

ps ns

VERSATILE PULSED LASER MODULE

# KATANA



+

SWISS MADE

Katana is a versatile, **sub-nanosecond** laser system designed for all industrial applications that require maintenance-free operation, continuous tuning of the repetition rate and low cost of ownership. It can provide pulses from **30 ps up to 10 ns** in pulse duration. The Katana laser can be operated from pulse-on-demand up to **100 MHz**, and it can also easily be triggered from an external source (master or slave mode). A single-box multi-wavelength version is available which, combined with the use of the Katana HP as a depletion laser, can provide a complete source for super-resolution fluorescence microscopy.

**EXTERNAL TRIGGERING AT ANY FREQUENCY**

**OPTIONS:**

- + Single-box multi-wavelength emission
- + Burst mode
- + Isolator /collimator output
- + Second harmonic generation
- + Fiber output (PM of SM)
- + More options on request

**MAIN APPLICATIONS:**

- + Multi-wavelength excitation for fluorescence microscopy
- + Seed for amplifiers
- + Laser ranging
- + Semiconductor inspection
- + Single photon counting

**OUTSTANDING FEATURES :**

- + External laser triggering
- + Continuously tunable repetition rate
- + Pulse on demand
- + Master/slave operation
- + Diffraction-limited beam quality
- + Lightweight
- + Maintenance free – no alignment required
- + 24/ 7 operation



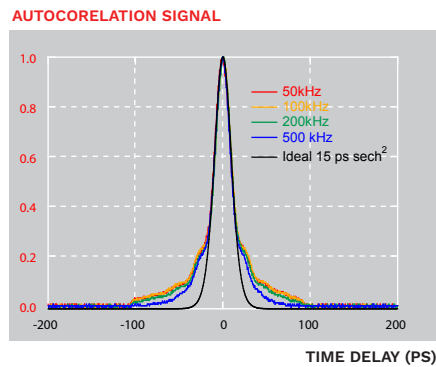
	KATANA - 05	KATANA - 06	KATANA - 08	KATANA - 10	KATANA - 15
CENTER WAVELENGTH	512 – 532 nm	550 – 660 nm	775 nm	1030 – 1064 nm	1550 nm
PULSE DURATION <sup>1,2</sup>	< 30 ps – 10 ns	70 ps – 10 ns	< 30 ps – 10 ns	< 30 ps – 10 ns	< 30 ps – 10 ns
AVG. OUTPUT POWER [UP TO] <sup>2</sup>	50 mW	20 mW	50 mW	500 mW	500 mW
PULSE ENERGY [UP TO] <sup>2</sup>	20 nJ	20 nJ	20 nJ	100 nJ	100 nJ
PULSE REPETITION RATE <sup>1</sup>	pulse-on-demand – 100 MHz				
SPECTRAL BANDWIDTH	0.1 nm				
BEAM QUALITY	$M^2 < 1.1$ , TEM <sub>00</sub>				
PER	> 20 dB				
AMPLITUDE NOISE	< 4.0 % rms (10 h)				
LASER OUTPUT	PM fiber output (free-space optional)				
<b>ENVIRONMENTAL</b>					
WARM-UP TIME	< 15 minutes				
OPERATION TEMPERATURE	15 °C – 35 °C				
STORAGE TEMPERATURE	- 20 °C – 65 °C				
ON/OFF CYCLES	> 10000				
<b>MECHANICAL</b>					
SIZE OEM LASER	32 x 374 x 184 mm <sup>3</sup>				
WEIGHT OEM LASER	2 kg				
SIZE CONTROL UNIT	133 x 483 x 400 mm <sup>3</sup> (19"/3U rack mount)				
WEIGHT CONTROL UNIT	7 kg				
<b>ELECTRICAL</b>					
POWER SUPPLY	24 VDC/2.5 A or 90 – 264 VAC, 47 – 63 Hz				
POWER CONSUMPTION	15 W				
<b>COOLING</b>					
LASER SYSTEM	air cooled				

<sup>1</sup> More wavelengths available on request

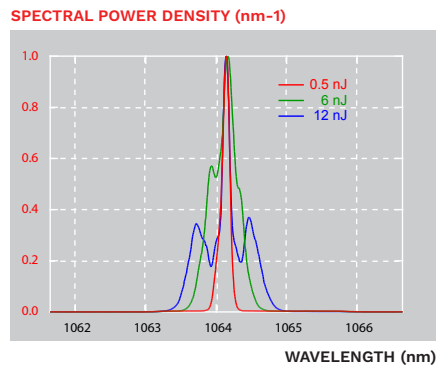
<sup>2</sup> Please inquire for possible combinations of average power, pulse energy and repetition rate



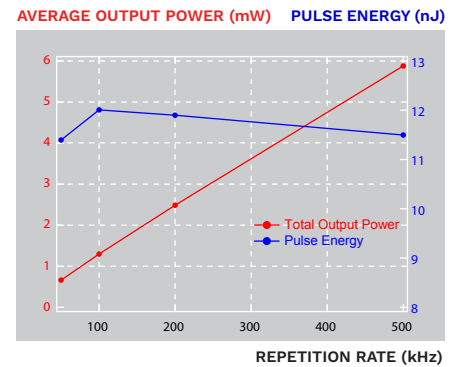
#### PULSE PROFILE



#### OPTICAL SPECTRUM



#### OUTPUT POWER VS REPETITION RATE



**NEW**

## SINGLE-BOX MULTI-WAVELENGTH KATANA - 05/06

