



Verdi G SLM-Series

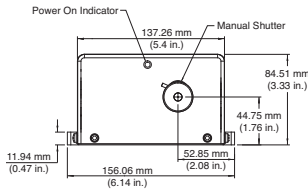
High-Power Optically Pumped Semiconductor Lasers (OPSL)

Features

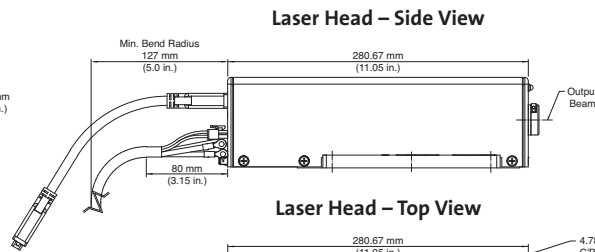
- Single Longitudinal Mode at 2W and 5W
- Extremely low noise performance
- Superior mode quality
- OPSL reliability
- Lowest cost of ownership



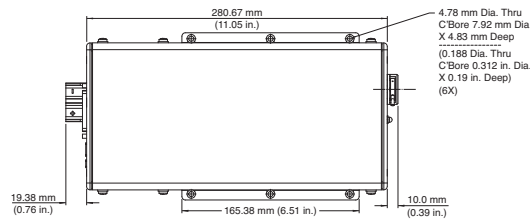
Mechanical Specifications



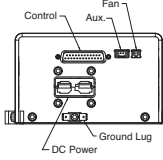
Laser Head – Front View



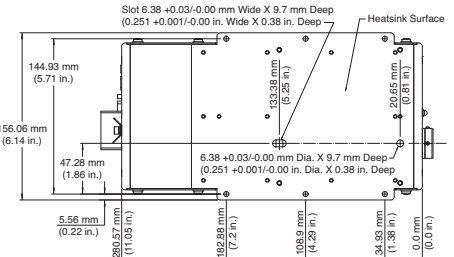
Laser Head – Top View



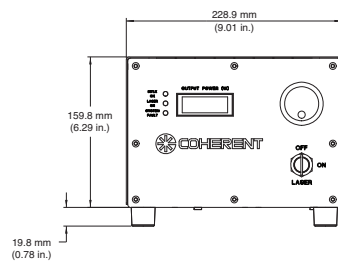
Laser Head – Rear View



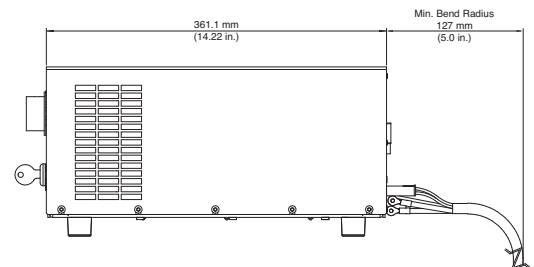
Laser Head – Bottom View



Power Supply – Front View



Power Supply – Side View



Superior Reliability & Performance

Verdi™ G SLM-Series

High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications¹

Verdi	G2	G5
Wavelength (nm)		532 ±2
Pulse Format		CW
Linewidth ² (MHz)		<5
Spectral Purity (%)		>99
Output Power ³ (W)	2	5
Spatial Mode		TEM ₀₀
Beam Quality		<1.1
Beam Circularity ⁴		1.0 ±0.1
Beam Waist Diameter (mm)(FW, 1/e ²)		2.25 ±10%
Beam Divergence (mrad)(FW, 1/e ²)		<0.5
Beam Waist Location ⁵ (m)		±0.5
Beam Pointing Stability ⁶ (μrad/°C)		<2
Horizontal Beam Position Tolerance ⁷ (mm)		±1.0
Vertical Beam Position Tolerance ⁷ (mm)		±1.0
Polarization Ratio		Linear, >100:1
Polarization Direction		Vertical, ±5°
Noise (% rms)(10 Hz to 100 MHz)		<0.02
Power Stability ⁸ (%) (pk-pk)		±1
Warm-Up Time (minutes)		<10
CDRH Compliant		Yes

Electrical Specifications

Operating Voltage (VAC)	100 to 240
Frequency (Hz)	50 to 60
Power Consumption (W)	500

Environmental Conditions

Ambient Temperature (°C)	
Operating	10 to 40
Non-Operating	-10 to 60
Relative Humidity ⁹ (%)	5 to 95
CE Marking	IEC 61010-1/EN 61010-1
Dimensions (L x W x H)	
Laser Head ¹⁰	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)	3m (10 ft.)

¹ 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.

² Measured over 50 msec.

³ This product is offered in several output power versions: 2W and 5W. The output power can be adjusted from 250 mW to maximum power.

⁴ Circularity defined as vertical diameter divided by horizontal diameter.

⁵ Negative value corresponds to a location inside head.

⁶ After 2-hour warm-up.

⁷ Measured at the output window.

⁸ Measured over 8 hrs.

⁹ Non-condensing.

¹⁰ 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 SLM-Series lasers. For full details of this warranty coverage, please refer to the Service section at www.Coherent.com or contact your local Sales or Service Representative.



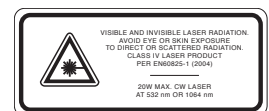
www.Coherent.com

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
 U.S. Patent No. 7,180,928

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