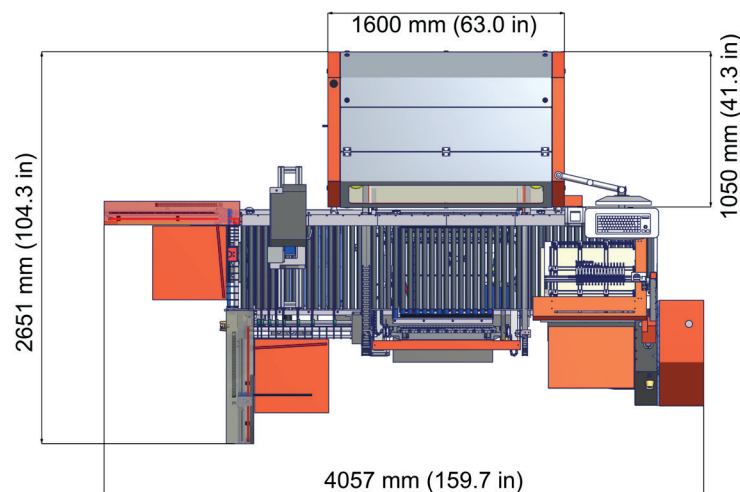


# A7a Technical Specifications

## Flying Probe Test System



Plan View

### Mechanics

Fully automated test system for different board sizes in lights-out operation.  
Basic unit with 8 test probes (4 top, 4 bottom)

### Board Handling

	Manual mode	Automatic mode
Max. board size (X x Y)	635 mm x 535 mm	635 mm x 535 mm
Min. board size (X x Y)	25 mm x 25 mm	100 mm x 100 mm
Test area (X x Y)	610 mm x 510 mm	610 mm x 510 mm
Board thickness	up to 7 mm	up to 5 mm
Loader capacity	390 mm 240 boards / 1.6 mm thickness	
Cycle time automation	< 20 s (clamping mode) < 24 s (tensioning mode)	

Smallest pad	50 $\mu$ m / 2.0 mil
Smallest pitch	100 $\mu$ m / 4.0 mil
Resolution measurement system	$\pm 1 \mu$ m / $\pm 0.04$ mil
Repeatable accuracy	$\pm 4 \mu$ m / $\pm 0.16$ mil
Soft touch probes	5 g to 15 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 <sup>®</sup>
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  $\mu$ m / 3.2 mil\*  
Smallest pitch 120  $\mu$ 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  $\mu$ F  $\pm 2\%$ , min.  $\pm 0.03$  pF  
L 0.2  $\mu$ H to 5 mH  $\pm 3\%$ , min.  $\pm 0.1 \mu$ H  
Diode / Varistor  
 $U_R$  reverse voltage and  
 $U_{BR}$  breakdown voltage up to 10 V
- LaTest<sup>®</sup> open detection  
with LaTest<sup>®</sup> probes 1 g to 10 g  
High current 1.4 A (1 kHz)
- Enhanced test voltage up to 1000 V
- Label printer with barcode support
- Retest of fault files from external grid test systems on inquiry
- Repair software with barcode support
- Tensioning modules for flexible boards

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), 2500 VA
Compressed air	8 bar / 115 psi, filtered
Temperature	18 $^{\circ}$ C to 27 $^{\circ}$ C / 66 $^{\circ}$ F to 81 $^{\circ}$ F, $\pm 3$ K
Relative humidity	40% to 60%
Machine weight	1550 kg / 3175 lbs

All information subject to change without notice!  
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