FutureHorizons

The Global Semiconductor Industry Analysts

Future Horizons Monthly Newsletter

February/March 2012

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Industry Overview

December's WSTS data showed the industry still bumping along its path of 'when in doubt do nothing' with IC sales down 6 percent in value versus this time last year. Yet ASPs were up 1.2 percent meaning the underlying market growth was still positive – despite industry perception – with inventory liquidation still meeting a sizeable portion of demand. This is post Lehman crisis de javu. Once again industry is digging a hole to bury itself in …the underlying fundamentals are strong; inventory will deplete; there's simply not enough WIP in the manufacturing system to meet real demand. The market will exploded again in 2H-2012, see our IFS2012 forecast presentation for full details of how and why.

A full market summary and industry capacity round up can be found each month in our Semiconductor Monthly report.

Industry News By Company

Agilent – Industry's First Reference Clock Multiplier For Receiver Test (N4880A)

Announced as the industry's first reference clock multiplier, Agilent has introduced the N4880A reference clock multiplier, which enables R&D and test engineers to lock the pattern generator clock of the J-BERT N4903B and the ParBERT 81250A to reference clocks from the system under test.

The new solution supports multiple reference clock rates ranging from 19 to 100 MHz for receiver test applications such as PCIe 1.x, 2.x and 3.0 main boards, MIPI M-PHY devices and UHS-II host devices. The use of the reference clock multiplier significantly simplifies the receiver test setup, helping R&D and test teams to accurately characterize and verify standard compliance under easy to reproduce test conditions.

With common reference clock architectures, where the host cannot run on an external reference clock, it is necessary to lock the generated stressed-pattern signal to the reference clock from the receiver under test. That's because the receiver under test also derives its sampling clock from this reference clock. Not locking the stressed pattern generator to the same reference clock would lead to wrong and non-reproducible jitter-tolerance test results.

Apple Biggest Chip Buyer In 2011

The world's top 10 OEMs represented Rs.5.39 lakh crore ($105.6 billion) worth of semiconductors in 2011, or 35 per cent of the total semiconductor chip revenue for the year, according to Gartner Inc.

This is a y-o-y increase of Rs.9,183.67 crore ($1.8 billion), or 1.8 per cent from 2010.

The design total available market (TAM) represents the total silicon content in all products designed by a certain electronic equipment manufacturer or in a certain region, while purchasing TAM represents the total silicon content purchased directly by a certain electronic equipment manufacturer or in a certain region.

CEA-Leti Launches 3D Semiconductor Packaging Platform

January 31, 2012 -- CEA-Leti launched a major new platform, Open 3D, that provides industrial and academic partners with a global offer of mature 3D packaging technologies for their advanced semiconductor products and research projects.

The Open 3D platform includes Leti's "off-the-shelf" 3D technologies -- design and layout; technologies including interconnections, through silicon vias (TSV), and components assembly; as well as reliability tests and final packaging for components or systems. It allows users to achieve proof of concept with few wafers, or prototyping with a larger quantity. The offer is based on limited mature technologies to ensure moderate costs, short cycle times, and performances corresponding to the initial technical requirements of Leti customers.

Fujitsu Semiconductor uses latest DFM VLSI software from Mentor

Fujitsu Semiconductor Limited is designing its ICs using Mentor Graphics' latest Calibre physical verification and design for manufacturing (DFM) software.

Mentor higlights Calibre platform's interesting feature is it provides pattern matching for fast identification of litho hotspots and other design rule check (DRC) violations, automatic waivers for managing rule waivers during DRC, programmable electrical rule checking (PERC) for reliability verification, and the SmartFill function to realize advanced timing-aware filling for DFM.

IBM Creates Smallest Memory Using 12 Atoms

IBM researchers have developed the world's smallest magnetic memory bit using only 12 atoms. "Scientists from IBM have successfully demonstrated the ability to store information in as few as 12 magnetic atoms," the company said.

Currently, it takes about one million atoms to store a single bit of information on a hard disk drive. "The ability to manipulate matter by its most basic components – atom by atom – could lead to the vital understanding necessary to build smaller, faster and more energy-efficient devices."

Magnachip Buys IGBT Module Maker

SAN FRANCISCO—Analog and mixed-signal chip vendor MagnaChip Semiconductor Corp. said Friday (Jan. 27) it entered into a definitive agreement to acquire privately-held semiconductor supplier Dawin Electronics Co. Ltd. Terms of the deal were not disclosed.

Dawin, headquartered in Incheon, South Korea, makes insulated gate bipolar transistor (IGBT), fast recovery diode (FRD) and MOSFET modules. The acquisition is expected to be completed by the end of March.

Magnachip And GMT Announce Volume Ramp Of GMT's Power Management IC For LCD TV

SEOUL, South Korea and CUPERTINO, Calif., Jan. 30, 2012 -- /PRNewswire/ -- MagnaChip Semiconductor Corporation ("MagnaChip") (NYSE: MX), a Korea-based designer and manufacturer of analog and mixed-signal semiconductor products, and GMT (Global Mixed-mode Technology), a leading fabless provider of power solutions for mobile phone and PC applications, today announced that MagnaChip has ramped to mass production GMT's power management IC (PMIC) products utilizing 0.35um BCD (Bipolar CMOS-DMOS) process technology.

Movidius Joins Toshiba To Offer 3D System To Smartphone Manufacturers

MOVIDIUS, THE Dublin mobile semiconductor company, has signed a partnership with Toshiba Electronics Europe, that will see the two companies jointly offering a 3D system to smartphone manufacturers.

The two companies will offer a complete 3D system made up of the Movidius Myriad 3D processor and Toshiba's 8 megapixel extended depth of field (EDOF) cameras.

NFC Semiconductor Chip Market Driven By Smart-Mobile

Near Field Communication (NFC) integrated mobile phones are becoming natural choice over plastic ID cards for trasactional and access applications. Google is pushing hard to make NFC a success in Android OS based mobile devices. e-wallet is the name of the application requiring NFC for communication. NFC is also finding more applications than what it presently used for. All of this is enabling big growth for NFC device shippment. NFC devices are generally composed by a Secure Element, a RF transceiver which can be interfaced to host processor. Secure Element can be either a secure chip or a SIM card The big events such as Olympic Games 2012 are expected to drive NFC in big way.

Nokia Siemens To Cut 4,100 Jobs In Germany, Finland .

FRANKFURT—Finnish-German network equipment vendor Nokia Siemens Networks said Tuesday it will cut some 2,900 jobs in Germany, and up to 1,200 jobs in Finland, as part of its massive restructuring plan announced in November.

In Germany, the majority of the jobs, representing about one third of its work force in the country, will go by the end of this year, NSN said. The number doesn't include head count reductions resulting from potential asset sales.

The joint venture, owned by Nokia Corp. and Siemens AG, employs around 9,100 people in Germany and plans to cut the number of manufacturing, customer support and research sites in the country to just five from 35 now, according to a spokeswoman. That plan includes the closure of the Munich site, its biggest center in Germany

Egypt Based Fables Semiconductor Firm Launches MEMS Based Optical Chip Platform

Egypt based fables Semiconductor Company Si-Ware Systems (SWS) has announced a platform to create single-chip optical systems called Silicon integrated Micro Optical System (SiMOST).

Multiple optical MEMS structures can be patterned and etched on SOI wafers using Deep Reactive Ion Etching (DRIE). The structures are then wafer level packaged and diced to create a one-chip optical system. Optical components include flat, cylindrical and spherical collimating mirrors; wide bandwidth beamsplitters; optical filters; and moving corner cube reflectors. MEMS components include long travel range micro-actuators and micro-motors. The products developed by this device include a fully monolithic FT-IR spectrometer and a swept laser source.

Battery Monitor IC Boasts Compact Size

STMicroelectronics N.V. (ST) releases the STC3105, a stand-alone battery-monitoring IC in a compact 2 x 3 x 0.8mm package targeted at increased battery runtime and lifespan in handheld applications such as mobile phones, multimedia players, digital cameras and other space-constrained portable devices.

ST's battery-monitor IC measures battery voltage and current using open-circuit voltage and coulomb-counter methods to estimate the battery capacity and to manage and track charge/discharge status. Accurate predictions of the battery state of charge and time-to-empty help avoid unnecessary recharging, extend operating time between charges and lengthen the battery lifespan, according to ST.

TI To Shut Two Factories, Cut 1000 Jobs

Keywords: semiconductor restructuring cost consolidation

Texas Instruments Inc. said it will close two of its older semiconductor manufacturing facilities in Hiji, Japan, and Houston, Texas and lay off over 1000 workers over the next 18 months.

On Monday, TI announced its fourth quarter revenue; costs associated the company's acquisition of National Semiconductor; and restructuring charges associated with the closure of the two facilities.

The company disclosed that its fourth quarter profit fell 68 per cent from last year. Commenting on the financial result, Rich Templeton, chairman, president and chief executive officer, TI, said, "Revenue in the fourth quarter was higher than expected across all our major product lines, reinforcing our belief that we're at the bottom of this downturn

TSMC Plans 3-D IC Assembly Launch Early In 2013

LONDON – Leading IC foundry Taiwan Semiconductor Manufacturing Co. Ltd. plans to announce 3-D IC assembly service as a general offering at the beginning of 2013, according to Maria Marced, president of TSMC Europe.

The technology is called COWOS internally, standing for chip on wafer on substrate and Marced said the company has one year to get all physical design kits and EDA support in place to allow customers to design with COWOS.

Xilinx India Plans R&D Expansion

Xilinx, a programmable logic solutions player, is planning to expand its research and development (R&D) centre in India. "We are expected to shift to the new and bigger facility by the end of this year," said Vamsi Bopanna, site director and CTO India, Xilinx India Technology Services Pvt. Ltd.

Located at Hyderabad, the new 130,000 square feet R&D facility will house labs and new data centres, the company informed. "We are almost doubling our R&D capacity by moving from the current 57,000 square feet to the 130,000 square feet facility."

MARCH

Agilent Technologies Completes Acquisition Of Accelicon Technologies' Solutions For Semiconductor Device Modeling

SANTA CLARA, Calif., Feb 21, 2012 (BUSINESS WIRE) -- Agilent Technologies Inc. /quotes/zigman/216117/quotes/nls/a A -0.42% today announced that Accelicon Technologies' software solutions and technology for device-level modeling and validation in the electronics industry are now part of Agilent. The two companies had announced an acquisition agreement on Dec. 1, 2011. Financial details were not disclosed.

The acquisition, led by Agilent's EEsof EDA organization, further enhances Agilent's leadership in semiconductor device modeling. Accurate, verified device models are critical to reduce R&D design cycles as higher frequencies, smaller technology nodes, new materials and device layouts call for more accurate process design kits. As part of the Software and Modular Solutions Division, Agilent EEsof continues to integrate its industry-leading design simulation with real measurements to improve design efficiency for engineers who develop communications systems. These improved tools and processes solve the increasing complexities they face when designing communications systems for aerospace/defense and commercial wireless applications.

AMD, Not ARM, First To Use Startup's Low-Power Clock IP

LONDON – Advanced Micro Devices Inc. has achieved the first commercial implementation of resonant clock mesh technology licensed from startup company Cyclos Semiconductor Inc.

Cyclos (Berkeley, Calif.) said that the AMD (Sunnyvale, Calif.) has used the power-saving clock distribution technology in x86-compatible processor cores destined for inclusion in Opteron server processors and client Accelerated Processing Units (APUs). Cyclos engaged with processor technology licensor ARM Holdings plc in the early years of its existence driving an expectation that an ARM processor core would be the first commercial demonstration of the technology.

Arm's Latest Processors Aim To Stretch Internet's Reach

Arm Holdings has unveiled what it describes as the "world's most energy-efficient microprocessor" design.

The firm says that microcontrollers based on the "Flycatcher" architecture will pave the way for the "internet of things" - the spread of the net to a wider range of devices.

It suggests that fridges and other white goods, medical equipment, energy meters, and home and office lighting will all benefit from the innovation.

4G LTE Networks Made Secure With Ipsec Processor From Elliptic

Elliptic Technologies, a security semiconductor IP and software firm, has released its IPsec Security Protocol Processor, SPP-230, which it says will address the security needs of the 4G LTE mobile backhaul networks.

It is designed to accelerate IPsec packet processing for use in multi Gbit/s systems.

The increasing performance levels of smartphones means the need for greater bandwidth on backhaul infrastructure goes hand-in-hand with the need for greater levels of security in the system.

http://www.eetindia.co.in/ART_8800661126_1800007_NT_7b8b0e21.HTM?click_from=8800090640,9950114561,2012-02-13,EEIOL,ARTICLE_ALERT

Imec Develops 300mm Fab-Compatible DSA Process Line

Imec will showcase successful implementation of a 300mm fab-compatible directed self-assembly (DSA) semiconductor manufacturing process line in Imec's 300mm cleanroom fab. The upgrade of an academic lab-scale DSA process flow to a fab-compatible flow was realised in collaboration with the University of Wisconsin, AZ Electronic Materials and Tokyo Electron Ltd, the research institute said in its release.

Infineon Technologies And Fairchild Semiconductor Expand Compatibility Partnership For Power Mosfets, Providing Customers Supply Chain Security

Neubiberg, Germany – February 7, 2012 – Infineon Technologies and Fairchild Semiconductor today announced the extension of their compatibility partnership to encompass Infineon's proprietary 5x6 power stage asymmetric dual MOSFET package. Infineon's PowerStage 5x6 is a leadless SMD package, which integrates the low-side and high-side MOSFET of a synchronous DC/DC converter into a 5x6mm² package outline. This allows reduction in design area by up to 85%. The package also minimizes loop inductance and thereby achieves a peak efficiency of 93.5%.

This extended collaboration which began in 2010 is intended to provide customers supply chain security while balancing the drive towards best-in-class efficiency and thermal performance in DC-DC buck conversion. It takes advantage of the expertise both companies offer in asymmetric dual MOSFETs which can handle over 30A and increase power density.

Intel Makes Orange Debut In Europe

Europe's first smartphone containing chips from Intel is to be launched later this year by Orange, the mobile operator, as the US chipmaker pushes into the home territory of its UK-based rival Arm Holdings for the first time.

Unusually for an unbranded device sold by a mobile operator, the Intel-powered smartphone, code named the Santa Clara, will carry technology and features similar to those found on more premium-priced phones on the market from handset makers such as Samsung.

Nokia To Cut 4,000 Jobs, Shift Phone Production To Asia

Nokia Oyj, which sells more mobile phones in Asia than in any other region, will cut about 4,000 jobs in factories in Hungary, Mexico and Finland as it concentrates assembly closer to its Asian suppliers.

Device assembly will be transferred to factories in Asia, where the majority of component suppliers are based, Nokia said in a statement. The planned cuts include 2,300 in Komarom, Hungary, 700 in Reynosa, Mexico, and 1,000 in Salo, Finland, spokesman Doug Dawson said

Rambus Acquires Unity Semiconductor

SUNNYVALE, CALIFORNIA, UNITED STATES - 02/06/2012 - Rambus Inc. (NASDAQ: RMBS), one of the world's premier technology licensing companies, today announced it has acquired privately-held Unity Semiconductor, an innovative memory technology company for an aggregate of $35 million in cash. As part of this acquisition, the Unity team members have joined Rambus to continue developing innovations and solutions for next-generation non-volatile memory. This acquisition will expand the breadth of Rambus' breakthrough memory technologies and will open up new markets for licensing. The boards of directors of both companies have approved the acquisition and it has closed.

TSMC Sees Sub-40nm Capacity Nearly Booked Up

With new 4G smartphones, tablet PCs and ultrabooks set to hit market shelves during the second quarter of 2012, Taiwan Semiconductor Manufacturing Company (TSMC) has seen orders placed by its top-10 global clients nearly book up the foundry's production capacity for advanced sub-40nm process technologies, according to industry sources.

AMD, Broadcom, MediaTek, MStar Semiconductor, Nvidia and Qualcomm - reportedly among TSMC's major clients - have stepped up their pace of orders in preparation for new product rollouts, the sources indicated.

IDM firms including Texas Instrument (TI), Freescale Semiconductor, STMicroelectronics and Infineon Technologies have also moved to increase their orders to TSMC to meet a recent rise in demand from their end-market customers, the sources said.

Wolfson Intros Low Noise MP3 Audio Chip For Smartphones

Wolfson Microelectronics has introduced an audio chip for MP3 music and video playback in smartphones that delivers100dB signal-to-noise ratio (SNR) during DAC playback.

The WM1811 has a 2W stereo Class D speaker driver and Class W headphone driver.

Design options are increased because of the chip's stereo full-duplex asynchronous sample rate conversion and multi-channel digital mixing. There is also an analogue mixer.

An integrated Wolfson ReTune programmable parametric equaliser design designed to provide speaker compensation in the digital playback paths.

Cambridge Consultants Uses DECT For Radio Microphone

Cambridge Consultants has developed a reference design for radio microphones using the Digital Enhanced Cordless Telecommunications (DECT) platform.

Accoding to the Cambridge-based design house the radio microphone design "quadruples the range of existing radio microphone technology, whilst also lowering the total bill of materials costs to under $12 for each microphone".

IBM Promises 800km Range Electric Cars

"Range" has remained one of the major drawbacks in owning an electric car. But, IBM claims to have solved this problem by creating a new battery with a 800 km range.

Electric cars today typically can travel only about 160 km (100 miles) on current battery technology, called lithium-ion (LIB).

IBM researchers are exploring the science of lithium-air batteries, capable of powering an electric car at least 800 km (500 miles) on a single charge. This breakthrough could eventually enable electric vehicles (EVs) to compete with petrol engines.

IBM started the Battery 500 project in 2009 to develop a new type of lithium-air battery technology that is expected to improve energy density tenfold, dramatically increasing the amount of energy these batteries can generate and store.

KeyStone Semiconductor Partners With Amaryllo to Introduce World's First FM/DAB/DAB+ Receiver IC Featuring TPEG

KeyStone Semiconductor Corp.(KeyStone), a fabless semiconductor developer of advanced digital radio technologies and Amaryllo, a leading dynamic traffic information technology company in the Netherlands, announced today that KeyStone's new single-chip FM/DAB/DAB+ receiver ICs, KSW86GTC and KSW86GTV to support TPEG/SLS/DLS/DLS+ for in-car and mobile navigation applications are now available for sampling. A live demonstration of this new novel technology will be held at 10 am on Monday January 30, 2012 at Amaryllo's headquarter in Almere, the Netherlands,

KSW86GTC and KSW86GTV are world's first single-chip FM/DAB/DAB+/DMB receiver ICs that embed Amaryllo's proprietary dynamic traffic management IP to support The Transport Protocol Experts Group (TPEG) in navigation systems. The Tsunami digital radio receiver IC is fully integrated with radio tuners, demodulators, audio decoders, DSPs, MCUs, DACs, flash memory, etc. and is housed in a compact 1.1 cm x 0.8 cm BGA package.

Globalfoundries: Plans For 14nm Process Technology Are Underway.

Globalfoundries, a leading contract maker of semiconductors controlled by ATIC and AMD, said that it had began planning 14nm process technology and that it would continue to upgrade its existing fab in Dresden, Germany, so that it could continue to produce leading-edge chips, including microprocessors and accelerated processing units for Advanced Micro Devices.

Ajit Manocha, chief executive officer of Globalfoundries, said in an interview with EETimes web-site that the company would continue to develop its Dresden facility and that the fab would make chips using the latest manufacturing processes, including 32nm, 28nm, 20nm and even 14nm. The planning and researching of 14nm fabrication technology has already started, according to the executive.

G3-PLC Finalised As Global Smart Grid Standard

Maxim's G3-PLC specification developed in collaboration with Electricité Réseau Distribution France (ERDF) and Sagemcom, has now been approved by the International Telecommunications Union (ITU) as a new low-frequency, OFDM-based narrowband powerline communications (NB-PLC) standard.

Maxim developed the G3-PLC specification to promote open-endedness and interoperability among smart grid implementations.

World's First Folding Car Unveiled

A prototype of world's very first electric car which can fold itself to save parking space has been unveiled in Brussels. Dubbed as a 'capsule-like city car', the Hiriko folding electric car has been developed by the partnership of the Massachusetts Institute of Technology (MIT) Media Lab, the Spanish government, and the Basque businesses.

The two-seater car, which is expected to go into production in Spain next year, is powered by four in-wheel motors. Each wheel is said to be independently driven and steers by 'robot' in-wheel electric motors to increase manoeuvrability, according to a press release.

Thinnest 1.5A Diode Yet

NXP is claiming a first, with a Schottky diode only 0.37mm thick.

"It is the smallest plastic package on the market and is capable of carrying a current of up to 1.5A", said the firm.

Called DFN1608D-2, "it has been released with a portfolio of six rectifiers: three 20V types optimised for low forward voltage [down to 410mV] and three 40V types optimized for low reverse current. Average forward current ranges between 0.5 and 1.5A", said NXP.

Touchscreen Uses Scatter, Works With Gloves, Or Anything

Swedish start-up FlatFrog has an in-glass touchscreen that uses scattered light to provide multi-touch.

"The capacitive technology used in most competing screens reacts to electronic fields in the screen, hence it responds only to fingertips," said FlatFrog. "Planar scatter detection [PSD] reacts also to thick gloves, plastic, rubber, whatever you want to use."

Photonic Crystals To Power Smartphones

Researchers at MIT have developed a way of making a high-temperature version of a kind of materials called photonic crystals, using metals such as tungsten or tantalum. The new materials—which can operate at temperatures up to 1200°C—could someday power everything from smartphones to spacecraft.

"Compared to earlier attempts to make high-temperature photonic crystals, the new approach is higher performance, simpler, robust and amenable to inexpensive large-scale production," said Ivan Celanovic, senior author of a paper describing the work in the Proceedings of the National Academy of Sciences.

Highways To Wirelessly Charge Electric Cars?

Researchers at Stanford University have designed a new technology that could lead to wireless charging of electric vehicles while they cruise down the highway. The high-efficiency charging system uses magnetic fields to wirelessly transmit large electric currents between metal coils placed several feet apart, explained the researchers.

"The new technology has the potential to dramatically increase the driving range of electric vehicles and eventually transform highway travel," the researchers said.

Centre Aims To Boost Scots Electronics Design Industry

A new centre has been launched to support Scottish electronics design companies and help bring more products to market.

The Altium Drop-In Centre is a partnership between Premier EDA Solutions and the Institute for Product Design & Manufacture (IPDM) at Edinburgh Napier University.

The centre has been created to enable Scottish electronics designers to access Altium's design software free of charge for a limited period. Based at IPDM's premises at the Alba Business Park in Livingston, the new centre will also supply additional Altium software licences for start ups who are in the process of securing first round funding. The new lab is accessible to Scottish SMEs and individuals who have an idea for a new technological product or are developing an existing product.

MARCH

Nvidia Pre-Announces 4G/LTE Smartphones With Tegra 3.

Nvidia Corp. said on Friday it had teamed up with GCT Semiconductor and Renesas Mobile to offer high-end smartphones based on Tegra 3 system-on-chip with 4G/LTE modems. The move clearly shows Nvidia's intention to become a viable player on the market of next-gen smartphones.

Quad-core Smartphones and Tablets Will Soon Get LTE

Nvidia has partnered with modem chip makers GCT Semiconductor and Renesas Mobile to make it easier to build LTE (Long-Term Evolution) smartphones and tablets using its quad-core Tegra 3 processor, the company said on Thursday.

The companies' plan to jointly develop and support the modems will make it possible for phone manufacturers to speed the process of developing and building Tegra 3 devices for LTE networks, Nvidia said in a blog post.

Sandisk Intros Smallest 128Gb NAND Flash Memory Chip

MILPITAS, USA: SanDisk Corp. recently announced that it has developed the world's smallest 128 gigabit (Gb) NAND flash memory chip currently in production.

The semiconductor device can store 128 billion individual bits of information on a single silicon die 170mm2 in size - a little more than a quarter of an inch squared, or smaller than the area covered by a US penny, said a press release.

The use of NAND flash memory in high tech equipment like smartphones, tablets and solid state drives (SSDs) allows advances in the full function, small form factor devices that are highly valued by consumers.

TI Sees Its Chips Paving Way For New Health Products

Texas Instruments is working with makers of medical devices and sports accessories to develop new types of energy-efficient products, according to an executive at the company.

The Dallas-based chipmaker has created new microcontrollers -- tiny chips that are embedded in everything from industrial equipment to toys -- that consume half as much power as existing chips, according to Scott Roller, vice president of TI's microcontroller business.

Smartphones To Smite Barriers To Moore's Law

If you thought smartphones had already found a way to bulge with power while remaining svelte, just wait. New developments in chip technology will eventually let manufacturers pack more punch into smaller packages while extending battery life by breaking down a barrier that has forced companies to incorporate a greater degree of complexity in products than would otherwise be necessary.

The Wall Street Journal described these innovations as Intel's (INTC) effort to remake the radio. But that misses the importance of the evolution in these technologies and how other companies, like Qualcomm (QCOM), have been moving down the same path.

The New Cable-TV Guy: Intel

Intel Corp. is developing an Internet-based television service that it hopes to sell to U.S. consumers, a strategic shift by the chip maker as it sets its sights on the crowded pay-TV business.

Intel has for several months been pitching media companies on a plan to create a "virtual cable operator" that would offer U.S. TV channels nationwide over the Internet in a bundle similar to subscriptions sold by cable- and satellite-TV operators, according to people familiar with the effort. Intel wouldn't provide Internet access, which subscribers would obtain separately.

Samsung And LG To Develop Tvs Thinner Than The Ipad

Samsung Electronics and LG Electronics, the world's two biggest TV makers, want to widen their lead over Japanese rivals by using new display technology in 55-inch sets thinner than Apple's iPad.

The South Korean companies are developing Organic Light-Emitting Diode (OLED) televisions that are as thin as 4 millimeters and produce images 200 times sharper than current liquid-crystal-display models. Both plan to start selling OLED sets as early as this year, while Sony and Panasonic have not set target dates for introducing them.

Mikron And Rusnano To Invest Into 65 And 45 Nm Chips

The Science and research institute of molecular electronics and plant "Mikron" ("NIIME and Mikron") is negotiating with Rusnano about investment in buying technologies of production 65 and 45 nm chips, news site Digit.ru reports citing Gennady Krasnikov, the general constructor of "NIIME and Micron".

According to him, nowadays the most popular in the world is the technology of 90 nm chips. Chips of these topological size are most frequently produced. However, in the nearest future chips, produced under 65 nm technology, will be in most demand. There is no need to develop such technology, as it is available abroad for $200-$300. "In present time all large developments are made mainly by alliances. We look for partners for joint investment," Mr. Krasnikov said.

First IPO Of Outsourcing Industry In Eastern Europe: EPAM Is Going Public

Today EPAM, the largest outsourcing company in Eastern Europe which came out of Belarus, has announced the launch of its IPO. The company plans to sell its stock between $16 and $18 per share. Existing shareholders will sell their stocks for the amount between $94 and $105 million, whilst the company will issue 1.5 million of shares, expecting to raise between $24 and $27 million. The new capital will be used for acquisitions, organic growth, working capital and investments in strategic technologies and businesses. Obviously, the existing shareholders will keep the proceeds from the sale of their shares.

Founded by Arkady Dobkin, EPAM has been in the outsourcing business since 1993. Now it employs 7000 IT professionals, and has offices in the US, Belarus, Hungary, Russia, Ukraine, UK, Germany, Kazakhstan, Sweden, Switzerland, and Poland.

Sberbank To Set Up Venture Fund To Finance IT Projects

Sberbank has announced plans to set up a venture fund that will focus on IT projects in the financial sector, CNews reports.

The venture fund will initially come in at $100m. Later its capital is expected to grow to $500m through attracting international partners.

The fund has been registered as Limited Partnership in accordance with British procedure. It will be managed by Troika Ventures, the venture division of the investment company Troika Dialogue.

Siberian Scientists Come Up With Ultra-Thin Nano-Sized Diamond Film

Siberian scientists have learned to make 30-nanometer-thick diamond films, which are much thinner than the ones produced in Europe and the US, RusNanoNet reports citing Vladimir Popov, the head of the lab of the Rzhanov Institute of Semiconductor Physics of the Siberian Branch of the Russian Academy of Science (ISP SB RAS).

The scientist explained that the thinner a microscheme material is, the lower parasite effects and noise are. This lowers the costs, too. That is why a nano-size-thin film is a perfect basis for microchips. For example, up-to-one-nanometer-thick silicon films, developed by the ISP SB RAS, are used by organizations of the federal nuclear power agency Rosatom and the federal space agency Roskosmos in creating radiation-resistant electronic devices, as well as institutes of the Russian Academy of Sciences and the Russian Academy of Medical Sciences in nanoelectronic and biosensor devices.

World Economic Round Up

The World Bank has cut its global forecast by the most in three years saying that a recession in the euro region threatens a slowdown in emerging markets such as India and Mexico. The world economy is expected to grow 2.5 percent in 2012. The euro area may contract 0.3 percent compared with a previous estimate of a 1.8percent increase. The bank has also warned developing countries that they should take steps to plan for a global economic meltdown on a par with 2008-9, if the European sovereign debt crisis escalates. The unemployment rate in Poland reached 13.3 percent in January which was worse than expected. Brazil's central bank cut interest rates for the fourth consecutive time as they seek to revive an economy which stalled in the second half of 2011.

According to the Organisation for Economic Cooperation and Development (OECD), the world's developed economies seem set for a pickup in growth in the months ahead, but China's economy seems likely to slow further. The recovery will likely be led by the US and Japan with the leading indicator for the world's largest economy rising to 102.5 from 101.8 to register a fourth straight monthly gain and the leading indicator for the third largest economy rising to 102.6 from 102.1. According to the OECD figures, the combined Gross Domestic Product (GDP) of its 34 members during the final three months of 2011 was up by 0.1% from the third quarter

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 2012

Future Horizons Events

- Silicon Chip Industry Training Seminar – London – 23rd April
- Industry Forecast Briefing, London – 12th July

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

Telephone: +44 1732 740440
Email: mail@futurehorizons.com

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Industry Events

- SPIE Photonics Europe – 16 – 19 April
- Semiconductor and Integrated Opto-Electronics Conference (SIOE'12) 2-4April

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ANNUAL SEMICONDUCTOR INDUSTRY
FORECAST SEMINAR
12th July
Harrington Hall Hotel, London, SW7
AND
21ST INTERNATIONAL ELECTRONICS FORUM
Marriott Hotel, Yerevan, Armenia
3rd – 5th October 2012

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