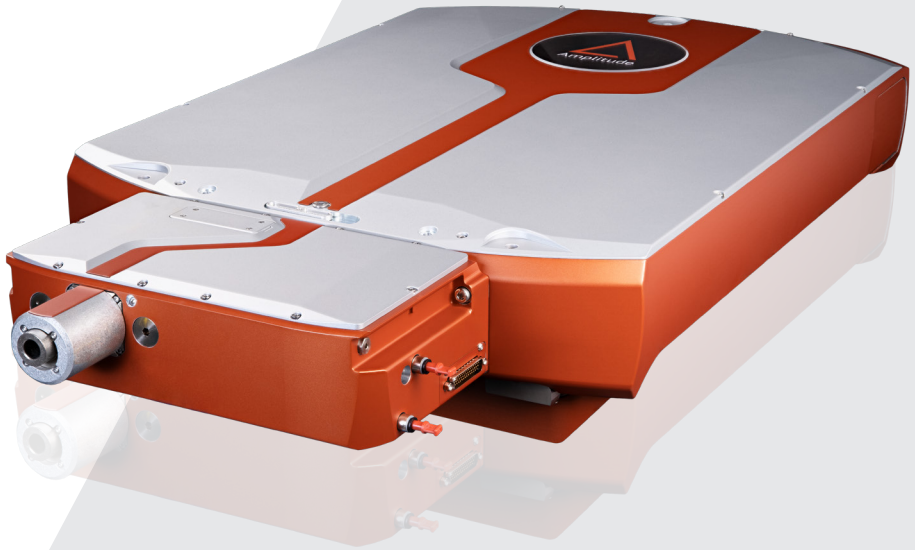
Tangor UV

The ultimate laser solution for OLED display processing



Tangor UV is a state-of-the-art high power UV femtosecond laser, up to 30W-500fs. It combines high repetition rate, up to 2MHz and high UV pulse energy, up to 150µJ.

Thanks to the unique performance of Tangor UV, Amplitude enables you to reach the best balance available on the laser market between cutting quality and throughput.

In addition, femtosecond UV pulses guarantee the best processing flexibility and the fastest way to obtain excellent results, irrespective of the type of optical setup used. Upgrade your OLED manufacturing processes to UV femtosecond to achieve the highest yield and productivity.

Tangor UV is compact and lightweight, making the integration smooth for in-line display equipment.

Applications

Industry:

> Hole drilling of OLED displays (HIAA)
> Shape cutting of OLED displays
> Flex-PCBs cutting and drilling

Key Features

> UV femtosecond pulses 343nm-500fs for the smallest HAZ and clean ablation quality
> High power and repetition rate to reach the highest productivity
> High pulse energy for beam splitting utilization
> Compact and lightweight for ease of integration
> FemtoTrig™ for improving shape cutting quality

Amplitude

Specifications

	Tangor UV	Tangor UV HP
Average Power	> 15 W	> 30 W
Energy Per Pulse	Up to 150 µJ	
Ouput Rep Rate Range	From single shot to 2 MHz	
Pulse Width	500 fs	
Central Wavelength	343 +/- 2 nm	
Spectral Bandwidth	< 0.5nm	
M^2	< 1.3	
Astigmatism	< 25 %	
Waist Assymetry	< 10 %	
Power Stability	< 1 % rms	
Beam Pointing Stability	< 25 µrad/°C	

Dimensions

Laser	89 x 48 x 16 cm
Power Supply	60 x 55 x 53 cm

Weight

Laser	85 kg
Power Supply	52 kg

Options

- Performance Power - **50W UV**
- FemtoTrig™ – Output pulse control with 25 ns jitter
- Superior Beam - astigmatism <10%, waist asymmetry <5%
- Higher amplifier repetition rate - up to 40MHz
- Integrated beam expander and motorized attenuator

Application Results:

Example: Cutting of Pol-film used for OLED display panels.
Optimized results @1600 kHz - Same cutting speed maintained for the comparison.

Type Of Use	On The Fly	Scanner Only
Mark Speed	< 700 mm/s	> 700 mm/s
HAZ	Down to 10 µm	Down to 10 µm
Comparison with UV picosecond (10 ps)	85% HAZ reduction	50% HAZ reduction

- Improved cutting quality and wider process flexibility compared to UV picosecond laser thanks to shorter pulse width
- Improved ablation rate compared to UV picosecond laser thanks to higher peak power