

# A9a Flying Probe Test System Dual Shuttle

Automated Test for Rigid and Flexible Boards

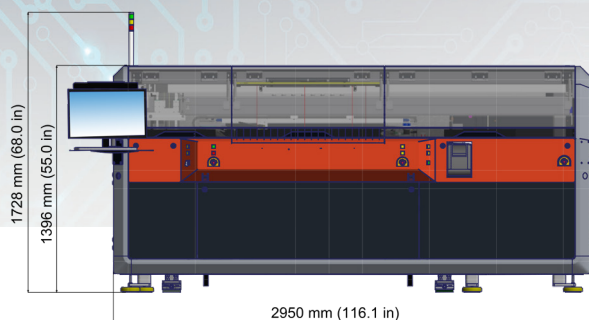


- ▲ Latest Generation in advanced technology
- ▲ 8 ultra light carbon fiber test heads
- ▲ Fully Automatic “Lights-out” operation
- ▲ High performance linear motion
- ▲ Granit base for high accuracy and repeatability

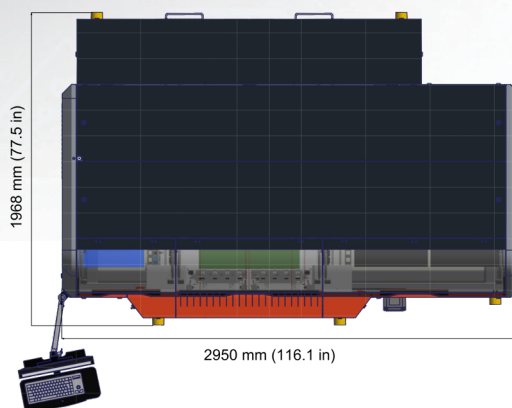
# A9a Technical Specifications

## 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) 480 mm x 420 mm / 18.9" x 16.5"

Test area (X x Y) 480 mm x 420 mm / 18.9" 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  $\mu\text{m}$  / 2.0 mil

Smallest pitch 100  $\mu\text{m}$  / 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  $\Omega$  to 10 k $\Omega$  (2-wire)

Isolation test up to 25 M $\Omega$  (FM),  
up to 100 G $\Omega$  (ohmic)  
MicroShort Detection<sup>®</sup>

Test voltage 100 mV to 1000 V

#### Camera System

4 color cameras for fast optical scanning of top and bottom side.  
Resolution 6  $\mu\text{m}$ / pixel

#### Options

- 4-wire measurement with max. 280 mA test current  
0  $\Omega$  to 1 k $\Omega$   $\pm 2 \%$ , min.  $\pm 25 \mu\Omega$   
with Kelvin probes 0.3 g to 2.5 g  
Smallest pad 80  $\mu\text{m}$  / 3.2 mil\*  
Smallest pitch 120  $\mu\text{m}$  / 4.8 mil\*  
\* special setup
- Embedded components test  
R 0  $\Omega$  to 1 M $\Omega$   $\pm 1 \%$ , min.  $\pm 0.5 \Omega$   
1 M $\Omega$  to 200 M $\Omega$   $\pm 3 \%$   
C 0 F to 100  $\mu\text{F}$   $\pm 2 \%$ , 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<sub>F</sub>, U<sub>R</sub>, U<sub>BR</sub> 0 V to 12.5 V  
Structural test of integrated circuits:  
opens/shorts test on CMOS devices with ESD diodes
- LaTest<sup>®</sup> 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

<b>Data input format</b>	IPC-D-356A
<b>Network connection</b>	Ethernet, TCP / IP
<b>Power supply</b>	3 x 400 V, 50 Hz (3 x 208 V, 60 Hz), 1500 VA
<b>Compressed air</b>	8 bar / 115 psi, filtered
<b>Temperature</b>	18 °C to 27 °C
<b>Relative humidity</b>	40% to 60%
<b>Machine weight</b>	2500 kg

All information subject to change without notice!  
April 2024

#### atg Luther & Maelzer GmbH

Zum Schlag 3 · 97877 Wertheim · Germany  
Phone +49 9342 291 0 · Fax +49 9342 395 10  
sales@atg-LM.com · www.atg-LM.com