



Genesis CX-Series STM

High-Power Optically Pumped Semiconductor Lasers (OPSL)

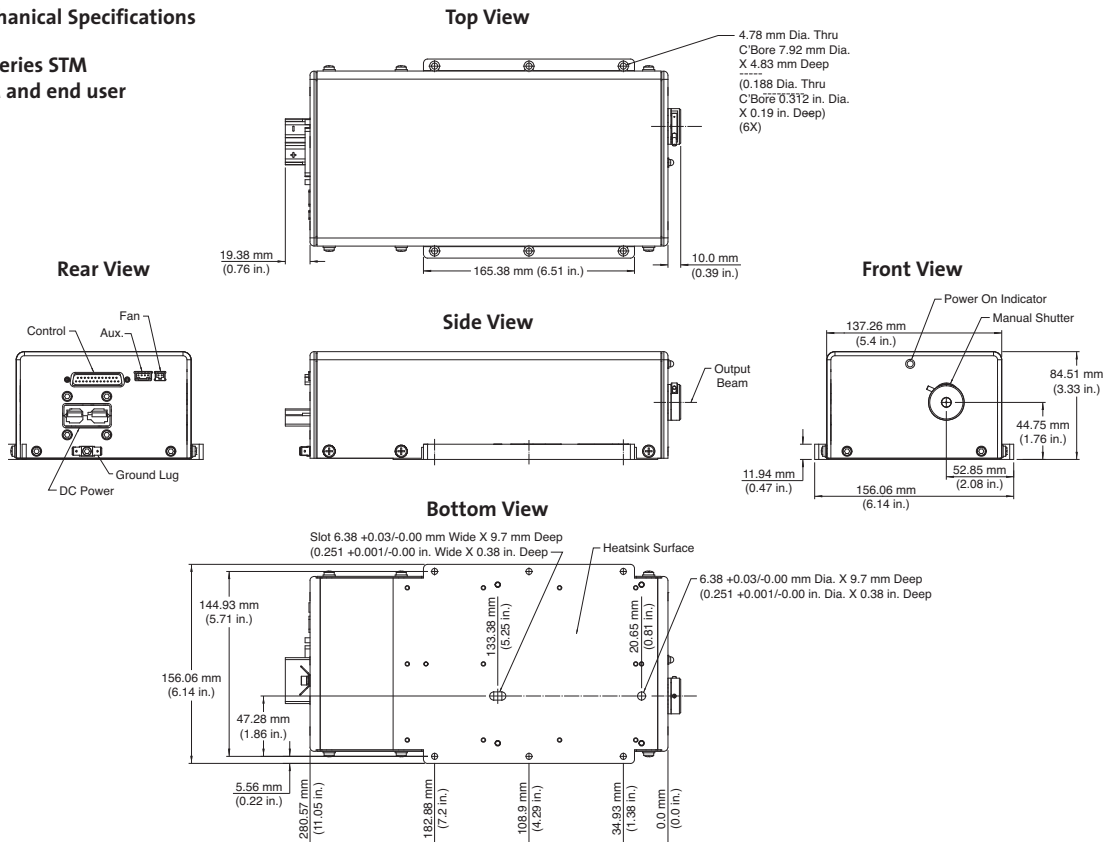


Features

- 2W, 5W and 7W output power at 532 nm
- True CW (continuous wave) 355 nm output
- Extremely low noise performance
- Superior mode quality
- OPSL reliability
- Choice of air or water-cooled solutions
- Available in OEM or end user versions

Mechanical Specifications

CX-Series STM
OEM and end user



Superior Reliability & Performance

Genesis™ CX-Series STM

High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications ²	Genesis	CX 355-40/60 ¹	CX 355-80/100/150/200/250 ¹
Wavelength (nm)			355 ±2
FWHM Linewidth (GHz)			<50
Pulse Format			CW
Spectral Purity (%)			>99
Output Power ³ (mW)		40, 60	80, 100, 150, 200, 250
Spatial Mode			TEM ₀₀
Beam Quality (M ²)			<1.2
Beam Circularity ⁴			0.95 ±0.1
Beam Waist Diameter (mm)(FW, 1/e ²)			
Horizontal			0.975 ±0.2
Vertical			0.915 ±0.2
Beam Divergence (mrad)(FW, 1/e ²)			<1.2
Beam Waist Location ⁵ (mm)			±325
Beam Pointing Stability ⁶ (μrad/°C)			<6
Horizontal Beam Position Tolerance (mm)			±<1.0
Vertical Beam Position Tolerance (mm)			±<1.0
Beam Pointing Tolerance (mrad)			<5
Polarization Ratio			Linear, >100:1
Polarization Direction			Vertical, ±5°
Noise ⁷ (% rms)(10 Hz to 1 MHz)		<1	<0.5
Power Stability (%) (pk-pk)			±<1
Warm-Up Time (minutes)			<10
CDRH Compliant			Yes
Electrical Specifications			
Operating Voltage (VAC)			100 to 240
Frequency (Hz)			50 to 60
Power Consumption (W)			500 ¹⁰
Environmental Conditions			
Ambient Temperature (°C)			
Operating			10 to 40
Non-Operating			-10 to 60
Relative Humidity ⁸ (%)			5 to 95
CE Marking			IEC 61010-1/EN 61010-1
Dimensions (L x W x H)			
Laser Head ⁹		281 x 156 x 85 mm (11.06 x 6.14 x 3.35 in.)	
Cables (laser head to controller)			2m (6.5 ft.)

¹ Available in OEM or end user versions.

² Optical parameters measured at the output plane of the laser head. Unless noted all parameters valid for the lifetime of the unit.

³ This product is offered in several output power versions: 40 mW, 60 mW, 80 mW, 100 mW, 150 mW, 200 mW and 250 mW.

⁴ Circularity defined as vertical diameter divided by horizontal diameter.

⁵ Negative value corresponds to a location inside head.

⁶ After warm-up over 2 hours.

⁷ Valid for ultra power >75 mW.

⁸ Non-condensing.

⁹ Back connector not included in laser head length dimension.

¹⁰ Power consumption for the CX 355-250 is 600W.

Genesis™ CX-Series STM

High-Power Optically Pumped Semiconductor Lasers (OPSL)

Optical Specifications ²	Genesis	CX 532-2000/5000/7000 ¹
	Wavelength (nm)	532 ±3
	FWHM Linewidth (GHz)	<30
	Pulse Format	CW
	Spectral Purity (%)	>99
	Output Power ³ (W)	2, 5, 7
	Spatial Mode	TEM ₀₀
	Beam Quality	<1.1
	Beam Circularity ⁴	1.0 ±0.1
	Beam Waist Diameter ² (mm)(FW, 1/e ²)	2.25 ±10%
	Beam Divergence ² (mrad)(FW, 1/e ²)	<0.5
	Beam Waist Location ^{2,5} (m)	±0.5
	Beam Pointing Stability ⁶ (μrad/°C)	<2
	Horizontal Beam Position Tolerance ⁷ (mm)	±<1.0
	Vertical Beam Position Tolerance ⁷ (mm)	±<1.0
	Beam Pointing Tolerance ⁷ (mrad)	<5
	Polarization Ratio	Linear, >100:1
	Polarization Direction	Horizontal, ±5°
	Noise (% rms)(10 Hz to 10 MHz)	<0.03
	Power Stability ⁸ (%)(pk-pk)	±<1
	Warm-Up Time (minutes)	<10
	CDRH Compliant	Yes
Electrical Specifications	Operating Voltage (VAC)	100 to 240
	Frequency (Hz)	50 to 60
	Power Consumption (W)	500 ¹¹
Environmental Conditions	Ambient Temperature (°C)	
	Operating	10 to 40
	Non-Operating	-10 to 60
	Relative Humidity ⁹ (%)	5 to 95
	CE Marking	IEC 61010-1/EN 61010-1
	Dimensions (L x W x H)	
	Laser Head ¹⁰	281 x 156 x 85 mm (11.06 x 6.14 x 3.35 in.)
	Cables (laser head to controller)	2m (6.5 ft.)

¹ Available in OEM or end user versions.

² Optical parameters measured at the output plane of the laser head. Unless noted all parameters valid for the lifetime of the unit.

³ This product is offered in several output power versions from 1W to 7W. The output power can be adjusted from 250 mW to maximum power.

⁴ Circularity defined as vertical diameter divided by horizontal diameter.

⁵ Negative value corresponds to a location inside head.

⁶ After 2-hour warm-up.

⁷ Measured at the output window.

⁸ Measured over 8 hrs.

⁹ Non-condensing.

¹⁰ Back connector not included in laser head length dimension.

¹¹ Power consumption for the CX 532-7000 is 600W.

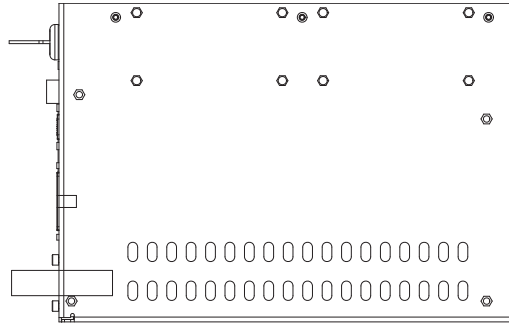
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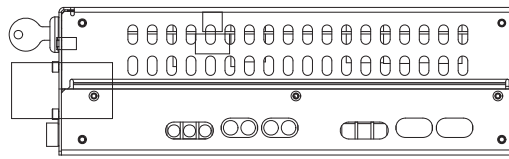
Mechanical Specifications

Genesis CX-Series
High Current OEM Power Supply

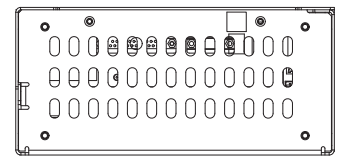
Top View



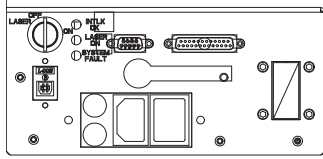
Side View



Rear View



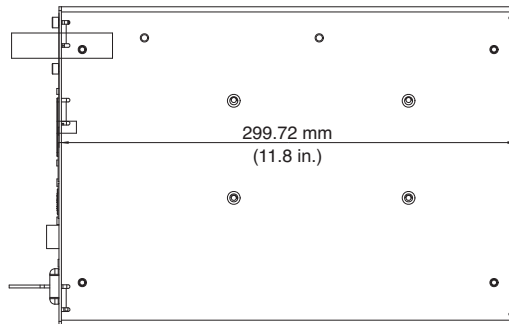
208.28 mm
(8.2 in.)



96.52 mm
(3.8 in.)

Front View

Bottom View



299.72 mm
(11.8 in.)

