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NEOLIT

Ultrashort Pulse Fiber Seeder for Laser Amplifier

1020 – 1070 nm, 1 – 10 ps, 10 – 40 MHz, 1 – 50 mW



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SMOOTH ULTRASHORT PULSE GENERATION

FEATURES

- No consumable components
- All in fiber design
- Robust to external disturbances
- High quality pulses and spectrum
- Highly customizable output parameters
- Ultra wide spectrum compressible down to 30 fs

APPLICATIONS

- Seeding femtosecond and picosecond fiber and DPSS lasers

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Neolit seeders are novel sources of ultrashort laser pulses, free of consumable components (no SESAM, no bulk optics) which makes them exceptionally long-lasting.

The all-fiber design ensures high environmental stability against vibrations and thermal fluctuations. The integration is very simple due to compact single box, passively-cooled construction.

High quality temporal and spectral shape of the pulses guarantees excellent results at the output of the laser system.

SPECIFICATIONS

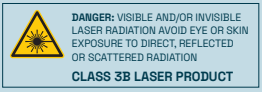
Model	Neolit	Neolit AMP	Neolit BB
Central wavelength	1020 – 1070 nm		1040 nm
Pulse duration (directly from the fiber) [1]	1 – 5 ps	5 – 10 ps	7 ps
Spectral bandwidth (FWHM)	4 – 12 nm	8 – 12 nm	20 – 70 nm
Average power	1 – 5 mW	20 – 50 mW	20 – 50 mW
Pulse repetition rate (factory fixed)	10 – 40 MHz		
Polarization	linear, > 100 : 1 extinction		
Optical output	FC/APC connector		
RF signal interface	SMA		
Available control interfaces	USB, CAN		
Powering requirements	12 ± 2 V, max. 3 A		
Operating temperature	15 – 40 °C		
Mechanical dimensions (L × W × H)	194 × 135 × 40 mm		

[1] Pulses from the seeder are externally compressible to within 10% of the transform limit.

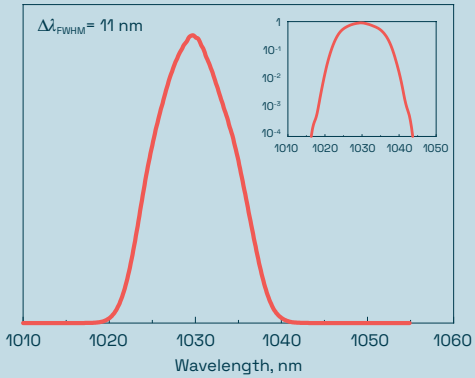
[2] Customized versions including additional amplifier, fiber pulse picker, pulse stretcher are possible.

[3] Neolit seeders are class 3B laser products. Avoid eye or skin exposure to direct or scattered laser light.

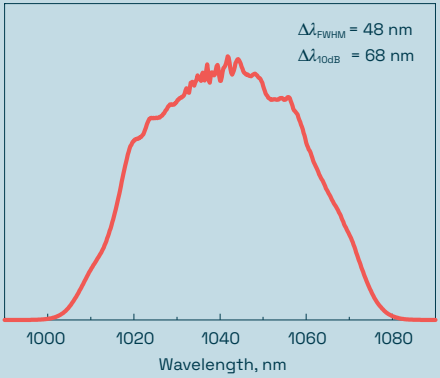
[4] World patented technology: US10038297, JP6276471, EP3178137, CN106575849.



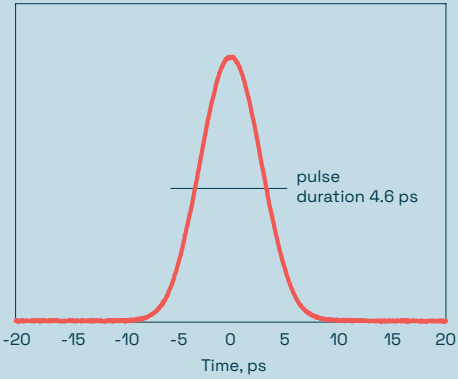
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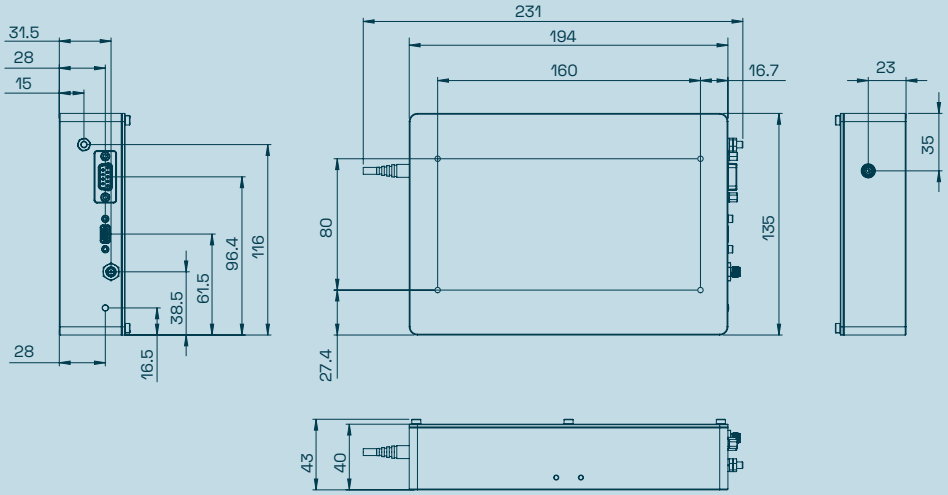
Spectrum of **Neolit** laser
(20 MHz, 2 mW), spectrum in long scale



Spectrum of **Neolit BB** model
(30 MHz, 30 mW)



Autocorrelation function of the pulses
of **Neolit** laser



Drawing of **NEOLIT** laser head (in mm)

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