Skylark Lasers

Data sheet
SLM DPSS laser

Skylark 780 NX

Single frequency CW C-DPSS NIR laser

The Skylark 780 NX laser offers C-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
< 1 pm over 8 hours

High power stability
< 2% over 8 hours

Integrated design
Easy to install

Applications

Raman spectroscopy, metrology, quantum technologies

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	170 x 95 mm
Beam height	51.7 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