

Innovative Ultrafast Laser Solutions

Magellan

Femtosecond Fiber Oscillator



ADVANTAGES

- Direct diode-pumped Yb-doped fiber oscillator
- All-diode-pumped, all-solid-state construction
- Robust, compact all-in-one-box design
- Optional SHG/THG/FHG outputs
- 25MHz repetition rate with available pulse picker for amplified version
- High beam quality
- Low noise, cw-pumped
- High stability and longevity

APPLICATIONS

- Nano-machining, nano-surgery
- Streak camera synchronization
- THz generation
- Photoluminescence Spectroscopy
- Photo-polymerization
- Multi-photon Microscopy
- Optical Coherence Tomography
- Amplifier seed oscillator

Magellan is an amplified, direct-diode-pumped Yb-doped fiber oscillator.

Magellan delivers on the promise of fiber laser technology with performance far higher than diode bar pumped Vanadate laser-pumped Ti:Sapphire oscillators and does so at a fraction of the cost, with a much longer lifetime, and at a substantially lower cost-of-ownership. Magellan is a fiber-pigtailed, telecom-qualified, direct-diode-pumped oscillator with or without integrated fiber amplifier in a compact "all-in-one-box" enclosure. It can be configured to produce low noise femtosecond or picosecond pulses and has the ease-of-operation and reliability you expect from a plug-and-play device.

The amplified version of Magellan has the capability to be pulse-picked down to provide variable rep rates between single-shot and 25MHz. Magellan is fully customizable per user requirements.

Optional harmonic generators for second, third and fourth harmonics are also available.

Specifications:

	Femtosecond Amplified	Femtosecond Non-amplified	Picosecond
Average Power	250 mW	25 mW	50 mW
Repetition Rate	Single-shot to 25MHz ¹	25MHz	25MHz
Pulse Energy	>10nJ/pulse	>1 nJ/pulse	>2nJ/pulse
Pulse Duration	sub-200fs	sub-200fs	~3ps
Laser Head Dimensions	13"L x 10"W x 6.2"H		
Beam Diameter	1.8mm +/- 0.2mm		

Central Wavelength	1030nm
Transverse Mode	TEM00
Beam Quality (M2)	<1.2
Noise	<1% RMS

Electrical	110 - 240VAC (2A)
Polarization	Linear, Horizontal
Cooling requirements	None
Beam divergence	<2 microrad

Notes:

- Other pulse energies are available
- May require additional pulse picker¹
- Custom configurations available. Please contact us at sales@cmxr.com
- Optional harmonic (2nd, 3rd & 4th) generation modules are available for Femtosecond (amplified) version
- One-year full system warranty with 5-year full replacement warranty on oscillator



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