

LightWire

SERIES

The LightWire fiber lasers feature turn-key operation, monolithic design and require no maintenance making it a preferred alternative to the solid state counterparts in the industrial settings and multidisciplinary research laboratories. Different versions, featuring femtosecond and picosecond pulse durations are available.

LightWire FPS and FFS series fiber lasers are dedicated for seeding solid state (for e.g. Nd:YAG, Yb:YAG, Yb:KGW) amplifiers. Compact, cost efficient FPS series models deliver sub-10 ps pulses at 1064 nm wavelength with the average output power up to 200 mW and pulse energy up to 50 nJ. They feature narrow close to bandwidth limited spectrum and low pulse amplitude noise. Wavelength tunability ensures that seed pulses are always spectrally overlapped with the amplification spectrum of laser amplifier. FFS series models are specially designed for femtosecond CPA systems. Ekspla offers FFS lasers either with femtosecond pulse duration directly from fiber, or with chirped pulses.

Broad up to 15 nm spectral bandwidth enables amplification of pulses with <300 fs compressed duration. Special feature of FFS lasers is customizable chirp profile to match compressor design of the CPA system. LightWire FPS and FFS series lasers are dedicated for researchers and OEM integrators, who require small, convenient and maintenance free sources with bandwidth limited picosecond pulses, broadband pulses compressible down to <200 fs or sub-140 fs femtosecond pulses. Widely tunable pulse repetition rate 25 kHz – 50 MHz makes it an excellent choice for non-linear microscopy, time-resolved spectroscopy, terahertz spectroscopy, ultrafast metrology applications.

SPECIFICATIONS FOR STANDARD LASER CONFIGURATIONS

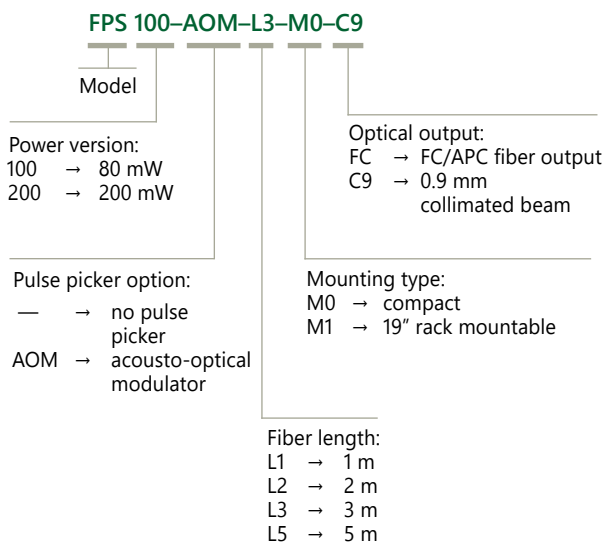
Not all output specifications may be available simultaneously. Please refer to the catalog page for exact specifications and available options.

Model	Central wavelength	Pulse duration	Output power	Pulse energy	Repetition rate	Page
FPS100	1064 nm tunable ± 0.2 nm	7 \pm 1 ps	80 mW	1.6 nJ	25 kHz – 50 MHz	3
FPS200	1064 nm tunable ± 0.2 nm	10 \pm 1 ps	200 mW	50 nJ	25 kHz – 50 MHz	3
FFS100CHI	1030 nm	Up to 30 ps (linearly chirped or custom chirp profile), compressible down to < 200 fs	50 mW	1 nJ	25 kHz – 50 MHz	6
FFS200CHI	1030 nm	> 50 ps (custom chirp profile), compressible down to < 250 fs	200 mW	250 nJ	100 kHz – 50 MHz	6
FFS200	1064 nm	<140 fs	200 mW	5 nJ	25 kHz – 50 MHz	6

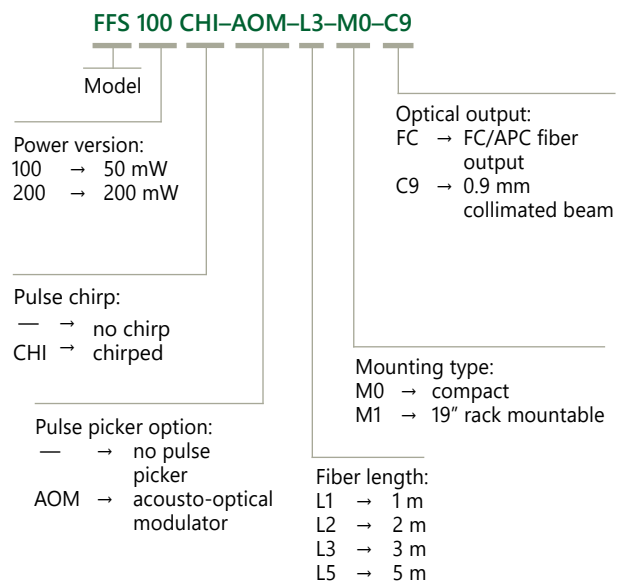
TABLE REPRESENTING PULSE CONTROL TECHNOLOGY IMPLEMENTED IN VARIOUS FIBER LASER MODELS AND MODIFICATIONS

Model	Oscillator + amplifier	Oscillator + amplifier + frequency divider
FPS100	■	
FPS100-AOM		■
FPS200		■
FFS100CHI	■	
FFS100CHI-AOM		■
FFS200CHI		■
FFS200	■	
FFS200-AOM		■

ORDERING INFORMATION FOR FPS AND FFS SERIES



Note:
For FPS200 model
maximal fiber length is 3 m.



Note:
For FFS200CHI model
maximal fiber length is 3 m.
For FFS200 model
maximal fiber length is 2 m.