The SWL-7500 series lasers offer extremely narrow linewidths from an OEM-ready platform designed for stability and longevity. This new addition to our market-leading line of external-cavity diode lasers offers single longitudinal mode performance at a single, fixed wavelength. The user may choose the output wavelength anywhere within a specified wavelength range and the factory will build the laser at that precise wavelength. Long-term wavelength and power stability makes this laser a miniature work horse. With a footprint that is smaller than a business card, the laser will fit in most instrument designs with room to spare. We have carefully designed these lasers to operate continuously on a single longitudinal mode and minimal frequency drift as the heart of any imaging, metrology, or spectroscopic measurements.

Fiber coupling of the SWL-7500 is now available. The SWL-7500 laser series performance is augmented by the convenience, ruggedness, and flexibility of a line of fiber-coupled models. Fiber-coupling means that the SWL-7500 is even easier to integrate into your experiment or instrument. High coupling efficiency into the fiber guarantees there is power to spare with exceptional mode quality. And the simple, robust design will hold the optimized alignment over the long haul through varying environments. Each unit features an integral optical isolator which provides >35 dB of isolation to guarantee continuous single-mode performance.

### Applications

- Raman imaging and spectroscopy
- Interferometry
- Terahertz generation
- Data encryption
- Fiber gyroscopes
- LIDAR
SWL-7500 Single Wavelength Lasers

Highly stable cavity design yields extremely low wavelength drift

Long-term side mode suppression ratio measurement

Amplified Stimulated Emission (ASE) spectrum

**SWL-7500 OEM-Grade Controller**

- Low current noise
- High-capacity TEC controller
- Compact, simple design
- RS-232 interface with GUI or binary control
- CE & RoHS compliant
- Passive cooling
- USB control and card-level version coming soon
Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007

CLASS IIIb LASER PRODUCT

2584 Junction Avenue, San Jose, CA 95134-1902 USA

SWL-7500 LASER

LASER LIGHT IS_EMITTED FROM THIS APERTURE

AVOID EXPOSURE

SWL-7500-P LASER

LASER LIGHT IS_EMITTED FROM THIS APERTURE

AVOID EXPOSURE

Model Number: Serial Number: Wavelength: Power: Manufacture Date:

New Fuser
SWL-7500 Single Wavelength Lasers

<table>
<thead>
<tr>
<th></th>
<th>SWL-7504</th>
<th>SWL-7505</th>
<th>SWL-7509</th>
<th>SWL-7513</th>
<th>SWL-7513-H</th>
<th>SWL-7521</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available Wavelengths</td>
<td>632.5-635 nm</td>
<td>650-660 nm</td>
<td>682-692 nm</td>
<td>765-785 nm</td>
<td>780-790 nm</td>
<td>1064 nm</td>
</tr>
<tr>
<td>Output Power</td>
<td>8 mW @ 633 nm</td>
<td>20 mW @ 660 nm</td>
<td>8 mW @ 697 nm</td>
<td>70 mW @ 780 nm, 785 nm</td>
<td>150 mW @ 785 nm</td>
<td>100 mW @ 1064 nm</td>
</tr>
<tr>
<td>Center Wavelength Stability</td>
<td>±1.5 nm</td>
<td>&lt;2 nm</td>
<td>&lt;200 kHz</td>
<td>&gt;50 dBc</td>
<td>&lt;50 dBc</td>
<td></td>
</tr>
<tr>
<td>Power Stability</td>
<td>±1.5 nm</td>
<td>&lt;2 nm</td>
<td>&lt;200 kHz</td>
<td>&gt;50 dBc</td>
<td>&lt;50 dBc</td>
<td></td>
</tr>
<tr>
<td>Linewidth</td>
<td>&lt;200 kHz</td>
<td>&lt;200 kHz</td>
<td>&lt;200 kHz</td>
<td>&lt;50 dBc</td>
<td>&lt;50 dBc</td>
<td></td>
</tr>
<tr>
<td>Side Mode Suppression Ratio</td>
<td>&lt;200 kHz</td>
<td>&lt;200 kHz</td>
<td>&lt;200 kHz</td>
<td>&lt;50 dBc</td>
<td>&lt;50 dBc</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>2.5 x 1.25 x 1.25 in.</td>
<td>2.5 x 1.25 x 1.25 in.</td>
<td>2.5 x 1.25 x 1.25 in.</td>
<td>5 VDC, 7 A</td>
<td>5-45 °C</td>
<td></td>
</tr>
<tr>
<td>Power Requirements</td>
<td>5 VDC, 7 A</td>
<td>5 VDC, 7 A</td>
<td>5 VDC, 7 A</td>
<td>5-45 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>-20 to +60 °C</td>
<td>-20 to +60 °C</td>
<td>-20 to +60 °C</td>
<td>-20 to +60 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated Life</td>
<td>&gt;5000 hrs</td>
<td>&gt;5000 hrs</td>
<td>&gt;5000 hrs</td>
<td>&gt;6000 hrs</td>
<td>&gt;6000 hrs</td>
<td>&gt;6000 hrs</td>
</tr>
</tbody>
</table>