Dainippon Screen announces the release of a final automatic optical inspection(AOI) system for printed circuit boards (PCBs)
Features color image processing technology; preparations require only one-sixth the time.

Kyoto, Japan, May 20, 2004 — Dainippon Screen Mfg. Co., Ltd. (Headquarters: Kyoto, Japan/President: Akira Ishida) will release the FP-8000, a final AOI system for PCBs, in July 2004.

The FP-8000 is a system that automatically inspects both sides of a PCB optically, before electronic devices are mounted on the board. Thanks to its use of Screen's color image processing technology, which has been refined through long years of experience, the FP-8000 can detect defects in every area of a PCB, including the gold plating, copper plating, solder plating, solder resist, and silk-screened print portions.

The FP-8000 features an RGB scanning camera that was developed by Screen. It also incorporates a variety of types of color image processing technology that were created during the development of color scanners. The FP-8000 can therefore be used to inspect boards that are difficult for traditional monochrome image inspection systems to handle, such as boards with a variety of colors of solder resist (including green), and boards that have a mixture of different types of plating. Since the FP-8000 automatically accounts for problems that can cause changes in board alignment, such as misalignment of solder resist, it reduces the inspection dead zones (uninspected areas) to the bare minimum.

The FP-8000 features a highly efficient image processing engine that enables fast processing despite the relatively large size of data involved in color images, and transports boards using a highly efficient parallel transfer system. As a result, the system can process a board with a 250 x 330 mm inspection area in just 5.5 seconds (in normal mode). Best of all, the time required for preparations (for inspection) has been reduced to one-sixth of that required by predecessor Screen systems of the same type[1], which dramatically reduces the workload on operators.

To increase defect checking efficiency, users can add an optical verification and repair station to the FP-8000 optionally. This station automatically displays an image of any area where a defect has been found.

This new product is intended to help make Screen the global standard for final AOI systems.

*1. May vary with inspection conditions.

* The FP-8000 inspection system will be introduced at the 2004 JPCA Show, which will be held at Tokyo Big Site from June 2 to 4.

FP-8000