

Thermo-Electrically Cooled Red Lasers



Specifications

OPTICAL

Wavelength	650 nm
Optical Output Power	0.4-7 mW
Laser Structure	Single Mode
Laser Power Stability	< 0.5%
Laser RMS Noise	< 0.5%
Polarization Ratio	> 100:1
Beam Size	5 mm (typical, may vary with diode)
Divergence (full)	< 0.5mrad
Beam Pointing Stability	< ± 10 μrad
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

TECRL-Series Laser Product Features

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

TECRL-Series Laser Applications

- Bioanalytical
- Measurement
- Confocal Microscopy

TECRL-Series Thermo-Electrically Cooled Red 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 ±0.01°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.

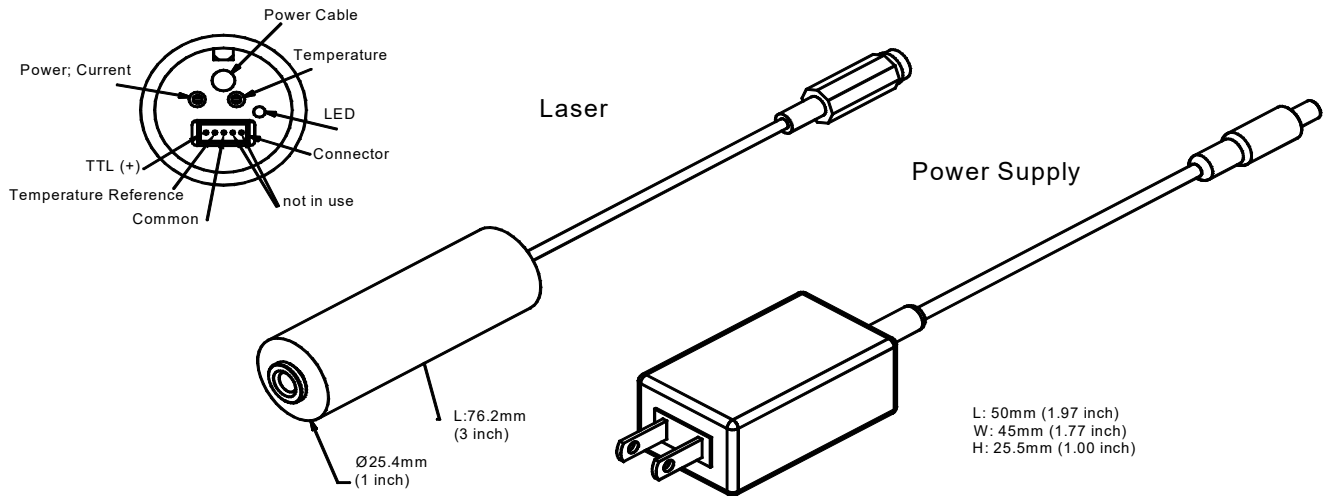
TECRL-Series lasers can be customized to include beam shaping optics and modulation.

Operational Hazard-Semiconductor Laser Diode Module: This laser module emits radiation that is visible 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

Thermo-Electrically Cooled Red Laser Modules

Mechanical Dimensions



TECRL-Series Laser Ordering Information

Part# TECRL-pppG(c)-λλλ

Option	Meaning	Values
ppp	Laser output power (mW)	0.4 , 1, 3.5, 7mW
(c)	Circular laser diode beam (optional)	C
λλλ	Wavelength (nm)	650 +/-8 nm
TTL	TTL Modulation	Max 1 MHz

Example Part Number : **TECRL-3.5GC-650-TTL** (3.5mW, circular beam, 650 nm with TTL modulation)



Class II and III A Complies with CDRH 21CFR 1040.10

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