COHERENT

Genesis Taipan HD-Series

High-Definition, High-Power Optically Pumped Semiconductor Lasers (OPSL)

Coherent's Genesis Taipan series delivers richer, more vibrant colors for commercial laser lightshows. Based on our patented Optically Pumped Semiconductor Laser (OPSL) architecture, these lasers deliver high output powers with direct modulation capabilities.

Genesis Taipan HD features low divergence, TEM_{00} beams at up to 5W, ideally suited for long throw, outdoor laser projection. Combined with Genesis Taipan 639, Genesis Taipan HD provides true D65 white light with unmatched beam performance.

Clean room built and sealed, maintenance-free design and TEC cooling guarantees low cost-of-ownership and industrial reliability.

Genesis Taipan HD-Series Features:

- **Patented Coherent OPSL technology**
- **6 discrete colors matching Coherent Genesis Taipan to 5W of scalable output power depending on color**
- **Highest brightness due to Single Transverse Mode (TEM_{00}) beam**
- **Capable of lowest possible divergence (diffraction limited)**
- **Continuous Wave (CW) operation or high speed driver limited modulation**
- **Sealed, maintenance free, compact and TEC-cooled packaging for high reliability**

Genesis Taipan HD-Series Applications:

- **Laser Light Show**
- **Laser Entertainment**

Superior Reliability & Performance

www.Coherent.com/GenesisTaipanHD-Series

Genesis Taipan HD-Series

High-Definition, High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications	**Genesis Taipan HD 460-2000**	**Genesis Taipan HD 480-2000**	**Genesis Taipan HD 488-3000**
Wavelength (nm)	460 ±3	480 ±3	488 ±3
Output Power (mW)	2000	2000	3000
Spatial Mode		TEM_{00}	
Bandwidth (nm)		<0.5	
Beam Waist Diameter[1] ($1/e^2$, mm)		0.07	
Beam Waist Location[1,2] (mm)		-65	
M^2			
Horizontal		<1.2	
Vertical		<1.2	
Pointing Stability (µrad/°C)		<5	
Noise			
10 Hz to 10 MHz (%, rms)		<1	
10 Hz to 5 kHz (%, peak-to-peak)		<10	
Polarization Ratio		Horizontal, >100:1	
Direct Modulation[3]		Available	
Utility and Environmental Requirements			
Operating Diode Current (A)	<27	<24	<27
Maximum Diode Current (A)	<32	<29	<33
Diode Voltage (V)		1.5 to 2.2	
Cooling Requirements[4]		Active cooling required	
Case Temperature (°C)		25 ±2	
Humidity		Non-condensing	
Dimensions (L x W x H)			
Laser Head		134.14 x 44 x 64.47 mm (5.28 x 1.73 x 2.54 in.)	
Weight			
Laser Head (g)		730 ±10	

[1] Typical value.
[2] Measured from the output face, negative value corresponds to a location inside the laser head.
[3] Theoretical limit is >1 MHz; actual performance will be limited by the diode-driver (not included).
[4] Air cooling available with appropriate heat sink and fans.

Genesis Taipan HD-Series

High-Definition, High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications	Genesis Taipan HD 532-3000/5000	Genesis Taipan HD 577-3000	Genesis Taipan HD 590-2000
Wavelength (nm)	532 ±3	577 ±3	590 ±3
Output Power (mW)	3000, 5000	3000	2000
Spatial Mode		TEM_{00}	
Bandwidth (nm)		<0.5	
Beam Waist Diameter[1] ($1/e^2$, mm)		0.07	
Beam Waist Location[1,2] (mm)		-65	
M^2			
Horizontal		<1.2	
Vertical		<1.2	
Pointing Stability (µrad/°C)		<5	
Noise			
10 Hz to 10 MHz (%, rms)		<1	
10 Hz to 5 kHz (%, peak-to-peak)		<10	
Polarization Ratio		Horizontal, >100:1	
Direct Modulation[3]		Available	
Utility and Environmental Requirements			
Operating Diode Current (A)	<30, <33	<33	<30
Maximum Diode Current (A)	<36, <40	<40	<36
Diode Voltage (V)		1.5 to 2.2	
Cooling Requirements[4]		Active cooling required	
Case Temperature (°C)		25 ±2	
Humidity		Non-condensing	
Dimensions (L x W x H)			
Laser Head		134.14 x 44 x 64.47 mm (5.28 x 1.73 x 2.54 in.)	
Weight			
Laser Head (g)		730 ±10	

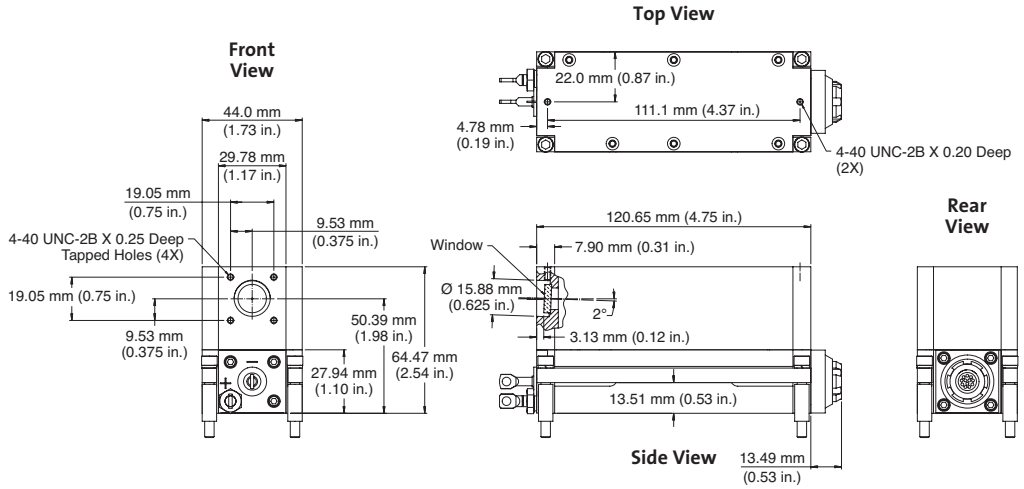
[1] Typical value.
[2] Measured from the output face, negative value corresponds to a location inside the laser head.
[3] Theoretical limit is >1 MHz; actual performance will be limited by the diode-driver (not included).
[4] Air cooling available with appropriate heat sink and fans.

Genesis Taipan HD-Series

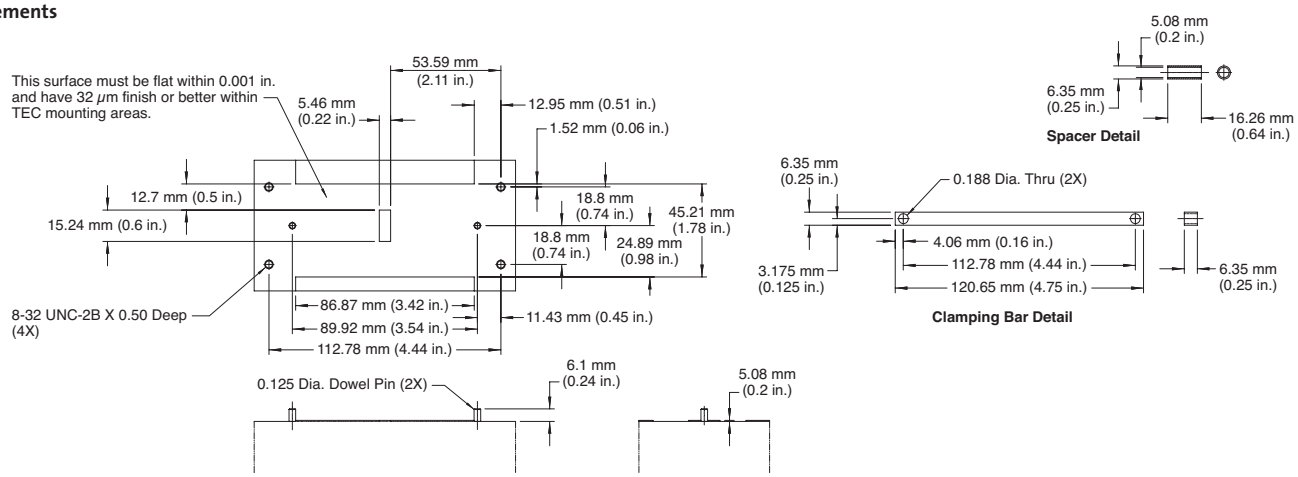
High-Definition, High-Power Optically Pumped Semiconductor Lasers (OPSL)

Mechanical Specifications

Laser Head



Base Plate Requirements



COHERENT

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) 8215 3600
France	+33 (0)1 8038 1000
Germany/Austria/ Switzerland	+49 (6071) 968 333
Italy	+39 (02) 31 03 951
Japan	+81 (3) 5635 8700
Korea	+82 (2) 460 7900
Taiwan	+886 (3) 505 2900
UK/Ireland	+44 (1353) 658 833

Printed in the U.S.A. MC-xxx-16-0M0516

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 HD-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.

CE ISO 9001 Registered