

## A+ Server 4124GO-NART (Complete System Only)

4U Dual Processor (AMD) GPU System with NVIDIA HGX A100 8-GPU 40GB/80GB, NVLink, NVSwitch.



**Integrated Board**



**H12DGO-6**

**Views:** | [Top View \(GPU\)](#) | [Top View \(CPU\)](#) |  
[Angled View](#) | [Front View](#) | [Rear View](#) |

**Complete System Only:** To maintain quality and integrity, this product is sold only as a completely-assembled system (with minimum 2 CPUs, minimum of 1.0TB Memory (2TB highly recommended) for 80G HGX-8 A100 OR minimum of 512GB Memory for 40G HGX-8 A100, 1 Storage device, and 1 NIC).

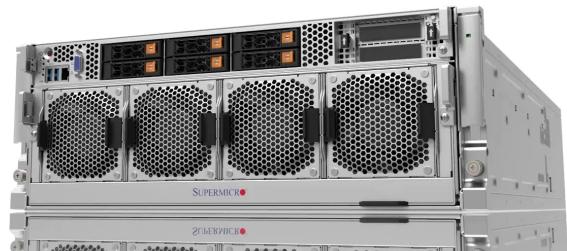
**Service:** OSNBD3 is highly recommended.

[Drivers & Utilities](#) [BIOS](#) [IPMI](#) [Tested Memory](#) [Tested M.2 List](#)

[NVMe Options](#) [Tested AOC](#) [Manuals](#) [OS Certification Matrix](#)

[Drive Options](#)

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



## Key Applications

- High Performance Computing
- AI / Deep Learning

## Key Features

1. Supports NVIDIA® HGX™ A100 8-GPU; Highest GPU communication using NVIDIA® NVLINK™ v3.0 + NVIDIA® NVSwitch™; NICs for GPUDirect RDMA (1:1 GPU Ratio)
2. Supports HGX A100 8-GPU 40GB (HBM2) or 80GB (HBM2e)
3. 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)
4. 8TB Registered ECC DDR4 3200MHz SDRAM in 32 DIMMs
5. 8 PCI-E 4.0 x16 via PCI-E switch; 1 PCI-E 4.0 x 16 LP and 1 PCI-E 4.0 x8 LP via CPUs; AIOM Support
6. 6 Hot-swap U.2 NVMe 2.5" drive bays (4 via PCI-E switch, 2 via CPU) Up to 10 U.2 NVMe 2.5" drives available with an optional 4 drive bays at rear of system
7. Flexible Networking via AIOM, 1 dedicated IPMI LAN Port
8. 4 Hot-swap heavy-duty cooling fans
9. 2200W (3+1) Redundant Platinum Level Power Supplies (*full redundancy based on configuration and application load*); 3000W (2+2) Redundant **Titanium Level (96%+)** Power Supply option available for upgrade



## Specifications

## Product SKUs

### AS-4124GO-NART

A+ Server 4124GO-NART

## Motherboard

### Super H12DGO-6

## 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

\* 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

HGX A100 8-GPU 40GB/80GB SXM4 Multi-GPU Board

### CPU-GPU Interconnect

PCI-E Gen 4 x16 Switch CPU-to-GPU Interconnect

### GPU-GPU Interconnect

NVIDIA® NVLink™ with NVSwitch™ GPU-GPU Interconnect

## System Memory

### Memory Capacity

32 DIMM slots

Up to 8TB 3DS ECC DDR4-3200MH RDIMM/LRDIMM

### Memory Type

3200MHz ECC DDR4 RDIMM/LRDIMM

## On-Board Devices

### Chipset

System on Chip (SoC)

### SATA

SATA3 (6Gbps)

### Network Controllers

Provided 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

ASPEED AST2600 BMC

## Input / Output

### SATA

4 SATA3 (6Gbps) ports

### LAN

Provided by AIOM

1 RJ45 Dedicated IPMI LAN port

### USB

2 USB 3.0 ports (front)

### Video

1 VGA Connector (front)

### COM Port

1 COM port (header)

## System BIOS

### BIOS Type

AMI 256Mb SPI Flash ROM

## Management

## Chassis

### Form Factor

4U Rackmountable

Rackmount Kit (MCP-290-00180-0N)

### Model

CSE-438G

## Dimensions

### Height

6.9" (174mm)

### Width

17.6" (446mm)

### Depth

35.4" (900mm)

### Package

29.5" (750mm) H x 27.4" (695mm) W x 44.9" (1140mm) D

### Weight

Net Weight: 166.0 lbs (75.3 kg)

Gross Weight: 225.0 lbs (102.1 kg)

## Drive Bays / Storage

### Hot-swap

6 hot-swap U.2 NVMe 2.5" drive bays (4 via PCI-E switch, 2 via CPU, SATA/NVMe Hybrid or SAS with optional HBA)  
(up to 10 hot-swap U.2 NVMe 2.5" available)

### M.2

2 M.2 NVMe

## Expansion Slots

### PCI-Express

8 PCI-E 4.0 x16 via PCI-E switch - supporting HGX A100 8-GPU's 1:1 connection to 8 NICs

1 PCI-E 4.0 x16 LP and 1 PCI-E 4.0 x8 LP via CPUs

## System Cooling

### Fans

4 x Hot-swap 11.5K RPM heavy duty fans

## Power Supply

2200W Redundant Platinum Level Power Supplies

### Total Output Power

1000W with Input 100 - 127Vac

2200W with Input 220 - 240Vac (for UL/cUL only)

2090W with Input 230 - 240Vdc (for CQC only)

### Dimension

### (W x H x L)

106.5 x 82.4 x 203.5 mm

### Input

1000W: 100-127 Vac / 12-9.5 A / 50-60 Hz

1800W: 200-220 Vac / 10-9.5 A / 50-60 Hz

1980W: 220-230 Vac / 10-9.5 A / 50-60 Hz

2090W: 230-240 Vac / 10-9.8 A / 50-60 Hz

2200W: 220-240 Vac / 11.8-9.6 A / 50-60 Hz (for UL/cUL only)

2090W: 230-240 Vdc / 10-9.8 A / 50-60 Hz (for CQC only)

### +12V

Max: 41.67A / Min: 0A (500W)

### +5V

Max: 18.5A / Min: 0A (1000W)

Max: 33.33A / Min: 0A (1800W)

Max: 36.6A / Min: 0A (1980W)

Max: 38.7A / Min: 0A (2090W)

Max: 40.74A / Min: 0A (2200W)

### 12Vsb

Max: 3A / Min: 0A

**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

**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

**Output Type**

Gold Finger (connector on M/P)

**Certification**

Platinum Certified

[ [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**