

COMPILER UPGRADE



The Compiler Upgrade is the 400- Hz picosecond laser with a high peak power (300MW at 1064 nm). The laser consists of the laser head fiber-coupled with the power module.

Specifications

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<i>Wavelength</i>	1064 nm, 532 nm, 266 nm (optional), 355 nm (optional), 213nm (optional)
<i>Repetition Rate</i>	400 Hz
<i>Energy Output</i>	2.5 mJ at 1064 nm 1.5 mJ at 532 nm 0.8 mJ at 355 nm 0.65 mJ at 266 nm 0.25 mJ at 213 nm
<i>Pulse-to-pulse stability</i>	~4 % at selected wavelength
<i>Pulse counting</i>	available via RS-232 port (up to $4 \cdot 10^9$ pulses)
<i>Pulse width (at 1064 nm)</i>	8 ps
<i>Q-switch</i>	Passive
<i>Divergence</i>	Diffraction limited
<i>Beam profile</i>	Gaussian
<i>Output Beam pointing stability (std dev, 1 h)</i>	0.3 Diffraction Limit
<i>Linewidth (at 1064 nm)</i>	2.7 cm^{-1} (Fourier limited)
<i>External control</i>	Connector/pin for TTL trigger input or +4 +/-1V, into 1 k Ω
<i>Electrical power</i>	~ 100-240 VAC, 47-63 Hz, single phase
<i>Power consumption</i>	100 W
<i>Warm Up time</i>	< 5 minutes
<i>Laser dimensions</i>	540 x 230 x 100 mm ³
<i>Weight</i>	20 kg

<i>Operating temperature and humidity</i>	20-27° C; 10-80 %
<i>Compliance</i>	CDRH, CE

Features

- TEM₀₀ beam quality
- Air cooling
- High pulse energy

Applications

- Precise machining
- Flat panel and liquid crystal display
- Solar cell manufacturing
- Transparent material modification
- Time resolved Raman and single /double photon Laser Induced Fluorescence (LIF)
- Coherent Anti-Stokes Raman Scattering and Ultra sensitive detection
- Ablation lithography and photo-mask repair
- Photo dissociation and ionization of complex molecules , picoLIBS
- Ultrahigh density 3D storage technology
- Thin-film deposition
- Optical switches
- High accuracy global/local positioning system

Content and Delivery

The delivered laser includes of the following parts:

- Laser head
- Power module
- Optical fibers for pumping delivery
- CD with Manual and Control Application; and
- Test Record.

Warranty

1 year for all parts and labor excluding the laser pump diode. The pumping diodes are warranted for the lesser of 1 year or 10⁹ pulses.

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