For current pricing, please see our website.

orange: 1030 nm Femtosecond Fiber Laser

orange

The orange femtosecond laser oscillator provides high performance and reliable operation for scientific and industrial applications. The laser oscillator is based on ytterbium-doped fiber, which allows for amplification to high power levels. The combination of a broad spectrum and high peak power can also be exploited for frequency upconversion into the visible spectral range.

The oscillator produces chirped femtosecond pulses that are >1 ps in duration. For the orange laser, the pulses can be compressed to <100 fs using the external Yb-Compressor. The pulses from the orange A laser can be compressed to <150 fs using the Yb-TOD-Compressor.

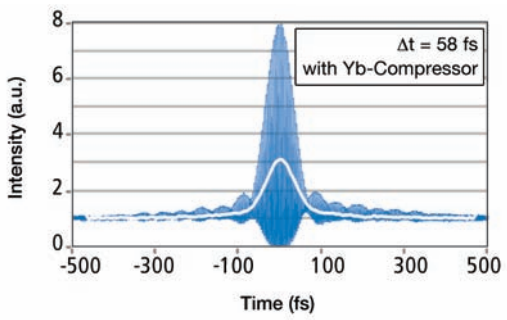
By adding the SYNC option, the laser can have a variable cavity length, allowing an integrated stepper motor to make coarse changes to the repetition rate and a piezo to make fine changes to the repetition rate for locking purposes. This feature can be used along with the SYNCRO-RRE electronics to lock the repetition rate of the laser to a pulsed laser source or to a stable RF reference.

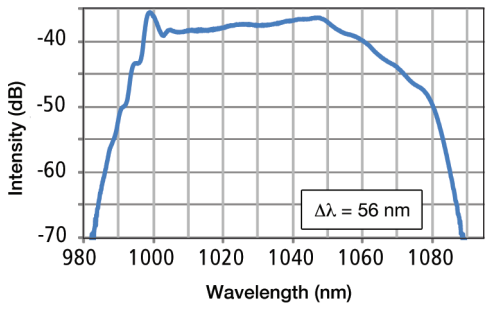
Features

- Turnkey Operation, Self-Starting Laser Configuration
- Compact Size: 413 mm x 178 mm x 120 mm
- Front Panel or Remote Operation
- Active Temperature Control of Laser Head
- Maintenance Free
- Low Cost of Ownership

Applications

- Ultrafast Spectroscopy
- Material Characterization
- Microfabrication
- Bioimaging
- Cell Manipulation
- Nonlinear Optics





Specifications

	orange	orange A
Wavelength	1030 - 1050 nm	1050 - 1070 nm
Average Output Power	>40 mW	>1 W
Spectral Bandwidth	>40 nm	>25 nm
Pulse Width without Compressor	1 - 4 ps	30 - 50 ps
Compressed Pulse Width	<100 fs[a]	<150 fs[a]
Repetition Rate	100 ± 1 MHz[b]	
Repetition Rate Tunability[c]	>330 kHz	
Output Port - Standard	Free Space, Linearly Polarized	
Beam Height	75 mm	
Output Port - Optional Configuration	Fiber-Coupled FC/APC	N/A

[a] After External Compressor, Available as Optional Unit [b] Other Repetition Rates Available upon Request [c] SYNC option required for variable repetition rate

The orange series are also available with an added second harmonic generation stage. Please see orange A 515 on page 1531 or visit www.menlosystems.com for more details.

ITEM #	$	£	€	RMB	DESCRIPTION
orange	CALL				Mode-Locked, Ytterbium-Doped Fiber Laser
orange A	CALL				Amplified Ytterbium-Doped Fiber Laser
SYNC100*	CALL				Repetition Rate Synchronization, Vary Cavity Length by >330 kHz
SYNCRO-RRE**	CALL				Repetition Rate Stabilization – Complete Phase Lock Loop
Yb-Compressor	CALL				External Compressor for orange, Pulse Length <100 fs, Transmission 80%
Yb-TOD-Compressor	CALL				External Compressor for orange A, Pulse Length <150 fs, Transmission 80%

* Option is Not Retrofittable, Please Order Together with Laser ** Requires SYNC100 Option in Laser Head

For local and updated pricing, please call Menlo Systems, Inc. in North America 973-300-4490, Menlo Systems GmbH in Europe +49-89-189-1660, or Thorlabs Japan, Inc. in Asia +81-3-5979-8889, or email sales@menlosystems.com.