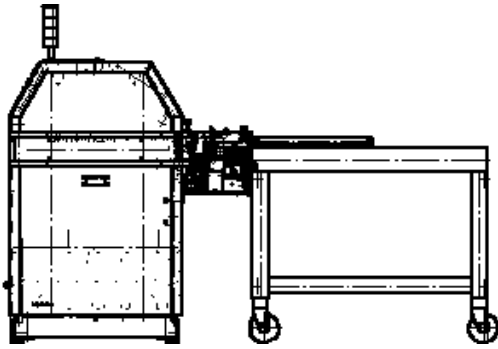


Specification

Fully automatical test system A3-a



Flying probe test system with good/bad stacker and marking unit. Load and unload without test interruption. Good/bad stacker can be docked off. Automatically scanning. Multisample test is supported.

Test system

Measuring methods

Shorts test: 100% electrical test with atg-field measuring method.

Programmable ohmic shorts test of all adjacent nets.
Combined atg-field measuring method and adjacency possible

Opens test: 100% electrical ohmic test

High voltage measurement: (option) Selective shorts test up to 500 V voltage (programmable), programmable voltage curve

Resistor test: (option) ohmic test of printed resistors

Electric test parameters

Threshold opens test:

1 Ohm - 1 KOhm

Threshold shorts test:

500 kOhm - 10 MOhm, programmable
(field measuring)

500 kOhm - 100 MOhm, programmable
(high voltage test)

Flying probes

12 or 16 probes (6 or 8 top, 6 or 8 bottom)

Positioning accuracy: $\pm 35 \mu\text{m}$ (0.00138")

Repetition accuracy: $\pm 10 \mu\text{m}$ (0.00039")

Resolution of measuring systems: $5 \mu\text{m}$ (0.00020")

Contact pressure: 20 g - 100 g (0.70 oz - 3.53 oz)
 $\pm 6 \text{ g}$ (0.21 oz),

programmable and regulated

Z-axis travel: 1 - 20 mm (0.04" - 0.79")

programmable and regulated

Z-axis speed: 15 mm/s - 100 mm/s
(0.59"/s - 3.94"/s)

programmable and regulated

Camera system

2 cameras $\frac{1}{3}$ "-CCD (1 top, 1 bottom)

Features

- Automatic alignment (scanning)
- Multi sample test
- Attachment of external measuring devices (IEEE-Bus)
- User software under Windows NT

Stacking height 240 mm (9.5")

Stack weight 40 kg (88 lb)

Good/bad stacking height 220 mm (8.7")

Environmental conditions

Temperature: 19°C - 27°C (66°F - 81°F)
(23° (70°F) ± 1 K for highest accuracy)

Humidity: 40 % - 60 %

Supply

Voltage: 230 V, 50 Hz or 115 V, 60 Hz

Power consumption: max. 2000 VA

Compressed air: 6 bar (approx. 90 psi), filtered

Set-up time

Docking/undocking time of loading/unloading unit:
each 6 min.

Set up time for new board: automatic 10 min.
manual 5 min.

Dimensions

Width with monitor: 2500 mm (98.5")

Depth: 244 mm (96") (automation docked)

131 mm (52") (manual, shuttle pushed in)

Height: 172 mm (68")

Weight 1600 kg (3530 lb)

Active test field (manual mode)

520 mm x 400 mm (20.4" x 15.7")

Board requirements

	Automation	Manual
Size (X x Y)		
min.	100 x 100 mm (4" x 4")	70 x 90 mm (2.8" x 3.5")
max.	457 x 420 mm (18" x 16.5")	610 x 420 mm (24.0" x 16.5")
Max. thickness	4 mm (0.16")	4 mm (0.16")
Max. weight	1 kg (2.2 lb)	6 kg (13.2 lb)
Geometry	2 parallel sides, no recessed edges	2 parallel sides
Max. deflection	1% of board width	Depends on manipulation
Border without test pads	5 mm (2")	5 mm (2")
Multi panel	yes	yes

Holder mask recommended for small and flexible boards

Test data

ATF-Daten (+EPC-data),

IPC-D-356 (+EPC-data),

IPC-D-356A,

each with contour data

Marking unit

Ink jet system

Positioning accuracy: $x \leq 1 \text{ mm} / y \leq 1 \text{ mm}$

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