



MSL-S-D series (400-1100nm)

SINGLE LONGITUDINAL MODE LASER

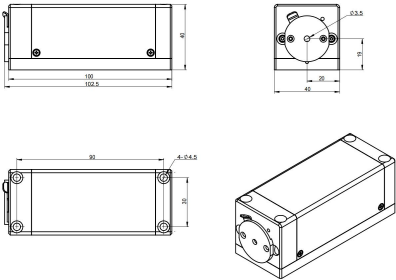
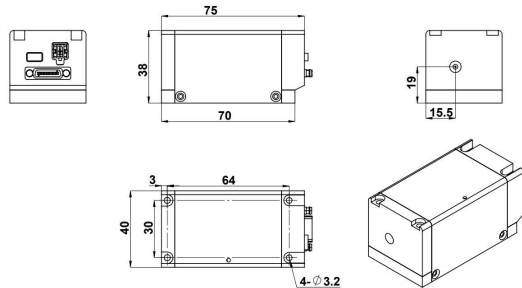
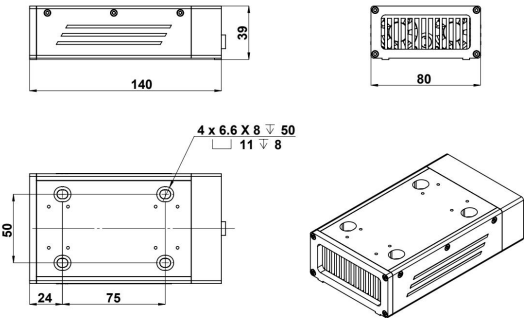


All-solid-state, single-longitudinal-mode laser features an ultra-compact design, long lifetime, and easy operation. It is used in DNA sequencing, flow cytometry, cell sorting, optical instruments, spectrum analysis, interference, measurement, holography, and physics experiments, etc.



SPECIFICATIONS

| Model                                                              | MSL-S-473-D                              | MSL-S-532-D              | MSL-S-561-D                           | MSL-S-671-D                           | MSL-S-1064-D |
|--------------------------------------------------------------------|------------------------------------------|--------------------------|---------------------------------------|---------------------------------------|--------------|
| Wavelength (nm)                                                    | 473.0±0.3                                | 532.1±0.3                | 561.2±0.3                             | 671.0±0.3                             | 1064.2±0.5   |
| Output power (mW) <sup>1</sup>                                     | 1-30                                     | 1-150                    | 1-100                                 | 1-50                                  | 1-300        |
| Power stability (rms, 4 hours ±3°C)                                | <1%                                      | <1%,(<0.5%optional@1-50) | <1%                                   |                                       |              |
| Operating mode                                                     | CW                                       |                          |                                       |                                       |              |
| Transverse mode                                                    | TEM <sub>00</sub>                        |                          |                                       |                                       |              |
| Longitudinal mode                                                  | Single                                   |                          |                                       |                                       |              |
| Spectral line width                                                | <1MHz                                    |                          |                                       |                                       |              |
| Noise of amplitude (rms, 20Hz-20MHz)                               | <0.2%                                    |                          | <0.25%                                | <0.2%                                 |              |
| Noise of amplitude (peak to peak, 20Hz-20MHz)                      | <1%                                      |                          | <1.5%                                 | <1%                                   |              |
| Coherent length (m)                                                | >50                                      |                          |                                       |                                       |              |
| M <sup>2</sup>                                                     | <1.2                                     | <1.1                     | <1.2                                  |                                       |              |
| Beam Asymmetry                                                     | ≤1:1.1                                   |                          |                                       |                                       |              |
| Beam diameter at the aperture (1/e <sup>2</sup> , mm)              | <1.0                                     |                          |                                       |                                       | 1.00±0.05    |
| Beam divergence, full angle (mrad)                                 | <1.5                                     |                          |                                       |                                       | <1.7         |
| Polarization ratio                                                 | >100:1 Horizontal (Vertical Optional)    |                          | >100:1 Vertical (Horizontal Optional) | >100:1 Horizontal (Vertical Optional) |              |
| Warm-up time (minutes)                                             | <5                                       |                          |                                       |                                       |              |
| Pointing Stability (μrad)<br>(over 2 hours after warm-up and ±3°C) | <30                                      |                          |                                       |                                       |              |
| Pointing stability over temperature (μrad/°C)                      | <5                                       |                          |                                       |                                       |              |
| Frequency shift over 8 hours (MHz) (optional)                      | <±200                                    |                          |                                       |                                       |              |
| Frequency shift with temp (MHz/°C) (optional)                      | <200                                     |                          |                                       |                                       |              |
| Beam height from base plate (mm)                                   | 19                                       |                          |                                       |                                       |              |
| Power consumption (W)                                              | <12                                      |                          |                                       |                                       |              |
| Fiber                                                              | Multi mode/ Single Mode                  |                          | /                                     | Multi mode/ Single Mode               |              |
| Shock tolerance (6ms)                                              | 7g laterally,15g vertically              |                          |                                       |                                       |              |
| Operating temperature (°C)                                         | 10-35<br>-10-50@Storage temperature (°C) |                          |                                       |                                       |              |
| Operating voltage (VAC)                                            | 12VDC<br>(Photoelectric integrated)      |                          |                                       |                                       |              |
| Expected lifetime (hours)                                          | >10000                                   |                          |                                       |                                       |              |

| LASER HEAD (MSL-S-473/532/671/1064-D) <sup>2</sup>                                                                                     | LASER HEAD (MSL-S-561-D) <sup>3</sup>                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>102.5(L)×40(W) ×40(H) mm<sup>3</sup>, 0.26 kg</p> |  <p>75(L)×40(W)×38(H) mm<sup>3</sup>, 0.18 kg</p>       |
| HEATSINK (optional TC-05-FS)                                                                                                           | POWER SUPPLY(100-240VAC) optional                                                                                                          |
|  <p>140(L)×80(W)×39(H) mm<sup>3</sup>, 0.7 kg</p>    |  <p>125(L) × 50(W) ×31.5(H) mm<sup>3</sup>, 0.5kg</p> |

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;RS232 control optional.