

LightWire FF1000

Compact Femtosecond Fiber Laser



LightWire FF1000 is a new model optimized for non-linear microscopy (two-photon, SHG) applications. High average power, short pulse duration and excellent beam quality is a great combination for achieving sharp and bright images of your samples. Laser emission wavelength of 1030 nm

is optimal both for deep excitation and collecting light from the tissue. High peak power (625 kW) of the femtosecond pulses is also useful in many other nonlinear optical applications like terahertz generation or two-photon polymerization.

FEATURES

- ▶ Pulse duration down to 80 fs
- ▶ 1.5 W average power
- ▶ Compact, one-box design
- ▶ Passive cooling (no water or forced air)

APPLICATIONS

- ▶ Non-linear microscopy (two-photon, SHG)
- ▶ Terahertz generation
- ▶ Multi-photon polymerization

OPTIONS

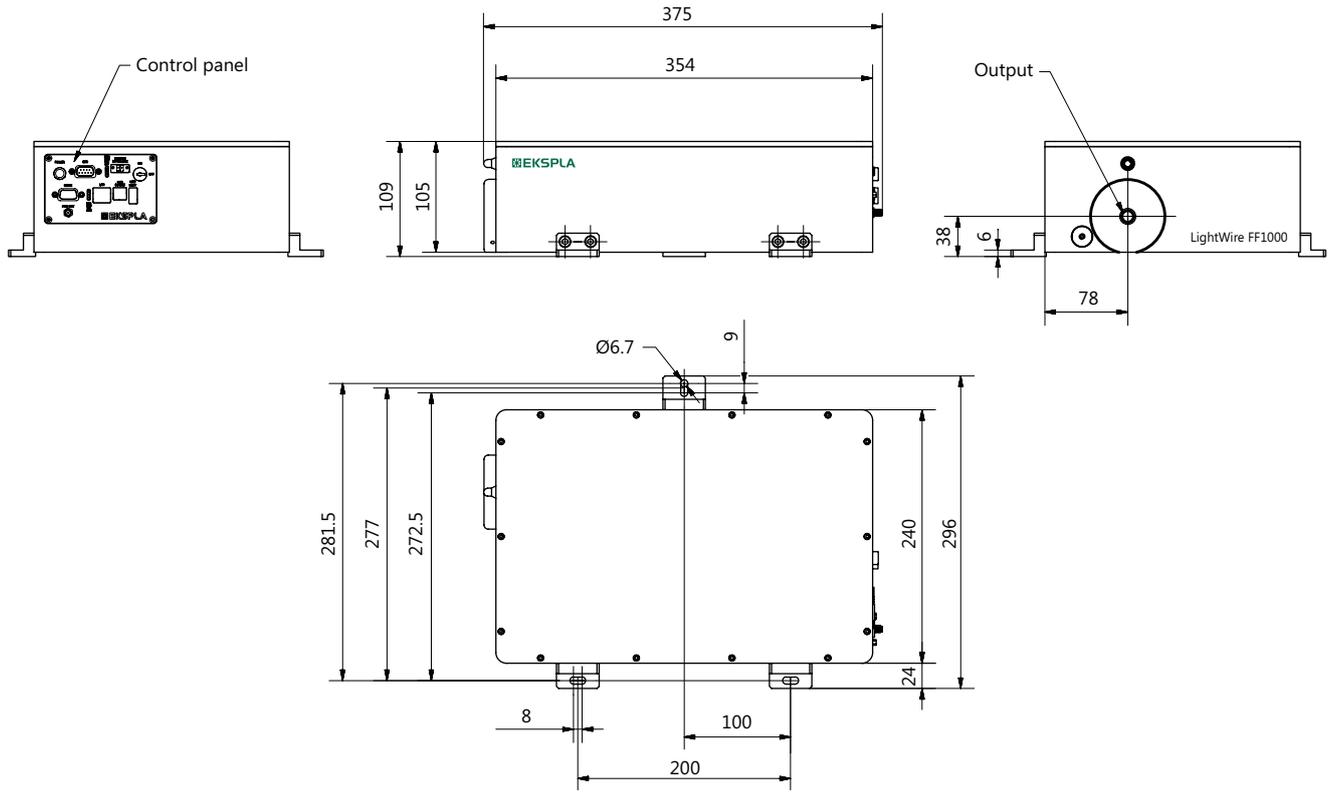
- ▶ Second harmonic generation module (515 nm) [code: FF1000-SH]

SPECIFICATIONS ¹⁾

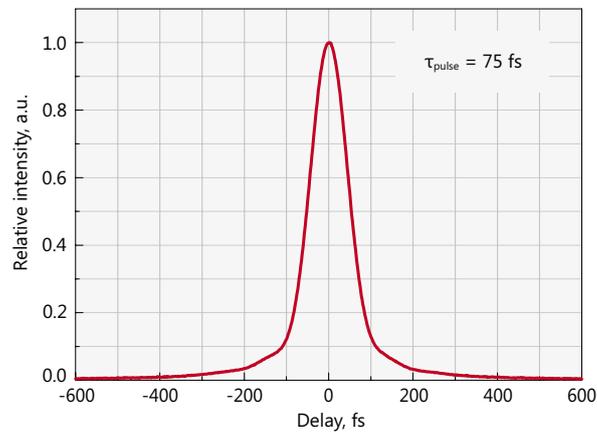
Model	LightWire FF1000
Central wavelength	1030 nm
Pulse duration	< 80 fs
Output power	> 1.5 W
Pulse repetition rate	30 MHz
Polarization	linear, >100:1 extinction
Optical output	collimated beam, 2 mm diameter
Beam quality	$M^2 < 1.3$
Dimensions (L×W×H)	354×240×105 mm
Weight	< 10 kg
Power supply (AC/DC adapter included)	100–240 V, 50–60 Hz AC
Operating conditions	10–30 °C, humidity – not condensing

¹⁾ Due to continuous improvement all specifications are subject to change without notice.





Technical drawing of FF1000 laser



Typical autocorrelation curve of FF1000 laser