Automated Programming System

AT3-310D2

- **Best option for high-mix, low-volume production**

- **Customized specification and configuration of system to deliver the best production scale cost-effectively**

  - Up to **2200** UPH with **2 pick** & place nozzles
  - Equipped with **2 units** of ALL-200G or ALL-300G2 programmers
  - **16-32** devices can be programmed simultaneously

AT3-310A4

- **Best option for mass and ramp-up demand**

- **Bestseller to provide comprehensive and reliable production experience**

- **High quality and efficiency makes it the best programming option in such industries as consumer electronics, IoT etc.**

  - Up to **3000** UPH with **4 pick** & place nozzles
  - Equipped with **4 units** of ALL-200G or ALL-300G2 programmers
  - **32-64** devices can be programmed simultaneously

AT3-370AL

- Optimal amount of programming site for high density IC programing such as UFS and eMMC

- The best option for high-end IC production in such industries as automotive or military

- Equipped with laser marker and optional 3D inspection makes it a perfect total-solution

  - **Over 2500** UPH with **4 pick** & place nozzles
  - Equipped with **6-8 units** of ALL-200G or ALL-300G2 programmers
  - **48-128** devices can be programmed simultaneously
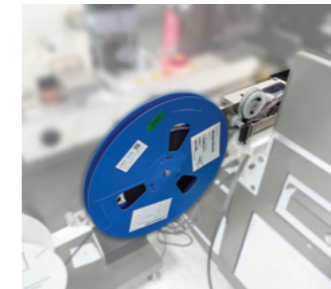
I/O Devices

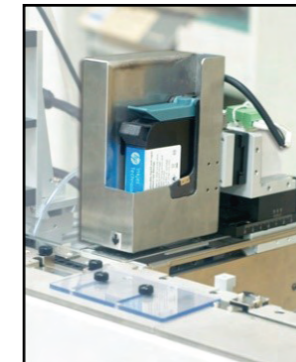Auto tray - 535M   Tape-out - 512M   Tape-in   Tube-in/Tube-out
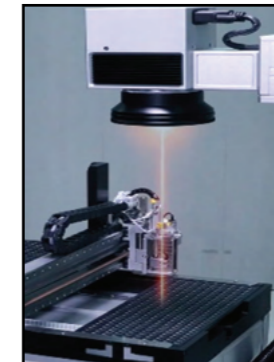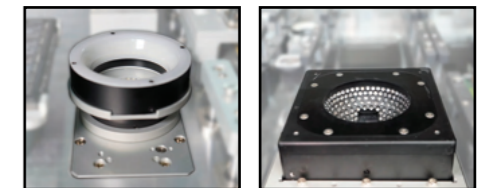
Optional

Mark-346   Inkjet-373   Laser Marker   2D/3D Inspection System

Feature

Excellent performance

- Minimize the jam rate as well as the possibility of lead bent during handling
- Capable of handling as small as 1.5mm x 1.5mm devices such as WLCSP

Support wide range of IC devices and packages

- Device supported: UFS, eMMC, eMCP, MCU/MPU, NOR/NAND Flash EEPROM, SPI Memory, FPGA, CPLD, etc.
- Package supported: DIP, SDIP, SOP, SSOP, TSOP, PLCC, QFP, QFN, SON, BGA, WLCSP, etc.

Precise vision positioning system

- Arm camera (1.3M pixels) for socket positioning
- Fixed camera (3M pixels) for IC pick & place positioning
- Optional AOI for 2D/3D inspection of IC appearance

Smart operating software

- All setup data such as IC type, socket type, and position are saved automatically to achieve zero changeover time
- User friendly operating interface minimize the possibility of misoperation
- Provides detailed information of machine status, production status, warning, etc. Detailed production reports and log files are saved for traceability
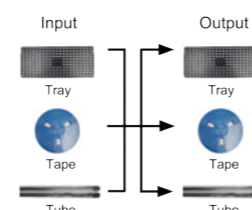
Intelligent function setup

- Laser displacement sensor: Automated height calibration of picking IC (Z-axis)
- Automated IC pick & place positioning reduces the changeover time to 15 minutes or less

HiLoNET (MES)

- **One-Click Start**-Operators can start production simply by scanning the barcode, significantly eliminating human errors
- **E-Board**-Visualize and update production statistics (Yield rate, UPH, the condition of sockets, etc.) promptly for management to track anytime
- **Program Track System (PTS)**-Completely record every order from end to end throughout the production process and provide valid statistics for management, realizing statistical process control (SPC)

Flexible I/O options

- Support package conversion between tape, tray, and tube

Input → Output
Tray → Tray
Tape → Tape
Tube → Tube

Specification

		AT3-310D2	AT3-310A4	AT3-370AL
Throughput		Up to 2200 UPH	Up to 3000 UPH	Over 2500 UPH
Pick & Place System	Transmission	Precision ball screws and linear guides		
	Drive system	Servo motors		
	Resolution	X/Y/Z: 2.5 μm ; θ:0.15°		
Vision System	Arm camera	1.3M pixels, accuracy: ± 0.02 mm		
	Fixed camera	3M pixels, accuracy: ± 0.01 mm		
	Processing speed	0.03 s / device		
Programmer		ALL-200G x 2 units, up to 16 sockets ALL-300G2 x 2 units, up to 32 sockets	ALL-200G x 4 units, up to 32 sockets ALL-300G2 x 4 units, up to 64 sockets	ALL-200G x 6-8 units, up to 64 sockets ALL-300G2 x 6-8 units, up to 128 sockets
I/O Devices	Tray	■ Auto tray (up to 25 JEDEC trays) ■ Semi-Auto tray ■ Manual tray		
	Tape	■ Electric tape-in, 8~32mm (2 tape-in can be installed) ■ Tape-out, 8~44mm, heat-sealing or adhesive cover tape Ink marking (dot, alphanumeric character)		
	Tube	■ Auto Tube-in, up to 25 tubes ■ Tube-in, (4/6/8 tubes) ■ Tube-out (4/6/8 tubes)		
	Other	■ NG box ■ Bowl feeder		
Control system	Operating system	Windows 7, 10		
	Control interface	Monitor / Keyboard / Mouse		
	Comm. interface	Ethernet / USB 3.0		
Power	AC power	220 ~ 240V single phase / 50 - 60 Hz / 2.5 kW (max capacity)		
Air pressure		0.6 MPa, 45 L/min.		
Weight		830 kg (Main unit)		
Dimension	Main unit	W1500 x D840 x H1510 (mm)		
	+ Auto tray (front)	W1500 x D1475 x H1678 (mm)		
	+ Auto tray (back)	W1500 x D1432 x H1678 (mm)		
	+ Tape-in / Tape-out (front)	W1500 x D1845 x H1678 (mm)		
	+ Tube-in / Tube-out (front)	W1500 x D1650 x H1678 (mm)		
	+ Tape-in / Tape-out (front) + Auto tray (back)	W1500 x D2437 x H1678 (mm)		