

A+ Server 4124GS-TNR (Complete System Only)

4U Dual Processor (AMD), Dual-Root GPU system
with 8 PCI-E GPUs.



Integrated Board



([/Aplus/motherboard/EPYC7000/H12DSG-O-CPU.cfm](#)) **H12DSG-O-CPU**
([/Aplus/motherboard/EPYC7000/H12DSG-O-CPU.cfm](#))

Views: | [Angled View \(/a_images/products/views/4124GS-TNR_angle.jpg\)](#) | [Top View \(/a_images/products/views/4124GS-TNR_top.jpg\)](#) |

[Front View \(/a_images/products/views/4124GS-TNR_front.jpg\)](#) | [Rear View \(/a_images/products/views/4124GS-TNR_rear.jpg\)](#) |

Complete System Only: To maintain quality and integrity, this product is sold only as a completely-assembled system (for optimal performance 16 DIMMs is recommended). Minimum requirement is 2 CPUs, 2 GPUs, 4 DIMMs per CPU with EPYC 7003 Series, 2 SATA or 1 NVMe.

[Drivers & Utilities](#) [BIOS](#) [IPMI](#) [Tested Memory](#) [NVMe Options](#)

[Tested AOC](#) [Manuals](#)

[OS Certification Matrix \(/en/support/resources/certification/AS-4124GS-TNR\)](#)

[Compatible GPU List \(/en/support/resources/gpu\)](#) [Drive Options](#)

Key Applications

- AI / Deep Learning
- High Performance Computing (HPC)
- Cloud Gaming
- Molecular Dynamics Simulation

Key Features

1. Supports up to 8 double-width GPUs
Direct connect for maximum performance
2. Dual AMD EPYC™ 7003/7002 Series Processors
(The latest AMD EPYC™ 7003 Series Processor with AMD 3D V-Cache™ Technology requires BIOS version 2.3 or newer)
3. 8TB Registered ECC DDR4 3200MHz SDRAM in 32 DIMMs
4. 9 PCI-E 4.0 x16
(Option: 10 PCI-E 4.0 x16 slots without NVMe devices)
5. Up to 24 Hot-swap 2.5" drive bays.
With included hardware:
 - 2x 2.5" SATA in RAID 1 via onboard Marvell 9230
 - 4x 2.5" NVMe (Gen3 only; depends on PCI-E quantity based on #4)

RAID controller option available for 24 HDDs
6. 2 GbE LAN ports (rear)
7. 8 Hot-swap 11.5K RPM cooling fans
8. 2000W (2+2) Redundant Power Supplies
Titanium Level (96%+)
(full redundancy based on configuration and application load)

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

Specifications

Product SKUs - Discontinued SKU (EOL).
Please contact sales-rep for alternative options.

Chassis

Form Factor

4U Rackmountable

Rackmount Kit (MCP-290-00057-0N)

AS -4124GS-TNR
A+ Server 4124GS-TNR (**Black**)

Motherboard

Super H12DSG-O-CPU
([/Aplus/motherboard/EPYC7000/H12DSG-O-CPU.cfm](#)).

Processor/Cache

CPU
Dual AMD EPYC™ 7003/7002 Series Processors
(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 128 Cores (64 per CPU)
Note
* Supports 2 CPUs only – single socket not supported
** 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

Supported GPUs
8 Double-Width/Single-Width PCI-E 3.0/4.0 x16 Card (Full Height Full Length)
NVIDIA A100, V100, A40, T4, Quadro RTX, AMD Instinct
Supports both active and passive cooled GPUs

Compatible GPU list
([/support/resources/GPU](#)).

CPU-GPU Interconnect
PCI-E Gen 4 x16 Direct Connect CPU-GPU Dual-Root
GPU-GPU Interconnect
NVIDIA® NVLink™ Bridge (Optional), AMD Infinity Fabric (optional)

System Memory

Memory Capacity
32 DIMM slots*
Up to 8TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM
Memory Type
3200MHz ECC DDR4 RDIMM/LRDIMM**
Note
* Minimum 4 DIMMs per CPU required with EPYC 7003 Series processors
** In 2DPC configurations memory speed is up to 2933MHz

On-Board Devices

Chipset

Model
CSE-418G2TS-R4016BP

Dimensions

Height
7.0" (178mm)
Width
17.2" (437mm)
Depth
29" (737mm)
Package
26.57" (H) x 27" (W) x 41" (D)
Weight
Net Weight: 65.5 lbs (29.7 kg)
Gross Weight: 100 lbs (45.3 kg)
Available Colors
Black

Drive Bays / Storage

Hot-swap
Up to 24x 2.5" SAS/SATA drive bays
2x 2.5" SATA supported natively*
4x 2.5" NVMe (Gen3 only) supported natively
RAID controller option available for 24 HDDs
Note
* 2x drives in RAID 1 only via onboard Marvell 9230

Expansion Slots

PCI-Express
9 PCI-E 4.0 x16 (FHFL) slots or 10 PCI-E 4.0 x16 (FHFL) slots without NVMe devices

System Cooling

Fans
8x 11.5K RPM heavy duty fans

Power Supply

2000W Redundant Power Supplies with PMBus
Total Output Power
1000W: 100 – 127Vac
1800W: 200 – 220Vac
1980W: 220 – 230Vac
2000W: 230 – 240Vac
2000W: 220 – 240Vac (UL only)
Dimension (W x H x L)
73.5 x 40 x 203 mm
Input
100-127Vac / 12-9A / 50-60Hz
200-220Vac / 10-9.8A / 50-60Hz
220-230Vac / 10-9.8A / 50-60Hz
230-240Vac / 10-9.8A / 50-60Hz
220-240Vac / 11-10A / 50-60Hz (UL only)
+12V
Max: 83A / Min: 0A (100-127Vac)
Max: 150A / Min: 0A (200-220Vac)
Max: 165A / Min: 0A (220-230Vac)
Max: 166A / Min: 0A (230-240Vac)
Max: 166A / Min: 0A (220-240Vac) (UL only)

System on Chip (SoC)**SATA**

SATA3 (6Gbps)

Network**Controllers**

Provided via riser card

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 AST2500 BMC

Input / Output**SATA/SAS**

24 SATA/SAS with a controller

LAN

2 RJ45 GbE LAN ports (rear)

1 RJ45 Dedicated IPMI LAN port

USB

2 USB 3.0 ports (rear)

Video

1 VGA Connector

COM Port

1 COM port (header)

System BIOS**BIOS Type**

AMI 32Mb SPI Flash ROM

Management**Software**[IPMI 2.0 \(/solutions/IPMI.cfm\)](#)

KVM with dedicated LAN

[SSM \(/solutions/SMS_SSM.cfm\)](#),[SPM \(/solutions/SMS_SPM.cfm\)](#),[SUM \(/solutions/SMS_SUM.cfm\)](#)[SuperDoctor® 5](#)[\(/solutions/SMS_SD5.cfm\)](#)

Watchdog

PC Health Monitoring**CPU**Monitors for CPU Cores, Chipset Voltages,
Memory.

4+1 Phase-switching voltage regulator

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

Other Features

RoT

12Vsb

Max: 3.5A / Min: 0A

Output Type

25 Pairs Gold Finger Connector

Certification<http://www.plugloadsolutions.com/80PlusPowerSupp>[id=69&type=2](#)). Titanium

Level

[\[Test Report](#)[\(/products/powersupply/80PLUS/80PLUS_PWS-2K08A-1R.pdf\) \]](#)**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