

StorageBox 2000—PCIe 4.0 All-Flash

Part Number: OSS-SB2000-24

FEATURES

- 24x hot-swap U.2/U.3 PCIe 3.0 or 4.0 NVMe, SATA, or SAS Drives
- Up to 720TB of storage capacity per 2U chassis
- 186GB/s total drive throughput (7.76GB/s per U.3 port)
- Remove SSDs individually, or in 3 separate 8-Drive Cannisters
- SAN, NAS, JBOF, EBOF, or NVMe-oF Configurations
- Dual PCIe 4.0 x16 SFF-8644 Host Uplinks or ARM SmartNICs
- Quad PCIe 4.0 x16 expansion slots (2 HLHH and 2 HLFH)
- 2U, 18" depth rackmount enclosure
- IPMI BMC and web interface



The SB2000 is the highest performance, modular and most flexible all-flash storage solution available for NVMe JBOF, FBOF, NVMe-oF, SAN and NAS solutions. SB2000 uses the pure speed of PCIe Gen 4 to allow storage throughput of over 180GB/s using U.3 NVMe drive-ports based on PCIe 3.0 or 4.0. It provides scale-out storage options of up to 720TB of hot-swap storage capacity and excels in both block and file-based storage applications using the available OSS Ion Accelerator™ storage software, OSS-NAS and 200Gb ARM smart-NIC processor options. An added dimension of flexibility is supplied by the physical architecture which allows for tool-less removal and insertion of each of the three, 8-drive canisters, using OSS Follow-me™ volume data management system. Similarly, any of the 24 drives can be removed and inserted individually, without tools.

SPECIFICATIONS

System

Enclosure	<p>Dimensions: 2U, 19" rack mount, 17.2"W x 18"D x 3.5" H</p> <p>Weight: 32 lbs with drives (Preliminary)</p> <p>Aesthetics: Steel with medium texture, liquid paint front panel with 24 drives in three 8-drive cannisters</p> <p>Rack Support: Toolless rack slides, rack ears with handles</p> <p>Drives: Up to twenty-four (24) U.2/U.3 PCIe 3.0 or 4.0 x4 NVMe, SATA, or SAS solid-state drives (SSD)</p> <p>Capacity: 720TB per 2U system using 30TB NVMe drives</p>
Storage Options	<p>JBOF/FBOF:</p> <ul style="list-style-type: none"> • Stand-alone 2U SB2000 unit offers up to two PCIe 4.0 x16 host interfaces, providing over 512Gb/s total bandwidth to composable infrastructure or direct attached systems <p>OSS Ion Accelerator SAN:</p> <ul style="list-style-type: none"> • 2U SB2000-24 and 2U EOS-4 server supporting NVMe-oF, iSCSI, SRP, or Infiniband protocols • Up to 10x 32Gb Fibre Channel, 4 x 100Gb Ethernet, or 4x 200Gb Infiniband network connections • Ion Accelerator 5.2 kernel-level software with snapshot <p>OSS Zion NAS:</p> <ul style="list-style-type: none"> • 2U SB2000 with two PCIe 4.0 ARM SmartNIC adapters • Supports 4x 100Gb or Ethernet or 2 x 200Gb Infiniband network connections • Supports hardware accelerated encryption to FIPS-140-2 Level 1: <ul style="list-style-type: none"> • AES-GCM 128/256 bit data-in-motion encryption • AES-XTS 256/512 bit data-at-rest encryption
Operating Systems	Supports servers and initiators running Microsoft Windows, Windows Server, Linux, UNIX, Solaris and Hypervisors
Expansion	Multiple SB2000 can be connected through an available PCIe x16 slots in a host server
System Management	IPMI 2.0 compliant BMC monitors and controls fans, power supplies, temperature sensors & I2C devices
Management GUI	Web server accessible over RJ-45 Ethernet port on rear of chassis.
LED Indicators	LEDs on the front panel indicating drive activity, power status and system ID

SPECIFICATIONS CONTINUED

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RAID	Software RAID level support provided by the server, ION Accelerator or Zion Software
Service Management	2 Ethernet connectors for connection to system monitoring tool Supports CLI, web GUI and SNMP management options
Vibration	Operating vibration: 5-17 Hz 0.5" double amplitude displacement; 7-2000Hz, 1.5g acceleration Storage/transport vibration: 2g @ 5-500 Hz. Operating shock: 20g @ 11 msec Storage/transport shock: 30g @ 11 msec.
Cooling	Five 30.2 CFM fans for drives plus one fan in each power supply module
Power Supply	1000 Watt Common Redundant Power Supply (CRPS) Input voltage range: 100-240 VAC Full Range Frequency range: 50/60 Hz Amperage: 10A (RMS) for 115V, 5A (RMS) for 208V (<i>estimated</i>) Total Power to the System: 1000W Redundant Efficiency: Typical 90%
Operating Environment	5° to 40°C with maximum temperature gradation of 10°C per hour, -16 to 3048 meters (-50 to 10,000 feet) 8% to 85% (non-condensing) with maximum humidity gradation of 10% per hour
Storage Environment	-40° to 65°C (-40° to 149° F) with maximum temperature gradation of 20°C per hour 5% to 95% (non-condensing)
Agency Compliance	FCC - Verified to comply with Part 15 of the FCC Rules, Class A Canada ICES-003, issue 4, Class A UL/IEC 60950-1 CSA C22.2 No. 60950-1 IEC 60950-1 (CB Certificate and CB Test Report) CE Mark (EN55022 Class A, EN60950-1, EN55024, EN61000-3-2, EN61000-3-3) CISPR 22, Class A WEEE (EU 2012/19) & RoHS 3 (EU 2015/863)

