ResMap Four Point Probe Product Selection Guide

Model:	ResMap 168	ResMap 178	ResMap 273	ResMap 463-OC	ResMap 463-FOUP	ResMap 468-SMIF
Features:	Auto cassette load	Manual load	Manual load	300mm, 200mm, 150mm; dual or quad probe changer	300mm FOUP handler; mini-environment; dual or quad probe changer	200mm SMIF handler; mini-environment; dual or quad probe changer
Wafer Size:	4”- 8” auto load; 2”- 8” manual load	2”- 8” manual load	2” - 12” manual load	300mm, 200mm, 150mm auto load; manual load any size	300mm auto load; adaptor for 300mm & 200mm open cassette; manual load any size	200mm SMIF & open cassette auto load; adaptor for 150mm; manual load any size
Max Diameter:	8.2”	8.2”	12.2”	15”	15”	15”
Maximum Square:	5.8” x 5.8” 156 x 156mm	5.8” x 5.8” 156 x 156mm	8.6”x 8.6”	10.5” x 10.5”	10.5” x 10.5”	10.5” x 10.5”
Typical Measurement Time:	1 second per site					
Typical Wafer Handling Time:	10 seconds each way	N/A	N/A	8 seconds each way	8 seconds each way	8 seconds each way
Typical Notch Find Time:	12 seconds with optional notch finder	N/A	N/A	12 seconds; standard notch finder	5 seconds; standard notch finder	5 seconds; standard notch finder
Maximum Throughput: (NF= notch finding function)	40 wph (49 sites); 80 wph (5 sites); without NF	1 minute per wafer (49 sites)	1 minute per wafer (49 sites)	45 wph without NF; 30 wph with NF (49 sites)	35 wph with NF (49 sites)	35 wph with NF (49 sites)
Measurement Range:	2 mΩ/☐ - 5 MΩ/☐ (can be optimized to 1 mΩ/☐)					
Repeatability (1σ):	≤ ±0.02% (static or Rs pack); ≤ ±0.1% (dynamic nearby spots, typical)					
Accuracy:	≤ ±0.5% using NIST traceable ResCal standards					
Minimum Edge Exclusion	1.5mm (center of probe to edge of film)					
Size (inches): width x depth x height	12” w x 26”d x 10”h; tabletop (table not included)	12”w x 18”d x 10”h; tabletop (table not included)	15”w x 18”d x 10”h; tabletop (table not included)	22”w x 44”d x 52”h; stand alone; (computer system, etc. enclosed)	22”w x 44”d x 60”h; stand alone; (computer system, etc. enclosed)	22”w x 44”d x 60”d; stand alone; (computer system, etc. enclosed)
AC Power:	100V to 240V < 10 KVA					
House Vacuum:	Required; >500 mm Hg, on ¼” OD flexible tubing	Not required	Not required	Required; >500 mm Hg, on ¼” OD flexible tubing	Required; >500 mm Hg, on ¼” OD flexible tubing	Required; >500 mm Hg, on ¼” OD flexible tubing
Computer System:	Pentium class 1.2 GHz, 512MB RAM, 40GB HD, DVD-RW, FD, 15” monitor; operating system: Windows XP					
SECS-II Option	Available			Available; 300mm factory automation also available		Available
POD-ID Option	N/A				RF ID	
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, 1/3σ, fixed and auto %), 3D, line, data map, histogram, data sequence, radial and angular distributions; various modes of trend charts available					
Data portability:	All ResMap data files can be ported to spreadsheet programs for further analysis.					

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