

LASER RADIATION
DO NOT VIEW DIRECTLY WITH
OPTICAL INSTRUMENTS!
CLASS 1M LASER PRODUCT
1454-1630nm $\leq 50\text{ mW}$
IEC 60825-1 EDITION 1,2 2001-08

PICO D Series Continuously Tunable OEM Lasers (1519-1630 nm)



Thorlabs' PICO D family of OEM tunable ECLs allows for integration into larger or custom environments. The PICO D family is specially designed for swept wavelength applications and interferometric measurements. The laser has an outstanding tuning smoothness, which is a necessity in applications such as interferometric optical component testing and high-resolution fiber sensing.

The PICO D features analog tuning and continuous mode-hop free tuning across more than 100 nm in the C- and L-bands (1519-1630 nm). The standard product offers a typical output power of >5 dBm across the tuning range. The PICO D offers low SSE, providing a Signal to Total Source Spontaneous Emission Ratio (STSSER) of >65 dB. This makes the PICO D an ideal source for testing optical components.

The PICO series is ideal for fiber sensor-based temperature and pressure monitoring in petrochemical facilities, refineries, oil wells, power plants, and bridges.

Optical Specifications

Parameter	Typical
Tuning Range* PICO D (C- and L-Bands)	1519 - 1630 nm
Mode Hops	0
Continuous Tuning Speed	0 - 130 nm/s
Tuning Speed	
1 nm	30 ms
10 nm	100 ms
100 nm Step	800 ms
Wavelength Resolution	0.6 pm
Wavelength Repeatability	1 pm
Absolute Wavelength Accuracy	±10 pm
Wavelength Stability pm (1hr (24hr))	±2 pm ±10 pm
Optical Peak Power	>6 dBm
Optical Power Over Entire Tuning Range	>2 dBm
Power Resolution	0.1 μW
Spectral Linewidth	150 kHz Max**
Coherence Control	Optional
Side Mode Suppression Ratio (SMSR)	45 dBc
Signal to Source Spontaneous Emission (SSE)	70 dBm/nm
Signal to Total Source Spontaneous Emission Ratio (STSSER)	65 dB
Optical Isolation	60 dB
Relative Intensity Noise (RIN)	-140 (dB/Hz)

* Standard product, other wavelengths available upon request.

**Measurement time <math>< 1\text{ms}</math>.

Features

- Tuning without Mode-Hop
- Models Covering C and L Bands Available
- Peak Power >6 dBm (Typical)
- Low SSE >70 dB/ nm
- Other Wavelengths Available by Request

Electrical and Interface Specifications

- **Operating Temperature Range:** 15 - 40 °C
- **Optical Connector:** FC/APC
- **DC Power:** +5 V and ±15 V
- **Wavelength Set Voltage:** ±10 V
- **Output Power Set Voltage:** -1 V to 10 V
- **Digital Control and Status:** 0 - 5 V
- **Electrical Connectors:**
 - 6-Pin Power Rear Panel
 - 40-Pin Electrical Rear Panel
- **Physical Size (W x H x L):** 49 mm x 93 mm x 273 mm

ITEM#	\$	£	€	RMB	DESCRIPTION
PICOD-SM	\$ 20,790.00	£ 14,413.00	€ 18,458.00	¥ 175,552.00	Continuously Tunable Laser, 1519-1630 nm SM Fiber
PICOD-PM	\$ 21,420.00	£ 14,849.00	€ 19,017.00	¥ 180,871.00	Continuously Tunable Laser, 1519-1630 nm PM Fiber