

Specifications Fully Automatic Flying Probe Test System A4-a

Flying probe test system with front side feeding module and back side good/bad sorting module. Loading and unloading without test stop. Feeding module and good/bad sorting module can be docked off for manual system. Optimal marking unit as label-printer or ink jet printer. Support of automatic scanning and multi-sample test.

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, 10 Ohms - 50 MOhms.

LA-Test: (option) finds reduced conductor width.

Electrical test parameter

Test current: 100 μ A - 30 mA

Test voltage: 4 V (field measuring) up to 500 V (high voltage test), programmable

Threshold opens test: 1 Ohm - 1 kOhm

Threshold shorts test:

500 kOhms - 10 MOhms, programmable (field measuring)

500 kOhms - 100 MOhms, programmable (high voltage test)

16 Flying probes

Positioning accuracy: $\pm 15 \mu\text{m}$ (0.00059")

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

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

Contact pressure: 10 g - 100 g (0.35 oz - 3.53 oz) ± 6 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

Test field size

A 4-a/16: 600 mm x 620 mm (23.6" x 24.4")

Test data

ATF-data (+EPC-data),
IPC-D-356 (+EPC-data),
IPC-D-356A,
each with contour data

Camera systems

2 cameras 1/3"-CCD
Lighting: infinitely variable

Additional features

- automatic alignment (scanning)
- compensation of board distortion
- two side independent optical alignment
- automatic self diagnosis
- connection of external measuring devices (IEEE-bus)
- multisample-test
- 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")

Set-up time

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

Set new board: automatic 10 min.
manual 5 min.

Environmental conditions

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

Humidity: 40 % - 60 %

Supply

Voltage: 3 x 208 V, 60 Hz or
3 x 400 V, 50 Hz

Power consumption: max. 2600 VA

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

Dimensions

Length: Feeding module and good/bad sorting module docked: 545 cm (214")

manual use: 203 cm (80")

Width: with monitor and place of deposit: 282 cm (111")

Height: 171 cm (67")

Weight 2900 kg (6390 lb)

Boards

	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 610 mm (18" x 24")	616 x 654 mm (24.3" x 25.8")
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

Marking unit

Ink jet system

Positioning accuracy: $x \leq 1 \text{ mm} / y \leq 1 \text{ mm} (\leq 0.04")$
or label printer



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