

Compact Picosecond Fiber Laser

LIGHTWIRE FP SERIES



FEATURES

- 2 or 6 ps pulse duration (other durations are available on request)
- 1064 nm or 1053 nm output wavelength; tunable ± 0.3 nm
- 30 MHz repetition rate
- Up to 80 mW output power
- Spectral bandwidth – transform limited
- Available in two versions: OEM module and stand-alone laser



APPLICATIONS

- Seeding of Nd based regenerative amplifiers (YAG, YLF, etc.)
- Testing fast detectors

EKSPLA is introducing new line of picosecond fiber lasers. Monolithic polarization maintaining oscillator design translates into turn-key operation with no alignment or adjustments ever required. Wavelength tunability ensures that seed pulses are always perfectly spectrally overlapped with the amplification spectrum of your amplifier. Two versions are available: FP10 and FP100.

FP10 is the most cost effective seeding solution for Nd based solid state regenerative amplifiers (YAG, YLF, etc.). The absence of amplification stage ensures very low ASE power for generation of high contrast pulses.

FP100 seed source is optimized for high repetition rate Nd based regenerative amplifiers. Higher energy seed pulses allows for more efficient regenerative amplification scheme by avoiding bi-stabilities.

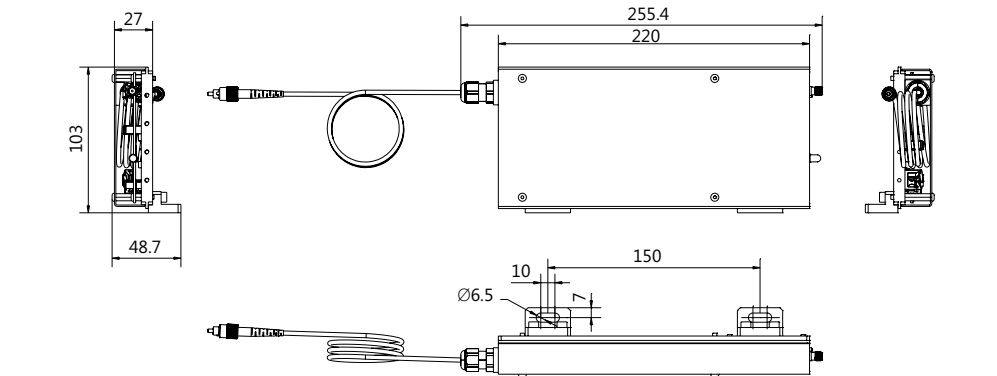
SPECIFICATIONS ¹

Model	LightWire FP10	LightWire FP100
Central wavelength	1064 nm or 1053 nm; tunable ± 0.3 nm	
Pulse duration	2 ps or 6 ps (fixed)	
Bandwidth: transform limited	<0.9 nm at 2 ps; <0.3 nm at 6 ps	
Pulse repetition rate	30 MHz	
Pulse energy	~0.1 nJ	~1 nJ
Output power	>2 mW at 2ps, >4 mW at 6 ps	>20 mW at 2ps, >80 mW at 6 ps
ASE level (in spectral window of Nd amplification)	<-100 dB peak power, <-60 dB average power	<-85 dB peak power, <-45 dB average power
Polarization	linear, better than 100:1 extinction	
Optical output	FC/APC connector or collimated beam	
Beam quality	$M^2 < 1.1$	
Pulse train monitoring	electrical SMA connector	
Dimensions (stand-alone unit) (D×W×H)	256×104×50 mm	
Weight	<2 kg	
Power supply	100-240 V, 50-60 Hz AC or 12 V DC	
Operating conditions	10-40 °C, humidity – not condensing	

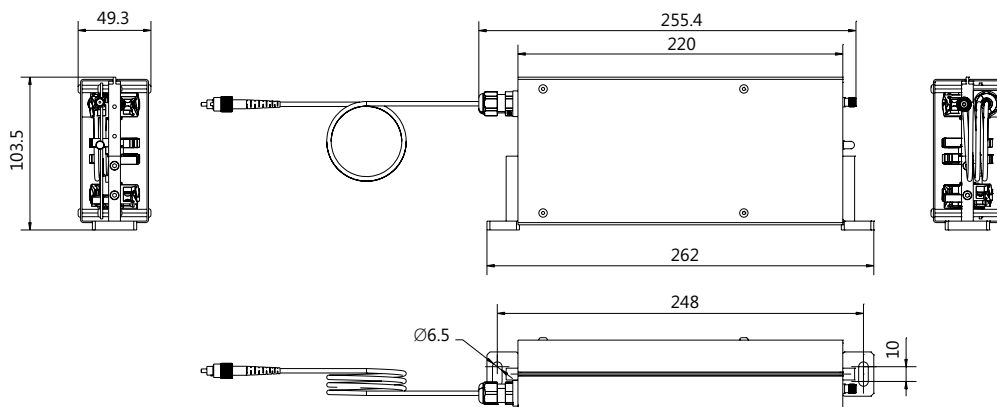
¹ Other pulse durations, wavelengths and repetition rates are available on request. For the exact combination of repetition rate, pulse duration and power please contact EKSPLA

OPTIONS

Integrated pulse picker (0-10 MHz)
with TTL synchronization signal
output with low jitter (<20 ps);



Outline drawings of LightWire FP10 OEM version



Outline drawings of LightWire FP100 OEM version