

## An Enhanced Model from the Reliable AP700



### Product Highlights

- An automated device programming system equipped with 4 sites of System General H9800 Universal Programmers!
- A redesigned Z axis and optimized motion algorithms to elevate throughput up to 1000 devices per hour!
- A new digital airflow regulator to set the system for handling ultra-small device packages!
- A new downward CCD and an optional “Code Recognition S/W” to decipher those 1D/2D codes (OCR, QR Codes, Barcode and more), and to integrate code recognition and device programming in one programming flow!
- A high-resolution upward CCD to detect the pickup offset for small package types and to align them for accurate placement!
- Coupled with the new S-type gang socket boards and the new FAST algorithm, each embedded H9800 site programs up to 4 NAND/NOR Flash, or 8 eMMC Flash simultaneously at high speed!
- Supports all I/O peripherals and inspection systems, including Tray, Tape, Tube, Ink-dot Marker, 2D/3D Inspection Modules.

# Specifications

## • Pick & Place System •

- ▶ Throughput: up to 1000 devices per hour
- ▶ Placement accuracy:  $\pm 0.05\text{mm}$
- ▶ Placement repeatability:  $\pm 0.03\text{mm}$
- ▶ Placement force: 95 grams
- ▶ Pick & place method: single vacuum nozzle
- ▶ Component detection: vacuum/airflow sensor

## • Physical Specifications •

- ▶ Dimension: Auto Tray included  
160(L) \*90(W) \*140(H) cm  
63.0"(L) \*35.4"(W) \*55.1"(H)
- ▶ Shipping dimension: Options not included  
190(L)\*120(W)\*170(H) cm  
74.8"(L) \*47.2"(W) \*66.9"(H)
- ▶ Net Weight: 580 kg (1276 lbs.)
- ▶ Shipping Weight: 700kg (1540 lbs.)

## • Drive Systems and Specifications •

- ▶ X-Y drive system: Servo motor drive system
- ▶ X axis resolution: 0.001 mm
- ▶ Y axis resolution: 0.001 mm
- ▶ X-Y axis repeatability: 0.010 mm
- ▶ X-axis maximum velocity: 1500 mm/sec
- ▶ Y-axis maximum velocity: 1500 mm/sec
- ▶ Z-theta drive system: Servo motor
- ▶ Z axis resolution: 0.001 mm
- ▶ Z axis repeatability: 0.020 mm
- ▶ Z axis maximum velocity: 900 mm/sec

## • Alignment System •

- ▶ Upward camera:  
IC dimension up to 35 x 35 mm  
(3M pixels resolution, for device position recognition.)
- ▶ Downward camera:  
Region of Inspection 35 x 35 mm  
(3M pixels resolution, for sockets and I/O position teach)

## • Programming System •

- ▶ Programming sites: 4 sites of H9800 Universal Programmers
- ▶ Devices supported: EPROM, EEPROM, NAND/NOR/SPI Flash, eMMC, PLD, CPLD, FPGA, Microcontrollers and more.
- ▶ Packages supported: PLCC, TSOP, TSSOP, TQFP, PQFP, SOIC, SSOP,  $\mu$ BGA, CSP and more.
- ▶ Model H9800 RAM Buffer: 16 Gbits
- ▶ Communications: USB 2.0

## • System Software •

- ▶ User interface: Windows-based HMI
- ▶ Operating system: Microsoft® XP or Windows 7

## • Operating Requirements •

- ▶ Input voltage: 220/220/240, Single phase, 3-wires.
- ▶ Input line frequency: 50/60 Hz
- ▶ Power consumption: 0.8 KVA
- ▶ Air pressure: 75 to 95 PSI (0.4 to 0.6 Mpa)
- ▶ Air flow: 100 liters/min (Peak)
- ▶ Operation temperature range: 15° to 30°C (59°-86°F)
- ▶ Relative humidity: 35-90%
- ▶ Vacuum release air flow adjustment range : 0.01~ 3.00 liter/min

## • IO Media Subsystems •

- ▶ Tray In / Out: Up to 20 JEDEC trays

## • Optional Subsystems •

- ▶ Tape In / Out: 8mm to 56mm
- ▶ Tube In /Out: SOIC8 to PLCC84
- ▶ Label Feeder: Hover Davis and more
- ▶ 3D Lead Inspection: ROI (45mm x 45mm)

## • Regulatory Compliance •

- ▶ CE Compliant