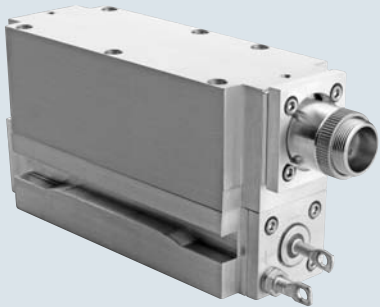




Genesis Taipan-Series

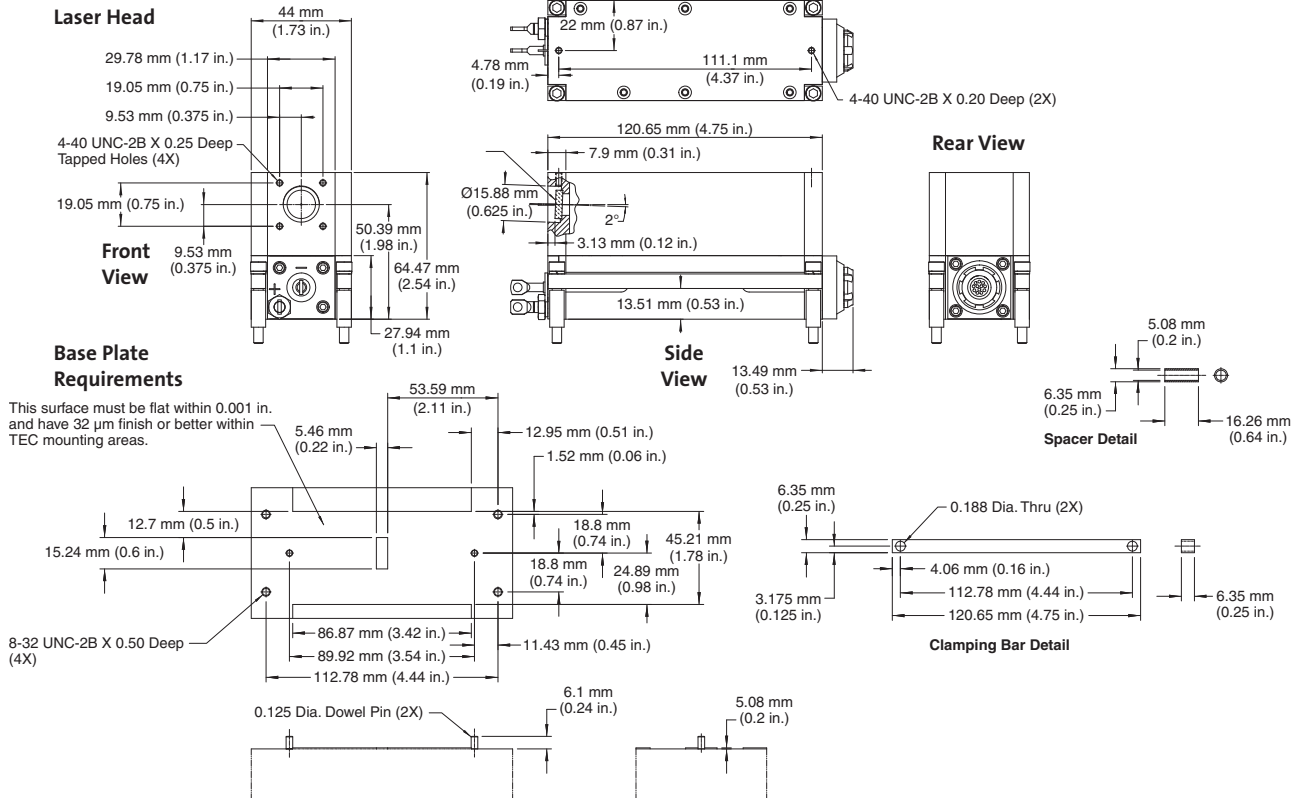
High-Power Optically Pumped Semiconductor Lasers (OPSL)



Features

- OPSL reliability
- Compact, efficient design
- Modulation rate to >50 kHz
- Ability to deliver high output powers at unique wavelengths
 - 1W and 2W at 460 nm
 - 2W at 480 nm
 - 3W, 5W and 8W at 532 nm
 - 3W and 5W at 577 nm
- Low heat load for ease of integration

Mechanical Specifications



Superior Reliability & Performance

Genesis Taipan-Series

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Optical Specifications ¹	Genesis	Taipan 460-1000/2000	Taipan 480-2000
Wavelength (nm)		460 ±3	480 ±3
Output Power (W)		1, 2	2, 4
Spatial Mode		Multimode	Multimode
Bandwidth (nm)			<0.5
Beam Waist Dimensions (mm)			
Horizontal Size ² (FW, 1/e ² , mm)		0.17	0.17
Vertical Size ² (FW, 1/e ² , mm)		0.13	0.13
Location ^{2,3} (mm)			-63
Beam Divergence			
Horizontal ² (FW, 1/e ² , mrad)			20
Vertical ² (FW, 1/e ² , mrad)			14
Collimated Version			
Beam Waist Diameter ² (1/e ² , mm)			2.3
Beam Divergence ² (1/e ² , mrad)			1.5
Beam Waist Location ² (m)			0.25
M ²			
Horizontal			<6
Vertical			<4
Pointing Stability ⁴ (μrad/°C)			<30
Noise			
10 Hz to 10 MHz ¹ (% rms)		<1	<1
10 Hz to 5 kHz (% peak-to-peak)			<10
Polarization Ratio			>100:1, horizontal
Direct Modulation ⁵			Available
Utility and Environmental Requirements			
Operating Diode Current (A)		<22.5, <27	<27
Maximum Diode Current (A)		<27, <32	<32
Diode Voltage (V)			1.5 to 2.2
Cooling Requirements ⁶			Active cooling required
Case Temperature (°C)			25 ±2
Humidity			Non-condensing
Dimensions (L x W x H)			
Laser Head			121 x 44 x 65 mm (4.76 x 1.73 x 2.56 in.)
Weight			
Laser Head (g)			730 ±10

¹ Optical parameters measured at the output plane of the laser head. Unless noted all parameters valid for the lifetime of the unit.

² Typical value.

³ Measured from the output face, negative value corresponds to a location inside the head; positive outside.

⁴ Measured at the output window: tolerance relative to the nominal center of the output window and perpendicular to the mounting plane.

⁵ Theoretical limit is >1 MHz; actual performance will be limited by the diode-driver (not included).

⁶ Air cooling available with appropriate heat sink and fans.

Genesis Taipan-Series

High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications ¹	Genesis	Taipan 532-3000/5000/8000	Taipan 577-3000/5000
Wavelength (nm)		532 ±3	577 ±3
Output Power (W)		3, 5, 8	3, 5
Spatial Mode		Multimode	Multimode
Bandwidth (nm)			<0.5
Beam Waist Dimensions (mm)			
Horizontal Size ² (FW, 1/e ² , mm)		0.17	0.14
Vertical Size ² (FW, 1/e ² , mm)		0.13	0.12
Location ^{2,3} (mm)			-63
Beam Divergence			
Horizontal ² (FW, 1/e ² , mrad)		20	
Vertical ² (FW, 1/e ² , mrad)		14	
Collimated Version			
Beam Waist Diameter ² (1/e ² , mm)		2.3	
Beam Divergence ² (1/e ² , mrad)		1.5	
Beam Waist Location ² (m)		0.25	
M ²			
Horizontal		<6	
Vertical		<4	
Pointing Stability ⁴ (μrad/°C)			<30
Noise			
10 Hz to 10 MHz ¹ (% rms)		<1, 0.5, 0.5	<0.5
10 Hz to 5 kHz (% peak-to-peak)			<10
Polarization Ratio			>100:1, horizontal
Direct Modulation ⁵			Available
Utility and Environmental Requirements			
Operating Diode Current (A)		<25, <33, 38	<30, <33
Maximum Diode Current (A)		<30, <40, 45	<36, <40
Diode Voltage (V)			1.5 to 2.2
Cooling Requirements ⁶			Active cooling required
Case Temperature (°C)			25 ±2
Humidity			Non-condensing
Dimensions (L x W x H)			
Laser Head			121 x 44 x 65 mm (4.76 x 1.73 x 2.56 in.)
Weight			
Laser Head (g)			730 ±10

¹ Optical parameters measured at the output plane of the laser head. Unless noted all parameters valid for the lifetime of the unit.

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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 Genesis Taipan-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.



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