

# 19"/2® ST1122



## Storage Computer in a 19"/2® form factor

The ST1100 series provides a powerful network storage solution. It support up to five 2.5" SATA disk, RAID and a wide range of interfaces and options. It is optimized for low size, weight and power (SWaP) to meet industry requirements without sacrificing reliability, ruggedness or performance. You can install your own NAS software or you can use the MilDef provided Linux based NAS software.

### Small form factor

The MilDef 19"/2® form factor is optimized for reduced size, weight, and power (SWaP) to meet industry and military requirements without sacrificing reliability, ruggedness or performance.

### Flexible mounting

The 19"/2® standard enables flexible mounting options for a wide array of integration scenarios. The unit can be mounted in a standard 19" rack, half racks, or directly on to a surface and at any angle.

### Military-relevant rugged design

MilDef products are designed to operate in extreme environmental conditions and challenging electromagnetic operational scenarios. Operationally proven, MilDef products are actively employed in military operations in over 60 countries.

### Guaranteed performance

MilDef products are designed for the long lifecycles of military programs and come with a lifetime support program to ensure your equipment maintains peak performance for many missions to come.

We also guarantee the availability of spare parts for an additional 5 years after product end-of-life.

### Features

- Intel® Xeon® E3-1505L V5 processor
- MEGARAID 9560-8i
- Up to 32 GB ECC DDR4 SO-DIMM RAM
- TPM v2.0
- Passively cooled

## Connector Interfaces

<b>ETH0-1</b> (back)	2 connectors which each has: <ul style="list-style-type: none"> <li>• 1x ETH 10GBASE-T</li> </ul>
<b>ETH2</b> (back)	<ul style="list-style-type: none"> <li>• 1x ETH 1000BASE-T</li> </ul>
<b>HDMI</b> (front)	<ul style="list-style-type: none"> <li>• 1x HDMI</li> </ul>
<b>USB 1-2</b> (front)	2 connectors which each has: <ul style="list-style-type: none"> <li>• 1x USB 2.0</li> </ul>
<b>USB3/4</b> (back)	<ul style="list-style-type: none"> <li>• 2x USB 3.0</li> </ul>
<b>X1 DC IN</b> (back)	<ul style="list-style-type: none"> <li>• 1x Power</li> </ul>

## Other Interfaces

5x MilDef Disk Slot (front)
1x System button (front)

## Technical Specification

<b>Computer TPM</b>	TPM v2.0 chip
<b>Computer memory</b>	32 GB ECC DDR4 SO-DIMM RAM
<b>Computer processor</b>	Intel® Xeon® E3-1505L V5 processor
<b>Disk support</b>	2.5" SATAIII SSD
<b>LAN 10GBASE-T Speed</b>	10GBASE-T standard
<b>CMOS battery</b>	Replaceable CMOS battery, located behind a cover (left side) for easy access
<b>Electronics ground to chassis</b>	Isolated
<b>MIL-STD-1275D</b>	5.3.2.2 5.3.2.3 5.3.2.4
<b>Polarity protection</b>	Protected against incorrect polarity connection on the power input within the normal operating voltage range
<b>Power consumption</b>	116 W
<b>Power input</b>	16-32 VDC
<b>Power to chassis</b>	Isolated
<b>Power to electronics ground</b>	Isolated
<b>Chassis material</b>	Aluminum
<b>Coating and color</b>	AE0305-7703820 Axalta (RAL 7000)
<b>Cooling</b>	Passively cooled
<b>Dimensions width and height</b>	220 x 87.85 mm (8.7 x 3.5 in) (WxH)
<b>Earth point</b>	M6 12 mm
<b>Surface treatment chassis</b>	Chromit-Al
<b>Unit depth</b>	408 mm (16.1 in)

**Weight** 8 kg (17.7 lbs)

**CE** Compliant

## Environmental Specification

<b>Functional shock - Operating</b>	MIL-STD-810H, Method 516.8, Procedure I - Functional shock. Table 516.8-IV, Terminal peak sawtooth pulse, Ground materiel 15 g 11 ms
<b>High temperature - Operating</b>	MIL-STD-810H, Method 501.7, Procedure II - Operation 45 °C (113 °F)
<b>High temperature - Storage</b>	MIL-STD-810H, Method 501.7, Procedure I - Storage 55 °C (160 °F)
<b>Humidity</b>	MIL-STD-810H, Method 507.6, Procedure II - Aggravated 95 ± 4% RH Ten 24-hour cycles
<b>IP Class (Solid Particle Protection)</b>	IP Class 6X
<b>IP Class (Water)</b>	IP Class X5
<b>Low air pressure - Rapid decompression</b>	MIL-STD-810H, Method 500.6, Procedure III - Rapid decompression 2,438 m (8,000 ft) 12,192 m (40,000 ft)
<b>Low air pressure - Operating</b>	MIL-STD-810H, Method 500.6, Procedure II - Operation/air carriage 4,572 m (15,000 ft)
<b>Low temperature - Operating</b>	MIL-STD-810H, Method 502.7, Procedure II - Operation 5 °C (41 °F)
<b>Low temperature - Storage</b>	MIL-STD-810H, Method 502.7, Procedure I - Storage 0 °C (32 °F)
<b>Noise level</b>	Maximum noise level of 40 dB SPL A-weighting at 1 m (3.3 ft) distance
<b>Salt fog</b>	MIL-STD-810H, Method 509.7 5 ± 1% (by weight) Two cycles, 24 h wet + 24 h dry / cycle
<b>Temperature shock - Operating</b>	MIL-STD 810H, Method 503.7, Procedure I-C, - Multi-cycle shocks from constant extreme temperature 45 °C (113 °F) 5 °C (41 °F)
<b>Vibration - Helicopter</b>	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 14 - Rotary wing aircraft - helicopter

<b>Vibration - Loose cargo</b>	MIL-STD-810H, Method 514.8, Procedure II - Loose cargo transportation, Category 5 - Truck/trailer - loose cargo
<b>Vibration - Tracked vehicle</b>	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Tracked vehicle
<b>Vibration - Wheeled vehicle</b>	MIL-STD-810H, Method 514.8, Procedure I - General vibration, Category 20 - Ground vehicle - ground mobile, Wheeled vehicle

## EMC Specification

<b>EMI conducted CE102</b>	MIL-STD-461F, Method CE102, Conducted emissions, power leads BASIC CURVE 10 kHz - 10 MHz
<b>EMI radiated RE102</b>	MIL-STD-461F, Method RE102, Radiated emissions, electric field Navy Mobile & Army 2 MHz - 18 GHz
<b>EMS conducted CS101</b>	MIL-STD-461F, Method CS101, Conducted susceptibility, power leads CURVE #1 30 Hz - 150 kHz
<b>EMS conducted CS114</b>	MIL-STD-461F, Method CS114, Conducted bulk susceptibility Army, Ground 10 kHz - 200 MHz
<b>EMS conducted CS115</b>	MIL-STD-461F, Method CS115, Conducted susceptibility, bulk cable injection, impulse excitation
<b>EMS conducted CS116</b>	MIL-STD-461F, Method CS116, Conducted susceptibility, damped sinusoidal transients, cables and power leads 10 kHz - 100 MHz
<b>EMS radiated RS103</b>	MIL-STD-461F, Method RS103, Radiated susceptibility, electric field Army 2 MHz - 1 GHz