



THE LATEST INDUSTRY UPDATE
U.S. OEM'S HAVE KEPT THE BARE BOARD MARKET ROBUST. . . . 1



BE THE BEST
THEY DO THIS BEST WHEN THEY HAVE AN OBJECTIVE. 2



MARANTZ AOI SYSTEMS
THE NEW ISPECTOR - THE RULES HAVE CHANGED 4

CHRISTOPHER

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 SANTA ANA, CALIFORNIA

INDUSTRY UPDATE

With two trade shows and several industry conferences (all in the space of six weeks) now behind us, we believe we can better understand the current state of the North American printed circuit fabrication and assembly markets. IPC/APEX had only moderately improved attendance over last year, but the mood on the floor was much better. Customer visits to the Christopher Associates' booth were up 50% compared to last year. Other suppliers reported strong results as well, but some on the bare board side were unhappy with the level of participation. Overall, interest was strong and exhibitors were satisfied. However, the number of those voicing complaints that there are simply too many shows in a relatively stable market seems to have increased.

The reduction in the value of the dollar and demand from U.S. OEM's have kept the bare board market robust. Recent IPC Book to Bill numbers (0.97 – 1.15/rigid boards/12-07/3-08) reflect a stable market running at a higher level than the past several years. EMS manufacturers -- as well as automotive, medical, military and industrial assemblers -- also report stable or growing sales. Not too many new lines are being set up, but the lines that are running are busy.

Recently proposed environmental regulations in Europe and elsewhere are coming under increasing scrutiny. The IPC has engaged the European Community in order to try to mitigate some of the excesses. On this front, a number of industry experts have also been pointing out significant issues with existing "green" regulations that seem to offer little or no value for the environment. Common sense does not necessarily apply. The EC has established a committee of 30 to evaluate impending changes. Americans and Asians have been excluded as there is "no room for additional members". One of the newly proposed bans, for example, would eliminate the fire retardant used in approximately 50% of the world's copper clad laminates. [Continued on page 2](#)



COMPANY NEWS

Christopher Associates recently had the honor of hosting the Second Annual Koh Young Advanced Training Seminar & User's Group in Costa Mesa, California. Over 25 representatives from many of the largest assembly companies in North America spent 3 days both being educated and educating each other on subjects as varied as yield improvement, process guidelines, best practices, and advanced software and hardware from the world leading solder paste inspection company.

Dan Alexander of Continental Automotive Systems said, "I really appreciate their knowledge and how well they transfer that knowledge to their customers. The videos and procedures are outstanding." Mark Rudd of Harman Becker added, "Their seminar is as friendly and effective as their software."

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INDUSTRY UPDATE

(Continued from page 1)

More domestic companies and industry veterans are currently recognizing a significant technology gap, especially with Japan. Enabling processes and designs, such as HDI and embedded components, are entering widespread usage in a vast range of end products for consumer, industrial, and mil/aerospace applications. But since substrates and end products are almost all imported (with the exception of most military work), the underlying technology has been largely ignored. These are game changers and offer exciting potential.

KOH YOUNG TECHNOLOGY



KY-8030L - Faster, Lower Cost, More Effective Solder Paste Inspection

Based upon Koh Young's industry leading image processing and analysis technology, and offering full compatibility with all other Koh Young systems, **KY-8030** represents the leading solution for high mix/low volume and standard manufacturing applications.

Incorporating all of the functionality of our **KY-3030VAL** systems (the #1 system in North America), **KY-8030L** is easier to use and more accurate than ever before. Programming requires less than 15 minutes. This is the only technology that delivers the accuracy and feedback necessary for true yield improvement.

The KY-3020T Bench Top SPI system has become the standard in low volume and laboratory solder paste inspection applications. Using the same tools as the in-line systems, programming and performance are rated the same as on our production in-line systems. Customers include **Indium Corporation, Speedline Technologies, Senju Metals, Harris Corporation, Cookson Electronics, Astronics**, and many others. **Aspire** remains the industry's fastest and most technically advanced SPI system.



BE THE BEST!



"I'd give all the points back if we could have won the game. I wanted to win so badly."

Michael Jordan, after scoring 63 points against the Boston Celtics, April 1986 and seeing his team lose by 4. He meant every word of it.

"I want to emphasize that people work to make a contribution and they do this best when they have a real objective, when they know what they're trying to achieve and are able to use their own capabilities to the greatest extent."

David Packard

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TAKU ROBO SELECTIVE SOLDERING SYSTEM

Customer response to the Taku Robo soldering system at IPC/APEX was outstanding. Quality of construction, performance and ease of programming were all cited as reasons for further investigation and purchase consideration.

Using this new system, job set up takes just a few minutes, and switching from lead-free to lead-based solder paste can be accomplished quickly. Taku Robo is an excellent alternative in high volume/low mix applications or when soldering 1-5 components on a panel. The system can do point-to-point or individual soldering operations.

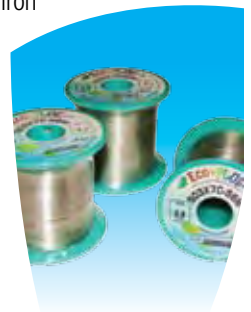
SELECTIVE & HAND SOLDERING



One of the issues facing users changing to lead-free soldering is soldering iron tip lifetimes for both hand and selective soldering applications. Because flux formulations are more aggressive and temperatures are higher, users can expect rapid deterioration of soldering quality and rapid corrosion of tips. Christopher now has the best solutions in the industry.

Japan Unix soldering tips use a unique alloy and construction process, as well as a large mass, to ensure outstanding thermal recovery and temperature uniformity at the temperatures required for lead-free applications. These tips last up to 4X longer than standard tips.

Koki's S03X7Ca-56M flux cored wire solder is recognized as perhaps the industry's best lead-free wire solder. It's formulation addresses solder/flux spattering better than the competition, and it eliminates spiking and tailing on solder fillets. The combination of the two leads to a much improved soldering process in any lead-free application.



BREAKING NEWS



As part of the **Economic Stimulus Act of 2008** signed into law in February, manufacturers can expect significant tax relief for capital equipment purchases. The new law almost doubles the amount of deductible Code Sec. 179 expensing for 2008 (to \$250,000!). Further, the Act also provides temporary bonus depreciation to encourage business investment. On qualifying property, the law provides 50% first year bonus depreciation. (This information is provided as a service only. For clarification, please contact your tax professional.)

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HOLE CHECKER FOR UNDER \$100K!

The new **Hole Doctor HD-2000** hole checker from **Machvision** retails for under \$100,000 and offers unparalleled quality and performance. Machvision is a world leader in inspection technology, from microvia inspection to artwork to measurement to the drilling room standard. **Hole AOI Express** inspects and measures drilled panels for defects such as broken tools, spindle accuracy, wander, etc.

The HD-2000 is an easy to use conveyORIZED system for high production inspection of hole diameters, positional accuracy, and clearances in bare printed circuit boards -- after drilling, plating or in final inspection. Programming is simple, and the system can inspect high aspect ratios and up to 400,000 holes in standard configuration.

MACHVISION



MARANTZ AOI SYSTEMS



The new **iSpector** full color bench top AOI system from **Marantz** is a game changer. iSpector features unparalleled performance in a bench top system coupled with field upgradability for in-line configurations. Programming and debug time has been reduced by up to 50% from previous models, and its enhanced ability to capture solder defects makes it the most cost effective solution for post reflow inspection.

Marantz has also introduced **iMentor**, the world's first on-line AOI operator training program. Using extensive video and other training tools, your operators can learn everything from the basics of AOI to advanced programming techniques anywhere, anytime. Operator certification is also available.

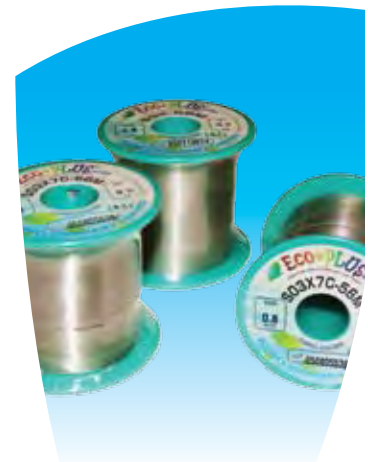
marantz®

KOKI COMPANY LTD.

We are pleased to announce that **Christopher Associates** recently received the **Superior Supplier Quality Award** from New Sabina Industries, a major automotive electronics manufacturer. The award recognized outstanding product quality, support, customer service and on-time delivery of Koki soldering products.

The **S3X48** series solder pastes have recently been introduced for fine pitch applications. They deliver excellent printability, rapid wetting, and superior long-term reliability, especially in BGA, CSP and mBGA applications.

KOKI
COMPANY LIMITED



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THIS MONTH IN HISTORY

- June 1, 1638 First Earthquake recorded in U.S.A – Plymouth, MA
- June 1, 1843 Snow in Buffalo, NY
- June 3, 1976 Queen's "Bohemian Rhapsody" goes Gold
- June 3, 1989 Tienanmen Square Massacre – Beijing
- June 5, 1937 Waylon Jennings Born
- June 5, 1947 General Marshall outlines Marshall Plan
- June 6, 1944 D Day invasion, France, WW II
- June 7, 1995 Boeing 777 enters service with United Airlines
- June 12, 1976 U. S. Navy retires last C-117 (DC-3)
- June 15, 1911 Tabulating Computing Recorder Company (IBM) incorporated
- June 17, 1885 The Statue of Liberty arrives in New York in 350 pieces
- June 24, 1930 First Radar detection of aircraft, Anacostia, Washington, DC
- June 26, 1948 Berlin Airlift begins after Soviet Union halts all land traffic from W. Germany
- June 27, 1929 First color television demo, New York City
- June 29, 1964 First draft of Star Trek pilot episode released for production
- June 30, 1948 Transistor announced as replacement for vacuum tube by Bell Labs



MASON UNIVERSAL GRID TEST SYSTEMS



Recent discussions with leading printed circuit manufacturers indicate that interest in universal grid test systems has undergone a resurgence. Demand for true Ohm's Law testing, increased production volumes, and the availability of tooling and quad density capability all play a part in this revival. Prices are very competitive, and the **Mason** systems are among the most reliable in the industry.

Recent sales of Mason Testers include a multiple system sale to Foxconn, a fully automatic MU-300 line to Hitachi in Singapore, and another large format test system to Multek (China).

MBWA-MANAGEMENT BY WALKING AROUND

Management By Walking Around (MBWA) – Talk to your coworkers and employees. See what's going on around you and them. Encourage feedback. Listen for suggestions and comments. Watch the flow of work to see where there are issues. This can be one of the useful tools in a manager's portfolio.

Paraphrase of Bill Hewlett



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SHODA TECHTRON MATERIALS FABRICATION AND INSPECTION SYSTEMS

Interest and orders for **Shoda** systems have undergone a resurgence in 2008. Installations include the **IT-700HA** automatic high speed thickness tester, **ACM-700II** auto corner beveling machine, and **PVD-550A** High Speed V Scoring system.



EIE



FIRST EIE PHOTO PLOTTERS & INK JET PRINTING SYSTEMS

For the second year in a row, **First EIE** has been ranked #1 in global sales of photoplotters by the JMS Marketing Survey in Japan. There are over 100 First EIE photoplotters in North America, as well as a number of ink jet printers.

SAVE THE DATE!

August 17 – 21	SMTAI - Orlando, FL
September 24 – 25	IPC Midwest Electronics Expo – Schaumburg, IL
September 23 – 25	Assembly Tech Expo – Rosemont, IL
October 22 – 24	TPCA Show – Taipei, Taiwan