

## A+ Server 2114GT-DNR (Complete System Only)



Integrated Board



**H12SSG-AN6**

Views: | [Angled View](#) | [Front View](#) | [Rear View](#) |

**Complete System Only:** To maintain quality and integrity, this product is sold only as a completely-assembled system (Per node, minimum 1 CPU, 2 DIMMs, 1 GPU installed). Add on Cards (AOC) are recommended to be installed by Supermicro due to optimized density of the 2U form factor.  
**Service:** OSNBD3 is highly recommended.

▶ [Drivers & Utilities](#) ▶ [BIOS](#) ▶ [IPMI](#) ▶ [Tested Memory](#) ▶ [Tested M.2 List](#) ▶ [NVMe Options](#) ▶ [Tested AOC](#) ▶ [Manuals](#) ▶ [OS Certification Matrix](#) ▶ [Compatible GPU List](#) ▶ [Quick-References Guide](#) ▶ [Drive Options](#)

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



### Key Applications

- Media/Video Streaming
- AI Inference and Machine Learning
- Cloud Gaming
- Industrial Automation, Retail, Smart Medical Expert Systems

### Key Features

Two hot-pluggable systems (nodes) in a 2U form factor. Each node supports the following:

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. 2TB Registered ECC DDR4 3200MHz SDRAM in 8 DIMMs
3. Up to 6 PCI-E Gen 4 x16 (4 internal, 2 external) slots, 1 PCI-E 4.0 x8 AIOM slot  
**M.2 Interface:** 2 PCI-E 4.0 x4  
**M.2 Form Factor:** 2280, 2210  
**M.2 Key:** M-key
4. Integrated IPMI 2.0 + KVM with dedicated LAN
  - **Software Out of Band License key (SFT-OOB-LIC) included for OOB BIOS management**
5. 2 front Hot-swap 2.5" U.2 NVMe Gen4 drive bays
6. AST2600 BMC
7. 2600W Redundant (1+1) Power Supplies  
**Titanium Level (96%)**  
(Full redundancy based on configuration and application load)



# Specifications

## Product SKUs

**AS -2114GT-DNR** ■ A+ Server 2114GT-DNR (Black)

## Motherboard (per Node)

**Super H12SSG-AN6**

## Processor (per Node)

**CPU** ■ Single 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 up to 280W\*

**Cores** ■ Up to 64 Cores

**Chipset** ■ System on Chip (SoC)

**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

**GPU Support (per Node)** ■ 3 double-width or 6 single-width GPUs

## System Memory (per Node)

**Memory Capacity** ■ 8 DIMM slots  
■ Up to 2TB 3DS ECC DDR4-3200MH SDRAM

**Memory Type** ■ 3200MHz ECC DDR4 SDRAM

## On-Board Devices (per Node)

**Network** ■ Flexible networking via AIOM

**IPMI** ■ Support for Intelligent Platform Management Interface v.2.0  
■ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support

**Graphics & System Management** ■ ASPEED AST2600 BMC

## Input / Output (per Node)

**SATA** ■ SATA3 (6Gbps) via AMD EPYC

**LAN** ■ Flexible networking provided by AIOM  
■ 1 RJ45 1GbE Dedicated IPMI management port

**USB** ■ 2 USB 3.0 ports (rear)

**Video** ■ 1 VGA Connector (rear)

**Others** ■ 1 COM port (header)  
■ 1 TPM 2.0 (header)

## System BIOS (per Node)

**BIOS Type** ■ AMI 256Mb SPI Flash ROM

## Management (per Node)

## Chassis

**Form Factor** ■ 2U Rackmountable

**Model** ■ CSE-227GTS-R2K63P

## Dimensions

**Height** ■ 3.47" (88mm)

**Width** ■ 17.6" (447mm)

**Depth** ■ 29.9" (760mm)

**Available Colors** ■ Black

## Drive Bays / Storage (per Node)

**Hot-swap** ■ 2 front Hot-swap 2.5" U.2 NVMe Gen4 drive bays

## Expansion Slots (per Node)

**PCI-Express** ■ 6 PCI-E Gen 4 x16 (4 internal, 2 external) slots  
■ 1 PCI-E Gen 4 x8 AIOM networking slot

## System Cooling

**Fans** ■ 4 Hot-swap heavy duty 80mm PWM fans

## Power Supply

2600W Redundant Power Supplies with PM Bus

**Total Output Power and Input** ■ 2600W with Input 200-240Vac  
■ 2600W with Input 200-240Vdc (for CQC only)

**Dimension (W x H x L)** ■ 40 x 73.5 x 265 mm

**+12V** ■ Max: 216A / Min: 0A (200-240 Vac)

**+12Vsb** ■ Max: 4.5A / Min: 0A

**Output Type** ■ Gold Finger Connector

**Certification (Pending)**  **Titanium Level**

## 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)

**Software**

- IPMI 2.0
  - KVM with dedicated LAN
  - SSM, SPM, SUM
  - SuperDoctor® 5
  - Watchdog
- 

**PC Health Monitoring****CPU**

- Monitors for CPU Cores, Chipset Voltages, Memory.
  - 4+1 Phase-switching voltage regulator
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**FAN**

- Fans with tachometer monitoring
  - Status monitor for speed control
  - Pulse Width Modulated (PWM) fan connectors
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**Temperature**

- Monitoring for CPU and chassis environment
  - Thermal Control for fan connectors
-

## Parts List

### Parts List - (Items Included)

	Part Number	Qty	Description
<b>Motherboard / Chassis</b>	MBD-H12SSG-AN6	2	Super H12SSG-AN6 Motherboard
	CSE-227GTS-R2K63P	1	2U chassis
<b>Cable</b>	CBL-CDAT-1056	1	2x5,PH2.54 to 2x5,PH2.54,7cm,28AWG,RoHS
<b>Cable</b>	CBL-PWCD-0376-IS	2	PWCD,US,IEC60320 C19 TO C20,940mm (3ft),14AWG,15A,250V,Black
<b>Cable</b>	CBL-PWEX-1026	2	GPU,2x4F/RA/CPU to 2x4F/CPU,P4.2, 35CM, 17AWG, 8A/pin,RoHS
<b>Cable</b>	CBL-PWEX-1042	4	GPU,2x4F/CPU to 2x4F/CPU,P4.2, 50CM,16AWG,10A/pin, -40~105C,
<b>Cable</b>	CBL-PWEX-1093-36	2	MicroFit,2x2, P3.0,F to MicroFit,2x2,P3.0,F,36CM,10A/pin
<b>Cable</b>	CBL-PWEX-1257	1	2x4,PH3.0 to 2x4,PH3.0,7CM,4A,22AWG,RoHS
<b>Cable</b>	CBL-SAST-1201LPB-85	2	3x SlimlineLP x8 (STR) to 3x SlimlineLP x8 (STR),BNDL,F
<b>Cable</b>	CBL-SAST-1209F-85	2	Slimsas x8 (STR) to Slimsas x8 (STR),FFC,FOLD,85 OHM,Ro
<b>Cable</b>	CBL-SAST-1235-85	2	Slimline x8 (STR) to Slimline x8 (STR),INT,35CM,85 OHM
<b>Cable</b>	CBL-SAST-1289LP-85	2	SlimsasLP x8 (STR) to SlimsasLP x8 (STR),FOLD,85 OHM,Ro
<b>Air Shroud</b>	MCP-310-22702-0B	2	Mylar air shroud sets H12SSG-AN6 for SC227G(2x GPU)
<b>Riser Card</b>	RSC-GB-66G4	2	1U Rear LHS GPU Riser card with twoPCI-E4.0x16slots,HF,R
<b>Riser Card</b>	RSC-GF-66G4	2	1U Front LHS GPU Riser card with two PCI-E 4.0x16slotsHF
<b>Riser Card</b>	RSC-GF-6G4	2	1U Front LHS GPU Riser card with onePCI-E4.0x16slot,HF,R
<b>Heatsink / Retention</b>	SNK-P0062P	2	1U Passive CPU Heat Sink for AMD Socket SP3 Processors
<b>Power Supply</b>	PWS-2K63A-1R	2	1U 2600W redundant single output powersupply with wide range
<b>Cable</b>	CBL-PWEX-1251	2	FAN,2x4 to 2x 1x4 and 1x4,5A/pin,42.5CM,22/24AWG
<b>Bracket</b>	MCP-120-22702-0N	4	Nvidia GPU A40/A6000/A5000 PCIe internal bracket for SC227G
<b>Fan</b>	FAN-0219L4	4	80x80x80 mm, 14.2K-15K RPM Counter-rotating, Hot-swappable Fan
<b>Backplane</b>	BPN-NVMe4-826N-B2B	2	1U 2-Port PCIe Gen 4 U.2 NVMe Backplane
<b>Drive Tray</b>	MCP-220-00167-0B	4	2.5-inch Tool-less NVMe drive tray (clip design)
<b>Software</b>	<a href="#">SFT-OOB-LIC</a> • <a href="#">eStore</a>	1	OOB Management Package (per node license)

### Optional Parts List

	Part Number	Qty	Description
<b>Up to 5x NVIDIA A10 per node</b>	RSC-GFR-66G4	1 per node	1U Front RHS GPU Riser card with two PCI-E4.0x16slots
	CBL-PWEX-1059	1 per node	GPU,2x4F/RA/CPU to two (2x3F+2x1F)/PCIe,P4.2, 36CM,17/20AWG
	CBL-PWEX-1040	2 per node	PWYCB,GPU,2x4M/CPU to two (2x3F+2x1F)/PCIe,P4.2, 5CM,16/20AW
	CBL-SAST-1295LP-85	2 per node	SlimlineLP x8 (RA) to SlimlineLP x8 (STR),12CM,85 OHM
	CBL-SAST-1202LPB-85	1 per node	2x SlimSASLP x8 (STR) to 2x SlimSASLP x8 (STR),BNDL,FOL
	CBL-SAST-1228LP-85	3 per node	SlimlineLP x8 (STR) to Slimline x8 (STR),28CM,85 OHM
	CBL-SAST-1224LP-85	1 per node	SlimlineLP x8 (STR) to SlimlineLP x8 (RE),24CM,85 OHM
	MCP-120-22704-0N	2 per node	Nvidia GPU A10 PCIe internal bracket for SC227G
	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G

<b>3x NVIDIA A40 per node</b>	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
<b>2x NVIDIA A100/A30 per node</b>	MCP-120-22703-0N	2 per node	Nvidia GPU A100/A30 PCIe internal bracket for SC227G
<b>3x NVIDIA A100/A30 per node</b>	MCP-120-22703-0N	2 per node	Nvidia GPU A100/A30 PCIe internal bracket for SC227G
	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
<b>2x Nvidia A16</b>	MCP-120-22709-0N	2 per node	Nvidia GPU universal internal bracket(w/ DW) for SC227G
<b>3x Nvidia A16</b>	MCP-120-22709-0N	2 per node	Nvidia GPU universal internal bracket(w/ DW) for SC227G
	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
<b>2x RTX A6000 per node</b>	MCP-220-22705-0N	1 per node	1U MB Tray for SC227G with honey comb holes
<b>3x RTX A6000 per node</b>	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
	MCP-220-22705-0N	1 per node	1U MB Tray for SC227G with honey comb holes
<b>2x RTX A5000 per node</b>	CBL-PWEX-1059	1 per node	GPU,2x4F/RA/CPU to two (2x3F+2x1F)/PCIe,P4.2, 36CM,17/20AWG
	CBL-PWEX-1040	1 per node	PWYCB,GPU,2x4M/CPU to two (2x3F+2x1F)/PCIe,P4.2, 5CM,16/20AW
	MCP-220-22705-0N	1 per node	1U MB Tray for SC227G with honey comb holes
<b>3x RTX A5000 per node</b>	CBL-PWEX-1059	1 per node	GPU,2x4F/RA/CPU to two (2x3F+2x1F)/PCIe,P4.2, 36CM,17/20AWG
	CBL-PWEX-1040	2 per node	PWYCB,GPU,2x4M/CPU to two (2x3F+2x1F)/PCIe,P4.2, 5CM,16/20AW
	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
	MCP-220-22705-0N	1 per node	1U MB Tray for SC227G with honey comb holes
<b>Up to 5x Nvidia A4000 per node</b>	RSC-GFR-66G4	1 per node	1U Front RHS GPU Riser card with two PCI-E4.0x16slots
	CBL-PWEX-1059	1 per node	GPU,2x4F/RA/CPU to two (2x3F+2x1F)/PCIe,P4.2, 36CM,17/20AWG
	CBL-PWEX-1040	2 per node	PWYCB,GPU,2x4M/CPU to two (2x3F+2x1F)/PCIe,P4.2, 5CM,16/20AW
	CBL-SAST-1295LP-85	2 per node	SlimlineLP x8 (RA) to SlimlineLP x8 (STR),12CM,85 OHM
	CBL-SAST-1202LPB-85	1 per node	2x SlimSASLP x8 (STR) to 2x SlimSASLP x8 (STR),BNDL,FOL
	CBL-SAST-1228LP-85	3 per node	SlimlineLP x8 (STR) to Slimline x8 (STR),28CM,85 OHM
	CBL-SAST-1224LP-85	1 per node	SlimlineLP x8 (STR) to SlimlineLP x8 (RE),24CM,85 OHM
	MCP-120-22708-0N	2 per node	Nvidia GPU RTX-A4000 PCIe internal bracket for SC227G
	MCP-220-22705-0N	1 per node	1U MB Tray for SC227G with honey comb holes
	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
<b>Up to 6x T4</b>	RSC-GFR-66G4	1 per node	1U Front RHS GPU Riser card with two PCI-E4.0x16slots
	CBL-SAST-1295LP-85	2 per node	SlimlineLP x8 (RA) to SlimlineLP x8 (STR),12CM,85 OHM
	CBL-SAST-1202LPB-85	1 per node	2x SlimSASLP x8 (STR) to 2x SlimSASLP x8 (STR),BNDL,FOL
	CBL-SAST-1228LP-85	3 per node	SlimlineLP x8 (STR) to Slimline x8 (STR),28CM,85 OHM

	CBL-SAST-1224LP-85	1 per node	SlimlineLP x8 (STR) to SlimlineLP x8 (RE),24CM,85 OHM
	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
	MCP-120-22705-0N	2 per node	Nvidia GPU T4 PCIe internal bracket for SC227G
<b>Up to 6x A2</b>	RSC-GFR-66G4	1 per node	1U Front RHS GPU Riser card with two PCI-E4.0x16slots
	CBL-SAST-1295LP-85	2 per node	SlimlineLP x8 (RA) to SlimlineLP x8 (STR),12CM,85 OHM
	CBL-SAST-1202LPB-85	1 per node	2x SlimSASLP x8 (STR) to 2x SlimSASLP x8 (STR),BNDL,FOL
	CBL-SAST-1228LP-85	3 per node	SlimlineLP x8 (STR) to SlimlineLP x8 (STR),28CM,85 OHM
	CBL-SAST-1224LP-85	1 per node	SlimlineLP x8 (STR) to SlimlineLP x8 (RE),24CM,85 OHM
	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
	MCP-120-22710-0N	2 per node	Nvidia GPU universal internal bracket(w/ SW) for SC227G
<b>2x MI100 per node</b>	CBL-PWEX-1059	1 per node	GPU,2x4F/RA/CPU to two (2x3F+2x1F)/PCIe,P4.2, 36CM,17/20AWG
	CBL-PWEX-1040	1 per node	PWYCB,GPU,2x4M/CPU to two (2x3F+2x1F)/PCIe,P4.2, 5CM,16/20AW
	MCP-120-22706-0N	2 per node	AMD GPU MI100 PCIe internal bracket for SC227G
<b>3x MI100 per node</b>	CBL-PWEX-1059	1 per node	GPU,2x4F/RA/CPU to two (2x3F+2x1F)/PCIe,P4.2, 36CM,17/20AWG
	CBL-PWEX-1040	2 per node	PWYCB,GPU,2x4M/CPU to two (2x3F+2x1F)/PCIe,P4.2, 5CM,16/20AW
	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
	MCP-120-22706-0N	2 per node	AMD GPU MI100 PCIe internal bracket for SC227G
<b>2x MI210 per node</b>	MCP-120-22711-0N	2 per node	AMD GPU universal internal bracket(w/ DW) for SC227G
<b>3x MI210 per node</b>	MCP-120-22711-0N	2 per node	AMD GPU universal internal bracket(w/ DW) for SC227G
	MCP-310-22713-0B	1 per node	Sponge air block-B for SC227G
<b>TPM security module</b>	AOM-TPM-9671V	-	TPM 1.2 module (Vertical) with Infineon 9671
	AOM-TPM-9670V	-	TPM 2.0 module (Vertical) with Infineon 9670
<b>Global Services &amp; Support</b>	<u>OS4HR3/2/1</u>	-	3/2/1-year onsite 24x7x4 service
	<u>OSNBD3/2/1</u>	-	3/2/1-year onsite NBD service