MIL TECH TRENDS

Test and measurement sector grapples with standardization, complex systems

MARIANA IRIARTE, TECHNOLOGY EDITOR

The Department of Defense (DoD) no longer wants one-off systems, but rather adaptable test systems to tackle current and emerging threats that can also be used across different platforms. End game: A software-defined solution that is easily upgradable, low-cost, and open source.

Read More +
CYBERSECURITY UPDATE

**Foreshadow: Researchers discover another Intel processor vulnerability**

SALLY COLE, SENIOR EDITOR

Two international teams of security researchers have independently and concurrently discovered "Foreshadow," a new variant of the hardware vulnerability known as "Meltdown" that was announced earlier this year. Meltdown can be exploited to bypass Intel processors' secure regions to access memory and data.

Read More +

SPECIAL REPORT

**U.S. attack submarine fleet expands and gets sonar, COTS upgrades**

SALLY COLE, SENIOR EDITOR

More Virginia-class nuclear attack submarines enter "Silent Service" in 2018. While the subs are getting cool sonar and processing upgrades, any embedded systems need to be secured to protect against SATCOM vulnerabilities.

Read More +

SPONSORED EBOOK

**Keysight Technologies**

Don't Sacrifice the Benefits of Millimeter-Wave Equipment by Missing the Basics

SPONSORED PRODUCT

**SRC, Inc.**

*Silent Archer* Counter-UAS Technology

SPONSORED PRODUCT

**Pixus Technologies**

Superior Performance OpenVPX Chassis Platforms
**MIL TECH TRENDS**

**Taking military communication to the next level with SIC**

JOEL BRAND, KUMU NETWORKS

Mobile ad hoc networks (MANETs) have become the backbone of tactical military communication because of their exceptional flexibility, security, and reliability. While MANETs have many unique capabilities, however, they have not yet realized their full potential.

[Read More +](#)

**INDUSTRY SPOTLIGHT**

**How "near-peer" adversaries are changing command posts and battlefield network requirements**

CHRIS A CIUFO, GENERAL MICRO SYSTEMS

Future battles may be fought against so-called "near-peer" adversaries who may already be ahead of America's best technologies. It's time to adopt the latest consumer technologies in the command post by making the post more mobile or by making it virtual, like unmanned aerial vehicle (UAV) pilots who operate far from the front lines.

[Read More +](#)
SPONSORED CONTENT

AUSA 2018
MILITARY EMBEDDED SYSTEMS

Check out the latest videos from AUSA 2018. Our military vlogger covers the latest technology, including artificial intelligence, being integrated into ground systems for the Army.

[Read More +]

SPONSORED CONTENT

New from TE: High speed products developer kit
TE CONNECTIVITY

The world of high speed connectivity is constantly changing and evolving, which is why we made it easier for you to make smart decisions about which high-speed interconnect products you should use. Everything you need to design your application is at your fingertips in TE Connectivity’s (TE) High-Speed Products Developer Kit.

[Read More +]

SPONSORED PRODUCT

Pico Electronics
Miniature Transformers & Inductors

[View Product]

SPONSORED PRODUCT

Pico Electronics
Miniature Power Components

[View Product]

SPONSORED PRODUCT

Omnetics Connector Corporation
Omnetics Ultra-lightweight Micro-miniature and Nano-miniature Electronic Connectors

[View Product]
Field Programmable Gate Array (FPGA) technology has proven to be invaluable to embedded designers for many years. Often acting as an all-in-one solution, FPGAs negate the need for ASIC [Application-specific integrated circuit] technology and reduce the cost of custom IP algorithms in silicon.

Read More +

Abaco Systems
Accelerate Multi-Channel Synchronization Development

One Stop Systems
MIL-STD 810 All-Flash Array

On February 21st, 2017, Xilinx? announced the introduction of a new technology called RFSoC with the rather dramatic headline ?Xilinx Unveils Disruptive Integration and Architectural Breakthrough for 5G Wireless with RF-Class Analog Technology.?
Before the advent of OpenVPX, designers of embedded systems took advantage of the extreme connectivity offered by VPX (VITA 46), but were faced with a virtually unlimited number of possible implementations. Specific choices for the control and data channel assignments for each slot, the backplane connectivity, and serial fabrics were often made somewhat arbitrarily to suit the particular needs of the current system.

**Critical Techniques for High-Speed A/D Converters in Real-Time Systems**

An A/D (Analog-to-Digital) converter, frequently abbreviated as ADC, accepts an analog voltage at the input and produces a digital representation of that voltage at the output that’s called a ?sample?. The two primary characteristics of A/Ds are the rate of conversion or sampling rate, expressed in samples per second, and the accuracy of each digital sample expressed as the number of binary bits or decimal digits per sample.

**A Guide to Multi-Channel Synchronization for MIMO Systems**

On the modern battlefield, dominating the electromagnetic spectrum is increasingly important. In order to do so, radar, SIGINT and electronic warfare systems must be able to cover wider and wider bands of the spectrum.

**Accelerating the Product Development Lifecycle with Faster Test: Navigating the V Diagram**
Investing in a unified test architecture based on a software-defined test platform is a best-in-class approach for teams designing and testing advanced electromechanical vehicle systems.

Read More +

**SPONSORED WHITE PAPER**

**Managing Life Cycle and Network Interoperability Challenges on Navy Platforms**

MERCURY SYSTEMS

Navy combat, C4ISR [command, control, communications, computers, intelligence, surveillance, and reconnaissance], and machinery control systems are characterized by a wide range of programs, all of which have their own system architecture, configuration, and composition, mostly program-specific and irrespective of adjacent systems.

Read More +

**SPONSORED WHITE PAPER**

**Signal Integrity and Simulation Considerations in Backplane Designs for Military Systems**

ELMA ELECTRONIC

Electrical interfaces and connectors today face signal integrity challenges which weren’t a real concern 10 to 15 years ago. This is especially true for military systems such as radar, electronic warfare, and signals intelligence (SIGINT) that continue to grow in complexity.

Read More +

**Embedded Signal Processing for Military ISR Sensor Systems**

**Sponsored by:** Annapolis Micro Systems, Curtiss-Wright, Elma Electronic

**Date:** October 30, 2:00 p.m. ET

[View Now](#)

For additional Webcasts, check out the Broadcast Archive.