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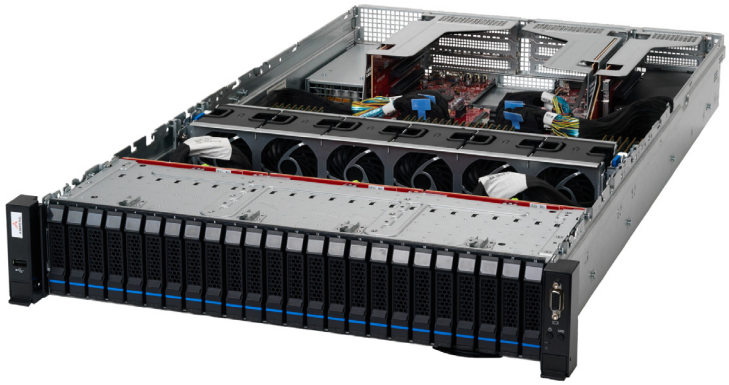

Mt. Jade Platform — Dual Socket Rack Server

The Ampere® Altra™ processor-based Mt. Jade platform provides 160 processor cores in a dual socket configuration, making it the platform with the highest core density in the industry. Mt. Jade provides the performance and scalability for a variety of workloads, including data analytics, database, AI, web-tier, and Android-in-the-Cloud (AIC).

Flexible I/Os

With 186 PCIe Gen 4 lanes in the system, Mt. Jade provides a multitude of I/O connectivity options for customization.

Each socket is enabled to support CCIX connector for external accelerators to support applications including memory expansion and cache coherent acceleration.

Memory and Storage

Mt. Jade supports 2 DIMMs per DDR4 channel at 3200 MHz (that is, 16 DIMMs per socket), providing a total maximum memory capacity of 4 TB per socket to address memory bound workloads.

Mt. Jade supports two internal M.2 slots for NVMe storage for ultra-fast reads/writes, and eliminates PCIe switch adapters.

Platform Management

Mt. Jade includes two BMC options: MegaRAC® and OpenBMC. Mt. Jade also includes two BIOS options – Aptio® V and EDK2.

Visit https://amperecomputing.com/altra/ to learn more about Ampere's Mt. Jade platform.

Processor Subsystem

- 80 Arm v8.2+ 64-bit CPU cores up to 3.30 GHz with Sustained Turbo
- 64 KB L1 I-cache, 64 KB L1 D-cache per core
- 1 MB L2 cache per core
- 32 MB System Level Cache (SLC)
- 2x full-width (128b) SIMD
- Coherent mesh-based interconnect
  - Distributed snoop filtering

Memory

- 8x 72-bit DDR4-3200 channels
- ECC, Symbol-based ECC, and DDR4 RAS features
- Up to 16 DIMMs and 4 TB/socket

System Resources

- Full interrupt virtualization (GICv3)
- Full I/O virtualization (SMMUv3)
- Enterprise server-class RAS

Ordering Information

The Mt. Jade server Order Part Number is:
AC-1WWXXA2Y1, where:

- XX: Server Manufacturing Level
  - 06: Level 6
  - 10: Level 10
- Y: Configuration
  - S: SATA
  - N: NVMe

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Specifications

Model	Mt. Jade
Form Factor	2U Rack Server
Number of Processors	2x Ampere Altra CPUs, 80 Arm v8.2+ 64-bit CPU cores at 3.30 GHz with Sustained Turbo
Memory	• 8x 72-bit DDR4-3200 channels: up to 16 DIMMs per socket (2DPC) • Up to 4 TB of DRAM memory support per socket
USB Interfaces	1 USB port on the front panel and 2 USB ports on the rear panel
I/O and Controls Layout	• Up to 8x PCIe Gen4 slots: – 1 x16 PCIe OCP – 2 x16 PCIe (capable of CCIX support @ 25 Gbps) – 6 x8 PCIe • One DB-9 COM port at rear • One D-Sub 15 pin VGA port at rear • One TPM Module connector • 2x on board M.2 NVMe SSDs • 1x RJ45 for 1 GbE Management NIC Front panel controls and buttons: • One PWR / One RST / One UID button • VGA connector Rear panel controls and buttons: • One PWR / One RST / One UID button • VGA connector • BMC UART connector
Storage Drive Bays (NVMe SSDs)	• 2U Form Factor: 24x 2.5” NVMe U.2 SSD Slots, or 24x 2.5” SATA SSDs • 2x Onboard M.2 NVMe SSDs
OCP NIC	OCP 3.0 Mezzanine Card slot
Network Interfaces	• Onboard: Intel I210 • BMC: Realtek RTL8211E
Power Supply	Dual 2000 W 80 PLUS Platinum redundant power supply
Expansion Slots	3x 2U Riser Cards: • Riser 1: Three x8 PCIe slots • Riser 2: Two x8 PCIe slots + One x16 PCIe slot • Riser 3: One x8 PCIe slot + One x16 PCIe slot
Systems Management	• IPMI 2.0, Redfish, and WebUI • Serial-Over-LAN (SOL) • Remote KVM • Hardware health monitor
Installed Operating System	CentOS 8.0
Firmware Support	• UEFI: Aptio® V, EDK2 • BMC: MegaRAC®, OpenBMC
BMC	ASPEED Technologies AST2500 Baseboard Management Controller
Dimensions	31.5” (Length) x 19” (Width) x 3.5” (Height)

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