

# TECRL-658-USB

## Thermo-Electrically Cooled Red Lasers



### 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  $\pm 0.01^\circ\text{C}$ . 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.

**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.

### Specifications

#### OPTICAL

Wavelength	658 nm
Optical Output Power	10-100 mW
Laser Structure	Single Mode
Laser Power Stability	< 0.5%
Laser RMS Noise	< 0.5%
Polarization Ratio	> 100:1
Beam Size (collimated)	< 5 mm
Divergence (full)	< 0.5mrad
Focus Distance	Adjustable (default)
Beam Pointing Stability	< $\pm 10 \mu\text{rad}$
Warm-Up time	< 1 min

#### ELECTRICAL

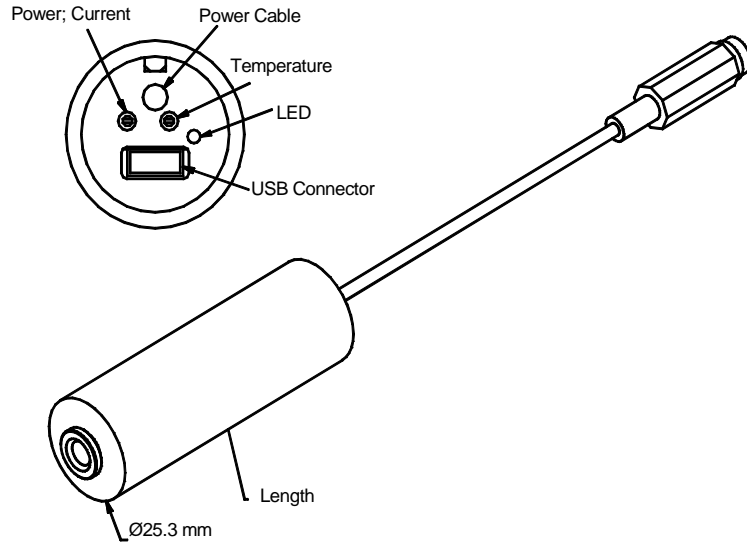
Operating Voltage	3.3 V DC
Operating Current	< 1 A

#### MECHANICAL/ENVIRONMENTAL

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-658-USB

## Thermo-Electrically Cooled Red Laser Modules :Mechanical Dimensions



## TECRL-658 Series Laser Ordering Information

Part# TECRL-pppG(c)-λλλ-USB

Option	Meaning	Values
ppp	Laser output power (mW)	10, 15, 20, 30, 50, 100 mW
(c)	Circular laser diode beam (optional)	C
λλλ	Wavelength (nm)	658 +/- 3 nm
TTL	TTL Modulation	Max 1 MHz

Example Part Number :**TECRL-50G-658-USB** (50mW, elliptical beam, 658 nm)



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

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