

TUN-628-637/1-40mW



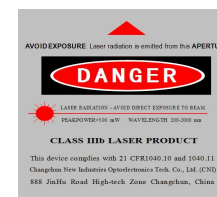
## WAVELENGTH TUNABLE NARROW LINEWIDTH DIODE LASER

It is a high-end custom high stability, low noise, narrow linewidth, wavelength tunable product. Mainly used in scientific research and teaching, such as holographic imaging, Raman, atomic clock, coherent detection and so on. Currently it has a line width of less than 0.1nm and a tuning range of 9nm.

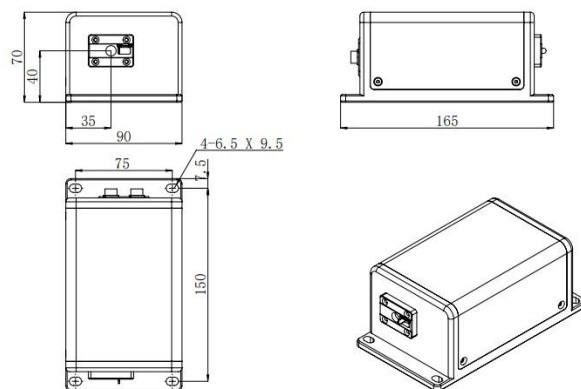


### SPECIFICATIONS

|                                                              |                                                       |
|--------------------------------------------------------------|-------------------------------------------------------|
| Wavelength range of roughly tuning (nm)                      | 628-637                                               |
| Operating mode                                               | CW                                                    |
| Output power (mW) <sup>1</sup>                               | 1-40                                                  |
| Power stability (rms, 4 hours $\pm 3^{\circ}\text{C}$ )      | <3%, <2%, <1%                                         |
| Transverse mode                                              | Near TEM <sub>00</sub>                                |
| Spectral line width (nm)                                     | <0.1                                                  |
| Frequency shift (pm) (over $\pm 2^{\circ}\text{C}$ and 1hrs) | <10                                                   |
| Coarse tuning accuracy (nm)                                  | ~0.1                                                  |
| Fine tuning range (GHz) <sup>2</sup>                         | >40 (55pm)                                            |
| Fine tuning accuracy (nm) <sup>2</sup>                       | 0.001                                                 |
| Beam diameter at the aperture (1/e <sup>2</sup> , mm)        | ~3.0                                                  |
| Beam divergence, full angle (mrad)                           | <1.0                                                  |
| Polarization ratio                                           | >50:1, (>100:1 optional)<br>Horizontal $\pm 5$ degree |
| Warm-up time (minutes)                                       | <5                                                    |
| Beam height from base plate (mm)                             | 40                                                    |
| Operating temperature ( $^{\circ}\text{C}$ )                 | 20-30                                                 |
| Power supply (100-240VAC)                                    | PSU-TUN                                               |
| Parameters of customized power supply                        | Current : 0-270mA                                     |
|                                                              | TEC: 7-12k $\Omega$                                   |
|                                                              | PZT voltage: 0-100V                                   |
| Expected lifetime (hours)                                    | >10000                                                |

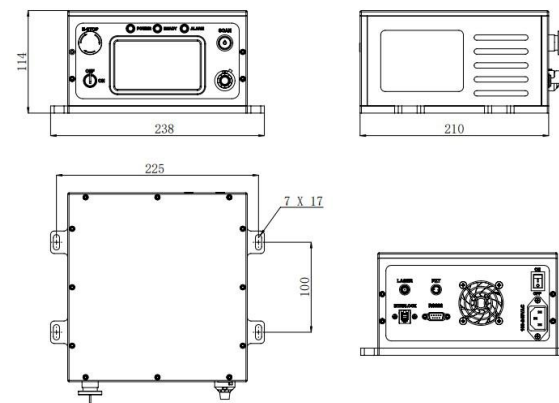


### LASER HEAD



165 (L)  $\times$  90 (W)  $\times$  70 (H) mm<sup>3</sup>, 3.0kg

### POWER SUPPLY<sup>3</sup>



210 (L)  $\times$  238 (W)  $\times$  114 (H) mm<sup>3</sup>, 4.0kg

1 Any power level can be selected in this range.

2 Wavelength fine tuning is multi-parameter joint tuning, customer only needs to adjust the PZT voltage value to realize.

3 Output power adjustable 10-100%; RS232 control optional.

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