

product overview



Decades of experience in designing and manufacturing diode-pumped solid-state (DPSS) lasers have been distilled into the range of products offered by Lighthouse Photonics. Our unique designs result in tangible benefits such as near-zero noise and extreme power stability. This performance when coupled with the latest advanced laser manufacturing techniques results in state-of-the-art products with exceptional ruggedness and reliability. Near diffraction-limited beams allow the products to be used in a wide variety of precision scientific and industrial applications. When you purchase any product from Lighthouse Photonics you are truly buying the latest advanced laser technology.

Seal™ enclosure keeps all dirt, dust and moisture out of the laser head to provide years of usage without any cleaning or maintenance

LockT™ optics mounting locks all laser head optics permanently in perfect alignment

Noise Elimination Technology (NET™) provides virtually noise-free performance

Compact laser heads and power supplies minimize the space consumed in your lab or instrument

There are 5 versions of Sprout to choose from:

Sprout-G Up to 18W super-stable sealed compact CW DPSS green laser

Sprout-G Up to 18W super - stable sealed compact CW DPSS green laser for precision applications. With integrated power supply and water chiller. Pump diode pack located in power supply.

Sprout-D Up to 12W super-stable sealed compact CW DPSS green laser

Sprout-D Up to 20W super - stable sealed compact CW DPSS green laser for precision applications. Modular system with bench - top laser controller. Pump diode pack integrated in laser head.

Sprout-h Up to 12W super-stable sealed compact CW DPSS green laser

Sprout-H Up to 20W super - stable sealed compact CW DPSS green laser for precision applications. Modular system with integrated power supply and water chiller. Pump diode pack integrated in laser head.

Sprout-C Up to 4W super-stable sealed compact CW DPSS green laser

Sprout-C Up to 4W super - stable sealed compact CW DPSS green laser for precision applications. Modular system with bench - top laser controller. Pump diode pack integrated in laser head.

Sprout-Solo

Sprout-Solo Single - frequency version. Up to 10W super - stable sealed compact CW DPSS green laser. With integrated power supply and water chiller. Pump diode pack fiber - coupled from power supply.

Proven for CEP. One of the most demanding applications for high power, low-noise, TEM00 CW green lasers is pumping Carrier-Envelope-Phase (CEP) stabilized Ti:Sapphire oscillators for attosecond physics and frequency combs. The following publication by the research group of Professor Ted Hänsch at MPI-Garching and Menlosystems GmbH presents the results of detailed testing of various pump lasers. One of the conclusions of this testing is that "The Sprout exhibits the lowest RIN of all tested pump lasers."