

## ***Marantz launches new technology for 5D solder paste inspection at Productronica 2009***



**Marantz Business Electronics will raise the bar once again and unveil a new technology for Solder Print Inspection (SPI) that measurably outperforms all previous approaches. The Marantz PowerSpector S1 SPI system will be unveiled at Productronica in Munich on November 10 at stand # A2-134**

The PowerSpector S1 employs a unique new “5D” technology that delivers true area, shape, offset, volume and height measurement together and complete for the first time. PowerSpector S1’s high speed post-print solder paste inspection process incorporates patented new sensor technology and simultaneously combines 3D and 2D image processing methodologies that delivers defect detection beyond that previously possible.

“Well known industry research has identified that more than 60% of end of line defects can be traced back to printing errors,” explained Marantz Business Electronics General Manager Henk Biemans. “Intercepting these defects before they happen reduces rework costs, provides instant yield improvement and accelerates return on investment. It also represents True process control and provides the perfect solder paste printer adjustment tool, enabling the correction of printer settings before a problem spreads across an entire product.”

The PowerSpector S1 is the latest addition to Marantz’ line-up of flexible AOI equipment known for their fast set up times and low false calls, including the iSpector

350mm and 650mm configurations. Marantz will showcase selected models from the complete range of bench top and in-line systems at Productronica and the technical team will be on hand for in-depth demonstrations.

Powerfully complementing iSpector is Marantz' four dimensional AOI process control system. The Catch System software suite networks multiple Marantz AOI machines into a completely closed loop process monitoring and quality control system uniquely optimized for each user's workflow and internal organization.

Working in cooperation with Nutek, Marantz also offers cost effective automated PCB handling for both new and existing iSpector models. The Marantz Inspection Island is flexibly designed to serve multiple lines and eliminates the need for operators to load and unload PCBs. Fully compatible with Marantz' Catch Process Control System, the island also removes the need for operators to classify inspection results on the machine since the repair & traceability software allows post processing of defects. Maximising flexibility even further, users can choose classification on the fly through manual intervention.

Biemans went on to conclude, "Traditionally, island operation has only been available for customers with an inline machine model, plus a loader and unloader. However, we've taken our most cost-effective and popular desktop model and combined this with a proven, value-driven conveyor/rack storage system to dramatically reduce the cost and complexity associated with fully automatic offline inspection operation. For example, the Inspection Island eliminates manual handling of PCBs, effectively freeing operators up to focus on other aspects of assembly. We're delighted to have achieved this breakthrough in partnership with Nutek and have already realized a considerable productivity advantage for our customers."

iSpector features Marantz' pioneering true 24-bit colour imaging technology and 3D Solder Meniscus profiling. 24-bit processing extends the amount of data available per pixel, dramatically enhancing defect detection while minimising false alarms. It discerns subtle changes for improved image clarity, helping to separate components and solder images from the background board or substrate. The technology is deployed across the iSpector range in conjunction with through the lens, dual on axis lighting

and angled RGB. Fast, accurate and highly reliable 3D profiling of Solder Meniscus is achieved with a combination of reflected angle detection and synthesized imaging. Accurate inspection of joints with nearby tall components and robust detection of failures on large and warped PCBs are additionally enhanced.

**-ENDS-**

### **About Marantz Business Electronics**

Well known for high quality Audio/Video products, Marantz developed its first AOI system in 1994. Developed to inspect PCB assemblies for correct component placement and soldering, the AOI system was designed for use in Marantz's own factories. Proving to be a highly successful, cost-effective alternative to traditional human inspection, Marantz developed its first generation commercial system in 1996. With a steadily growing installed base, Marantz Business Electronics has now sold over 4000 units worldwide.

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