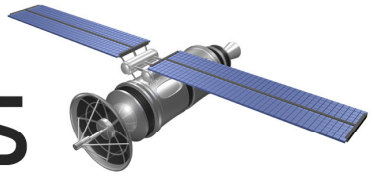
FutureHorizons

The Global Semiconductor Industry Analysts



Future Horizons Monthly Newsletter

August 2011

Contents Page

Industry Overview	**3**
Industry News by Company	**4 - 6**
Industry News & Trends	**7 - 9**
East European News & Trends	**10 - 11**
World Economic Round Up	**12**
Future Horizons & Industry Events	**13**

Industry Overview

May's WSTS results were boringly unsurprising, placing even more emphasis on the need to look at the underlying trends. Here too, all of the signs are for a 'steady as you go' situation. For sure there has been slowing in Q1's unusually high run rates, which reflects a 'back to normal' situation following the post March 11 inventory and supply panics. With the month-on-month unit and ASP trends behaving exactly as expected for the second month in the quarter, we are now looking at a flat to slightly up Q2 versus Q1. Part of this is due to the massive (and unhelpful) billion dollar revisions to the YTD WSTS numbers which makes nonsense of industry's obsession with micro-analysing each month's data.

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

Industry News By Company

LTE chip firm Altair opens regional HQ in India

Altair Semiconductor, a developer of low-power chips for LTE network deployments, has opened a new office in India. The new facility will handle all operations in India and provide business and technical support for prospective and current customers.

India-based telecom carriers poised to launch LTE services include Reliance Industries, Bharti Airtel, Aircell and Tikona, Altair pointed out. With shift to LTE well underway in India, Altair said it is well positioned to capture a significant share of the local market.

Canon To Launch Its First Back-End Semiconductor Manufacturing Tool FPA-5510iv For 3D Packaging

Canon Inc. announced today its entry into the semiconductor back-end manufacturing tool market with the launch of the FPA-5510iV for next-generation semiconductor packaging, which goes on sale today.

As smart phones, tablet PCs and other electronic devices become progressively smaller and more intelligent, the demand for integration and shrinkage on semiconductor devices continues to increase. One way to realize such integration is to employ a three-dimensional layout of chips, layering multiple semiconductor chips vertically and interconnecting the chips to configure a single device. To facilitate this interconnection, the industry has developed Through Silicon Via (TSV) and Bump processes, enabling multifold increases of memory capacity, high-speed data transfer, and reduced electricity consumption in a smaller layout area.

Dialog Semi Supplies Gigaset

Dialog's ICs will be integrated into all pro series devices, beginning with the DE900 IP PRO and DE700 IP PRO desktop phones, for small and medium enterprises (SME).

"VoIP systems bring significant competitive advantages and companies are rapidly transitioning towards newer enhanced systems, like the pro series, that embrace the benefits of IP telephony. Gigaset has consistently delivered feature rich, intuitive devices with excellent sound quality. This adoption of our Green VoIP technology reinforces the communications market's shift to more environmentally friendly hardware," said Dr Jalal Bagherli, CEO at Dialog Semiconductor.

Freescale Invests In eReader Market With New I.MX50 Chipset

Austin-based Freescale Semiconductor Inc. (FSL) announced a trio of new members to the company's i.MX50 product family, placing a big bet on the thriving eReader device market while more powerful tablet computers threaten to unseat eReaders.

The family of i.MX50 chips launched in 2010 with the i.MX508, a SoC, or system-on-chip design that combines an ARM Cortex-A8 processing core with a hardware display controller for E Ink electrophoretic displays. The all-in-one solution by the company is designed for powerful eReader devices and Freescale is hopint the new i.MX chips will fill gaps in the product line where using the i.MX508 is too expensive to use.

Fresco Microchip Secures $9 Million In Series C Funding

Toronto, Canada based RF and mixed-signal semiconductor startup Fresco Microchip Inc. has secured $9 million in series C financing round from Ontario Venture Capital Fund (OVCF) and existing investors, which include Celtic House Venture Partners and Ventures West. According to Fresco, the funds will be used to both commercialize the company's expanded product portfolio and augment Fresco's ability to serve customer demand in emerging markets.

Marl Wins £2m LED Contract With Nokia Siemens

Marl International has won a £2m contract with Nokia Siemens Networks to supply status indicator LEDs for cellular base stations for the European and Chinese markets.

The contract was won in partnership with Marl's German Distributor, JK Defence and the customised LEDs are being assembled by Marl in the UK at Ulverston.

NXP Slashes NFC Forecast

NXP has more than halved its forecast for shipments of NFC-enabled mobile phones this year.

""Previously, we have provided a range of between 40 to 100 million NFC-based handsets being shipped in 2011," says CEO Rick Clemmer, "however, we currently see the ramp is likely to be towards the lower end or perhaps even slightly below our initial range for 2011 as the mobile operators implement their deployment strategies."

Renesas Reveals 1 Ghz Gan PA For CATV Applications

The gallium nitride power amplifier grown on a silicon substrate offers approximately double the output performance of similar gallium arsenide based products.

Renesas Electronics has announced the development of the MC-7802, a GaN power amplifier module for 1GHz CATV (cable television) systems.

Siliconblue Samples 40-Nm Fpgas For Tablets

SiliconBlue (Santa Clara, Calif.) said its iCE40 family of mobile FPGAs, codenamed "Los Angeles," includes a low-power series (LP) targeting smartphones and a high-speed series (HX) targeting tablets. The devices, built on Taiwan Semiconductor Manufacturing Co.'s 40-nm standard CMOS process, provide twice the logic capacity of SiliconBlue's previous generation 65-nm devices, the company said.

Chip foundry giant Taiwan Semiconductor Manufacturing Co. (TSMC) could deliver its first semiconductors with 3-D interconnects by the end of 2011, potentially beating Intel Corp. to the punch in offering the first 3-D chips, according to a report circulated Tuesday (July 5) by a Taiwan trade group.

STMicro And Mentor Cooperate

The integration of the Mentor Graphics Inflexion UI product on SPEAr processors will enable rapid implementation of rich and dynamic 2D and 3D UIs for product

differentiation in target embedded control applications across market segments, from computer peripherals and communication, to industrial automation.

"The availability of Mentor Embedded Inflexion UI on ST's family of SPEAr embedded microprocessors will allow users to quickly create dynamic product UIs on SPEAr processors," stated Loris Valenti, Group VP and General Manager, Computer Systems Division STMicroelectronics. "The Inflexion UI can be used on our SPEAr 320 processors, which run on ARM A926EJ-S, and will also be available shortly on the newest SPEAr1300 ARM-CortexA9 family with its powerful Open GL/ES graphics acceleration."

TSMC To Ramp 14nm Finfets In Q42013.

TSMC expects to begin its ramp of its first finfet-based process in Q4 2013, says CEO Morris Chang. The process geometry will be 14nm.

Currently TSMC is ramping 28nm – but slower than expected due to softening demand. Nonetheless the company has 89 tape-outs, according to Chang, adding: "The first silicon of every tape out was fully functional."

By the end of this year, 28nm is expected to be producing more than1% of TSMC's total revenues

Toshiba Addresses The Green Gap In LEDs

Inserting a thin AlGaN layer between the InGaN quantum well and the gallium nitride barrier delivers a tremendous hike in the output power of green LEDs.

One of the biggest problems facing the nitride community is the 'green gap' – the rapidly declining efficiency of green light emitters at longer and longer wavelengths.

But this issue can be combated, according to Toshiba's Tamonari Shioda, by inserting thin AlGaN layers in the active region of a conventional device.

Losing Ground, BlackBerry Resets

Research In Motion Ltd. said it will cut 2,000 jobs, almost 11% of its work force, the latest move in a make-or-break scramble to resuscitate its products and keep the company that essentially invented the smartphone from becoming an also-ran.

The BlackBerry maker has struggled to stanch its shrinking share of North American smartphone sales in the face of an onslaught led by Apple Inc.'s iPhone and products run on Google Inc.'s Android operating system. The company's long-time co-chiefs, Mike Lazaridis and Jim Balsillie, have promised to revamp their own devices.

Industry News & Trends

Long Term Planning From Europe

A key expert group set up by the Commission set out guidelines on giving European industry a competitive edge in deploying the industrial technologies of the future (Key Enabling Technologies). The main conclusions call on decision-makers to adopt radical policy objectives to retain critical capability and capacity in Europe through a single and comprehensive approach to KETs. In particular, the group recommends that the vital importance of KETs should be reflected in the structure and funding balance in the upcoming framework for research and innovation and in the priorities of the EU's future regional policy.

New Spin Out To Develop Next Generation Of Sic Semiconductors

The UK based firm, which was launched last week, aims to revolutionise silicon carbide power devices and has received investments of over £150,000.

Anvil Semiconductors, created by Warwick University's technology commercialisation company, Warwick Ventures, aims to develop smaller, more efficient power converters using innovative SiC power semiconductor switches.

Important Step In The Next Generation Of Computing

Scientists have taken one step closer to the next generation of computers. Research from the Cavendish Laboratory, the University of Cambridge's Department of Physics, provides new insight into spintronics, which has been hailed as the successor to the transistor.

Spintronics, which exploits the electron's tiny magnetic moment, or 'spin', could radically change computing due to its potential of high-speed, high-density and low-power consumption. The new research sheds light on how to make 'spin' more efficient.

Double Your Smartphone Battery Life

Smartphones struggle to make it through the day on a single charge One of the problems for the great mobile revolution and ubiquitous computing has been battery life. A smartphone struggles to make it through just one day and the introduction of even more powerful processors may make life worse.

New Ultraviolet Laser Technology Could Increase Storage Capacity Of Optical Disc Media

Although ultraviolet semiconductor diode lasers are widely used in data processing, information storage and biology, their applications have been limited by the lasers' size, cost and power. Now researchers at the University of California, Riverside Bourns College of Engineering have overcome these problems by developing a new semiconductor nanowire laser technology that could be used to provide denser optical disc storage, superfast data processing and transmission and even to change the function of a living cell.

The breakthrough comes in the form of zinc oxide nanowire waveguide laser technology that the team says offers smaller sizes, lower costs, higher powers and shorter wavelengths than the current generation of ultraviolet lasers based on gallium nitride.

New Laser Technology Could Kill Viruses And Improve DVDs

A team led by a professor at the University of California, Riverside Bourns College of Engineering has made a discovery in semiconductor nanowire laser technology that could potentially do everything from kill viruses to increase storage capacity of DVDs.

Ultraviolet semiconductor diode lasers are widely used in data processing, information storage and biology. Their applications have been limited, however, by size, cost and power. The current generation of ultraviolet lasers is based on a material called gallium nitride, but Jianlin Liu, a professor of electrical engineering, and his colleagues have made a breakthrough in zinc oxide nanowire waveguide lasers, which can offer smaller sizes, lower costs, higher powers and shorter wavelengths.

LG Pops Out A Glasses-Free 3-D Monitor

When it comes to 3-D TVs, movies and other products, the big drawback has always been that viewers needed special glasses to get that pop-out effect.

On Wednesday, LG Electronics Co. said it would start selling a 20-inch computer monitor that displays 3-D images without needing any glasses at all.

The monitor, called the D2000, will go on sale in South Korea first at a price of 1.29 million won, or about $1,200. It will be available in other countries in October, after the IFA electronics industry convention in Germany in September.

Melexis Unveils Automatic Windshield Wiper Ic

Melexis has developed a new, automatic windshield wiper IC with an MLX75308 sensor, which automatically controls auto-windshield glass wipers when fog, mist, road spray or rain begin to hinder the transmission of light via the frontal windshield glass in vehicles.

The new rain sensor semiconductor chip is a single device application and it controls all the major components, which are located in a light and rain sensor module and is usually positioned at the back of the front windshield of a car or any other automobile. The sensing system comprises of photodiodes, near infrared LEDs, a microcontroller, a network bus interface IC and an MLX75308.

Graphene: ‘Faultless’ Crystals Grown

Researchers at the US Oak Ridge National Laboratory have demonstrated that hydrogen rather than carbon dictates graphene grain shape and size.

"Hydrogen not only initiates the graphene growth, but controls the graphene shape and size," said lead researcher Ivan Vlassiouk. "We have described a method to grow well-defined graphene grains that have perfect hexagonal shapes pointing to the faultless single crystal structure."

Transparent Flexible Battery Enables See-Through Phones

A see-through smartphone you can roll up and stick in your pocket - how about that for a must-have product? It's now one step closer to reality, thanks to the development of a transparent battery.

Transparent screens, circuitry and keyboards have already been developed in an effort to produce see-through devices, but the bulk of any phone is its stubbornly opaque battery. Now, Yi Cui, who led the research at Stanford University, California, says his new battery is the last piece needed to make transparent gadgets.

Optoelectronics To Remain Fifth Largest Semi Market By Global Sales

In particular, the mounting need for energy efficiency across the entire industry has led to new developments and applications for LEDs, image sensors, and other optoelectronics.

Databeans expects that Optoelectronics will remain the fifth largest semiconductor market by global sales behind Memory, Logic, Analog, and Microprocessors with $22.5 billion in projected 2011 revenue. Sales and unit shipments are expected to take off starting in 2011 as demand grows for LEDs and OLEDs in new products ranging from new television displays to general lighting applications. Over the forecasted period, optoelectronics will experience the industry's highest average sales growth of 14 percent annually, at which time it will account for 8 percent of the total semiconductor industry.

Li-Fi Flickers To Challenge Wi-Fi

Flickering lights are annoying but they may have an upside. Visible light communication (VLC) uses rapid pulses of light to transmit information wirelessly. Now it may be ready to compete with conventional Wi-Fi.

"At the heart of this technology is a new generation of high-brightness light-emitting diodes," says Harald Haas from the University of Edinburgh, UK.

Indian Chip Market To Grow 15% In 2011

LONDON – The 2011 Indian semiconductor market is going to be worth $8.2 billion, up 15.5 percent compared to $7.1 billion in 2010, according to an EE Herald report that references market research company Gartner as its source.

Increasing consumer affluence and economic growth in the sub-continent is encouraging electronic equipment companies to set up manufacturing facilities in India, the report said.

Gan Startup Raises $38M To Transform Power Conversion

Transphorm Inc. is that unusual form of VCbacked startup that has raised money to invest in semiconductor manufacturing, including construction of a wafer fab in California.

Transphorm, which specializes in gallium nitride power ICs, boasts a blue chip list of investors, including Foundation Capital, Google Ventures, Kleiner Perkins Caufield & Byers and Lux Capital. The startup has been cruising along in stealth mode since its formation in 2007. Over the past three or so years, it has raised $38 million.

East European News & Trends

Nanotechnology Stands At The Crossroads

The microelectronics development strategy proposed by Rusnano and Sistema includes elements of protectionism to support local manufacturers as well as economic stimuli for the production of microelectronic components and finished high-tech products.

Mikron is proud of its microchips. It uses objects so small that 1,000 of them laid side by side equal the thickness of one human hair.

The only problem is that this achievement — known as the 90-nanometer process — was set in the West in 2002, a dinosaur age ago for the industry.

Firm Scoops Major Contract In Russia

A concrete equipment company in Co Armagh has won an £800,000 contract in Russia.

Rapid International in Tandragee is supplying concrete production machinery to clients in the south of the country for road construction and other purposes.

The company secured the order via a partnership established through a new machinery dealership in Moscow following its participation in an Invest NI trade mission to Moscow and St Petersburg last year

German Vario Green Energy Group Puts Six Slovak Solar Parks On The Grid

The Vario green energy group completed construction of six solar parks with a power of 1 to 1.2 Megawatts each at three locations in the Slovak Republic in May and June 2011. The company handed over the turn-key plants to German and Slovak investors. The project planning, system configuration and the delivery of all the components were done by Vario green energy Concept GmbH from Holzgerlingen near Stuttgart, together with Vario green energy Parks GmbH from Munich.

Vizerra Secures 4m Euro First Round Funding - An Amazing Success For Russian Young Technology Company Going International

The company was launched in March 2008 by its CEO and founder Arman Gukasyan and was funded by the business angel, Alexander Dobrovinsky, Senior Partner and founder of law firm Alexander Dobrovinsky and Partners and one of the most respected corporate lawyers in Moscow, Russia. Although the business has been in the software development stage then, the business has generated over a million Euros of revenue and hired 60 full time staff members.

Renault And Nissan Plan Avtovaz Parts Tie-Up

Renault and Nissan are planning to produce engines and gearboxes with Avtovaz, Russia's largest carmaker which makes the Lada, by as soon as 2013, a senior executive at the French producer said.

The allied carmakers are also on course to lift Renault's 25 per cent stake in Avtovaz to a jointly held 50 per cent-plus one-share stake by year-end, according to Bruno Ancelin, who heads the French group's business in Russia and the former Soviet Union.

MIT Agrees To Tech School At Russia's Skolkovo

MANHASSET, NY -- Earlier this month the Massachusetts Institute of Technology and the Skolkovo Foundation signed a preliminary agreement to create the Skolkovo Institute of Science and Technology (SIST) in Skolkovo, Russia.

They will next sign a three-year collaboration between them in early fall.

The Skolkovo Foundation is a nonprofit organization charged to create a new science and technology city in the Moscow suburb of Skolkovo and is governed by a special law, which gives its residents special economic conditions for running their businesses.

World Economic Round Up

Global inflation pressures are increasing rapidly with commodity prices soaring as the global recovery runs into capacity constraints. Policy makers in Asia and Latin America are already raising borrowing costs to dampen price pressures with rates remaining near record lows in the world's largest developed economies. Central banks in the US, UK and Japan have signalled that they intend to keep that stimulus in place for sometime, with only the European Central Bank moving to gradually tighten credit as inflation risks increase.

World trade volumes fell in April for the first time since September 2010, a new indication that the global economy is slowing.

Crude oil prices have gained 20 percent in the past year, putting pressure on companies to increase wages and pass on higher costs to consumers.

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

Future Horizons Events

- Silicon Chip Industry Training Seminar – London – 5th September
- International Electronics Forum – Seville – 5th – 7th October 2011
-

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

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

Download Future Horizons Full Events Calendar Here

Industry Events

- Ises Solar World Congress 2011 28th Aug – 2nd Sept
- NUSOD 2011 – 5th – 8th Sept
- China International Optoelectronic Expo 6th – 9th Sept

NEW INTERNATIONAL ELECTRONICS FORUM DATE ANNOUNCED

5-7 OCTOBER, 2011

SEVILLE, SPAIN

RESERVE YOUR PLACE NOW!!!

Follow Us On Twitter

For weekly semiconductor news and updates follow us on Twitter.