

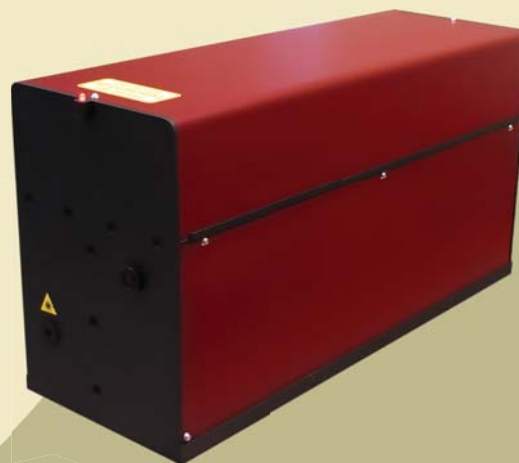


Amplifiers



TETA Yb Regenerative Amplifier

- Extra-small footprint
- Rigid design
- Compact single-box solution
- More than 300 μJ/pulse
- <300 fs pulse duration
- High beam quality
- Excellent beam pointing and long term power stability



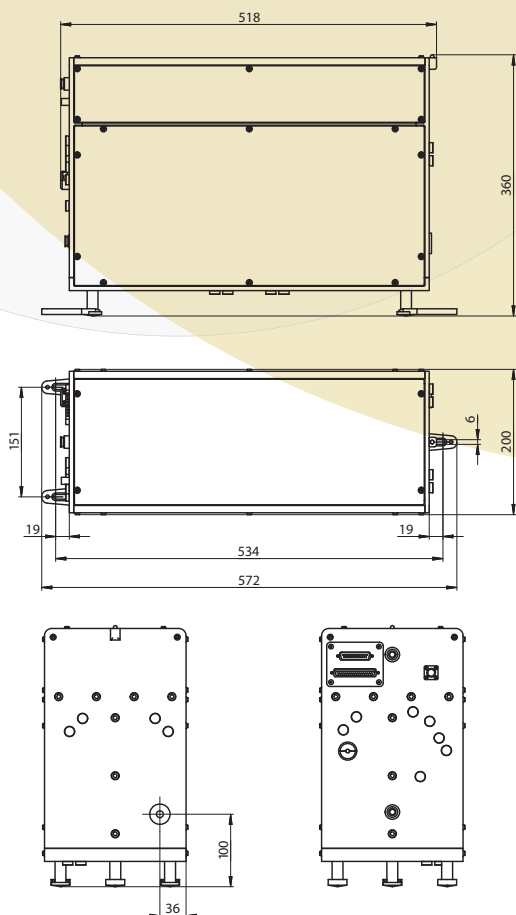
TETA Yb amplifier system

Product overview

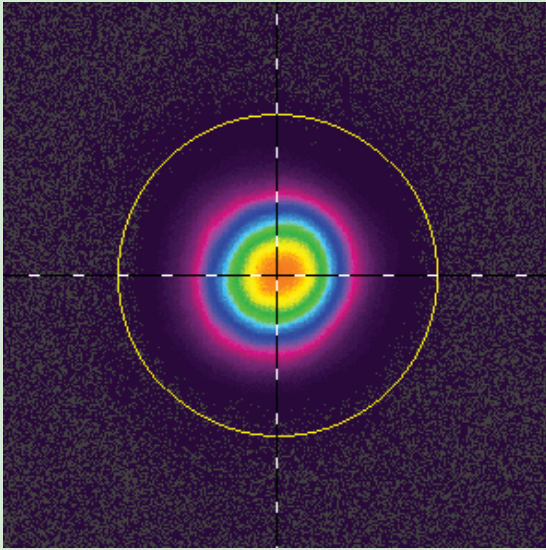
The TETA femtosecond amplified laser system comprises a fiber seed oscillator, Pockels cells with a control and synchronization unit, and a diode-pumped regenerative amplifier. All the components are integrated into a single box providing increased stability and trouble-free operation. The additional built-in Pockels cell offers instant output radiation shuttering as well as total user control of output repetition rate. Moreover, the cell features precise pulse picking with control over the number of fired pulses (burst mode) and temporal period of radiation. The system's output can be controlled via PC software or directly with a TTL trigger.

The TETA laser system is a reliable and flexible radiation source for femtosecond micromachining systems, terahertz imaging, OPA pumping, remote sensing and ultrafast spectroscopy.

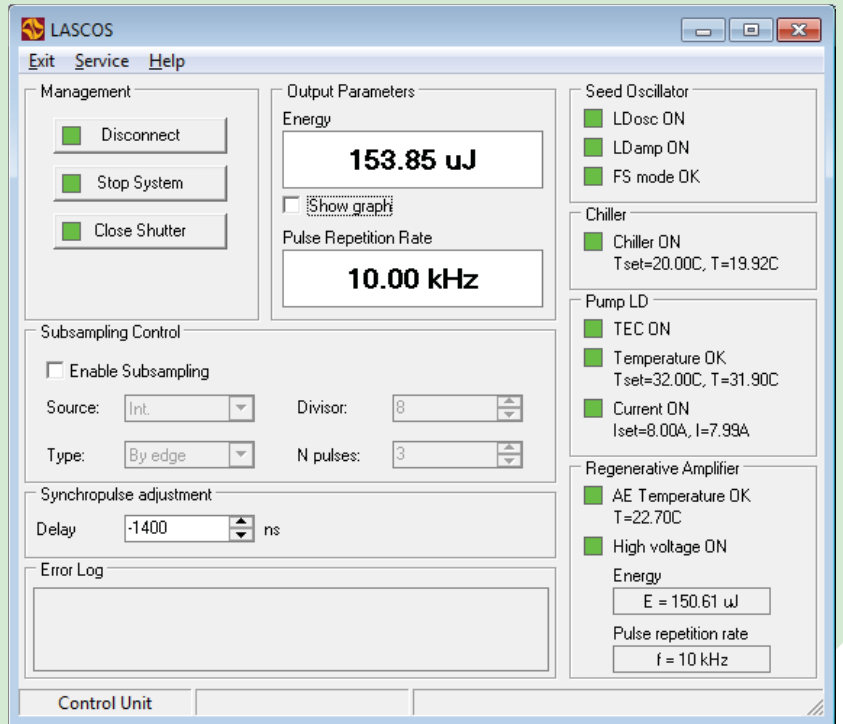
TETA technical specifications



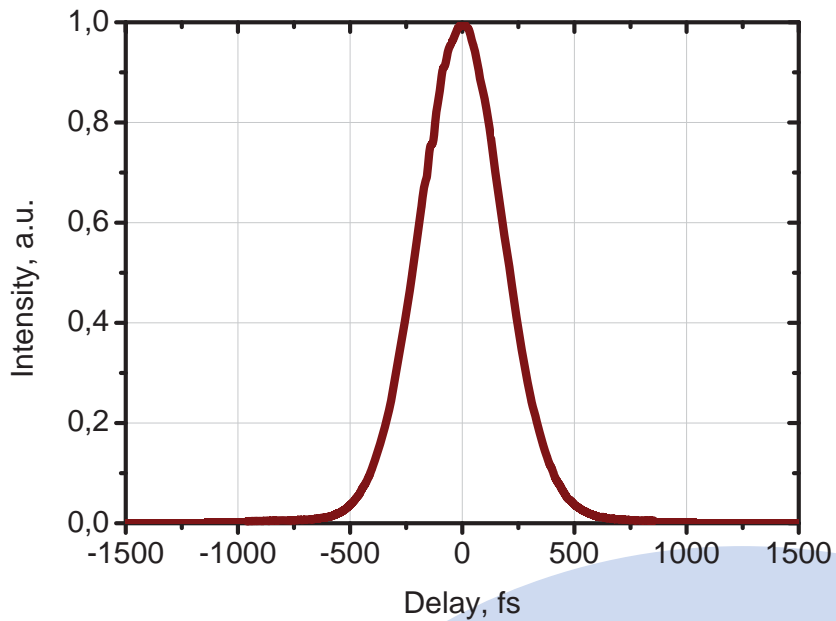
	TETA-X
Pulse repetition rate, kHz	up to 25*
Output pulse energy, μJ	>300 @ 10 kHz (TETA-10) >150 @ 20 kHz (TETA-20)
Average output power, W	>3
Pulse duration, fs	<300
Central wavelength (fixed), nm	1029+/-2**
M ²	<1.3
Beam diameter (1/e ²), mm	4.5
Stability, % rms	<1
Contrast ratio	>10 ³ :1 @ 10 ns >10 ³ :1 @ 1 ps >10 ⁶ :1 @ 5 ps >5x10 ⁷ :1 @ 10-20 ps >5x10 ⁷ :1 @ ASE
Spatial mode	TEM00
Output polarization	vertical
Dimensions, (WxLxH) mm	200x518x360
Cooling	The package includes closed-loop water chiller
* - please specify with order	
** - second, third and fourth harmonics upon request	



Beam profile at 1029 nm



Software screenshot



Autocorrelation trace width at FWHM: 435 fs
Pulse width at FWHM: 280 fs