UC INSTRUMENTS CORP. DPU CA6059 Series Air Cooled UV Laser Marking Systems

Technical Specifications Ver 1.01
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UC INSTRUMENTS CORP.

DPU CA6059 Series UV Laser Marking Systems

The UC INSTRUMENTS CORP. DPU CA6059 Series are end-pumped air-cooled UV laser marking systems including the newest generation of semi-conductor air-cooled laser technology. The systems can be integrated into the top standard configurations appropriate to various applications in the global market due to their excellent features such as stable performance, delicate carving, long-term laser source, low power consumption and low maintenance cost to adapt to 24-hour operation.

Ultraviolet laser has less thermal effect by comparing with green light and infrared light. Various materials have higher absorption rate with reduction of laser wavelength regardless varied structure of molecular chain. It is highly suitable to the marking materials sensible to thermal effect especially in the micrometer or nanometer level super-fining processing.

Features

Short wavelength, shot pulse, high-quality light beam, high precision, high peak power

Extremely reduced laser thermal effect on processing surface of materials

Dust-proof sealed laser cavity without condensation for preventing damage to expensive optical elements thoroughly and guarantying stable batch production under industrial environment

Expensive crystal with long lifetime

Higher conversion efficiency by small divergence angle for light beam

Less than 2% power instability for guarantying 24-hour stable operation

Reliable plug-in power failure protection functions for limiting maximum power consumption at 1,000W

Modular configuration to facilitate system integration and equipment maintenance

Powerful application software with user friendly interface, potent functions and free upgradability

The potent software supporting one- and two-dimensional codes with convenient reading and also DXF, PLT files generated by AutoCAD or CoreDraw

Applications

The systems have excellent application characteristics in special material processing fields to reduce thermal effect and increase processing precision particularly on various surfaces.

Marking and surface treatment of circular microchips, thin ceramics, IC crystal particles, glasses, TFT, LED, plasma screens, precise key marks, glass surface marks, silicon wafer marks, PCB processing, flat-panel display production, fine tuning of electronic elements, processing of solar energy battery materials, textiles and thin polymer films, etc.

DPU Series of System Specifications

Model#	CA6059-3	CA6059-6
Average output power	3W	6W
Output wave length	355 nm	355 nm
Quality of light beam	$M^2 <1.5$	$M^2 <2$
Output stability	< 2%	< 2%
Pulse width	20ns(@20kHz)	20ns(@20kHz)
Pulse energy	>150µJ(@20kHz)	>300µJ(@20kHz)
Repetition frequency	10-100kHz	
Power supply	AC90-240V/50-60Hz/1Ph/700W	
Carving area/ focal dimension	F100	F160
	60mm×60mm/15µm	110mm×110mm/25µm

Marking Examples：

UC INSTRUMENTS CORP.'s Supports, Services and Assistance

UC INSTRUMENTS CORP. provides high performance, high value, affordable instrument solutions for our customers. Our extensive support sources can help you choose right UC INSTRUMENTS CORP.'s products for your specific applications and apply them successfully. Every instrument /system we sell has a global warranty. All of our instruments are with at least 18 months factory warranty.

Our Promise

All of UC INSTRUMENTS CORP.'s instruments and systems meet their advertised performance and functionality. When you select a UC INSTRUMENTS CORP.' product, we can help your product operation with our extensive experiences, and provide the basic measurement assistance for the use of special capabilities.

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