

FSX-SERIES FEMTOSECOND LASERS

MULTI-WAVELENGTH - TURN-KEY - 24/7 OPERATION



	FSX-1030	FSX-DUAL	FSX-TUNE
First wavelength: 1030 nm	✓	✓	✓
Second wavelength: 760 - 940 nm (fixed in range)	-	✓	-
Second wavelength: 760 - 940 nm (tunable in range)	-	-	✓

The FSX-series is a **versatile, turn-key and compact femtosecond laser** perfectly matched for multi-photon imaging and other biophotonic applications.

The **air-cooled laser** is engineered for sustained **24/7 operation**. Temperature fluctuations between 18 °C and 28 °C have no influence on the performance, mitigating concerns about misalignment over time and operating environment.

The **modular concept** of the FSX-series offers **three models**. The FSX-1030 offers one fixed wavelength at 1030 nm. For multi-wavelength applications demanding perfectly synchronized femtosecond pulses we offer two solutions:

The **FSX-Dual** with **two fixed wavelengths**, one at 1030 nm and the other factory-set between 760 and 940 nm. And the **FSX-Tune** with a fixed wavelength at 1030 nm and a **tunable** one in the range of 760 to 940 nm, engineered with excellence for expanded imaging capabilities.

Broad range of applications:

- Quantum optics
- CARS/SRS
- Spectroscopy
- Amplifier seeding
- Neuroscience
- FLIM
- 2P / SHG / THG microscopy
- 2P polymerization
- Supercontinuum generation
- Terahertz generation

SPECIFICATIONS

	FSX-1030	FSX-DUAL	FSX-TUNE
Single-wavelength:	1030 nm	✓	✓
Second wavelength:	760 - 940 nm (fixed in range)	-	✓
Second wavelength:	760 - 940 nm (tunable)	-	✓
Pulse duration	<140 fs		
Average output power per wavelength	>5 W	>1 W @ 1030 nm >400 mW @ 2 nd λ	>1 W @ 1030 nm >400 mW over range
Pulse energy	>50 nJ	>12.5 nJ @ 1 st λ >5 nJ @ 2 nd λ	>12.5 nJ @ 1 st λ >5 nJ @ 2 nd λ
Pulse repetition rate*	100 MHz		
Beam quality	M ² <1.15, TEM ₀₀		
PER	>23 dB		
Pointing stability	30 μrad rms (12 h) const. temperature, <5 μrad / °C 18 - 27°C		
Laser output	Collimated free space		

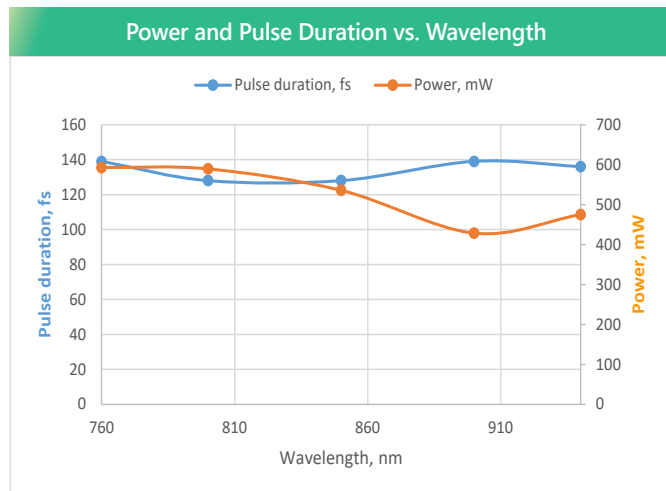
Cooling	
Laser system	Air cooled

Mechanical	
Size laser head	450 x 350 x 125 mm ³
Weight laser head	10 kg
Size laser controller	495 x 295 x 165 mm ³
Weight laser controller	10 kg

Electrical	
Power supply	90 – 264 VAC, 47 – 63 Hz
Power consumption	<500 W

Options / Warranty	
Built in AOM for power control and galvo flyback blanking.	
Dispersion pre-compensation 0 ... -40'000 fs ² .	
Warranty up to 5 years in total.	
Water cooling.	

Environmental	
Warm-up time	<10 min
Operation temperature	18 °C - 27 °C
Storage temperature	-10 °C - 65 °C



* On request 40-250MHz

CONTACTS

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