



POSEIDON 1U-SX

COMPACT 2U, HIGH-DENSITY, INTEL® 5TH GENERATION XEON®, 16" DEEP, ALUMINUM, RACKMOUNT SERVER

PROCESSOR

- (1) LGA 1700 processor socket
- Supports (1) 14/13/12th Gen. Intel® Core® Processor
- Intel® W680 Chipset

MEMORY

- (4) DIMM Slots
- DDR5 ECC memory
- 1.1V modules: up to 4400 MT/s
- 192GB RAM with 14/13th Gen
- 128GB with 12th Gen

NETWORK

- (2) 10GbE RJ45 LAN
- (2) 1GbE RJ45 LAN
- (1) 1GbE RJ45 management LAN

PRODUCT DESCRIPTION

The JBT Poseidon 1U-SX is a modular 1U rugged rackmount workstation engineered for high compute density and deployment in controlled, extended, and harsh operating environments. Designed and assembled in the United States, the system integrates Intel® Core™ processor technology with flexible expansion and configurable ruggedization levels to meet program-specific requirements.

The platform supports variable rail depth configurations (22–24 in. or 27–31 in.) while maintaining support for a single-slot, full-length GPU or other PCIe add-in cards. The architecture enables customization across processing, storage, networking, power, and environmental specifications.

ADDITIONAL SPECIFICATIONS

PCIe Expansion

- (6) PCIe Gen5 x16 expansion slot for a single slot, full length GPU or Add-in Card

Removable Storage

- (4) U.2 SSDs, up to 15mm SATA 3 and/or NVMe PCIe Gen5 x4

Video Output

- (1) VGA
- (1) HDMI
- (1) DisplayPort

USB

- (2) USB-C 3.1 (Front)
- (2) USB-A 3.0 (Front)
- (2) USB-A 3.2 (Rear)

Serial Ports

- (1) DB9

Internal Storage

- (1) M.2 slot with PCIe Gen3 x4 interface
- Supports 2230, 2242, 2260 and 2280 sizes

Power Supplies

- (1) 80 Plus Platinum rated power supply up to 850W (Input: 90 – 264 VAC 50-60 Hz)

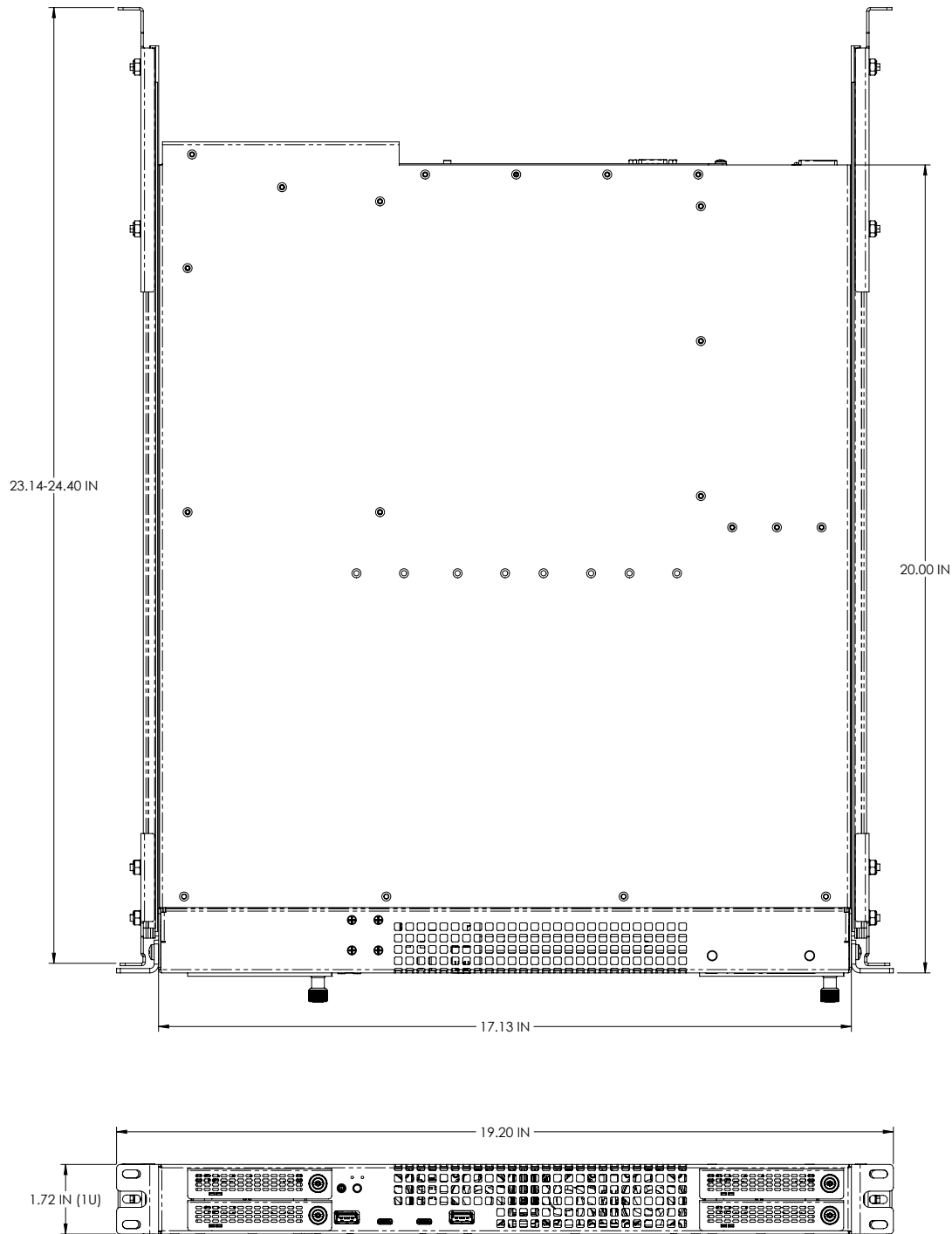
Security Features

- Optional TPM 2.0

Verified Compatible OS

- RHEL 8.5
- Windows 10/11
- CentOS 8.5
- SUSE SLES 15.2
- Ubuntu 21.10
- VMware ESXi 7.0 U3d

DIMENSIONAL DRAWING



RUGGEDIZATION LEVEL 1 – INDUSTRIAL

- Operating Temp: 0°C to +55°C
- Storage Temp: -50°C to +100°C
- Vibration: 0.002 g/Hz (10–2000 Hz random), 2 g sinusoidal (5–500 Hz)
- Shock: 20 g peak sawtooth, 11 ms
- Humidity: Up to 95% RH

RUGGEDIZATION LEVEL 2 – EXTENDED

- Operating Temp: -20°C to +65°C
- Storage Temp: -50°C to +100°C
- Vibration: 0.002 g/Hz (10–2000 Hz random), 2 g sinusoidal (5–500 Hz)
- Shock: 20 g peak sawtooth, 11 ms
- Humidity: Up to 95% RH with varying temperature, 10 cycles, 240 hours

RUGGEDIZATION LEVEL 3 – RUGGED

- Operating Temp: -40°C to +75°C
- Storage Temp: -50°C to +100°C
- Vibration: 0.04 g/Hz (20–2000 Hz with a flat response to 1000 Hz), 6dB/octave roll-off from 100 to 2000Hz
- Shock: 40 g peak sawtooth, 11 ms
- Humidity: Up to 95% RH with varying temperature, 10 cycles, 240 hours