

ECL5000 Continuously Tunable, PC-Controlled Laser, 1519 - 1630 nm

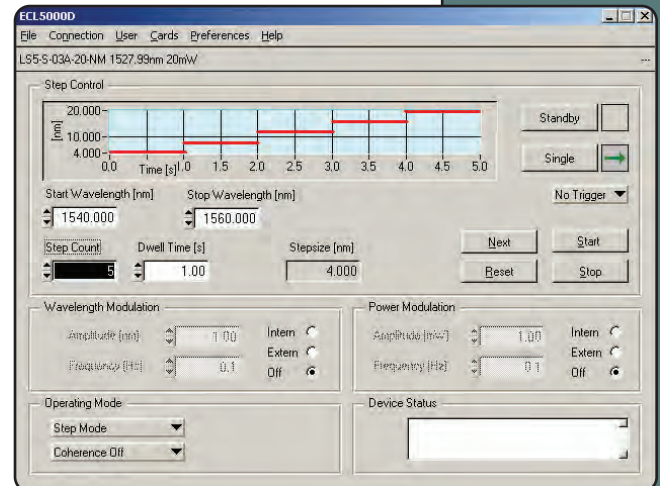


Comes Complete with Laptop and Installed Software!

The ECL5000DT benchtop tunable laser utilizes Thorlabs' patented ECL technology, providing high stability, high output power, and smooth continuous tuning over the 110 nm tuning range. The benchtop unit is comprised of a Thorlabs PICO D Series Tunable Laser packaged in a rugged TXP5004 chassis. The microprocessor-controlled unit provides both digital and analog modes of controlling the unit. In the analog mode, the wavelength and power can be controlled by applying a voltage to the front input connectors. This can be a DC voltage for step control or a modulated signal for sweeping either the wavelength, the power, or both. The digital control is achieved through the USB interface. The easy-to-use interactive GUI (Graphical User Interface) allows direct tuning, step tuning, and selectable sweep operation. The laser is ready for use as soon as the USB cable, included with the unit, is plugged in.

LabVIEW™ and LabWindows™/CVI drivers are provided for those who need to integrate the programming of the tunable laser with other equipment. These two methods of tuning provide the powerful, flexible control necessary to meet the most demanding testing applications to synchronize with external events.

The ECL5000DT also provides trigger-in and trigger-out connectors. The output voltage at the analog out jack is proportional to the optical wavelength.



Specifications

Parameter	Typical Data
Wavelength Range	1519 - 1630 nm ^a
Mode Hops	0
Tuning Speed Continuous	0 - 130 nm/s
Tuning Speed Step (Includes Settling Time)	1 nm: <50 ms 10 nm: <100 ms 100 nm: <800 ms
Wavelength Resolution	1 pm
Wavelength Repeatability	±5 pm (1 Hour)
Wavelength Accuracy	±15 pm
Wavelength Stability	±5 pm ^b (1 Hour)
Wavelength Modulation Bandwidth	100 Hz
Power Repeatability	±0.1 dB (1 hour)
Optical Power Modulation Bandwidth	>100 kHz
Optical Peak Power	9 dBm
Optical Output Power	Peak: 9 dBm 50 nm: 6 dBm Full Range: 3 dBm
Spectral Linewidth FWHM	<150 kHz ^c
SMSR	>50 dBc
STSSR	65 dB
Optical Isolation	60 dB ^d
RIN	-140 dB/√Hz
Optical Interface	FC/APC
Analog Input Voltage Range	±10 V
Input Power	100-240 VAC 50-60 Hz
Dimensions ECL5000DT (mm)	168 x 133 x 315

^a Standard product, other wavelengths available upon request.

^b ΔT ±0.5 °C

^c Measurement time 1ns.

^d Peak isolation

Highlights

- Mode-Hop Free Tuning
- Internal and External Wavelength and Power Modulation
- Smooth and Continuous Tuning
- 1519 - 1630 nm Tuning Range
- Continuous Sweep and Step Mode Operation
- High Output Power
- USB with Intuitive Graphical Interface



ECL5000DT TXP MODULE

The PMD5000, a versatile PMD and polarization analysis system, is an application example of an ECL5000DT in a complex TXP-based test and measurement system (see pages 993-1007).

ITEM#	\$	£	€	RMB	DESCRIPTION
ECL5000DT	\$26,000.00	£ 18,024.00	€ 23,083.00	¥ 219,545.00	Complete Benchtop Linear Tunable Laser Including Laptop