

Genki



Low noise picosecond laser module



Swiss
Made

Cost-effective mode-locked picosecond laser

Genki is an industrial-grade, low noise and cost-effective, mode locked picosecond laser that emits close to transform-limited pulses from 1 to 45 ps with a narrow spectral width. It provides diffraction-limited beam quality and excellent pointing stability. Both free-space as well as simple fiber output are available at various wavelengths. Genki is an air-cooled laser module which can be packaged in a compact and robust enclosure allowing for operation in the harshest environments. Genki laser platform is maintenance-free and guaranties 24/7 operation.



Laser outstanding features:

- Very low amplitude noise
- Clean and narrow optical spectrum
- Pedestal-free, almost transform-limited pulses
- Diffraction-limited beam
- Ultra-compact package
- Maintenance free – no alignment required
- 24 / 7 operation

Options:

- Synchronization to external clock for ultra-low timing jitter
- Analog adjustable output power
- Repetition rate tunability
- Integration of user-defined opto-electronic devices

Main applications:

- Seed for amplifiers
- Photodetector sampling
- Telecommunication
- Time-resolved measurements

Laser specifications	Genki - 10 S	Genki - 10	Genki - 15
Center wavelength ¹	1030 – 1064 nm	1030 – 1064 nm	1530 – 1575 nm
Pulse Duration ¹	4 – 45 ps	4 – 45 ps	5 ps
Avg. output power (up to) ¹	10 mW	250 mW	150 mW
Pulse energy (up to) ¹	100 pJ	5 nJ	3 nJ
Pulse repetition rate ¹	30 – 100 MHz	30 – 100 MHz	40 MHz – 10 GHz
Spectral bandwidth ²	< 1 nm	< 1 nm	< 5 nm
Beam quality	$M^2 < 1.1$, TEM ₀₀		
PER	> 20 dB		
Amplitude noise ² (24 h)	< 1% rms, < 3% pk-pk		
Center wavelength drift	< 0.1 nm pk-pk		
Laser output	PM fiber output or collimated free space		
Environmental			
Warm-up time	< 10 minutes		
Operation temperature	18°C – 32°C		
Storage temperature	-20°C – 65°C		
On/Off cycles	> 10000		
Mechanical			
Size laser head ³	150 x 200 x 30 mm ³		
Weight laser head ³	2 kg		
Size control unit ³	165 x 104 x 44 mm ³ (19"/3U rack mount)		
Weight control unit ³	0.5 kg		
Electrical			
Power supply	24VDC/2.5A or 90 – 264 VAC, 47 – 63 Hz		
Power consumption	< 15 W		
Cooling			
Laser system	air cooled		



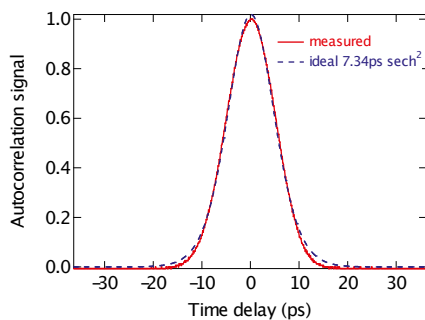
IEC Compliant Product
 IEC 60068-2-27:2008
 IEC 60068-2-6:2007
 Shock & Vibration Test
 IEC 60825-1:2014
 Laser Radiation Safety

ISO Certified Company
 ISO 9001:2008
 ISO 13485:2012

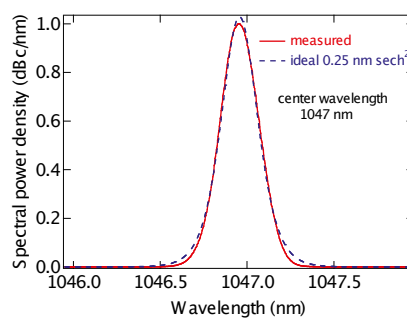


¹ Please inquire for possible combinations of wavelength, pulse duration, average power and repetition rate
² Spectral bandwidth and amplitude noise depend on pulse length, pulse energy and repetition rate
³ Exact size and weight depend on pulse duration, repetition rate and wavelength

Pulse profile



Optical spectrum



RF spectrum

