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# FINANCIAL NEWS

## DETROIT AUTO SHOW SIGNALS TURNAROUND FOR INDUSTRY

Signs that the auto industry recovery is likely to continue this year are everywhere at the North American International Auto Show — massive two-story video screens, dozens of futuristic concept and previously unseen vehicles and thousands of car parts suppliers and vendors.

The industry's biggest annual confab looks to be glitzier and larger than in many years, driven by rising auto sales and financially healthier manufacturers.

Nissan, for example, is back after a three-year absence. The company plans to show off the direction it is taking with the next generation of its Pathfinder sport-utility vehicle.

"It has to do with the economy, there is no doubt," said Rod Alberts, executive director of the industry gathering, also known as the Detroit auto show.

The hometown auto companies are on a roll. The three big Detroit car makers all logged double-digit sales growth last year, helping to fuel a 10.3% increase in the auto industry's U.S. sales to 12.8 million vehicles, its best since 2008.

This year's show is expected to be notable for debuts of new versions of the Ford Fusion and the Honda Accord, two of the biggest sellers in the family car market.

There also will be the return of the Dodge Dart, the famous Chrysler Group nameplate last offered in 1976. This time it will have an Italian flair. The new Dart is based on the architecture of the Alfa Romeo Giulietta. Italian automaker Fiat owns Alfa Romeo and holds a controlling interest in Chrysler.

Luxury brands also will be making important

market and styling statements at the show.

General Motors' Cadillac division will unveil its new ATS sports sedan — the car it hopes will take on the BMW 3 series, the perennial leader in that market.

Lexus, the luxury arm of Toyota, will show off its LF-LC, a highly styled concept of an advanced hybrid sports coupe.

Designed by Toyota's Caltex Design Research studio in Newport Beach, the car is an example of the new styling direction of Lexus as it tries to put zip back in cars that at times have been criticized for conservative styling.

"This car symbolizes that next step, our passion for automobiles and where we want to go with Lexus," said Kevin Hunter, president of the design studio. "We want to be more bold."

He called it "sexy and aggressive" but noted that

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the vehicle is a design study and that there is no commitment to bring it into production. "But generally when we make concept cars we make them for a purpose." Hunter said.

The translation? Consumers might see LF-LC design cues — such as a full glass roof that fully opens over passengers and taillights inspired by a jet engine with its afterburner on — show up in future Lexus cars.

"We are changing," Hunter said, "and this car represents some of that change that is taking place and where we want to go. It has more exciting proportions. It has a bolder, more interesting design."

Lincoln, the luxury division of Ford, also wants to make a splash at the show. It will reveal a concept vehicle that will signal the styling DNA that the brand plans to weave into future models, starting with a new car that will be revealed sometime this year.

What it plans to show will give consumers a peek at the styling of the seven all-new or restyled vehicles Lincoln is scheduled to introduce over the next three years, said Max Wolff, the brand's design chief.

"What we need to do is mature Lincoln's identity," Wolff said. That's important because Lincoln has been seen as a has-been in the luxury market.

Sales peaked at nearly 232,000 vehicles in 1990 and have been on a long downward slide, selling less than 86,000 last year.

Wolff said the Lincoln concept car will make a bold statement. "The idea of doing a concept car is like a fashion show," he said. "It allows us to push the boundaries."

*Los Angeles Times, 1/9/12*

## **CANDIDATES SHOULD CONCENTRATE ON REBIRTH OF MANUFACTURING**

With the U.S. presidential election campaign upon us, it's a good time to begin looking at concrete proposals for reviving the U.S. economy and identifying a new engine for economic growth. The incumbent and all of his challengers could begin by focusing on what could be called a U.S. manufacturing renaissance.

Simply put, the United States must significantly increase the amount of stuff it makes, be it mobile devices, commercial jets or construction equipment. It's one obvious way we can extract ourselves from the decade-old pattern of economic stagnation and declining wages that threatens the continued existence of the American middle class.

Electronics technology fueled several generations of U.S. innovation and economic prosperity, but electronics manufacturing and the jobs it created are long gone. U.S. companies like Apple remain global leaders in consumer product design, but an economic revival requires domestic manufacturing jobs.

Some technology entrepreneurs are trying.

During a recent visit to XCOR Aerospace, an entrepreneurial company looking to send tourists to the edge of space and satellites into orbit, company co-founder Jeff Greason said he had a stack of engineering resumes on his desk and all the aeronautical engineers he could use. What the company needs, and what it is still unable to find, are machinists and electricians who can manufacture the guts of XCOR's rockets.

Like software engineers in Taiwan, machinists in the States are worth their weight in gold and can take their pick of high-paying jobs. A high school graduate with a lot more on the ball than this correspondent would ensure a bright future by taking up a vocation like welding or structural engineering.

A recent report about the growing need for workers with basic technical skills found that highly skilled airplane mechanics were being snapped up left and right by energy companies expanding their natural gas distribution networks. When those trained workers leave, it's difficult, if not impossible, to find replacements.

So why isn't the U.S. education system responding to this shortfall? One reason is that a growing number of strictly for-profit colleges are siphoning off as much as \$26 billion a year, according to Bloomberg, from U.S. student loan programs. In many cases, unsuspecting students are left with meager job prospects and crushing student loan debt.

One political reform would be closing loopholes in federal student loan programs that allow companies like Goldman Sachs to enter the tech school diploma racket. The Wall Street giant owns about 38% of Education Management Corp., parent company of the Art Institutes. The sole requirement for admission to AI and a growing list of for-profit colleges appears to be a pulse.

Fixing the student loan program would allow those funds to be more effectively used for vocational training programs that could create the next generation of skilled U.S. manufacturing workers.

The Obama administration paid lip service to manufacturing over the last three years as more

manufacturing jobs were shipped overseas. In December, the White House finally acted by creating a cabinet-level Office of Manufacturing Policy. Why did it wait this long? Is it mere coincidence that the initiative has arrived just as the administration is ramping its re-election campaign?

Policy makers within the administration "increasingly realize that a robust national recovery in the long term is impossible without a manufacturing sector," Rob Atkinson, president of the Information Technology and Innovation Foundation, told the Milwaukee Journal Sentinel. "It's taken a while for them to come to that conclusion, but I give them credit for getting this far."

If nothing else, creation of a White House manufacturing office will compel presidential candidates and policy-makers alike to get cracking on a viable national manufacturing policy. Whatever the election's outcome, America needs a coherent manufacturing plan that gets our engineers and technicians back to work.

*EE Times, 1/5/12*

## **GLOBAL SEMICONDUCTOR SALES CONTINUED DECLINE IN NOVEMBER**

The three-month average of worldwide sales of semiconductors was \$25.13 billion for the month of November 2011, a decrease of 2.4% from the prior month when the equivalent sales figure was \$25.74 billion, according to the US SIA (Semiconductor Industry Association) which was reporting figures from the World Semiconductor Trade Statistics organization.

On a year-to-date basis through November, worldwide semiconductor sales are just 0.8% higher compared to the same period last year, giving rise to the possibility that 2011 may end up being a recessionary year despite starting strongly in the first quarter.

All monthly data is given by the SIA as a three-month average although WSTS tracks actual monthly data. The SIA and other regional semiconductor industry bodies like to use the averaged data because it smoothes out the actual data that usually show troughs at the beginnings of the quarters and peaks at the ends of the quarters.

"Supply chain disruptions resulting from the floods in Thailand have impacted semiconductor sales in the near term, however OEM's are expected to recover production losses over the course of the

next few months," said Brian Toohey, president of the SIA, in a statement. "November sales were additionally affected by the continuing European financial crisis which is having a broad impact on other economies and global demand."

On a geographic basis the America's region, Europe and Japan all fell back sequentially by about the same percentage to \$4.59 billion, \$3.03 billion and \$3.82 billion respectively. The Asia-Pacific market, which is responsible for more than 50 percent of global chip purchases, fell back by higher percentage of 2.9% to \$13.70 billion, but was the only region that was ahead on an annual comparison.

*Electronic News, 1/4/12*

## **U.S. EXPORTED RECORD AMOUNT OF REFINED FUELS DURING 2011**

U.S. refineries exported a record amount of refined fuels in 2011 to markets in South America, Central America and Europe. It was one reason why Americans spent a record amount on gasoline this year: Supplies that might have helped lower prices here had been shipped abroad.

In 2007, U.S. exports of all kinds of fuel held steady throughout the year at 1.24 million to 1.25 million barrels a day, according to Energy Department statistics.

But by 2011, exports of diesel, gasoline and other products surged. In November and December, U.S. fuel exports averaged between 2.77 million and 2.89 million barrels a day, the highest ever.

Meanwhile, U.S. drivers paid an average of about \$3.50 a gallon for gasoline during the year, also the highest ever.

At year's end, Californians were paying an average of \$3.602 for a gallon of regular gasoline, 28.7 cents a gallon more than they have ever paid on a December 30, according to the AAA Fuel Gauge Report. Nationally, the average cost for a gallon of regular was \$3.269, or 19.8 cents a gallon more than ever on a December 30.

The trend was predicted as early as January, when two analysts with the Energy Department's Energy Information Administration delivered a presentation to the 2011 Argus Americas Crude Summit in Houston.

Joanne Shore, lead operations research analyst at the Energy Information Administration, and colleague John Hackworth said that U.S. refineries had found thriving and lucrative markets overseas for

their products, even as they were shutting down domestic facilities because of low demand.

Their main points: "World growth in distillate fuels" demand had "provided some attractive export opportunities for U.S. refiners" and U.S. low-sulfur diesel products were coveted in Europe, which had been more dependent on higher-sulfur fuel coming out of Russia. U.S. Gulf Coast markets also were far closer to South and Central American markets than distant European competitors.

*Los Angeles Times, 1/2/12*

## **SLOW GROWTH FORECAST FOR SEMICONDUCTOR REVENUE**

Semiconductor revenue is forecast to grow by zero to 4% in 2012, after likely growing about 1% to 2% in 2011, according to a Wall Street analyst.

"We maintain our positive stance on semis, with the vision that the recovery will be more of a 2H12 story led by a trough in 1Q12, with depleted inventories thereafter setting up for semi growth in 2H12 that should outpace end markets," said CJ Muse, an analyst with Barclays Capital.

Muse said his firm's estimate of flat to 4% sequential growth for the semiconductor industry in 2012 is in line with to slightly lower than expected worldwide GDP growth.

Barclays' forecast for chip growth is slightly lower than the firm's previous forecast for 2012, which called for growth of 2% to 5% for the year. Muse said. According to Muse, the downward revision was made to reflect the ongoing inventory adjustment lasting into the first quarter of 2012 and estimated worldwide GDP growth of 3.3% expected for the year.

Muse's forecast for chip industry growth in 2012 is consistent with what large market research firms have said in recent weeks.

Late last year, Gartner forecast that semiconductor revenue would grow 2.2% in 2012 after growing about 1% in 2011. In November, IHS iSuppli said it expects semiconductor sales to grow 3.2% in 2011.

Muse said Barclays' analysts continue to expect that sales of front end wafer equipment will decline 5% in 2012.

*EE Times, 1/4/12*

## **ISM INVESTS IN CONSULTING FIRM ADR NORTH AMERICA**

The Institute for Supply Management (ISM) has taken a significant step to amplify its capacity for delivering customized professional development, consulting and skills assessments to the world's leading companies and supply management organizations. ISM has invested in the consulting firm ADR North America (ADR NA).

ADR NA will continue to operate under its own name, providing a full range of supply management consulting, including baseline assessments, transformations of supply management operations, coordination of procurement across enterprises, risk management, category strategies and other related services.

ISM and ADR NA have been partners for three years in a successful joint venture, the ISM-ADR School for Supply Management, which provides a broad range of professional development courses delivered in a variety of formats and native languages around the world. Last year, ISM and ADR NA established a permanent training location in China.

As ISM and ADR North America unite to create a new business entity, ADR North America CEO Bill Michels will continue in his role as president of ADR NA and president of ADR-ISM Supply Chain Management Consulting (Shanghai), and he has also been named a senior vice president of ISM.

To execute its investment, ISM has established the for-profit company ISM Services, Inc. ADR North America will operate as a subsidiary of ISM Services, as will ADR-ISM Supply Management Consulting (Shanghai). ADR North America and ADR-ISM Supply Management Consulting (Shanghai) will continue to be licensees of ADR International, the U.K.-based global consulting firm.

*EBN, 1/5/12*

## **MINDSPEED ACQUIRES CELL CHIPSET COMPANY PICOCHIP FOR \$51.8 MILLION**

Mindspeed Technologies, a fabless networking chip company has agreed to acquire PicoChip, a provider of chipsets for cellular communications such as femtocell base stations, for \$51.8 million.

There is an "earn-out" clause that could increase the deal value by \$25 million on the achievement of certain unspecified milestones and the earn-out is

payable in the first quarter of calendar 2013.

The deal as currently structured is based on a mixture of \$27.5 million in cash and 5.19 million new shares of Mindspeed common stock.

The deal will create an enlarged Mindspeed (Newport Beach, California) with a 70% market share in 3G/HSPA small cell basestation market and a good pipeline in LTE small cell market, Mindspeed said in a note to investors.

However, the deal would appear to represent a damage limitation exercise for venture capital investors in PicoChip.

PicoChip was founded in 2000 and applied a highly parallel DSP approach to basestation standards implementation. Since then the company is thought to have received more than \$100 million from venture capital firms and strategic investors. These include: Atlas Venture, Highland Capital Partners, Pond Venture Partners, the Rothschild Group, Scottish Equity Partners, AT&T, Intel, Intel Capital and Samsung Ventures America. The company raised about \$20 million in series E round of finance announced in June 2010.

The deal has been approved by both boards of directors and is expected to close in the first quarter of 2012, subject to customary and other closing conditions.

*EE Times, 1/5/12*

## **NOKIA BUYS NORDIC OS DEVELOPER**

Nokia has bought mobile phones software developer Smarterphone AS (Oslo, Norway), for an undisclosed sum.

Smarterphone was founded as Kvaleberg AS in 1993 and has developed an integrated operating systems and software application suite for mid- and low tier mobile phones (feature phones) known as Smarterphone OS.

The acquisition was revealed by Smarterphone investor Ferd Capital.

The Smarterphone OS is reported to be an advance on what Nokia has in terms of Symbian and is able to offer certain in-demand software features, such as Facebook, Twitter and YouTube uploads on low-end hardware platforms.

Ferd had invested about 5.6 million euro (about \$7 million) by January 2011.

*EE Times, 1/9/12*

## **BELDEN BIDDING STRONGLY FOR ACQUISITION OF RUGGEDCOM**

Since late December, Belden and harsh-environment networking-product manufacturer RuggedCom have been involved in an exchange that Belden refers to as an acquisition offer and RuggedCom refers to as a hostile-takeover attempt.

On December 19 Belden announced its intention to make an all-cash offer for RuggedCom at C\$22 per share. Belden president and chief executive officer John Stroup described the offer as, "compelling in that it provides certainty of value and immediate liquidity at an attractive premium for RuggedCom's pre-offer share price."

RuggedCom responded the same day saying that it, "cautions its shareholders that Belden has not made a formal offer and no action is required by RuggedCom shareholders [at that time]. RuggedCom recommends that shareholders take no action until shareholders have received further communications from RuggedCom's board of directors."

RuggedCom later developed a shareholder rights plan that, in practicality, placed conditions on any acquisition offer and allows RuggedCom to seek alternative offers. Then on January 4, RuggedCom's board of directors recommended that shareholders reject Belden's bid and Belden reaffirmed its original, C\$22-per-share offer.

RuggedCom is headquartered in Concord, Ontario, Canada. It produces a range of industrial-grade networking products that serve industries including electrical power, petroleum refining, military, transportation and metals processing among others. Specific products it manufactures include an IEC 61850-3-compliant Ethernet switch suitable for use in electric utility substation environments and IEEE 1613 Class 2 error-free communications devices.

*Connector Specifier, 1/9/12*

# 2

## MANUFACTURER NEWS

### RIVALS SCRAMBLE AS RUMORS OF APPLE TV PERSIST AT CES

At the Consumer Electronics Show, models walked around with large, lightweight flat-screen television sets showing vivid nature scenes, executives waved next-generation "magic" remote controls and audiences were treated to demonstrations of massive, wall-size TVs.

On Wall Street, Apple pulled off its own TV trick as its stock hit a record high.

Though the iPhone maker didn't attend the CES, Apple cast a huge shadow over the world's largest personal electronics show as rumors continued to spread that it had its own TV in the works.

The possibility of an iTV that could upend the industry much the way Apple upset the music and computer business is causing major TV companies such as Samsung Electronics, LG Electronics and Sony to scramble to come up with the next big thing in home entertainment.

"The TV hasn't gone quite through the big revolutionary change that we've seen on those other screens" such as cellphones and computers, said Shaw Wu, an analyst at Sterne Agee. "These other players are trying to jockey for position ahead of Apple."

But not many industry observers have been impressed with the preemptive efforts to undermine Apple's possible move into the TV-making business.

"They're just throwing spaghetti up against the wall right now," said Peter Misek, an analyst at Jefferies & Co. "I think Apple's going to force a big change in the industry — and it's hard for the companies to respond when they don't know what iTV looks like yet."

Apple has declined to comment, citing company policy against responding to rumors.

Speculation about Apple's TV plans took off in October when a biography of Steve Jobs suggested that Apple's late co-founder believed he had "cracked" the code to creating a next-generation TV set that is "completely easy to use."

Analysts have guessed that the Apple TV would feature voice-control technology reminiscent of the iPhone 4S' Siri feature, which can understand a large number of spoken commands and can help consumers look up information online, send emails and find recommended restaurants close by.

Others have also suggested that Apple, which does not attend the CES, would build a TV that recognized users' physical gestures, enabling them to select shows and browse the Web simply by making movements with their hands.

But few of the major TV manufacturers were able to demonstrate voice commands or gesture recognition systems on their 2012 sets, leaving critics with the feeling that the industry was spinning its wheels, waiting for Apple to make the next move.

As the CES opened, LG showed off its "Magic Remote," a device with few buttons that resembles a Nintendo Wii controller — enabling the viewer to point at and select different images and buttons on the screen.

Sharp's Aquos Freestyle flat-screen TVs get their signal wirelessly and are light enough to be carried around the home, as the models who paraded down a showroom runway demonstrated.

Samsung showed off a new line of smart television sets with a suite of games and Web applications built in. The company, a major rival of Apple's in both smart phones and tablets, hinted at a gesture-and-voice-control system for its upcoming TVs but did not show off those features.

Vizio unveiled three new high-definition sets that feature Google TV, the search giant's TV navigation software that will also run on TVs from Samsung and LG. The sets comes with dozens of built-in apps that users can use on screen to fetch sports scores, watch movies and play games.

*Los Angeles Times, 1/10/12*

## **SAMSUNG GAINS PERMISSION TO BUILD WAFER FAB IN CHINA**

Samsung Electronics has received permission from the South Korean Ministry of Knowledge and Economy to build a NAND flash memory wafer fab in China with the proviso that the ministry provides security support to prevent technology leaks, according to reports referencing the ministry as their source.

It emerged late in 2011 that Samsung was seeking permission to spend about \$4 billion on a NAND flash memory wafer fab in China and get it up and running in second half of 2013. The plan calls for the fab to begin production on a 20-nm class process. The location of the wafer fab has not yet been decided.

The ministry made the decision after holding two meetings of its industrial technology security committee to assess the risk of technology leaks.

The 300-mm wafer fab is scheduled to have a manufacturing capacity of 100,000 wafer starts per month, which would make it about half the size of Samsung's Line-16 megafab, the world's largest memory factory.

The Line-16 megafab is expected to eventually produce NAND flash on 200,000 wafers of 300-mm diameter monthly and the phased investment is expected to total approximately 12 trillion won (about \$10 billion) to completion. Samsung began mass production of 20-nm-class NAND flash memory there at a rate of about 10,000 300-mm wafers per month in September.

Samsung wants to build the NAND flash chip factory to be near to the contract electronics manufacturers that make the world's smart phones and tablet computers, which often have their own megafactories in China for reasons of cost.

Market research firm Gartner has estimated the global NAND flash market at about \$25 billion in 2011 and is forecasting 14% annual growth in each of 2012 and 2013 to take the market to \$28.7 billion and \$32.7 billion, respectively.

*EE Times, 1/4/12*

## **AMD SUED OVER FAULTY CHIPS**

Quanta Computer, a Taiwanese contract manufacturer of notebook computers, has filed a lawsuit against Advanced Micro Devices (AMD), alleging

breach of contract and saying AMD sold defective products, according to a report by the Bloomberg news service.

The suit, filed in U.S. federal court in San Jose, California, alleges that chips sold by AMD and its ATI Technologies didn't meet specified heat tolerances, according to the report. The chips were allegedly used in notebook computers Quanta made for NEC and caused the computers to malfunction, according to the report, which cites the court filing.

Quanta is seeking a jury trial and unspecified damages, according to the report. The suit also claims breach of warranty, negligent misrepresentation, civil fraud and interference with a contract, according to the report.

*Bloomberg News, 1/4/12*

## **SATCON TECHNOLOGY SLASHES 35% OF COMPANY WORKERS**

Satcon Technology became the latest U.S.-based solar power equipment maker to slash jobs, announcing a set of cost reductions that include cutting 140 jobs, or about 35% of the company's total work force, and the closure of its Canadian manufacturing facility.

Satcon (Boston), which markets photovoltaic inverters, said it is working to partner with a contract manufacturer to maintain production in Ontario, Canada, in order to satisfy Ontario's feed-in tariff requirements. The company said it has restructured its office and warehouse infrastructure in Europe, China and the United States to reduce costs and better align with market conditions.

The work force reduction and closure of the Canadian facility would result in charges of about \$2.8 million to \$3 million. The majority of the charges are expected to occur in the fourth quarter of 2011, with the remainder taking place in the first quarter of 2012, Satcon said. The company expects ongoing savings of approximately \$15 million to \$17 million per year once all actions are implemented by the second quarter of 2012, it said.

Photovoltaic inverters convert the variable DC output from photovoltaic modules into AC current for use in the electrical grid. In recent months, a number of U.S.-based manufacturers of solar panels have cut jobs due to a difficult business environment and stiff competition from China-based firms.

Satcon said it is also currently analyzing its inventory and certain non-cancelable supplier-held

inventory, and will write down the value or take a charge to reflect current market conditions. This will result in expected charges during the fourth quarter of 2011 of approximately \$20 million to \$26 million, with the majority of the charges comprised of non-cash items. These charges were not anticipated when the company provided its fourth quarter 2011 guidance, Satcon said.

"The worldwide solar market conditions in 2011 demonstrated the dynamic nature of this maturing industry," said Steve Rhoades, Satcon's president and CEO, in a statement. "The compounding effects of reduced panel costs and market demand shifts toward North America and Asia have forced the entire industry to adjust as we enter the next phase of development."

But Rhoades said decreasing panel prices present a significant opportunity for Satcon, with the demand for its large-scale inverter solutions nearly doubling in North America and Asia year-over-year. He said the measures announced by Satcon would help ensure that the company achieve the financial strength required to maintain its leadership position in large scale inverter systems.

*EE Times, 1/4/12*

## **APPLE PATENTS MAGNETIC DC POWER CONNECTOR**

Apple recently received a Granted Patent covering its MagSafe connector and power adapter. As shown in the patent figures (below), Apple's proposed 60 Watt MagSafe Power Adapter reportedly "features a magnetic DC connector that ensures that the power cable will disconnect if it experiences undue strain, and helps prevent fraying or weakening of the cables over time. In addition, the magnetic DC helps guide the plug into the system for a quick and secure connection."

According to the report, the patent claim in question specifies: A first connector comprising: a first plurality of electrical contacts, the first plurality of electrical contacts to mate with a second plurality of electrical contacts when the first connector couples to a second connector, wherein the first plurality of electrical contacts consisting of a central contact to convey a signal, two contacts to convey a power supply, one contact on each side of the central contact, and two contacts to provide a return path, one contact on each side of the central contact.

When the first connector couples to the second

connector, the first and second plurality of electrical contacts define a corresponding plurality of electrical paths; and a magnetic element, the magnetic element to mate with a plurality of magnets in the second connector that are proximally located and arranged in opposing polarities with respect to each other so that when the first connector is brought in close proximity to the second connector, magnetic field lines travel through the magnetic element of the first connector from one of the plurality of magnets in the second connector to another one of the plurality of magnets in the second connector.

*Connector Specifier, 1/9/12*

## **INTEL, MOTOROLA FORGE MOBILITY PARTNERSHIP**

Intel and Motorola Mobility have announced that the two companies are entering into a multi-year, multi-device strategic relationship that includes smart phones which Motorola will begin shipping later this year using Intel Atom processors and the Android platform.

The collaboration, which also covers tablets, will combine Intel's leadership in silicon processor technology and computing innovation with Motorola's mobile device design expertise to deliver products that have the high performance, long battery life and convenience necessary for increasingly mobile lifestyles.

"When great silicon and software technology meets great mobile and design innovation, amazing things can happen," said Intel President and CEO Paul Otellini. "Our long-term relationship with Motorola Mobility will help accelerate Intel architecture into new mobile market segments. We expect the combination of our companies to break new ground and bring the very best of computing capabilities to smartphones and tablets, which in turn will help to create powerful new experiences that connect and enrich people's lives wherever they may be."

"We are delighted to be partnering with Intel to deliver smart phones and tablets based on Intel's Atom processor to consumers and businesses," said Sanjay Jha, chairman and CEO, Motorola Mobility. "Though there are five billion mobile subscribers in the world, less than 800 million are using a smart phone today. With Android as the leading smart phone OS globally and advancements in computing technology we see tremendous opportunity for the converged devices market."

Smart phones and tablets are quickly becoming an indispensable part of people's daily lives -- making them constant companions. The strategic relationship between Intel and Motorola Mobility will expand opportunity for continued innovation in these areas as they work closely to leverage Intel's low power system-on-chip (SoC) road map for Motorola Mobility's converged mobile device portfolio.

The companies will collaborate across hardware, software and services to deliver complete solutions and disruptive new user experiences that offer long battery life, increased computing performance, advanced imaging and video capabilities, and seamless wireless connections.

*EBN, 1/12/12*

## **IBM, GLOBALFOUNDRIES SIGN MANUFACTURING PACT**

GLOBALFOUNDRIES and IBM have announced an agreement to jointly manufacture advanced computer chips at both companies' semiconductor fabs in New York's "Tech Valley." The new products recently began initial production at IBM's 300mm fab in East Fishkill and GLOBALFOUNDRIES' Fab 8 in Saratoga County, and are planned to ramp to volume production in the second half of 2012. The chips are the first silicon produced at GLOBALFOUNDRIES' newest and most advanced manufacturing facility.

The chips are based on IBM's 32nm, Silicon-on-Insulator (SOI) technology, which was jointly developed with GLOBALFOUNDRIES and other members of IBM's Process Development Alliance with early research at the University at Albany's College of Nanoscale Science and Engineering.

The technology vastly improves microprocessor performance in multi-core designs and speeds the movement of graphics in gaming, networking, and other image intensive, multi-media applications. The SOI process was used to build the microprocessor that powered IBM Watson, the question-answering computer that won the Jeopardy quiz show in early 2011.

GLOBALFOUNDRIES' new Fab 8 campus, located in the Luther Forest Technology Campus about 100 miles north of the IBM campus in East Fishkill, stands as one of the most technologically advanced wafer fabs in the world and the largest leading-edge semiconductor foundry in the United States. When fully ramped, the total clean-room

space will be approximately 300,000 square feet and will be capable of a total output of approximately 60,000 wafers per month. Fab 8 will focus on leading-edge manufacturing at 32/28nm and below.

The companies' 32/28nm technology uses the same "Gate First" approach to High-k Metal Gate (HKMG) that has reached volume production in GLOBALFOUNDRIES' Fab 1 in Dresden, Germany. This approach to HKMG offers higher performance with a 10-20% cost saving over HKMG solutions offered by other foundries, while still providing the full entitlement of scaling from the 45/40nm node.

The new chips also will feature IBM's eDRAM (embedded dynamic random access memory) technology, which dramatically improves on-processor memory performance in about one-third the space with one-fifth the standby power of conventional SRAM (static random access memory). IBM chips are at the heart of the company's server and storage systems, the world's fastest supercomputers and many of the best-known and widely used communications and consumer electronics brands.

*EBN, 1/12/12*

## **ARROW COMPLETES SEED PURCHASE**

Arrow Electronics has announced the successful completion of the acquisition of all of the assets and operations of the distribution business of Seed International.

Seed is headquartered in Beijing, China, and has approximately 200 employees, with 100 in value-added engineering. The company's sales for the latest fiscal year were approximately \$90 million.

Arrow Electronics is a global provider of products, services and solutions to industrial and commercial users of electronic components and enterprise computing solutions. Arrow serves as a supply channel partner for over 1,200 suppliers and 115,000 original equipment manufacturers, contract manufacturers and commercial customers through a global network of more than 340 locations in 52 countries.

*EBN, 1/4/12*

# 3

## DISTRIBUTOR NEWS

### LATTICE TRANSFERS MILITARY DRAWING PRODUCT LINE TO ARROW ELECTRONICS

Lattice Semiconductor has announced the transfer of its Standard Military Drawing (SMD) product portfolio to Arrow Electronics, effective immediately.

Lattice's SMD products include the GAL family (GAL16V8, GAL20V8 and GAL22V10) of simple PLDs and the ispLSI1000 family (ispLSI 1016, ispLSI 1024, ispLSI 1032 and ispLSI 1048) of complex PLDs. Lattice's SMD products were formally discontinued by Lattice via its Product Change Notification (PCN) process in 2011. A copy of PCN 05A-10 can be found here. By transferring the SMD product family to Arrow Electronics, Lattice SMD customers now have a new supply channel that can support the ongoing demand for these popular devices.

Arrow Electronics has a strong history of providing support for discontinued SMD products, and supports a broad array of military-grade products in the Programmable Logic, Memory and Analog market segments.

"This agreement and others like it make it possible for Arrow to fulfill our commitment to long-term support for our aerospace and defense customers. By acquiring finished goods, die-level products, and the necessary test equipment, Arrow Electronics will support delivery of these critical components for many years to come," said Tyler Moore, director of supply assurance for Arrow Electronics.

"This is great news for Lattice customers, who now have an ongoing source of supply for the SMD versions of the GAL and ispLSI 1000 device families," said Steve Stark, Lattice's Director of Business Group Operations. "Importantly, this new source of supply is Arrow Electronics, an industry leader in the support of discontinued products to the military marketplace."

*EBN, 1/4/12*

### TT INTERCONNECT LINKS WITH PAN PACIFIC FOR QUADRAX

TT Interconnect Solutions announced that it has partnered with distributor Pan Pacific Electronics to offer its advanced Quadrax connector family with reduced lead times.

Pan Pacific Electronics, a global aerospace distributor, has carried the ITT Quadrax product line since November 2011. The Quadrax product family includes ARINC 600 connectors and Mil-DTL-38999 connectors, in addition to insulators, connector assembly kits, shells, pins, sockets and crimps.

"Pan Pacific Electronics has established itself as a premier distributor within the military and aerospace marketplaces. We have enjoyed a solid 10-year relationship with Pan Pacific Electronics, and we look forward to working with them to better serve our mutual customers by reducing lead times of Quadrax product now stocked by Pan Pacific Electronics," said James Herman, VP of sales at ITT Interconnect Solutions.

ITT's BKA Series meets the performance requirements of ARINC 600. The BKA Series connectors feature size-eight rear-release crimp pin and socket Quadrax contacts, and size-eight front-release PC pin Quadrax contacts that provide ease of repair. The crimp contacts terminate to 100-ohm Star Quadrax cable.

The size-two and -three connectors can accommodate from 28 to 56 Quadrax contacts. The ARINC 600-designed BKA Series connectors feature Quadrax contacts keyed to an Ethernet-specific aluminum insert. Mix and match inserts allow signal, power and Ethernet connections.

ITT's KJAQ Series connectors are MIL-DTL-38999 qualified and feature a metal housing that prevents insulator damage. Utilizing Quadrax technology in the rear-release crimp pin and socket contacts, as well as the front-release PC pin

contacts, the KJAG Series connector is 100% scoop-proof, which allows for blind mate situations. A variety of layouts are available including special/custom capabilities.

*Connector Specifier, 1/5/12*

## **HEILIND BUYS BRAZILIAN FIRM**

Heilind Electronics, North America's largest distributor of electronic interconnect products, has announced the acquisition of Kotek Eletro Eletronica, a leading distributor of electronic components in Brazil.

Kotek is a privately held company serving electronics OEMs and contract manufacturers from its Sao Paulo headquarters.

"We at Kotek are excited to be joining Heilind Electronics, the world's leading distributor of connectors and electromechanical products," said Carlos Oliva, Kotek Director. "We look forward to offering Heilind's best-in-class inventory and supply chain solutions to Kotek's customers."

*EBN, 1/6/12*

## **DIGI-KEY AND MICROSEMI EXPAND DISTRIBUTION PACT**

Electronic components distributor Digi-Key Corporation has expanded its distribution relationship with Microsemi to include programmable logic solutions including the company's SmartFusion customizable system-on-chip (cSoC) products, low-power field programmable gate arrays (FPGAs), and related evaluation boards.

"Digi-Key is pleased to offer Microsemi's comprehensive portfolio of cSoCs and FPGA solutions to our global customer base," said Mark Zack, vice president of semiconductors at Digi-Key. "Microsemi has a legacy of innovation and leading edge programmable logic solutions. We're delighted to provide our customers top-of-line innovations essential to aerospace, defense and security, enterprise and communications, and industrial and alternative energy markets. SmartFusion and IGLOO are just a few of the products that Digi-Key will be stocking to support these markets."

"Digi-Key's Internet-based distribution model provides engineers worldwide with quick access to our SoC solutions and online support information," said Michael G. Sivetts III, senior vice president of

Distribution Sales for Microsemi. "This is extremely important when designing new products in applications where time-to-market is a gating success factor. We look forward to continuing our relationship with Digi-Key and enhancing the availability of our solutions to procurement professionals and engineers globally."

Microsemi's products include individual components, integrated circuit solutions as well as low power FPGAs and mixed signal FPGAs that enhance customer designs by improving performance and reliability, battery optimization, reducing size or protecting circuits. The principal markets the company serves include implanted medical, defense/aerospace and satellite, notebook computers, monitors and LCD TVs, automotive and mobile connectivity applications.

Microsemi SoC's product lines are available for purchase now on Digi-Key's Programmable Logic page and on Digi-Key's global websites.

*EBN, 1/6/12*

## **PAN PACIFIC ELECTRONICS STOCKING ITT'S RUGGED QUADRAX CONNECTORS**

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*Connector Specifier, 1/6/12*

## **AVNET OFFERS ILS PRODUCTS**

Avnet Embedded, a division of Avnet Electronics Marketing Americas, a business region of Avnet, has announced the addition of ILS Technology to its Americas offering. Avnet Embedded will carry the ILS Technology device WISE M2M Deployment Kit and device WISE M2M Application Platform.

As the growth of intelligent systems continues to rise, utilization of machine-to-machine (M2M) connectivity will become even more pronounced. Avnet Embedded can now provide customers with a means for edge-to-enterprise enablement across various devices and through the cloud.

The device WISE M2M Deployment Kit (powered by the Intel Atom processor) enables customers to quickly implement monitoring and predictive maintenance applications that securely connect and intelligently exchange data instantly from devices to existing enterprise applications. All of this on a global scale with no custom programming required.

*EBN, 1/9/12*

## **RALTON, CCI SIGN AGREEMENT**

Raltron Electronics has completed an agreement appointing CCI-Commodity Components International as an authorized Raltron distributor throughout the globe.

In announcing this appointment, Sasha Wolloch, Raltron President, comments, "Our agreement with CCI, a distributor with offices strategically located

around the world marketplace, provides Raltron with an ever widening window to the customers we seek to serve; not only in North America, but also in Asia, and particularly Europe."

Eric Gervais, CCI's CEO, responds that "Raltron, with its complete range of frequency components, fits perfectly with our strategy to engage deeply with a few leading passive component lines, allowing us to cultivate and expand our relationships with some of the world's largest OEMs and CEMs."

*EBN, 1/12/12*

## **AVNET UNVEILS BRILLIANT DIGITAL SIGNAGE SUITE**

Avnet Electronics Marketing Americas and Avnet Technology Solutions Americas, both business regions of Avnet, have introduced Brilliant Digital Signage Suite of Services, a complete package of digital signage solutions. Combining Avnet's hardware, software and technical expertise, Avnet's Brilliant Digital Signage Suite of Services offers original equipment manufacturers (OEMs) and value-added resellers (VARs) complete end-to-end solutions for propelling digital display projects to market faster - turning everyday digital signage into results-generating marketing solutions for end customers.

By 2015, Intel estimates that approximately 22 million digital signs will be powered by 10 million media players globally\*. Retail and "quick-serve" restaurants are just two of the market areas fueling this growth for digital signage. To generate impactful results from all of those digital displays, marketers will need to engage with technology experts to find innovative ways to leverage this growing technology to reach consumers.

Avnet will showcase several interactive demos of the latest digital signage technology at booth #359 during the 101st NRF conference, the National Retail Federation's annual conference and expo at the Jacob K. Javits Center in New York City, January 15-18. Avnet's Digital Signage group -- representing Advantech, CopiaMobile, Intel, Planar, Real Digital Media and Samsung EBD -- will be joined by IBM and key Avnet solution provider partners.

*EBN, 1/12/12*

# 4

## PEOPLE IN THE NEWS

### HURD'S HARASSMENT CHARGES REVEALED; NO THREAT TO ORACLE JOB

A letter detailing allegations of sexual harassment against former Hewlett-Packard Chief Executive Mark V. Hurd is renewing interest in the year-old scandal but is not expected to hurt his position at Oracle.

The content of the June 2010 letter, which eventually led to Hurd's ouster from HP, was disclosed after a federal judge in Delaware ruled that releasing the letter would not violate Hurd's privacy rights.

Prepared by Los Angeles attorney Gloria Allred, the letter chronicles Hurd's alleged efforts to woo Jodie Fisher, an event hostess and actress. Fisher alleged in the letter that Hurd had used his position and expense account at HP in repeated attempts to lure her into a sexual relationship.

Hurd left HP in August 2010 after the allegations surfaced, and was quickly hired by Oracle, a Silicon Valley technology firm and HP rival. At the time, Oracle Chief Executive Larry Ellison publicly mocked rival HP for what he called "the worst personnel decision since the idiots on the Apple board fired Steve Jobs" in 1985.

Ellison's stalwart support of Hurd meant that the details of the allegations, which probably were known to Oracle at the time, are not likely to substantially interfere with Hurd's work at Oracle, industry analysts said.

"His boss hired him because he saw a huge opportunity to get a good businessperson," said Robert Breza, an analyst at RBC Capital Markets. "Will (Hurd) lose face in front of some of his colleagues for the salacious allegations? Probably. But in the real world, does it affect his business decisions? No."

The letter's account of Hurd's relationship with Fisher covers a period of years, and includes details about how Hurd allegedly discovered Fisher after seeing her on a reality television show in 2007, and making arrangements to offer her a job hosting half a dozen HP events in exchange for \$30,000.

But, the letter alleges, the lucrative deal was Hurd's way of getting close to Fisher.

"It is clear you had designs to make her your lover from the onset using your status and authority as CEO of HP and HP monies," Allred wrote in the letter, which was obtained by the Associated Press.

Amy Wintersheimer, an attorney for Hurd, said in a statement that the letter was "filled with inaccuracies" and that Fisher acknowledged that it was. Wintersheimer also noted that in its own investigation, HP concluded that no sexual harassment had taken place.

"The truth is, there never was any sexual harassment," Wintersheimer said, "and there never was any sexual relationship, which Ms. Fisher has confirmed." Allred declined to comment.

The letter describes scenes in which Hurd allegedly asked Fisher, a former Playboy model, to his hotel room on the pretense of discussing business, but then touched her inappropriately and attempted to persuade her to spend the night.

"This began an uncomfortable dance that went on for nearly two years," the letter said, a period in which Fisher allegedly avoided Hurd's advances while still attempting to hold onto her well-paying position.

During that period, the letter alleged, Hurd often tried to cajole and impress Fisher, including by bragging about his other extramarital relationships, and by once showing Fisher that his checking account contained "over a million dollars."

At another point, the letter said, Hurd told Fisher that he regularly made personal endowments of up to \$30,000 to various promising athletes. Fisher deemed such gifts to be "inappropriate," the letter said.

The letter also claimed that Hurd once disclosed to Fisher details of a secret business negotiation in which HP was attempting to buy a technology company called EDS for close to \$14 billion, a deal HP announced later that year. According to the San

Jose Mercury News, that allegation triggered a review by federal authorities, but no information has been made public about whether the advance information was used to make illicit stock profits.

*Los Angeles Times, 1/2/12*

## **ENGINEERS ARRESTED FOR SELLING INTEL TEST CPUS ON EBAY**

Four engineers have been arrested by Taiwan's Criminal Investigation Bureau (CIB) for allegedly selling off Intel CPU samples on eBay for personal financial gain.

The CIB released a statement saying the four, confirmed to be engineers working for Intel's OEM manufacturers in Taiwan, had been apprehended in the city of Taoyuan.

Detectives had been tracking the suspects since September, conducting a raid on their homes last month, taking 178 sample CPUs – worth an estimated \$82,500—into police custody.

According to the CIB's statement, the suspects admitted to selling more than 500 Intel engineering sample CPUs since 2009.

The samples, of the sort usually sent out to OEM manufacturers before commercial releases, were beta version integrated circuits designed for compatibility qualification tests, the CIB said.

Engineering samples are the sole property of Intel and are produced and provided to Intel customers for product research and development purposes only. Intel's customers are required to either return them to Intel or ensure that the engineering samples are destroyed.

Being engineering samples, the CPUs were sometimes of a rare type, said the CIB, making them all the more desirable to tinkerers looking for chips with unlocked multipliers.

The Taiwanese agency is now strongly urging people not to buy any more of the engineering sample CPUs online and reminded engineers thinking of running similar profit schemes that they could face up to five years in prison if caught.

*EE Times, 1/4/12*

## **EX-EDISON CEO BRYSON FACING**

## **CHALLENGES AS COMMERCE CHIEF**

John Bryson knows what it's like to be in crisis mode.

His 18-year stint as chief executive of Edison International included a tumultuous stretch a decade ago when he fought to keep the company afloat during the California electricity crisis.

Now, as the nation's newly installed Commerce secretary, Bryson, 68, faces major challenges amid the slow economic recovery.

At home, he must try to convince skeptical corporate executives that the Obama administration is not anti-business. Abroad, Bryson must find a way to boost U.S. exports and contend with China, where the government's currency policies and recently enacted auto tariffs have heightened trade tensions between the two economic superpowers.

Bryson took office in late October over some Republican opposition stemming from his environmental views. He was a co-founder of the Natural Resources Defense Council in 1970, supported a 2009 House bill to address climate change through a cap-and-trade system and led green initiatives at Edison.

Within weeks of being sworn in, Bryson accompanied President Obama to meet key world leaders at the Asia-Pacific Economic Cooperation summit in Hawaii. From there Bryson headed to China on a trade mission.

*Los Angeles Times, 1/3/12*

## **FLEXTRONICS PROMOTES LINTON**

Flextronics announced that it has appointed Tom Linton, chief procurement officer for the Company. In his role, he is responsible for managing and optimizing Flextronics' global supply chain activities in 30 countries, overseeing a worldwide team of highly skilled professionals who are experienced in the discipline.

With over 30 years of professional experience, Linton is an internationally recognized, supply chain leader. Previously, he has served as Chief Procurement Officer at LG Electronics, Freescale Semiconductor and Agere Systems. He was also a founding vice president of E2Open.

*EBN, 1/12/12*

# 5

## GENERAL INDUSTRY NEWS

### CONSUMER ELECTRONICS SHOW GETS OFF TO A FLYING START

In a buzzing Las Vegas showroom, people are controlling computer screens with their eyes. They're driving radio-controlled cars with their iPhones. And they're listening to Bob Marley through the speakers of 2012's equivalent of the ghetto blaster: a light, high-end stereo built into an over-the-shoulder canvas tote dubbed the Bag of Rhythm.

Yes, the play button has been pressed on this year's Consumer Electronics Show.

One of the largest trade shows in the world, CES kicked off with a media preview of coming trends in circuitry and software, with dozens of firms large and small hosting booths competing to win oohs and ahs for their latest innovations.

Heard of gaze interaction? That's a new technology that tracks a user's eye movements, enabling them to scroll through documents, play video games and navigate the Web using just their eyes and without ever touching a mouse. The technology tracks the precise spots on the screen where users are looking, and enables them to perform tasks depending on how long their gaze lingers there.

At the booth of Sweden's Tobii Technology, which makes the eye-tracking software, a conference-goer played a souped-up version of the classic spaceship video game Asteroids.

"Just look at the asteroid and your ship will shoot at it," said Sara Hyleén, a marketing manager for Tobii.

A visitor to the booth did as instructed, and a split second later, space rocks on the screen exploded into fiery smithereens.

This year, more companies are marketing the idea of an intelligent home, in which residents can connect their thermostats, garage doors and appliances to the Internet to automate energy use. Once your home is online, the firms will track your domestic habits, such as when you use the heat and air conditioning, when you shower and turn on lights, to help you waste as little energy as possible.

Allure Energy is marketing a "wireless energy

network" that enables your mobile phone to communicate with your house, letting it know how close you are so your house can be toasty when you arrive and cool off when you're gone.

The room also contained creations from the quirky side.

For music acolytes, Ion Audio is offering specialized guitars and pianos with built-in Apple Inc. iPads, the better to display instructional videos that show students where to place their fingers.

At the firm's booth, an excited piano novice was pounding out a few notes of "Happy Birthday," helped by the iPad video where sheet music might usually be.

At the Dexim display, a crowd gathered to check out a radio-controlled truck that can be maneuvered by an iPhone. The AppSpeed Monster Truck links to the iPhone via a free app that enables the hobbyist to control the truck from as far away as 50 feet.

Larger firms such as Lenovo, Sony Electronics Inc. and LG Electronics showed off new television sets, smart phones and tablet computers Sunday, a few of the hundreds of such devices that are expected to be announced this week by the show's 2,700 exhibitors.

CES acts as a kind of anchor for the rapidly growing global consumer electronics industry, which for the first time is expected to pull in \$1 trillion this year, thanks largely to the growing appetite for gadgets in Asia, Latin America and other emerging economies.

"When you're talking about a market of 3 1/2 billion people that all want TVs, that all want phones, that's a huge market opportunity," said Steve Koenig, director of industry analysis at the Consumer Electronics Association, which puts on CES.

*Los Angeles Times, 1/9/12*

## **WEAKENING EURO TAKING ITS TOLL IN CONSUMER ELECTRONICS**

Mobile devices continued to push the consumer electronics industry forward as the weakening euro took its toll on Western European spending, said analysts from the Consumer Electronics Association (CEA).

Briefing the media on the state of the consumer industry and market trends, Steve Koenig, the CEA's director of industry analysis, and Shawn Dubravac, the CEA's chief economist, said trends impacting consumer electronics growth could be divided along economic, consumer and technology boundaries, with much of the growth currently being driven by emerging markets.

Global tech device spending in 2012 is predicted to exceed \$1 trillion, with much credit for that going to smartphones and tablets, which have promoted growth even during times of economic uncertainty.

"There has clearly been a shift towards mobile devices, towards convergence and personalization," said Koenig, adding that emerging markets had added to the global market opportunity and broadened sales channels. Meanwhile, technology itself is pushing forward with ever-advanced embedded internet connectivity, miniaturization and the trend of built-in content, he said.

Despite the technological advances, however, the analysts noted that the success of the consumer electronics industry in 2012 hinged strongly on the survival of the euro. Both analysts noted that the single European currency's slide had badly affected electronics sales in Western European markets over the last months and that the situation could degenerate further.

"Retail spending is taking a real hammering," said Dubravac, noting that if the euro continued to weaken, spending would decrease massively.

"Developed markets will be the main drag on 2012," Dubravac predicted, though he admitted mobile computing would continue to see strong sales well into the year and possibly beyond.

"The global tablet market could top 100 million units in 2012," Dubravac said, declaring that netbooks and notebooks looked relatively strong moving into the following year. Notebooks, said Koenig, had mostly been cushioned from tablet cannibalization by netbooks, which had borne the brunt of the consumer ultra-portable craze.

Handset prices also continue to increase for the second year running, due to the continued increases

in smart phone penetration.

"If you think everybody has a smart phone, that's not true, or at least, it's not true yet," Dubravac said. He acknowledged that price increases would not go on forever and would eventually come down.

Consumer demand will also continue to squeeze older technologies in 2012, creating significant shifts in spending patterns from traditional computing to more mobile computing, with prices for PCs set to sink even lower, "because they have to come down," said Koenig.

Desktop PCs have been reduced to a niche, said the CEA, seeing just 3% growth worldwide in 2011, while mobile computers saw a 10% global increase.

Asked whether Intel's Ultrabooks could change that, Dubravac said it was still "very early days" for the platform, which currently made up just 1% of the overall market, mainly from sales in Japan. "Ultrabooks have plenty of potential, but it will take time," he said.

Meanwhile, emerging markets are leapfrogging technologies at an astounding rate, said Koenig, with countries like China transitioning directly from feature phones to high-end smart phones rapidly.

"In emerging APAC, the feature phone is really slowing," said Koenig, pointing out that China was seeing 21% year-to-year growth in the smart phone space. Chinese mobile companies like Huawei, too, were also managing to expand globally into places like Latin America, where they were establishing strong brands.

In terms of TVs, the CEA said the humble living room screen continued to play "a very significant part of the whole CE picture" despite slowed growth which saw TV unit sales up just 2% in 2011, with a projected 1% in 2012.

The real growth driver in TVs, however, is the shift to LCD technology, which Koenig said was pushing out other technologies at a rapid pace.

The CEA also said it expected to see a 56% growth in connected TVs, a 122% growth in 3D TVs and a 33% growth in LED TVs.

*EE Times, 1/9/12*

## **GEO-LOCATION TAGGING POSES SMART PHONE SECURITY ISSUES**

Commenting on the ICO's call for a rethink on location privacy, Cryptzone says that geo-location tagging security issues are likely to be a major issue in 2012—and that many users of smart phones are

unaware of the potentially serious security consequences of their use of the technology.

According to Grant Taylor, vice president of the IT security and compliance specialist, now that most smart phones have native GPS/satnav features, the default setting for most pictures—and videos—taken with these devices is to embed the GPS co-ordinates along with the date and time that the image was taken.

"And when smart phones upload these images to the Internet—to portals such Facebook or Flickr—there's a strong chance they will also upload the GPS data as well. This information could be subsequently misused by third parties, perhaps for stalking purposes, or even cybercrime," he said.

"As Jonathan Bamford, the ICO's head of strategic liaison said at a conference earlier this month, since most human activities online have a location aspect, this brings both opportunities and significant risks," he added.

The vice president of Cryptzone went on to say that cybercriminals are now starting to crowdsource information that is available on the Internet—using open source software such as Maltego—and then tying in geo-location data from photos.

Then, he says, you also have sites such as Youhavedownloaded.com—an open source data site that lists the IP addresses of around 20 percent of files that have been shared across the Internet.

So far, he explained, Suren Ter-Saakov—the Russian IT expert behind the portal—claims to have crowdsourced around 50 million unique IP addresses that have file-shared all manner of music, video and software files (<http://bit.ly/tfubcJ>).

And when you start to tie all this information together—related photo information, the GPS coordinates of where an image or video was taken, and the IP addresses of users—you start to assemble a pastiche of the user.

From this data, you then can begin to assemble a profile of the user and what their habits are, says Taylor.

This, he adds, is why geo-location data is potentially so dangerous, as it can be used to bolster other information that is available on the Internet, and which can readily be assembled using software like Maltego.

"From there it's a relatively easy step to perform a highly targeted phishing or similar type of attack on the individual—using information about their location, their interests and other data derived from, say, their Facebook profile," he said.

"As the ICO's Jonathan Bamford says, geo-location brings with it many new opportunities, but there are—as we can confirm—significant dangers associated with this pool of information. And no matter how many times the experts say it, this type of information is not as anonymous as you might think," he added.

*EE Times, 1/4/12*

## **MUSIC, PHOTO STORAGE COSTS DECREASE, THANKS TO CLOUD**

If you've ever had your laptop stolen, watched your toddler baptize your PC with Pepsi, or had your MacBook come to a cold, dead stop, you know that the digital memories we store on our home computers are anything but indelible.

But now there's a special place coalescing where data never dies: It's called the cloud.

Internet giants Google, Amazon.com and Facebook have relied for years on cloud computing, where information is split up and stored across large networks of remote servers, rather than all in one place.

When storing a holiday dinner photo, for instance, Google slices it into many shreds of data that are then duplicated and sent to dozens of data centers all over the world. That way, if one data center melts down or has a long power outage, your family portrait can be reassembled from the pieces still stored in the center's surviving peers.

The good news is that as the Internet has gotten faster and data centers have multiplied, the price of storing files in the cloud has dropped. For many consumers, storing copies of all of your music, photos and documents in the cloud is now an affordable option — and one that will protect you from waking up with your memories erased.

Take Carbonite, a cloud backup product that for \$59 a year will create a complete online copy of your computer, so that if you lose any file — or all your files — you can restore it through a Web browser. Once you install the automatic backup application on your computer, Carbonite will make sure to copy every new file to its servers, so you never have to upload anything manually. If you accidentally delete a file from your computer, you have 30 days to access the backup before Carbonite deletes the file too.

Amazon also has a set of cloud storage services. Its Cloud Player will let you upload your music

collection to the Internet so that you can access it from any of your computers or mobile devices. The software automatically searches your computer for music files and uploads them all into nice, organized categories.

Amazon has a more general storage service called Cloud Drive, which allows you to upload and store videos, photos, documents and other files. The service is free for the first 5 gigabytes of storage. That's enough to fit about 1,000 MP3 music files and 1,000 photos — a good start, but probably not enough to hold your entire collections.

For a monthly fee, you can upgrade to larger accounts, from 20 gigabytes (\$20 a year) to 1,000 gigabytes (\$1,000 a year). For most people, the latter would be enough for complete collections of your photos, music and documents, as well as a few shelves of full-length movies.

The Cloud Drive has a bothersome limitation, though: Instead of an automatic upload feature like the one Carbonite has, you have to manually upload files, which makes loading hundreds or thousands of files extremely time-consuming. At this point, it's best for a limited number of files, perhaps the ones you'd most like to have copies of.

Google offers a similar service through its Google Docs feature. You can upload most kinds of files to your Google Docs list, up to 1 gigabyte for free. Its prices for more space are lower than Amazon's: \$5 a year for 20 gigabytes and \$100 a year for 400 gigabytes. You can go up to 16 terabytes for \$4,100, but that's more than you'll need unless you store a lot of high-quality video.

Apple has a somewhat more limited system called iCloud, which tends to store only documents or music files that you create or purchase through Apple. Unlike with Amazon or Google, you can't upload music files that you didn't purchase in Apple's store, nor can you back up your work documents if they weren't created on Apple's word processing tools.

iCloud does have an interesting tool called iTunes Match, however, which will scan your music collection and, if the songs are available on iTunes, it will create a virtual copy of your music collection in the cloud that you can access from any of your Apple devices.

A caveat to prospective cloud users: Although your data will be safer from accidental deletion in the cloud, other concerns about this new technology remain.

Companies like Amazon and Google are

sometimes vulnerable to outages, during which large swaths of their cloud servers go off line, sometimes for hours or days, rendering huge amounts of data inaccessible.

Those storing highly sensitive data — business plans, invention blueprints, compromising photos — may want to hold off for now: The cloud is secure, but it's no Fort Knox. Unlike in a locked safety deposit box at a bank, your cloud data will often be accessible to some employees at the company storing your data. Moreover, the cloud can be hacked just like any other computer system, and security researchers believe that cyber criminals are likely to ramp up cloud attacks in the coming year.

But for regular old family snapshots, music files and writing drafts, the cloud is providing an affordable and convenient way to keep your digital stuff safe.

*Los Angeles Times, 1/1/12*

## **CHIP INVENTORIES DECLINED DURING LAST HALF OF 2011**

Chip inventories held by semiconductor suppliers declined for the first time in eight quarters in the third quarter of 2011 as the industry moved to cut production to reduce oversupply, according to market research firm IHS iSuppli, which estimates that inventories fell further in the fourth quarter.

According to the IHS iSuppli Inventory Insider report, semiconductor stockpiles stood at 81 days of inventory (DOI) in the third quarter, down about 2.5% from 83 DOI in the second quarter.

The DOI level had been rising steadily since the third quarter of 2009, when it stood at just 65 days, according to IHS. At that point, stockpiles were relatively low because chip production had been reduced during the dark days of the global recession, the firm said.

Since then, inventory DOI had been creeping up, partly to make up for depleted stocks and also to cope with growing demand as strength returned to the supply chain, according to IHS. But amid signs of weakening growth in the semiconductor market, the rise in inventory had generated concerns.

IHS estimates that global semiconductor revenue increased by just 1.9% in 2011 compared to 2010. The firm originally forecast that semiconductor sales would rise by about 7% in 2011.

*EE Times, 1/5/12*

## **GERMAN INSOLVENCY COULD FORCE SALE OF OAKLAND SOLAR FACILITY**

Solar Millennium's insolvency administrator is seeking to sell parts or all of the German developer of sun-powered plants.

Volker Boehm of Schulze & Braun said that it's seeking buyers for the company's 60 or so project units and stakes, including Oakland-based Solar Trust of America, which is planning the world's biggest solar plant.

Solar Trust currently has multiple projects in development across the southwestern United States, including the world's largest permitted solar power plant facility near Blythe, California. The Blythe Solar Power Project will deliver 1,000 Megawatts (MW) of capacity to the California power grid. That is enough electricity to power approximately 300,000 single-family homes each year.

Solar Trust of America has 2,000 MW of projects in advanced stages of permitting at locations throughout California and Nevada.

Potential buyers have already approached Solar Millennium and initial talks have started, Boehm said in a phone interview. Boehm said he's "very optimistic" that projects can be divested. "The further developed a project is, the more attractive it is for potential buyers," he said.

Solar Millennium filed for insolvency December 21, citing slow progress in selling its 2.25-gigawatt U.S. project pipeline and failure to reach an agreement to bring in investors for its Ibersol project in Spain. Solar Trust is developing the 1-gigawatt facility in Blythe, California.

*Bloomberg News, 1/6/12*

## **EDA SALES CONTINUED DOUBLE-DIGIT BOOM IN 3Q11**

The EDAC (EDA Consortium) MSS (Market Statistics Service) has announced that the EDA (electronic design automation) industry revenue increased 18.1% for 3Q11 to \$1543.9 million, compared to \$1307.0 million in 3Q10.

Sequentially EDA revenue for 3Q11 increased 7.4% compared to 2Q11, while the four-quarters moving average, which compares the most recent four quarters to the prior four quarters, increased by 17.8%.

The largest category, CAE (computer aided engineering), generated revenue of \$566.7 million in 3Q 2011, which represents a 10.5% increase over 3Q 2010. The four-quarters moving average for CAE increased 16.3%.

IC Physical Design & Verification revenue increased to \$338.3 million in 3Q 2011, a 16% increase compared to 3Q 2010. The four-quarters moving average increased 10.1%.

PCB & MCM (Printed Circuit Board and Multi-Chip Module) revenue of \$140.3 million represents an increase of 11.6% compared to 3Q 2010. The four-quarters moving average for PCB & MCM increased 21.7%.

Companies that were tracked employed 27,162 professionals in 3Q 2011, an increase of 2.6% compared to the 26,474 people employed in 3Q 2010, and up 1.7% compared to 2Q 2011.

Semiconductor Intellectual Property (SIP) revenue totaled \$410 million in 3Q 2011, a 37.4% increase compared to 3Q 2010. The four-quarters moving average increased 28.4%.

Services revenue was \$88.7 million in 3Q 2011, an increase of 13.1% compared to 3Q 2010. The four-quarters moving average increased 8.5%.

*Electronic News, 1/12/12*

## **EMS GROWTH SEEN IN 2011**

The electronics manufacturing services market is projected to grow 14.8% globally and 10.2% in North America this year.

*Circuits Assembly, 12/11*

## **TABLET PC SHIPMENTS**

Third-quarter global tablet PC shipments hit 18.7 million units, up 27.5% sequentially, compared with sequential growth of 60.9% in the second quarter.

Apple's iPad shipments grew 36.8%.

*Circuits Assembly, 12/11*

## **JOBS GROWTH PROJECTION**

At recent rates of employment and population growth, it would take until 2045 to get back to the 2007 employment/population ratio of 63%.

*Barron's, 10/10/11*

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## PRODUCT NEWS

### MOLEX INTRODUCES zSFP+ SMT 20-CIRCUIT INTERCONNECT PLATFORM

New from Molex, the zSFP+ (Small Form-factor Pluggable Plus) SMT (Surface Mount Technology) 20-circuit connectors are designed to enable superior performance in high-speed telecom and data communications equipment.

Designed for 25 Gbps serial channels in high-speed Ethernet and Fiber Channel, the company says the zSFP+ interconnect assemblies are scalable for next-generation applications and provide optimal electromagnetic interference (EMI) and signal integrity (SI) margins in 10 and 16 Gbps channels.

According to the company, the backward compatible zSFP+ connectors share the same mating interface and EMI cage dimensions as the SFP+ form factor. The zSFP+ connectors feature a preferential coupling design using insert molding and a narrow edge-coupled blanked and formed contact geometry for superior signal, mechanical and electrical performance while greatly reducing resonance compared to current SFP+ products.

Components of the new zSFP+ interconnect system include: zSFP+ SMT 20-circuit connectors, stacked integrated connectors and passive optical cable assemblies.

"SFP connectors and stacked integrated connectors have undergone major design enhancements to achieve and optimize next-generation performance," says Joe Dambach, new product development manager, Molex. "The new zSFP+ SMT technology offers a fully integrated solution to upgrade and design storage, switches, routers and hubs in central office and multi-platform data systems."

The zSFP+ SMT 20-circuit connector features the same PCB footprint, mating interface and EMI cage dimensions for total backward compatibility as a drop-in replacement for current SFP+ form factor host board designs. The high-temperature thermo-

plastic housing can withstand lead-free processing.

Single-port and 1x ganged cages support multiple port count applications and options for use with various board thicknesses and assembly processes to accommodate server and switch applications at a cost comparable to SFP+ cages. Ganged cages are available with two, four or six ports for multiple design options.

The stacked integrated connector and cage is available in a press-fit application that eliminates reflow assembly and offers a compact, space saving design with ease-of-processing. An internal vertical shield provides unparalleled EMI reduction performance. Press-fit tails accommodate belly-to-belly applications for single and ganged cages to maximize use of printed circuit board (PCB) space. Optional rear and side-mounted lightpipe cover assemblies allow flexibility of PCB signal routing of LEDs to provide port status and activity feedback to the user.

Molex fiber optic LC duplex cable assemblies with OM3/OM4 fiber are used with zSFP+ optical modules, offering a high-performance interconnect solution with customization options for length and strain relief boots which include straight, 45 and 90 degrees angles. LC duplex jumpers with OM3/OM4 fiber offer the enhanced launch bandwidth needed for this next generation of zSFP+ devices. Molex LC duplex connectors meet the EIA-TIA and FOCIS 10 standards and are compliant with MSA devices.

"Enhanced zSFP+ interconnects provide a superior mating assembly for emerging 25 Gbps designs--and Molex customers are already benefiting by implementing the enhanced zSFP+ solution on their current lower-speed boards to deliver additional signal integrity margin," adds Dambach.

*Connector Specifier, 1/4/12*

## **BROADCOM UPGRADES ITS LINE OF SET-TOP, GATEWAY CHIPS**

Broadcom upgraded two families of chips for set-top boxes and residential gateways and forged two software partnerships, including one to support Echostar's Sling Media technology.

Broadcom upgraded six members of its BCM7400 and 3300 families to support for the MoCA 2.0 home networking over coax standard. The new standard, ratified in June 2010, sports twice the bandwidth of the existing MoCA 1.1 spec.

The chips, sampling now, integrate baseband, MAC and RF functions. Other chip companies supporting MoCA include Entropic, Marvell, NXP, STMicro and Trident.

Separately, Broadcom has added at least five new members to its lower cost BCM7200 family geared for set-tops that bring so-called over-the-top Web video services to TVs. The chips support DLNA, Wi-Fi, Wi-Fi Display, NFC, MoCA 1.1, HomePlug and Ethernet. Some members support stereo 3-D, OpenGL ES 2.0 and dual HD decoding.

Some set tops will use near field communications as a means of pairing TVs with handsets or other devices so they can share media over Wi-Fi Direct, said Steve Palm, a senior technical director at Broadcom. Netgear, which currently uses the 7200 chips in some systems, expressed support for the new devices.

In terms of software, members of Broadcom's 7400 series now support Sling Media from Echostar for sharing media between remote devices. The deal lets Broadcom make chips for Echostar's satellite TV set-tops as well as for third party set-top makers that Echostar is expected to license.

In addition, Broadcom now sells some chips that support the Alien Vue software of Myriad Group AG which brings support for Android applications to smart TV sets.

*EE Times, 1/4/12*

## **CICOIL FESTOON CABLES**

Cicoil's Festoon Cables are flat in construction and designed for continuous flexing as well as extreme temperature applications of -65 to +260 degrees Celsius. The company says its "unique silicone extruded cables are unaffected when exposed to flames (UL 94 V-0), extreme heat, ice,

snow, salt water, acid rain, coarse sand, shock, vibration, sunlight and most chemicals." Anti-friction coating options are also available.

The cables are available off-the-shelf from 4 to 28 AWG, and custom designs can incorporate shielded wires or signal pairs, tubing for air or fluid transfer, and the company's patented Strip Mount fastening strip.

*Connector Specifier, 1/4/12*

## **ITT TRANSPORT CONNECTORS**

ITT Interconnect Solutions has released its APD series transportation connectors, designed to overcome the harsh environments commonly found in heavy transportation applications. The APD rugged connectors also are applicable to military and industrial applications that demand a small, lightweight, harsh-environment connector.

Sealed to IP67/IP69K standards and vibration resistant, the connectors include one and two-way high-power and four-way high-voltage interconnects to 51-way interface connectors, plus special sensors and PCB-type versions. Electrical specifications cover requirements to 48 volts DC and to 240 amps of power.

*Connector Specifier, 1/4/12*

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## PACKAGING & TECHNOLOGY

### INTEL MAKES WAY FOR IVY BRIDGE, DISCONTINUES 25 CPUS

Intel has notified hardware partners it will be phasing out production of some 25 desktop CPU models to make way for its new 22nm Ivy Bridge processors due out in April.

The chip maker will be slowing production of the Core i5-661/660, Core i3-530, Pentium E5700 and Celeron E3500, before halting them altogether in the second quarter, according to Intel's Taiwanese hardware partners.

The chip giant is also expected to stop manufacturing its Core i7-960/950/930/870/880S/870S, Core i5-2300/680/670, Core Duo E7500/E7600, Pentium G960, E6600/E550 and Celeron E3300 in the second quarter of 2012, while the Core i7-875K/860S, Core i5-760/750S/655K and Celeron 450/430 will have production halted already in this first quarter.

Intel's new CPU platform is Maho Bay, which includes the Ivy Bridge CPU and Panther Point chipset. While the official launch is expected in early April, mainboard makers like Taiwanese firm Gigabyte have said early motherboard samples will be on show at both CES and CeBit this month and next.

Maho Bay will be completely compatible with existing socket LGA 1155 motherboards for Sandy Bridge CPUs, said a Gigabyte spokesman, meaning older SandyBridge CPUs will work with the new motherboards too. This will allow cash conscious users to upgrade their mainboards in April and wait to upgrade their CPU later on in the year.

"The new CPU will work with old LGA 1155 MBs, and old CPUs will work with the new LGA 1155 MBs," said Gigabyte's Tim Handley adding, "Of course LGA 1366 or LGA 2011 CPUs will not work with new or old LGA 1155 motherboards."

With the motherboards that run the CPUs being both backwards and forwards compatible, Intel can safely run down its old LGA 1155 CPU inventories to make way for the new, higher margin LGA 1155 CPUs.

For those waiting to decide whether to wait in order to upgrade to Ivy Bridge, the difference boils down to better integrated graphics and lower power owing to the 22-nm process technology the chips are manufactured on. Ivy Bridge chips will have DX11 graphics included and overall performance is expected to be significantly higher.

"It is well worth the wait for those looking to buy a new PC," said Handley.

*EE Times, 1/5/12*

### ST OFFERS AUDIO PROCESSOR FOR MULTIPLE MEMS MICROPHONES

STMicroelectronics has introduced a digital audio processor IC that is intended for use in multi-microphone applications.

Multiple microphones can be used to locate sound sources in space and to enhance noise cancellation methods. With silicon-membrane MEMS microphones it is possible to produce arrays of small microphones or strips containing many silicon microphone die to improve the sound quality of mobile phones, tablet computers, gaming devices and video security systems.

The Smart Voice audio processors enable features such as acoustic echo cancellation, noise suppression, beam-forming. Multi-microphone systems also address next-generation audio applications, such as 3-D sound processing, sound-source localization, virtual microphones and audio zooming.

ST's newest digital audio processor is based on an acoustic processing engine that offloads intensive computing tasks from the main application processor. It handles up to six digital microphone inputs with dynamic array re-configuration and dedicated channel processing. The device integrates a high-quality scalable acoustic processing core with a tunable 10-band equalizer, a peak limiter and gain

and volume controls.

The Smart Voice processors come bundled with AP Workbench, a programming tool.

The STA321MPL, the first Smart Voice processor, is sampling with mass production scheduled for 2Q12. The unit pricing is \$4 per unit for amounts of about 1,000 pieces.

*EE Times, 1/12/12*

## **LUCIDLOGIX SHOWS SOFTWARE SPEED INCREASE FOR GPUS**

Multicore graphics firm LucidLogix Technologies has announced the existence of XLR8, which is virtualization software designed to improve the performance of graphics processing units (GPUs).

The company claims that the GPU virtualization software can improve the graphical response performance, visual quality and battery efficiency of mobile devices including smart phones, tablet and notebook computers by up to 200%.

LucidLogix (Kfar Netter, Israel) said it has taken its Virtu MVP virtualization software and applied it to single, embedded graphics processors such as AMD Fusion, ARM Mali, Intel Ivy Bridge and Nvidia Tegra.

XLR8 increases CPU frame generation while minimizing redundant rendering tasks, providing maximum input responsiveness, sometimes as high as a 200% improvement, the company said. The core technology behind XLR8 uses multi-threading, task detection and redundant task removal processes that are also sensitive to power consumption, the company added.

"Most PC graphics challenges are magnified when it comes to embedded GPUs, like visual tearing and artifacts, pipeline inefficiencies and power management," said Offir Remez, president of LucidLogix, in a statement. "We believe the applications for XLR8 software could be endless. If it's got a GPU, we can improve the end user experience."

XLR8 is being demonstrated at the Consumer Electronics Show in Las Vegas, Nevada and tested by partners, LucidLogix said.

*EE Times, 1/12/12*