# Supermicro ARM/Ampere Based Servers

Supermicro ARM-based servers are designed for a range of workloads requiring high-performance frequencies and low-latency responses. ARM-based servers are optimized for single sockets and single thread per core workloads, which results in consistent performance in many scenarios. In addition, the ARM line of servers has shown excellent performance per watt when running many real-world applications. The ARM line of servers using the AmpereOne® CPU is ideal for workloads such as cloud-native applications, such as database queries, cloud gaming, and telco and edge solutions.

| | ARS-111M-NR | ARS-211M-NR | ARS-211ME-FNR |
|---|---|---|---|
| Front View |  |  |  |
| Rear View |  |  |  |
| **Server Description** | Enterprise Server | GPU Optimized | Telco Edge Optimized |
| **Form Factor** | 1U Rackmount | 2U Rackmount | 2U Rackmount |
| **Processor** | Single AmpereOne® (Up to 192 Cores; Up to 3.2GHz) | | |
| **Max Memory** | 16 DIMMs DDR5-4800 (8-channels, 2DPC), Up to 4TB | | |
| **Storage** | 10 hot-swap 2.5" U.2 NVMe | 4 hot-swap 2.5" U.2 NVMe<br>(Option for 16 or 24 NVMe) | 6 hot-swap 2.5" U.2 NVMe |
| **Network** | BCM57414 2x 25Gb SFP28 with NC-SI | | |
| **Expansion**<br>(OCP 3.0 Mezzanine Compatible)<br>1 AIOM Slot | 3 PCIe 5.0 x16 (LP) Slots,<br>1 AIOM Slot,<br>1 OCP NIC 3.0 | Up to 4 PCIe 5.0 x16 Double-Wide GPU Cards<br>(Up to 300W per GPU),<br>1 PCIe 5.0 x16 LP Slot,<br>1 OCP NIC 3.0 | Up to 4 PCIe 5.0 x16 FHHL GPU Cards, 1 PCIe 5.0 x16 LP Slot,<br>1 OCP NIC 3.0 |
| **Applications** | Enterprise Server, Hyperscale Data Center, Front-end Server Infrastructure | Dense-VDI, Video-On-Demand, High Performance Computing, Immersive Media, AI Inference /Training, Cloud Gaming / AICAN | Artificial Intelligence (AI) at the Edge, Telco Edge, Cloud Service Providers, Open RAN |

Oracle Database 19c is now certified for ARM and is available for deployment on all Ampere processor systems. In addition, Oracle has made their Ampere processor licensing core factor 0.25 vs. 0.5 for all X86 processors. That means Oracle workloads deployed on Ampere systems will enjoy 50% lower software licensing costs vs. Intel and AMD. That means big savings Oracle customers.



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**Learn more at:**
**www.supermicro.com/MegaDC**

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| | ARS-110M-NR | ARS-210M-NR | ARS-520M-NRL | ARS-210ME-FNR |
|---|---|---|---|---|
| Front View |  |  |  |  |
| Rear View |  |  |  |  |
| **Server Description** | Enterprise Server | GPU Optimized | Database Optimized | Telco Edge Optimized |
| **Form Factor** | 1U Rackmount | 2U Rackmount | 2U Rackmount | 2U Rackmount |
| **Processor** | Single Ampere® Altra® (Up to 80 Cores; Up to 3.3GHz) or Altra® Max (Up to 128 Cores; Up to 3.0GHz) | | | |
| **Max Memory** | 16 DIMMs; 4TB DDR4-3200 ECC registered | | | |
| **Storage** | 10 hot-swap 2.5" U.2 NVMe | 4 hot-swap 2.5" U.2 NVMe (Option for 16 or 24 NVMe) | 12 hot-swap 3.5" drive bays and 4 hot-swap 2.5" U.2 NVMe | 6 hot-swap 2.5" U.2 NVMe |
| **Network** | 2x 10GbE SFP28 via Mellanox ConnectX®-4 Lx EN Controller (or 1x 25G SFP28 w/ redundancy) | | | |
| **Expansion** (OCP 3.0 Mezzanine Compatible) 1 AIOM Slot | 3 PCIe 4.0 x16 (LP) Slots, 1 AIOM Slot, 1 OCP NIC 3.0 | Up to 4 PCIe 4.0 x16 Double-Wide GPU Cards (Up to 300W per GPU), 1 PCIe 4.0 x16 LP Slot, 1 OCP NIC 3.0 | 3 PCIe 4.0 x16 (LP) Slots, 1 OCP NIC 3.0 | Up to 4 PCIe 4.0 x16 FHHL GPU Cards, 1 PCIe 4.0 x16 LP Slot, 1 OCP NIC 3.0 |
| **Applications** | Enterprise Server, Hyperscale Data Center, Front-end Server Infrastructure | Dense-VDI, Video-On-Demand, High Performance Computing, Immersive Media, AI Inference / Training, Cloud Gaming / AICAN | Object Storage, Database Processing, Hyperscale Data Center | Artificial Intelligence (AI) at the Edge, Telco Edge, Cloud Service Providers, Open RAN |

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