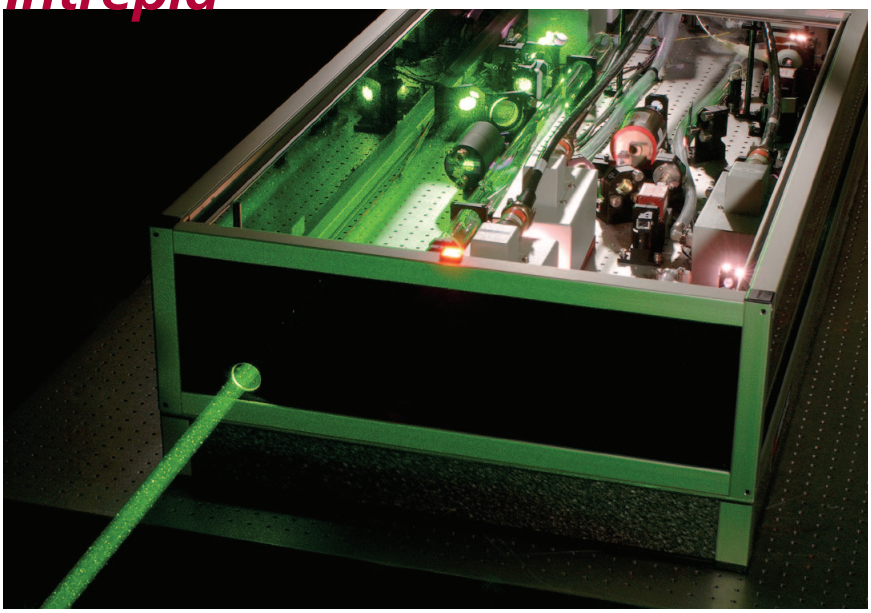
High Energy Nd:YAG
High Energy Nd:YAG
High Energy Nd:YAG

Intrepid™



OPCPA Pumping

Intrepid is a high energy pulsed laser system specifically tailored for pumping OPCPA amplifiers. The output of the laser is shaped to be spatially and temporally flat, uniformly amplifying the input chirped pulse across the entire waveform. The Intrepid beam can also be preferentially stressed to adjust for distortions on the seed pulse.

Intrepid is offered in a variety of output energies from 100 mJ to over 5J and pulse widths from 3-8 ns and repetition rates up to 10 Hz. While two versions are standard, other configurations are available on request. Consult your local Continuum sales representative to discuss your needs.

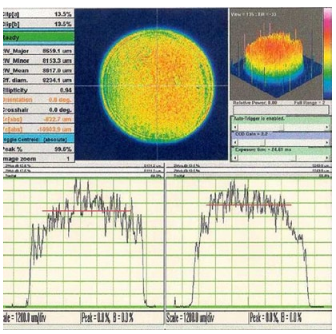
Intrepid is part of the Continuum variable pulsewidth family of laser systems. For longer pulse lengths, please refer to the Agilite datasheet for more information

Programmable pulsewidths on a standard platform specifically designed for OPCPA pumping

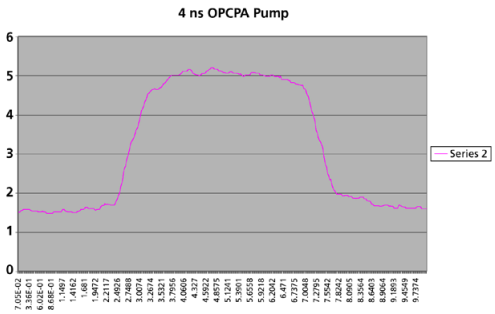
Intelligent control architecture for comprehensive system management

Intuitive Graphical User Interface

Scalable architecture for the most demanding applications é



Intrepid Beam Profile, 4 J of green



Temporal 4 ns pulse

Continuum®
The High Energy Laser Company™

Intrepid Specifications

Description	Intrepid I	Intrepid II
Wavelength	532 nm	532 nm
Energy	>100 mJ	>4 J
Energy stability	<2% RMS	<2% RMS
Repetition rate	10 Hz	2 Hz
Beam diameter	<6 mm	25 mm
Beam divergence	<0.67 mrad	<0.67 mrad
Pulse duration	2.5-4 ns	2.5-4 ns
Polarization ratio	Linear, 100:1 vertical	Linear, 100:1 vertical
Pointing stability	>99% of shots within ±50 µrad full angle over 8 hr	>99% of shots within ±50 µrad full angle over 8 hr
Temporal profile	flat top, 5% RMS	flat top, 5% RMS
Spatial profile	Supergaussian with modulation <15% RMS/ mean in central 80% of the beam	Supergaussian with modulation <15% RMS/ mean in central 80% of the beam
Rise time	<300 ps from 10% to 90% levels	<300 ps from 10% to 90% levels
Fall time	<300 ps from 10% to 90% levels	<300 ps from 10% to 90% levels
Warm-up time	<30 min	<30 min

Notes

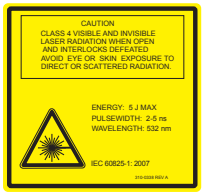
1. Additional configurations are available on request
2. System is configured with one waveform standard. Additional waveforms are available for an additional charge.

As a part of Continuum's ongoing improvement program, all specifications are subject to change without notice.

Intrepid System Requirements

Size	Optical Head (LxWxH)* Intrepid I Intrepid II	 2,438 mm x 610 mm x 508 mm (96"x 24" x 20") 2,438 mm x 1,219 mm x 508 mm (96"x 48" x 20")
	Power Supply (LxWxH)* Intrepid I Intrepid II	 622 mm x 711 mm x 1,435 mm (24.5" x 28" x 56.5"), total of 1 622 mm x 711 mm x 1,435 mm (24.5" x 28" x 56.5"), total of 2
Water	Service	1-3 GPM (gallons/minute) at 10 - 40 PSI pressure drop
	Temperature	closed loop water to water heat exchanger: external cooling water required, temperature <25° C
Electrical Service		200 - 240 VAC, single ø, 50/60 Hz
Room Temperature		18 to 30° C / 65 to 87° F; temp stability ±1° C/8hr
Umbilical Length		1.5 m (5 ft)

Notes:
* The size of optical head and power supplies may vary depending on system requirements.



Continuum
140 Baytech Drive, San Jose, CA
Tel (408) 727-3240
www.continuumlasers.com

992-0091, Rev C 02/16

Continuum®
The High Energy Laser Company™