



Katana

Versatile pulsed laser module

Swiss
Made



External
triggering at
any frequency

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.

NEW



Single-box
Multi-wavelength
Katana - 05/06

Laser 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

Options:

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

Main applications:

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

Laser specifications	Katana -05	Katana -06	Katana -08	Katana -10	Katana -15
Center wavelength ¹	515 – 532 nm	635 nm	775 nm	1030 – 1064 nm	1550 nm
Pulse Duration ²	<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) ²	50 mW	5 mW	50 mW	500 mW	500 mW
Pulse energy (up to) ²	20 nJ	10 pJ	20 nJ	100 nJ	100 nJ
Pulse repetition rate ²	pulse-on-demand – 100 MHz				
Spectral bandwidth	0.1 nm				
Beam quality	$M^2 < 1.1$, TEM ₀₀				
PER	> 20 dB				
Amplitude noise	< 4.0% rms (10h)				
Laser output	PM fiber output (free-space optional)				
Environmental					
Warm-up time	< 15 minutes				
Operation temperature	15 °C – 35 °C				
Storage temperature	-20 °C – 65 °C				
On/Off cycles	> 10000				
Mechanical					
Size OEM laser	32 x 374 x 184 mm ³				
Weight OEM laser	2 kg				
Size stand-alone laser	133 x 483 x 400 mm ³ (19"/3U rack mount)				
Weight stand-alone laser	7 kg				
Electrical					
Power supply	24VDC/2.5A or 90 – 264 VAC, 47 – 63 Hz				
Power consumption	15 W				
Cooling					
Laser system	air cooled				



IEC Compliant Product

IEC 60068-2-27:2008
IEC 60068-2-6:2007
Shock & Vibration Test
IEC 60825-1:2014
Laser Radiation Safety

ISO Certified Company

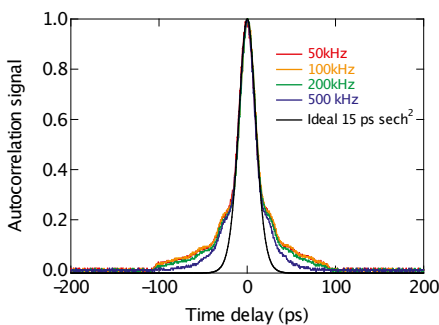
ISO 9001:2008
ISO 13485:2012



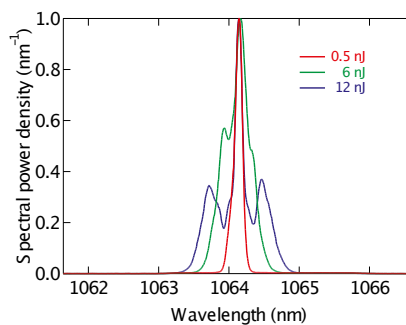
¹ More wavelengths available on request

² Please inquire for possible combinations of average power, pulse energy and repetition rate

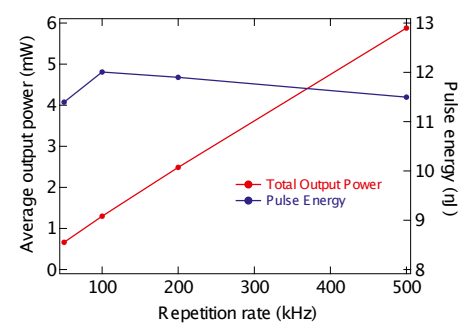
Pulse profile



Optical spectrum



Output power vs Repetition Rate



Specifications subject to change without notice, March 2016