方全有限公司
Rapitech Enterprise Co.,Ltd.

超快激光器
Ultrafast Laser

THALES

Femtocube 超快激光器

Femtocube Ultrafast khz Series

Applications

- Ultrafast spectroscopy
- Precision micro machining
- Instrumentation

Output Specifications

Wavelength (nm)	795 ± 15 (fixed)	795 ± 15 (fixed)
Repetition rate (kHz)	1 to 5 *1	10 to 15 *1
Average power (W)	3	5
Pulse duration *2 (fs)	Down to 25 *3	Down to 25 *3
Pulse to pulse energy stability (rms)	< 1 %	< 1 %
Pre-pulse contrast ratio	> 1000 : 1	> 1000 : 1
M^2	< 1.2	< 1.2
Power drift (p-p) over 8 hours	1.5%	1.5%
Beam pointing stability (rms) over 8 hours	< 8 µrad	< 8 µrad
Supervision software - ISEO Synchronization unit		

*1. Other repetition rate on request
*2. Transformed limited ps pulses available on request
*3. Pulse duration < 25 fs obtained with Dazzler option

Utilities

Power requirements	Voltage	208 VAC	230 VAC
	Current	29 A, single phase	26 A, single phase
	Frequency	60 Hz	50 Hz
Water requirements*	Flow	> 2,7 gal / mn	> 10 l / mn
	Static pressure	43.5 - 72 psi	3 - 5 bars
	Temperature	15 - 17°C	
Software	Windows 2000, NT, XP		

* Water to air cooling unit available on reques

Features

- Down to 25 fs in a single box
- Up to 3W average power
- 1 to 10 khz operation
- Tem_{00} beam profile $M^2 < 1.2$
- Outstanding long term power stability
- Supervision software & diagnostics
- Automatic pointing control for long term stability
- Integrated ISEO synchronisation & burst mode
- Integrated OPA option
- Hands-off operation to save time for more experiments
- Pulse duration tunability (from 25 fs to several ps)

Capabilities

Fully computer controlled: integrated diagnostics and supervision software.
The automatic pointing control is unique for very long term stability improvement. It is essential in OPA pumping and micro machining process.
Internal and external synchronization (single shot or burst generation).

Available options:

- Autocorrelators
- Harmonic generators (second, third and fourth harmonic)
- CORAL OPA
- Dazzler for pulse shaping
- Adjustable attenuator: from 10% to 100% of max power with 100:1 polarization ratio
- Spectrum monitoring (< 2 nm resolution).

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