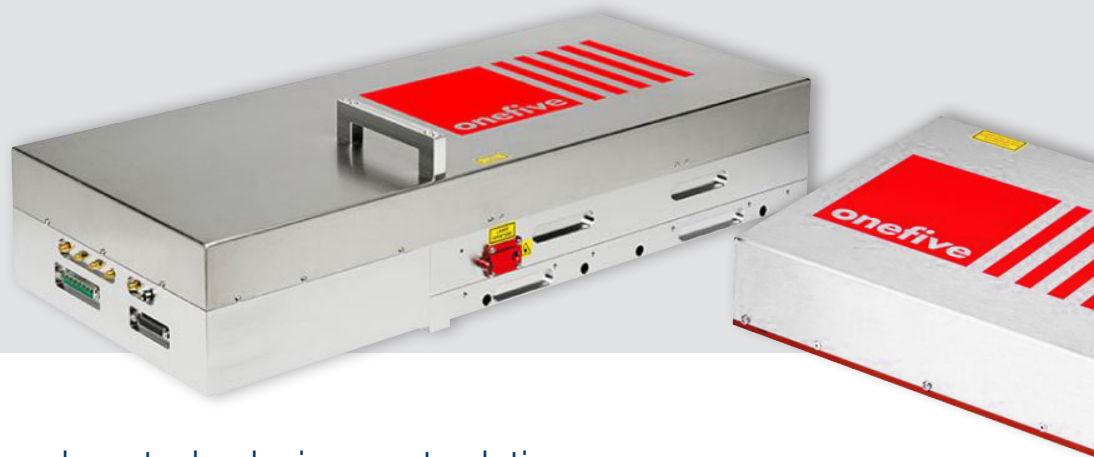


# AMS pulsed fiber lasers overview



- ☀ FEMTOSECOND
- ☀ PICOSECOND
- ☀ NANOSECOND



## AMS Technologies – where technologies meet solutions

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AMS Technologies is a leading solution provider and distributor of high-tech, leading-edge components, systems and equipment, with more than 35 years of experience to date and currently serving more than 2000 European customers.

We are the specialists in both componentry and complete solutions for Optical technology, Thermal Management and Power Technology fields, with access to and long standing relationships with the most advanced manufacturers in each of those fields. Drawing extensively on our experience in each of these differing technologies, and coupling this with our broad system-level competence, we are able to offer seamless and comprehensive solutions incorporating complementary aspects from all three key technology fields.

With an appropriate technical education, an element of entrepreneurial spirit and many years of design and consultancy expertise, our sales engineers can rapidly comprehend system requirements and provide you the customer with a solution that goes way beyond a simple understanding of our product datasheets. We take active involvement in the design cycle, defining and re-defining your specifications, and leading in many

cases to highly specific, customized products and solutions. Helping you to effectively outsource your production line, we can even provide you with the necessary leading turnkey contract manufacturing services in our key competency fields.

AMS Technologies has been delivering solutions into a variety of high-tech markets, including renewable energies, medical, defence & aerospace, research & scientific and various other industrial segments. Our customer base consists of Europe's largest leading technology corporations, a network of universities and research institutes as well as the most promising start-ups.

We thrive by working in a 'customer first' environment. Our pan-European customers are serviced from a network of local offices in Germany, the UK, France, Italy, Spain, Poland and Sweden, with a focused operations and logistics centre located in Munich, Germany.

Our commitment: Identifying the best solution for your project enabling you to become your customers' first choice!

**Your AMS Technologies team**



- Optical Technologies
- Power Technologies
- Thermal Management





## AMS pulsed fiber lasers overview

Our comprehensive range of pulsed fiber lasers includes femtosecond, picosecond and nanosecond versions. The product range encompasses wavelengths ranging from UV to IR, pulse durations from sub-100 fs to a few ns, repetition rates from pulse-on-demand up to 1.3 GHz and pulse energy from a few nJ up to  $>400 \mu\text{J}$ .

They are very compact and truly Plug & Play. There are no user serviceable parts inside or outside the laser head and laser driver, and no adjustment knobs or screws.

The lasers are dust sealed and maintenance free, shock and vibration proof and passively air cooled (no water, no fans).

They maintain their high performance at temperatures ranging from  $10^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  and offer superb spectral and temporal quality combined with a long lifetime. Several different power/energy versions are available, as well as different wavelength options, covering the IR, visible and UV spectrum.

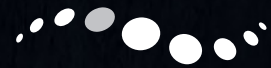
These pulsed fiber lasers provide solid, reliable and cost-effective solutions for a broad range of ultrafast pulsed laser applications within micro material processing, laser surgery, medical treatment, THz generation, frequency comb generation, spectroscopy among others.



## technical specifications

PRODUCT	Center Wavelength	Pulse duration	Avg. output power (up to)
KATANA 02 XP	266 nm	30 ps – 10 ns	500 mW
ORIGAMI 05 XP	343 nm	400 fs	1 W
KATANA 03 XP	355 nm	30 ps – 10 ns	1.8 W
ORIGAMI 05	513 – 535 nm	100 fs – 230 fs	100 mW
ORIGAMI 05 HP	514 – 532 nm	100 fs – 1000 fs	2 W
ORIGAMI 08 XP	515 nm	400 fs	2 W
KATANA 05	515 – 532 nm	30 ps – 10 ns	50 mW
KATANA 05 HP	515 – 532 nm	30 ps – 10 ns	5 W
KATANA 05 XP	532 nm	30 ps – 10 ns	3.3 W
KATANA 06	550 – 660 nm	70 ps – 10 ns	20 mW
KATANA 06 HP	550 – 660 nm	200 ps – 10 ns	1 W
ORIGAMI 08 HP	765 – 780 nm	70 fs – 300 fs	300 mW
ORIGAMI 08	765 – 785 nm	60 fs – 200 fs	30 mW
KATANA 08	775 nm	30 ps – 10 ns	50 mW
KATANA 08 HP	775 nm	30 ps – 10 ns	8 W
ORIGAMI 10	1025 – 1070 nm	70 fs – 400 fs	250 mW
ORIGAMI 10 HP	1028 – 1065 nm	70 fs – 1000 fs	4 W
ORIGAMI 10 XP	1030 nm	400 fs	4 W
Genki 10 S	1030 – 1064 nm	4 ps – 45 ps	10 mW
Genki 10	1030 – 1064 nm	4 ps – 45 ps	250 mW
Genki 10 HP	1030 – 1064 nm	4 ps – 45 ps	20 W
KATANA 10	1030 – 1064 nm	30 ps – 10 ns	500 mW
KATANA 10 HP	1030 – 1064 nm	30 ps – 10 ns	20 W
Genki 10 XP	1064 nm	10 ps	100 W
KATANA 10 XP	1064 nm	30 ps – 10 ns	6 W
KATANA 12 HP	1112 – 1320 nm	200 ps – 10 ns	2 W
ORIGAMI 15 HP	1530 – 1560 nm	500 fs	3 W
Genki 15	1530 – 1575 nm	5 ps	150 mW
ORIGAMI 15	1530 – 1586 nm	80 fs – 500 fs	120 mW
KATANA 15	1550 nm	30 ps – 10 ns	500 mW
KATANA 15 HP	1550 nm	30 ps – 10 ns	14 W
ORIGAMI 17	1580 – 1700 nm	200 fs – 300 fs	50 mW

Pulse energy (up to)	Pulse repetition rate	Beam quality	Laser output
40 µJ	pulse-on-demand – 1 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
10 µJ	single shot – 1 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
100 µJ	pulse-on-demand – 1 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
1.2 nJ	20 MHz – 1.3 GHz	$M^2 < 1.1$ , TEM <sub>00</sub>	collimated free space (fiber output optional)
40 nJ	40 MHz – 200 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
20 µJ	single shot – 1 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
20 nJ	pulse-on-demand – 100 MHz	$M^2 < 1.1$ , TEM <sub>00</sub>	PM fiber output (free-space optional)
5 µJ	pulse-on-demand – 100 MHz	$M^2 < 1.3$ , TEM <sub>00</sub>	collimated free space
200 µJ	pulse-on-demand – 1 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
20 nJ	pulse-on-demand – 2 MHz	$M^2 < 1.1$ , TEM <sub>00</sub>	PM fiber output (free-space optional)
50 nJ	pulse-on-demand – 100 MHz	$M^2 < 1.3$ , TEM <sub>00</sub>	collimated free space
8 nJ	40 MHz – 200 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
0.7 nJ	20 MHz – 1.3 GHz	$M^2 < 1.1$ , TEM <sub>00</sub>	collimated free space (fiber output optional)
20 nJ	pulse-on-demand – 100 MHz	$M^2 < 1.1$ , TEM <sub>00</sub>	PM fiber output (free-space optional)
1 µJ	pulse-on-demand – 100 MHz	$M^2 < 1.3$ , TEM <sub>00</sub>	collimated free space
5 nJ	20 MHz – 1.3 GHz	$M^2 < 1.1$ , TEM <sub>00</sub>	collimated free space (fiber output optional)
80 nJ	40 MHz – 200 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
40 µJ	single shot – 1 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
0.1 nJ	30 MHz – 100 MHz	$M^2 < 1.1$ , TEM <sub>00</sub>	PM fiber output or collimated free space
5 nJ	30 MHz – 100 MHz	$M^2 < 1.1$ , TEM <sub>00</sub>	PM fiber output or collimated free space
500 nJ	single shot – 100 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
100 nJ	pulse-on-demand – 100 MHz	$M^2 < 1.1$ , TEM <sub>00</sub>	PM fiber output (free-space optional)
10 µJ	pulse-on-demand – 100 MHz	$M^2 < 1.3$ , TEM <sub>00</sub>	collimated free space
300 µJ	single shot – 80 MHz	$M^2 < 1.3$ , TEM <sub>00</sub>	collimated free space
400 µJ	pulse-on-demand – 1 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
100 nJ	pulse-on-demand – 100 MHz	$M^2 < 1.3$ , TEM <sub>00</sub>	collimated free space
30 nJ	40 MHz – 100 MHz	$M^2 < 1.2$ , TEM <sub>00</sub>	collimated free space
3 nJ	40 MHz – 10 GHz	$M^2 < 1.1$ , TEM <sub>00</sub>	PM fiber output or collimated free space
2 nJ	20 MHz – 1.3 GHz	$M^2 < 1.1$ , TEM <sub>00</sub>	collimated free space (fiber output optional)
100 nJ	pulse-on-demand – 100 MHz	$M^2 < 1.1$ , TEM <sub>00</sub>	PM fiber output (free-space optional)
3 µJ	pulse-on-demand – 100 MHz	$M^2 < 1.3$ , TEM <sub>00</sub>	collimated free space
1 nJ	20 MHz – 1.3 GHz	$M^2 < 1.1$ , TEM <sub>00</sub>	collimated free space (fiber output optional)



# enabling your ideas.

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