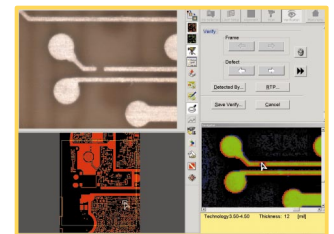


The **Orion 806 AOI system** has been designed specifically for high volume inspection of PCB panels. Innovative detection technologies add speed and finer line capability to the renowned previous Orion generations.

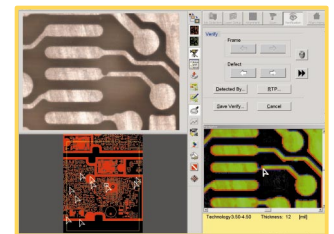
The combination of high processing power and intelligent algorithms with advanced electro-optics and rigid cast structure delivers enhanced detection with fewer false alarms at greater inspection speeds. Firmware-based architecture enables easy implementation of new algorithms and provides flexibility and upgradability.

### Performance Features

- Superb detection ability through implementation of three methodologies – Design Rule Check, Template Matching and Morphologic
- CMTS™ (Camtek's Morphological Tracking System – patent pending) enhances detection robustness and facilitates setup through analysis of conductor and laminate shapes
- OLR™ (On-Line Registration) improves detection and eliminates false alarms related to panel dimensional variations



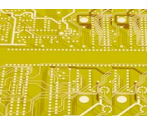
Cut



Deep Nick



- Built-in wide resolution range provides optimal magnification for each line width, resulting in unparalleled flexibility
- Dual-Athlon™ processors provide ample power for fast processing of sophisticated algorithms



# ORION 806 ■ Specifications

<b>Minimal Line Width</b>	<b>2 mil (50 µm)</b>			
<b>Throughput (sides/Hr)*</b>	5 mil (125 µm) 145	4 mil (100 µm) 138	3 mil (75 µm) 100	2 mil (50 µm) 62
<b>Panel Size (maximum)</b>	24" x 30" (610 x 762 mm)			
<b>Inspection Area</b>	23" x 29" (584 x 737 mm)			
• <b>Inspectify™ mode</b>	24" x 30" (610 x 762 mm)			
• <b>Sirius (CVR) mode</b>	24" x 30" (610 x 762 mm)			
<b>Panel Thickness (maximum)</b>	0.2" (5.1 mm)			
<b>Application &amp; Panel types</b>	Rigid; flex; rigid/flex inner and outer layers, laser drilled layers, build-up and sequential lamination layers, artwork (using white background), Developed Photoresist.			
<b>Designs</b>	Signal, analog, P&G, mixed, cross-shield and others			
<b>Materials Inspected</b>	Copper foils; copper plating; gold plating; Photoresist; Various substrate materials including Teflon and ceramics; Silver Halide and Diazo, Alternative Oxide – Durabond			
<b>Detectable Layer Defects</b>	Open, short-circuit, nick, mouse bite, protrusion, pinhole, island, dish-down, line / space width violation, annular ring violation, extra and missing features			
<b>Detectable Laser Drill Defects</b>	Hole, clearance and pad violations, dirt / debris inside laser drill			
<b>Reference Source Data</b>	Golden board, artwork, CAD			
<b>Tooling</b>	Universal T-slots for various tooling pin options Pin-less			
<b>Illumination</b>	Visible, specular and diffused light			
<b>Operating System</b>	Windows 2000™			
<b>Verification &amp; Repair Methods</b>	<ul style="list-style-type: none"> <li>• <b>Sirius (CVR)</b> Offline verification</li> <li>• <b>Inspectify™</b> Immediate online verification</li> <li>• <b>Combined Verification</b> Maximal effective time-sharing between AOI &amp; Sirius (CVR)</li> </ul>			
<b>Dimensions</b>	<ul style="list-style-type: none"> <li>• <b>Height</b> 66" (167.6 cm)</li> <li>• <b>Width</b> 73" (185.4 cm)</li> <li>• <b>Depth</b> 65" (165.1 cm)</li> </ul>			
<b>Weight</b>	830 Kg.			
<b>Power</b>	100/240 VAC; 50/60 Hz; 2Kw			
<b>Compressed Air</b>	8 ATM, 1000 l/min			
<b>Temperature and Humidity</b>	22 ± 3°C ; 50 ± 10 %RH			
<b>Optional Features</b>	<ul style="list-style-type: none"> <li>• <b>Low Contrast Materials</b> DSTF, Double Treated and other low contrast materials PRI – Allows inspection of Photoresist after developing, before etching.</li> <li>• <b>Laser Drill Inspection</b> Allows inspection of conformal mask and laser drill applications</li> <li>• <b>DMS</b> Dimensions measurement of line &amp; space width, pad size, point to point</li> <li>• <b>CPC</b> Camtek Process Control package provides statistical process data analysis</li> </ul>			

\* Throughput based on 18 x 24" panel with 1" margin and 10 seconds load/unload

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