



RLTMSL-532 1-300mW

- Green Solid-State Laser System
- 532 nm
- Single Longitudinal Mode
- Temperature-controlled
- CE certified
- 1 Year warranty



Description

RLTMSL-532 is a series of low noise 532nm temperature-stabilized (**TEC**) diode pumped solid state (DPSS) laser systems, emitting at a wavelength of 532 nm, with **TEM₀₀ transverse**, and **single longitudinal mode**, an output power stability of <5%. It features a separate laser head and power supply unit, supporting a wide input voltage range of 90-260 VAC and safety interlock.

Fiber coupling, modulation input and enhanced power stability of down to <1% are available as optional features.

RLTMSL-532 is RoHS compliant, CE certified, and comes with a **1 year warranty**.

Electro-Optical Characteristics

T_{CASE} = 25°C

Parameter	Values	Unit
Wavelength	532±1	nm
Output Power	50 – 400	mW
Operating Mode	CW	
Transverse Mode	TEM ₀₀	
Longitudinal Mode	Single	
Spectral Linewidth	< 0.00001	
Coherent Length	> 50	m
Noise of Amplitude (rms, 1Hz-20MHz)	< 0.5%	
M ² Factor	< 1.2, < 1.1*	
Power Stability (rms, over 4 hours)	< 3% , < 2%*, < 1%*	
Beam Diameter at aperture (1/e ²)	< 1.5	mm
Beam Divergence (full angle)	< 1.2	mrad
Polarization Ratio	> 100:1, Vertical ±5 degree (Horizontal*)	
Warm-up time	< 10	min
Pointing Stability (after warm-up)	< 0.05	mrad
Beam Height (from base plate)	27.4	mm
Operating Temperature	10 - 35	°C
Power Supply (85-264 VAC)	PSU-FDA (included)	
Expected Lifetime	10000	hours

* optional available





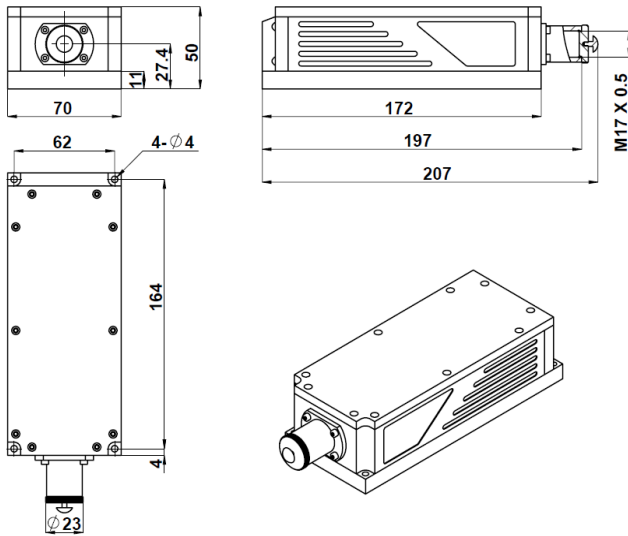
Options

Options	Description
RS-232	Remote interface for controlling the laser via software
Modulation input	TTL or Analog input with <1 kHz, <10 kHz, <30 kHz, or <100 kHz (on request)
Multi-mode fiber coupling	100, 200, 400, 600, or 1000 μm multi-mode fiber with metal shielding and SMA905 or FC/PC connector
Fiber optic collimator	Focusable beam at fiber end
Beam expander optic	2x, 3x, 5x, 10x
Line generating lens	Power lens with 5°, 7°, 10°, 30°, 45°, 60°, 75°, or 90° fan angle
Shutter	Mechanical shutter (r/f time ~1.5 ms, delay 5 ms, exposure min. 5 ms)

* optional available

Outline Dimensions

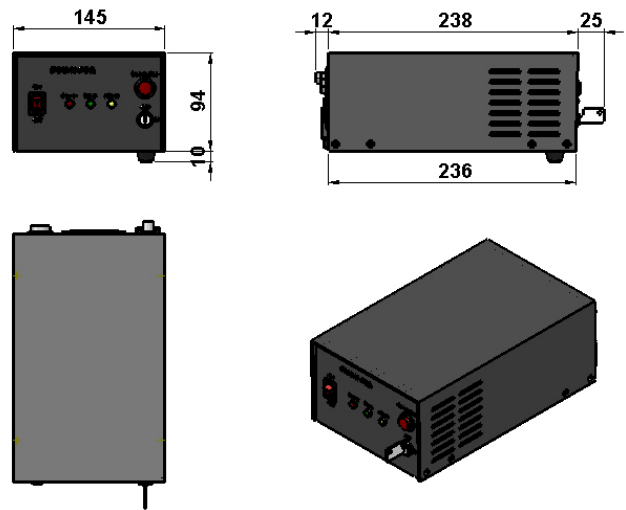
Laser Head



197 x 70 x 50 mm³, 2.0 kg

PSU-FDA

fixed output power



236 x 145 x 104 mm³, 2.3 kg



General Noes

- The laser head should be mounted on a flat, thermally dissipating surface and/or head sink to maintain a high-level of heat dissipation and reliability. Failure to comply with this procedure may cause permanent damage to the laser.
- Environmental temperature should be stable or only drift slowly within the allowed range of 10°C - 35°C. Abrupt changes in room temperature can affect the laser and deteriorate its performance and stability.
- The air duct must not be blocked, and it is required to have at least 5-10cm of free space for unobstructed air flow.
- If the laser system needs to be installed into equipment, please make sure there is sufficient airflow around the laser head. If necessary, additional fans may be used to help heat dissipation.

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