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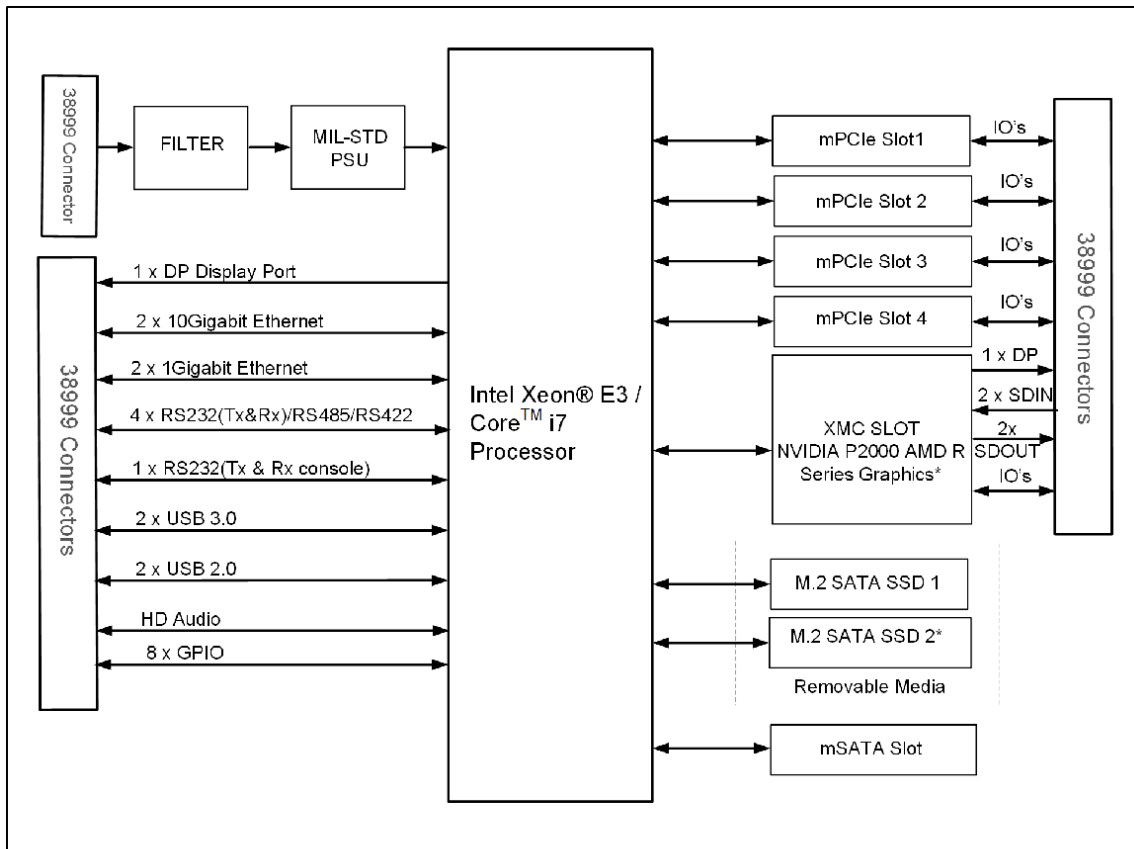
The Versatile WILLET-I is configured with the latest high-performance multi-core CPU and powerful general purpose graphics processing unit with teraflop processing capability, providing the best SWaP optimized solution for variety of demanding Video & Graphics applications.

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.
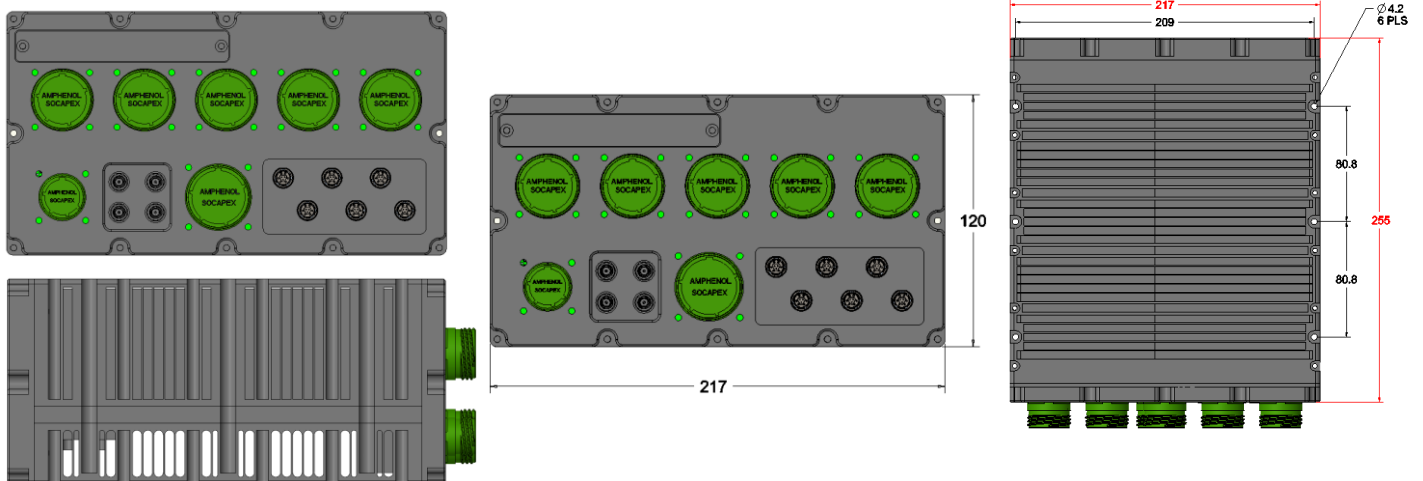
FEATURES

- **CPU:** Intel Core i7/ Xeon E3 Processors 9th Generation 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 (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: 1 x Removable SATA -III SSD Mass Storage Drive(with optional Secure Erase or Zeroize Function)
- **Health Monitor:** System Health Monitor & Control (Optional)
- **Power:** 28 VDC @ 25-100 Watts (Configuration Dependent)
- **Operating Temp:** -40°C to +55 °C, up to +71°C (Depending on Thermal Load)
- **Storage Temp:** -40°C to +85 °C
- **Environmental:** MIL- STD-810H
- **EMI:** MIL-STD-461G
- **Power:** MIL-STD-704F/MIL-STD-1275E
- **Cooling:** Fanless Conduction Cooled
- **Operating System Support:** Windows 10, Linux OS, VxWorks supported only with AMD GPU

FILTER → MIL-STD PSU

38999 Connector

Intel Xeon® E3 / Core™ i7 Processor

1 x DP Display Port
2 x 10Gigabit Ethernet
2 x 1Gigabit Ethernet
4 x RS232(Tx&Rx)/RS485/RS422
1 x RS232(Tx & Rx console)
2 x USB 3.0
2 x USB 2.0
HD Audio
8 x GPIO

38999 Connectors

mPCIe Slot1 — IO's
mPCIe Slot 2 — IO's
mPCIe Slot 3 — IO's
mPCIe Slot 4 — IO's

XMC SLOT NVIDIA P2000 AMD R Series Graphics*
1 x DP
2 x SDIN
2x SDOUT
IO's

38999 Connectors

M.2 SATA SSD 1
M.2 SATA SSD 2*
Removable Media

mSATA Slot

* CONSULT TRIDENT INFOSOL FOR BUILD OPTION

Dimension in mm