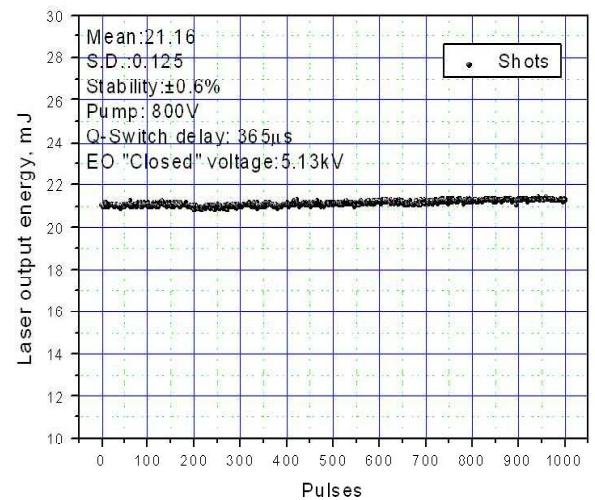
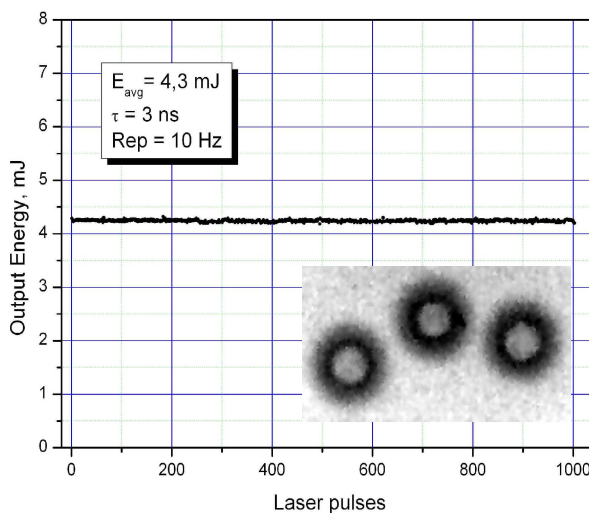




The G-MINI series is family of compact flash lamp or DPSS pumped Nd:YAG, Nd:YLF or Nd:YAP lasers producing emissions in the nanosecond regime. Lasers are based on Single Longitudinal Mode linear, telescopic or ring type master-oscillator design. Single Longitudinal Mode module is installed that narrows spectral linewidth and provides long pulse coherence length. The lasers produces TEM00 near diffraction limited radiation at a variety of energies, wavelengths and repetition rates. Design features include a highly stable passively or EO Q-switched oscillators. SuperINVAR based resonator framing is accomplished with multi-point active temperature distribution control of laser breadboard giving output energy stability only expected with more expensive compact diode pumped lasers.

Typical Laser Ablation Spots and Energy Stability Diagrams



System Features

- ◆ Unique cost efficient SLM Master-oscillator design based on self seeding technique
- ◆ The Mode Hoping option providing that only one mode exist on the shot is applicable
- ◆ Flash lamp or DPSS pumped modules
- ◆ PC control via RS232 using advanced Geola software or LabView drivers (optional)
- ◆ Lasers are CE marked according to IEC 60825-1:2001/EN 60825-1:2001
- ◆ Low electrical consumption



Technical Parameters

Advised Model	G-MINI-x		
Output Wavelengths ⁽¹⁾ :	1342 nm	671 nm	447 nm
	1338 nm	669 nm	446 nm
	1319 nm	660 nm	440 nm
	1313 nm	657 nm	438 nm
	1079 nm	540 nm	360 nm
	1064 nm	532 nm	355 nm
	1053 nm	527 nm	351 nm
	1047 nm	524 nm	349 nm
Output Energy ⁽²⁾ :	2-50 mJ	0.9-25 mJ	0.4-9mJ
Pulse Duration FWHM ⁽³⁾ :	1 ... 50 ns		
Energy Stability (Std.Dev.) ⁽⁴⁾ :	~ 1 %	~ 2 %	~ 3 %
Beam Divergence:	Near Diffraction Limit for beam size		
Line width ⁽⁵⁾ :	< 0.1 ... 0.001 cm ⁻¹		
Beam Diameter (1/e ²):	~ 1 ... 6 mm		
Beam Profile:	Near Gaussian		
Pulse Repetition Rate ⁽⁶⁾ :	1 ... 50 Hz		
Beam Pointing:	~ 150 μrad		
Optical Pulse buildup time ⁽⁷⁾ :	< 200 ns		
Polarization:	Horizontal or Vertical, > 1:100		
Q-Switching Type:	Passive or E-O		
Optical Pulse Jitter ⁽⁸⁾ :	~ 500ns ... 5 μs for Passive Q-Switch and ~ 0.5 ... 2 ns for E-O Q-Switch		
Triggering:	External / Internal		
DIMENSIONS			
Laser Head: (L x W x H)	< 30 x 18 x 18 cm ... < 100 x 25 x 18 cm		
Power & Cooling Cabinet: (L x W x H)	~ 55 x 55 x 60 cm		
Umbilical length:	3 m		
ENVIRONMENTAL REQUIREMENTS			
Cooling requirements:	< 10 litres/minute (Water flow for 20 °C water temperature)		
Room Temperature:	18 - 25 °C (recommended)		
Relative Humidity:	< 70% (non-condensing)		
Mains Voltage:	210...240 VAC, single phase 50/60 Hz		
Power Consumption:	~ 0.5 ... 2.5 kW		

Geola Digital reserves the right to change specification without notice

- (1) Select required wavelength from the list.
 (2) Choose required energy level from the range.
 (3) Choose required pulse duration from the range.
 (4) Std.Dev., for 1000 shots at 10Hz repetition rate.
 (5) The Mode Hoping option providing that only one mode exist on the shot is possible.
 (6) Choose required repetition rate from the range.
 (7) In respect to External sync pulse signal.
 (8) In respect to External sync pulse signal.

Manufacturer

GEOLA DIGITAL uab

Address: 41 Naugarduko, LT-03227 Vilnius, Lithuania

Phone: +370 5 2132 737

www.geola.com

Fax: +370 5 2132 838

info@geola.com