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Microchip Makes ML, AI Advances with Flashtec SSD Controller

Microchip Technology Inc. is addressing artificial intelligence (AI) challenges both through its own controller technology as well as its subsidiary focused on low power in-memory technology for the edge.

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Bosch Ups Accuracy, Cuts Consumption

Bosch Sensortec has launched the BMP581 barometric pressure sensor which it says combines low power consumption with high accuracy for altitude tracking in wearables, hearables, and IoT solutions. This follows the presentation of the BMP580 open-market version at this year's CES in Las Vegas.

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TALK TO US



SiFive and BrainChip Partner to Demo IP Compatibility

SiFive and BrainChip have partnered to show their IP is compatible in SoC designs for embedded artificial intelligence (AI). The companies have demonstrated BrainChip's neuromorphic processing unit (NPU) IP working alongside SiFive's RISC-V host processor IP.

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Nokia, Ericsson to Exit Russia

Scandinavian mobile infrastructure suppliers Nokia and Ericsson have successfully announced their decision to suspend all business activities in Russia.

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AI Camera Kit Features Qualcomm SoC And Sony Sensor

An AI camera kit from e-con Systems features its 4K MIPI camera module with Sony's STARVIS IMX415 ultra-low-light sensor and Qualcomm's QCS610 SoC.

Embedded camera company e-con Systems has launched a Qualcomm artificial intelligence (AI) vision kit for running image-based machine-learning (ML) and deep-learning models at the edge. The qSmartAI80_CUQ610 AI camera kit is comprised of e-con's 4K MIPI low-light camera module, based on the Sony STARVIS IMX415 ultra-low-light sensor, and VVDN Technologies' system-on-module (SoM), based on the Qualcomm QCS610 SoC, and a carrier board.

The increasing demand for AI-based cameras, including in retail for monitoring and surveillance and automotive applications, is expected to drive market growth. The global AI-based camera market is forecast to reach \$16.1 billion by 2027, up from \$7.2 billion in 2020, according to an AllTheResearch report.

Microchip Makes ML, AI Advances with Flashtec SSD Controller

Microchip Technology Inc. is addressing artificial intelligence (AI) challenges both through its own controller technology as well as its subsidiary focused on low power in-memory technology for the edge.

Microchip's PCIe Gen 5 NVMe 2.0 capable SSD controller, the Flashtec NVMe 4016, makes advances on the speeds and feeds front with 16 high-speed programmable NAND flash channels capable of up to 2,400 MT/s and delivers 14 GB/s throughput and more than 3 million IOPS. It also supports all the latest storage and performance compute applications, including Zoned Name Spaces (ZNS).

Samer Haija, Microchip's associate director of product management for data center solutions, said ZNS is still considered niche, though the company does see increased deployments based on its controller.

Bosch Ups Accuracy, Cuts Consumption with Capacitive Barometric Pressure Sensor

How many calories do you actually burn with strength training exercises like push-ups and pulls-ups? A barometric pressure sensor can help improve the accuracy of fitness trackers, especially in calorie counting applications.

Bosch Sensortec has launched the BMP581 barometric pressure sensor which it says combines low power consumption with high accuracy for altitude tracking in wearables, hearables, and IoT solutions. This follows the presentation of the BMP580 open-market version at this year's CES in Las Vegas.

Until now, Bosch Sensortec has always used piezoresistive technology for its generations of barometric pressure sensors. Based on the specific performance or resolution requirements of its customers, the German company said it has evaluated the best technology to support these applications. "We came to the conclusion that we have more potential to address the performance parameters with the capacitive sensing technology compared to piezoresistive," Stefan Finkbeiner, CEO of Bosch Sensortec, told EE Times Europe. "Moving forward, with the need for especially low battery power consumption, we see increased potential in capacitive technology."

SiFive and BrainChip Partner to Demo IP Compatibility

SiFive and BrainChip have partnered to show their IP is compatible in SoC designs for embedded artificial intelligence (AI). The companies have demonstrated BrainChip's neuromorphic processing unit (NPU) IP working alongside SiFive's RISC-V host processor IP.

Brainchip's NPU processor IP, the basis for its Akida chip, is a neuromorphic processor designed to accelerate spiking neural networks. This IP can be used to analyze inputs from most sensor types, including cameras, to provide ultra-low power analysis in real-time applications. A recent BrainChip demo showed its Akida chip in a vehicle, detecting the driver, recognizing the driver's face, and identifying their voice simultaneously. Keyword spotting required 600 μ W, facial recognition needed 22 mW, and the visual wake-word inference used to detect the driver was 6-8 mW.

Nokia, Ericsson to Exit Russia

Scandinavian mobile infrastructure suppliers Nokia and Ericsson have successively announced their decision to suspend all business activities in Russia. The financial impact is expected to be limited.

Shortly after Russia invaded Ukraine, the two European infrastructure makers confirmed they had stopped supplying Russian operators such as Veon, MegaFon, and MTS.

Nokia and Ericsson are now going one step further.

In a statement published last week, Nokia declared, "It has been clear for Nokia since the early days of the invasion of Ukraine that continuing our presence in Russia would not be possible. Over the last weeks we have suspended deliveries, stopped new business and are moving our limited R&D activities out of Russia."

Subsequently, the Finnish company announced it "will exit the Russian market."