Overview

One of our most popular lasers, the opus is now available at 532 nm, 660 nm and 1064 nm. Based on our patented design, the opus is known for its high power, excellent beam characteristics and compact size. The opus 532 is ideally suited as a pump source for ultrafast lasers and both the opus 532 and the opus 660 address applications in super-resolution microscopy. The opus 1064 offers a higher power alternative to ourventus 1064, the default choice for optical trapping. The diode MTTF of the opus lasers exceeds >100,000 hours to provide long operational lifetimes whether in a laboratory or incorporated in a fit-and-forget instrument.

The laser cavity design restricts the number of possible oscillation modes resulting in low inherent noise levels. With levels below 0.08 % (Fig. 1 & 2), the opus 532 will satisfy all but the most noise sensitive Ti:Sapp pumping applications, in a highly compact and rugged monoblock design. The opus 1064 offers the highest IR power levels with the necessary stability and beam specification for optical tweezing and trapping applications, while the opus 660 is the highest power 660 nm DPSS laser commercially available.

Fibre coupling: Like most of Laser Quantum lasers, the opus is available with multi or single mode fibre delivery options, which allow the beam to be delivered to the point of need.

The opus laser range features an intelligent control unit that allows easy setting and monitoring of the laser parameters. Incorporating PowerLoQ™ technology, the opus lasers show extreme power stability over long periods of use (Fig. 2).

The opus can be controlled across the internet via the RemoteApp™ software that also allows connection to the Laser Quantum support team for monitoring laser performance, diagnosing opportunities for and carrying out laser optimisation.

Every opus laser has been subjected to a 1200 g drop-test to check that all components are correctly fitted prior to its extended 300 hour test period. This rigorous testing regime ensures long operational lifetimes.

- 532 nm up to 6 W
- 660 nm up to 1.5 W
- 1064 nm up to 10 W
- Highly robust & compact
- Low noise for demanding applications
Laser Quantum operates a continuous improvement programme which can result in specifications being improved without notice.

Beam diameter defined as the average of major and minor 1/e beam size measured at 25 cm from exit port, at specified power.

Test duration >100 hrs at constant temperature.

Vertical polarisation is available upon request.

Tolerance relative to head orientation.

Drawings are for illustrative purposes only, please contact Laser Quantum for complete engineer’s drawings.