UV Laser Solution

- UV picosecond laser system designed for precision micromachining.
- High-quality processing with minimal thermal effects.
- Fully integrated system for high-precision machining.
- Custom configurations available to meet your requirements.
- Application trials and sample processing available.



Pico second UV laser

High-Performance Industrial UV Picosecond Laser



- UV picosecond laser for ultra-fine processing
- Wavelength: 355 nm
- Pulse width: < 12 ps
- Average power: 15 W
- Pulse energy: 30 μJ
- Burst mode

*Select the optimal laser according to the intended use

Laser scan

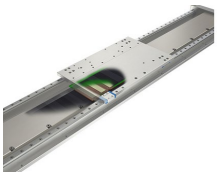
High-Speed Digital Scanner



- Digital control galvanometer scanner
- Maximum speed: 25,000 mm/s
- Repeatability error: < 2 μrad
- Tracking error: 0.15 ms

Positioning

High-Precision XY Linear Stage



- High-precision, high-speed linear stage
- Equipped with optical linear encoder
- Range: X200 mm × Y200 mm
- Position resolution: 0.1 μm
- Maximum speed: 400 mm/s
- Slim, highly stable

Beam delivery & vision system

Efficient beam delivery & accurate monitoring



- Beam delivery optimized for laser performance
- Stable and reliable optical component arrangement
- High-resolution vision system

MEP
Micro Edge Process

UV Laser solution

Specification

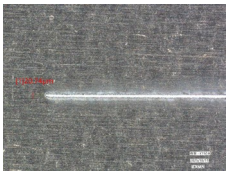
Category	Item	Value	Remark
Laser	Wavelength	355nm	
	Average power	15W	@500kHz_1Burst
	Pulse energy	30μJ	@500kHz_1Burst
	Rep rate	300kHz～1,000kHz	
	Pulse width	<12ps	
Machining	Laser spot diameter	ϕ12μm	
	Operation method	Linear stage Galvano scanner	
	Operation speed	Linear stage 400mm/s Galvano scanner 25,000mm/s	
	Motion area	Linear stage X200mm×Y200mm Galvano scanner X40mm×Y40mm	

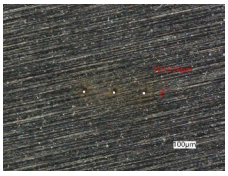
Category	Item	Value	Remark
Vision/ Machining area	Area (XY)	X200mm×Y190mm	
	Area (Z)	Z25mm	
	Scanner area (XY)	X40mm×Y40mm	
Vision system	Item	On-axis：1 Off-axis：1	
	Camera	High resolution Full HD	
Pointer	Item	1	
	Color	Red	
Dimension		W1000mm×D800mm ×H1370mm	
Weight		500kg	

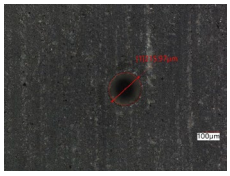
*Flexible customization support according to usage

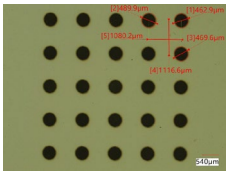
Laser micromachining

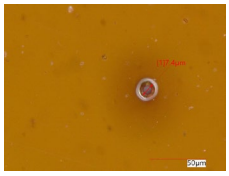
Examples of Laser Micromachining

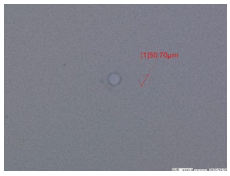

Ti slit

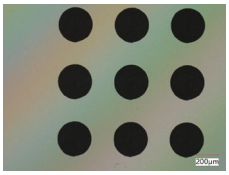

SUS ultra micro holes

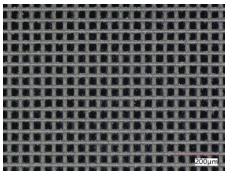

SIC deep hole

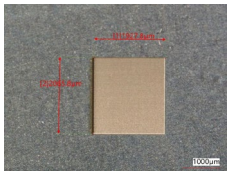

SIC micro holes

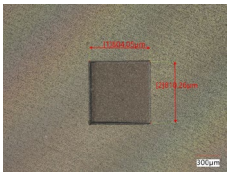

PI hole

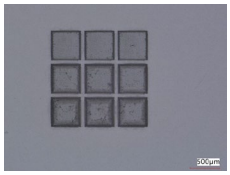

POM hole

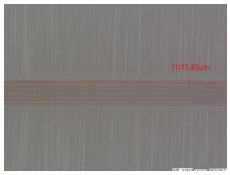

InP wafer holes


Si wafer groove


SUS precision engraving

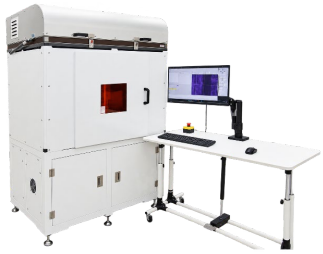

SUS inclined engraving


Glass engraving


Zirconia groove

Laser machine

Other Products



- Picosecond green laser microfabrication system
- Wavelength: 532 nm
- Average power: 60 W
- Pulse energy: 300 μJ
- Pulse width: <15 ps
- Laser spot diameter: ϕ10 μm
- Camera: Full HD coaxial camera
- Positioning stage stroke:
  X600 mm × Y400 mm × Z150 mm
- Position resolution: approx. 0.1 μm
- Micromachining, cold ablation
- Customizable according to application



- Semiconductor Laser Robot System
- Wavelength: 450 nm, 808 nm
- Output: 50W, 80W
- Coaxial laser head with temperature monitor
- Temperature sensor: 140–2,000℃
- Laser spot diameter: ϕ30 μm
- Camera: Full HD coaxial camera
- Robot stroke:
  X300mm × Y320mm × Z100mm
- Position resolution: approximately 5 μm
- Soldering, fine welding, fine processing

Micro Edge Process Co., Ltd.
https://www.mepinfo.jp/