

S2-8 *plus* Flying Probe Test System

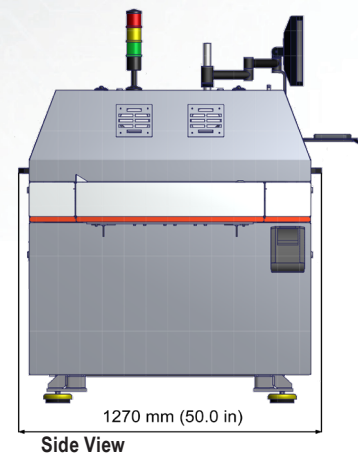
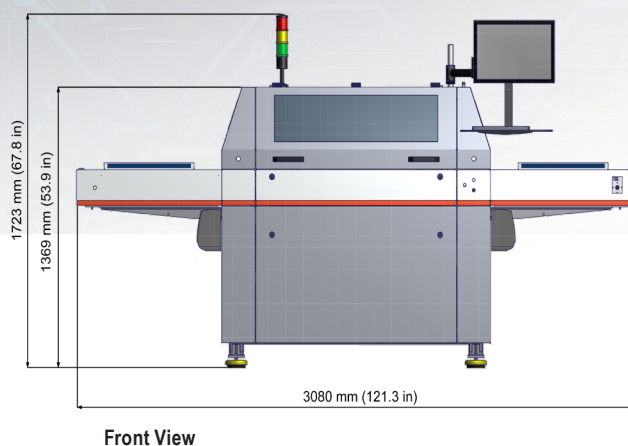
Double Sided Tester for Substrate and HDI Boards



- ▲ 8 Test Heads
- ▲ Fast Dual Shuttle System
- ▲ High Speed Direct Linear Drives for X and Z motion
- ▲ No Probe Marks
- ▲ Fast 280mA Kelvin Testing

S2-8 plus Technical Specifications

Flying Probe Test System



Mechanics

Basic unit with 8 probes (4 top, 4 bottom)
Dual universal shuttle system with clamp and stretch mode for testing substrate and HDI boards

Max. board size (X x Y)	610 mm x 330 mm / 24.0" x 13.0"
Min. board size (X x Y)	10 mm x 10 mm / 0.4" x 0.4"
Test area (X x Y)	610 mm x 310 mm / 24" x 12.2"
Board thickness	up to 2 mm

Smallest pad	15 μm / 0.6 mil* (special setup)
Smallest pitch	30 μm / 1.2 mil
Resolution measuring system	$\pm 0.1 \mu\text{m}$ / $\pm 0.004 \text{ mil}$
Repeatable accuracy	$\pm 2 \mu\text{m}$ / $\pm 0.8 \text{ mil}$

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 cameras for fast optical scanning of top and bottom side.
Resolution 3 μm / pixel

Options

- 4-wire measurement with max. 280 mA test current

0 Ω to 1 k Ω	$\pm 2 \%$, min $\pm 25 \mu\Omega$
with FP Kelvin probes	0.3 g to 2 g
Smallest pad	40 μm / 1.6 mil*
Smallest pitch	80 μm / 3.2 mil*
- 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

- Pneumatic clamping with supporting table for flexible boards
- 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), 1200 VA
Compressed air	8 bar / 115 psi, filtered
Temperature	18 $^{\circ}\text{C}$ to 24 $^{\circ}\text{C}$
Relative humidity	40% to 60%
Machine weight	1550 kg

All information subject to change without notice!
January 2025