

Paladin Advanced 532

Modelocked Laser

The Paladin Advanced 532-20000 is perfectly suited to pump OPOs, generating an output with wide-tuning and high-average powers.

It's operated completely hands free via the controls on the power supply, via RS-232 or a customer GUI. It is fully CDRH compliant and can be operated as a standalone laser providing a laser safety shutter and an interlock.

The Paladin Advanced 532-20000 brings industrial performance and reliability into scientific applications.

Paladin Advanced 532 not only gives access to higher power, but also offers a significant reduction in cost-of-ownership, with no compromise in performance, longevity and reliability.

FEATURES & BENEFITS

- 20 W at 532 nm
- PermAlign™ solder-bonded optics technology for permanent optimal alignment and ultra-robustness
- Aluminum-free Active Area (AAA™) pump diodes for industry-leading lifetime
- Cleanroom-built and hermetically sealed for long-term reliability
- Compact and modular laser design for easy integration
- Smart power supply for complete hands-free operation
- Highest efficiency

APPLICATIONS

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SPECIFICATIONS		Paladin Advanced 532-20000		
Wavelength (nm)	532			
Output Power ¹ (W)	20			
Repetition Rate (MHz)	80 ±1			
Pulse Length (ps)	>10			
Spatial Mode	TEM ₀₀			
M ²	<1.2			
Beam Diameter (mm)	1 ±15%			
Beam Divergence (μrad)	650 ±15%			
Beam Ellipticity	0.85 to 1.15			
Pointing Stability (μrad/°C)	<20			
Polarization	linear >100:1, vertical			
Noise (10 Hz to 2 MHz)	<1% (rms)			
Long-Term Power Stability (%)	<±2			
Maximum Warm-Up Time				
From Standby (minutes)	<15			
From Cold Start (hours)	<1			
Static Alignment Tolerances ²				
Beam Position (mm)	<±0.5 (x,y)			
Beam Angle (mrad)	<±2.5			
UTILITY AND ENVIRONMENTAL REQUIREMENTS				
Operating Voltage				
Power Supply	90 to 230 VAC, 50 to 60 Hz			
Power Consumption	Maximum	Operation (typical)	Standby (typical)	
Power Supply	1000 VA	500 VA	200 VA	
Chiller	1000 VA	500 VA (22°C ambient)	500 VA (22°C ambient)	
Ambient Temperature ³				
Operating Conditions Standby	15 to 35°C (59 to 95°F)			
Non-Operating Conditions	-25 to 60°C (-13 to 140°F)			
Dimensions (W x H x L)				
Laser Head	305 x 200 x 1100 mm (12 x 7.9 x 43.3 in.) +300 mm for fibers & connectors			
Power Supply	482 x 177 x 505 mm (19 x 7 x 19.9 in.), 19 in., rack-mountable			
Chiller	482 x 177 x 560 mm (19 x 7 x 22 in.), 19 in., rack-mountable			
Pump Fiber's Length	5 m (16.4 ft.)			
Weights				
Laser Head	50 kg (110 lbs.)			
Power Supply	30 kg (66 lbs.)			
Chiller	38 kg + 3 liters coolant (84 lb. + 0.7 gal.)			

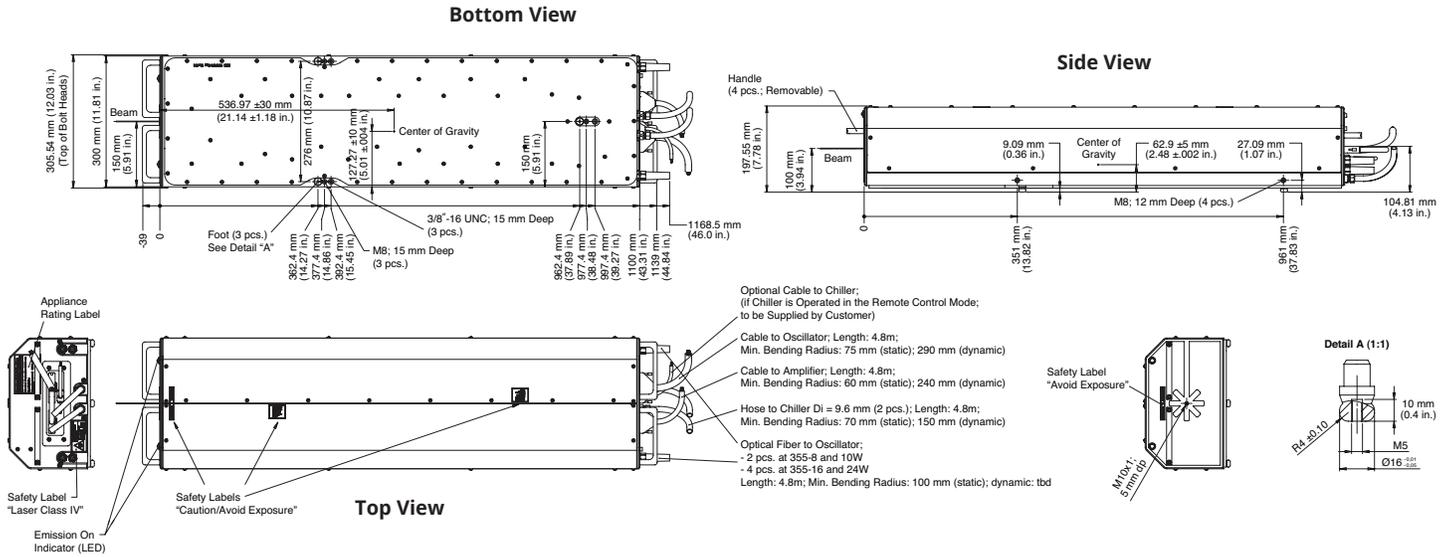
1 Fixed power.

2 Relative to laser mount.

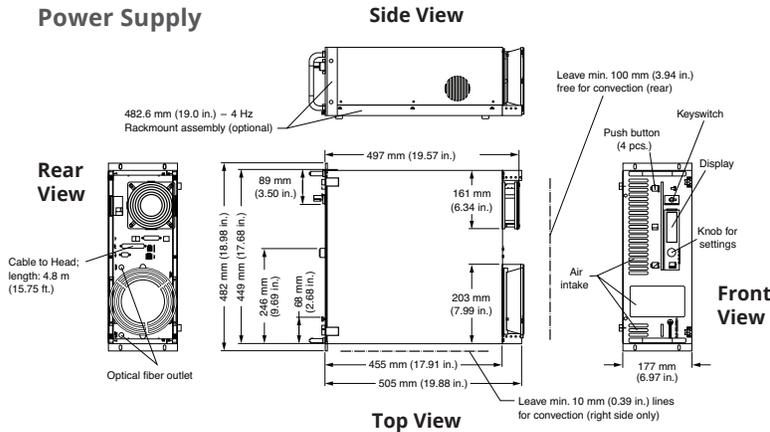
3 Head temperature is stabilized to ±0.5 35°C by the chiller.

MECHANICAL SPECIFICATIONS

Paladin Advanced 532 Laser Head



Power Supply



Coherent, Inc.,
 5100 Patrick Henry Drive Santa Clara, CA 95054
 p. (800) 527-3786 | (408) 764-4983
 f. (408) 764-4646

tech.sales@coherent.com www.coherent.com

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 Paladin Advanced 532 Lasers. 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. MC-038-12-0M0720Rev.B Copyright ©2020 Coherent, Inc.

