

marantz

Business
electronics®

P R E L I M I N A R Y I N F O R M A T I O N



iSpector. Automatic Optical Inspection System

- Automatic Optical Inspection of PCB assemblies
- High resolution XY field camera with 24 bit defect detection
- Inspects: SMT & THT Components (missing, type, polarity, offset, text etc)
- Applicable for Solder Paste and CIP (Components in Paste), Pre-Reflow, Post Reflow
- Proven Marantz Synthetic Imaging concept: high defect detection rate with low false alarm level in shortest possible time.
- Programmable with library or Golden Board
- Prototype mode for 1st off inspection
- Different lighting and resolution options
- Stationary PCB, ideal for pre-reflow applications
- Available in Desk-top and In-Line versions
- Overhead Gantry construction with XY field camera allows easy access to your PCB's and safe operation
- Manually operated PCB carrier with automatic clamping construction
- Optionally motorised PCB carrier
- 22X software for Desk-top and In-Line versions fully compatible
- Upgradeable concept grows with your company



because inspection

Featuring proven Marantz Synthetic Imaging, this new platform delivers the industry's best defect balance ratio and fast programming times in a uniquely upgradeable package ranging from entry level desk-top to fully in-line. The Marantz iSpector 350 is the first member of the range and is suitable for PCBs up to 350x250 mm.

Traditional AOI machines are plagued with the problem that truly useful new product inspection programs require too much programming time for today's high mix, quick turn manufacturing environments. Useful inspection programs must optimise the balance between preventing 'escapes' while maintaining a low 'false defects' rate. Always a focus of Marantz machine designs, iSpector now brings this essential AOI capability to the entry level price segment as well. It is programmable either through its extensive component library or with a Golden Board, and includes a Prototype mode for 1st off inspection. And, current Marantz users can immediately utilise all of their exiting programs as Model 22X software is fully iSpector compatible.

The new Marantz platform is designed to grow with its users, including upgradeable lighting. The desk-top configuration is made especially convenient by its overhead gantry design that carries a high resolution, high speed video camera and provides easy access to PCBs.

Specifications		iSpector 350
Dimensions	External size	W710 x D720 x H500
	Maximum PCB Size	350x250mm (13.8" x 9.8")
Characteristics	Product type	Automatic Optical Inspector
	In-line/Off line	Off-Line
	Camera movement	X + Y Direction
	PCB movement	Stationary
	PCB fixation	Fixed support. Options: Manual Drawer with Auto Clamping or Motorised Drawer
	Parts inspection	Presence, Polarity, Offset, Correctness, Soldering
	Printing/paste inspection	Offset, Smearing, Bridges, Uniformity
	Distinction principle	Synthetic Imaging, Histogram analysis, Greyscale limits
	Distinction parameters	Brightness, Hue, Saturation via Filters
	Camera type	XGA CCD digital with FireWire
	Camera Field Of View/Resolution	32x24mm/25um
	Lens	High precision lens
	Lighting system	Omnidirectional full spectrum LED
Specifications	Minimum inspection component size	0201" (0.6x0.3mm)(25um resolution)
	Positioning accuracy	<25um
	Component clearance (top)	+40mm (1.57")
	Component clearance (bottom)	-60mm (option -100mm (-3.9"))
	Maximum PCB Size	350x250mm (13.8" x 9.8")
	Movement speed	720mm/s
	Inspection capacity	160 000 components/hr (typical excl board handling)
	Master pictures per library component	Up to 24 variations per library component
	Mains	100-240 Vac / 300W
Interfacing	Control PC type	Apple iMac/MacPro Intel DualCore with Mac OSX (not included)
	Control interface	USB
	Data interface	Firewire 800
General	Operating temperature	15-30 degr C
	Operating humidity	15-80 % RH
	Weight	64kg