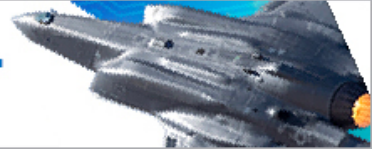# THE McHALE REPORT

October 2022

The McHale Report, by **militaryembedded.com** Editorial Director John McHale, covers technology and procurement trends in the defense and aerospace electronics community.
View our archive of recent and past issues of the McHale Report e-mail newsletter.

INDUSTRY SPOTLIGHT

Multi-INT and SOSA: A consideration of next steps

Multiple intelligence (Multi-INT), sometimes referred to as multi modality, is a popular term used in recent years to describe C5ISR [command, control, computers, communications, cyber, intelligence, surveillance, and reconnaissance] applications in which data obtained from disparate sensing sources is fused together to derive new information and operational insights.

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TOP STORY

MOSA for future vertical lift agreement reached between U.S. Army, Collins Aerospace

Collins Aerospace is entering into a cooperative research and development agreement with the U.S. Army to develop best practices for developing processors for future vertical lift (FVL) platforms via Modular Open System Approaches (MOSA), the company announced in a statement.

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MIL TECH TRENDS

RF & microwave innovation enables military 5G solutions

RF and microwave solutions are a critical ingredient in the U.S. military's plans to adapt fifth-generation wireless technology, or 5G, as the technology will be essential to create more tools for the joint forces.

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TOP STORY

Combat rescue helicopter with upgraded avionics now operational for U.S. Air Force

The U.S. Air Force has declared initial operational capability (IOC) for the HH-60W Jolly Green II Combat Rescue Helicopter, which features upgraded avionics, Lockheed Martin subsidiary Sikorsky announced in a statement.

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MARKET RESEARCH

Military embedded systems market to grow 56% in next 5 years: report

The military embedded systems market will grow from $1.6 billion in 2022 to $2.5 billion by 2027 for

a compound annual growth rate (CAGR) of 9.6%, a new report predicts.

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TOP STORY

Lockheed, Honeywell boost dividends as Ukraine war continues

As defense budgets swell among Western governments while the war in Ukraine rages on, major defense contractors are seeing profits surge, with two of them just announcing increases in their dividends.

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GUEST BLOG

What the CHIPS Act means for the defense and aerospace industry

The newly enacted CHIPS Act (signed into law August 9, 2022) represents a potential boost in U.S. semiconductor fabrication by providing subsidies to U.S. chip manufacturers and funding for technology and research development. At a high level, the CHIPS Act is set to revitalize domestic manufacturing, lower sourcing costs, and increase job creation, all while strengthening the overall global supply chain.

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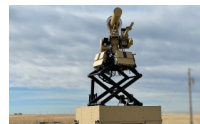**TOP STORY**

SOSA conformance process phase 1 deadline set

Those developing the process for conforming to the Sensor Open Systems Architecture (SOSA) Technical Standard want a process that is easy to understand, is affordable, and that keeps vendors honest. SOSA representatives C. Patrick Collier, Mark Littlefield, and Ilya Lipkin outlined the status of the conformance process at a SOSA briefing held at the AOC Annual Symposium in Washington this week.

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TOP STORY

Counter-UAS services for U.S. Army to be provided by Liteye

The U.S. Army's Joint Counter-small Unmanned Aircraft Systems Office has chosen a partnership between Liteye Systems and SAIC to provide counter-UAS services and hardware, Liteye announced in a statement.

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Massive data throughput realized

Mercury's new Model 5560 COTS 3U VPX SOSA aligned coprocessor board fueled by Xilinx® Versal® HBM is an innovative combination of high-bandwidth memory, equally substantial DSP

processing engines, high-speed 100 GigE interfaces and the Navigator® design suite for massive data throughput critical for applications in adaptable artificial intelligence and electronic warfare where low latency is required for real-time decision-making.

[Download Datasheet](#)»

Army goes deep into VR/AR for training and combat

The U.S. Army is putting considerable resources and time into virtual-reality (VR), augmented-reality (AR), and mixed-reality (MR) equipment and training that is intended to make troops on the ground safer and better equipped.

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MOSA live event FREE registration

Experts in modular open systems approach (MOSA) initiatives highlight the agenda of the Aerospace Tech Week Americas MOSA Conference track November 8-9 in Atlanta. Key speakers include C. Patrick Collier, co-founder of the Sensor Open Systems Architecture (SOSA) Consortium and Jeffry Howington of Collins Aerospace.

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Analog Devices ADAR4002 low power, bidirectional time delay unit for radar, EW, SIGINT, & SATCOM applications

This week's product, the Analog Devices ADAR4002, is a very low power broadband bi-directional single channel true time delay unit (TDU) and a digital step attenuator (DSA). The unit is an industry-first commercial solution that addresses the challenging size, weight, and power (SWaP) requirements of low power (<1mW), small size (2mm x 3mm), and high levels of integration in applications such as radar, electronic warfare (EW), signals intelligence (SIGINT), and satellite communications (SATCOM).

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Systel's Kite-Strike II rugged mission computer

This week's product, Systel's Kite-Strike II, is a MIL-SPEC rugged small form factor (SFF) mission computer, that leverages the NVIDIA Jetson AGX Orin SOM to high performance processing capability. The solution is purpose-built for deployment onto a diverse set of manned and unmanned ground and airborne platforms, demanding computer vision, and sensor fusion data processing workloads for edge artificial intelligence (AI).

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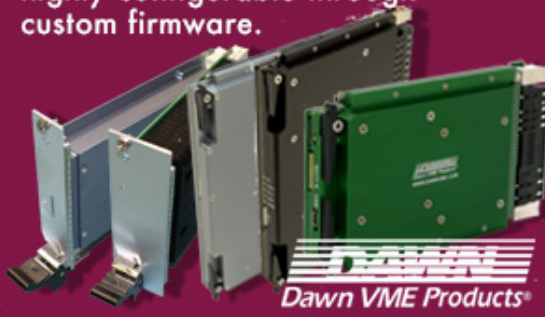## SOSA aligned chassis manager/SoM optimized for control, maintenance, and security functions

This week's product, the Annapolis Micro Systems WILD WABGM2 VPX Chassis Manager/System on Module (SoM), aligned to the Sensor Open Systems Architecture (SOSA) Technical standard and VITA 46.11 conformant, enables critical chassis control,

maintenance, and security functions. The WABGM2 is available as a commercial-off-the-shelf (COTS) solution and has an optional 3rd connector, which adds 1/10GBASE-T Ethernet, a second MIL-1553 Interface, and three additional Zynq PL HSS.

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MARKET RESEARCH

Military laser systems market to grow by $2.15 billion by 2026: report

A new report predicts that the military laser systems market will grow by $2.15 billion between 2021 and 2026 for a compound annual ground rate (CAGR) of 7.36%.

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TOP STORY

Cybersecurity for F-16s gets update, orders

BAE Systems has released an updated version of a computer-related maintenance capability that will reduce vulnerability to cyberattacks for F-16 aircraft.

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TOP STORY

AI technology for NOAA to visualize past, future of Earth to be provided by OSS

Orion Space Solutions has won a contract to provide the National Oceanic and Atmospheric Administration (NOAA) a "dynamic, seamless one-stop platform to process, analyze, and visualize Earth observations using advanced artificial intelligence (AI) and digital technologies," the company announced in a statement.

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TOP STORY

AI predictive maintenance for U.S. Army to be provided by Palantir

Palantir Technologies has won an $85.1 million contract to provide U.S. Army Materiel Command (AMC) with support for its prognostic and predictive maintenance and supply chain optimization efforts, the company announced in a statement.

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SPONSORED WHITE PAPER

Poor Thermal Design Will Cripple Truck-Mounted AI for Autonomous Driving

Overlooking thermal design in today's truck-mounted advanced driver assistance systems can cripple performance, cause critical safety problems, and expose vehicle operators and vendors to liability.

SPONSORED WHITE PAPER

Government Agencies Commit to 5G Deployment

This paper will discuss the evolution of the network ecosystem to meet 5G demands, considerations for implementing these new technologies, key metrics for testing military communication systems and provide some examples of testing solutions.

SOSA and Small Form Factors

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