# FutureHorizons

The Global Semiconductor Industry Analysts

## **FH MONDAY**

Intel to Embed 5G Chips **Microchip Acquires** MediaTek Aims for Upper Microsemi for \$8.35 Billion in PCs Midrange with Al Microchip Technology plans to BARCELONA — While Apple Intel will show a working acquire Microsemi Corp. for about prototype of a 2-in-1 PC with an and Samsung, both armed \$8.35 billion in cash under the embedded 5G cellular modem at with home-grown apps terms of a definitive agreement Mobile World Congress, a type of processors, have a lock on announced Thursday (March 1). system it said at least two OEMs the premium smartphone The deal would significantly will ship next year. In a separate expand Microchip's presence in market, MediaTek, seeking to effort to expand its cellular several end markets, including rebound in smartphones, is modem business. Intel the communications and rolling out at the Mobile World announced a 5G SoC design aerospace and defense markets. Congress its Helio P60 collaboration with China's which make up about 60 percent chipset. Spreadtrum. of Microsemi's sales. read more read more read more FutureHorizons TALK TO US Cypress Bets on FRAM for STM Powers Next-Gen IoT Automotive Applications with BLE and 802.15.4 SoC **EVENTS** Silicon Chip Industry Does ever-emerging Ferroelectric Powering the next generation of Random Access Memory(FRAM) smart connected objects like Seminar digital-home products, wearable have a role in autonomous vehicles? Cypress Semiconductor – March 2018 – London UK electronics, smart lighting, and thinks so.At the Embedded World smart sensors, Industry Forecast Briefing STMicroelectronics (NYSE: trade show in Germany this week, the company unveiled a new STM), a global semiconductor - 16 January 2018 - London UK serial nonvolatile memory family leader serving customers across to meet the performance and the spectrum of electronics DON'T MISS OUT.reliability demands of missionapplications, has revealed an BOOK NOW BY CALLING critical data capture advanced dual-processor wireless chip that supports new +44 1732 740440 features and enhanced **OR EMAIL** read more read more mail@futurehorizons.com

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5 March 2018

### Mediatek Aims For Upper Midrange With AI

BARCELONA — While Apple and Samsung, both armed with home-grown apps processors, have a lock on the premium smartphone market, MediaTek, seeking to rebound in smartphones, is rolling out at the Mobile World Congress its Helio P60 chipset.

MediaTek's plan is to re-enter the mid-upper tier smartphone market where it competes with Qualcomm.

MediaTek is pitching Helio P60 as "the first SoC platform featuring a multi-core AI processing unit (mobile APU) and MediaTek's NeuroPilot AI technology."

MediaTek's move highlights a sharp shift in focus — in the industry's smartphone battle — to mobile AI. Various chip vendors are racing to make neural network engines locally available on handsets. The goal is simple. They want to enable the AI experience — voice UIs, face unlock, AR and others – processed on client devices, faster and better, with or without network connection.

#### Intel To Embed 5G Chips In Pcs

SAN JOSE, Calif. — Intel will show a working prototype of a 2-in-1 PC with an embedded 5G cellular modem at Mobile World Congress, a type of system it said at least two OEMs will ship next year. In a separate effort to expand its cellular modem business, Intel announced a 5G SoC design collaboration with China's Spreadtrum.

Intel hopes the promise of Gbit/second connections with 5G will drive today's low cellular attach rates in PCs into double digits. It is also hopeful 5G could spark more market traction for SoCs developed with China's Spreadtrum.

Dell, HP and Microsoft are working with Intel to ship PCs before the end of 2019 using its XMM 8060 5G modem. PC connection rates for cellular are "quite low, I think it's in single digits, but the ability to have gigabit connections at all times will grow the attach rate into double digits in the next 3-5 years," said Sandra Rivera, general manager of Intel's networking group in a press call.

#### Microchip Acquires Microsemi For \$8.35 Billion

SAN FRANCISCO — Microchip Technology plans to acquire Microsemi Corp. for about \$8.35 billion in cash under the terms of a definitive agreement announced Thursday (March 1).

The deal would significantly expand Microchip's presence in several end markets, including the communications and aerospace and defense markets, which make up about 60 percent of Microsemi's sales. Microchip said the acquisition would expand its serviceable market by about \$18 billion to more than \$50 billion.

The combined company would have annual sales of about \$5.8 billion, based on each firm's revenue in the fourth quarter of 2017.

#### **Cypress Bets On FRAM For Automotive Applications**

TORONTO — Does ever-emerging Ferroelectric Random Access Memory(FRAM) have a role in autonomous vehicles? Cypress Semiconductor thinks so.

At the Embedded World trade show in Germany this week, the company unveiled a new serial nonvolatile memory family to meet the performance and reliability demands of mission-critical data capture. In an advance telephone briefing with EE Times, Sonal Chandrasekharan, senior director of Cypress' RAM Business Unit, said that the Excelon (FRAM) line was designed specifically for the high-speed nonvolatile data logging needed for autonomous vehicles. More broadly, the new FRAM line has applications in a broad range of advanced automotive and industrial applications.

The Excelon Auto series offers 2-Mb to 4-Mb automotive-grade densities, while the Excelon Ultra series offers 4-Mb to 8-Mb industrial-grade densities. Both families are available in low-pin-count, small-package options. The Excelon Auto series is offered in AEC-Q100 extended temperature options with functional safety (ISO 26262) compliance. "It's the first functional safety-compliant NVRAM in the market," said Chandrasekharan. "It's focused really on the safety requirements within the automotive market."

#### STM Powers Next-Gen IoT With BLE And 802.15.4 SoC

Geneva, Switzerland — Powering the next generation of smart connected objects like digital-home products, wearable electronics, smart lighting, and smart sensors, STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, has revealed an advanced dual-processor wireless chip that supports new features and enhanced performance with extended battery life to deliver an improved end-user experience.

The new STM32WB wireless System-on-Chip (SoC) devices combine a fully-featured Arm® Cortex®-M4-based microcontroller to run the main application as well as an Arm Cortex-M0+ core to offload the main processor and offer real time operation on the Bluetooth Low Energy (BLE) 5 and IEEE 802.15.4 radio.

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