



ResMap 273

Based on the technology of the Model 178, the ResMap Model 273 was the first 300mm table top four point probe delivered to the semiconductor industry. The Model 273 extends the capability and performance of previous ResMap models to meet the needs of the 300mm process development and large substrate film characterization. The small footprint and rugged design have the same accuracy and repeatability which define ResMap metrology.

Wafer handling:	Manual load
Wafer Size:	2" - 12"
Max Diameter:	12.2"
Max Square:	8.6" x 8.6"
Typical Measurement Time:	1 second per site
Maximum Throughput:	1 minute per wafer (49 sites)
Measurement Range:	2 m Ω /□ - 5 M Ω /□ (can be optimized to 1 m Ω /□)
Repeatability (1σ, typical):	$\leq \pm 0.02\%$ (static or Rs pack); $\leq \pm 0.1\%$ (dynamic nearby spots)
Accuracy:	$\leq \pm 0.5\%$ using NIST traceable ResCal standards
Minimum Edge Exclusion:	1.5mm (center of probe to edge of film)

Computer System:	Pentium class; Windows XP Home (display not included)
SECS-II Option:	Available
Mapping Patterns:	Polar map (align with notch/flat, straddle, or follow flat); rectangular map (choose inside edge exclusion); line scan (diameter, radius or any point to point along diameter, minimum step 0.1mm); user defined (template)
Plots:	Contour (spacing choice, 1/3 σ , fixed and auto %), 3D, line, data map, histogram, data sequence, radial and angular distributions; various modes of trend charts available
Data:	All ResMap data files may be ported to programs such as Excel® for further analysis.

Facilities	
House Vacuum :	Vacuum is not required.
AC Power:	100V to 240V < 10 KVA
Size (inches): width x depth x height	15" w x 18"d x 10"h; tabletop (table not included)