



DATASHEET



TECRL Series Thermoelectrically Cooled Laser is a compact, self-contained, highly reliable laser operating at a very stable wavelength and power. The built-in temperature controller stabilizes the laser temperature within $\pm 0.01^{\circ}\text{C}$. The laser output stability is $<1\%$ over the long term. Extremely stable power, low noise and excellent beam pointing stability of this laser makes it ideal for bioanalytical, measurement and imaging applications.

TECRL Series lasers are provided with a power supply for plug and play operation

TECRL Series lasers can be customized to add beam shaping optics, external modulation and multimode fibers

FEATURES

- ✓ Integrated TEC and Laser Controller
- ✓ Excellent Power & Wavelength Stability
- ✓ Low RMS Noise
- ✓ Compact Package

APPLICATIONS

- ✓ Measurement
- ✓ Bioanalytical
- ✓ Confocal Microscopy

Operational Hazard of Laser Module

This laser module emits radiation that is visible/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.



SPECIFICATIONS

OPTICAL

Wavelength	670 \pm 5 nm
Optical Output Power	0.4-10 mW
Laser Power Stability	$<0.5\%$
Laser RMS Noise	$<0.5\%$
Polarization Ratio	100:1
Collimated Beam Size	5mm (typical, may vary with diode)
Beam Shape	Elliptical
Divergence (full angle)	< 1 mrad
Warm-Up time	<1 min

ELECTRICAL

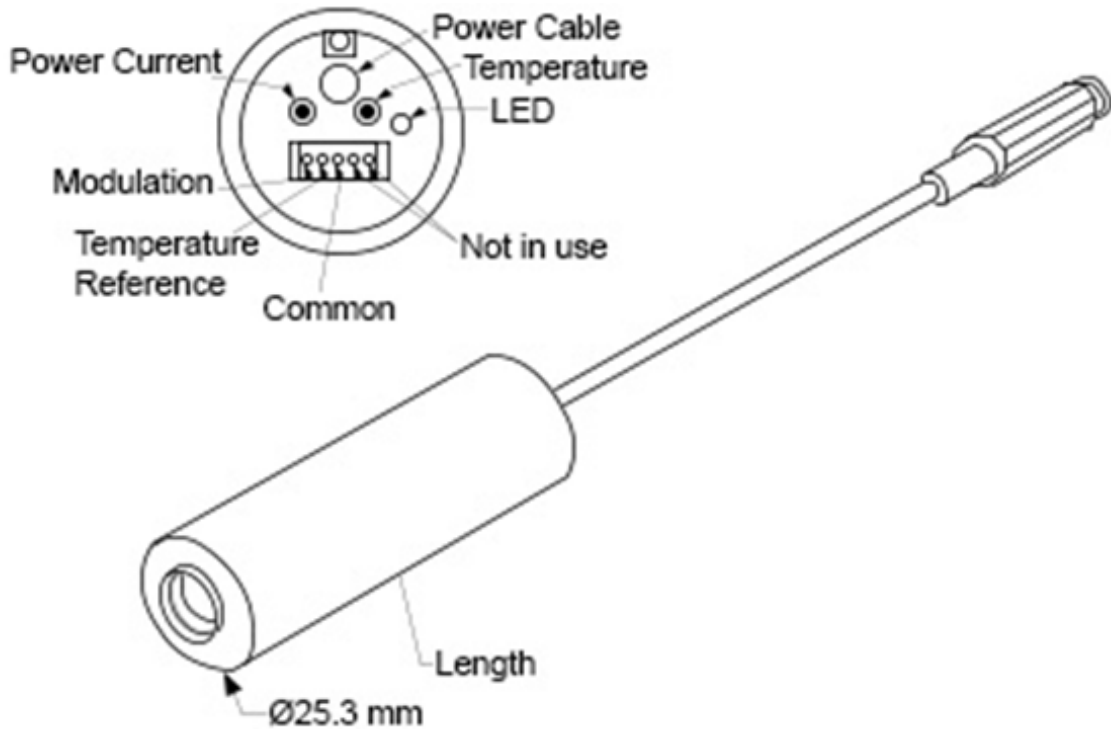
Operating Voltage	3.3 V DC (power supply provided for plug and play)
Operating Current	< 1.2 A
Control Circuit	APC

MECHANICAL

Dimension, mm	25.3 (D)x 76.2 (L)
Operating Temperature	$+10^{\circ}\text{C}$ to $+40^{\circ}\text{C}$
Storage Temperature	-40°C to $+80^{\circ}\text{C}$
Heat Sink	Recommended for extended use

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OUTLINE DRAWING



TECRL ORDERING INFORMATION

PART# TECRL-pppG(c)-λλλ

OPTION	DESCRIPTION	VALUES
ppp	Laser output power (mW)	0.4-10mW
(c)	Circular laser diode beam (optional)	C
λλλ	Wavelength (nm)	670 nm
TTL	External TTL Modulation	Max 1MHz

Example Part # for 10 mW, standard elliptical beam, 670 nm laser with external TTL: TECRL-10G-670-TTL-