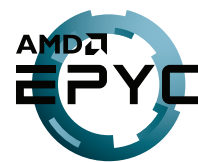# GIGABYTE™

S451-Z30
Storage Server - 4U UP 36-Bay

AMD EPYC

Features

- Single AMD EPYC™ 7003 Series processors
- 8-Channel RDIMM/LRDIMM DDR4, 16 x DIMMs
- 2 x SFP+ 10Gb/s LAN ports (Broadcom® BCM 57810S)
- 1 x Dedicated management port
- 36 x 3.5" SATA/SAS hot-swap HDD/ SSD bays
- 2 x 2.5" SATA hot-swap SSD for booting device
- SAS expander with 12Gb/s transfer speed
- Ultra-Fast M.2 with PCIe Gen3 x4 interface
- 7 x PCIe Gen3 expansion slots
- Aspeed® AST2500 remote management controller
- Dual 1200W 80 PLUS Platinum redundant power supply

Specification

Dimensions	4U (W482.6 x H177 x D625 mm)
Motherboard	MZ31-AR0 Rev. 3.0
CPU	AMD EPYC™ 7003 Series processors Single processor, 7nm, Socket SP3 Up to 64-core, 128 threads per processor TDP up to 225W, cTDP up to 280W, Fully support 280W Compatible with AMD EPYC™ 7002 Series processors
Chipset	System on Chip
Memory	8-Channel DDR4 memory, 16 x DIMM slots RDIMM/LRDIMM modules up to 128GB supported 3DS RDIMM/LRDIMM modules up to 256GB supported Memory speed: Up to 3200/2933 MHz
LAN	2 x SFP+ 10Gb/s LAN ports (Broadcom® BCM 57810S) 1 x 10/100/1000 management LAN
Video	Integrated in Aspeed® AST2500 2D Video Graphic Adapter with PCIe bus interface 1920x1200@60Hz 32bpp
Storage	Front side: 24 x 3.5"/2.5" SATA/SAS hot-swap HDD/SSD bays Rear side: 12 x 3.5"/2.5" SATA/SAS hot-swap HDD/SSD bays Default supports: 2 x SAS/SATA drives in rear side SAS card is required to enable the drive bays Suggested SAS cards: CRA4648, CSA4648
Expansion Slots	4 x PCIe x16 (Gen3 x16) slots, low-profile 1 x PCIe x16 (Gen3 x8) slot, low-profile 2 x PCIe x8 (Gen3 x8) slots, low-profile 1 x M.2 slot (Gen3 x4)
Front I/O	2 x USB 3.0
Rear I/O	2 x USB 3.0, 2 x USB 2.0, 1 x VGA, 1 x COM, 2 x SFP+, 1 x MLAN

Backplane I/O	Bandwidth: SATAIII 6Gb/s or SAS 12Gb/s per port
TPM	1 x TPM header with LPC interface Optional TPM2.0 kit: CTM000
Power Supply	2 x 1200W 80 PLUS Platinum redundant power supply AC Input: 100-240V
System Management	Aspeed® AST2500 management controller GIGABYTE Management Console (AMI MegaRAC SP-X)
OS Compatibility	Windows Server 2016 / 2019 RHEL 8.3 (x64) or later SLES 12 SP5 (x64) / 15 SP2 (x64) or later Ubuntu 18.04.5 LTS (x64) / 20.04 LTS (x64) or later VMware ESXi 6.7 Update3 P03 / 7.0 Update1 or later Citrix Hypervisor 8.2.0 or later
System Fans	7 x 80x80x38mm (9000rpm)
Operating Properties	Operating temperature: 10°C to 35°C Operating humidity: 8-80% (non-condensing) Non-operating temperature: -40°C to 60°C Non-operating humidity: 20%-95% (non-condensing)
Packaging Content	1 x S451-Z30 system, 1 x CPU heatsink, 1 x Rail kit
Reference Numbers	Barebone package: 6NS451Z30MR-00 Rev. B00 Part Numbers: - Motherboard: 9MZ31AR0NR-00 Rev. 3.0 - Rail kit: 25HB2-3A6103-I0R - CPU heatsink: 25ST1-15320E-J1R - Back plane board_Front_24-port: 25FBZ-RS4240-I1R - Back plane board_Rear_12-port: 25FBZ-RS2121-I1R - Back plane board_Rear_2*2.5"-port: 25FBZ-RA1020-I1R - 1200W Power supply: 25EP0-212002-F3S

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