

# Kite-Strike™



## Fully Rugged Embedded Edge Supercomputer *Mini. Mighty. Modular.*

### Key Product Features

- NVIDIA® Jetson AGX Xavier™ SOM
- GPU: NVIDIA® Volta Architecture, 512 CUDA Cores and 64 Tensor Cores
- CPU: 8-Core Carmel ARM v8
- Memory: 32GB
- Storage: Onboard 32GB eMMC; Internal m.2 NVME up to 1TB
- Dense I/O Including Multiple GbE, USB, CAN
- DC/DC Power Supply 28VDC Nominal
- MIL-STD-810H Shock and Vibration
- MIL-STD-461G EMI/EMC
- MIL-STD-1275E and MIL-STD-704F Power
- IP66 Sealed Dust/Water Ingress
- -40°C to +71°C Operating Temperature
- Linux Ubuntu 18.04 OS
- Foldable Handle for Easy Carry and Handling
- Expansion Slice Design for Modular System Expansion

### Product Highlights

Kite-Strike™ is a next-generation embedded edge supercomputer. Integrating the NVIDIA® Jetson AGX Xavier™ system-on-module, Kite-Strike™ is purpose-built for deployment in harsh environments, offering maximum capability and reliability in a compact form factor.

Kite-Strike™ enables real-time AI inferencing and Deep Learning (DL)/ Machine Learning (ML) capabilities and provides centralized sensor ingest and data fusion support.

Kite-Strike™ provides the advanced computing capability and ruggedization demanded for mission-critical applications, and is fully configurable and modular to meet exacting customer specifications.

Kite-Strike™ is engineered and manufactured for extreme SWaP optimization and incredible compute capability, offering data center performance in a compact, fully rugged embedded edge computer.

**Systel, Inc.**

**Phone:** 877-979-7835

**Email:** sales@systelusa.com

www.systelusa.com



# Specifications

## ENCLOSURE

<b>Material</b>	Black Anodized Machined Aluminum Exterior, Clear Alodine Interior; CARC/RAL Finish Options Available
<b>Ctrl/Indicator</b>	Power with Green LED
<b>Dimensions</b>	(WxDxH) 6.75" x 6.75" x 4.00"
<b>Sealing</b>	O-ring Sealed for IP66 Dust/Water Ingress Protection
<b>Cooling</b>	Forced-Air Convection with Integrated External Rugged Forced-Air Cooling Solution

## System-On-Module

<b>SOM</b>	NVIDIA® Jetson AGX Xavier™
<b>CPU</b>	8-Core Carmel ARM v8, 64-Bit
<b>GPU</b>	Volta Architecture, 512 CUDA Cores, 64 Tensor Cores
<b>Memory</b>	32GB LPDDR4x 2133
<b>Storage</b>	32GB eMMC 5.1
<b>Vision Accelerator</b>	7-Way VLIW Vision Processor
<b>Video Encode</b>	Up to 4 x 4K @60 HEVC
<b>Video Decode</b>	Up to 2 x 8K @ 30 HEVC

## Base System I/O

<b>Serial</b>	(4) RS-232/422/485
<b>Ethernet</b>	(2) GbE
<b>USB</b>	(2) USB 2.0
<b>CAN</b>	(2) CAN 2.0
<b>Video Output</b>	(1) HDMI/DVI
<b>Audio</b>	(1) Stereo Line Out and Mono Mic In
<b>GPIO</b>	(10) GPIO 3.3V
<b>Connectors</b>	MIL-DTL-38999; Expansion May Use Alternate Rugged
<b>Expansion</b>	Numerous Options: Video Capture/Encode, LTE, GPS, USB 3.0, 10GbE, Additional GbE/USB/Serial/CAN, Power Output

## Storage

**Internal** 32GB eMMC onboard Xavier SOM; m.2 NVME up to 1TB; Removable U.2 NVME Storage Options Available

## Power

**Power** Galvanically Isolated DC/DC Power Supply; Wide Range Voltage with 28VDC Nominal Conforming to MIL-STD-1275E/704F

## Environment

**Temperature** -40°C to +71°C, Operating -40°C to +85°C, Storage

**Altitude** MIL-STD-810H Method 500.6 Procedure I and II, 30,000 Ft..

**Humidity** MIL-STD-810G Method 510.6, Proc. I; MIL-STD-810H Method 507.6, Proc. I Up to 95% RH Non-Condensing

**Shock** MIL-STD-810H Method 516.8, 20g @11ms; MIL-STD-810H Method 516.8, Proc. 1, 40g @ 11ms; MIL-STD-810H Method 516.8, Proc. V, 75g @ 6ms

**Vibration** MIL-STD-810G Method 514.7, Proc. I, Category 20 Ground Vehicles-Ground Mobile; MIL-STD-810H Method 514.8, Proc. I, Category 4, C-IV

**Power** MIL-STD-1275E; MIL-STD-704F (No Power Holdup)

**EMI/EMC** MIL-STD-461G RE102, RS103, CS101, CS114, CS115, CS116, CE101, CE102; MIL-STD-464C Section 5.11

**Sand and Dust** MIL-STD-810H Method 510.7, Proc. II; IP66 Sealed

**Fluids/Rain** MIL-STD-810H Method 506.6., Proc. I; IP66 Sealed