

# Embedded COMPUTING DESIGN

Connecting Silicon, Software, and Strategies for Intelligent Systems

E-LETTER

JANUARY 2016

## WHITE PAPERS

### [Next Generation Bill of Materials Management: Beyond BOM 101](#)

By Arena Solutions

BOM is a critical product information record for both the engineering and manufacturing teams



## SILICON

### Bluetooth Smart

#### [IPv6 over Bluetooth Smart takes wearables from smartphone to standalone](#)

By John Leonard, Nordic Semiconductor

As impressive as smart watches are, their functionality relies on the close presence of a smartphone to provide heavy computational lifting and Internet connectivity. Tomorrow's wearables will be far more powerful products able to operate independently of mobile devices and function as standalone "things" connected to the IoT.



## PRODUCTS



### Microchip Technology Inc.

Microchip's PIC24FJ256GB410 family with integrated crypto engine provides hardware encryption, decryption and authentication

[see details](#)



### GrammaTech

How Static Analysis Can Accelerate Software Safety Certification

[see details](#)

## SOFTWARE

### Internet of Things

#### [A Unified Data Platform for IoT transport protocol interoperability, part one](#)

By Doug Migliori, ControlBEAM

This multi-part series addresses the need for a single data interoperability model that unifies data exchange across multiple transport protocols (including SMTP, MQTT, CoAP, DDS, BACnet, and others) via an extension layer. Such a layer must be simple and extensible to enable plug and play interoperability and universal adoption amongst humans, machines, and applications in the IoT.



### X-ES

Extreme Engineering Solutions' XPort6173 Rugged 3U VPX Carrier for Two 2.5 in. Solid-State Drives (SSDs) for Up to 4 TB of Storage

[see details](#)



### Innovative Integration

SBC-nano A Windows/Linux Embedded Single Board Computer with XMC IO Site and 1 GbE Link

[see details](#)





## IoT Security

### [Embedded device security for the IoT](#)

By Mike Rohrmoser, Digi International

When it comes to security for the Internet of Things (IoT), the sum of the parts may be lesser than the whole.



## TRACKING TRENDS



### Development Practices

#### [Post-project reviews: Developing a feedback mechanism](#)

By Rory Dear, European Editor/Technical Contributor

At the start of my customer-facing career I suffered from an eagerness to please and an avoidance of disappointing clients that today I still see repeated across all industries. Some would argue this is the very definition of customer service: a nod, an affirmative "Yes Sir", and then resolving well out of earshot any challenges in achieving what the client has requested.

## IoT INSIDER



### CES Coverage

#### [Floored: CES 2016 recap](#)

By Brandon Lewis, Technology Editor

For those of you who have never attended, CES can be an acquired taste. For one, it's Vegas. Second, there are so many attendees that it's impossible to get onto a shuttle, the Monorail, or into a cab without waiting for considerable lines. Next, even the Las Vegas Convention Center has proven too small a venue for the show. And finally, anymore, you'd be hard pressed to find a more diverse assemblage of technology anywhere else on Earth.

## DIY CORNER



### [A quick tool for design ideas to hardware](#)

## Annapolis Micro Systems

Dual Twelve Bit 2.3 or  
1.5 GSps DAC I/O Card

[see details](#)

## E-cast

**SYNOPSIS:** A one-hour, live, moderated problem/solution technical webcast.

Using default time zone: America/New\_York

### [Avoiding the developer ? blues? when integrating Bluetooth into your embedded system](#)

2016-01-22

Presented by:  
QNX

Moderated by:  
**RICH NASS,**  
**OPENSYSTEMS**  
**MEDIA**

**January 27th**  
**2 pm EST**

Registration: [OPEN](#)

### [Ensuring Trust in IoT Edge Devices](#)

2016-01-22

Presented by:  
GammaTech,  
MontaVista,  
Polarion,  
Sequitur Labs

Moderated by:  
**CURT**  
**SCHWADERER,**  
**OPENSYSTEMS**  
**MEDIA**

**February 4th**  
**2 pm EST**

Registration: [OPEN](#)

### [Real-world Implementation on the Industrial Internet](#)

2016-01-22

Presented by:  
GammaTech,  
MultiTech,  
Polarion,  
PrismTech

Moderated by:  
**BRANDON**  
**LEWIS,**  
**OPENSYSTEMS**  
**MEDIA**

**March 10th**  
**2 pm EST**

Registration: [OPEN](#)

By Monique DeVoe, Managing Editor

Makers, electronics hobbyists, and professional design engineers always have ideas, and I'm sure all of you have at least one sketched out on a piece of scrap paper or in a notebook if you're more organized. But that idea probably isn't going to get very far stuck on paper – those sketches don't turn into real components without a lot of extra effort.

## SISTER PUBLICATION ARTICLE

### [The advantages and disadvantages of using commodity ARM evaluation platforms in production](#)

By Eric Rossy, EMAC, Inc. PC/104 Small Form Factors

Most folks in the ARM embedded world are familiar with names like Raspberry PI, BeagleBone, Xplained, etc. These boards, as well as a whole host of others from various ARM board manufacturers, have enticing price points that lure us into considering them for use in production products.



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