

Designed for Reliability, Built for Integration

FOCUS

Precision & Control in ONE box

FOCUS is a compact, robust femtosecond fiber laser engineered for seamless integration into space-limited systems. Based on the Satsuma platform, it offers stable, ultrafast pulse generation while minimizing physical footprint, system complexity, and overall cost of ownership.

This laser combines **5 W** average power, pulse energies reaching up to **25 μ J**, and repetition rates from single-shot up to 40 MHz, with maximum energy available at 200 kHz. With **sub-250** fs pulse duration and excellent beam quality, it addresses demanding applications in medical devices, life sciences, and semiconductor-related processes.

Versatile and easy to integrate, FOCUS is well-suited for waveguide and photonic chip fabrication, semiconductor metrology, wafer scribing for 24/7 operation, as well as applications in medical imaging, histopathology, electron microscopy sample preparation, and ophthalmology. Its stable output and fast dynamic response enable reliable operation without pulse optimization or user adjustment, even when switching operating parameters.

Designed as a true turn-key, plug-and-play laser, it simplifies system integration and enables more compact final machine designs. Its air-cooled architecture and low acoustic noise level make it particularly adapted to laboratory and medical environments, where stability, reliability, and ease of use are essential.

Applications

Industry:

- > Semiconductor
- > Wafer scribing and dicing
- > PICs processing
- > Micromachining

Medical & Science:

- > Ophthalmology
- > Medical Imaging
- > Life Science
- > Electron microscopy
- > Medical devices

Key Features

- > Turn-key, plug-and-play operation
- > Optimized space-limited integration
- > Robust design for 24/7 Operation
- > Smallest volume of the market
- > Lightest weight laser system



Specifications

Focus

Power	5 W
Energy	25 μ J
Pulse Duration	< 250 fs
Repetition Rate	Tunable up to 40 MHz
Wavelength	1030 +/- 3 nm
Beam Diameter	2,5 +/- 0,5 mm
Astigmatisme	< 50 %
M2	< 1.2
Pointing Stability	< 20 μ rad /°C

Cooling

All Models	Air-cooled
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Dimensions

Laser Head (mm)	430 x 282 x 170
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