

LightWire FP200



LightWire FP200 is the highest power version in FP family. Integrated pulse picker and control of nonlinearity allows to achieve transform limited pulses with the energy up to 100 nJ directly from the fiber making this model perfect choice for seeding linear Nd doped solid state amplifiers.

Due to high peak power (12 kW) of the emitted picosecond pulses, FP200 alone or with an optional harmonic module can be also used as a source for ultrafast metrology applications like gated Raman spectroscopy and fluorescence life-time measurements.

SPECIFICATIONS ¹⁾

Model	LightWire FP200
Central wavelength	1064 nm
Pulse duration	< 9 ps
Spectral bandwidth	<0.4 nm
Pulse repetition rate	30 kHz–30 MHz
Output power	> 200 mW at 10 MHz > 50 mW at 1 MHz > 10 mW at 100 kHz
Pulse energy	> 100 nJ at repetition rate of < 200 kHz
Polarization	linear, >100 : 1 extinction
Optical output	0.3 m fiber with collimator
Beam quality	$M^2 < 1.1$
Laser Head Dimensions (L×W×H)	228×104×85 mm
Control Unit Dimensions (L×W×H)	271×186×152 mm
Weight (laser head)	< 3 kg
Power supply	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.

Compact Picosecond Fiber Lasers

FEATURES

- ▶ Pulse energy up to 100 nJ
- ▶ Pulse duration <8 ps
- ▶ Spectral bandwidth <0.4 nm
- ▶ Integrated fiber pulse picker for flexible repetition rate control (30 kHz – 30 MHz, burst mode available)

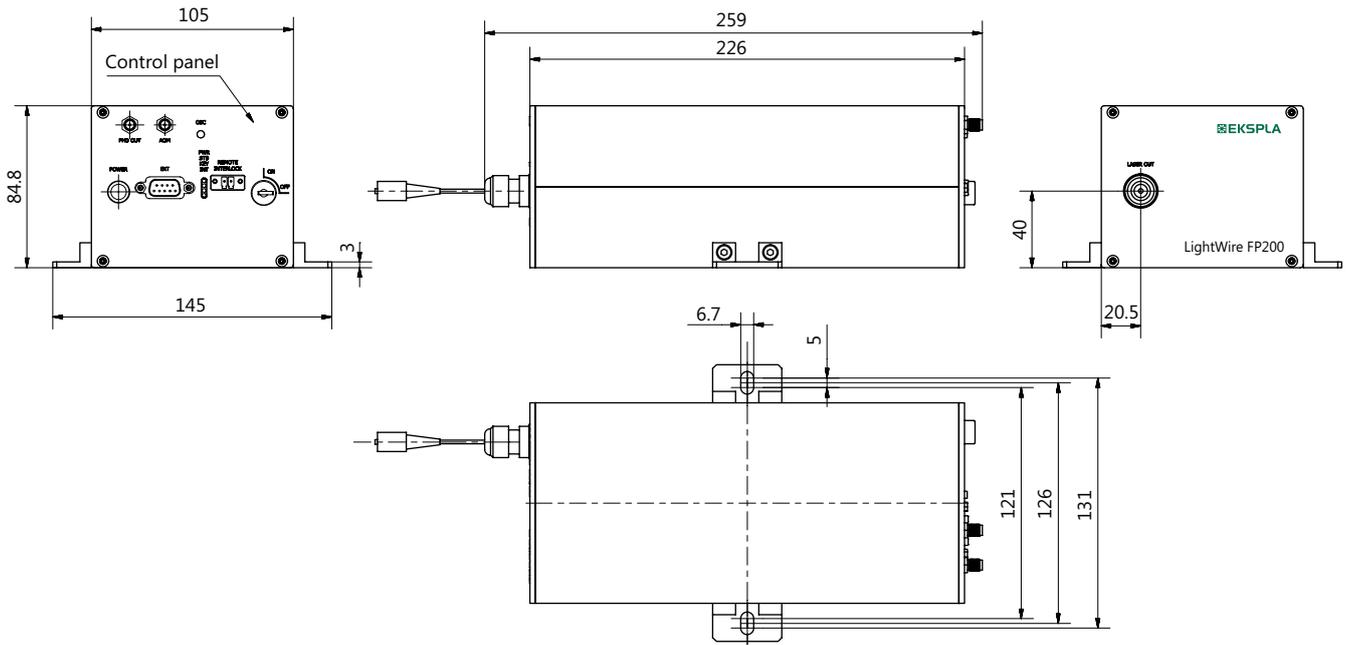
APPLICATIONS

- ▶ Seeding solid state amplifiers
- ▶ Ultrafast spectroscopy and microscopy

OPTIONS

- ▶ Second and third harmonic generation modules (532 nm / 355 nm). Conversion efficiencies: 20% for SH and 5% for TH [code: FP200-SH/TH]

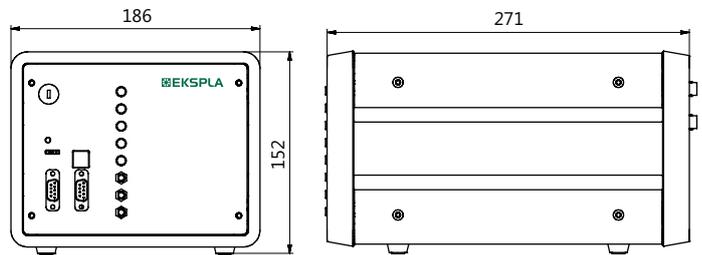




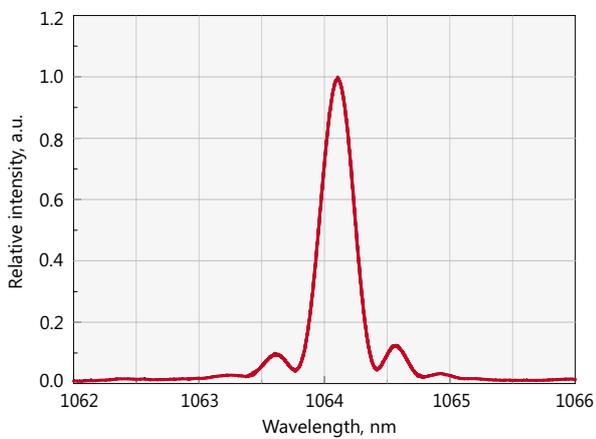
Technical drawing of the laser head of FP200 laser



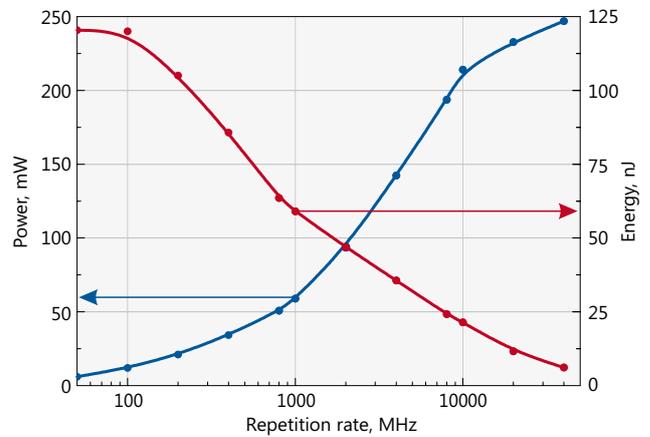
FP200 laser head with control unit



Technical drawing of the AOM driver of FP200 laser



Typical spectrum from FP200 laser at pulse energy of 50 nJ.
Central wavelength can be fine-tuned ± 0.3 nm



Typical dependence of average power (blue curve) and pulse energy (red curve) on the repetition rate for FP200 laser