







SWISS MADE

Origami XXP is a high energy and high power femtosecond system based on a simple and compact chirped pulse amplification architecture capable of delivering >  $500~\mu J$  pulse energy, 100~W average power with pulse duration below 800~fs. It is based on the unique, ultra-stable and low noise Origami femtosecond seed laser. Origami XXP has been specifically designed for all applications requiring high energy, sub-picosecond pulse duration at a cost-competitive price. The compact all-in-one laser is water cooled and is delivered with full remote control capabilities.

# NEW 100W HIGH ENERGY FEMTOSECOND LASER

#### **OPTIONS:**

- + Green 515 nm
- + UVA 343 nm
- + Synchronization to external clock

### **MAIN APPLICATIONS:**

- + Material processing
- + Glass and sapphire cutting
- + Plasma generation
- + Nonlinear optics

#### **OUTSTANDING FEATURES:**

- + Pulse energy up to 500  $\mu J$
- + High pulse quality
- + Narrow spectral width
- + Excellent energy and pointing stability
- + Maintenance free no alignment required
- + Complete remote control
- + 24/7 operation



Specifications subject to change without notice, June 2017

ISO 9001 : 2008 ISO 13485 : 2012

	ORIGAMI - 10 XXP
CENTER WAVELENGTH	1030 nm
PULSE DURATION	<800 fs
AVG. OUTPUT POWER [UP TO]	>100 W
PULSE ENERGY [UP TO]	>500 μJ
PEAK POWER [UP TO]	500 MW
PULSE REPETITION RATE	single shot – 1 MHz
SPECTRAL BANDWIDTH	< 2 nm
BEAM QUALITY	M <sup>2</sup> < 1.4, TEM <sub>00</sub>
ELLIPTICITY	< 1.15
AMPLITUDE NOISE [12 h]	< 1.6 % rms
PER	> 23 dB vertical
ENERGY CONTRAST	23 dB
POINTING STABILITY	< 100 μrad rms (12 h) const. temp., < 5 μrad/ °C 18-35°C
LASER OUTPUT	collimated free space
ENVIRONMENTAL	
WARM-UP TIME	< 15 minutes
OPERATION TEMPERATURE	18 °C – 32 °C
STORAGE TEMPERATURE	- 20 °C – 65 °C
ON/OFF CYCLES	> 10000
MECHANICAL	
SIZE LASER SYSTEM	590 x 500 x 184 mm³
WEIGHT LASER SYSTEM	70 kg
ELECTRICAL	
POWER SUPPLY	24 VDC/25 A + 48 VDC/21 A or 90 - 264 VAC, 47 - 63 Hz
POWER CONSUMPTION	1600 W
COOLING	
LASER SYSTEM	water cooled







#### **OUTPUT POWER AND PULSE ENERGY**

## BEAM PROFILE



