



YFOA. Femtosecond Yb-Doped Fiber Lasers

- Available wavelengths: 1030-1053 nm (fixed)
- Average power up to 20 W
- Pulse duration <200 fs
- 19" rack OEM versions
- YFOA-S seeder version with chirped fiber output
- Small footprint and turn-key operation



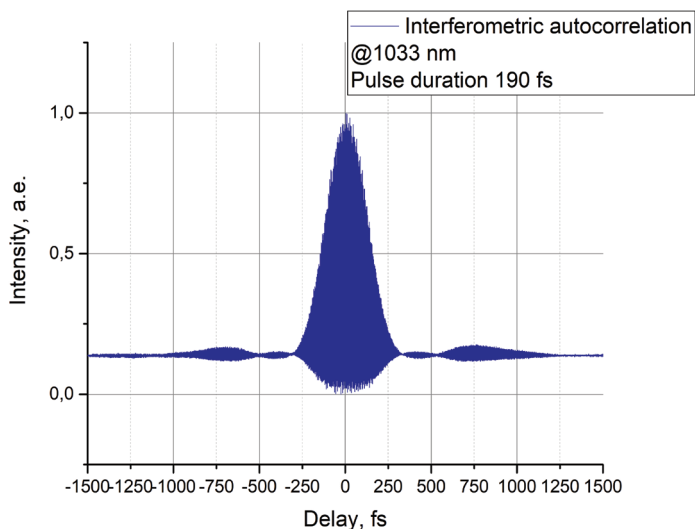
YFOA-200 Yb-doped fiber laser head

Product overview

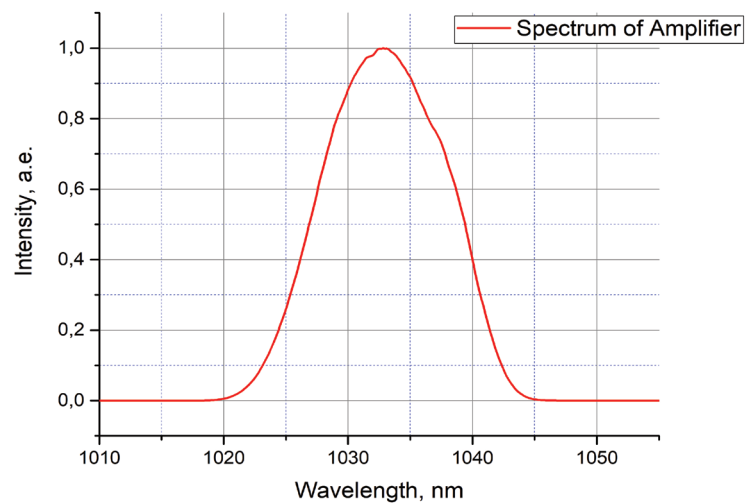
The YFOA femtosecond fiber laser is designed for stable generation of an ultra-short laser pulse train. The device contains Yb-doped active fiber, pump diodes, polarization control and dispersion control elements, electronic power supply and control system. The laser also has an SMA sync output for triggering external devices, as well as another SMA for pulsed mode status. The YFOA has proven its reliability as a seed oscillator for amplifier systems (such as the TETA system), as well as a stand-alone pulse generator. The YFOA may be ramped up to higher average power ratings for power-demanding applications.



YFOA-2005 19" rack OEM seeder version with fiber output or YFOA series control unit



Autocorrelation function of YFOA-2000/5000



Emission spectrum of YFOA-2000/5000



AVESTA

LASERS AND OPTICAL SYSTEMS

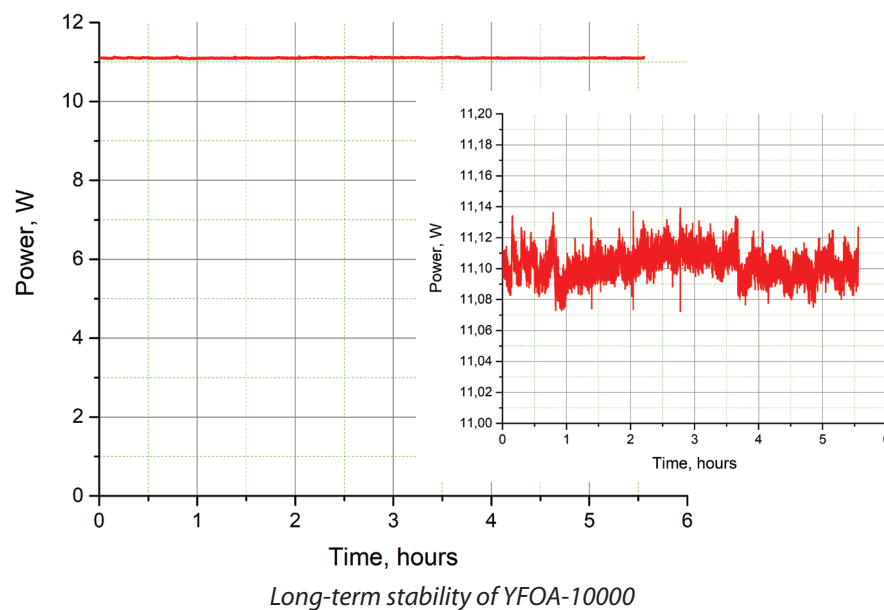


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	YFOA-50*	YFOA-200*	YFOA-2000*	YFOA-5000	YFOA-10000
Pulse duration (FWHM)	<200 fs (up to 300 ps chirped* on request)				
Available wavelengths	1030 nm (SHG, 1040 nm, 1053 nm upon request)				
Average output power	>50 mW	>200 mW	>2 W	>5 W	>10** W
Pulse energy	>0.7 nJ	>3 nJ	>30 nJ	>75 nJ	>150 nJ
Repetition rate (fixed)	70*±10 MHz (internal/external AOMs upon request)				
Spatial mode and M²	TEM ₀₀ ; M ² <1.2				
Polarization	linear, vertical (horizontal on request)				
Long-term power stability	<0.5% rms (8 hours at equal ambient conditions)				
Output type	collimated free-space* (multiple outputs upon request)				
Cooling type	air-cooled (water-cooled on request)				
Sync and indication	SMA electric and FC/APC optical sync outputs; TFT color display				
Control interface	USB with PC software; optional: CAN, RS485				
Operating conditions	15-35 °C; humidity level non-condensing				
Optical unit, mm	110x200x70	110x200x70	350x220x120	350x220x120	341x172x115
Power supply unit, mm	470x330x90	470x330x90	470x385x155	470x385x155	470x385x155

* - the YFOA-S series 45-MHz seed oscillator versions for seeding solid-state or fiber amplifiers is available upon request with up to 300 ps chirped pulse output via fiber-coupled or collimated free-space output; custom stretcher design and AOM selection are also available;
 ** - up to 20 W upon request.



Possible application of the YFOA fiber lasers:

- Seed oscillator
- THz radiation generation
- MPE microscopy
- Metrology
- «Pump-probe» spectroscopy
- Semiconductor device testing
- Supercontinuum generation
- Optical coherent tomography