

High-Energy HE1060-fs & HE532-fs

Micro-joule femtosecond laser systems



Key Features

- Ultra-short pulse widths <math><500\text{fs}</math>
- Up to - Single-shot to 1MHz variable repetition rate
- Ultra-low Heat-Affected Zone
- 1064nm or 532nm wavelengths
- Designed for 24/7 operation and OEM integration
- Maintenance-free and air-cooled

Applications

- Ophthalmic surgery
- Tissue ablation
- Transparent material processing
- Thin-film processing
- Micro and nano structuring
- Semiconductor inspection and metrology



Versatile high-energy fiber lasers

The **HE1060-fs** series is a range of high pulse energy ultrafast fiber lasers designed for industrial applications. Exceptional single-mode beam-quality, Megawatt peak-powers and class-leading stability enable the most demanding processes to be accomplished with this system.

The **HE532-fs** series adds fully integrated second harmonic generation to efficiently produce 532nm output at micro-joule pulse energy.

Flexible

The integrated output modulator allows single-shot, burst-mode or continuous operation as well as pulse-to-pulse control of intensity,

Reliable

The systems are based on an inherently robust self-starting ultrafast fiber laser oscillator and high energy fiber amplifier. They are air-cooled and require no user alignment or maintenance.

Standard Specifications

Model	1064nm High-energy Ultrafast Laser		532nm High-energy femtosecond Laser
	HE1060-1uJ-fs	HE1060-2uJ-fs	HE532-1uJ-fs
Central Wavelength	1064nm	1064nm	532nm
Maximum Pulse Energy	>1μJ	>2μJ	>1μJ
Pulse Width	<500fs	<500fs	<500fs
Variable Repetition Rate (user-selectable)	Single-shot to 1MHz	Single-shot to 500kHz	Single-shot to 500kHz
Amplitude Noise (RMS)	<±2%	<±2%	<±2%
M-squared	<1.3	<1.3	<1.3
Output Optic	Collimated	Collimated	Collimated
Output Polarization	Linear	Linear	Linear
Cooling	Air-cooled	Air-cooled	Air-cooled
Power Consumption (max)	<250W	<250W	<250W
Dimensions (WxLxH, mm)			
Laser Chassis	19" rack-mount	19" rack-mount	19" rack-mount
Remote Optical Head	220 x 360 x 130	220 x 360 x 130	220 x 360 x 130
Weight	<25kg	<25kg	<25kg

Custom Options:

- Wavelengths: **1030nm, 1045nm & 1053nm**
- Third Harmonic and Fourth Harmonic wavelengths
- Uncompressed picosecond pulses (HE Series)
- Electronically switchable wavelength
- Fixed or selectable repetition rates



**VISIBLE AND INVISIBLE
LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT**

CAUTION: THIS IS A CLASS 4 LASER PRODUCT AND USE OF CONTROLS AND ADJUSTMENTS OTHER THAN THOSE SPECIFIED IN THE PRODUCT MANUAL MAY RESULT IN HAZARDOUS LASER RADIATION EXPOSURE

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