

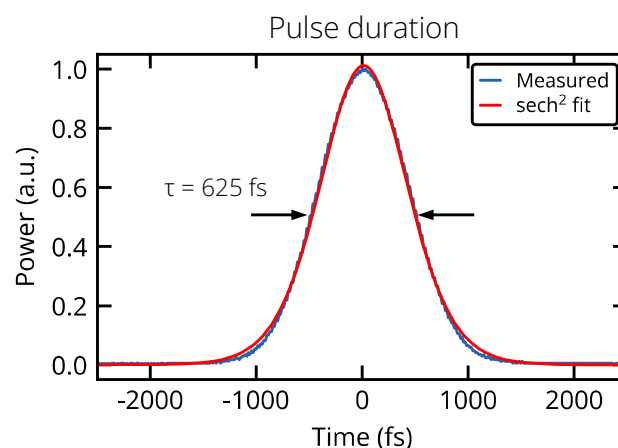
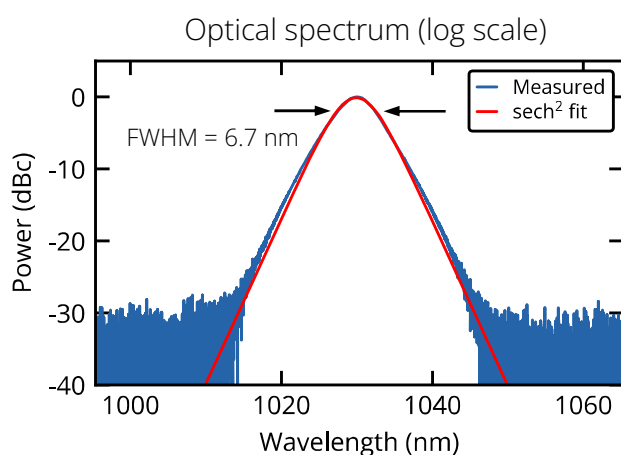
MENHIR-1030 SERIES – 1 GHz

The MENHIR-1030 SERIES is the first industrial-grade laser of its kind that operates at 1030 nm and achieves the lowest phase noise and timing jitter on the market. The laser is passively air-cooled and fully self-contained, featuring extreme robustness and reliability. In this document, we report the full characterization of the product operating at a repetition rate of 1 GHz.



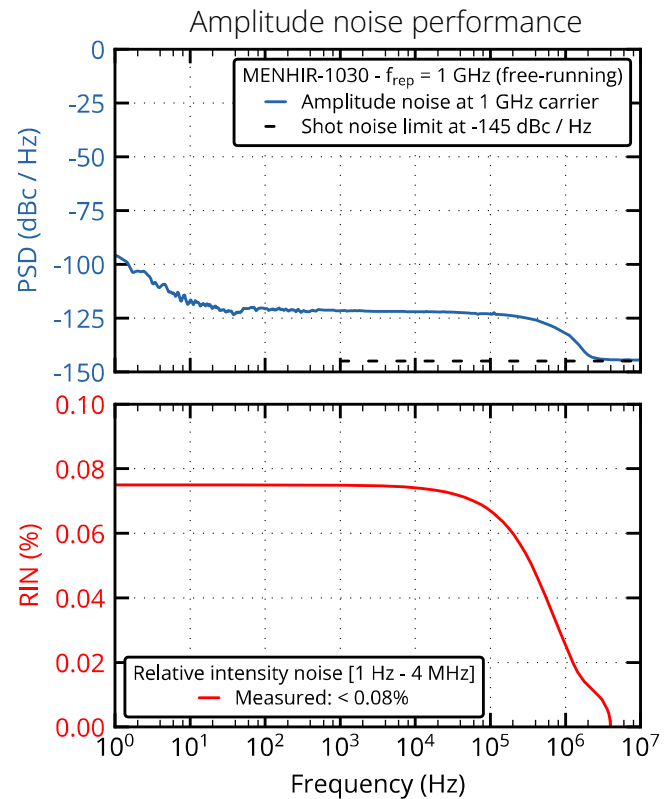
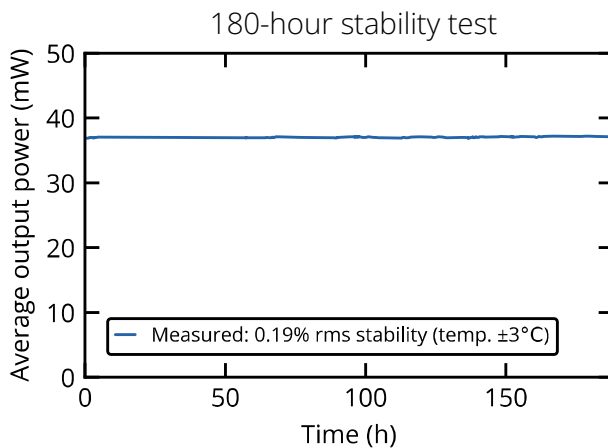
Key product specifications

- f_{rep} : 1.000 GHz
- Power: > 30 mW
- λ_0 : 1025 – 1035 nm
- Clean soliton pulse
- Bandwidth: > 5 nm
- Pulse width: < 300 fs
(Transform limited)
- Sech²-shaped spectrum
- Beam characteristics:
TEM₀₀, $M^2 < 1.05$
- Dimensions: (L x W x H)
250 x 260 x 60 mm³



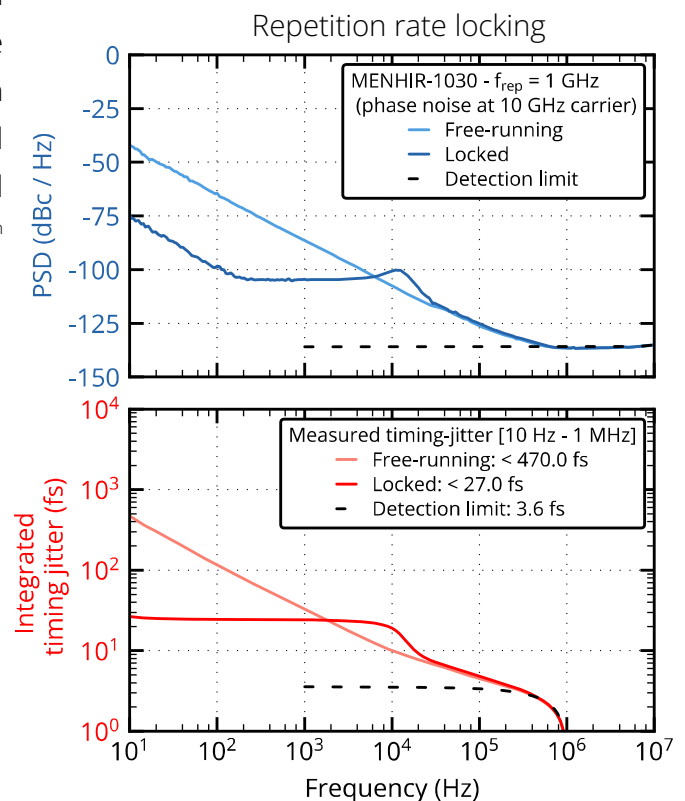
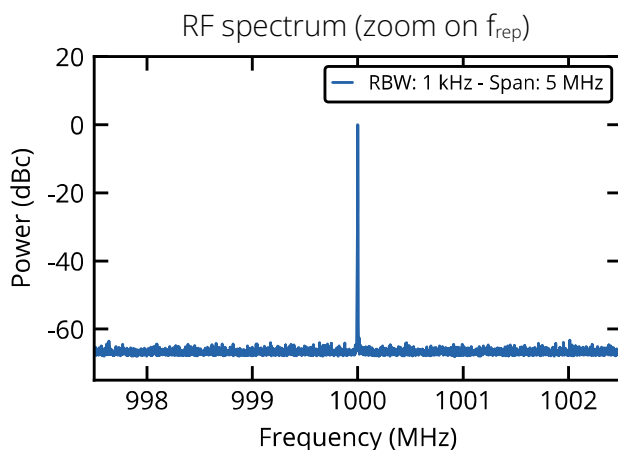
Power stability

The MENHIR-1030 SERIES demonstrates high long-term power stability and is shot noise-limited above 4 MHz.



Repetition rate stability

The MENHIR-1030 SERIES features extreme repetition rate stability and ultra-low pulse-to-pulse jitter. The laser's repetition rate can be synchronized to an external RF reference. The free-running and locked phase noise of a MENHIR-1030 at 1 GHz is reported here. The phase noise is measured on the 10th harmonic, *i.e.*, at 10 GHz.



The data represents an example of a MENHIR-1030 at 1 GHz. Please inquire for custom modifications.