

NEPTUNE 2U-SS

COMPACT 2U, HIGH-DENSITY, INTEL® 6TH GENERATION XEON®, 16" DEEP, RACKMOUNT SERVER

PROCESSOR

- (2) LGA 4710 processor sockets
- Supports up to (2) 6th Gen. Intel® Xeon® Scalable Processors (Max TDP 350W)
- 6700E/P or 6500P Series System-on-Chip (Chipset)

MEMORY

- (16) DIMM Slots (8 per CPU)
- DDR5 ECC memory
- 1.1V modules: up to 6400 MT/s
- MCRDIMM up to 8000 MT/s (requires P Series processor)

NETWORK

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

PRODUCT DESCRIPTION

The Jensen Beach Technologies Neptune 2U-SS is a ruggedized 2U rackmount server designed for high-performance compute applications in defense, industrial, and commercial environments. The system integrates dual 6th Generation Intel® Xeon® Scalable processors within a compact 16-inch chassis depth, supporting high core density, PCIe Gen5 expansion, and flexible storage configurations.

The Neptune 2U-SS architecture incorporates dual ROM firmware redundancy and modular subsystem design to support mission-critical reliability and long operational lifecycles.

ADDITIONAL SPECIFICATIONS

PCIe Expansion

- Up to (6) PCIe Gen5 x16 expansion slots depending on configuration
- (1) PCIe Gen5 x16 expansion slot in GPU configuration

Removable Storage

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

Video Output

- (1) VGA

USB

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

Serial Ports

- (1) RJ45

Internal Storage

- (2) M.2 slots with PCIe Gen4 x4 interface
- Supports 2280 and 22110 sizes

Power Supplies

- (2) CRPS units

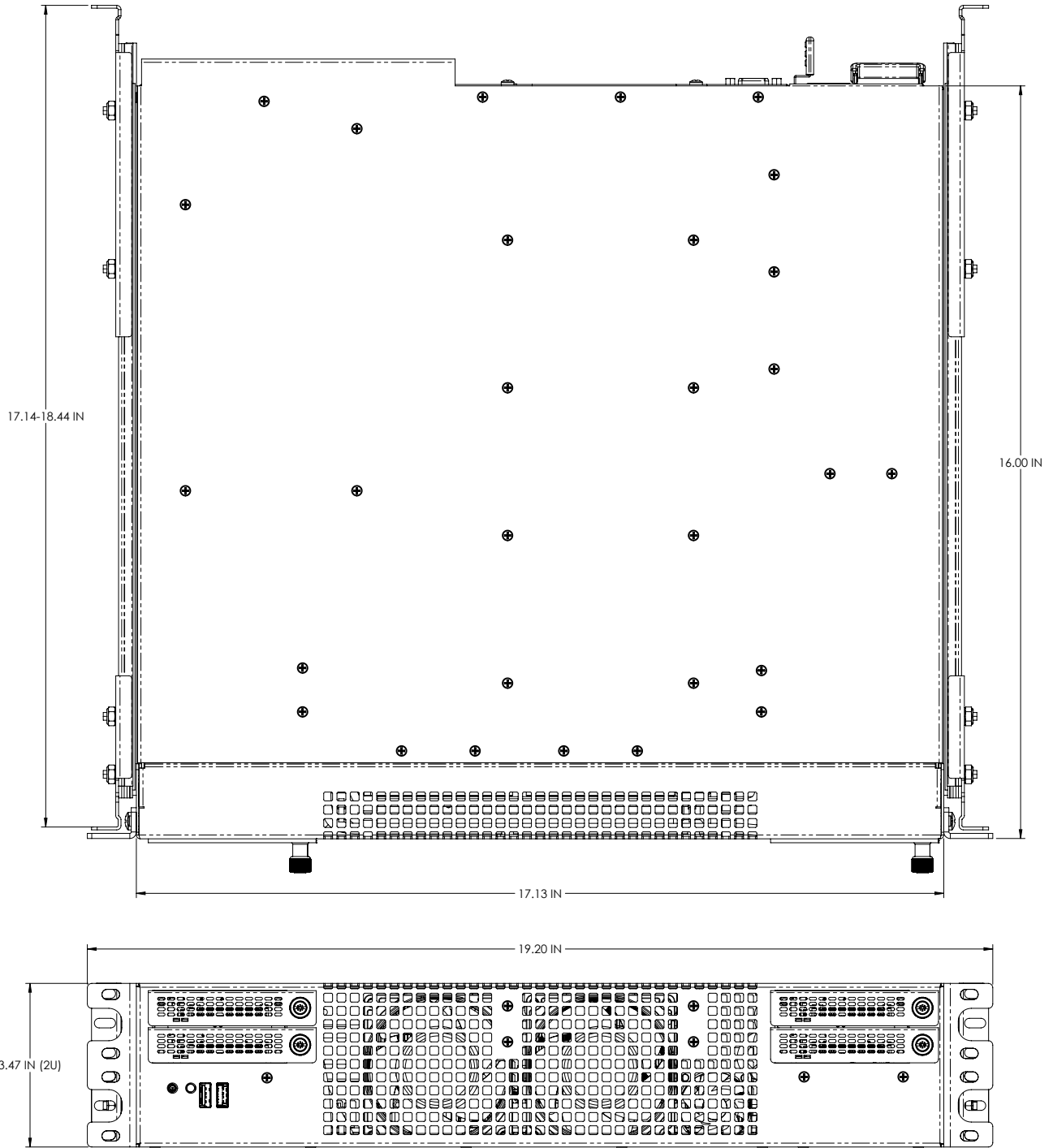
Security Features

- Optional TPM 2.0
- Optional ProT Module

Verified Compatible OS

- RHEL 6.8
- RHEL 7
- Windows Server 2022
- CentOS 7

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