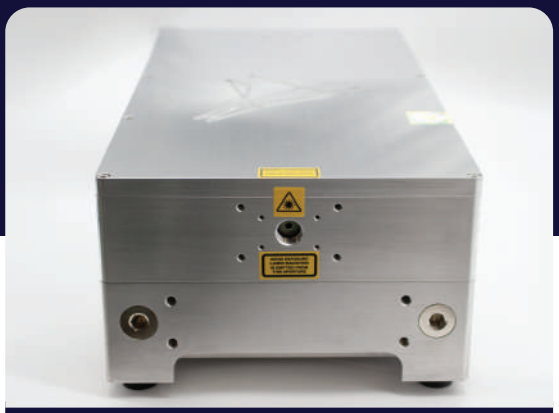


SKYLARK 320

SINGLE FREQUENCY CW DPSS UV LASER

Key features

Narrow linewidth
≤ 500 kHz

Low power noise
≤ 0.3 % RMS

Stable wavelength
± 0.2 pm over 8 hours

Stable output power
≤ 2.0 % over 8 hours

Scan to view specifications & product downloads

Laser specifications

Output beam parameters

Output power	up to 200 mW
Wavelength	320 nm
Spectral bandwidth	≤ 500 kHz
Spatial mode	TEM_{00}
Spectral stability	± 0.2 pm (over 8 hours)
Coherence length	> 100 m
Output power stability	≤ 2.0 % (over 8 hours)
Output power noise	≤ 0.3 % RMS (10 Hz – 10 MHz)
Beam divergence	1.0 mrad, diffraction limited
Beam diameter at output aperture	1.0 - 1.5 mm
Beam pointing stability	≤ 5 µrad/°C

Environmental conditions

Ambient temperature range	18 - 30 °C
Laser head interface stability	± 1.5 °C
Storage	0 - 50 °C
Humidity	0 - 50 %, non-condensing

What do our customers say about Skylark 320 CW DPSS single frequency lasers?

"An excellent replacement for an Argon or HeCd laser: emission is spectrally pure, efficiency is much better, it provides better longevity with cheaper maintenance, and it is much smaller."

SEMICONDUCTOR INSPECTION CUSTOMER

"It's taken 15 years to find a suitable replacement for our HeCd laser. The clean mode enables us to manufacture high fidelity gratings with > 92% transmission efficiency (vs. 70% with HeCd)"

OPTICAL GRATING MANUFACTURER

"The Skylark 320 laser is an excellent, efficient source for laser interference lithography, a great improvement over gas systems, and with spectrally clean emission."

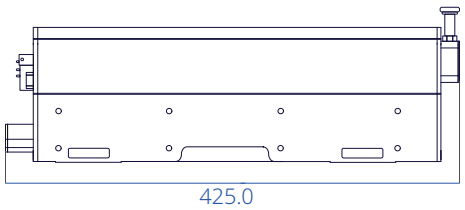
SEMICONDUCTOR MATERIALS ANALYST

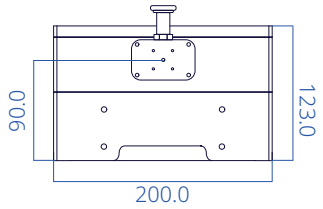
Reveal the unseen,
detect the imperceptible,
measure the unknown.

Skylark DPSS laser system overview

Dimensions

Laser head (L x W x H)	425 x 200 x 123 mm
Beam height	90.0 mm

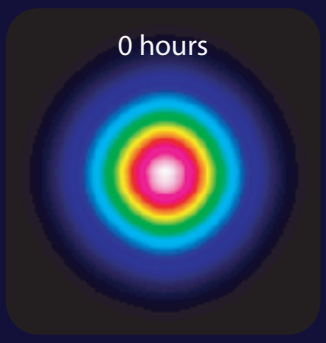




Laser control

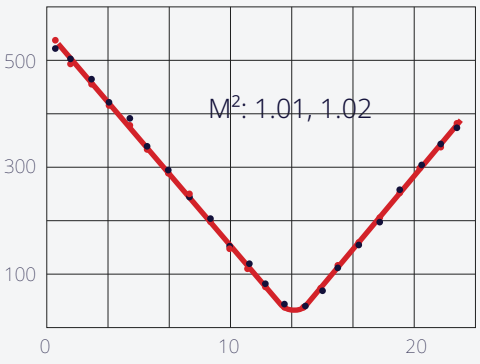
Control interface	Web-based GUI
Control connectivity	Ethernet (TCP/IP) + digital I/O
Safety features	Interlock, mechanical shutter

Beam profile

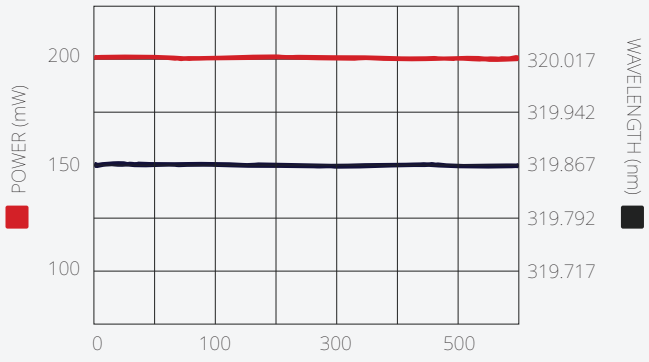


Ellipticity	96.8%
Minor ellipse diameter (13.5%)	1035.0 µm
Major ellipse diameter (13.5%)	1069.0 µm
Beam width (4-sigma) X	1074.4 µm
Beam width (4-sigma) Y	1108.5 µm
Beam width clip X (13.5%)	1037.1 µm
Beam width clip Y (13.5%)	1040.9 µm

Test data



M^2 < 1.03



Mode-hop free stability over 500+ hours