

# Desktop Samurai UV Laser Marking System

## FEATURES

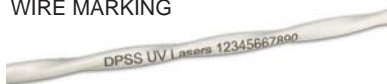
- ~ Cold Marking
- ~ Up to 3 W Average Power
- ~ Up to 4 KW Peak Power
- ~ Safety Enclosure
- ~ High Precision
- ~ Powerful, Easy-to-use Software
- ~ Compact, Turn-Key System
- ~ Customizable Work Areas and Spot Sizes



The Desktop Samurai Laser Marker is a fully integrated, compact, UV laser marking system designed for benchtop/R&D use. Taking advantage of the photon energy of the 355 nm wavelength (Cold Marking), the system is capable of achieving 7  $\mu\text{m}$  spot sizes and work spaces in excess of 200 x 200 mm. The turn-key design and low maintenance DPSS UV laser make this the perfect choice for R&D and production applications.

Intuitive control software allows you to build jobs quickly, while powerful algorithms enable customizable serialization routines and barcode marking. The interlocked safety enclosure and clear viewing window make this a perfect choice for engineering R&D or small volume production. Optional vision and motion components allow for a customizable level of integration. Software APIs make it easy to further customize and automate processes. With the turn-key design and easy-to-use functions you can be processing parts within hours of receiving your system. Our Application Specialists are always available to help with even the most demanding applications, offering industry-leading customer support.

WIRE MARKING



PILL MARKING



PRODUCT MARKING



## APPLICATIONS

- \* Product ID Marking
- \* Track & Trace
- \* HDPE Permanent Marking
- \* ITO Removal
- \* Silicon Wafer Soft Marks
- \* De-encapsulation
- \* Security Marking
- \* Micro-Texturing
- \* Corrosion-Resistant Marking
- \* Polyimide Cutting & Drilling
- \* Photo Bleaching

Find more application data on the web at [www.DPSS-Lasers.com](http://www.DPSS-Lasers.com)

# SPECIFICATIONS

## LASER PERFORMANCE

Wavelength	354.7 nm
Average Power	1 - 3 W
Energy per Pulse	< 100 $\mu$ J
Mode (M <sup>2</sup> )	TEM <sub>00</sub> (M <sup>2</sup> < 1.3)
Beam Diameter (1/e <sup>2</sup> )	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 $\mu$ rad

## ELECTRICAL

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

## PHYSICAL

System Dim (LWH)	762 x 457 x 677 mm
System Weight	55 kg
Cooling System Dim. (LWH)	287 x 224 x 389 mm
Cooling System Weight (dry)	9 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 $\mu$ m	16 x 16 mm	f-56 mm
20 $\mu$ m	160 x 160 mm	f-250 mm
25 $\mu$ m	205 x 205 mm	f-330 mm
30 $\mu$ m	80 x 80 mm	NA
50 $\mu$ m	170 x 170 mm	NA

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

***"If a picture is worth a thousand words,  
a sample is worth a thousand pictures!"***

*~ Randy Kimball, VP of Sales ~*

Qualify your application in the best way possible, with a free sample! DPSS offers a free Apps Lab to run proof-of concept samples that can demonstrate to you and your colleagues the advantages of our Samurai Cold UV laser marking solutions. Use these to quickly compare and qualify your new application. And since we use your material, you can see exactly what the final product will look like. Best of all, most samples are processed and returned to you within 24 - 48 hours.

