1500 LM FPC

FPC/PCB Laser Marking Equipment

The equipment is mainly used for PCB and FPC industry. It is designed for marking SUS reinforcing steel sheet, ink layer and solder mask layer on all kinds of FPC/PCB.

It is designed with two slots to increase the productivity, and could cover product size up to 260*420mm.

Flexibility
UV nanosecond 355nm laser is configured as standard. The laser core has good beam quality, small marking spot and good marking effect. The 532nm green laser, fiber laser or CO_2 laser can be selected according to different material and marking requirement to satisfy customized needs of customers.

High Efficiency
Two slots design increase productivity
Less than 1 second per barcode
Built-in vision positioning and inspection system

TECHNICAL DATA

1930mm | 1460 mm
1035 mm | 1300 mm
1660 mm | 1460mm
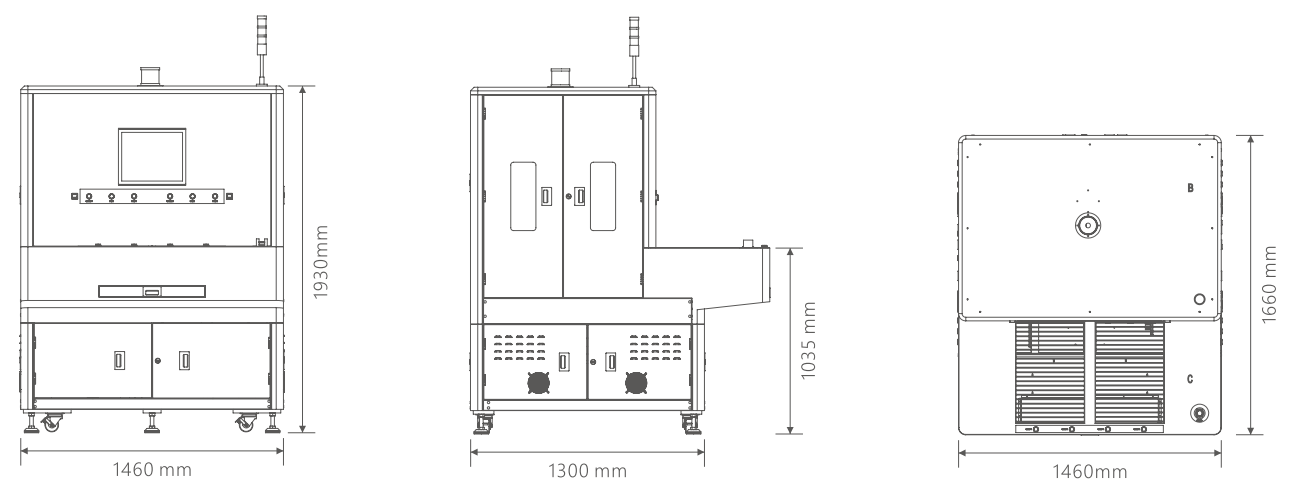
Basic Info
Width: 1460mm
Depth: 1660mm
Height: 1920mm (without beacon)
Height: 2300mm (with beacon)
Weight: 2500kg

Basic Function
FPC offline single head double platform laser marking
Stage vacuum adsorption positioning product
CCD visual positioning
CCD visual automatic code reading
High precision marble linear motor platform
External laser dust removal system

Optional Functions
Laser Coding Level Check

Equipment Safety
Mechanical Safety: emergency stop, safety interlock protective door
Electrical Safety: ESD protection, overload protection, and leakage protection
Laser Safety: Class 4

Electrical Service Requirement
Voltage: AC220V/50Hz
Max Power Consumption: 5.5KW

Motion System
X1/X2-travel: 800mm
Y-travel: 800mm
Z-travel: 100mm
Repeatability (X1,X2,Y1,Z): ± 0.01mm
Repeatability (Y2): ± 0.003mm

Processing Capacity
Max Product Size (L*W) : 420mm x 260mm
Min Code Size: 0.5mm x0.5mm
Coding Level: Above Level B
Coding Position Accuracy: ≤±0.05mm

Laser System
Laser Type: UV Nanosecond Laser
Laser Wavelength: 355nm
Average Power: 5W
Pulse Width: ＜25ns
Beam Quality: M^2＜1.2
Average Power Stability: ≤5%rms
Cooling Method: Water Cooling
Scan Field: 100x100mm@F160 (Standard)
70x70mm@F100 (Optional)
Scan Speed: ≤7000mm/s
Scan Repeatability: ≤8μrad
Others: Optional 532nm Green Laser
1064nm Fiber Laser
10600nm CO_2 Laser

Electrical Service Requirement
Pressure: 5 ~ 7 bar, dry clean air
Approx. Air Consumption: 100L/min

Vision System
Visual Positioning and Visual Inspection
Datum Type: cross,circle , rectangle and product outline
Datum Identification Time: < 1s
Visual Positioning Accuracy：±0.01mm
Auto Calibration / Auto Focus

Software Function
Windows10 Operating System
Standard user Interface
Standard MES Interface
User Rights Management
Automatic calibration of galvanometer BOX
Laser Auto Focus
Support Barcode Type: Code39, EAN, PDF417, PLT, DATAMATRIX, QR
Support Vector File Types: DXF, AI, PLT, SVG, GBR, GBX, etc
Support Bitmap File Types: BMP, JPG, JPEG, GIF, PNG, TIF, TIFF, EMF, etc

Environmental Requirement
Operating Temperature: 10 ~ 40℃
Operating Humidity: 30% ~ 85% No condensation