

DC & DS Series

351nm Nd:YLF UV Lasers



Features

- 351nm wavelength
- Compact, Rugged Design
- TEM00 Beam with $M2 < 1.2$
- Pulse Rates from Single Shot to 10 kHz
- RS232 Computer Control
- External TTL Triggering
- Low Power Air-Cooled
- High Power Closed Loop Chiller



Optional Features

- Pulse Energy Control to Vary Output from 10% to 98%
- Beam Expander from 2 mm up to 10 mm
- Output Power Monitor

Applications

- LCD Repair
- Wafer Marking
- Lidar
- Solar Cell Scribing/ Production
- Stereo lithography–Rapid Prototyping
- Mass Spectrometer
- MALDI-TOF
- Semiconductor Processing
- Interferometry
- Non-Contact Inspection
- Fluorescence
- Holography Micro-Marking
- Laser Marking, Scribing
- Via Hole Drilling
- Laser Singulation
- OPO, Ti: Sapphire Pumping
- High Speed PIV
- Laser Micromachining
- Rapid Prototype-Stereo Lithography
- Fiber Bragg Grating Manufacturing



351nm System Specifications

DC Series - 0.5W to 1.5W



	DC50-351	DC100-351	DC150-351
Wavelength	351 nm	351 nm	351 nm
Average Power @ 3 kHz	500mWatts	1Watt	1.5Watts
Pulse Width @ 1 kHz (nominal)	30 ns	25 ns	20 ns
Pulse Energy @ 1 kHz	0.25 mJ	0.5 mJ	1 mJ
Beam Mode	TEM ₀₀ - M ² < 1.2		TEM ₀₀ - M ² < 1.5
Beam Diameter @ exit (nominal)	0.4mm		
Divergence (nominal)	<2mRad		
Polarization Ratio	100:1 Horizontal		
Pulse-to-Pulse Instability	<3% rms		
Long-Term Instability (8h +/-3deg.C)	+/- 3%		
Temp Stability	3% /deg C		
Pointing Stability	< 50 urad		
Pulse Repetition Rate	1 Hz to 10 kHz		
Laser Head (WxLxH)	253mm, 102mm, 114mm		
Controller Dimensions (WxLxH)	356mm, 311mm, 89mm		
Electrical Requirement	100 to 120V, 200 to 240 V @ 50/60 Hz		
Relative Humidity	Non condensing, 90% Max		
Ambient Temperature	15° to 35°C (59° to 95°F) Operating Range		
Umbilical Length	3 meter (10 feet)		

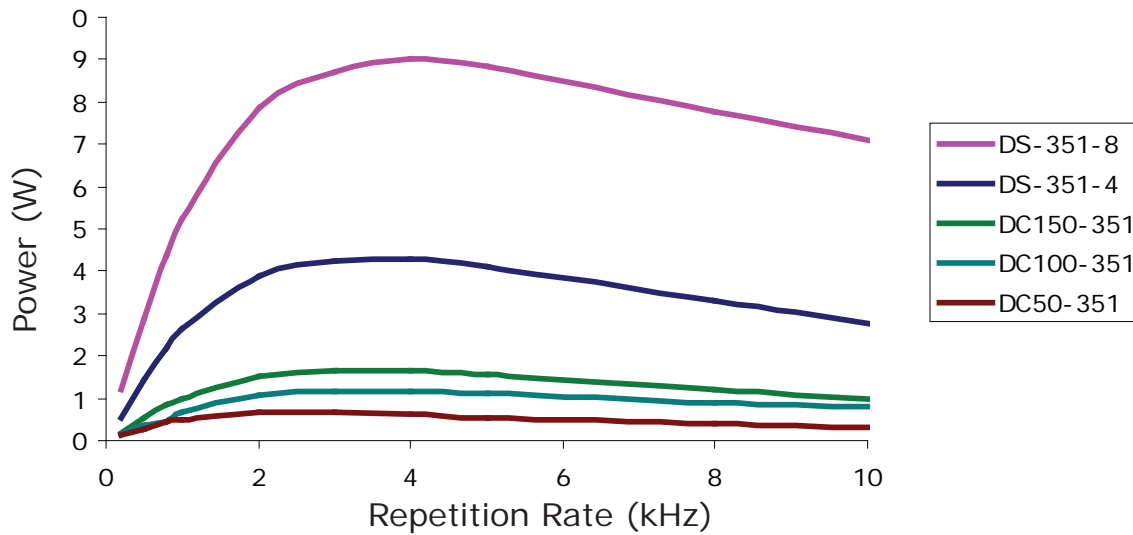
DS Series - 4W to 8W



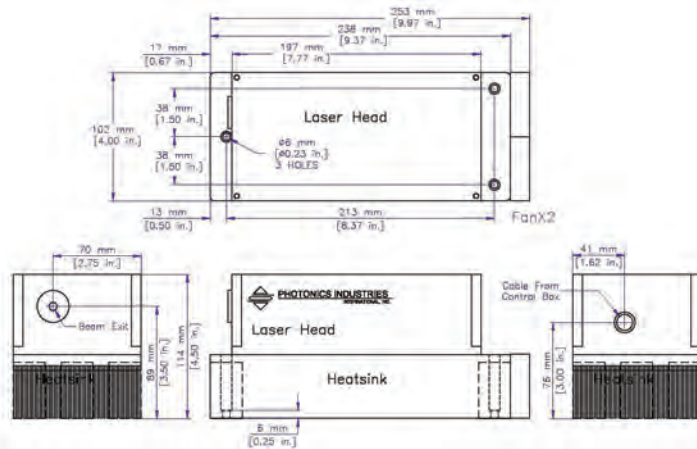
	DS-351-4	DS-351-8
Average Power @ 3 kHz	4 Watts	8 Watts
Pulse Width @ 1 kHz (nominal)	40 ns	35 ns
Pulse Energy @ 1 kHz	2 mJ	5 mJ
Beam Mode	TEM ₀₀ - M ² < 1.2	
Polarization Ratio	100:1 Horizontal	
Beam Diameter @ exit (nominal)	0.9 mm	
Beam Divergence	<1.3 mrad	
Pulse-to-Pulse Instability	<2% rms	
Long-Term Instability (8h +/-3deg.C)	<+/- 2%	
Pointing Stability	< 25 μrad	
Pulse Repetition Rate	Single shot to 10 kHz	
Laser Head (WxLxH)	190.5 mm, 558.8 mm, 95.25mm	
Controller Dimensions (WxLxH)	(DSH-1064-15,30) 356mm, 311mm, 89mm (DSH-1064-40,50) 483 mm, 343 mm, 133 mm	
Electrical Requirement	100 to 120V, 200 to 240 V @ 50/60 Hz	
Relative Humidity	Non condensing, 90% Max	
Ambient Temperature	15° to 35°C (59° to 95°F) Operating Range	
Umbilical Length	3 meter (10 feet)	



Performance Curve

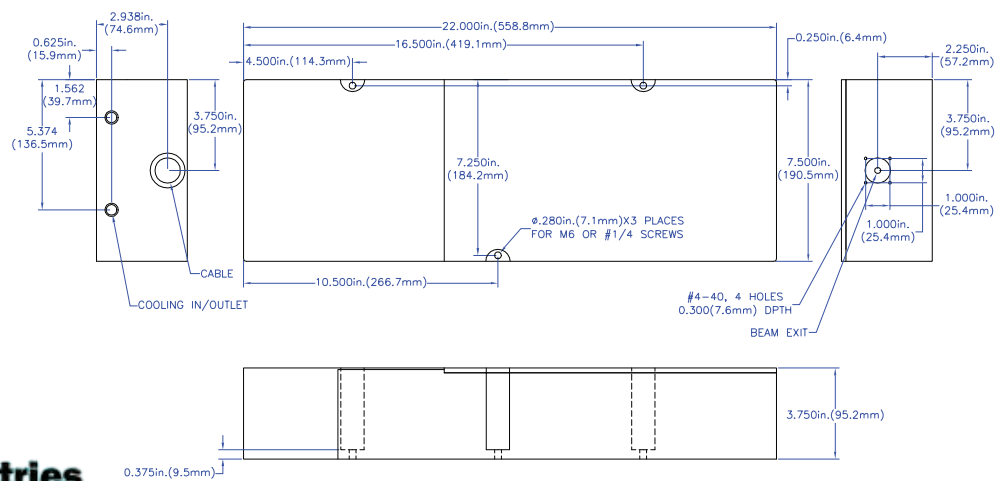


Dimensional Drawings



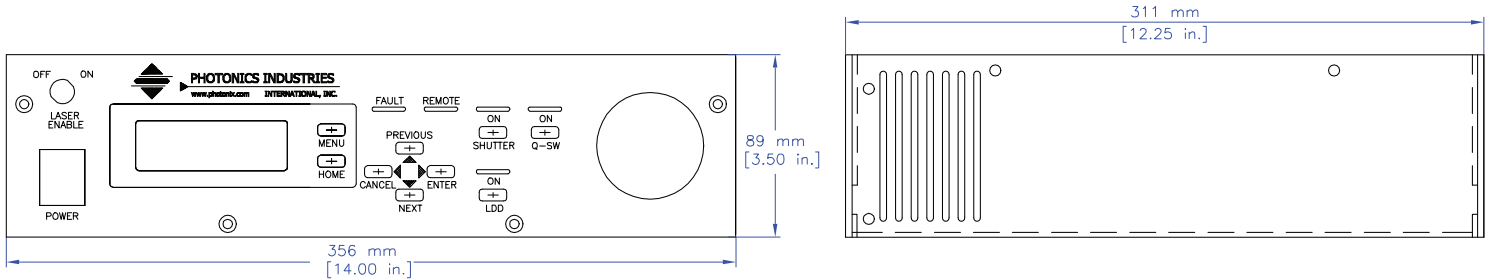
DC Laser Head

DS Laser Head

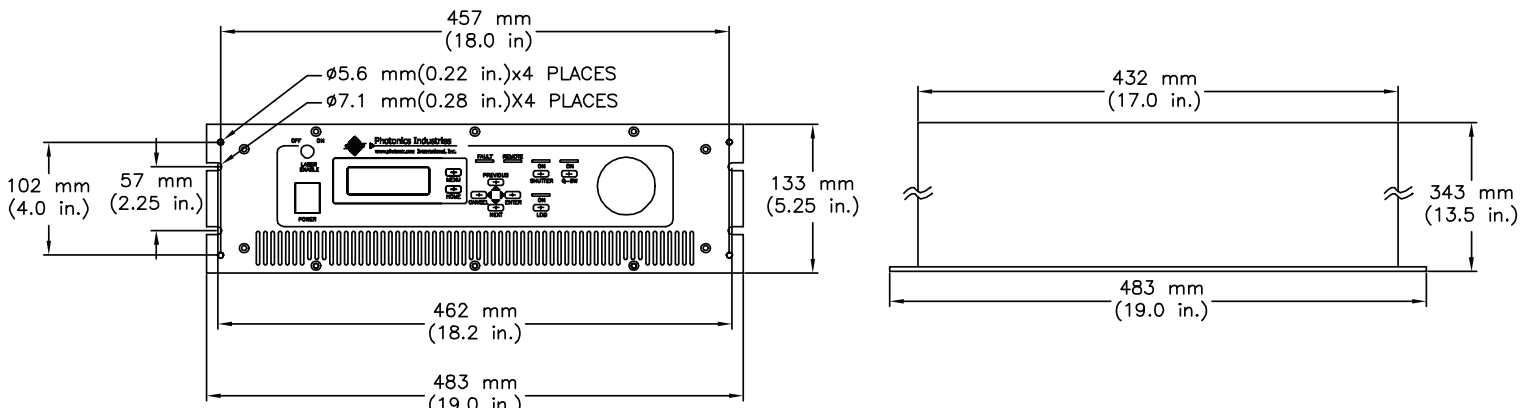


Dimensional Drawings

DC/DS Controller



High Power DS Controller



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