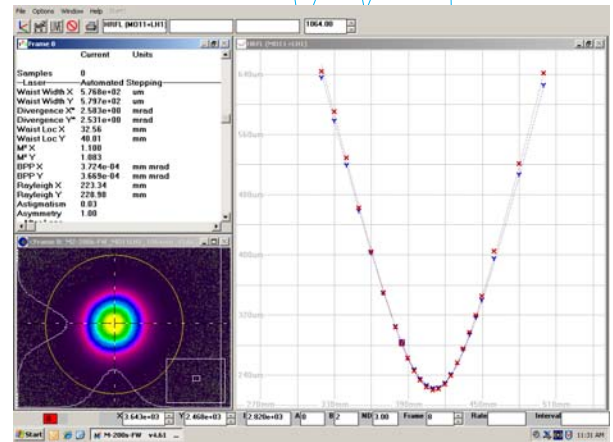


HIGH POWER FIBER AMPLIFIER

INO is a world-class center of expertise in industrial applications for optics and photonics and is a world leading technology developer of high power fiber amplifiers offering superior beam quality and stability.



High beam quality

ADVANTAGES

- Near diffraction-limited beam quality
- Up to 100 μJ at 1064 nm
- Output power in excess of 10 W
- Very high stability
- Polarized output
- Photodarkening resistant, large mode area fiber technology
- Output optical isolator
- Air cooling
- Optional second harmonic module

KEY APPLICATIONS

- Micromachining processes, welding, drilling
- Non-decorative deep engraving marking
- Stereolithography memory and display repair and resistor trimming
- Microfabrication in semi-conductors, solar cells and display
- Many board-level electronic applications

INO IS VERY FLEXIBLE IN ITS OFFER

- > PROTOTYPING > SHORT RUN PRODUCTION > TECHNOLOGICAL TRANSFER

HIGH POWER FIBER AMPLIFIER

TYPICAL SPECIFICATIONS WHEN SEEDED WITH MOPAW MASTER OSCILLATOR

PARAMETERS	UNIT	MOPAW-1064-PWA-10	MOPAW-532-PWA-6
Wavelength of emission ¹	nm	1064.3 ± 0.3	
Spectral bandwidth, FWHM	nm	< 0.5 nm	
Maximum energy per pulse	µJ	100	
Pulse energy stability, 3σ value over 10 000 pulses	%	Variations < ± 2%	
Maximum average output power	W	10	
Output power stability, 3σ value over 24 hours	%	Variations < ± 2%	
Polarization of output signal		Linear	
Polarization extinction ratio		> 100:1, > 500:1 typical	
Required input power range, 1064 nm signal	µW	30-1000	
Maximum input pump power (976 nm)	W	25	25
Spatial mode		LP ₀₁	LP ₀₁
M ²		< 1.1	
Beam waist astigmatism	%	< 10	
Beam waist asymmetry	%	< 10	
Beam roundness, from output to z = 2 m	%	< 10	
Beam pointing stability, 20 minutes/24 hours	µrad	Variations < 20 / < 60	
Beam waist diameter (1/e ²)	µm	250 ± 20	
Beam waist position (with respect to output aperture)	mm	+20 ± 20	
Warm-up time	min	< 30	
Cooling		Air	
Optical isolation		Built-in isolator included, isolation > 30 dB	
Dimensions (length x width x height)	mm	545 x 145 x 265	
Operating temperature range	°C	+15 to +30	
Storage temperature range	°C	-20 to +50	
Lifetime	h	> 10 000, 24/7 operation	
Maintenance interval		Maintenance-free	

¹ Other wavelengths from Yb and E bands available on request

Designed and tested to meet typical industrial environmental requirements (EMI, shock, vibrations, storage and operation temperature ranges, CDRH regulations, etc.)

NANOSECOND PULSES WITH
MULTI-KW OUTPUT PEAK
POWER AND TAILORED SHAPES



POLARIZATION-MAINTAINING OPTICAL FIBER

