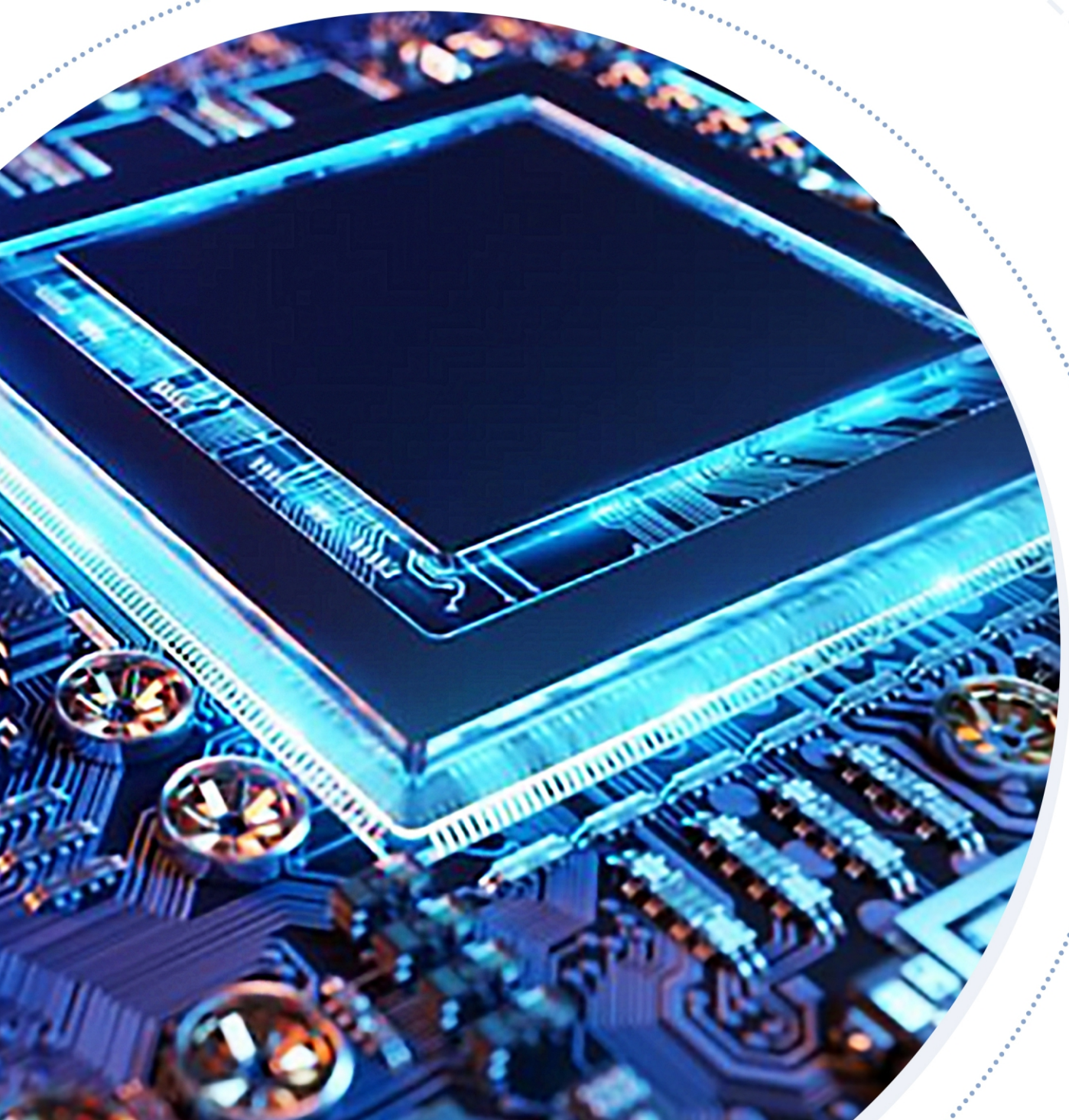
Maiman

Elite series

Semiconductor processing



UV-clean patented technology

Protection grade IP65

Service life 20,000⁺h

Excellent beam quality

All-in-one structure, highly integrated

Reliable performance and repair <3%

SERIES

Elite series high energy UV laser

15W
The laser power

UV-clean
Patented technology

20000+h
The service life

Introduction

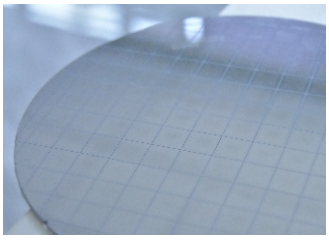
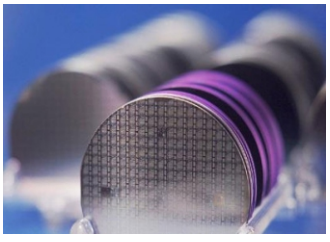
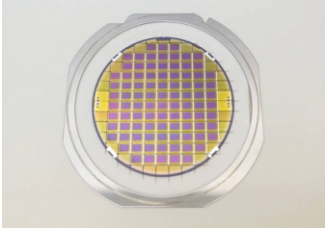
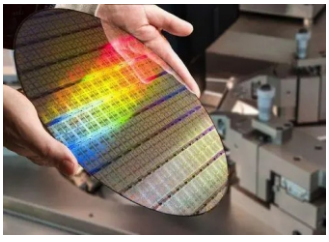
The high-energy ultraviolet laser, characterized by a wavelength of 355nm, features a single-pulse energy of 1.5mJ and a high peak power. It efficiently cuts SiC and diamond wafers, directly severing the wafers and metal layers with high efficiency and a minimal edge breakage (<2um).

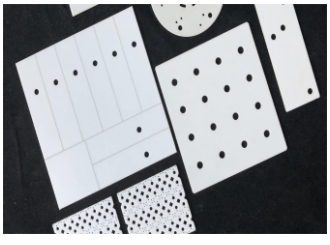
Features

- The laser power is 15W;
- Adopt UV-clean patented technology to solve power attenuation worry free used;
- The service life exceeds 20000 hours, maintenance is free, and no need for regular commissioning or calibration;
- Excellent beam quality $M^2 < 1.3$, simple process, and higher efficiency;
- 3-layer protection, protection grade IP65, more suitable for harsh working environment;
- Rugged, easy to install, and easy to integrate.

Application

- Sic, diamond wafer scribing
- Drilling and cutting of wafers
- Ceramic scribing and drilling

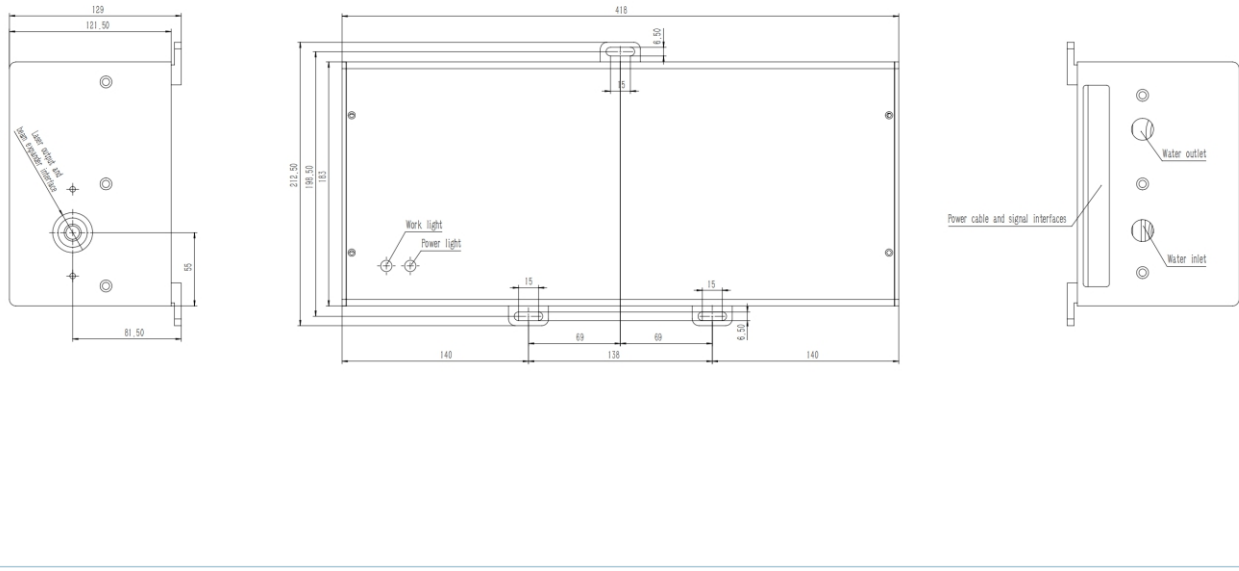






Specifications

Model No.	MMEPU-355-15-HE
Optical Characteristics	
Wavelength (nm)	355nm
Average Power (W)	>15W@10kHz
Single Pulse Energy (uJ)	~1500uJ@10kHz
Pulse Width (ns)	30ns@10kHz
Repitition Rate	10-20kHz
Pulse Stability	<3% rms
Long Term Stability	<±3%
Beam Characteristics	
Polarization Ratio	Horizontal；>100:1
Beam Diameter	~1mm(at exit)
Beam Circularity	>90%
Spatial Mode	TEM_{00},M^2<1.3
Operating Specifications	
Warm-up Time	<15minutes from cold start
Electrical Requirement	DC17.5V, 350W
Ambient Temperature	10-35°C, RH<80%
Storage Conditions	-10-40°C, RH<90%
Physical Characteristics	
Cooling System	Water-Cooled
Water Temperature (laser inlet)	25°C

Dimensional Drawings



Elite series high power UV lasers

18-30W
The laser power

UV-clean
Patented technology

20000+h
The service life

Introduction

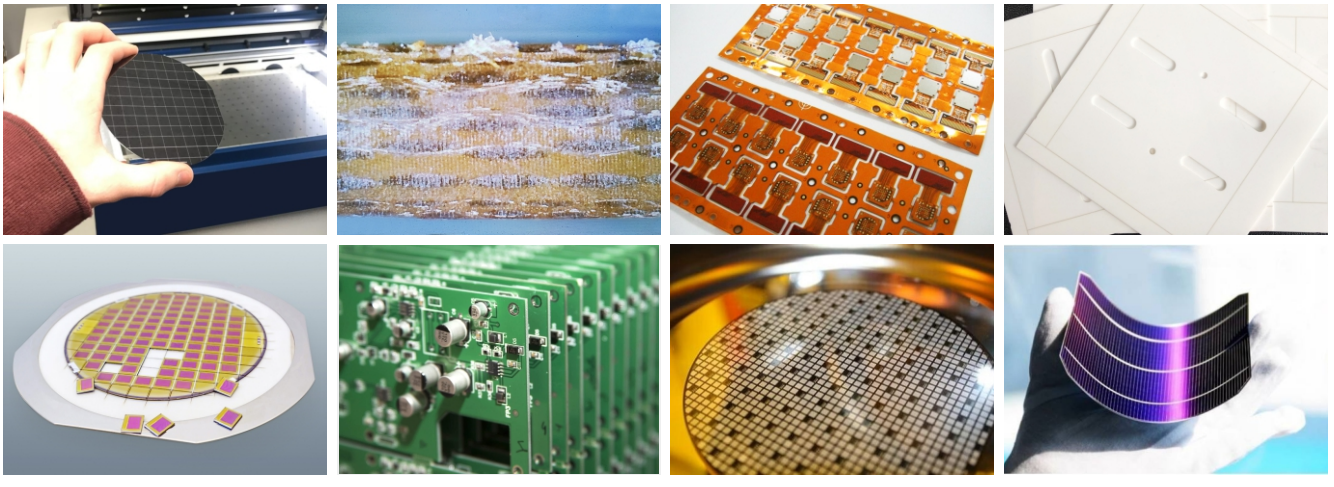
It has excellent power stability, ensuring long-term operation, and at the same time, has high single pulse energy, which can produce higher energy density quickly, thereby better handling materials with higher hardness, such as silicon carbide.

Features

- The laser power is 18-30W;
- Adopt UV-clean patented technology to solve power attenuation worry free used;
- The service life exceeds 20000 hours, maintenance is free, and no need for regular commissioning or calibration;
- Excellent beam quality $M^2 < 1.3$, simple process, and higher efficiency;
- 3-layer protection, protection grade IP65, more suitable for harsh working environment;
- Rugged, easy to install, and easy to integrate.

Application

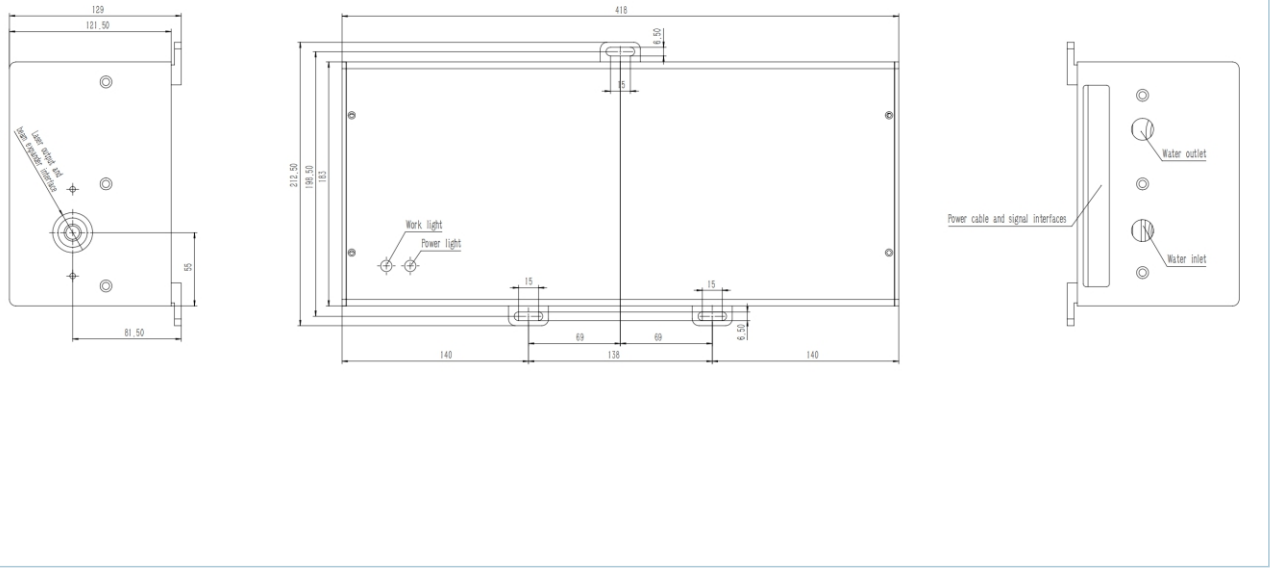
- Solar cell scribing
- PCB & FPC splitting and cutting
- Sic wafer scribing
- Film cutting



Specifications

Model No.	MMEPU-355-18	MMEPU-355-20	MMEPU-355-25	MMEPU-355-30
Optical Characteristics				
Wavelength (nm)	355nm±1nm			
Average Power (W)	>18W@50kHz	>20W@50kHz	>25W@50kHz	>30W@50kHz
Single Pulse Energy (uJ)	~350uJ@50kHz	~400uJ@50kHz	~500uJ@50kHz	~600uJ@50kHz
Pulse Width (ns)	12ns@50kHz			
Repitition Rate	50-500kHz			
Pulse Stability	<3% rms			
Long Term Stability	<±3%			
Beam Characteristics				
Polarization Ratio	Horizontal;>100:1			
Beam Diameter	~1mm(at exit)/~6mm(6X beam expander)			
Beam Circularity	>90%			
Spatial Mode	TEM_{00},M^2<1.3			
Operating Specifications				
Warm-up Time	<15 minutes from cold start			
Electrical Requirement	DC24V,500W			
Ambient Temperature	10-35°C，RH<80%			
Storage Conditions	-10-40°C，RH<90%			
Physical Characteristics				
Cooling System	Water-Cooled			
Water Temperature (laser inlet)	25°C			

Dimensional Drawings



Elite series high power green laser

30W
The laser power

UV-clean
Patented technology

20000+h
The service life

Introduction

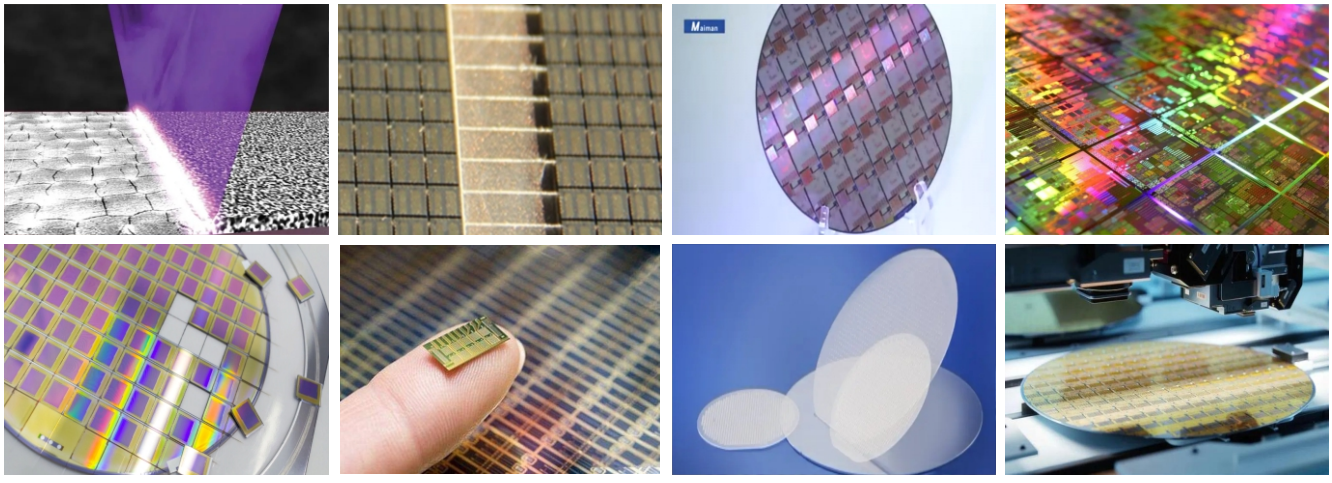
Its extremely high power stability guarantees long-term operation. At the same time, it has high single pulse energy, which can produce higher energy density in a short time, thus better dealing with materials with higher hardness such as SiC.

Features

- Adopt UV-clean patented technology to solve power attenuation worry free used;
- The service life exceeds 20000 hours, maintenance is free, and no need for regular commissioning or calibration;
- Excellent beam quality $M^2 < 1.3$, simple process, and higher efficiency;
- 3-layer protection, protection grade IP65, more suitable for harsh working environment;
- Rugged, easy to install, and easy to integrate.

Application

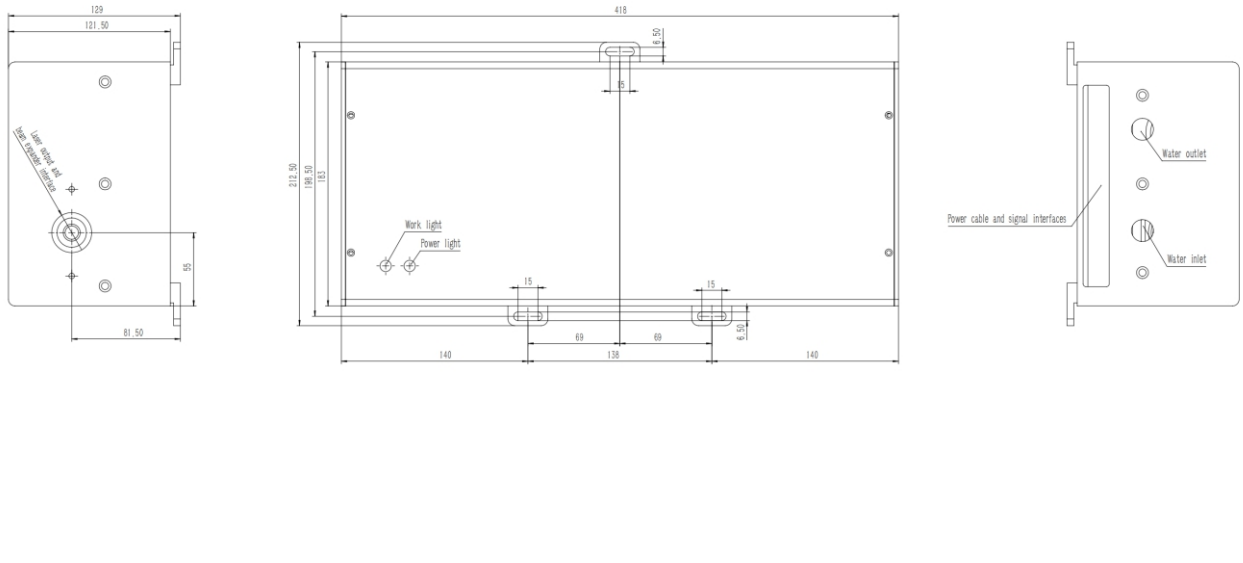
- Wafer annealing
- Wafer drilling and cutting



Specifications

Model No.	MMEPG-532-30
Optical Characteristics	
Wavelength (nm)	532nm
Average Power (W)	>30W@60kHz
Single Pulse Energy (uJ)	~500uJ@60kHz
Pulse Width (ns)	20ns@60kHz
Repitition Rate	50-500kHz
Pulse Stability	<3% rms
Long Term Stability	<±3%
Beam Characteristics	
Polarization Ratio	Vertical；>100:1
Beam Diameter	6mm(Built in beam expander)
Beam Circularity	>90%
Spatial Mode	TEM_{00},M^2<1.3
Operating Specifications	
Warm-up Time	<15minutes from cold start
Electrical Requirement	DC24V, 350W
Ambient Temperature	10-35°C, RH<80%
Storage Conditions	-10-40°C, RH<90%
Physical Characteristics	
Cooling System	Water-Cooled
Water Temperature (laser inlet)	25°C

Dimensional Drawings



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