



**ABOUT ONEFIVE**

Onefive GmbH is a worldwide leading supplier of femtosecond, picosecond and nanosecond industrial laser modules. The company has a strong expertise in ultra-low noise, mode-locked lasers and is today one of the main global suppliers of ultra-short pulsed lasers. A broad portfolio offers wavelengths from UV to infrared, pulse durations from sub-100 femtoseconds to a few nanoseconds, repetition rates from pulse-on-demand up to 1.3 GHz and pulse energy from a few nanojoule up to >400 microjoule. The lasers are compact, air-cooled, maintenance-free, and stand out for their high ease of use and reliability in 24/7 operation. They are manufactured under a strict Quality Management Control system. The company is ISO 9001 and ISO 13485 certified. Onefive portfolio offers laser solutions for high precision applications, among which material processing, laser surgery, medical treatments, frequency-comb generation, THz generation, STED and two-photon microscopy, nonlinear spectroscopy, metrology and remote sensing.



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ISO 9001:2008  
ISO 13485:2012

IEC 60825-1:20014  
IEC 60068-2-27:2008  
IEC 60068-2-6:2007



**onefive**

FEMTOSECOND  
PICOSECOND  
NANOSECOND

**LASERS**



## FEMTOSECOND LASER

Origami is an industrial-grade, ultra-compact, femtosecond laser specifically designed for industrial OEM integration. It provides the lowest noise and timing-jitter on the market and has been designed to guarantee high stability and robustness.

### High energy femtosecond laser

PULSE DURATION: < 400 fs / 800 fs  
AVERAGE POWER: > 4 W / 100 W  
PULSE ENERGY: > 40 μJ / 500 μJ  
WAVELENGTH: 343, 515, 1030nm / 1030nm  
REP. RATE: Single shot - 1 MHz



### Origami XP / XXP

Air-cooled, single-box packaging

### High power femtosecond laser

PULSE DURATION: 70 fs - 1 ps  
AVERAGE POWER: up to 4W  
WAVELENGTH: 343-355, 514-532, 765-780, 1028-1065, 1530-1560 nm  
REP. RATE: 40 MHz - 200 MHz



### Origami HP

### Ultra-low noise femtosecond laser

PULSE DURATION: 70 - 500 fs  
AVERAGE POWER: up to 250 mW  
WAVELENGTH: 513-535, 765-785, 1025-1070, 1530-1580, 1580-1700 nm  
REP. RATE: 20 MHz - 1.25 GHz



### Origami

#### FEATURES

- ATTOSECOND TIMING-JITTER
- SHOT-NOISE LIMITED RELATIVE INTENSITY NOISE
- FIBER OUTPUT
- SEVERAL OPTIONS ON REQUEST

#### APPLICATIONS

- HIGH PRECISION LASER SURGERY
- MICROMACHINING
- ELECTRON GUN
- MULTI-PHOTON APPLICATIONS
- OPOs PUMPING



## PICOSECOND LASER

Genki is a picosecond fiber laser module specifically designed for micro-machining processes and all OEM and R&D applications that need close to transform-limited pulses down to 1 ps in pulse duration and repetition rates up to 10 GHz.

### High energy picosecond laser

PULSE DURATION: < 10 ps  
AVERAGE POWER: > 100W  
PULSE ENERGY: > 300 μJ  
WAVELENGTH: 343-355, 515-532, 1030-1064 nm  
REP. RATE: Single shot - 80 MHz



### Genki XPC / XP

Burst mode operation

### High power picosecond laser

PULSE DURATION: 4 - 45 ps  
AVERAGE POWER: up to 20 W  
WAVELENGTH: 343-355, 512-532, 1030-1064 nm  
REP. RATE: Single shot - 100 MHz



### Genki HP

### Low noise picosecond laser

PULSE DURATION: 4 - 45 ps  
AVERAGE POWER: up to 250 mW  
WAVELENGTH: 512-532, 1030-1064 1530-1575 nm  
REP. RATE: 20 MHz - 1.25 GHz



### Genki

#### FEATURES

- BURST MODE
- SYNCHRONIZATION TO EXTERNAL CLOCK
- REPETITION RATE TUNABILITY
- SEVERAL OPTIONS ON REQUEST

#### APPLICATIONS

- MICROMACHINING
- MULTI-PHOTON POLYMERIZATION
- NONLINEAR OPTICS EXPERIMENTS
- PUMP-PROBE EXPERIMENTS
- AMPLIFIER SEEDING



## PICOSECOND & NANOSECOND LASER

Katana is a pulsed laser system designed for all applications that require easy device synchronization through external or internal triggering, continuous tuning of the repetition rate, maintenance-free operation and low cost of ownership.

### High energy versatile pulsed laser

PULSE DURATION: 30 ps - 1 ns  
AVERAGE POWER: up to 6 W  
PULSE ENERGY: > 400 μJ  
WAVELENGTH: 355, 532, 1064 nm  
REP. RATE: Pulse Demand - 1 MHz



### Katana XP

External triggering and burst mode

### High power versatile pulsed laser

PULSE DURATION: 30 ps - 10 ns  
AVERAGE POWER: up to 20 W  
WAVELENGTH: 512-532, 556-560, 775, 1030-1064, 1112-1320, 1550 nm  
REP. RATE: Pulse Demand - 100 MHz



### Katana HP



### Versatile pulsed laser

PULSE DURATION: 30 ps - 10 ns  
AVERAGE POWER: up to 500 mW  
WAVELENGTH: 512-532, 635, 775, 1030-1064, 1550 nm  
REP. RATE: Pulse Demand - 100 MHz



### Katana

#### FEATURES

- BURST MODE
- REPETITION RATE TUNABILITY
- PULSE ON DEMAND
- MULTIWAVELENGTH EMISSION
- SEVERAL OPTIONS ON REQUEST

#### APPLICATIONS

- FLUORESCENCE MICROSCOPY
- MICROMACHINING
- SEED FOR AMPLIFIERS
- SCRIBING AND TESTING
- REMOTE SENSING AND RANGING