



# powerspector



because inspection matters

## Automatic Optical Inspection systems

- √ Automatic Optical Inspection of PCB assemblies ..... *test your PCB's optically and replace manual inspection*
- √ Inspects:..... *use inspection in all stages of the production process*
  - Components: SMT & THT (missing, type, polarity, offset, text, colours etc)
  - Solder Paste and CIP (Components in Paste; pre-reflow)
  - Soldering: Post Reflow, Post Wave, Selective, Manual
- √ Flexible classification and reporting scenarios ..... *integrate AOI efficiently in your existing operations and factory lay-out*
- √ In-Line and Desktop versions in different sizes ..... *choose the best hardware configuration for your processes*
- √ Multi-angle 3 colour lighting with Line Source Coaxial Lighting and Meniscus Profiler ..... *reliable solder joint analysis*
- √ Full colour camera and colour algorithms for 24bit defect detection ... *find defects easier including printing defects on Gold or Cu plated PCB's*
- √ Synthetic Imaging and Spectral Analysis ..... *powerful algorithms to achieve an optimal balance between defect detection and false reject levels in shortest time*
- √ Custom built optics and image capturing devices..... *industry leading optics and picture quality sets the base for reliable inspection and flexibility*
- √ 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*
- √ Different resolution options ..... *change your magnification depending on your project*



# power spector

because inspection matters

In-Line Series Specifications	Powerspector 350L	Powerspector 520L
Maximum PCB Size	350x250mm (13.8" x 9.8")	520x460mm (20.5" x 18.1")
<b>Characteristics</b>		
Product type	Automatic Optical Inspector	
In-line/Off line	In-Line	
Camera movement	X + Y Direction	
PCB movement	Conveyer only	
PCB fixation	Ruler Blade Top Edge Clamping	
Parts inspection	Presence, Polarity, Offset, Correctness, Soldering	
Printing/paste inspection	Offset, Smearing, Bridges, Uniformity	
Distinction principle	Synthetic Imaging, Spectral Analysis, Greyscale limits	
Distinction parameters	Brightness, Hue, Saturation via Filters	
Camera type	UXGA CCD digital with Camera Link	
Camera Field Of View/Resolution	40x30mm @ 25µm or 32x24 @ 20µm or 16x12 @ 10µm	
Lens	Telecentric lens with built in prism for DOAL Lighting	
Lighting system	Omnidirectional Triple LED rings: Side, Main, Line Sourced DOAL (Diffused On Axis Lighting (Coaxial))	
<b>Specifications</b>		
Minimum inspection component size	01005" (0.4x0.2mm) (20µm resolution)	
Positioning accuracy	Pixel related feedback loop	
Component clearance (top)	+35mm (1.38")	
Component clearance (bottom)	-35mm (-1.4") optionally -60mm (-2.4") (not in combination with PCB Lift Option)	
Maximum PCB Size	350x250mm (13.8" x 9.8")	520x460mm (20.5" x 18.1")
Movement speed	600mm/s (24"/s)	
Inspection capacity typical	1700cp/m	1700cp/m
Mains	100-240 Vac / 700W	
<b>Conveyer</b>		
Conveyer belt speed	10-500mm/s (0.4-19.7"/s)	
Conveyer configuration	Left to Right, Front side fixed, Optional PCB Support Lift	
PCB Clamping	Automatic clamping motor	
Minimum board size	50x50mm (0.2" x 0.2")	
Board thickness	0.6-2mm (option 0.6-4mm) (24mils - 79mils)	
PCB warpage compensation	Automatic PCB support Lift with magnetic pins (option)	
<b>Interfacing</b>		
Communication interface	Extended SMEMA	
Control PC type	Apple MacPro with Mac OSX (not included)	
Control interface	USB	
Data interface	Camera Link	
<b>General</b>		
Operating temperature	15-30 degr C	
Operating humidity	15-80 % RH	
Weight	230kg (507 lbs)	275kg (606 lbs)
External size	W780 x D843 x H1800 (30.7" x 33.2" x 70.9")	W900 x D1046 x H1800 (35.4" x 41.2" X 70.7")

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