

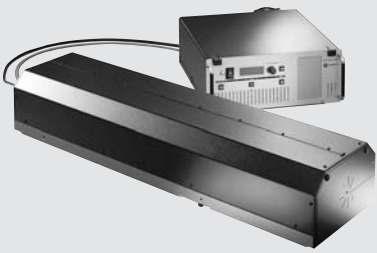


Paladin Advanced 355

Modelocked UV Laser

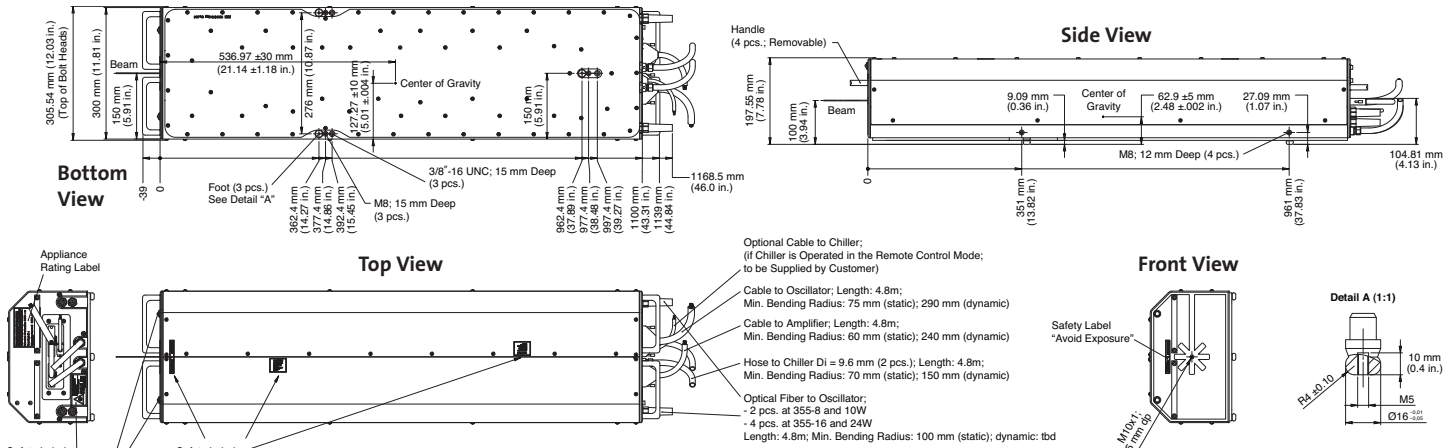
Features

- The widest range of powers from 2W to 24W. Optimal power – price package for the application
- 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

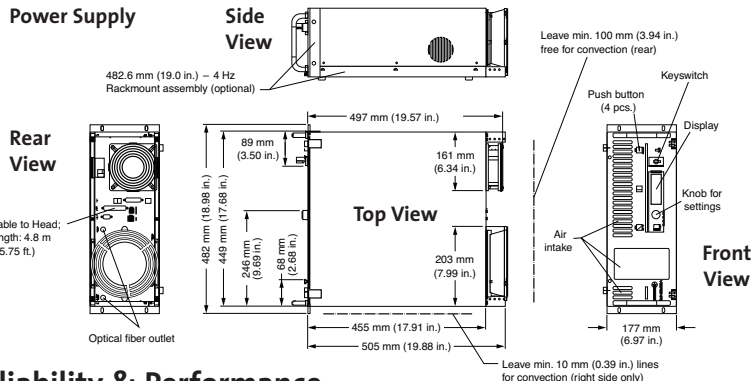


Mechanical Specifications

Laser Head



Power Supply



Superior Reliability & Performance

Paladin™ Advanced 355

Modelocked UV Laser

System Specifications

Paladin	355-8000	355-10000	355-16000	355-24000
Wavelength (nm)	355			
Output Power ¹ (W)	>8	>10	>16	>24
Repetition Rate (MHz)	80 ±1	80 ±1	80 ±1	82 ±1
Pulse Length (ps)	>15 at 1064 nm			
Spatial Mode	TEM ₀₀			
M ²	<1.2			
Beam Diameter (mm)	1 ±15%	1 ±15%	1.35 ±15%	1.35 ±15%
Beam Divergence (μrad)	<550	<550	<480	<480
Beam Ellipticity	0.9 to 1.1			
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	<15	<15	<20
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	90 to 230 VAC, 50 to 60 Hz		
Power Supply			
Power Consumption	Maximum	Operation (typical)	Standby (typical)
Power Supply (master & slave)	1000 VA	500 VA	200 VA
Chiller (8W/10W)	1000 VA	500 VA (22°C ambient)	500 VA (22°C ambient)
Chiller (16W/24W)	1600 VA	750 VA (22°C ambient)	750 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 (master & slave)	482 x 177 x 505 mm (19 x 7 x 19.9 in.), 19 in., rack-mountable		
Chiller (8W/10W)	482 x 177 x 560 mm (19 x 7 x 22 in.), 19 in., rack-mountable		
Chiller (16W/24W)	482 x 266 x 640 mm (19 x 10.5 x 25 in.), 19 in., rack-mountable		
Pump Fiber's Length	5m (16.4 ft.)		
Weights			
Laser Head	50 kg (110 lbs.)		
Power Supply (master & slave)	30 kg (66 lbs.)		
Chiller (8W/10W)	38 kg + 3 liters coolant (84 lb. + 0.7 gal.)		
Chiller (16W/24W)	42 kg + 3 liters coolant (92 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.

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 355 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.



www.Coherent.com

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