H13 Telco/Edge Systems

High Performance for Challenging Edge Environments

A+ Server AS -1115S-FWTRT(AC)

A+ Server AS -1115S-FDWTRT(DC)

Single-Socket 1U Server

The most sustainable solution you can deploy in telco and edge environments

- Built around the compact and efficient AMD EPYC™ 8004 Series processors with 8 to 64 cores
- Designed for two-post telco racks with 16.9" depth
- Up to 576 GB of memory with 6 DDR5-4800 DIMMs
- Front-panel-accessible I/O
- Two internal 2.5" U.2 NVMe/SAS/SATA drives
- Two internal M.2 NVMe drives
- Two full-height, full-length PCIe 5.0 x16 slots for I/O and GPU expansion
- One low-profile PCIe 5.0 x16 slot

As more devices—from phones to self-driving cars—consume greater amounts of bandwidth and demand more services, the tight power and cooling budgets of central offices, 5G sites, and other edge locations are becoming even more stretched. If you need to scale with the demands of business but without straining the power budget, look no further than our H13 Telco/Edge systems that are designed for challenging telecommunications environments.

Designed for Tight Spaces and Low Power Budgets

Supermicro designed the H13 Telco/Edge systems to work seamlessly in difficult telco environments. With all I/O accessible from the front panel, and a chassis that is less than 17 inches deep, the H13 Telco/Edge systems are ready to deploy in two-post telco racks.

Powered by a single efficient and high-performance AMD EPYC™ 8004 Series processor, you can deploy servers with up to 64 cores in a mere 225W CPU power budget, gaining more cores while saving energy compared to traditional CPUs. The EPYC 8004 Series is optimized to deliver high performance per watt and per CPU dollar so you can get more work done in highly constrained 8 kW racks. And whether you choose 8, 16, 24, 32, 48, or 64 cores, NEBS-friendly CPU options perform at the same clock speed for consistent per-core performance.

The processor's 96 lanes of PCIe 5.0 bandwidth provides a wide I/O path to support your communications needs from content distribution to edge inferencing with GPU acceleration. Internal storage gets your applications up and running quickly using storage from a pair of internal NVMe, SAS, or SATA, or M.2 NVMe drives. Built-in dual 10 Gigabit Ethernet interfaces serve most telecommunications requirements, but for specialized I/O devices and accelerators, a low-profile PCIe 5.0 x16 slot and two full-height, full-length x16 slots provide ample expansion capability.

Key Applications

These systems are designed for NEBS compliance so that can operate in challenging physical and thermal environments running applications including:

- Cloud virtualization and virtual desktop infrastructure
- Content-delivery networks and caching servers
- Back-end processing for mobile applications
- Outdoor DU for 5G applications
- Network security and software switching
- Edge AI inferencing
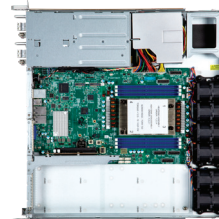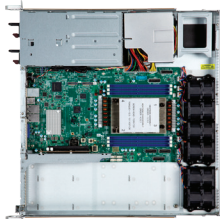- Multi-access edge computing
- Open RAN vBBU

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Designed for the AMD EPYC 8004 Series

AMD's hybrid, multi-chip architecture is makes it straightforward to develop CPUs with a wide range of characteristics so you can choose the family and the processor that best meets your needs. The 'Zen 4c' processor core used in the EPYC 8004 Series is optimized for density and efficiency. Packing up to 64 cores into an SP6 form factor enables compact, single-socket servers with high performance per watt, high performance per dollar, and low total cost of ownership. The NEBS-friendly processor options complement the H13 Telco/Edge architecture for robust performance in challenging physical and thermal conditions.

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, you only need to purchase and power a single processor that can handle a wide range of workloads.

Open Management

Regardless of your management approach, our open management APIs and tools are ready to support you and simplify deploying large numbers of servers in remote locations. In addition to a dedicated IPMI port, and a Web IPMI interface, Supermicro® SuperCloud Composer software helps you configure, maintain, and monitor all of your systems using single-pane-of-glass management. If your DevOps teams prefer to use their own tools, industry-standard Redfish® APIs provide access to higher-level tools and scripting languages.

H13 Generation	AS -1115S-FWTRT[1] (AC)	AS -1115S-FDWTRT[1] (DC)
Form Factor	• 1U rackmount	• 1U rackmount
Mechanical	• All power and I/O accessible from front panels	• All power and I/O accessible from front panels
Processor Support	• Single SP6 socket for AMD EPYC™ 8004 Series processors, up to 64 cores, up to 225W TDP[2]	• Single SP6 socket for AMD EPYC™ 8004 Series processors, up to 64 cores, up to 225W TDP[2]
Memory Slots & Capacity	• 6-channel DDR5 memory support • 6 DIMM slots for up to 576 GB of memory with 96 GB ECC DDR5-4800 RDIMMs	• 6-channel DDR5 memory support • 6 DIMM slots for up to 576 GB of memory with 96 GB ECC DDR5-4800 RDIMMs
Expansion Slots	• 2 PCIe 5.0 x16 FHFL slots • 1 PCIe 5.0 x16 LP slot	• 2 PCIe 5.0 x16 FHFL slots • 1 PCIe 5.0 x16 LP slot
Storage	• 2 internal 2.5" U.2 NVMe/SAS/SATA drives[3] • 2 PCIe 4.0 x4 M.2 NVMe; optional SATA M.2 with AOC carrier	• 2 internal 2.5" U.2 NVMe/SAS/SATA drives[3] • 2 PCIe 4.0 x4 M.2 NVMe; optional SATA M.2 with AOC carrier
Networking	• 2x 10GBASE-T RJ45 LAN with BCM57416	• 2x 10GBASE-T RJ45 LAN with BCM57416
I/O Ports	• 4 USB 3.0 ports • 1 VGA, 1 COM • ASPEED AST2600 BMC graphics	• 4 USB 3.0 ports • 1 VGA, 1 COM • ASPEED AST2600 BMC graphics
Security	• TPM 2.0 header • Hardware root of trust	• TPM 2.0 header • Hardware root of trust
System Management	• Built-in server management tool (IPMI 2.0, KVM/media over LAN) with dedicated GbE LAN port • Redfish APIs • Supermicro SuperCloud Composer • Supermicro Server Manager (SSM) and Supermicro Update Manager (SUM)	
System Cooling	• 6 heavy-duty fans with optimal speed control	• 6 heavy-duty fans with optimal speed control
Power Supply	• 2x 800W 1+1 Redundant Platinum AC PSUs[4]	• 2x 600W 1+1 Redundant short-depth 48V DC PSUs[4]

1. Sold only as a completely assembled system
2. 225W TDP air-cooled support limited to specific configurations
3. Optional parts are required for NVMe/SAS configurations
4. Full redundancy based on configuration and application load.

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