

## A+ Server F2014S-RNTR (Complete System Only)



Views: | [Angled \(node\)](#) | [Top \(node\)](#) | [Angled Front \(system\)](#) | [Rear \(system\)](#) |



### Key Applications

- Hyperscale / Hyperconverged
- HPC and Big Data
- Data Center Enterprise Applications
- Scale Out Storage
- Telco Data Center
- Virtualization Server

### Key Features

**4 Hot-pluggable System Nodes in a 4U form factor. Each node supports:**

1. Single AMD EPYC™ 7003/7002 Series Processor (The latest AMD EPYC™ 7003 Series Processor with AMD 3D V-Cache™ Technology requires BIOS version 2.3 or newer)
2. Up to 2TB ECC 3DS LRDIMM, up to DDR4-3200MHz; 8 DIMM slots
3. Expansion slots: 1 PCI-E 4.0 x16 (LP Riser) 1 PCI-E 4.0 x8 (for Internal RAID AOC)
4. AIOM Network card, 1 dedicated IPMI LAN port
5. 1 VGA, 2 USB 3.0 ports
6. 8 Hot-swap 3.5" drive bays: Front 6 SATA (Optional NVMe support), Rear 2 SATA/NVMe  
**M.2 Interface:** 4 SATA/PCI-E 4.0 x4  
**M.2 Form Factor:** 2242, 2260, 2280, 22110  
**M.2 Key:** M-Key
7. 2x 8cm 13.5K RPM middle fans
8. 2200W Redundant Power Supplies  
**Titanium Level (96%)**  
*(Full redundancy based on configuration and application load)*

**Complete System Only:** To maintain quality and integrity, this product is sold only as a completely assembled system (for optimal performance 8 DIMMs is recommended). Minimum requirement is 1 CPU, 4 DIMMs, 1 HDD/NVMe and 1 AIOM/AOC NIC card per node.

[Drivers & Utilities](#) [BIOS](#) [IPMI](#) [Tested Memory](#) [Tested M.2 List](#) [NVMe Options](#) [Manuals](#) [OS Certification Matrix](#) [Drive Options](#) [Tested AIOM](#)

Note: Image above may show a varied configuration of optional parts. Please refer to parts list for standard parts included.



## Specifications ^

### Product SKUs

**AS - F2014S-RNTR** A+ Server F2014S-RNTR (Black)

### Motherboard

**Super H12SSFR-AN6**

### Processor/Chipset (per Node)

- CPU** Single AMD EPYC™ 7003/7002 Series Processor (The latest AMD EPYC™ 7003 Series Processor with AMD 3D V-Cache™ Technology requires BIOS version 2.3 or newer) Socket SP3 Supports CPU TDP/cTDP up to 280W\*
- Cores** Up to 64 Cores
- Note** \* Certain CPUs with high TDP may be supported only under specific conditions. Please contact Supermicro Technical Support for additional information about specialized system optimization

### System Memory (per Node)

- Memory Capacity** 8 DIMM slots Supports up to 2TB Registered ECC DDR4 3200MHz SDRAM in 8 DIMMs 8-channel memory bus
- Memory Type** DDR4 3200 MHz Registered ECC, 288-pin gold-plated DIMMs
- Memory Sizes** 8GB, 16GB, 32GB, 64GB, 128GB, 256GB
- Memory Voltage** 1.2V
- Error Detection** Corrects single-bit errors Detects double-bit errors (using ECC memory)

### On-Board Devices

- Chipset** System on Chip
- SATA** SATA3 (6Gbps)
- Network Controllers** Flexible networking via [AIOM](#) (not included, must add 1 per node)
- IPMI** Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- Graphics** ASPEED AST2600 BMC

### Input / Output (per node)

- LAN** Flexible networking via AIOM 1 RJ45 Dedicated IPMI LAN port
- USB** 2 USB 3.0 ports (rear)
- VGA** 1 VGA port
- Others** 1 COM port 1 TPM 2.0 header

### System BIOS

**BIOS Type** 256Mb SPI Flash EEPROM with AMI BIOS

### Management

- Software** [IPMI 2.0](#) KVM with dedicated LAN [SSM](#), [SUM](#) [SuperDoctor® 5](#) Watch Dog
- Power Configurations** ACPI Power Management

### PC Health Monitoring

- CPU** Monitors for CPU Cores
- FAN** Fans with tachometer monitoring Status monitor for speed control Pulse Width Modulated (PWM) fan connectors
- Temperature** Monitoring for CPU and chassis environment Thermal Control for fan connectors

### Chassis

**Form Factor** 4U Rackmount

**Model** CSE-F424AS3-R2K20BP

### Dimensions and Weight

- Width** 17.63" (448mm)
- Height** 6.96" (177mm)
- Depth** 29" (737mm)
- Package** 28.3" (W) x 15.0" (H) x 42.4" (D)
- Weight** Net Weight: 150 lbs (68.04 kg) Gross Weight: 200 lbs (90.71 kg)

**Available Colors** Black

### Front Panel (per node)

- Buttons** Power On/Off button UID button
- LEDs** Power status LED Hard drive activity LED Network activity LEDs Information LED (UID, Fan failure, Overheat)

### Expansion Slots (per node)

**PCI-Express** 1 PCI-E 4.0 x16 (Low-profile riser) 1 PCI-E 4.0 x8 (Internal RAID AOC)

### Drive Bays (per node)

- Hot-swap** 8 Hot-swap 3.5" drive bays: Front 6 SATA (optional NVMe support), Rear 2 SATA/NVMe
- M.2** **M.2 Interface:** 4 SATA/PCI-E 4.0 x4  
**M.2 Form Factor:** 2242, 2260, 2280, 22110  
**M.2 Key:** M-Key

### Backplane

1 SATA/NVMe backplane

### System Cooling (per node)

**Fans** 2x 8cm 13.5K RPM middle fans

### Power Supply

2200W Redundant Power Supplies with PMBus

**Total Output Power and Input** 1200W with Input 100-127Vac 1800W with Input 200-220Vac 1980W with Input 220-230Vac 2090W with Input 230-240Vac 2200W with Input 220-240Vac (for UL/cUL use only) 2090W with Input 230-240Vdc (for CCC only)

**AC Input Frequency** 50-60Hz

**Dimension (W x H x L)** 76 x 40 x 336 mm

**+12V** Max: 100A / Min: 0A (100-127Vac) Max: 150A / Min: 0A (200-220Vac) Max: 165A / Min: 0A (220-230Vac) Max: 174.17A / Min: 0A (230-240Vac) Max: 183.3A / Min: 0A (220-240Vac)

**5VSB** Max: 1A / Min: 0A

**Output Type** Backplanes (gold finger)

**Certification** **Titanium Level** [ [Test Report](#) ]

### Operating Environment

**RoHS** RoHS Compliant

**Environmental Spec.** Operating Temperature: 10°C ~ 35°C (50°F ~ 95°F) Non-operating Temperature: -40°C to 60°C (-40°F to 140°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5% to 95% (non-condensing)

## Parts List ^

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-H12SSFR-AN6	4	Super H12SSFR-AN6 Motherboard
	CSE-F424AS3-R2K20BP	1	4U Chassis
<b>Backplane</b>	BPN-ADP-2UPWR	4	Backplane adapter card for 2UPWR,RoHS/REACH
<b>Backplane</b>	BPN-SAS3-F424-A2N2A	4	2-Port Hybrid Backplane support 2 x SAS3/SATA3/NVMe Storage Devices
<b>Backplane</b>	BPN-SAS3-F424-A6N6	4	6-Port Hybrid Backplane Supports 6x3.5
<b>Cable 1</b>	CBL-0486L	12	2x2 to 2x2 15cm Power Cable HF
	CBL-OTHR-1211-28	4	2x10pin (PH 1) to 2x10pin (PH 1),11CM,28AWG,1A/pin,RoHS
	CBL-PWCD-0900	4	PWCD,US/EU/Canada/China/Australia,IEC60320 C14 TO C13,4FT,17
	CBL-SAST-1228-100	4	Slimline x4(STR) to 2x MiniSAS HD x4(STR),55/15CM,100OH
	CBL-SAST-1239F-85	4	Slimline x8 (RE) to 2x Oculink x4 (STR),FFC,28/28CM,85
	CBL-SAST-1247-100	4	Slimline x4 (LE) to MiniSAS HD x4 (STR),47CM,100 OHm,Ro
<b>Heatsink / Retention</b>	SNK-P0063PB	4	Proprietary 2U Passive CPU Heat Sink for AMD SP3 Processors
<b>Power Supply</b>	PWS-2K20A-1R	4	1U 2200W Redundant, Titanium, 76(W) X 40(H) X 336(L) mm
<b>Software</b>	<a href="#">SFT-QOB-LIC</a> • eStore	1	OOB Management Package (per node license)

### Optional Parts List

	Part Number	Qty	Description
<b>Software</b>	<a href="#">SFT-DCMS-Single</a>	1	DataCenter Management Package (per node license)

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