

UC INSTRUMENTS CORP. FPS CA6060 Series Air Cooled Optical Fiber Laser Marking Systems

**Technical Specifications Ver 1.01
February, 2011**



 **UC INSTRUMENTS CORP.**

FPS CA6060 Series Optical Fiber Laser Marking Systems

The UC INSTRUMENTS CORP. FPS Series are Q-switch pulsed air-cooled optical fiber laser marking systems including Yb-doped optic fiber laser system without MOPFA maintenance technology. It permits 1,060nm to 1,070nm high-power laser to be integrated into equipments (such as cutter, welding machine and marking machine, etc.) by a flexible single-mode optic fiber with metallic sheath. Focus fibula dimension can reach several micron/submicron. Such a high-quality laser beam approaching to diffraction limitation can be used to mark, bore, cut or process different materials. The FPS optic fiber series systems with compact structure can provide a wider scope for pulse width, repetition frequency and peak power applicable in online industrial production environment with excellent protection capacity for large-scope alternation of shock, dust, vibration and temperature due to excellent structural design of all optic fibers and solid metallic shell.

Features

- Semi-conductor optic fiber laser with compact size suitable for integration into online industrial production process
- Common power system as supply power with convenient installation
- High-quality laser beam (TEM₀₀) appropriate to precise processing
- Convenient operation and low maintenance beneficial for fine laser applications
- Excellent air-cooling system with high control precision and excellent laser stability for 24-hour operation at ambient temperature
- Modular configuration to facilitate system integration and equipment maintenance
- Powerful application software with user friendly interface, potent functions and free upgradability

Applications

FPS optic fiber laser provides a wider scope for pulse width, repetition frequency and peak power and the focus fibula dimension can reach several microns even submicrons, allowing the high-quality laser beam (of TEM₀₀) attractive to fine processing with strict requirements on depth, smoothness and fineness.

Widely used in IT, communication, stainless steel veneer, mobile phone keys, dices, IC, bitmap marking, machine machinery, medical appliances, watches/clocks, glasses and craft gifts.

Control software with potent functions

High-speed real-time processing from generation of processing image signals to precise generation of marking control signals, allowing high quality applications

Compatible with dot matrix and vector marking modes, supporting various commercial and engineering mapping file formats with rich figure editing functions

Strong circle & text editing functions with:

- Omni-bearing character styles and international language texts

- Type, True Type, AFM, CID, CFF, SFNT and PRF

- Random decomposition, free array, combination and size adjustment for varied marking tasks

- Figure consolidation & modification

Import and export files compatible with PLT, DXF, and bitmap formats

Common and special bar code and two-dimensional code with ability of achieving the maximum reading ratio and efficiency for random code patterns, and supporting various code standards such as standard industrial code, 2/5 code, ASCII code, 128 code and EAN13 code; EAN8 code, UPCA and UPCE code; DATAMATRIX, Qr code, PDF417 code and 16K code.

FPS CA6060 Series of System Specifications

Model#	CA6060-10	CA6060-16	CA6060-20	CA6060-30	CA6060-50
Average output power	10W	16W	20W	30W	50W
Output wave length	1,064nm				
Quality of light beam	M ² <1.2	M ² <1.4	M ² <2	M ² <2	M ² <2
Output stability	<2%				
Modulation frequency	20kHz-100kHz				
Pulse width	<160ns				
Peak power	2-10KW/20KHz				
Marking speed	600-1,000 character code/second				
The minimum line width	0.02mm				
Positioning precision	<10 μ rad				
Marking scope	50-500mm				
Dimension	L540×W176×H489mm				
Weight	28kg				
Power	220V/50-60Hz				
Power consumption	600W	800W	1,000W	1,200W	1,200W
Cooling mode	Air-cooled				

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.

Contact Information

United States:

UC INSTRUMENTS CORP.

3652 Edison Way
Fremont, CA 94538
USA
Tel: 1-510-366-7353
Fax: 1-510-795-1795
sales@instruments.com
www.instruments.com

Product specifications and descriptions in this documentation subject to change without notice.
Copyright © 2011 UC INSTRUMENTS CORP.
June, 2008

31000021 V1.03