



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



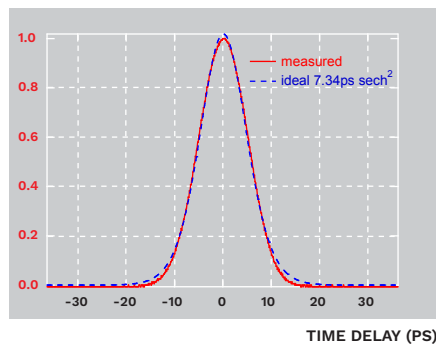
	GENKI - 15	GENKI - 10	GENKI - 10 S
CENTER WAVELENGTH	1530 – 1575 nm	1030 – 1064 nm	1030 – 1064 nm
PULSE DURATION ^{1,2}	5 ps	4 – 45 ps	4 – 45 ps
AVG. OUTPUT POWER [UP TO] ²	150 mW	250 mW	10 mW
PULSE ENERGY [UP TO] ²	3 nJ	5 nJ	100 pJ
PULSE REPETITION RATE ^{1,2}	40 MHz – 10 GHz	30 – 100 MHz	30 – 100 MHz
SPECTRAL BANDWIDTH ²	< 5 nm	< 1 nm	< 1 nm
BEAM QUALITY		M ² < 1.1, TEM ₀₀	
PER		> 20 dB	
AMPLITUDE NOISE [24 H]		< 1% rms, < 3% pk-pk	
CENTER WL DRIFT [1 H]		< 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	165 x 104 x 44 mm ³ (19"/3U rack mount)		
WEIGHT CONTROL UNIT	0.5 kg		
ELECTRICAL			
POWER SUPPLY	24 VDC / 2.5A or 90 – 264 VAC, 47 – 63 Hz		
POWER CONSUMPTION	< 15 W		
COOLING			
LASER SYSTEM	air cooled		

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



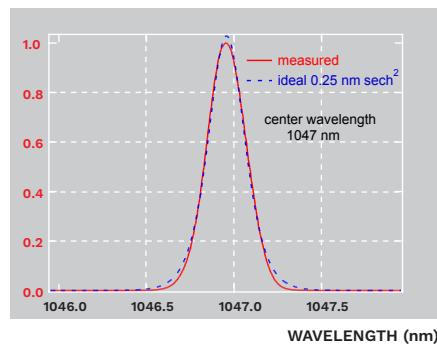
PULSE PROFILE

AUTOCORRELATION SIGNAL



OPTICAL SPECTRUM

POWER SPECTRAL DENSITY (dBc/nm)



RF SPECTRUM

NOISE SPECTRAL DENSITY (dBc/10kHz)

