

# Azure NX 266-1000

## High-Power CW Deep UV Laser

The Azure NX 266-1000 is the only high-power CW deep UV laser that meets the requirements of demanding 24/7 semiconductor applications.

Based on a high-power Optically Pumped Semiconductor (OPS) green laser and using patented technology for single frequency operation and absolute wavelength control, the Azure NX laser utilizes the PermAlign™ mounting technique to ensure continuous reliable performance. The system also features hands-free operation via LAN or WEB GUI. This high-power laser is ideal for applications such as semiconductor inspection allowing for detection of smaller defects in shorter times.



### FEATURES

- Designed for 24/7 operation in commercial applications
- 1 W of ultra low noise CW 266 nm
- Complete hands-free operation
- Compact PermAlign design and hermetically sealed
- Patented single and absolute frequency stabilization

### APPLICATIONS

- Semiconductor Inspection
- Mask Writing
- Raman Spectroscopy
- Fiber Bragg Grating
- Lithography

Workstation Requirements		Azure NX 266-1000
Power (W)		1
Wavelength (nm)		266
Linewidth (kHz)		<500
Beam Waist Diameter (mm)		2 ±0.3
Beam Waist Location Relative to Beam Exit (m)		Front bezel ±25% of Rayleigh Range
Beam Divergence (mrad) (full angle)		<0.3
Beam Ellipticity		0.9 to 1.1
Astigmatism		±25% of Rayleigh Range
Pointing Stability (μrad/°C)		<±5
Pointing (μrad) (actively stabilized)		<20
Transverse Mode		TEM <sub>00</sub>
M <sup>2</sup>		<1.3
Polarization		Linear, Vertical ±3°, 200:1
Output Power Stability over 8 hours (%)		<1
RMS Noise (%) (10 Hz to 500 MHz)		<0.5
PTP Noise (%) (100 s, 1 MHz to 100 MHz)		<3
Warm-Up Time <sup>1</sup>		
Cold Start (hours)		<2
From Standby (minutes)		<30
From Crystal Shift		<2
Life Time		
Life Time (hours)		20,000

Dimensions and Weight	
Dimensions (W x H x L)	
Laser Head	308 x 177 x 483 mm <sup>3</sup> (8.86 x 6.97 x 19.02 in. <sup>3</sup> )
Power Supply	452 x 88 x 420 mm <sup>3</sup> (17.95 x 3.46 x 16.54 in. <sup>3</sup> )
Chiller	482 x 134 x 570 mm <sup>3</sup> (18.98 x 5.28 x 22.44 in. <sup>3</sup> )
Recirculator Unit	229 x 223 x 276 mm <sup>3</sup> (9.02 x 8.78 x 10.87 in. <sup>3</sup> )
Weight (kg) Laser	
Head Power	25
Supply Chiller	10
Recirculator Unit	20
	10
Laser Head Cable Length (m)	5
Operating Thermal Requirements	20 to 33°C

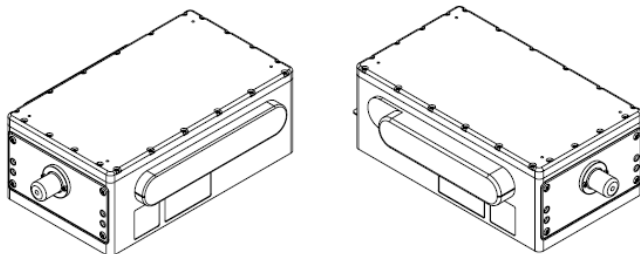
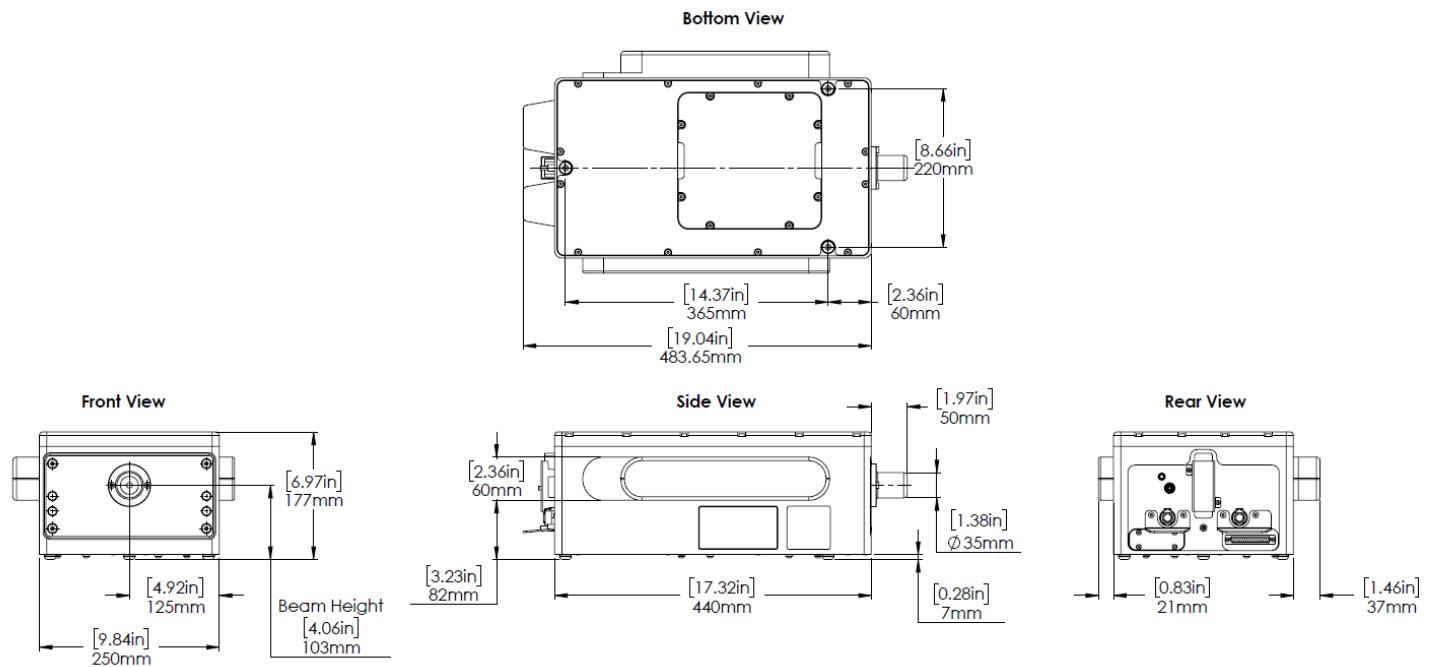
Notes:

1. Defined as time to meet all specifications.

Cooling Requirements		Azure NX 266-1000
Laser Head	Water-cooled, closed loop chiller for laser head	
Power Supply	Air-cooled	
Recirculator Unit	Water-cooled	
Shipping Requirements	0 to 55°C in non-condensing environment	
Orientation	Horizontal ±2°	
Power Consumption		
Power Supply (kW)	0.6	
Power Consumption (kW)		
Laser Head	1	
Chiller	1	
Communications		
Power Supply	Ethernet	

Mechanical Specifications

Azure NX 266-1000



CE ISO 9001 Registered

