

A9aL Flying Probe Test System

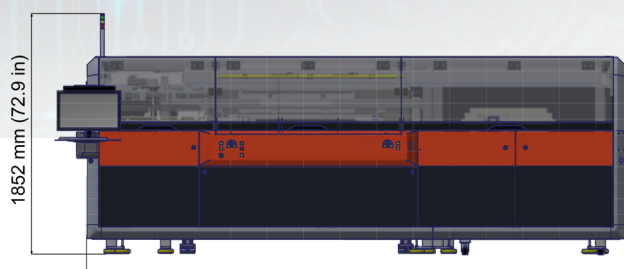
Automated Test for Rigid and Flexible Boards



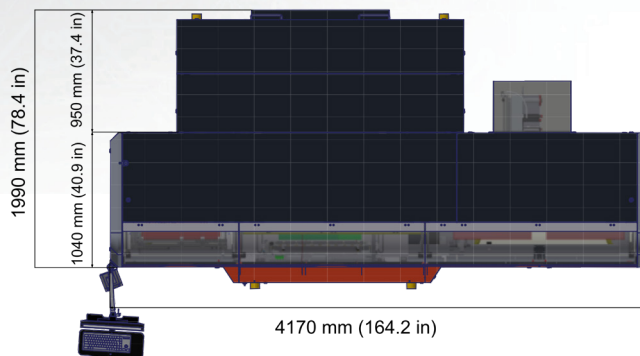
- ▲ Latest Generation in advanced technology
- ▲ 8 ultra light carbon fiber test heads
- ▲ Fully Automatic “Lights-out” operation
- ▲ High performance linear motion
- ▲ Granit base for high accuracy and repeatability

A9aL Technical Specifications

Flying Probe Test System



Front View



Plan View

Mechanics

Fully automated test system for medium batch sizes in lights-out operation.
Basic unit with 8 test probes (4 top, 4 bottom)

Board Handling

Automation & Manual mode:

Max. board size (X x Y) 635 mm x 535 mm / 25.0" x 21.1"
Test area (X x Y) 610 mm x 510 mm / 24.0" x 20.0"

Min. board size (X x Y) 60 mm x 80 mm / 2.4" x 3.2"
Board thickness up to 5 mm, max. 3 kg

Product exchange time < 6 sec using manual layup table (optional),
Loader capacity 390 mm, max. 80 kg

Smallest pad 50 μm / 2.0 mil
Smallest pitch 100 μm / 4.0 mil
Resolution measurement system $\pm 0.1 \mu\text{m}$ / $\pm 0.004 \text{ mil}$
Repeatable accuracy $\pm 4 \mu\text{m}$ / $\pm 0.16 \text{ mil}$

Soft touch probes 5 g to 10 g
*Micro needle probes 0.3 g to 2.5 g

Electronics

Continuity test 1 Ω to 10 k Ω (2-wire)

Isolation test up to 25 M Ω (FM),
up to 100 G Ω (ohmic)
MicroShort Detection®

Test voltage 100 mV to 1000 V

Camera System

4 color cameras for fast optical scanning of top and bottom side.
Resolution 6 μm / pixel

Options

- 4-wire measurement with max. 280 mA test current
0 Ω to 1 k Ω $\pm 2 \%$, min. $\pm 25 \mu\Omega$
with Kelvin probes 0.3 g to 2.5 g
Smallest pad 80 μm / 3.2 mil*
Smallest pitch 120 μm / 4.8 mil*
* special setup

- Embedded components test
R 0 Ω to 1 M Ω $\pm 1 \%$, min. $\pm 0.5 \Omega$
1 M Ω to 200 M Ω $\pm 3 \%$
C 0 F to 100 μF $\pm 2 \%$, min. $\pm 30 \text{ fF}$
L 0 H to 10 mH $\pm 5 \%$, min. $\pm 0.25 \mu\text{H}$
Diode / Varistor (on inquiry)
 U_{F} , U_{R} , U_{BR} 0 V to 12.5 V
Structural test of integrated circuits:
opens/shorts test on CMOS devices with ESD diodes

- LaTest® open detection
- Label printer with barcode support
- Pen marker
- Retest of fault files from external grid test systems on inquiry
- Repair software with barcode support
- Tensioning modules for flexible board thickness 0,05 mm to 1.5 mm

Data input format	IPC-D-356A
Network connection	Ethernet, TCP / IP
Power supply	3 x 400 V, 50 Hz (3 x 208 V, 60 Hz), 1500 VA
Compressed air	8 bar / 115 psi, filtered
Temperature	18 °C to 27 °C
Relative humidity	40% to 60%
Machine weight	2700 kg

All information subject to change without notice!
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