

PG2101 Semi-Automatic Prober

PG2101 Semi-automatic prober is designed for LED Flip Chip production line. It can do top side or bottom side probing test. This prober is suitable for 2"~6" wafers and dices. PG2101 also can tune the probing speed to fit the different applications. It also can depend on customer's requirement to make different customer design.



Features

- Fit for any kind of LED die testing, including single pole red/yellow dies, two poles blue/green dies, back-light dies
- Easy operation cover can shield the light to reduce the effect for test
- One button to do alignment, scan and test max 6" scanning areas for diced wafer with max
- 80mil x 80mil die
- Friendly operation only by a joystick and simple push-buttons on the key board panel
- Environment-light-proof by an easy-lift cover
- PC-base Window Operation System easy for showing mapping chart and probing parameters on the monitor
- Fast area-scanning technology for accurate die location on the diced wafers
- High stable manipulator with a sensitive Edge Sensor provides tiny probe marks
- Support 4 Edge sensor manipulators. Removable probe holder easy to change needles
- Support 2 Inkers to provide real-time inking
- Quiet and low vibration motion control system provides a non-noise operation environment
- Standard TTL and RS232 interface for variety of tester

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Specification

X/Y Stage

- Type: High precision recirculation ball lead screws
- Travel: 210mm x 265mm
- Resolution: 0.5 μm
- Accuracy: $\leq \pm 7 \mu\text{m}$
- Repeatability: $\pm 4 \mu\text{m}$

Z Stage

- Type: Stepper Motor Drive – Linear Bearing
- Travel: -0.5 ~ 7.5 mm
- Resolution: 1 μm
- Accuracy: $\pm \leq 2 \mu\text{m}$
- Repeatability: $\pm \leq 4 \mu\text{m}$

Theta Axis

- Range: $\pm 10^\circ$
- Resolution: 0.001 $^\circ$

Chuck Plate

- Size: 4" ~ 6"
- Material: Quartz
- Vacuum hole: $\Phi 500 \mu\text{m}$
- Flatness: 10 μm

Manipulator

- 3 axis adjustable
- Resolution: 10mil/turn
- Edge sensor: Magnetic type
- Probe Lift > 800,000 contacts

Microscope

- Eyepieces: 20x
- Objective : 1x~4.5x adjustable
- Zoom ratio: 20x~90x

Dimension

- 84 (D) x 100 (W) x 157 (H) cm
(not include monitor and signal tower height)

CCD Scan Camera

- Telecentric Lens 0.8X / 1024X768 pixels
- Scan range:
8 x 8 mil~80 x 80 mil
- Scanning Time:
15K / 1 minute (2 inch)

Weight: 400 KG

Vacuum: 0.5 cfm at 20" Hg (min) , $\Phi 4\text{mm}$ tube

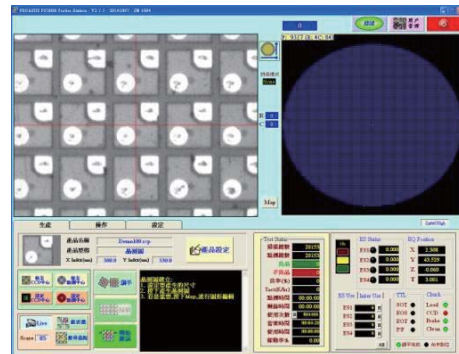
Power consumption:

- 100~240VAC, 47~63Hz, <10A

Options

- Edge Sensor Manipulator up to 4
- Inker up to 2
- Integrated sphere fixture
- Microscope for different magnification
- Through Put

Test Time (ms)	Chuck Lift (μm)			
	150	200	300	
Index Step (μm)	300	130	150	170
	500	140	160	180
	1000	170	190	210
	2000	200	220	240



Operation screen with bilingual language and real time mapping



Equipped with integrated sphere fixture