# 355nm Nd:YAG q-switched nanosecond laser MA Microchip laser system



### DESCRIPTION

Our 355nm laser is based on the technology of diode pump laser module and q-switch. Nd:YAG crystal is used to manufacture 355nm laser. ULaser can provide 1.5ns, 1ns, 500ps, 550ps and 300ps 355nm microchip laser.

Our 355nm microchip laser has narrow laser pulse width. At the same time, it has high pulse repetition frequency. As a microchip laser, its size is small and its weight is light certainly. Our laser's beam quality is excellent.

As a uv laser, 355nm microchip laser plays an important role in many fields. It can be used in environment monitoring systems, 3d dental scan, laser ultrasound, laser ionization mass spectrometry and so on.

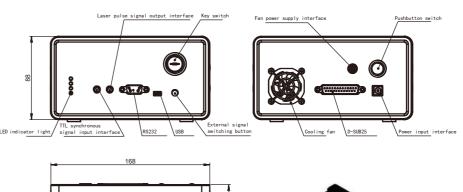
#### **FEATURES**

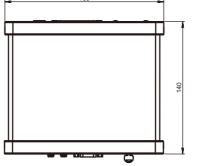
- Pulse width up to 1ns
- Pulse energy up to 200µJ
- Repetition frequency up to 20kHz
- Beam mode is TEM
- Fully sealed design, high reliability

#### APPLICATIONS

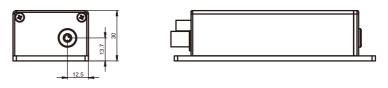
- Lidar
- Laser ranging
- Atmospheric monitoring
- Laser ultrasonic inspection
- Optical metrology
- Laser-induced fluorescence

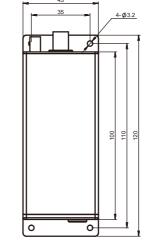
# **Ulaser**

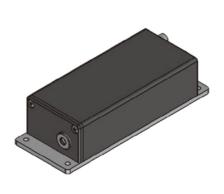


















Model		UL355-1kHz-30µJ-MA005	UL355-5kHz-10µJ-MA006	UL355-10kHz-5μJ-MA007	UL355-20kHz-3µJ-MA008
Optical parameter	Wavelength (nm)	355	355	355	355
	Repetition frequency (kHz)	1*	5*	10*	20*
	Average power (mW)	30	50	50	60
	Output energy (µJ)	30	10	5	3
	Pulse width (ps)	1500	1200	1200	1200
	Power stability (8h)	±3%	±3%	±3%	±3%
	Beam mode	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>
	Full-angle divergence angle Typ. (Mrad) level @1/e <sup>2</sup>	5	5	5	5
	Vertical @1/e <sup>2</sup>	5	5	5	5
	Polarization characteristics	> 100:1	> 100:1	> 100:1	> 100:1
	System power consumption (W)	≤35	≤35	≤35	≤35
	Power input	100-240 VAC, 50/60Hz	100-240 VAC, 50/60Hz	100-240 VAC, 50/60Hz	100-240 VAC, 50/60Hz
	Control interface	RS232, USB	RS232, USB	RS232, USB	RS232, USB
	Power supply size (W×H×L, mm)	168×88×140	168×88×140	168×88×140	168×88×140
	Laser head size (W×H×L, mm)	45×30×120	45×30×120	45×30×120	45×30×120
	Working temperature (°C)	15-35	15-35	15-35	15-35
	Storage temperature (°C)	0-60	0-60	0-60	0-60

<sup>1.\*</sup>The light outlet of the laser head is side outlet. See the mechanical dimension drawing for details

<sup>2.</sup> Customized internal beam expansion function to meet the requirements of small divergence angle (less than 2mrad)





# **Ulaser**

# 355nm Nd:YAG q-switched picosecond laser MC Microchip laser system



### **DESCRIPTION**

Our 355nm laser is based on the technology of diode pump laser module and q-switch. Nd:YAG crystal is used to manufacture 355nm laser. ULaser can provide 1.5ns, 1ns, 500ps, 550ps and 300ps 355nm microchip laser.

Our 355nm microchip laser has narrow laser pulse width. At the same time, it has high pulse repetition frequency. As a microchip laser, its size is small and its weight is light certainly. Our laser's beam quality is excellent.

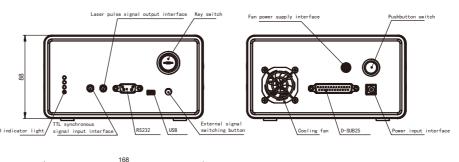
As a uv laser, 355nm microchip laser plays an important role in many fields. It can be used in environment monitoring systems, 3d dental scan, laser ultrasound, laser ionization mass spectrometry and so on.

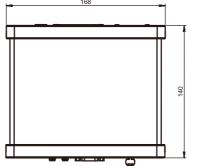
### **FEATURES**

- Pulse width up to 550ps
- Pulse energy up to 120µJ
- High polarization direction stability
- Maximum repetition rate up to 10kHz
- Beam mode is TEM<sub>00</sub>
- · Fully sealed design, high reliability

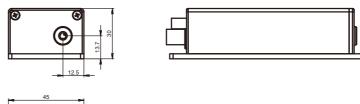
### APPLICATIONS

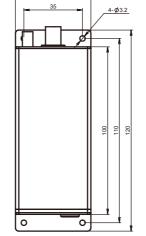
- Seed source
- Micromachining
- Biomedical science
- Laser ultrasonic inspection
- · Laser ionization mass spectrometry
- Optical parametric oscillating pump source

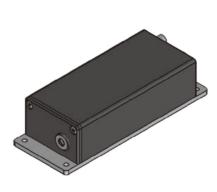


















/lodel		UL355-1kKHz-20µJ-MC005	UL355-5kHz-10µJ-MC006	UL355-10kHz-5µJ-MC007
Optical parameter	Wavelength (nm)	355	355	355
	Repetition frequency (kHz)	1*	5*	10*
	Average power (mW)	20	50	50
	Output energy (µJ)	20	10	5
	Pulse width (ps)	650	650	650
	Power stability (8h)	±3%	±3%	±3%
	Beam mode	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>
	Full-angle divergence angle Typ. (Mrad) level @1/e <sup>2</sup>	5	8	8
	Vertical @1/e <sup>2</sup>	5	8	8
	Polarization characteristics	> 100:1	> 100:1	> 100:1
System parameters	System power consumption (W)	≤25	≤25	≤30
	Power input	100-240 VAC, 50/60Hz	100-240 VAC, 50/60Hz	100-240 VAC, 50/60Hz
	Control interface	RS232, USB	RS232, USB	RS232, USB
	Power supply size (W×H×L, mm)	168×88×140	168×88×140	168×88×140
	Laser head size (W×H×L, mm)	45×30×120	45×30×120	45×30×120
	Working temperature (°C)	15-35	15-35	15-35
	Storage temperature (°C)	0-60	0-60	0-60

<sup>1.\*</sup>The light outlet of the laser head is side outlet. See the mechanical dimension drawing for details

<sup>2.</sup> Customized internal beam expansion function to meet the requirements of small divergence angle (less than 2mrad)





# 355nm Nd:YAG q-switched picosecond laser MD Microchip laser system



### **DESCRIPTION**

Our 355nm laser is based on the technology of diode pump laser module and q-switch. Nd:YAG crystal is used to manufacture 355nm laser. ULaser can provide 1.5ns, 1ns, 500ps, 550ps and 300ps 355nm microchip laser.

Our 355nm microchip laser has narrow laser pulse width. At the same time, it has high pulse repetition frequency. As a microchip laser, its size is small and its weight is light certainly. Our laser's beam quality is excellent.

As a uv laser, 355nm microchip laser plays an important role in many fields. It can be used in environment monitoring systems, 3d dental scan, laser ultrasound, laser ionization mass spectrometry and so on.

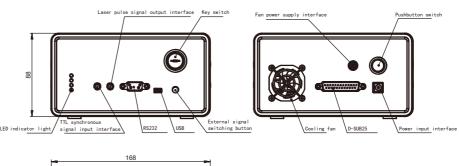
### **FEATURES**

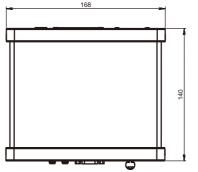
- Pulse width up to 550ps
- Pulse energy up to 120µJ
- · High polarization direction stability
- Maximum repetition rate up to 10kHz
- Beam mode is TEM<sub>no</sub>
- Fully sealed design, high reliability

### APPLICATIONS

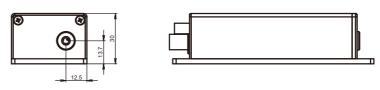
- Seed source
- Micromachining
- Fluorescence lifetime measuremen
- Laser-induced fluorescence
- Laser ionization mass spectrometry
- Non-linear optical measurement

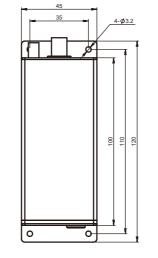
# **Ulaser**

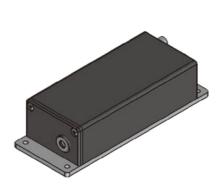


















Model		UL355-0.1kHz-15μJ-MD002
	Wavelength (nm)	355
	Repetition frequency (kHz)	0.1*
	Average power(mW)	1.5
	Output energy (µJ)	15
Ontical acreation	Pulse width (ps)	300
Optical parameter	Power stability (8h)	±3%
	Beam mode	TEM <sub>00</sub>
	Full-angle divergence angle Typ. (Mrad) level @1/e <sup>2</sup>	8
	Vertical @1/e <sup>2</sup>	8
	Polarization characteristics	> 100:1
	System power consumption (W)	≤25
	Power input	100-240 VAC,50/60Hz
	Control interface	RS232、USB
System parameters	Power supply size (W×H×L, mm)	168×88×140
	Laser head size (W×H×L, mm)	45×30×120
	Working temperature (°C)	15-35
	Storage temperature (°C)	0-60

<sup>1.\*</sup>The light outlet of the laser head is side outlet. See the mechanical dimension drawing for details

<sup>2.</sup> Customized internal beam expansion function to meet the requirements of small divergence angle (less than 2mrad)





# 355nm Nd:YAG q-switched picosecond laser MO Microchip laser system



### **DESCRIPTION**

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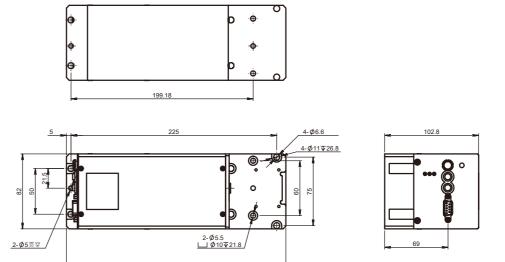
### **FEATURES**

- Maximum repetition rate up to 100kHz
- Pulse width up to 500ps
- Pulse energy up to 5µJ
- Single longitudinal mode
- Beam mode is TEM<sub>00</sub>
- High polarization direction stability

### **APPLICATIONS**

- Laser processing
- Seed source
- Analysis instrument
- · Bioluminescent molecule

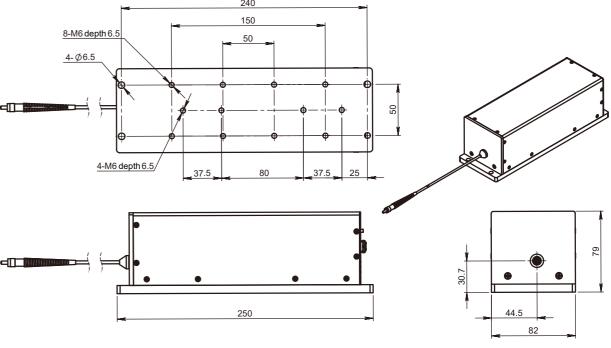






Space output size diagram





Optical fiber output size diagram



Model		UL355-200Hz-25/20µJ-MO002	
	Wavelength (nm)	355	
	Repetition frequency (Hz)	1-200	
	Maximum output energy of space beam (µJ)	25	
	Fiber Coupling Maximum Output Energy (µJ)	20	
	Pulse width (ns)	≤1	
Ontical narameter	Energy Stability(rms)	≤3%	
Optical parameter	Energy Regulation Step Accuracy	≤2%	
	Beam mode (spatial beam output)	TEM <sub>00</sub>	
	Full-angle divergence angle Typ. (Mrad) level @1/e <sup>2</sup>	≤2	
	Vertical @1/e <sup>2</sup>	≤2	
	Polarization characteristics	≥100:1	
	Fiber parameters (fiber coupled output optional)	200μm/0.22NA	
	Power input	24V DC	
	Modulation input	TTL0-5V,SMB connector	
	Control interface	RS232	
System narameters	System Peak Power Consumption (W)	< 20	
System parameters	System Average Power Consumption (W)	< 10	
	Laser size (W $\times$ H $\times$ L, mm)	82×102.8×240(space)/ 82x79x250(optical fiber)	
	Working temperature (°C)	10-40	
	Storage temperature (°C)	0-60	

- 1. The supported operating frequency is 16~200Hz in continuous mode and burst mode.
- 2. Fiber core diameter: 200µm.
- 3. The power supply adapter is shipped with matching power supply, which can support 90~260VAC power supply input.



