

A9 plus Flying Probe Test System

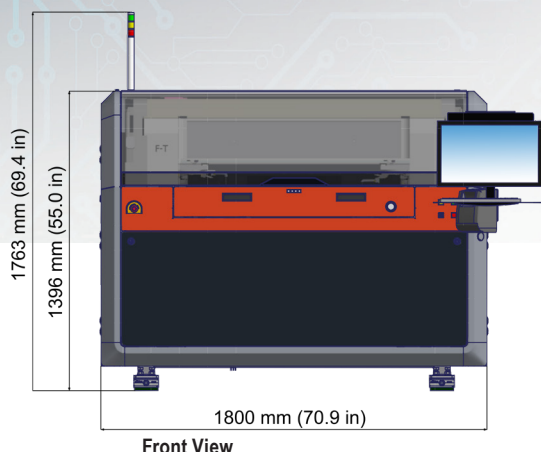
For HDI and Substrate Boards



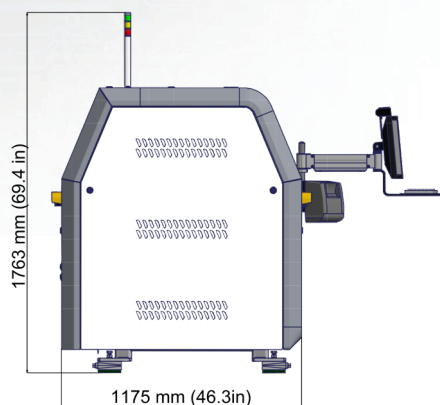
- ▲ Latest Generation in advanced technology
- ▲ 8 ultra light carbon fiber test heads
- ▲ High performance linear motion
- ▲ Granit base for high accuracy and repeatability

A9 plus Technical Specifications

Flying Probe Test System



Front View



Side View

Mechanics

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

Max. board size (X x Y)	640 mm x 535 mm / 25.2" x 21.0"
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"

	high resolution	mixed cameras
Smallest pad	25 μm / 1.0 mil*	35 μm / 1.4 mil (top) 25 μm / 1.0 mil* (bottom)
Smallest pitch	50 μm / 2.0 mil	75 μm / 3.0 mil (top) 50 μm / 2.0 mil* (bottom)
Board thickness	up to 2 mm / 0.08"	up to 4 mm / 0.16"

Resolution measurement system	$\pm 0.1 \mu\text{m}$ / $\pm 0.004 \text{ mil}$
Repeatable accuracy	$\pm 3 \mu\text{m}$ / $\pm 0.12 \text{ mil}$

Soft touch probes or *Micro needle probes	5 g to 10 g 0.3 g to 2.5 g
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Electronics

Continuity test	1 Ω to 10 k Ω
Isolation test	up to 25 M Ω (FM) up to 100 G Ω (ohmic) MicroShort Detection®
Test voltage	100 mV to 1000 V

Camera System

4 high resolution color cameras for fast optical scanning of top and bottom side.
 Resolution 3 μm / pixel
 or
 2 high resolution color cameras of bottom side, Resolution 3 μm / pixel and
 2 standard color cameras for top side, Resolution 6 μm / pixel for fast optical
 scanning

Options

- 4-wire measurement with max. 300 mA test current
 0 Ω to 1 k Ω $\pm 2 \%$, min $\pm 25 \mu\Omega$
 with Kelvin probes 0.3 g to 2.5 g
- Smallest pad **high resolution** 60 μm / 2.4 mil* **mixed cameras** 80 μm / 3.2 mil (top)
 60 μm / 2.4 mil* (bottom)
- Smallest pitch 100 μm / 4.0 mil* 120 μm / 4.8 mil (top)
 100 μm / 4.0 mil* (bottom)

* special setup

- Embedded components test

R	0 Ω to 1 M Ω	$\pm 1 \%$, min. $\pm 0.5 \Omega$
	1 M Ω to 200 M Ω	$\pm 3 \%$
C	0 F to 100 μF	$\pm 2 \%$, min. $\pm 30 \text{ fF}$
L	0 H to 10 mH	$\pm 5 \%$, min. $\pm 0.25 \mu\text{H}$
Diode / Varistor		
U_F, U_R, U_{BR}		0 V to 12.5 V

- Retest of fault files from external grid test systems on inquiry
- Repair software with barcode support

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	19 $^{\circ}\text{C}$ to 23 $^{\circ}\text{C}$
Relative humidity	40% to 60%
Machine weight	1450 kg

All information subject to change without notice!
 November 2022