

# A9a Flying Probe Test System Dual Shuttle

Automated Test for Rigid and Flexible Boards

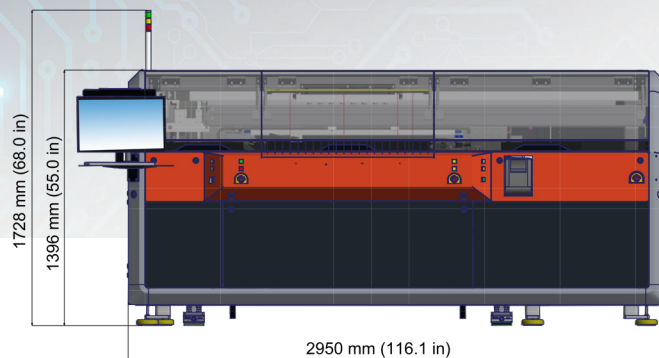


- ▲ Latest Generation in advanced technology
- ▲ 8 ultra light carbon fiber test heads
- ▲ Fully Automatic “Lights-out” operation
- ▲ High performance linear motion
- ▲ Granit base for high accuracy and repeatability

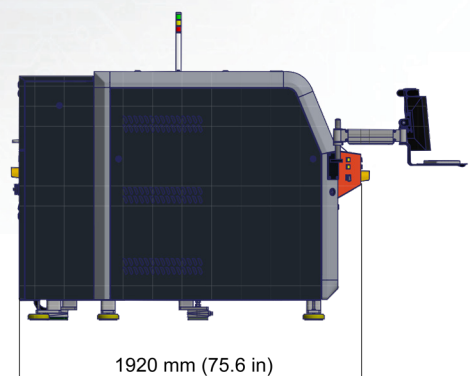
# A9a Technical Specifications

## Dual Shuttle

### Flying Probe Test System



Front View



Side 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. 300 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)  
 $U_{\text{F}}$ ,  $U_{\text{R}}$ ,  $U_{\text{BR}}$  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

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!  
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