

World's fastest ultra-high-precision PCB pattern inspection system for boards with 7.5 micron line-and-space patterns released
—New model of mask inspection system released simultaneously, strengthening Screen's inspection equipment lineup—

The Media And Precision Technology Company (President: Kyohei Fujisawa) of Dainippon Screen Mfg. Co., Ltd. (Headquarters: Kyoto, Japan) will release the PI-9500 Printed Circuit Board Pattern Inspection System, the world's fastest* ultra-high-precision PCB pattern inspection system for boards with 7.5 micron line-and-space patterns, in June 2009, along with the new model of the MI-9500 mask inspection system.

In recent years, increasingly compact mobile phones and digital appliances featuring enhanced functionality have been developed, which has led to rising demand for semiconductor chips that offer higher speeds, better functionality, and greater capacity. At the same time, the need for higher density in the package substrates on which the chips are mounted has also increased, and the use of ultra-high-precision 9.0 micron package substrates is expected to become mainstream in 2010 and beyond. For these reasons, there is an urgent need for printed circuit board inspection systems that can meet the demands of today's high-density production processes.

The new PI-9500 is a high-end PCB pattern inspection system that was developed in response to these trends in the industry. It features a newly developed image processing unit and offers the world's highest inspection speed. In fact, the PI-9500 can inspect up to forty-nine 7.5 micron ultra-high-precision circuit board images per hour. An improved automated inspection setup function that supports different inspection conditions significantly reduces preparation time, while a new inspection algorithm enhances the detection of open/short defects. To improve inspection quality even further, the image capture system has been enhanced with better illumination. All of these improvements make it possible for the PI-9500 to offer high productivity while maintaining high quality. In addition, the PI-9500 features a new function that reduces the number of DRC false calls that occur during inspection due to design or manufacturing problems.

The MI-9500, which is being released simultaneously, features the same newly developed image processing unit as the PI-9500, as well as new digital interpolation technology. These enable the MI-9500 to be used in the inspection of photomasks for ultra-high-precision circuit boards with line widths as fine as 7.5 microns, at the world's fastest inspection speeds. A newly developed defect detection algorithm improves the MI-9500's ability to locate minuscule defects, while an open/short pattern matching inspection function enhances the detection of open/short defects. In addition, the unit is designed to minimize particle generation, and is therefore suitable for use in clean rooms. The exterior casing and operating screens of this new mask inspection system model have also been completely redesigned. Screen plans to expand this series in the future.

With the release of these two units, Screen is once again providing timely support for the PCB industry as it faces the continuing trend towards higher density, while also enhancing the standing of Screen's equipment for high-precision work. Screen also looks forward to increasing its share of the PCB equipment market, while continuing to develop total solutions that incorporate production management systems.

* As of May 2009 (according to Screen's research).

NOTE: These units will be introduced at the 39th International Electronic Circuits Exhibition, JPCA Show 2009, which will take place at Tokyo Big Site in Ariake, Tokyo from June 3 to June 5.



PI-9500



MI-9500

Please download the photos from
<http://www.screen.co.jp/press/nr-photo/indexE.html>

Date sales are expected to commence:

PI-9500: June 2009

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Suggested retail price in Japan (before tax):

PI-9500: 85 million yen

MI-9500: 70 million yen

Annual sales goal (first year):

PI-9500: 20 units

MI-9500: 10 units