

Linear Samurai UV Laser Marking System

FEATURES

- ~ Up to 3 W Average Power
- ~ Up to 4 KW Peak Power
- ~ High Precision
- ~ Powerful, Easy-to-use Software
- ~ Compact OEM design
- ~ Automation-Ready Industrial Design
- ~ Marking On The Fly (MOTF) Ready
- ~ Customizable Work Areas and Spot Sizes



The Samurai Laser Marker is a fully integrated, compact, UV laser marking system designed for factory use. Taking advantage of the photon energy of the 355 nm wavelength, the system is capable of achieving 7 μm spot sizes and work spaces in excess of 500 x 500 mm. The compact design and low-maintenance DPSS UV laser make this the perfect choice for high volume applications.

Intuitive control software allows you to build jobs quickly, while powerful algorithms enable Marking On The Fly (MOTF) and serialization operations. The system is highly versatile and can be configured to several output orientations in order to accommodate any installation. Software APIs make it easy to customize communications with other devices in the production facility including PLCs, databases, networks, and host computers. Motion and automation can be easily integrated through industrial level I/O to achieve a fully automated production line. With zero toxic consumables and no messy clean-ups, the Samurai Linear (OEM) Marking system is the perfect choice for most marking applications.



Permanent HDPE bottle marking

APPLICATIONS

- * Package Marking
- * Bottle Marking
- * Thick/Thin Film Laser Trimming
- * ITO Removal
- * Sapphire Scribing
- * Micromachining
- * Direct Write/Repair
- * Micro-via Hole Drilling
- * Wafer processing
- * Polyimide Cutting & Drilling
- * Photo Bleaching

Find more application data on the web at www.DPSS-Lasers.com

SPECIFICATIONS

LASER PERFORMANCE

Wavelength	354.7 nm
Average Power	1 - 3 W
Energy per Pulse	< 100 μ J
Mode (M ²)	TEM ₀₀ (M ² < 1.3)
Beam Diameter (1/e ²)	See Chart
Pulse to Pulse Stability (30 - 100 kHz)	< 15%
Power Stability (8 hrs. at const. temp.)	< 5%
Ellipticity	< 10%
Astigmatism	< 0.3

MARKING PERFORMANCE

Marking Accuracy	< 1.5 mrad
Marking Repeatability	< 22 μ rad

ELECTRICAL

Input Voltage	90 - 240 VAC
Power Consumption (max.)	900 W
Ambient Temp. (non-condensing)	10 - 35° C

PHYSICAL

System Dim. (LWH)	914 x 269 x 210 mm
System Weight	32.2 kg
Cooling System Dim. (LWH)	287 x 224 x 389 mm
Cooling System Weight (dry)	9 kg
Power Supply Dim. (LWH)	343 x 280 x 145 mm
Power Supply Weight	5.7 kg

Full system consists of laser head, laser controller, routing optics, galvo, cooling system, computer, marking software and all necessary cables.

Spot Size	Field Size	f-Theta Lens
7 μ m	16 x 16 mm	f-56 mm
20 μ m	160 x 160 mm	f-250 mm
25 μ m	205 x 205 mm	f-330 mm
30 μ m	80 x 80 mm	NA
50 μ m	170 x 170 mm	NA

*Other Models Available Upon Request. Specifications subject to change without notice.

