

# AOI Software

Enables Smarter and Faster Inspection, Saving Time and Cost

## CyberOptics Award-winning SQ3000™ AOI Software

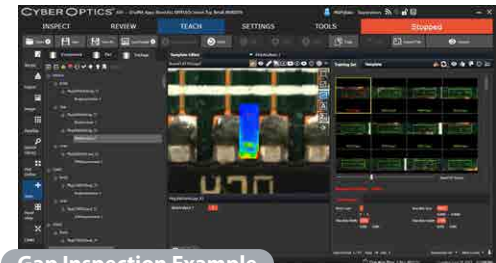
The multi-award winning SQ3000 AOI software is a more powerful yet extremely simple software for AOI and SPI that is designed with an intuitive interface. Including multi-touch controls, 3D image visualization tools and ultra-fast programming capabilities that brings ease-of-use to a completely new level, which reduces training efforts and minimizes operator interaction - saving time and cost.



AOISoftware

### Intuitive, Easy-to-Use

- Speed programming and tuning with new capabilities including AutoTeach, AutoTune and AutoDefine for faster set-up and to simplify process.
- New body inspection settings and lead inspection settings; automatically teaches from the height map what parts are loaded based upon CAD data. Lead inspection settings include 3D area measurement.
- New gap inspection settings; blob analysis - looks at height in between leads beyond using an image.
- New AutoDefine Feature; automatically detects and adds inspection features including leads and gaps by drawing a box around the package or component.
- New AutoFeatureSet and AutoTune; adds body, leads and gaps inspection features to training set data. AutoTune sets nominals for the specific package.



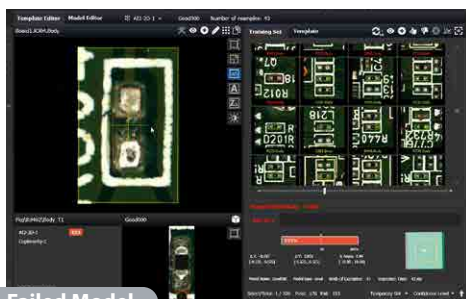
Gap Inspection Example



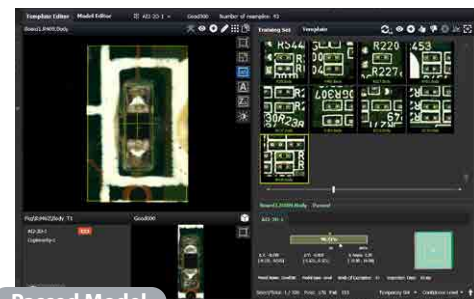
AutoDefine Example

### Faster, Smarter Programming

- Speed programming and performance with AI<sup>2</sup> (Autonomous Image Interpretation) technology for set-up in <13 minutes with a data-rich, pre-loaded library and automated scripts that collect and update models all on their own.
- Inspect the most comprehensive list of features and identify the widest variety of defects. AI<sup>2</sup> offers precise discrimination with just one panel inspection making it the perfect solution for high-mix and high-volume applications.



Failed Model



Passed Model

## Powerful Value-Add Solutions

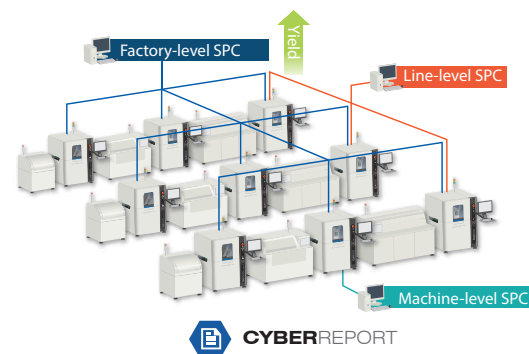
CyberOptics Software Solutions provides our customers and partners the best added-value possible for inspection and measurement in electronics manufacturing.

### CyberCMM Software Suite (Add-on)

- Extensive suite of CMM tools for precise measurement of critical features
- Significantly speed measurements compared to traditional CMM systems, with high accuracy and repeatability
- Multi-process capable – 3D AOI, 3D AOM, 3D CMM

### Fast, Scalable SPC Solution

- Attain effective process verification and control with traceability.
- Identify trends and enhance line yields with real-time monitoring tools for historical analysis and reporting.
- Achieve fast parsing and charting speed with the robust and scalable software, while enabling an extremely compact database size.



#### Inspection Capabilities

<b>Component Types Inspected</b>	Standard SMT (chips, J-lead, gull-wing, BGA, etc.), through-hole, odd-form, clips, connectors, header pins, and more
<b>Component Defects</b>	Missing, polarity, tombstone, billboard, flipped, wrong part, gross body and lead damage, and more
<b>Solder Joint and Other Defects</b>	Gold finger contamination, excess solder, insufficient solder, bridging, through-hole pins
<b>3D Measurement Inspection</b>	Lifted Lead, package coplanarity, polarity dimple and chamfer identification
<b>Solder Paste Inspection</b>	Height, area, volume, registration and bridge detection
<b>Coordinate Measurement Capability (CyberCMM add-on)</b>	Line / Distance / X,Y / Mid Line, Inter Point / Regression Shifted, Datum X,Y / LSF X,Y Offset, X,Y Offset / Value / Location / List of X,Y Values, Height / Local Height / Regression / Radius, Coplanarity/ Distance to plane / 2nd Order fitting, Difference / Absolute / 2sqrt / VC, Max / Min / Ave / Sigma / Plus / Minus / Multiple
<b>Image Processing</b>	Autonomous Image Interpretation (AI <sup>2</sup> ) Technology, Coplanarity and Lead Measurement
<b>Measurement Gage R&amp;R</b>	<10% @ $\pm 3\sigma$
<b>Programming Time</b>	<13 minutes (for established libraries)
<b>CAD Import</b>	Any column-separated text file with ref designator, XY, Angle, Part no info; Valor process preparation
<b>Supported Operating System</b>	Windows XP, 7, 10 (32 & 64 bit)

#### CyberReport Specifications

<b>Recommended Hardware</b>	2.8 GHz processor, 8 GB RAM, 2 TB hard disk space
<b>Inspection Software Compatibility</b>	<ul style="list-style-type: none"> <li>• QX 6.7 and later</li> <li>• SPI v2.5 and later</li> <li>• SPI v5.3 and later</li> <li>• SQ v1.0 and later</li> </ul>
<b>Output Formats</b>	PDF, CSV, BMP
<b>Supported Operating System</b>	<ul style="list-style-type: none"> <li>• Windows XP, 7, 10 (32 &amp; 64 bit)</li> <li>• Windows Server 2003, 2008, 2012 (32 &amp; 64 bit)</li> </ul>

# CYBEROPTICS®

Contact CyberOptics today for more information

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