

## In Brief

Building on its ODM capabilities, Flextronics ([flextronics.com](http://flextronics.com)) will buy Agilent Technologies' ([agilent.com](http://agilent.com)) camera module business. Terms of the agreement, expected to close at the end of 2004, were not disclosed.

V.J. Electronix ([vjelectronix.com](http://vjelectronix.com)), an x-ray inspection technology and rework systems provider, opened a new office at 1735 Enterprise Dr., Buford, GA. The company now has six U.S. facilities.

Celeritek ([celeritek.com](http://celeritek.com)) shareholders approved the sale of the company's defense electronics business to a subsidiary of Teledyne Technologies ([teledyne.com](http://teledyne.com)) for \$33 million in cash. Teledyne intends to relocate the business from Santa Clara, CA, and consolidate it with Teledyne Microwave in Mountain View, CA.

Kulicke & Soffa Industries ([kns.com](http://kns.com)) opened a state-of-the-art probe card manufacturing facility in Hsin Chu, Taiwan, a move designed to boost its vertical probe card market presence. The 2,400 m<sup>2</sup> factory will build enhanced cantilever probe cards and can also handle probe wire diameters from 75 to 250  $\mu$ m and very fine pitch probing.

EV Group ([evgroup.com](http://evgroup.com)), a wafer-bonding and lithography equipment supplier, and Datacon Technology AG ([datacon.at](http://datacon.at)), a flip-chip and die bonding equipment supplier, will develop and market advanced-chip-to-wafer (AC2W) technology. AC2W technology offers high device density through stacked devices, short interconnects and higher functional density, enabling the integration of various device technologies.

Nu Visions Manufacturing ([nvems.com](http://nvems.com)) has opened a CEM plant for PCB and electro-mechanical assembly in Tijuana, Mexico. The facility, located on a 670-acre site in Tijuana Industrial Park, is equipped with SMT and through-hole manufacturing equipment, strict ESD controls and IT infrastructure identical to its Springfield, MA, facility.

## Trade Groups Take Up Currency Fight

Washington – Discrepancies in the valuation of Chinese currencies remains a hot-button issue for U.S. manufacturers. Backed in spirit by several trade groups, the nation's largest workers union in September filed an action against China, saying it violates World Trade Organization rules by pegging the value of its currency to the U.S. dollar.

The China currency issue has become a political football because of manufacturing's insistence on a substantial revaluation and the Bush Administration's stated reluctance to hold China's feet to the fire. Hoping to capitalize on the issue's high profile in the November elections, U.S. labor, textile and steel groups on Sept. 9 filed a petition known as a Section 301 seeking a formal investigation into China's currency policy. Hours later, administration officials denied it.

On Sept. 30, one Republican and seven Democratic senators joined nearly 20 House Democrats in refiling the petition. While a spokesperson said the Administration would meet with Congressional members, there is no indication any punitive actions against China would be taken.

A coalition of trade groups known as the Fair Currency Alliance has spent the past year pushing for a steep revaluation of the Chinese yuan. The FCA wants 40%, a number arrived at because, according to one FCA member, there are data to justify it and room to negotiate.

However, disagreement in the ranks prompted the FCA to redraft the petition but the actual refiling was left to the AFL-CIO. The FCA, whose members include the National Association of Manufacturers ([nam.org](http://nam.org)) and IPC ([ipc.org](http://ipc.org)), operates on unanimous consent, IPC spokesperson John Kania told CIRCUITS ASSEMBLY, and there was "heated debate" among its members as to whether to proceed with the filing.

According to Kania, the AFL-CIO, steel and textiles industries advocated filing and NAM was strongly against it. NAM assistant vice president of communications Hank Cox said because the Administration had made it clear a Section 301 was out of the question, the organization felt another filing would just embarrass the Bush Administration. NAM's position, he told CIRCUITS ASSEMBLY, is "to let them do it their way, with behind-the-scenes diplomacy," a sentiment Kania echoed. (Kania, who doubles as IPC's liaison to the SMEMA Council, a group of assembly equipment makers, said the council supports the petition because the issue affects its customers.)

China's currency policy has for years rankled many U.S. economists and trade groups. China has said on several occasions it plans to comply with WTO currency rules but has yet to move in that direction. Says Kania, "The view of the Administration is that the Chinese know they have a problem. They need to slow down their economy. Inflation is rampant, but to control it they need to raise interest rates." And China needs 8% annual growth just to absorb the crush of new workers, Kania says.

Separately, Congress in October repealed a law that gave tax breaks to American companies manufacturing abroad. The World Trade Organization, however, is considering an appeal from the European Union that the law that replaced it contains violates international trade agreements.

The Extraterritorial Income (ETI) Act tax regime gave U.S. companies tax breaks on manufacturing income earned overseas. ETI was repealed by the passage of the dubiously named American Jobs Creation Act, which offers a 9%, phased-in deduction for domestic manufacturing income. Also included are a temporary tax break for repatriated income, reforms of various foreign tax credit rules and a number of other tax cuts targeted at businesses and individuals.

The ETI had little effect on most domestic manufacturers, but its repeal could have sparked higher taxes had the American Jobs Creation Act not been passed. "The bulk of domestic manufacturers don't export and so they weren't affected, but they would have received a tax increase," says Kania. Come January 2005, those companies will receive a tax deduction on a portion of their manufacturing income.

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Elcoteq da Amazonia, a Brazilian subsidiary of Elcoteq Network Corp. ([elcoteq.com](http://elcoteq.com)), will manufacture Vitelcom Mobile Technology's ([vitelcom.es](http://vitelcom.es)) CDMA mobile phones on a turnkey, assemble-to-order (ATO) basis. Manufacturing began in Manaus, Brazil, in late October. Elcoteq will initially provide logistics, manufacturing, testing and packaging services.

Universal Instruments' ([uic.com](http://uic.com)) SMT Laboratory offers a new Process Audit service to quickly optimize SMT and advanced packaging assembly. Each audit is performed as a consultative process, and the structure includes a review of the results from each stage and scope to agree objectives for the next step.

Canada-based EMS provider Creation Technologies ([creationtech.com](http://creationtech.com)) has established a Southern U.S. facility by acquiring Second Source Systems (Richardson, TX). The current facility will be moved to a 40,000 sq. ft. location in Plano, TX, in January.

Pepperl+Fuchs ([am.pepperl-fuchs.com](http://am.pepperl-fuchs.com)) has acquired Omnitron ([omnitron-ag.de](http://omnitron-ag.de)), a supplier of data matrix 2-D optical coding readers for product identification or online data recording.

EMS company Micro Dynamics ([microdynamics.com](http://microdynamics.com)) has sold a majority interest to CHB Capital Partners ([chbcapital.com](http://chbcapital.com)), a private equity group. Wells Fargo Bank has also provided new financing.

The Z8 Encore!, eZ80Acclaim! and Crimson LP32300 microcontroller (MCU) families from ZilOG ([zilog.com](http://zilog.com)) will receive programming support from BP Microsystems ([bpmicro.com](http://bpmicro.com)).

KIC ([kicthermal.com](http://kicthermal.com)) will partner with Tamura Corp. ([Tamura-HA.com](http://Tamura-HA.com)), which will sell KIC products together with its lead-free ready reflow ovens and wave solder machines.

Digi-Key Corp. ([digkey.com](http://digkey.com)) entered a distribution agreement with Silicon Laboratories Inc. ([silabs.com](http://silabs.com)) to distribute Silicon Laboratories' analog-intensive, 8-bit microcontroller product portfolio as well as wireline, networking and synthesizer products.

## New Report Shows Japan PCB Trends

Tokyo – While Europe and the U.S. garner most of the headlines over the migration of production to southeast Asia, Japan has not been immune. Japanese makers are moving advanced technology substrates offshore at a quickening pace, according to a new report from a leading Japanese trade group.

Production of multilayer PCBs built by Japanese companies outside Japan will grow to 21.4% of overall production (based on 2003 values), versus 11.9% in 2003, says the Japan Printed Circuit Association ([jpca.org](http://jpca.org)). The migration follows similar trends for single and double-sided boards; nearly 40% of flex circuits output by Japanese companies is already built offshore. The nation is holding onto higher-end technology: offshore chip-package production will remain at just 5.3%. Overall, 27.2% of PCBs built by Japan will be done offshore by 2008, up from 20.7% in 2003.

Other trends include smaller vias (down to 75  $\mu\text{m}$  by 2006 for multilayer PCBs, from about 250  $\mu\text{m}$  last year; laser drilled vias up just 50  $\mu\text{m}$  on buildup boards; and annular rings of 80  $\mu\text{m}$  on through-via multilayers and less than 50  $\mu\text{m}$  on laser-drilled buildup boards.

## Economists Differ on Electronics Outlook

Scottsdale, AZ – A pair of economists who track the electronics industry offered in October differing opinions on what's in store for the recovering sector.

The outlook for capital spending is "generally favorable" due to higher demand for replacement equipment and a need for greater efficiencies, said Dr. Larry Chimerine. Companies are sitting on extraordinary cash reserves and financing is available from outside sources, said Chimerine, who spent 14 years as manager of U.S. economic research and forecasting at IBM.

Speaking Oct. 15 at the TMRC meeting in Scottsdale, Chimerine said that although the environment remains nearly impenetrable to product price hikes, companies will need to invest in new equipment in order to compete. "If you can't raise prices, you must improve productivity 3 to 4% every year just to stay even" with higher energy costs, vendor price hikes and raises to employee wages, Chimerine said.

A somewhat different outlook was given by Ed Henderson of Henderson Ventures. Henderson, a longtime PCB industry analyst, forecast a slowdown in annual global GDP through 2006, and a corresponding drop in equipment sales.

Annual GDP growth worldwide will slow from 4% this year to 3.5% in 2005 and 3.1% in 2006, Henderson predicted. Likewise, global sales of electronics equipment will drop from 13.4% this year to 9.1% in 2005 and 5.7% in 2006. The figures are based on actual exchange rates.

The bare PCB market, now in its second year of recovery, will also fall, Henderson said. After 7.4% and 13.8% growth in 2003 and 2004, respectively, global PCB sales will slip to 6.4% next year as prelude to a 2006 recession, when sales will be 0.8% lower than in 2005, he said.

While pointing out that oil use as a percent of U.S. GDP has declined steadily over the past 20 years, Henderson said peaking oil prices could precipitate a sharp downturn. "Although a global recession is not in the forecast, a sustained oil price in the \$60 to \$70 range could produce an economic downturn in 2005."

Chimerine singled out trade deficits as a major long-term hurdle for the U.S. economy. Noting trade barriers enacted by several Pacific Rim nations, most notably China, that effectively squeeze American-made products from Asian markets, Chimerine asserted that trade has become an economic growth issue.

"The outsourcing of production [is] the real drag" on the economy, he said. "The manufacturing base must be strong. Not all chips [ICs, potato] are the same."

U.S. trade deficits with China and overall have this year ballooned to all-time highs, with some forecasts predicting a \$550 billion gap by year-end. Pointing to the Bush Administration's current policy of not waging battles over suspected currency manipulation by China, Japan and Taiwan, Chimerine said, "We are insane in keeping this in place."

## People

Cookson Group promoted **Steve Corbett** to chief executive of its Electronics division, replacing Ray Sharpe, who left the company last summer. Corbett was chief executive of Enthone, Cookson's chemistries division, since 2002. Also, **Mike Murphy** was named regional marketing manager, Americas, Cookson Electronics Assembly Materials, and **Bruce Moloznik** was named global director of product management.

Solectron Corp. named **Matti Virtanen** senior VP and president of Europe, the Middle East and Africa. He joined the company Oct. 4. Virtanen has experience at Nokia, Hewlett-Packard and Compaq.

The Electronics Group at the National Physical Laboratory has named **Ling Zou** test service manager. Zou joined NPL as a research scientist in June 1997.



Perfect Commerce Inc., a provider of on-demand SRM, appointed **Daniel Rawlings** as executive VP of worldwide sales and marketing and **Sam Kaddah** as VP of systems architecture and IT engineering. Rawlings has experience at Ariba, Peoplesoft, Lawson Software and Oracle. Kaddah previously directed eBusiness productivity for GE Transportation Global Signaling division.

Three-Five Systems named **David K. McQuiggan** as senior VP of the company's Platform Display business. McQuiggan was CEO at Densitron Technologies, a designer and manufacturer of embedded computing products and information display systems.

**Samuel Sher** is the new vice president of sales and marketing at Bliss Industries. Most recently, Sher was a sales and marketing consultant to technology-based companies in Silicon Valley.

## New Standards on RoHS

Washington – Although focused internally on meeting requirements of the Restriction of Hazardous Substances Directive, OEMs are just coming to grips with the ability of their suppliers to comply with the pending rules. The wakeup call: a finished product can contain thousands of parts, and a single wrong component could be the difference between compliance and failure.

Suppliers and manufacturers inform each other of the composition of their parts through a document known as a Materials Declaration of Inquiry. However, proprietary standards are rampant, although a proposed standard is now being ratified by various trade groups.

While the standard makes the rounds, a guide for complying with material declaration requests, IPC-1065, is expected to be available this month. Another document, IPC-1066, for board and component labeling, is also in the works. See [leadfree.org](http://leadfree.org) for details.

## CAMX Still Seeking End-User Push

Griffin, GA – The new CAMX standards for factory-level data exchange were the focus of a two-day workshop sponsored by IPC ([ipc.org](http://ipc.org)), the trade group that helped author the specs. The seminar took place Oct. 20-21 at NACOM, a tier-one automotive supplier.

Most attendees were already involved in the CAMX (Computer Aided Manufacturing using XML) API project headed by Georgia Tech's Manufacturing Research Center. These participants – Agilent, Asymtek, BTU, DEK, Orbotech, Panasonic, Pillarhouse and Universal – shared specific experiences with CAMX implementation. NACOM also detailed its switch to CAMX-compliant manufacturing during a facility tour.

## Election Updates

### ESDA Honors Members, Elects Board

Rome, NY – The ESD Association ([esda.org](http://esda.org)) elected its 2005 board members and officers during the EOS/ESD Symposium, in Grapevine, TX. New board members include: Donn Bellmore, Universal Instruments Corp.; Charvaka Duvvury, Texas Instruments; John Kinnear, IBM; and Carl Newberg, Microstat Labs. The board's officers are: Ed Weggeland, Static Control Components, president; Mark Kelly, Delphi Electronics & Safety, sr. VP; and Joe Bernier, Intersil Corp., VP.



The ESDA also honored Jack Smith, a recent retiree from Lockheed Martin and founder of the first EOS/ESD symposium, with the Founder's Award and Philip Kohlhaas with the Industry Pioneer Award. During his career at 3M, Kohlhaas was instrumental in the introduction of vital ESD control products.

### SMTA Welcomes New Board Members

Minneapolis – The SMTA's new board of directors began its term at SMTA International in September. Bill Barthel, Plexus; Dr. Ken Gilleo, ET-Trends LLC; Dick Russell, Clover Electronics; and Dr. Laura Turbini, University of Toronto, were elected to three-year terms. David Raby, president and CEO of Soldering Technology International, was elected to a two-year term as president.

