

Verdi Family

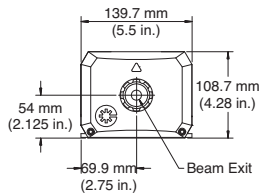
Diode-Pumped Solid-State Lasers, High-Power CW Output at 532 nm



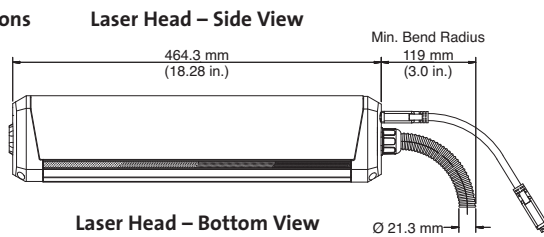
Features

- Single-longitudinal-mode output
- Optical noise <0.03% RMS measured from 10 Hz to 1 GHz
- Superior diode-to-green conversion efficiency (>25%)
- Ultra-long-life AAA™ (Aluminum-free Active Area) laser diode material
- PermAlign™ solder-bonded optics technology
- Sealed laser head

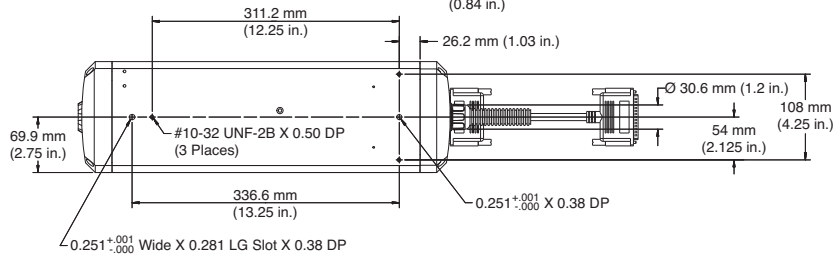
Mechanical Specifications



Laser Head – Front View

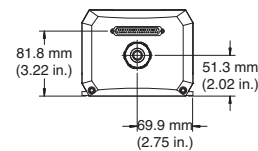


Laser Head – Side View

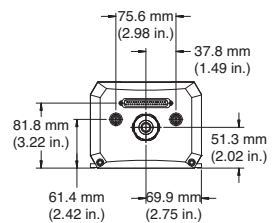


Laser Head – Bottom View

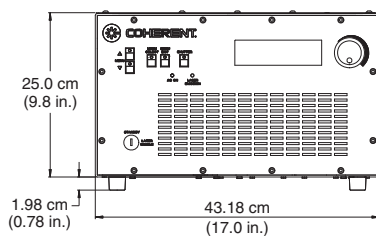
Laser Head – Rear View



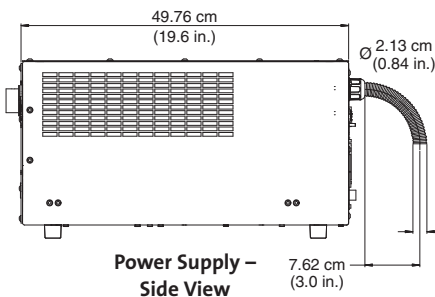
Laser Head – Rear View (PZT option)



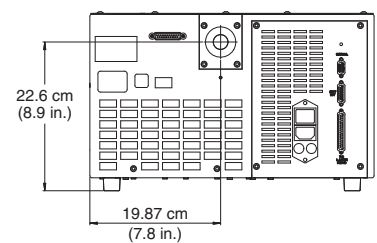
Power Supply – Front View



Power Supply – Side View



Power Supply – Rear View



Superior Reliability & Performance

Verdi™ Family

Diode-Pumped Solid-State Lasers, High-Power CW Output at 532 nm

System Specifications

Verdi	V2	V6	V8	V10	V12	V18
Output Power (W)	>2	>6	>8	>10	>12	>18
Wavelength (nm)	532					
Linewidth ¹ (MHz)	<5					
Beam Diameter ² (mm)	2.25 ±10%					
Beam Divergence ³ (mrad)	<0.5					
M ²	<1.1					
Pointing Stability ⁴ (μrad/°C)	<2					
Power Stability ⁵ (%)	±1					
Noise ⁶ (RMS)	<0.03					
Polarization	vertical, >100:1					
Operating Voltage (VAC)	100 to 240					
Frequency (HZ)	50/60					
Max. Operating Current (A)(@ 100 VAC)	7.8				13	
PZT Input Voltage ⁷ (V/channel)	0 to +100					
PZT Tuning Range ⁷ (GHz)	>8.2				>6.4	
PZT Bandwidth ⁷	DC to 20 kHz					
Power Consumption						
Maximum	780W				1.3 kW	
Typical (W)	380				420	900
Number of Diodes (FAPs)	1				2	
Cooling Requirements						
Laser Head	Air-cooled, water cooling optional			Closed-loop water cooling		
Power Supply	Air-cooled					
Range of Operating Temperature						
Laser Head	15 to 45°C (59 to 113°F)					
Power Supply	15 to 35°C (59 to 95°F)					
Weight						
Laser Head	8 kg (18 lbs.)					
Power Supply	27 kg (59 lbs.)				33 kg (73 lbs.)	
Length of Umbilical	3 m (10 ft.)					
Diameter of Umbilical	2.15 cm (0.85 in.)					

¹ Measured over 50 msec with a thermally stabilized reference etalon at maximum specified output power.

² 1/e² and located within ~0.5 m of the exit port.

³ Full angle divergence.

⁴ Measured as far-field x and y positions over a 25°C to 35°C temperature change.

⁵ Measured over 2 hours after a 15 minute warm-up.

⁶ Measured from 10 Hz to 1 GHz.

⁷ PZT optional.

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 systems. 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

Coherent, Inc.
 5100 Patrick Henry Drive
 Santa Clara, CA 95054
 phone (800) 527-3786
 (408) 764-4983
 fax (408) 764-4646
 e-mail 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
 Korea +82 (2) 460 7900
 UK +44 (1353) 658 833

