# Griffin™ – Ultrafast Oscillator

## Applications

- Frequency Conversion into the UV and mid-IR
- Pumping OPOs
- Materials Research
- Femtochemistry
- Spectroscopy
- THz generation
- Ultrafast Imaging
- 2-photon polymerization
- Pump-probe experiments

## Features

- Average powers up to >1.4 W
- Maximum pulse energy >15 nJ
- Configurable repetition rates from 75 - 102 MHz
- Configurable power
- Computer control of the center wavelength and bandwidth of hte oscillator spectrum
- Computer controlled pulse duration
- < 12fs standard with < 10 fs option
- Excellent beam quality: $M^2$ typically < 1.2
- One-box configuration with integrated pumps
- Repetition rate lock option (Halcyon™)
- CEP option
- Graphical, intuitive sofware control with integrated diagnostics
- Custom configurations available

## Tunability and flexibility in customizable configurations to optimize your specific experiment

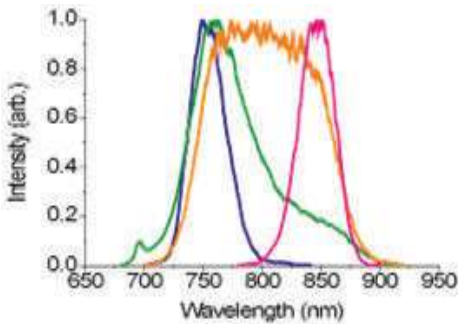

The Griffin™ series is KMLabs' family of tunable ultrashort-pulsed ti:sapphire-based oscillators. It is a fully engineered and integrated commercial source based on a single rugged opto-mechanical platform.

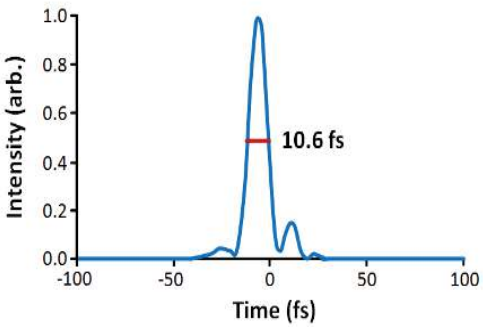
Tailor the laser output to the optimum for your experiment.

### Griffin™ Unique Features

- Computer-controlled tuning of center wavelength
- Computer-controlled tuning of spectral bandwidth
- Ultrashort sub-12fs pulses

### Griffin™ Tunability and Pulse Duration



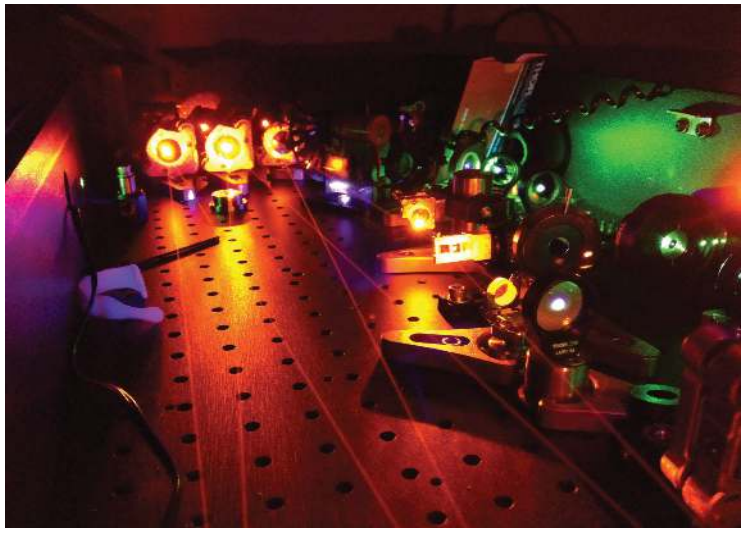




KMLABS™ inc.
LEADING IN ULTRAFAST

## Griffin™ Product Family

The Griffin™ product family provides tunable wavelength, bandwith and pulse duration

| Parameter | Griffin-5 Specification | Griffin-10 | Griffin-10-WT |
|---|---|---|---|
| **Power [Energy]** | 550 mW [5.7 nJ] | 1.4 W [15 nJ] | 800 mW [8.4 nJ] |
| **Minimum Pulse Duration** | < 12 fs (fixed center wavelength) | < 25 fs, 800 nm | < 35 fs (700 – 920 nm) |
| | < 15 fs (780 – 810 nm) | | |
| | < 25 fs (750 – 840 nm) | < 40 fs (750 – 840 nm) | |
| **Wavelength Center** | 750 – 840 nm | | 700 – 920 nm |
| **Maximum Bandwidth at 800 nm** | > 70 nm FWHM | > 40 nm FWHM | > 30 nm FWHM |
| **Minimum Bandwidth at 800 nm** | < 25 nm FWHM | < 15 nm FWHM | |
| **Power Stability** | < 1% RMS over 8 hrs after warm-up | | |
| **Repetition Rate** | 95 MHz (standard), 80 MHz option available | | |
| **Pump Laser** | Integrated 5W pump | Integrated 10W pump | Integrated 10W pump |
| **Integrated Diagnostics** | Laptop computer and fast photodiode included<br>Spectrometer, and power monitor optional | | |
| **Optical Assembly Dimensions** | 83cm L x 41cm W<br>Water-cooled platform | | |



**Griffin-10™ pumping a custom noncollinear OPA**