# Opto Engine LLC

**Data sheet**

Rev. 1609

**MSL-FN-639**/1~400mW

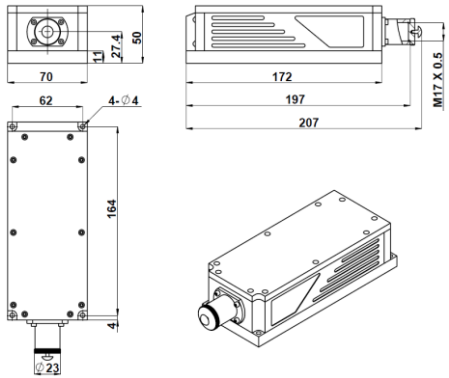
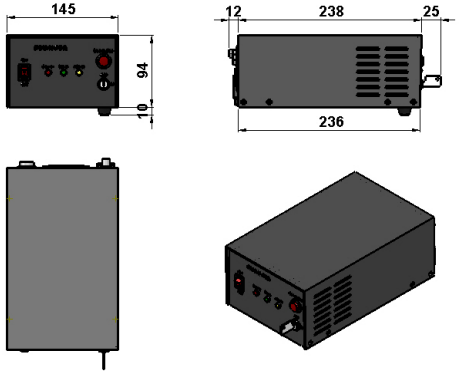
## SINGLE LONGITUDINAL MODE RED LASER AT 639nm

All solid state single longitudinal mode red laser at 639nm is made features of ultra compact, long lifetime, low cost and easy operating, which is used in DNA sequencing, flow cytometry, cell sorting, optical instrument, spectrum analysis, interference, measurement, holography, physics experiment, etc.

**SPECIFICATIONS**

| | |
|---|---|
| Central wavelength (nm) | 639±1 |
| Operating mode | CW |
| Output power (mW) | >1, 5, 10, 20, … , 400 |
| Power stability (rms, over 4 hours) | <1%, <3%, <5% |
| Transverse mode | $TEM_{00}$ |
| Longitudinal mode | Single |
| Spectral linewidth (nm) | <0.0003 |
| Coherent length (m) | >10 |
| Noise of amplitude (rms, 1Hz~20MHz) | <1%, typical<0.5% |
| $M^2$ factor | <1.2 |
| Beam diameter at the aperture ($1/e^2$, mm) | <1.5 |
| Beam divergence, full angle (mrad) | <1.5 |
| Polarization ratio | >100:1, Horizontal±5 degree (Vertical Optional) |
| Warm-up time (minutes) | <10 |
| Pointing stability after warm-up (mrad) | <0.05 |
| Beam height from base plate (mm) | 27.4 |
| Operating temperature (℃) | 15~35 |
| Power supply (90-264VAC) | PSU-H-FDA |
| Expected lifetime (hours) | 10000 |
| Warranty | 1 year |

Note: The laser head needs to be used on a heat sink with good heat dissipation.

| MXL-FN-639 | PSU-H-FDA |
|---|---|
|  |  |
| 197(L)×70(W)×50(H) mm³, 2.0 kg | 236(L) ×145(W) ×104(H) mm³, 2.3 kg |

**Opto Engine LLC 7397 Balboa Dr. Midvale, Utah 84047 USA Tel: (801) 553-2253 Email:** info@OptoEngine.com **Website:** www.OptoEngine.com