

# A8a Flying Probe Test System Dual Shuttle

Automated Test for Rigid and Flexible Boards

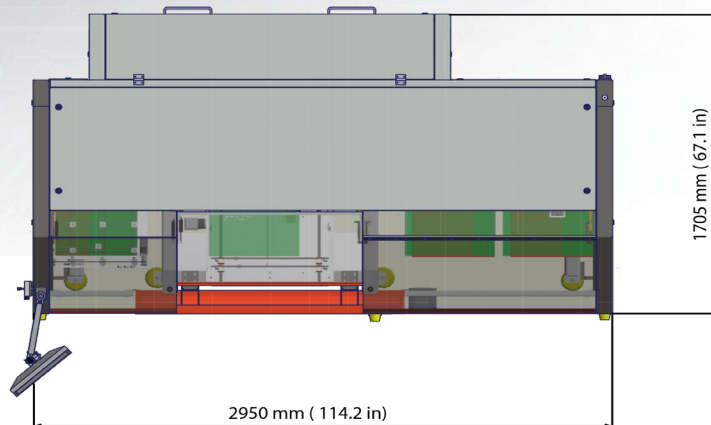


- ▲ 8 Test Heads
- ▲ Fully Automatic “Lights-out” operation
- ▲ Dual-Shuttle System for highest throughput
- ▲ Tension Option for thin core and flexible panels
- ▲ Fast 300 mA Kelvin Testing

# A8a Technical Specifications

## Dual Shuttle

### Flying Probe Test System



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

Max. board size (X x Y)	480 mm x 330 mm / 18.9" x 13.0"
Min. board size (X x Y)	50 mm x 40 mm / 2.0" x 1.6"
Test area (X x Y)	480 mm x 310 mm / 18.9" x 12.2"
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 310 mm < 15 s with single shuttle mode
Loader capacity	390 mm 240 boards / 1.6 mm thickness
Smallest pad	35 $\mu$ m / 1.4 mil* (special setup)
Smallest pitch	80 $\mu$ m / 3.2 mil
Resolution measurement system	$\pm 0.1 \mu$ m / $\pm 0.004$ mil
Repeatable accuracy	$\pm 4 \mu$ m / $\pm 0.16$ mil
Soft touch probes	5 g to 10 g
*Micro needle probes	0.3 g to 2.5 g

#### Electronics

Continuity test	1 $\Omega$ 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 9  $\mu$ 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 60  $\mu$ m / 2.4 mil\*  
Smallest pitch 100  $\mu$ m / 4.0 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  $\mu$ F  $\pm 2 \%$ , min.  $\pm 30$  fF
- L 0 H to 10 mH  $\pm 5 \%$ , min.  $\pm 0.25 \mu$ H

#### Diode / Varistor

$U_F, U_R, U_{BR}$  0 V to 12.5 V



Structural test of integrated circuits:  
opens/shorts test on CMOS devices with ESD diodes



#### Multi-Point Measurements

Up to three AC/DC sources (voltage and current) simultaneously.  
Transistors (MOSFET and Bipolar), Optocouplers, Fuses,  
Relays, Transformers, etc.  
 $I_{max} = 300$  mA



- LaTest<sup>®</sup> open detection
- Layup table for optimized product exchange time in single shuttle mode
- 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 $^{\circ}$ C to 27 $^{\circ}$ C
Relative humidity	40% to 60%
Machine weight	1900 kg

All information subject to change without notice!  
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