



## SLMFN523 Series 523.5nm Single Longitudinal Mode Laser System up to 50mW

### Overview

The SLMFN523 series single longitudinal mode laser is ideal for applications that require a wavelength of 523.5nm and output power levels up to 50mW. The laser features narrow spectral linewidth, long coherent length, ultra-compact design, long lifetime, easy operating, and FDA-compliant system with driver. The laser is widely used in collimation, laser medical treatment, scientific experiment, optical instrument, and many other applications.



### Specifications

|   |   |  |
|---|---|--|
| <b>Model Number</b>                               | <b>SLMFN523-XPY</b>                       |  |
| Wavelength (nm)                                   | 523.5±1                                   |  |
| Operating mode                                    | CW  |  |
| Output power (mW)                                 | >20 (X=20), >30 (X=30), >50 (X=50)        |  |
| Power stability (rms, over 4 hours)               | <5% (P=A), <3% (P=E), <2% (P=2)           |  |
| Transverse mode                                   | TEM <sub>00</sub>                         |  |
| Longitudinal mode                                 | Single                                    |  |
| Spectral linewidth (nm)                           | <0.00001                                  |  |
| Coherent length (m)                               | >50                                       |  |
| Noise of amplitude (rms, 1Hz~20MHz)               | <1%                                       |  |
| Beam diameter at aperture (1/e <sup>2</sup> , mm) | <1.5                                      |  |
| Beam divergence, full angle (mrad)                | <1.2                                      |  |
| M <sup>2</sup> factor                             | <1.2                                      |  |
| Polarization ratio                                | >100:1, Vertical ±5 degree                |  |
| Warm-up time (minutes)                            | <10                                       |  |
| Pointing stability after warm-up (mrad)           | <0.05                                     |  |
| Beam height from base plate (mm)                  | 27.4                                      |  |
| Operating temperature (°C)                        | 15-35                                     |  |
| Dimensions of laser head (mm)                     | 197(L)×70(W) ×50(H) mm <sup>3</sup>       |  |
| Weight of laser head (kg)                         | 2.0 kg                                    |  |
| Power supply                                      |   |  |
| High Power Elite Power Supply (Y=H)               | Input voltage                             | 90-264VAC                              |
|   | Dimensions                                | 236(L) ×145(W) ×104(H) mm <sup>3</sup> |
|   | Weight                                    | 2.3 kg                                 |
|   | Notes                                     | Fixed output power                     |
| Expected lifetime (hours)                         | 10,000                                    |  |
| Warranty period                                   | 10 months                                 |  |
| FDA Compliance                                    | FDA CDRH Title 21 CFR 1040.10/11 Class IV |  |

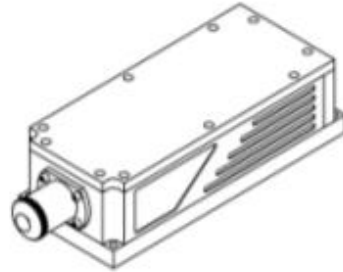
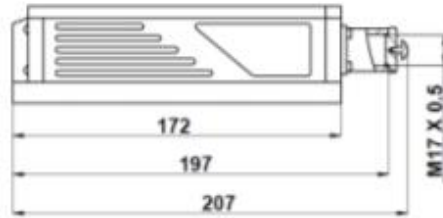
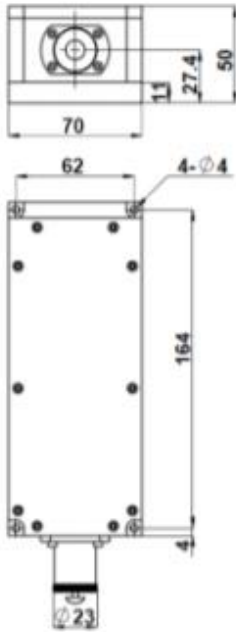
#### Remarks:

- The laser head needs to be used on a heat sink with good heat dissipation.
- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.

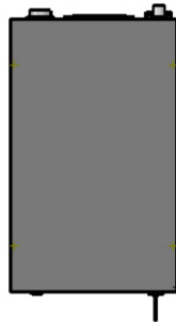
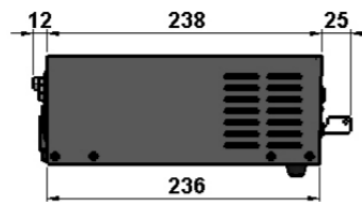
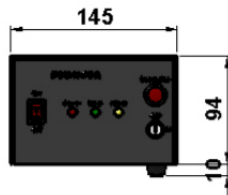


**Outline Dimensions (unit: mm)**

**Laser Head**



**Power Supply**



Note: The above specifications are subject to change without notice.