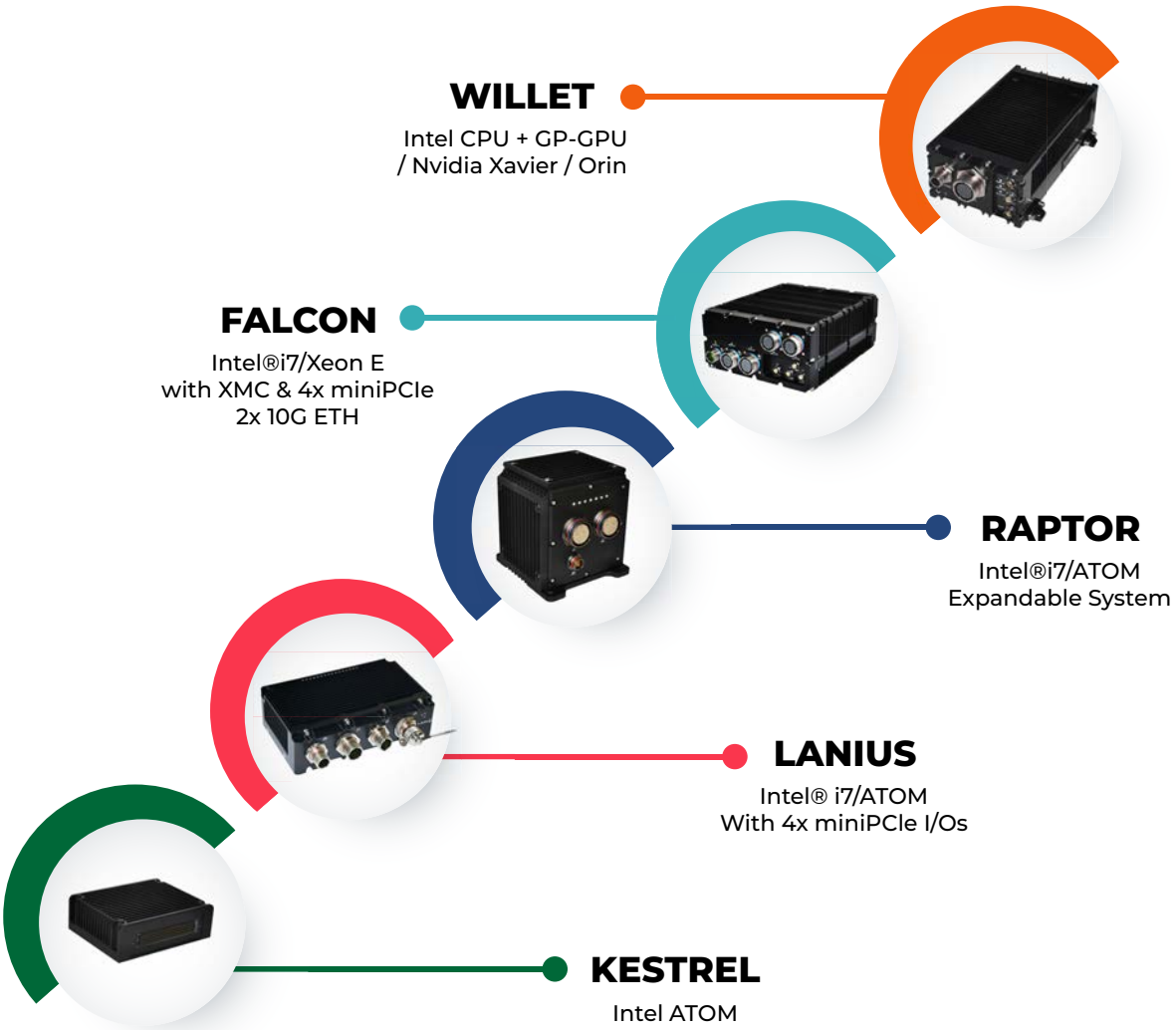
Trident infosol
...Transformational Technologies

RUGGED SMALL FORM FACTOR EMBEDDED COMPUTER

EMPOWERING DEFENCE & AEROSPACE WITH INDIGENOUS SMALL FORM FACTOR EMBEDDED COMPUTERS

Rugged Military Computers

SWaP-C optimized for military, aerospace and rugged application



WILLET
Intel CPU + GP-GPU
/ Nvidia Xavier / Orin

FALCON
Intel®i7/Xeon E
with XMC & 4x miniPCIe
2x 10G ETH

RAPTOR
Intel®i7/ATOM
Expandable System

LANIUS
Intel® i7/ATOM
With 4x miniPCIe I/Os

KESTREL
Intel ATOM
Upto 8 GB RAM &
64 GB EMMC Flash

NETWORKING & COMMUNICATION

NETSPYDER CA
Ultra Small Ethernet Switch

NETSPYDER CR
Rugged CISCO Ethernet Switch

TRUSTED EMBEDDED SOLUTIONS FOR MILITARY, DEFENCE AND AEROSPACE APPLICATIONS

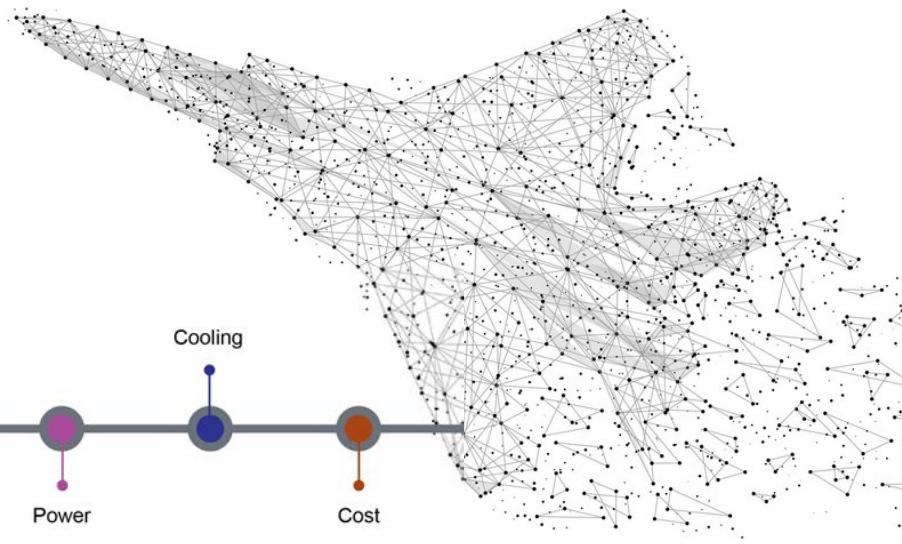
Creating Deployable Solutions

Trident Infosol, for 23 years has been successfully delivering rugged open-architecture embedded systems, sub-systems and modules to the Indian military, aerospace and defence sector and have evolved as an eminent system engineering and product design company with key focus on critical embedded systems.

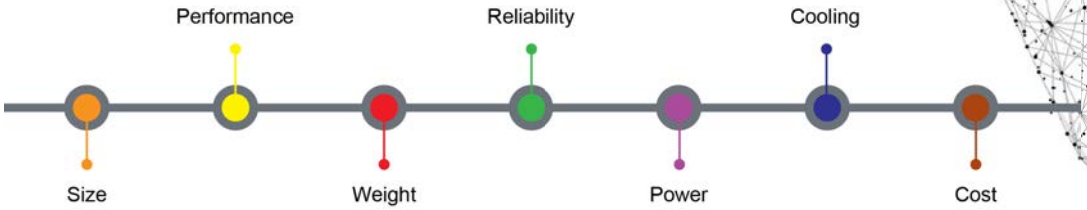
With our extensive experience in wide range of embedded computing products, we introduced our latest modular, scalable range of Rugged Small Form Factor (SFF) Computers & Ethernet Switches. Our rugged Small Form Factor products are designed to bring the benefits of a Modular Open Systems Approach architecture to various platforms for ground, airborne, and naval application, ensuring seamless integration and future-ready scalability. Our systems are highly flexible and configurable, SWAP-c optimized solutions in a remarkably small footprint.

Our Small Form-Factor (SFF) Embedded Computers are

- Designed for demanding applications
- Pre-configured & pre-tested systems in short turnaround time
- Engineered to meet the evolving requirements for smaller, lighter, and more powerful embedded system
- Meeting SWaPc Requirement



SWaP-C



NANO COMPUTER

KESTREL

STANDARDS-BASED NANO COMPUTERS

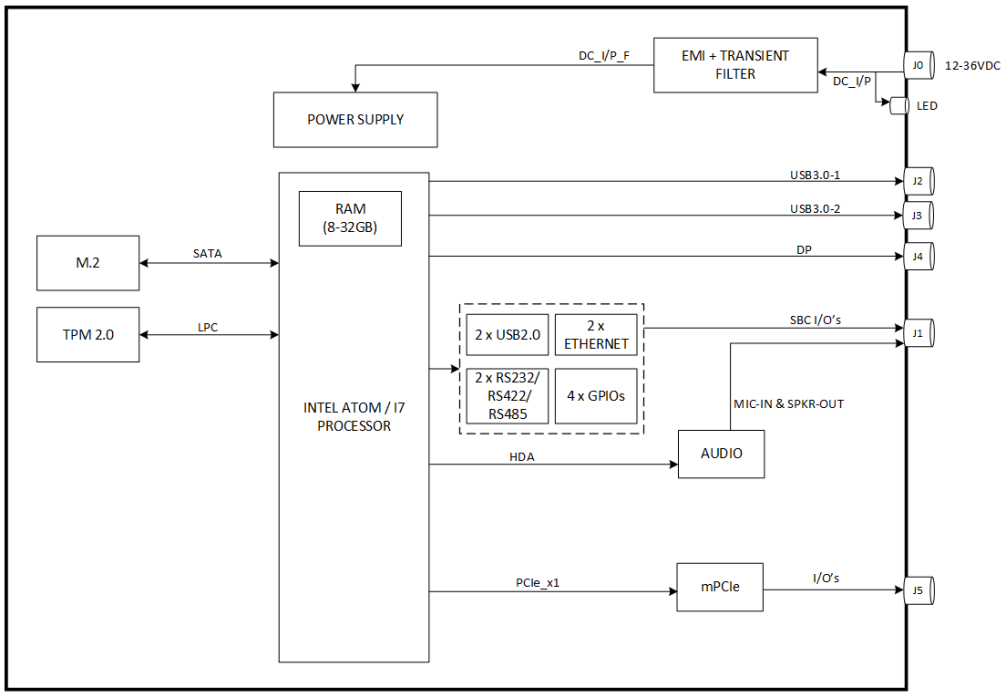
Small, smaller and even smaller, Trident welcomes their latest rugged COTS nano-small form factor (nSFF) computer, the Kestrel, into their SFF product family. The Kestrel retains the same level of environmental ruggedization and compliance to MIL-STD-810 and DO-160 specifications, including extended temperature, shock and vibration. At 60,000 feet or on the ground, the Kestrel is an ideal choice for avionic, vetronic and other military and rugged industrial applications.

Miniaturization in electronics has led us to design a nano computer with 10W of power consumption having impressive connectivity, numeric and graphic processing and a wide array of I/O's.

Though very small in size and low in power, the Kestrel is designed to utilize the latest CPU, Video / GPU, and GPGPU hardware, as well as to support all relevant I/O, avionic data bus interfaces, and RF options; including MIL-STD-1553, ARINC 429, Wi-Fi and Bluetooth.

Technical Specification

- **CPU:** Intel ATOM, NXP ARM or Latest
- **GPGPU:** NVIDIA TX2 or Latest
- **FPGA Processing**
- **Video I/O and Graphics Processing**
- **Standard I/O:** GigE, USB 2 / 3, Serial. Audio, GPIO
- **Data Bus I/O:** MIL-STD-1553, ARINC-429, CANbus
- **RF: Wi-Fi, Bluetooth, Cellular, GPS**
- **Signal I/O:** Analog, Discrete, IRIG B, IMU
- **OS:** Linux, Windows, VxWorks, Integrity and others upon request.



MICRO EMBEDDED

LANIUS-IA

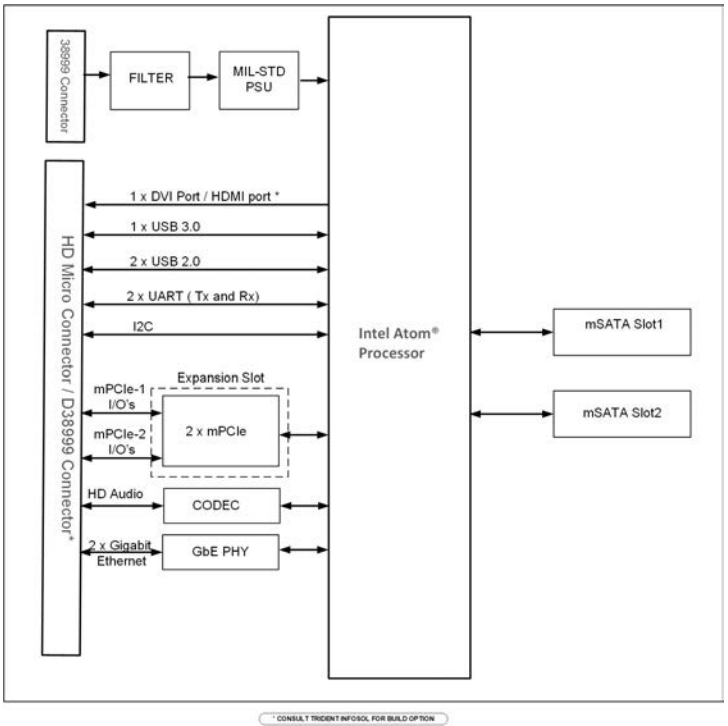
INTEL® ATOM

The Lanius-IA is a rugged small form factor (SFF) computer system, specifically tailored for the avionic, military and rugged industrial market. The system offers the best utilization of Size, Weight and Power (SWaP) in the industry, and strictly adheres to Commercial Off the Shelf (COTS) standards in the industry. Though its size is small, the Lanius is mighty.

Technical Specification

Lanius - IA

- **CPU:** Quad Core Atom or Latest
- **Memory**: 4 GB RAM
- 64 GB EMMC Flash
- **Video:** 1x DVI Output / 1x HDMI
- **I/O:** 2x GigE, 1x USB 3.0 / 2x USB 2.0, 2x Serial, Audio, GPIO, I2C
- **Expansion:** 2x mPCIe + 2x mSATA
- **Dimensions:** 150mm x 100 mm x 35mm
- **Weight:** ~0.8 Kg
- High Density Micro D Connector (Standard) / circular
- **Power:** 28 VDC
- **Operating Temp**: -40°C to +55°C, Storage Temp: -40°C to +85°C
- MIL-STD-810F, MIL-STD-461F, MIL-STD-704F/1275D
- **Operating System**: Linux, Windows



MICRO EMBEDDED

LANIUS II

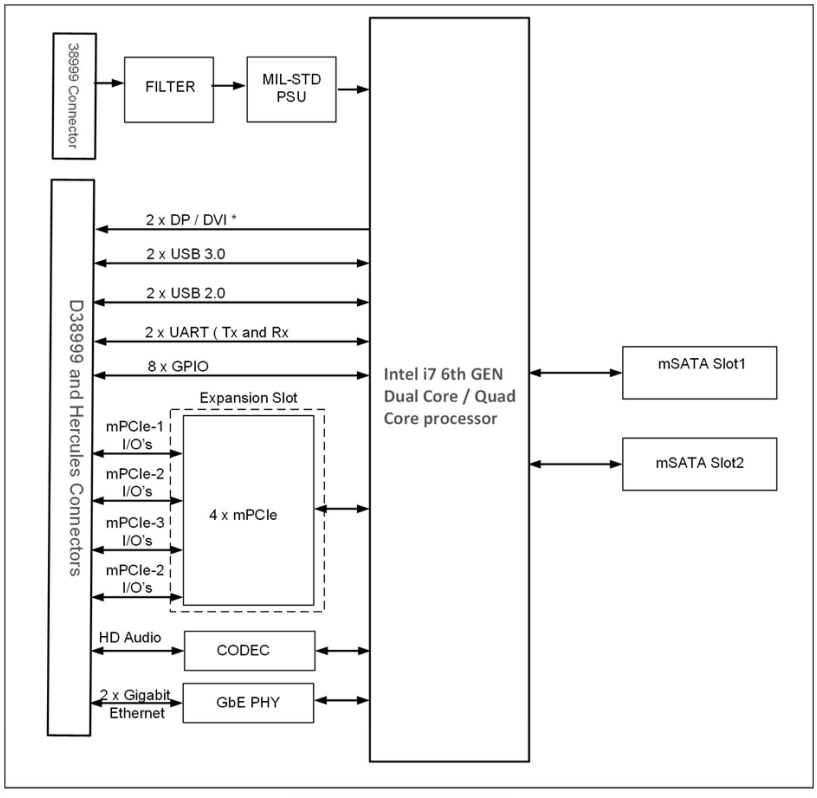
CORE I7/XEON

The Lanius -II is a rugged small form factor (SFF) computer system, specifically tailored for the avionic, military and rugged industrial market. The system offers the best utilization of Size, Weight and Power (SWaP) in the industry, and strictly adheres to Commercial Off the Shelf (COTS) standards in the industry. Though its size is small, the Lanius is mighty.

Technical Specification

- **CPU:** Intel Core i7/ Xeon E or latest
- **Memory:** 16 - 64 GB (RAM)
- **Mass Storage:** Upto 1.9 TB (through M.2)
- **Video Output:** 2x DP / DVI
- **I/Os:** (through MIL-STD-38999 & Hercules Connectors)
  - ☑ 2 x GigE
  - ☑ 2 x USB3.0
  - ☑ 2 x USB2.0
  - ☑ 1 x HD Audio, 2 x UART, 8 x GPIO
  - ☑ 4 x miniPCIe + 2x mSATA

- **Dimensions:** 217mm x 270mm x 75mm
- **Weight:** ~3.2 Kg
- **Power:** 12 - 36 VDC, MIL-STD-704F/MIL-STD-1275E
- **Operating Temp:** -40°C to +55 °C (standard), up to +71°C (Depends on Thermal Load)
- **Storage Temperature:** -40 °C ~ +85 °C
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G
- **Operating System:** Linux and Windows 10



* CONSULT TRIDENT INFOSOL FOR BUILD OPTION

MICRO EMBEDDED

LANIUS III

INTEL CORE I7 / ATOM PROCESSORS

The Lanius-3 is a rugged mini-small form factor (SFF) conduction cooled computer system, specifically tailored for the avionic, military and rugged industrial market. The system offers the best utilization of size, weight and power (SWaP) in the industry and strictly adheres to commercial Off the Shelf (COTS) standards in the industry. Though its small in size, its feature rich & best in class embedded computer.

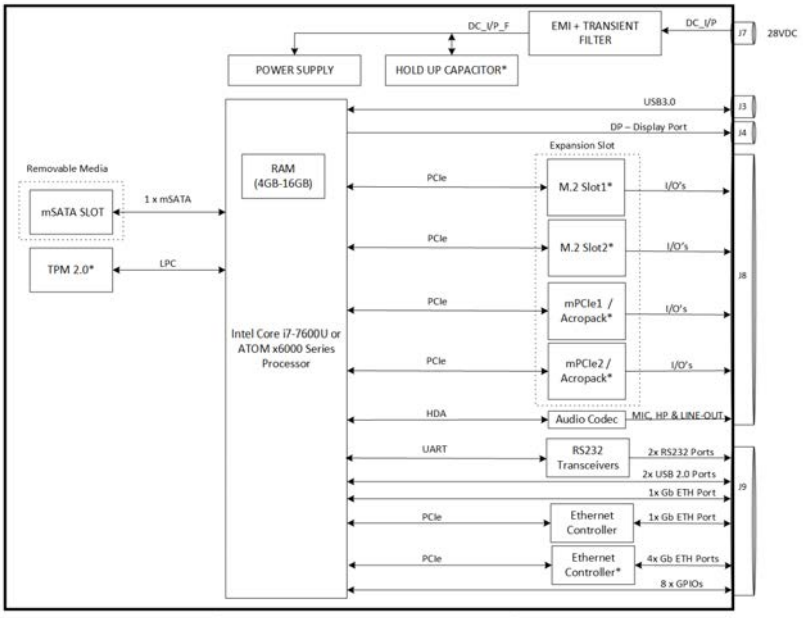
The Versatile Lanius-3 can be configured with the latest high-performance CPU and Interfaces, as well as the best SWaP optimized, low power, System on Chip (SOC) processors; and every solution in between.

The Lanius-3 can support variety I/O typically needed in the targeted applications, including MIL-STD-1553B, ARINC-429, RS-232/422/485, Fibre Channel, GigE and Analog and Discrete signals, and FPGAs. The I/O can be expanded through M.2 or MiniPCIe IO modules, including Acromag's® revolutionary "Plug and Play" Acropack. There are additional options for Inertial Measurement and Navigation, GPS, Wi-Fi and Cellular Modem functions as well.

Technical Specification

- **CPU:** Intel Core i7 – 7600U or ATOM x6000E Processors or latest
- **Memory:** up to 16 GB DDR4 RAM
- **Storage:** up to 512GB through mSATA
- Integrated Graphics Controller
- **Video Outputs:** 1 x Display Port
- **I/O's (Standard):**
  - ☑ 2 x Gigabit Ethernet
  - ☑ 1 x USB 3.0, 2 x USB 2.0
  - ☑ 2 x RS232 (TX/RX- Console)
  - ☑ 8 x GPIOs
- **I/O's Expansion:**
  - ☑ 2 x MiniPCIe / AcroPack Sites
  - ☑ 1 x M.2 (type 2230 for SSD)
  - ☑ 4 x Gigabit Ethernet

- **Security:** TPM 2.0 (optional)
- **Dimensions:** 72 (H) X 188(W) X 156 (D) all in mm
- **Weight:** < 2.1kgs (Configuration Dependent)
- **Connectors:** MIL-Circular
- **Health Monitor:** System Health Monitor & Control (Optional)
- **Power:** 28 VDC, MIL-STD-704F/MIL-STD-1275E
- **Operating Temp:** -40°C to +55 °C, up to +71°C (Depends on Thermal Load)
- **Storage Temp:** -40°C to +85 °C
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G
- **Cooling:** Fanless Conduction Cooled
- **Operating System Support:** Windows 10 & Linux



*** CONSULT TRIDENT INFOSOL FOR BUILD OPTION**

MICRO EMBEDDED

LANIUS - 5G

INTEL CORE I7

The Lanius-5G is a rugged micro-small form factor (SFF) conduction cooled computer system, specifically tailored for the avionic, military and rugged industrial market with 5G & WiFi-6e modules preconfigured. The system offers the best utilization of size, weight and power (SWaP) in the industry and strictly adheres to commercial Off the Shelf (COTS) standards in the industry. Though its small in size, its feature rich & best in class embedded computer.

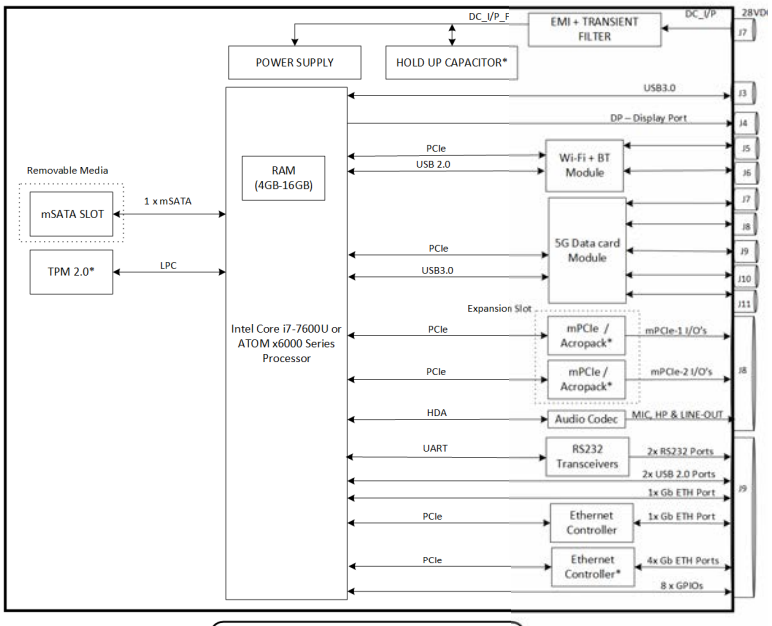
The Versatile Lanius-5G can be configured with the latest high-performance CPU and Interfaces, as well as the best SWaP optimized, low power, System on Chip (SOC) processors; and every solution in between.

The Lanius-5G can support variety I/O typically needed in the targeted applications, including MIL-STD-1553B, ARINC-429, RS-232/422/485, Fibre Channel, GigE and Analog and Discrete signals, and FPGAs. The I/O can be expanded through MiniPCIe IO modules, including Acromag's® revolutionary "Plug and Play" Acropack. There are additional options for Inertial Measurement and Navigation & GPS.

Technical Specification

- **CPU:** Intel Core i7 or ATOM x6000E Processors or latest
- **Memory:** up to 16 GB DDR4 RAM
- **Storage:** up to 512GB through mSATA
- Integrated Graphics Controller
- **Video Output:** 1 x Display Port
- **I/O's (Standard):**
  - ☑ 2 x Gigabit Ethernet
  - ☑ 1 x USB 3.0, 2 x USB 2.0
  - ☑ 2 x RS232 (TX/RX- Console)
  - ☑ 8 x GPIOs
  - ☑ LTE Advanced/5G Data Card
  - ☑ GPS
  - ☑ WiFi 6e (Tri-band 2.4 GHz/5 GHz/6 GHz support)
  - ☑ Bluetooth
- **I/O's Expansion:**
  - ☑ 2 x MiniPCIe / AcroPack Sites
  - ☑ 4 x Gigabit Ethernet

- **Security:** TPM 2.0 (optional)
- **Dimensions:** 72 (H) X 188(W) X 155.8 (D) all in mm
- **Weight:** < 2.2kgs (Configuration Dependent)
- **Connectors:** MIL-Circular
- **Health Monitor:** System Health Monitor & Control (Optional)
- **Power:** 28 VDC, MIL-STD-704F/MIL-STD-1275E
- **Operating Temp:** -40°C to +55 °C, up to +71°C (Depends on Thermal Load)
- **Storage Temp:** -40°C to +85 °C
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G
- **Cooling:** Fanless Conduction Cooled
- **Operating System Support:** Windows 10 & Linux



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VNX COTS

RAPTOR

VNX Rugged Small Form Factor COTS Computers

SOSA Sensor Open Systems Architecture

VNX+™

The Raptor is a rugged, small form factor, Commercial Off the Shelf (COTS) computer based on the VNX+ standard, the Small Form Factor standard selected by the Open GroupTM- SOSA Consortium, the standards body responsible for establishing guidelines for selection and acquisition of C5ISR components and systems. Derived directly from VNX(VITA 74) OpenVPX (VITA 65), VNX+ is part of the continued evolution of the VPX standard and is specifically designed for small form factor deployments. The Raptor is typically 1/3 the volume of a similarly equipped 3U VPX platform, making it the only true industry standard for MIL-spec, Modular Open Systems Architecture (MOSA) rugged small form factor computing.

Though Raptor is small in Size, Weight and Power (SWaP), there is no need to compromise CPU processing, I/O, video/graphics and storage support. Utilizing the most current SWaP optimized, System on a Chip (SoC) compute options, high density connectors and advanced cooling design, the Raptor is suitable for many military and avionic C4ISR applications such as

- Mission Computer
- Image Processor
- Display Processor
- Data Recorder
- Signal Data Concentrator
- EW Processor
- Data Link Processor
- Communications Controller

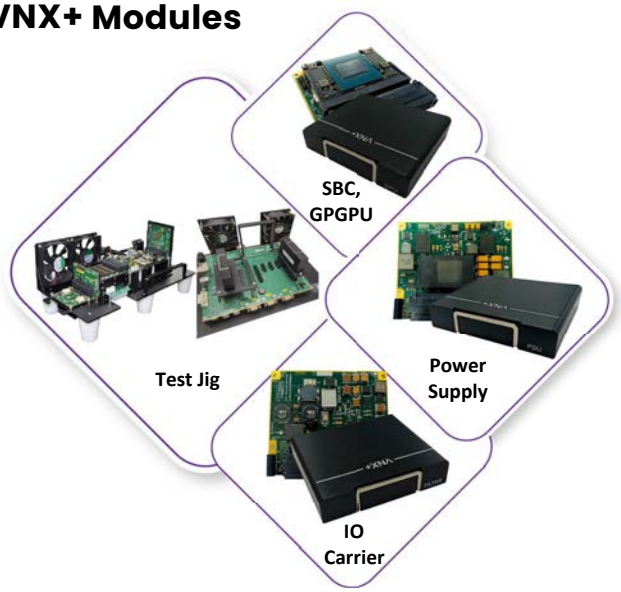
Housed in a rugged, conduction cooled, fan-less enclosure, Raptor complies with all typical military environmental standards. Since the Raptor is based on the VNX standard this allows customers to choose from a multitude of vendors for specialized functionality. The Raptor can support MIL-STD-1553B, ARINC-429, AS-5643 MIL Firewire, Video Graphics, RS-232/422/485, Fibre Channel, GigE and 10GigE, Analog and Discrete I/O, FPGA / GPGPU processors, Inertial Measurement and Navigation, GPS, Wi-Fi and Cellular Modem signals.

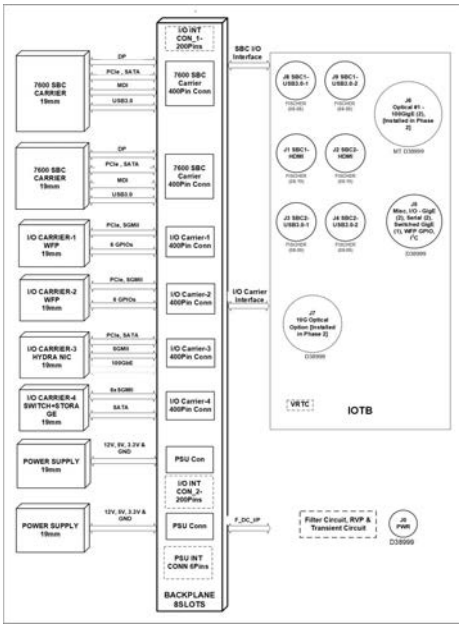
Technical Specification

- **CPU:** Multicore Intel ATOM, ARM® & Intel Core i7
- **GPU:** Video/Graphics Processing
- **Standard I/O:** GigE, USB 2 / 3, Serial. Audio, GPIO.
- **I/O Expansion:** 2 /4 / 6 miniPCIe slots to support 1553, A429, Analog & Digital I/O etc.

  (contact factory for various options available).
- **Storage:** Fixed, Removable or Remote Options
- **Connectors:** Circular MIL
- **Power:** 28 VDC, MIL-STD-704F / 1275E with Optional Hold-Up to 50 mSec
- **Operating Temp:** -40°C to +55 °C (standard), up to +71°C (Depends on Thermal Load)
- **Storage Temp:** -40°C to +85°C
- **Gigabit Ethernet Switch available:** 8/24 ports L2+ managed
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G
- **OS:** Linux, Windows

VNX+ Modules





* Trident acknowledges all registered Trademarks
* Specifications are subject to change without prior notice

HYBRID COTS

FALCON - II

SFF EMBEDDED COMPUTER

The FALCON II is a rugged small form factor (SFF) conduction cooled computer system, specifically tailored for the avionic, military and rugged industrial market. The system offers the best utilization of size, weight and power (SWaP) in the industry and strictly adheres to commercial Off the Shelf (COTS) standards in the industry. Though its small in size, the Falcon II is mighty.

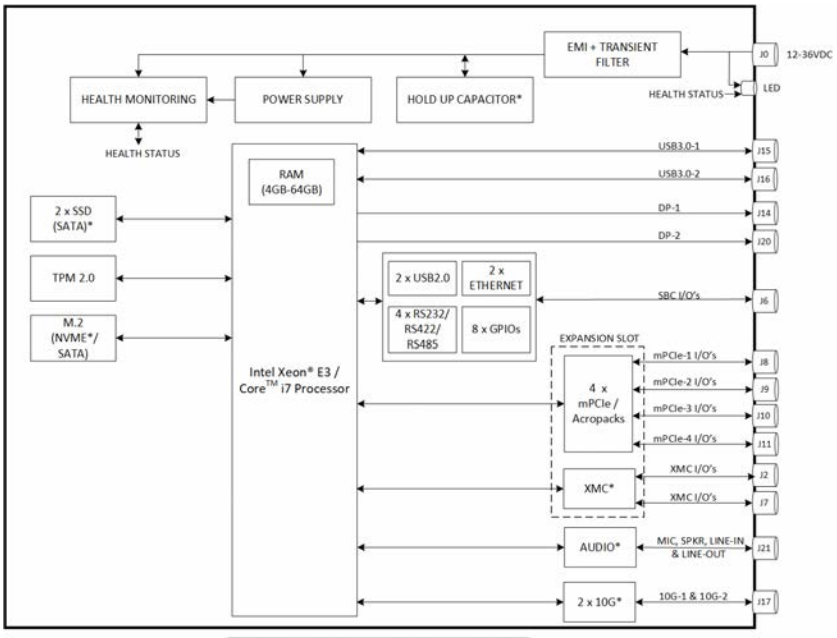
The Versatile Falcon II can be configured with the latest high-performance CPU and Interfaces, as well as the best SWaP optimized, low power, System on Chip (SOC) processors; and every solution in between.

The Falcon II can support variety I/O typically needed in the targeted applications, including MIL-STD-1553B, ARINC429, Video & Graphics, RS-232/422/485, Fibre Channel, GigE and 10GigE, Analog and Discrete signals, and FPGAs. The I/O can be expanded through XMC or MiniPCIe IO modules, including Acromag's revolutionary "Plug and Play" Acropack. There are additional options for Inertial Measurement and Navigation, GPS, Wi-Fi and Cellular Modem functions.

Technical Specification

- **CPU:** Intel Core i7/ Xeon E or latest
- **Cores:** 4 or 6 Cores
- **Memory:** up to 64 GB DDR4 RAM (with or without ECC)
- **Storage:** up to 1.9TB with M.2 Interface
- **Integrated Graphics:** Intel UHD Graphics Controller
- **Video Outputs:** 2 x Display Ports
- **I/O's :**
  - ☑ 2 x 10G Ethernet (Optional, Copper or Fiber)
  - ☑ 2 x 1 Gigabit Ethernet (PoE+ Option)
  - ☑ 2 x USB 3.0, 2 x USB 2.0
  - ☑ 1 x HD AUDIO
  - ☑ 4 x RS232 (TX/RX)/RS422/RS485
  - ☑ 1 x RS232 (TX/RX - Console)
  - ☑ 8 x GPIOs
- **I/O's Expansion :**
  - ☑ 4 x MiniPCIe / AcroPack Sites (Gen 3 PCIe)
  - ☑ 1 x XMC Site (x8 Gen 3 PCIe), VITA 42 Compliant
- **Security**: TPM 2.0 (optional)
- **Dimensions:** 217mm x 260mm x 105mm
- **Weight:** ≤ 4.3 to 4.9 Kgs. (Configuration Dependent)
- **Connectors:** MIL-Circular
- **Storage Expansion** - Option: SSD Mass Storage Drive (with optional Secure Erase or Zeroize Function)
- **Health Monitor:** System Health Monitor & Control (Optional)
- **Power:** 28 VDC, MIL-STD-704F/MIL-STD-1275E
- **Operating Temp:** -40°C to +55 °C, up to +71°C (Depends on Thermal Load))
- **Storage Temp:** -40°C to +85 °C
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G
- **Cooling:** Fanless Conduction Cooled
- **Operating System Support:** Windows 10, Linux & VxWorks (on request)

*Note: Various Configuration & Build Options are available, contact us for details.



* CONSULT TRIDENT INFOSOL FOR BUILD OPTION

HYBRID COTS

FALCON - III

SFF EMBEDDED COMPUTER

The Falcon-3 is a rugged small form factor (SFF) conduction cooled computer system, specifically tailored for the avionic, military and rugged industrial market. The system offers the best utilization of size, weight and power (SWaP) in the industry and strictly adheres to commercial Off the Shelf (COTS) standards in the industry. Though its small insize, its feature rich & best in class embedded computer.

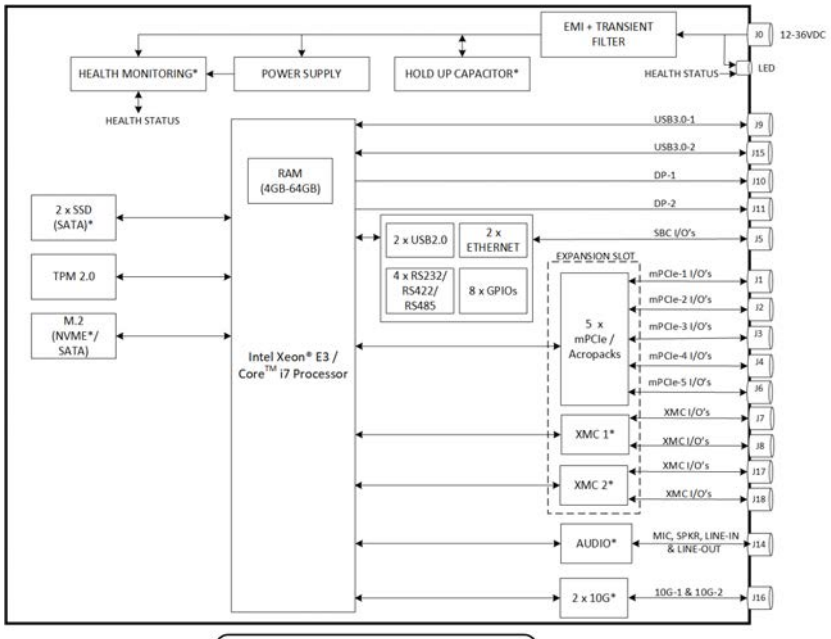
The Versatile Falcon-3 is configured with the latest high-performance Intel CoreTM i7 or Xeon® CPU and can be expanded for variety of Interfaces (via XMC & miniPCIe mezzanine cards). Falcon-3 is best SWaP optimized, low power, System on Chip (SOC) processors.

The Falcon-3 can support variety I/O typically needed in the targeted applications, including GPGPU (nVIDIA or AMD), MIL-STD-1553B, ARINC-429, RS-232/422/485, Fibre Channel, GigE and Analog and Discrete signals, and FPGAs. The I/O can be expanded by XMC or MiniPCIe IO modules, including Acromag's® revolutionary "Plug and Play" Acropack. There are additional options for Inertial Measurement and Navigation, GPS, Wi-Fi and Cellular Modem functions as well.

Technical Specification

- **CPU:** Intel Core i7/ Xeon E or Latest
- **Memory**: up to 64 GB DDR4 RAM
- **Storage:** up to 1.9 TB through M.2 (SATA)
- Integrated Intel UHD Graphics Controller
- **Video Outputs:** 2 x Display Ports
- **I/O's :**
  - ☑ 2 x 10G Ethernet (Optional, Copper or Fiber)
  - ☑ 2 x Gigabit Ethernet (PoE+ Option)
  - ☑ 2 x USB 3.0, 2 x USB 2.0
  - ☑ 4 x RS232 / 422 / 485
  - ☑ 1x Audio IN & 1x Audio OUT
  - ☑ 8 x GPIOs
- **I/O's Expansion :**
  - ☑ 2 x XMC Sites (Gen 3 PCIe)
  - ☑ 5 x MiniPCIe / AcroPack Sites (Gen 3 PCIe)

- **Removable Storage:** 2x 2.5" SSD
- **Security:** TPM 2.0 (optional)
- **Dimensions:** 300x115x270mm
- **Weight:** < 8KG including 5 x mPCIe & 2 x XMC (Configuration Dependent)
- **Connectors:** MIL-Circular
- **Health Monitor:** System Health Monitor & Control (Optional)
- **Power:** 28 VDC, MIL-STD-704F/MIL-STD-1275E
- **Operating Temp:** -40°C to +55 °C, up to +71°C (Depends on Thermal Load)
- **Storage Temp:** -40°C to +85 °C
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G
- **Cooling:** Fanless Conduction Cooled
- **Operating System Support:** Windows 10, Linux & VxWorks



* CONSULT TRIDENT INFOSOL FOR BUILD OPTION

INTEL CPU + GP - GPU

WILLET - I

SFF SYSTEM WITH INTEL CPU + GP-GPU

The WILLET-I is a rugged small form factor (SFF) computer system, specifically tailored for the avionic, military and rugged industrial market requiring high end graphics and video processing. The system offers the best utilization of size, weight and power (SWaP) in the industry and strictly adheres to commercial Off the Shelf (COTS) standards in the industry. Though its small, The WILLET-I is mighty.

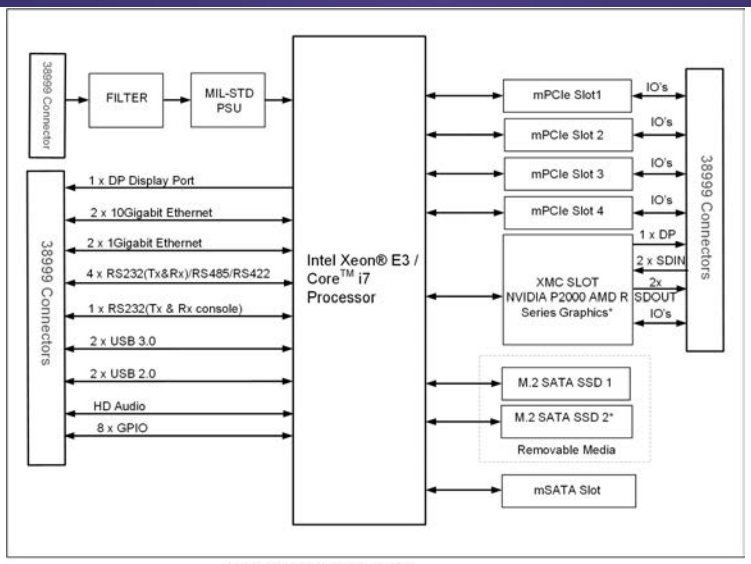
The Versatile WILLET-I is configured with the latest high-performance multi-core CPU and powerful general purpose graphics processing unit with teraflop processing capability, providing the best SWaP optimized solution for variety of demanding Video & Graphics applications.

The WILLET-I can support all I/O typically needed in the targeted applications, including MIL-STD-1553B, ARINC-429, A818, Serial, Fibre Channel, GPS/INS, CAN, GigE and 10GigE, Analog and Discrete Signals, and FPGA processors.

Technical Specification

- **CPU:** Intel Core i7/ Xeon E or Latest
- **Cores:** 4 or 6 Cores
- **Memory:** up to 64 GB DDR4 RAM (with or without ECC)
- **Storage:** up to 1.9TB with M.2 Interface
- **GPGPU:** NVIDIA or AMD-ATI GPGPU with 4GB DDR5 RAM with Teraflop Processing
- **Video Outputs:** Independent 2 x 3G-SDI, 2 x DVI/DisplayPort, 1 VGA (optional), 2 x ARINC 818 (optional)
- **Video Inputs:** Independent 2 x 3G-SDI and 2 x CVBS (NTSC/PAL/SECAM), 2 x ARINC 818 (optional)
- **Encode/Decode:** H.265 & H.264 Hardware Encoder/Decoder
- **Recording:** Synchronized Audio + Video Capture, Compression and Streaming/Write to Disk Support
- **I/O's :**
  - ☑ 2 x 10G Ethernet (Optional, Copper or Fiber)
  - ☑ 2 x 1 Gigabit Ethernet (PoE+ Option)
  - ☑ 2 x USB 3.0, 2 x USB 2.0
  - ☑ 1 x HD AUDIO
  - ☑ 4 x RS232 (TX/RX)/RS422/RS485
  - ☑ 1 x RS232 (TX/RX- Console)
  - ☑ 8 x GPIOs
- **I/O's Expansion:**
  - ☑ 4 x MiniPCIe / AcroPack Sites (Gen 3 PCIe)
- **Security:** TPM 2.0 (optional)
- **Dimensions:** 217mm (W) x 260mm (D) x 120mm (H)
- **Weight:** ≤ 4.8 Kgs. (Configuration Dependent)
- **Connectors:** MIL-Circular
- **Storage Expansion** - Option: SSD Mass Storage Drive (with optional Secure Erase or Zeroize Function)
- **Health Monitor:** System Health Monitor & Control (Optional)
- **Power:** 28 VDC, MIL-STD-704F/MIL-STD-1275E
- **Operating Temp:** - 40°C to +55 °C, up to +71°C (Depends on Thermal Load)
- **Storage Temp:** -40°C to +85 °C
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G
- **Cooling:** Fanless Conduction Cooled
- **Operating System Support:** Windows 10, Linux OS, VxWorks supported only with AMD GPU

*Note: Various Video Output & Input Configuration & Build Options are available, contact us OpenGL, OpenCL, Vulkan & DO-178 Safety Certifiable Solution Available for AMD GPUs OpenGL, OpenCL, DirectX, CUDA support on NVIDIA GPUs



NVIDIA XAVIER

WILLET - N

SFF SYSTEM WITH NVIDIA XAVIER

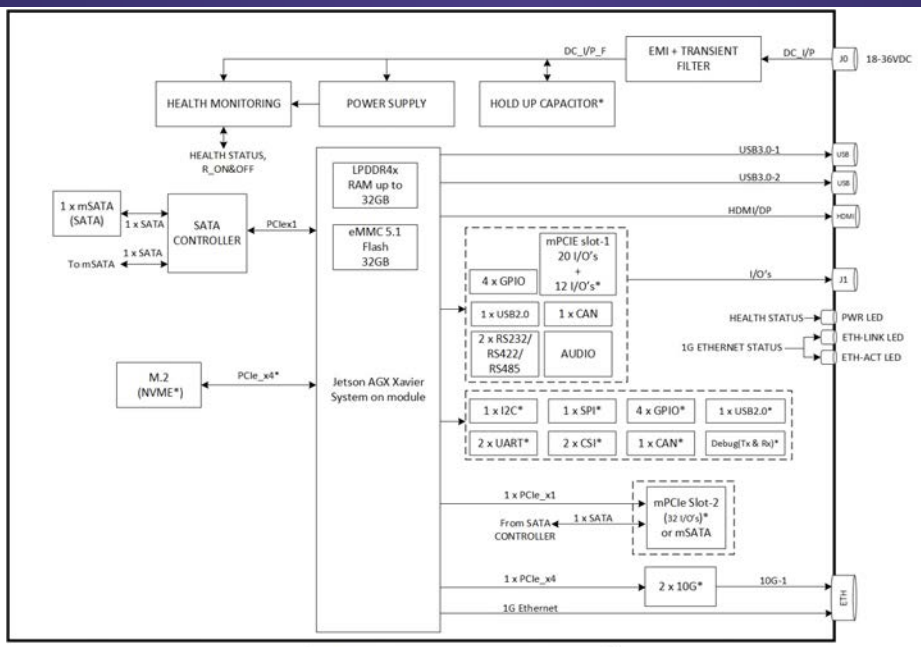
The Willet-N is a rugged ultra-SFF GPGPU AI SWaP Optimized Super computer, specially tailored for the avionic, military and rugged industrial market. It incorporates the powerful NVIDIA® Jetson AGX Xavier-based AI SOM that provides 512 CUDA cores and 64 Tensor cores, reaching 32 TOPS (INT8) and 11 TFLOPS (FP16) at a remarkable level of energy efficiency.

Weighing less than 5 lb. and measuring only 6.06" x 2.99" x 9.05", the rugged Willet-N is ideal for artificial intelligence environments in military and defense applications that require very high levels of computation, such as distributed computing and signal processing in next generation autonomous vehicles as well as surveillance, targeting and EW systems.

Technical Specification

- **CPU/GPU:** Jetson AGX Xavier or Orin
- **Memory:** 8GB/16GB/32 GB LPDDR4x
- **Storage:**
  - ☑ 32 GB eMMC 5.1
  - ☑ Up to 512GB SSD (using mSATA Expansion site)
- **Video O/P:** DP1.2/HDMI 2.0
- **I/O's:**
  - ☑ 2xRS232/2xRS422(Software selection)
  - ☑ 2XUSB 3.0, 1xUSB 2.0
  - ☑ 1xCAN
  - ☑ 1x HD Audio
  - ☑ 1x1 Gig Ethernet, 1x10 Gig Ethernet
  - ☑ 1x HDMI 2.0/Dp 1.2
  - ☑ 4xGPIO
- **I/O's (Build Options):**
  - ☑ 1x10 Gig Ethernet
  - ☑ 4xGPIO
  - ☑ Debug (Tx & Rx)
  - ☑ 2x CSI (Dual Lane)
  - ☑ 1xUSB 2.0, 1xCAN, 1xSPI, 2xUART, 1xI2C
- **Expansion Sites:** 1x mSATA/1x M.2 NVMe slot KEY M, 2xmPCIe/1xmSATA & 1xmPCIe.
- **Dimensions:** 154mmx76mmx230mm
- **Weight:** < 2.5kg
- **Power:** 28 VDC Nominal (18-32 VDC), MIL-STD-704F/MIL-STD-1275E
- **Operating Temp:** -25°C to +65 °C
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G
- **Operating System:** NVIDIA Linux for Tegra (L4T) based on Ubuntu

***Note:** Build Options are the additional interfaces other than the standard interfaces, these build option interfaces are not routed to connectors and available as build option.



*** CONSULT TRIDENT INFOSOL FOR BUILD OPTION**

CISCO POWERED

NETSPYDER - CA

ULTRA-SMALL MANAGED LAYER 2/3 SFF ETHERNET SWITCH

Netspyder CA is a light weight fanless conduction-cooled high-performance ruggedized network switch with 26 Gigabit Ethernet interfaces (24x 1000BaseT, 2x 10GBase-SR) powered by a Cisco® ESS3300 Embedded Series Switch designed for use in harsh environments, and it is ideal for military, aerospace, and aircrafts.

Technical Specification

- **Layer 2/3 switching:** IEEE 802.1, 802.3 standards, NTP, UDLD, CDP, LLDP, unicast MAC filter, VTPv2, VTPv3, EtherChannel, voice VLAN, PVST+, MSTP, and RSTP
- **Multicast:** IGMPv1, v2, v3 snooping, IGMP filtering, IGMP querier
- **Management:** Web UI, MIB, SmartPort, SNMP, syslog, DHCP server, SPAN session (1), Full Flexible Netflow (FnF)
- **Security:** Port security, 802.1x, Dynamic Host Configuration Protocol (DHCP) snooping, dynamic ARP inspection, IP source guard, guest VLAN. MAC authentication bypass, 802.1x multidomain authentication, storm control - unicast, multicast, broadcast, SCP, SSH, SNMPv3, TACACS+, RADIUS server/client, MAC address notification, BPDU guard, MACsec-128
- **IP routing protocols:** OSPF (v4 and v6), RIP (V1 and V2), ISIS (v4 and v6), EIGRP (v4 and v6) Virtualization Vrf-lite
- **Security:** MACsec-256
- **IP Multicast:** PIM sparse mode (PIM-SM), PIM dense mode (PIM-DM) and PIM Sparse dense mode

8 PORT UNIT SPECIFICATIONS

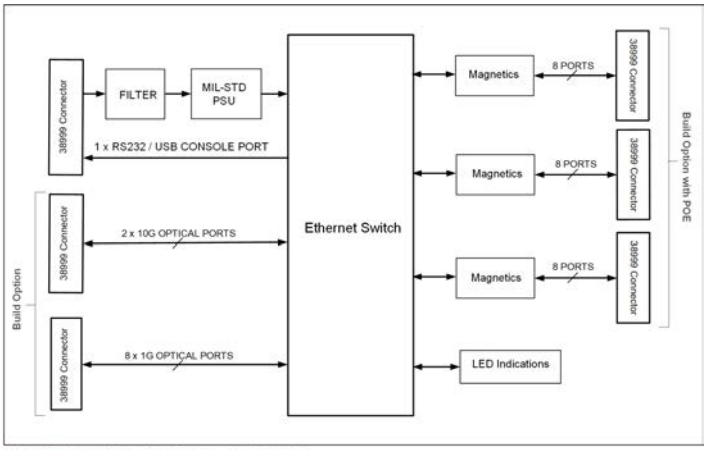
- 8 x 1Gb Copper Ethernet (Supports POE*)
- 2 x 1 Gb SFP (Build Option**)
- 2 x 10Gb SFP+ (Build Option)
- 1 x USB/RS232 Console
- Ethernet Indication LED's
- **Dimensions (WxHxD) in mm**
  - 124 x 87 x 204 (Without POE & SFP)
  - 124 x 87 x 267 (With POE Without SFP)
  - 175 x 87 x 204 (Without POE With SFP)
- **Weight:** < 2.2 kgs
- **Voltage:** 28 VDC Nominal (18-32 VDC)
- **Power:** 35-Watt (200-Watt typ with POE configuration dependent) MIL-STD-704F/MIL-STD-1275E
- **Operating Temperature:** -40° to +71° Celsius
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G

Note:
- POE is build option.
- ** Out of 8 x 1Gb Copper Ethernet ports, 2 ports are combo with 1Gb SFP. Either 1Gb Copper or 1Gb SFP can be used at a time.

24 PORT UNIT SPECIFICATIONS

- 24 x 1Gb Copper Ethernet (Supports POE*)
- 8 x 1 Gb SFP (Build Option**)
- 2 x 10Gb SFP+ (Build Option)
- 1 x USB/RS232 Console
- Ethernet Indication LED's
- **Dimensions (WxHxD) in mm**
  - 124 x 142 x 204 (Without POE & SFP)
  - 175 x 142 x 267 (With POE & SFP)
- **Weight:** < 3.3kgs
- **Voltage:** 28 VDC Nominal (18-32 VDC)
- **Power:** 45 Watt typ (540 Watt with POE configuration dependent) MIL-STD-704F/MIL-STD-1275E
- **Operating Temperature:** -40° to +71° Celsius
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G

Note:
- POE is build option.
- ** Out of 24 x 1Gb Copper Ethernet ports 8 ports are combo with 1Gb SFP. Either 1Gb Copper or 1Gb SFP can be used at a time.



Note: Ethernet switch configurable as per requirement

ULTRA SMALL

NETSPYDER - DA

ULTRA-SMALL MANAGED LAYER 2/3 SFF ETHERNET SWITCH

Netspyder DA is a light weight fanless conduction cooled high-performance ruggedized network switch with 26 Gigabit Ethernet interfaces (24x 1000BaseT, 4x 10GBase-SR) powered by a Diamond Embedded Series Switch designed for use in harsh environments, and it is ideal for military, aerospace, and aircrafts.

Technical Specification

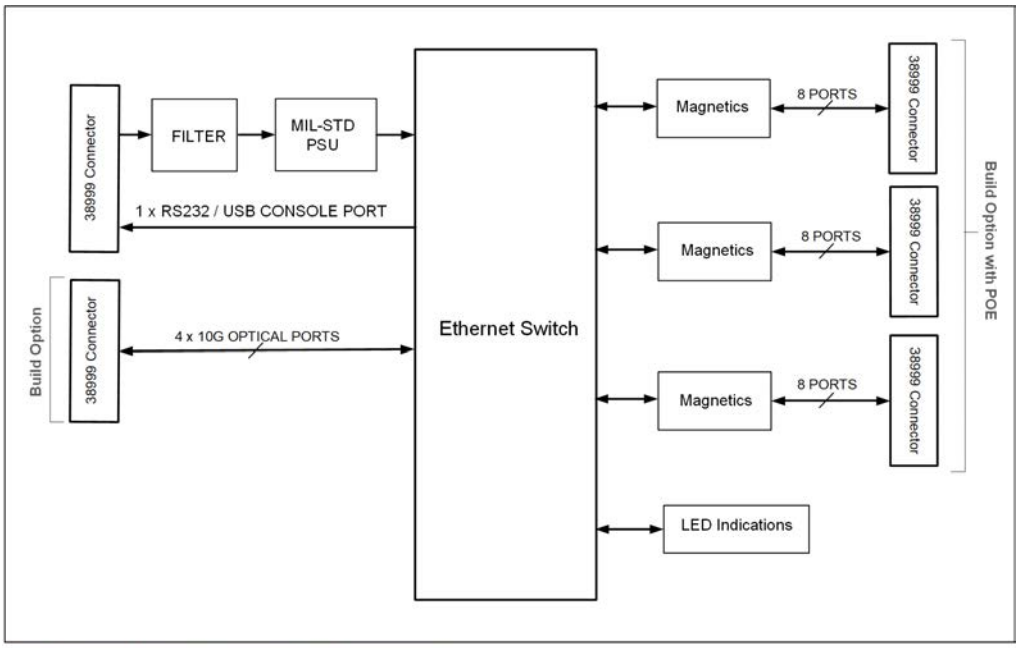
- **WebStaX** Layer 2+ software, default package included with base models
- **IStax** Layer 3 software including routing and IEEE1588 Precision time Protocol (PTP) capability
- Serial port for out of band management and software updates
- IEEE802.1Q switch with 4K VLANs and 32K MAC table entries
- Multiple protocol support: IEEE 802.1d, IEEE 802.1w, IEEE 802.1s, and IEEE 802.1X
- Flexible link aggregation support based on Layer-2 through Layer-4 information (IEEE 802.3ad)
- Multicast and broadcast storm control, as well as flooding control

8 PORT UNIT SPECIFICATIONS

- 8 x 1Gb Copper Ethernet
- 2 x 10Gb SFP+ (Build Option)
- 1 x RS232 Console
- Ethernet Indication LED's
- **Dimensions (WxHxD) in mm**
  - 175 x 87 x 170 (With SFP)
  - 124 x 87 x 170 (With Copper)
- **Weight:** < 2.2 kgs
- **Voltage:** 28 VDC Nominal (18-32 VDC)
- **Power:** 30 Watts typ (configuration dependent) MIL-STD-704F/MIL-STD-1275E
- **Operating Temperature:** -40°C to +71°C
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G

24 PORT UNIT SPECIFICATIONS

- 24 x 1Gb Copper Ethernet
- 4 x 10Gb SFP+ (Build Option)
- 1 x RS232 Console
- Ethernet Indication LED's
- **Dimensions (WxHxD) in mm**
  - 175 x 142 x 170 (With SFP)
  - 124 x 142 x 170 (With Copper)
- **Weight:** < 4.4kgs
- **Voltage:** 28 VDC Nominal (18-32 VDC)
- **Power:** 40Watts typ (configuration dependent), MIL-STD-704F/MIL-STD-1275E
- **Operating Temperature:** -40° to +71° Celsius
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G



Note: Ethernet switch configurable as per requirement

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Quality

AS 9100D

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