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

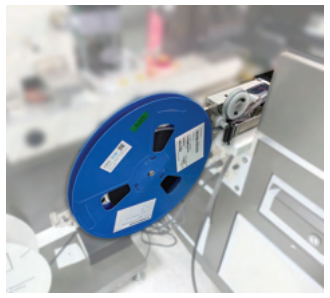
- Optimal amount of programming site for high density IC programing such as UFS and eMMC
- The best option for high-end IC production in such industries as automotive or military
- Equipped with laser marker and optional 3D inspection makes it a perfect total-solution

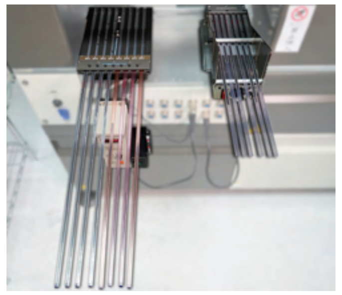
- **Over 2500** UPH with **4** pick & place nozzles
- Equipped with **6-8** units of ALL-200G or ALL-300G2 programmers
- **48-128** devices can be programmed simultaneously

I/O Devices


Auto tray - 535M


Tape-out - 512M

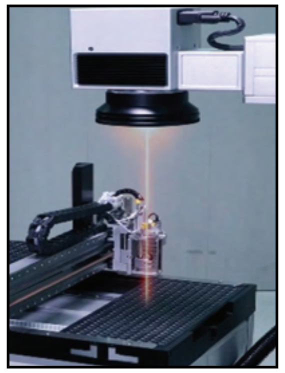

Tape-in

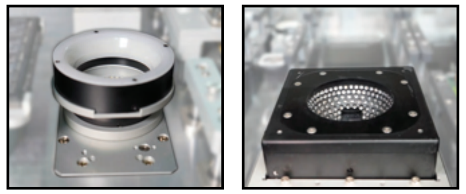

Tube-in/Tube-out

Optional


Mark-346


Inkjet-373


Laser Marker


2D/3D Inspection System

Feature

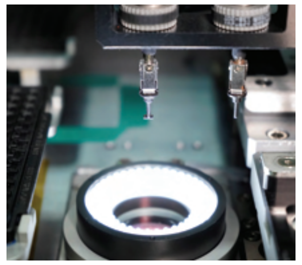
Excellent performance

- 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

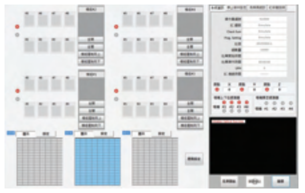
- Device supported: UFS, eMMC, eMCP, MCU/MPU, NOR/NAND Flash EEPROM, SPI Memory, FPGA, CPLD, etc.
- Package supported: DIP, SDIP, SOP, SSOP, TSOP, PLCC, QFP, QFN, SON, BGA, WLCSP, etc.

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

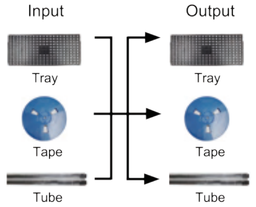
- Laser displacement sensor: Automated height calibration of picking IC (Z-axis)
- Automated IC pick & place positioning reduces the changeover time to 15 minutes or less

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



Specification

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