

Magma

High energy ultrafast laser

A world's first

Magma is the world's first industrial-grade ultrafast laser with up to 200 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

Medical:

- > X-Ray Imaging

Science:

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

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
Pulse Energy	2 mJ	5 mJ	25 mJ	75 mJ	200 mJ
Pulse Duration	< 500 fs				
Peak Power	> 4 GW	> 10 GW	> 50 GW	> 150 GW	> 400 GW
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	

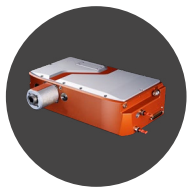
Dimensions

Magma 2	75 x 50 x 22 cm
Magma 5	75 x 50 x 22 cm
Magma 25	120 x 120 x 22 cm
Magma 75	125 x 120 x 22 cm
Magma 200	200 x 120 x 22 cm

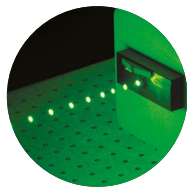
Cooling

All Models	Water-cooled
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Options



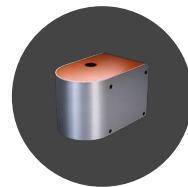
SHG / THG / FHG



Burst



Synchronization



Multi



Supervision

