



**东莞市维品科技有限公司**  
Dongguan weipin Technology Co.Ltd



**研发、生产、销售**  
**激光设备、通用机械设备、仪器、传感器**

R&D, PRODUCTION, SALES  
LASER EQUIPMENT, GENERAL MECHANICAL  
EQUIPMENT, INSTRUMENT, SENSOR

# ABOUT US

关于我们

研发、生产、销售  
激光设备、通用机械设备、仪器、传感器

R&D, PRODUCTION, SALES  
LASER EQUIPMENT, GENERAL MECHANICAL  
EQUIPMENT, INSTRUMENTS, SENSORS



东莞市维品科技有限公司一直以来深耕电路板行业，拥有应力测试仪、激光打标机、PCB打标机、PCB分板机，现已为国内外1000家以上客户提供了优质的产品和服务，以及综合的自动化生产设备。为众多客户提供了自动化解决方案，为工厂在节省人工方面做出了巨大贡献。

Dongguan Weipin Technology Co., Ltd. has been in Circle Board Industry for quite a long time. We are carrying with Strain Gauges & Strain Gauge Meters, Lasering Machines, PCB Label Marking Machine, PCB Cutting Machines. We are providing High Quality Product, including Integrated Automation Equipment, and Service for over 1000 clients.

We, contribute to provide AUTOMATION SOLUTION and LABOR SAVING for our client.

东莞市维品科技有限公司位于东莞大岭山镇，为了更好的服务广大客户，在东莞建立了生产工厂、苏州设有办事处、并在多个省市建立了良好的经销体系，以便为客户提供良好的售后服务。维品科技坚持科技为本，技术创新，每年持续加大研发投入，同时大量引进行业内精英，研发团队具备3C、医疗、电力、半导体等行业工作背景和丰富的自动化开发经验。

Dongguan Weipin Technology Co., Ltd. is located in Dalingshan Town, Dongguan. We have established factory in Dongguan, service office in Suzhou, and set up a good distribution system in many provinces or cities, so as to provide customers with better product and better & efficient service.

Dongguan Weipin, we adhere to technology innovation, and continue to increase R&D investment every year. At the same time, it attracts a large number of elite people in PCB industry. And our R&D team has a cross-industry work background such as 3C, medical, electric power, semiconductor, etc., and also with rich experience in automation development.

维品科技力求开拓进取，旨在为客户提供最具有市场竞争力的产品和完善的售后服务，已成为众多客户信赖的合作伙伴。

Weipin Technology strives to afford best service, competitive automation solutions and marketing assistance for customers; we have been a trusted partner for many famous brands.

## 视觉打标机 / Laser marking machine

维品科技自主研发的视觉打标软件，操作简单方便。新建一个产品只需2分钟即可，软件可与MES、ShopFloor等系统连接进行数据交换，软件通过相机抓取产品轮廓，从而进行高精度视觉雕刻。软件直观简单，无需红光指示，采用打标内容投影到产品图片上，实现指哪打哪，只需简单编程即可进行自动化生产。

Weipin Technology has developed a classic visual marking software independently, which only takes 2 minutes to create a labeling template; it is a quite simple interface between machine and people.

It also can be connected with MES, ShopFloor and other systems for data exchange. It features at capturing the product outline via CCD, and then to do a high-efficiency visual engraving based the product sculpture, no need red guiding light. On the computer interface, you can see the content is being labeled onto the product.



### 工作原理 Working principle

CCD定位系统是由相机、镜头、光源、图像处理单元（或图像捕获卡）、图像处理软件、通讯/输入输出单元等组成。它采用相机来代替治具做精准定位，基于传统打标机的基础，将产品的坐标位置传输给激光打标机，从而进行精准雕刻，可使激光加工的优势得到更全面的发挥，解决了打标速度和精度问题。

CCD Positioning System is composed of camera, lens, light source, or image capture unit, image processing software, communication / input and output unit, etc... The system is doing measurement and judgement as human visual. Assisted by this system, lasering can be with more accuracy and efficiency.

视觉打标机支持光纤，紫外，二氧化碳，绿光等激光器，同时也可以用来做振镜焊接。通常一台普通机升级改造完成后，可以抵得上3~5台普通机的工作效率，只需简单升级改造便可以实现自动化生产，为企业节省人工和机器成本。

The visual marking machine supports optical fiber, ultraviolet, carbon dioxide, green light and other lasers type. It can also be used for galvanometer welding. Usually, after using our CCD system, the efficiency can be 3-5 times increased.

### 产品参数 Product parameters

设备型号 Model No:	FSD-F30V-L110
安装方式 Assemble method:	下安装/侧安装 / Lower assemble/Side assemble
激光波长 Laser wavelength:	1064nm/355nm/10640nm/533nm
标刻范围 Marking range:	30mm*30mm-300mm*300mm (选配)(Optional)
重复精度 Repetition accuracy:	±0.03mm (平面) (Plane)
相机像素 Camera pixel:	600W/1000W/1200W
运动控制 Movement control:	PLC/运动卡/伺服电机/步进电机/继电器 / PLC/Movement Control Unit / Servo Motor / Stepping Motor / Electric Relay
控制软件 Control software:	VIPin Laser
光源控制器 Light source controller :	数字/手动 / Digital/Manual
光源 Light Source:	组合条光/环形光源 / Combo Strip Light/ Ring Light Source

### 应用领域 Application area

采用视觉激光打标机有助于提高生产效率，特别是针对手机，电脑、平板、路由器、化妆品、充电器、充电宝、U盘、IC芯片、手表等产品的外壳和配件。

By using visual laser marking machine, it can highly improve producing efficiency, especially on Producing component of mobile phone, computer, tablet, router, cosmetic product, charger, power bank, USB flash drive, IC chip, watch, etc...



## 芯片编带激光打标机 / IC laser marking machine

卷对卷编带打标机是集视觉定位、刻字/磨字、覆膜、编带、成型等功能于一体的设备，可解决SMD和小五金行业加工包装成型困难，工序繁杂，效率低下等问题。

The roll-to-roll tape marking machine is a integrated with different functions including visual positioning function, lettering engraving/grinding, film covering, tape editing, molding and so on. It can solve the issue of low efficiency in SMD and hardware industries, which are always with low efficiency at packing, molding and complex processing.

卷对卷自动编带机采用本公司自主研发的视觉定位系统，具备高精度、高速定位功能，可识别来料正反，来料方向，产品性能稳定，操作简便。

The roll-to-roll automatic taping machine adopts the visual positioning system developed by our company, which is with high-precision and high-speed positioning function, it can recognize the materials coming direction.

本机型从软件设计、机械构造、电气性能、配件选材、产品兼容，都经过严格把关和测试，保证产品在长期工作情况下的稳定性。

This model has been strictly tested at aspect of software design, mechanical structure, electrical performance, material selection and also product compatibility, so to ensure the running stability under long-term working conditions.

卷对卷编带激光打标机具备精度高、速度快、稳定性好、操作便捷等优秀品质，适应各种环境，成为SMD和小五金行业加工的不二选择。

With high precision, fast speed, good stability, convenient operation and other excellent features, roll-to-roll laser marking machine is suitable at various environment and becomes the best choice in SMD and hardware industry.



### 产品参数 Product parameters

设备型号 Model No:	FSD-F20V-RR
激光功率 Laser power:	20-100W
振镜速度 Galvanometer speed:	8000mm/s
视觉精度 Visual accuracy:	0.03mm
适用带宽 For bandwidth:	8-72mm
机台产能 Machine capacity:	10 ~ 30K pcs/h
料盘规格 Raw material specifications:	7/13/22寸inch 胶盘或纸盘 / Plastic tray or paper tray
电源供应 Power supply:	AC220V±20%/50HZ, 5A
气源供应 Air supply:	0.3~0.6Mpa/60L/Min
加热温度 Heating temperature:	110°C-180°C
机台尺寸 Machine size:	L 1630mm×D810mm×H 1400 mm
机台净重 Net weight of the machine:	70KG
其它功能 Other features:	定制化 / Customization

### 功能特点 Features

- 1 软件控制系统支持windows7/10/11操作平台，支持多种语言；  
Software supports Windows 7/10/11 Operating Platform, with different languages;
- 2 高精度快速视觉定位系统，快速分辨来料正反、上下方向；  
High-precision and High-speed visual positioning system; Identify incoming material coming direction fast;
- 3 轨道宽度可调，适合8-72mm宽载带；  
Adjustable railway, suitable for 8-72mm belt width;
- 4 高速度扫描振镜，打标效率高；  
High speed scanning galvanometer, High efficiency marking process;
- 5 多样化封装方式可选，适用于自粘冷封与热压封合，连续走带方式封合，寸动走带方式封合；  
Suitable for various packing mode: self-adhesive cold sealing, hot melt sealing, continuous belt sealing, or step belt sealing;
- 6 盖带调整方便，可以对盖带行进张力和位置调整；  
Easy adjustable cover belt for its tension and position;
- 7 温控系统可调，可以自由调整封装温度。  
Adjustable temperature control systems so to do different SMD component packing.

### 样品展示 The samples show



## 自动编带&视觉打标机 / Automatic braiding & laser marking machine

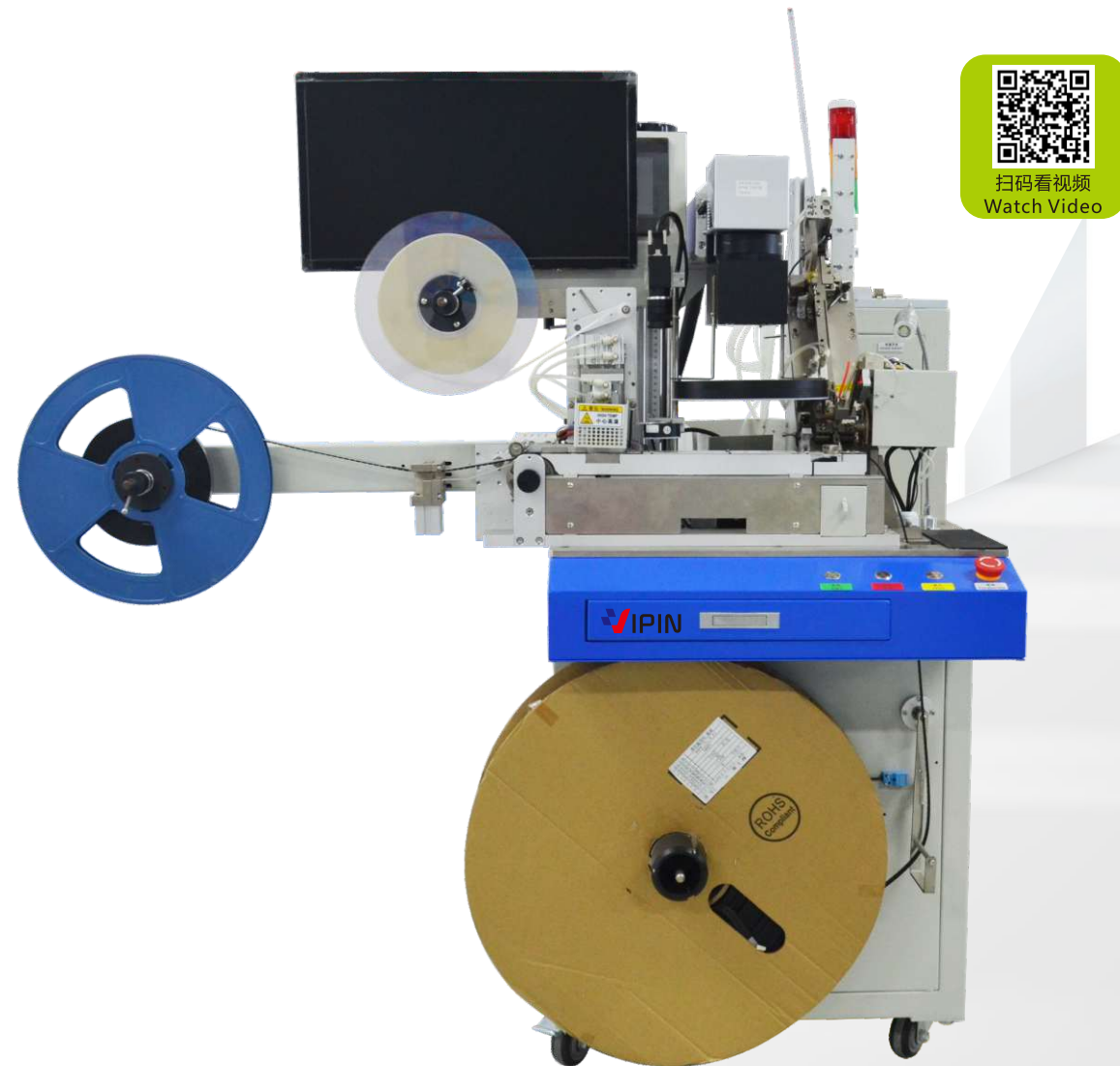
管对卷打标机是集视觉定位、视觉检测、刻字、磨字、覆膜、编带、成型等功能于一体的设备，特别针对SOP8, SOP16等系列产品进行激光雕刻。

The tube-to-roll marking machine is integrated with different functions including visual positioning function, lettering engraving/grinding, film covering, tape editing, molding and so on, especially for lasering of SOP8, SOP16 products.

SOP系列自动编带激光打标机是采用本公司自主研发的视觉定位系统，具备高精度快速定位功能，可以对来料进行视觉检查剔除，同时进行激光雕刻。在机械结构方面可以根据要求选择管对管或管对卷，也可以选择一台机同时包含管对管和管对卷两种功能。

SOP series automatic tape braiding laser marking machine adopts the visual positioning system developed by our company, with high-precision and high-speed positioning function, which can visually check incoming materials, while conduct laser engraving at the same time.

In terms of product mechanical structure, tube-to-tube, tube to roll, or both are optional according to user requirements.



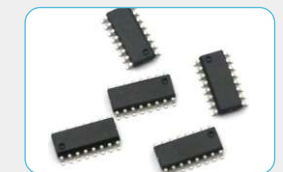
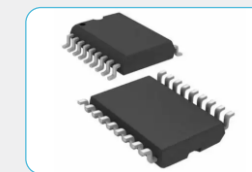
### 产品参数 Product parameters

设备型号 Model No:	FSD-F20V-TR
激光功率 Laser power:	20-100W
振镜速度 Galvanometer speed:	8000mm/s
视觉精度 Visual accuracy:	0.03mm
温控系统 Temperature control system:	PID温控器 / PID thermostat
视觉检测 Visual inspection:	引脚/字符检测 / Pin/Character detection
自动化程度 Degree of automation:	全自动 / Automatic
功能 Function:	激光雕刻 / Laser marking
包装材料 Packaging Materials:	塑料 / Plastic
适用行业 Applied to industry:	SOP8/10/12/14/16/18/20/24/28/30
电压 Voltage/功率 Power:	220V /480Kw
包装速度 Packing speed:	12000个/分钟 / 12000PCS / Minute
重量 Weight :	180kg
设备尺寸 Machine Size:	1040*1020*1500mm
打标方式 Marking method:	管对管/管对卷 / Tube to tube / tube to roll

### 功能特点 Features

- 1 软件控制系统支持windows7/10/11操作平台，支持多种语言；  
Software supports Windows 7/10/11 Operating Platform, with different languages;
- 2 高精度快速视觉定位系统，快速分辨来料正反、上下方向；  
High-precision and High-speed visual positioning system; identify incoming material coming direction fast;
- 3 视觉检测功能，检测引脚是否完好，字符是否完整；  
Visual inspection function, check if pin is intact, if character is complete;
- 4 轨道宽度可调，适合12-40mm宽载带；  
Adjustable railway, suitable for 12-40mm belt width;
- 5 高速度扫描振镜，打标效率高；  
High speed scanning galvanometer, High efficiency marking process;
- 6 多样化封装方式可选，适用于自粘冷封与热压封合，连续走带方式封合，寸动走带方式封合；  
Suitable for various packing mode: self-adhesive cold sealing, hot melt sealing, continuous belt sealing, or step belt sealing;
- 7 盖带调整方便，可以对盖带行进张力和位置调整；  
Easy adjustable cover belt for its tension and position;
- 8 温控系统可调，可以自由调整封装温度。  
Adjustable temperature control systems so to do different SMD component packing .

### 样品展示 The samples show



## 多头视觉打标机 / Multi head visual laser marking machine

普通的视觉打标机通常是一台电脑控制一个激光器工作，虽然相对于普通打标机，采用视觉打标机的打标效率已经提升了好几倍，但是速度还有提升空间。

Ordinary Visual Marking Machine usually is usually one computer one machine. Although the marking efficiency of visual marking machine has been promoted several times, but there is still room for speed improvement.

维品科技在多头视觉激光打标机应用领域不断投入研发，于2020年开发出一款多头激光打标机。Weipin Technology has continuously invested in laser marking field, and developed a multi-head laser marking machine in 2020.

该多头视觉打标机一台电脑就可以控制多个激光器同时工作，还可以实现一人操作多台打标机，不仅人工和场地费用减少了，生产效率也提高了三四倍，产品深得客户的喜爱，现在产品已经广泛应用于3c产品、五金饰品配件的大批量激光雕刻。

The multi-head visual marking machine can control different lasers to work at the same time by one computer, and the machine can be operated by one person. Not only save labor cost and working site space, the working efficiency is increased by 3-4 times. Right now, our product, has been using widely at 3C, or hardware accessories product and has got good reputation in the market.



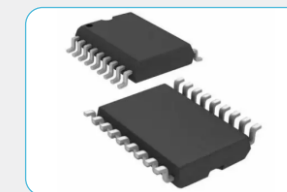
### 功能特点 Functional features

- 1 视觉激光打标，使打标精度不再受制于夹具；  
Visual laser marking accuracy, no longer limited by the fixture;
- 2 自主研发视觉系统，可根据项目要求选配相机、镜头、光源、光源控制器；  
Camera, lens, light source and light source control is optional according to using requirement;
- 3 独有的软件算法，定位精度高、响应速度快，可以配合输送带，整盘上料，实现高效打标；  
The unique software algorithm has high positioning accuracy and high response speed. It can be cooperated with the conveyor belt, or feeding plate to achieve efficient marking;
- 4 打标图形支持多种通用内容格式，如矢量图，文字，数字，填充、图片等；  
Software supports different of kinds content formats, such as vector graphics, text, numbers, fills, pictures, etc...;
- 5 通用性强，操作界面简洁明了，初学者也可轻松上手；  
Clear and simple operation UI, easy for new learner;
- 6 多头拼接功能，满足大范围内产品一次就可雕刻完毕；  
Multi-header lasering function, can do variety of products at the same time;
- 7 来料匹配不同的模板，自动识别，不会错打。  
Different incoming material can be identified to match the template automatically.

### 产品参数 Product parameters

设备型号 Model No:	FSD-F20V-DL
激光功率 Laser power:	20-100W
振镜速度 Galvanometer speed:	8000mm/s
视觉精度 Visual accuracy:	0.03mm
范围 Range:	50*50mm-300*300mm 激光头 / Leser head
光源控制器 Light source controller:	数字控制器 / Digital controller
光源 Light source:	条形光源 / Strip Light Resource
激光器数量 Quantity of lasers:	2-4个 2-4pcs
相机 Camera:	12Million pixels
上料方式 Feeding method:	模组 / Linear module
电源供应 Power supply:	AC220V±20%/50HZ, 5A;
气源供应 Air supply:	不需要 / No need
机台尺寸 Machine size:	W800×D1000×H 1500 mm
机台净重 Net weight of the machine:	150KG
其它功能 Other features:	根据要求 / Customized

### 样品展示 The samples show



## 在线PCB激光打标机 / Online PCB laser marking machine

全自动PCB激光标刻机主要应用于PCB表面自动标刻二维码、条码、字符、图案，可在白油、绿油、黑油等各种油墨以及铜材表面实现精密自动标刻。

All-automatic PCB laser marking machine is mainly used for marking QR code, barcode, character, or different patterns on PCB; It can apply to various inks, such as white, green, or black oil, and also copper material surface accurately.

可自动从MES获取指定信息（如批次、日期等），并自动生成二维码，通过PCB激光标刻机自动标刻在PCB表面，也可以作为生产流程中产品信息的管控。

It can obtain the information from MES automatically, such as batch number, date, and generate QR code; by lasering it on PCB so to control the product.

相比普通喷印方式，无耗材，更精细、环保无污染，免维护，PCB激光标刻机主要应用于印刷电路板生产型企业。

Compared with the ordinary spray printing, PCB laser machine is without extra cost, more precision, no pollution, easy maintenance, and is applied widely in PCB industry.

### 产品特点 Product Features

1 中英文图形界面，Windows 7/10操作系统；

Chinese and English graphical interface, supporting Windows 7/10 operation system;

2 CCD精准定位，配合XY精密平台，可选择配置CO2（UV/FAYB）激光打标系统；

CCD can create high precise positioning, cooperated with XY precise platform, CO2 (UV/FAYB) laser marking system is optional;

3 打标位置精度0.02mm以内；

Marking Positioning Tolerance:  $\pm 0.02\text{mm}$ ;

4 可刻印汉字、英文、数字、图标、流水号、Logo、条形码、二维码等内容；

Marking for Chinese Language, English Language, Numbers, Icons, Serial Numbers, Logo, Bar Codes, QR Codes, etc...;

5 可以接入ShopFloor/MES系统，支持Gerber, DXF等文档导入；

Data access to ShopFloor/MES system, support Gerber, DXF, and other document import;

6 支持刻印各种类型PCB、FPC、金属屏蔽罩等不同的材料表面；

Support marking on various types of surface, such as PCB, FPC, metal shield, and so on;

7 全程可视化操作；

Visualized operation interface;

8 翻板功能：可选项有/无。

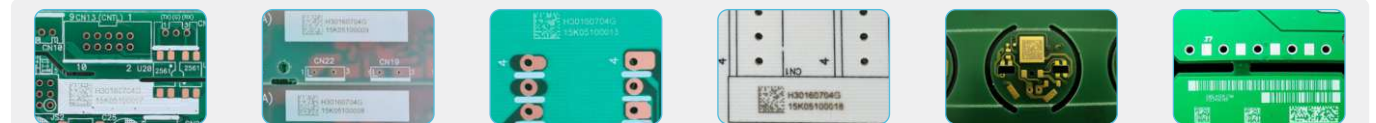
Flap Board: optional.



### 技术参数 Technical parameter

设备型号 Model No:	VIPin-U03V/05V-4545ST
激光类型 Laser type:	UV
激光波长 Laser wave length:	355nm
激光功率 Laser power:	3w or 5w
激光冷却方式 Laser cooling method:	强制水冷 / Mandatory Water cooling
激光直径 Laser size:	0.03mm
工作方式 Work method:	LASER移动 / Laser maing
重复定位精度 Repeat positioning accuracy:	$\pm 0.02\text{mm}$
工作台高度 Workable Height:	900 $\pm$ 20mm可调(Adjustable)
条码最小刻印 Minimum Barcode Size:	1*1mm Mark
定位系统 Positioning system:	CCD+mark定位 / CCD + Mark positioning
控制系统 Control System :	PC+轴卡+伺服 / PC + Shaft Car+Servo
条码检测系统 Barcode detection system:	CCD在线读取检测 / CCD online detection
PCB最大尺寸 (mm) Maximum PCB size:	50*50-450*450mm
PCB允许变形量 PCB Allowed Deformation:	< 3mm
PCB厚度 PCB Thickness:	0.5-4mm
PCB通过高度 PCB Pass height:	Up:35MM Down: 15mm
薄板防翘压着系统 Board fixing system:	有/yes---Available
轨道传送速度 Transition Speed:	0-3000mm/S
轨道传送方向 Transition Direction:	左至右/右至左可 / Left->Right/Right-> Left
三段式导轨+内置翻板	
3 breaks Railway and Built-in flap board :	无 / NO
轨道宽度调整 Track width adjustment:	自动调整 / Automatic adjustment
刻印对象/种类 Marking Product classify:	文字、一维条形码、二维码、图像数据 Character、Barcode、QR code、Graphic Data
烟雾处理方式 Smoke Treatment Mode:	烟雾净化处理系统 / Smoke Purification System
软件 Software:	自主研发，服务可变更性更强 / Independent R&D, Flexible service
软件界面 Software interface:	中文或英文界面 / Chinese or English
防重刻功能 Poka-yoke function:	有 / Yes Available
坏板识别功能 Defective PCB Identify Function:	有 / Yes Available
条码数据来源 Barcode Database:	从MES获取，或自动生成 Get Data from MES, or generate automatically
系统连接功能 System connection function:	可连接Shopfloor、MES、IMS等智能管理系统 Access to ShopFloor, MES, IMS system, and so on.
条码等级分析 Barcode Grade Analysis:	支持 / Support
刻印角度 Engraving angle Marking Angle :	0-360°
输入电压 Input voltage:	AC220V/7A 50Hz
气压源 Air Supply:	5-7Kg/cm <sup>2</sup> Bg0.5-0.7MPa
环境要求 Environment Requirement:	0-40°C 35-85%RH
设备功率 Equipment Power:	1.5KW
设备尺寸(宽*高*深mm) Machine Size(width*high*deep) :	1000mm*1420mm*1450mm
设备重量 Equipment weight :	约650KG / Approx 650KG

### 应用领域 Application field



## 在线PCB激光打标机 / Online PCB laser marking machine

PCB 全自动激光打标机主要应用于PCB表面自动雕刻二维码，可在白油、绿油、黑油等各种油墨及铜材表面自动雕刻二维码。

All-automatic PCB laser marking machine is mainly used for marking QR code, barcode, character, or different patterns on PCB, It can apply to various inks, such as white, green, or black oil, and also copper material surface accurately.

本机器搭载CCD视觉定位打标系统，可以实现高精度，高速激光雕刻，并可以根据要求进行MES系统对接。The marking machine is with CCD Visual positioning system, which can provide High-precision and high-speed laser marking, although has access to MES system.

### 产品特点 Product Features

1 中英文图形界面，Windows 7/10操作系统；

Chinese-English graphical interface, Windows 7/10 operating system;

2 可选择配置二氧化碳/光纤/紫外激光打标系统，采用 CCD + MARK精准定位；

Different Laser type optional: Co2, Fiber, or UV laser; by using CCD Mark system;

3 打标位置精度0.02mm以内；

Marking position Accuracy:  $\pm 0.02\text{mm}$ ;

4 可刻印汉字、英文、数字、图标、流水号、Logo、条形码、二维码等内容；

Marking for Chinese Language, English Language, Numbers, Icons, Serial Numbers, Logo, Bar Codes, QR Codes, etc...

5 可以接入ShopFloor/MES系统，支持PLT, DXF, AI, DST等文档导入；

Data access to ShopFloor/MES system, support PLT, DXF, AI, DST and other document import;

6 支持刻印各种类型PCB、FPC、金属屏蔽罩等不同的材料表面；

Support marking on various types of surfaces, such as PCB, FPC, metal shield, and so on;

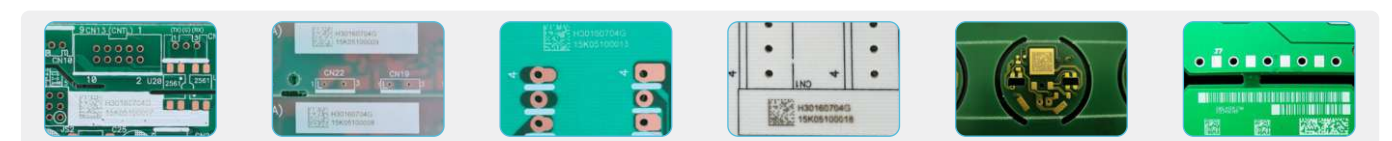
7 全程可视化操作。

Visualized operation interface.



### 技术参数 Technical parameter

设备型号 Model No:	VIPin-U03V/05V-P200
	VIPin-F20V/30V-P200
	VIPin-C15V/30V-P200
激光类型 Laser Type:	UV/Fiber/CO2
激光波长 Laser Wave Length:	355nm, 1064nm, 10640nm
激光功率 Laser Power:	3W or 5W, 20W or 30W, 15W or 30W
激光冷却方式 Laser Cooling Method:	强制风冷/水冷 / Compulsive Air or Water Cooling
激光点径 Laser size:	0.03/0.05/0.08mm
工作方式 Work method:	PCB移动 / PCB Movement
重复定位精度 Repeat positioning accuracy:	$\pm 0.02\text{mm}$
工作台高度 Workable Height:	900 $\pm$ 20mm可调 / (Adjustable)
条码最小刻印 Minimum Barcode Size:	1*1mm/1.5*1.5mm
定位系统 Positioning system:	CCD+Mark定位 / CCD + Mark positioning
控制系统 Control System:	PC+轴卡+步进电机 / PC + Shaft Car+ stepping motor
条码检测系统 Barcode detection system:	CCD在线读取检测 / CCD online detection
PCB最大尺寸 (mm) Maximum PCB size:	50*50-200*200mm
PCB允许变形量 PCB Allowed Deformation:	<1.5mm
PCB厚度 PCB Thickness:	0.5-4mm
PCB通过高度 PCB Pass height:	Up:35MM Down: 15mm
薄板防翘压着系统 Board fixing system:	无/NO
轨道传送速度 Transition Speed:	0-3000mm/S
轨道传送方向 Transition Direction:	左至右/右至左可 / Left->Right/Right -> Left
三段式导轨+内置翻板	
3 breaks Railway and Built-in flap board:	无 / NO
轨道宽度调整 Railway Width Adjustment:	自动调整 / Automatic adjustment
刻印对象/种类 Marking Product classify:	文字、一维条形码、二维码、图像数据
	Character、Barcode、QR code、Graphic Data
烟雾处理方式 Smoke Treatment Method:	烟雾净化处理系统 / Smoke Purification System
软件 Software:	自主研发，服务可变更更强 / Independent R&D, Flexible service
软件界面 Software interface:	中文或英文界面 / Chinese or English
防重刻功能 Poka-yoke function:	有 / Yes Available
坏板识别功能 Defective PCB Identify Function:	有 / Yes Available
条码数据来源 Barcode Database:	从MES获取，或自动生成
	Get Data from MES, or generate automatically
系统连接功能 System connection function:	可连接Shopfloor、MES、IMS等智能管理系统
	Access to ShopFloor, MES, IMS system, and so on
条码等级分析 Barcode Grade Analysis:	无 / NO
刻印角度 Marking Angle:	0-360°
输入电压 Input voltage:	AC220V/7A 50Hz
气压源 Pneumatic supply:	不需要 / No Need
环境要求 Environment Requirement:	0-40°C 35-85%RH
设备功率 Equipment power:	1.5KW
设备尺寸(宽*高*深mm) Machine Size (width*high*deep)	800mm*1650mm*1000mm
设备重量 Equipment weight:	约650KG / Approx 650KG





## PCB分板机 / PCB Separator

单工位/双工位 / 在线式 Single station/double station/On line

PCB铣刀分板机，有单工位、双工位离线机，以及在线铣刀分板机，支持最大电路板幅面可达490mm\*520mm。

We have PCB Milling Cutter Machine, offline for single , or double station; and also we have online milling cutter machine; Our machine supports maximum size 490mm\*520mm PCB board cutting.

双工作台面运动，可同时执行分板切割及电路板置放，配置高速CCD视觉自动校正系统，大幅提高切割精度及操作效率，采用高速主轴做PCB之切割分板，分割应力小、精度高，且适用任何形状之电路板。

Machine is with 2 worktables, which can do the PCB board cutting and placement at the same time. Cooperated with CCD visual automatic correction system, it can improve cutting accuracy and speed rapidly. The machine is using high speed and high precision motor spindle, which makes PCB with less cutting stress, high precision, and work for different shape.

Windows视窗操作系统，安全稳定、易学易用，适应通讯医疗器械汽车电子3c电子等量大的行业。Windows Operating System, safe, stable, easy to use, It is suitable for different industries such as communication, medical equipment, automotive electronics, 3C electronics, and so on.

### 产品特点 Product Features

1 采用双模组，效率相比传统加工方式提高约20%；

Double mould group is adopted, and the efficiency is increased by about 20% compared with the traditional processing method;

2 双大台面，可切割任意款350\*400mm内的拼板；

Double large worktops, which can cut any panel within 350\*400mm;

3 左右可同时交替切割两款不同型号的拼板；

Two different types of panels can be cut alternately on the left and right at the same time;

4 带拼板扫描等高级编程功能；

With advanced programming functions such as panel scanning;

5 支持暂停、指定路径切割、铣刀分段切割等实用功能；

Support practical functions such as pause, specified path cutting, milling cutter segmented cutting, etc;

6 上吸尘方式，可选配下吸尘；

Uper dust collection mode, lower dust collection optional;

7 安全门、安全光栅等防护功能；

Safety door, safety grating and other protective functions;

8 可选配断刀检测功能、自动换刀功能、自动压盖板功能；

Optional tool breaking detection function, automatic tool change function, automatic cover plate function;

9 可定制MES功能，实时监控与数据交互。

MES functions can be customized for real-time monitoring and data interaction.



高精度 High precision

自动识别mark点定位与补偿确保切割的高精度；  
CCD identifies marking point automatically and makes compensation to ensure accuracy cutting;  
精湛的视觉系统，提高编程的效率、便捷性与稳定性；  
Excellent Visual system, improve the efficiency, convenience and stability of programming;  
双工位平台采用伺服加丝杆驱动，保证设备精度更高。  
Double work station platform is driven by servo screw rod to ensure higher precision of running.

高效率High efficiency

双工位台面，可同时执行PCBA分板及换板，降低放置PCBA的等待时间；  
Double work station table, can execute PCBA board cutting and feeding at the same time, which can reduce the waiting time;  
双工位平台采用伺服加丝杆驱动，保证设备速度更高，分板机应力更小，稳定性耐用性更佳。  
Double work station platform is driven by servo screw rod to ensure higher speed of running, less cutting stress and better stability.  
双工位双主轴提高产量80% (选配)。  
Double work station table is also with double spindle options, which increases efficiency by 80% (optional).

高品质High quality

防静电毛刷式上吸尘装置，集尘率提升90%高洁净；  
Dust collection device is with electrostatic prevention brush, increase 90% efficiency of cleaning;  
PCBA切割应力<200μ切割面平整光滑。  
Cutting edge is flat and smooth, cutting stress is below 200μm.

### 主机规格 Host Specifications

设备型号 Model No:	VIPin-M3045DT/VIPin-M3045ST/VIPin-A3045DT
有效切割尺寸 Effective cutting size:	350*400mm X350*Y550mm
切割功能 Cutting function:	直线、L型、U型、圆型、圆弧、异形等 Straight line, L-shape, U-shape, circle, arc, abnormality, etc...
加工台面 Worktable:	双台面 / Double work table
机台重复精度 Machine repeat accuracy:	+0.01mm
切割精度 Cutting accuracy:	+0.02mm
最高移动速度 Maximum movement speed:	XY: 1000mm / s, Z: 800mm/s
最大移动行程 Maximum Movement Range:	X:750 Y:500 Z:100mm X:750 Y:650 Z:100mm
主轴转速 Spindle speed:	MAX 60000rpm
铣刀更换方式 Milling tooling changing method:	人工/自动换刀 / Manual/automatic tool change
切割速度 Cutting speed:	0~100mm/s
断刀检测 Tool Failing detection:	有/无 (可选) / Yes / no (optional)
操作介面 Operation interface:	Windows 7/10
程式教导方式 Program teaching method:	视觉引导 / Visual guidance
控制方式 Control mode:	PC视觉精密四轴控制系统 / Computer control system
XYZ轴驱动 XYZ axis drive:	Ac伺服马达 / AC servo system
适用铣刀尺寸 Applicable milling cutter size:	直径0.5 — 3.0mm Diameter 0.5-3.0mm
电源规格 Power specifications:	AC220V/380V 50/60HZ 2KW
切割主机尺寸 Machine Size:	1200(W)*1050(D)* 1450(H)
切割主机重量 Machine Weight:	约500KG 约580KG / Approx 500kg/Approx 580kg
集尘机功率 Dust Collector Power:	3HP
集尘机尺寸 Dust Collector Size:	613(M)x700(D)x1600(H)mm
集尘机电源规格 Dust Collector Power Spec:	AC220V/380V 50/60HZ三相
集尘机重量 Dust Collector Weight:	120KG
集尘方式 Dust collection mode:	下集尘/上集尘 (选用) Upper Dust Collection/Lower Dust Collection optional
集尘机尺寸 Dust Collector Size:	600mm*470mm*730mm(±)

### 一、应变测量系统简介 / Strain Measurement System introduct

PCB应变测量系统是特别针对印刷电路板应变测试应用所进行设计的测量工具。应变测试主要应用于SMT、DIP、FATP三大电子制造环境，能有效防止由于制程应力过大导致锡球破裂、布线损毁、焊盘分离以及基板裂纹等等。

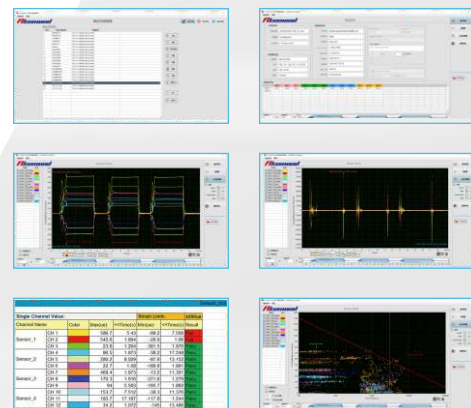
Strain Measurement System is to measure the strain which is applied by with stress, especially for PCB application. It is usually focusing on SMT, DIP or FATP processing. By supervising the strain, failure soldering, wiring damage, Pad separation, IFillet lifting, and board crack can be found easily and avoided.

#### 产品参数 Product parameters

每个模块通道数 Number of channels per module:	8通道应变信号输入 / 8-Channel strain signal input
同步运行 Synchronous operation:	8个模块, 64通道 / 8 Modules, 64 channels
采样频率 Sampling frequency:	10KS/s每通道, 同步采集 / 10ks/s Per channel, synchronous acquisition
最大输入范围 Maximum input range:	±55500ue
支持应变片类型 Support strain gauge types:	120欧姆或者350欧姆 / 120 Ohms or 350 ohms
惠斯通电桥类型 Wheatstone bridge type:	1/4桥 (两线式和三线式) / 1/4 Bridge (Two-wire and three wire)
输入通道精度 Input channel accuracy:	≤0.3%
AD转换器分辨率 AD converter resolution:	24位 / 24 bits
滤波器 Wave filter:	Delta-Sigma (带模拟预滤波) / Delta-Sigma (With analog pre filtering)
数字滤波器 Digital filter:	高通/低通/带通/带阻滤波 / High pass / Low pass / Band pass / Band stop filtering
稳定性 Stability:	温度漂移增益小于6ppm/°C / The temperature drift gain is less than 6ppm/°C
输入连接器 Input connector:	D-Sub 25针或卡线端子 / D-sub 25 pin or snap wire terminal
非线性 Nonlinear:	±0.1%FS或以内 / ± 0.1% FS or less
标度系数 Scale factor:	3.5062nV/V/LSB
稳定性 Stability:	增益漂移6ppm/°C / Gain drift 6ppm/°C
接口类型 Interface type:	USB2.0或以太网端口输入 / USB2.0 or Ethernet port input
端子间过压保护	
Overvoltage protection between terminals:	±30V
供电电源 Power supply:	11-30VDC, 220VAC
工作温度 Working temperature:	-40°C到70°C, 10%-90%RH, 无凝结 / -40 °C to 70 °C, 10% - 90% RH, No condensation
存储温度 Storage temperature:	-40°C到85°C, 5%-90%RH, 无凝结 / -40 °C to 85 °C, 5%-90%RH, No condensation
防护等级 Degree of protection:	Ip40
重量 Weight:	2.5KG



#### 软件界面 Software Interface



#### 应变片 Strain gauges

类型 type	型号 model	电阻 Ω	栅长 Grid length	基底尺寸 Base size	漆包线 Insulated wire	PVC导线 Extension wire
<b>三轴 Triaxial</b>						
	TSK-1E-120-3A-11L30W05MS	120	1.1*1.0mm	4*4mm	30cm	50cm
	TSK-1E-120-3A-11L50W05MS				50cm	50cm
	TSK-1E-120-3A-11L50W3MS				50cm	300cm
	TSK-1D-120-3A-11L50W05MS	120	1.1*1.0mm	2.5*2.7mm	50cm	50cm
	TSK-1D-120-3A-11L1M2S				50cm	90cm
	TSK-05R-120-3A-11L50W07MS				50cm	70cm
	TSK-05R-120-3A-11L80W06MS	120	0.5*0.5mm	1.5*1.5mm	80cm	60cm
	TSK-05R-120-3A-11L50W3MS				50cm	300cm
	TSK-1A-120-3A-11L30W				30cm	
	TSK-1A-120-3A-11L30W07MS	120	1.1*1.0mm	φ5mm	30cm	70cm
	TSK-1A-120-3A-11L30W3MS				30cm	300cm
	TSK-1A-350-3A-11L30W				30cm	
	TSK-1A-350-3A-11L30W07MS	350	1.6*2.5mm	φ8mm	30cm	70cm
	TSK-1A-350-3A-11L30W07MS				30cm	
<b>双轴 Biaxial</b>						
	TSK-1A-120-2A-11L30W	120	1.1*1.0mm	φ5mm	30cm	
	TSK-1A-120-2A-11L30W07MS				30cm	70cm
	TSK-1A-350-2A-11L30W				30cm	
	TSK-1A-350-2A-11L30W07MS	350	1.6*2.5mm	φ8mm	30cm	70cm
	TSK-1A-350-2A-11L30W07MS				30cm	
<b>单轴 Uniaxial</b>						
	TSK-1B-120-1A-11L1M2S	120	1.1*1.0mm	4*2mm	2cm	100cm
	TSK-1B-120-1A-11L2M2S				2cm	200cm
	TSK-1R-120-1A-11L1M2S				2cm	100cm
	TSK-1R-120-1A-11L2M2S				2cm	200cm
	TSK-05R-120-1A-11L1M2S				2cm	100cm
	TSK-05R-120-1A-11L2M2S				2cm	200cm
	TSK-1B-350-1A-11L1M2S	350	0.5*0.5mm	5*3.5mm	2cm	100cm
	TSK-1B-350-1A-11L2M2S				2cm	200cm

#### 应用领域 Application field

PCB行业: 电路板ICT/FCT/分板/组装等应力测量

PCB industry: circuit board ICT/FCT/Board Cutting / assembly and others for strain measurement

其他行业: 车辆、桥梁、空调管道、建筑应变测量

Other industries: vehicle, bridge, air conditioning pipeline, building for strain measurement

