



Genki is an industrial-grade, **low noise** and cost-effective, mode locked **picosecond** laser that emits close to transform-limited pulses from **4 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 is also available in a compact and robust enclosure allowing for operation in the harshest environments. Genki laser platform is maintenance-free and guaranties **24/7 operation**.

**COST-EFFECTIVE  
MODE-LOCKED  
PICOSECOND  
LASER**

**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

**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



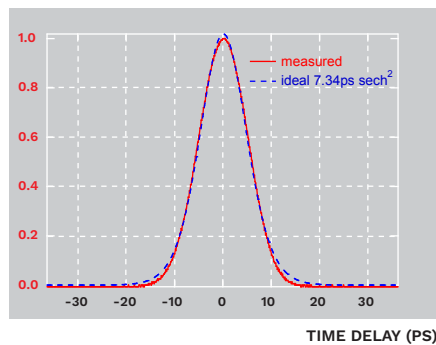
	GENKI - 15	GENKI - 10	GENKI - 10 S
<b>CENTER WAVELENGTH</b>	1530 – 1575 nm	1030 – 1064 nm	1030 – 1064 nm
<b>PULSE DURATION</b> <sup>1,2</sup>	5 ps	4 – 45 ps	4 – 45 ps
<b>AVG. OUTPUT POWER</b> [UP TO] <sup>2</sup>	150 mW	250 mW	10 mW
<b>PULSE ENERGY</b> [UP TO] <sup>2</sup>	3 nJ	5 nJ	100 pJ
<b>PULSE REPETITION RATE</b> <sup>1,2</sup>	40 MHz – 10 GHz	30 – 100 MHz	30 – 100 MHz
<b>SPECTRAL BANDWIDTH</b> <sup>2</sup>	< 5 nm	< 1 nm	< 1 nm
<b>BEAM QUALITY</b>		M <sup>2</sup> < 1.1, TEM <sub>00</sub>	
<b>PER</b>		> 20 dB	
<b>AMPLITUDE NOISE</b> [24 H]		< 1% rms, < 3% pk-pk	
<b>CENTER WL DRIFT</b> [1 H]		< 0.1 nm pk-pk	
<b>LASER OUTPUT</b>	PM fiber output or collimated free space		
<b>ENVIRONMENTAL</b>			
<b>WARM-UP TIME</b>	< 10 minutes		
<b>OPERATION TEMPERATURE</b>	18 °C – 32 °C		
<b>STORAGE TEMPERATURE</b>	- 20 °C – 65 °C		
<b>ON/OFF CYCLES</b>	> 10000		
<b>MECHANICAL</b>			
<b>SIZE LASER HEAD</b> <sup>3</sup>	150 x 200 x 30 mm <sup>3</sup>		
<b>WEIGHT LASER HEAD</b> <sup>3</sup>	2 kg		
<b>SIZE CONTROL UNIT</b>	165 x 104 x 44 mm <sup>3</sup> (19"/3U rack mount)		
<b>WEIGHT CONTROL UNIT</b>	0.5 kg		
<b>ELECTRICAL</b>			
<b>POWER SUPPLY</b>	24 VDC / 2.5A or 90 – 264 VAC, 47 – 63 Hz		
<b>POWER CONSUMPTION</b>	< 15 W		
<b>COOLING</b>			
<b>LASER SYSTEM</b>	air cooled		

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



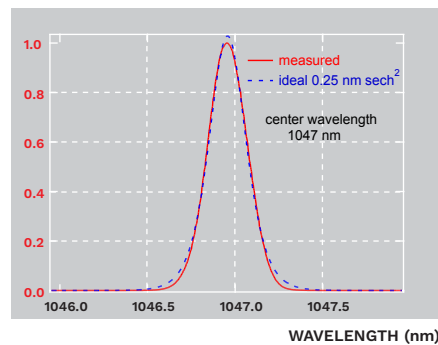
### PULSE PROFILE

#### AUTOCORRELATION SIGNAL



### OPTICAL SPECTRUM

#### POWER SPECTRAL DENSITY (dBc/nm)



### RF SPECTRUM

#### NOISE SPECTRAL DENSITY (dBc/10kHz)

