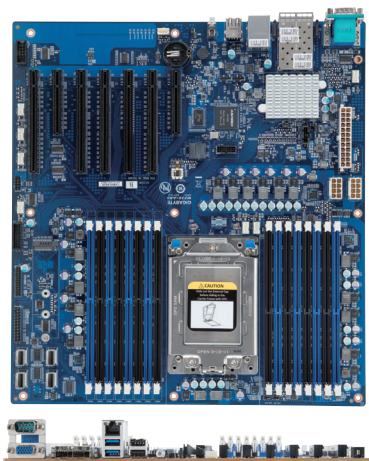
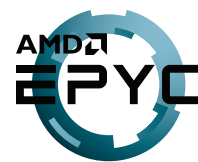


# MZ31-AR0

## AMD EPYC UP Server Motherboard



### Features

- 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
- 4 x SlimSAS (with 16 x SATA 6Gb/s) ports
- Ultra-Fast M.2 with PCIe Gen3 x4 interface
- Up to 4 x PCIe Gen3 x16 slots and 3 x PCIe Gen3 x8 slots
- Aspeed® AST2500 remote management controller

### Specification

**Dimensions** E-ATX (305W x 330D mm)

**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 240W  
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

**SATA** 4 x SlimSAS, total 16 x SATA III 6Gb/s ports

**RAID** N/A

**Expansion Slots** Slot\_7: 1 x PCIe x8 (Gen3 x8 bus) slot  
Slot\_6: 1 x PCIe x16 (Gen3 x16 bus) slot  
Slot\_5: 1 x PCIe x16 (Gen3 x8 bus) slot  
Slot\_4: 1 x PCIe x16 (Gen3 x16 bus) slot  
Slot\_3: 1 x PCIe x16 (Gen3 x16 bus) slot  
Slot\_2: 1 x PCIe x8 (Gen3 x8 bus) slot  
Slot\_1: 1 x PCIe x16 (Gen3 x16 bus) slot  
  
1 x M.2 slot:  
- M-key, PCIe Gen3 x4  
- Supports NGFF-2242/2260/2280 cards

**Internal I/O** 1 x 24-pin ATX main power connector, 2 x 8-pin ATX 12V power connectors, 4 x SlimSAS connectors, 1 x M.2 slot, 2 x CPU fan headers, 5 x System fan headers, 1 x USB 3.0 header, 1 x USB 2.0 header, 1 x COM\_2 header, 1 x TPM header, 1 x Front panel header, 2 x LAN activity LED, 1 x HDD back plane board header, 1 x PMBus connector, 1 x IPMB connector, 1 x Clear CMOS jumper, 1 x BIOS recovery jumper, 1 x Buzzer

**Rear I/O** 2 x USB 3.0, 2 x USB 2.0, 1 x VGA, 1 x COM\_1, 2 x SFP+, 1 x MLAN1 x ID button with LED

**TPM** 1 x TPM header with LPC interface (Optional TPM2.0 kit: CTM000)

**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

**Board Management** Aspeed® AST2500 management controller  
GIGABYTE Management Console (AMI MegaRAC SP-X)

**Operating Properties** Operating temperature: 10°C to 40°C  
Operating humidity: 8-80% (non-condensing)  
Non-operating temperature: -40°C to 60°C  
Non-operating humidity: 20%-95% (non-condensing)

**Retail Packaging Content** 1 x MZ31-AR0, 1 x I/O shield, 1 x Quick start guide,  
2 x SlimSAS to SATAIII 6Gb/s cables  
Single Box dimensions: 409 x 355 x 78 mm

**Bulk Packaging Content** 10 x MZ31-AR0, 10 x I/O shields  
Carton dimensions: 600 x 473 x 495 mm

**Reference Numbers** Retail: 9MZ31AR0MR-00 Rev. 3.0  
Bulk: 9MZ31AR0NR-00 Rev. 3.0



Learn more about GIGABYTE server solutions, visit [www.gigabyte.com/Enterprise](http://www.gigabyte.com/Enterprise)

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