

FutureHorizons



The Global Semiconductor Industry Analysts

Future Horizons Newsletter

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Industry News By Company

[Chinese Firm Behind The Purchase Of The UK's Largest Chip Plant Warns Deal Is At Risk](#)

The Chinese firm behind the purchase of Britain's largest chip manufacturing facility earlier this summer has admitted that the acquisition could be unwound as the U.K. government reviews the takeover.

Shanghai-headquartered Wingtech Technologies warned shareholders in a note this week that "domestic and foreign industry policies" present a risk to the takeover of Newport Wafer Fab, which is located in South Wales.

The warning comes after British Prime Minister Boris Johnson ordered Stephen Lovegrove, the U.K.'s national security advisor, to investigate the deal. A decision could be announced in the coming days.

Wingtech acquired Newport Wafer Fab for around £63 million through a Dutch subsidiary it owns called Nexperia. The deal was announced in July and the terms of the agreement have now been confirmed, according to the Wingtech statement filed to the Shanghai Stock Exchange.

However, a spokesperson for the U.K. government told CNBC that the deal is still being reviewed. "We have considered this issue thoroughly, and will continue to monitor the situation closely," the spokesperson said.

[Amazon, Google, IKEA, Schneider Electric and More Join Silicon Labs' 'Works With 2021](#)

Silicon Labs has announced that Amazon, Google, IKEA, Schneider Electric, Konke, Landis+Gyr, X, the moonshot factory (Google-founded), City of Austin, Lifesmart, Tencent Cloud and Tuya will be delivering keynotes at Works With 2021, the defining Internet of Things (IoT) conference livestreaming for free to thousands of engineers, developers and technologists worldwide on September 14-15 CT/September 15-16 CST (China Standard Time).

Google, Amazon, and Schneider Electric will join Silicon Labs President Matt Johnson to kick off the conference on Sept. 14 from 9 a.m. to 10 a.m. CT. The companies will share insight into the new Matter protocol's significance in simplifying product development while increasing product compatibility for consumers and its place within smart home and commercial roadmaps. Landis + Gyr, Google-X – the moonshot factory and City of Austin will deliver their keynotes on smart city technologies at 9:55 a.m. CT on Sept. 15. IKEA will join Silicon Labs CEO Tyson Tuttle for the closing remarks of Works With on Sept. 15 from 3 p.m. to 3:30 p.m. CT.

Analog Devices Closes \$20 Billion Deal to Buy Maxim Integrated

Analog Devices said on Thursday that it closed its more than \$20 billion deal for Maxim Integrated, cementing its largest-ever deal as it looks to expand its product offerings for both the automotive and industrial markets.

The deal creates an analog semiconductor giant with more than 50,000 products and a global customer base of around 125,000, giving it the scale to become a more formidable foe to Texas Instruments. The deal, which raises its annual revenue to the \$9 billion range and free cash flow to \$3 billion, also bolsters its position in the automobile sector and further extends its footprint on factory floors and in consumer and medical electronics.

“With more than 10,000 engineers and the increased breadth and depth of our best-in-class technologies, we are well-positioned to develop even more complete, cutting-edge solutions for our customers,” said Vincent Roche, president and CEO of Analog Devices, in a statement. Under the terms of the combination, Maxim's shareholders swapped every share of common stock they owned for 0.63 shares of Analog's common stock.

Startup Gets £1.5m To Develop Multi-Band Frequency Agile RF Chip

A Cambridge, UK-based fabless semiconductor company that has developed a frequency agile, tunable RF front-end chip addressing multiple mobile handset frequency bands has announced £1.5 million funding to further develop its chip.

Forefront RF was established in 2020 based on research by Leo Laughlin at the University of Bristol. Laughlin and his co-founder Julian Hildersley met through mutual contacts last year and set up the company in Cambridge, where he said there is a strong talent pool of RF expertise. The company expects to double the team to 10 people by the end of the year, looking to recruit engineers with experience in RF system architecture, software algorithms, and physical design and layout.

Marvell Scoops Up Innovium for \$1.1B

Marvell Technology is acquiring Innovium for roughly \$1.1 billion in stock. Marvell has spent the last four years reorienting itself as a supplier capable of providing many different kinds of ICs needed by data centers and high-speed 5G networks. Innovium gives Marvell another product line that appears to be gaining good traction within that market segment.

Innovium's marquee products are Ethernet switches. Innovium built its TeraLynx switch family from the ground up to cater specifically to data centers. Teralynx switch silicon offers large buffers, telemetry to support operational analytics, low latency, and line-rate programmability. The company claims it has the industry's best power efficiency in terms of performance per watt.

Microchip Launches SiC Power Modules for Aircraft Electrical Systems

In the race to reduce emissions in aerospace systems, designers are increasingly moving towards more efficient electronics in control systems, including those that replace pneumatics and hydraulics—everything from onboard alternators to actuators and auxiliary power units.

Microchip Technology, working with European Commission consortium member Clean Sky, has developed a family of SiC-based power modules for aerospace applications intended to enable more efficient and compact power conversion and engine drive systems. The modules—designated BL1, BL2, and BL3—use a mix of 1200V silicon carbide (SiC) MOSFETs and 1600V diodes on a modified substrate designed for harsh aviation applications. The power modules are also available with Trench4Fast silicon IGBTs.

Mike Innab, Microchip’s senior manager for integrated power solutions, noted that size, weight, and cost are the key drivers in aerospace power converters. “Smaller size and lighter weight translate to long-term cost savings for aviation through more efficient flight. These along with the initial cost are critical in the very competitive aviation industry. The long-term reliability and robustness of the products are also critical,” Innab said in an interview.

ST Acquires Simulation Tool Specialist Wisebatt

STMicroelectronics has moved beyond the traditional press release and notified on LinkedIn it is “excited to have a new team of brilliant developers join ST from Wisebatt”. Contacted by EE Times Europe, Wilfried Dron, co-founder and CEO of Wisebatt, confirmed the acquisition, but did not disclose the financial terms of the deal.

Analyzing the motives of the acquisition, Dron told us it meets “Wisebatt’s desire to continue to increase the reach of its products and ST’s desire to expand its simulation solution offering.”

Wisebatt was founded by Wilfried Dron and Marion Blatter in 2016 and its technology is based on more than 10 years of scientific research at the Computer Science Laboratory of Sorbonne University (LIP6 – Paris).

Industry News & Trends

[EdgeQ Samples 5G Basestation-on-a-Chip](#)

EdgeQ, the startup making basestation-on-a-chip silicon and software for 5G deployments, is now sampling its chip and phy software. The company has also released a few more details about its silicon and software stack.

According to EdgeQ CEO Vinay Ravuri, the company has had its chip back in the lab for “about six weeks”.

“Within two weeks we actually got full Linux running and it looks solid, and we are able to send 5G traffic through the chip,” Ravuri told EE Times.

EdgeQ’s idea is to integrate the various chips that make up a basestation onto one piece of programmable silicon, thereby reducing the overall power consumption and cost of building a basestation.

[GUC Announces GLink-3D Die-on-Die Interface IP using TSMC N5 and N6 Process for 3DFabric™ Advanced Packaging Technology](#)

Global Unichip Corp. (GUC), the Advanced ASIC Leader, announces GLink-3D die-on-die interface IP using TSMC’s N5 and N6 processes and 3DFabric™ advanced packaging technology for AI, HPC, and Networking applications.

AI/HPC/Networking memory demand is growing quickly and the SRAM to Logic ratio is also increasing. Logic gains higher density and performance when scaled to N5/N3 process nodes but SRAM scaling from N7 to N5/N3 is moderate. SRAM/Logic disintegration allows the implementation of separate SRAM and Logic at the most efficient process nodes. Layers of CPU and SRAM (Last Level Cache, packet buffers) dies can be assembled over and under interconnect/IO dies using TSMC 3DFabric packaging technology. Such expandable SRAM and modular computing applications are enabled by GUC GLink-3D high bandwidth, low latency, low power, and point-to-multipoint interface between 3D stacked dies. CPUs, SRAMs, Interconnects, and I/Os (SerDes, HBM, DDR) can be implemented in the most efficient process nodes. Different die combinations can be assembled to address different market segments. At boot time, assembled SRAM and CPU dies are identified, unique die IDs are distributed, available memory space and computing resources are defined and a point-to-multipoint GLink-3D interface to the stacked dies is enabled.

[Qualcomm Boosts Drone Utility with 5G and AI-enabled Drone Platform](#)

Qualcomm Technologies has launched the Qualcomm Flight RB5 5G platform, which it said will help accelerate and scale development of powerful autonomous drones for many industries and sectors as a result of its 5G connectivity and artificial intelligence (AI) capabilities.

Both commercial and consumer drones and unmanned aerial vehicles (UAVs) are expected to see significant growth over the next few years. But a key hurdle so far has been the marrying up of drone technology with the advancements made in AI and

autonomy along with 5G and long-range Wi-Fi connectivity, according to Dev Singh, Qualcomm Technologies' senior director for autonomous robotics, drones and intelligent machines.

This pairing of 5G and AI capabilities in Qualcomm's new platform will boost the utility and usefulness of drones and help accelerate development of commercial, enterprise, and industrial drones across sectors which include film and entertainment, security and emergency response, delivery, defense, inspection, and mapping. It also opens up new possibilities for industries looking to adopt drone solutions and realize the benefits of the intelligent edge.

Emerging Memories Look to Displace NOR, SRAM

Emerging memories are poised for another growth surge.

That's according to the annual report released jointly authored by Objective Analysis and Coughlin Associates. It's projecting emerging memories to be a \$44 billion market by 2031 by displacing incumbent technologies including NOR flash, SRAM, and DRAM, either in the form of standalone memory chips and embedded memories within microcontrollers, ASICs, and even compute processors.

Over time, the authors expect emerging memories to create new markets of their own, and that's there's a great deal of competitive advantage to be gained for participating in the market—not just for memory makers and foundries, but also designers and users of SoCs who are already incorporating these new non-volatile memories into their designs to achieve much more competitive power consumption and system responsiveness.

Germany To Invest Billions To Bring Semiconductor Production Back To Europe

As part of a major European project, Germany wants to invest several billion euros into bringing semiconductor production back to Europe, with the aim of strengthening German and European technological sovereignty. EURACTIV Germany reports.

To promote the expansion of microelectronics in Germany, Economy Minister Peter Altmaier held talks with 50 representatives of the European and international semiconductor industry on Wednesday (1 September) to encourage them to invest in Germany by presenting them with a support package.

“Access to sufficient microchips will become a competitive element for any successful global economy in the coming years,” Altmaier stressed at a press conference on Wednesday.

“This means we must act if we want to preserve our technological sovereignty,” Altmaier added.

Within the framework of the European Initiative ‘Important Projects of Common European Interest’ (IPCEI) – one of the EU's key subsidy tools to stimulate investment and reduce dependence on imports – the German government intends to invest around €3 billion to reclaim production sites along the entire value chain of semiconductor production

East European News & Trends

Draft Program Details Plan To Develop “Green” Vehicle Production

Russia’s Cabinet is drafting an \$8bn federal program that aims to put together a strong basis for electric and hydrogen vehicle production by 2030, the USBBC reported, citing a yet-unnamed source at the Russian Ministry of Industry and Trade.

The projected funding is apparently falling 26% off compared to a previous draft plan discussed in June.

The funding would be used for the partial compensation of costs for charging stations, vehicle components, and fuel cell manufacturing and for supporting related R&D activities. The draft reportedly does not include demand support measures such as leasing or loan interest subsidies but notes that the Government could raise some \$1.5bn for such subsidies by 2030 by increasing recycling fees on automobiles or by imposing an import duty on electric vehicles.

Next Gen Energy Storage Solutions Under Way

Researchers at the Center for Energy Science and Technology, which is a department of Skoltech University in Moscow, have offered a simple and scalable method of increasing the capacity of a wide range of cathode materials to be used in metal-ion storage batteries.

Research results may find their way into a possible new generation of advanced rechargeable energy storage devices.

At the core of the new approach is treating cathodes with reducing agents solutions, specifically alkali metal salts derived from aromatic molecules. Several types of such agents that come from substances like naphthalene were proven to be suitable.

Russians in Russia invest in EdTech project by Russians in Brazil

Baring Vostok, a large Russian-based VC fund, led a consortium of Russian investors who recently put \$11m into a Brazilian online school called EBAC (Escola Britânica de Artes Criativas & Tecnologia), Vc.ru reported.

The consortium also featured Begin Capital, a Russian business angel club called AngelsDeck, A.Partners, an investment company, and Sergei Solonin, the co-founder of Qiwi. Mr. Solonin had already invested \$1.5m in EBAC earlier this year.

EBAC was established last year by a group of Russian entrepreneurs: Alexander Avramov, the co-founder of the British Higher School of Design; Andrei Anishchenko, the co-founder of an HRTech company called Skillbox; and Pavel Alyoshin, an ex-CEO of Yandex.Market and the head of Yandex.Verticals. The online school offers web-based coaching in design, marketing, and programming in Brazil and Mexico. According to the school’s internal reports, EBAC has 20,000 students and more than a million US dollars in monthly proceeds. In January 2021, the service had only 5,000 students and half the amount in monthly revenue.

#Far Eastern Firm Puts Together Smart Cities

Digital Primorye, a Russian company developing smart city systems, is working on an array of digital services and high tech systems in such sectors as transport, public utilities, education, health care, and some others.

The company focuses on its home Primorye, a Far Eastern Russian region that borders North Korea and China. More than 30 such services are expected to start operation by April 2022.

Digital Primorye has long-term plans to introduce an integrated digital portal and unified cards for each Primorye resident which would digitize the providing of all government services and social benefits, as well as payments for public utilities and transportation, and would also facilitate local residents' access to municipal decision-making.

World Economic Round Up

Europe's economy is roaring back from the coronavirus crisis. Growth in the euro area outpaced both the US and China in the last quarter, more than 70 percent of EU adults have been fully vaccinated against Covid-19, investment is booming and unemployment is falling. However, European Central (ECB) Bank president Christine Lagarde sounded a cautious note last week, saying we are not out of the woods and highlighting a number of risks over the coming months, despite raising its growth forecasts for the third consecutive time this year.

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 2020

Future Horizons Events

- [Silicon Chip Industry Training Seminar](#) – London – November 2021
- [Industry Forecast Briefing](#), London – January 2022

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

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MARK YOUR CALENDER FOR THE NEXT

SILICON CHIP INDUSTRY WORKSHOP

MONDAY November 2021

AND

INDUSTRY FORECAST BRIEFING

TUESDAY January 2022

BOTH BEING HELD AT

HOLIDAY INN KENSINGTON FORUM, LONDON

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