

Magma

High energy ultrafast laser

A world's first

Magma is the world's first industrial-grade ultrafast laser with up to 500 mJ pulse energy. The system offers high energy, high repetition rate together with high peak power capabilities. The modular platform allows evolutive solutions in compact and reliable customizable configurations to fit your highly demanding application.

This solution is especially suited for secondary sources operating 24/7 to address various cutting edge applications, such as Inverse Compton Scattering, THz generation and filamentation.



Applications

Industry:

> Microprocessing

Science:

- > X-Ray Generation
- > THz Generation
- > Photocathode
- > OPA Pumping

Medical:

> X-Ray Imaging

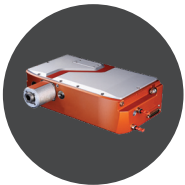
Key Features

- > High peak power and energy
- > Compact and modular
- > Burst mode - RF synchronizable
- > Frequency conversion from DUV to MIR
- > Designed for 24/7 operation

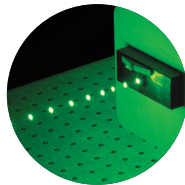
Specifications

	Magma 2	Magma 5	Magma 25	Magma 75	Magma 200	Magma 500
Pulse Energy	2 mJ	5 mJ	25 mJ	75 mJ	200 mJ	500 mJ
Pulse Duration	< 500 fs					
Peak Power	> 4 GW	> 10 GW	> 50 GW	> 150 GW	> 400 GW	> 1 TW
Repetition Rate	Single shot to 5 kHz	Single shot to 300 Hz	Single shot to 100 Hz		Single shot to 50 Hz	
Central Wavelength	1030 nm					
Beam Quality	$M^2 < 1,3$				$M^2 < 1,5$	
Energy Stability	< 0,3 % rms				< 1 % rms	
Dimensions	75 x 50 x 22 cm	75 x 50 x 22 cm	120 x 50 x 22 cm	125 x 120 x 22 cm	120 x 50 x 22 cm	400 x 150 x 30 cm
Cooling	Water cooled					

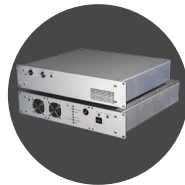
Options



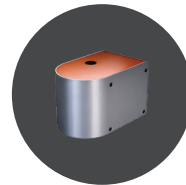
SHG / THG / FHG



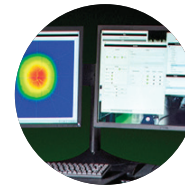
Burst



Synchronization



Multi



Supervision

