# FutureHorizons

# **FH MONDAY**

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## SK Hynix Eyeing Part Of MagnaChip Semiconductor

SEOUL, April 22 (Reuters) - South Korea'sSK Hynix Inc is looking at buying part of logic chip maker MagnaChip Semiconductor Corp , a source familiar with the matter told Reuters on Monday, adding nothing had been decided.

SK Hynix, the world's second-biggest memory chipmaker, and its bigger rival Samsung Electronics , have been beefing up development of logic chips such as mobile processors, image sensors and automotive chips, betting on their growth with memory chip demand slowing.

South Korea's Maeil Business Newspaper said on Monday that SK Hynix was considering bidding for Magnachip's foundry business and its factory in South Korean city of Cheongju, citing chip industry sources.

#### **TSMC Introduces 6nm Process**

TAIPEI — TSMC gave details on a new 6nm process expected to provide customers a simple migration from the company's current 7nm node. The new node wasn't part of the company's original roadmap, which went from 7nm to 7nm+ and 5nm.

N6, TSMC's terminology for the 6nm process, will have three advantages, according to CEO CC Wei, speaking at the company's latest quarterly results announcement last week. N6 will have design rules that are 100% compatible with N7, allowing customers to directly migrate from N7, he said. In addition, N6 will increase logic density by 18% from N7 and provide a highly competitive performance-to-cost advantage. Finally, N6 will offer shortened cycle time and reduced defect density.

### SiLabs Rolls Out New IoT Modules

Seeking ease of use, designers are increasingly turning to modules rather than SoCs to build out the Internet of Things, said a Silicon Labs executive overseeing the sector as he launched a new generation of IoT chips.

"We sell both chips and multiple flavors of modules including ones with antennas, and we see more customers adopting modules. It removes [wireless] certification complexity — people can save six months in time-to-market," said Matt Johnson, who joined Silicon Labs last year as general manager of IoT products.

Modules still represent a minority of the company's IoT sales, but they are growing faster than the 20% rate of its overall IoT products. "All of our ZWave and a lot of our Zigbee and Bluetooth sales are modules," Johnson said.

#### **MEMS Chip Combines Accelerometer Temperature Sensor**

The STMicroelectronics LIS2DTW12 combines a MEMS 3-axis accelerometer and a temperature sensor on a single die for use in space-constrained and battery-sensitive detectors such as shipping trackers, wearables, and IoT endpoints. The sensing accuracy of 0.8°C offers precision comparable with stand-alone standard temperature sensors.

In addition to enhanced temperature compensation, leveraging the sensor's superior accuracy, the accelerometer benefits from unprecedented flexibility with 65 different user modes that enable developers to optimize power consumption and noise to meet application-specific requirements. It has user-selectable full-scale range up to  $\pm 16g$  and measures acceleration with output data rates from 1.6Hz to 1600Hz.

#### **Micron Puts SSD into AI Mix**

TORONTO – There's been much talk about the memories and architectures necessary for artificial intelligence (AI) and machine learning workloads, and Micron Technology's latest high performance and high capacity solid-state drives (SSDs) put flash firmly in the mix.

The company just unveiled its 9300 series that uses the NVM Express (NVMe) protocol aimed at data intensive applications with 3.5 Gbps throughput on both reads and writes.

"Latency is becoming much more important in the enterprise and cloud work space where the response time for the application is pretty important, so that your infrastructure can respond to more user requests on a given server storage platform," said Cliff Smith, Micron's product line manager told EE Times.