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Your source for high quality, affordable lasers

Specification Sheet

Ultralasers, Inc

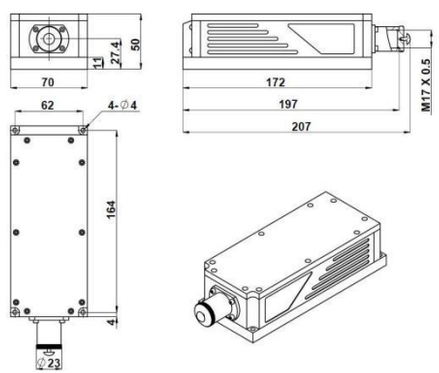
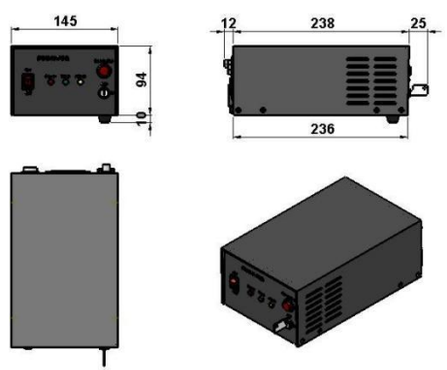
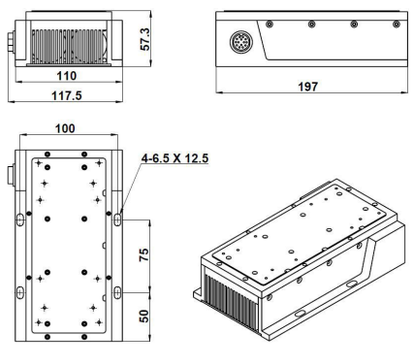
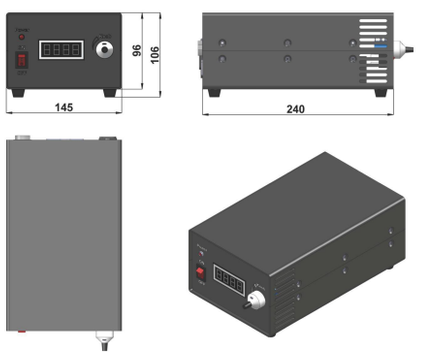
MSL-FN-639-S/1~300mW

FREQUENCY STABILIZED SLM LASER AT 639nm

Single longitudinal mode, frequency stabilized laser is made features of stable frequency and low frequency noise, which is used in optical frequency standards, gravitational wave detection, tests of fundamental physics, atomic clocks, high resolution spectrum, Laser Radar, precision measurement, etc.

SPECIFICATIONS

Wavelength (nm)	639±1
Operating mode	CW
Output power (mW)	1 - 300
Power stability (rms, over 4 hours)	<1%, <2%, <3%
Transverse mode	TEM_{00}
Longitudinal mode	Single
Spectral linewidth (nm)	<0.00001
Coherent length (m)	>40
Noise of amplitude (rms, 1Hz~20MHz)	<1%, typical <0.5%
M^2 factor	<1.2 (<1.1, optional)
Beam diameter at the aperture ($1/e^2$, mm)	<1.5
Beam divergence, full angle (mrad)	<1.5
Polarization ratio	>100:1, Vertical±5 degree (Horizontal Optional)
Frequency shift over 8 hours (MHz)	<±100 (±0.15pm)
Frequency shift with Temp (MHz/°C)	<40 (0.05pm/°C)
Warm-up time (minutes)	<10
Pointing stability after warm-up (mrad)	<0.05
Beam height from base plate at TC-01 (mm)	84.7
Extra heat sink	TC-01
Operating temperature (℃)	10~35
Laser head consumption(W)	20 (typical), <30 (40°C) (TC-01/Water cooling Optional)
Power supply (90-264VAC)	PSU-H-FDA
Expected lifetime (hours)	10000
Warranty	1 year

MSL-FN-639-S	PSU-H-FDA	TC-01 HEAT SINK	TC-01 HEAT SINK POWER SUPPLY
			
197(L)×70(W)×50(H) m^3, 1.5 kg	275(L) ×145(W) ×104(H) mm^3, 2.3 kg	197(L)×117.5(W) ×57.3(H) mm^3, 1.6 kg	277(L) ×145(W) ×106(H) mm^3, 2.6 kg

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