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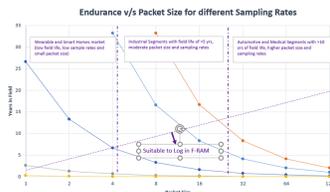
## FEATURE

### LoRaWAN begins to make its impact on energy and power infrastructure reliability

MURAT OCALAN, RHEIDIANT

Crude oil pipelines, power transmission lines, offshore drilling rigs and petrochemical facilities all share the attributes of being essential to our daily lives and being dispersed in remote locations.

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## BLOG

### Fail-Safe Data Storage for IoT Applications

NILESH BADODEKAR, CYPRESS SEMICONDUCTOR

For decades, the basic architecture of remote sensing nodes consisted of a controller, sensor, local storage memory, network connectivity interface and battery.

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## BLOG

### ISO 26262 Compliance: How do we get There?

MAJEEED AHMAD

The autonomous cars are coming sooner than later, and that calls for a thorough understanding of functional safety and the complexities of compliance to standards such as ISO 26262.

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**BLOG**

## The demise of the reset button

COLIN WALLS, MENTOR GRAPHICS

Stuff goes wrong - it is a fact of life. Embedded devices are typically very reliable, but not immune to failure. A common failure mode is a lock-up - the device freezes and will not respond to any user interaction.

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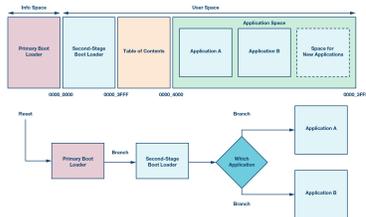
**BLOG**

## We did it; we made the world a better place!

RICH NASS, EXECUTIVE VICE PRESIDENT

The goal for the Better Place Challenge design contest was a simple one?to have our embedded engineering community design something that makes the world a better place.

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**BLOG**

## Over-the-Air (OTA) Updates in Embedded Microcontroller Applications: Design Trade-Offs and Lessons Learned

BENJAMIN BUCKLIN BROWN, ANALOG DEVICES, INC.

Many embedded systems are deployed in places that are difficult or impractical for a human operator to access. This is especially true for Internet of Things (IoT) applications, which are typically deployed in larger quantities and with limited battery life.

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**PODCAST**

## Five Minutes With? Ian Mazsa, Director, Vicor

EMBEDDED COMPUTING DESIGN

When we discuss AI, the discussion typically revolves around processing or algorithms. But I was reminded



recently that power plays a big part in AI. How is that, you ask? Well, check out this week's Five Minutes with? discussion with Ian Mazsa, a Director of Product Management and Business Development at Vicor to understand why you need to be concerned about power if you're designing for AI.

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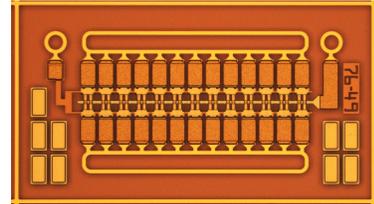
## NEWS

### Menlo Micro Digital-Micro-Switch Technology Hits the Market

LAURA DOLAN, TECHNOLOGY EDITOR

Menlo Micro presented its Digital-Micro-Switch (DMS) technology platform at Electronica.

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## NEWS

### Renesas Electronics' New Embedded Controller Allows IoT Devices to Operate Sans Batteries

LAURA DOLAN, TECHNOLOGY EDITOR

Renesas Electronics developed its R7F0E embedded controller based on Renesas' breakthrough SOTB (silicon-on-thin-buried-oxide) process technology that eliminates using or replacing IoT devices' batteries.

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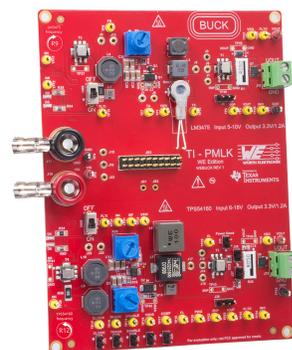
## NEWS

### Texas Instruments Power Management Lab Kit Debuts at Electronica

LAURA DOLAN, TECHNOLOGY EDITOR

The learning kit is designed to help engineering students and electrical engineers study and understand magnetics' impact on a buck power supply.

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## Annapolis Micro Systems, Inc.

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### SPONSORED WHITE PAPER

## How \$2B Kiosk Boom Fuels Retail Business

ADLINK

### Grow the Retail Business with Interactive Kiosks

With the steady rise of e-commerce, retailers are faced with an unprecedented growth in orders and prompted to look for innovative ways to fulfill these demands as fast as possible. Interactive kiosks perfectly complement any retail business, and the interactive kiosk market is expected to grow to USD2 billion by 2025. Download the solution blueprint to learn how interactive kiosks can help retailers expand their presence.

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### SPONSORED ARTICLE

## Advantages to Using TLS 1.3: FASTER, More Efficient, More Secure

WOLFSSL

There are many benefits in changing to the newest version of the TLS specification. One significant difference you will notice is the reduced number of round-trips when performing a full handshake. Older versions of the TLS protocol require two complete round-trips before the client sends the application data. With TLS v1.3, only one round-trip is required!

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#### SPONSORED WHITE PAPER

## Designing a system-on-chip (SoC) with an Arm Cortex-M processor

ARM

Are you integrating an Arm Cortex-M processor for the very first time? This comprehensive whitepaper will take you through the process of including a Cortex-M processor into your SoC design.

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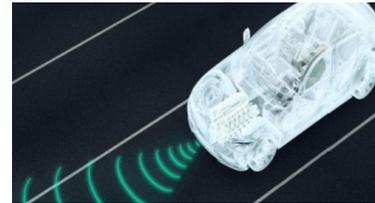
#### SPONSORED WHITE PAPER

## Automotive Functional Safety: No Hiding Place

BLACKBERRY | QNX

A modern vehicle has over 100 million lines of code, more software than is found in a Space Shuttle or the Large Hadron Collider. To make driving decisions, autonomous vehicles use sophisticated software running on the most powerful CPUs ever seen in the automotive industry.

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#### SPONSORED WHITE PAPER

## A 4-Step Guide to Security Assurance for IoT Devices

GRAMMATECH

How do device software processes evolve to better protect our next-generation IoT devices? First, it starts with a sound plan that includes next-generation software assurance and a "security-first" methodology. Teams need to rethink how they deliver software quickly with security, safety, and quality in mind from design to deployment.

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#### SPONSORED ARTICLE

## Heightened Security - Protect IP and Deploy Secure Connected Systems

## with New ATECC608A CryptoAuthentication Device

MICROCHIP TECHNOLOGY INC.

From remote cyberattacks to the creation of counterfeit products, widespread security threats are affecting industries around the globe. When carried out, these threats can lead to substantial losses in service revenue, escalating recovery costs and, perhaps most significantly, irreparable damage to brand equity.

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### **Introducing Windows 10 IoT Enterprise 2019**

**Sponsored by:** Arrow Electronics

**Date:** December 18, 2:00 p.m. ET

**[Register Now](#)**

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