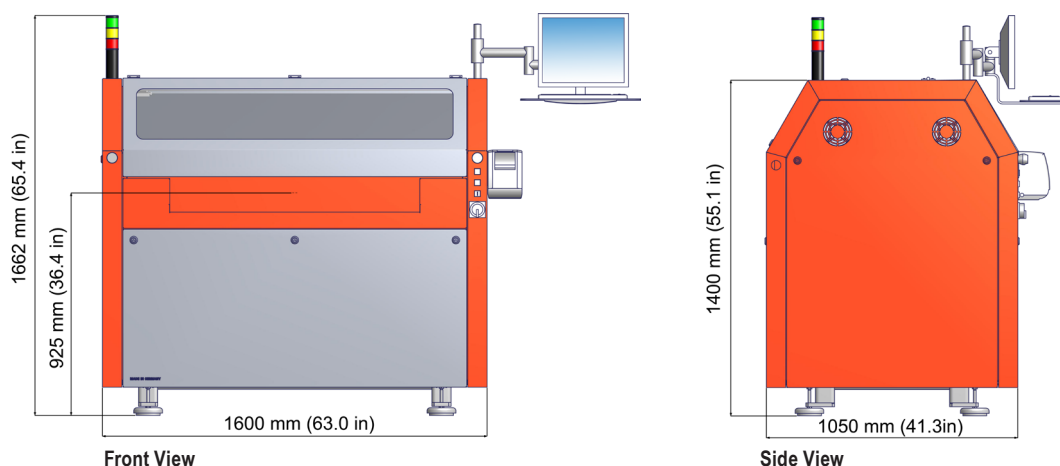


# A7 Technical Specifications

## Flying Probe Test System



### Mechanics

Basic unit with 8 probes (4 top, 4 bottom)  
 Universal shuttle system with clamp and stretch mode for testing flexible and rigid boards. Pneumatic clamping function controlled by foot switch.

Max. board size (X x Y)	640 mm x 610 mm / 25.2" x 24.0"
Min. board size (X x Y)	10 mm x 10 mm / 0.4" x 0.4"
Test area (X x Y)	610 mm x 510 mm / 24.0" x 20.0"
Board thickness	up to 10 mm / 0.4"

Smallest pad	35 $\mu\text{m}$ / 1.4 mil* (special setup) 50 $\mu\text{m}$ / 2.0 mil
Smallest pitch	100 $\mu\text{m}$ / 4.0 mil
Resolution measurement system	$\pm 1 \mu\text{m}$ / $\pm 0.04$ mil
Repeatable accuracy	$\pm 4 \mu\text{m}$ / $\pm 0.16$ mil

Soft touch probes or	5 g to 15 g
*Micro needle probes	0.2 g to 2.5 g

### Electronics

Continuity test	1 $\Omega$ to 10 k $\Omega$
Isolation test	up to 25 M $\Omega$ (FM) up to 10 G $\Omega$ (ohmic) MicroShort Detection®
Test voltage	up to 500 V

### Camera System

4 color cameras (1024 px x 768 px) for fast optical scanning of top and bottom side

### Options

- 4-wire measurement with max. 300 mA test current
  - 0.25 m $\Omega$  to 1 k $\Omega$   $\pm 2\%$ , min  $\pm 0.025$  m $\Omega$
  - with Kelvin probes 0.2 g to 5 g
  - Smallest pad 80  $\mu\text{m}$  / 3.2 mil\*
  - Smallest pitch 120  $\mu\text{m}$  / 4.8 mil\*

\*with Kelvin probe fine adjustment

- Embedded components test
  - R 0.5  $\Omega$  to 10 M $\Omega$   $\pm 0.5\%$ , min  $\pm 0.5 \Omega$
  - > 10 M $\Omega$  to 50 M $\Omega$   $\pm 2\%$
  - C 0.1 pF to 100  $\mu\text{F}$   $\pm 2\%$ , min  $\pm 0.03$  pF
  - L 0.2  $\mu\text{H}$  to 5 mH  $\pm 3\%$ , min  $\pm 0.1 \mu\text{H}$
  - Diode / Varistor
    - $U_R$  reverse voltage and
    - $U_{BR}$  breakdown voltage up to 10 V

- LaTest® open detection
  - with LaTest® probes 1 g to 10 g
  - High current 1.4 A (1 kHz)

- Enhanced test voltage up to 1000 V
- Retest of fault files from external grid test systems on inquiry
- Repair software with barcode support

<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), 1000 VA
<b>Compressed air</b>	8 bar / 115 psi, filtered
<b>Temperature</b>	18 °C to 27 °C / 66 °F to 81 °F, $\pm 3$ K
<b>Relative humidity</b>	40 % to 60 %
<b>Machine weight</b>	900 kg / 1984 lbs

All information subject to change without notice!  
 January 2014