

# PCB Assembly Line before printing

## Plan B



Line length:4000mm

# Automatic Laser Making marking

--PCB reversal system S-400T

Features:

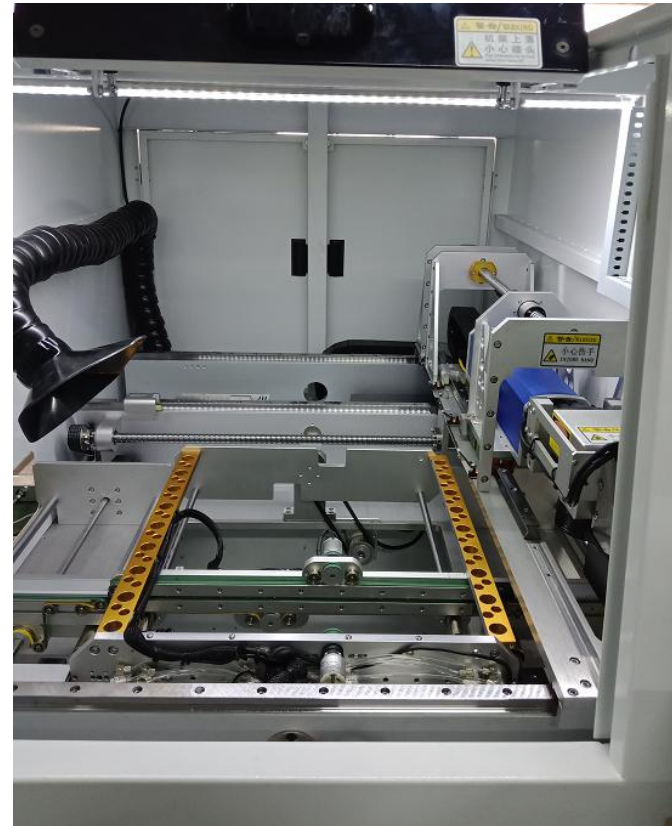
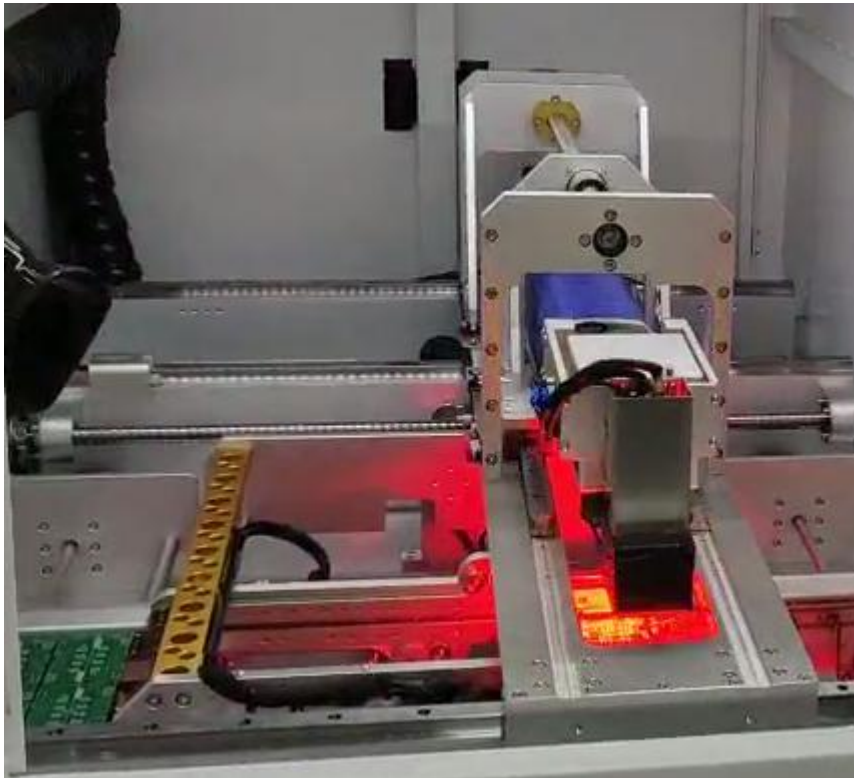
1. Optional configuration of CO2/FAYB/GR/UV laser engraving system, with precision positioning. CCD+MARK precise positioning
2. It can access MES, shopflow and IMS system.
3. Supporting the printing of various types of PCB, FPC, metal shielding cover and other different material surfaces.
4. With **PCB reversal system**, can carve double side(support height difference carving)



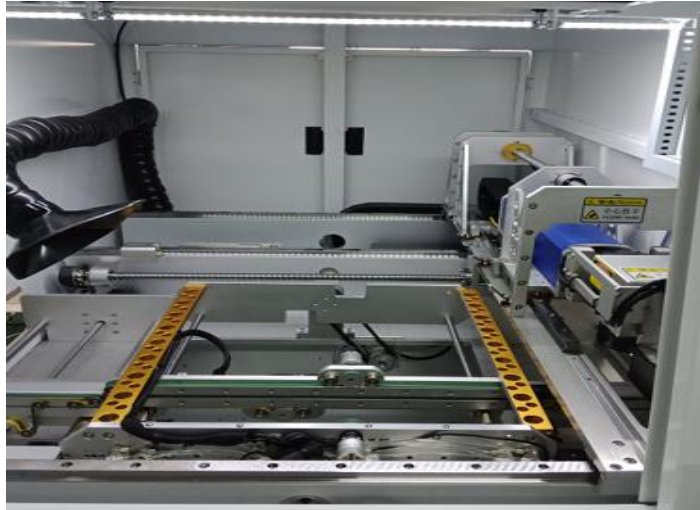
## Visual system, XY platform

- CCD Mark Point Positioning System
- CCD Online Bar Code Reading
- Quality Analysis of CCD Bar Code

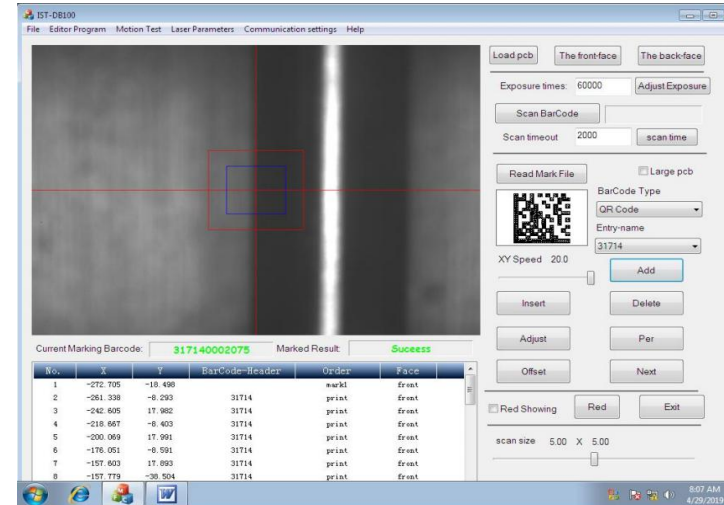
- X and Y axis servo direct drive,  
repeat accuracy  $\pm 0.02\text{mm}$



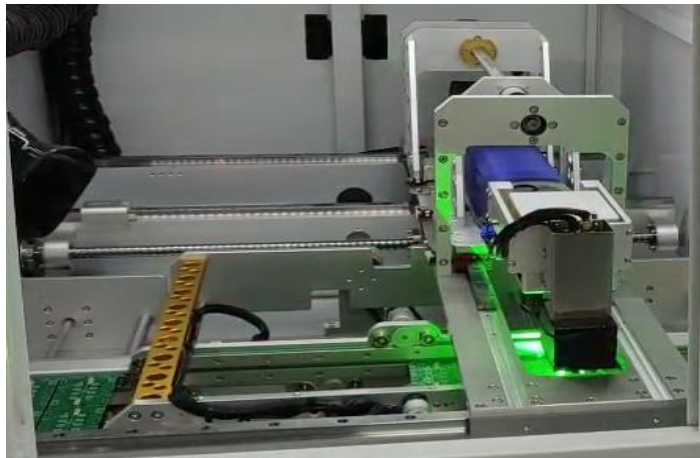
## Small intelligent online barcode management system carving



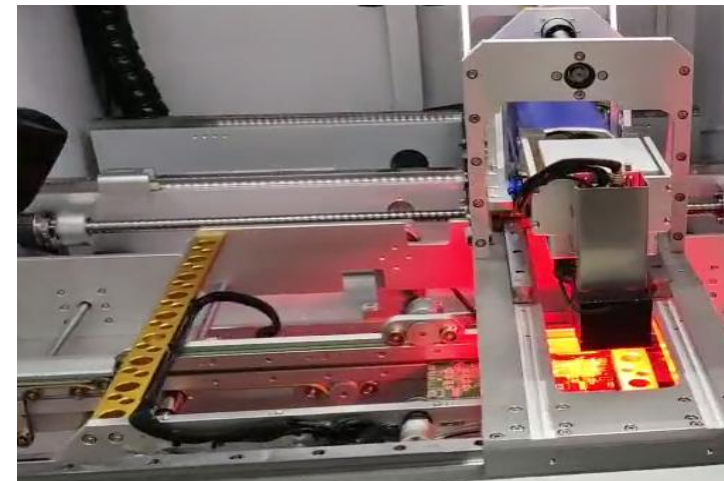
Reversal PCB System inside ,actually use the duplex function



English Operation Interface

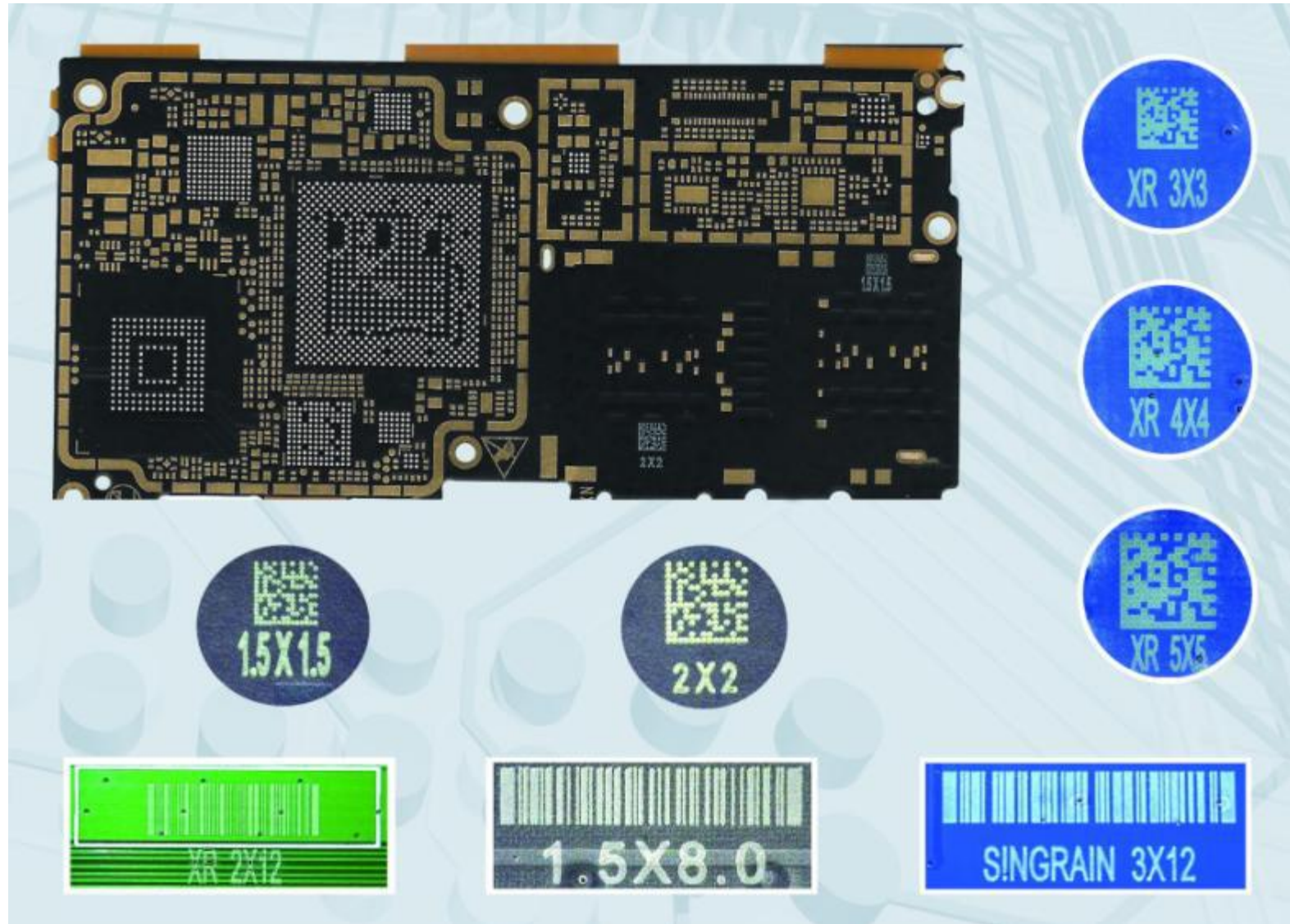


Support plate and the plate up pressure



CCD reader and orientation mark system

## Barcode carving effect



## Customer's Appliance



## Specification

Model: S-400T

Engraved type: **Double side marking** (with PCB reversal system)

Control system: Window 7 + Singrain software

System access: SHOPFLOW, IMS, EMS, customization, etc. Intelligent management system

Wrong material recognition: the opposite/reverse/wrong board recognition

Badmark recognize function: Option (Automatically recognize "X" board, not carving)

Conveyor width adjustment: automatic adjustment

Position system : **CCD+Mark**

Work method: Laser move

Laser type: **CO2/FAYB/GR/UV**

Online reading code function: Yes

PCB size: **min 50\*80mm/max 450\*400mm**

Engraved size: **70 \*70 mm (Selectional)**

Engraved application area size: 1D: 2\*6mm/ 2D: 1.5\*1.5mm

Control system: PC + shaft card + servo motor

Conveyor direction: **L-R/R-L** (optional)

Conveyor height: 900 ± 20 mm

PCB thickness: 0.8-C4mm

PCB surface through height : up 18mm/ down 18mm

Bar code level analysis system: Option

Power supply: **AC220V 16A 50/60HZ**

Air supply: ≥0.5Mpa

Communication: **SMEMA**






Dimension(L\*W\*H): 1000\*1600\*1700mm

Weight: 700KG



<b>Laser specifications</b>				
	CO2	FAYB	GR	UV
Wavelength	10.6μm	1064nm	535nm	355nm
Laser power	10W/20W/30W	10W/20W/30W	10W/8W/5W	8W/5W/3W
<b>Service Life</b> (just for refer)	<b>2K-4K hours</b>	<b>100K hours</b>	<b>100 K hours</b>	<b>100 K hours</b>
Printing Angle	0-360°	0-360°	0-360°	0-360°
Focal length	70mm/110mm/190mm			
Corresponding linear velocity	<120m/min			
Bar code type	Data Matrix/CODE39/CODE128/ITF/NW-7/JAN(EAN)/UPC/RSS-14(GS1 DataBar)			
Cooling method	Strong cold wind			
Environment temperature	0-40°C, must no dew,no ice			
Environment humidity	35-85%RH ,must no dew,no ice			

### bar code , 2D code sample

Name	PDF417	Data Matrix (ECC200)	Maxi Code	QR Code	Veri Code
Sample					



## Answer your confusion

**1 Q:Bar code according to the requirements of the process need to wash flux immersion, and wave soldering high temperature operation, whether it is not fuzzy, still easy to read in?**

A: For the bar code of laser engraving, we have done tests according to the actual production situation of the production line. Such as: silk printing network problems cause need to wash the plate, fingerprint pollution and high temperature furnace, etc., quality and read no larger effect on the bar code.

**2 Q:Bar code needs to be resistant to DI water ultrasonic cleaning process, and the handwriting is clear to facilitate the barcode gun cleaning can meet?**

A: For the bar code of laser engraving, we have done tests according to the actual production situation of the production line. Such as: silk printing network problems cause need to wash the plate, fingerprint pollution and high temperature furnace, etc., quality and read no larger effect on the bar code.

**3 Q:What's the UPH per hour?**

A: It need to be based on the size of the board and each board required to imprint the number of bar code to determine. For example: PCB is 330\*250mm, if each board need to engrave 1 2D code,  
Then input is :3-4s FDMARK:1s,  
Engraved time:0.5s Check: 1s  
Total: 5-7s/pcs About: 600pcs/hurs

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[shaoyong@smthelp.com](mailto:shaoyong@smthelp.com)