



# ResMap 178-Solar

The ResMap Model 178-Solar was designed to meet the needs of photovoltaic and other solar cell manufacturing metrology -- delivering the reliability, accuracy and repeatability for which the ResMap four point probe is known. Based on the technology of the highly successful ResMap 178, the 178-Solar has demonstrated its capabilities on solar substrates and conductive films.

<b>Wafer handling:</b>	Manual load
<b>Wafer Size:</b>	125mm x 125mm 156mm x 156mm 2" – 8" diameter
<b>Max Square:</b>	156mm x 156mm
<b>Typical Measurement Time:</b>	1 second per site
<b>Maximum Throughput:</b>	1 minute per wafer (49 sites)
<b>Measurement Range:</b>	2 mΩ/□ - 5 MΩ/□ (can be optimized to 1 mΩ/□)
<b>Repeatability (1σ, typical):</b>	≤ ±0.02% (static or Rs pack); ≤ ±0.1% (dynamic nearby spots)
<b>Accuracy:</b>	≤ ±0.5% using NIST traceable ResCal standards
<b>Minimum Edge Exclusion:</b>	1.5mm (center of probe to edge of film)

<b>Computer System:</b>	Pentium class; Windows XP Home (display not included)
<b>SECS-II Option:</b>	Available
<b>Mapping Patterns:</b>	Square or rectangular map (choose inside edge exclusion); line scan (diameter, radius or any point to point along diameter, minimum step 0.1mm); user defined (template)
<b>Plots:</b>	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
<b>Data:</b>	All ResMap data files may be ported to programs such as Excel® for further analysis.

<b>Facilities</b>	
<b>House Vacuum :</b>	Vacuum is not required.
<b>AC Power:</b>	100V to 240V < 10 KVA
<b>Size (inches): width x depth x height</b>	12" w x 19"d x 10"h; tabletop (table not included)