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5G Research Gets U.S. Call

SAN JOSE, Calif. – A group of U.S. government agencies and corporations pledged to spend a total \$400 million over seven years on research for 5G cellular networks. The news came one day after the U.S. Federal Communications Commission voted unanimously to allocate nearly 11 MHz of spectrum in millimeter-wave bands for 5G

Backers claimed the moves put the U.S. ahead in a global race to deliver a wide range of next-generation cellular services across frequencies from less than a gigahertz to more than 60 GHz. However companies and regions including China, Europe, Korea and Japan launched public-private consortia working on 5G years earlier.

Corporate experts involved in the U.S. efforts lauded the actions and expressed optimism for harmony in 5G spectrum and research efforts around the globe.

Low-Pin DRAM Targets Automotive, lot Memory Needs

Small footprint and low power consumption are among the highly desirable memory attributes for the burgeoning automotive and Internet of Things (IoT) markets, but in the automotive market in particular, simpler is also better.

Cypress Semiconductor's recent update to its HyperRAM memory DRAM device is addressing the automotive industry's preference for fewer moving pieces with a lower pin count. The company is now sampling its new high-speed, self-refresh DRAM based on its low-pin-count HyperBus interface.

The 64Mb HyperRAM is designed to serve as an expanded scratchpad memory for rendering of high-resolution graphics or calculations of data-intensive firmware algorithms in a wide array of automotive, industrial and consumer applications, said Rainer Hoehler, VP of the flash business unit at Cypress, in an interview with EE Times. Microcontrollers often do not have enough integrated memory for high-resolution graphics or data-intensive firmware algorithms.

Cypress Aims Low-Pin Memory At Automotive, IoT

Two attributes that are considered highly desirable in memory for the burgeoning automotive and Internet of Things (IoT) markets are a small footprint and low power consumption, but in the automotive market in particular, simpler is also better.

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Infineon To Acquire Wolfspeed For \$850 Million

Infineon Technologies has entered into a definitive agreement to acquire the Wolfspeed Power and RF division of Cree. The deal also includes the related SiC wafer substrate business for power and RF power. The purchase price for this planned all-cash transaction is \$850 million (approximately €740 million).

According to Infineon, the acquisition will enable it to provide the broadest offering in compound semiconductors and will further strengthen it as a supplier of power and RF power in high-growth markets such as electro-mobility, renewables and next-generation cellular infrastructure relevant for IoT.

Reinhard Ploss, CEO of Infineon Technologies AG, said: "Joining forces with Wolfspeed represents a unique growth opportunity. Wolfspeed's and Infineon's businesses and expertise are highly complementary, bringing together industry leading experts for compound semiconductors.

Samsung Acquires Stake in China's BYD

Samsung Electronics Co. acquired a 2% stake in BYD Co. for \$455 million, the Chinese electric-vehicle and battery maker backed by Warren Buffett said Thursday.

Samsung's move comes as global technology companies are tapping into the automotive industry's shift toward nextgeneration vehicles such as electric and self-driving cars. Apple Inc. and Google parent Alphabet Inc. are accelerating efforts to develop electric cars of their own.

As the South Korean technology company bets on the automotive market to drive growth, it subscribed to some of BYD's \$2.2 billion of new shares earlier this month.