

AGILITE

High Energy Nd:YAG

Variable Pulseshape

Agilite is a high-energy pulsed laser with selectable output pulsewidths. The system comprises an innovative laser design with programmable pulse shaping, a distributed intelligence control system and an intuitive Graphical User Interface (GUI).

The Agilite Nd:YAG laser is offered with high energy per pulse, outputs from 50 ns to 8 μ sec, and repetition rates to 10 Hz. Harmonic generators tailored to specific pulsewidths and pulseshapes are available. This unique laser architecture opens new parameter space for diverse applications such as Doppler LIDAR, High brightness Laser Doppler Velocimetry, and Ballistic Imaging.

Agilite can also be used as a seeder of our liquid-cooled Disks Amplifiers (see Premiumlite) in order to deliver tens of Joules keeping the full advantage of pulseshaping.



Applications

Industry:

- > Combustion characterization
- > Annealing

Science:

- > LIDAR
- > Imaging
- > Velocimetry

Features

- > Programmable pulsewidths on a standard platform
- > Intelligent control architecture for comprehensive system management
- > Intuitive Graphical User Interface
- > Single source to support diverse applications
- > YLF, glass phosphate versions at 1053 nm also available

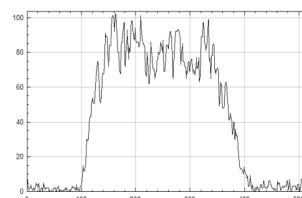
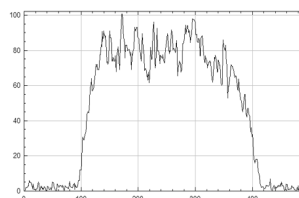
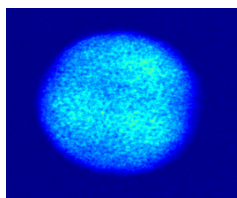
AGILITE

Specifications

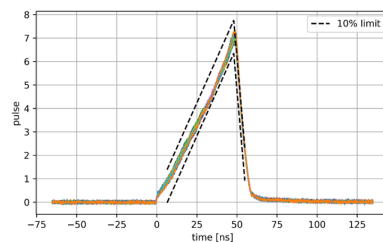
Type	Nd:YAG					Nd:Glass
Repetition Rate	Up to 10 Hz					Up to 0.1 Hz
Wavelength	1064 nm (SHG on request)					1053 nm (SHG on request)
Pulse Duration	50 ns to 8 μs Temporaly shapable					
Rise / Fall time	Typically 2.5 ns					
Pulse Energy	Up to 0.65 J	Up to 1.3 J	Up to 3.4 J	Up to 7.4 J	Up to 15 J	Up to 40 J
Beam Diameter	~ 6.0 mm	~ 6.0 mm	~ 6.0 mm	~ 6.0 mm	~ 6.0 mm	~ 6.0 mm
Energy Stability	< 2.5 % RMS					

¹Energy given for highest pulse duration and square temporal profile

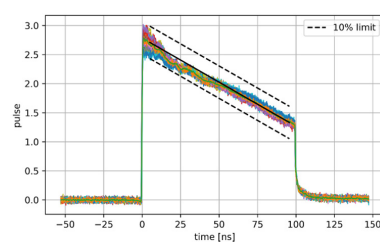
Typical Beam Profile



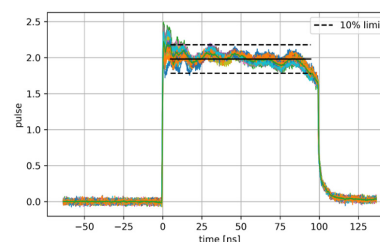
Temporal Shaping



Triangle temporal shape 18 J at 30 ns



Trapeze temporal shape 32 J at 100 ns



Square temporal shape 40 J at 100 ns

Dimensions

Optical Head* (L x W x H)	0.95 m x 2.5 m
Power Supply* (L x W x H)	0.8 m x 0.6 m x 1.8 m

* Size/Quantity may vary depending on system requirements

Water

Service*	20 l / min
Temperature	10 to 20 °C

* Value may vary depending on system requirements

Other information

Electrical Service	200-240 VAC, 50/60 Hz single phase or 3 phases
Room Temperature	20 °C +/- 1 °C over 8 hours
Umbilical length	10 m (15 m on request)

