HYPERION Amplified Femtosecond Laser



HYPERION is a compact amplified femtosecond lased for Ultrafast Systems' time-resolved spectrometers. The laser's robust thermally stabilized monolithic body and direct diode pump architecture provide true turn-key operation and low-cost maintenance.

When coupled to Ultrafast Systems' Apollo OPA, this laser will reliably deliver femtosecond pulses tunable from UV to Mid-IR.

Features

- Simplified integration with Ultrafast Systems' **OPAs** and spectrometers
- Pulse energy up to 2 mJ
- Pulse duration to < 190 fs
- Excellent power and beam-pointing stability
- One-box design
- Computer-controlled

Hyperion laser as part of a complete transient absorption setup. Shown on a 4'x8' table.





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Options

	10 W option 1	10 W option 2	20 W option 1	20 W option 2
Maximum average output power	≥ 10 W		≥ 20 W	
Maximum pulse energy	≥ 400 µJ	≥ 1 mJ	≥ 400 µJ	≥ 2 mJ
Pulse duration	< 250 fs optional upgrade to < 190 fs			
Output polarization	Horizontal			Vertical
Dimensions	733 × 400 × 219 mm			845 × 565 × 278 mm

Specifications

Center wavelength	1035 ± 10 nm
Pulse repetition rate	Single-shot to 100 kHz
Long-term output stability	< 0.5% RMS for 24 hours
Pulse-to-pulse output stability	< 0.5% RMS for 8 hours
Beam quality	TEM00, $M^2 < 1.2$
Beam diameter	5 ± 1 mm
Pointing direction stability	< 20 µrad/°C



