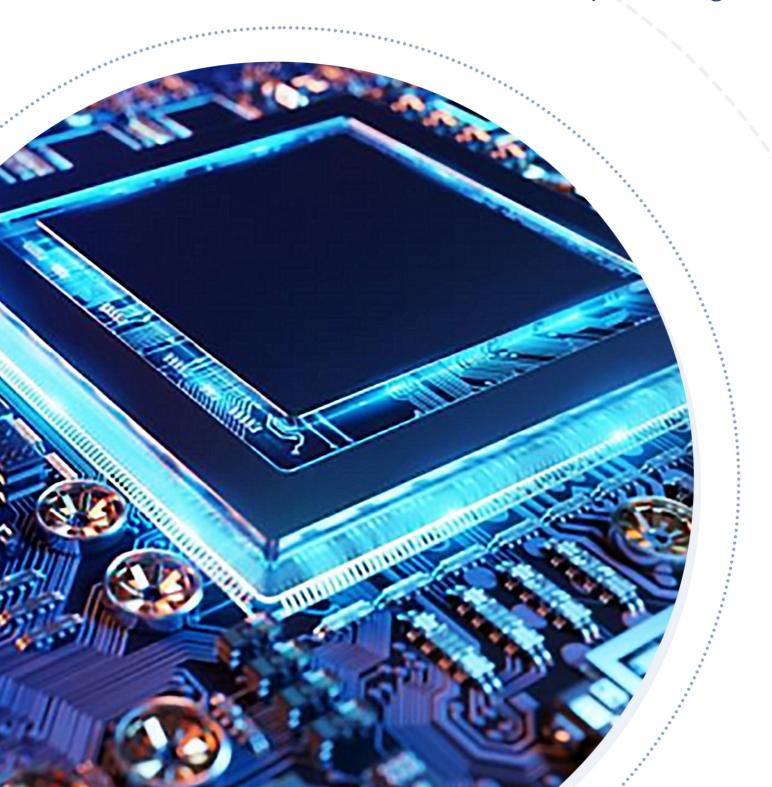
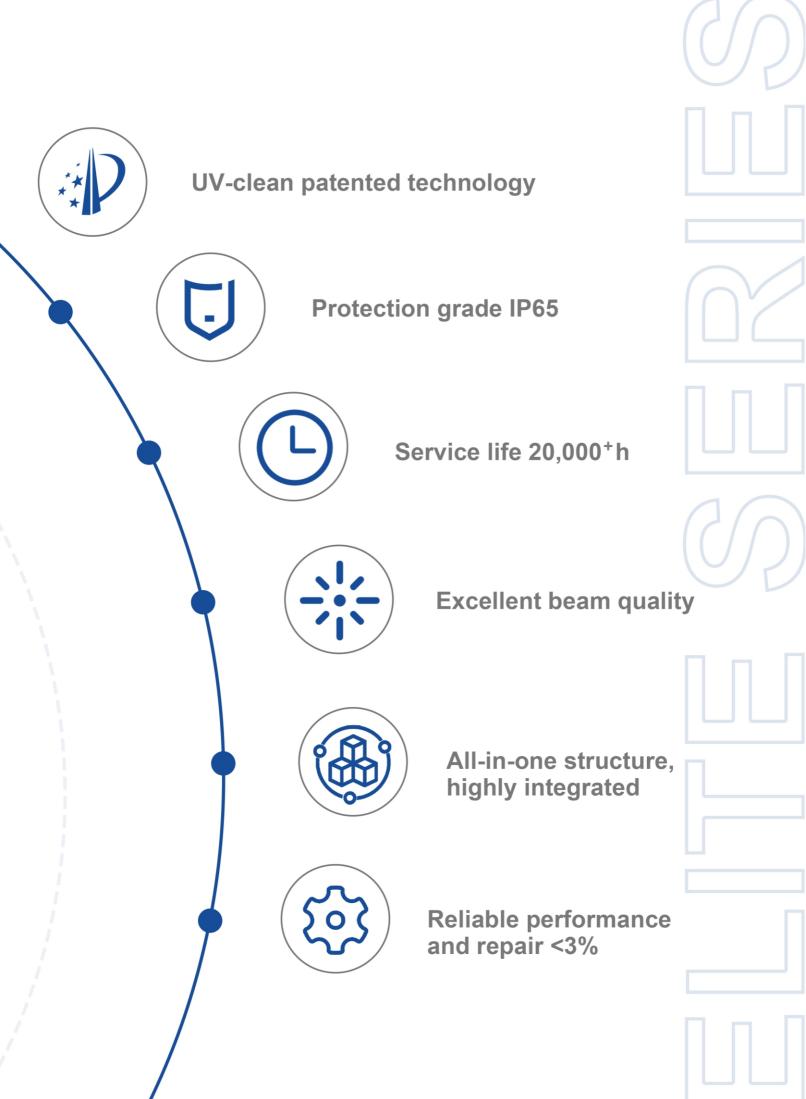


Elite series

Semiconductor processing





Elite series high energy UV laser



15W

The laser power

UV-clean

Patented technology

20000⁺h

The service life

Introduction

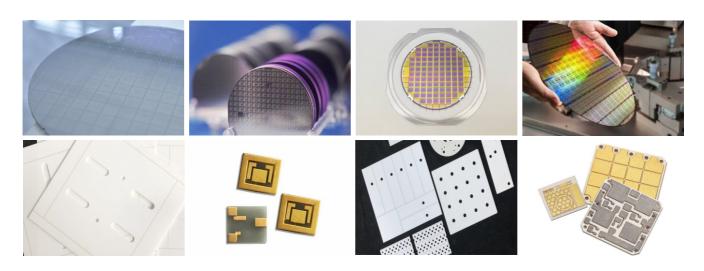
The high-energy ultraviolet laser, characterized by a wavelength of 355nm, features a single-pulse energy of 1.5mJ and a high peak power. It efficiently cuts SiC and diamond wafers, directly severing the wafers and metal layers with high efficiency and a minimal edge breakage (<2um).

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 M² < 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

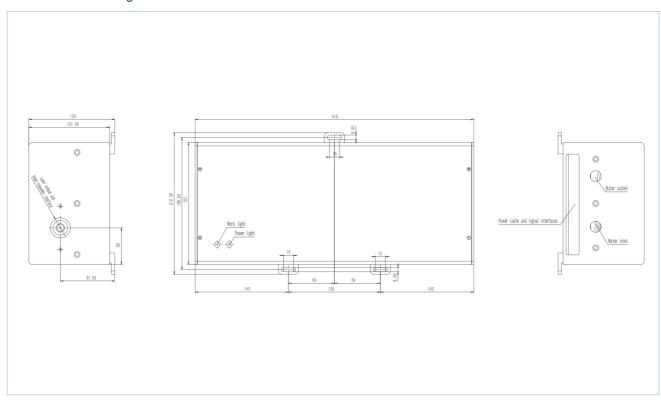
- Sic, diamond wafer scribing
- Drilling and cutting of wafers
- Ceramic scribing and drilling



Specifications

MMEPU-355-15-HE Optical Characteristics Wavelength (nm) Average Power (W) Single Pulse Energy (u,J) Pulse Width (ns) Repitition Rate 10-20kHz Pulse Stability Long Term Stability Beam Characteristics Polarization Ratio Horizontal; >100:1 Beam Diameter Pastal Mode TEM ₀₀ M*<1.3 Operating Specifications Warm-up Time Electrical Requirement Ambient Temperature Power American And American And Ambient Temperature Physical Characteristics Physical Characteristics Mare and American And American And American And American And American And American Andrews Mare and American Andrews Associated Andrews Asso				
Wavelength (nm) Average Power (W) Single Pulse Energy (uJ) Pulse Width (ns) Repitition Rate Pulse Stability Average Power (W) Pulse Stability Average Power (W) Repitition Rate Pulse Stability Average Power (W) Single Pulse Energy (uJ) Pulse Width (ns) Repitition Rate Pulse Stability Average Power (W) Seam Characteristics Polarization Ratio Horizontal; >100:1 Beam Diameter Almm(at exit) Beam Circularity Spatial Mode TEM ₈₀ M*-1.3 Operating Specifications Warm-up Time Als Minutes from cold start Electrical Requirement DC17.5V, 350W Ambient Temperature Storage Conditions Physical Characteristics	Model No.	MMEPU-355-15-HE		
Average Power (W) Single Pulse Energy (uJ) Pulse Width (ns) Repitition Rate Pulse Stability Fulse Stability Long Term Stability Beam Characteristics Polarization Ratio Horizontal; > 100:1 Beam Diameter Page Middle TEM Power (Spatial Mode) Operating Specifications Warm-up Time Electrical Requirement Ambient Temperature Storage Conditions Physical Characteristics > 1500u, 200u,	Optical Characteristics			
Single Pulse Energy (uJ) Pulse Width (ns) Repitition Rate 10-20kHz Pulse Stability Long Term Stability Eeam Characteristics Polarization Ratio Beam Diameter Beam Circularity Spatial Mode Operating Specifications Warm-up Time Electrical Requirement Ambient Temperature Storage Conditions Physical Characteristics -10-20kHz -20kHz -39% rms -4±3% Horizontal;>100:1 Horizontal;>100:1 -21mm(at exit) -90% TEM ₆₀ ,M²<-1.3 Operating Specifications Varm-up Time -15minutes from cold start Electrical Requirement 10-35°C, RH-80% -10-40°C, RH-90% Physical Characteristics	Wavelength (nm)	355nm		
Pulse Width (ns) Repitition Rate Repitition Rate Pulse Stability Asymms Long Term Stability Beam Characteristics Polarization Ratio Beam Diameter Beam Circularity Spatial Mode TEM Operating Specifications Warm-up Time Alsominutes from cold start Electrical Requirement Ambient Temperature Storage Conditions Physical Characteristics	Average Power (W)	>15W@10kHz		
Repitition Rate Pulse Stability Pulse Stability	Single Pulse Energy (uJ)	~1500uJ@10kHz		
Pulse Stability Long Term Stability Seam Characteristics Polarization Ratio Horizontal; >100:1 Beam Diameter -1mm(at exit) Seam Circularity >90% Spatial Mode TEM ₅₀₀ ,M²<1.3 Operating Specifications Warm-up Time -15minutes from cold start Electrical Requirement DC17.5V, 350W Ambient Temperature Storage Conditions Physical Characteristics	Pulse Width (ns)	30ns@10kHz		
Long Term Stability Beam Characteristics Polarization Ratio Horizontal;>100:1 Beam Diameter ~1mm(at exit) Spatial Mode Spatial Mode TEM ₀₀₀ M²<1.3 Operating Specifications Warm-up Time <15minutes from cold start Electrical Requirement DC17.5V, 350W Ambient Temperature Storage Conditions Physical Characteristics	Repitition Rate	10-20kHz		
Beam Characteristics Polarization Ratio Beam Diameter Polarization Ratio Beam Diameter Polarization Ratio Polarization Ratio Polarization Ratio Polarization Ratio Polarization Polarization Spatial Mode TEM ₀₀ ,M²<1.3 Operating Specifications Warm-up Time Polarization Polarizat	Pulse Stability	<3% rms		
Polarization Ratio Beam Diameter ~1mm(at exit) Beam Circularity >90% Spatial Mode TEM ₀₀ ,M²<1.3 Operating Specifications Warm-up Time <15minutes from cold start Electrical Requirement DC17.5V, 350W Ambient Temperature Storage Conditions Physical Characteristics	Long Term Stability	<±3%		
Beam Diameter ~1mm(at exit) Beam Circularity >90% Spatial Mode TEM ₆₀ ,M²<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 Physical Characteristics	Beam Characteristics			
Beam Circularity >90% Spatial Mode TEM ₆₀₁ M²<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	Polarization Ratio	Horizontal;>100:1		
Spatial Mode TEM ₀₀ , M²<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 Physical Characteristics	Beam Diameter	∼1mm(at exit)		
Operating Specifications Warm-up Time <15minutes from cold start Electrical Requirement Ambient Temperature Storage Conditions Physical Characteristics	Beam Circularity	>90%		
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	Spatial Mode	TEM ₀₀ ,M ² <1.3		
Electrical Requirement DC17.5V, 350W Ambient Temperature 10-35°C, RH<80% Storage Conditions -10-40°C, RH<90% Physical Characteristics	Operating Specifications			
Ambient Temperature 10-35°C, RH<80% Storage Conditions -10-40°C, RH<90% Physical Characteristics	Warm-up Time	<15minutes from cold start		
Storage Conditions -10-40°C, RH<90% Physical Characteristics	Electrical Requirement	DC17.5V,350W		
Physical Characteristics	Ambient Temperature	10-35°C, RH<80%		
	Storage Conditions	-10-40°C, RH<90%		
	Physical Characteristics			
Cooling System Water-Cooled	Cooling System	Water-Cooled		
Water Temperature (laser inlet) 25°C	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

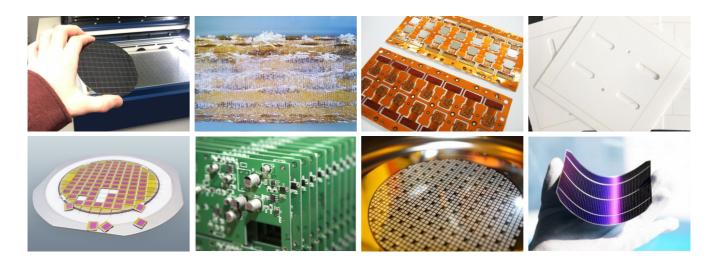
It has excellent power stability, ensuring long-term operation, and at the same time, has high single pulse energy, which can produce higher energy density quickly, thereby better handling materials with higher hardness, such as silicon carbide.

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 M² < 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

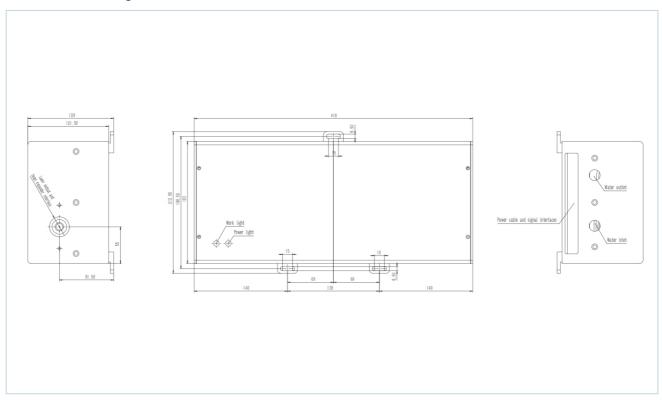
- Solar cell scribing
- PCB & FPC splitting and cutting
- Sic wafer scribing
- Film cutting



Specifications

Model No.	MMEPU-355-18	MMEPU-355-20	MMEPU-355-25	MMEPU-355-30	
	MINIER 0-333-20 MINIER 0-333-20 MINIER 0-333-20				
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℃				

Dimensional Drawings



Elite series high power green laser



30W
The laser power

UV-clean

Patented technology

20000[†]h

The service life

Introduction

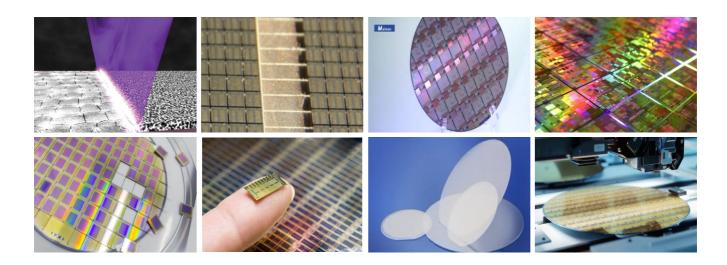
Its extremely high power stability guarantees long-term operation. At the same time, it has high single pulse energy, which can produce higher energy density in a short time, thus better dealing with materials with higher hardness such as SiC.

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 M² < 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

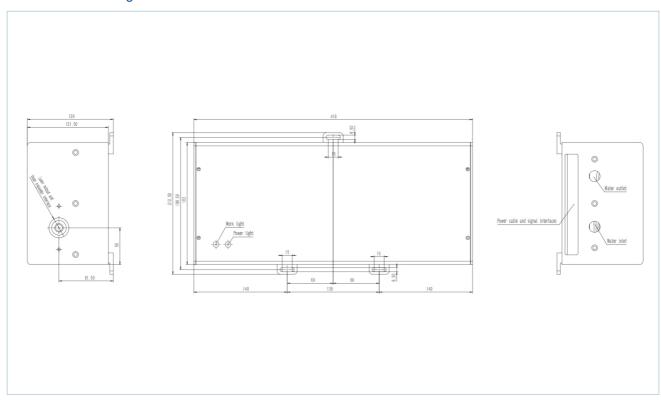
- Wafer annealing
- Wafer drilling and cutting



Specifications

Model No.	MARINE FOR 20			
	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 _{oo} ,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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