

TITAN Century

High-energy diode-pumped nanosecond Q-switched laser

TITAN Century is a diode-pumped, nanosecond Q-switched laser designed to deliver high pulse energy and a smooth beam profile for pumping high-average-power Ti:Sapphire amplifiers and other energy-demanding applications.

Operating at **100 Hz**, TITAN Century provides pulse energies exceeding 1.3 J at 1064 nm and 0.8 J at 532 nm, with excellent energy stability and low long-term drift. Its pulse duration and low timing jitter ensure reliable and repeatable energy delivery for sensitive pumping schemes.

Compared to competing solutions in the same class, TITAN Century is engineered to maintain a smoother, more homogeneous beam profile at high average power, while preserving a competitive cost per joule.

This makes it particularly adapted for applications where beam uniformity and energy consistency directly impact downstream performance.

Its compact and reliable design makes it a strong choice for Ti:Sapphire pumping, compact accelerator systems, and laser shock peening, where high pulse energy and operational stability are critical.



Applications

Industry:

- > Laser shock peening

Science:

- > Ti:Sapphire pumping for TW and PW Laser Systems
- > High energy physics
- > Advanced Spectroscopy and pump-probe experiments

Key Features

- > Diode-pumped nanosecond Q-switched architecture
- > Excellent energy stability
- > Ergonomic and reliable design for demanding environments
- > Reduced cost of ownership

Specifications

Titan Century

Repetition Rate	100 Hz	
Wavelength	1064 nm	532 nm
Pulse Energy	> 1,4 J	> 0,8 J
Energy Stability	532 nm model / 1064 nm model	
Energy Drift	< 2 % over 8 h	
Beam Profile	Smooth domed	
Beam Quality	Multi-mode	
Beam Diameter	~ 10 mm	
Pulse Duration	~ 8 ns	
Timing Jitter	0.5 ns rms	
Polarization	Horizontal	Vertical

Dimensions

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Laser head	1215.15 x 361 x 213 mm
Weight	29 kg

