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ARM In Xilinx Tie-Up For FPGA Development

BENGALURU — Arm has announced it is collaborating with Xilinx, the market leader in FPGAs, to bring the benefits of Arm Cortex-M processors to FPGA providing scalability and a standardized processor architecture across the Xilinx portfolio.

This collaboration will help embedded developers speed up and enhance FPGA projects with fast, free, easy access to proven Arm IP, it is now possible to gain fast and no cost access to proven, soft processor IP, easy design integration with Xilinx tools and comprehensive software development solutions to accelerate success on FPGA.

This new no license fee, no royalties access model aims to help more developers benefit from Arm technology, with a common software base across their entire device portfolio.

TI Aims Sitara At Industrial Applications

MADISON, Wis. — Texas Instruments unveiled on Tuesday its new generation of industrial microprocessors, Sitara AM6x. TI calls it "the industry's first multi-protocol gigabit time-sensitive networking (TSN)-enabled processor family."

"If you've followed TI over the last few years, you've noticed that we've dramatically shifted our business focus to industrial and automotive markets," said Adrian Valenzuela, TI's director of marketing for Sitara processors, in an interview with EE Times. "Our goal is to be the world leader in these applications."

Indeed, in a recent Q3 earnings conference call, TI's head of investor relations, David Pahl, said, "We continue to focus our strategy on the industrial and automotive markets, where we have been allocating our capital and driving initiatives to strengthen our position. This is based on a belief that industrial and automotive will be the fastest growing semiconductor markets. They have increasing semiconductor content. And these markets provide diversity and longevity. All of this translates to a high terminal value of our portfolio."

Connected Cars Get More Hardware Security

LONDON — Both Infineon and STMicroelectronics have added capability to enable secure microcontrollers and secure over-the-air (OTA) updates for connected cars.

Infineon Technologies has developed a hardware-based security module that protects communications between connected cars and car manufacturers with its new OPTIGA TPM 2.0, a trusted platform module (TPM) in which manufacturers can incorporate sensitive security keys for assigning access rights, authentication, and data encryption in the car in a protected way.

Meanwhile, STMicroelectronics has launched a new flagship SPC58 H line of Chorus automotive MCUs, designed to protect connected-car functionalities and allow OTA updates to be applied safely with its hardware security module (HSM) capable of asymmetric cryptography and fully EVITA-compliant for attack prevention, detection, and containment techniques.

ROHM Announces New Automotive Buck-Boost Chipset

ROHM has recently announced the availability of a buck-boost power supply chipset that provides the lowest current consumption in the industry along with stable performance (transient response characteristics) in automotive ECUs (Electronic Control Units) for cluster panels and gateways used in start-stop vehicle systems.

The chipset integrates a buck DC/DC converter with boost functionality (BD8P250MUF-C) and a dedicated boost IC (BD90302NUF-C). The primary chip (BD8P250MUF-C) utilizes ROHM's novel buck-boost control technology, dubbed Quick Buck Booster, that enables configuration of a buck-boost power supply without degrading buck power supply characteristics by simply adding the dedicated BD90302NUF-C boost IC to the subsequent stage.

4G Cellular Slow to Dial In IoT

SAN JOSE, Calif. — New LTE standards for cellular IoT are off to a slow start with some carriers just now turning on relatively expensive services. Nevertheless, competition in silicon making wide-area IoT links is strong, and the 3GPP's road map is expected to drive a wave of chip upgrades for cellular IoT.

Long term, the Narrowband-IoT (NB-IoT) version of LTE and its unlicensed rival LoRa are expected to dominate widearea wireless deployments in the Internet of Things. But getting there may take time.

"The volumes are not taking off anywhere but China and even China isn't growing at the pace it was predicting. Their initial projections of 600 million units by 2020 won't happen," said Christian Kim, a senior analyst for IHS Markit, which plans to update its forecast in December