

Laser Marking System (GLMS)

GLMS is an Inline Laser Marking machine specifically designed to laser mark PCBs with high positional accuracy and repeatability. It is capable of handling large format heavy PCBs, ultra-thin and flexible printed circuit board assemblies (PCBA).

The system is designed for High Speed laser marking of formats ranging from 1D barcodes, 2D Matrix, QR codes and human readable characters as well as Image formats. With available in machine scanning each mark can be verified before being released to downstream processes.

The GLMS has a large panel capability that can accommodate a single large panel or multiple smaller parts panelized on a single PCB. The 30 watts CO₂ laser wavelength (10.6μm) is ideal for PCB applications.



FEATURES

- ▶ Large panel size of 450 mm x 400 mm (18" x 16") for double sided marking
- ▶ Large panel size of 550 mm x 570 mm (21.5" x 22") for single side marking only
- ▶ Move, Teach and Marking Visual Programming System
- ▶ Powerful servo motors driven axis
- ▶ Marking position teaching by CCD camera
- ▶ Program Z height adjustment
- ▶ 1D/2D mark verification by Scanner (Option)
- ▶ Class 1 Laser machine enclosure
- ▶ Quick product change-over
- ▶ Class 4 Laser Class
- ▶ Fume extraction (Option)
- ▶ 30 Watts CO₂ Laser
- ▶ Link to customer's MES Server (Option)
- ▶ Internal flipper system for double sided marking (Option)
- ▶ 1D barcode, 2D codes, text and graphics capable
- ▶ SMEMA connection
- ▶ CE Certification (Option)
- ▶ Programmable conveyor width adjustment
- ▶ Uninterruptable Power Supply (Option)
- ▶ ESD Edge belt conveyor
- ▶ Dual Lane (Option)

SPECIFICATIONS :

Manipulator

Configuration	: X and Y axis
Manipulator Motors	: 2 axis AC brushless servo motors
Manipulator Repeatability	: ±0.02mm
Resolution	: ±0.01mm

Workstation

Board Positioning	: Pneumatic Stopper
Panel Location	: Located by tooling holes or edges of PCB
Panel Size	: 450 mm x 400 mm (18" x 16") - for double sided marking : 550 mm x 570 mm (21.5" x 22") - for single side marking only
Panel Thickness	: 0.8 mm – 4.0 mm
Component Height	: 30 mm Top, 30 mm Bottom

Laser System

Laser Type	: 30 Watts CO2 (Class 4)
Cooling	: Ambient Air cooled (Standard)
Guide Laser	: Red Laser Pointer
Marking FOV	: 120 mm x 120 mm (Marking Area 450mm x 400mm Single Side Marking)

Marking Formats

Format	: 1D Barcode (Code39, Code128, ITF, 2of5, NW7, JAN) : 2D Code (QR Code, Micro QR Code, ECC200 DataMatrix, GS1 DataMatrix) : DataBar (GS1 DataBar Truncated, Stacked and Limited) : Logo Image (Customer Logo, CAD Data, BMP/JPEG/PNG/TIF formats)
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Vision System

Video Camera	: High Resolution CCD Video Camera
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Scanning System

Decoder	: Vision + Scanner
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Conveyor

Edge Clearance	: 3 mm
Max payload	: 4 Kg
Conveyor Width	: Auto Adjust (programmable)
Conveyor Speed	: 600 mm/sec. (minimum)
Conveyor Flipper	: Yes

Safety Features

"E" Stops, Laser stop, Laser light protection, Servo overload detection, Enclosed work area

Machine dimensions & utilities

Machine size	: 0.82 M x 1.8M x 1.55M
Weight	: 600kg
Power Supply	: 208 ~ 240 Volts
Air Supply	: 6 bar

OPTIONS :

- ▶ Fiducial Option
- ▶ Linking to Customer's MES Server
- ▶ PCB Flow Direction (Customer's Specification)
- ▶ - other Laser wavelength available