

Cobolt o8-01 Fiber Coupled

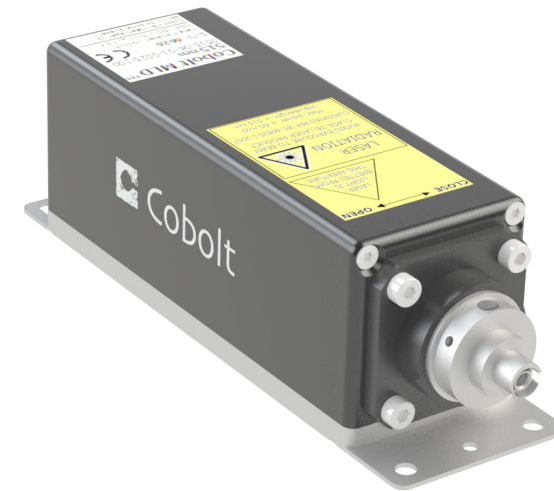
Narrow linewidth laser with integrated fiber coupler

- Single frequency diode pumped lasers (DPLs) and narrow linewidth diode (NLD) lasers
- Integrated spectral filter
- Integrated isolator, immune to optical feedback
- Ultra-robust hermetically sealed package and proven field reliability
- 532 nm and 785 nm

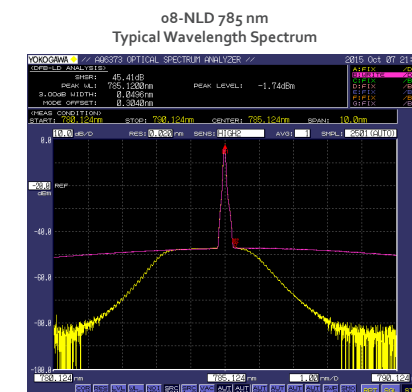
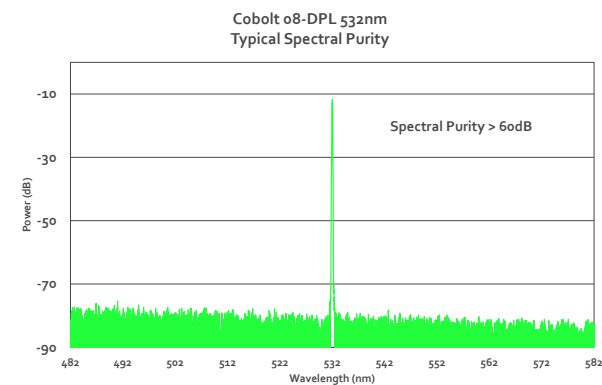
The Cobolt o8-01 Series is a family of narrow linewidth continuous-wave lasers, including diode pumped lasers as well as frequency stabilized diode lasers operating at fixed wavelengths between 532 nm and 785 nm with output power up to 400 mW. The lasers are designed and manufactured to ensure the highest level of reliability.

Cobolt lasers are built using proprietary HTCure™ manufacturing technology for ultra-robustness into a compact hermetically sealed package. The lasers emit a high quality laser beam with very stable characteristics and dependable performance, tailored to meet the expectations from manufacturers of high-end Raman spectroscopy instrumentation.

The Cobolt o8-01 Series is intended for stand-alone use in laboratory environments or for integration as an OEM component in instruments, suitable for all applications where a stable and narrow linewidth is crucial.



Fiber coupler is integrated onto the laser head, optical fiber must be ordered separately.



Cobolt o8-01 Series Fiber Coupled

	532	785
	o8-DPL	o8-NLD
Center Wavelength (nm)	532.1 ± 0.3	784.8 ± 0.5
Power (mW)*	160	500
Coupling Efficiency**	> 60 %	> 70 %
Optical Isolation	> 20 dB @ 25°	
Fiber Connector type	FC / PC	
Fiber Numerical Aperture (NA)	0.22	
Fiber type	Multimode	
Spectral bandwidth (FWHM)	< 1 MHz	40 pm***
Noise, 250 Hz - 2 MHz (rms)	< 0.25%, (typical < 0.15%)	< 0.5%
Power stability over 8 hrs	< 2%	< 1%
Maximum base plate temperature	50 °C	55 °C
Total system power consumption	< 20 W	< 15 W
Laser head dimensions	136 x 40 x 40 mm	
Key box dimensions	43.5 x 30 x 24 mm	
Communication	USB / RS-232	
Power Supply Requirements	5V, 5A	5V, 3A

* Before fiber coupler
 ** As measured with recommended fiber.
 *** Typical Value

Model number structure		CDRH / CE (key switch for ON/OFF)	OEM (Autostart mode)
	USB	wavl-08-16-pwr-100	wavl-08-16-pwr-200
	RS-232	wavl-08-16-pwr-300	wavl-08-16-pwr-400
Warranty	12 months, unlimited hours		

Options & Accessories

- Laser head heatsink HS-03
- Keybox for CDRH operation
- Recommended fiber (sold separately)

Art. Nr.	80051	80102
Nom. Wavl.(nm)	532	785
Core (µm)	105	105
NA	0.22	0.22
Length (m)	2	2



This device is sensitive to Electrostatic Discharge (ESD). Always handle diode lasers with extreme care to prevent electrostatic discharge, the primary cause of unexpected diode failure.



WARNING LASER RADIATION
 Avoid Exposure to beam
 Class 3B Laser Product
 Classified per IEC 60825-1:2014

Wvl (nm) Max.Pwr (mW)
 532 300



WARNING INVISIBLE LASER RADIATION
 Avoid eye or skin exposure to direct or scattered radiation
 Class 4 Laser Product
 Classified per IEC 60825-1:2014

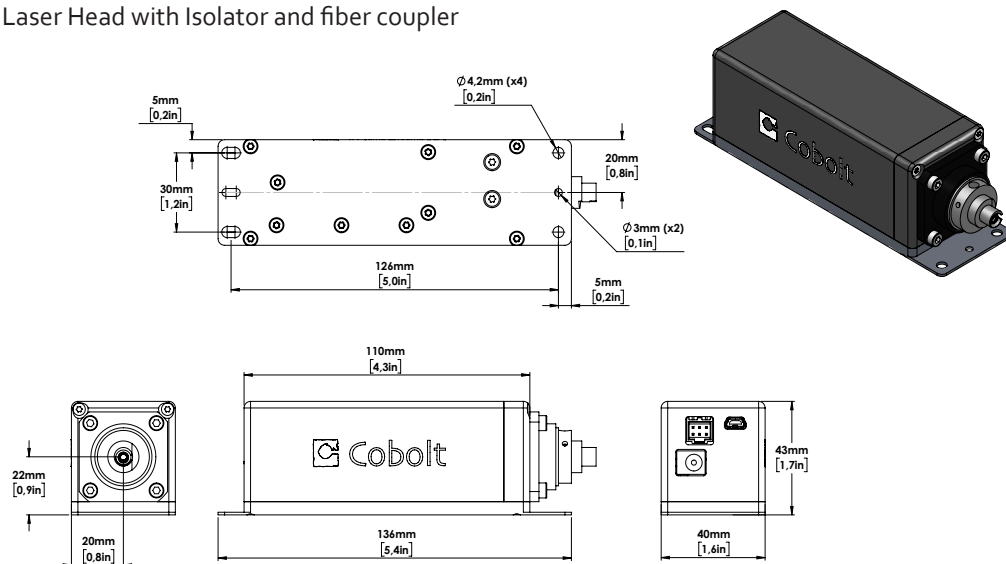
Wvl (nm) Max.Pwr (mW)
 785 2000



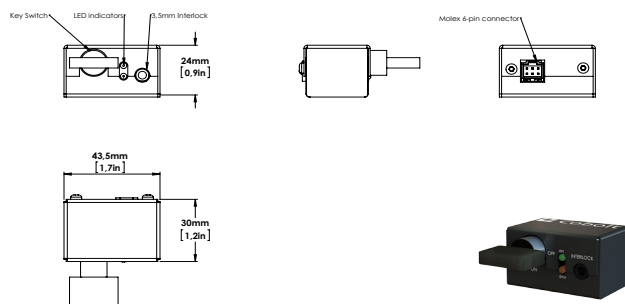
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Mechanical Specifications

Laser Head with Isolator and fiber coupler



Key Box



Electrical Interface

Interface	Location	Connector
Input power	Laser Head	DC plug 2.5 mm / 5.5 mm female
Remote interlock connector	Laser Head	OEM : Molex pin 1 & 2
Data port	Laser Head	USB-type mini B
Key control Box connector	Laser Head	Molex 6-pin male
Laser Head connector	Key box	Molex 6-pin male
Remote Interlock connector	Key box	CDRH : 3.5 mm audio female

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