

SEO-PIONEER300 Wafer surface Analyzer



The Pioneer 300 Wafer Surface Analysis System is specially designed for use in 300 mm semiconductor wafer processing for quality control. The Pioneer 300 provides quick and accurate contact angle/surface energy measurements of the wafer surface to adhesion, cleanliness and surface treatments.

The use of anti-static materials in the Pioneer 300 makes it well suited for semiconductor applications. The inner portions are specially designed to prevent particulate formation or contamination and the system can be used to monitor the ultra clean surface processing of silicon wafers.

The position of the sample stage is computer controlled and can be precisely adjusted along the x-,y-, or z- axis. The user can easily control the position of the stage to allow for wafer surface mapping. The instrument uses micro-pump controlled by PC for precise and repeatable liquid drop formation and application. This insures that a reproducible drop volume is applied to the surface.



applications

1. Coating assessment of the HMDS process.
2. Wafer mapping Display for surface contamination detection.
3. Adhesive and primer preparation.
4. Coating uniformity & Coating quality.

Specifications

Name	Pioneer 300 M (Manual type)
	Pioneer 300 A (Automatic type)
	(Wafer cleanliness and treatment analyzer)
Unit size(L*H*W)	1000*700*750 (mm)
Power	220V, 50/60Hz
Max. Sample size(L*W)	300 mm wafer (4/6/8/12 inch wafer available)
Max. Sample thickness	10 (mm)
Total weight	70 (kg)
Zoom	6.4 fold
Focus	internal, ±6 mm
Resolution	768 × 576 NTSC, 16M color
Max. Measuring speed	30 images/s
Moving type	Automatic (x-y-z- and rotating)
Dispenser type	Controllable Micro pump (1 μ step)
Light source	Rear lamp, Halogen (control by dimmer)
Operating system	Windows 95/ 98/ Me
Contact angle	0~180° ±0.1°accuracy
Evaluation methods	Static contact angles / Surface energy
Accessories	Instruction/Operation Manual, tip set, level, tweezers
	fuse, lamp, Teflon tube, Tool box etc.
Options	External temperature measurement
	SPC software

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