

- <6fs pulse duration (FTL) <7fs (measured)
- >600mW output power
- Spectral bandwidth >200nm
- Integrated pump laser

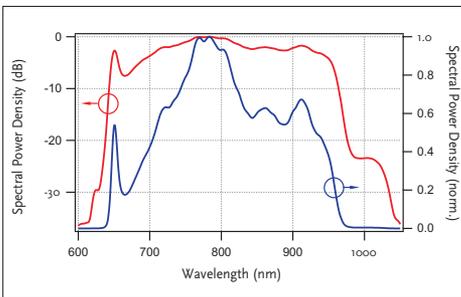


Overview

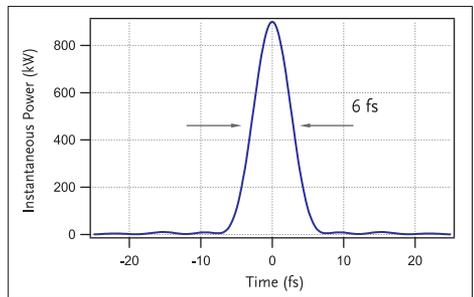
The **venteon power** laser system has been optimised to provide the highest power available from the venteon range of ultra-short pulse lasers. Designed on a water cooled monolithic breadboard for mechanical and temperature stability, the **venteon power** contains an integrated ultra-low noise **finesse** pump laser.

The **venteon power** laser can be supplied with CEP stabilised performance or in a state ready for a CEP upgrade. It can also be equipped with a piezo transducer/stepper motor that allows for resonance free repetition rate locking up to 30kHz to a suitable microwave standard.

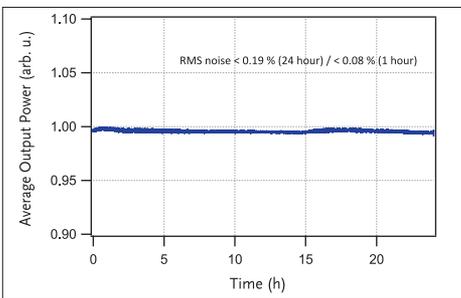
Laser Quantum supports clarity in reporting pulse duration and detailing whether our figures are theoretical values based on Fourier transform calculations or actual measured durations using SPIDER technology and instrumentation. In the case of the **venteon power**, the Fourier transform specification is 6fs, with a measured pulse of <7fs.



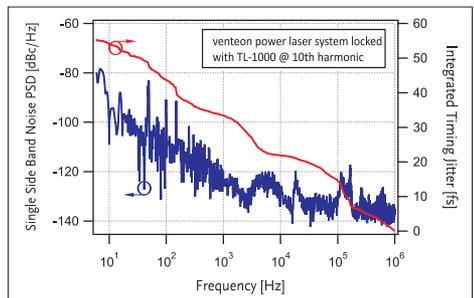
venteon power spectrum spanning from 650 to 950nm. This output is ideally suited for nonlinear spectroscopy and amplifier seeding.



Typical **venteon power** transform limited pulse featuring pulse durations as short as 6fs.



Noise performance and exceptional stability of the **venteon power** laser system resulting from the optimised thermal management and mechanical stability.

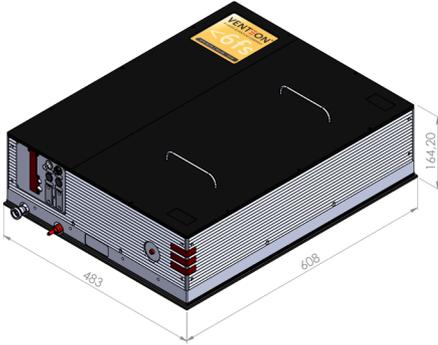


Timing jitter measurement of the pulse train emitted by a **venteon power** stabilised using the **TL-1000** locking electronic.



The **venteon power** pump laser 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.

Dimensions (mm)



Other information

- Customised spectrum fitting is possible
- Oscillator version available without pump laser
- Weight: 65kg
- Water cooling included
- 2 year warranty



Specifications*

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

	venteon power
Wavelength	800nm ±20nm
Average power output	>600mW
Pulse energy	>7.5nJ (@80MHz)
Spectral bandwidth (FWHM)	>100nm
Spectral bandwidth (@-10dBc)	>300nm
Pulse duration (Measured)	<7fs
Pulse duration (FTL)	<6fs
rms noise ¹	<0.03%
Integrated pump	finesse 6
M-Squared	<1.2
Repetition rate	80MHz
Power stability (Over 24hrs)	<1%

* Laser Quantum operates a continuous improvement programme which can result in specifications being improved without notice.

¹ Noise bandwidth 1Hz to 10MHz measure using **finesse pure** pump laser.

Variants and upgrades

Oscillator only: The system can be supplied without pump laser or with integration of customer source.

CEP ready: Incorporates low noise CEPLoQ™ **finesse pure CEP** pump laser and all required preparation to allow future CEP stabilisation upgrade.

PZ option: Preparation for repetition rate stabilisation, including a slow and fast piezo/ stepper motor unit to add fine control of cavity length and repetition rate.

TS option: Locking electronics, photodiode, RF analyser and oscilloscope needed for full timing stabilisation of the laser system (requires PZ option).

CEP upgrade: Upgrade to CEP stabilised output, including f-to-2f interferometer (requires CEP ready option).

LASER QUANTUM LTD

tel: +44 (0) 161 975 5300

email: info@laserquantum.com

web: www.laserquantum.com

LASER QUANTUM INC

tel: +1 408 467 3885

email: info@laserquantum.com

web: www.laserquantum.com

LASER QUANTUM GmbH

tel: +49 7531 368371

email: info@laserquantum.com

web: www.laserquantum.com

V3.0

脉动科技有限公司

中国代理商

北京总部 地址: 海淀区中关村东路89号 恒兴大厦9C, 100190 电话: 010-62565117 010-84413925 传真: 010-62565117-11 邮箱: info@pulsepower.cn 官网: www.pulsepower.cn

上海办事处 021-32070812

西安办事处 029-87307077

深圳办事处 0755-27528760