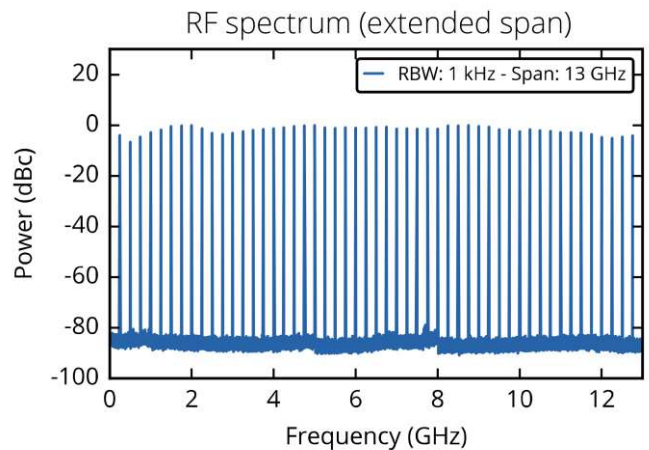
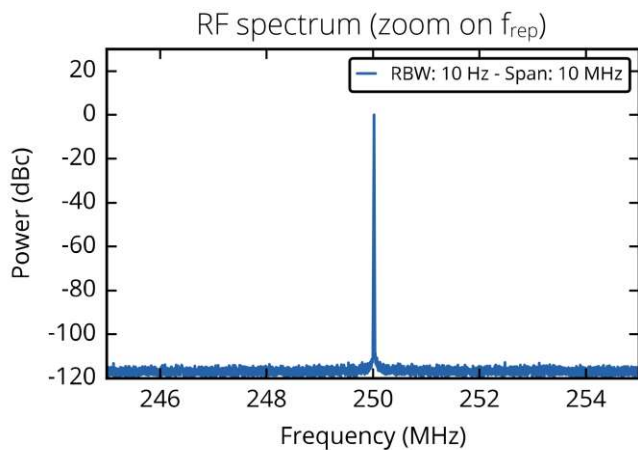
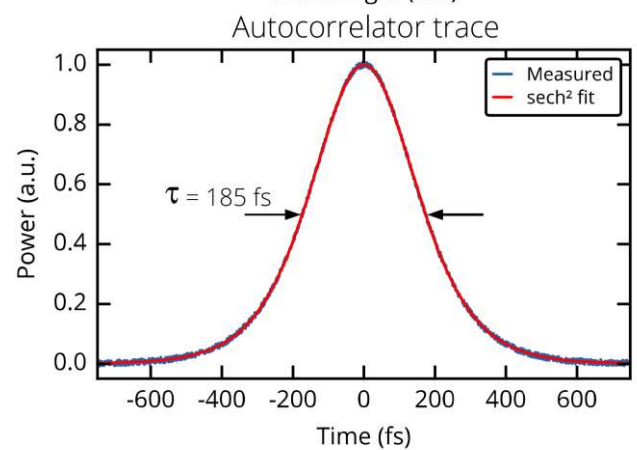
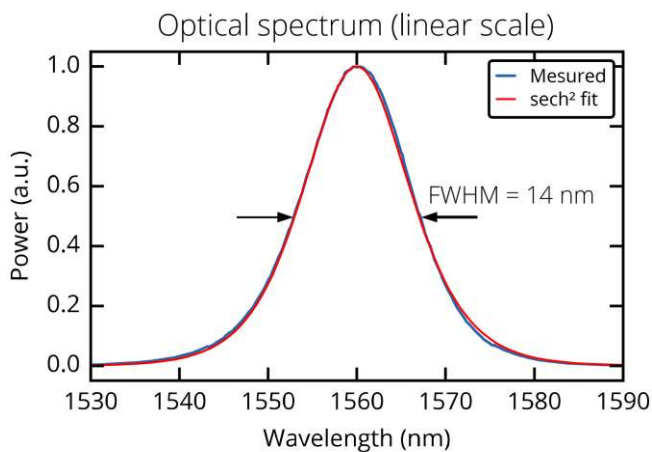
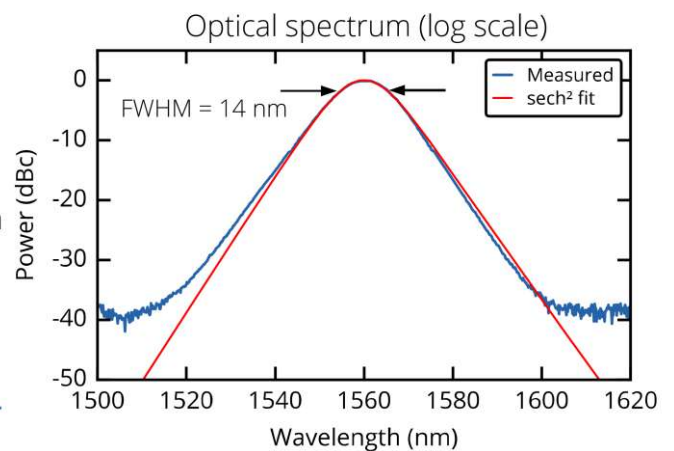


MENHIR-1550 SERIES – 250 MHz

The MENHIR-1550 SERIES is the first industrial-grade laser of its kind that operates at telecom wavelengths and achieves the lowest phase noise and timing jitter on the market. In this document, we report the full characterization of the product operating at a repetition rate of 250 MHz.

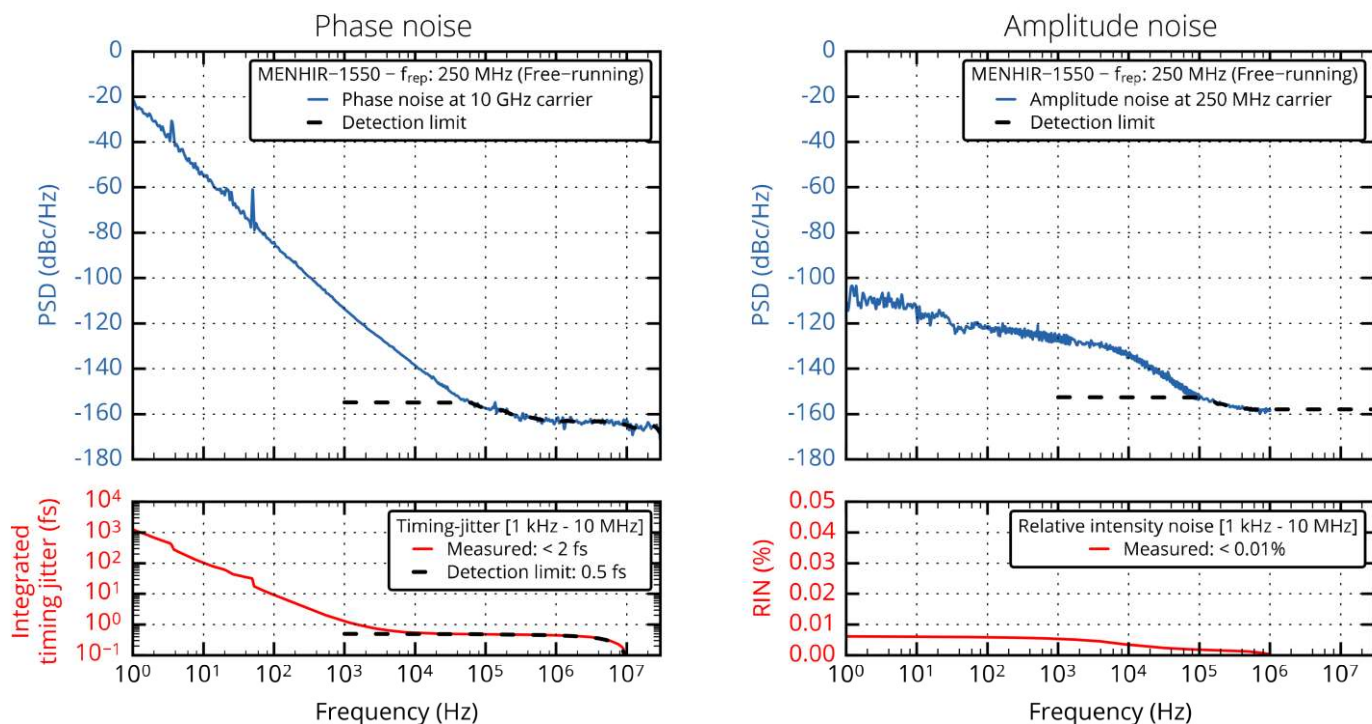
Key product specifications

- f_{rep} : 250 MHz
- Power: > 100 mW
- λ_0 : 1545 – 1565 nm
- Clean soliton pulse
- Bandwidth: > 10 nm
- Pulse width: < 250 fs (Transform limited)
- Sech²-shaped spectrum
- Beam characteristics: TEM₀₀, M² < 1.05



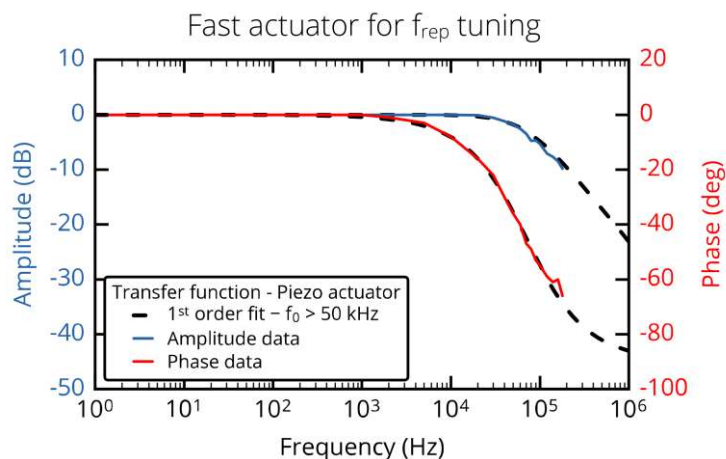
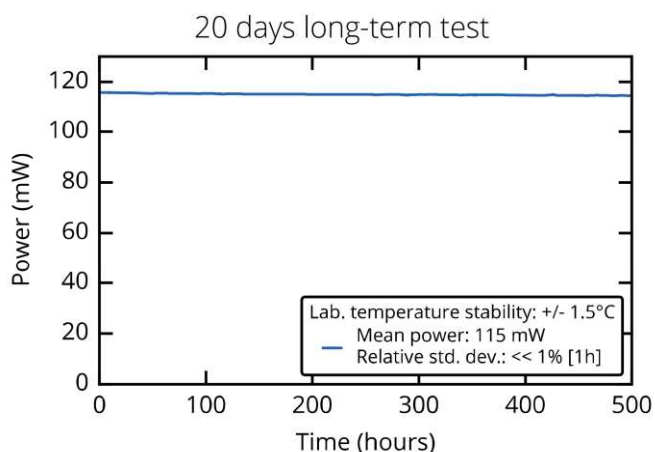
Noise characterization (Free-running)

The free-running phase and amplitude noise of a MENHIR-1550 at 250 MHz is reported here. The phase noise was measured on the 40th harmonic, *i.e.*, at 10 GHz.



Offset frequency (f_c)	Phase noise (dBc/Hz)		Timing-jitter (fs) [$f_c - 10$ MHz]	Amplitude noise (RMS) [$f_c - 10$ MHz]
	250 MHz carrier	10 GHz carrier		
10 kHz	< -155	< -135	< 1	< 0.01%
1 kHz	< -140	< -110	< 2	< 0.01%
100 Hz	< -110	< -80	< 10	< 0.01%
1 Hz	< -50	< -20	< 1500	< 0.02%

Possibilities and options



The data represents an example of a MENHIR-1550 at 250 MHz. Please inquire for custom modifications.