

Kite-Strike™ II

Fully Rugged Edge AI Mission Computer


systelusa.com/products/kite-strike-ii

Product Brief

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, the world's most powerful embedded AI computing engine, Kite-Strike II delivers the maximum performance per watt on the market today. The AGX Orin offers 6x the performance of the previous gen AGX Xavier.

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.



Key Features

- NVIDIA Jetson AGX Orin SOM
- GPU: NVIDIA Ampere architecture up to 2048 CUDA cores and 64 Tensor cores
- CPU: up to 12-core ARM Cortex-A78AE v8
- Memory: up to 64GB LPDDR5
- Storage: onboard 64GB eMMC; internal m.2 and removable u.2 expansion options
- Integrated DC/DC power supply, 28VDC nominal
- Robust IO including GbE switch, option for multiple 10GbE, multiple USB 3.0, serial, CAN, display out
- Significant system expansion capabilities
- Option for chassis-signal ground isolation
- MIL-SPEC rugged
- Operating temperature up to -46C to +71C
- Foldable handle for easy carrying and handling
- Expansion slice modular design
- Engineered with standards-based approach utilizing open architectures and COTS technologies
- MOSA-aligned

Kite-Strike II Specifications

Systel 3-Year Product Warranty
EOL and Configuration Management Included



System Specs

Chassis

Material: machined aluminum. Finish: black anodized exterior, clear alodine interior.

SWAP (base model)

- Chassis Dimensions: 7.87"W x 8.47"D x 4.23"H
- Weight: ~11lbs
- Power: 28VDC, ~90W max

Processing

Integrated NVIDIA Jetson AGX Orin SOM.

- CPU: up to 12-core ARM Cortex v8; max frequency 2.2 GHz
- GPU: Ampere architecture up to 2048 CUDA cores and 64 Tensor cores
- Memory: up to 64GB LPDDR5 onboard.
- Storage: 64GB eMMC 5.1 onboard
- Video Encode: up to 2x 4K60 HEVC
- Video Decode: up to 1x 8K30 HEVC

Power Supply

OS: Linux Ubuntu 20.04

- Integrated galvanically isolated DC/DC power supply, 18-36VDC, 28VDC nominal
- Base model max power ~90W. Max system power up to 220W

Base System IO

- Serial: (4) RS232/422/485, (1) RS232 debug
- Ethernet: (5) GbE switched, option for (2) 10GbE copper
- USB: (2) USB 3.0, (2) USB 2.0
- CAN: (2) CAN 2.0
- Video Output: (1) HDMI/DVI

Connectors

Rugged 2M805 for power and IO. HD-BNC for RF. Expansion IO may use other rugged options.

System Expansion

Numerous options including 10GbE, video capture and encode (multiple formats and types), LTE, GPS, power output, audio, GPIO, ARINC 429, 1553.

- (2) m.2 m-key 2280
- (3) mPCIe
- Other interfaces available (ex: USB)

Storage Expansion

- Internal m.2 NVME up to 1TB
- Removable u.2 NVME with FIPS 140-2 options

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Environmental Specs

Operating Temp	-46C to +71C forced-air cooling (no air over electronics) MIL-STD-810H, Method 501.7, Proc. II; Method 502.7, Proc. II; DO-160G, Section 4, Category A1 and D1; Section 4.5.5, Category V/Table 4-1
Non-Operating Temp	-55C to +85C MIL-STD-810H, Method 501.7, Proc. I; Method 502.7, Proc. II; DO-160G, Section 4, Category A2
Vibration	MIL-STD-810H, Method 514.8, Proc. I, Cat. 4, C-V, Composite Two-Wheeled Trailer; DO-160G, Section 8, Category S, Curve B3, Fixed-Wing
Shock, Functional	MIL-STD-810H, Method 516.8, Proc. I, 40g at 11ms, Ground; DO-160G, Section 7, Class A
Shock, Crash Hazard	MIL-STD-810H, Method 516.8, Proc. V 75g at 6ms, Ground; DO-160G, Section 7, Class A
Altitude	MIL-STD-810H, Method 500.6, Proc. II, 50k feet*, Operating; DO-160G, Section 4, Category D2 <i>*thermal derating may occur</i>
Humidity	MIL-STD-810H, Method 507.6-7, Proc. II, RH 95%, 60C, Aggravated
Sand and Dust	MIL-STD-810H, Method 510.7, Proc. I and II; DO-160G, Section 12, Category S; IP6X
Rain and Fluids	MIL-STD-810H, Method 506.6, Proc. II; IPX6
Explosive Atmosphere	MIL-STD-810H, Method 511.7, Proc. 1
EMI/EMC	MIL-STD-461G, CE101, CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103
Power	MIL-STD-1275E; MIL-STD-704F <i>*no power hold-up</i>



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Any **Mission.** Anywhere.

All specifications are configuration-dependent and subject to change. Please contact a Systel sales representative to discuss your configuration.

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