

A9aL Flying Probe Test System

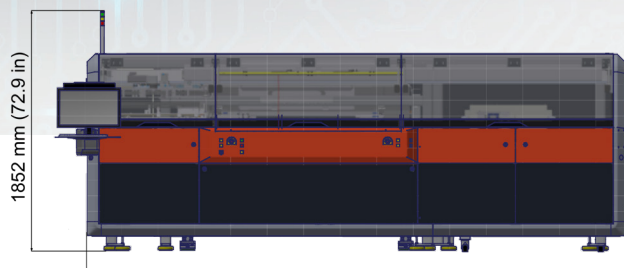
Automated Test for Rigid and Flexible Boards



- ▲ 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

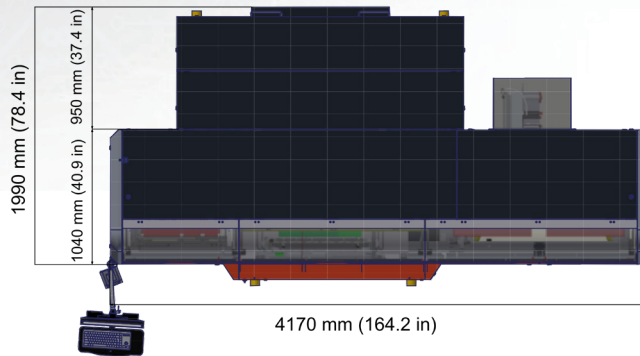
A9aL Technical Specifications

Flying Probe Test System



4170 mm (164.2 in)

Front View



4170 mm (164.2 in)

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!
April 2024

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