

DC & DS Series

1053nm Nd:YLF IR Lasers



Features

- 1053nm Laser Radiation
- 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

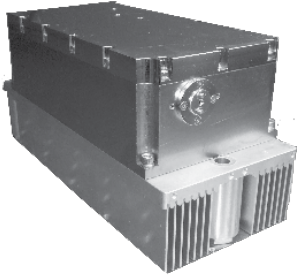
Applications

- 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



1053nm System Specifications

DC Series - 1W to 3W



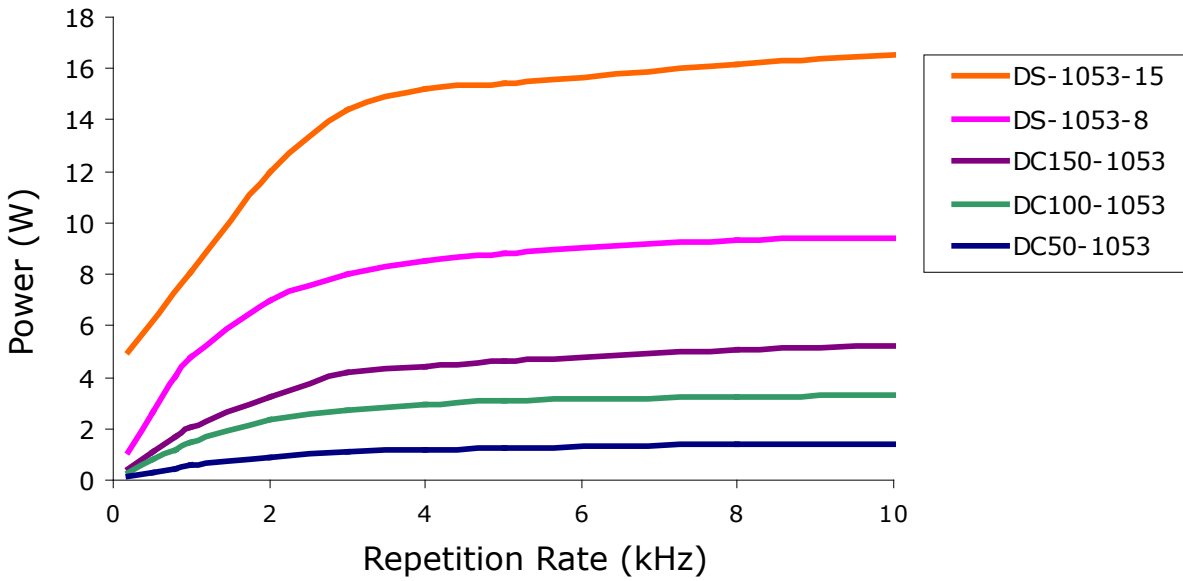
	DC50-1053	DC100-1053	DC150-1053
Avg. Power @ 3 kHz	1 W	2 W	3 W
Pulse Width @ 1 kHz (nominal)	30 ns	30 ns	25 ns
Pulse Energy @ 1 kHz	0.5 mJ	1 mJ	1.5 mJ
Beam Mode	TEM ₀₀ - M ² < 1.2		TEM ₀₀ - M ² < 1.3
Beam Diameter @ exit (nominal)	0.8mm		
Divergence (nominal)	<2.5mRad		
Polarization Ratio	100:1 Horizontal		
Pulse-to-Pulse Instability	<3% rms		
Long-Term Instability (8h +/-3deg.C)	+/- 3%		
Pointing Stability	< 50 urad		
Pulse Repetition Rate	1 Hz to 10 kHz		
Laser Head (WxLxH)	102mm, 253mm, 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 - 8W to 15W

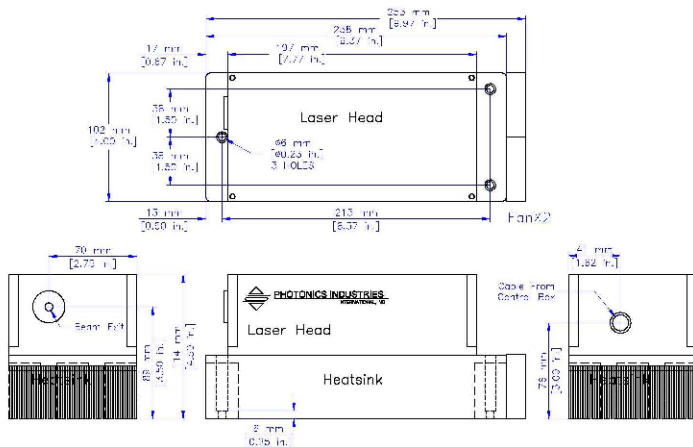


	DS-1053-8	DS-1053-15
Avg. Power @ 3 kHz	8 Watts	15 Watts
Pulse Width @ 1 kHz (nomial)	65 ns	50ns
Pulse Energy @ 1 kHz	4 mJ	9 mJ
Beam Mode	TEM ₀₀ - M ² < 1.2	
Polarization Ratio	100:1 Horizontal	
Beam Diameter @ exit (nominal)	1.0 mm	
Beam Divergence	1.6 mrad	
Pulse-to-Pulse Instability	<2% rms	
Long-Term Instability (8h +/-3deg.C)	<+/- 2%	
Pointing Stability	< 25 urad	
Pulse Repetition Rate	Single shot to 10 kHz or CW	
Laser Head (WxLxH)	190.5mm, 558.8mm, 95.25mm	
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

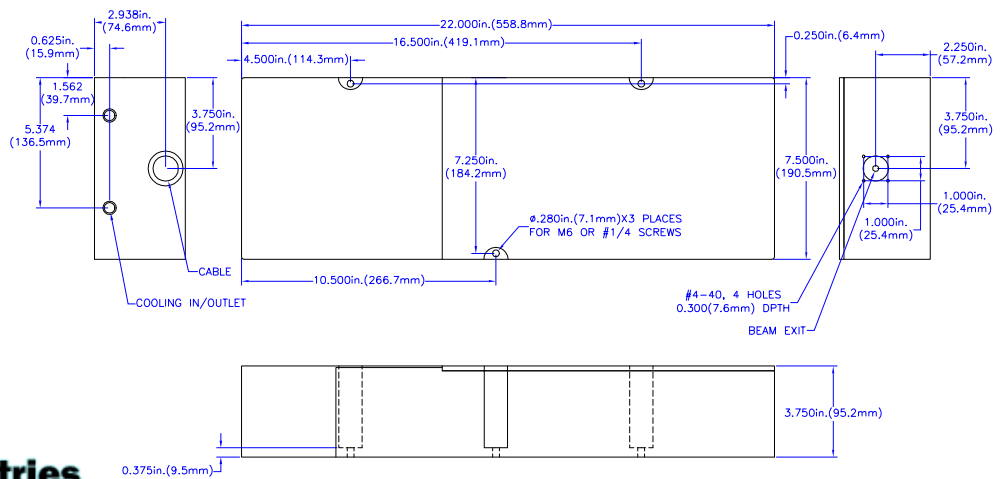


Dimensional Drawings



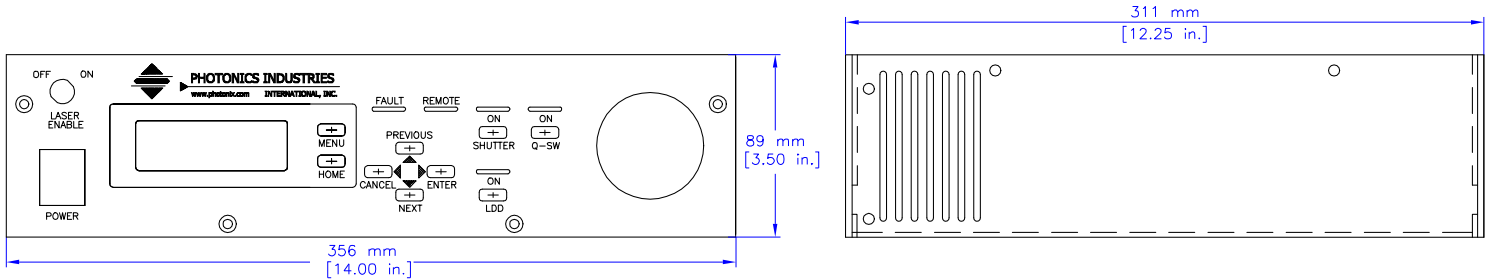
DC Laser Head

DS Laser Head

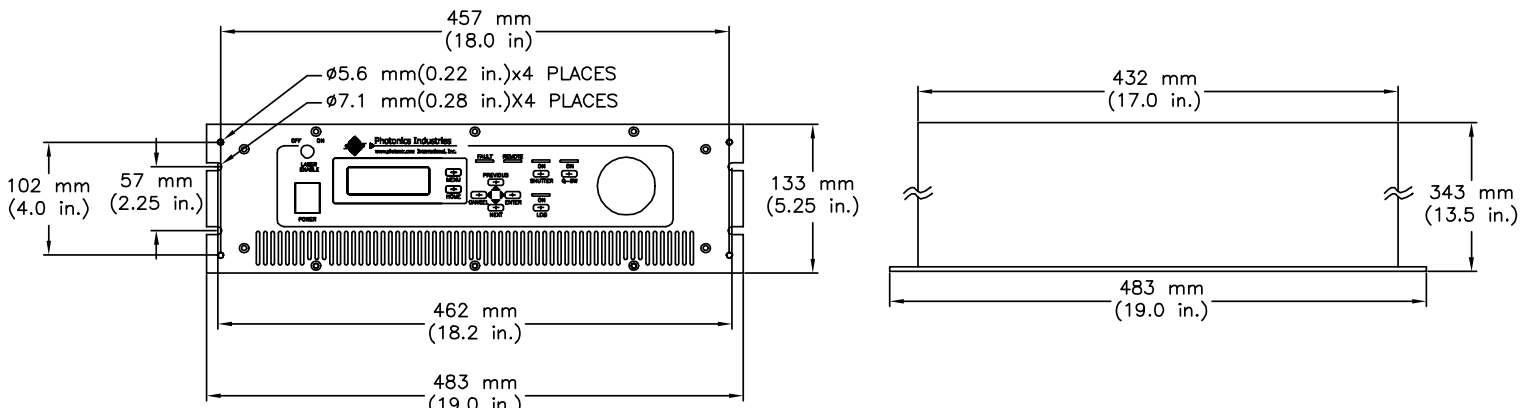


Dimensional Drawings

DC/DS Controller



High Power DS Controller



US Main Office

390 Central Ave, Bohemia, NY,
11716
Phone: 631-218-2240
Fax: 631-218-2275
E-Mail: info@photonix.com
Website: www.Photonix.com

脉动科技有限公司

中国代理商

北京总部 地址：海淀区中关村东路89号 恒兴大厦9C, 100190 电话：010-62565117 010-84413925 传真：010-62565117-11 邮箱：info@pulsepower.cn 官网：www.pulsepower.cn

上海办事处 021-32070812 西安办事处 029-87307077 深圳办事处 0755-27528760



Photronics Industries
International, Inc.

Japan Office

Rokusan Bldg. 9F, Funamachi 7
Shinjuku-ku, Tokyo 160-0006, Japan
Tel: [81] 03-6423-1805
Fax: [81] 03-6423-1806
Email: kseita@photonix.co.jp

Korea Office

703 Sogong Bldg, 352-5 Gugal-Dong
Giheung-gu, Yongin City
Gyeonggi-Do, 446-569 Korea
Tel: +82-31-284-9520
Fax: +82-31-284-9521
Contact: Sang-Moon Kim
Email: kimsm@photonix.com

China Office

Room 1401, B8
No 208 XingHai Street, Suzhou Industrial
Park
Suzhou 215021, P. R. China
Tel: 86-512-6763 5761
Fax: 86-512-6763 5762
Email: china@photonix.com
Website: <http://www.photonix.com.cn/>

Due to Photronics Industries' commitment to continuous product improvement, specifications and drawings are subject to change without notice.

Photronics Industries conforms to provisions of US 21 CFR 1040.10 & 1040.11 and is made under one or more US patents listed below:
7,346,092; 7,082,149; 7,079,557; 6,999,483; 6,980,574; 6,961,355; 6,842,293; 6,762,405; 6,690,692; 6,587,487; 6,584,487; 6,366,596;
6,327,281; 6,356,578; 6,246,707; 6,229,839; 6,108,356; 6,061,370; 6,028,620; 5,936,938; 5,898,717 and Pending Patents

Copyright © 2011 by Photronics Industries International, Inc.

