



AMD
EPYC

New Generation Supermicro A+ Platforms

Dieter Bodemer, March 2021



AMD Processor Roadmap

2017

2019

2021

TBA



Naples: **7xx1** series

- 14nm Processors up to 180W
- 8CH DDR4-3200, 32 DIMM slots
- NVMe / PCI-E 3.0

Rome: **7xx2** series

- 7nm+ Processors up to 280W
- 8CH DDR4-3200, 32 DIMM slots
- NVMe / PCI- E 4.0
- Infinity Fabric Gen 2
- IPC Improvement

Milan **7xx3** series

- **280W** TDP CPU
- 8CH DDR4-3200, 32 DIMM slots
- PCI-E 4.0
 - 6 Memory Channel Interleaving option
- Infinity Fabric Gen 3

New CPU

↳ Socket compatible





Model Number	SMC P/N	TDP (W)	cTDP range (W)	Cores / Thread	Target Base Freq (GHz)	Target Max Boost Freq (GHz)	L3 (MB)	DDR Channels	PCI-E	Max DDR Freq (1DPC)	NPS
7763	PSE-MLN7763-0312	280	225 – 280	64/128	2.5 – 2.6	3.6 – 3.7	256	8	128	3200	N/A
7713/P*	PSE-MLN7713-0344 PSE-MLN7713P-0337	225	225 – 240	64/128	2.0	3.6 – 3.7	256	8	128	3200	N/A
7663	PSE-MLN7663-0318	225	225 – 240	56/112	2.05 – 2.15	3.5 – 3.6	256	8	128	3200	N/A
7643	PSE-MLN7643-0326	225	225 – 240	48/96	2.2 – 2.3	3.5 – 3.6	256	8	128	3200	N/A
7543/P*	PSE-MLN7543-0345 PSE-MLN7543P-0341	225	225 – 240	32/64	2.7 – 2.8	3.7 – 3.8	256	8	128	3200	N/A
7513	PSE-MLN7513-0334	200	165 – 200	32/64	2.5 – 2.6	3.55 – 3.65	128	8	128	3200	N/A
7453	PSE-MLN7453-0319	180	165 – 200	28/56	2.35 – 2.45	3.5 – 3.6	64	8	128	3200	N/A
7443/P*	PSE-MLN7443-0340 PSE-MLN7443P-0342	200	165 – 200	24/48	2.75 – 2.85	3.9 – 4.0	128	8	128	3200	N/A
7413	PSE-MLN7413-0323	180	165 – 200	24/48	2.55 – 2.65	3.5 – 3.6	128	8	128	3200	N/A
7343	PSE-MLN7343-0338	190	165 – 200	16/32	3.1 – 3.2	3.8 – 3.9	128	8	128	3200	N/A
7313/P*	PSE-MLN7313-0329 PSE-MLN7313P-0339	155	155 – 180	16/32	2.9 – 3.0	3.6 – 3.7	128	8	128	3200	N/A
75F3	PSE-MLN75F3-0313	280	225 – 280	32/64	3.2 – 3.3	3.9 – 4.0	256	8	128	3200	N/A
74F3	PSE-MLN74F3-0317	240	225 – 240	24/48	3.15 – 3.25	3.95 – 4.0	256	8	128	3200	N/A
73F3	PSE-MLN73F3-0321	240	225 – 240	16/32	3.4 – 3.5	4.0 – 4.1	256	8	128	3200	N/A
72F3	PSE-MLN72F3-0327	180	165 – 200	8/16	3.6 – 3.7	4.0 – 4.1	256	8	128	3200	N/A











* P = Single socket only

3rd Gen AMD EPYC™ Processors Positioning

	ROME	MILAN	
Core Density	64C 48C	64C 56C	<i>Performance gain up to 15%</i>
TCO Optimized	32C 24C 16C 12C 8C	32C 24C 16C	<i>Performance gain up to 24%</i>
Core Performance	24C HF 16C HF 8C HF	32C HF 24C HF 16C HF 8C HF	<i>Performance gain up to 30%</i>



A+ Mass Production Platforms Available Today

Rackmount	Ultra SATA 1U		Enterprise Application	Memory Caching	Virtualization	
	Ultra NVMe 1U		Big Data Analytics	Content Delivery		
	WIO 8DIMM		Data Center Dedicated Hosting	Optimized Storage		
	WIO 16DIMM 1U		Big Data Analytics	Content Delivery	Virtualization	
Multi-node	BigTwin		HPC	Big Data Analytics	Virtualization	
	TwinPro		Dedicated Hosting	HCI		
	Blade		Cloud Computing	Content Delivery		
GPU	GPU Systems	  	Graphics Rendering	AI	Deep Learning	HPC

New A+ Servers



DP Ultra 24 NVMe



UP WIO 24 NVMe



UP FatTwin FIO



UP FatTwin RIO



UP CloudDC



UP 2U 2Nodes GPU



UP Mid-Tower



Rackmount Servers





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

AS -1024US-TRT / 2024US-TRT



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

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

1 PCI-E 4.0 x16 (LP) slot

1 PCI-E 4.0 x16 (internal LP)

2U

3 PCI-E 4.0 x16 (FHFL) slot

1 PCI-E 4.0 x16 (LP) slot

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 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: 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



*(Full redundancy based on configuration and application load)

Key features:

- Dual Socket, 32 DIMMs up to 8TB DDR4 3200Mhz
- 2U 12 SATA & 1U 4 SATA, optional U.2 NVMe support
- PCI-E Gen 4.0
- Flexible Network options with Ultra Riser





A+ DP Ultra 1U/2U NVMe Server

AS -1124US-TNRP / 2124US-TNRP



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 2 PCI-E 4.0 x16 (FH/9.5" L) slot 1 PCI-E 4.0 x16 (LP) slot 1 PCI-E 4.0 x16 (internal LP)	2U 1 PCI-E 4.0 x16 slot
I/O ports 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 Gen4 drive bays (Thin Profile) (Optional support SAS3 and SATA3 HDD)	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	
Power Supply 1U: 1200W High-efficiency (Titanium Level) Redundant* PWS 2U: 1600W High-efficiency (Titanium Level) Redundant* PWS	

*(Full redundancy based on configuration and application load)

Key features:

- Dual Socket, 32 DIMMs up to 8TB DDR4 3200Mhz
- Direct-attached U.2 NVMe
- PCI-E Gen 4.0
- Flexible Network options with Ultra Riser



A+ UP WIO 8 DIMM 1U Server

AS -1014S-WTRT / 1114S-WTRT



<p>Processor Support Single EPYC processor (Socket SP3) Up to 64 cores TDP 280W</p>
<p>Memory Capacity 8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC</p>
<p>Expansion Slots 2 PCI-E 4.0 x16 (FHFL) slots 1 PCI-E 4.0 x16 (LP) slot</p>
<p>I/O ports 2 10Gbe RJ45 ports 1 Built-in video 6 USB 3.1 ports (4 rear; 2 front)</p>
<p>System management Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port</p>
<p>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)</p>
<p>System Cooling 4x 40x56mm fans w/ Optimal Fan Speed Control</p>
<p>Power Supply 500W High-efficiency (Platinum Level) Redundant* PWS</p>

*(Full redundancy based on configuration and application load)

Key features:

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





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

AS -1114S-WN10RT / 2114S-WN24RT



Processor Support Single EPYC processors (Socket SP3) Up to 64 cores TDP 280W	
Memory Capacity 16 DIMM , up to 4TB DDR4 3200 MHz Reg. ECC	
Expansion Slots 1U 2 PCI-E 4.0 x16 (FHFL) slot 1 PCI-E 4.0 x16 (LP) slot	2U 1 PCI-E 4.0 x16 (FH) 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 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)	
System Cooling 1U: 6 heavy duty fans w/ Optimal Fan Speed Control 2U: 3 heavy duty fans w/ Optimal Fan Speed Control	
Power Supply 1U: 750W High-efficiency (Platinum Level) Redundant* PWS 2U: 1200W (Titanium Level) Redundant* PWS	

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

Key features:

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



Supermicro + Excelero NVMesh

Large: 2x 1U Servers w/ 10x 15.36TB NVMe each
 Up to **2 MILLION** 4KB File Reads per Second!

MeshProtect Max Performance	Reads	Writes
Bandwidth	80 GB/s	30 GB/s
IOPS	18M	1.5M
Latency	95µs	21µs



2x Supermicro A+ Server 1114S-WN10RT

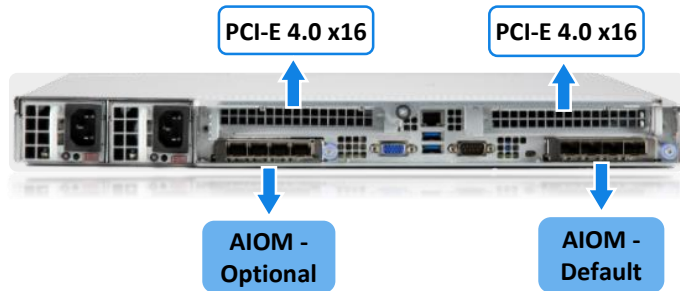
Node Specs

- 1x** AMD EPYC 7542 32-core CPUs
- 128GB RAM (8x 16GB DDR4-3200 DIMMs)
- 2x** Mellanox ConnectX-6 VPI HDR/200GbE dual-port adapters
- 10x** Kioxia CM6-R 15.36TB NVMe



A+ UP CloudDC 1U Compact Computer Server

AS -1114CS-TNR



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 2 PCI-E Gen 4.0 x16 (FHHL) 2 PCI-E Gen 4.0 x16 AIOM OCP 3.0 compliant
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 Up to 10 x 2.5" SATA/NVMe drive bays
System Cooling 6x 14k RPM fans
Power Supply 860W high-efficiency (Platinum level) power supply

Coming soon

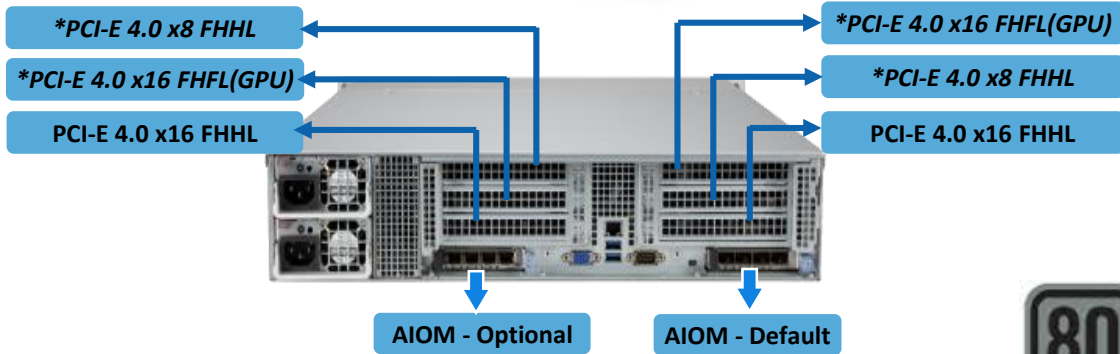
Key features:

- Support 10 2.5" SATA or U.2 NVMe
- 16 DIMM up to 4 TB ECC DDR4-3200MHz
- 2 PCI-E 4.0 x16 & 4 M.2 SATA/NVMe
- Flexible Network Via AIOM



A+ UP CloudDC 2U I/O optimized server

AS -2014CS-TR



- Configurable with 1 x16 or 2 x8
- Configurable with 1 or 2 AIOMs



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	2 PCI-E Gen 4.0 x16 4 PCI-E 4.0 x8 (can be convert to 2 PCI-E 4.0 x16) 2 PCI-E Gen 4.0 x16 AIOM OCP 3.0 compliant
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	Up to 12 x 3.5" SATA/SAS (4x NVMe U.2 hybrid) drive bays
System Cooling	3x 8cm 13.5k RPM fans
Power Supply	920W high-efficiency (Platinum level) power supply

Coming soon

Key features:

- Support 2 FHFL double width GPUs
- Support 12 3.5" SATA/SAS, up to 4 U.2 NVMe optional
- PCI-E Gen 4.0
- Flexible Network Via AIOM



A+ UP Cost & Energy Efficient Server

AS -2014S-TR



Processor Support

Single EPYC 7002/7003 Series up to **280W TDP**

Memory Capacity

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

Expansion Slots

5 PCI-E Gen 4.0 x16
2 PCI-E 4.0 x8

I/O ports Per Node

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

Drive 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

Power Supply

920W high-efficiency (Platinum level) power supply

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

Coming soon

Key features:

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



Multi-Node Servers



A+ DP BigTwin 2U 4 Nodes

AS -2124BT-HTR / HNTR



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

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

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

Power Supply

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

Dimensions

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

*Certain CPUs with high TDP may be supported only under specific conditions.

**Full redundancy based on configuration and application load

Key features:

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



A+ UP TwinPro 2U 4 Nodes

AS -2014TP-HTR



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 Cooling 4x Heavy duty 8cm PWM fans
Power Supply 2x 2000W High-efficiency (Titanium level, 96%) supplies**
Dimensions 17.25" (W) x 3.47" (H) x 30.5" (D)

Key features:

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

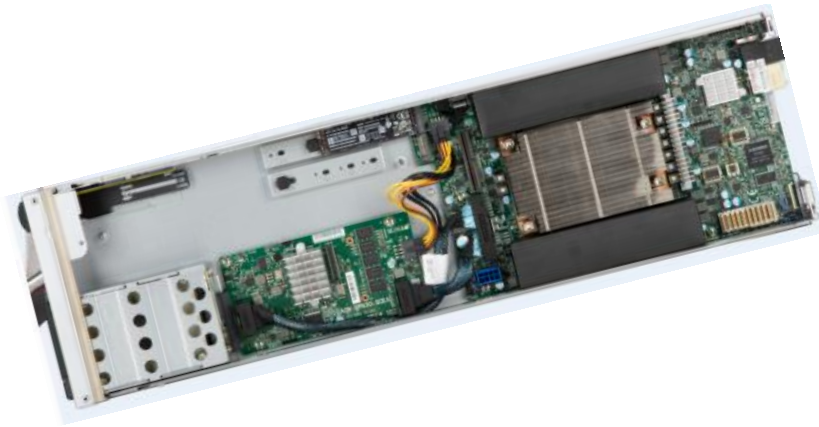
*Certain CPUs with high TDP may be supported only under specific conditions.

**Full redundancy based on configuration and application load



A+ Blade Server 8U 20 nodes

SBA-4119S-C2N / T2N



<p>Processor Support per Node Single EPYC processors (socket SP3) Up to 64 cores 280W @ 35C</p>
<p>Memory Capacity per Node 8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC</p>
<p>Expansion Slots per Node 1 PCI-E 4.0 x16</p>
<p>I/O ports and Networking per Node Mezzanine (25G / EDR / HDR) 1 Built-in video from BMC 2x Onboard 25G</p>
<p>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)</p>
<p>Storage per Node Up to 2 M.2 Connector T2N: 2x NVMe/SATA C2N: 2x NVMe/SATA/SAS (SAS AOM Module)</p>
<p>System Cooling 8 heavy duty hot swap External fans</p>
<p>Power Supply 2200W high-efficiency (Titanium level) Redundant Power Supplies</p>

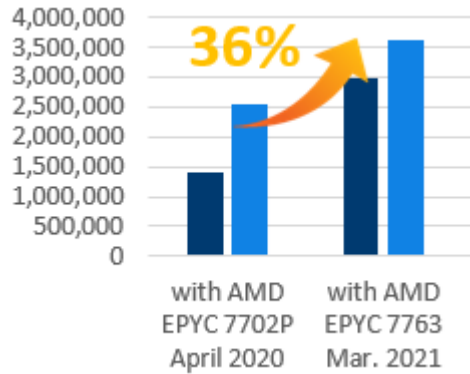
Key features:

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



World Record Performance - SPECjbb2015

SuperBlade with AMD EPYC holds the **world record performance**



Rome* Milan^
 ✓ **Max-jOPS : 2,998,803** → **3,613,168**
 ✓ **Critical-jOPS : 1,416,967** → **2,561,044**

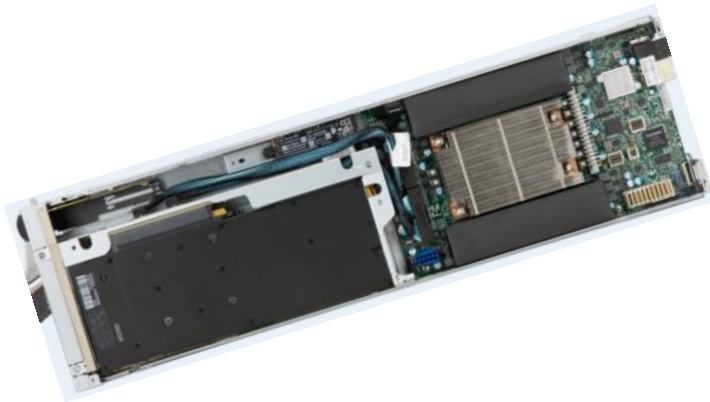


The **SPECjbb** 2015 benchmark has been developed from the ground up to measure performance based on the latest Java application features.



A+ Blade Server 8U 20 nodes GPU support

SBA-4119SG



<p>Processor Support per Node Single EPYC processors (Socket SP3) UP to 64 cores 225W @ 35C</p>
<p>Memory Capacity per Node 8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC</p>
<p>Expansion Slots per Node 2 PCI-E 4.0 x16</p>
<p>I/O ports per Node Mezzanine (25G / EDR / HDR) 1 Built-in video from BMC 2x Onboard 25G</p>
<p>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)</p>
<p>Storage per Node 1x M.2 (PCI-E 4. x4)</p>
<p>System Cooling 8 heavy duty hot swap External fans</p>
<p>Power Supply 2200W high-efficiency (Titanium level) Redundant Power Supplies</p>

Key features:

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



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

AS -F1114S-FT



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 AIOM OCP 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 supplies

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 supplies
- Hot plug nodes and fans
- Front I/O and Front Serviceability



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

AS-F1114S-RNTR



Processor Support Per Node Single EPYC 7002/7003 Series up to 280W TDP
Memory Capacity Per Node 8 DIMMs; up to 2TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM
Expansion Slots Per Node 1 PCI-E Gen 4.0 x16 LP 1 PCI-E Gen 4.0 x16 AIOMACP 3.0
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 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 supplies

Key features:

- Support 6x 2.5" NVMe/SATA 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 supplies
- Hot plug nodes
- Rear I/O Front Serviceability



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

AS-F2014S-RNTR



Processor Support Per Node Single EPYC 7002/7003 Series up to 280W TDP
Memory Capacity Per Node 8 DIMMs; up to 2TB 3DS ECC DDR4-3200MHz RDIMM/LRDIMM
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 supplies

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 supplies
- Hot plug nodes
- Rear I/O Front Serviceability

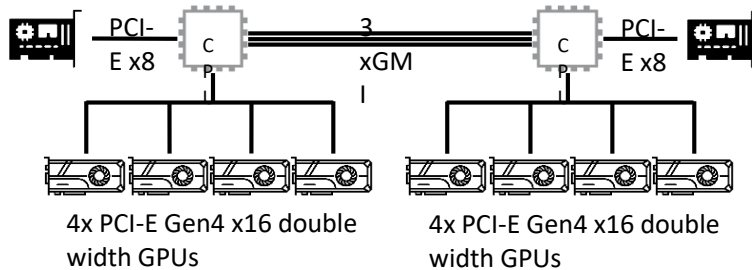


GPU Servers



A+ DP GPU Server

AS-4124GS-TNR



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
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) 4 USB 3.0 ports (4 rear) + 1 USB 2.0 (Header) 2 RJ-45 GbE (rear)
System management I350 GbE NIC AST2500 with NC Side Band Access
Drive 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 Supply 4 x 2000W (2+2) High-efficiency (Titanium Level) Redundant Power Supply

* Limitation on Storage based on Expansion slots

Key features:

- 8 Direct-attached GPUs
- 160 PCI-E Lanes
- PCI-E Gen 4.0 AMD Radeon Instinct, NVIDIA Enterprise level GPUs
- Flexible Architecture



A+ DP Redstone GPU Server

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 PCI-E 4.0 x16 LP
1 PCI-E 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**)

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

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

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 PCI-E 4.0*
- *4 NIC for GPU direct-attached RDMA & NVMe GPU direct storage*



A+ DP Delta GPU Server

AS-4124GO-NART



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 PCI-E 4.0 x16 from PCI-E switch
2 PCI-E 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 PCI-E 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

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

AS-2114GT-DNR



Front View



Rear View

Processor Support	Single EPYC processor (Socket SP3), Up to 64 cores 280W TDP
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 6 Single Width 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)

Coming soon

Key features:

- 3 Direct-Attached GPUs per node
- PCI-E Gen 4.0 AMD Radeon Instinct & NVIDIA Enterprise GPUs
- Flexible Architecture
- 4x Hot-swap 8cm counter-rotating cooling fans



Tower Servers



A+ UP Mid-Tower

AS -3014TS-i



<p>Processor Support Single EPYC 7002 processors AMD socket SP3 Up to 64 cores 280W TDP</p>
<p>Memory Capacity 8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC</p>
<p>Expansion Slots 5 PCI-E 4.0 x16 (FH) slots 2 PCI-E 4.0 x8 (FH) slots</p>
<p>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)</p>
<p>System management Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port</p>
<p>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)</p>
<p>System Cooling 2x 12cm fans w/ Optimal Fan Speed Control</p>
<p>Power Supply 900W (Gold Level) High-Efficiency PWS</p>

*(Full redundancy based on configuration and application load)

Coming soon

Key features:

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





AS-5014A-TT Tower

AS –5014A-TT



Processor Support
Single Ryzen™ Threadripper™ PRO 3000WX Series Processors
Memory Capacity
8 DIMM, up to 2TB DDR4 3200 MHz Reg. ECC
Expansion Slots
6 PCI-E 4.0 x16
I/O ports
1x 10GbE RJ45 1x 1GbE RJ45 1x Built-in Video and 1x COM port (rear)
System management
Built-in Server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port
Storage
4 3.5"/2.5" SATA 4 M.2 NVMe PCI-E Gen 4 2 2.5" SATA (Front access)
System Cooling
TBD
Power Supply
1x 2000W Platinum Level power supply

Coming soon

Key features:

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





Contact

Please feel free to reach out if you have any questions:

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- 1:1 direct chat with our A+ system experts
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- Group networking lounge to meet like-minded people



Thank You



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