



Future Horizons Newsletter

July 2013

Contents Page

Industry News by Company	Page 3 - 7
Industry News & Trends	Page 8 - 10
East European News & Trends	Page 11 - 13
World Economic Round Up	Page 14
Future Horizons & Industry Events	Page 15

Industry News By Company

[India Becomes 3rd Largest Smartphone Market](#)

India overtook Japan to become the world's third largest smartphone market by volume for the first time ever in first quarter of 2013 with Samsung, Micromax, and Apple among the major brands leading the market.

According to market research firm Strategy Analytics, around 1 crore smartphones were shipped in India during the first quarter, almost tripling from 38 lakh units a year earlier.

India is now the third largest smartphone market, following China and the United States.

[Report: Apple Goes Back To Samsung For Iphone Chips](#)

It looks as if Apple-Samsung relationship is not as strained as reported by several media outlets. In past few months, several media reports claimed that Apple has severed ties with Samsung and rather selected Taiwan-based foundry TSMC as its chip partner.

But a fresh news report suggests that Apple Inc. has renewed its partnership with South Korean rival Samsung Electronics. According to The Korea Economic Daily, Apple has signed a new deal with Samsung under which Samsung will supply iPhone processors to Apple.

From 2015, Samsung will supply 14nm A9 chips that will be used for Apple's iPhone 7. The chip will be produced using Samsung's 14nm FinFET technology, The Korea Economic Daily quoted industry sources as saying

[Dialog Semiconductor Acquires iWatt](#)

Dialog Semiconductor has entered into an agreement to acquire US-based iWatt Inc., a provider of digital power management integrated circuits, for Rs.1,875.00 crore (\$345 million).

Dialog said it will pay approximately Rs.1,684.78 crore (\$310 million) in cash, with an additional Rs.190.22 crore (\$35 million) in contingent consideration based on achieving future revenue targets.

“The acquisition enhances Dialog's leadership in power management for tablets and smartphones by adding iWatt's complementary AC/DC digital power management technology,” said Dialog.

[Globalfoundries Ramping Up Production Of Rockchip's 28nm Tablet Socs](#)

Globalfoundries is ramping up the production of multi-core ARM Cortex-A9 tablet SoC chip on its 28nm High-K Metal Gate (HKMG) process technology for its customer Rockchip. The tablet SoC chips from Rockchip began sampling to OEMs in early 2013 and are now ramping to support a wide range of manufacturers.

The hot tablet semiconductor market is growing while PC semiconductor market is falling. IC Insights has forecasted IC sales for tablet computers to grow by 37% to \$14.7 billion in 2013 after climbing 77% in 2012 and 190% in 2011. IC Insights is now forecasting a 2% decline in integrated circuit sales for keyboard-equipped standard PCs (desktops and notebooks) to \$62.5 billion in 2013, following drops of 12% in 2012 and 7% in 2011.

[Imagination Details New MIPS Cores 'Warrior'](#)

Imagination Technologies has updated its current portfolio of MIPS Aptiv cores, extending each of the Aptiv families with new core configurations. The company said it will start rolling out an entire generation of new MIPS CPUs, including 32-bit and 64-bit cores, later this year.

The new MIPS Series5 generation of CPU cores, codenamed 'Warrior,' will incorporate new architectural features and provide best-in-class performance and efficiency for a wide range of applications. The 'Warrior' generation of cores will include 32-bit and 64-bit variants with a focus on "superior performance efficiency across the high-end, mid-range and entry-level/microcontroller CPUs."

[Intel Details New 14nm Server Chips](#)

Intel has detailed its server processor roadmap, including its upcoming Atom processor C2000 product family (codenamed "Avoton" and "Rangeley"), as well as outlined its roadmap of next-generation 14nm products for 2014 and beyond.

"This pipeline of current and future products and technologies will allow Intel to expand into new segments of the datacenter that look to transition from proprietary designs to more open, standards-based compute models," the company said.

As part of its strategy, Intel revealed new details for the forthcoming Intel Atom processors C2000 product family aimed for low-energy, high-density microservers and storage (codenamed 'Avoton'), and network devices (codenamed 'Rangeley'). This second generation of Intel's 64bit SoCs is expected to become available later this year and will be based on the company's 22nm process technology and the Silvermont microarchitecture. It will feature up to eight cores with integrated Ethernet and support for up to 64GB of memory

[LG Invests In Active-Semi](#)

Active-Semi, a developer of highly integrated power management chips, has received an investment from LG Electronics Inc. The investment amount is not known. Active-Semi says it will use the investment to open the door for its energy-efficient power management chips in the mobile and home appliances markets.

LG is already a long-time customer of Active-Semi, a Dallas-based company developing an energy efficient "power application controller" (PAC) platform featuring 32-bit ARM Cortex M0 processor integrated with its patented peripherals.

NEC Exits Smartphone Business

Japan's NEC Corp. plans to exit its loss-making smartphone business, according to a report by Nikkei. According to the Japanese daily, NEC's plan to exit the business comes after a deal with PC manufacturer Lenovo Group failed to materialise.

The Japanese company's withdrawal is a clear defeat for NEC and its place in the global mobile industry where the changing of the guards has been apparent, with Apple and Samsung taking over and a number of Chinese OEMs rising.

The Nikkei report claimed that NEC had been working on a deal with China's Lenovo since late last year to "rebuild the cell phone business under Lenovo's leadership." Their idea was to emulate the successful relationship the two companies have enjoyed in their collaboration in personal computers.

Nokia To Buy Out Stake Of Siemens In Venture .

HELSINKI—Finnish phone maker Nokia Corp. NOK1V.HE +7.66% will pay €1.7 billion (\$2.21 billion) for Siemens AG's SIE.XE +2.02% 50% stake in the two companies' telecommunications-equipment joint venture, the companies said Monday, confirming earlier reports of the deal.

Nokia will pay €1.2 billion in cash when the deal is completed in the third quarter, with the balance of €500 million to be paid in the form of a secured loan from Siemens due a year later.

Nokia Siemens Networks will become a wholly owned subsidiary of Nokia. The Finnish company said it wishes to see NSN develop itself as a more independent entity.

Plessey Unleashes 350mW 6 Inch GaN-on-Si LEDs

Grown on a 6 inch silicon substrate, these LEDs are designed for solid state lighting applications

Plessey has said that samples of its 350mW LED product (p/n PLB010350) are now available.

These lighting products are manufactured on Plessey's 6 inch MAGIC (Manufactured on GaN I/C) line at its Plymouth, England facility.

Samsung Puts Curve In OLED Televisions

SEOUL, JUN 27: Samsung Electronics is rolling out a curved TV that uses an advanced display called OLED.

Samsung said today the 55-inch TV will sell for \$ 13,000 in South Korea. That is more than five times expensive than LCD televisions of the same size.

The TV industry has been struggling to excite interest with new technologies.

Samsung Tightens Grip On Major European Smartphone Markets

Almost half of all smartphones sold in major European markets in recent months have been made by Samsung, underpinning the growing dominance of Google's Android operating system across the region.

Android-based smartphones accounted for more than 70 per cent of sales in the top five European markets in the three months to the end of May, compared with 61 per cent in the same period the year before. Comparatively, Apple's iPhone sales have a share of less than a fifth and Windows phones comprise about 7 per cent.

STMicroelectronic Introduces First Smart Meter IC

Semiconductor provider STMicroelectronics (ST) has introduced the world's first smart-meter integrated circuit (IC) with built-in support for the Meters and More open communication standard. The protocol enables widespread interoperability among smart metering equipment implementing power line communication (PLC).

ST reports that its ST75MM IC "is the first to embed hardware and communication protocol support for Meters and More, simplifying meter design to ultimately enable faster, lower-cost and reliable deployments. The Meters and More is an open specification managed by the Meters and More nonprofit association comprising leading technology companies and utilities spanning the Americas, Europe, and Asia. Customers using the ST75MM can join the Meters and More Association and achieve certification for their products to enable widespread use by utility companies.

TSMC Signs 3-Year Chip Deal With Apple

Taiwan Semiconductor Manufacturing Co. Ltd has reportedly entered into a three year agreement with iPhone-maker Apple Inc. According to a report from Digitimes, chip foundry TSMC is all set to supply Apple with processors using its FinFET process at the 16- and 10-nm nodes, after beginning with 20nm planar CMOS.

Global UniChip, TSMC's IC design service partner which works with customers to help prepare chips for the foundry, is also involved in the three-year deal, the report said.

A deal whereby TSMC replaces or supplements Samsung, the incumbent supplier of Apple processors, has rumoured for several years, but it appears that TSMC's supplier status is about to begin.

Wilson Electronics Acquired by Sorenson Capital

ST. GEORGE, UTAH — Wilson Electronics, a manufacturer of North America's top-selling line of cellular signal boosters, today announced that it has been acquired by Sorenson Capital. In addition, Sorenson Capital Managing Directors Fraser Bullock and Tim Layton, as well as Principal LeGrand Lewis, have joined Wilson Electronics' board of directors. Solamere Capital co-invested in a minor capacity alongside Sorenson Capital.

“As a market share and performance leader in its industry, Wilson represented a compelling investment opportunity,” said Lewis. “We look forward to continuing Sorenson Capital’s tradition of taking companies to the next level by capitalizing on Wilson’s strong product leadership and transformational growth opportunities.”

Industry News & Trends

[UK Electronics Seeks Tomorrow's Samsung](#)

Growth of the UK's electronics industry is constrained by a lack of consumer brands on the scale of Samsung, leading companies have warned in a landmark report.

British companies such as Arm Holdings and Imagination Technologies are responsible for much of the chip design in devices such as Apple's iPhone, but, "having a greater presence higher up the food-chain would bring greater economic benefit", says the Electronic Systems Challenges and Opportunities report.

For every £100 that consumers spend on electronics, only £1 goes to the intellectual property creators such as Imagination and Arm, while £22 goes to the brand, it estimates.

[A Transistor Without Semiconductor!](#)

Keywords:transistors semiconductors Michigan Technological University boron nitride nanotubes Oak Ridge National Laboratory

For decades, electronic devices have been getting smaller, and smaller, and smaller. It's now possible to place millions of transistors on a single silicon chip. But transistors based on semiconductors can only get so small. "At the rate the current technology is progressing, in 10 or 20 years, they won't be able to get any smaller," said physicist Yoke Khin Yap of Michigan Technological University.

A team of scientists have figured out how to make virtual carpets of boron nitride nanotubes (BNNT), which happen to be insulators and thus highly resistant to electrical charge.

[Graphene Ink Bring Flexible Touch Screens Step Closer](#)

Flexible computer or mobile phone screens have moved a step closer after two British companies began selling inks based on graphene, the super-thin, super-strong material first isolated a decade ago.

Haydale, a Swansea University spinout that makes graphene in commercial quantities, has developed the ink with Gwent Electronic Materials, a supplier of inks and pastes for electronic instruments and sensors.

More

They said the graphene inks could enable the commercialisation of flexible displays and touch screens, "smart" packaging, thin photovoltaics and transparent electrode.

[Batteries On The Head Of A Pin](#)

People take batteries for granted, but they shouldn't. All kinds of technological advances hinge on developing smaller and more powerful mobile energy sources.

Researchers at Harvard University and the University of Illinois are reporting just such a creation, one that happens to be no bigger than a grain of sand. These tiny but powerful lithium-ion batteries raise the prospect of a new generation of medical and other devices that can go where traditional hulking batteries can't. Many devices already derive too much of their weight and bulk from batteries. But with a tiny battery, implantable sensors might, for example, send reports from inside the body while being recharged by the beating of a human heart.

MIT's Wi-Vi Lets You See Through Walls

Researchers at MIT have developed a device, called 'Wi-Vi', that can see through the walls using Wi-Fi signals.

Wi-Vi is based on a concept similar to radar and sonar imaging. But in contrast to radar and sonar, it transmits a low-power Wi-Fi signal and uses its reflections to track moving humans. It can do so even if the humans are in closed rooms or hiding behind a wall.

Now a system being developed by Dina Katabi, a professor in MIT's Department of Electrical Engineering and Computer Science, and her graduate student Fadel Adib, could give all of us the ability to spot people in different rooms using low-cost Wi-Fi technology.

Water Could Double Li-Ion Battery Energy Density!

Researchers at RIKEN Byon Initiative Research Unit have developed a lithium-iodine battery system with twice the energy density of conventional lithium-ion batteries.

Despite performing well in consumer electronic devices, engineers face the challenge of squeezing enough lithium-ion batteries onto a vehicle to provide the desired power and range without introducing storage and weight issues.

LG, Samsung Release Curved TVs

Flat screens have been a selling point for TVs for more than a decade. Now, LG and Samsung are making a selling point of screens that are not flat.

The two Korean electronics companies are launching TVs in the U.S. this week that have concave screens, where the middle bends away from the viewer. That's the opposite of the convex bulge of the old cathode-ray tube TVs. The idea, the companies say, is to have the viewer see the screen straight on, even at the edges.

The sets have a suggested price of \$15,000. LG's set will be sold in some Best Buy Stores. Samsung's will be sold by specialty stores.

Paper-Thin E-Skin Lights Up When Touched

Researchers at the University of California, Berkeley have developed "the first user-interactive sensor network on flexible plastic."

The new electronic skin, or e-skin, responds to touch by instantly lighting up. The more intense the pressure, the brighter the light it emits.

"We are not just making devices; we are building systems," said Ali Javey, UC Berkeley associate professor of electrical engineering and computer sciences, who also led the research project. "With the interactive e-skin, we have demonstrated an elegant system on plastic that can be wrapped around different objects to enable a new form of human-machine interfacing."

East European News & Trends

[Apple Launches Its Online Store In Russia](#)

The Apple website in Russia, now features an Apple Online Store, and Russian consumers will be able to purchase Apple devices directly from the company's website. Any Apple device can be bought from the store, including the iPhone 5, which starts at 29,990 rubles (\$909).

Online customers can pay by bank card online or pay a courier in cash when their device is delivered. In addition, delivery is free for orders above 40,000 rubles (\$1,216).

Apple also vows to offer warranty for all its devices. So far, the store only operates in Moscow and St. Petersburg, with products to be delivered by DHL.

[Russian-American Software Developer Mirantis Lands \\$10 Million In Funding](#)

Mirantis, a California-based software developer and systems integrator with offices in Russia and Ukraine, attracted a \$10 million Series A funding round in early June.

The investment was made by Ericsson, Red Hat, and SAP Ventures, along with existing investor WestSummit Capital.

Special Project: Top Russian start-ups The company plans to use the funding to enhance the engineering roadmap for Fuel, its management tool for the open-source cloud infrastructure platform OpenStack.

The latter is the main focus of Mirantis's work — the company specializes in systems integrations of projects based on this platform.

[Russia Drafts 30% Innovation Spending Cuts; Skolkovo And Rusnano First To Suffer](#)

Russia's draft federal budget for the next three years calls for a substantial curtailment of government funding for innovation; the Skolkovo and Rusnano projects might lose 30%, the Izvestia website reports, citing two sources in the Russian Ministry of Finance and the State Duma (the lower house of Parliament).

According to the Ministry source, Russia is considering re-prioritizing budgetary flows as "the budget is getting increasingly socially-oriented," calling for greater spending on orphans, affordable housing and other major programs.

"Plans are to cut by 20-to-30% the government funding of innovation activity, including the Rusnano and Skolkovo projects," the Ministry source emphasized.

[Rusnano To Help Bring Nanotechnology To Russia's Chemical Sector](#)

The Russian Chemists Union and the Rusnano Infracund have shaken hands on joint work aimed at stimulating the development and commercial introduction of nanotechnologies for Russia's chemical sector, announced the website of Rusnano, Russia's largest nanotech company that set up the Infracund.

Viktor Ivanov, the president of the Union, and Andrei Svinarenko, the CEO of the Rusnano Infrafund, have inked an agreement outlining the future cooperation, the source said.

Russian Mobile Operators Halt iPhone Sales

Russia's three major mobile phone operators have halted iPhone sales, a further sign that the tide is turning against Apple in European markets.

MTS, Megafon and VimpelCom, which together control more than four-fifths of the Russian market, have all separately ended their contracts with Apple, arguing that they were unable to make a profit on the phones.

The three operators do not disclose details of their agreements with handset makers. However, analysts suggested they had made significant losses on their two-to- three year Apple contracts, which probably required them to sell 1m-1.5m iPhones each during the period, while contributing to marketing costs for the device.

Founder Of Ankor Bank Invests \$1 Million In Apps4all

Andrey Korkunov invested \$1 million in Apps4all, a business targeted at bringing together international technology companies with mobile application developers. The field holds much common ground with the future of the banking industry, the investor's main interest.

Andrey Korkunov, the founder of Ankor Bank and the "Korkunov" confectionary brand, has invested in Apps4all. Its business is bringing together the developers of applications for mobile devices and technology companies.

Korkunov told "Vedomosti" that he invested \$1 million in Apps4all and received 15 percent of its stock. He sees his first investment in Internet projects as an opportunity to locate points of common interest with the banking industry.

Apple Makes An Exception For Russian Retailers

The iPhone distribution system used all around the world has not worked in Russia. For the first time ever, Apple has made an exception, having stopped importing smartphones via mobile carriers and having agreed to ship directly to retailers.

The retail price of Apple smartphones is unlikely to fall even as the circle of distributors widens—it is already as close as possible to the European price. Source: RIA Novosti

Apple is negotiating with retail electronic stores about directly delivering iPhones to them, sources close to three Russian retailers have disclosed to Vedomosti newspaper. The negotiations are still preliminary, and the specifics of cooperation have not yet been discussed, added one of the sources.

Another source hopes that direct iPhone deliveries will start in the beginning of the fall—traditionally a high-volume season for sales.

Apple has attempted for several years to sell the iPhone in Russia the same way they sell them in most countries: through cellular carriers. In 2008, Apple signed a distribution agreement with the leading players on the market—MTS, MegaFon and VimpelCom—allowing them to import iPhones for sale in their stores and ship to third party dealers

World Economic Round Up

The G-20 heeded calls from emerging-market countries to guard against shockwaves when U.S. growth is secure enough for the Federal Reserve to cut back on its bond buying. It also repeated that nations should avoid competitive currency devaluations. Speculation about developed economies scaling back their unprecedented monetary easing has roiled emerging-market currencies and bonds since G-20 finance chiefs last met in April. The U.S. hasn't felt China's slowdown partly because demand for some of the top exports to China, airplanes and high-tech computer goods, has remained strong.

The latest economic news by country to include USA, Europe, UK, Japan, China, Asia Pacific and India can be found each month in our [Semiconductor Monthly Report](#).

Industry Events 2013

Future Horizons Events

- [Silicon Chip Industry Training Seminar](#) – London – 16th September 2013
- [Industry Forecast Briefing](#), London – 21st January 2014
- [International Electronics Forum – 2- 4th October](#)

To book your place on any of our events please contact us on:

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Industry Events

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MARK YOUR CALENDER FOR THE NEXT
INDUSTRY FORECAST BRIEFING
TUESDAY 21st January 2014
AND
SILICON CHIP INDUSTRY WORKSHOP
MONDAY 16th September 2013
BOTH BEING HELD AT
NH HARRINGTON HALL HOTEL, LONDON
AND
INTERNATIONAL ELECTRONICS FORUM
2-4 OCTOBER
Crowne Plaza
Dublin, Blanchardstown, Ireland

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