



# Verdi G-Series

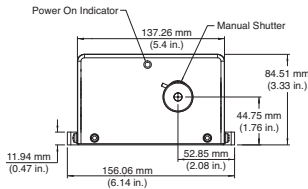
High-Power Optically Pumped Semiconductor Lasers (OPSL)

## Features

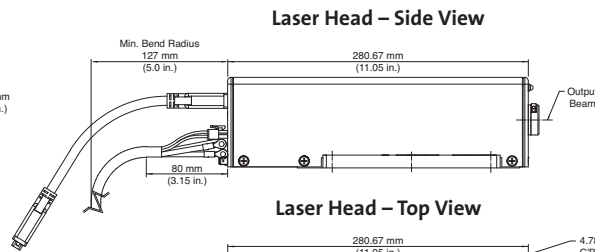
- 2W and 5W output power at 532 nm
- Extremely low noise performance
- Superior mode quality
- OPSL reliability
- Lowest cost of ownership



## Mechanical Specifications

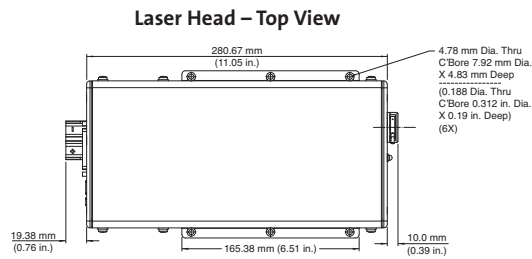
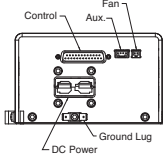


Laser Head – Front View



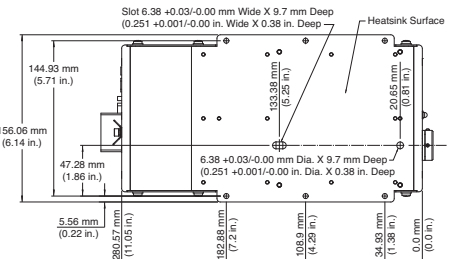
Laser Head – Side View

## Laser Head – Rear View

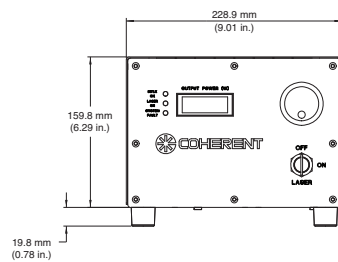


Laser Head – Top View

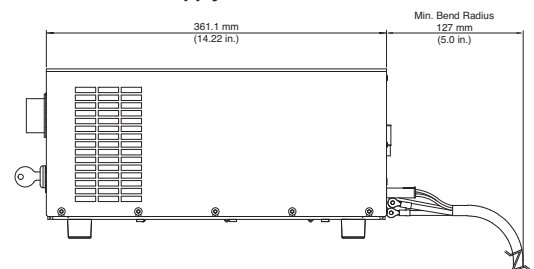
## Laser Head – Bottom View



## Power Supply – Front View



## Power Supply – Side View



Superior Reliability & Performance

# Verdi™ G-Series

## High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications <sup>1</sup>	Verdi	G2	G5
Wavelength (nm)			532 ±2
Pulse Format			CW
Spectral Purity (%)			>99
Output Power <sup>2</sup> (W)		2	5
Spatial Mode			TEM <sub>00</sub>
Beam Quality			<1.1
Beam Circularity <sup>3</sup>			1.0 ±0.1
Beam Waist Diameter <sup>1</sup> (mm)(FW, 1/e <sup>2</sup> )			2.25 ±10%
Beam Divergence <sup>1</sup> (mrad)(FW, 1/e <sup>2</sup> )			<0.5
Beam Waist Location <sup>1,4</sup> (m)			±0.5
Beam Pointing Stability <sup>5</sup> (μrad/°C)			<2
Horizontal Beam Position Tolerance <sup>6</sup> (mm)			±<1.0
Vertical Beam Position Tolerance <sup>6</sup> (mm)			±<1.0
Beam Pointing Tolerance <sup>6</sup> (mrad)			<5
Polarization Ratio			Linear, >100:1
Polarization Direction			Vertical, ±5°
Noise (% rms)(10 Hz to 100 MHz)			<0.03
Power Stability <sup>7</sup> (%)(pk-pk)			±<1
Warm-Up Time (minutes)			<10
CDRH Compliant			Yes
<b>Electrical Specifications</b>	Operating Voltage (VAC)		100 to 240
	Frequency (Hz)		50 to 60
	Power Consumption (W)		500
<b>Environmental Conditions</b>	Ambient Temperature (°C)		
	Operating		10 to 40
	Non-Operating		-10 to 60
	Relative Humidity (%)		5 to 95 <sup>8</sup>
	CE Marking		IEC 61010-1/EN 61010-1
	Dimensions (L x W x H)		
	Laser Head <sup>9</sup>		281 x 156 x 85 mm (11.06 x 6.14 x 3.35 in.)
	Benchtop Controller		361 x 229 x 160 mm (14.22 x 9.01 x 6.29 in.)
	Cables (laser head to controller)		2m (6.5 ft.)

- <sup>1</sup> Optical parameters measured at the output plane of the laser head, unless noted all parameters valid at the nominal output power and for the lifetime of the unit.
- <sup>2</sup> This product is offered in several output power versions: 2W and 5W. The output power can be adjusted from 250 mW to maximum power.
- <sup>3</sup> Circularity defined as vertical diameter divided by horizontal diameter.
- <sup>4</sup> Negative value corresponds to a location inside head.
- <sup>5</sup> After 2-hour warm-up.
- <sup>6</sup> Measured at the output window.
- <sup>7</sup> Measured over 8 hrs.
- <sup>8</sup> Non-condensing.
- <sup>9</sup> Back connector not included in laser head length dimension.

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Verdi G Family Lasers. For full details of this warranty coverage, please refer to the Service section at [www.Coherent.com](http://www.Coherent.com) or contact your local Sales or Service Representative.



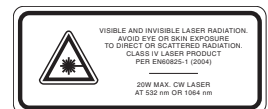
[www.Coherent.com](http://www.Coherent.com)

U.S. Patent No. 5,991,318  
 U.S. Patent No. 6,167,068  
 U.S. Patent No. 6,285,702  
 U.S. Patent No. 6,438,153  
 U.S. Patent No. 6,683,901  
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**Coherent, Inc.**  
 5100 Patrick Henry Drive  
 Santa Clara, CA 95054  
 phone (800) 527-3786  
 (408) 764-4983  
 fax (800) 362-1170  
 (408) 988-6838  
 e-mail [tech.sales@Coherent.com](mailto:tech.sales@Coherent.com)

Benelux +31 (30) 280 6060  
 China +86 (10) 6280 0209  
 France +33 (0)1 6985 5145  
 Germany +49 (6071) 968 333  
 Italy +39 (02) 34 530 214  
 Japan +81 (3) 5635 8700  
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 UK +44 (1353) 658 833



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