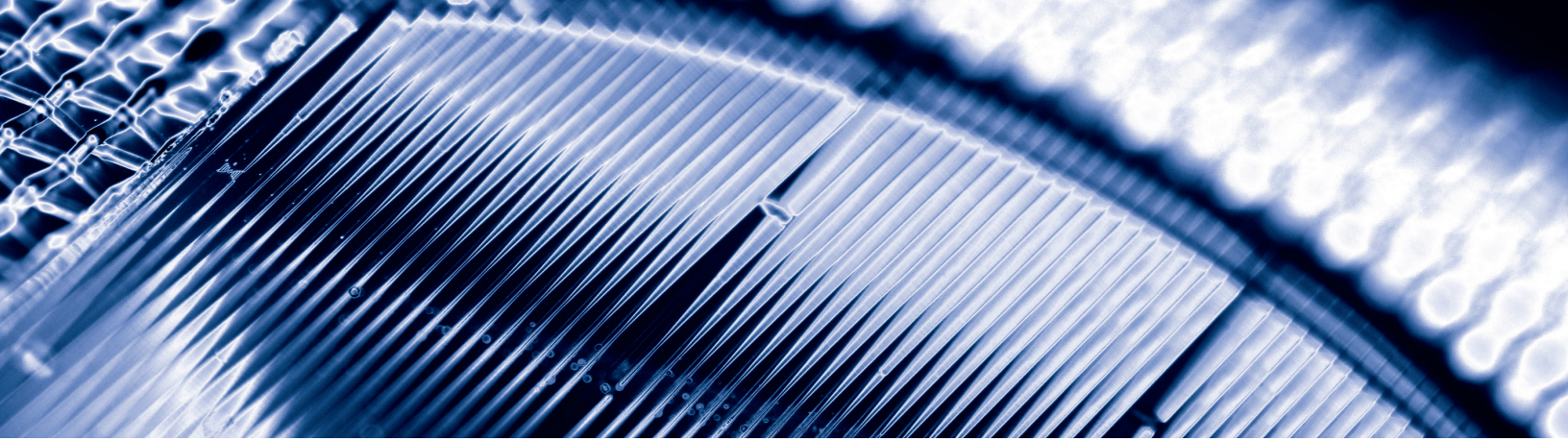


Paladin Compact 355-2000/4000

Air-Cooled, Quasi-CW Modelocked UV Lasers

Paladin Compact is an air-cooled, picosecond UV laser in a compact package for highly demanding OEM applications. The quasi-cw laser pulses with high output power stability at 120 MHz are beneficial for precise imaging applications.

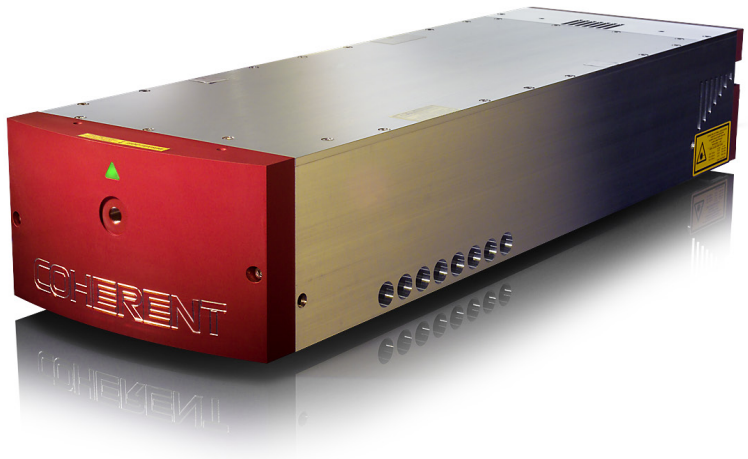
The laser is optimized for 24/7 OEM operation in demanding industrial environments. The Coherent PermAlign™ technology supports the laser's robustness and enables the field-proven long lifetime. Field exchangeable diode modules and a cleanroom-built, hermetically sealed laser cavity contribute to a long lifetime in the field.

FEATURES & BENEFITS

- PermAlign™ solder-bonded optics technology for ultra-robust operation in tough industrial environments
- Cleanroom-built and hermetically sealed for long-term reliability in commercial applications
- Aluminum-free Active Area (AAA™) diode material for industry-leading lifetime
- Smart power supply for complete hands-free operation
- Compact and modular laser design for easy integration
- Highest efficiency: only one pump diode

APPLICATIONS

- Materials Processing
- Stereolithography
- Inspection



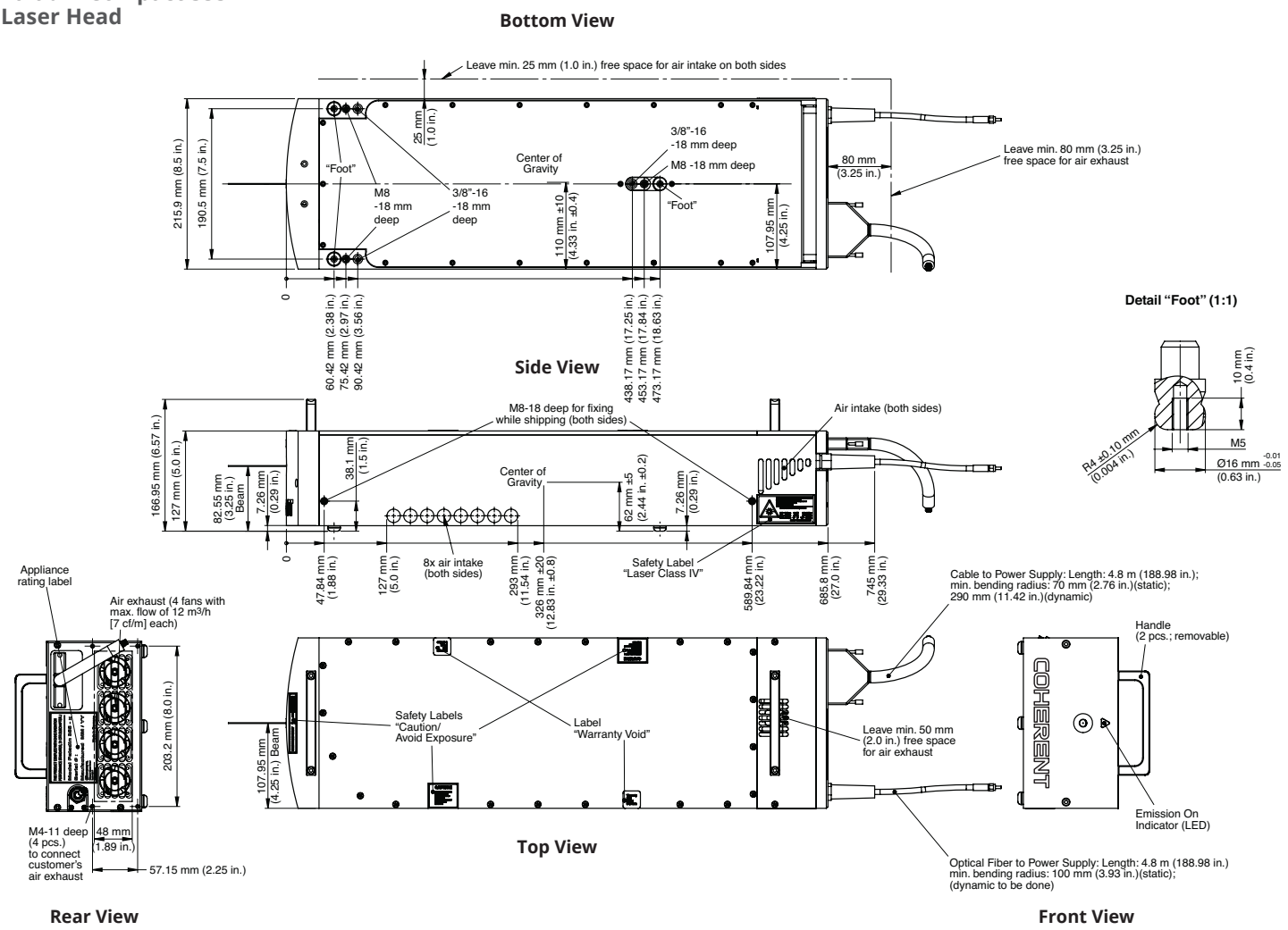
COHERENT®
Superior Reliability & Performance

SPECIFICATIONS	Paladin Compact 355-2000/4000
Wavelength (nm)	355
Output Power (W) Paladin Compact 355-2000 Air-Cooled Paladin Compact 355-4000 Air-Cooled	 >2 >4
Repetition Rate (MHz)	120 ±2
Pulse Length (ps)	15 at 1064 nm
Spatial Mode	TEM_{00}
M^2	<1.2
Beam Diameter (mm)	1 ±10%
Beam Divergence (µrad) (full angle)	<550
Beam Ellipticity	0.9 to 1.1
Pointing Stability after Warm-Up (µrad/°C)	<25
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) From Cold Start (hours)	 <30 <1
Static Alignment Tolerances[1] Beam Position (mm) Beam Angle (mrad)	 <±0.5 <±2.5
UTILITY AND ENVIRONMENTAL REQUIREMENTS	
Operating Voltage (VAC)	90 to 230, 50 to 60 Hz
Power Consumption (VA)	1000 (maximum)
Ambient Temperature	15 to 35°C (59 to 95°F)
Dimensions (W x H x L) Laser Head Power Supply Pump Fiber's Length	 216 x 127 x 686 mm (8.5 x 5.0 x 27.0 in.) 482 x 177 x 505 mm (19.0 x 7.0 x 19.9 in.) 4.5m (15 ft.)
Weights Laser Head Power Supply	 25 kg (55 lbs.) 28 kg (62 lbs.)

1 All measurements, such as power and energy made at 20°C ±0.5°C coolant temperature, 80 kHz PRF, and 5 µsec PW command.
1 Power Stability based on $+/-(P_{max}-P_{min})/(2*P_{max})$ average power measurement at constant duty cycle after 10-minute warmup at operating condition.
3 Pulse Width and Peak Power will vary depending on operating parameters, specifically Pulse Frequency and Duty Cycle.
4 Gaussian Correlation based on Spiricon Near Field Raw Beam measurement at 80 cm distance from laser output, 20°C, and steady state operation at 80 kHz PRF, and 5 µsec PW.
5 Ratio based on Far Field Divergence measurement at 20°C, 80 kHz PRF, and 5 µsec PW command.
6 Weight and Dimensions with Circular Polarizer or Isolator.
7 OptiShield+ is a trademark of the OptiTemp.

MECHANICAL SPECIFICATIONS

Paladin Compact 355 Laser Head



COHERENT

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**

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