

GAM310A

全自動PCB分板機
Vision-Aided Automatic PCB Separator



產品特性 (FEATURES)

- 單工作台佔地面積小，運用性高。
- 配備高速CCD視覺自動校正系統，提升辨識效率。
- 採用進口高速主軸，切割應力小，精度高。
- 配備高吸力上集塵機，吸塵效果佳。
- 視窗介面，操作容易。
- Single worktable requiring only small space. High flexibility in use.
- Equipped with high-speed CCD auto vision calibration system to enhance effectiveness and efficiency in recognition capability.
- Adopt imported high-speed spindle with small cutting stress and high precision quality.
- Equipped with upper duct collector. Has powerful capability of absorbing dust from the upper side.
- Easy to operate by window-based interface.

機台應用 (APPLICATION)

- 適用高精度PCB分板作業。
- 適合手機、車載電子、穿戴設備、板卡等各種形狀之多連板分板。
- 可選擇專用治具或萬用治具做分板切割。
- Perform high-precision PCB separating work.
- Suitable for de-paneling PCB of any shape for the use of mobile device, wearable device, car electronics, board card, etc.
- Can choose either universal or customized fixture for cutting.

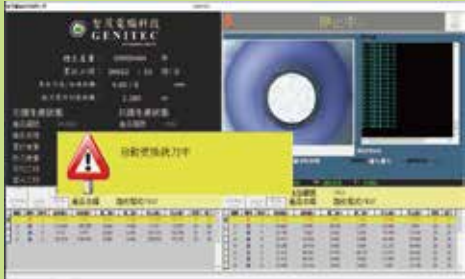
產品亮點 (HIGHLIGHTS)

操作畫面
Operation Panel



- 操作介面簡單，容易學習、快速上手。
- 功能項目清楚分類，銑刀/治具等參數設定簡單。
- 提供四級權限，依工作職別設定操作權限。
- 「歷史訊息視窗」可顯示及查詢操作記錄。
- Operation interface is clear, friendly, and simple. Easy to learn and start quickly.
- Functional items are clear and well categorized. Very easy to set the parameters for milling tool and fixture.
- Provide four levels of authorization control according to user's job rank.
- The “History Window” can display the historical records of operation.

銑刀檢測
Milling Tool Detection



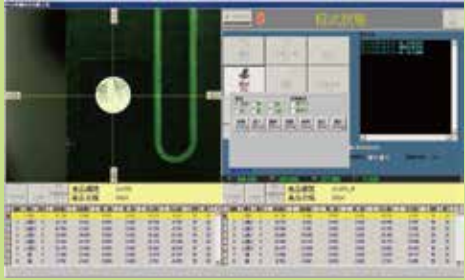
- 俱備斷刀、滑刀、銑刀放反之檢測功能。
- Provide capability of detecting broken/dropped/reversed milling tool for auto tool-change.

吸塵結構
Dust Collection Mechanism



- 搭配高效能「上集塵機」。
- Equipped with high efficient “upper dust collector”.

視覺對位校正
Vision-Aided Position Calibration



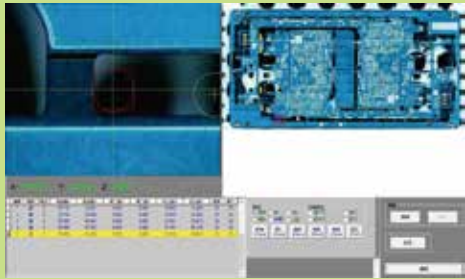
- CCD自動對位mark點，提高切割精度。
- 可模擬切割路徑，協助編輯程式，確保切割路徑之準確性。
- Use computer vision with high-quality CCD to automatically position the mark points and enhance the accuracy of cutting.
- Can edit the path-planning program and simulate the cutting path to avoid wrong cutting.

主軸機構
Spindle



- 高速精密主軸60000rpm。
- 浮動毛刷模組專利，可達成銑刀加深，進而延長銑刀使用壽命。
- High-speed precision spindle (60000 RPM).
- Patented “flexible cleaning brush module” enables the milling tool to move to its deeper positions and prolong the life-cycle of the tool.

整板掃描PCB切割路徑編輯功能
The Whole PCB Scanning Function
For Editing the Cutter's Routing Path



- PCB整板掃描後做編輯，可快速修改編輯切割路徑。
- The function of scanning the whole PCB allows the user to facilitate correcting and editing the cutter's routing path rapidly.

產品規格 (SPECIFICATIONS)

項目 ITEMS	GAM310A
有效切割尺寸 Valid cutting area	350 x 300 mm
切割功能 Cutting function	直線、L型、U型、圓型、圓弧 Tweening to line,L shape,U shape,Circle,Arc
加工台面 Process table	單工作台Single table
機台重複精度 Repeat precision	±0.01mm
切割精度 Cutting precision	±0.05mm
最高移動速度 Max moving speed	XY：1000mm/sec,Z：500mm/sec
最大移動行程 Max moving trip	X：450mm,Y：480mm,Z：90mm
主軸轉速 Spindle's speed	MAX 60000rpm (Adjustable)
主軸銑刀更換方式 Type of tool change	自動換刀 Auto tool change
安全防護 Safety protection	安全光柵防護 Safety light curtain
切割速度 Cutting speed	1 - 100mm/s (Adjustable)
作業系統 Operating system	Windows 10
程式教導方式 Program teaching mode	CCD彩色影像直覺式教導輸入 Intuitive teaching by CCD color image input
程式備份 Program backup	USB data transfer
控制方式 Control method	精密多軸控制系統 Precision multi-axis control system
XYZ軸驅動方式 XYZ axis driving mode	AC伺服馬達 AC Servo motor
適用銑刀尺寸 Size of milling tool	φ 0.8 - 3.0mm
主機電源需求 Voltage/Power requirement	AC220V 50/60HZ 1.5KW 單相 Single-Phase
主機氣源需求 Pneumatic pressure requirement	0.6MPa 45L/min
主機尺寸 Machine dimensions	1120(W)*1208(D)*1914(H) mm
主機重量 Machine weight	400kg
標配集塵機 Dust collector	TS300

外觀尺寸 (DIMENSIONS)

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