

Press Release

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June 10, 2005

New: Semiconductor Laser Amplifier Module with diffraction limited output

The solution for Laser Power Problems
without compromises in beam quality.

Based on the successful tapered amplifier technology, at LASER 2005 TOPTICA will offer for the first time a pure optical diode laser amplifier module. Without losses in spectral and spatial quality near-diffraction-limited laser beams, in particular from diode or gas lasers can be amplified in the spectral range 730 to 1085 nm by a factor of 50 to 100 up to an output power of 1 Watt and an M^2 below 1.7. A laser beam of this quality can be focussed easily to a spot size less than 1 μm .

The BoosTA amplifier can be used for both pulsed (down to sub ps pulse width) and narrow-band continuous wave laser sources, in particular tunable diode laser sources. The frequency and coherence properties of the seed laser sources is maintained perfectly during amplification. The injection of the amplifier using multiple, spectrally independently controlled laser sources, is opening up new opportunities in spectroscopy, for example for non-linear mixing techniques to generate difference frequencies in the range from one GHz to more than 10 THz. TOPTICA is currently working on widening the spectral coverage also.

With this product, TOPTICA complements its series of highly sophisticated diode laser products, which are used worldwide in research laboratories of industry and basic science with another modular component.



Semiconductor Laser Amplifier
Module with diffraction-limited
output - BoosTA

TOPTICA Photonics AG develops, manufactures, services and distributes technology-leading diode and fiber lasers and laser systems for scientific and industrial applications. Sales and service is offered worldwide through TOPTICA Germany and its subsidiary TOPTICA USA, as well as all through 12 distributors. A key point of the company philosophy is the close cooperation between development and research to meet our customers' demanding requirements for sophisticated customized system solutions and their subsequent commercialisation.

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