

Maiman Laser Series Catalog



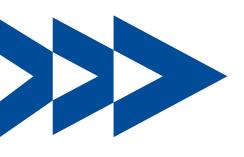
Corporate values

Self-improvement, Professionalism Integrity

Company positioning

A leader in laser micromachining industry of China, providing a full range of solutions from device-equipment-service to the global laser micromachining industry.

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Company Profile

Founded in 2010, Tianjin Maiman Laser Technology Co., Ltd. is a leading manufacturer of industrial-grade solid-state lasers and a national high-tech enterprise.

"Superb technology, optimum quality", Maiman Laser has always been committed to the R&D, manufacturing and sales of high-performance and high-stability lasers. We take technological innovation as our core competitiveness, continuously improve our own technical reserves and technological innovation capabilities, and have obtained more than 60 patents by 2021. From infrared to deep ultraviolet, from nanosecond to femtosecond, from narrow linewidth to tunable, Maiman has in-depth theoretical research and productization experience. From theoretical analysis to device selection of lasers, from laser optical design to development of electronic control system, from mechanical structure design to production process optimization, we keep cautious and improving. With the awe of science and the persistence of technology, Maiman is doing a good job in every product in a down-to-earth manner.

Maiman Laser serves the global market, providing high-quality laser source products and solutions for integrated circuits, solar manufacturing, automotive industry, medical industry, consumer electronics, etc. By the end of 2023, Maiman has delivered more than 50,000 laser products in batches and served more than 2,000 customers to push the development of global enterprises.

 60^{+}

60⁺Patented technology

2000⁺

2,000 Global customers

50000°

50,000 Cumulative sales





Development History

2010

Tianjin Maiman Laser Technology Co., Ltd. was established.

2014

 Maiman's first 20W-class 1064nm active Q-switched end-pumped laser entered the market to meet the processing needs of light-transmitting products in the fields of automobiles and consumer electronics.

2017

- Won the honorary title of Tianjin Key New Product;
- The cumulative delivery quantity of lasers exceeded 10,000 sets.

2013

- Created a commercialized technical solution based on passive Q-switched laser technology internationally, and launched the 1064nm fiber end-pumped laser firstly in China, breaking the pattern that it is difficult for solid-state lasers to compete with fiber lasers. This product has laid a foundation for the rapid development of Maiman;
- More than 160 sets of lasers were sold.

2015

- Maiman entered the diamond processing industry and participated in the Munich Optoelectronics Exhibition in India for the first time, showing the 1064nm diamond planning laser;
- Launched the series of high-power 532nm active Qswitched green lasers and fiber type green lasers;
- Started the R&D of UV lasers to create a new technical route and product route;
- The cumulative delivery quantity of lasers exceeded 5000 sets.









2019

- Launched the UV laser with completely independent property rights and independent design in October after four and a half years of R&D, which became a milestone event for Maiman, created a new technical route, and solved the key technical problems perfectly such as laser power attenuation and low power;
- Signed a long-term cooperation agreement with Sanquan Foods to become the designated laser supplier;
- UV lasers entered the purchase lists of Master Kong and Mengniu;

2021

- Completed Series A financing;
- The cumulative quantity of laser products delivered reached 32,000 sets.



2018

 Won the title of National High-tech Enterprise and Tianjin High-tech Enterprise.

2020

- Launched 27W UV laser products, the highest power level in China;
- Won the title of Tianjin Gazelle Enterprise.





Technical Strength

Tianjin Maiman Laser Technology Co., Ltd. has always paid attention to talent construction and training. Academician Yao Jianquan of the Chinese Academy of Sciences is specially employed as the chief scientific and technological consultant. The leading members of the technical team are all graduated from Tianjin University with a doctorate degree, and have more than 15 years of practical experience in the field of laser, experienced in both research and practice. In addition, Maiman Laser maintains close cooperation with universities and scientific research institutions such as Tsinghua University, Peking University, Tianjin University, Changchun Institute of Optics and Mechanics, Beijing University of Technology, Changchun University of Technology, etc. to provide continuous power for the company in terms of technology reserve, product R&D and technology expansion.

Maiman Laser attaches great importance to product R&D and technological innovation. A complete R&D management system and a high-standard R&D center have been built at the beginning of the company's establishment, which are responsible for the management of scientific research projects and laser product R&D. The company continuously explores and studies the technical issues involved in beam transmission, solid-state lasers, pulse lasers, fiber lasers, ultrafast lasers, optical devices, etc. and increases the scientific research investment year by year to support the independent innovation of the enterprise.











Since its establishment, Maiman has launched a number of high-tech original laser products, covering nanosecond and ultrafast lasers with a variety of wavelengths and pulse widths. With more than 60 patents, it has won the titles of national and Tianjin high-tech enterprises for many times, and has become the backbone of development and innovation in the laser industry of Tianjin and the whole country.















Superb Technology & Optimum Quality



The patent certificate

Qualification certificate



Core Competitiveness

Based on the global market, Tianjin Maiman Laser Technology Co., Ltd. takes the lead in introducing internationally advanced concepts of product design, manufacturing processes and quality control systems on the basis of independent R&D and technological innovation, so as to ensure the advancement and reliability of products. The sales and service network all over the country and around the world provides our customers with competitive laser products and professional and efficient overall services. In the fierce competition with international brands, Maiman has continuously innovated and made breakthroughs and enhanced its own R&D strength. In particular, the self-developed 355 nanosecond UV laser product series has gained the unanimous recognition from both domestic and international customers due to its unique patented technology and ultra-high cost performance, which has won Maiman a higher brand awareness and global influence. Thanks to the hard work of all employees and the support of all our customers, Maiman Laser is continuously creating more value for customers in more subdivided industries.

Overall laser solutions for various application fields Perfect global service system Safe and reliable product quality Multiple series of laser products independently developed and desigr



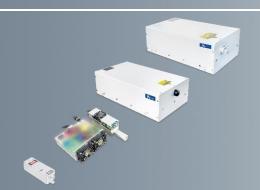
Products & Applications

Tianjin Maiman Laser Technology Co., Ltd. provides multiple series of laser source products for the fields of industrial, medical, scientific research, etc. and also provides customized services. The wavelength ranges from infrared to deep ultraviolet, the pulse width ranges from nanoseconds to ultrafast, and the power ranges from milliwatt to hundred watt. The rich categories maximize to meet the needs of different customers.



Elite Series Lasers

- High energy UV laser (15W)
- High power UV laser (18-30W)
- High power Green laser (30W)



Diamond Series Lasers

- 30ns high energy UV/green/IR lasers (10-25W)
- 70ns high energy green/IR lasers (16-25W)
- Mini UV laser (1W)
- Gem planning IR laser (1W)



Stone Series Lasers

- Mini UV lasers (3-8W)
- Air-cooled UV lasers (3-8W)
- Water-cooled UV lasers (3-15W)
- Glass marking UV laser (10W)
- Active Q-switched IR lasers (12-30W)
- High power Green lasers (10-20W)
- Fiber green lasers (4-5W)
- Cold light IR lasers (5-10W)



Customized Products

- 266nm Deep UV lasers (0.2-15W)
- PS ultrafast lasers (1064/532/355,10-70W)
- Hundred picosecond high power lasers (1064/532/355,10-40W)
- Mini high energy lasers (1064/532/355,0.5-5J)

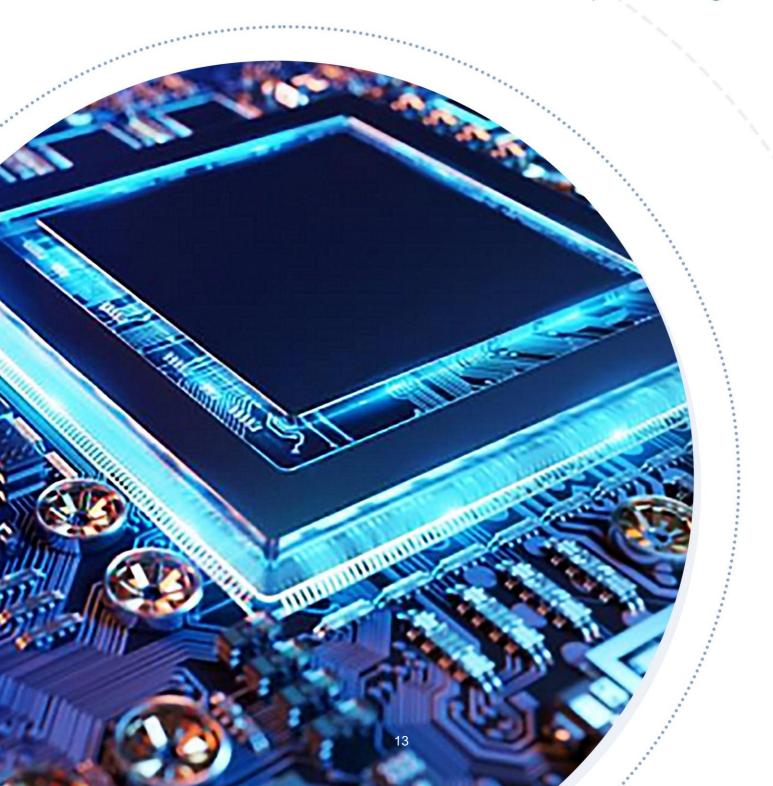
Maiman Laser has rich industry solutions to help enterprises worry-free production!

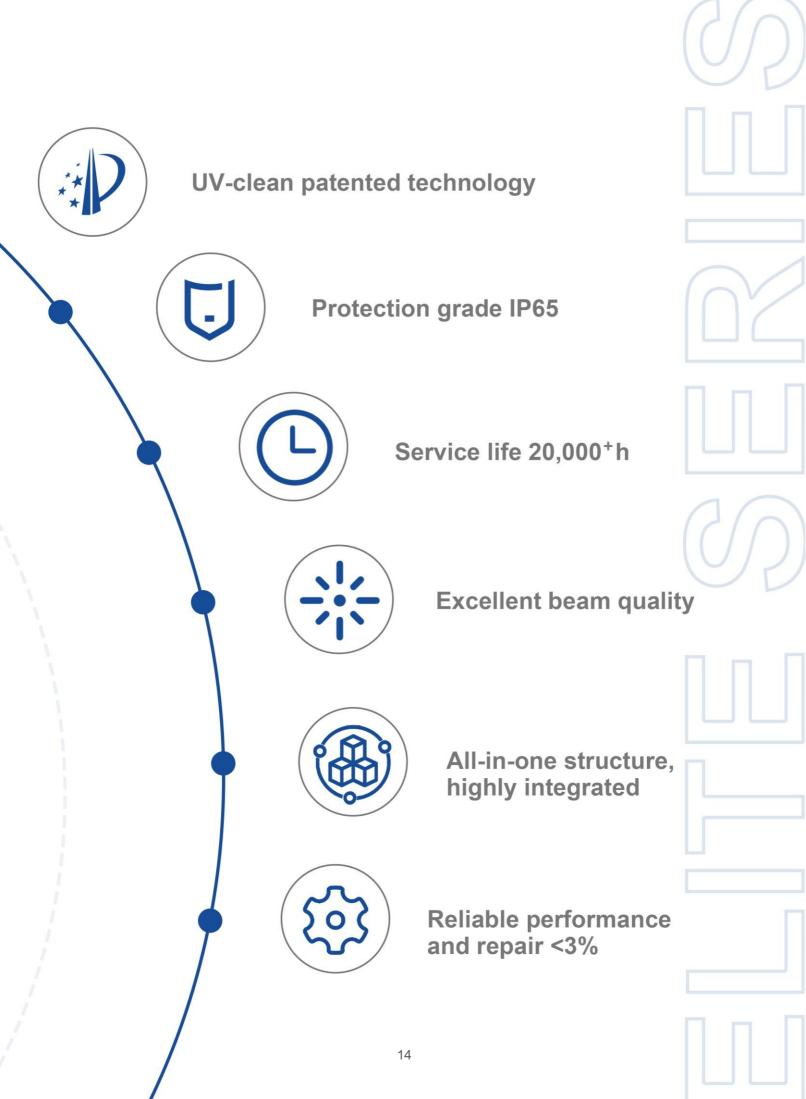
Application field	Elite series lasers	Diamond series lasers	Stone series lasers
FPC and PCB cutting	MMEPU-355-18/20/25/30		MMEPG-532-15/20
Solar cell scribing	MMEPU-355-20/25		MMEPG-532-10/15/20
Wafer annealing	MMEPG-532-30		
Wafer scribing	MMEPU-355-15-HE MMEPU-355-18/20	MMEPG-532-15/20	
High reflective metal marking			MMEPF-1064-8L
Ultrahard material processing		MMEPU-355-10/16/20-HE-D30 MMEPG-532-16/20-HE-D70	
Diamond processing		MMEPU-D-355-1 MMD-YAG-1064-1 MMEPU-355-10-HE-D30 MMEPG-532-16/20-HE-D30 MMEPG-1064-18/25-HE-D30 MMEPG-1064-18/25-HE-D70	
Translucent product markings		MMEPU-D-355-1	MMEPU-355(Plus)-5/8/10 MMEPU-AC-355(Plus)-5/8 MMEPU-355-3/5/8-M
Marking on transparent materials			MMEPA-1064-12/15/20/25/30
Packaging material marking			MMEPU-355(Plus)-3/5 MMEPU-AC-355(Plus)-3/5 MMEPU-355-3/5/8-M MMEPGF-532-5L
Glass interior engraving			MMEPU-355(Plus)-5 MMEPU-AC-355(Plus)-5 MMEPU-355-3/5/8-M
Glass marking			MMEPU-355-10-ZRS2
Jade processing			MMEPU-355(Plus)-12/15



Elite series

Semiconductor processing





Elite series high energy UV laser



15W

The laser power

UV-clean

Patented technology

20000[†]h

The service life

Introduction

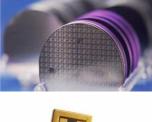
The high-energy ultraviolet laser, characterized by a wavelength of 355nm, features a single-pulse energy of 1.5mJ and a high peak power. It efficiently cuts SiC and diamond wafers, directly severing the wafers and metal layers with high efficiency and a minimal edge breakage (<2um).

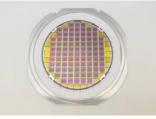
Features

- 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.

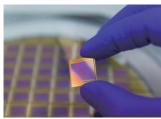
- Sic, diamond wafer scribing and drilling
- Ceramic scribing and drilling

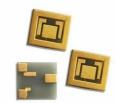








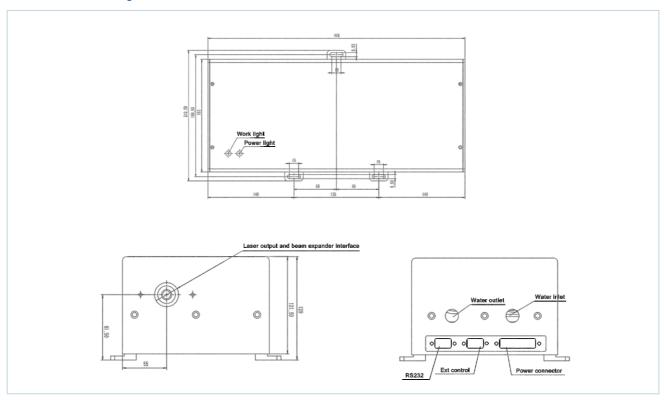








Model No.	MMEPU-355-15-HE		
Optical Characteristics			
Wavelength (nm)	355nm		
Average Power (W)	>15W@10kHz		
Single Pulse Energy (uJ)	~1500uJ@10kHz		
Pulse Width (ns)	30ns@10kHz		
Repitition Rate	10-20kHz		
Pulse Stability	<3% rms		
Long Term Stability	<±3%		
Beam Characteristics			
Polarization Ratio	Horizontal;>100:1		
Beam Diameter	~1mm(at exit)		
Beam Circularity	>90%		
Spatial Mode	TEM ₀₀₉ 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℃		



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.

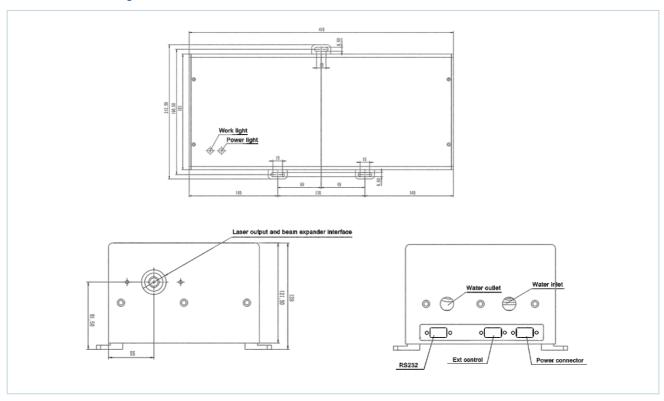
Features

- 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.

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



Model No.	MMEPU-355-18	MMEPU-355-20	MMEPU-355-25	MMEPU-355-30
Optical Characteristics	Optical Characteristics			
Wavelength (nm)	355nm±1nm			
Average Power (W)	>18W@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, 600W			
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			



Elite series high power green laser



30W

The laser power

UV-clean

Patented technology

20000[†]h

The service life

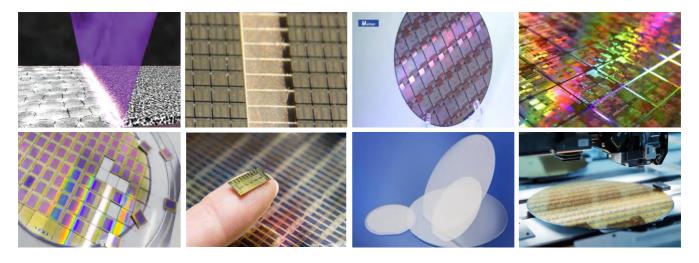
Introduction

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.

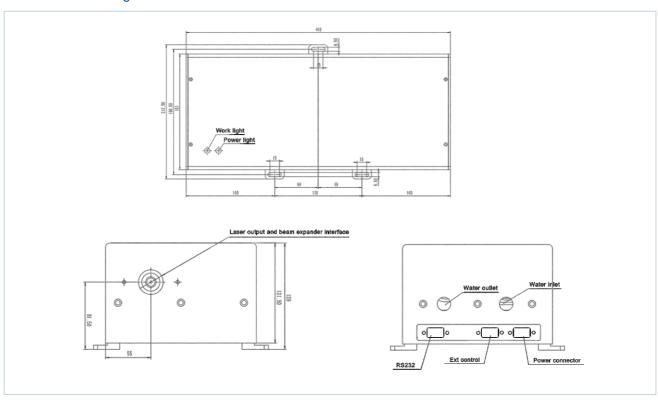
Features

- 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.

- Wafer annealing
- Wafer drilling and scribing



Model No.	MMEDIC 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 ₀₀ ,M ² <1.3		
Operating Specifications			
Warm-up Time	<15minutes from cold start		
Electrical Requirement	DC24V,600W		
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		

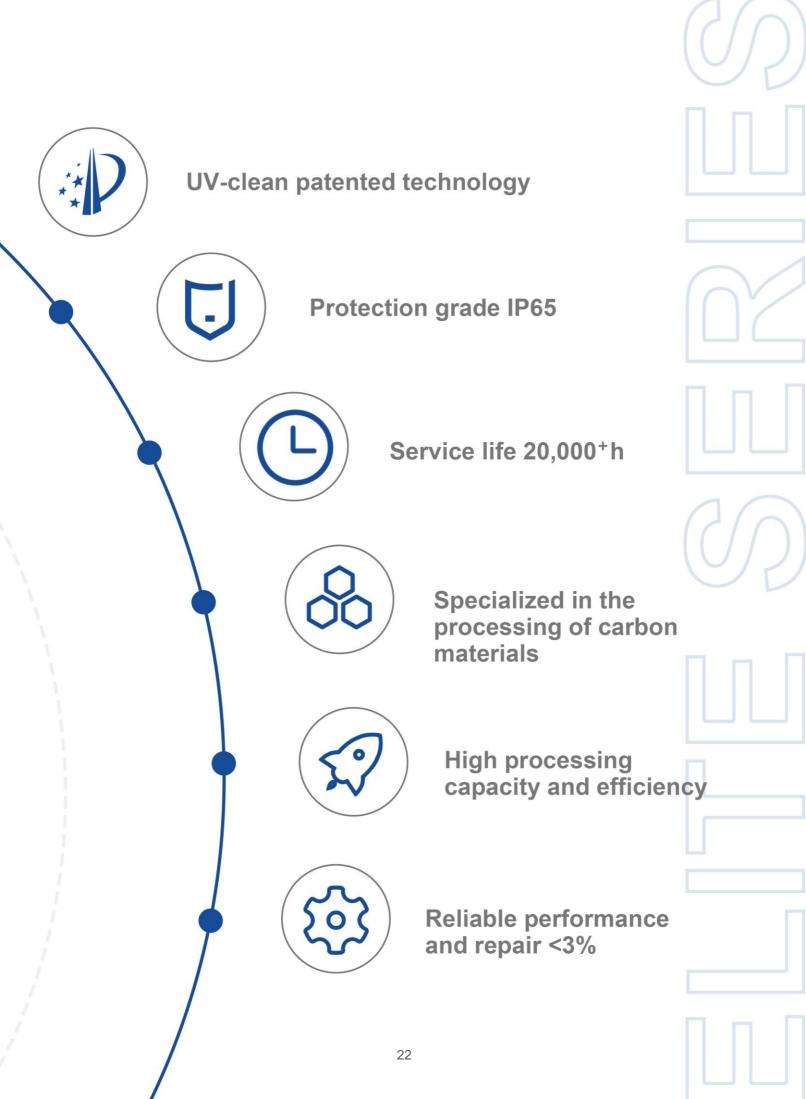




Diamond series

Carbon material processing





Diamond series high energy 30ns lasers



10-25W

The laser power

IP65

Protection grade

20000⁺h

The service life

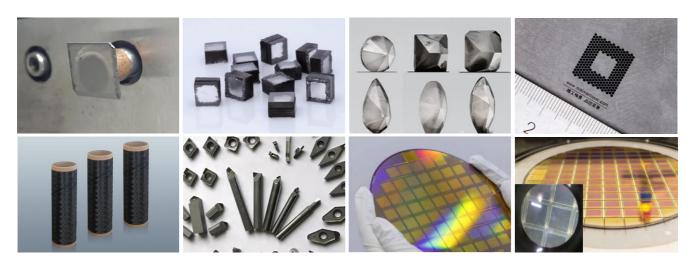
Introduction

Low processing heat resulting in less damage to the cut surface so reaches a smoother surface; all-in-one laser design, easy to install and maintain; superior beam quality can achieve deeper and faster processing, more advantageous in cutting SiC, diamond and other superhard materials; self-cleaning system of resonant cavity solves the problem of power attenuation to maintain a long service life.

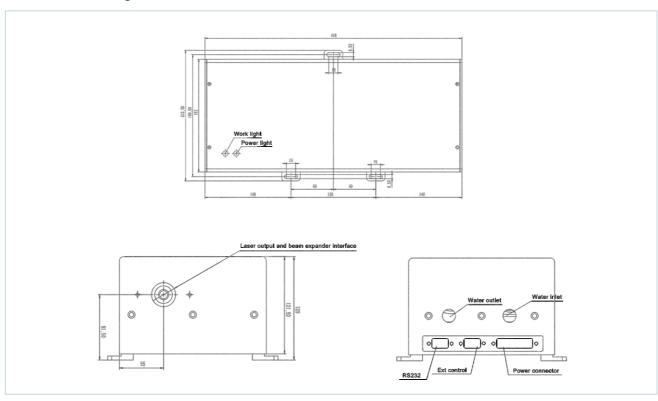
Features

- Single pulse energy >2mJ
- Superior beam quality M² <1.3
- Long life and maintenance free
- All-in-one laser, highly integrated

- SiC wafer scribing
- Diamond cutting Slicing, coring, sawing, faceting, 4 processing
- Cutting of super hard materials -PcBN, PCD, SCD, CVD, SiC, etc.



Model No.	MMEPU-355-10-HE-D30	MMEPG-532-16-HE-D30	MMEPG-532-20-HE-D30	MMEPA-1064-18-HE-D30	MMEPA-1064-25-HE-D30
Optical Characteristics					
Wavelength (nm)	355nm	532nm		1064nm	
Average Power (W)	>10W@10kHz	>16W@10kHz	>20W@10kHz	>18W@10kHz	>25W@10kHz
Single Pulse Energy (uJ)	~1000uJ@10kHz	~1600uJ@10kHz	~2000uJ@10kHz	~1800uJ@10kHz	~2500uJ@10kHz
Pulse Width (ns)			<30ns@10kHz		
Repitition Rate	10-100kHz 7-100kHz				
Pulse Stability	<3% rms				
Long Term Stability	<±3%				
Beam Characteristics					
Polarization Ratio	Horizontal;>100:1 Vertical;>100:1				
Beam Diameter	~0.9mm(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℃				



Diamond series high energy 70ns lasers



16-25W

The laser power

IP65

Protection grade

20000[†]h

The service life

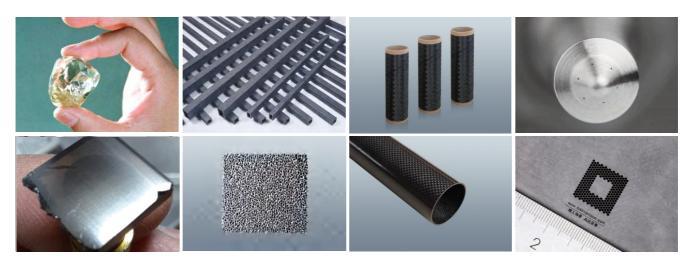
Introduction

The high peak power lasers excel during processing, particularly for cutting ultra-hard materials. The integrated system ensures ease of installation and maintenance, and solves the problem of power degradation over long periods of use. The controller and protection circuit are integrated, compact and easy to install and maintain. The internal resonant cavity is equipped with a self-cleaning system and a stable design to solve the problem of power attenuation and ensure long-term use of the laser.

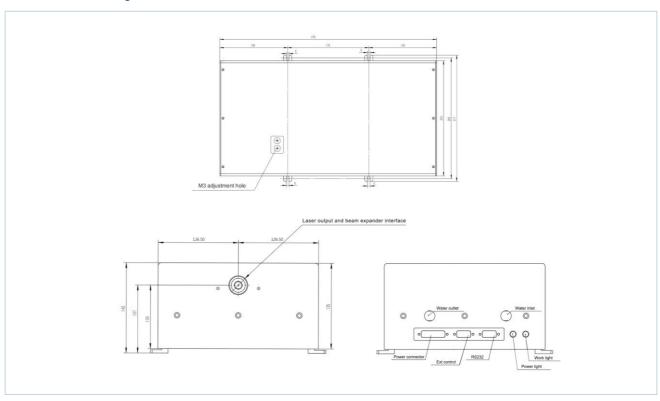
Features

- Single pulse energy >2mJ
- Superior beam quality M² <1.5
- Long life and maintenance free
- All-in-one, highly integrated

- SiC wafer scribing
- Diamond cutting Slicing, coring, sawing, faceting, 4 processing
- Cutting of super hard materials -PcBN, PCD, SCD, CVD, SiC, etc.



Model No.	MMEPG-532-16-HE-D70	MMEPG-532-20-HE-D70	MMEPA-1064-18-HE-D70	MMEPA-1064-25-HE-D70	
Optical Characteristics	Optical Characteristics				
Wavelength (nm)	532nm		1064	1064nm	
Average Power (W)	>16W@10kHz >20W@10kHz		>18W@10kHz	>25W@10kHz	
Single Pulse Energy (uJ)	~1600uJ@10kHz	~2000uJ@10kHz	~1800uJ@10kHz	~2500uJ@10kHz	
Pulse Width (ns)	<70ns@10kHz				
Repitition Rate	7-100kHz				
Pulse Stability	<3% rms				
Long Term Stability	<±3%				
Beam Characteristics					
Polarization Ratio	Vertical;>100:1		Random		
Beam Diameter	~0.9mm(at exit)				
Beam Circularity	>90%				
Spatial Mode	TEM ₀₀ ,M²<1.5				
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				



Diamond series mini UV laser



1W

The laser power

7x24h

Meet 7*24 hours of work

20000[†]h

The service life

Introduction

Small size, can be held up with one hand; the pulse width 6-8ns, ultra-high peak power perfectly to realize the appearance marking of electronic products.

Features

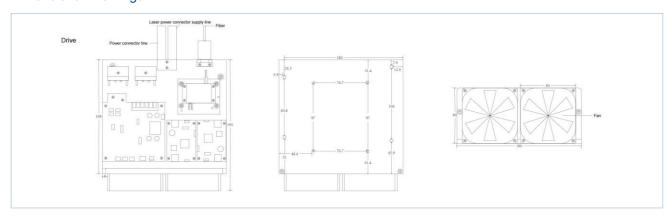
- The laser power 1W;
- Solve power attenuation and meet 7*24 hours of work;
- The service life exceeds 20,000 hours, maintenance-free, no need for regular commissioning;
- Split machine, laser head compatible with optical path of fiber laser;
- Air-cooled and easy to integrate.

- Material marking Packaging film, electronic devices, 3C products, medical supplies, etc.
- Diamond waistline marking

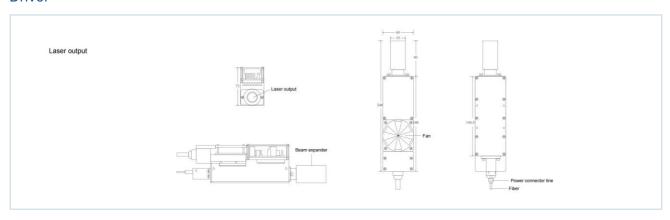


Model No.	MMEPU-D-355-1		
Optical Characteristics			
Wavelength (nm)	355nm±1nm		
Average Power (W)	>1W@20kHz		
Single Pulse Energy (uJ)	~50uJ@20kHz		
Pulse Width (ns)	~7ns@20kHz		
Repitition Rate	Uncontrollable, range15-20kHz		
Pulse Stability	<3% rms		
Long Term Stability	<±3%		
Beam Characteristics			
Polarization Ratio	Vertical;>100:1		
Beam Diameter	7mm		
Beam Circularity	>90%		
Spatial Mode	TEM ₀₀ , M ² <1.3		
Operating Specifications			
Warm-up Time	<15 minutes from cold start		
Electrical Requirement	DC12V,>200W		
Ambient Temperature	10-35°C, RH<80%		
Storage Conditions	-10-40°C, RH<90%		
Physical Characteristics			
Cooling System	Air-Cooled		

Dimensional Drawings



Driver



Diamond series gem planning IR laser



1W
The laser power

<20um
Minimum laser spot

20000 ⁺h

The service life

Introduction

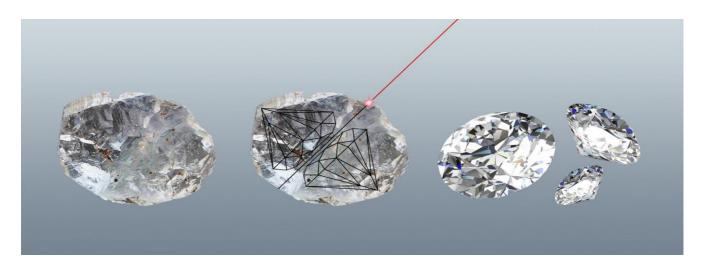
Superior beam quality and peak power ensure to achieve clear and shallow marks on the diamond and minimize the damage to the diamond.

Features

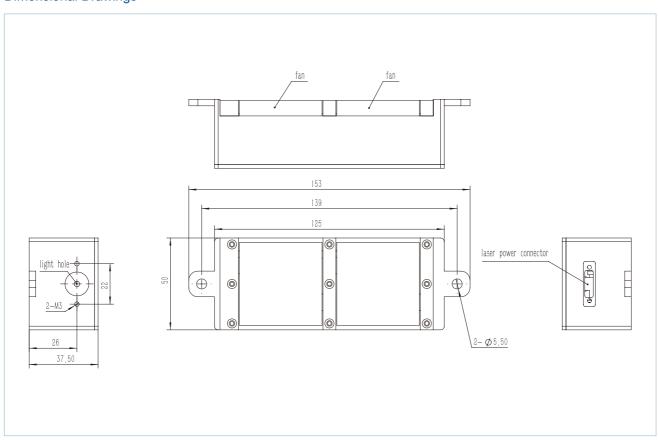
- The laser power 1W;
- Dual mode laser emission-parallel laser mode and focusing laser mode, to meet the needs of different planning machines;
- Superior beam quality, minimum laser spot <20um;
- High-precision temperature control to ensure long-term stable operation of the laser;
- Service life exceeds 20000 hours.

Application

• Gem planning



Model No.	MMD-YAG-1064-1		
Optical Characteristics			
Wavelength (nm)	1064nm±1nm		
Average Power (W)	>1W@12kHz		
Single Pulse Energy (uJ)	~30uJ@12kHz		
Pulse Width (ns)	~12ns@12kHz		
Repitition Rate	~12kHz		
Pulse Stability	<3% rms		
Long Term Stability	<±3%		
Beam Characteristics			
Polarization Ratio	Random polarization		
Beam Diameter	~0.8mm		
Beam Circularity	>90%		
Spatial Mode	TEM ₀₀₅ M ² <1.2		
Operating Specifications			
Warm-up Time	<15 minutes from cold start		
Electrical Requirement	AC220V/50Hz		
Ambient Temperature	10-35°C, RH<80%		
Storage Conditions	-10-40°C, RH<90%		
Physical Characteristics			
Cooling System	Air-Cooled		

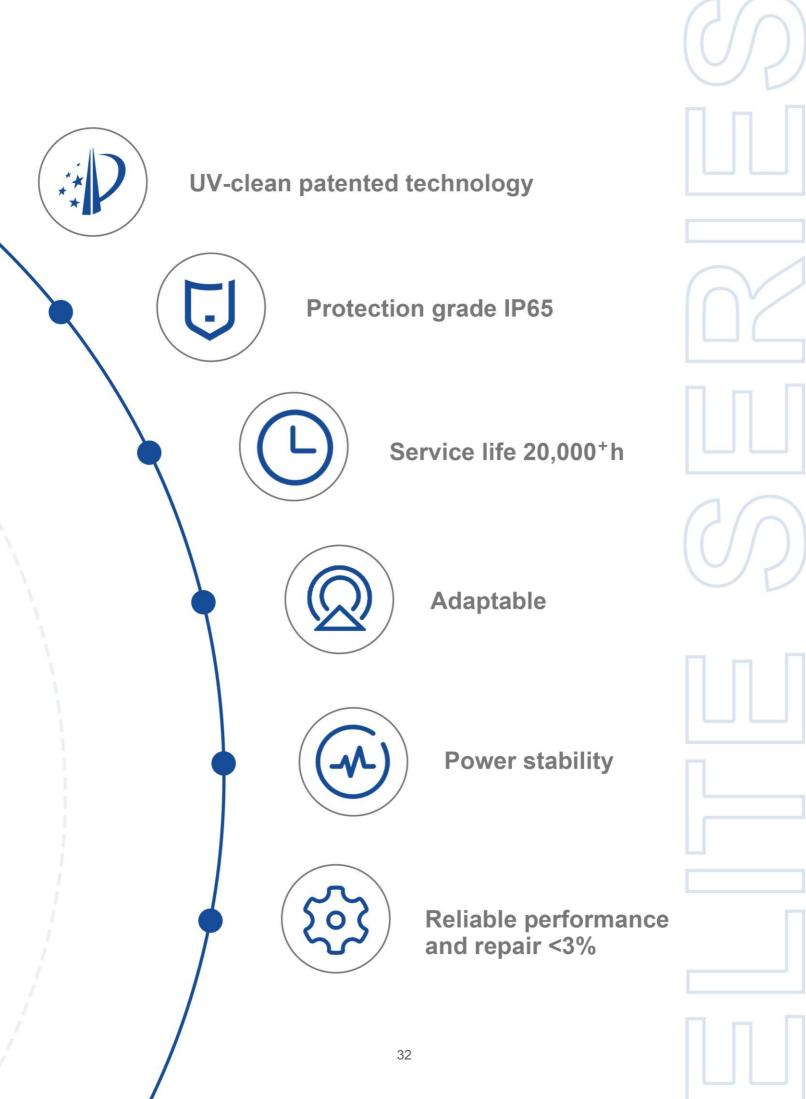




Stone series

Automotive, consumer electronics, and more





Stone series mini UV lasers



3-8W

The laser power

7x24h

Meet 7*24 hours of work

20000⁺h

The service life

Introduction

All-in-one compact laser source with superior beam quality M²<1.3, capable of processing more than 90% of industrial materials with excellent accuracy. The pulse width is narrower, only ~13ns@30kHz. Smaller size and easier to integrate. Its high stability can meet 7*24 hrs continuous working, with no worry of power attenuation.

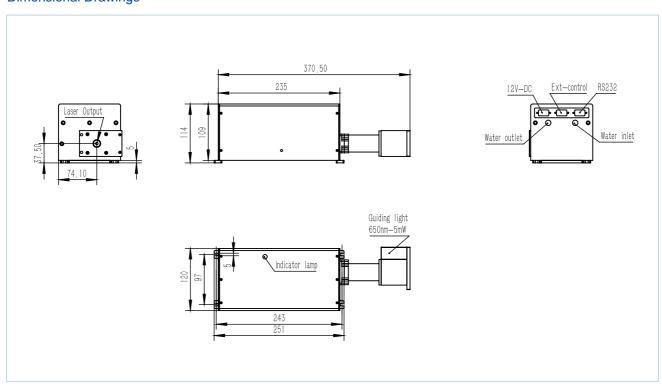
Features

- The laser power 3-8W;
- Narrower pulse width of only ~13ns@30kHz;
- Solve power attenuation and meet 7*24 hours of work;
- The service life exceeds 20,000 hours, maintenance-free, no need for regular commissioning;
- 3 layers of protection, protection grade IP65, more suitable for harsh working environment.

- Material marking Plastic, glass, metal molds, wood, packaging bags, jade, etc.
- Crystal internal engraving
- 3D printing
- Film cutting



Model No.	MMEPU-355-3-M MMEPU-355-5-M MMEPU-355-8					
Optical Characteristics						
Wavelength (nm)	355nm±1nm					
Average Power (W)	>3W@30kHz	>5W@30kHz	>8W@40kHz			
Single Pulse Energy (uJ)	~100uJ@30kHz	~160uJ@30kHz	~200uJ@40kHz			
Pulse Width (ns)		~13ns@30kHz				
Repitition Rate		20-500kHz				
Pulse Stability		<3% rms				
Long Term Stability		<±3%				
Beam Characteristics	Beam Characteristics					
Polarization Ratio	Horizontal;>100:1					
Beam Diameter	~0.8mm(at exit)/~5mm(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	DC12V,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					



Stone series air-cooled UV lasers



3-8W

The laser power

7x24h

Meet 7*24 hours of work

20000⁺h

The service life

Introduction

It perfectly inherits the excellent performance of Maiman's water-cooled UV lasers. The cooling method air-cooled does not require any chiller. Meantime it's more suitable for complex and harsh working condition.

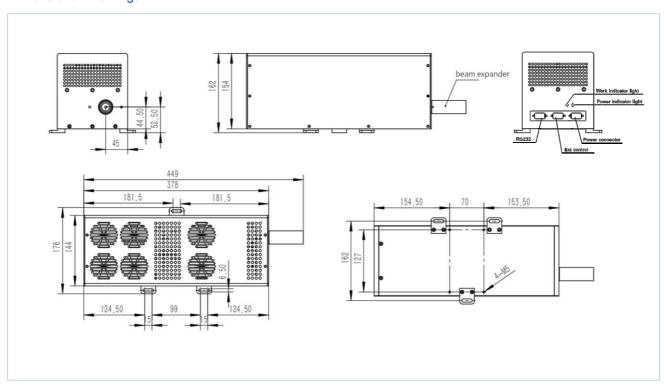
Features

- The laser power 3-8W;
- Solve power attenuation and meet 7*24 hours of work;
- The service life exceeds 20,000 hours, maintenance-free, no need for regular commissioning;
- All-in-one machine, directly installed with galvanometer, compatible with the rack of fiber laser marking machine;
- 3 layers of protection, protection grade IP65, more suitable for harsh working environment.

- Material marking Plastic, glass, metal molds, wood, packaging bags, jade, etc.
- Crystal internal engraving
- 3D printing
- Film cutting



Model NoStone Series	MMEPU-AC-355-3	MMEPU-AC-355-5	MMEPU-AC-355-8	
Model NoStone Plus Series	MMEPU-AC-355Plus-3 MMEPU-AC-355Plus-5		MMEPU-AC-355Plus-8	
Optical Characteristics				
Wavelength (nm)		355nm±1nm		
Average Power (W)	>3W@30kHz	>5W@30kHz	>8W@40kHz	
Single Pulse Energy (uJ)	~100uJ@30kHz	~160uJ@30kHz	~200uJ@40kHz	
Pulse Width (ns)	~15ns@	ŷ30kHz	~15ns@40kHz	
Repitition Rate	20-500kHz 40-500kHz			
Pulse Stability	<3% rms			
Long Term Stability	<±3%			
Beam Characteristics				
Polarization Ratio	Horizontal;>100:1			
Beam Diameter	\sim 0.8mm(at exit)/ \sim 5mm(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	DC12V,350W			
Ambient Temperature	10-35°C, RH<80%			
Storage Conditions	-10-40°C, RH<90%			
Physical Characteristics				
Cooling System	Air-cooled			



Stone series water-cooled UV lasers



3-15W

The laser power

7x24h

Meet 7*24 hours of work

20000⁺h

The service life

Introduction

All-in-one compact laser source with superior beam quality $M^2 < 1.3$, it's capable to process more than 90% of industrial materials with excellent accuracy. Its high stability can meet 7*24 hrs continous working, no worry of power attenuation.

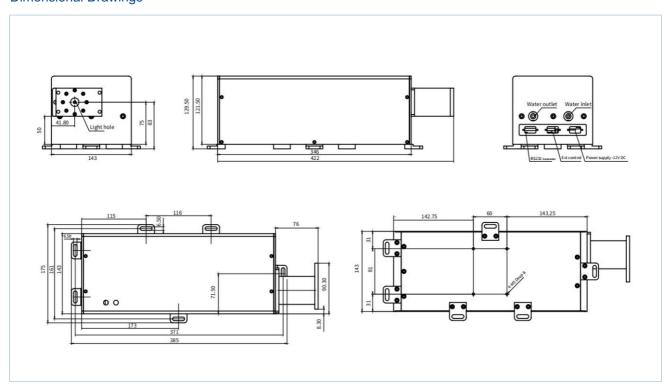
Features

- The laser power 3-15W;
- Solve power attenuation and meet 7*24 hours of work;
- The service life exceeds 20,000 hours, maintenance-free, no need for regular commissioning;
- All-in-one machine, directly installed with galvanometer, compatible with the rack of fiber laser marking machine;
- 3 layers of protection, protection grade IP65, more suitable for harsh working environment.

- Material marking Plastic, glass, metal molds, wood, packaging bags, jade, etc.
- Crystal internal engraving
- 3D printing
- Film cutting



Model NoStone Series	MMEPU-355-3	MMEPU-355-5	MMEPU-355-8	MMEPU-355-10	MMEPU-355-12	MMEPU-355-15
Model NoStone Plus Series	MMEPU-355Plus-3	MMEPU-355Plus-5	MMEPU-355Plus-8	MMEPU-355Plus-10	MMEPU-355Plus-12	MMEPU-355Plus-15
Optical Characteristics						
Wavelength (nm)			355nm	ı±1nm		
Average Power (W)	>3W@30kHz	>5W@30kHz	>8W@40kHz	>10W@40kHz	>12W@40kHz	>15W@40kHz
Single Pulse Energy (uJ)	~100uJ@30kHz	~160uJ@30kHz	~200uJ@40kHz	~250uJ@40kHz	~300uJ@40kHz	~375uJ@40kHz
Pulse Width (ns)	~15ns@	930kHz		~15ns@	40kHz	
Repitition Rate	20-50	00kHz		40-500	0kHz	
Pulse Stability			<3%	rms		
Long Term Stability			< <u>+</u>	3%		
Beam Characteristics						
Polarization Ratio	Horizontal;>100:1					
Beam Diameter	~0.8mm(at exit)/~5mm(6X beam expander)					
Beam Circularity	>90%					
Spatial Mode	TEM ₀₀₉ M ² <1.3					
Operating Specifications						
Warm-up Time	<15 minutes from cold start					
Electrical Requirement	DC12V,350W		DC15V	,350W	DC18V,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					



Stone series glass marking UV laser



10W

The laser power

7x24h

Meet 7*24 hours of work

20000⁺h

The service life

Introduction

Specially designed for glass marking, it can meet the processing requirements of various glass materials. It has excellent beam quality $M^2 < 1.3$, 30% higher peak power, 30% higher processing time, and a more delicate processing effect than ordinary 10W.

Features

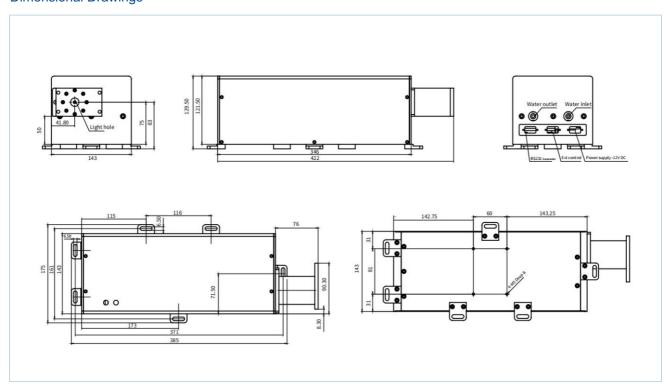
- The laser power 10W;
- Solve power attenuation and meet 7*24 hours of work;
- The service life exceeds 20,000 hours, maintenance-free, no need for regular commissioning;
- All-in-one machine, directly installed with galvanometer, compatible with the rack of fiber laser marking machine;
- 3 layers of protection, protection grade IP65, more suitable for harsh working environment.

Application

 Glass marking - Quartz, high borosilicate, K9, etc.



Model No.	MMEPU-355-10-ZRS2					
Optical Characteristics	Optical Characteristics					
Wavelength (nm)	355nm±1nm					
Average Power (W)	>10W@40kHz					
Single Pulse Energy (uJ)	~250uJ@40kHz					
Pulse Width (ns)	~10ns@40kHz					
Repitition Rate	40-500kHz					
Pulse Stability	<3% rms					
Long Term Stability	<±3%					
Beam Characteristics						
Polarization Ratio	Horizontal; >100:1					
Beam Diameter	~0.8mm(at exit)/~5mm(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	DC15V, 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					



Stone series active Q-switched IR lasers



12-30W

The laser power

IP65

Protection grade

20000[†]h

The service life

Introduction

Newly upgraded all-in-one structure, water-cooled, with higher beam quality, power stability and pulse stability, easier to integrate, easy to deal with the marking of transparent products and the etching of ITO films.

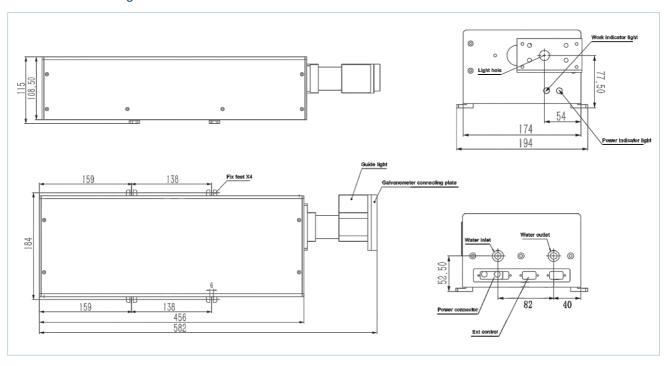
Features

- The laser power 12-30W;
- Water cooling, 3-layer protective shell, protection grade IP65, suitable for harsh working environment;
- Pulse width, power and frequency are all adjustable to meet different process requirements;
- All-in-one structure, easier to integrate and smaller in size;
- Ultra-high stability to meet 7*24 hours of work, with a service life exceeds 20,000 hours.

- Transparent key & button paint stripping
- ITO film etching



Model No.	MMEPA-1064-12	MMEPA-1064-15	MMEPA-1064-20	MMEPA-1064-25	MMEPA-1064-30	
Optical Characteristics						
Wavelength (nm)			1064nm			
Average Power (W)	>12W@CW	>15W@CW	>20W@CW	>25W@CW	>30W@CW	
Single Pulse Energy (uJ)	~270uJ@40kHz	~330uJ@40kHz	~450uJ@40kHz	~550uJ@40kHz	~600uJ@50kHz	
Pulse Width (ns)			~16ns@40kHz		15~16ns@50kHz	
Repitition Rate			20-500kHz			
Pulse Stability			<3% rms			
Long Term Stability			<±3%			
Beam Characteristics						
Polarization Ratio	Horizontal;>100:1					
Beam Diameter	6mm(Built in beam expander)					
Beam Circularity	>90%					
Spatial Mode	TEM _∞ , M²<1.3					
Operating Specifications						
Warm-up Time	<15 minutes from cold start					
Electrical Requirement	DC12V, 350W DC15V, 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					



Stone series high power green lasers



10-20W

The laser power

IP65

Protection grade

20000[†]h

The service life

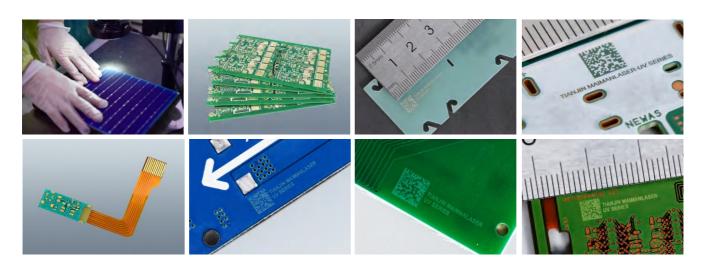
Introduction

Superior beam quality and high laser power, capable of PCB&FPC cutting and marking easily, with more stable performance.

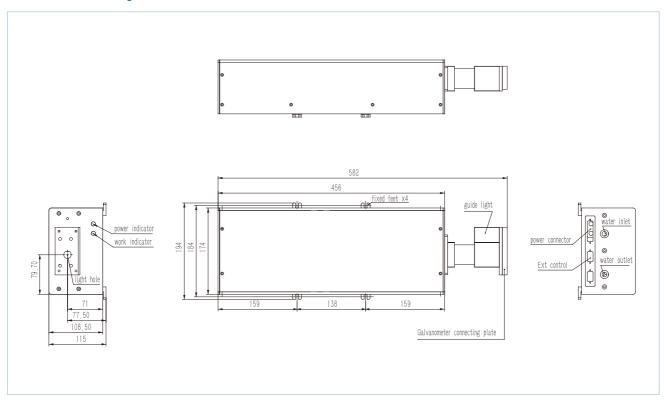
Features

- The laser power 10-20W;
- Higher power stability to ensure the consistency of long-term processing;
- Superior beam quality, capable to provide a smaller focusing spot and higher processing efficiency;
- Water-cooled, 3-layer protective shell, protection grade IP65, suitable for harsh working environment;
- All-in-one structure, no need for regular commissioning, maintenance-free and easier to integrate;
- Ultra-high stability to meet 7*24 hours of work, the service life exceeds 20,000 hours.

- Solar cell scribing
- Precision cutting
- PCB & FPC marking



Model No.	MMEPG-532-10 MMEPG-532-15 MMEPG-532-20				
Optical Characteristics					
Wavelength (nm)		532nm			
Average Power (W)	>10W@40kHz	>15W@40kHz	>20W@40kHz		
Single Pulse Energy (uJ)	~250uJ@40kHz	~370uJ@40kHz	~500uJ@40kHz		
Pulse Width (ns)		~15ns@40kHz			
Repitition Rate		20-500kHz			
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	Operating Specifications				
Warm-up Time	<15 minutes from cold start				
Electrical Requirement	DC12V, 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				



Stone series fiber green laser



4-5W

The laser power

6-8ns

The pulse width maintains

20000[†]h

The service life

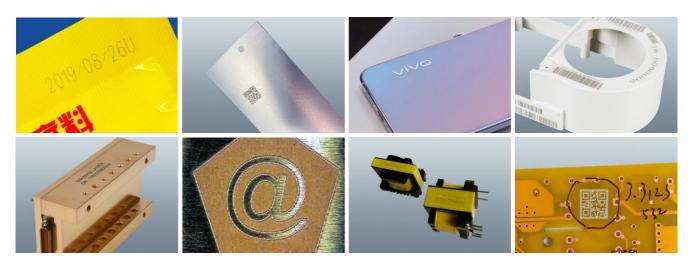
Introduction

The repitition rate 20-30kHz, the pulse width maintains at 6-8ns, lower processing heat, higher peak power, better processing capacity.

Features

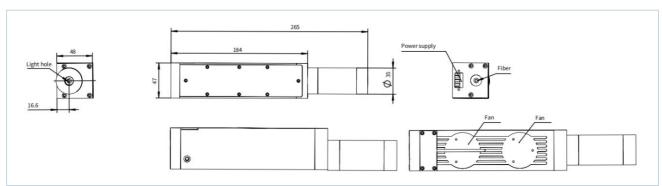
- The laser power 4-5W;
- Narrow pulse width, low thermal effect of processing, not easy to cause scorch on the plastic surface;
- High peak power, strong processing ability, capable of processing more materials;
- Air-cooled structure, compact laser head, compatible with the optical path of fiber laser;
- Service life exceeds 20000 hours.

- Packaging films marking
- Gold-plated surface blackening treatment
- Metallic materials marking
- 3C product surface marking

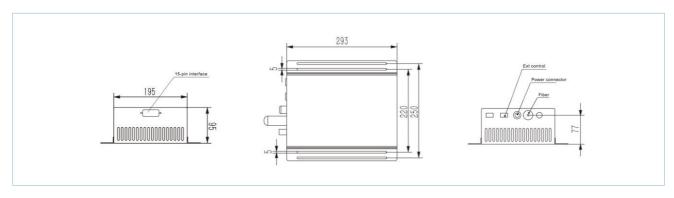


Model No.	MMEPGF-532-5L		
Optical Characteristics			
Wavelength (nm)	532nm±1nm		
Average Power (W)	5±0.5W@20kHz		
Single Pulse Energy (uJ)	200-250uJ@20kHz		
Pulse Width (ns)	~7ns@20kHz		
Repitition Rate	Uncontrollable, range 20-30kHz		
Pulse Stability	<3% rms		
Long Term Stability	<±3%		
Beam Characteristics			
Polarization Ratio	Linear; >100:1		
Beam Diameter	6mm		
Beam Circularity	>90%		
Spatial Mode	TEM ₀₀₀ M ² <1.3		
Operating Specifications			
Warm-up Time	<15 minutes from cold start		
Electrical Requirement	DC12V,>200W		
Ambient Temperature	10-35°C, RH<80%		
Storage Conditions	-10-40°C, RH<90%		
Physical Characteristics			
Cooling System	Air-Cooled		

Dimensional Drawings



Driver



Stone series cold light IR lasers



5-10W

The laser power

>30kW

The peak power

20000⁺h

The service life

Introduction

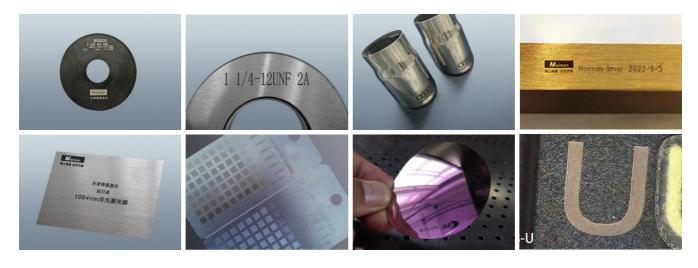
The frequency 20-30kHz, the pulse width maintains at 6-8ns, lower processing heat and higher peak power can achieve alumina black marking easily, with stronger processing capacity.

Features

- The laser power 5-10W;
- The pulse width 6-8ns, the processing heat is only 1/10 that of fiber laser, which will not cause plastic scorch;
- The peak power > 30kW, which is 10 times that of fiber laser, the processing capacity is stronger;
- Anti-reflection function, easy to deal with high reflective materials such as gold, silver and copper;
- Ultra-high stability, with service life exceeds 20,000 hours.

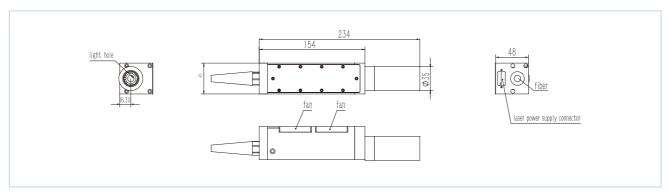
Application

 Material marking - Auto parts, high reflective materials, plastic shell, etc.

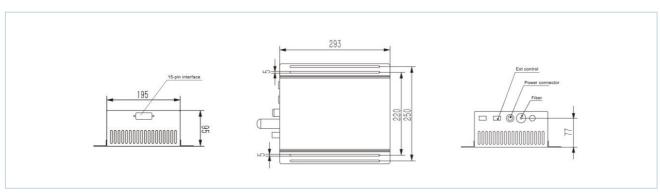


Model No.	MMEPF-1064-5	MMEPF-1064-8L	MMEPF-1064-8	MMEPF-1064-10		
Optical Characteristics	Optical Characteristics					
Wavelength (nm)		1064nn	n±1nm			
Average Power (W)	>5W@20kHz	>8±1W@20kHz	>8W@20kHz	>10W@20kHz		
Single Pulse Energy (uJ)	~150uJ@20kHz	~400uJ@20kHz	~400uJ@20kHz	~500uJ@20kHz		
Pulse Width (ns)		~7ns@	20kHz			
Repitition Rate		Uncontrollable,	range 20-30kHz			
Pulse Stability		<3%	rms			
Long Term Stability		< <u>±</u>	3%			
Beam Characteristics	uracteristics					
Polarization Ratio	Random polarization					
Beam Diameter	7mm					
Beam Circularity	>90%					
Spatial Mode	TEM ₀₀ ,M ² <1.5					
Operating Specifications	Operating Specifications					
Warm-up Time	<15 minutes from cold start					
Electrical Requirement	DC12V,>200W					
Ambient Temperature	10-35°C, RH<80%					
Storage Conditions	-10-40°C, RH<90%					
Physical Characteristics						
Cooling System	Air-Cooled					

Dimensional Drawings



Driver



Layout International Market



365 day 24-hour full-time guarantee service, to summarize, analyze and solve problems encountered by customers quickly. Through regular theoretical and practical training services, customers can master the ability to troubleshoot and repair basic product failures, and quickly meet the needs of users. At the same time, focus on strengthening overseas service layout, optimize regional layout, improve service capabilities, and build a global service system through cooperation with local distributors and establishment of service sites independently.

Build International Influence



Customers & Cases

2000⁺ **Global customers**





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