

# activeTWO

An industrial-grade ultrafast Thulium laser



## Drive the future of silicon processing!

Combining the unique capabilities of **ultrafast** thulium lasers within a modular design, the **activeTWO** redefines efficiency, versatility and serviceability while offering unique specifications at **2 $\mu$ m** central wavelength. This laser is made to be seamlessly integrated into your processes, harnessing cutting-edge technology to allow for the highest productivity at reliable quality.

- RTC6 interface
- Control via Software - API



Easy service access via side ports

Footprint: 0.24 m<sup>2</sup> (2.6ft<sup>2</sup>)

Removable foot holds for seamless integration

15 W

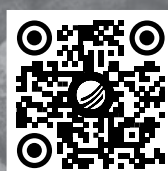
1980 nm

100  $\mu$ J

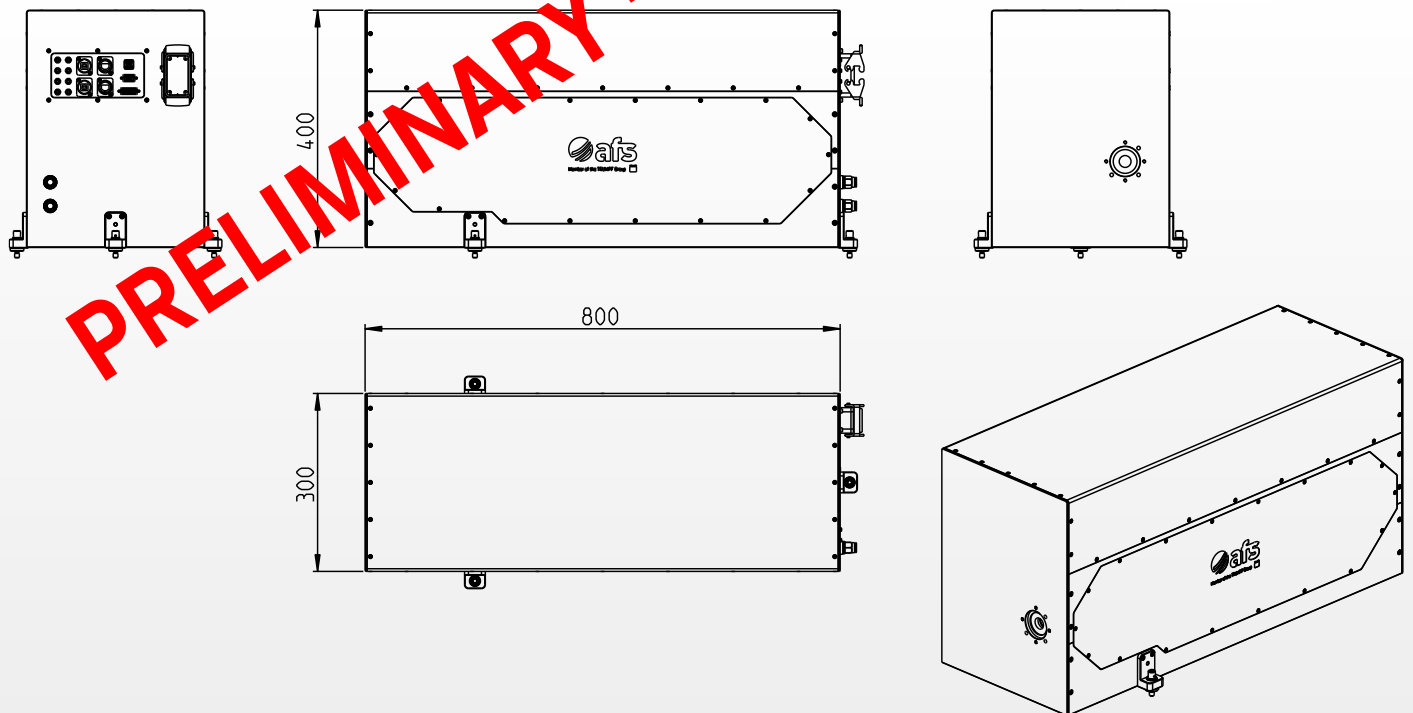
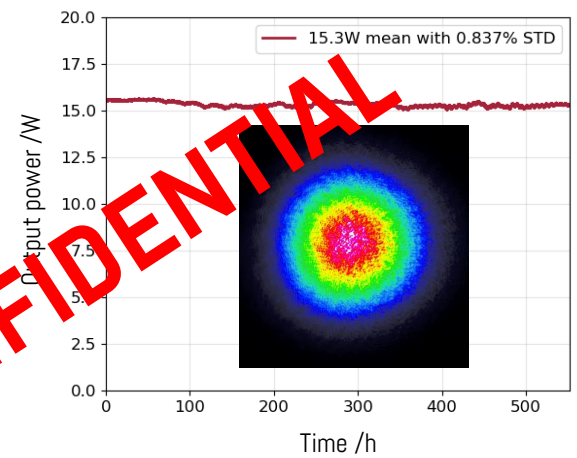
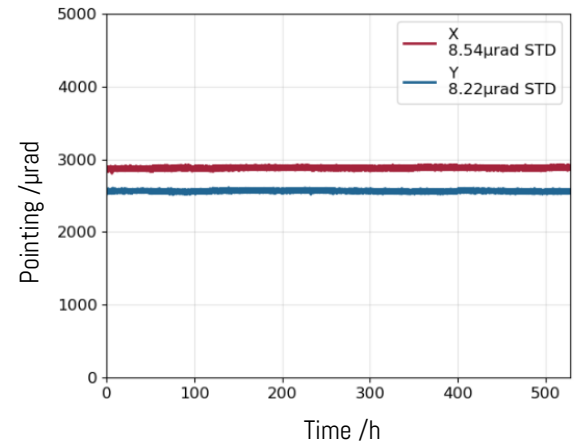
<1Hz - 25MHz

400 fs – 1.5 ns

- Output prepared for connection to free space or fiber beamguiding system
- Externally controllable AOM for pulse selection
- Safety shutter included



|                          | activeTWO                                                                                                       |
|--------------------------|-----------------------------------------------------------------------------------------------------------------|
| Central wavelength       | approx. 1980nm                                                                                                  |
| Repetition rate          | single shot to 25MHz                                                                                            |
| Pulse energy             | up to 100µJ (at up to 150kHz)                                                                                   |
| Average power            | up to 15W                                                                                                       |
| Pulse duration           | <400fs - 5ps adjustable, or up to 1.5ns                                                                         |
| Polarization             | Linear                                                                                                          |
| Beam quality             | close to diffraction-limited, $M^2 < 1.3$                                                                       |
| RIN slow (average power) | <1% RMS [1/ (24hours - 1Hz)]                                                                                    |
| RIN fast (pulse energy)  | <2% RMS [1Hz - $f_{rep}/2$ ]                                                                                    |
| Beam pointing            | <10µrad RMS                                                                                                     |
| Dimensions & Mass        | 800mm x 300mm x 400mm, <100kg                                                                                   |
| Logging                  | logging of all operation parameters via control software, remote monitoring and service access                  |
| Additional features      | Turnkey reliability, software-controlled parameter set, optical isolation, shutter, RTC6 interface, software-AI |



PRELIMINARY - CONFIDENTIAL

