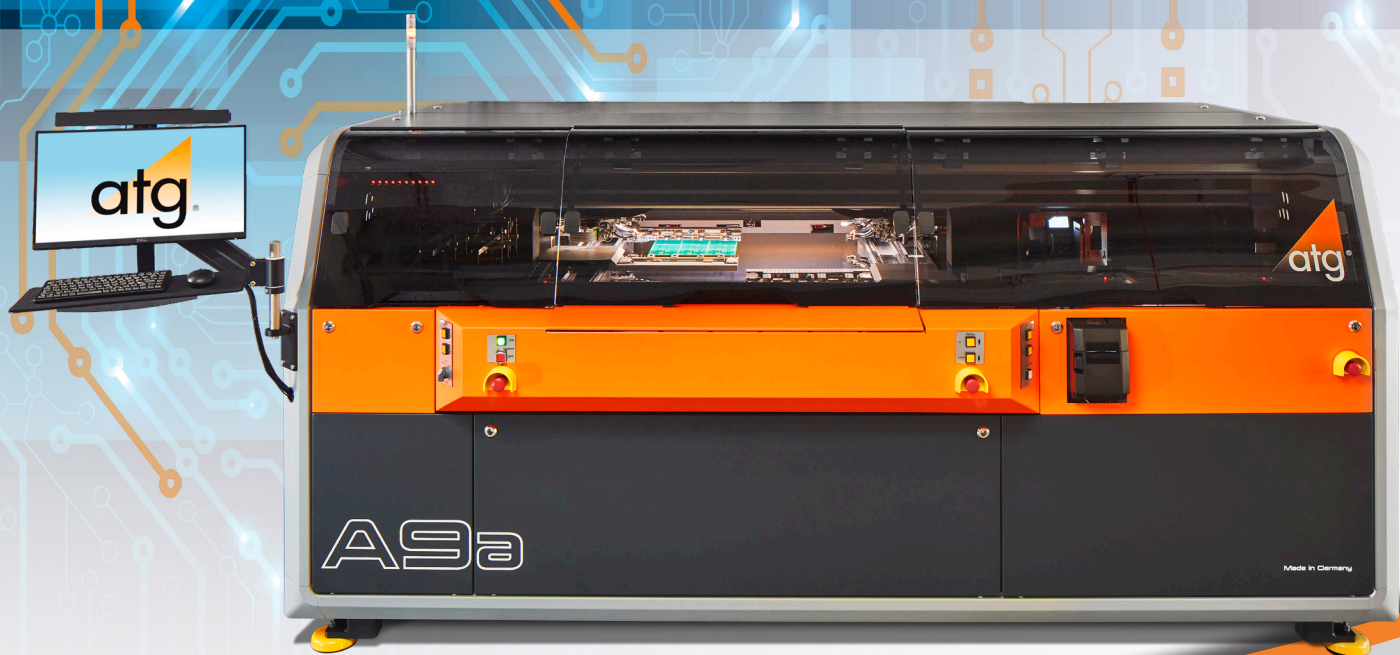


A9a Flying Probe Test System Dual Shuttle

Automated Test for Rigid and Flexible Boards

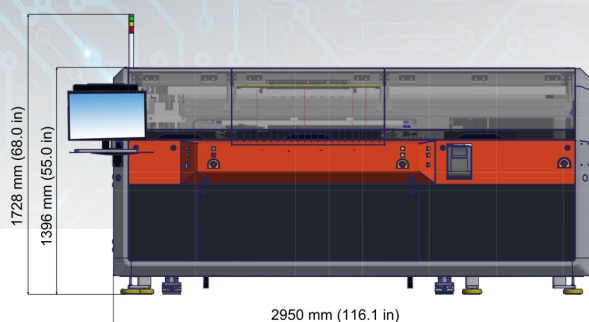


- ▲ Latest Generation in advanced technology
- ▲ 8 ultra light carbon fiber test heads
- ▲ Fully Automatic “Lights-out” operation
- ▲ High performance linear motion
- ▲ Granit base for high accuracy and repeatability

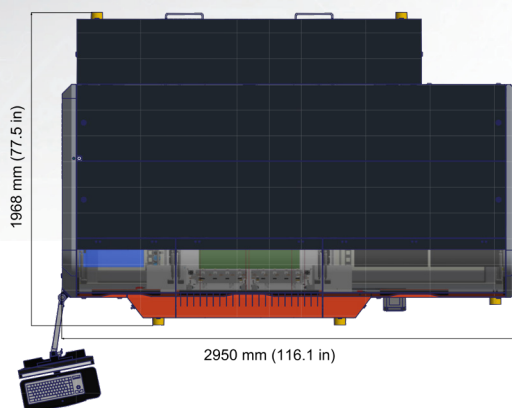
A9a Technical Specifications

Dual Shuttle

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 mode:

Max. board size (X x Y) 510 mm x 420 mm / 20.0" x 16.5"

Test area (X x Y) 510 mm x 420 mm / 20.0" x 16.5"

Manual mode:

Max. board size (X x Y) 610 mm x 535 mm / 24.0" x 21.0"

Test area (X x Y) 610 mm x 510 mm / 24.0" x 20.0"

Min. board size (X x Y) 50 mm x 40 mm / 2.0" x 1.6"

Board thickness up to 5 mm, max. 2 kg

Product exchange time 0 s with dual shuttle mode,
for test area max. 300 mm x 330 mm

Loader capacity 390 mm
240 boards / 1.6 mm thickness

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 1.0 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 $^{\circ}\text{C}$ to 27 $^{\circ}\text{C}$
Relative humidity	40% to 60%
Machine weight	2500 kg

All information subject to change without notice!
January 2025

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