NVIDIA
SOLUTION SHOWCASE

SYSTEL
Any Mission. Anywhere.

KITE II STRIKE

Systel's Kite-Strike™ II fully rugged mission computer integrates the NVIDIA Jetson AGX Orin SOM for a best-in-class edge AI computing solution, purpose-built for mission success.

Industries and Applications

- Aerospace & Defense
- Autonomous/Unmanned Vehicles
- Densely Sensored Platforms
- Industrial IoT
- Robotics

Challenge

- AI compute at the edge required when operating in degraded or contested environments operating in extreme environmental conditions. Next-gen autonomous platforms require significant compute and network throughput capability with low latency and with limited available space and power.

Joint Solution

- NVIDIA's Jetson AGX Orin – the world's most powerful embedded AI computing engine for autonomous machines operating the edge.
- Systel's Kite-Strike II – next-gen, MIL-SPEC rugged small form factor (SFF) mission computer. Built on open standards, modular, and configurable.

NVIDIA Products Used

- NVIDIA Jetson AGX Orin SOM

Results

- Edge AI in degraded, contested, and austere operating environments.
- Compute at the sensor capabilities.
- Sensor integration, data fusion, "on-prem" AI processing, 10Gbe networking, storage, and robust IO in single LRU embedded computer.

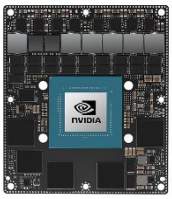
Best-In-Class Rugged Edge AI Computing Solution

> *"Kite-Strike II is the next-generation of computing technology demanded by emerging and immediate-future mission sets, specifically requirements for AI and autonomy."*
>
> — Aneesh Kothari, VP Marketing at Systel, Inc.

Kite-Strike™: Edge AI Computing Purpose-Built for Mission Success

Kite-Strike II is a next-gen, fully rugged small form factor (SFF) embedded computing solution, providing a massive leap forward in edge-deployed processing technology and capabilities. Integrating the NVIDIA Jetson AGX Orin SOM, Kite-Strike II delivers the maximum performance per watt on the market today. Kite-Strike II provides robust IO and immense system expansion for all-domain mission and platform use. Kite-Strike II is purpose-built for demanding computer vision and sensor fusion data processing workloads for edge AI and autonomous mission-critical applications. Kite-Strike II is MIL-SPEC rugged with an operating temperature range up to -46C to +71C. Kite-Strike II is engineered with a standards-based approach utilizing open standards and COTS technologies with a Modular Open Systems Approach (MOSA).

Jetson AGX Orin SOM



The NVIDIA Jetson AGX Orin system-on-module (SOM) is the world's most powerful embedded AI computing engine, delivering up to 275 TOPS of AI performance. The Orin SOM enables Kite-Strike II to provide immense sensor and data processing and encode capabilities, and host powerful AI algorithms while achieving a SWaP-optimized form factor.

Results

The combination of NVIDIA's Orin AI technology integrated into Systel's rugged and SWaP-optimized Kite-Strike II system offers edge AI inferencing capabilities, high-speed networking, and secure compute, all in a modular, open, rugged, and compact system. Kite-Strike II is purpose-built for deployment onto a diverse set of manned and unmanned ground and airborne platforms.

About Systel systelusa.com

With a solution-first approach to engineering, a delivery system built to work at the speed of need, and partnership in the extreme, Systel enables mission success with purpose-built rugged computing solutions. Since 1988, Systel has successfully delivered thousands of rugged computing solutions to defense and commercial enterprises. Systel is AS9100 and ISO 9001 certified. All Systel products are proudly made in the USA.

LEARN MORE

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Learn more: www.nvidia.com/robotics

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