ^{1,7}	0.9 to 1.1
Astigmatism ¹ (%)	<10
Repetition Rate (MHz)	80
Polarization	Horizontal >500:1
Pointing (μrad/nm)	<80/100 total

Utility and Environmental Requirements

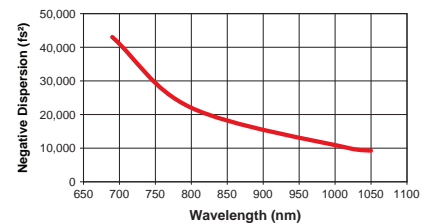
Operating Voltage (VAC)	90 to 250 (auto ranging)
Maximum Operating Current (A)	<15 at 90 VAC (power supply) <7 at 90 VAC (chiller) <2 at 90 VAC (MRU x1)
System Power Consumption (W)	2300 max., 1300 typical
Line Frequency (Hz)	47 to 63
Operating Temperature Range	15 to 35°C (59 to 95°F)
Weight of Laser Head	52 kg (115 lbs.)
Weight of Power Supply	33 kg (73 lbs.)
Umbilical Length	3 m (10 ft.)
Chiller:	
Dimensions (L x W x H)	27 x 20 x 38 cm (11 x 8 x 15 in.)
Weight	11 kg (25 lbs.)
MRU Air Recirculator:	
Dimensions (L x W x H)	46 x 43 x 8.5 cm (18 x 17 x 3 in.)
Weight	9 kg (20 lbs.)

- ¹ Specified at peak of tuning range.
- ² Average speed measured over entire tuning range.
- ³ Based on sech² deconvolution of 0.65 times autocorrelation width.
- ⁴ Measured RMS in a 10 Hz to 20 MHz bandwidth.
- ⁵ Power drift in any two-hour period with less than ±1°C temperature change after a one-hour warm-up.
- ⁶ 1/e² at exit port.
- ⁷ Ratio of major to minor 1/e² beam diameter at exit port.

Chameleon Vision-S Typical Peak Power



Chameleon Vision-S Maximum Negative Dispersion Capability



Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Chameleon systems. For full details of this warranty coverage, please refer to the Service section at www.Coherent.com or contact your local Sales or Service Representative.



www.Coherent.com

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