

# Mode-locked Ti Sapphire Laser Kit



This kit provide a compact size and stable output Ti:sapphire (Ti:S) laser.

The laser kit contains all necessary components for assembling a Ti:S mode-locked solid-state laser system.

The Ti:S crystal is pumped by a DPSS (5 W, 532 nm) pump laser included by the kit.

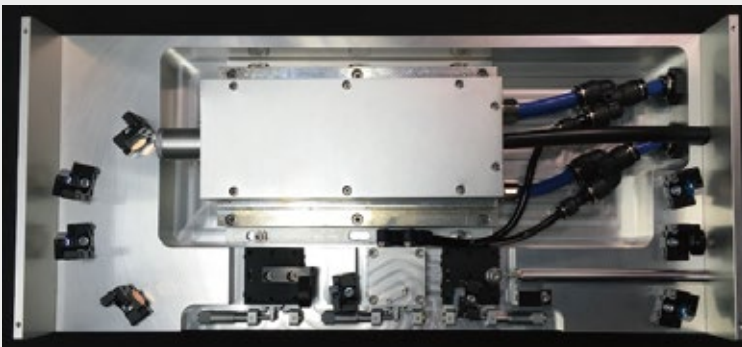
Kerr lens mode locking (KLM) is adopted as the generation principle of ultra-short pulse.

KLM is one of technique of passive mode locking, based on Kerr lens effect in the gain medium.

The precise design of the cavity layout makes it easy to obtain stable femtosecond laser pulses with a wavelength of around 800 nm.



## Configuration



The basic system consists of :

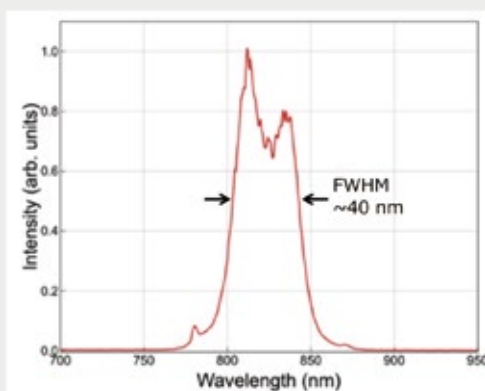
- Optomechanical components
- Dielectric ultrafast cavity mirrors
- Pump beam steering and focusing optics
- Ti:Sapphire crystal with adjustable mount and cooling circulation outlets
- Manual starter for mode-locking initiation
- Pump laser system
- Instruction Instruction manual

## Description

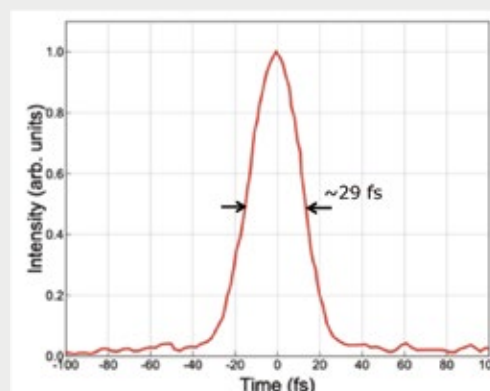
	LAK-TiSa-ML01
Pulse duration	<50 fs
Center wavelength	810 nm $\pm$ 10 nm
Average power	>1 W
Repetition rate	80 $\pm$ 1 MHz
Price	US\$ 39,800

# Specification

Items	Specification
Pulse duration	<50 fs
Center wavelength	810 nm $\pm$ 10nm
Average power	>1 W
Repetition rate	80 $\pm$ 1 MHz
Spatial mode	TEM00
Polarization	Horizon
Excitation laser standard life time	10,000 hours
External dimensions	214 mm (W)×464 mm (D)×97 mm (H) (Excl protrusion)
Remarks	A chiller for circulating and cooling the water is included. Use in a clean environment (a clean room of class 100,000 or less is a guide). For stable operation, use it in a room with a controlled temperature (23°C $\pm$ 2°C as a guide).

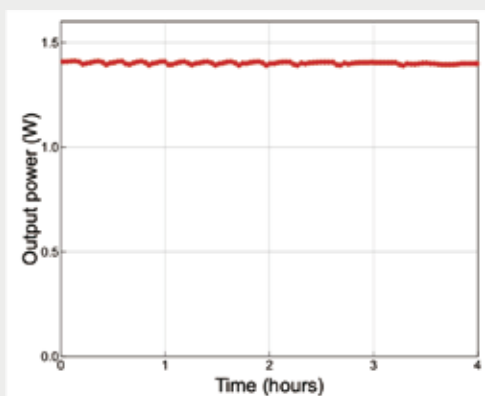


Oscillation spectrum(example)

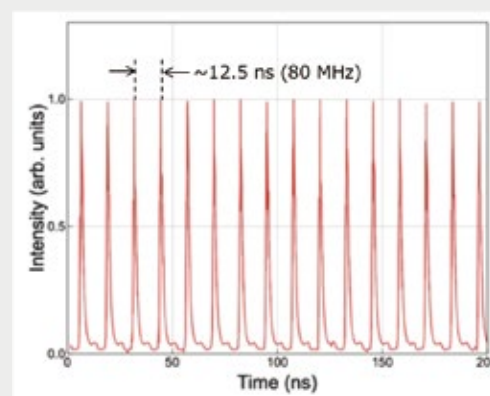


Pulse duration(example)

※ Pulse duration in case of left spectrum(sech<sup>2</sup>)



Long-term stability



Repetition rate

## Price and lead time

Product Name : Mode-locked Ti Sapphire Laser Kit

Model : LAK-TiSa-ML01

Price : US\$ 39,800 (excluding tax)

Delivery time : Contact us

\*Please feel free to contact us regarding Ti sapphire regenerative amplifiers.

**Kokyo**

Kokyo, Inc.

Email : [info@symphotony.com](mailto:info@symphotony.com)

Web : <https://www.symphotony.com/>