

# Cobolt 05-01 lasers

## High performance CW ultra-low noise SLM DPSS lasers

The Cobolt 05-01 lasers are continuous-wave diode-pumped solid-state laser devices operating at a fixed wavelengths. The lasers are built using proprietary HTCure™ manufacturing technology for ultra-robustness into a compact hermetically sealed package. The lasers emit a very high quality laser beam with stable characteristics over a wide range of operating conditions. Single-longitudinal mode operation provides a narrow spectral bandwidth and long coherence length. The laser is designed and manufactured to ensure a high level of reliability.

The Cobolt 05-01 lasers are intended for stand-alone use in laboratory environment or for integration as OEM component in equipment for applications including fluorescence microscopy, flow cytometry, DNA sequencing, HCA, Raman spectroscopy, holography and particle analysis.



## Specifications

	Zouk™ 354.8 nm ± 0.3	Samba™ 532 nm ± 0.3 Jive™ 561 nm ± 0.6 Flamenco™ 660 nm ± 0.6	Rumba™ 1064 nm ± 0.6
Power [mW]	10	Samba™ 500, 1000 Jive™ 200, 300, 500 Flamenco™ 100, 300, 400	500, 1000, 2000
Beam divergence (full angle)	<0.8 mrad	Samba™, Jive™ <1.2 mrad Flamenco™ <1.5 mrad	<1.6 mrad
Noise, 20 Hz - 20 MHz (pk-pk)	<2%	<1%	<1%
Noise, 20 Hz - 20 MHz (rms)	<0.2%	<0.1%	<0.1%
Beam diameter at aperture	700 μm	700 μm	1.0 mm
Long-term stability (8 hr)		<2% (±3°C)	
Spectral linewidth		<1 MHz (<0.01 pm)	
Spatial mode		TEM <sub>00</sub> M <sup>2</sup> <1.1	
Beam pointing stability (10-40 °C)		<10 μrad/°C, typical 5 μrad/°C	
Polarization ratio (vertical)		>100:1	
Total system power consumption		<63 W, typical <30 W	
Operating temperature		10-40°C	
Maximum laser head baseplate temp.		50°C	
Recommended heat sink thermal resistance		0.2 K/W	
Laser head dimensions		[mm] 125 x 70 x 45 [inches] 5.0 x 2.8 x 1.8	
Controller dimensions		[mm] 190 x 72 x 28 [inches] 7.6 x 2.9 x 1.1	
Communication		RS-232 or USB	
Model number structure		CDRH (key-switch for on/off)	OEM (auto-start mode)
	RS-232 driver	wavel-05-01-pwr-500	wavel-05-01-pwr-600
	USB driver	wavel-05-01-pwr-700	wavel-05-01-pwr-800

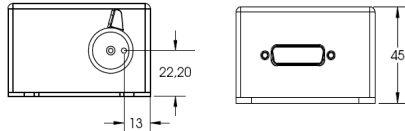
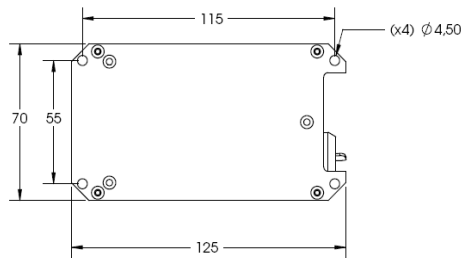
## Options & Accessories

- Communication cable (RS-232 / USB)
- Laser head heatsink
- Mount for external fiber coupling

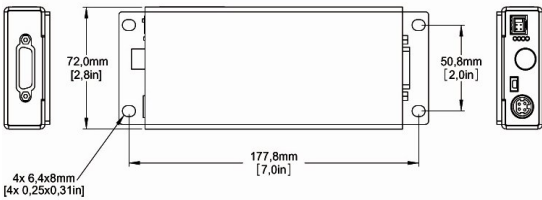
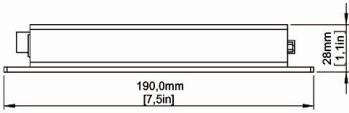
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## Laser head



## Controller



**LASER LIGHT**  
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION  
CLASS 4 LASER PRODUCT  
>500 mW 400-700 nm CW  
CLASSIFIED PER IEC 60825, Ed 1.2, 2001-08



**LASER LIGHT**  
AVOID EXPOSURE TO BEAM  
CLASS 3B LASER PRODUCT  
<500 mW 315-400 nm CW  
CLASSIFIED PER IEC 60825, Ed 1.2, 2001-08