

Laser Singulation System (GLSS)

The GLSS is a standalone Laser singulation machine specially designed to handle ultra-thin and flexible printed circuit board assemblies (PCBA) typically less than 0.6 mm in thickness.

The GLSS operates two tables for simultaneous cutting and load/unload operations for maximum production effectiveness and flexibility. Parts handling is as simple as positioning on a flat vacuum platen or a simple alignment fixture making the expenses usually associated with tooling less.

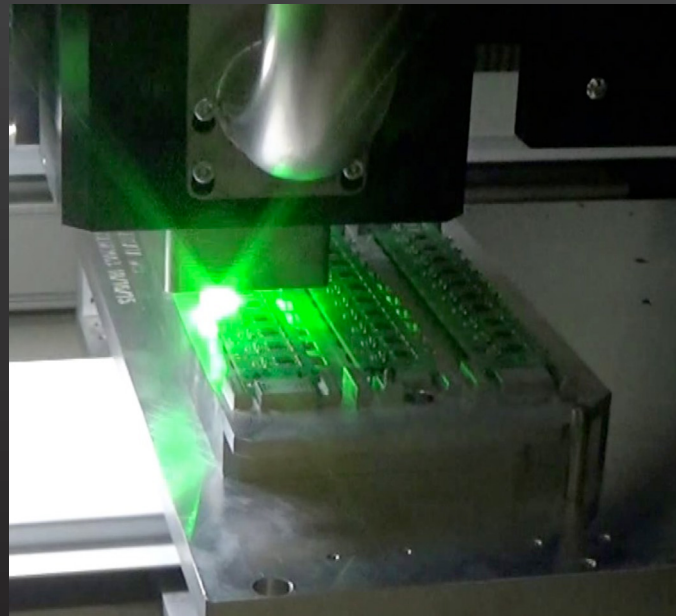
The GLSS employs a 10W green laser source with wavelength at 532 nm. The green wavelength is well-suited to PCB materials enabling clean cuts.

UV laser source is available as an option.



FEATURES

- ▶ Large work area of 350 mm x 350 mm (13.5" x 13.5")
- ▶ Powerful servo motors powered axis
- ▶ CE Certification (Option)
- ▶ Green Laser (UV or IR laser options available)
- ▶ Move, Teach and Cut Visual Programming System



SPECIFICATIONS :

Manipulator

Configuration	: X, Y, W & Z axis
Manipulator Motors	: 4 axis AC brushless servo motors
Manipulator Repeatability	: ±0.02mm
Resolution	: ±0.01mm
Board Positioning	: Dual workstation with nest fixture or pin fixture
Panel Location	: Located by tooling holes, edges of PCB or vacuum fixture
Loading	: Manual Loading
Unloading	: Manual Unloading
Panel Size	: 350 mm x 350 mm (13.5.5" x 13.5")
Panel Thickness	: less than 0.6 mm for FR4 and Polymide

Laser System

Green Laser	: 10W DPSS Laser	Nominal Power	: 10W @ 40 kHz
Laser Medium	: Nd:YVO4	Peak Power	: 12.5 kW @ 40 kHz
Wavelength	: 532 nm	Repetition Rate	: Single shot to 300 kHz
Cooling	: Ambient air cooled	Pulse Width	: < 20nS @ 40 kHz
Laser Life	: 50k Hours (Approx.)	Pulse Energy	: 250 uJ @ 40 kHz

Fume Extraction System

Power	: 750W rotary vane vacuum blower
Filtration	: 3 stage filtration with disposable filters

Vision System

Video camera	: High resolution CCD video camera, : PCB Fiducial capturing or PCB Edge positioning (Optional)
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Programming

On line	: Vision assisted point to point manual teaching
Offline	: CAD and Manual program generation capability
Editing Function	: Dry run vision assisted / test run mode

Safety Feature

"E" Stops, Laser safety shutter, Servo overload detection, Class 4 Laser enclosure work area with laser safety viewing windows

Machine Dimensions & Utilities

Machine size	: 1.3 M x 1.3 M x 1.80M
Weight	: 800kg
Power Supply	: (options available)

OPTIONS :

- ▶ Bar code support: 1D or 2D
- ▶ Fiducial alignment