

FutureHorizons



The Global Semiconductor Industry Analysts

FH MONDAY

1 May 2023

Marvell unveils 3nm SerDes silicon for 45% faster data

Marvell Technology said it has demonstrated the industry's first 3nm data infrastructure silicon to boost data transfer speeds up to 45% faster than existing approaches with multichip products.

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Smallest short wavelength IR devices for wearables

Rohm has developed Short-Wavelength Infrared (SWIR) LEDs and photodiodes in the industry's smallest class 1608-size (1.6mm x 0.8mm) for wearable requiring material detection.

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Cadence Launches AI-powered Virtuoso Studio

Cadence Design Systems Inc.'s Virtuoso Studio is a next-generation custom design platform that delivers an optimal design experience and ushers in the future for custom analog design.

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TALK TO US



Nexperia Launches 650V SiC Diodes

Nexperia has introduced a 650V silicon carbide (SiC) Schottky diode designed for power applications which require ultra-high performance, low loss, and high efficiency. The 10A, 650V SiC Schottky diode is an industrial-grade part that addresses the challenges of demanding high voltage and high current applications.

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Fuji invests in European chip materials supply

Fujifilm makes photoresists materials, solvents, cleaners and etchants and chemical delivery systems. The company said the ¥4.5 billion investment is one of Europe's biggest capital expenditure investments in the semiconductor materials supply chain over the last decade.

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Future Horizons Ltd, • 44 Bethel Road • Sevenoaks • Kent TN13 3UE • England

Tel: +44 1732 740440 • Fax: +44 1732 740442

e-mail: mail@futurehorizons.com • <http://www.futurehorizons.com/>

Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

Marvell unveils 3nm SerDes silicon for 45% faster data transfer

Marvell Technology said it has demonstrated the industry's first 3nm data infrastructure silicon to boost data transfer speeds up to 45% faster than existing approaches with multichip products.

Its announcement on Wednesday comes one day after Broadcom announced delivery to some customers of its Jericho3-AI for Ethernet in a 32,000 GPU cluster.

While the two products are in different categories, they show a lightning-fast move by silicon providers to make products for cloud companies and large data centers to handle acceleration, often across artificial intelligence networks.

"Networking large systems of chips together is one of the biggest bottlenecks for increasingly larger generative AI models," Dylan Patel, an analyst at SemiAnalysis, told Fierce Electronics. IDC has predicted global spending on AI will grow 27% by 2026, reaching \$300 billion or more.

Smallest short wavelength IR devices for wearables

Rohm has developed Short-Wavelength Infrared (SWIR) LEDs and photodiodes in the industry's smallest class 1608-size (1.6mm x 0.8mm) for wearable requiring material detection.

SWIR has a longer wavelength than near-infrared (NIR), providing greater permeability through different materials while being less susceptible to sunlight, smoke, and other particulate matter. As such, this technology is expected to expand the range of sensing substances such as water/gas and glucose.

Most SWIR devices have been through-hole package types for relatively large applications such as communication equipment and industrial analyzers. As a result there are very few surface mount products available on the market suitable for compact applications.

Cadence Launches AI-powered Virtuoso Studio

Cadence Design Systems Inc.'s Virtuoso Studio is a next-generation custom design platform that delivers an optimal design experience and ushers in the future for custom analog design. Virtuoso Studio features a reimagined infrastructure with a unique approach to managing design processes and allows more than a 3X improvement in design throughput for today's largest designs, enabling customers to meet aggressive time-to-market goals.

Virtuoso Studio addresses the challenges customers face with larger, more complex designs, empowering them to analyze and verify designs to ensure that design intent is maintained throughout the design cycle. This new platform features seamless integration with other Cadence solutions, including the Cadence Spectre Simulation Platform, Cadence Allegro PCB Design and Cadence Pegasus Verification System, removing traditional barriers between different design domains and speeding design closure.

Nexperia Launches 650V SiC Diodes for Power Conversion Applications

Nexperia has introduced a 650V silicon carbide (SiC) Schottky diode designed for power applications which require ultra-high performance, low loss, and high efficiency.

The 10A, 650V SiC Schottky diode is an industrial-grade part that addresses the challenges of demanding high voltage and high current applications. These include switched-mode power supplies, AC-DC and DC-DC converters, battery-charging infrastructure, uninterruptible power supplies, and photovoltaic inverters, and allow for more sustainable operations. Data centers, for example, equipped with power supplies designed using Nexperia's PSC1065K SiC Schottky diode, will be better placed to meet rigorous energy efficiency standards than those using solely silicon-based solutions.

Fuji Invests In European Chip Materials Supply

Fujifilm makes photoresists materials, solvents, cleaners and etchants and chemical delivery systems. The company said the ¥4.5 billion investment is one of Europe's biggest capital expenditure investments in the semiconductor materials supply chain over the last decade.

Fujifilm Electronic Materials (Europe) NV employs 210 people and makes cleaners, polyimides, developers, and solvents. The 4000 square meter expansion project will increase the space for cleanroom R&D and quality control labs by a third, while creating a new multi-purpose space for production and warehousing. Site enhancements will also see the addition of on-site solar panels.

The expansion, targeted to be complete by the end of 2024, will create an additional 25 jobs in production and lab roles..