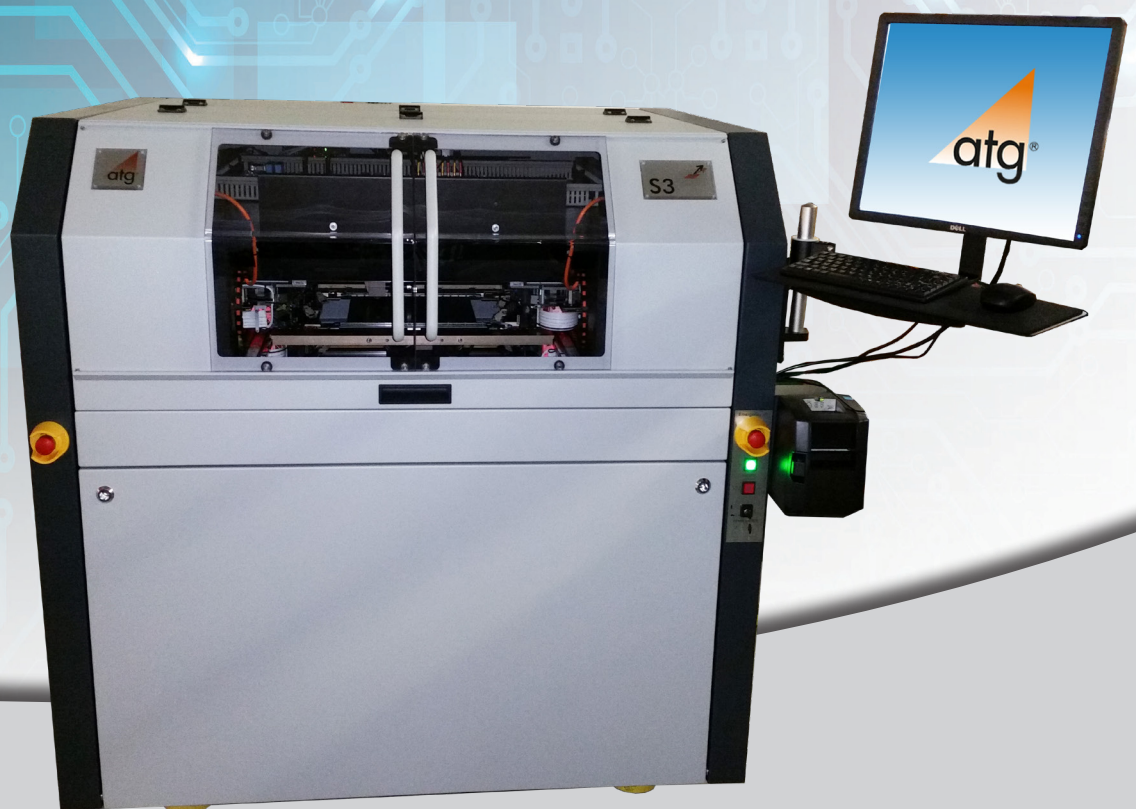


S3-8 Flying Probe Test System

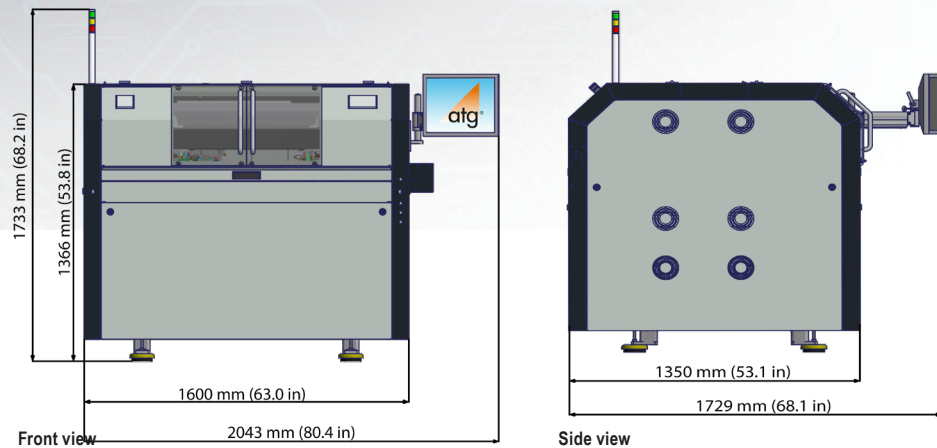
For Substrate Boards



- ▲ 8 Test Heads
- ▲ Double Sided Test System
- ▲ High Speed Direct Linear Drives for X and Z motion
- ▲ Vacuum table optional
- ▲ No Probe Marks
- ▲ Optical auto focus Microscope Lenses
- ▲ Fast 280 mA Kelvin Testing

S3-8 Technical Specifications

Flying Probe Test System



Mechanics

Basic Unit with 8 probes (4 top, 4 bottom)
 Universal shuttle system for Flex and Substrate boards
 Max. board size (X x Y) 350 mm x 330 mm / 13.8" x 13.0"
 Test area (X x Y) 350 mm x 310 mm / 13.8" x 12.2"
 Board thickness 0.05 mm to 3 mm

Smallest pad 10 μm / 0.4 mil* (Special setup)
 Smallest pitch 25 μm / 1.0 mil
 Resolution measurement system $\pm 0.1 \mu\text{m}$ / ± 0.004 mil
 Repeatable accuracy $\pm 1.5 \mu\text{m}$ / ± 0.06 mil

*Micro needle probes 0.3 g to 2.5 g
 Soft landing

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

2 high resolution color cameras for optical scanning of top and bottom side.
 Resolution 1.2 μm / pixel

Options

- 4-wire measurement with max. 280 mA test current
 0Ω to 1 k Ω $\pm 2 \%$, min. $\pm 25 \mu\Omega$
 with FP Kelvin probes 0.3 g to 2 g
 Smallest pad 30 μm / 1.2 mil*
 Smallest pitch 80 μm / 3.2 mil*
 * special setup

- Embedded components test
 R 0Ω 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. ± 30 fF
 L 0 H to 10 mH $\pm 5 \%$, min. $\pm 0.25 \mu\text{H}$
 Diode / Varistor

U_{CP}, U_{RP}, U_{BR} 100 mV 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.
 $I_{\text{max}} = 300$ mA

- Repair software with barcode support
- Vacuum table for single sided test

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), 1000 VA
Power Supply Vacuum Pump for Vacuum Table (optional) 230 V, 50 Hz, 1500 VA
Compressed Air 8 bar / 115 psi, filtered, constant air quantity
Temperature 18 $^{\circ}\text{C}$ to 24 $^{\circ}\text{C}$
Relative Humidity 40% to 60%
Machine Weight 1350 kg

All information subject to change without notice!
 January 2025