AppliedEnergetics

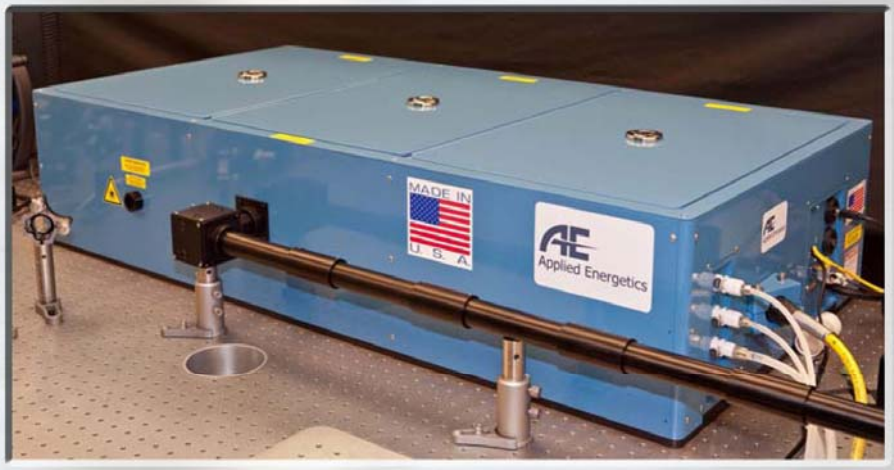
Wild Cat
Leopard Amp

Leopard Ultra Fast Laser Amplifier

Applications

This high power ultra-fast amplifier can be used in a variety of industrial applications and configured for in-line processing as a complete solution with material-handling equipment as required.

- *Micro-machining*
- *Photomask repair*
- *Thin film scribing*
- *Time-resolved spectroscopy*
- *Biological diagnostics*
- *Defense*
- *Laser R&D*



Performance

Gain media	*Yb:YAG Thin Disk, 1031 nm center wavelength*
High Output Power	*> 100 W (1 W input at 30MHz, gain = 100, non-CPA operation)*
High Pulse Energy Gain	*> 40,000 (400 µJ/pulse at 10 nJ/pulse input at 1kHz)*
Compressed Pulse Width	*< 1.0 ps*

System includes on-board stretcher and compressor

System designed for use with Applied Energetics Ocelot Laser oscillator

Options

- *Motor Controlled Adjustable Compression (compressed pulse length 0.8 ps to 8 ps)*
- *System without Stretcher and Compressor (for low pulse energy operation)*
- *Remote pico-mirror adjustment control*
- *Motor controlled OAP position*
- *Camera monitors of OAP/Disk*
- *Saturable Absorber (for low repetition rate operation)*
- *Chiller, OptiTemp OCT-1.0A*

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Leopard Ultra Fast Laser Amplifier

Electrical Requirements:

230 VAC, single phase, 30 Amp service (for pump laser & chiller)

115 VAC, single phase, 15 Amp service for controls

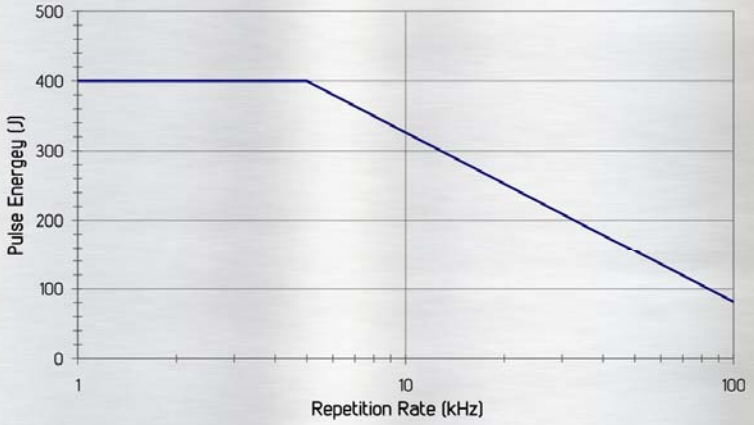
Mechanical:

Leopard Amplifier Enclosure	48”x24”x10¾” length, width, height
Control Rack (19”)	5 foot (1.5m) high rack includes the Diode Pump & Driver and space for the control computer

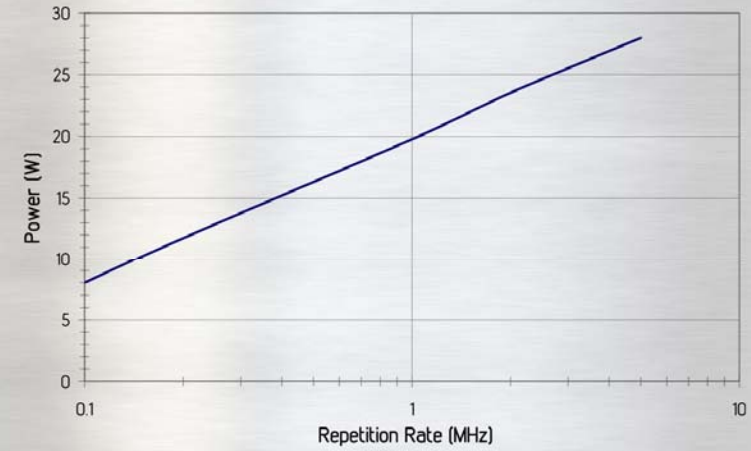
Control Systems

The system control computer allows users access and adjustment of the system features such as pulse width and repetition rate. Optional equipment is also software controlled.

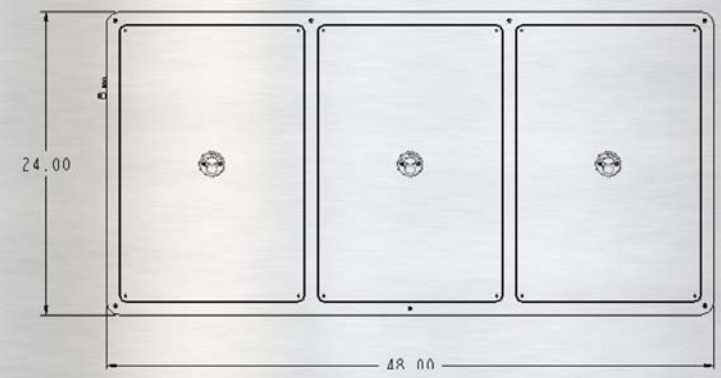
Leopard Pulse Energy Low Rep Rate Operation

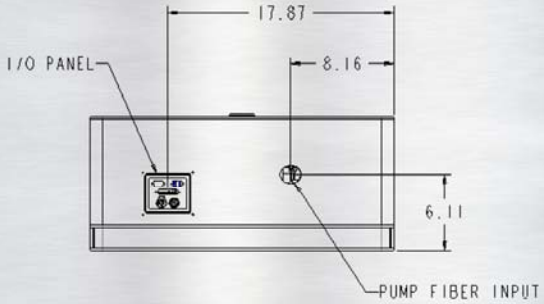


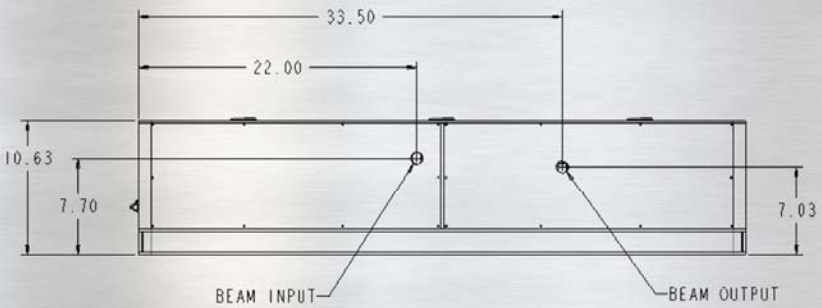
Leopard High Rep Rate Average Power CPA



Patent pending
Thin disk technology under license from Stuttgart University
Specifications subject to change







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