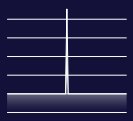
SKYLARK 780 NX

SINGLE FREQUENCY CW DPSS NIR LASER

The Skylark 780 NX CW DPSS laser delivers single frequency operation, powering rubidium applications with up to 400 mW of ultra-stable output.

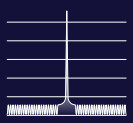
Low ASE noise and narrow linewidth provide exceptional spectral purity, ensuring precise measurement and control of rubidium.

Key features



Ultra-narrow linewidth
≤ 300 kHz

Ultra-low power noise
≤ 0.3 % RMS (10 Hz - 10 MHz)



Ultra-low ASE noise
< – 80 dB

Ultra-stable power output
≤ 2.0 % over 8 hours

Applications

Raman spectroscopy, optical manipulation, rubidium D2 transitions, cold atom trapping, atomic spectroscopy, magnetometry, atom interferometry, Bose-Einstein Condensates (BEC formation), magneto-optical traps, frequency comb generation, atomic clocks, free-space optical communication.

Get in touch

skylarklasers.com

sales@skylarklasers.com

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

Specifications

Output beam parameters

Output power	up to 400 mW
Wavelength	780 nm
Spectral bandwidth	≤ 300 kHz
Spatial mode	TEM_{00}
Spectral stability	± 0.2 pm (over 8 hour operation)
Coherence length	> 100 m
Output power stability	≤ 2.0 % (over 8 hour operation)
Output power noise	≤ 0.3 % RMS (10 Hz – 10 MHz)
ASE noise	< – 80 dB
Beam divergence	1.0 mrad, diffraction limited
Beam diameter at output aperture	0.8 - 1.2 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

Dimensions

Laser head (L x W x H)	257 x 150 x 87 mm
Beam height	54.2 mm