

This edition is sponsored by



MIL TECH TRENDS

Managing new trends for embedded EW systems

RODGER HOSKING, PENTEK

Electronic warfare (EW) not only plays a dominant role in worldwide defense capabilities, but it also must evolve rapidly to counter new threats and take advantage of new technology. Each advance must take into account the ever-changing system design landscape.

[Read More +](#)

SPECIAL REPORT

Small but mighty: challenges in military power supply design

EMMA HELFRICH, ASSOCIATE EDITOR

Shrink it down but bolster the processing power. Engineer it so it's light enough to fly on an airborne platform but never overheats. These are the contradicting design challenges manufacturers still face when building power supplies for military applications. Innovations in the field are ongoing, and both standardization consortia and the U.S. Department of Defense (DoD) are starting to phase out antiquated power supplies.



[Read More +](#)

SPONSORED PRODUCT



Curtiss-Wright

VPX3-1260 3U VPX Single Board Computer

[View Product](#)

SPONSORED PRODUCT



SBG Systems

New Ellipse: Miniature RTK AHRs, INS & INS/GNSS

[View Product](#)

SPONSORED PRODUCT



Pentek

Quartz RFSoc Rugged Small Form Factor Enclosure
Ideal for Harsh Environments

[View Product](#)



TECHNOLOGY UPDATE

Manufacturing status report: Legacy software infrastructure can hurt security, ability to change

MATT MEDLEY, IFS

There are many pitfalls to keep an eye on when assessing whether a current or potential enterprise resource planning (ERP) system is fit-for-purpose in defense and aerospace manufacturing. Making the wrong choice could leave a manufacturer hamstrung when looking to transform their operations, with existing software requiring expensive customizations, providing limited deployment options, offering little business intelligence or – a very bad situation – compromising security.

[Read More +](#)

SPECIAL REPORT

Nanosats put AI-at-the-edge computing to the test in space

SALLY COLE, SENIOR EDITOR

The U.S. military is harnessing and exploring algorithms and machine learning, not just on the ground but also



300-plus miles aloft for small-form-factor space applications.

[Read More +](#)

SPONSORED PRODUCT



Elma Electronic

MIL-STD 704 and 1275
Small Form Factor Power
Supplies

[View Product](#)

SPONSORED PRODUCT



Memkor

FIPS 140-2 SATA and PCIe
Military Grade SSDs

[View Product](#)

SPONSORED PRODUCT



Extreme Engineering Solutions, Inc.

Extreme Engineering
Solutions' X-Pedite7683 is an
Intel® Xeon® D-1500
Processor-Based 3U VPX
Module with 32 GB of DDR4,
XMC Support, and
SecureCOTS™

[View Product](#)



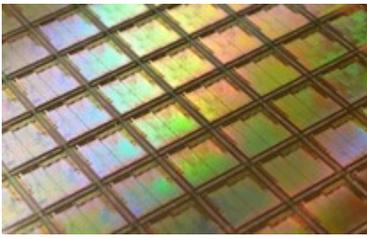
MIL TECH TRENDS

CMOSS is rolling forward

DAVID JEDYNAK AND JASON DECHIARO, CURTISS-WRIGHT

The U.S. Army CCDC [Combat Capabilities Development Command] C5ISR Center's C5ISR/EW [Command, Control, Communication, Computers, Cyber, Intelligence, Surveillance and Reconnaissance/Electronic Warfare] Modular Open Suite of Standards (CMOSS) defines an open architecture that reduces the size, weight, power, and cost of systems deployed on ground vehicles by enabling in-vehicle hardware and software resources to be shared. A panel on CMOSS at a U.S. Army Technical Exchange Meeting held earlier this year provided details on new developments underway and areas in which the Army is looking to industry for help in taking the suite of standards from prototype to deployment.

[Read More +](#)



FROM THE EDITOR

Populating the field (with engineers)

LISA DAIGLE, ASSISTANT MANAGING EDITOR

We've all heard the phrase “the graying of the workforce,” especially when it refers to the engineering and defense industries. It's a fact that the average age for electrical and electronics engineers – many of whom are engaged in the defense industry – is older compared to the median age of other American workers. The median age of employed electrical and electronics engineers in 2019 was 44 years old, according to the most recent information from the U.S Bureau of Labor Statistics (BLS).

[Read More +](#)

SPONSORED PRODUCT



Pico Electronics

Miniature Transformers & Inductors

[View Product](#)

SPONSORED PRODUCT

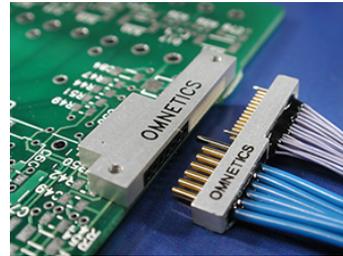


Pico Electronics

Miniature Power Components

[View Product](#)

SPONSORED PRODUCT



Omnetics Connector Corporation

Miniature Surface Mount Connectors in High-Reliability Electronics

[View Product](#)



BLOG

Using network address translation (NAT) to ease network management on mobile military networks

RONEN ISAAC, MILSOURCE

At MilSource, our technical team often get questions on how to more easily manage the “networks” now living and communicating on every mobile military vehicle. Implementation teams and integrators are faced with the daunting task of managing hundreds of networks that are

the same set of devices just repeated in every mobile vehicle.

[Read More +](#)

SPONSORED PRODUCT

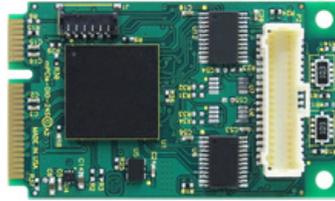


Annapolis Micro Systems

3U VPX Chassis is SOSA-Aligned & 100GbE Capable

[View Product](#)

SPONSORED PRODUCT



ACCES I/O

mPCIe-DIO Series: PCI Express Mini Cards for Easy and Flexible Digital I/O Expansion

[View Product](#)

SPONSORED PRODUCT



Analog Devices

New ADI IMU Delivers Reliable Precision in Challenging Application Environments

[View Product](#)

SPONSORED WHITE PAPER

5G Communications, Computing and Control for the Warfighter

ADVANTECH

The Edge is transforming! Enabling cloud capability on the edge in a tactical environment is an emerging trend. It refers to a paradigm shift which is migrating the computation and storage of the data closer to where the data is generated or needed, instead of getting the data from remote locations in the cloud.

[Read More +](#)

SPONSORED WHITE PAPER

AI for Embedded Defense is Here

ABACO SYSTEMS

Imagine an armed Humvee is moving at night thru a smoke-filled, urban battlefield. Using multiple displays, the crew has a 360° view that is daylight clear, delivered by an imaging system fusing data from optical, infrared, lidar, and radar sensors. Learn how Abaco's GVC1001 Ultra-High Performance Graphics, Vision and AI Evaluation Platform made this possible.

[Read More +](#)

SPONSORED WHITE PAPER

Optimizing Cybersecurity on Today's Connected Military and Commercial Aircraft

CURTISS-WRIGHT

The number of data communication links and interactions between an aircraft and the ground systems supporting it are ever increasing. If not properly protected, every system, sensor, and module on the aircraft can create a potential vulnerability that can be exploited by unauthorized users to obtain confidential, sensitive data or – worse – disrupt the safe operation of an aircraft.

[Read More +](#)

SPONSORED WHITE PAPER

Advancements In Card Lok Technology to Satisfy SWaP and Second Level Maintenance Requirements

nVent SCHROFF

nVent SCHROFF's NEW High Thermal Sawtooth (HTS) Card Lok is evolving the traditional card lok to better satisfy industry requirements for defense and aerospace. nVent SCHROFF has worked with leading engineers in the industry to develop innovative board retention and cooling products to satisfy requirements for SWaP and Second Level Maintenance.

[Read More +](#)

SPONSORED WHITE PAPER

How to Deploy AI Datacenters in Planes, Trains, Ships and Automobiles

ONE STOP SYSTEMS and PUREB2B

John Cox at PureB2B discusses bringing the power of AI to the field with no performance compromises. Technologies such as advanced high-performance computing, storage, and connectivity can be packaged in compact, ruggedized enclosures that fit into planes, trains, ships, tracked vehicles, cars, trucks, and utility trailers.

[Read More +](#)



Evolving Standards: How VITA and SOSA are Leading the Change

Sponsored by: TE Connectivity

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

[REGISTER NOW](#)

For additional Webcasts, check out the [Broadcast Archive](#).



