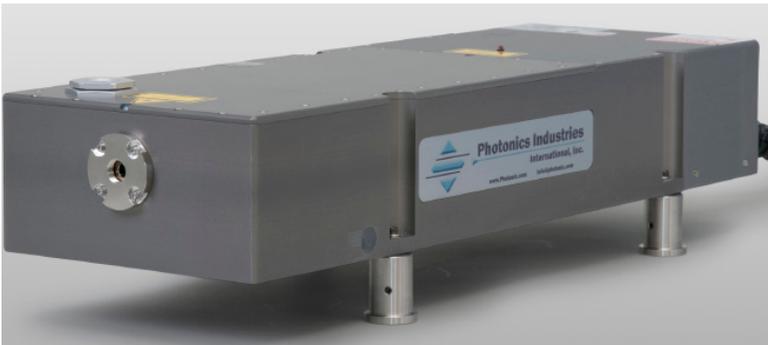


# DSH-532 Series

Nd:YVO<sub>4</sub> Green Lasers



## Features

- 3 Models: 15 W, 35 W, & 48 W\* of Green Power
- Patented Intracavity Green Generation
- Compact, Rugged, Monolithic Laser Head
- Total Pulse Control
- TEM<sub>00</sub> Beam with Typical M<sup>2</sup> < 1.1
- Pulse Rates from 1 Hz to 500 kHz
- RS232 Computer Control
- Field Replaceable Pump Diodes

As the first company to pioneer intracavity harmonic generation technologies and introduce the very first intracavity UV lasers in 1996, Photonic Industries remains an industry leader in producing efficient, simple, low cost of ownership (COO) lasers. Its DSH Series offer Green power from 15 W to 48 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 Photonic Industries' DSH Series lasers results in even better mode quality and field replaceable pump diodes, for the lowest COO possible.

\* For lower power air cooled models please see our DCH Series.



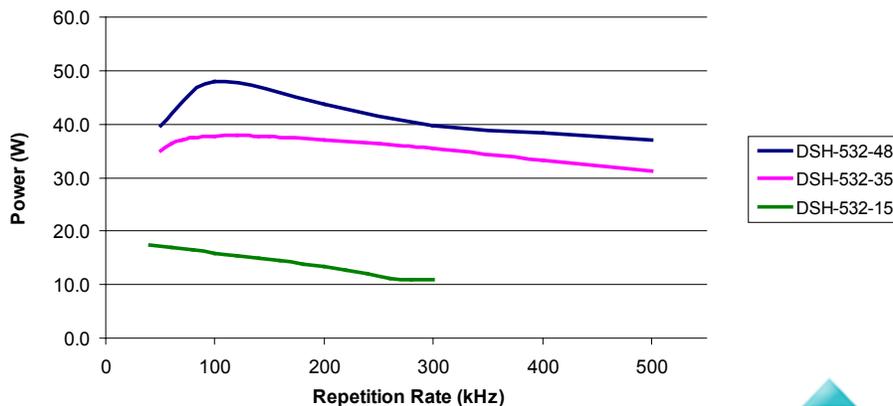
# DSH 532 System Specifications<sup>1</sup>

Model	DSH-532-15	DSH-532-35	DSH-532-48
Wavelength	532 nm		
Average Power	15 W @ 40 kHz	35 W @ 100 kHz	48 W @ 100 kHz
Pulse Energy	~0.375 mJ @ 40 kHz	~0.35 mJ @ 100 kHz	~0.48 mJ @ 100 kHz
Pulse Width (nominal)	~30 ns @ 40 kHz	~60 ns @ 100 kHz	~40 ns @ 100 kHz
Repetition Rate	Single Shot to 300 kHz	Single Shot to 500 kHz	
Pulse to Pulse Instability	<2% rms		
Polarization Ratio	Vertical; >500:1		
4σ Beam Diameter @ exit (nominal)	~ 0.7 mm	~1 mm	
Beam Divergence (Full Angle Far Field)	<1.5 mrad	<2.5 mrad	
Beam Circularity @ exit	>85%		
Spatial Mode TEM <sub>00</sub>	M <sup>2</sup> <1.1	M <sup>2</sup> <1.2	
Beam Pointing Stability	<25 μrad		
Beam Position Accuracy	< 2.5 mm and < 10 mrad from nominal		
Long Term Instability (8 hr±2°C)	<± 2%		
Interface	RS 232 / GUI / External TTL Triggering		
Warm Up Time	<5 min from standby <15 min from cold start		
Electrical Requirement	50 to 60 Hz or 100 to 120 V or 200 to 240 V		
Power Consumption (excluding chiller)	<600 W typical		
Dimensions	Laser Head	7.5 in x 4.1 <sup>2</sup> in x 24 in	8.5 in x 4.1 <sup>2</sup> in x 24 in
(W x H x L)	Controller	19 in x 3.5 in (2U) x 10.25 in	
Weight	Laser Head	41.5 lbs	43 lbs
	Controller	10 lbs	
Relative Humidity	Non-condensing, 90% Max		
Umbilical Length	3 meter (10 feet)		
Ambient Temperature	15° to 35°C (59° to 95°F) Operating Range		
Storage Conditions	-10°C to 40°C; Sea Level to 12,000 m; 0% to 90% RH, non-condensing		

<sup>1</sup> Measurements taken at optimal PRF and power after laser is fully warmed up.

<sup>2</sup> 4.1" includes height of desiccant

## Performance Curve



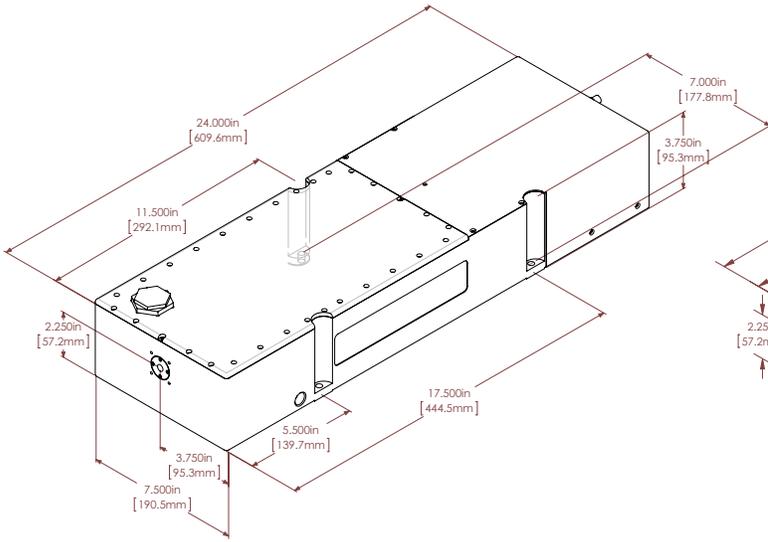
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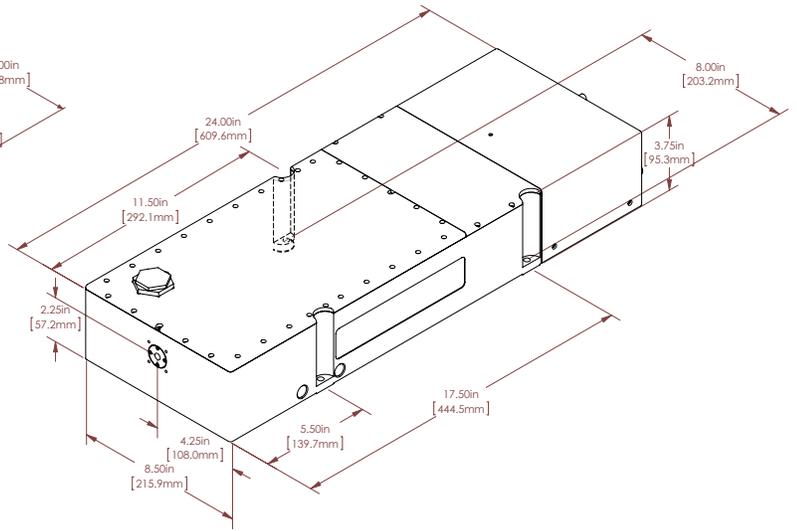
Phone: 631-218-2240 Fax: 631-218-2275  
Website: www.Photonix.com

# Dimensional Drawings

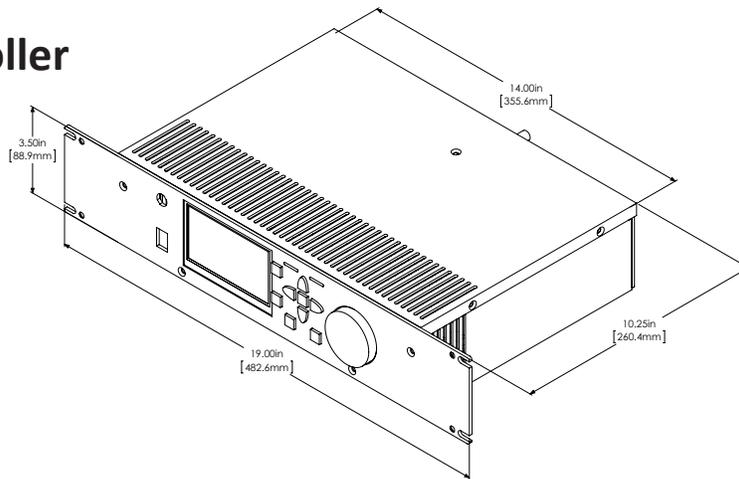
## DSH-532-15/35 Laser Head



## DSH-532-48 Laser Head



## DSH-532 Controller



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