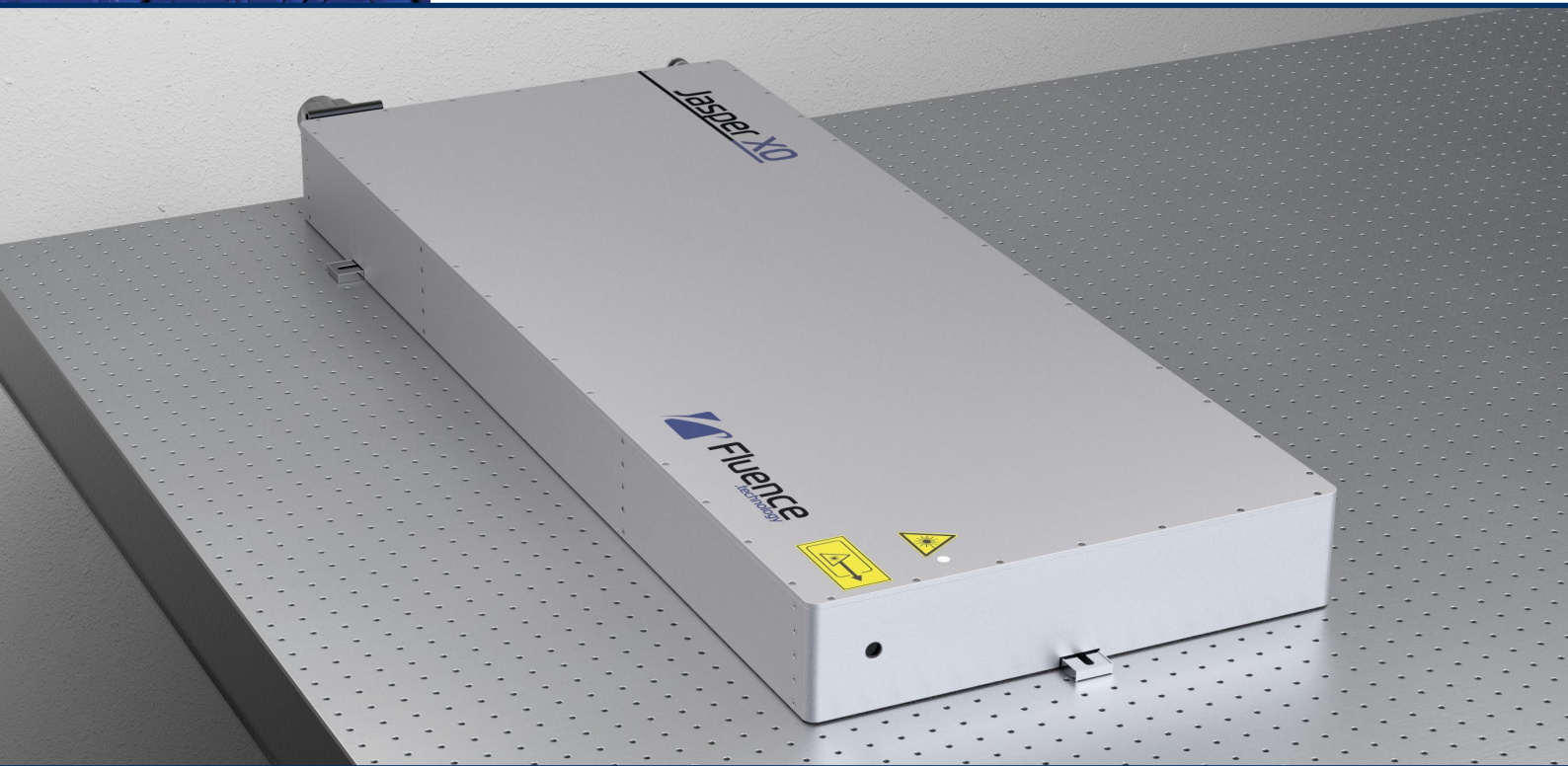


Ultrafast lasers that simply work

FOR INDUSTRY, SCIENCE AND MEDICINE

# Jasper XO

High Power Femtosecond Fiber Laser



Jasper is a 1030 nm high-power femtosecond fiber laser, delivering pulses with energy up to 100  $\mu$ J and 60 W of average power. With truly monolithic all-fiber front-end this laser provides fast warm-up time, unprecedented long-term stability and hands-free operation. Contrary to free space laser amplifiers, fiber amplifiers ensure unbeatable beam pointing stability even in harsh environment.

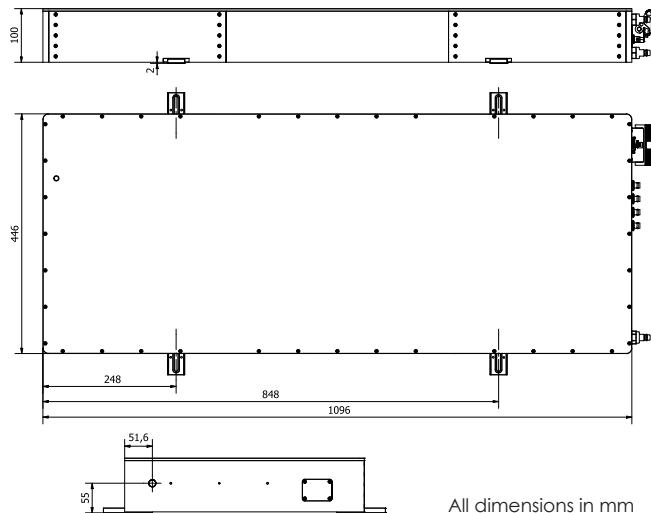
**Technical specification:**

	Jasper 10	Jasper 20	Jasper 30	Jasper 60
Maximum average power	>10 W	>20 W	>30 W	>60 W
Maximum pulse energy	>50 μJ	>100 μJ	>100 μJ	>100 μJ
At repetition rate up to	200 kHz	200 kHz	300 kHz	600 kHz
System base repetition rate	20 ± 2.5 MHz			
Two stage repetition rate tuning	Selectable with control software			
Internal repetition rate	200 kHz – 20 MHz			
Pulse picker	Single pulse – 2 MHz			
Pulse duration	< 270 fs FWHM (< 250 fs typ.)			
Pulse duration tuning	< 270 fs – 8 ps (optional 270 fs – 20 ps)			
Central wavelength	1030 ± 5 nm			
Optional wavelength outputs	With Harmonic Generation module (HGM): 515 nm, 343 nm, 258 nm			
Built-in pulse picker	Pulse on demand, any division of the base repetition rate			
Beam quality M <sup>2</sup>	< 1.3 (typ. < 1.15)			
Polarization	Linear, vertical			
Burst mode for process enhancement	Included			
External gating trigger	Included			
Laser control software	Included			

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**Physical specification:**

Size	1096 (L) x 446 (W) x 100 (H) mm <sup>3</sup>
Power supply unit size	3U 19" rack unit: 485 (W) x 376 (D) x 133 (H) mm <sup>3</sup>
Electrical	100-240 V AC, 50-60 Hz, < 620 W
Operating temperature	15-35 °C
Operating humidity	Non-condensing
Chiller size	6U 19" rack unit: 485 (W) x 381 (D) x 132 (H) mm <sup>3</sup>
Chiller electrical	100-240 V AC, 50-60 Hz, < 10.0 A



All specifications are subject to change without prior notice due to continuous improvements.