



# Jasper Flex

Compact High Power Femtosecond Fiber Laser

## Femtosecond fiber lasers superior lifetime & performance

Jasper Flex – our high-power femtosecond laser for microprocessing. Its compact size makes it easy to use and to integrate. It delivers pulses with a maximum energy of 30  $\mu\text{J}$ , up to 1 MHz repetition rate and as much as 100  $\mu\text{J}$  in the burst mode. The user-configurable burst mode brings new capabilities in industries manufacturing consumer electronics, integrated photonics, and displays. Contrary to free-space lasers, our all-fiber, SESAM-free technology ensures unbeatable beam pointing stability resulting in an outstanding lifetime even in a harsh environment.



### Technical specification:

|  |  |
|--|--|
| Maximum average power  | 30 W (ask for higher)  |
| Maximum pulse energy   | 30 $\mu$ J up to 1 MHz (ask for higher)  |
| Maximum burst energy   | 100 $\mu$ J @ 200 kHz, 1030 nm   |
| Base repetition rate   | 20 $\pm$ 2 MHz   |
| Two stage repetition rate tuning, selectable with control software | 1 - 20 MHz, internal repetition rate<br>Single Pulse - 1 MHz, realized with built-in pulse picker. |
| Pulse duration   | < 270 fs FWHM (< 250 fs typical)   |
| Pulse duration tuning  | < 270 fs - 8 ps, software-controlled (< 270 fs - 20 ps optional)                                   |
| Central wavelength   | 1030 $\pm$ 5 nm  |
| Optional wavelength outputs  | With Harmonic Generation Module (HGM): 515 nm, 343 nm, 258 nm (available upon request)             |
| Polarization   | Linear, vertical   |
| Beam quality M <sup>2</sup>  | < 1.3 (< 1.15 typical)   |
| Output beam waist diameter 1/e <sup>2</sup>                        | 2.0 $\pm$ 0.5 mm (ask for other)   |
| Burst mode for process enhancement                                 | Included   |
| 6U, 19" rack-mountable chiller                                     | Included   |
| External gating trigger  | Included   |
| External analog power modulation                                   | Included   |
| Laser control software   | Included   |
| Pulse on demand  | Included   |

**Not exactly what you are looking for?**  
**Get in touch with us and let us help you out.**

### Physical specification:

|                        |   |
|------------------------|---|
| Size                   | 646 (L) x 416 (W) x 111 (H) mm <sup>3</sup>                   |
| Power supply unit size | 3U rack: 485 (W) x 496 (D) x 133 (H) mm <sup>3</sup>          |
| Electrical             | 100 - 240 V AC, 50 - 60 Hz, < 300 W                           |
| Operating temperature  | 15 - 35°C   |
| Operating humidity     | Non-condensing  |
| Chiller size           | 6U 19" rack unit: 485 (W) x 653 (D) x 267 (H) mm <sup>3</sup> |

