



Lasers for Low Frequency Raman

SLM Laser with High Spectral purity

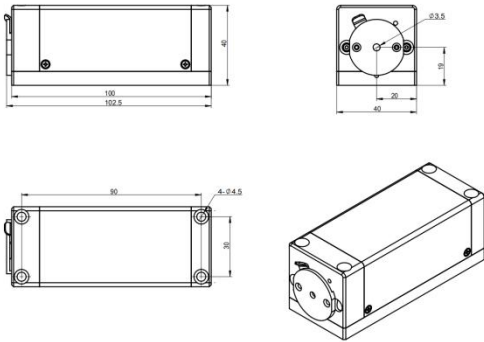
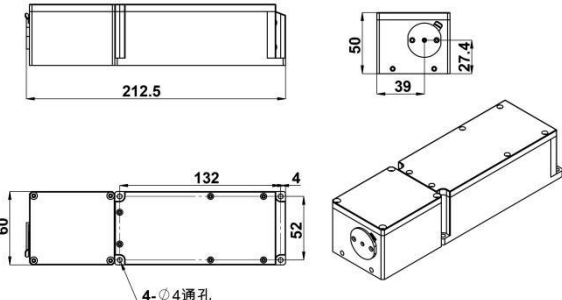
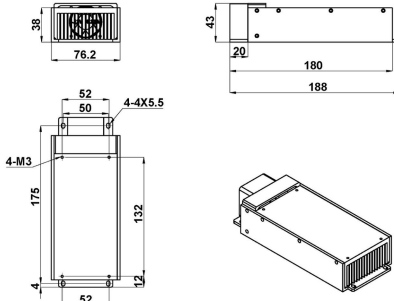
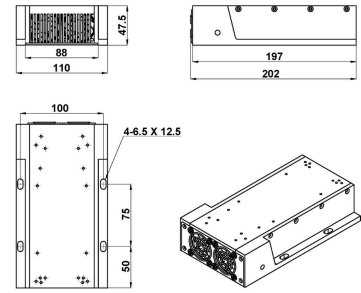
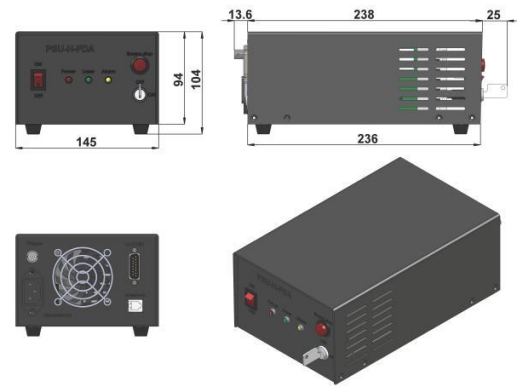
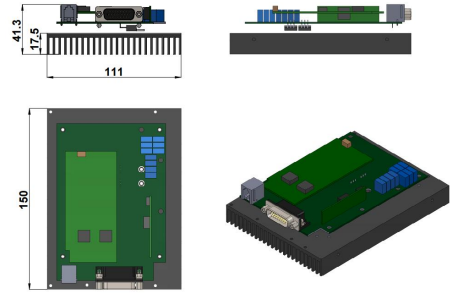
The all-solid-state single longitudinal mode laser features an ultra-compact, long lifetime, easy operating, It has high spectral purity within $\pm 5\text{cm}^{-1}$ of the main peak and perfectly suited for low-frequency Raman spectroscopy.



SPECIFICATIONS



Model	MSL-S-532-Raman	MSL-U-532-Raman
Wavelength (nm)	532 $\pm$ 0.05 (air condition)	
Output power (mW) ¹	1-150	1-500
Power stability (rms, 4 hours $\pm 3^{\circ}\text{C}$)	<0.5%	
Transverse mode	TEM ₀₀	
Longitudinal mode	Single	
Operating mode	CW	
Spectral line width (MHz)	1MHz ($<3 \times 10^{-5}\text{cm}^{-1}$)	
Frequency shift (MHz) (over $\pm 2^{\circ}\text{C}$ and 8 hours)	< ± 200 ($<0.07\text{cm}^{-1}$)	
Wave number cut-off for raman spectrum (cm^{-1})	<5	
Spectral purity @ $\pm 0.14\text{nm}$ (5cm^{-1}) from the main peak	>60dB	
Spectral purity @ $\pm 1.4\text{nm}$ (50cm^{-1}) from the main peak	>80dB	
M ²	<1.1	
Beam diameter at the aperture ($1/e^2$, mm)	<1.0	
Beam divergence, full angle (mrad)	<1.2	
Noise of amplitude (rms, 20Hz-20MHz)	<0.2%	
Polarization ratio	>100:1, Horizontal (Vertical optional)	>100:1, Vertical (Horizontal optional)
Pointing stability (μrad) (over 2 hours after warm-up and $\pm 3^{\circ}\text{C}$)	<50	
Pointing stability over temperature ($\mu\text{rad}/^{\circ}\text{C}$)	<8	
Warm-up time (minutes)	<5	
Beam height from base plate (mm)	19	27.4
Power supply (100-240VAC)	/	PSU-H-FDA
Operating voltage (VDC)	12V/3A	PSU-SR-OEM (12V/25A)
Operating temperature ($^{\circ}\text{C}$)	15-35	
Storage temperature ($^{\circ}\text{C}$)	-10-50	
Expected lifetime (hours)	>10000	

LASER HEAD (DRIVER Integrated) (MSL-S-532-Raman)  102.5 (L) × 40 (W) × 40 (H) mm³, 0.36kg	LASER HEAD (MSL-U-532-Raman)²  212.5 (L) × 60 (W) × 50 (H) mm³, 1.0 kg	HEATSINK (optional TC-04-FS)  188(L) × 76.2(W) × 43(H) mm³, 0.65 kg
HEATSINK (optional TC-02-FS)  202(L) × 110(W) × 47.5(H) mm³, 1.25 kg	POWER SUPPLY (PSU-H-FDA)³  276.6(L) × 145(W) × 103.6(H) mm³, 2.3 kg	DRIVER (PSU-SR-OEM)³  150(L) × 111(W) × 41.3(H) mm³, 0.8kg

1 Any power level can be selected in this range.

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

3 Fixed output power.