# H12 Mainstream

## Cost- and Energy-Efficient Designs for Mainstream Applications

A+ Server 2024S-TR

A+ Server 2014S-TR

A+ Server 3014TS-i

## Systems Optimized for Entry-Level and Volume Deployments

**Choose 1- and 2-socket servers and a mid-tower form factor. Order the exact model to best power your applications:**

- Highly simplified 1- and 2-socket designs supporting 2nd or 3rd Gen AMD EPYC™ Processors
- Up to 16 DIMMs for up to 4 TB of DDR4-3200 memory
- Flexible NVMe and SATA3 drive options
- Dual Gigabit Ethernet connectivity
- Platinum-Level efficiency power supplies

Sometimes simpler is better. These highly capable and configurable systems can help you unify your entire computing environment, from the datacenter to the desktop, with a consistent approach for mainstream applications. Use them as entry-level systems and for volume deployment. Flexible configuration options enable you to order exactly what you need, and then manage consistently across your infrastructure. You can manage servers and workstations with options ranging from the comprehensive Supermicro Composer to industry-standard IPMI.

## Single- and Dual-Socket Rackmount Servers

The single-socket A+ Server 2014S-TR and the dual-socket A+ Server 2024S-TR deliver an efficient design with high disk capacity and I/O expansion flexibility. The innovative hybrid disk trays in these servers give you the freedom to swap between 2.5" or 3.5" drives without any hardware modifications. When storage performance is important, you can upgrade with NVMe storage options. With up to 64 cores per AMD EPYC™ processor, many traditional workloads can be supported with a single-socket server such as the AS -2014S-TR. If you have workloads demanding higher computing density, you can scale seamlessly to the dual-socket AS -2024S-TR with support for up to 128 cores of computing power. Consistency means lower support costs, so equipping your data center with these mainstream servers can simplify and speed deployment. Use these systems for workloads including:

- **Internet infrastructure** including Web servers, storage servers, and network appliances
- **Enterprise applications** including database management systems and application servers
- **Virtualization clusters and private cloud**
- **Big data analytics**
- **Software-defined storage**
- **Compute-intensive applications**

## Compatible Mid-Tower Workstation

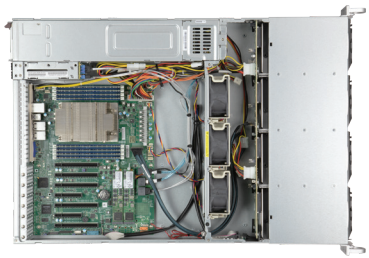
Whether you are deploying hundreds of call-center seats or a small number of power-user workstations, the single-socket A+ Server 3014TS-i can be configured to handle a wide range of workloads, and support consistent management with our Mainstream servers. The system includes dual Gigabit Ethernet ports. With six PCIE-4.0 expansion slots, you can customize I/O options to meet your needs. Install up to two double-width GPUs to power mechanical design software and support visualization applications. Disk storage includes slots for up to four 2.5" and four 3.5" SATA3 drives plus four M.2 drives. Use this workstation for:

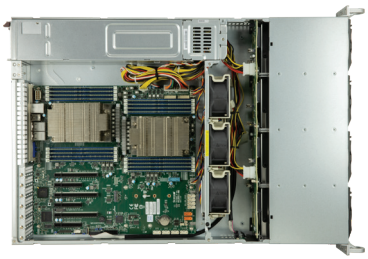
- **Architectural and industrial design**
- **Transcoding and virtual desktop infrastructure**
- **Office workstation**
- **Workgroup server**
- **Media and entertainment**
- **Academic and government research**

## Designed for AMD EPYC Processors

Adding to the performance, cost, and energy efficiency of our Mainstream systems is the use of AMD EPYC™ processors. With AMD you get more cores per dollar, more virtual instances on a server, and more subscribers in your data center. With a consistent set of features across the product line, you choose the number of cores your workloads need without having to step up the product line to gain additional features. Matching computing power to workloads further increases the efficiency of these systems.

Every AMD EPYC processor supports 128 lanes of PCI-E 4.0 connectivity, and full-memory encryption and secure encrypted virtualization help keep your data secure. The system-on-chip nature of the processor eliminates the need for external chip sets that contribute to design complexity and power consumption. Best of all, with up to 64 cores per processor, you can create a high-performing, highly configurable system with only a single CPU. And with two processors you power the most demanding workloads in your datacenter.





| **H12** Generation | Single-Socket AS -2014S-TR 2U Server | Dual-Socket AS -2024S-TR 2U Server | Single-Socket AS -3014TS-i Mid-Tower |
|---|---|---|---|
| Processor Support | • Single SP3 socket for one AMD EPYC™ 7002 or 7003 Series processor<br>• Up to 64 cores, up to 280W TDP† | • Dual SP3 socket for AMD EPYC™ 7002 or 7003 Series processors<br>• Up to 64 cores, up to 240W TDP† | • Single SP3 socket for one AMD EPYC™ 7002 or 7003 Series processor<br>• Up to 64 cores, up to 280W TDP† |
| Memory Slots & Capacity | • 8 DIMM slots for DDR4-3200 MHz RDIMM/LRDIMM<br>• Up to 2 TB registered ECC | • 16 DIMM slots for DDR4-3200 MHz RDIMM/LRDIMM<br>• Up to 4 TB registered ECC | • 8 DIMM slots for DDR4-3200 MHz RDIMM/LRDIMM]<br>• Up to 2 TB registered ECC |
| On-Board Devices | • System on Chip<br>• Broadcom BCM5720 Gigabit Ethernet Controller<br>• 6 Gbps SATA3 storage interface via AMD EPYC processor<br>• IMPI 2.0 with virtual-media-over-LAN and KVM-over-LAN support<br>• ASPEED AST2500 BMC graphics | • System on Chip<br>• Broadcom BCM5720 Gigabit Ethernet Controller<br>• 6 Gbps SATA3 storage interface via AMD EPYC processor<br>• IMPI 2.0 with virtual-media-over-LAN and KVM-over-LAN support<br>• ASPEED AST2600 BMC graphics | • System on Chip<br>• Broadcom BCM5720 Gigabit Ethernet Controller<br>• 6 Gbps SATA3 storage interface via AMD EPYC processor<br>• IMPI 2.0 with virtual-media-over-LAN and KVM-over-LAN support<br>• ASPEED AST2500 BMC graphics |
| I/O Ports | • 2 RJ45 Gigabit Ethernet ports<br>• 1 RJ45 dedicated IPMI LAN port<br>• 6 USB 3.0 ports (4 rear, 2 via header)<br>• 1 VGA, 1 COM port<br>• 1 TPM 2.0 header | • 2 RJ45 Gigabit Ethernet ports<br>• 1 RJ45 dedicated IPMI LAN port<br>• 4 USB 3.0 ports (rear)<br>• 1 VGA, 1 COM port<br>• 2 SuperDOM (disk on module) ports | • 2 RJ45 Gigabit Ethernet ports<br>• 1 RJ45 dedicated IPMI LAN port<br>• 6 USB 3.0 ports (4 rear, 2 via header))<br>• 1 VGA, 1 COM port<br>• 1 SuperDOM (disk on module) ports |
| BIOS | • AMI 256 Mb (32 MB) SPI Flash EEPROM | • 256 Mb (32 MB) SPI Flash EEPROM with AMI BIOS | • 256 Mb (32 MB) SPI Flash EEPROM with AMI BIOS |
| System Management | • Integrated IPMI 2.0 plus KVM with dedicated LAN<br>• Supermicro Update Manager (SUM), Supermicro SuperDoctor® 5, and Watch Dog<br>• NMI | • Integrated IPMI 2.0 plus KVM with dedicated LAN<br>• Supermicro Server Manager (SSM), Supermicro Update Manager (SUM), Supermicro Power Manager (SPM),. Supermicro SuperDoctor® 5, Watch Dog, NMI, and Redfish API | • Integrated IPMI 2.0 plus KVM with dedicated LAN<br>• Supermicro Update Manager (SUM), Supermicro SuperDoctor® 5, Watch Dog, NMI |
| **Chassis** | | | |
| Form Factor | • 2U rackmount | • 2U rackmount, | • Mid-Tower |
| Front Panel | • On/off and Universal Information (UID) buttons<br>• Power status, HDD activity, network activity, and UID LEDs | • On/off button<br>• Power status, HDD activity, network activity, and UID LEDs | • On/off and HDD activity, network activity, and system information LEDs<br>• 2 USB 3.0 ports |
| Expansion Slots | • 5 PCI-E 4.0 (x16) low-profile slots<br>• 2 PCI-E 4.0 (x8) low-profile slots | • 3 PCI-E 4.0 (x16) low-profile slots<br>• 3 PCI-E 4.0 (x8) low-profile slots | • 5 PCI-E 4.0 (x16) full-height slots<br>• 2 PCI-E 4.0 (x8) full-height slots |
| Drive Bays | • 12 hot-swap 3.5" SATA3 drive bays<br>• 2 rear hot-swap 2.5" SATA3 drive bays with optional kit<br>• M.2 Interface: 2 PCI-E 4.0 (x4)<br>• M-key | • 12 hot-swap flexible 2.5/3.5" SATA3/NVMe drive bays<br>• M.2 Interface: 1 PCI-E 4.0 (x4)<br>• M-key | • 4 internal 3.5" SATA3 drive bays<br>• 4 internal 2.5" SATA3 drive bays<br>• M.2 Interface: 2 PCI-E 4.0 (x4)<br>• M-Key |
| Power & Cooling | • 3x 80 mm middle cooling fans<br>• 920W redundant Platinum Level power supplies | • 3x 80 mm middle cooling fans<br>• 920W redundant Platinum Level power supplies | • 2x 12 cm rear exhaust fans, with optional 1 additional<br>• 900W AC multi-output power supply |

†Certain CPUs with high TDP may be supported only under specific conditions. Please contact Supermicro Technical Support for additional information about specialized system optimization