

MENHIR-1550 SERIES

Menhir Photonics femtosecond laser sources are based on robust and well-engineered designs, offering an excellent reliability with the low-noise performance from soliton mode-locking. Robust, 24/7 operation, user-friendly and self-starting, the MENHIR-1550 series has been made to facilitate OEM integration and enable customers applications.

Key Features

- Ultra low-noise
- Transform-limited pulses
- Hermetically sealed laser
- Compact industrial design
- User-friendly
- 24/7 operation
- All-in-one system

Main Applications

- Optical communication
- Precision microwave
- THz generation
- Amplifier seeder
- Timing distribution
- Frequency comb
- A/D Converter

Key Specifications

- Wavelength: 1560 nm
- Repetition rate: up to 2.5 GHz
- Clean soliton pulses: < 200 fs

Options

- Repetition rate stabilization
- Customized repetition rate
- OEM version



Front View



Rear View

Specifications

Parameters	MENHIR-1550 (Oscillator, no amplifier)	MENHIR-1550+ (With amplifier)
Average power	> 50 mW	up to 2 W
Peak power	> 0.1 kW	up to 4 kW
Pulse energy	> 0.05 nJ	up to 1 nJ
Repetition rate	Standard - 250, 500 MHz, 1, 1.25, 2 or 2.5 GHz Custom design - 200 MHz to 2.5 GHz*	
Center wavelength	1560 nm +/- 10 nm	
Spectral bandwidth	> 12.5 nm (at 3 dB)	
Pulse width	< 200 fs, Transform-limited	
Optical output port	Fiber output (PM FC/APC), Free-space	
Beam quality	TEM ₀₀ , M ² < 1.05	
Polarization	Linear (PER > 23 dB, > 200:1)	
Amplitude noise	< 0.1% RMS (24 h)	
Timing jitter	< 30 fs [1 kHz-10 MHz]	

*Please inquire for your specific repetition rate

General

Power supply	5 VDC / 2 A **	24 VDC / 2 A **
Power consumption	< 10 W	< 50 W
Cooling	Passively air-cooled	
Warm-up time	< 10 s (Cold start)	
Laser head size/Weight	240 x 160 x 89 mm ³ / 5 kg	
Control unit	No control unit required, All-in-one system	
Operating temperature	+5°C to +45°C	
Storage temperature	-10°C to +60°C	
Relative humidity	< 80% (Non-condensing)	
Analog interface	e.g. Power Mod., Alarm, Interlock, Trigger, Status	
Digital interface	USB, RS232, ETHERNET, CAN	

**Power supply for 100 or 240 VAC can be provided as option

Custom modifications are available - Please inquire

Specifications are subject to change without notice - January 2019

