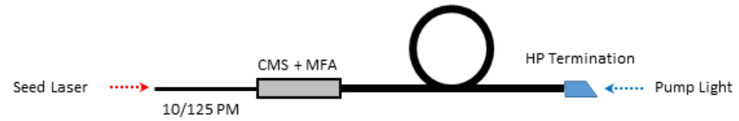
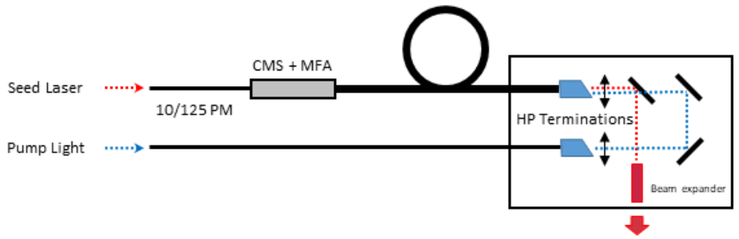
LaserNGN – HIGH-POWER GAIN MODULE

Parameters	Specifications	Notes
Amplifier Fiber	Yb-35/250-56/400-07-2.5-T0.8-PM	1000 µm² effective mode area
Saturation Energy	500 µJ @ 1064 nm	
Rated Output Power	100 W	
Gain	30 dB max @ 1064 nm	
Peak Power Class	500 kW max	Actual performance depends on the pumping wavelength, pumping configuration, seed wavelength, seed power, seed spectral characteristics and seed temporal format .
Input Pump Power Counter-Pumping	150 W total max	400 µm , NA <0.15 or equivalent brightness
Pumping Wavelength	976 nm wavelength-locked	
Gain Bandwidth	1020-1080 nm	
M²	<1.3 (D4 σ)	ISO Standard 11146
Polarization Extinction Ratio	>16 dB	
Slope Efficiency	>70% @ 1064 nm	
Recommended Seeding Power	>500 mW	
Input Fiber	10/125 µm	Low NA, PM
High Power Terminaison	Integrated to the module	10 x 10 mm endcap, angle polished (2°) & AR coated
Dimensions	481 X 451 X 29 mm³	
Case Temperature	20 +/- 2°C	Cooling liquid temperature
Cooling	Water cooled	Minimum flow rate > 2 L/min

Counter-pumping



Counter-pumping with the Pump Injection Module



INO LaserNGN is optimized for high peak power and high average power applications. The tapered optical fiber at the heart of the gain module is based on our low photodarkening core chemistry and features a distinctive and proprietary refractive index profile. The result is a TMI-free operation at up to 100 W of average output power, with excellent beam quality and good polarization maintenance. The module can be easily integrated to a pigtailed oscillator with its standard 10/125 PM input fiber.

The module integrates everything needed to handle power, high thermal load and high peak fluence pulses:

- 56 µm core diameter output
- large endcap
- liquid cooled
- robust pump stripper

Applications

- High power ultrafast fiber laser
- Frequency conversion

Features

- Singlemode-like output
- Easy to integrate
- Liquid cooled
- Robust construction
- Long lifetime, TMI-free operation

Benefits

- High nonlinear threshold
- High peak power
- High average power
- High gain
- Excellent beam quality
- Good polarization maintaining capabilities
- Broad gain bandwidth
- Excellent optical-to-optical efficiency

For more information

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