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The Global Semiconductor Industry Analysts

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Sony Betting on its 'Vision-S' EV Gambit

Last year when Sony came to CES to talk about its EV project called "Vision-S," it had a look of a marketing stunt. This year, Sony's EV gambit seems more like a real car project. The Japanese consumer electronics giant has a host of building blocks that make entertainment sing. Now the question is: Can Sony adapt this technology know-how to the automotive market and enter the realm of car safety?

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Auto Industry Chip Shortages Reflect Wider Shortfall

TAIPEI — The failure of auto companies to secure supplies of chips reflects widespread shortages in the semiconductor industry, and there's no crystal ball on when equilibrium will return.

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Graphcore Launches AI Cloud Service with Cirrascale

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TALK TO US



CXL Spec Forging Ahead with High Performance Computing

The Compute Express Link (CXL) specification is forging ahead at a steady pace. Version 2.0 of the open industry-standard interconnect is now available less than two years after its initial inception, while consortium member vendors already releasing products using the latest iteration.

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Coretec Pursues Nanotech for Electric Vehicle Charging

Coretec Group is looking to exploit an unusual compound called cyclohexasilane as the basis for new batteries that would allow for quick recharging of electric vehicles (EVs). If Coretec's exploration of nanotech is successful, that would make EVs instantly more practical.

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The Japanese consumer electronics giant has a host of building blocks that make entertainment sing. Now the question is: Can Sony adapt this technology know-how to the automotive market and enter the realm of car safety?

Sony's arsenal of technologies and media assets ranges from high-resolution imagers, time-of-flight (ToF) cameras, 360-degree spatial audio and display technologies to 5G connectivity, UI/UX for smartphones, AI and sensing technologies, PlayStation 5 and Columbia Pictures.

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TAIPEI — The failure of auto companies to secure supplies of chips reflects widespread shortages in the semiconductor industry, and there's no crystal ball on when equilibrium will return.

Two of the world's top-three foundries, Taiwan Semiconductor Manufacturing Co. (TSMC) and United Microelectronics Corp. (UMC) said today that they're running at full tilt, and the best they can do is to reallocate production to meet demand from global automakers like Volkswagen and Toyota, just to name a few. The carmakers will need to take a place in the queue behind big chip buyers like Apple and Qualcomm.

The situation has become so serious that the German government has asked the Taiwan government to urge TSMC and UMC to lend a helping hand, according to media reports. The futility of such a request should be obvious given that the Taiwanese companies answer to customers and shareholders as a priority.

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US cloud compute provider Cirrascale specializes in compute for AI applications in autonomous vehicle research and infrastructure, medical imaging, and natural language processing. The company currently offers GPU-based acceleration and is focused on autonomous driving, though at the time of writing, Cirrascale's Graphcore hardware is advertised predominantly for financial services and healthcare applications. Cirrascale currently has six data centers in the US, with more planned.

CXL Spec Forging Ahead with High Performance Computing

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Like the now mature Non-Volatile Memory Express (NVMe) interface specification, CXL 2.0 is adding new features and functionality to meet increased performance demands while staying backwards compatible with its predecessors — CXL 1.0 was released in March 2019 and 1.1 was announced in June of the same year. Updates in 2.0 are being driven by rapidly evolving datacenter architectures that must support the growing demands of emerging workloads for artificial intelligence (AI) and machine learning (ML). The continued proliferation of cloud computing and the "cloudification" of the network and edge are also factors.

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Automotive manufactures are striving to create a more sustainable future with EVs, but the market for EVs still lacks sufficient infrastructure for refueling, and benefits from improved battery technology. A robust fast-charging network and silicon anode batteries could be keys to making the EV market more rapidly viable. In an interview with Michael Kraft, CEO of the Coretec group, he highlighted the properties of these new solutions and analyzed which materials could contribute to the development of e-mobility.