

Tuesday, 29 March 2022, 16:00 CEST

EPIC Members New Product Release

SMAART Ultrashort Pulsed Laser

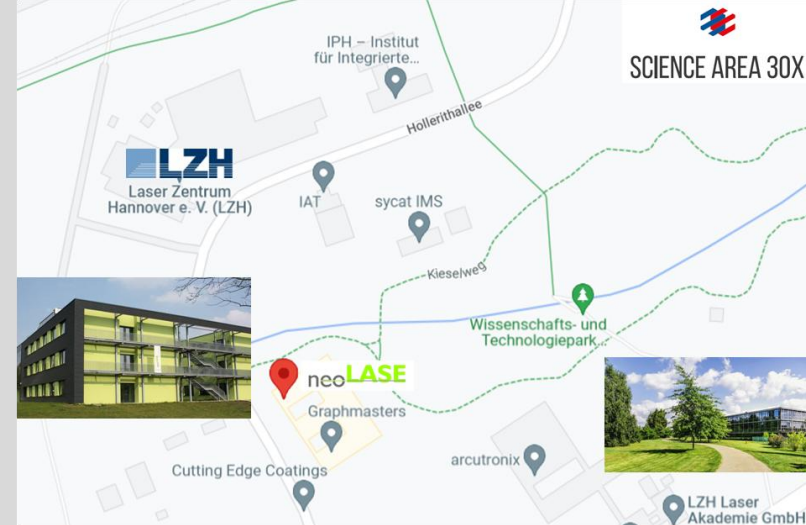
neo**LASE**

Supported by



Maik Frede,
CEO

- Technological leader for DPSS lasers
- Focus on Industrial and customized laser systems from single units to volume production
- Industrial and Scientific Applications
- Interdisciplinary working team with outstanding long term experience
- Location Hannover, Germany



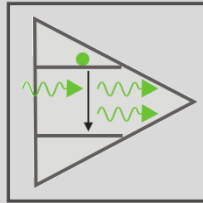
Main Products

neoLASE



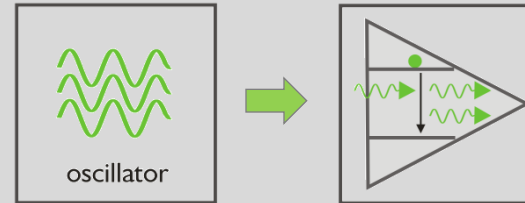
Level of Integration

Laser Amplifiers

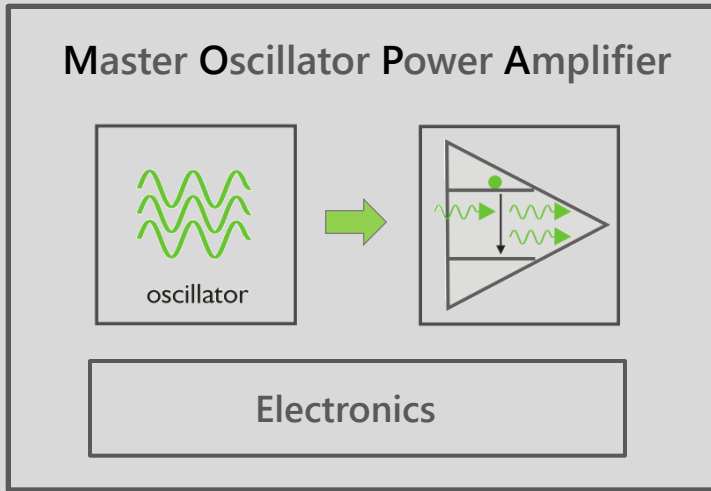


Energy and power scaling
200 W – 50 mJ

MOPA Lasers



Continuous wave to femtoseconds



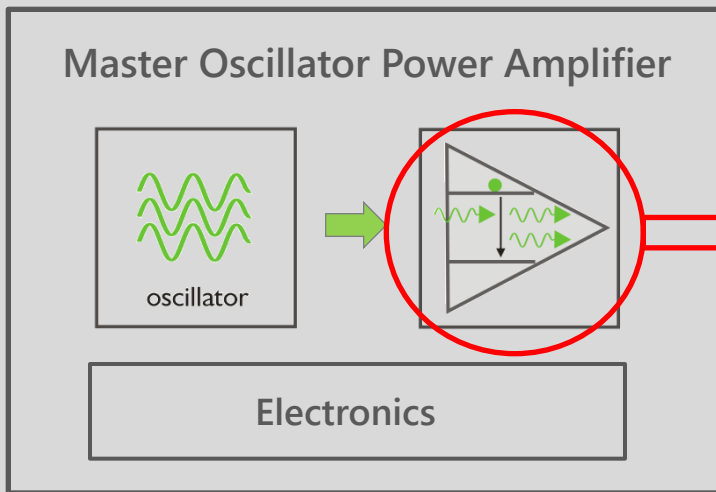
Power / Energy scaling

Frequency conversion

Pulse on demand

- Compact and variable laser platform
- Selectable pulse duration, repetition rate and output power
- Highly reliable technology (neoLASE building blocks)





neoVAN

Wavelength: 1064 nm high gain / cw - ps

neoYb

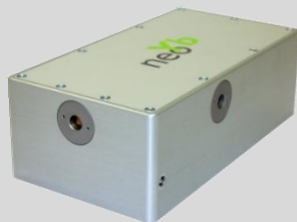
Wavelength: 1030 nm med. gain / high energy / cw - fs

neoTAP

Wavelength: 1940 nm low gain / cw-fs

neoHOF

Wavelength: 2050 nm low gain / cw-fs



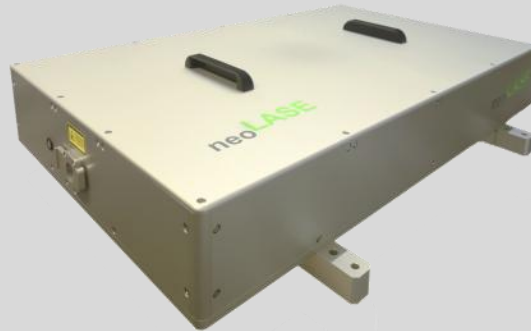


Selectable pulse duration, repetition rate and output power

Reduced investment costs



femtoseconds repetition rate
service pulse duration
selectable costs mode-locked burst
flexible laser parameter
out of one system
picoseconds nanoseconds
gain switched adaptable variable output
output power reliability pulse energy
wavelength maintenance



Easy integration, upgrading, self-service

High reliability and uptime

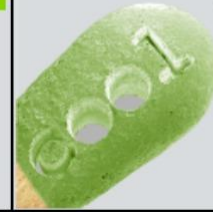


neoLASE

ultra-short pulse
applications

micro
machining

neoMOS
"SMAART"



cold ablation
engraving
cutting
drilling

femto
< 100 fs

femto - pico
700 fs - 50 ps

pico - nano
50 ps - 10 ns

150 μ J @ <100 fs
up to 50W
single-shot - MHz



>1 mJ @ ns
up to 60W
single-shot - MHz

TYPICAL SYSTEM
PARAMETERS



>500 μ J @ ps
up to 100W
single-shot - MHz

upgradeable
modular
flexible

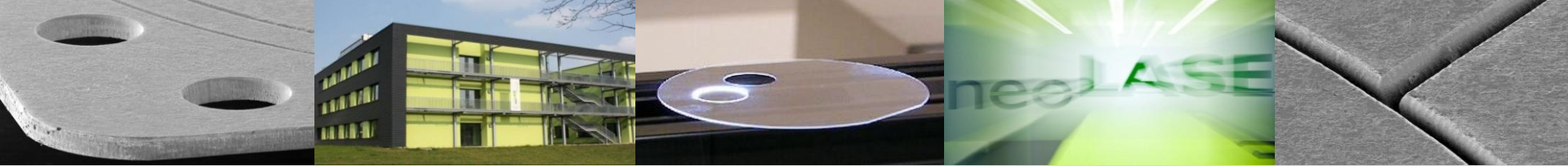
neoLASE philosophy is to provide industrial proven laser technology, individually tailored for the specific user application.

The SMAART laser idea:

- Different applications with one laser
- Upgradeable laser parameter
- Reduced Investment risk
- Self-Service possibilities
- Sustainable use

Finalist for the:





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Thanks for your attention !