

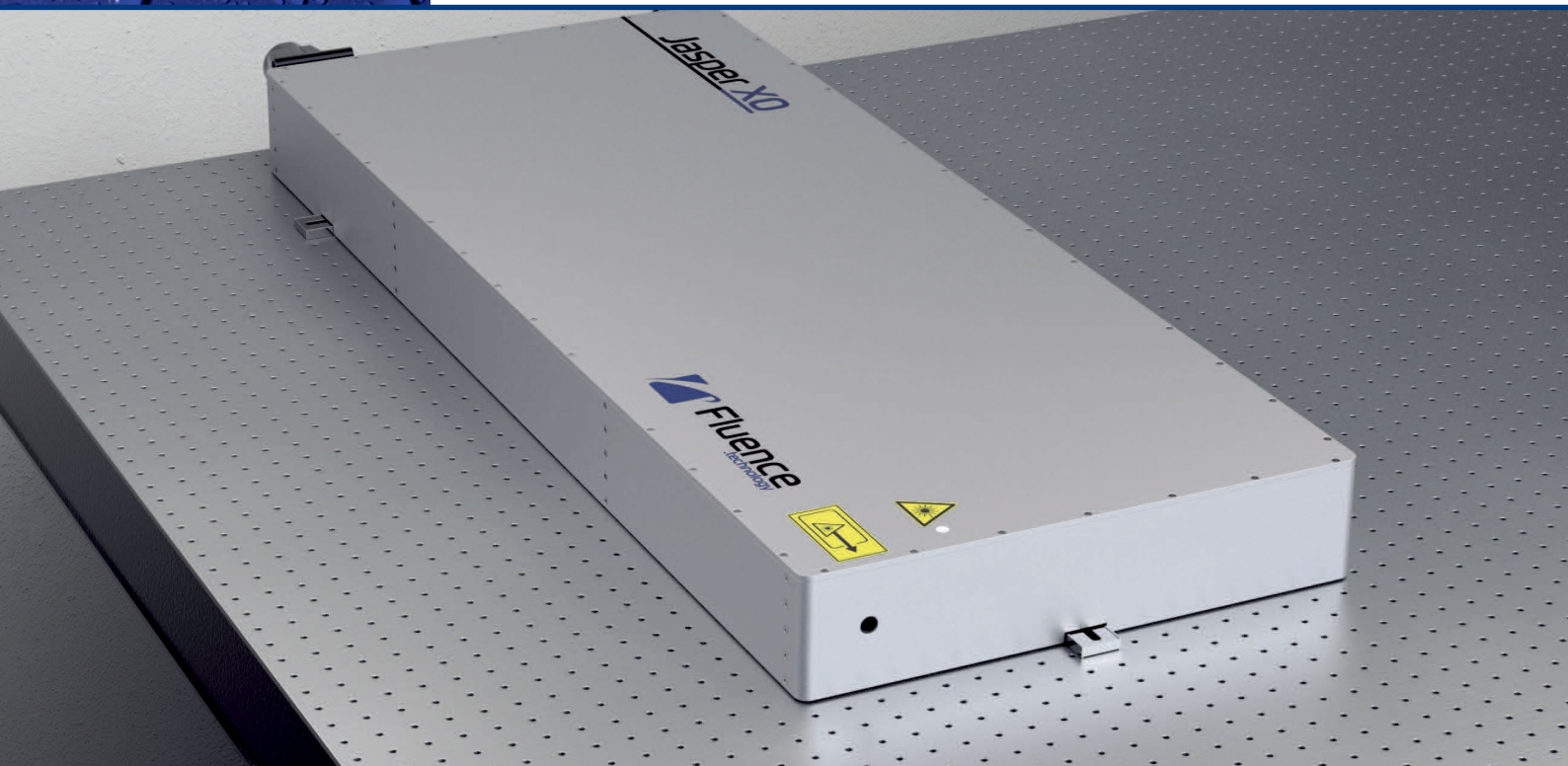


Ultrafast lasers that simply work

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:**

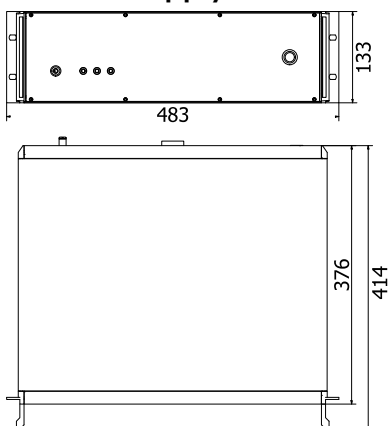
	Jasper 10	Jasper 20	Jasper 30	Jasper 60
Maximum average power	10 W	20 W	30 W	60 W
Maximum pulse energy	50 µJ	100 µJ		
→ at repetition rate up to	200 kHz	200 kHz	300 kHz	600 kHz
Two stage repetition rate tuning	Selectable with control software			
→ Internal repetition rate	200 kHz - 20 MHz			
→ Pulse picker	Single pulse - 2 MHz			
System base repetition rate	20 ± 2 MHz			
Pulse duration	< 250 fs (FWHM)			
Pulse duration tuning	< 250 fs – 8 ps (optional 250 fs – 20 ps)			
Central wavelength	1030 ± 5 nm			
Optional wavelength outputs	With Harmonic Generation Module (HGM): <b>515 nm, 343 nm, 258 nm</b>			
Built-in pulse picker	Pulse on demand, any division of the base repetition rate			
Beam quality (M <sup>2</sup> )	<1.3 (typical <1.2)			
Polarization	Linear, vertical			
Burst mode for process enhancement	Included			
External gating trigger	Included			
Laser control software	Included			

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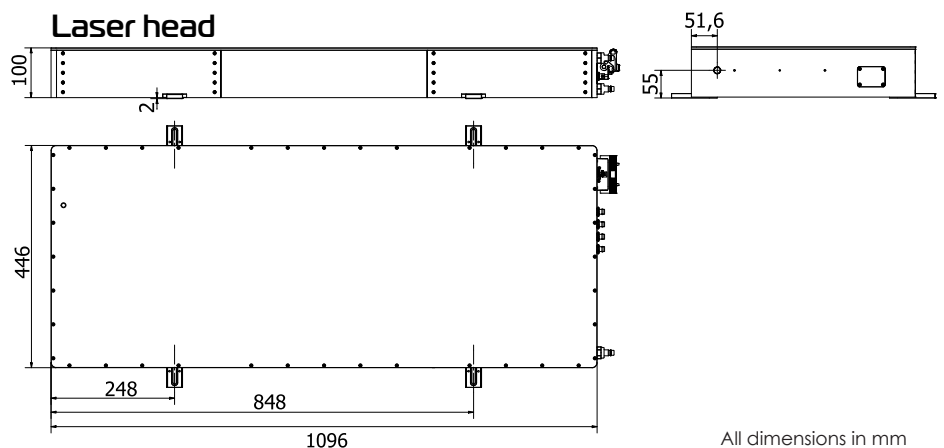
**Physical specification:**

Size / weight	1096 (L) x 446 (W) x 100 (H) mm <sup>3</sup> / 50 kg
Power supply unit size / weight	3U 19" rack unit: 483 (W) x 376 (D) x 133 (H) mm <sup>3</sup> / 13 kg
Electrical	100 – 240 V AC, 50 - 60 Hz, < 620 W (for Jasper 30W variant)
Operating temperature	15 – 35 °C
Operating humidity	30 – 70 % relative humidity, non-condensing
Chiller size	6U 19" (ask for other options)
Chiller electrical	100 – 240 V AC, 50 – 60 Hz, < 10.0 A

**Power supply unit**



**Laser head**



All dimensions in mm

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



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