FEATURE

Introduction of Power Loss Protection Function on SSD

GIBSON MING-DAR CHEN, UD INFO

Power Loss Protection (PLP) is a mechanism to ensure that the data is not lost while the SSD is writing data when a sudden power failure occurs. PLP requires technical support from the controller firmware and adds capacitors on the PCBA to provide backup power to completely write the last data from the DRAM or storage cache into the NAND flash when a sudden power loss occurs.

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BLOG

Cadence's Tensilica ConnX B20 DSP IP Boosts Performance for Automotive Radar/Lidar and 5G

RICH NASS, EXECUTIVE VICE PRESIDENT

There's been a fair amount of pickup in the automotive electronics space lately, particularly as manufacturers look for more ways to automate functions. To that end, Cadence recently announced its Tensilica ConnX B20 DSP IP. The IP provides a fast, power-efficient solution for the automotive and 5G communications markets, which you could make the argument, are quickly converging.

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BLOG

5 Special Registers That Have Transformed Today?S SoCs
In today's SoCs, we have seen many innovations in the areas of system architecture, node-size, interconnect, security, programming language, and development tools. Sometimes we underestimate the significance and impact of the simple innovations that we use in our day-to-day work as SoC architects, verification engineers, hardware designers, or software/firmware developers.

BLOG

Why Choose USB-C for Your Next Industrial Solution
SAM LIAO, WINMATE INC.

The "USB Type-C" is not a new term to consumer electronics. It has been on the market for more than four years and you probably use it every day. But still, this is a totally new solution to the field of industrial automation. Let's dig into the details, advantages and possible industrial applications of USB-C technology.

BLOG

Embedded System Licensing: What, Why, and How
TIM REGAS, KEYLOK

Embedded system licensing is the commingling of hardware and software in a single offering. A great way to convert hardware vendors into software vendors, it enables manufacturers to position products as "all-in-one" via software that enhances a machine's capabilities while giving consumers more "bang for the buck."

PODCAST

Five Minutes With Quentin Ochem, Director, AdaCore
EMBEDDED COMPUTING DESIGN

Ada and RISC-V? Yup, that's exactly what's going on, as nVidia has selected Ada to run on its RISC-V core. What does that mean for the future of Ada? That's the question I started with this week's Five Minutes With discussion with Quentin Ochem, a Director at AdaCore, one of the leaders in the Ada programming language.
BLOG

Achieving Effective Verification and Validation Of Vehicle E/E Systems ? Part 2
LANCE BROOKS, MENTOR

With respect to the design of electrical/electronic (E/E) systems, development methodologies and verification & validation (V&V) tools have advanced significantly over the past few decades. Today, the model-driven development (MDD) methodology and X-in-the-loop (XIL) verification approaches are well established as effective means to develop safe and secure vehicle E/E systems.

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BLOG

For the Professional Maker: Custom Rotary Input Device Revamped for 2019
JEREMY S. COOK

Electronics-wise, I?d had my eyes open for components to use in the new design, and when Mellbell gave me one of their tiny HID-capable PICO boards at the 2018 World Maker Faire, using it on a new custom controller came to mind almost immediately.

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BLOG

Taking Back Control of Our Personal Data
TODD MOZER, SENSORY

As more and more devices that are designed to watch and listen to us flood the market, there is rising concern about how the personal data that are collected gets used. Facebook has admitted to monetizing our personal data and the personal data of our friends.

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BLOG

Western Digital's UFS 3.0 Embedded Flash Drive Answers the Call From 5G
RICH NASS, EXECUTIVE VICE PRESIDENT
Universal Flash Storage (UFS) is a common flash storage specification for consumer devices. It brings higher data transfer speeds and increased reliability to handsets, cameras, and the like. UFS 3.0 ups the ante even further with a transfer rate nearing 3 Gbits/s. The clear application looking for such speedy memory is 5G, with its promise of super high speed, billions of connected devices, and so on.

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Enclustra GmbH
Enclustra Mercury XU5: Compact Xilinx Zynq UltraScale+ SoC module with two memory channels

Extreme Engineering Solutions (X-ES)
Extreme Engineering Solutions? Xpedite7683 is an Intel® Xeon® D-1500 Processor-Based 3U VPX Module with 32 GB of DDR4, XMC Support, and SecureCOTS?

Annapolis Micro Systems, Inc.
Up to 128 TB Data Storage for OpenVPX

ACCES I/O Products, Inc.
mPCIe-DIO Series: PCI
SPONSORED ARTICLE

Breathe Easier: Using Core Independent Peripherals to Design a Cost-Effective Drug Delivery Device
MICROCHIP TECHNOLOGY INC.

Medical nebulizers are drug delivery devices that break up medications into small aerosol droplets and deliver them directly to the airways for respiratory therapy.

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SPONSORED ARTICLE

Automotive Sensors Sharpen Up for Safer Driving
AVNET

Safety is a major driver for the development of new types of sensors. To reduce accidents on the roads, vehicles are taking on responsibility not only to manage their own safety-critical systems but also to help deal with driver fatigue, aid concentration, and alleviate stress.

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SPONSORED ARTICLE

Just One Click: Create Secure Connected Applications With New AVR-IoT WG Development Board for Google Cloud
MICROCHIP TECHNOLOGY, INC.

Developing the necessary expertise in communications protocols, security and low-power hardware design can be both time consuming and resource intensive when you are creating cloud-connected applications.

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SPONSORED ARTICLE

Determine Whether RISC-V Should Play a Role in Your Next Design

RISC-V FOUNDATION

If I could give you a new technology that would increase your security levels, lower your power consumption, improve performance, and reduce your BOM, you’d probably say I was a fibber (or maybe some other choice words). Well, how about I invite you to an event where you can witness the technology for yourself, where you can see first-hand whether this is something you should be aware of.

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