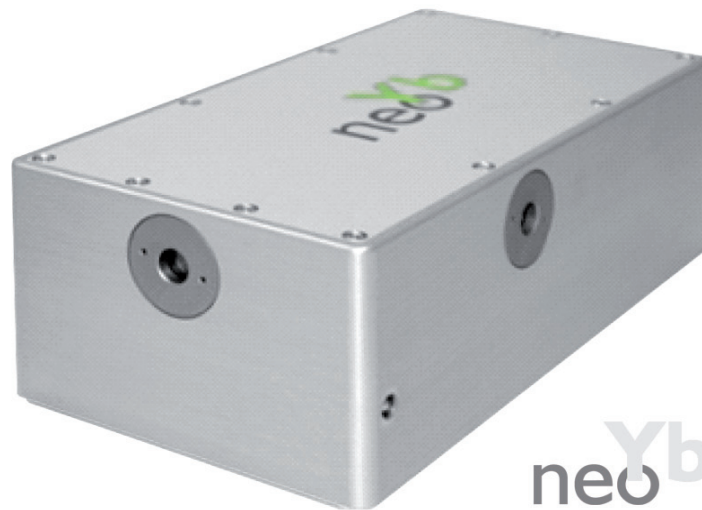


neoYb

Laser amplifier module



Boost Your Energy

The neoYb is an OEM-type solid-state laser amplifier module to boost the pulse energy or average output power for various applications. It is a stand-alone module, containing amplifier and pump diode and is based on highly reliable and long-lasting neoLASE technology. The ultra-compact and nearly monolithic modules allow easy integration and cost-effective upgrading of laser machines, scientific lasers or low-power oscillators. It is the ideal power or energy booster for your femtosecond laser system.

Key Features

- Wavelength 1030 nm
- Output power 5 to 100 W
- Mode of operation cw to fs-pulses
- Beam quality $TEM_{0,0} / M^2 < 1.3$

No Matter What!

The neoLASE industrial amplifier modules allow CPA-free* amplification for bandwidth-limited pulses on a small foot print. This enables high peak power short-pulse pico- or femtosecond lasers for a wide range of micromachining applications without complex compressor arrangements. The high-gain preamplifier module allows direct amplification of mode-locked oscillators or gain switched diodes. The main amp module is an ideal power- or energy-booster stage exceeding 50 W output power!

Advantages

- Easy and compact energy or power boosting
- Highly flexible and scalable amplifier units
- Proven long-term stability and industrial reliability



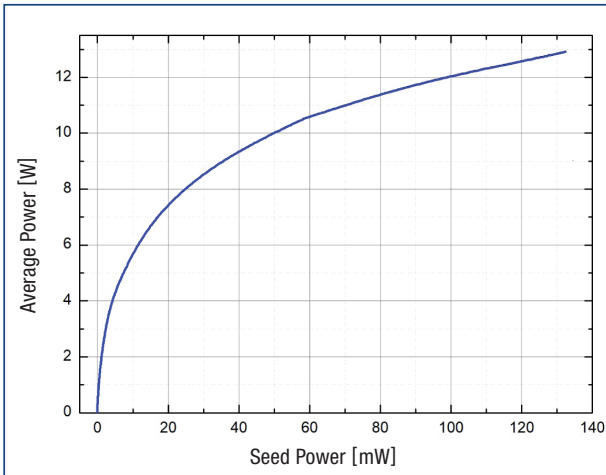
System specifications

Amplifier stages	pre-amp	main amp	combined
Typical input power	10 – 100 mW		1 – 10 W
Typical output power	1 – 10 W		20 – 60 W
Wavelength	1030 nm		
Beam quality	TEM _{0,0} / M ² < 1.3		
Supported Pulse Dur.*	< 700 fs		
Jitter	> 100:1		
Polarization ratio	without stretching: ~50 μJ		
Pulsed Energy	stretched to ~30 ps: >500 μJ		
Dimensions (W×H×D)	246 × 120 × 75		
Ambient temp.	15 – 25 °C		
Laser controller	19" rackmount 3U height		
Cooling	water cooled		

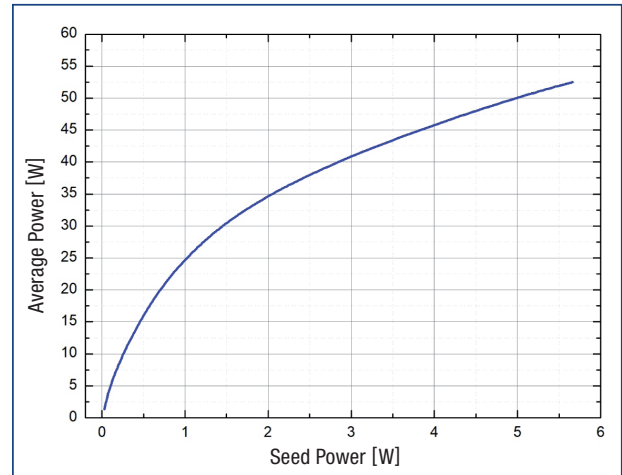
* Depending on seeder bandwidth and amplification factor

* CPA-free up to 50 μJ

Pre-amplifier Performance



Main Amplifier Performance



Example performance of a femtosecond amplifier

Input configuration:

- Free-space /single-mode fiber FC connector
- Output performance and specifications depending on seed laser parameters.

Notes:

1. Due to continuous product improvement, all specifications are subject to change without notice.
2. Laser light emitted from this system is invisible and will be harmful to the human eye. Proper laser safety eyewear must be worn during operation.



enabling your ideas.

Optical, Power and Thermal Management Technologies



Intertek



- Optical Technologies
- Power Technologies
- Thermal Management

AMS Technologies AG, Germany
AMS Technologies Ltd, UK.
AMS Technologies S.A.R.L., France

AMS Technologies S.r.l., Italy
AMS Technologies S.L., Spain
AMS Technologies Nordics,
Azpect Photonics AB, Sweden

info@amstechnologies.com
www.amstechnologies.com
www.amstechnologies-webshop.com