

DCH-532 Series

Nd:YVO₄ Green Lasers



Features

- 3 Models: 1W, 2W & 6W* of Green Power
- Air-cooled Design
- Patented Intracavity Green Generation
- Compact, Rugged, Monolithic Laser Head
- Total Pulse Control
- TEM00 Beam with Typical M² < 1.3
- Pulse Rates from 1 Hz to 300 kHz
- RS232 Computer Control
- Field Replaceable Pump Diodes
- All-in-one single box design for low power model

As the first company to pioneer intracavity harmonic generation technologies and introduce the very first intracavity UV lasers in 1996, Photonics Industries remains an industry leader in producing efficient, simple, low cost of ownership (COO) lasers. Its DCH Series offers green power from 1 W to 6 W with the best mode quality in the market.

Owing to key patented technologies, intracavity harmonic generation is inherently a more efficient harmonic conversion that provides better pulse to pulse stability and mode quality as well as a much simpler, more compact laser configuration. In addition to its patented intracavity Green generation, the end-pumped geometry of Photonics Industries' DCH Series lasers results in even better mode quality and field replaceable pump diodes, for the lowest COO possible.

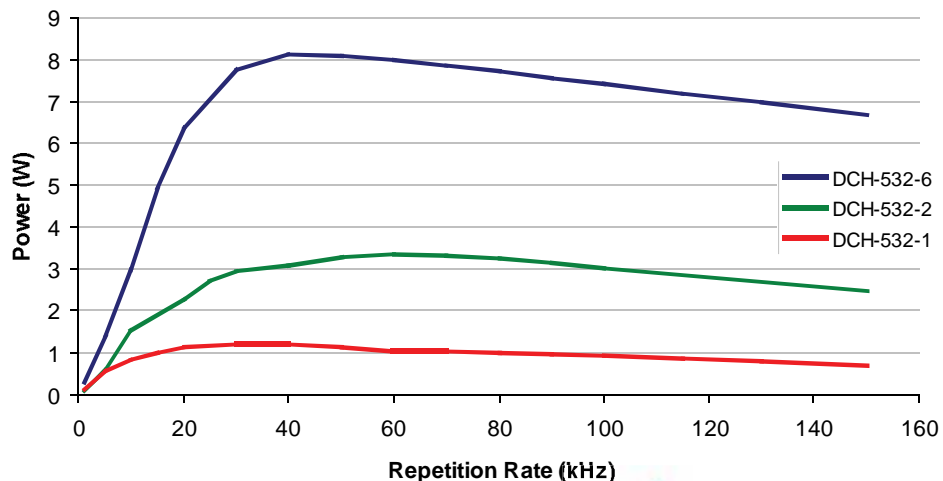
*For higher power Green models please see the DSH Series.



DCH-532 Series System Specifications

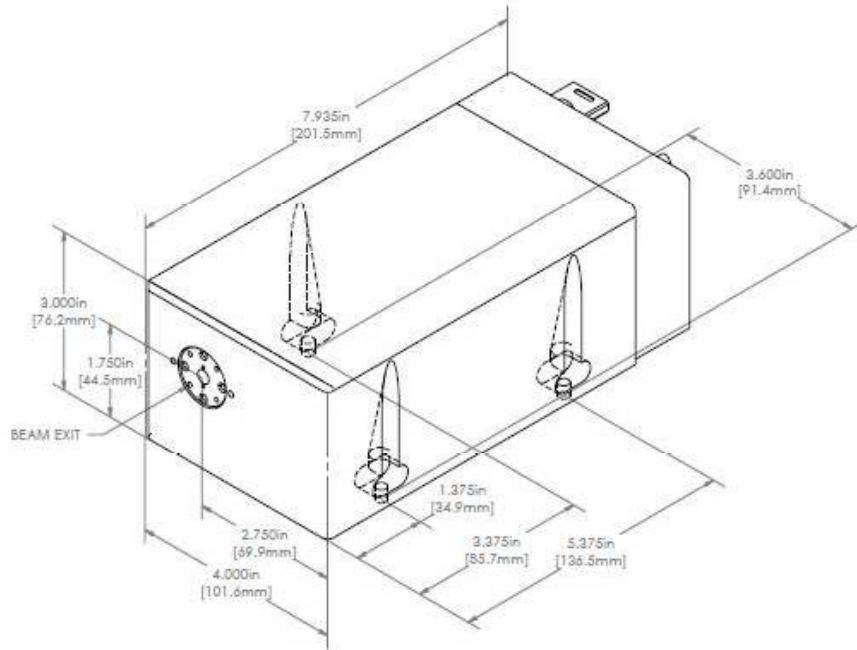
Technology	Air-Cooled		
Model	DCH-532-1	DCH-532-2	DCH-532-6
Wavelength (nm)	532		
Average Power (W) @ 40 kHz	1	2	6
Recommended Power Range	50% - 100%		
Pulse Energy (uJ) @ 40 kHz	~25	~50	~150
Pulse Width (ns) @ 40 kHz	~20	~20	~15
Repetition Rate	1 Hz to 150 kHz (Single Shot to 300 kHz w/ ext source)		
Pulse to Pulse Instability	<2% rms		
Polarization Ratio	Vertical; 100:1		
4 σ Beam Diameter @ exit	~ 0.4 mm		~0.55 mm
Beam Divergence (Full Angle Far Field)	<3 mrad		
Beam Circularity	~85%		
Spatial Mode	TEM00 - M ² <1.3		
Beam Pointing Stability	<25 urad		
Beam Position Accuracy	< 2.5 mm and < 10 mrad from nominal		
Long Term Instability (8 hr \pm 1° C)	\pm 2%		
Interface	Ethernet/ USB (RS 232) / GUI / External TTL Triggering		
Maximum Heat Load (laser head)	<200 W		
Warm Up Time	<5 min from standby		
	<20 min from cold start		
Electrical Requirement	50 to 60 Hz or 100 V to 240 V		
Dimensions (W x H x L)	Laser Head	7.95 in x 3 in x 4 in	4 in x 4.75 in x 7.78 in
	Controller		12 in x 3.5 in x 8.5 in
Weight	Laser Head		6.5 lbs
	Controller		10 lbs
Relative Humidity	Non-condensing, 90% Max		
Umbilical Length	3 m		
Ambient Temperature	15° to 35°C (59° to 95°F) Operating Range		

Performance Curve

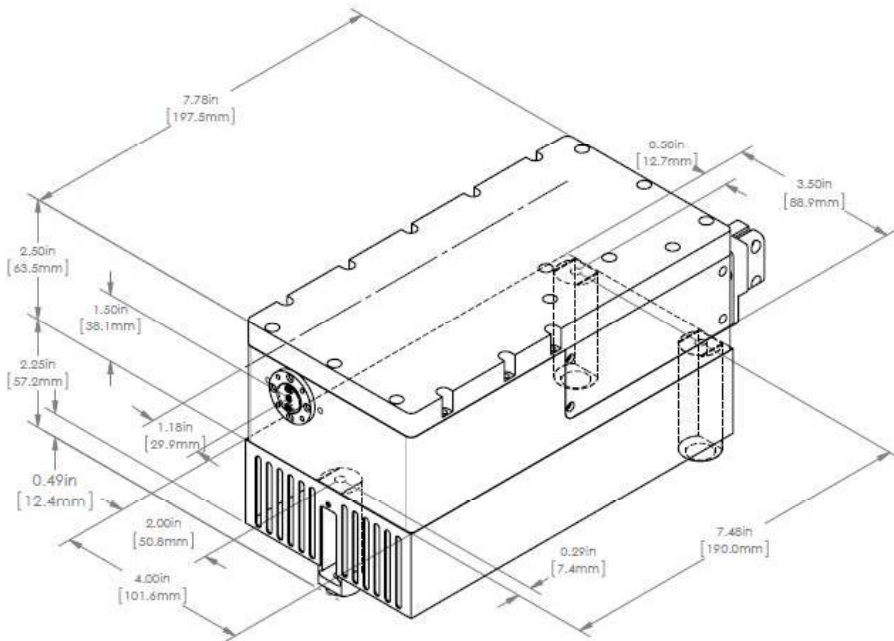


Dimensional Drawings

DCH-532-1 AIO Laser

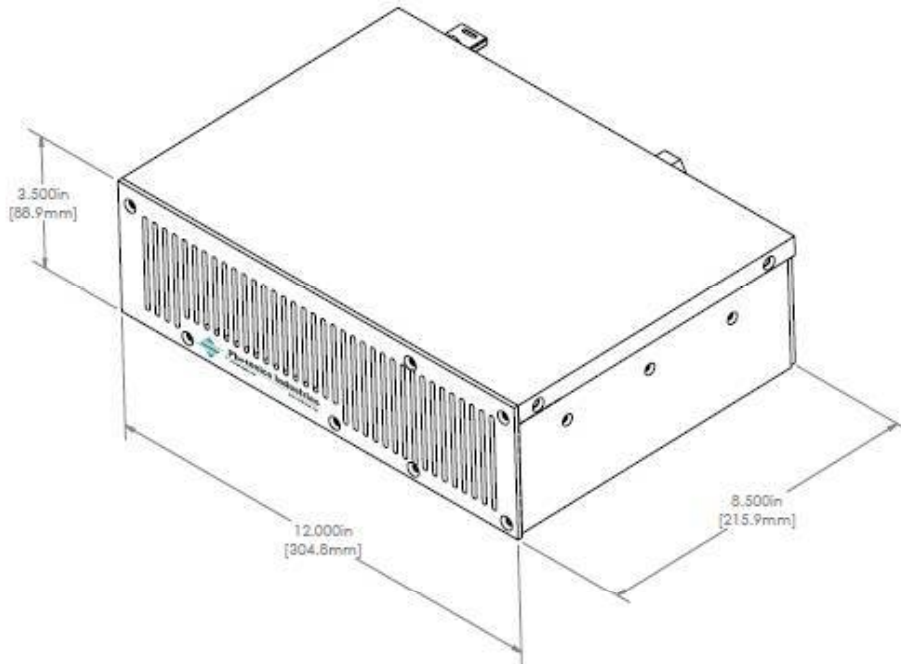


DCH-532-2, -6 Laser Head



Dimensional Drawings

DCH-532-2, -6 Controller



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

Photonics 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

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