



Laser Singulation System (GLSS)



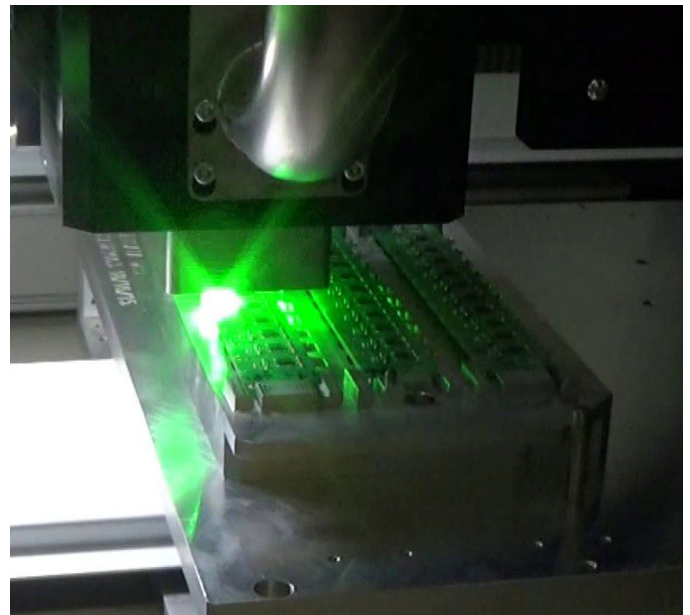
The GLSS is a standalone Laser singulation machine specially designed to handle ultra-thin and flexible printed circuit board assemblies (PCBA) typically less than 0.6 mm in thickness.

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-absorbed by PCB materials and this enables cuts with minimum charring.

FEATURES:

- Large work area of PCB panel size of 250 mm x 300 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



Workstation

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 : 250 mm x 300 mm (10" x 12")
 Panel Thickness : less than 0.6 mm for FR4 and Polyimide

Laser System

Green Laser	: 10W DPSS Laser	Nominal Power	: 10W @ 40 kHz
Laser Medium	: Nd:YVO ₄	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 Extractor Unit

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

Vision system

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

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 1.7 M x 1.80M
 Weight : 800kg
 Power Supply : (options available)

OPTIONS:

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



ISO 9001:2008 CERT NO.: 622220

Local Agent: