

# Skylark 780 NX

Single frequency CW DPSS  
NIR laser

The Skylark 780 NX laser offers DPSS CW single frequency operation, delivering up to 400 mW of ultra-stable intensity and wavelength for systems requiring precise measurement and control of rubidium transitions.

## Key features



**Ultra-narrow linewidth**  
< 0.3 MHz



**High spectral stability**  
< 0.2 pm over 8 hours



**High power stability**  
< 2% over 8 hours



**Integrated design**  
Easy to install

## Applications

Rubidium spectroscopy, Raman spectroscopy, atomic spectroscopy, atomic clocks, metrology, interferometry, frequency comb generation, magneto-optical trapping, free-space optical communication

## Specifications

### Output beam parameters

Output power	up to 400 mW
Wavelength	780 nm
Spectral bandwidth	≤ 0.3 MHz
Spatial mode	TEM00
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	≤ 0.1 % RMS (10 Hz - 10 MHz)
Beam divergence	1.0 mrad, diffraction limited
Beam diameter at output aperture	0.8 - 1.2 mm
Beam pointing stability	≤ 5 μrad/°C

### Laser head dimensions

L x W	257 x 150 mm
Beam height	54.2 mm

### Environmental conditions

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

### Integration features

Plug-in USB Connectivity	Combined Heatsink
Versatile Control Software	Remote Diagnostic Support

### Optional accessories

Heatsink	Fan-assisted air cooled or, Water-cooled thermoelectric chiller
External manual power control	0 - 100 %, continuous

### Warranty

12 month warranty	For laser head and controller
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