

Wyvern™ X Series

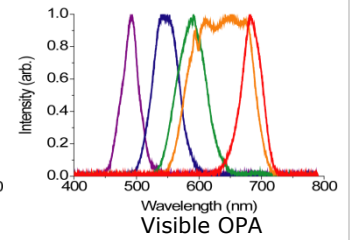
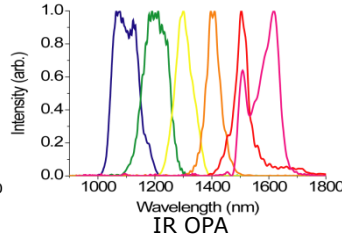
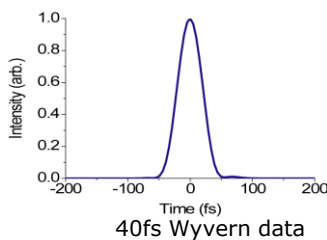
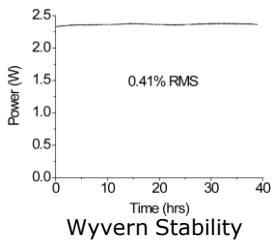
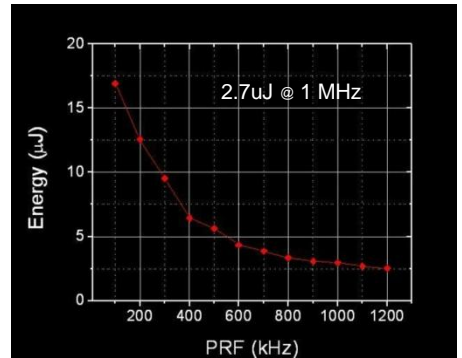
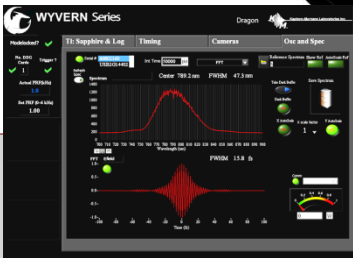
1MHz repetition rate Ti:sapphire amplifier

The fastest Ti:sapphire ultrafast laser amplifier available today

- *Computer controlled repetition rates spanning 100kHz up to 1MHz*
- *Pulse energy: 1μJ – 12μJ*
- *Pulse duration: <55fs - 80fs*
- *Robust Single-Stage regenerative amplifier*
- *A new era in ultrafast performance with unmatched data collection*



*KMLabs Patented
Cryogenic 1st Stage*



*Wyvern-OPA and Wyvern-NOPA operate in the μJ 100kHz regime
(100 kHz can be configured on Wyvern-X with manual alignment, outside of default computer control range.)*

**Ultrafast Imaging • Spectroscopy (THz, nonlinear, molecular, surface) •
Materials Processing • Lithographic Metrology • Mask Inspection**

Kapteyn–Murnane Laboratories, Inc.™

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South Korea: 042 823 5300

India: 91 22 27801176
UK: 44 01295 672500

Breaking the barriers with Ti:sapphire

High Rep Rate Regenerative Amplifier	Wyvern-X	
	WX-400	WX-MHz
Repetition Rate:	100 thru 400kHz Computer Controlled Tuning of entire rep-rate range	300 KHz thru 1MHz Computer Controlled Tuning of entire rep-rate range
Energy at 1MHz:		1 or 2uJ
Energy at 750kHz:		1.5 or 3uJ
Energy at 500kHz:		2 or 4uJ
Energy at 400kHz:	3 or 6.0uJ	2.5 or 5uJ
Energy at 300kHz:	4.2 or 8.4uJ	3 or 6uJ
Energy at 200kHz:	5 or 10uJ	
Energy at 100kHz:	6 or 12uJ	
Pulse Duration: ^{1, 2}	< 55 fs	< 80 fs
Beam Quality:	$M^2 < 1.3$	
Pre-pulse contrast on ns scale:	> 250:1	
Post-pulse contrast on ns scale: ³	> 100:1	
Polarization:	Horizontal	
Power instability: ⁴	< 1% RMS	
Long term instability (8hrs):	< 1%RMS	

¹ Longer pulse options available, up to 130 fs.

² Shorter Pulse options coming soon.

³ Higher Contrast options available.

⁴ Power instability <1% RMS options available.

The Wyvern™ is a complete, single-box system, housing the Ti:sapphire laser oscillator, regenerative amplifier and oscillator pump laser within a single enclosure. The Wyvern's™ barrier breaking data collection and processing speed is ideal for Multidimensional Spectroscopy, Ultrafast Imaging and Materials Processing.

The Wyvern-X™ Series offers industry leading "hands-off" computer-controlled tuning of repetition rate for the operating ranges described and simple and rapid alignment to provide the widest range of rep-rates in the industry today.

Surpassing ultrafast providers in the industry today... the Wyvern-X™ does not require the added cost of re-alignment by a factory authorized service technician when a change in Rep-Rate is needed to reach success with your project.

... Don't settle for anything less



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