

# A9a Flying Probe Test System Dual Shuttle

Automated Test for Rigid and Flexible Boards



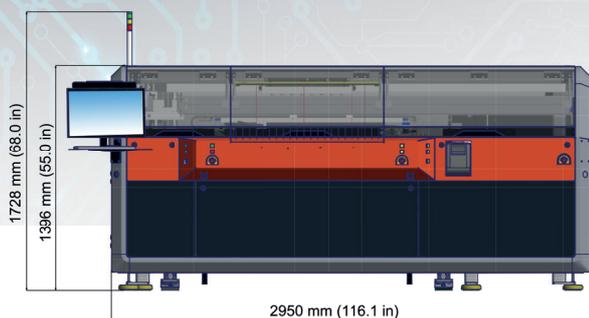
- ▲ Latest Generation in advanced technology
- ▲ 8 ultra light carbon fiber test heads
- ▲ Fully Automatic “Lights-out” operation
- ▲ High performance linear motion
- ▲ Granite base for high accuracy and repeatability



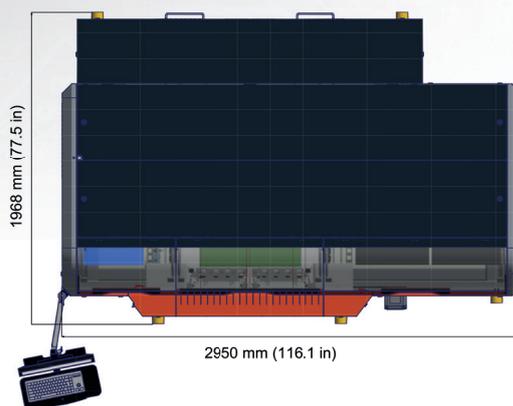
# A9a Technical Specifications

## 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 × Y) 510 mm x 420 mm / 20.0" x 16.5"

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

Manual mode:

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

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

Min. board size (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 ± 0.1 μm / ± 0.004 mil

Repeatable accuracy ± 4 μm / ± 0.16 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 kΩ (2-wire)

Isolation test up to 25 MΩ (FM),  
up to 100 GΩ (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 kΩ ± 2 %, min. ± 25 μΩ  
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 MΩ ± 1 %, min. ± 0.5 Ω

1 MΩ to 200 MΩ ± 3 %

C 0 F to 100 μF ± 2 %, min. ± 30 fF

L 0 H to 10 mH ± 5 %, min. ± 0.25 μH

Diode / Varistor (on inquiry)

$U_{F1}$ ,  $U_{R1}$ ,  $U_{BR1}$  0 V to 12.5 V

Structural test of integrated circuits:

opens/shorts test on CMOS devices with ESD diodes

- BackDrill Stripe detection
- 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 °C to 27 °C

Relative humidity 40 % to 60 %

Machine weight 2500 kg

All information subject to change without notice!  
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