

AMD EPYC™ 9005 Processors

Optimized Performance for AI-enable Data Center Workloads

General Purpose Storage/All-flash NVMe/Multi-node/GPU Barebones/Server Motherboards



Server Platform Naming Rule

TURIN2D16-2T/ROT

Character	Representation	Options
N	CPU Type	<ul style="list-style-type: none"> TURIN, GENOA, BERGAMO = AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
N+1	Number of CPU Supported	<ul style="list-style-type: none"> 2 = Dual NA = Single
Others	Number of DIMM Supported	<ul style="list-style-type: none"> D8 = 8 DIMM D12 = 12 DIMM D16 = 16 DIMM D24 = 24 DIMM D48 = 48 DIMM
	Form Factor	<ul style="list-style-type: none"> H = Half-width UD = Deep Micro-ATX (10.4"x10.5") T = T-shape
	Feature	<ul style="list-style-type: none"> N = Non-shading side-by-side CPU G = For GPU server ROT = Root of Trust Q = OCP slot not in standard I/O area, multi-SlimSAS to the front M3 = OCP NIC 3.0 slot 2Q = Dual 25GbE SFP28 by Broadcom BCM57414 2T = Dual 10GbE RJ45 by Intel X710 2T/X550 = Dual 10GbE RJ45 by Intel X550 2T/BCM = Dual 10GbE RJ45 by Broadcom BCM57416 2L = Dual 1GbE RJ45 by Intel i210 2L+ = Dual 1GbE RJ45 by Intel i350

1U4L4E-GENOA/2T

Character	Representation	Options
1st + 2nd	System Height	<ul style="list-style-type: none"> 1U = 1U chassis 2U = 2U chassis 4U = 4U chassis 10U = 10U chassis 20U = 20U chassis
Others	Drive Bay	<ul style="list-style-type: none"> L = 3.5" HDD Bay S = 2.5" HDD/SSD Bay E = U.2 Bay E1S = E1.S Bay
	Feature	<ul style="list-style-type: none"> G = Dual-slot cards supported X = NVIDIA HGX platform integrated M = AMD Instinct MI300X/MI325X platform integrated N = Number of nodes F = Front I/O EVAC = Extended Volume Air Cooling heatsink

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1U4L4E-GENOA/2T



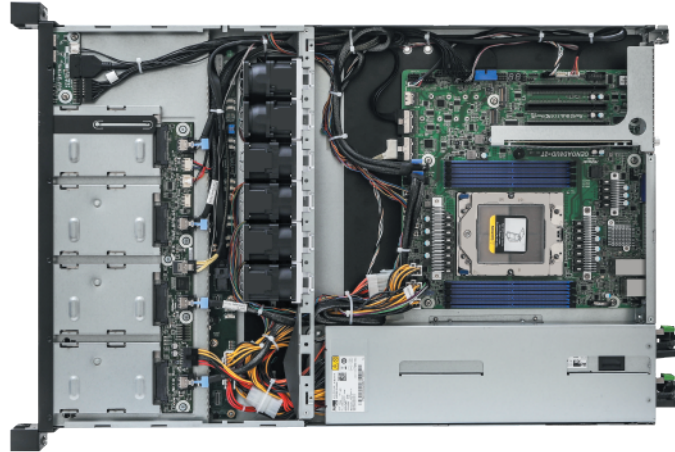
10Gbase-T



Storage

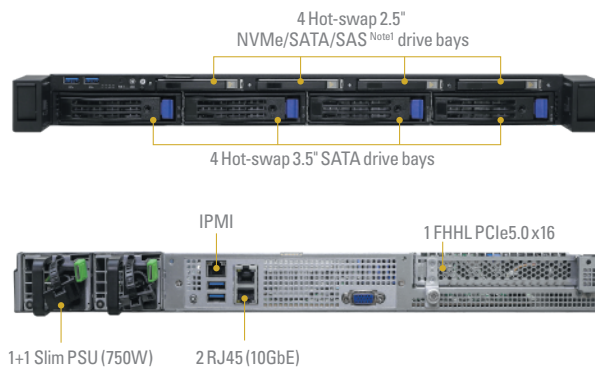


PCI-E5.0



Application

- Hybrid-storage Server
- Cloud Computing
- Enterprise Server



1U4L4E-GENOA/2T

CPU	Socket	1 Socket SP5 (LAG 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	8 DDR5 (1DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	676.5 x 438 x 43.4 mm (26.6" x 17.2" x 1.7")
Front Panel	Buttons	Power button w/ LED, UID button w/ LED, System reset
	LEDs	HDD Activity, LAN 1/2, System Event
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (10GbE) by Intel® X550-AT2 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 UID button w/ LED
Expansion Slots	Rear	1 FHHL PCIe5.0x16 via RB1UX16R_G5 (Up to 75W)
Drive Bay/ Storage	External	4 hot-swap 2.5" NVMe/SATA/SAS ^{Note1} drive bays 4 hot-swap 3.5" SATA drive bays
	Internal	2 M-key (PCIe5.0 x4); support 2280/2260/2242/2230 form factor
Power Supply	Module	1+1, 80-PLUS Platinum, 750W Slim PSU
System Cooling	Fan	6 PWM Easy-swap 40x56 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

Note1: SAS drive is only supported with additional RAID/HBA cards

1U4L-GENOA/2T



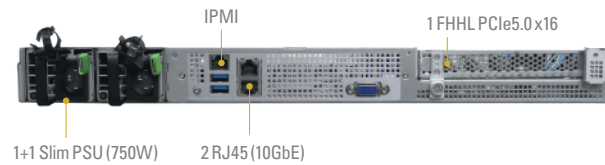
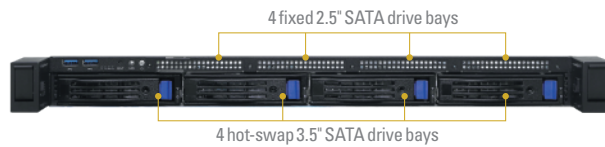
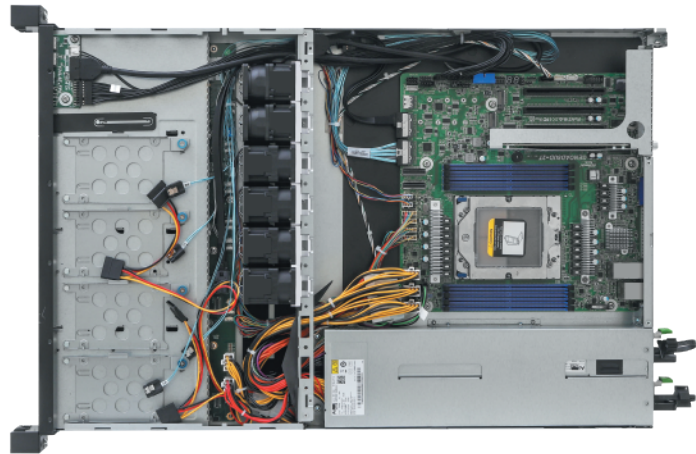
10Gbase-T



Storage



PCI-E5.0



Application

- Enterprise Server
- General Purpose Server
- Web Hosting

1U4L-GENOA/2T

CPU	Socket	1 Socket SP5 (LAG 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	8 DDR5 (1DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	676.5 x 438 x 43.4 mm (26.6" x 17.2" x 1.7")
Front Panel	Buttons	Power button w/ LED, UID button w/ LED, System reset
	LEDs	HDD Activity, LAN 1/2, System Event
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (10GbE) by Intel® X550-AT2 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 UID button w/ LED
Expansion Slots	Rear	1 FHHL PCIe5.0x16 via RB1UX16R_G5 (Up to 75W)
Drive Bay/ Storage	External	4 hot-swap 3.5" SATA drive bays
	Internal	4 fixed 2.5" SATA drive bays 2 M-key (PCIe5.0 x4); support 2280/2260/2242/2230 form factor
Power Supply	Module	1+1, 80-PLUS Platinum, 750W Slim PSU
System Cooling	Fan	6 PWM Easy-swap 40x56 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

1U8S4E-GENOA/2T



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Storage

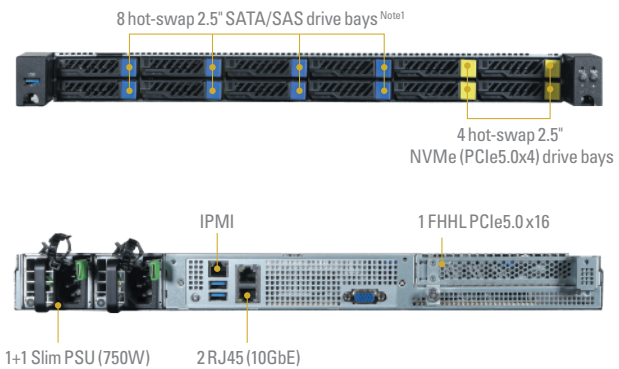


PCI-E5.0



Application

- Hybrid-storage Server
- Enterprise Server



1U8S4E-GENOA/2T

CPU	Socket	1 Socket SP5 (LAG 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	8 DDR5 (1DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	676.5 x 438 x 43.4 mm (26.6" x 17.2" x 1.7")
Front Panel	Buttons	Power button w/ LED, ID button w/ LED, System reset, NMI button
	LEDs	HDD Activity, LAN 1/2, System Event
	I/O	1 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (10GbE) by Intel® X550-AT2
	USB	1 dedicated IPMI
	Others	2 Type-A (USB3.2 Gen1)
		1 DB15 (VGA), 1 UID button w/ LED
Expansion Slots	Rear	1 FHHL PCIe5.0x16 via RB1UX16R_G5 (Up to 75W)
Drive Bay/ Storage	External	4 hot-swap 2.5" NVMe (PCIe5.0x4) drive bays 8 hot-swap 2.5" SATA/SAS drive bays ^{Note1}
	Internal	2 M-key (PCIe5.0x4); support 2280/2260/2242/2230 form factor
Power Supply	Module	1+1, 80-PLUS Platinum, 750W Slim PSU
System Cooling	Fan	6 PWM Easy-swap 40x56 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

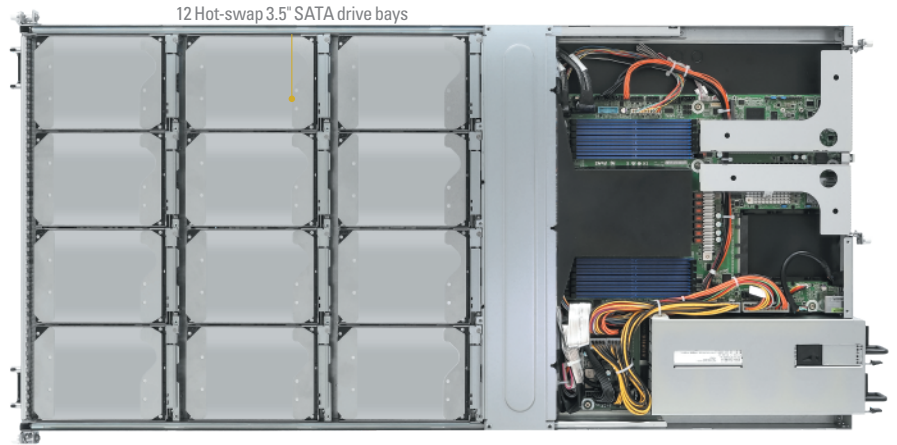
Note1: SAS drive is only supported with additional RAID/HBA cards

1U12L4E-GENOA/2Q



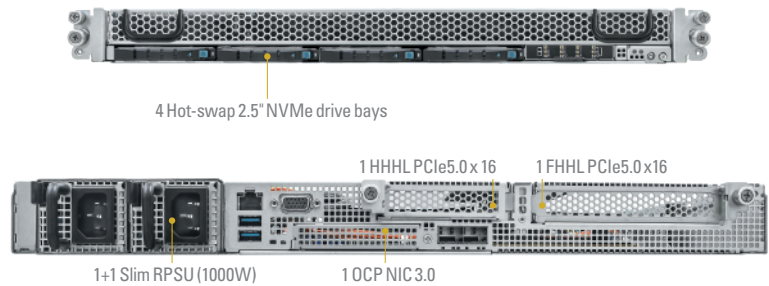
25G
SFP28
Storage

OCP
NIC 3.0
PCI-E
5.0



Application

- Cloud Datacenter Storage
- Software-defined Storage



1U12L4E-GENOA/2Q

CPU	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	12 DDR5 (1DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	955 x 438 x 43.5 mm (37.6" x 17.24" x 1.71")
Front Panel	Buttons	Power Switch, ID Switch, System reset
	LEDs	Power status, UID, HDD activity, System Fault
	I/O	NA
Rear IO	LAN	2 SFP28 (25GbE) by Broadcom BCM57414 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 UID button
Expansion Slots	Rear	1 FHHL PCIe5.0 x16 via RB1UX16_G5 (Up to 75W) 1 HHHL PCIe5.0 x16 via RB1UX16_G5 1 OCP NIC 3.0 (PCIe5.0 x16)
Drive Bay/Storage	External	4 Hot-swap 2.5" NVMe (PCIe4.0 x4) drive bays
	Internal	12 Hot-swap 3.5" SATA drive bays 2 M-key (PCIe5.0 x4 or 4 SATA 6Gb/s), supports 22110/2280/2260 form factor
Power Supply	Module	1+1, 80-PLUS Platinum, 1000W Slim RPSU
System Cooling	Fan	6 PWM Hot-swap 40x56 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

1U12E-GENOA/EVAC



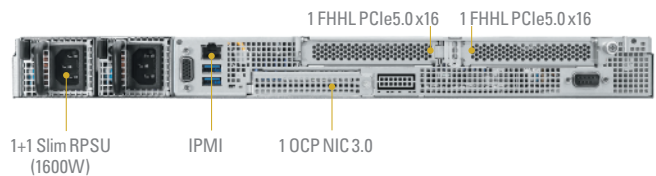
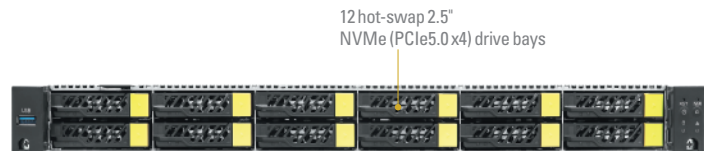
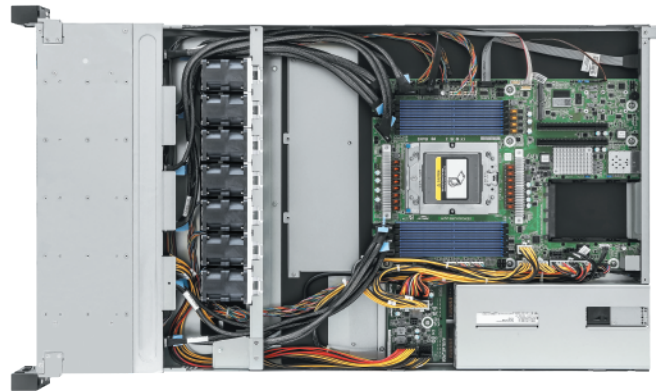
PCI-E 5.0



Storage



OCP NIC 3.0



Application

- Data Center Server
- All-flash storage server
- SMB and Database Processing & Storage

1U12E-GENOA/EVAC

CPU	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	TDP	Up to 360W
DIMM	Slot	12 DDR5 (1DPC)
System Physical	Form Factor	1U Rackmount
Status	Chassis Dimension	776.5 x 438 x 43.5 mm (30.6" x 17.2" x 1.7")
Front Panel	Buttons	Power, Reset, UID
	LEDs	Power, LAN 1/2, System Event, ID LEDs
	I/O	1 Type-A (USB3.2 Gen1)
Rear IO	RJ45	1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 DB9 (COM)
Expansion Slots	Rear	2 FHHL PCIe5.0 x16 1 OCP NIC 3.0 (PCIe5.0 x16)
	Internal	12 hot-swap 2.5" NVMe (PCIe5.0 x4) drive bays 2 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 22110/2280/2260 form factor
Power Supply	Module	1+1, 80-Plus Platinum, 1600W Slim RPSU
System Cooling	Fan	7 PWM Hot-swap 40x56 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

1U12E-GENOA/2L2T



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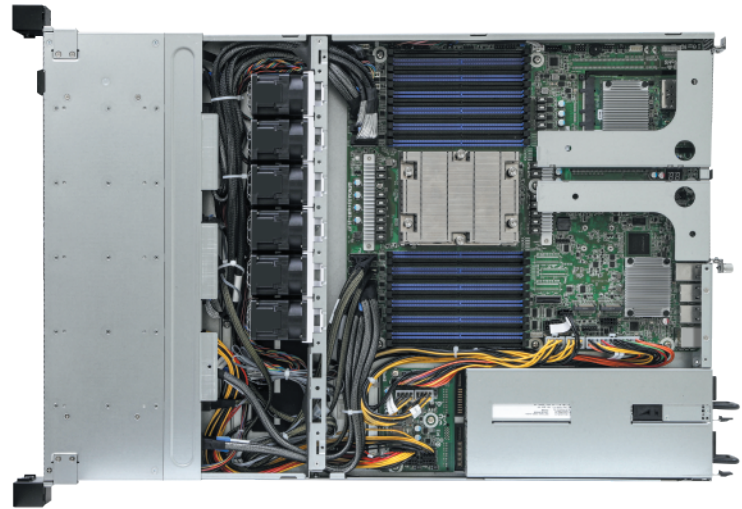
Storage



OCP NIC 3.0



PCI-E 5.0

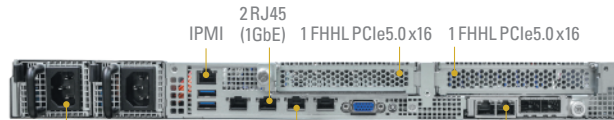


12 Hot-swap 2.5" NVMe (PCIe5.0 x4) /SATA/SAS ^{Note1} drive bays



Application

- Data Center Server
- All-flash Storage Server
- SMB and Database Processing & Storage



1+1 Slim PSU (1000W)

2 RJ45 (10GbE)

1 OCP NIC 3.0

1U12E-GENOA/2L2T

CPU	Socket	1 Socket SP5 (LAG 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	24 DDR5 (2DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	676.5 x 438 x 43.4 mm (26.6" x 17.2" x 1.7")
Front Panel	Buttons	Power, Reset, UID
	LEDs	Power, UID, System Fail, LAN1/LAN2
	I/O	1 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (10GbE) by Broadcom BCM57416 2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 UID w/ LED
Expansion Slots	Rear	2 FHHL PCIe5.0 x16 1 OCP NIC 3.0 (PCIe5.0 x16)
	Internal	12 Hot-swap 2.5" NVMe (PCIe5.0 x4)/SATA/SAS ^{Note1} drive bays
Drive Bay/ Storage	External	2 M-key (PCIe5.0 x4), supports 22110/2280/2260 form factor
Power Supply	Module	1+1, 80-Plus Platinum, 1000W Slim PSU
System Cooling	Fan	6 PWM Hot-swap 40x56 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

Note1: SAS drive is only supported with additional RAID/HBA cards

1U24E1S-GENOA/2L2T



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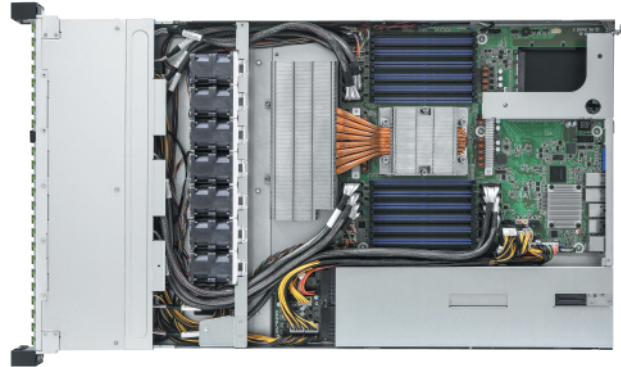
Storage



OCP NIC 3.0



PCI-E 5.0



24 hot-swap E1.S (PCIe5.0 x4) drive bays



1+1 RPSU (1600W)

IPMI

1 FHHL PCIe5.0 x16

1 OCP NIC 3.0

Application

- All-flash Storage Server
- Data Center Server
- SMB and Database Processing & Storage

1U24E1S-GENOA/2L2T

CPU	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	24 DIMM (2DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	776.5 x 438 x 43.5mm (30.6" x 17.2" x 1.7")
Front Panel	Buttons	Power button w/ LED, ID button W/LED, System reset, NMI
	LEDs	HDD activity LED, LAN1/2, System fault
Rear IO	RJ45	Broadcom BCM57416: 2 RJ45 (10GbE) Intel® i210: 2 RJ45 (1GbE) 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 UID button w/ LED
Expansion Slots	Rear	1 FHHL PCIe5.0 x16 1 OCP NIC 3.0 (PCIe5.0 x16)
	External	24 Hot-swap E1.S (PCIe5.0 x4) drive bay, supports 9.5mm/15mm width
Power Supply	Module	1+1 ,80-PLUS Platinum, 1600W RPSU
SystemCooling	Fan	7 PWM Easy-swap 40x56 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

4U36L6E-GENOA/2T



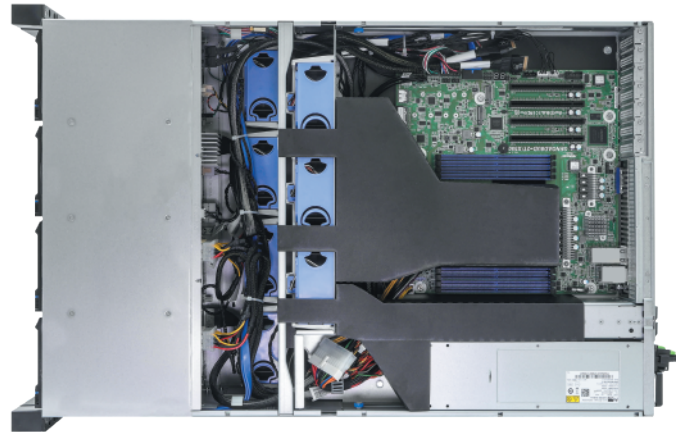
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PCI-E 5.0



Storage



Application

- Corporate Database
- Enterprise Server

20 Hot-swap 3.5" SATA/SAS drive bays ^{Note1}



4 Hot-swap 3.5" SATA/SAS drive bays ^{Note1} or 4 hot-swap 2.5" NVMe (PCIe3.0x4)

2 hot-swap 2.5" NVMe (PCIe3.0x4) IPMI 2 RJ45 (10GbE)

1+1 PSU (1200W)



12 Hot-swap 3.5" SATA/SAS drive bays ^{Note1}

4U36L6E-GENOA/2T

CPU	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	8 DDR5 (1DPC)
System	Form Factor	4U Rackmount
Physical Status	Chassis Dimension	699 x 432 x 176 mm (27.52" x 17.01" x 6.93")
Front Panel	Buttons	Power button, System reset
	LEDs	Power Status, LAN1/LAN2 activity, System fail, HDD status
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (10GbE) by Intel® X550-AT2 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 UID button w/ LED
Expansion Slots	Rear	4 HHHL PCIe5.0 x16
Drive Bay/ Storage	External	Front: 20 Hot-swap 3.5" SATA/SAS drive bays ^{Note1} 4 Hot-swap 3.5" SATA/SAS drive bays ^{Note1} or 4 Hot-swap 2.5" NVMe (PCIe3.0 x4) drive bays
		Rear: 12 Hot-swap 3.5" SATA/SAS drive bays ^{Note1} 2 Hot-swap 2.5" NVMe (PCIe3.0 x4) drive bays
Power Supply	Internal	2 M-key (PCIe5.0 x4); support 2280/2260/2242/2230 form factor
	Module	1+1, 80-PLUS Platinum, 1200W PSU
System Cooling	Fan	7 Hot-swap 80x38mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

Note1: Additional RAID/HBA card required to support the 36 Hot-swap 3.5" SATA/SAS drive bays

4U60L8E-GENOA/2T



Storage

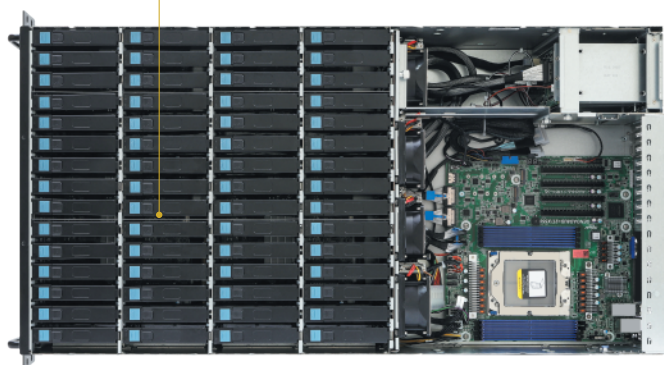


PCI-E 5.0



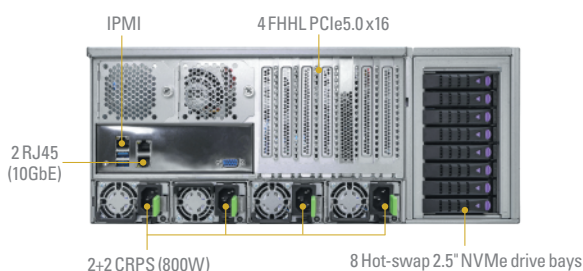
10Gbase-T

60 hot-swap 3.5" SATA/SAS drive bays ^{Note1}



Application

- Hyper-scale Cloud Datacenter Storage
- Software-defined Storage Applications
- Virtual Tape Library



4U60L8E-GENOA/2T

CPU	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	8 DDR5 (1DPC)
System	Form Factor	4U Rackmount
Physical Status	Chassis Dimension	853 x 434 x 176mm (33.5" x 17.1" x 6.9")
Front Panel	Buttons	System power on/off, System Reset, ID
	LEDs	Power, HDD Activity, LAN Activity, System Fault, ID
Rear IO	RJ45	2 RJ45 (10GbE) by Intel® X550-AT2
	USB	1 dedicated IPMI
	Others	2 Type-A (USB3.2 Gen1) 1 DB15 (VGA), 1 UID button w/ LED
Expansion Slots	Rear	4 FHHL PCIe5.0 x16
Drive Bay/	External	8 hot-swap 2.5" NVMe (PCIe5.0 x4) drive bays
Storage	Internal	60 hot-swap 3.5" SATA/SAS drive bays ^{Note1}
		2 M-key (PCIe5.0 x4); support 2280/2260/2242/2230 form factor
Power Supply	Module	2+2, 80-PLUS Platinum, 800W CRPS
System Cooling	Fan	4 hot-swap 80x38mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

Note1: Additional RAID/HBA card required to support the 60 x 3.5" SATA/SAS drive bays

2U4N-F/GENOA-M3



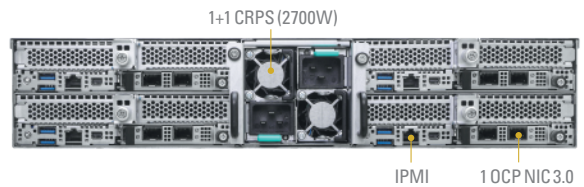
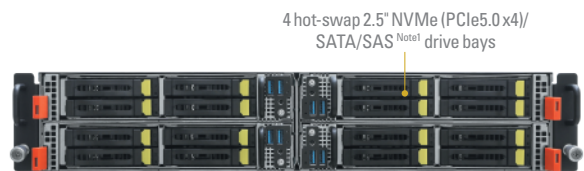
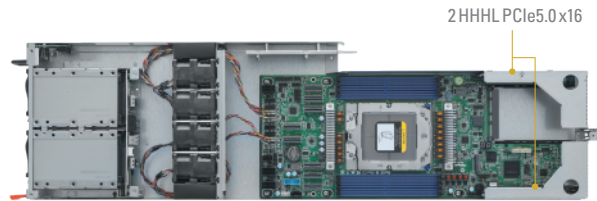
2U High Density Storage



PCI-E 5.0



OCP NIC 3.0



Application

- All-flash Storage Server
- Database Processing
- Virtualization
- E-commerce

2U4N-F/GENOA-M3

CPU (per node)	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM (per node)	Slot	8 DDR5 (1DPC)
System	Form Factor	2U Rackmount
Physical Status	Chassis Dimension	750 X 438 X 86.6mm (29.5" x 17.2" x 3.4")
Front Panel (per node)	Buttons	Power, Reset
	LEDs	System fail, UID, Power
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO (per node)	RJ45	1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 mini-DisplayPort (VGA), 1 UID button w/ LED
Expansion Slots (per node)	Rear	2 HHHH PCIe5.0 x16 1 OCP NIC 3.0 (PCIe5.0 x16)
Drive Bay/Storage (per node)	External	4 hot-swap 2.5" NVMe (PCIe5.0 x4)/SATA/SAS ^{Note1} drive bays or 8 hot-swap 9.5mm E1.S (PCIe5.0 x4) drive bays
	Internal	1 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor 1 M-key (PCIe4.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor
Power Supply	Module	1+1, 80-PLUS Platinum/Titanium, 2700W CRPS
System	Fan	4 PWM hot-swap dual-rotor 40x56 mm fans
Cooling (per node)		
Management (per node)		ASPEED BMC AST2600
Security (per node)		TPM by optional accessory

Note1: SAS drive is only supported with additional RAID/HBA cards

1U12E-GENOA2/EVAC



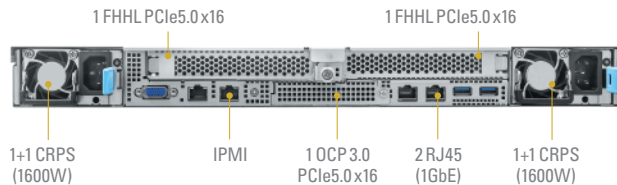
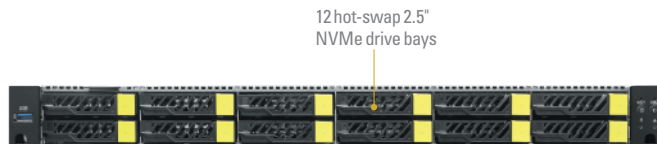
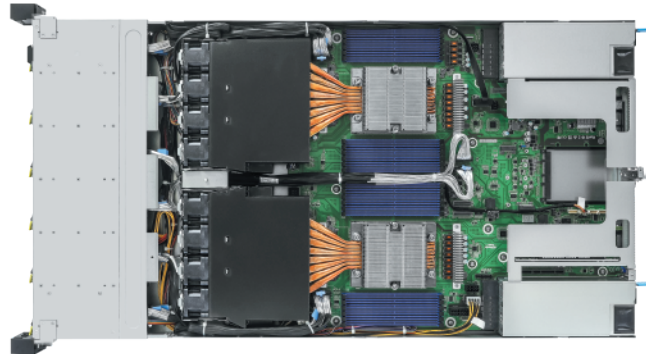
Storage



PCI-E 5.0



OCP NIC 3.0



Application

- E-commerce
- Virtualization
- Data Center Server
- Database Processing

1U12E-GENOA2/EVAC

CPU	Socket	1+1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	TDP	Up to 360W
DIMM	Slot	12+12 DDR5 (1DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	830 x 438 x 43.5 mm (32.7" x 17.2" x 1.7")
Front Panel	Buttons	Power button w/ LED, ID button w/ LED, System reset
	LEDs	HDD Activity, LAN 1/2, System Event
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (1GbE) by Intel® i350 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1DB9 (COM), 1 UID w/ LED
Expansion Slots	Rear	2 FHHL PCIe5.0 x16 [CPU0] [CPU1] 1 OCP NIC 3.0 (PCIe5.0 x16) [CPU1]
	Drive Bay/ Storage	12 Hot-swap 2.5" NVMe (PCIe5.0 x4) drive bays 1 M-key (PCIe3.0 x4), supports 2280/2260/2242/2230 form factor [CPU0] 1 M-key (PCIe3.0 x4), supports 2280/2242 form factor [CPU1]
Power Supply	Module	1+1, 80-PLUS Platinum, 1600W CRPS
System Cooling	Fan	8 easy-swap 40x56 mm fans
Management		ASPEED BMC AST2600

1U12E-GENOA2



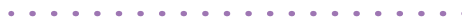
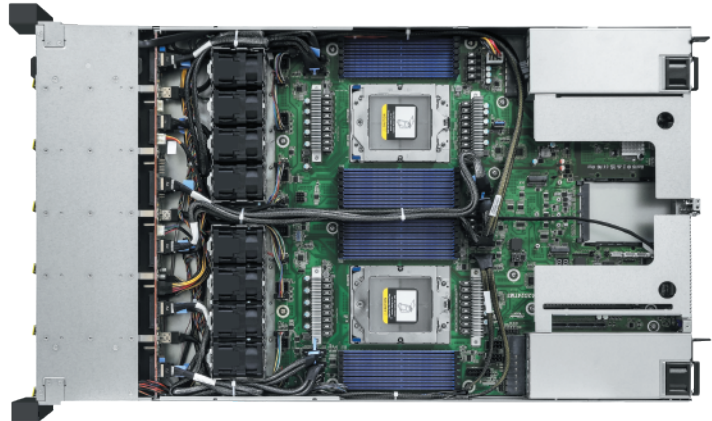
OCP NIC 3.0



Storage

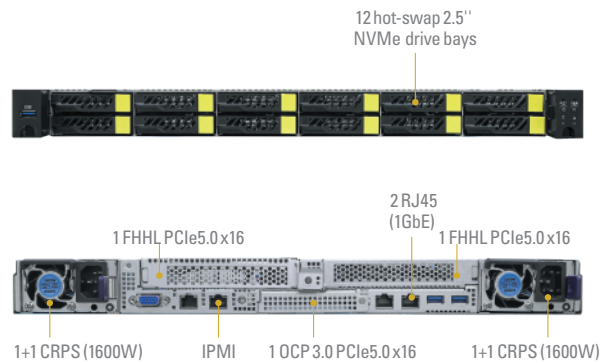


PCI-E5.0



Application

- All-flash Storage Server
- Database Processing
- Virtualization
- E-commerce



1U12E-GENOA2

CPU	Socket	1+1 Socket SP5 (LAG 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	12+12 DDR5 (1DPC)
System	Form Factor	1U Rackmount
Physical Status	Chassis Dimension	760 x 438 x 43.5 mm (29.9" x 17.2" x 1.7")
Front Panel	Buttons	Power button w/ LED, ID button w/ LED, System reset, NMI
	LEDs	HDD Activity, LAN 1/2, System fault
	I/O	1 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (1GbE) by Intel® i350 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 RJ45 (COM), 1 UID w/ LED
Expansion Slots	Rear	2 FHHL PCIe5.0x16 [CPU0] [CPU1] 1 OCP3.0 PCIe5.0x16 [CPU0]
Drive Bay/ Storage	External	12 Hot-swap 2.5" NVMe (PCIe5.0x4) drive bays
	Internal	1 M-key (PCIe3.0x4), supports 2280/2260/2242/2230 form factor [CPU0]; 1 M-key (PCIe3.0x4), supports 2280/2242 form factor [CPU1]
Power Supply	Module	1+1, 80-PLUS Platinum, 1600W CRPS
System Cooling	Fan	8 Easy-swap 40x56 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

Note1: SAS drive is only supported with additional RAID/HBA cards

2U12L8E-GENOA2

2U2G-GENOA2



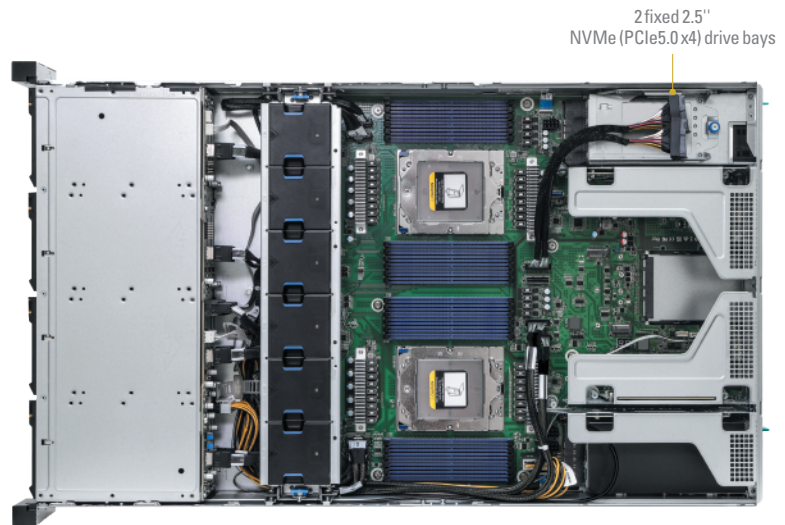
OCP NIC 3.0



Storage



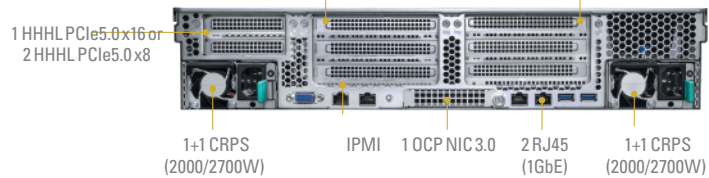
PCI-E5.0



12 hot-swap 3.5"/2.5" drive bays



2 FHHL PCIe5.0 x16 or 1 FHHL PCIe5.0 x16, 2 FHHL PCIe5.0 x8 | 2 FHHL PCIe5.0 x16 or 1 FHHL PCIe5.0 x16, 2 FHHL PCIe5.0 x8



Application

- Software-defined Storage
- Data Analytics

2U12L8E-GENOA2

2U2G-GENOA2

CPU	Socket	1+1 Socket SP5 (LAG 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	12+12 DDR5 (1DPC)
System	Form Factor	2U Rackmount
Physical Status	Chassis Dimension	770.0 X 438.0 X 86.4 mm (30.3" x 17.2" x 3.4")
Front Panel	Buttons	Power, UID, Reset
	LEDs	Power Status, LAN Activity, HDD Activity, System status
	I/O	1 Type-A (USB3.2 Gen1), 1 Type-A (USB2.0)
Rear IO	RJ45	2 RJ45 (1GbE) by Intel® i350-AM2 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 RJ45 (COM), 1 UID w/ LED
Expansion Slots	Rear	2 FHHL PCIe5.0 x16 or 1 FHHL PCIe5.0 x16, 2 FHHL PCIe5.0 x8 [CPU0] 2 FHHL PCIe5.0 x16 or 1 FHHL PCIe5.0 x16, 2 FHHL PCIe5.0 x8 [CPU1] 1 HHHL PCIe5.0 x16 or 2 HHHL PCIe5.0 x8 [CPU0] 1 OCP NIC 3.0 (PCIe5.0 x16) [CPU1]
		1 FHFL PCIe5.0 x16, 1 FHHL PCIe5.0 x16 [CPU0] 1 FHFL PCIe5.0 x16, 1 FHHL PCIe5.0 x16 [CPU1] 1 HHHL PCIe5.0 x16 or 2 HHHL PCIe5.0 x8 [CPU0] 1 OCP NIC 3.0 (PCIe5.0 x16) [CPU1]
Drive Bay/ Storage	External	12 hot-swap 3.5"/2.5" drive bays supports 4 SATA HDD/SSD and 8 NVMe (PCIe4.0 x4)/SATA SSD ^{Note1}
	Internal	2 fixed 2.5" NVMe (PCIe5.0 x4) drive bays 1 M-key (PCIe3.0 x4), supports 2280/2260/2242/2230 form factor [CPU0]; 1 M-key (PCIe3.0 x4), supports 2280/2242 form factor [CPU1]
Power Supply	Module	1+1, 80-PLUS Platinum, 2000W CRPS
		1+1, 80-PLUS Platinum, 2700W CRPS
System Cooling	Fan	6 PWM hot-swap 60x38 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

Note1: SAS drive is only supported with additional RAID/HBA cards

2U24E-GENOA2



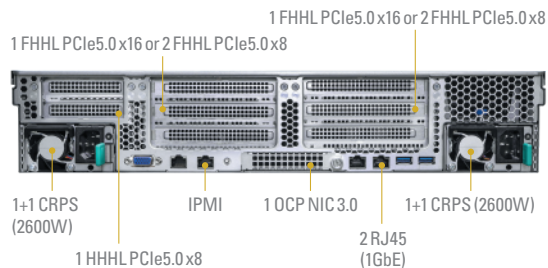
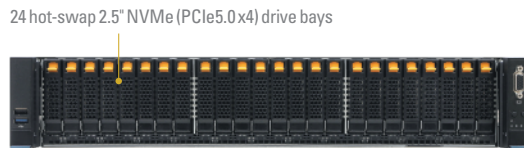
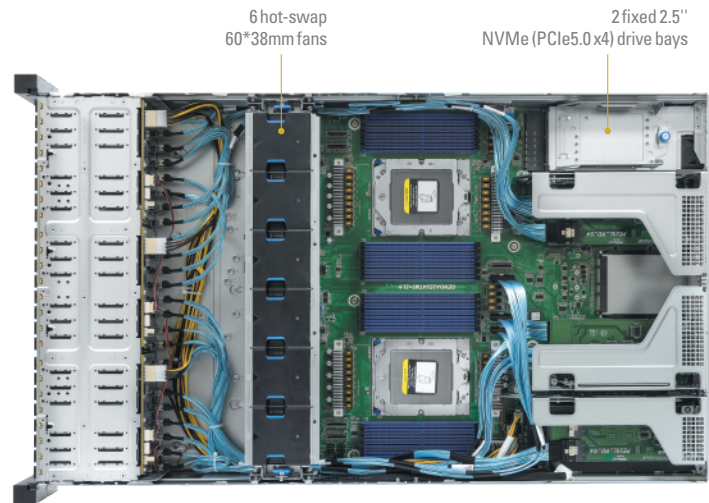
OCP NIC 3.0



Storage



PCI-E 5.0



Application

- All-flash Storage Server
- Data Processing
- Virtualization
- Cloud Computing
- High-end Enterprise Server
- Hyperconverged Storage

2U24E-GENOA2

CPU	Socket	1+1 Socket SP5 (LAG 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	12+12 DDR5 (1DPC)
System	Form Factor	2U Rackmount
Physical Status	Chassis Dimension	770.0 X 438.0 X 86.4 mm
Front Panel	Buttons	Power, UID, Reset
	LEDs	Power Status, LAN Activity, HDD Activity, System status
	I/O	1 Type-A (USB3.2 Gen1), 1 Type-A (USB2.0)
Rear IO	RJ45	2 RJ45 (1GbE) by Intel® i350-AM2 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 RJ45 (COM), 1 UID w/ LED
Expansion Slots	Rear	1 FHHL PCIe5.0 x16 or 2 FHHL PCIe5.0 x8 [CPU0], 1 FHHL PCIe5.0 x16 or 2 FHHL PCIe5.0 x8 [CPU1] 1 HHHL PCIe5.0 x8 [CPU0], 1 OCP NIC 3.0 (PCIe5.0 x16) [CPU1]
Drive Bay/ Storage	External	24 hot-swap 2.5" NVMe (PCIe5.0 x4) drive bays
	Internal	2 fixed 2.5" NVMe (PCIe5.0 x4) drive bays 1 M-key (PCIe3.0 x4), supports 2280/2260/2242/2230 form factor [CPU0]; 1 M-key (PCIe3.0 x4), supports 2280/2242 form factor [CPU1]
Power Supply	Module	1+1, 80-PLUS Titanium, 2600W CRPS
System Cooling	Fan	6 PWM hot-swap 60x38 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

1U1G-GENOA/M3



OCP NIC 3.0



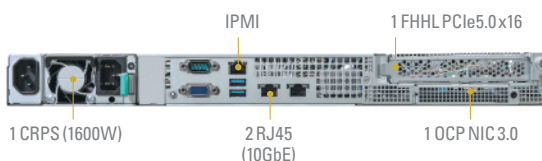
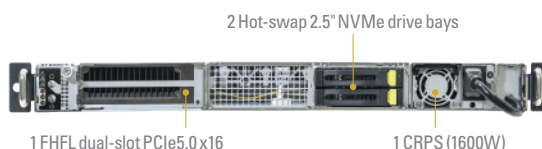
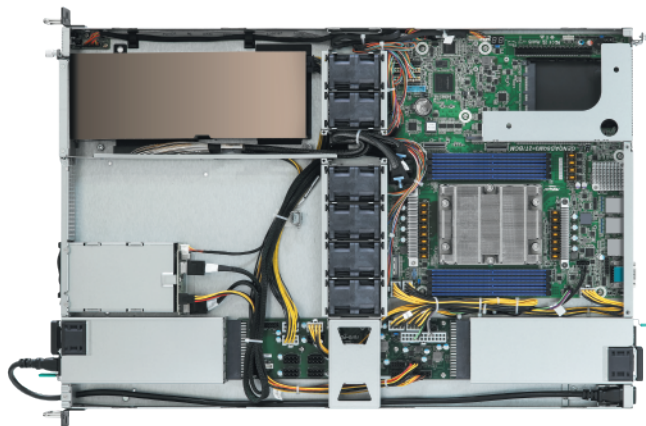
PCI-E 5.0



GPGPU



10Gbase-T



Application

- Rendering
- Virtualization
- Visualization
- Deep Learning

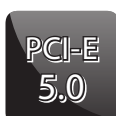
1U1G-GENOA/M3

CPU	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	8 DDR5 (1DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	653.5 x 438.0 x 43.5 mm (25.73" x 17.24" x 1.71")
Front Panel	Buttons	Power button w/ LED, UID button w/ LED, System Reset
	LEDs	System Fault, LAN1/LAN2 Activity
Rear IO	I/O	2 Type-A (USB3.2 Gen1)
	RJ45	2 RJ45 (10GbE) by Intel® Broadcom BCM57416 1 dedicated IPMI
	Others	1 DB15 (VGA), 1 DB9 (COM)
Expansion Slots	Front	1 FHFL dual-slot PCIe5.0 x16
	Rear	1 FHHL PCIe5.0 x16 via RB1UX16R_G5 1 OCP NIC 3.0 (PCIe5.0 x16)
Drive Bay/ Storage	External	2 Hot-swap 2.5" NVMe (PCIe4.0 x4) drive bays
	Internal	1 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor 1 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 2280 form factor
Power Supply	Module	1+1, 1600W CRPS
System Cooling	Fan	6 PWM dual-rotor 40x56 mm fans
Management		ASPEED BMC AST2600
Security		SPI TPM by optional accessory

2U2G-GENOA



OCP NIC 3.0



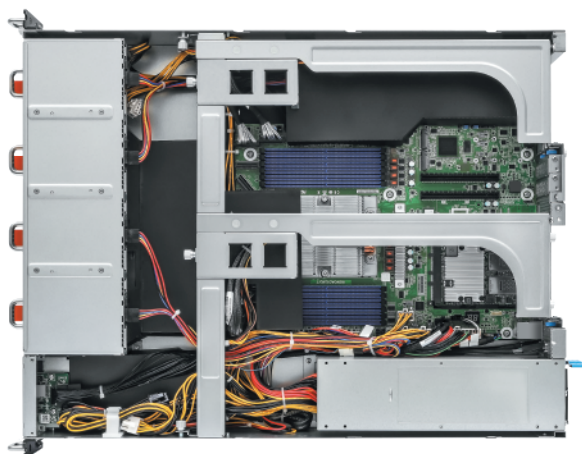
PCI-E 5.0



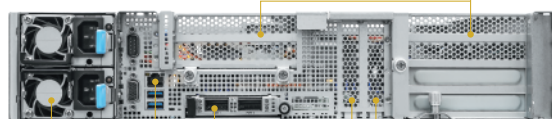
GPGPU

Application

- AI Inference
- Virtualization
- Visual Computing



2 Hot-swap 2.5" NVMe (PCIe4.0 x4) drive bays



2 FHFL dual-slot PCIe5.0 x16

1+1 CRPS (2000W) IPMI 1 OCP NIC 3.0 (PCIe5.0 x16) 2 HHHL single-slot PCIe5.0 x16

2U2G-GENOA

CPU	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	12 DDR5 (1DPC)
System Physical	Form Factor	2U Rackmount
Status	Chassis Dimension	580 x 438 x 87 mm (22.8" x 17.2" x 3.4")
Front Panel	Buttons	Power button w/ LED, ID button w/ LED, System reset
	LEDs	HDD Activity, LAN 1/2, System Event
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO	RJ45	1 dedicated IPMI
	Others	2 Type-A (USB3.2 Gen1), 1 UID button, 1 DB15 (VGA), 1 DB9 (COM)
Expansion Slots	Rear	2 FHFL dual-slot PCIe5.0 x16
		2 HHHL single-slot PCIe5.0 x16
		1 OCP NIC 3.0 (PCIe5.0 x16)
Drive Bay/ Storage	External	2 Hot-swap 2.5" NVMe (PCIe4.0 x4) drive bays
	Internal	2 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 22110/2280/2260 form factor
Power Supply	Module	1+1, 80-PLUS Titanium, 2000W CRPS
System Cooling	Fan	Front: 4 PWM Hot-swap 80x56 mm fans, Middle: 1 PWM fixed 40x28 mm fan
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

2U4G-GENOA/M3



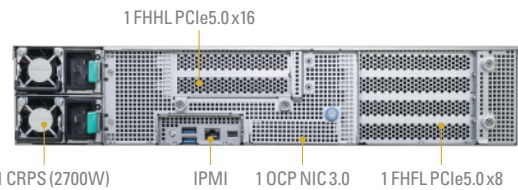
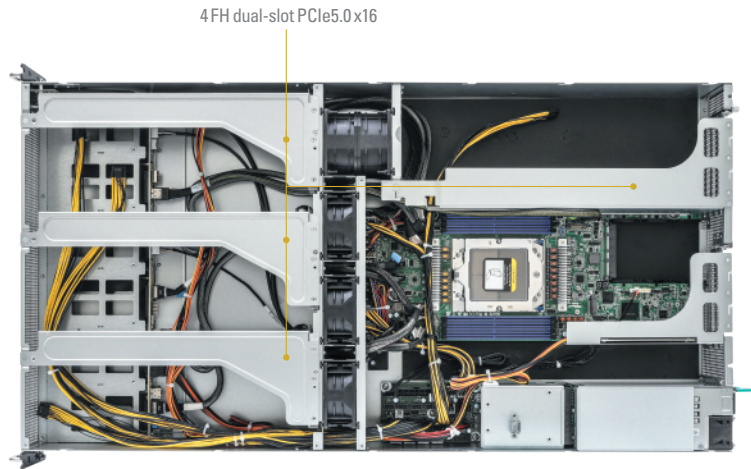
OCP NIC 3.0



PCI-E 5.0



GPGPU



Application

- Artificial Intelligence
- Machine Learning
- HPC
- Virtualization

2U4G-GENOA/M3

CPU	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	TDP	Up to 360W
DIMM	Slot	8 DDR5 (1DPC)
System Physical Status	Form Factor	2U Rackmount
	Chassis Dimension	850 x 438 x 87.5 mm (33.5" x 17.2" x 3.5")
Front Panel	Buttons	Power, UID
	LEDs	System fault, UID, Power LEDs
	I/O	2 Type-A (USB2.0)
Rear IO	RJ45	1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 mini-DisplayPort (VGA), 1 UID button w/ LED
Expansion Slots	Front	3 FH dual-slot PCIe5.0 x16
	Rear	1 FH dual-slot PCIe5.0 x16 1 OCP NIC 3.0 PCIe5.0 x16 1 FHHL PCIe5.0 x16 1 FHFL PCIe5.0 x8
	External	4 Hot-swap 2.5" NVMe (PCIe5.0 x4) drive bays 2 Hot-swap 2.5" SATA drive bays
	Internal	2 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor
	Module	1+1, 80-PLUS Platinum, 2700W CRPS
Power Supply	Module	1+1, 80-PLUS Platinum, 2700W CRPS
System Cooling	Fan	1 PWM hot-swap 80x80 mm fans 3 PWM hot-swap 80x38 mm fans
	Fan	3 PWM hot-swap 80x38 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

4U4G-GENOAX



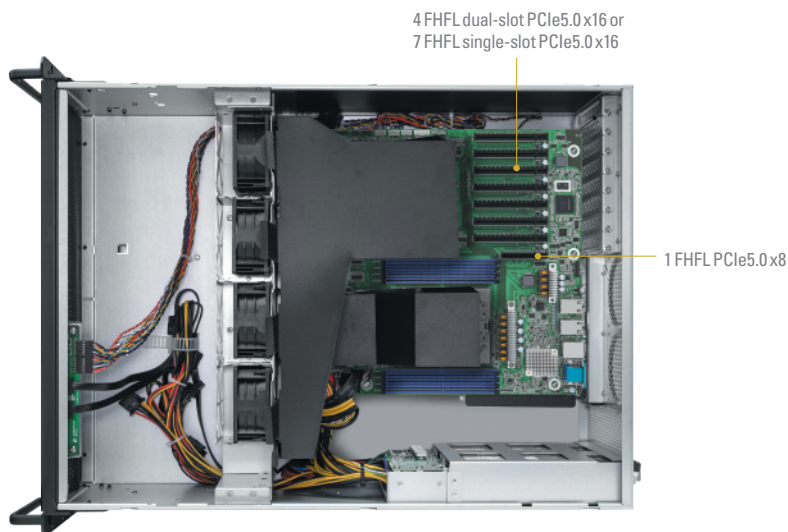
10Gbase-T



PCI-E 5.0



GPGPU



1+1 CRPS (2100W) 2 RJ45 (10GbE)

Application

- Data Processing
- Deep Learning
- Mainstream Workstation

4U4G-GENOAX

CPU	Socket	1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	8 DDR5 (1DPC)
System Physical Status	Form Factor	4U Rackmount
	Chassis Dimension	596 x 430.4 x 174.8 mm (23.5" x 16.9" x 6.9")
Front Panel	Buttons	Power w/ LED, ID w/ LED, System Reset, NMI
	LEDs	LAN Activity, HDD Activity, System Event
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (10GbE) by Broadcom BCM57416 1 dedicated IPMI
	Others	2 Type-A (USB3.2 Gen1), 1 UID button w/ LED, 1 DB15 (VGA), 1 DB9 (COM)
Expansion Slots	Rear	4 FHFL dual-slot PCIe5.0 x16 or 7 FHFL single-slot PCIe5.0 x16 Note1 1 FHFL PCIe5.0 x8
Drive Bay/ Storage	Internal	1 M-key (PCIe5.0 x4 or 4 SATA 6Gb/s), supports 22110/2280 form factor 1 M-key (PCIe5.0 x4), supports 22110/2280 form factor
	Module	1+1, 80-PLUS Platinum, 2100W CRPS
Power Supply	Module	1+1, 80-PLUS Platinum, 2100W CRPS
System Cooling	Fan	2 PWM xed 80x56 mm fans 2 PWM xed 80x38 mm fans
Management		ASPEED BMC AST2600
Securit		TPM by optional accessory

4U8G-GENOA2

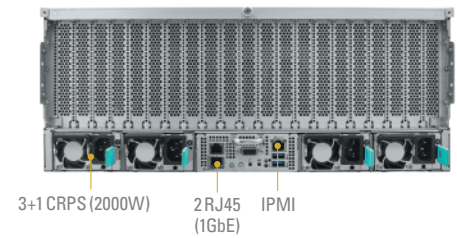
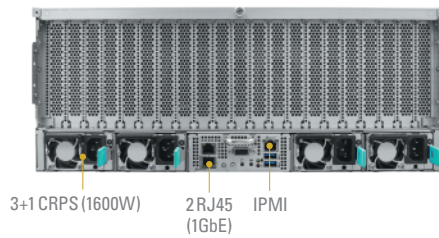
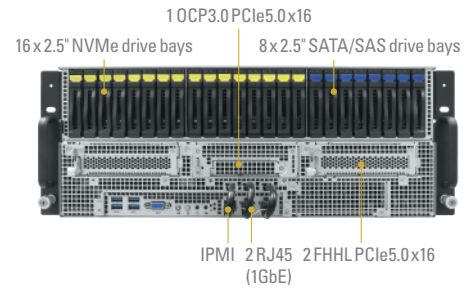
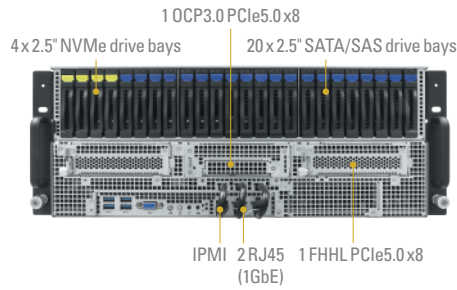
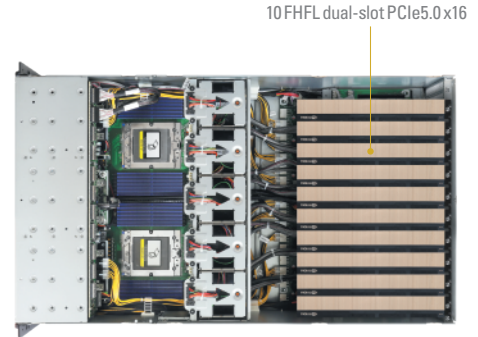
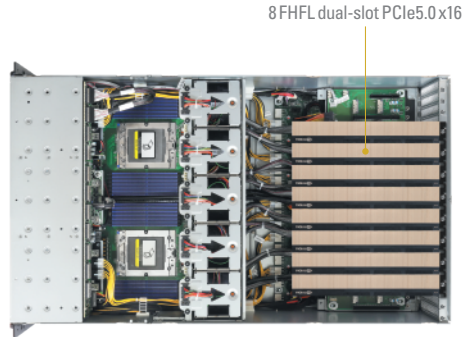
4U10G-GENOA2



OCP NIC 3.0

PCI-E 5.0

GPGPU



Application

- Deep Learning
- Big Data Analytics
- HPC
- Machine Learning

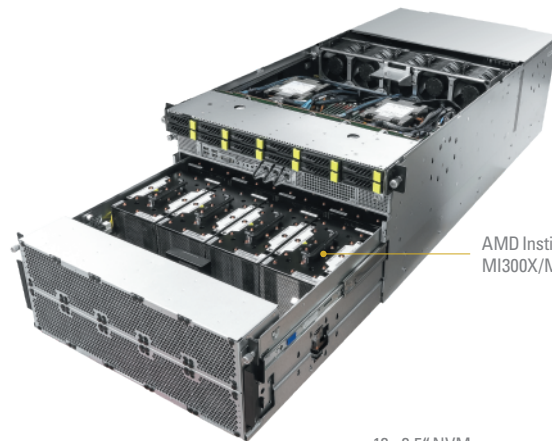
4U8G-GENOA2

4U10G-GENOA2

CPU	Socket	1+1 Socket SP5 (LGA 6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors	
DIMM	Slot	12+12 DDR5 (1DPC)	
System	Form Factor	4U Rackmount	
Physical Status	Chassis Dimension	786 x 438 x 176.5 mm (30.9" x 17.24" x 6.95")	
Front Panel	Buttons	Power button w/ LED, Reset button, NMI button, UID button	
	LEDs	System fault LED, HDD activity LED	
Front Panel	I/O	2 RJ45 (1GbE) by Intel® i350, shares with Rear IO	
	I/O	4 Type-A (USB3.2 Gen1) 1 DB15 (VGA)	
Rear IO	RJ45	2 RJ45 (1GbE) by Intel® i350, shares with Front Panel 1 dedicated IPMI, shares with Front Panel	
	Others	2 Type-A (USB3.2 Gen1), UID button, 1 DB15 (VGA)	
Expansion Slots	Front	1 FHHL PCIe5.0 x8	2 FHHL PCIe5.0 x16
	Rear	1 OCP3.0 PCIe5.0 x8 8 FHFL dual-slot PCIe5.0 x16	1 OCP NIC 3.0 PCIe5.0 x16 10 FHFL dual-slot PCIe5.0 x16 ; 1 FHFL single-slot PCIe5.0 x16
Drive Bay/ Storage	External	4 Hot-swap 2.5" NVMe (PCIe5.0 x4) drive bays or 24 Hot-swap 2.5" SATA/SAS ^{Note1} drive bays	16 Hot-swap 2.5" NVMe (PCIe5.0 x4) drive bays or 24 Hot-swap 2.5" SATA/SAS ^{Note1} drive bays
	Internal	1 M-key (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [CPU0] 1 M-key (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [CPU1]	
Power Supply	Module	3+1, 80-PLUS Platinum, 1600W CRPS	3+1, 80-PLUS Platinum/Titanium, 2000W CRPS
System Cooling	Fan	5 Middle Hot-swap 80x80 mm fans	
Management		ASPEED BMC AST2600	
Security		TPM by optional accessory	

Note1: Additional RAID/HBA card required to support the 24 x 2.5" SATA/SAS drive bays

6U8M-TURIN2



AMD Instinct™ MI300X/MI325X platform



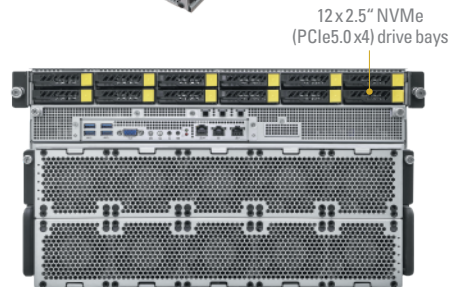
OCP NIC 3.0



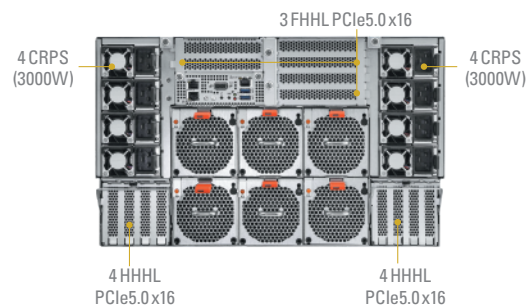
PCI-E 5.0



GPGPU



12x2.5" NVMe (PCIe5.0 x4) drive bays



4 CRPS (3000W)

3 FHHL PCIe5.0 x16

4 CRPS (3000W)

4 HHHL PCIe5.0 x16

4 HHHL PCIe5.0 x16

Application

- HPC
- AI Training
- Big Data Analytics
- Large Language Model

6U8M-TURIN2

CPU	Socket	1+1 Socket SP5 (LGA6096), supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	12+12 DDR5 (1DPC)
System	Form	6U Rackmount
Physical	Factor	
Status	Chassis Dimension	264.7 x 448 x 930mm (10.4" x 17.6" x 36.6")
Front Panel	Buttons	Power w/ LED, Reset, NMI, UID
	LEDs	System Fault LED, HDD Activity LED
	I/O	2 RJ45 (1GbE) by Intel® i350-AM2 1 dedicated IPMI 4 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (1GbE) by Intel® i350-AM2, shares with front panel 1 dedicated IPMI, shares with front panel
	USB	2 Type-A (USB3.2 Gen1)
	Others	1 DB15 (VGA), 1 UID w/ LED
Expansion Slots	Front	Supports AMD Instinct™ MI300X/MI325X platform with Infinity Fabric™ Links
	Rear	8 HHHL PCIe5.0 x16 3 FHHL PCIe5.0 x16
Drive Bay/Storage	External	12 Hot-swap 2.5" NVMe (PCIe5.0 x4) drive bays
	Internal	1 M-key (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [CPU0] 1 M-key (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [CPU1]
Power Supply	Module	4+4, 80-Plus Titanium, 3000W CRPS
System Cooling	Fan	21 PWM Hot-swap 80x80 mm fans
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

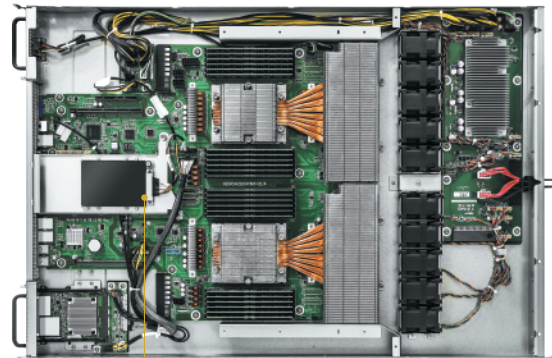
10U1N-TURIN2



OCP NIC 3.0



PCI-E 5.0



1 Easy-swap 2.5" NVMe (PCIe5.0x4) drive bay



1 OCP NIC 3.0 (PCIe5.0x16)



IT Gear connect

Application

- Data Center Processing

10U1N-GEN0A2

CPU	Socket	1+1 Socket SP5 (LGA6096), supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM	Slot	12+12 DDR5 (1DPC)
System	Form Factor	10U, one-bay Shelf for Open Rack V2
Physical Status	Chassis Dimension	537 x 800 x 45.5 mm (D/W/H, Shelf Dimensions)
Front Panel	Buttons	Power, Reset, UID button w/ LED
	LEDs	Power
	I/O	2 Type-A (USB3.2 Gen1), 1 dedicated IPMI
Rear Panel	Power connector	1 IT Gear connector for ORv2 54V busbar
Expansions Slots	External	1 OCP NIC 3.0 (PCIe5.0x16)
Drive Bay/Storage	External	1 Easy-swap 2.5" NVMe (PCIe5.0x4) drive bay
	Internal	1 M-key (PCIe3.0x4), supports 2280/2260/2242/2230 form factor [CPU0]
		1 M-key (PCIe3.0x4), supports 2280/2242 form factor [CPU1]
Power Supply	Module	Centralized 54V busbar to 10U1N_PDB, CRPS_IPB distributed up to 2600W
Management		ASPEED BMC AST2600
Security		TPM by optional accessory

20U3N-GENOA



OCP NIC 3.0



PCI-E 5.0

4 Hot-swap 2.5" NVMe drive bays



1 OCP NIC 3.0 (PCIe5.0x16)



IT Gear connect

Application

- Data Center Processing

20U3N-GENOA

CPU (per sled)	Socket	1 Socket SP5 (LGA6096), supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
DIMM (per sled)	Slot	8 DDR5 (1DPC)
System	Form Factor	20U, three-bay Shelf for Open Rack V3
Physical Status	Chassis Dimension	573 x 800 x 88 mm (D/W/H, Shelf Dimensions)
Front Panel (per sled)	Buttons	Power, Reset, UID button w/ LED
	LEDs	Power, system fault LED
	I/O	1 Mini-DisplayPort (VGA), 2 Type-A (USB3.2 Gen1), 1 dedicated IPMI
Rear Panel	Power connector	1 IT Gear connector for ORv3 50V busbar
Expansions Slots (per sled)	External	1 HHHL PCIe5.0 x16
	Internal	1 OCP NIC 3.0 (PCIe5.0 x16)
Drive Bay/Storage (per sled)	External	4 Hot-swap 2.5" NVMe (PCIe4.0 x4) drive bays
	Internal	2 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor
Power Supply	Module	Centralized 50V busbar to OCPV3_PDB/1V distributed up to 1000W
System Cooling (per sled)	Fan	2 system fans (80 x 56 mm)
Management (per sled)		ASPEED BMC AST2600
Security (per sled)		TPM by optional accessory

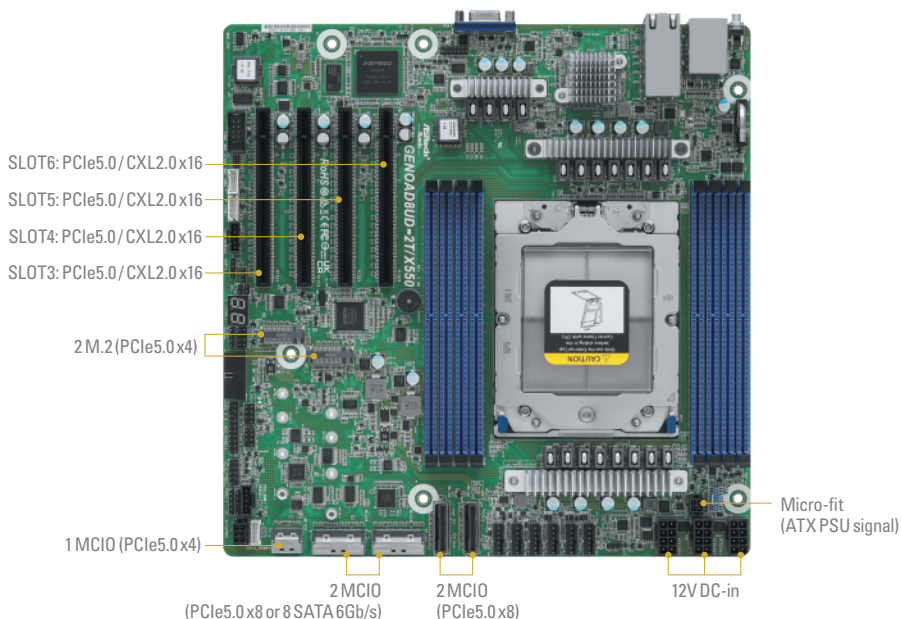
GENOAD8UD-2T/X550



10Gbase-T

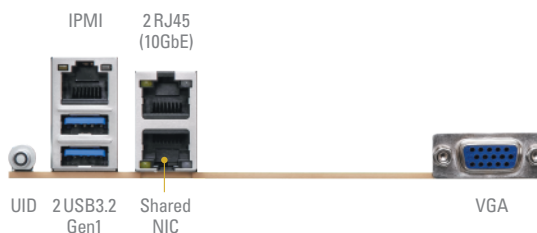


PCI-E 5.0



Application

- Compact Storage Server
- Enterprise NAS
- Compact GPU Tower



GENOAD8UD-2T/X550

Power source		Supports ATX PSU and 12V DC-in
Form Factor		10.4" x 10.5"
Processor System	CPU	1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	8 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz; 3DS RDIMM: up to 512GB, max. 4800MHz
Expansion	PCIe slot	SLOT6: PCIe5.0 / CXL2.0 x16 ^{Note1} SLOT5: PCIe5.0 / CXL2.0 x16 ^{Note1} SLOT4: PCIe5.0 / CXL2.0 x16 ^{Note1} SLOT3: PCIe5.0 / CXL2.0 x16 ^{Note1}
	Others	2 MCI0 (PCIe5.0 x8) 2 MCI0 (PCIe5.0 x8 or 8 SATA 6Gb/s) 1 MCI0 (PCIe5.0 x4)
Storage	M.2	2 M-key (PCIe5.0 x4), supports 2280/2260/2242/2230 form factor
	SATA port	16 SATA 6 Gb/s: 2 MCI0
Network	RJ45	2 RJ45 (10GbE) by Intel® X550
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header
	COM port	1 (9-pin) header
	Video	1 DB15 (VGA)
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

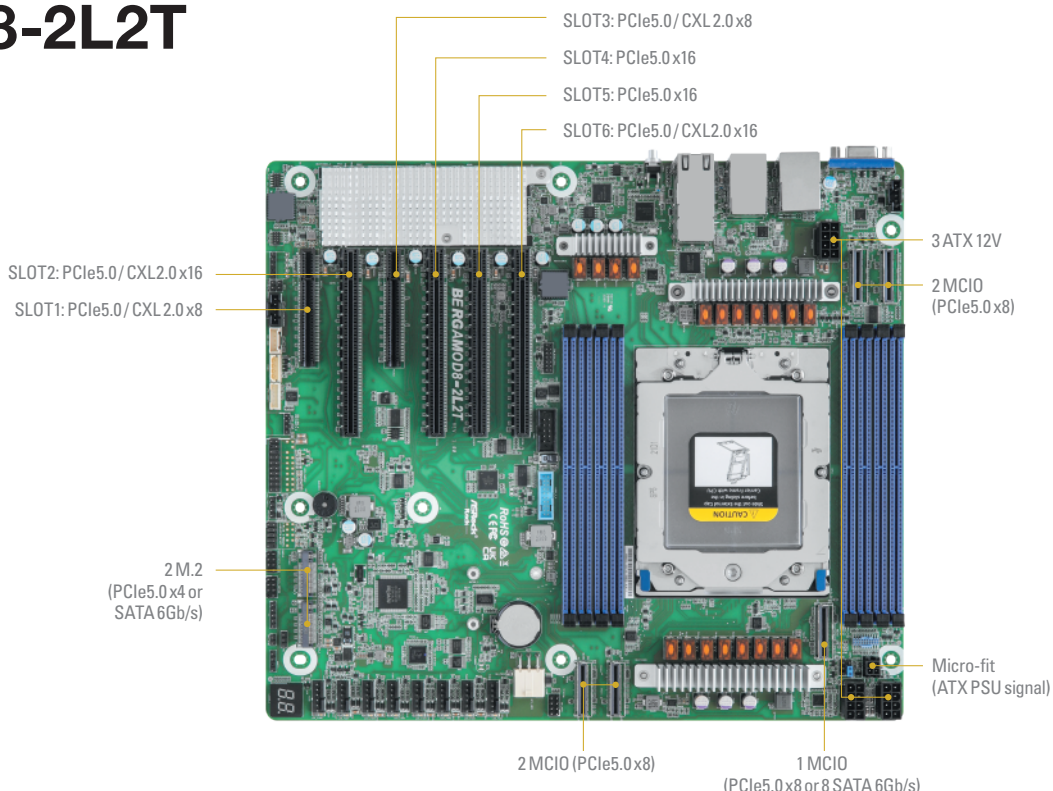
BERGAMOD8-2L2T



10Gbase-T

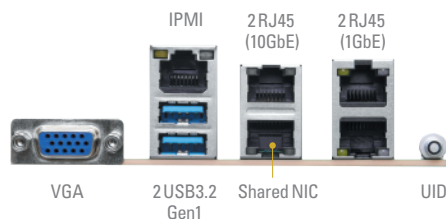


PCI-E 5.0



Application

- Mainstream Server/Workstation
- Web Hosting



BERGAMOD8-2L2T

Form Factor		CEB (12" x 10.5")
Processor System	CPU	1 Socket SP5 (SM-LGA-6096) Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	8 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz; 3DS RDIMM: up to 512GB, max. 4800MHz
Expansion	PCIe slot	SLOT6, 2: PCIe5.0 / CXL2.0 x16 ^{Note1} SLOT5: PCIe5.0 x16 SLOT4: PCIe5.0 x16 SLOT3, 1: PCIe5.0 / CXL2.0 x8 ^{Note1}
	Others	1 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s) 4 MCIO (PCIe5.0 x8)
Storage	M.2	1 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 2280 form factor 1 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor
	SATA port	10 SATA 6Gb/s: 1 MCIO, 2 M.2
Network	RJ45	2 RJ45 (10GbE) by Intel X710-AT2 2 RJ45 (1GbE) by Intel i210
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header
	COM port	1 (9-pin) header
	Video	1 DB15 (VGA)
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

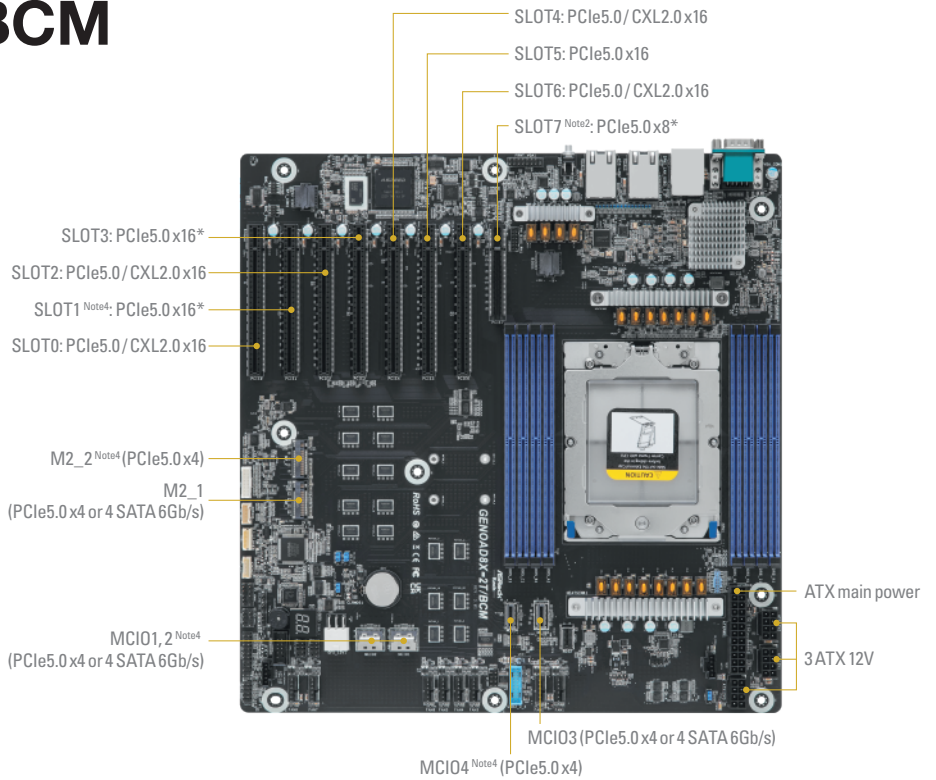
GENOAD8X-2T/BCM



10Gbase-T

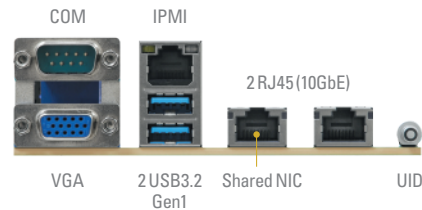


PCI-E 5.0



Application

- Mainstream Server/Workstation
- Web Hosting



GENOAD8X-2T/BCM

Form Factor		EEB (12.63" x 13") ^{Note1}
Processor System	CPU	1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	8 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz; 3DS RDIMM: up to 512GB, max. 4800MHz
Expansion	PCIe slot	SLOT7 ^{Note2} : PCIe5.0x8 SLOT6, 4, 2, 0: PCIe5.0/CXL2.0x16 ^{Note3} SLOT5, 3: PCIe5.0x16 SLOT1 ^{Note4} : PCIe5.0x16
	Others	MCI01, 2 ^{Note2} (PCIe5.0x4 or 4 SATA 6Gb/s) MCI03 (PCIe5.0x4 or 4 SATA 6Gb/s) MCI04 ^{Note4} (PCIe5.0x4)
Storage	M.2	M2_1 (PCIe5.0x4 or SATA 6Gb/s), supports 22110/2280 form factor, M2_2 ^{Note4} (PCIe5.0x4), supports 22110/2280 form factor
	SATA port	13 SATA 6Gb/s: 3 MCI0, 1 M.2
Network	RJ45	2 RJ45 (10GbE) by Broadcom BCM57416
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header
	COM port	1 DB9 (COM), 1 (9-pin) header
	Video	1 DB15 (VGA)
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Extend 10.1mm left and 6mm right

Note2: SLOT7 share lanes with MCI01 and MCI02. When SLOT7 occupied, MCI01 will not function and MCI02 can be enabled by jumper setting. When selecting MCI02, SLOT7 will switch to PCIe5.0x8.

Note3: Supports CXL1.1 while installing AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

Note4: SLOT1 shared lanes with MCI04 and M2_2. SLOT1 auto-switch to PCIe5.0x8 when either MCI04 or M2_2 populated.

* Via re-drivers.

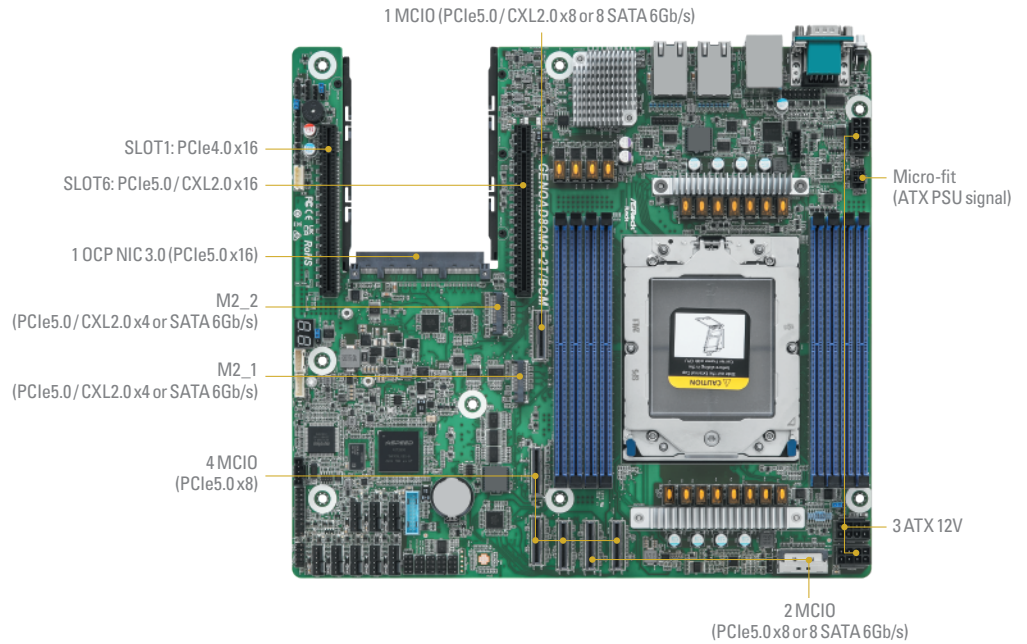
GENOAD8QM3-2T/BCM



PCI-E5.0

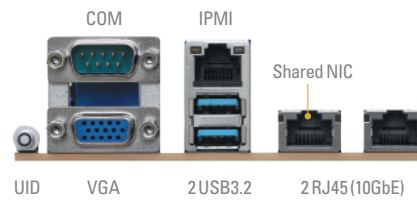


OCP NIC 3.0



Application

- NVMe Storage Server
- Web Hosting
- General Purpose Server



GENOAD8QM3-2T/BCM

Form Factor		CEB (12" x 11")
Processor System	CPU	1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	8 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz; 3DS RDIMM: up to 512GB, max. 4800MHz
Expansion	PCIe slot	SLOT6: PCIe5.0/ CXL2.0 x16 ^{Note1} SLOT1: PCIe4.0x16
	Others	1 MCIO (PCIe5.0/ CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} 2 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s) 4 MCIO (PCIe5.0 x8)
Storage	M.2	M2_1 (PCIe5.0/ CXL2.0 x4 or SATA 6Gb/s) ^{Note1} , supports 22110/2280 form factor M2_2 (PCIe5.0/ CXL2.0 x4 or SATA 6Gb/s) ^{Note1} , supports 2280 form factor
	SATA port	26 SATA 6Gb/s: 3 MCIO, 2 M.2
Network	RJ45	2 RJ45 (10GbE) by Broadcom BCM57416
	OCP NIC	1 OCP NIC 3.0 (PCIe5.0 x16)
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header
	COM port	1 DB9 (COM)
	Video	1 DB15 (VGA), 1 (15-pin) header
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

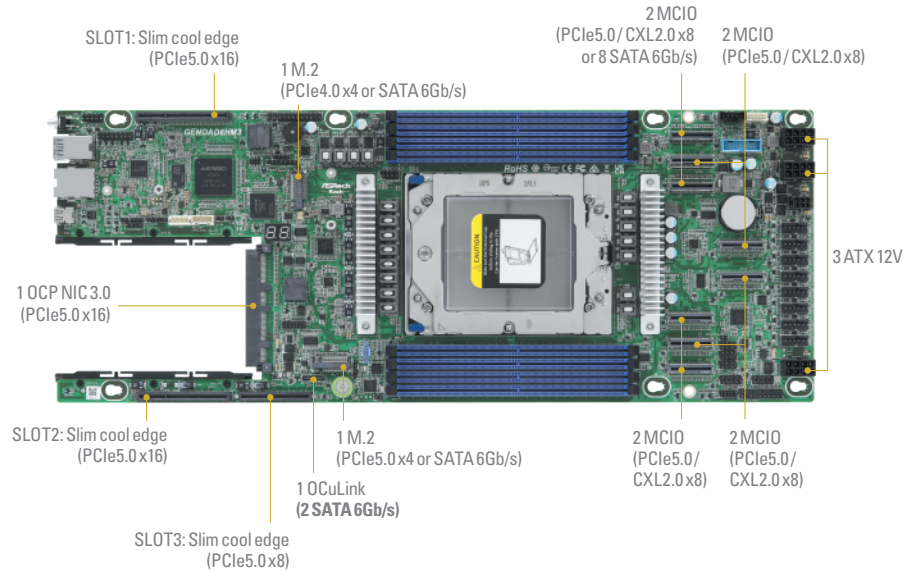
GENOAD8HM3



OCP NIC 3.0

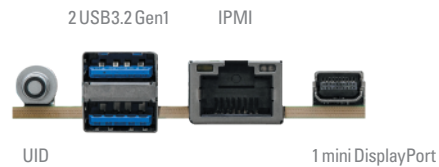


PCI-E 5.0



Application

- Multi-node Server
- Edge Server



GENOAD8HM3

Form Factor		Half-Width (6.6" x 17")
Processor System	CPU FCH	1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors System on chip
Memory	Capacity	8 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz; 3DS RDIMM: up to 512GB, max. 4800MHz
Expansion	PCIe slot Others	SLOT3: Slim cool edge (PCIe5.0 x8) SLOT2: Slim cool edge (PCIe5.0 x16) SLOT1: Slim cool edge (PCIe5.0 x16) 2 MCI0 (PCIe5.0 / CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} 6 MCI0 (PCIe5.0 / CXL2.0 x8) ^{Note1} 1 OCuLink (2 SATA 6Gb/s)
Storage	M.2 SATA port	1 M-key (PCIe5.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor 1 M-key (PCIe4.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor 18 SATA 6Gb/s: 2 MCI0, 2 M.2 2 SATA 6Gb/s by ASM1061: 1 OCuLink
Network	OCP NIC	1 OCP NIC 3.0 (PCIe5.0 x16)
Management	BMC Dedicated IPMI	ASPEED AST2600 1 RJ45 via Realtek RTL8211F
I/O	USB COM port Video	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header 1 (9-pin) header 1 mini DisplayPort (VGA), 1 (15-pin) header
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

GENOAD24QM3-2L2T/BCM



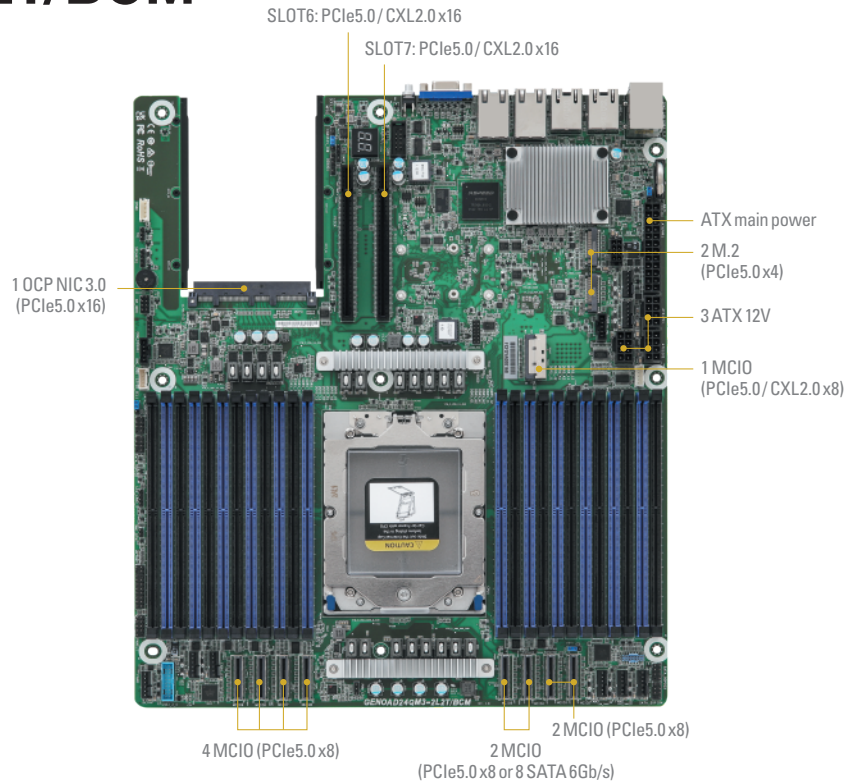
PCI-E5.0



10Gbase-T

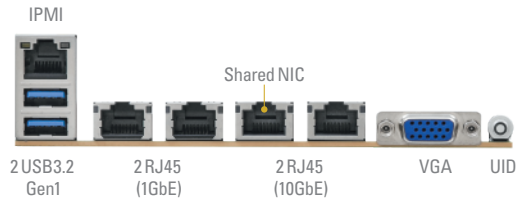


OCP NIC 3.0



Application

- CSP
- All-flash Storage Server
- Cloud Computing



GENOAD24QM3-2L2T/BCM

Form Factor		EEB (12" x 14")
Processor System	CPU	1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	24 DDR5 DIMM Slots (2DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 256GB, max. 4800MHz; 3DS RDIMM: up to 384GB, max. 4800MHz
Expansion	PCIe slot	SLOT7: PCIe5.0 / CXL2.0 x16 ^{Note1} SLOT6: PCIe5.0 / CXL2.0 x16 ^{Note1}
	Others	1 MCIO (PCIe5.0 / CXL2.0 x8) ^{Note1} 6 MCIO (PCIe5.0 x8) 2 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s)
Storage	M.2	2 M-key (PCIe5.0 x4 / CXL2.0 x4) ^{Note1} , supports 22110/2280/2260 form factor
	SATA port	16 SATA 6 Gb/s: 2 MCIO
Network	RJ45	2 RJ45 (10GbE) by Broadcom BCM57416 2 RJ45 (1GbE) by Intel® i210
	OCP NIC	1 OCP NIC 3.0 (PCIe5.0 / CXL2.0 x16) ^{Note1}
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F-CG
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 1 via 19-pin header
	COM port	1 (9-pin) header
	Video	1 DB15 (VGA)
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

GENOAD24QM32-2L2T/BCM



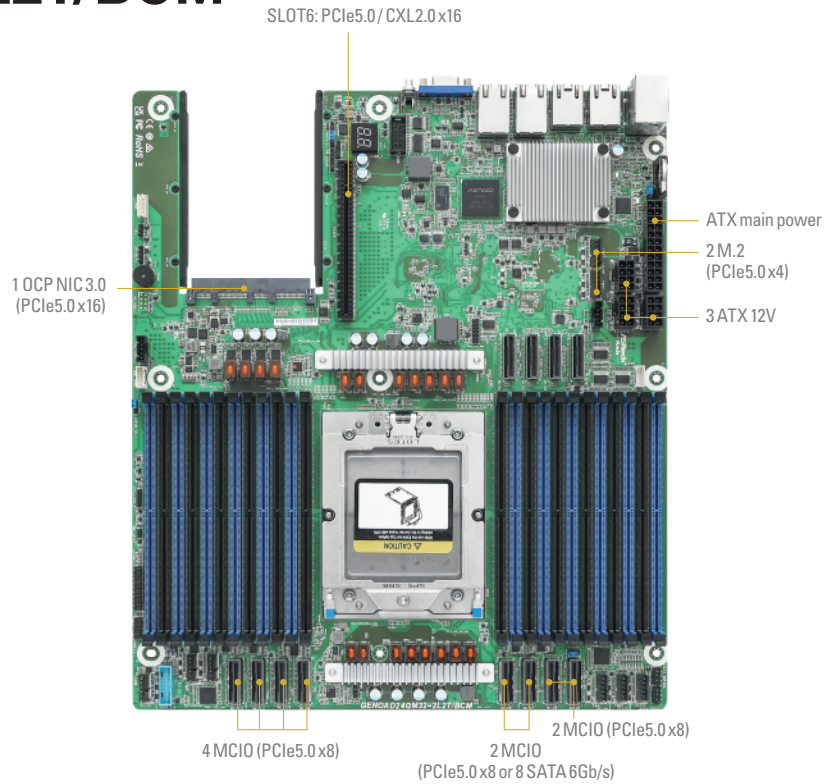
PCI-E5.0



10Gbase-T

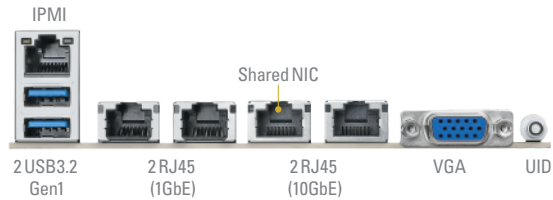


OCP NIC 3.0



Application

- CSP
- All-flash Storage Server
- Cloud Computing



GENOAD24QM32-2L2T/BCM

Form Factor		EEB (12" x 14")
Processor System	CPU	1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	24 DDR5 DIMM Slots (2DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 256GB, max. 4800MHz; 3DS RDIMM: up to 384GB, max. 4800MHz
Expansion	PCIe slot	SLOTT6: PCIe5.0 / CXL2.0 x16
	Others	1 MCIO (PCIe5.0 / CXL2.0 x8), 6 MCIO (PCIe5.0 x8) 10 MCIO (PCIe5.0 x8) 2 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s)
Storage	SATA port	16 SATA 6 Gb/s: 2 MCIO
Network	RJ45	2 RJ45 (10GbE) by Broadcom BCM57416 2 RJ45 (1GbE) by Intel® i210
	OCP NIC	1 OCP NIC 3.0 (PCIe5.0 / CXL2.0 x16)
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F-CG
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 1 via 19-pin header
	COM port	1 (9-pin) header
	Video	1 DB15 (VGA)
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

GENOAD12M3-2Q



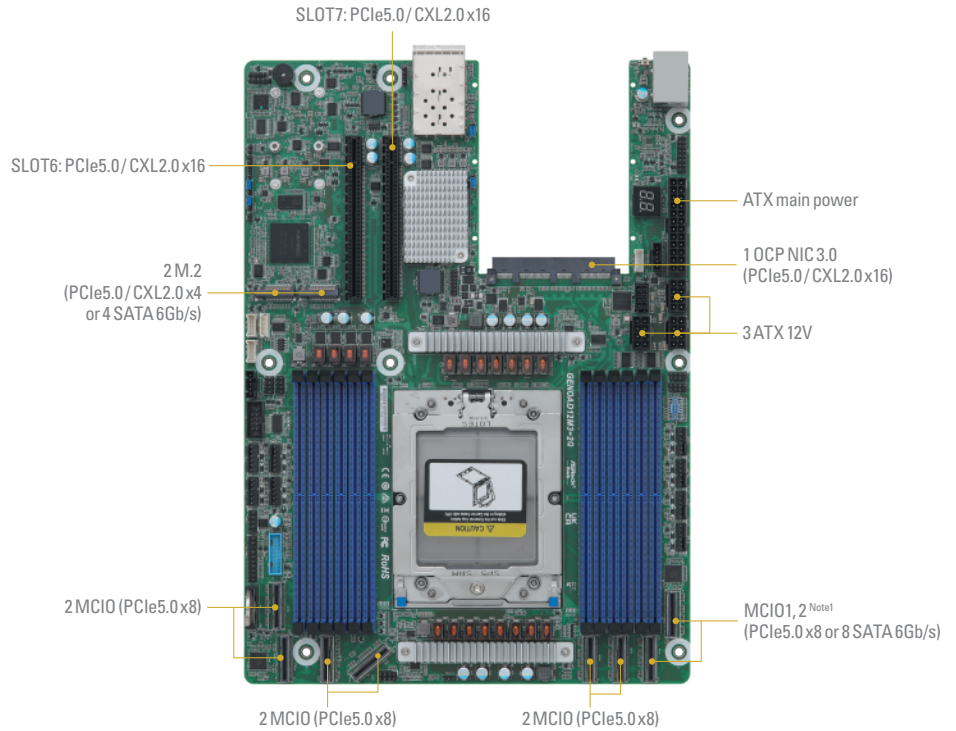
PCI-E5.0



OCP NIC 3.0



SFP28



Application

- All-flash Storage Server
- Cloud Computing
- CSP

GENOAD12M3-2Q

Form Factor		9.6" x 13.39"
Processor System	CPU	1 Socket SP5 (SM-LGA-6096) Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	12 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz; 3DS RDIMM: up to 512GB, max. 4800MHz
	PCIe slot	SLOT7: PCIe5.0/CXL2.0 x16 ^{Note1} SLOT6: PCIe5.0/CXL2.0 x16 ^{Note1}
Expansion	Others	6 MCIO (PCIe5.0 x8) 2 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s)
	M.2	2 M-key (PCIe5.0/CXL2.0 x4 or 4 SATA 6Gb/s) ^{Note1} , supports 22110/2280/2260 form factor
Storage	SATA port	Up to 24 SATA 6Gb/s: 2 MCIO, 8 SATA via optional M2U2_HD_G4 M.2 device
	SFP28	2 SFP28 (25GbE) by Broadcom BCM57414
Network	OCP NIC	1 OCP NIC 3.0 (PCIe5.0/CXL2.0 x16) ^{Note1}
	BMC	ASPEED AST2600
Management	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header
I/O	COM port	1 (9-pin) header
	Video	1 (15-pin) header
	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

GENOA2D16NQM3-2Q



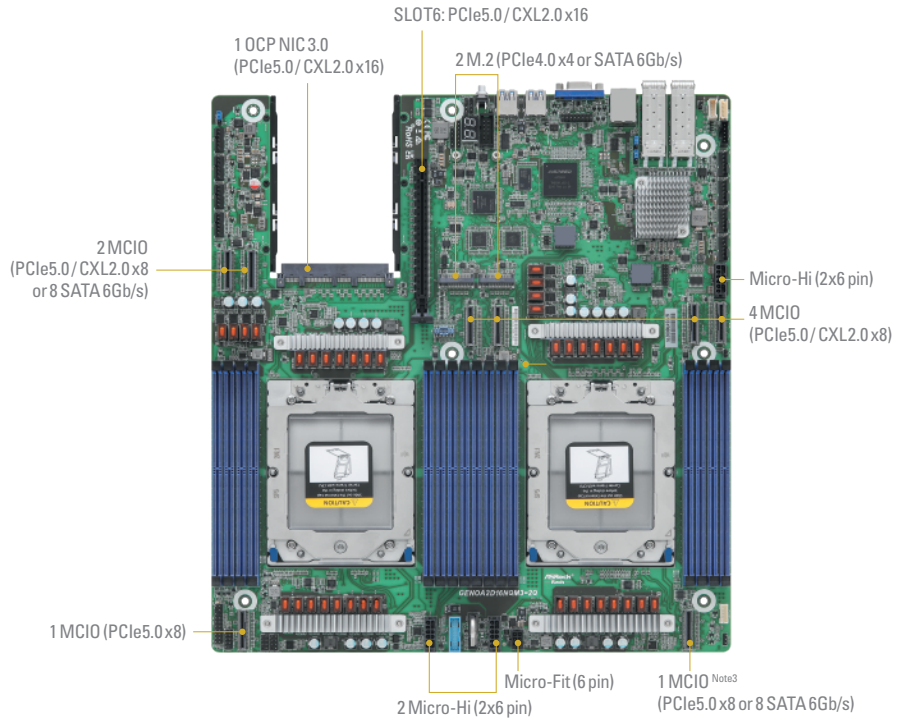
PCI-E5.0



OCP NIC 3.0



SFP28



Application

- Software-defined application
- HCI



GENOA2D16NQM3-2Q

Form Factor		EEB (12.82" X 14") ^{Note1}
Processor System	CPU	1+1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	8+8 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz; 3DS RDIMM: up to 512GB, max. 4800MHz
Expansion	PCIe slot	SLOT6: PCIe5.0/ CXL2.0 x16 ^{Note2} [CPU1]
	Others	4 MCIO (PCIe5.0/ CXL2.0 x8) ^{Note2} [CPU0] 1 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s) [CPU0] ^{Note3} 2 MCIO (PCIe5.0/ CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note2} [CPU1] 1 MCIO (PCIe5.0 x8) [CPU1]
Storage	M.2	2 M-key (PCIe4.0x4 or SATA 6Gb/s), supports 2280 form factor [CPU0]
	SATA port	Up to 18 SATA 6 Gb/s: 2 MCIO, 2 M.2
Network	SFP28	2 SFP28 (25GbE) by Broadcom BCM57414
	OCP NIC	1 OCP NIC 3.0 (PCIe5.0/ CXL2.0 x16) ^{Note2} [CPU1]
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header [CPU1]
	COM port	1 (9-pin) header
	Video	1 DB15 (VGA), 1 (15-pin) header
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Extend 10.1mm left and 10.7mm right

Note2: Supports CXL1.1 while installing AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

Note3: MCIO from CPU0 support PCIe only while installing 2 processors

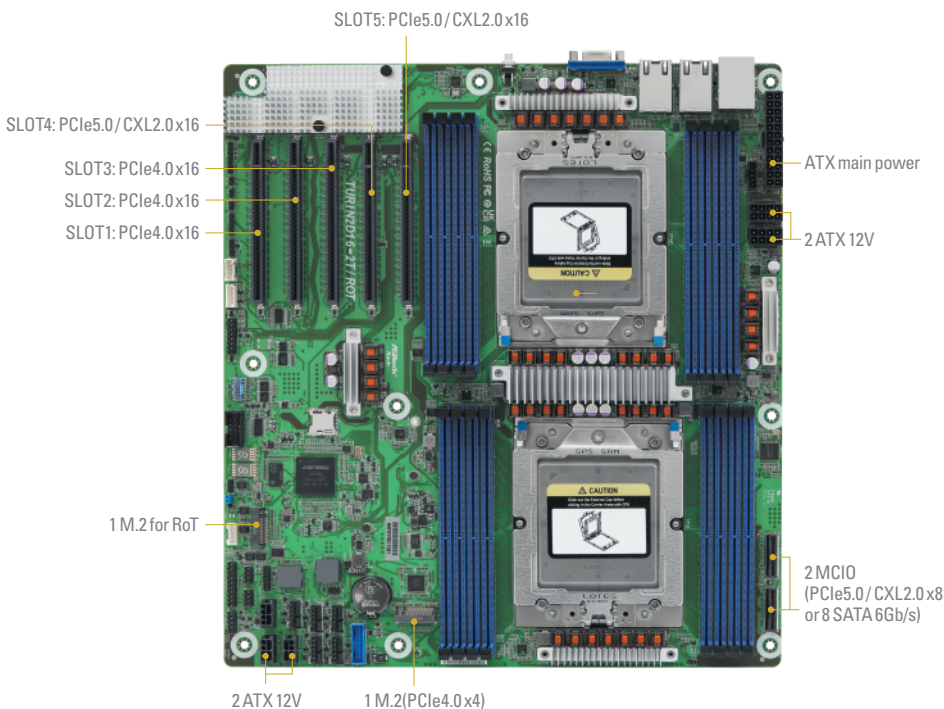
TURIN2D16-2T/ROT



PCI-E5.0

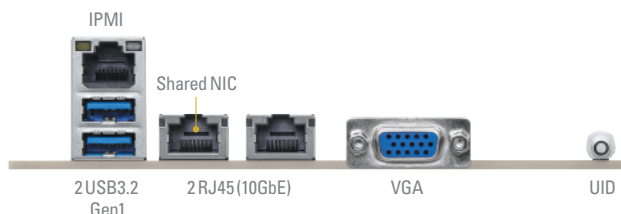


10Gbase-T



Application

- Mainstream Server for SMB
- High-end Workstation / Industrial Application



TURIN2D16-2T/ROT

Form Factor		EEB (12" x 13.2")
Processor System	CPU	1+1 Socket SP5 (SM-LGA-6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	8+8 DDR5 DIMM Slots (1DPC); Supports: RDIMM up to 96GB each, max. 6000MHz RDIMM-3DS up to 512GB each, max. 6000MHz
	PCIe slot	SLOTT5: PCIe5.0/ CXL2.0 x16 ^{Note1} [CPU1] SLOTT4: PCIe5.0/ CXL2.0 x16 ^{Note1} [CPU1] SLOTT3: PCIe4.0 x16 [CPU1] SLOTT2: PCIe4.0 x16 [CPU0] SLOTT1: PCIe4.0 x16 [CPU0]
Storage	Others	2 M.2 (PCIe5.0/ CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU0]
	M.2	1 M-key (PCIe4.0 x4), supports 22110/2280 form factor [CPU0] 1 M-key for RoT function, supports 3060 form factor
Network Management	SATA port	16 SATA 6Gb/s: 2 M.2
	RJ45	2 RJ45 (10GbE) by Intel® X710-AT2
I/O	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header
	COM port	1 (9-pin) header
Security	Video	1 DB15 (VGA), 1 (15-pin) header
	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

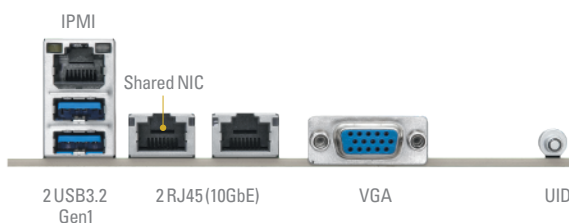
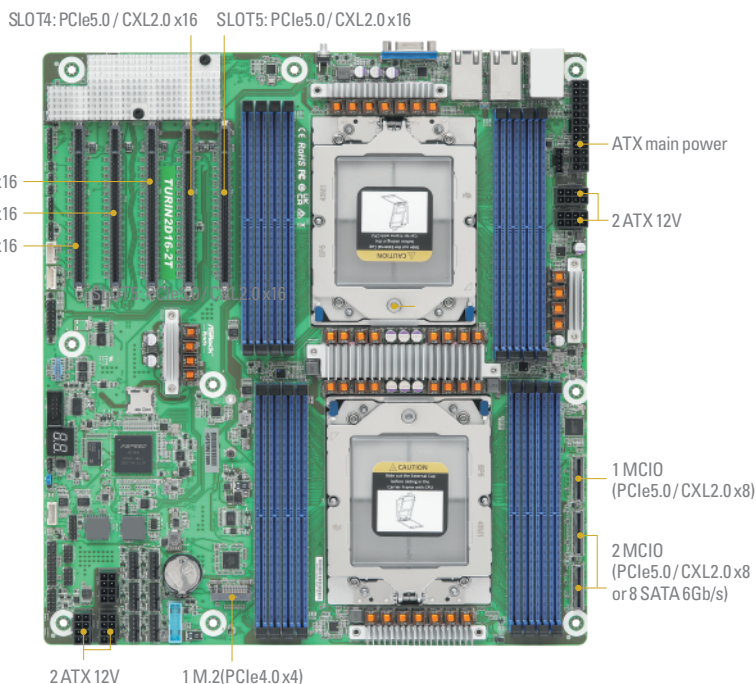
TURIN2D16-2T



PCI-E5.0



10Gbase-T



Application

- Mainstream Server for SMB
- High-end Workstation / Industrial Application

TURIN2D16-2T

Form Factor		EEB (12" x 13.2")
Processor System	CPU	1+1 Socket SP5 (SM-LGA-6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	8+8 DDR5 DIMM Slots (1DPC); Supports RDIMM up to 96GB each, max. 6000MHz RDIMM-3DS up to 512GB each, max. 6000MHz
Expansion	PCIe slot	SLOT5: PCIe5.0/CXL2.0 x16 ^{Note1} [CPU1] SLOT4: PCIe5.0/CXL2.0 x16 ^{Note1} [CPU1] SLOT3: PCIe4.0 x16 [CPU1] SLOT2: PCIe4.0 x16 [CPU0] SLOT1: PCIe4.0 x16 [CPU0]
	Others	2 M.2 (PCIe5.0/CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU0] 1 M.2 (PCIe5.0/CXL2.0 x8) ^{Note1} [CPU0]
Storage	M.2	1 M-key (PCIe4.0 x4), supports 22110/2280 form factor [CPU0]
	SATA port	16 SATA 6Gb/s: 2 M.2
Network	RJ45	2 RJ45 (10GbE) by Intel® X710-AT2
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header
	COM port	1 (9-pin) header
	Video	1 DB15 (VGA), 1 (15-pin) header
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

BERGAMO2D16-2T



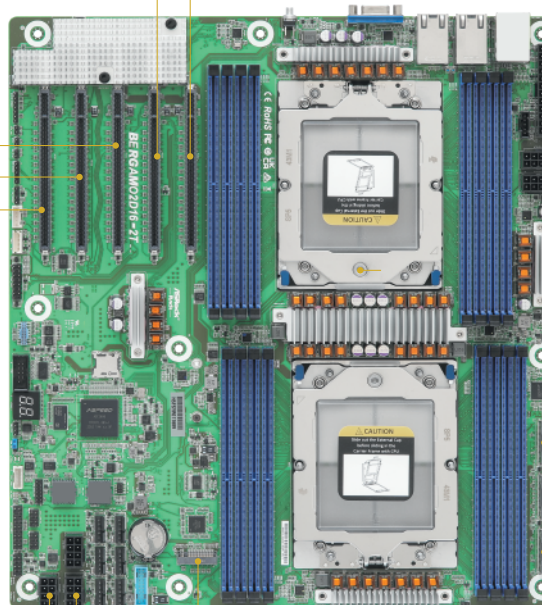
PCI-E5.0



10Gbase-T

SLOT4: PCIe5.0/CXL2.0 x16 SLOT5: PCIe5.0/CXL2.0x16

SLOT3: PCIe4.0x16
SLOT2: PCIe4.0x16
SLOT1: PCIe4.0x16



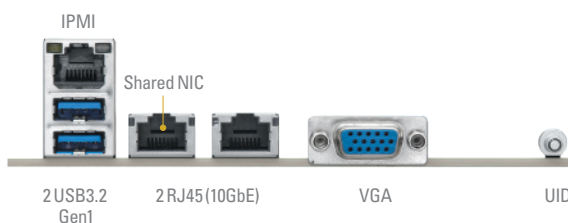
ATX main power

2 ATX 12V

1 M.2 (PCIe5.0/CXL2.0x8)

2 M.2 (PCIe5.0/CXL2.0x8 or 8 SATA 6Gb/s)

2 ATX 12V 1 M.2(PCIe4.0x4)



2 USB3.2 Gen1 2 RJ45(10GbE)

VGA

UID

Application

- Mainstream Server for SMB
- High-end Workstation / Industrial Application

BERGAMO2D16-2T

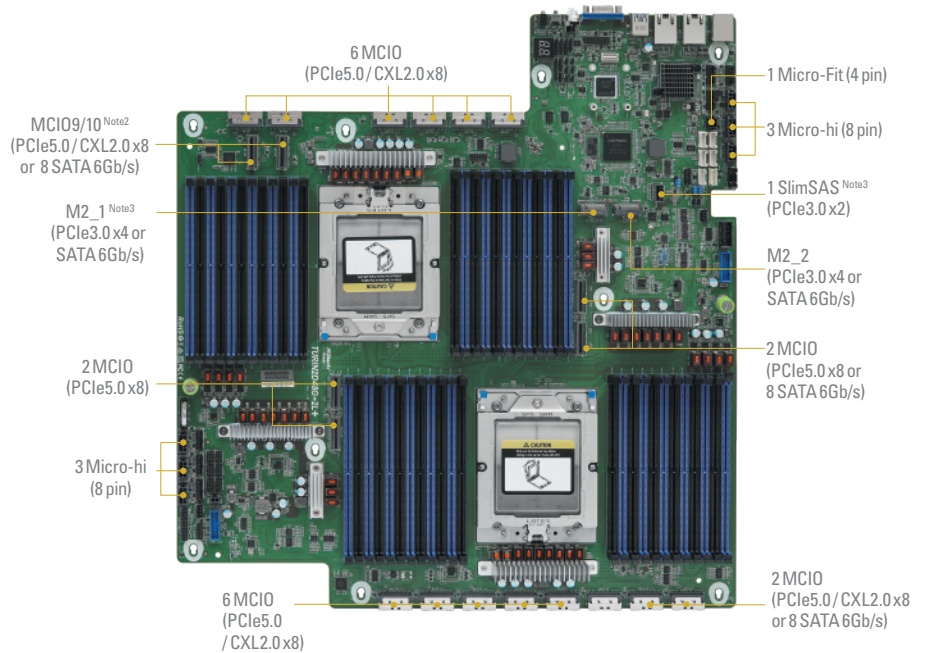
Form Factor		EEB (12" x 13.2")
Processor System	CPU	1+1 Socket SP5 (SM-LGA-6096) AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
Memory	Capacity	8+8 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz 3DS RDIMM: up to 512GB, max. 4800MHz
Expansion	PCIe slot	SLOT5: PCIe5.0/ CXL2.0 x16 ^{Note1} [CPU1] SLOT4: PCIe5.0/ CXL2.0 x16 ^{Note1} [CPU1] SLOT3: PCIe4.0 x16 [CPU1] SLOT2: PCIe4.0 x16 [CPU0] SLOT1: PCIe4.0 x16 [CPU0]
	Others	2 M.2 (PCIe5.0/ CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU0] 1 M.2 (PCIe5.0/ CXL2.0 x8) ^{Note1} [CPU0]
Storage	M.2	1 M-key (PCIe4.0 x4), supports 22110/2280 form factor [CPU0]
	SATA port	16 SATA 6Gb/s: 2 M.2
Network	RJ45	2 RJ45 (10GbE) by Intel® X710-AT2
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 2 via 19-pin header
	COM port	1 (9-pin) header
	Video	1 DB15 (VGA), 1 (15-pin) header
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

TURIN2D48G-2L+

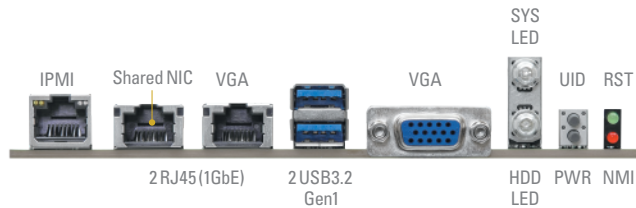


PCI-E5.0



Application

- Software-defined Storage
- E-commerce
- HCI



TURIN2D48G-2L+

Form Factor		Proprietary (18" x 16.9")
Processor System	CPU FCH TDP	1+1 Socket SP5 (SM-LGA-6096); AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors System on chip Up to 500W
Memory	Capacity	24+24 DDR5 DIMM Slots (2DPC); Supports: RDIMM up to 256GB each, max. 5200MHz (1DPC); max. 4400MHz (2DPC) RDIMM-3DS up to 384GB each, max. 5200MHz (1DPC); max. 4000MHz (2DPC)
Expansion	Others	6 MCIO (PCIe5.0 / CXL2.0 x8) ^{Note1} [CPU0] 2 MCIO (PCIe5.0 / CXL2.0 x8 or 8 SATA 6Gb/s) [CPU0] ^{Note2} 2 MCIO (PCIe5.0 or 8 SATA 6Gb/s) [CPU0] 6 MCIO (PCIe5.0 / CXL2.0 x8) ^{Note1} [CPU1] 2 MCIO (PCIe5.0 / CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU1] 2 MCIO (PCIe5.0 x8) [CPU1] 1 SlimSAS (PCIe3.0 x2) [CPU0] ^{Note3}
Storage	M.2 SATA port	2 M.2 (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [CPU0] 32 SATA 6Gb/s: 4 MCIO 2 SATA 6Gb/s by ASM1061R: 2 M.2
Network	RJ45	2 RJ45 (1GbE) by Intel® i350
Management	BMC Dedicated IPMI	ASPEED AST2600 1 RJ45 via Realtek RTL8211F
I/O	USB COM port Video	6 USB3.2 Gen1 ports: 2 rear Type-A, 4 via 19-pin headers 1 (9-pin) header 1 DB15 (VGA), 1 (15-pin) header
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

Note2: MCIO9, 10 support PCIe only while installing 2 processors

Note3: SlimSAS (by jumper setting):

• PCIe3.0 x2 when M2_1 supports only PCIe3.0 x2 or SATA 6Gb/s

• No function when M2_1 supports PCIe3.0 x4 or SATA 6Gb/s

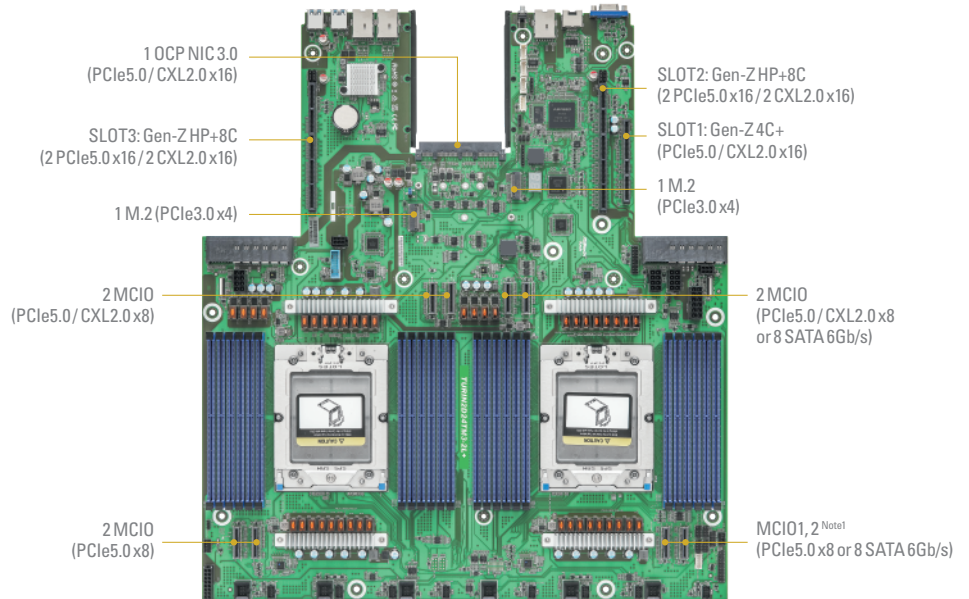
TURIN2D24TM3-2L+



OCP NIC 3.0



PCI-E 5.0



Application

- Software-defined application
- E-commerce
- HCI



TURIN2D24TM3-2L+

Form Factor		Proprietary T-shape (17.0149" x 18.8607")
Processor System	CPU	1+1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
	TDP	Up to 500W
Memory	Capacity	12+12 DDR5 DIMM Slots (1DPC); Supports RDIMM up to 96GB each, max. 6000MHz; RDIMM-3DS up to 512GB each, max. 6000MHz
Expansion	PCIe slot	SLOT3: Gen-Z HP+8C (2 PCIe5.0 x16 / 2 CXL2.0 x16) ^{Note1} [CPU1] SLOT2: Gen-Z HP+8C (2 PCIe5.0 x16 / 2 CXL2.0 x16) ^{Note1} [CPU0] SLOT1: Gen-Z 4C+ (PCIe5.0 / CXL2.0 x16) ^{Note1} [CPU0]
	Others	MCIO1, 2 (PCIe5.0 x8 or 8 SATA 6Gb/s) [CPU0] ^{Note2} 2 MCIO (PCIe5.0 / CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU0] 2 MCIO (PCIe5.0 / CXL2.0 x8) ^{Note1} [CPU1] 2 MCIO (PCIe5.0 x8) [CPU1]
Storage	M.2	1 M-key (PCIe3.0 x4), supports 2280/2260/2242/2230 form factor [CPU0] 1 M-key (PCIe3.0 x4), supports 2280/2242 form factor [CPU1]
	SATA port	Up to 32 SATA 6 Gb/s: 4 MCIO
Network	RJ45	2 RJ45 (1GbE) by Intel® i350
	OCP NIC	1 OCP NIC 3.0 (PCIe5.0 / CXL2.0 x16) ^{Note1} [CPU1]
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
I/O	USB	4 USB3.2 Gen1 ports: 2 rear Type-A, 1 via 26-pin header, 1 via 19-pin header
	COM port	1 RJ45 (COM)
	Video	1 DB15 (VGA)
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

Note2: MCIO1 and MCIO2 support PCIe only while installing 2 processors

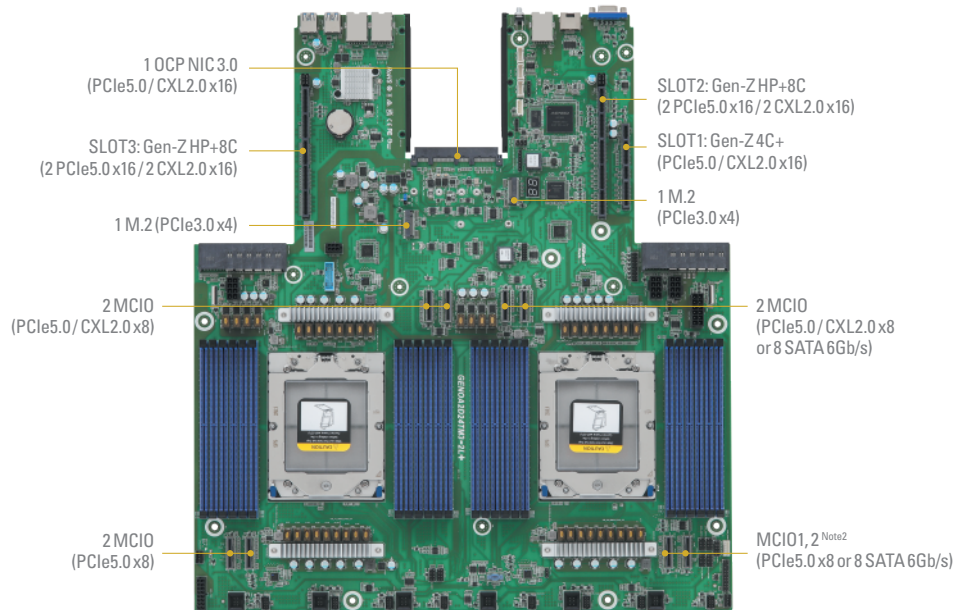
GENOA2D24TM3-2L+



OCP NIC 3.0



PCI-E 5.0



Application

- Software-defined application
- E-commerce
- HCI



GENOA2D24TM3-2L+

Form Factor		Proprietary T-shape (17.0149" x 18.8607")
Processor System	CPU FCH	1+1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors System on chip
Memory	Capacity	12+12 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz; 3DS RDIMM: up to 512GB, max. 4800MHz
Expansion	PCIe slot Others	SLOT3: Gen-Z HP+8C (2 PCIe5.0 x16 / 2 CXL2.0 x16) ^{Note1} [CPU1] SLOT2: Gen-Z HP+8C (2 PCIe5.0 x16 / 2 CXL2.0 x16) ^{Note1} [CPU0] SLOT1: Gen-Z 4C+ (PCIe5.0/ CXL2.0 x16) ^{Note1} [CPU0] MCIO1, 2 (PCIe5.0 x8 or 8 SATA 6Gb/s) [CPU0] ^{Note2} 2 MCIO (PCIe5.0/ CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU0] 2 MCIO (PCIe5.0/ CXL2.0 x8) ^{Note1} [CPU1] 2 MCIO (PCIe5.0 x8) [CPU1]
Storage	M.2 SATA port	1 M-key (PCIe3.0 x4), supports 2280/2260/2242/2230 form factor [CPU0] 1 M-key (PCIe3.0 x4), supports 2280/2242 form factor [CPU1] Up to 32 SATA 6 Gb/s: 4 MCIO
Network	RJ45 OCP NIC	2 RJ45 (1GbE) by Intel® i350 1 OCP NIC 3.0 (PCIe5.0/ CXL2.0 x16) ^{Note1} [CPU1]
Management	BMC Dedicated IPMI	ASPEED AST2600 1 RJ45 via Realtek RTL8211F
I/O	USB COM port Video	4 USB3.2 Gen1 ports: 2 rear Type-A, 1 via 26-pin header, 1 via 19-pin header 1 RJ45 (COM) 1 DB15 (VGA)
Security	TPM	Supports 13-pin (SPI) TPM modules

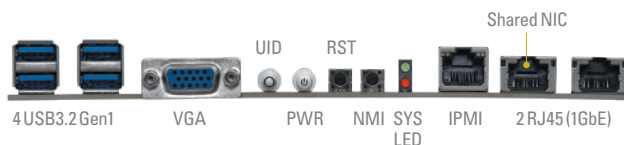
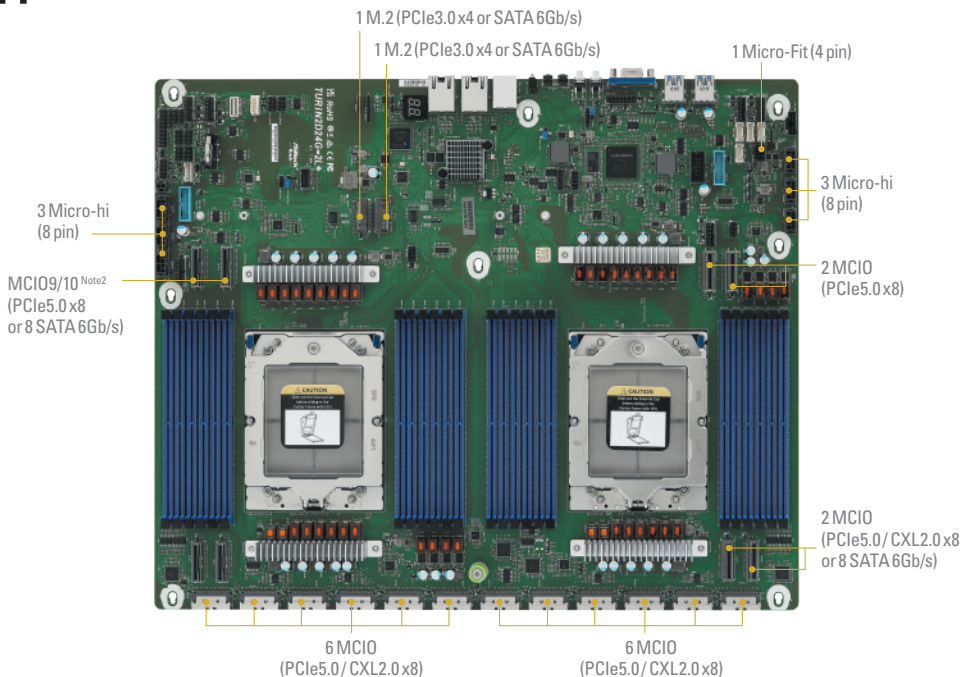
Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

Note2: MCIO1 and MCIO2 support PCIe only while installing 2 processors

TURIN2D24G-2L+



PCI-E5.0



Application

- All-flash Storage Server
- GPGPU Computing
- High-end Network Appliance

TURIN2D24G-2L+

Form Factor		Proprietary (16.93" x 13.78")
Processor System	CPU	1+1 Socket SP5 (SM-LGA-6096); AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors
	FCH	System on chip
	TDP	Up to 500W
Memory	Capacity	12+12 DDR5 DIMM Slots (1DPC); Supports: RDIMM up to 96GB each, max. 6000MHz RDIMM-3DS up to 512GB each, max. 6000MHz
Expansion	Others	6 MCIO (PCIe5.0/CXL2.0 x8) ^{Note1} [CPU0] 2 MCIO (PCIe5.0/CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU0] 2 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s) [CPU0] ^{Note2} 6 MCIO (PCIe5.0/CXL2.0 x8) ^{Note1} [CPU1] 2 MCIO (PCIe5.0/CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU1] 2 MCIO (PCIe5.0 x8) [CPU1]
Storage	M.2	M2_1 (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [CPU0] M2_2 (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [CPU1]
	SATA port	32 SATA 6Gb/s: 4 MCIO 2 SATA 6Gb/s by ASM1061R: 2 M.2
Network	RJ45	2 RJ45 (1GbE) by Intel® i350
Management	BMC	ASPEED AST2600
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F
I/O	USB	8 USB3.2 Gen1 ports: 4 rear Type-A, 4 via 19-pin headers
	COM port	1 (9-pin) header
	Video	1 DB15 (VGA), 1 (15-pin) header
Security	TPM	Supports 13-pin (SPI) TPM modules

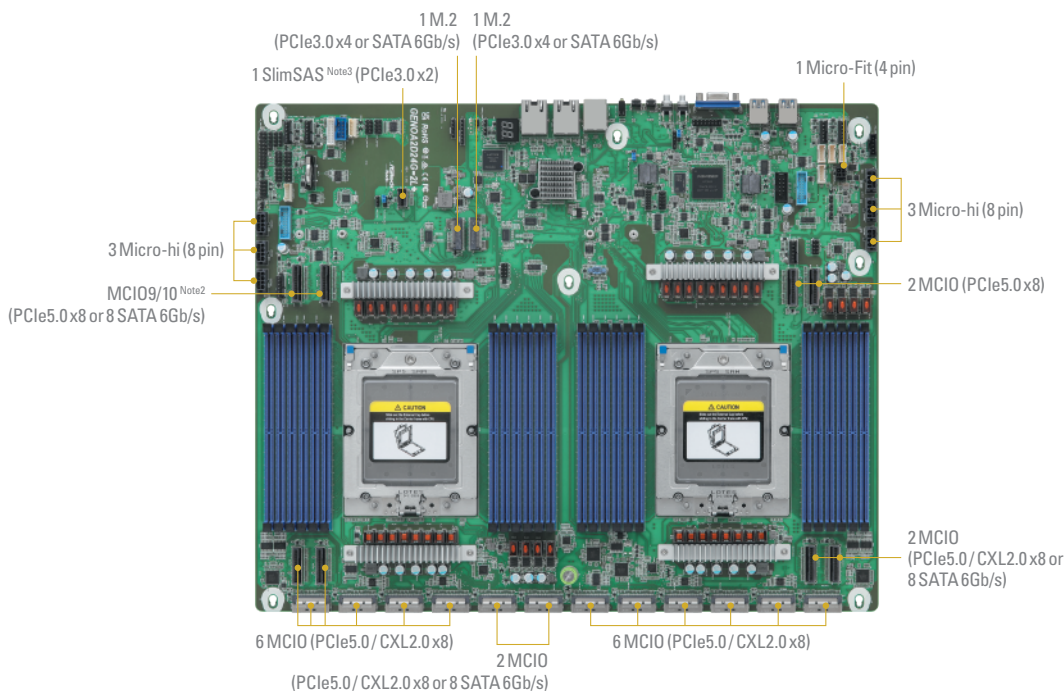
Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

Note2: MCIO9, 10 support PCIe only while installing 2 processors

GENOA2D24G-2L+

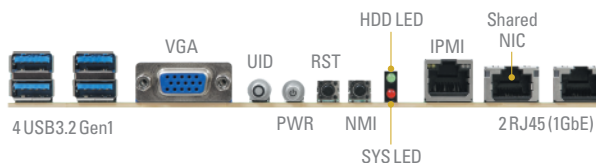


PCI-E5.0



Application

- All-flash Storage Server
- GPGPU Computing
- High-end Network Appliance



GENOA2D24G-2L+

Form Factor		Proprietary (16.93" x 13.78")
Processor System	CPU FCH	1+1 Socket SP5 (SM-LGA-6096); Supports AMD EPYC™ 9005/9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors System on chip
Memory	Capacity	12+12 DDR5 DIMM Slots (1DPC); Supports RDIMM, RDIMM-3DS RDIMM: up to 96GB, max. 4800MHz; 3DS RDIMM: up to 512GB, max. 4800MHz
Expansion	Others	6 MCIO (PCIe5.0/CXL2.0 x8) ^{Note1} [CPU0] 2 MCIO (PCIe5.0/CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU0] 2 MCIO (PCIe5.0 x8 or 8 SATA 6Gb/s) [CPU0] ^{Note2} 6 MCIO (PCIe5.0/CXL2.0 x8) ^{Note1} [CPU1] 2 MCIO (PCIe5.0/CXL2.0 x8 or 8 SATA 6Gb/s) ^{Note1} [CPU1] 2 MCIO (PCIe5.0 x8) [CPU1] 1 SlimSAS (PCIe3.0 x2) [CPU0] ^{Note3}
Storage	M.2 SATA port	M2_1 (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [CPU0] M2_2 (PCIe3.0 x4 or SATA 6Gb/s), supports 22110/2280 form factor [CPU1] 32 SATA 6 Gb/s: 4 MCIO 2 SATA 6Gb/s by ASM1061: 2 M.2
Network	RJ45	2 RJ45 (1GbE) by Intel® i350
Management	BMC Dedicated IPMI	ASPEED AST2600 1 RJ45 via Realtek RTL8211F
I/O	USB COM port Video	8 USB3.2 Gen1 ports: 4 rear Type-A, 4 via 19-pin headers 1 (9-pin) header 1 DB15 (VGA), 1 (15-pin) header
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: Supports CXL1.1 while installing AMD EPYC™ 9004 (with AMD 3D V-Cache™ Technology) and 97x4 series processors

Note2: MCIO9, 10 support PCIe only while installing 2 processors

Note3: SlimSAS (by jumper setting):

PCIe3.0 x2 when M2_1 supports only PCIe3.0 x2 or SATA 6Gb/s

No function when M2_1 supports PCIe3.0 x4 or SATA 6Gb/s

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