

# Kite-Strike™ II

## Small-Form-Factor (SFF) Mission Computer



[systemusa.com/kite-strike-ii](https://systemusa.com/kite-strike-ii)

EC7210 Lifecycle Stage: Active | Qualified Production  
EC7220 Lifecycle Stage: Preliminary | Engineering Development (pre-release)

### Product Brief

Kite-Strike II is a next-gen, fully rugged small form factor (SFF) embedded compute solution, providing a massive leap forward in edge-deployed processing technology and capabilities.

With a modular dual architecture design, Kite-Strike II can be configured with the NVIDIA Jetson AGX Orin SOM for AI at the edge or an Intel x86 COM-HPC CPU module for compute at the edge (Intel x86 version available Q2 2025).

Kite-Strike II is MIL-SPEC rugged, and provides robust IO and immense system configurability and 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 autonomous and compute-heavy mission-critical applications at the edge.



### Key Features

- Modular dual architecture design for AI or compute at the edge
- EC7210 AI at the edge: NVIDIA Jetson AGX Orin SOM (32GB or 64GB) with NVIDIA Ampere architecture and ARM Cortex 12-core CPU; onboard memory and storage
- EC7220 compute at the edge (available Q2 2025): Intel Core i7-13800HRE COM-HPC Client CPU module; 14 total cores, up to 5.0GHz
- Storage: onboard 64GB eMMC (Orin only); options for internal m.2 and removable u.2 SSD (via expansion slice); FIPS 140-2 available
- Integrated DC/DC power supply, 28VDC nominal
- Robust IO including GbE switch, option for 10GbE, multiple USB 3.0, serial, CAN, display out
- Significant system expansion capabilities
- MIL-SPEC rugged and fully sealed
- Operating temperature up to -46C to +65C
- Foldable handle for easy carrying and handling
- Modular expansion slice design option
- Designed using a modular open systems approach (MOSA)



# Kite-Strike II Specifications

Model Numbers: EC7210, EC7220

Systel 3-Year Product Warranty  
EOL and Configuration Management Included



## General System Specs

### Chassis

- Material: aluminum 6061-T6
- Finish: black anodized exterior, clear alodine interior
- Mounting: base, (4) holes with 0.33in diameter

### SWAP (base model)

- System Dimensions: 7.87"W x 8.62"D x 4.25"H
- Weight: 8.8lbs (base configuration)
- Power: 28VDC, base model max power ~120W; max system power up to 220W

### Power Supply

Integrated galvanically isolated DC/DC power supply; 18-36VDC, 28VDC nominal

### Connectors

Rugged MightyMouse 805 / 2M805 for power and IO; HD-BNC for RF; expansion IO may use other rugged options

### System Expansion

Numerous options including 10GbE (expansion slice), video capture (multiple formats and types), LTE, GPS, power output, audio, GPIO, ARINC 429, GbE, CAN

- (2) m.2 m-key 2280
- (3) full-size mini-PCIe

### Storage Expansion

- Internal m.2 NVME up to 4TB
- Removable u.2 NVME (expansion slice) up to 15TB; FIPS 140-2 options
- Data Transfer Module (DTM) accessory available for removable drive data access



Data Transfer Module (DTM)

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# Kite-Strike II Specifications

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## EC7210 Performance Specs

### Processing

- Integrated NVIDIA Jetson AGX Orin (32GB / 64GB)
- Up to 275 TOPS
  - GPU: Ampere architecture, up to 2048 CUDA cores and 64 Tensor cores
  - CPU: up to 12-core ARM Cortex v8; max frequency 2.2 GHz
  - Memory: up to 64GB LPDDR5 onboard
  - Storage: 64GB eMMC 5.1 onboard
  - Orin module is USA country of origin

### 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 FD up to 3Mbps
- Video Output: (1) HDMI/DVI

### OS

NVIDIA L4T based on Linux Ubuntu 20.04 with System board support package (BSP)

## EC7220 Performance Specs\*

### Processing

- CPU: Intel Core i7-13800HRE COM-HPC Client module; 14 total cores; 6 P-cores, 2.5GHz up to 5.0GHz; 8 E-cores, 1.8GHz up to 4.0GHz
- Memory: 32GB IB ECC standard; supports up to 96GB
- TPM: Infineon SLB9672 (onboard COM-HPC module)

### Base System IO

- Serial: (2) RS232/422/485, (3) RS232
- Ethernet: (2) 2.5 GbE with time-sensitive networking (TSN)
- USB: (2) USB 3.0, (2) USB 2.0
- Video Output: (2) HDMI

### OS

Supports Windows 10 and Windows 11; Linux with kernel 5.15+ (RHEL9+, Ubuntu 22.04, etc.)

*\*EC7220 is currently in engineering development and will be available for sale in Q2 2025. All EC7220 performance specification information is preliminary and subject to change.*



# Kite-Strike II Specifications

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## Environmental Specs\*

<b>Operating Temp</b>	Qualified to -46C* to +65C (forced-air convection cooled with no air over electronics) MIL-STD-810H, Method 501.7 Proc. II; Method 502.7, Proc. II <i>*EC7210: low temp boot at -28C</i>
<b>Non-Operating Temp</b>	Qualified to -55C to +85C MIL-STD-810H, Method 501.7, Proc. I; Method 502.7, Proc. II
<b>Vibration</b>	Qualified to MIL-STD-810H, Method 514.8, Proc. I, Cat. 20 Table C-V, Composite Two-Wheeled Trailer, 4.0G, 40min/axis, Random Vibration Functional: 4.2G, 60min/axis, Broadband Endurance: 9.3G, 2.5hr/axis, Broadband
<b>Shock, Functional</b>	Qualified to MIL-STD-810H, Method 516.8, Proc. I, 40g at 11ms, Ground
<b>Shock, Crash Hazard</b>	Qualified to MIL-STD-810H, Method 516.8, Proc. V 75g at 6ms, Ground
<b>Altitude</b>	Qualified to MIL-STD-810H, Method 500.6, Proc. II, 50k feet, Operational Low Pressure; Qualified to MIL-STD-810H Method 500.6, Proc. I, 55k feet, Storage Low Pressure
<b>Humidity</b>	Qualified to MIL-STD-810H, Method 507.6-7, Proc. II, RH 95%, 60C, Aggravated
<b>Sand and Dust</b>	Qualified to MIL-STD-810H, Method 510.7, Proc. I and II; IP6X: IEC60529:2013 Section 4.2.7
<b>Fluid Ingress</b>	Qualified to MIL-STD-810H, Method 506.6, Proc. II; IPx7: IEC60529:2013 Section 4.2.7
<b>EMI/EMC</b>	Qualified to MIL-STD-461G, CE101, CE102, CS101, RE102
<b>Power</b>	Tested to MIL-STD-1275E, Section 5.3.3.1, Section 4.1, Section 5.1.1.1; Tested to MIL-HDK-704-8, LDC101, LDC602

*\*EC7210 is qualified to/tested to the environmental specifications listed on this page.  
EC7220 is currently in engineering development and will be available for sale in Q2 2025.  
All EC7220 environmental specification information is preliminary and subject to change.*

Unless otherwise noted, all environmental specifications are designed to meet with testing pending. "Qualified to" indicates that certified 3rd party testing has been successfully completed. "Tested to" indicates that Systel internal testing has been successfully completed. All testing completed on base model unit(s).





# SYSTEL

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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