

fixed wavelength mid-IR external-cavity PULSED and CW LASERS



Operation CW or Pulsed (factory set)

CW Operation

Power: >30 mW (call for higher powers)

Linewidth: < 30 MHz (0.001 cm⁻¹)

Pulsed Operation

Power: >30 mW average (call for higher powers)

Linewidth: <30 GHz (1 cm⁻¹)

Duty Cycle*: 20%

Repetition Rates*: 10 kHz to 500 kHz

Pulse Width*: 50 to 500 nsec

(* factory set)

Common Specifications

Power Stability: ± 2.5% (8 hours)

Wavelength Accuracy: ± 30 GHz (1 cm⁻¹)

Wavelength Stability: 0.05 cm⁻¹ (8 hours)

Beam Diameter: <2.5 mm

Beam Quality: TEM₀₀

Beam Shape: elliptical

Beam Divergence: <5 mrad

Polarization Ratio: >100:1, vertical

TTL On/Off Modulation: DC to 10 kHz

Max. Baseplate Temperature: 50°C

Max. Head Dissipation (@50°C): 25 W

Package Size (L×W×H): 4.0" × 2.5" × 1.5"

Daylight Solutions is pleased to present its Mid-IR fixed wavelength laser platform offered in either CW or Pulsed versions. This platform provides the ability to switch the laser on and off via TTL input from DC to 10 kHz.

In addition to performance parameters, the center wavelength of each laser is factory set to customer specifications. This ensures wavelength accuracy of ± 30 GHz (1 cm⁻¹) and promotes stable and robust operation.

The compact design is both lightweight and rugged with a hermetically sealed laser cavity using TEC technology for behind-the-scenes temperature control — no cryogenic cooling! The result is an easy-to-use turnkey system that's ideal for OEM requirements.

Common applications include mid-IR illumination, thermal imaging, and OPO seeding. Please contact us to learn how the fixed wavelength laser platform may help your application needs today.

Available Set Ranges for CW and Pulsed Factory set wavelength to ±30 GHz (1 cm⁻¹) accuracy

Nominal Wavelength (in μm)	CW Set Range μm (cm ⁻¹)	Pulsed Set Range μm (cm ⁻¹)
4.9	4.85–5.00 (2994–2040)	Call
5.2	5.15–5.26 (1940–1900)	5.00–5.18 (2000–1931)
6.1	5.97–6.15 (1675–1630)	5.93–6.10 (1675–1640)
7.7	NA	Call
8.1	Call	Call
8.8	Call	Call
9.2	NA	8.90–9.30 (1125–1075)
9.7	9.62–9.78 (1040–1022)	Call
10.5	10.42–10.70 (960–935)	8.90–9.30 (1125–1075)

Call today for pricing and availability of specific wavelengths.

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