iSpector

JDz520

AOI system

|	
√ Automatic Optical Inspection of PCB assemblies	*Test your PCB's optically and replace manual inspection*
√ Inspects: – Components: missing, type, polarity, offset, text, colours etc – Soldering: Post Reflow, Post Wave, Selective, Manual	*Full inspection coverage at an entry level price. Powerful algorithms to achieve an optimal balance between defect detection and false reject levels in shortest time*
√ Flexible classification and MES integration Scenarios via SQL or XML (option)	*Integrate AOI efficiently in your existing operations and factory IT systems*
√ Online self training and installation via iMentor	*Comprehensive and easy to use online training suite*
√ RGB angular lighting system with 3D Meniscus Profiler	*Reliable solder joint and slope analysis*
√ Low Noise Large CCD 24 bit Colour Camera High Speed USB3 Vision interface	*Capture card free design. 1.5x faster than Camera Link*
√ Programmable from library or Golden Components	*Be flexible; from manual till full library programming depending on your product*
√ Prototype mode for 1st off inspection	*Program in minutes to verify your production line is set-up correctly before starting full production*
√ High Speed inspection	*30% faster than previous generation of iSpector*

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iSpector

The latest generation Mek iSpector desktop AOI is designed as an entry-level system for customers with low volume, high mix production requiring high-quality AOI with a low price tag.

iSpector is able to inspect component bodies and solder joints by use of DOAL, Main and Side LED light sources from three different angles. Creating a meniscus profiling light pattern.

Using our Colour Histogram analysis provides accurate and reliable inspection results, With low false calls.
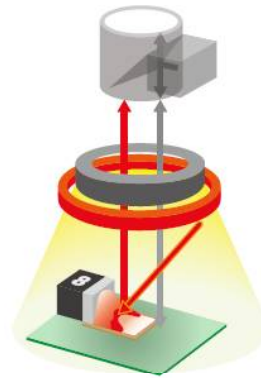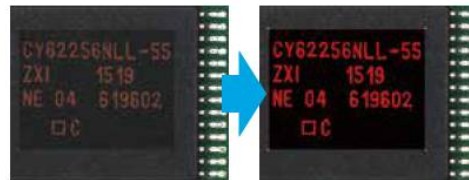
Solder fillet: Side red LED + Diffuse-On Axis LED
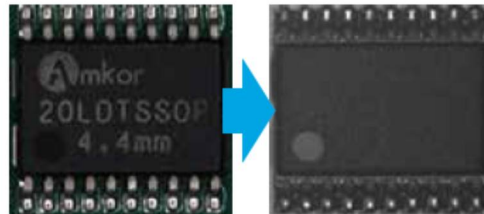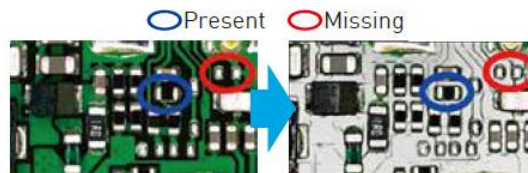
IC polarity: Diffuse-On Axis LED

Providing a rapid and repeatable inspection process, at an affordable cost, the entry-level AOI system combines high performance and the lowest cost of ownership.

It is fast to install with the help of the iMentor online training and is exceptionally easy to program.

Text of laser printing: Side lighting

○Present   ○Missing

iSpector a full fledged AOI system, Lead screw and Servo drive system. Designed to be the ultimate in value for money. Utilizing software which has been developed for over 20

Detect dark colored component: Main lighting + Diffuse-On Axis LED

Clean and Simple Interface
With powerful features. Full programming capabilities, Solder inspection, Component presence/absence, Polarity and Value.

Import NC Data from your pick and place system or most popular CAD/CAM software. Utilizing our extensive custom Libraries to provide fast programing times and reliable results with low false fails.
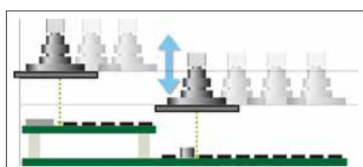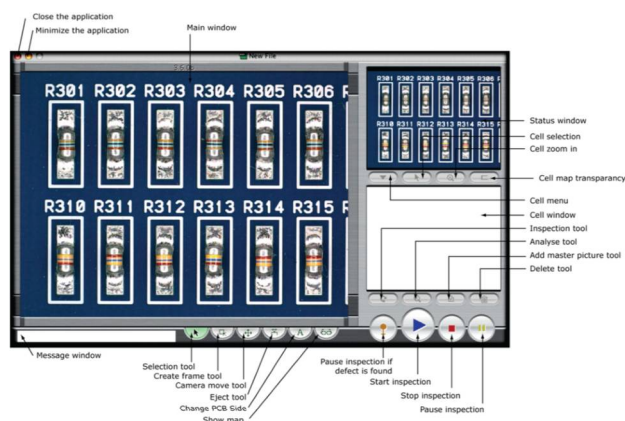
Stroke 30mm(+28mm, -2mm)
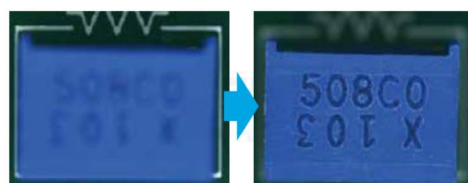
Normal focus

After adjusting the height of Z axis

Included Z axis allows the inspection of taller components and hybrid PCBs

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because inspection matters

iSpector

iMentor is MEK's extensive and exclusive online training system that covers all aspects of the MEK AOI software. From basic to advanced operation including videos. It is frequently updated to covers new features in the latest software.

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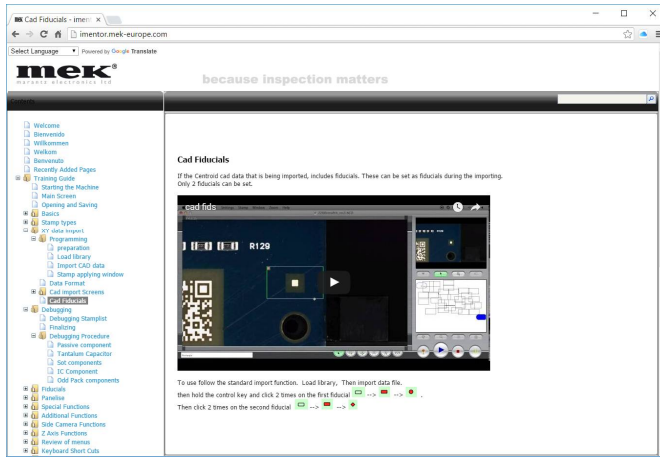
Instructions on how to install updates, make backups and Special application notes.
Latest software releases and Inspection library updates. Searchable topics. Also available in multiple languages.

A unique Login is provided for each customer. As well as access to our user forum.

Optional on site training is also available.

Optional Data collection, Offline Repair/Review and SPC Analysis. The **Catch system** which comprises **CSCenter** data collection and remote monitoring, **CSRepair** Offline defect review and repair software, and **CSAnalyser** SPC and trend analysis. **PostgreSQL** enterprise grade database storage. Catch is a fully scalable solution from single AOI stations to 40 plus machines

catch system
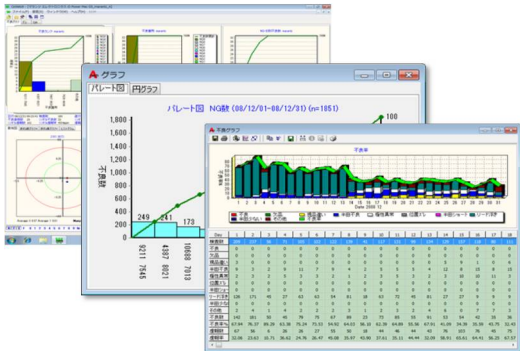
Inspection can be tracked and recorded. Assigned to Barcode read from the PCB's at the AOI.
Base formats including Datamatrix, QRcode, Code 128 and Code 39. As well as allowing multiple barcodes per panel.

Optional Offline programming and Debug. **OLT22X** Uses images captured from the AOI to create full AOI programs and can also be used in conjunction with the AOI to do live offline programming debug.

The offline programming software Simulates the machine and can therefore perform almost all the same functions during programming that are available on the AOI system.

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Desktop Series Specifications	iSpector JDz 520
Maximum PCB Size	520x460mm (20" x 18")
Characteristics	
Product type	Automatic Optical Inspector
In-line/Off-line	Off-Line
Movement type	Camera X, Y
PCB movement	Static table
PCB fixation	North South Clamping
Parts inspection	Presence, Polarity, Offset, OCV, Soldering
Distinction principle	Synthetic Imaging, Spectral Analysis, Greyscale limits
Distinction parameters	Brightness, Hue, Saturation via Filters
Camera type	4.8 MP CCD digital with USB 3 Vision
Camera Field Of View/Resolution	36.0 x 30 (1.42″ x 1.18″) 15µm
Lens	High Resolution Telecentric lens
Lighting system	Triple LED :White Main ,Red Side, DOAL White
Specifications	
Minimum inspection component size	0201" (15µm resolution)
Positioning accuracy	Pixel related Feedback Loop
Component clearance (top/bottom)	+40mm (1.6")/-70mm (-2.2″) (optionally +60/-70 mm extended top clearance)
Movement speed	720mm/s
Inspection capacity typical	2500cps/min 4.45 FOV/sec
Mains	100-240 Vac / 150W
Interfacing	
Control PC type (not included)	Apple Mac Mini or iMac
Control / Imaging interface	USB / USB 3.0 Vision
Programming Interface	CSV Centroid file (Placement file)
Repair/Monitor/SPC System/MES-interface	Mek Catch System (Windows 7/8/10) (option)
3rd party Interfacing (MES-if) & Data Storage	Enterprise SQL DB/XML Files/Socket (Catch System Option)
General	
Operating temperature	15-30 degr C
Operating humidity	15-80 % RH
External size	W 1030 x D 1060 x H 410. mm (W 40.5″ x D 41.7″ x H 16.1")
Weight	95 kg (209 lbs)

Represented/Distributed by: