

DC & DS Series

263nm Nd:YLF Deep-UV Lasers



Features

- 263nm Wavelength
- Compact, Rugged Design
- TEM₀₀ Beam with M² < 1.3
- 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



263nm System Specifications

DC Series - 50mW to 400MW

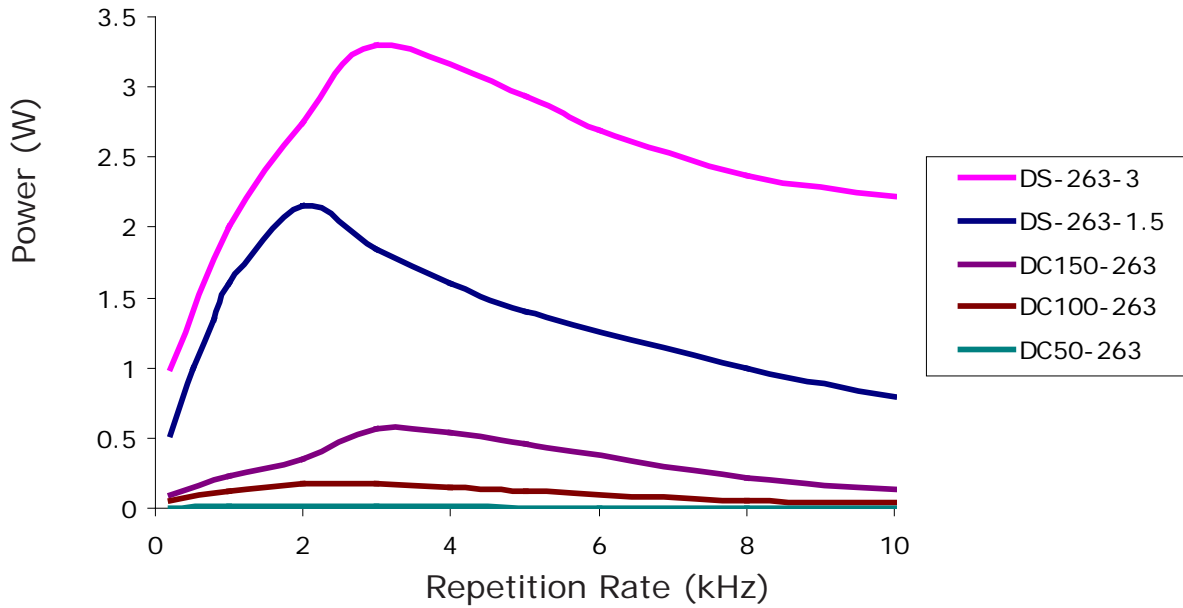


Model	DC50-263	DC100-263	DC150-263
Average Power @ 3 kHz	50 mWatts	100 mWatts	400 mWatts
Pulse Width @ 1 kHz (nominal)	20 ns	30 ns	15 ns
Pulse Energy @ 1 kHz	50 uJ	100 uJ	200 uJ
Beam Mode	TEM ₀₀		
Beam Diameter @ exit (nominal)	0.9mm		0.6mm
Divergence (nominal)	<2mRad		
Polarization Ratio	100:1 Horizontal		
Pulse-to-Pulse Instability	<4% rms		
Long-Term Instability (8h +/-3deg.C)	+/- 5%		
Pointing Stability	< 50 urad		
Pulse Repetition Rate	1 Hz to 10 kHz		
Laser Head (WxLxH)	102mm, 432mm, 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 - 1.5W to 3W

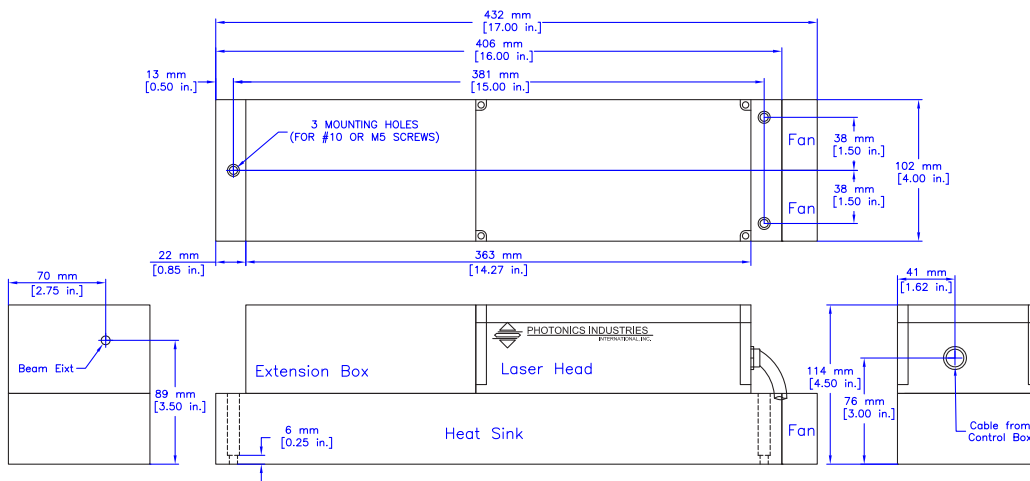
Model	DS-263-1.5	DS-263-3
Average Power @ 3 kHz	1.5 Watts	3 Watts
Pulse Width @ 1 kHz (nominal)	40 ns	30 ns
Pulse Energy @ 1 kHz	1 mJ	2 mJ
Beam Mode	TEM ₀₀ - M ² < 1.3	
Polarization Ratio	100:1 Horizontal	
Beam Diameter @ exit (nominal)	0.7 mm	
Beam Divergence	<1.2 mrad	
Pulse-to-Pulse Instability	3% rms	
Long-Term Instability (8h +/-3deg.C)	+/- 10%	
Pointing Stability	< 25 μrad	
Pulse Repetition Rate	Single shot to 10 kHz	
Laser Head (WxLxH)	203.2mm, 762mm, 152.4mm	
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)	

Performance Curve

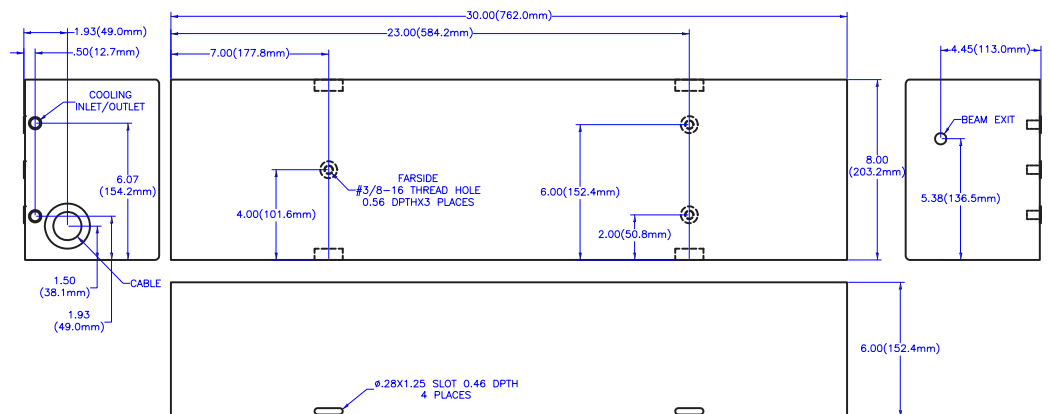


Dimensional Drawings

DC Laser Head

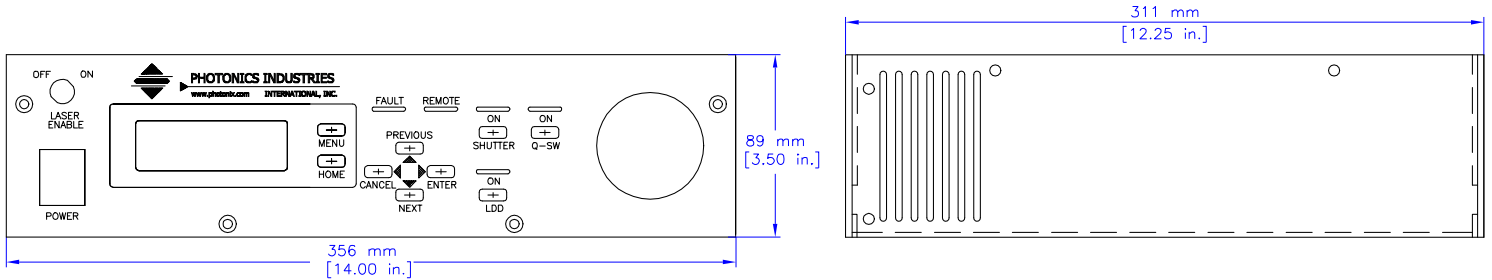


DS Laser Head

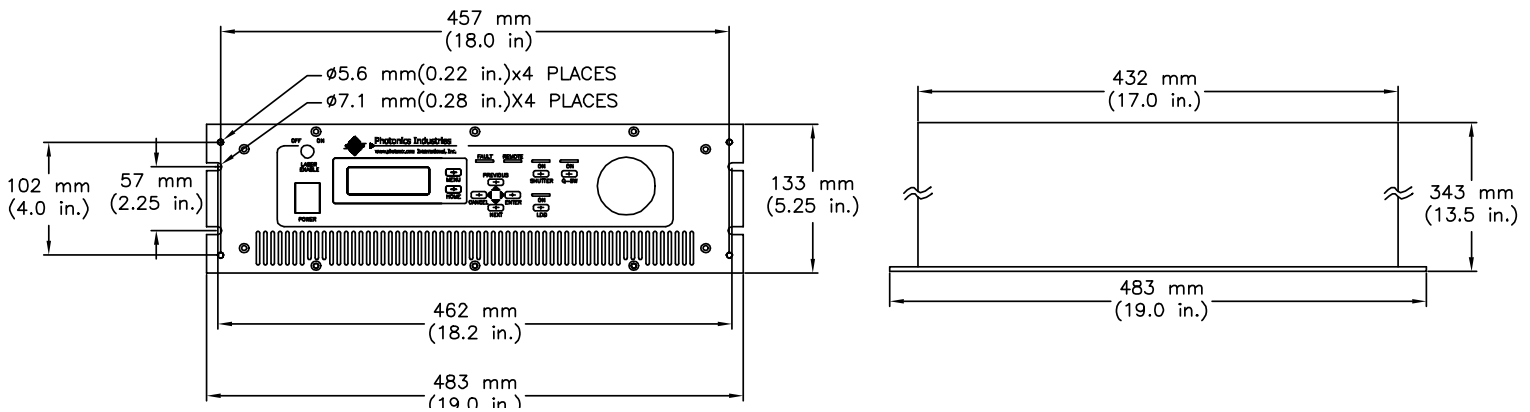


Dimensional Drawings

DC/DS Controller



High Power DS Controller



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