DDC-I Announces DO-178C Safety-Critical Multi-core RTOS for NXP i.MX 95 Applications Processor

Deos RTOS support aligns with NXP's i.MX 95 applications processor functional safety focus

PHOENIX, AZ, UNITED STATES, April 30, 2026 /EINPresswire.com/ -- DDC-I Announces DO-178C Safety-Critical Multi-core RTOS for NXP i.MX 95 Applications Processor

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>
> *Jeff Steinheider, NXP Vice President Marketing*

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Phoenix, AZ – April 30, 2026. DDC-I, a leading supplier of software for mission- and safety-critical applications, today announced availability of the Deos™ DO-178C multi-core real-time operating system (RTOS) for the NXP® Semiconductors i.MX 95 applications processor with verification evidence to Design Assurance Level (DAL) A. The NXP i.MX 95 applications processor with the Deos RTOS extends and strengthens the i.MX 95 SoC's applicability in safety and mission critical aerospace markets. Use cases include a broad range of embedded control, display, and intelligent sensors.

"Many of the same attributes that make the i.MX 95 SoC well-suited for an eCockpit platform for automotive applications and machine vision platform for industrial control and automation applications make it equally attractive for a multitude of aerospace applications requiring adaptive control, high-performance graphics and/or synthetic vision," said Jeff Steinheider, Vice President of Marketing, Industrial and Network Segments at NXP. "We are pleased to be working with DDC-I to offer our joint avionics customers a world-class multi-core safety-critical RTOS platform for our i.MX 95 Application Processors."

"NXP's i.MX 95 provides an optimized blend of processing capabilities, versatile I/O, Ethernet and TSN networking, 3D graphics, video processing, and security features within a highly integrated lower wattage SoC device. This makes it well-suited for a number of avionics applications and, as a result, DDC-I has already seen Deos customers commit to this processor for display and control applications," said Gary Gilliland, Vice President of Marketing at DDC-I. "Deos, with features such as cache partitioning and safe scheduling, enable developers to run high

throughput and processor intensive applications deterministically, reliably, securely, and safely."

together with an independent safety domain consisting of high-performance Arm Cortex-M7 and Arm Cortex-M33 CPUs. It also combines an Arm Mali™-powered 3D, multi-display graphics, an accelerator for machine learning, and an image signal processor (ISP). The integrated secure enclave simplifies implementation of security critical functions like secure boot, cryptography, trust provisioning, and run-time attestation.

About Deos

Deos is employed in commercial and military ground, marine, air, and space systems where reliability and determinism are paramount. Rooted initially in avionics, Deos was first certified to DO-178 DAL A (the utmost software process standard) in 1998 and is deployed in over 10,000 commercial aircraft. Deos' use cases have extended outside avionics, where its proven technical features provide numerous advantages over legacy RTOS architectures, especially as integrated system complexity continues to grow while still requiring a high degree of determinism and robustness. Deos is also aligned with modern military initiatives such as FACE®, MOSA, PYRAMID, and others.

Deos is a safety-critical embedded RTOS that employs patented cache partitioning, memory pools, and safe scheduling to deliver higher CPU utilization than any other certifiable safety-critical COTS RTOS while also addressing AC/AMC 20-193 multi-core objectives. The Deos environment also offers security features, middleware, networking, and other components often desired for modern embedded systems.

Deos offers a modular approach, uniquely at the object code level, which isolates deterministic applications from changes when other modules are added, removed, or modified. This modularity greatly improves application and system component reuse and reduces the cost of change for system improvements, enabling developers to more easily reconfigure their systems for multiple use cases and shorten the time and effort needed for next-generation products.

About DDC-I, Inc.

DDC-I, Inc. is a global supplier of real-time operating systems, software development tools, and software development services with a primary focus on mission- and safety-critical applications. DDC-I's customer base is an impressive "who's who" in the commercial, military, aerospace, and safety-critical industries. For more information regarding DDC-I products, contact DDC-I, 4545 E. Shea Blvd #210, Phoenix, AZ 85028; phone (602) 275-7172; fax (602) 252-6054; e-mail sales@ddci.com or visit http://www.ddci.com/pr2607.

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