



# Collegiate - Ultrafast Ti:sapphire oscillator kit

Legendary Ti:sapphire laser oscillators for Ultrafast educators

## Applications

- Undergraduate advanced optics labs
- Frequency conversion into the UV and mid-IR
- Pumping OPOs
- Materials Research
- Femtochemistry
- Spectroscopy
- THz Generation
- Ultrafast Imaging
- 2-photon polymerization



## Features

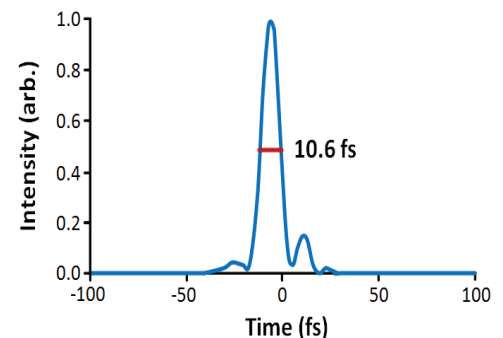
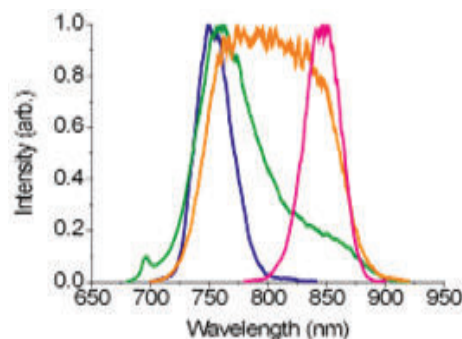
- Average powers up to > 500 mW
- Maximum pulse energy >5.2 nJ
- User-configurable repetition rates from 75-102 MHz
- Configurable power
- Micrometer control of the center wavelength and bandwidth of the oscillator spectrum
- Manually tunable pulse duration
- < 12 fs pulse duration
- Excellent beam quality: Near TEM<sub>00</sub>
- Electronics package and computer control option available
- Custom configurations available

Back by popular demand, **Collegiate™** Ti:sapphire laser oscillator is the original KMLabs oscillator kit. When it was introduced in 1994, this was the first commercial Ti:sapphire laser capable of generating pulses less than 12 femtoseconds in duration. Although KMLabs now offers turnkey laser systems, Collegiate is a low-cost, entry-level Ti:sapphire laser system with famous work performance.

### Collegiate Unique Features

- Components easy to access and understand
- Low-cost, entry-level Ti:sapphire laser
- Components factory-tested as a set
- Same short pulse operation and tunability found in the Griffin™ series

### Collegiate Tunability and Pulse Duration



## Key Specifications

Customer-Assembled Ti:sapphire Lasers for Ultrafast Educators	<b>Collegiate</b> <i>Customer-supplied pump laser</i>	<b>Collegiate-5</b> <i>500mW 5.2nJ Output</i>
<b>Minimum Pulse Duration:</b>	Requires customer-supplied pump laser.	< 15 fs (780-810 nm) < 25 fs (760-830 nm)
<b>Wavelength Center:</b>	Refer to column on right for specifications based on a 5W pump laser.	760-830 nm
<b>Average Power [Energy]*:</b>		> 500 mW [5.2 nJ]
<b>Repetition Rate:</b>	80 - 95 MHz, customer specified	
<b>Pump Laser:</b>	Pump Laser not included	5W pump laser, mounted externally on customer's table
<b>Standard Configuration</b>	Includes: Pre-aligned rail assembly, crystal, optics set, mounts, enclosure, manually adjusted prisms, pump steering, fast photodiode	
<b>Optional Electronics Package:</b>	Includes: Laptop control computer, motorized prisms and tuning slit with motor controller, amplified RF pulsetrain outputs	
<b>Optional Diagnostics Package:</b>	Includes: Spectrometer, pickoff window, power monitor	
<b>Breadboard:</b>	<b>No Breadboard</b> - Customer-Assembled on optical table	

\*For 95MHz repetition rate

