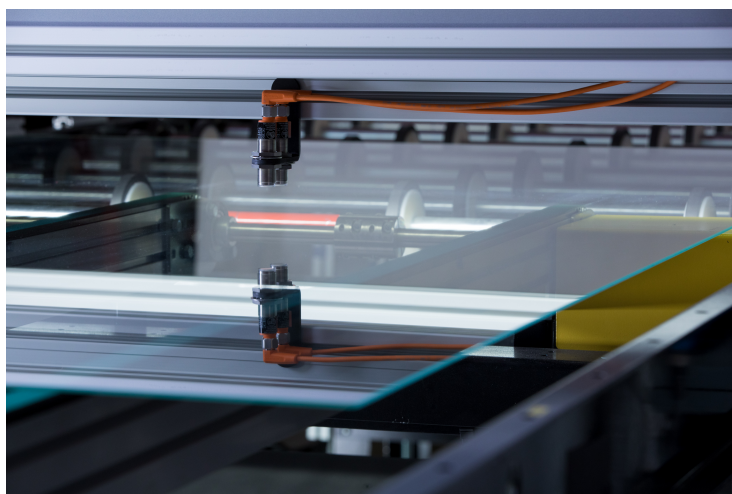


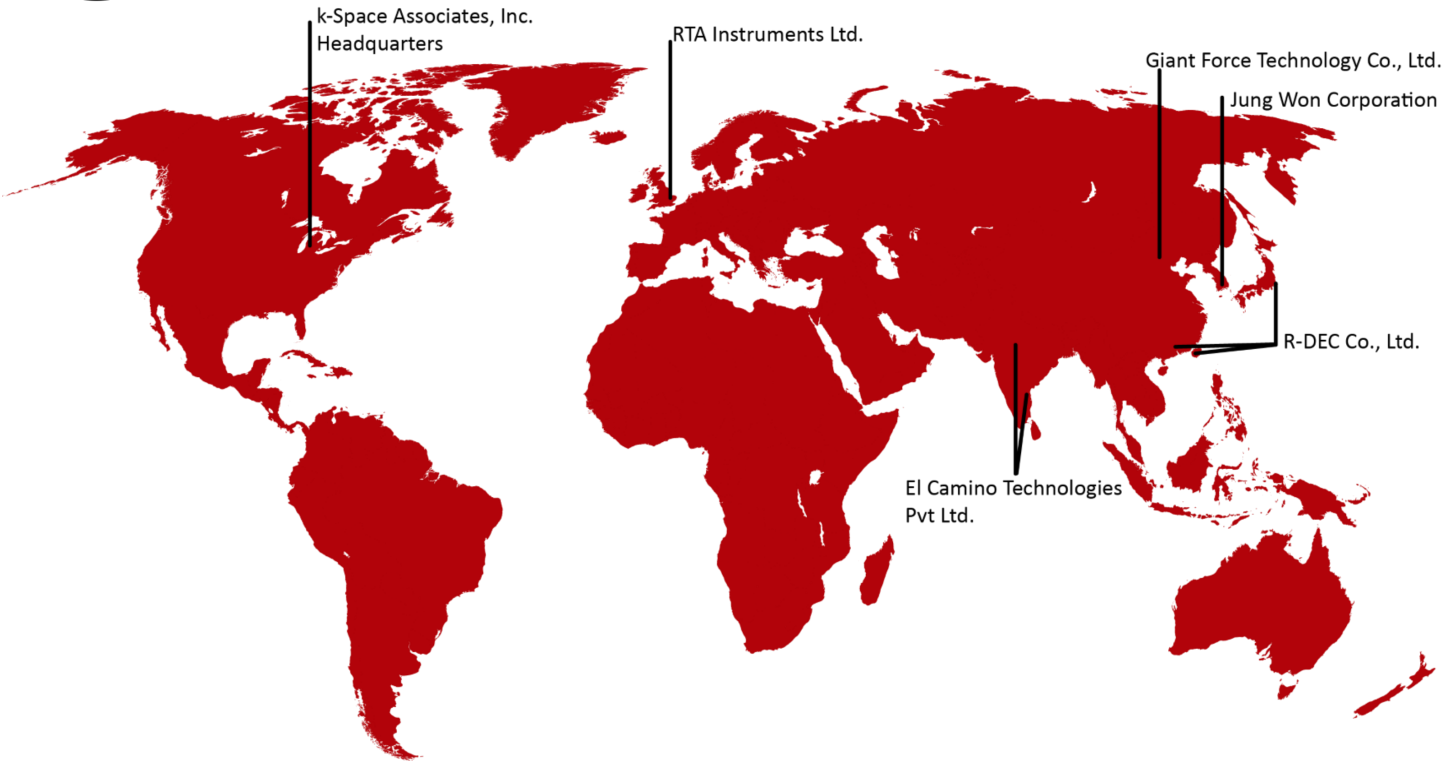


## Inline Sheet Resistance

The kSA Inline Sheet Resistance Metrology system (aka Sheet RHO) monitors the thin film sheet resistivity on glass panels that pass through the system. Sheet resistance (also known as surface resistance or surface resistivity) is a common electrical property used to characterize thin films of conducting and semiconducting materials to determine end product performance. It is a measure of the lateral resistance through a thin square of material, i.e., the resistance between opposite sides of a square. The system consists of three pairs of sensor probes that are mounted on a conveyor support. It is Ideal for flat panel display, solar, and other coated glass applications.



Capabilities	Benefits	Product Specs
<ul style="list-style-type: none"> <li>• Self-calibration step at periodic intervals in between sample measurements.</li> <li>• Customizable master sheet resistance value (<math>\Omega/\square</math>) and tolerance range from a control sample to determine pass/fail limits.</li> <li>• Allows for customizable measurement locations (3 sites possible) and alignment across the conveyor based on needs and requirements.</li> <li>• Identifies inline Panel IDs/ Barcodes (add-on functionality option).</li> <li>• Inspects lites and panels to quickly identify non-compliant coated glass sheet resistance and conductivity values, based on preset limits</li> </ul>	<ul style="list-style-type: none"> <li>• Real-time data validation of sheet resistance conductivity across panel allows for downstream processing and analysis.</li> <li>• Real-time monitoring allows immediate analysis of sheet resistance conductivity of thin-film coated panel</li> <li>• Customizable system (hardware/software)</li> <li>• In-process comparison of live data against a master reference substrate (nominal and tolerances)</li> <li>• The ability to see changes in sheet resistance</li> <li>• Factory integration capabilities enable facilities to incorporate the tool into existing systems.</li> </ul>	<ul style="list-style-type: none"> <li>• Detects drift in conductive coating thickness across and potential impacts to end product performance</li> <li>• Standard product measures in situ sheet resistance range of 1-100 <math>\Omega/\square</math> with <math>\pm 0.05 \Omega/\square</math></li> <li>• Captures, analyzes, and stores data using proprietary k-Space software.</li> <li>• Consists of three pairs of sensor heads that are mounted on a conveyor support. Each pair has a pole piece separation of 25mm, and panels pass through at approximately the center point of this space.</li> <li>• Top sensor probe acts as the exciter coil and sends a high-frequency magnetic field that induces oscillating current within the conductive material to be measured.</li> </ul>



k-Space has an expansive network of distributors to best serve our worldwide customer base.

### HEADQUARTERS

**k-Space Associates, Inc.**  
Michigan, USA  
www.k-space.com  
requestinfo@k-space.com

### DISTRIBUTION PARTNERS

**RTA Instruments Ltd.**  
Europe  
www.rta-instruments.com  
info@rta-instruments.com

**El Camino Technologies Pvt. Ltd.**  
India  
www.elcamino.in  
info@elcamino.in

**Giant Force Technology Co., Ltd.**  
China  
www.giantforce.cn  
giantforce@gmail.com

**Jung Won Corporation**  
South Korea  
www.jwc.co.kr  
salesinfo@jwc.co.kr

**R-DEC Co., Ltd.**  
Japan  
Hong Kong  
Taiwan  
www.rdec.co.jp  
info@rdec.co.jp

## Your partner in thin-film and industrial metrology

*k-Space Associates, Inc., is a leading supplier to the surface science and thin-film technology industries. Since 1992, we've delivered the most advanced thin-film metrology tools and software thanks to close collaboration with our worldwide customer base.*

Inline Sheet Resistance 04/2024