

# A+ H13 EPYC Products

Supermicro Server Department

GrandTwin



### **Product Kick Off**

# AS –2115GT-HNTR (Rear IO)



#### Front



#### Rear



### Design Features (Per Node)

- Configurable up to 6 2.5" Drive Bays supporting NVMe or SATA
- Front accessible nodes for easy maintenance
- Flexible networking options with AIOM / OCP 3.0 support
- 2 M.2 slots on motherboard

Q3'21  July Aug Sept		Oct	Q4'21 Nov	Dec	Q1'22 Jan Feb Mar		Q2'22 Apr May Jun		Q3'22 July Aug Sept					
			Develop	ment			EVT			DVT			MP	

	Product Specifications
Processor	• Single AMD Genoa SP5 processors up to 400W per node*
Memory	• 12x DIMM slots, DDR5-5200memory per node
NIC	• Up to 2 AIOM/OCP 3.0 Slot w/NCSI per node*
Storage	Optional 2 /4 / 6 NVMe or SATA support* per node  Multiple NVMe/SATA 80mm slots (for Boot) per node
USB	• 2 Rear USB Port (shared via KVM switch)
ВМС	• ASPEED AST2600
Video	• 1 VGA port (shared via KVM switch)
Remote Management	• 1 BMC GbE LAN Port per node
Security	• TPM 2.0 • HW Root of Trust
Power Supply	• 2200W Redundant Titanium Level Power Supply*
Chassis	• CSE-GT214

<sup>1</sup>High wattage TDP CPU air-cooled support is limited to specific configurations

 $^2\mathrm{Optional}$  parts required for NVMe/SATA configurations  $_3\mathrm{AIOM}$  is sold separately but required for complete system configuration.

<sup>4</sup>Full redundancy base on configuration and application load

# AS –2115GT-FHNTR (Front IO) TBD



#### Front



#### Rear



Po	ssible system cor	nfigurations:		
	2.5" Drive	AIOM	GrandTwin	
	2.5" Drive	Venting	1/0	
	2.5" Drive	2.5" Drive	GrandTwin	
	2.5" Drive	2.5" Drive	1/0	

#### **Product Specifications Processor** Single AMD Genoa SP5 processors up to 400W per node\* • 12x DIMM slots, DDR5-5200memory Memory • Up to 1 AIOM/OCP 3.0 in front bay, and GrandTwin I/O module for 1G, 25G, NIC or 100G options\*, per node Optional 2/4 NVMe or SATA support\* per node Storage •2 M.2 NVMe/SATA 80mm slots (for Boot) per node **USB** • 2 front USB Port per node from GrandTwin I/O module ASPEED AST2600 **BMC** Video • 1 front VGA port per node from GrandTwin I/O module Remote • 1 front BMC GbE LAN Port per node from GrandTwin I/O module Management • TPM 2.0 Security • HW Root of Trust **Power Supply** 2200W Redundant Titanium Level Power Supply\*

<sup>1</sup>High wattage TDP CPU air-cooled support is limited to specific configurations

<sup>2</sup>Optional parts required for NVMe/SATA configurations <sup>3</sup> GrandTwin I/O is sold separately but required for complete system configuration.

<sup>4</sup>Full redundancy base on configuration and application load

Chassis

CSE-GT214

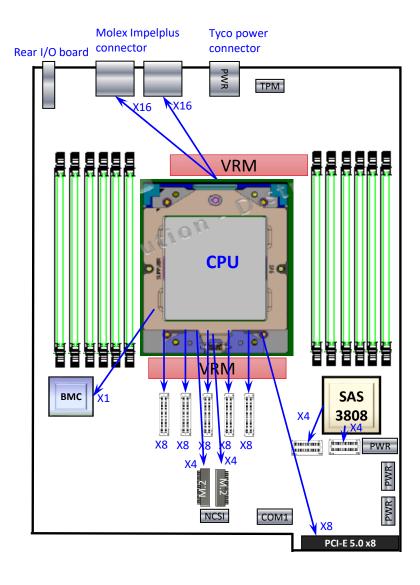
### **UP GrandTwin**

# H13SST-G/GC



#### **Key Features:**

- ✓ Single EPYC Processor (GENOA, AMD Socket SP5), SoC
- ✓ Up to 96 cores / 192 threads, 2U 4-Node.
- ✓ 12 DIMM, 3TB Reg. ECC DDR5 up to 5200MHz.
- ✓ 2 PCI-E 5.0 x16 Impelplus connector for 4x AIOM (Rear I/O system SKU)
- ✓ 5 PCI-E 5.0 x8 MCIO connector (1 hybrid port from P0)
- ✓ 1 PCI-E 5.0 x8 slot GrandTwin I/O (Front I/O system SKU)
- ✓ 2 M.2 connector (PCI-E 5.0 x4)
- 8x SATA 3.0 Port from MCIO hybrid port (-G SKU) and 8x SAS3 ports via onboard LSI3808 (-GC SKU – project based)
- ✓ NCSI Support for AIOM
- ✓ AST2600 with RoT function Support
- ✓ Proprietary Form Factor (9.07" x 12.42")





# A+ H13 EPYC Products

Supermicro Server Department

Hyper



### DP Hyper

### H13DSH

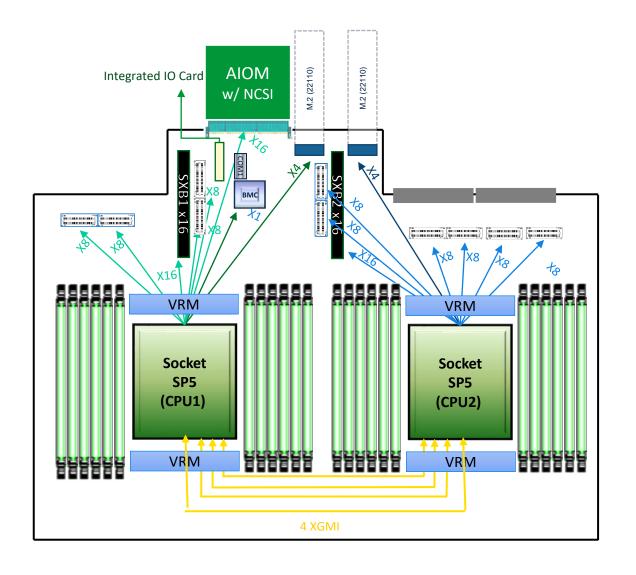


#### **Key Features:**

- ✓ Dual AMD EPYC<sup>TM</sup> processor (GENOA, AMD Socket SP5), SoC.
- ✓ Up to 192 cores / 384 threads , Max. 400W
- ✓ 24 DIMM, 6TB Reg. ECC DDR5 up to 5200MHz
- ✓ Expansion slots: SXB1, SXB2
- ✓ 14x MCIO (PCIe 5.0 x8) vertical connectors
- ✓ 8x NVMe (PCIe 5.0 x8) / 32x SATA3 Hybrid via MCIO
- ✓ 2x Gen3 NVMe M.2 (22110)
- ✓ AIOM with NCSI Support
- ✓ Network controllers: Provided via AIOM card
- ✓ 4x USB 3.0 (2 rear via riser + 2 via header), 1 x TPM 2.0 header
- ✓ Proprietary Form Factor (17" x 11.5")
- ✓ Aspeed 2600 with RoT support

#### Status:

✓ TBD



# **H13 DP Hyper Server Solutions**





AS -1125HS-TNR

**Dual socket** 

**Density Optimized Solutions** 



**AS -2125HS-TNR** 

**Dual socket** 

**AS -2025HS-TNR** 

**Dual socket** 

**Storage Optimized Solutions** 



- Up to 24 HDD Solution combine NVME/SATA /SAS
- -- 24 DIMM DDR 5

- Up to 12 HDD NVMe/SATA or SAS
- Up to 4 PCI-E 5.0 x16 Slots or up to 8 PCI-E 5.0 x8 Slots
- 24 DIMM DDR 5

# 1U DP Hyper Server AS -1125HS-TNR





### Design Features

- Configurable capable support up to 12 2.5" Drive Bays NVMe/SAS/SATA (require optional kit)
- Flexible networking options with AIOM / OCP NIC 3.0 support
- 3 PCI-E 5.0 x16 slots
- Best-in-class serviceability features Tool-less chassis/board design
- 29.52" (749.81mm) chassis depth

_	
	Product Specifications
Processor	Dual AMD Genoa SP5 processors up to 400W
Memory	• 24 x DIMM slots, DDR5 -5200 memory support up to 6 TB
PCI-E Slots	• 3 PCI-E 5.0 x16 Slots
NIC	• 1 AIOM/OCP NIC 3.0 Slot
Storage	<ul> <li>8 Hot-swap 2.5" NVMe/SAS/SATA<sup>2</sup> (Option for up to 12 drives)</li> <li>2 M.2 NVMe 80mm/110mm (Boot)</li> </ul>
USB	• 2 USB
ВМС	• ASPEED AST2600
Video	• 1 VGA Port
Remote Management	• 1 BMC GbE LAN Port
Security	• TPM 2.0 • HW Root of Trust
Power Supply	<ul> <li>1200W Redundant Power Supplies (Titanium Level)</li> <li>Optional Configuration:</li> <li>1600W Redundant Power Supplies (Titanium Level)</li> <li>(Full redundancy based on configuration and application load)</li> </ul>
Chassis	• 1U (17.2" x 29.52")
	Subject to change without notice
	Hight Wattage TDP CPU air-cooled support is limited to specific configurations <sup>2</sup> Optional parts required for NVMe/SAS/SATA configurations Photo as a reference during Development Stage

# **AS -2025HS-TNR**





### Design Features

- 12 3.5" Drive Bays supporting NVMe/SAS/SATA (optional kit)
- Up to 8 PCI-E 5.0 expansion slots with 2 Double-width GPU/FPGA support<sup>3</sup>
- 2 Supermicro AIOM networking slots (OCP NIC 3.0 compatible)
- Tool-less chassis & board design to simply the maintenance experience

1111	
	Product Specifications
Processor	Dual AMD Genoa SP5 processors up to 400W
Memory	• 24 x DIMM slots, DDR5 -5200 memory support up to 6 TB
PCI-E Slots	<ul> <li>2 PCI-E 5.0 x16 Slots as default or</li> <li>Configuration Options for up to 8 PCI-E 5.0 x8 Slots (or)</li> <li>Configuration Options for up to 2 PCI-E 5.0 x16 Slots + 4 PCI-E 5.0 x8 Slots (or)</li> <li>Configuration Options for up to 3 PCI-E 5.0 x 16 Slots + 2 PCI-E 5.0 x8 Slots</li> </ul>
NIC	• 1 AIOM/OCP NIC 3.0 Slots
Storage	<ul> <li>12 Hot-swap 3.5" NVMe/SAS/SATA<sup>2</sup></li> <li>2 M.2 NVMe/SATA 80mm/110mm (Boot)</li> </ul>
USB	• 2 USB
Video	• 1 VGA Port
BMC	• ASPEED AST2600
Remote Management	• 1 BMC GbE LAN Port
Security	• TPM 2.0 • HW Root of Trust
Power Supply	1600W Redundant Power Supplies (Titanium Level)     Optional Configuration:     1200W/2000W/2600W Redundant Power Supplies (Titanium Level) (Full redundancy based on configuration and application load)
Chassis	• 2U (17.2" x 31.24")
	Subject to change without notice  Hight Wattage TDP CPU air-cooled support is limited to specific configurations  Optional parts required for NVMe/SAS/SATA configurations  GPU support is limited to specific configurations  Photo as a reference during Development Stage

# AS -2125HS-TNR





### Design Features

- Up to 24 2.5" Drive Bays supporting NVMe/SAS/SATA<sup>2</sup>
- Up to 2 PCI-E 5.0 x16 expansion slots with 2 Double-width GPU/FPGA support<sup>3</sup>
- 2 Supermicro AIOM networking slots (OCP NIC 3.0 compatible)
- Tool-less chassis & board design to simply the maintenance experience

	Product Specifications
Processor	Dual AMD Genoa SP5 processors up to 400W
Memory	• 24 x DIMM slots, DDR5 -5200 memory support up to 6 TB
PCI-E Slots	• Configuration Options for up to 1 PCI-E $5.0 \times 16 + 2$ PCI-E $5.0 \times 8$ Slots with 24 Nvme drives
NIC	• 1 AIOM/OCP NIC 3.0 Slots with up to 2 AIOM/OCP with additional kits
Storage	<ul> <li>24 Hot-swap 2.5" NVMe/SATA<sup>2</sup> as default.</li> <li>2 M.2 NVMe/SATA 80mm/110mm (Boot)</li> </ul>
USB	• 2 USB
Video	• 1 VGA Port
BMC	• ASPEED AST2600
Remote Management	• 1 BMC GbE LAN Port
Security	• TPM 2.0 • HW Root of Trust
Power Supply	1600W Redundant Power Supplies (Titanium Level)     Optional Configuration:     2000W/2600W Redundant Power Supplies (Titanium Level) (Full redundancy based on configuration and application load)
Chassis	• 2U (17.2" x 29.9")

#### Subject to change without notice

Hight Wattage TDP CPU air-cooled support is limited to specific configurations <sup>2</sup>Optional parts required for NVMe/SAS/SATA configurations <sup>3</sup>GPU support is limited to specific configurations Photo as a reference during Development Stag



# A+ H13 EPYC Products

Supermicro Server Department

CloudDC



### H13SSW

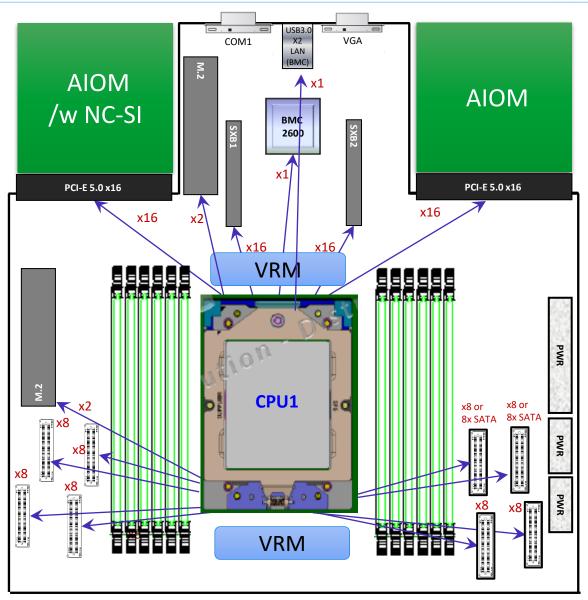


#### **Key Features:**

- ✓ Single EPYC Processor (GENOA, AMD Socket SP5), SoC
- ✓ Up to 96 cores / 192 threads, Max. 400W
- ✓ 12 DIMM, 3TB Reg. ECC DDR5 up to 5200MHz
- ✓ AST2600 with RoT function support
- ✓ 1x PCle 5.0 x16 left riser slot; 1x PCle 5.0 x16 right riser slot
- ✓ 2x PCle 5.0 x16 AIOM support single NC-SI feature(Left side)
- ✓ 12x NVMe (PCIe 5.0 x4) by MCIO x8
- ✓ 4x NVMe (PCIe 5.0 x4) or 16x SATA hybrid port by MCIO x8
- ✓ Rear 2x USB 3.0(PCle 5.0 x1 to USB), Front 2x USB2.0
- ✓ Rear IO support 1x IPMI Dedicated LAN, 1x VGA and 1x COM port
- ✓ Proprietary Form Factor (13.4" x 12.29")
- ✓ AST2600 with RoT function Support
- ✓ Support FP1, FP2 connector

#### **Status:**

✓ TBD



### **UP CloudDC H13 Solution**



### Optimized Economical IO & Storage Solutions



**AS -2015CS-TNR** 

Single socket

- Up to 12 HDD NVMe/SATA or SAS
- Up to 4 PCI-E 5.0 x16 & 2 AIOM NIC slot
- 12 DIMM in UP support DDR5



**AS -1115CS-TNR** 

Single socket

- Up to 10 HDD NVMe/SATA or SAS
- Up to 3 PCI-E 5.0 x16 & 2 AIOM NIC slot
- 12 DIMM in UP support DDR5



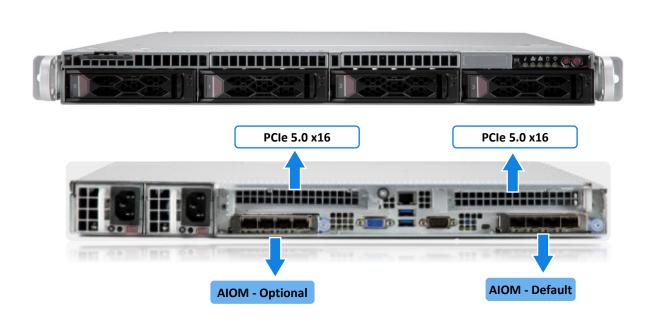
### **AS -1015CS-TNR**

(Under Development)
Single socket

- Up to 4 3.5" Drive Bays supporting NVMe/SATA hybrid mode
- AIOM / OCP NIC 3.0 support
- 2 PCI-E 5.0 x16 slots



# AS -1015CS-TNR(Under Development)



### Design Features

- Configurable up to 4 3.5" Drive Bays supporting NVMe/SATA hybrid mode
- Flexible networking options with AIOM / OCP NIC 3.0 support
- 2 PCI-E 5.0 x16 slots
- Best-in-class serviceability features Tool-less chassis design

	Product Specifications
Processor	• Single AMD Genoa SP5 processors up to TDP 400W
Memory	• 12 x DIMM slots, DDR5-5200memory
PCI-E Slots	• 2 PCI-E 5.0 x16 (FHHL) slots
NIC	• 2 AIOM/OCP NIC 3.0 Slot
Storage	<ul> <li>4 Hot-swap 3.5" NVMe/SAS/SATA<sup>2</sup></li> <li>2 M.2 NVMe/SATA 80mm/110mm (Boot)</li> </ul>
ВМС	• ASPEED AST2600
Video	• 1 VGA Port
Remote Management	• 1 BMC GbE LAN Port
Security	• TPM 2.0 • HW Root of Trust
Power Supply	•860W Redundant Platinum Level Power Supply (Full redundancy based on configuration and application load)
Chassis	• 1U (17.2" x 23.5")

1280W TDP CPU & Up air-cooled support is limited to specific configurations

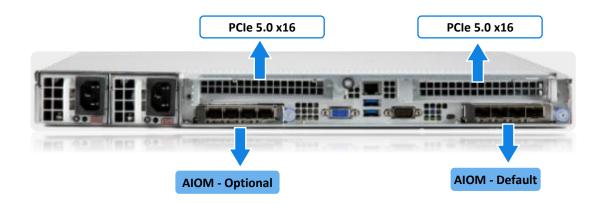
<sup>2</sup>Optional parts required for NVMe/SAS/SATA configurations

<sup>3</sup>GPU support is limited to specific configurations

# **AS -1115CS-TNR**







### Design Features

- Configurable up to 10 2.5" Drive Bays supporting NVMe/SAS/SATA<sup>2</sup>
- Flexible networking options with AIOM / OCP NIC 3.0 support
- 2 PCI-E 5.0 x16 slots.
- Best-in-class serviceability features Tool-less chassis design
- 23.5" (5971mm) chassis depth

	Product Specifications
Processor	• Single AMD Genoa SP5 processors up to TDP 400W
Memory	• 12 x DIMM slots, DDR5-5200memory
PCI-E Slots	• 2 PCI-E 5.0 x16 (FHHL) slots
NIC	• 2 AIOM/OCP NIC 3.0 Slot
Storage	<ul><li>10 Hot-swap 2.5" NVMe/SAS/SATA</li><li>2 M.2 NVMe/SATA 80mm/110mm (Boot)</li></ul>
USB	• 4 USB (2 Front USB, 2 Rear USB)
ВМС	• ASPEED AST2600
Video	• 1 VGA Port
Remote Management	• 1 BMC GbE LAN Port
Security	• TPM 2.0 • HW Root of Trust
Power Supply	860W Redundant Platinum Level Power Supply (Full redundancy based on configuration and application load)
Chassis	• 1U (17.2" x 23.5")

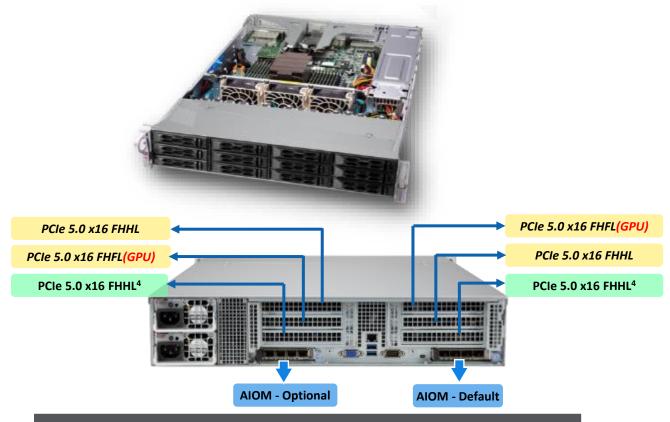
1280W TDP CPU & Up air-cooled support is limited to specific configurations

<sup>2</sup>Optional parts required for NVMe/SAS/SATA configurations

<sup>3</sup>GPU support is limited to specific configurations

# **AS -2015CS-TNR**





### Design Features

- Configurable up to 12 3.5" Drive Bays supporting NVMe/SAS/SATA<sup>2</sup>
- Flexible networking options with AIOM / OCP NIC 3.0 support
- 4 PCle 5.0 x16 slots with support up to two double-width GPU
- Best-in-class serviceability Tool-less chassis design with Tool-Less HDD trays
- 25.5" (648mm) chassis depth

	Product Specifications
Processor	• Single AMD Genoa SP5 processors up to TDP 400W
Memory	• 12 x DIMM slots, DDR5-4800 memory
PCI-E Slots	• 4 PCle Gen 5.0 x16 (Capable convert to 2 PCl-E 5.0 x16 ,4 PCl-E 5.0 x8)
NIC	• 2 AIOM/OCP NIC 3.0 Slot
Storage	<ul> <li>12 Hot-swap 3.5" NVMe/SAS/SATA<sup>2</sup></li> <li>2 M.2 NVMe/SATA 80mm/110mm (Boot)</li> </ul>
ВМС	• ASPEED AST2600
Video	• 1 VGA Port
Remote Management	• 1 BMC GbE LAN Port
Security	• TPM 2.0 • HW Root of Trust
Power Supply	•1200W Redundant Titanium Level Power Supply (Full redundancy based on configuration and application load)
Chassis	• 2U (17.2" x 25.5"")

<sup>1</sup>280W TDP CPU & Up air-cooled support is limited to specific configurations

<sup>2</sup>Optional parts required for NVMe/SAS/SATA configurations

<sup>3</sup>GPU support is limited to specific configurations

<sup>4</sup>Some feature will not be available with enable this PCle slots



# A+ H13 EPYC Products

Supermicro Server Department

**GPU** 



### H13DSG-O-CPU



#### **Key Features:**

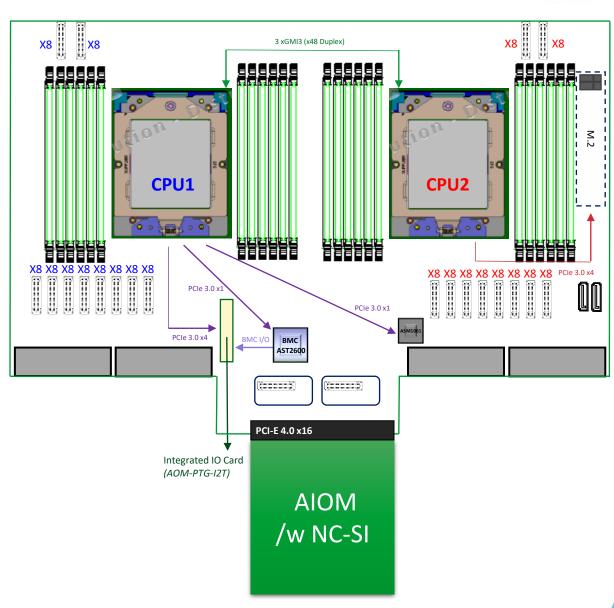
- ✓ Dual EPYC Processor (GENOA, AMD Socket SP5), SoC
- ✓ Up to 192 cores / 384 threads (Max. 400W)
- ✓ 24 DIMMs, 6TB Reg. ECC DDR5 up to 5200MHz
- ✓ 128-Lane PCI-E 5.0 x8 MCIO interfaces to GPU baseboard
- ✓ 32-Lane PCI-E 5.0 x8 MCIO interfaces for GPU baseboard, NVMe or OCP NIC
  - Up to 4x NVMe(x4) ports
  - OCP 3.0 NIC slot (AIOM slot) w/ NCSI interface
- ✓ 2 SATA ports via ASM1061, 1 M.2 (PCI-E 3.0 x4) from CPU2
- ✓ 1 USB 2.0 (header), SPI TPM (header), NCSI (header)
- ✓ Integrated IO slot with dual 10GbE, VGA, USB and COM via AOM-PTG-I2T
- ✓ AST2600 with RoT 2.0 function Support
- ✓ 4 Power Supply direct connect interfaces
- ✓ 17" x 14.7" Proprietary Form Factor

#### Status:

- ✓ Sample: WW16′2022
- ✓ Production: WW24'2022

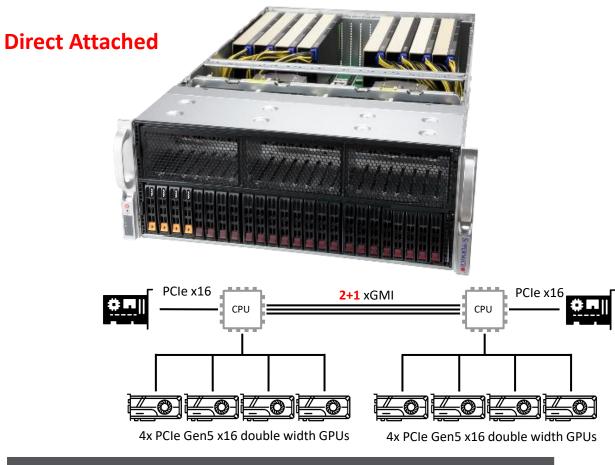
#### **Usage:**

- ✓ HPC, AI machine learning, GPU virtualization, Transcoding and VDI
- ✓ Cryptocurrency Mining, Sources of Business Logic, Online Gaming,
- ✓ Omniverse/Metaverse



### 4U DP 10 GPU Server AS -4125GS-TNRT





### Design Features

- 8 Direct attached GPUs
- PCIe Gen 5.0 AMD Radeon Instinct, Nvidia Enterprise level GPUs
- Flexible Architecture

	Product Specifications
Processor	Dual AMD Genoa SP5 processors up to 400W cTDP
Memory	• 24 x DIMM slots, DDR5-5200 memory
PCI-E Slots	8 PCle x16 Gen5 (GPU slots) 1 PCle x16 Gen5 or 2 PCle x8 in x16 slot
NIC	• 2 10GbaseT LAN
Storage	Up to 4 NVMe 2x SATA support 2x M.2 onboard
USB	• 2 USB 3.0
Video	• 1 VGA Port
BMC	• ASPEED AST2600
Remote Management	• 1 BMC GbE LAN Port
Security	• TPM 2.0 • HW Root of Trust
Power Supply	4x 2200W Titanium redundant power supply
Chassis	• 4U

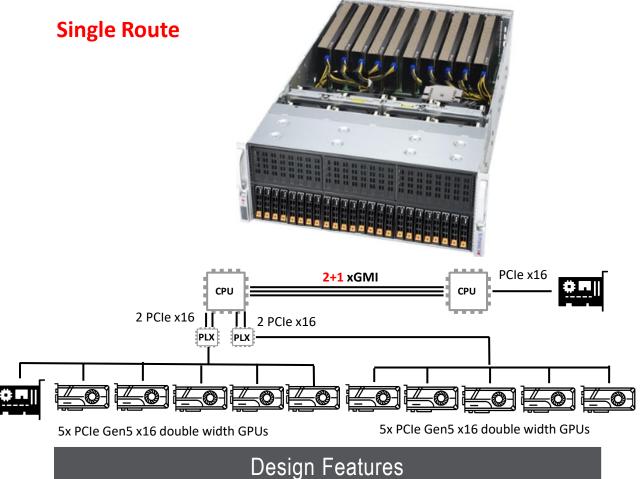
1320W TDP CPU air-cooled support is limited to specific configurations

<sup>2</sup>Optional parts required for NVMe/SAS/SATA configurations

<sup>3</sup>GPU support is limited to specific configurations

### 4U DP 10 GPU Server AS -4125GS-TNRT3





### Design Features

- 10 PCIe Gen5 GPUs on PLX (Gen5)
- PCIe Gen 5.0 AMD Radeon Instinct, Nvidia Enterprise level GPUs
- Flexible Architecture

	Product Specifications
_	
Processor	Dual AMD Genoa SP5 processors up to 400W cTDP
Memory	• 24 x DIMM slots, DDR5-5200 memory
PCI-E Slots	10 PCle x16 Gen5 Double Width GPUs
PCI-E SIOLS	1 PCle x16 Gen5 and 1 PCle x16 AIOM
NIC	• 2 10GbaseT LAN
	Up to 24 NVMe
Storage	4x SATA support
	1x M.2 onboard
USB	• 2 USB 3.0
Video	• 1 VGA Port
ВМС	• ASPEED AST2600
Remote Management	• 1 BMC GbE LAN Port
Security	• TPM 2.0 • HW Root of Trust
Power Supply	4x 2200W Titanium redundant power supply
Chassis	• 4U

1320W TDP CPU air-cooled support is limited to specific configurations

<sup>2</sup>Optional parts required for NVMe/SAS/SATA configurations

<sup>3</sup>GPU support is limited to specific configurations



# A+ H12 EPYC Products

Supermicro Server Department

H12



# A+ Server Products





DP Ultra 24 NVME



**UP WIO 24 NVME** 



**UP FatTwin FIO** 



**UP FatTwin RIO** 



**UP Cloud DC** 



UP 2U 2Nodes GPU



**UP Mid Tower** 





### A+ DP Ultra 32 DIMMs 1U/2U Server



AS -1024US-TRT / 2024US-TRT









#### **Key Features:**

- Dual Socket, 32 DIMMs up to 8TB DDR4 3200Mhz
- 2U 12 SATA & 1U 4 SATA, optional U.2 NVMe support
- PCle Gen 4.0

#### **Specifications**

**Processor Support** 

Dual EPYC processor (Socket SP3) Up to 128 cores

**Memory Capacity** 

32 DIMM, up to 8TB DDR4 3200 MHz Reg. ECC

**Expansion Slots** 

1U 2U

2 PCI-E 4.0 x16 (FH/9.5"L) slot 3 PCI-E 4.0 x16 (FHFL) slot 1 PCI-E 4.0 x16 (LP) slot 1 PCI-E 4.0 x16 (LP) slot **1 PCI-E 4.0 x16** (internal LP) 1 PCI-E 4.0 x8 (in x16) slot 1 PCI-E 4.0 x8 (internal LP)

I/O ports

2 10Gbe RJ45 ports, 1 Built-in video 1U: 3 USB 3.0 ports (2 rear; 1 Type A) 2U: 3 USB 3.0 ports (2 rear, 1 Type A)

**System management** 

Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port

Storage

**1U:** 4 hot-swap 3.5" SATA bays (Optional SAS3 and U.2 NVMe) **2U:** 12 hot-swap 3.5" SATA3 drive bays (Optional SAS3 & SATA3)

**System Cooling** 

1U: 8x 40x56mm fans w/ Optimal Fan Speed Control 2U: 4x 80x80x38mm fans w/ Optimal Fan Speed Control

**Power Supply** 

1U: 1000W High-efficiency (Titanium Level) Redundant\* PWS

2U: 1600W High-efficiency (Titanium Level) Redundant\* PWS

24

<sup>\*(</sup>Full redundancy based on configuration and application load)

### A+ DP Ultra 1U/2U NVMe Server



### AS -1124US-TNRP / 2124US-TNRP







### **Key Features:**

- Dual Socket, 32 DIMMs up to 8TB DDR4 3200Mhz
- Direct attached U.2 NVMe
- PCle Gen 4.0



#### **Specifications**

1 Processor Support

Dual EPYC processor (Socket SP3) Up to 128 cores

2 Memory Capacity

32 DIMM, up to 8TB DDR4 3200 MHz Reg. ECC

**Expansion Slots** 

**2 PCI-E 4.0 x16** (FH/9.5"L) slot **1 PCI-E 4.0 x16** slot

1 PCI-E 4.0 x16 (LP) slot

1 PCI-E 4.0 x16 (internal LP)

4 I/O ports

1U

2 10Gbe RJ45 ports + 2 SFP+ ports, 1 Built-in video **1U**: 4 USB 3.0 ports (2 rear; 1 front + 1 Type A) **2U**: 3 USB 3.0 ports (2 rear, 1 Type A)

System management

Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port

Storage

**1U:** 12 hot-swap 2.5" U.2 NVMe**2**IGen4 drive bays (Thin Profile)G(Optional support SAS3 and SATA3(CHDD)S

**2U:** 24 hot-swap U.2 NVMe Gen3/Gen4 drive bays (Optional support SAS3 and SATA3 HDD)

System Cooling

**1U**: 8x 40x56mm fans w/ Optimal Fan Speed Control **2U**: 4x 80x80x38mm fans w/ Optimal Fan Speed Control

8 Power Supply

**1U**: 1200W High-efficiency (Titanium Level) Redundant\* PWS **2U**: 1600W High-efficiency (Titanium Level) Redundant\* PWS

<sup>\*(</sup>Full redundancy based on configuration and application load)

## A+ UP WIO 8 DIMM 1U Server



AS -1014S-WTRT / 1114S-WTRT









#### **Key Features:**

- Single Socket, 8 DIMMs up to 2TB DDR4 3200Mhz
- Hybrid SATA/U.2 NVMe
- PCIe Gen 4.0
- Supports up to 2 T4 GPUs

#### **Specifications**

1 Processor Support

Single EPYC processor (Socket SP3)
Up to 64 cores **TDP 280W** 

- Memory Capacity
  8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC
- 3 Expansion Slots
  2 PCI-E 4.0 x16 (FHFL) slots
  1 PCI-E 4.0 x16 (LP) slot
- I/O ports
  2 10Gbe RJ45 ports
  1 Built-in video
  6 USB 3.1 ports (4 rear; 2 front)
- System management

  Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port
- Storage
  1014S: 4 hot-swap 3.5" SATA drive bays, (4x NVMe optional)
  1114S: 10 hot-swap 2.5" SATA drive bays, (2x NVMe optional)
  2 M.2 connector (SATA/NVMe)
- System Cooling4x 40x56mm fans w/ Optimal Fan Speed Control
- Power Supply
  500W High-efficiency (Platinum Level) Redundant\* PWS

\*(Full redundancy based on configuration and application load)

# A+ UP WIO 16 DIMM 1U/2U NVMe Server



AS -1114S-WN10RT / 2114S-WN24RT









#### **Key Features:**

- Single Socket, 16 DIMMs up to 4TB DDR4 3200Mhz
- Direct attached U.2 NVMe Gen 4
- PCIe Gen 4.0
- 2 onboard 10Gbe RJ45



#### **Specifications**

1 Processor Support

Single EPYC processors (Socket SP3)Up to 64 cores TDP 280W

2 Memory Capacity

16 DIMM, up to 4TB DDR4 3200 MHz Reg. ECC

**Expansion Slots** 

1U 2U 2 PCI-E 4.0 x16 (FHFL) slot 1 PCI-E 4.0 x16 (FH) slot 1 PCI-E 4.0 x16 (LP) slot

4 I/O ports

2 10Gbe RJ45 ports
1 Built-in Video
6 USB 3.1 ports (4 rear; 2 front)

System management

Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port

6 Storage

**1U: 10 hot-swap U.2 NVMe** drive bays (optional SATA) 2 M.2 Connector (SATA/NVMe)

2U: 24 hot-swap U.2 NVMe drive bays (optional SATA)

7 System Cooling

**1U**: 6 heavy duty fans w/ Optimal Fan Speed Control **2U**: 3 heavy duty fans w/ Optimal Fan Speed Control

8 Power Supply

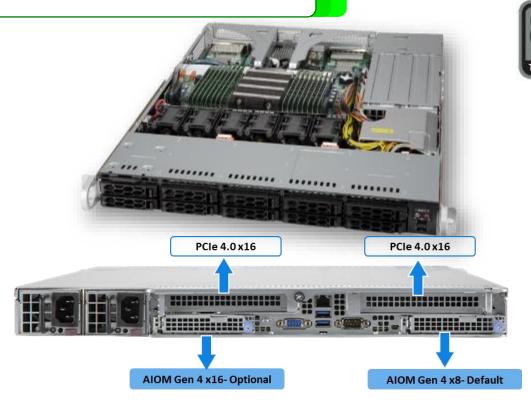
1U: 750W High-efficiency (Platinum Level) Redundant\* PWS2U: 1200W (Titanium Level) Redundant\* PWS

\*(Full redundancy based on configuration and application load)

# A+ UP Cloud DC 1U Compact Server



**AS -1114CS-TNR** 



#### **Key Features:**

- Support 10 2.5" SATA (optional U.2 NVMe/SAS with additional kits)
- 16 DIMM up to 4 TB ECC DDR4-3200MHz
- 2 PCIe 4.0 x16 with support up to two T4 GPUs
- Flexible Network Via AIOM



- Processor Support
  Single EPYC 7002/7003 Series up to 280W TDP
- 2 Memory Capacity
  16 DIMMs; up to 4TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM
- Expansion Slots
  2 PCI-E Gen 4.0 x16 (FHHL)
  2 PCI-E AIOM OCP 3.0 compliant (one x16 and one x8)
- 1 Built-in video
  2 USB 3.0 ports + 2 USB 2.0 front ports
  1 IPMI
- System management

  Built-in Server management tool (IPMI 2.0, KVM/media over LAN)
  with dedicated LAN port (ASPEED 2600)
- Drive Bays
  Up to 10 x 2.5" SATA drive bays(Optional support SAS3 and U.2 Nvme with additional kits)
  2 M.2 connector for NVMe
- **System Cooling** 6x 14k RPM fans
- Power Supply
  860W high-efficiency (Platinum level) power supply

# A+ UP Cloud DC 2U I/O optimized server

PCIe 4.0 x16 FHFL(GPU)

PCIe 4.0 x16 FHHL

PCle 4.0 x16 FHHL(Optional)

AIOM Gen 4 x18- Default



**Specifications** 

AS -2014CS-TR



- **Processor Support** Single EPYC 7002/7003 Series up to 280W TDP
- **Memory Capacity** 16 DIMMs; up to 4TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM
- **Expansion Slots** 4 PCI-E Gen 4.0 x16 2 PCI-E AIOM OCP 3.0 compliant (one x16 and one x8)
- I/O ports Per Node 1 Built-in video 2 USB 3.0 ports 1 IPMI
- **System management** Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port (ASPEED 2600)
- **Drive Bays** 12 hot-swap 3.5" SATA3 drive bays (Optional SAS3 & 4 NVMe with additional kit) 2 M.2 connector for NVMe
- **System Cooling** 3x 8cm 13.5k RPM fans
  - **Power Supply** 920W high-efficiency (Platinum level) power supply

- **Key Features:**
- Support 2 FHFL double width GPU

PCIe 4.0 x16 FHHL

PCIe 4.0 x16 FHHL(GPU)

\*PCIe 4.0 x16 FHFL(Optional)

Support 12 3.5" SATA(optional support up to 4 U.2 NVMe/12 SAS with additional kit)

AIOM Gen 4 x16- Optional

- PCIe Gen 4.0
- Flexible Network Via AIOM

Please contact Technical support for detail

# A+ UP Cost & Energy Efficient Server



AS -2014S-TR





#### **Key Features:**

- Support 7 LP AOCs
- Support 12x 3.5" SATA3 at front, 2x Rear 2.5" optional at rear
- PCle Gen 4.0
- 2x M.2 PCI-E Gen4 x4 onboard

#### **Specifications**

- 1 Processor Support Single EPYC 7002/7003 Series up to 280W TDP
- Memory Capacity
  8 DIMMs; up to 2TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM
- 3 Expansion Slots 5 PCI-E Gen 4.0 x16 2 PCI-E 4.0 x8

#### I/O ports Per Node

**Power Supply** 

- 2x Gbe RJ45 ports
  1x Built-in Video and 1x COM port (rear)
  6x USB 3.0 ports (4 rear; 2 via header)
- System management

  Built-in Server management tool (IPMI 2.0, KVM/media over LAN)
  with dedicated LAN port
- Orive Bays
  Up to 12 x 3.5" hot-swap SATA/SAS drive bays at front
  Support 2x 2.5" hot-swap SATA drive bays at rear
- System Cooling
  3x 8cm heavy duty fans w/ Optimal Fan Speed Control



920W high-efficiency (Platinum level) power supply

\*(Full redundancy based on configuration and application load)

### A+ 2U Mainstream Server

AS -2024S-TR





#### **Key Features**

- 2U Dual socket cost optimized server
- 6 PCIe Gen4 expansion slots for next generation AOC
- AST2600 with RoT support
- 12x 3.5/2.5" Hot-swap drive bays ( up to 8 SATA and 4 NVMe by default)



Dual AMD 7002/7003 EPYC series CPU up to 240W TDP Chipset

AMD SP3

**Memory Capacity** 

16 DIMM, up to 4TB DDR4 3200 MHz

**Expansion Slots** 

3 PCI-e 4.0 x16, 3 PCI-e 4.0 x8, 1 M.2 (PCI-e 4.0 x 4)

I/O ports

2x Gbit LAN, 4x USB 3.1 (2 rear + 2 header), 2x USB 2.0, VGA, IPMI, 10x SATA3, 4x NVMe PCI-E 4.0 x 4 ports

Drive Bays

12x hot-swap 3.5/2.5" drive bays (up to 8 SATA and 4 NVMe by default)

**System Cooling** 

6 3x 80mm hot-swappable middle cooling fans.

**7** Power Supply

Dual 920W Platinum level efficiency power supplies

8 Dimensions

W x H x D: 17.2" (437mm) x 3.5" (89mm) x 25.5" (647mm)

#### **Applications**

Cloud and Virtualization, Database Processing & Storage, Hosting & Application Delivery







# A+ DP BigTwin 2U 4 Nodes



#### **Specifications**

AS -2124BT-HTR / HNTR





- 4 Hot-Pluggable systems (nodes) in 2U form factor
- Hybrid SATA/U.2 NVMe
- PCIe Gen 4.0
- Flexible Network Via SIOM

Processor Support Per Node

Dual EPYC 7002/7003 Series processor

HTR: Up to 200W TDP\*
HNTR: up to 240W TDP\*

Memory Capacity per node

**16x DIMM slots**, Up to 4TB DDR4-3200

3 Expansion slots per node

2x PCI-E 4.0 x16 LP slots, 1x SIOM slot

4 Networking & I/O per node

1x Flexible networking via SIOM

1x RJ45 Dedicated IPMI LAN port

2x USB 3.0 ports

1x VGA port

System Management

Built-in Server management tool with dedicated LAN port

6 Drive Bays per node

HTR: 6 Hot-swap 2.5" SATA3 drive bays, 1 M.2 connector (SATA/NVMe)

HNTR: 4 Hot-swap 2.5" U.2 Gen3 NVMe/SATA3 drive bays

2 Hot-swap 2.5" SATA3 drive bays (total 6 drive bays per node)

1 M.2 connector (SATA/NVMe) + 1 M.2 connector (NVMe only)

System Cooling

4x Heavy duty 8cm PWM fans

8 Power Supply

2x 2200W High-efficiency (Titanium level, 96%) supplies\*\*

9 Dimensions

17.68" (W) x 3.47" (H) x 28.75" (D)

<sup>\*</sup>Certain CPUs with high TDP may be supported only under specific conditions.

<sup>\*\*</sup>Full redundancy based on configuration and application load

## A+ UP TwinPro 2U 4 Nodes



**AS -2014TP-HTR** 





#### **Key Features:**

- 4 Hot-Pluggable systems (nodes) in 2U form factor
- 3 SATA & 4 M.2 SATA/NVMe
- PCle Gen 4.0
- Flexible Network Via SIOM

#### **Specifications**

- Processor Support Per Node
  Single EPYC 7002/7003 Series processor up to 280W TDP\*
- Memory Capacity per node
  8x DIMM slots, Up to 2TB DDR4-3200
- Expansion slots per node 2x PCI-E 4.0 x16 LP slots 1x SIOM slot
  - Networking & I/O per node
    1x Flexible networking via SIOM
    1x RJ45 Dedicated IPMI LAN port
    2x USB 3.0 ports
    1x VGA port
- System Management
  Built-in Server management tool with dedicated LAN port
- Drive Bays per node
  3 Hot-swap 3.5" SATA3 drive bays
  4 M.2 connectors (SATA/NVMe)
- System Cooling4x Heavy duty 8cm PWM fans
- Power Supply 2x 2000W High-efficiency (Titanium level, 96%) supplies\*\*
- 9 Dimensions 17.25" (W) x 3.47" (H) x 30.5" (D)

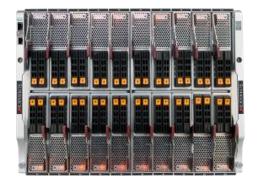
<sup>\*</sup>Certain CPUs with high TDP may be supported only under specific conditions.

<sup>\*\*</sup>Full redundancy based on configuration and application load

## A+ Blade Server 8U 20 nodes



### SBA-4119S-C2N / T2N







#### **Key Features:**

- Single Socket, 16 DIMMs up to 4TB DDR4 3200MHz
- 8 nodes Front I/O and Front Serviceability
- PCle Gen 4.0
- Flexible Network Via AIOM



#### **Specifications**

- 1 Processor Support per Node Single EPYC processors (socket SP3) Up to 64 cores 280W @ 35C
- Memory Capacity per Node
  8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC
- Expansion Slots per Node
  1 PCI-E 4.0 x16
- I/O ports and Networking per Node
   Mezzanie (25G / EDR / HDR)
   1 Built-in video from BMC
   2x Onboard 25G
- System management and Security Feature
  Built-in Server management tool (IPMI 2.0, KVM over IP,
  RedFish, API/TPM 2.0, Signed FW, HW ROT) (ASPEED 2600)
- Storage per Node
   Up to 2 M.2 Connector
   T2N: 2x NVMe/SATA
   C2N: 2x NVMe/SATA/SAS (SAS AOM Module)
- System Cooling
  8 heavy duty hot swap External fans
- Power Supply
  2200W high-efficiency (Titanium level) Redundant Power
  Supplies

# A+ Blade Server 8U 20 nodes GPU support



### SBA-4119SG







#### **Key Features:**

- Single Socket, 16 DIMMs up to 4TB DDR4 3200MHz.
- 8 nodes Front I/O and Front Serviceability
- PCle Gen 4.0
- Flexible Network Via AIOM



#### **Specifications**

- 1 Processor Support per Node
  Single EPYC processors (Socket SP3)
  UP to 64 cores 225W @ 35C
- Memory Capacity per Node
  8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC
- Expansion Slots per Node 2 PCI-E 4.0 x16
- I/O ports per Node
   Mezzanie (25G / EDR / HDR)
   1 Built-in video from BMC
   2x Onboard 25G
- System management and Security Feature
  Built-in Server management tool (IPMI 2.0, KVM over IP,
  RedFish, API/TPM 2.0, Signed FW, HW ROT) (ASPEED 2600)
- Storage per Node 1x M.2 (PCle 4. x4)
- System Cooling
  8 heavy duty hot swap External fans
- Power Supply2200W high-efficiency (Titanium level) Redundant Power Supplies

# A+ UP FatTwin Front I/O 4U 8 Nodes



AS -F1114S-FT







### **Key Features:**

- Support 2 PCI-E 4.0 x4 M.2 NVMe/SATA,
- 4x SSD/HDDs (internal)
- 2 PCI-E 4.0 x16(LP) and 1 PCI-E 4.0 x16 AIOM/OCP3.0
- Titanium level high efficiency digital power supply
- Hot plug nodes and fans
- Front I/O and Front Serviceability

#### **Specifications**

- **Processor Support Per Node** Single EPYC 7002/7003 Series up to 280W TDP
- **Memory Capacity** 16 DIMMs; up to 4TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM
- **Expansion Slots** 1 PCI-E Gen 4.0 x16 LP 1 PCI-E Gen 4.0 x16 LP 1 PCI-E Gen 4.0 x16 AIOMOCP 3.0
- I/O ports 1 Built-in video 2 USB 3.0 ports 1 IPMI
- **System management** Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port (ASPEED 2600)

#### **Drive Bays**

- Up to 4x 2.5" internal drive bays Up to 2x 3.5" internal drive bays 2x M.2 (NVMe or SATA) Up to 110mm.
- **System Cooling** 8 heavy duty hot swap External fans
- **Power Supply** 2200W high-efficiency (Titanium level) power supply

# A+ UP FatTwin Rear I/O 4U 8 Nodes



**Specifications** 

**AS -F1114S-RNTR** 







#### **Key Features:**

- Support 6x 2.5" NVME/SATA Devise
- 4 PCI-E 4.0 x4 M.2 (NVMe or SATA)
- 1 PCI-E 4.0 x16 LP and 1 PCI-E 4.0 x16 AIOM/OCP3.0
- Titanium level high efficiency digital power supply
- Hot plug nodes
- Rear I/O Front Serviceability



Single EPYC 7002/7003 Series up to 280W TDP

Memory Capacity Per Node
8 DIMMs; up to 2TB 3DS ECC
DDR4-3200MHz RDIMM/LRDIMM

3 Expansion Slots Per Node 1 PCI-E Gen 4.0 x16 LP 1 PCI-E Gen 4.0 x16 AIOMOCP 3.0

1 Built-in video
2 USB 3.0 ports
1 IPMI

System management

Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port (ASPEED 2600)

Drive Bays Per Node
Up to 6 x 2.5" NVMe/SATA drive bays
4x M.2 (NVMe or SATA) Up to 110mm.

System Cooling Per Node
3x 20.5K-17.6K RPM internal fans per node

Power Supply
2200W high-efficiency (Titanium level) power supply

# A+ UP FatTwin Rear I/O 4U 4 Nodes



**Specifications** 

AS -F2014S-RNTR







#### **Key Features:**

- Support 8x 3.5" (6 front/2 rear) SAS/SATA or NVMe Device
- **4 PCI-E 4.0 x4 M.2 (NVMe or SATA)**
- 1 PCI-E 4.0 x16 LP and 1 PCI-E 4.0 x16 AIOM/OCP3.0
- Titanium level high efficiency digital power supply
- Hot plug nodes
- **Rear I/O Front Serviceability**



- Single EPYC 7002/7003 Series up to 280W TDP
- **Memory Capacity Per Node** 8 DIMMs; up to 2TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM
- 3 **Expansion Slots Per Node** 1 PCI-E Gen 4.0 x16 LP 1 PCI-E Gen 4.0 x16 AIOM/OCP 3.0
- I/O ports Per Node 1 Built-in video 2 USB 3.0 ports 1 IPMI
- **System management Per Node** Built-in Server management tool (IPMI 2.0, KVM/media over

### LAN) with dedicated LAN port (ASPEED 2600)

- **Drive Bays Per Node** Up to 8 x 3.5" SAS/SATA/NVMe drive bays 4x M.2 (NVMe or SATA) Up to 110mm.
- **System Cooling Per Node** 2x 8cm 13.5k RPM middle fans
- **Power Supply** 2200W high-efficiency (Titanium level) power supply



**GPU Servers** 



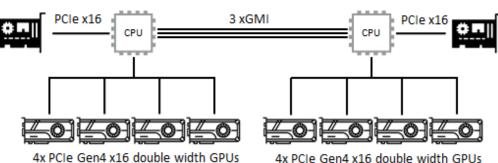
# A+ DP GPU Server



### **AS –4124GS-TNR**







#### **Key Features:**

- 8 Direct attached GPUs
- 160 PCle Lanes
- PCIe Gen 4.0 AMD Radeon Instinct, Nvidia Enterprise level GPUs
- Flexible Architecture

#### **Specifications**

Processor Support Per Node

Dual EPYC processors (Socket SP3) up to **280W TDP** Up to 128 cores

- Memory Capacity Per Node
  32 DIMM, up to 8TB DDR4 3200 MHz Reg. ECC
- 3 Expansion Slots \*
  9 PCI-E 4.0 x16 or optional 10 PCI-E 4.0 x16\*
  AIOM
- Up to 160 PCI-E Gen 4
- I/O ports
  1 Built-in BMC video (VGA Header), 1 COM port (header)
  2 USB 3.0 ports (rear)
  2 RJ45 GbE (rear), 1 RJ45 Dedicated IPMI LAN port,
- 5 System management
  1350 GbE NIC
  AST2500 with NC Side Band Access
- Orive Bays
  Up to 2 SATA in Raid 1 via onboard Marvell
  Up to 4 NVMe
- System Cooling
  8 heavy duty fans w/ Optimal Fan Speed Control
- Power Supply4 x 2000W (2+2) High-efficiency (Titanium Level) Redundant Power Supply

<sup>\*</sup> Limitation on Storage based on Expansion slots

# A+ DP Redstone GPU Server



**Specifications** 

AS -2124GQ-NART



#### **Processor Support**

Dual EPYC processor (Socket SP3) Up to **128 cores** 4 Amp-100 32GB **SXM4 GPUs** 

#### Memory Capacity

32 DIMM, up to 8TB DDR4 3200 MHz Reg. ECC

#### **Expansion Slots**

4 PCle 4.0 x16 LP

1 PCle 4.0 x8 LP

#### I/O ports

1 VGA, 2 USB 3.0, 1 IPMI dedicated LAN port

#### **System management**

Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port (ASPEED 2600)

#### 6 Storage

4 hot-swap 2.5" drives bay (SATA/NVMe Hybrid) M.2 and SAS via HBA

#### System Cooling

4 removable heavy duty fans

#### **Power Supply**

2x 2200W Redundant Titanium level efficiency power supplies Upgrade option to 3000W





### **Key Features:**

- High Density 2U System with Nvidia HGX A100 4-GPU
- High GPU Peer to Peer Communication via Nvidia NVLINK
- Less latency with Direct Attached GPUs & Next Gen PCIe 4
- 4 NIC for GPU Direct Attached RDMA & NVMe GPU Direct Storage

\*(Full redundancy based on configuration and application load)

# A+ DP Delta GPU Server



**AS –4124GO-NART** 





#### **Specifications**

- **Processor Support** Dual EPYC processor (ROME, AMD socket SP3) Up to 128 cores 8 Amp-100 32GB **SXM4 GPUs**
- **Memory Capacity** 32 DIMM, up to 8TB DDR4 3200 MHz Reg. ECC
- **Expansion Slots** 8 PCle 4.0 x16 from PCle switch 2 PCle 4.0 x16 LP from CPUs **AIOM** Support
- I/O ports 1 VGA, 2 USB 3.0, 1 IPMI dedicated LAN port
- **System management** Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port (ASPEED 2600)
- Storage 6 U.2 NVMe (4 from PCIe switch & 2 from CPU) 2 M.2 NVMe
- **System Cooling** 4 removable heavy duty fans
- **Power Supply** 2x 3000W Redundant Titanium level efficiency power supplies





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### **Key Features:**

- High Density 4U System with Nvidia HGX A100 8-GPU
- High GPU Communication via Nvidia NVLINK + NVIDIA NVSwitch
- 8 NIC for GPU Direct RDMA (1:1 GPU Ratio)
- 4 NVMe for GPU Direct Storage & Flexible I/O with AIOM support

## A+ UP 2U 2Node 3 GPU Server



**Specifications** 

AS -2114GT-DNR





#### **Front View**



#### **Rear View**



#### **Key Features:**

- 3 Direct Attached GPUs
- PCIe Gen 4.0 AMD Radeon Instinct & Nvidia Enterprise GPUs
- Flexible Architecture
- 4x Hot-swap 8cm counter-rotating cooling fans

#### **Processor Support**

Single EPYC processor (Socket SP3), Up to 64 cores 280W TDP

#### **2** Memory Capacity

8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC

#### **GPU Support slots per node**

- 3 Double Width GPUs in PCI-E 4.0 x16 slots or
- 5 Single Width Full Length GPUs in PCI-E 4.0 x16 slots or
- 6 Single Width Half Length GPUs in PCI-E 4.0 x16 slots

#### **Expansion slots per node**

6 PCI-E 4.0 x16 FH slots, 1 AIOM slot / OCP3.0

### Networking & I/O – per node

1 Flexible networking via AIOM

1 RJ45 Dedicated IPMI LAN port

2 USB 3.0 ports

1 VGA port

#### **System Management**

IPMI ASPEED AST2600 BMC with dedicated LAN port

#### Drive Bays per node

4 Hot-swap PCI-E Gen4 x4 U.2 drives (2 default at front, 2 optional at rear)

2 PCI-E Gen4 x4 M.2 connectors

#### **System Cooling**

4x Heavy duty 8cm PWM fans

#### **Power Supply**

2600W 1+ 1 High-efficiency (Titanium level, 96%) supplies

#### **Dimensions**

17.25" (W) x 3.47" (H) x 29.9" (D)



# Tower



## A+ UP Mid-Tower Server



### AS -3014TS-i





#### **Key Features:**

- Mid Tower optimized system offers ultimate flexibility on I/O
- 5 PCIe 4.0 x16, 2x PCIe 4.0 x8 FH slots
- 2 GPU support
- 4 3.5", 4 2.5" Internal drive bays with 2x onboard PCle 4.0 M.2

#### **Specifications**

1 Processor Support

Single EPYC 7002 processors AMD socket SP3 Up to 64 cores 280W TDP

2 Memory Capacity

8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC

**3** Expansion Slots

**5 PCI-E 4.0** x16 (FH) slots

2 PCI-E 4.0 x8 (FH) slots

4 I/O ports

2x Gbe RJ45 ports

1x Built-in Video and 1x COM port (rear)

6x USB 3.0 ports (4 rear; 2 via header)

5 System management

Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port

6 Storage

4 Internal 3.5" drive bays

2 M.2 PCI-E 4.0 x4 Connectors

4 Internal 2.5 SATA drive bays (with optional kits)

System Cooling

2x 12cm fans w/ Optimal Fan Speed Control

8 Power Supply

900W (Gold Level) High Efficiency PWS

<sup>\*(</sup>Full redundancy based on configuration and application load)

### **A+ UP SuperWorkstation**



### AS -5014A-TT





#### **Key Features:**

- AMD Ryzen™ Threadripper™ PRO 3000WX Series Processors
- Supports 4 double width active GPUs
- High Performance closed-loop water cooling for CPU
- 6 PCle Gen 4.0 x16

#### **Specifications**

1 Processor Support

Single Ryzen™ Threadripper™ PRO 3000WX Series Processors up to 64 Cores

Memory Capacity
8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC

3 Expansion Slots

6 PCI-E 4.0 x16

// I/O ports

1x 10GbE RJ45, 1x 1GbE RJ45 (shared with IPMI)

13 USB ports, (8 rear, 5 front)

1x Built-in Video and 1x COM port (rear), 7.1 HD Audio

5 System management

Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port

6 Storage

4 3.5"/2.5" SATA (internal), 2 2.5" SATA (Front access)

4 M.2 NVMe PCIe Gen 4

2 5.25" peripheral drive bays

System Cooling

1x 12cm rear exhaust fan, 2x 12cm front cooling fans Optional high-performance closed-loop water cooling for CPU

8 Power Supply

1x 2000W Platinum Level power supply