

LightWire Series

Ultrafast Fiber Lasers

FPS200

1064 nm, 200 mW, 50 nJ
10 ps, 25 kHz – 50 MHz

FFS100CHI

1030 nm, 50 mW, 8 nm, 7 ps (chirped pulse)
50 MHz, compressible down to <300 fs

FFS200

1064 nm, 200 mW, 5 nJ, <130 fs, 40 MHz



2023

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 (Nd:YAG, Yb:YAG) 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 your 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 12 nm spectral bandwidth enables amplification of pulses with <300 fs compressed duration. Special feature of FFS200CHI laser is customizable chirp profile to match compressor design of the CPA system. LightWire FP and FF series lasers are dedicated for researchers and OEM integrators, who require small, convenient and maintenance free sources with bandwidth limited picosecond pulses or sub-150 fs femtosecond pulses. Widely tunable pulse repetition rate 20 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
FPS10	1064 nm tunable ± 0.2 nm	2.3 \pm 0.3 ps	1.5 mW	30 pJ	50 MHz	3
FPS100	1064 nm tunable ± 0.2 nm	7 \pm 1 ps	80 mW	1.6 nJ	50 MHz	3
FPS200	1064 nm tunable ± 0.2 nm	9 \pm 1 ps	200 mW	50 nJ	25 kHz – 50 MHz	3
FFS100CHI	1030 nm	7 \pm 2 ps (linearly chirped)	50 mW	1 nJ	50 MHz	6
FFS200CHI	1030 nm	>50 ps (custom chirp profile)	200 mW	250 nJ	200 kHz – 50 MHz	6
FFS200	1064 nm	<130 fs	200 mW	5 nJ	40 MHz	6

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

Model	Oscillator only	Oscillator + frequency divider	Oscillator + frequency divider + amplifier
FPS10	■		
FPS10-AOM		■	
FPS100	■		
FPS100-AOM		■	
FPS200			■
FFS100CHI	■		
FFS100CHI-AOM		■	
FFS200CHI			■
FFS200	■		
FFS200-AOM	■	■	

ORDERING INFORMATION FOR FPS AND FFS SERIES

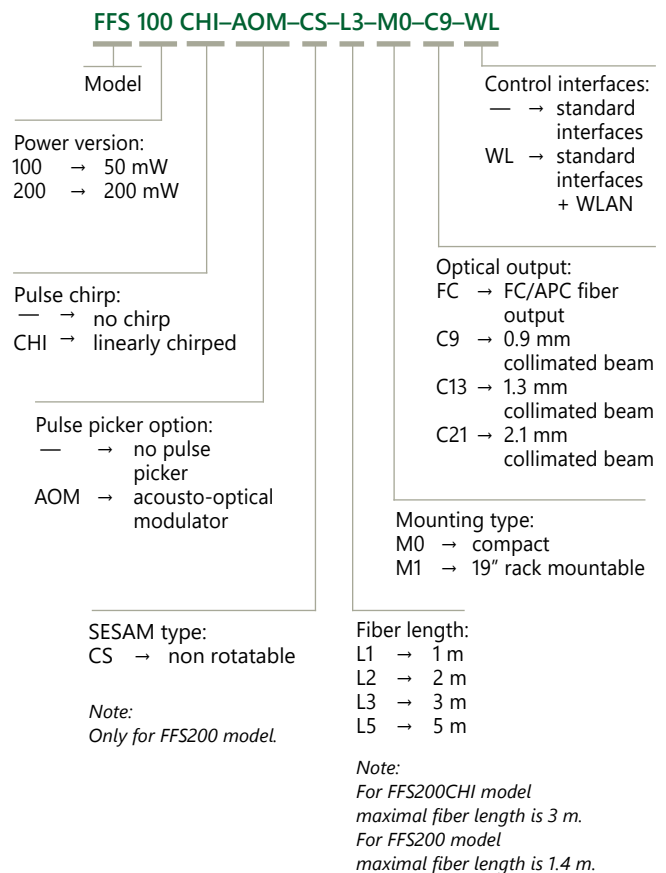
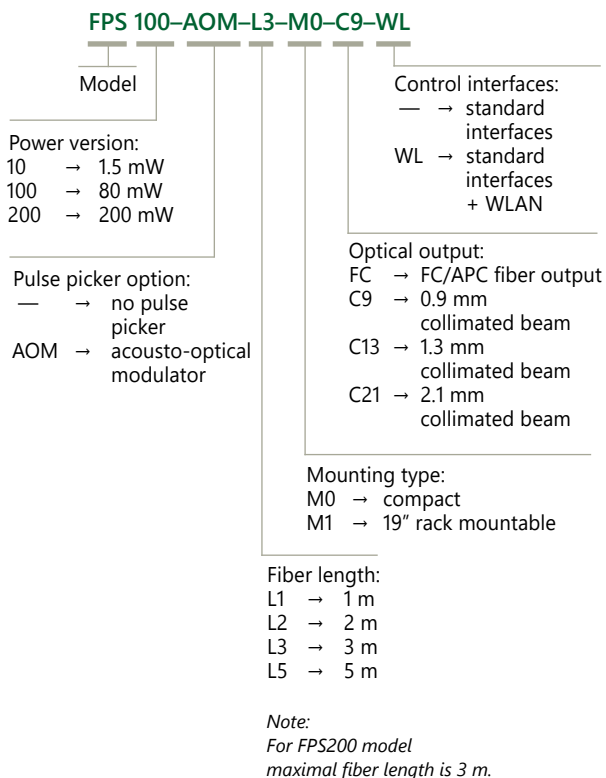


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