

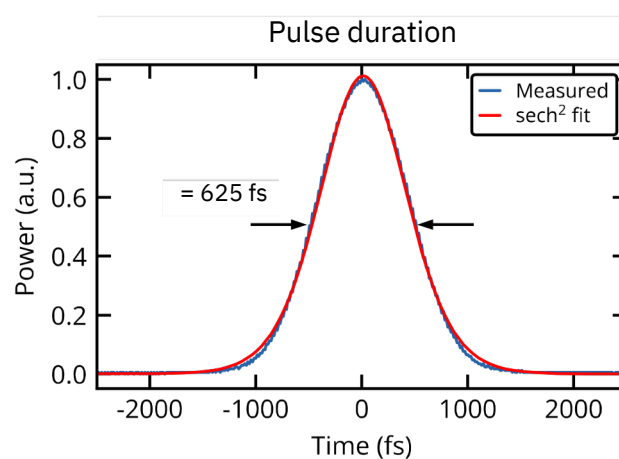
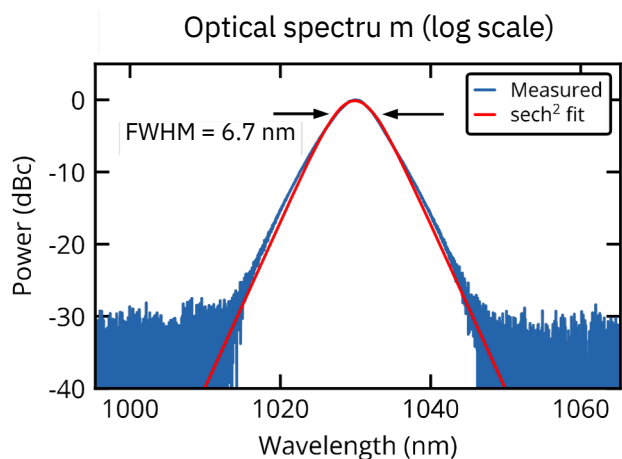
## MENHIR-1030 SERIES – 1 GHz

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.



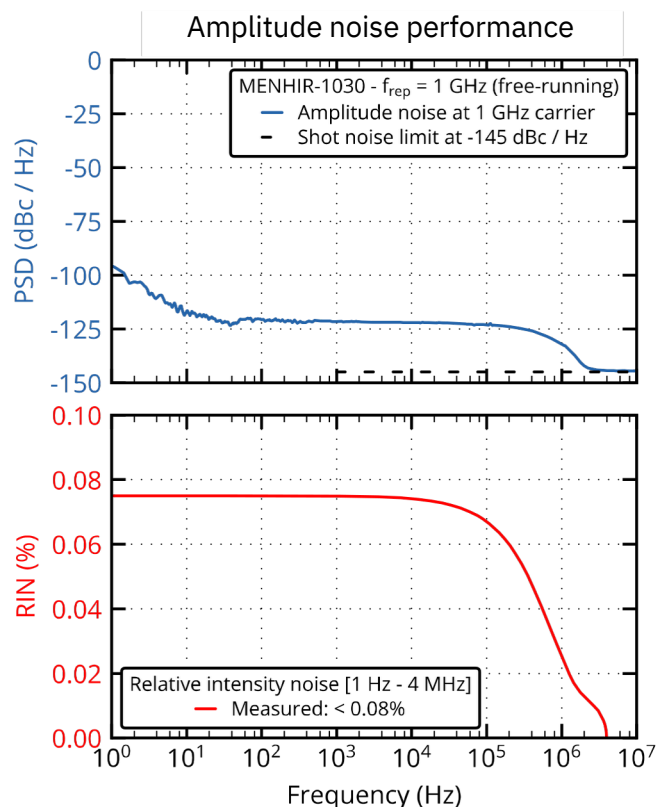
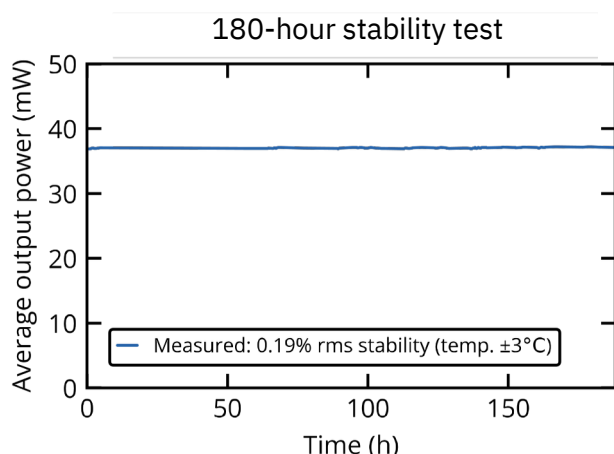
### Key product specifications

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> freq: 1.000 Hz      | <input type="checkbox"/> Bandwidth: > 5 nm     | <input type="checkbox"/> Beam characteristics:   |
| <input type="checkbox"/> Power: > 30 mW      | <input type="checkbox"/> Pulse width: < 300 fs | TEM <sub>00</sub> M2 < 1.05                      |
| <input type="checkbox"/> λ0: 1025 – 1035 nm  | (Transform limited)                            | <input type="checkbox"/> Dimensions: (L x W x H) |
| <input type="checkbox"/> Clean soliton pulse | <input type="checkbox"/> Sech2-shaped spectrum | 250 x 260 x 60 mm3                               |



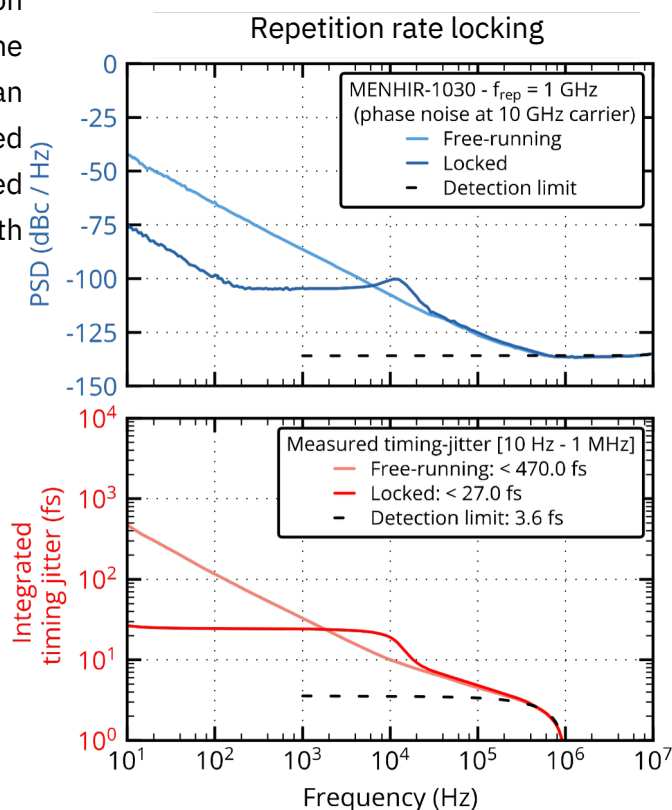
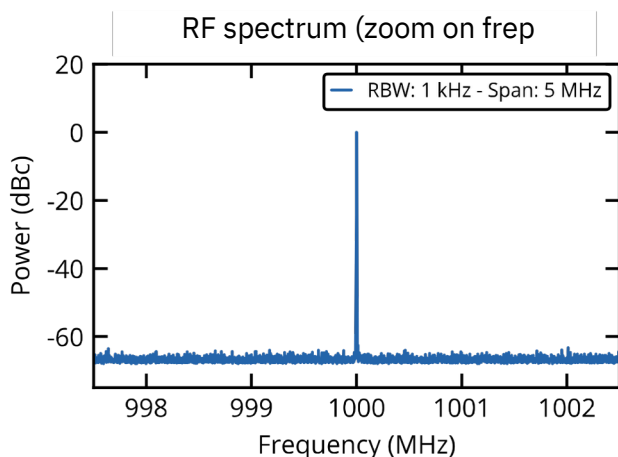
# Power stability

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



# Repetition rate stability

The MENHIR1030 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.