A9aL Flying Probe Test System

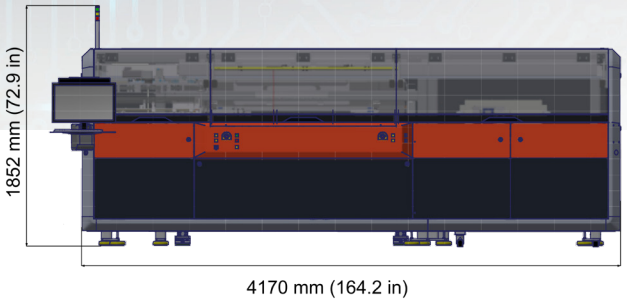
Automated Test for Rigid and Flexible Boards

- Latest Generation in advanced technology
- 8 ultra light carbon fiber test heads
- Fully Automatic “Lights-out” operation
- High performance linear motion
- Granit base for high accuracy and repeatability

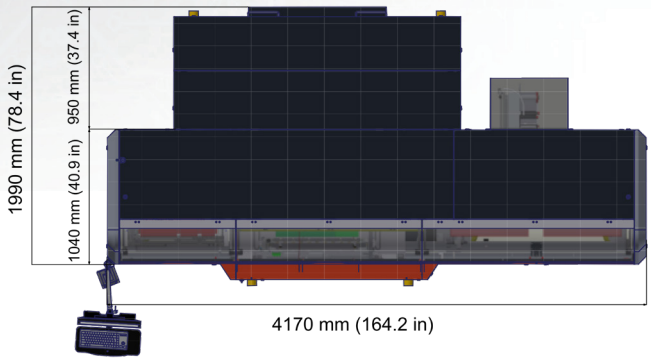
atg®
LUTHER & MAELZER®
MYCRONIC

A9aL Technical Specifications

Flying Probe Test System



Front View



Plan View

Mechanics

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

Board Handling

Automation & Manual mode:	
Max. board size (X x Y)	610 mm x 535 mm / 24.0” x 21.1”
Test area (X x Y)	610 mm x 510 mm / 24.0” x 20.0”
Min. board size (X x Y)	60 mm x 80 mm / 2.4” x 3.2”
Board thickness	up to 5 mm, max. 3 kg
Product exchange time	< 6 sec using manual layup table (optional),
Loader capacity	390 mm, max. 80 kg
Smallest pad	50 µm / 2.0 mil
Smallest pitch	100 µm / 4.0 mil
Resolution measurement system	± 0.1 µm / ± 0.004 mil
Repeatable accuracy	± 4 µm / ± 0.16 mil
Soft touch probes	5 g to 10 g
*Micro needle probes	0.3 g to 2.5 g

Electronics

Continuity test	1 Ω to 10 kΩ (2-wire)
Isolation test	up to 25 MΩ (FM), up to 100 GΩ (ohmic) MicroShort Detection®
Test voltage	100 mV to 1000 V

Camera System

4 color cameras for fast optical scanning of top and bottom side.
Resolution 6 µm/ pixel

Options

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

0 Ω to 1 kΩ	± 2 %, min. ± 25 µΩ
with Kelvin probes	0.3 g to 2.5 g
Smallest pad	80 µm / 3.2 mil*
Smallest pitch	120 µm / 4.8 mil*

* special setup

- Embedded components test

R	0 Ω to 1 MΩ	± 1 %, min. ± 0.5 Ω
	1 MΩ to 200 MΩ	± 3 %
C	0 F to 100 µF	± 2 %, min. ± 30 fF
L	0 H to 10 mH	± 5 %, min. ± 0.25 µH
Diode / Varistor		(on inquiry)
	U_F, U_R, U_{BR},	0 V to 12.5 V

Structural test of integrated circuits:
opens/shorts test on CMOS devices with ESD diodes

- BackDrill Stripe detection
- LaTest® open detection
- Label printer with barcode support
- Pen marker
- Retest of fault files from external grid test systems on inquiry
- Repair software with barcode support
- Tensioning modules for flexible board thickness 0,05 mm to 1.5 mm

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	18 °C to 27 °C
Relative humidity	40 % to 60 %
Machine weight	2700 kg

All information subject to change without notice!
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