

Ultra-stable laser system Preci-USL-5cm

FREQUENCY-STABILIZED & ULTRA-STABLE LASERS



Ultra-stable laser system Preci-USL-5cm Based on a 5cm high-finesse F-P cavity, Precilasers provides an ultra-stable narrow-linewidth laser system with stability approaching the thermal noise limit. It supports dual-wavelength locking, covering a wavelength range of 400nm-2000nm, with a typical linewidth of <1Hz.

- Dual
- Vibration insensitivity One
- Automatic re
- Support for built
- Optional active vibration isolation
- Optional sideband frequency shifting
- Atomic clocks Quantum precision
- Fiber optic frequency distribution

Specifications

Parameter	Preci-USL-5cm
Optional Wavelengths	400-2000nm
Typical Wavelength	480nm, 580nm, 780nm, 852nm, 1080nm, 1560nm, 1762nm
Features & Advantages	Dual-axis, narrow linewidth, high stability
Linewidth*	<1Hz
Stability**	<3x10 ⁻¹⁵ @1s
Active Vibration Isolation Table	Optional
Cavity Length	5cm
Free Spectral Range	3GHz
Finesse	1000, 10000, 200000
Drift	<0.2Hz/s (<20kHz/day)
Vacuum Degree	<1x10 ⁻⁷ mbar
Cavity Mirror Parameters	ULE material, plane-concave cavity; concave mirror curvature radius optional (500mm/1000mm/2000mm)
Operating Temperature	20±7°C
Ambient Temperature Sensitivity	<3mK/°C
Power Supply	100V-240V, AC, 50/60Hz
Weight	70kg
Dimensions	40cmx39cmx45cm
Multi-Wavelength	Dual-wavelength optional
Active Vibration Isolation	Optional active vibration isolation table
Sideband Locking Option	Integratable sideband frequency shifting EOM (bandwidth >1.5GHz)

Source: WaveQuanta product database. For ordering, customization (wavelength, power, package) and quotation, contact sales@wavequanta.com.