

PowerSpector

GTAz

NEW



Desktop 3D Automatic Optical Inspection systems

- ✓ Revolutionary 3D imaging technology
- ✓ High Speed 90Fps USB 3 Vision Cameras
- ✓ 2X FOV over previous Generation
- ✓ Multi-color 4 angle lighting with Line Source Coaxial Lighting and Meniscus Profiler
- ✓ Inspects:
 - Components: SMT & THT (missing, type, polarity, offset, text, colors, etc.)
 - Component Height and Coplanarity
 - Solder Paste and CIP (Components in Paste; pre-reflow)
 - Soldering: Post Reflow, Post Wave, Selective, Manual
- ✓ Flexible classification and reporting scenarios.....
- ✓ Line Sourced DOAL(Direct On Axis Lighting) coaxial lighting system with high resolution Telecentric Optics.....
- ✓ Low Noise Large CCD High Speed 24 bit Color Camera
- ✓ Synthetic Imaging and Spectral Analysis.....
- ✓ Triple use of side camera's
- ✓ Prototype mode for 1st off inspection.....
- ✓ In height adjustable optical head

True 3D imaging, Side cameras integrated in 3D processing.

*The latest generation of high speed, high quality cameras
No capture card requirements.*

Up to 50% reduction of cycle time.

*reliable solder joint meniscus and pad surface analysis (to find
meniscus and paste printing defects)*

use inspection in all stages of the production process

*integrate AOI efficiently in your existing operations and factory
lay-out*

*inspect solder joints without shadow effects from tall
components nearby and accurate inspection model building*

*find defects easier including printing defects on Gold or Cu
plated PCB's*

*powerful algorithms to achieve an optimal balance between
defect detection and false reject levels in shortest time*

Use for automatic inspection, classification and repair

*program in minutes to verify your production line is set-up
correctly before starting full production*

*Compensate for PCB warp and adapt to tall component and
sandwich assemblies*

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marantz electronics ltd

because inspection matters

Desktop

PowerSpector

GTAz

350, 520, 650, 800

Desktop Series Specifications	PowerSpector GTAz 350	PowerSpector GTAz 520	PowerSpector GTAz 650	PowerSpector GTAz 800
Maximum PCB Size	350x250mm (13.8" x 9.8")	520x460mm (20.5"x 18.1")	650x550mm (25.6" x 21.6")	800x550mm (31.5"x21.6")
Characteristics				
Product type	Automatic Optical Inspector			
In-line/Off-line	Off-Line			
Camera movement	X Direction	X + Y Direction	X + Y Direction	X + Y Direction
PCB movement	Moving in Y	Stationary	Stationary	Stationary
PCB fixation	Direct Loading	Direct Loading	Manual Drawer Options: Motorized Drawer, Transverse loader	Manual Drawer Options: Motorized Drawer, Transverse loader
Parts inspection	Presence, Polarity, Offset, Correctness, Soldering, Height			
Printing/paste inspection	Offset, Smearing, Bridges, Uniformity			
Image Processing	Synthetic Imaging, Spectral Analysis, Greyscale limits			
Image Parameters	Brightness, Hue, Saturation via Filters			
Camera type	Digital color USB 3.0 Vision 90 Fps			
Camera Field Of View/Resolution	36.5x36.5mm/18.75µm or 19.5x19.5mm/10µm			
Lens	Telecentric lens with built in prism for DOAL Lighting			
Lighting system	Omnidirectional Quad LED rings: Side White, Side Red, Main, Line Sourced DOAL Diffused On Axis Lighting (Coaxial))			
Specifications				
Minimum inspection component size	01005" (0.4x0.2mm)(10µm resolution)			
Positioning accuracy	Pixel related Feedback Loop			
Component clearance (top)	30mm (1.2")			
Side Cameras	8x Digital color USB 3.0 Vision in 45/45 orientation			
Z-Axis movement range	30mm (1.2")			
Component clearance (bottom)	70mm (2.8")	70mm (2.8")	70mm (2.8")	70mm (2.8")
Maximum PCB Size	350x250mm (13.8" x 9.8")	520x460mm (20.5"x 18.1")	650x550mm (25.6" x 21.6")	800x550mm (31.5"x21.6")
Movement speed	720mm/s			
Inspection capacity typical	2750ppm			
Electrical Requirement	100-240 VAC / 150W			
Interfacing				
Control PC type	Apple Mac (Intel) with Mac OSX			
Control interface	USB			
Data interface	USB 3.0 Vision			
General				
Operating temperature	15-30 deg. C(60-90 deg. F)			
Operating humidity	15-80 % RH			
External size	W736 x D874 x H450 (29.0" x 34.4" x 7.7")	W1110 x D1040 x H600 (43.7" x 50" x 23.6")	W940 x D1015 x H500 (37.0" x 34.0" x 19.7")	W1157 x D1015 x H500 (45.55" x 34.0" x 19.7")
Weight	65kg (143lbs)	160kg (350lbs)	110kg (243lbs)	120kg (265lbs)

Mek Europe reserves the right to change the design and specifications without notice. © Mek Europe BV, December 2014

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