

TECIRL-830

Thermo-Electrically Cooled Infrared Lasers



Specifications

OPTICAL

Wavelength	830 nm
Optical Output Power	10-150 mW
Laser Power Stability	< 0.5%
Laser Structure	Single Mode
Laser RMS Noise	< 0.5%
Polarization Ratio	> 100:1
Beam Size	5 mm (Collimated) Adjustable Focus (default)
Divergence (full)	< 0.5mrad
Beam Pointing Stability	< $\pm 10 \mu\text{rad}$
Warm-Up time	< 1 min

ELECTRICAL

Operating Voltage	3.3 V DC
Operating Current	< 1 A

MECHANICAL

Dimension	1" (Dia) x 3" (L)
Operating Temperature	+10°C to +40°C
Storage Temperature	-40°C to +80°C
Heat Sink Requirements	Recommended for extended use

TECIRL-Series Laser Product Features

- Integrated TEC and Laser Controller
- Low RMS Noise
- Excellent Power & Wavelength Stability
- Compact Size
- Long Life-Time & Low Power Consumption

TECIRL-Series Laser Applications

- Bioanalytical
- Measurement
- Confocal Microscopy

TECIRL-Series Thermo-Electrically Cooled InfraRed Laser is a compact self-contained, highly reliable laser operating at very stable wavelength and power. The build-in temperature controller stabilizes the laser temperature within $\pm 0.01^\circ\text{C}$. The laser output power stability is better than 1% over long term. Extremely stable power, low noise and excellent beam pointing stability of this laser makes it ideal for bioanalytical, measurement and imaging applications. It is powered by a wall mount power adaptor (supplied with the laser) for plug & play operation.

TECIRL-Series lasers can be customized to include beam shaping optics and modulation.

Operational Hazard-Semiconductor Laser Diode Module: This laser module emits radiation that is invisible and harmful to human eye. When in use, do not look directly into the laser emitting aperture. Direct viewing of laser diode emission at close range may cause eye damage.

Limited Warranty: One year. No warranty coverage for disassembly, modifications or damage due to abuse or misapplication.

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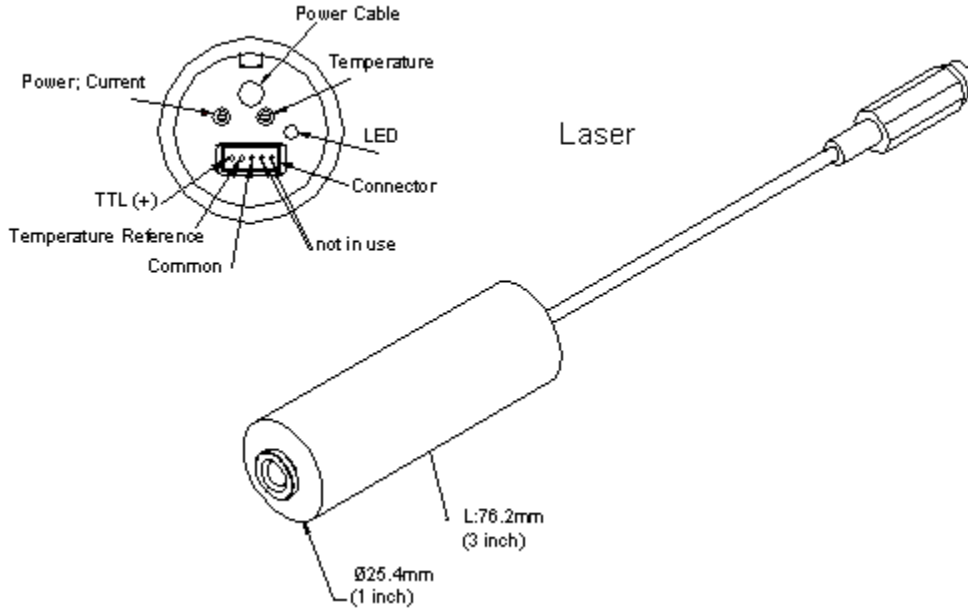
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TECIRL-830

Thermo-Electrically Cooled Infrared Laser Modules :Mechanical Dimensions



TECIRL-Series Laser Ordering Information

Part# TECIRL-pppG(c)-λλλ

Option	Meaning	Values
ppp	Laser output power (mW)	10, 40, 70, 100, 150 mW
λλλ	Wavelength (nm)	830 nm
(C)	Circular Beam	C
TTL	TTL Modulation	Max 1 MHz.

Example Part Number : **TECIRL-50G-830-TTL** (50mW, 830 nm with TTL modulation)



Class IIIB Modules sold solely for use in OEM equipment; OEM is responsible for compliance with all safety regulations.