

Cobolt modulated DPSS lasers

High performance DPSS lasers with integrated AOM (for OEM integration)



Compact and powerful modulated DPSS lasers

Modulation bandwidth up to 3 MHz

CW power up to 240 mW in a perfect beam

Ultra-robust, hermetically sealed laser packages

Low noise, <0.25% rms

Available wavelengths: 473nm, 491nm, 515nm, 532nm, 561nm and 594 nm

24 months warranty on the laser

The Cobolt modulated DPSSL option incorporates both the diode pumped solid state laser (DPSSL) from the Cobolt 04-01 series and an Acousto Optic Modulator (AOM) in one single compact package, slightly longer than the standard 04-01 Series laser head. This allows fast and effective integration of a modulated DPSSL without the need for time consuming external alignment.

AOMs are commonly used in combination with DPSSLs to achieve high speed modulation while maintained good stability and low noise.

Utilising Cobolt's extensive experience in optical alignment along with our proprietary manufacturing method HTCure for ultra robustness, the Modulated DPSSL option offers a modulated DPSSL with the ease of

integration of a direct diode lasers and the specifications associated with high performance DPSSLs, such as SLM, excellent spectral purity and a perfect beam.

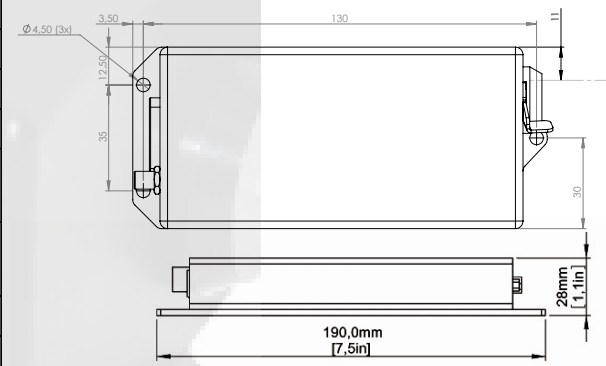
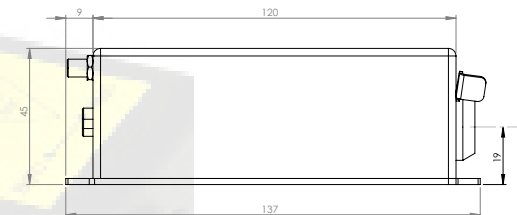
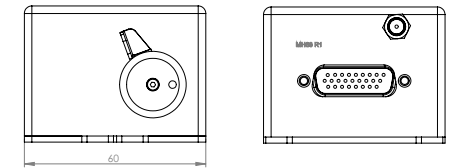
The Cobolt modulated DPSSL option is available for OEM integration only.

Specifications

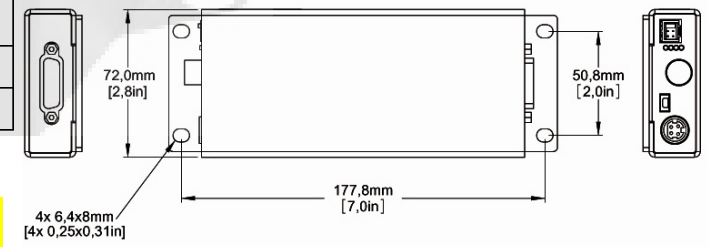
	Wavelength [nm]	Power [mW]
Cobolt Blues™	473.0 ± 0.3	25, 40
Cobolt Calypso™	491.5 ± 0.3	25, 50, 80
Cobolt Fandango™	514.4 ± 0.3	25, 50, 100, 120
Cobolt Samba™	532.1 ± 0.3	25, 50, 100, 120, 240
Cobolt Jive™	561.2 ± 0.3	25, 50, 100, 120
Cobolt Mambo™	593.6 ± 0.3	25, 50, 80
Rise/Fall time	< 300ns	
Modulation bandwidth*	DC-3MHz	
Extinction Ratio (free space)**	> 30dB @DC	
Max total system power consumption (incl. AOM)	<50W	
	Blues, Fandango, Samba, Jive:	Calypso, Mambo:
Noise, 20 Hz - 20 MHz (pk-pk)	<2% , typical <1.5%	<3% , typical <2%
Noise, 20 Hz - 20 MHz (rms)	<0.25% , typical <0.15%	<0.3% , typical <0.2%
Operating temperature	10-40°C	
Maximum laser head baseplate temp.	50°C	
Laser head dimensions [mm] [inches]	137 x 60 x 45 5.4 x 2.3 x 1.7	
Controller dimensions [mm] [inches]	190 x 72 x 28 7.6 x 2.9 x 1.1	
Communication	RS-232 or USB	
Model number structure		OEM (auto-start mode)
	RS-232 driver	wavel-04-05-pwr-400
	USB driver	wavel-04-05-pwr-800
Warranty	24 months on lasers	

* both digital and analogue mode available, see Owners Manual 04-01 Series for full description of signal requirements.
 ** residual emission is predominantly due to stray light; by fiber coupling the extinction ratio will be higher.
 System includes standard Cobolt 04-01 Series laser, AOM driver and cables. Input signal generator not included

Laser head



Laser controller



* See Owners manual 04-01 for drawings of AOM driver

