

AMD EPYC™ 4005 Processor

Performance for Demanding Workloads

Server Motherboards
General Purpose/ GPU/ Multi-node Barebones



Server Platform Naming Rule

B650D4U-2L2T/BCM

Character	Representation	Options
N	Chipset	- B650 = AMD B650 chipset - AM5 = KNOLL3 X300 - B550 = AMD B550 chipset - X570 = AMD X570 chipset - X470 = AMD X470 chipset
	Socket Type	- B650 or AM5 = AM5 Socket - B550 or X570 or X470 = AM4 Socket
N+1	Number of CPU Supported	NA = Single
Others	Number of DIMM Supported	D4 = 4 DIMM
	Form Factor	- I = mini-ITX - D = Deep mini-ITX (6.7" x 8.2") - U = Micro-ATX - NA = ATX
	Feature	2T = Dual 10GbE RJ45 by Intel X710 2T/BCM = Dual 10GbE RJ45 by Broadcom BCM57416 4L = Quad 1GbE RJ45 by Intel i210 2L = Dual 1GbE RJ45 by Intel i210 - M = OCP 2.0 connector

1U4LW-B650/2L2T

Character	Representation	Options
1 st + 2 nd	System Height	1U = 1U chassis 4U = 4U chassis
Others	Drive Bay	- LW = 3.5" HDD Bay - S = 2.5" HDD/SSD Bay - E = U.2 Bay
	Feature	- G = Dual-slot cards supported - N = Number of nodes - F = Front I/O

AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors		
General Purpose Storage	1U4LW-B650/2L2T RPSU, 1U4LW-B650 RPSU, 1U4L2E-B650 RPSU	B-01
	1U4LW-B650/2L2T, 1U4LW-B650, 1U2S-B650	B-02
Multi-node	4U18N-AM5/2T, 4U18N-AM5	B-03
	1U2N2G-AM5/2T	B-04
GPU Server	1U1G-B650/2L2T, 1U1G-B650	B-05
	2U1G-B650, 2U1G-B650/EVAC	B-06
	2U1G-B650/AQUA	B-07
OCP Server	4OU12N/AM5	B-08
Server Motherboard	B650D4U-2L2T/BCM, B650D4U-2T/BCM, B650D4U	M-01
	B650D4U3-2L2Q/BCM, B650D4U3-2Q/BCM, B650D4U3	M-02
	B650D4U4-2L2T	M-03
	AM5D4ID-2T/BCM, AM5D4ID-2L+/BCM, AM5D4ID2	M-04
	EPYC4000D4U	M-05

1U4LW-B650/2L2T RPSU

1U4LW-B650 RPSU

General Purpose Server with Redundant PSU
Supporting up to 4 SATA Trays



		1U4LW-B650/2L2T RPSU	1U4LW-B650 RPSU
CPU	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors	
DIMM	Slot	4 DDR5 288-pin (2DPC)	
System Physical Status	Form Factor	1U Rackmount	
	Chassis Dimension	533.4 x 438 x 44.4 mm (21" x 17.2" x 1.75")	
Front Panel	Buttons	Power w/ LED, UID w/LED, System reset	
	LEDs	LANs, HDD activity, System health	
	I/O	2 Type-A (USB3.2 Gen1)	
Rear IO	RJ45	2 RJ45 (10GbE) by Broadcom BCM57416 2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI	2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI
	USB	4 Type-A (USB3.2 Gen1)	
	Others	1 UID w/ LED, 1 DB15 (VGA), 1 DB9 (COM), 1 DisplayPort, 1 HDMI	
Expansion Slots	Rear	1 FHHL PCIe4.0 x16	
Drive Bay/ Storage	External	4 Hot-swap 3.5" SATA drive bays	
	Internal	M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU] M2_2 (PCIe4.0 x4), supports 2280/2242 form factor [FCH]	M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU] M2_2 (PCIe4.0 x4), supports 2280/2242 form factor [FCH]
Power Supply	Module	1+1, 450W PSU	
System Cooling	Fan	5 PWM Hot-swap 40x28 mm fans	
Management	BMC	ASPEED AST2600	
Security		TPM (13-pin, SPI) by optional accessory	



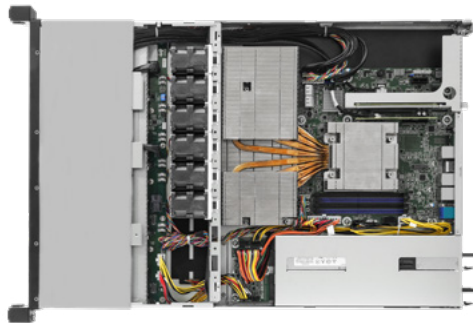
1U4L2E-B650 RPSU

General Purpose Server with Redundant PSU
Supporting up to 2 Gen4 NVMe and 2 SATA Trays



CPU	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors
DIMM	Slot	4 DDR5 288-pin (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, System Reset, UID button
	LEDs	Power, HDD Activity, LANs, System Event
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI
	USB	4 Type-A (USB3.2 Gen1)
	Others	1 UID button w/ LED, 1 DB15 (VGA), 1 DB9 (COM), 1 DisplayPort, 1 HDMI
Expansion Slots	Rear	1 FHHL PCIe4.0 x16
Drive Bay/ Storage	External	2 hot-swap 2.5" NVMe ^{Note1} (PCIe4.0 x4) or 3.5" SATA drive bays 2 hot-swap 3.5" SATA drive bays
	Internal	M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU] M2_2 ^{Note1} (PCIe4.0 x4), supports 2280/2242 form factor [FCH]
Power Supply	Module	1+1, 80-PLUS Platinum, 650W Slim PSU
System Cooling	Fan	6 PWM Hot-swap 40x56 mm fans
Management	BMC	ASPEED AST2600
Security		TPM (13-pin, SPI) by optional accessory

Note1: If support 2 NVMe drive bays, only M2_2 can be used



1U4LW-B650/2L2T

1U4LW-B650

General Purpose Server Equipped with Dual 10GbE
Supporting up to 4 SATA Trays



		1U4LW-B650/2L2T	1U4LW-B650
CPU	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors	
DIMM	Slot	4 DDR5 288-pin (2DPC)	
System Physical Status	Form Factor	1U Rackmount	
	Chassis Dimension	533.4 x 438 x 44.4 mm (21" x 17.2" x 1.75")	
Front Panel	Buttons	Power w/ LED, UID w/LED, System reset	
	LEDs	LANs, HDD activity, System health	
	I/O	2 Type-A (USB3.2 Gen1)	
Rear IO	RJ45	2 RJ45 (10GbE) by Broadcom BCM57416 2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI	2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI
	USB	4 Type-A (USB3.2 Gen1)	
	Others	1 UID w/ LED, 1 DB15 (VGA), 1 DB9 (COM), 1 DisplayPort, 1 HDMI	
Expansion Slots	Rear	1 FHHL PCIe4.0 x16 via RB1UX16_G4 (Up to 75W)	
Drive Bay/ Storage	External	4 Hot-swap 3.5" SATA drive bays	
	Internal	M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU] M2_2 (PCIe4.0 x4), supports 2280/2242 form factor [FCH]	M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU] M2_2 (PCIe4.0 x4), supports 2280/2242 form factor [FCH]
Power Supply	Module	1, 80-PLUS Gold, 400W PSU	
System Cooling	Fan	5 PWM Hot-swap 40x28 mm fan	
Management	BMC	ASPEED AST2600	
Security		TPM (13-pin, SPI) by optional accessory	



1U2S-B650

1U General Purpose Server For Small and Medium-sized Business



CPU	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors
DIMM	Slot	4 DDR5 288-pin (2DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	393.2 x 430 x 43.5 mm (15.5" x 16.93" x 1.71")
Front Panel	Buttons	Power, System Reset
	LEDs	Power, HDD Activity, LANs, System Event
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI
	USB	4 Type-A (USB3.2 Gen1)
	Others	1 UID button w/ LED, 1 DB15 (VGA), 1 DB9 (COM), 1 DisplayPort, 1 HDMI
Expansion Slots	Rear	1 FHHL PCIe4.0 x16 via RB1UX16_G4 (Up to 75W)
Drive Bay/ Storage	External	2 hot-swap 2.5" SATA drive bays
	Internal	1 fixed 3.5" SATA drive bay or 1 Slim ODD M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU] M2_2 (PCIe4.0 x4), supports 2280/2242 form factor [FCH]
Power Supply	Module	1, 80-PLUS Gold, 315W PSU
System Cooling	Fan	3 PWM Hot-swap 40x56 mm fans
	Fan	1 PWM Hot-swap 40x28 mm fans
Management	BMC	ASPEED AST2600
Security		TPM (13-pin, SPI) by optional accessory



4U18N-AM5/2T

4U18N-AM5

4U Highest-density Multi-Node Server



2 RJ45 (10GbE)



2+2 CRPS (2000W)

		4U18N-AM5/2T	4U18N-AM5
CPU (per node)	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors	
	TDP	Up to 65W	
DIMM (per node)	Slot	4 DDR5 288-pin (2DPC)	
System Physical Status	Form Factor	4U Rackmount	
	Chassis Dimension	950 x 438 x 176 mm (37.4" x 17.2" x 6.9")	
Front Panel (per node)	Buttons	UID, Power, RESET	
	LEDs	System Fail, LAN1/LAN2, UID, Power	
	RJ45	2 RJ45(10GbE) by BCM57416 1 dedicated IPMI	2 RJ45 (1GbE) by BCM5720L 1 dedicated IPMI
	USB	2 Type-A (USB3.2 Gen1)	
	VGA	1 DB15	
Storage (per node)	Internal	2 xed 2.5" NVMe (PCIe4.0 x4) drive bays	
		1 M-key (PCIe4.0 x4), supports 2280 form factor [CPU]	1 M-key (PCIe4.0 x4), supports 2280 form factor [CPU]
Power Supply	Module	2+2, 80-PLUS Platinum, 2000W CRPS	
System Cooling	Fan	5 PWM Hot-swap 80x80 mm fans	
Management (per node)	BMC	ASPEED AST2600	
Security (per node)		TPM (13-pin, SPI) by optional accessory	

1U2N2G-AM5/2T

Density-optimized 1U 2 Node GPU Server Equipped with Dual 10GbE Networking

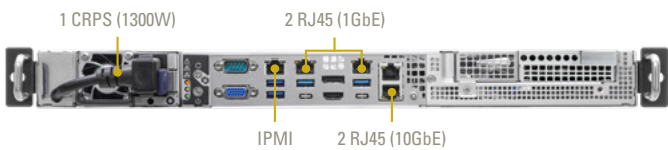
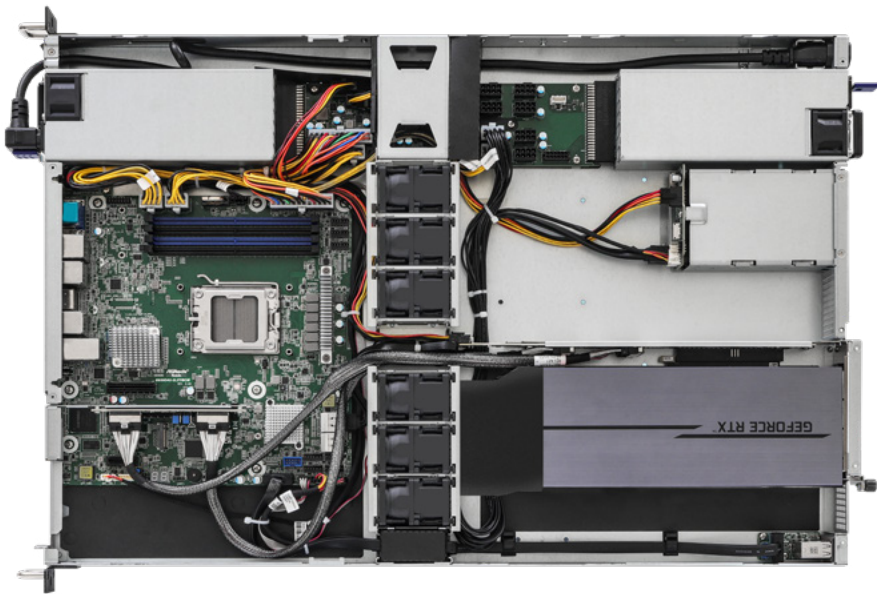


CPU (per node)	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors
DIMM (per node)	Slot	4 DDR5 288-pin (2DPC)
System Physical Status	Form Factor	1U Rackmount
	Chassis Dimension	650 x 438 x 43.5 mm (25.6" x 17.2" x 1.7")
Front Panel (per node)	Buttons	UID w/LED, Power w/LED
	LEDs	System Fail
Front Panel (per node)	I/O	2 RJ45 (10GbE) by Broadcom BCM57416, 1 dedicated IPMI
		2 Type-A (USB3.2 Gen1), 1 DB15 (VGA), 1 HDMI
Expansion Slots (per node)	Rear	1 FH dual-slot PCIe5.0 x16
Storage (per node)	Internal	1 M-key (PCIe5.0 x4), supports 2280 form factor
Power Supply	Module	1+1, 80-PLUS Platinum, 1600W CRPS
System Cooling	Fan	8 PWM Hot-swap 40x56 mm fans
Management (per node)	BMC	ASPEED AST2600
Security (per node)		TPM (13-pin, SPI) by optional accessory

1U1G-B650/2L2T

1U1G-B650

AMD Short-depth 1U GPU Server for Edge Deployment



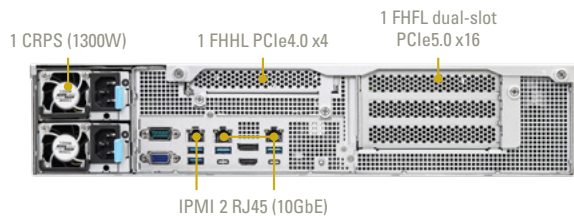
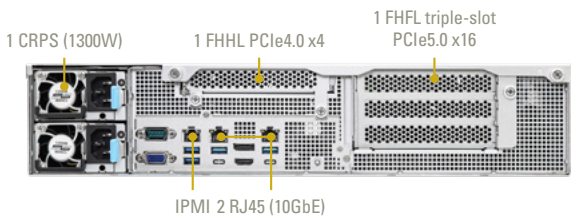
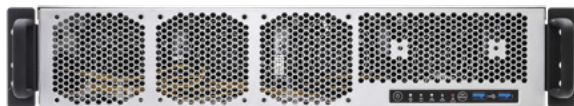
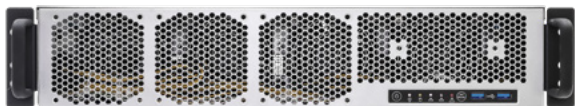
		1U1G-B650/2L2T	1U1G-B650
CPU	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors	
DIMM	Slot	4 DDR5 288-pin (2DPC)	
System Physical Status	Form Factor	1U Rackmount	
	Chassis Dimension	660.4 x 438.0 x 43.5 mm (26.00" x 17.24" x 1.71")	
Front Panel	Buttons	Power button w/ LED, UID button w/ LED, System Reset	
	LEDs	System Fault, LAN1/LAN2 Activity	
I/O		2 RJ45 (10GbE) by Broadcom BCM57416 2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI 4 USB Type-A (USB3.2 Gen1) 1 DB15 (VGA), 1 DisplayPort, 1 HDMI 1 DB9 (COM)	2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI 4 USB Type-A (USB3.2 Gen1) 1 DB15 (VGA), 1 DisplayPort, 1 HDMI 1 DB9 (COM)
Rear IO	USB	2 Type-A (USB3.2 Gen1)	
Expansion Slots	Front	1 FHHL PCIe4.0 x4 ^{Note1}	
	Rear	1 FHFL dual-slot PCIe5.0 x16	
Drive Bay/Storage	External	2 Hot-swap 2.5" SATA drive bays	
	Internal	1 M-key (PCIe5.0 x4), supports 2280/2242 form factor [CPU]	1 M-key (PCIe5.0 x4), supports 2280/2242 form factor [CPU] 1 M-key (PCIe4.0 x4), supports 2280/2242 form factor [FCH]
Power Supply	Module	1+1, 80-PLUS Platinum, 1300W CRPS	
System Cooling	Fan	6 PWM dual-rotor 40x56 mm fans	
Management	BMC	ASPEED AST2600	
Security		TPM (13-pin, SPI) by optional accessory	

Note1: 1 FHHL PCIe4.0 x4 support requires additional PCIe4.0 x4 to x16 riser cable please contact ASRock Rack.

2U1G-B650

2U1G-B650/EVAC

2U Short-Depth Rackmount Server Supporting Triple-Slot GPU Card



		2U1G-B650	2U1G-B650/EVAC
CPU	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors	
	TDP	Up to 120W	Up to 170W
DIMM	Slot	4 DDR5 288-pin (2DPC)	
System Physical Status	Form Factor	2U Rackmount	
	Chassis Dimension	477.7 x 430.4 x 88 mm (18.8" x 16.9" x 3.5")	
Front Panel	Buttons	Power button w/ LED, System Reset button	
	LEDs	System Fail LED, LAN1/LAN2 Activity, Power Status LED	
Rear IO	I/O	2 Type-A (USB3.2 Gen1)	
	RJ45	2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI	
	USB Others	4 Type-A (USB3.2 Gen1) 1 UID w/ LED, 1 DB15 (VGA), 1 DB9 (COM), 1 DisplayPort, 1 HDMI	
Expansion Slots	Rear	1 FHFL triple-slot ^{Note1} PCIe5.0 x16 1 FHFL PCIe4.0 x4	1 FHFL dual-slot ^{Note1} PCIe5.0 x16 1 FHFL PCIe4.0 x4
		1 M-key (PCIe5.0 x4), supports 2280/2242 form factor [CPU] 1 M-key (PCIe4.0 x4), supports 2280/2242 form factor [FCH] 2 optional fixed 2.5" drive bays	1 optional fixed 2.5" drive bays
Drive Bay/ Storage	Internal		
Power Supply	Module	1+1, 80-PLUS Platinum, 1200W CRPS	
System Cooling	Fan	4 PWM easy-swap 80x38 mm fans	
Management	BMC	ASPEED AST2600	
Security		TPM (13-pin, SPI) by optional accessory	

Note1: 1 FHFL PCIe5.0 x16 is a triple-slot expansion slot on 2U1G-B650, dual-slot on 2U1G-B650/EVAC

2U1G-B650/AQUA

2U Short-Depth Server Built for Peak CPU Cooling and 3-slot GPU Expansion



CPU	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors
	TDP	Up to 170W
DIMM	Slot	4 DDR5 288-pin (2DPC)
System Physical Status	Form Factor	2U Rackmount
	Chassis Dimension	477.7 x 430.4 x 88 mm (18.8" x 16.9" x 3.5")
Front Panel	Buttons	Power button w/ LED, System Reset button
	LEDs	System Fail LED, LAN1/LAN2 Activity, Power Status LED
	I/O	2 Type-A (USB3.2 Gen1)
Rear IO	RJ45	2 RJ45 (1GbE) by Intel® i210 1 dedicated IPMI
	USB	4 Type-A (USB3.2 Gen1)
	Others	1 UID w/ LED, 1 DB15 (VGA), 1 DB9 (COM), 1 DisplayPort, 1 HDMI
Expansion Slots	Rear	1 FHFL triple-slot PCIe5.0 x16
		1 FHFL PCIe4.0 x4
Drive Bay/ Storage	Internal	1 M-key (PCIe5.0 x4), supports 2280/2242 form factor [CPU]
		1 M-key (PCIe4.0 x4), supports 2280/2242 form factor [FCH] 2 optional fixed 2.5" drive bays
Power Supply	Module	1+1, 80-PLUS Platinum, 1200W CRPS
System Cooling	Fan	Dynatron L35 (w/ 3 fixed 80x38 mm fans)
		1 PWM easy-swap 80x38 mm fan
Management	BMC	ASPEED AST2600
Security		TPM (13-pin, SPI) by optional accessory

40U12N-AM5

Ultra-Dense 12-Node 40U OCP Server for
Web Hosting at Scale



IPMI



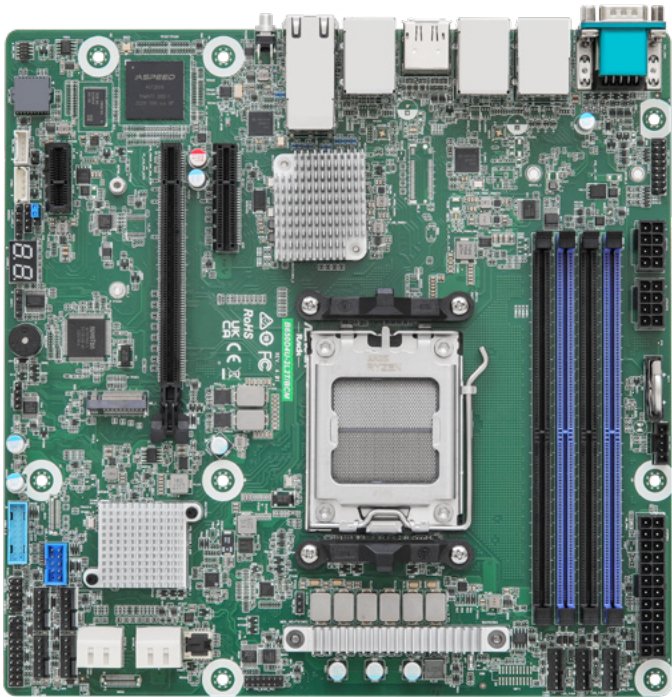
IT Gear connect

CPU	Socket	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors
DIMM	Slot	4 DDR5 288-pin (2DPC)
System Physical Status	Form Factor	40U, twelve-node shelf for ORv3
	Chassis Dimension	803.3 x 537 x 188.7mm (31.6" x 21.1" x 7.4", Shelf Dimensions)
Front Panel	Buttons	Power button w/ LED, UID button w/ LED
	I/O	1 DB15 (VGA), 2 Type-A (USB3.2 Gen1), 1 dedicated IPMI, 2 RJ45 (10GbE)
Rear IO	LEDs	Fan fail LEDs
	Power connector	1 IT Gear connector for ORv3 54V busbar
Drive Bay/ Storage (per sled)	Internal	2 M-key (PCIe5.0 x4), supports 2280 form factor
Power Supply	Module	Centralized 54V busbar to 40U12N_PDB
System Cooling (per sled)	Fan	8 PWM Hot-swap 80x56 fans
Management (per sled)	BMC	ASPEED AST2600
Security (per sled)		TPM (13-pin, SPI) by optional accessory

B650D4U-2L2T/BCM

B650D4U-2T/BCM • B650D4U

General Purpose Server Board
Equipped with Greater Dual 10GbE Networking



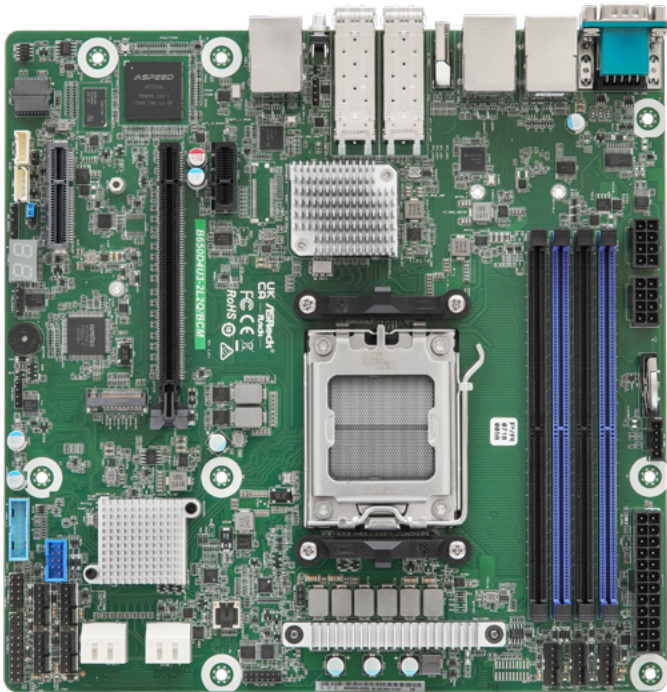
		B650D4U-2L2T/BCM	B650D4U-2T/BCM	B650D4U
Form Factor		Micro-ATX (9.6" x 9.6")		
Processor System	CPU FCH	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors AMD B650E chipset		
Memory	Capacity	4 DIMM Slots (2DPC); Supports DDR5 ECC/non-ECC UDIMM, max. 5600MHz (1DPC); max. 3600MHz (2DPC)		
Expansion	PCIe slot	SLOT7: PCIe5.0 x4 [CPU] SLOT6: PCIe5.0 x16 [CPU] SLOT4: PCIe4.0 x1 [FCH]		
	Others	OCuLink1 (PCIe4.0 x4) ^{Note1} [CPU] OCuLink2 (PCIe3.0 x4 or 4 SATA 6Gb/s) ^{Note2} [FCH]		
Storage	M.2	M2_1 ^{Note1} (PCIe5.0 x4), supports 2280/2242 form factor [CPU]	M2_1 ^{Note1} (PCIe5.0 x4), supports 2280/2242 form factor [CPU]	M2_1 ^{Note1} (PCIe5.0 x4), supports 2280/2242 form factor [CPU] M2_2 ^{Note3} (PCIe4.0 x4), supports 2280/2242 form factor [FCH]
	SATA port	4 SATA 6Gb/s: 4 SATA 7-pin or 1 OcuLink ^{Note2}		
Network	RJ45	2 RJ45 (10GbE) by Broadcom BCM57416 2 RJ45 (1GbE) by Intel® i210	2 RJ45 (10GbE) by Broadcom BCM57416	2 RJ45 (1GbE) by Intel® i210
Management	BMC Dedicated IPMI	ASPEED AST2600 1 RJ45 via Realtek RTL8211F		
I/O	USB	6 USB3.2 Gen1 ports: 4 rear Type-A, 2 via 19-pin header 2 USB2.0 ports: 2 via 9-pin header		
	COM port	1 DB9 (COM)		
	Video	1 DB15 (VGA), 1 (15-pin) header, 1 DisplayPort, 1 HDMI		
Security	TPM	Supports 13-pin (SPI) TPM modules		

Note1: M2_1 share lanes with OcuLink1, OcuLink1 support possible by depopulating M2_1 and other BOM change
Note2: 4 SATA 7-pin share lanes with OcuLink2, OcuLink2 support possible by depopulating 4 SATA 7-pin and other BOM change
Note3: M2_2 only available on B650D4U SKU

B650D4U3-2L2Q/BCM

B650D4U3-2Q/BCM • B650D4U3

General Purpose Server Board
Equipped with Greater Dual 10GbE Networking

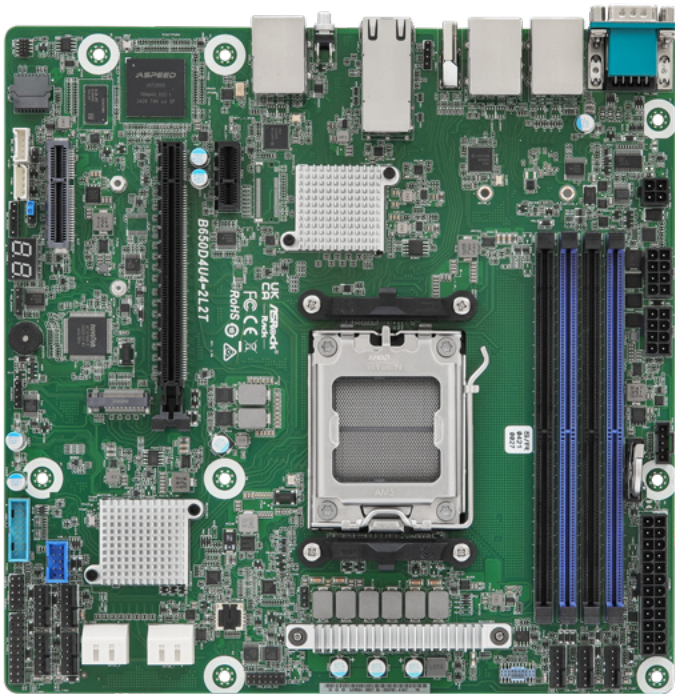


		B650D4U3-2L2Q/BCM	B650D4U3-2Q/BCM	B650D4U3
Form Factor		Micro-ATX (9.6" x 9.6")		
Processor System	CPU	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors		
	FCH	AMD B650E chipset		
Memory	Capacity	4 DIMM Slots (2DPC); Supports DDR5 ECC/non-ECC UDIMM, max. 5600MHz (1DPC); max. 3600MHz (2DPC)		
Expansion	PCIe slot	SLOT7: PCIe4.0 x1 [FCH] SLOT6: PCIe5.0 x16 [CPU] SLOT4: PCIe4.0 x4 [FCH]		
Storage	M.2	M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU]	M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU]	M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU] M2_2 ^{Note1} (PCIe4.0 x4), (PCIe4.0 x4), supports 22110/2280 form factor [CPU]
	SATA port	4 SATA 6Gb/s: 4 SATA 7-pin		
Network	RJ45	2 RJ45 (1GbE) by Intel® i210	N/A	2 RJ45 (1GbE) by Intel® i210
	SFP28	2 SFP28 (25GbE) by Broadcom BCM57502		N/A
Management	BMC	ASPEED AST2600		
	Dedicated IPMI	1 RJ45 via Realtek RTL8211F		
I/O	USB	6 USB3.2 Gen1 ports: 4 rear Type-A, 2 via 19-pin header 2 USB2.0 ports: 2 via 9-pin header		
	COM port	1 DB9 (COM)		
	Video	1 DB15 (VGA), 1 HDMI		
Security	TPM	Supports 13-pin (SPI) TPM modules		

Note1: M2_2 only available on B650D4U3 SKU

B650D4U4-2L2T

General Purpose Motherboard with Dual 10GbE Networking



Form Factor		Micro-ATX (9.6" x 9.6")
Processor System	CPU FCH	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors AMD B650E chipset
Memory	Capacity	4 DIMM Slots (2DPC); Supports DDR5 ECC/non-ECC UDIMM, max. 5600MHz (1DPC); max. 3600MHz (2DPC)
Expansion	PCIe slot	SLOT7: PCIe4.0 x1 [FCH] SLOT6: FL PCIe5.0 x16 [CPU] SLOT4: HL PCIe4.0 x4 [FCH]
Storage	M.2 SATA port	M2_1 (PCIe5.0 x4), supports 2280/2242 form factor [CPU] 4 SATA 6Gb/s: 4 SATA 7-pin
Network	RJ45	2 RJ45 (10GbE) by Intel® E610 2 RJ45 (1GbE) by Intel® i210
Management	BMC Dedicated IPMI	ASPEED AST2600 1 RJ45 via Realtek RTL8211F
I/O	USB COM port Video	6 USB3.2 Gen1 ports: 4 rear Type-A, 2 via 19-pin header 2 USB2.0 ports: 2 via 9-pin header 1 DB9 (COM) 1 DB15 (VGA), 1 (15-pin) header, 1 DisplayPort, 1 HDMI
Security	TPM	Supports 13-pin (SPI) TPM modules

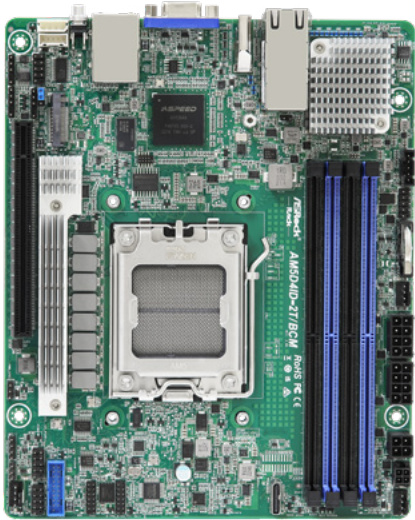
AM5D4ID-2T/BCM

AM5D4ID-2L+/BCM

Compact Motherboard For Small Form Factor Applications



		AM5D4ID-2T/BCM	AM5D4ID-2L+/BCM
Power Source		Support ATX PSU and 12V DC-in	
Form Factor		Deep mini-ITX (6.7" x 8.2")	
Processor System	CPU	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors	
	Chipset	KNOLL3 X300	
Memory	Capacity	4 DIMM Slots (2DPC); Supports DDR5 ECC/non-ECC UDIMM, max. 5600MHz (1DPC); max. 3600MHz (2DPC)	
Expansion	PCIe slot	SLOT7: PCIe5.0 x16 [CPU]	
	Others	1 OCuLink (PCIe4.0 x2) [CPU]	2 RJ45 (1GbE) by BCM5720L
Storage	M.2	1 M-key (PCIe5.0 x4), supports 2280 form factor [CPU]	
Network	RJ45	2 RJ45 (10GbE) by 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 (9-pin) header	
	Video	1 DB15 (VGA), 1 HDMI	
Security	TPM	Supports 13-pin (SPI) TPM modules	

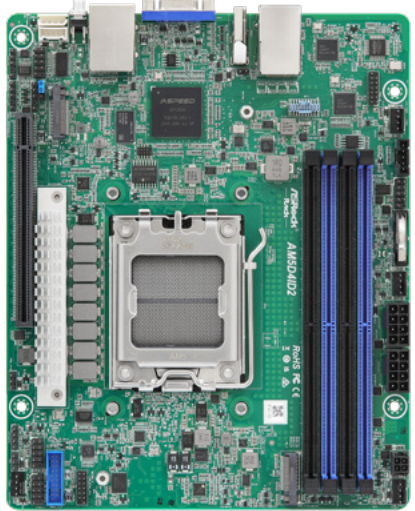


AM5D4ID2

Compact Motherboard for Multi-Node and Small Form Factor Applications

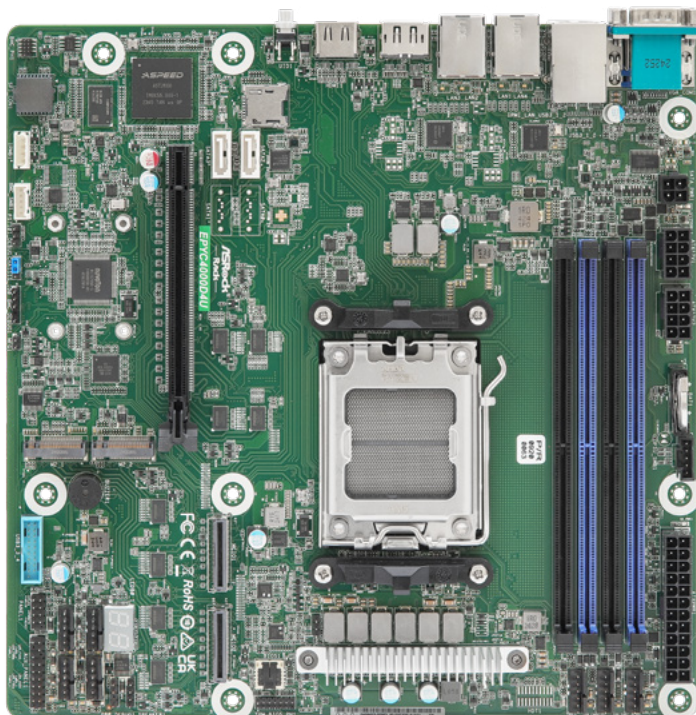


Power Source		Support ATX PSU and 12V DC-in
Form Factor		Deep mini-ITX (6.7" x 8.2")
Processor System	CPU	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors
	Chipset	KNOLL3 X300
Memory	Capacity	4 DIMM Slots (2DPC); Supports DDR5 ECC/non-ECC UDIMM, max. 5600MHz (1DPC); max. 3600MHz (2DPC)
Expansion	PCIe slot	SLOT7: PCIe5.0 x16 [CPU]
Storage	M.2	2 M-key (PCIe5.0 x4), supports 2280 form factor [CPU]
Network	RJ45	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), 1 HDMI
Security	TPM	Supports 13-pin (SPI) TPM modules



EPYC4000D4U

Economical Board with Essential Functions



Power Source		Support ATX PSU or 12V DC-in
Form Factor		Micro-ATX (9.6" x 9.6")
Processor System	CPU Chipset	1 Socket AM5 (LGA1718); Supports AMD EPYC™ 4005/4004 and AMD Ryzen™ 9000/8000/7000 Series Processors KNOLL3 X600
Memory	Capacity	4 DIMM Slots (2DPC); Supports DDR5 ECC/non-ECC UDIMM, max. 5600MHz (1DPC); max. 3600MHz (2DPC)
Expansion	PCIe slot Others	SLOT6: FL PCIe5.0 x16 [CPU] ^{Note1/2/3} MCI01 (PCIe5.0 x8) ^{Note1/2/3} MCI02 (2 PCIe5.0 x4) ^{Note1/2/4}
Storage	M.2 SATA port	2 M-key (PCIe5.0 x4), supports 2280/2242 form factor [CPU] ^{Note1/2/4} 2 SATA 6Gb/s by ASM1061: 2 SATA 7-pin
Network	RJ45	2 RJ45 (1GbE) by Intel® i210
Management	BMC Dedicated IPMI	ASPEED AST2600 1 RJ45 via Realtek RTL8211F
I/O	USB COM port Video	3 USB3.2 Gen1 ports: 2 rear Type-A, 1 via 19-pin header 1 USB2.0 port: 1 via 19-pin header 1 DB9 (COM) 1 DB15 (VGA), 1 DisplayPort, 1 HDMI
Security	TPM	Supports 13-pin (SPI) TPM modules

Note1: When installing AMD Ryzen™ 8000 Series (Phoenix) Processors:

- SLOT6 supports PCIe4.0 x8 only
- MCI01 will disable and MCI02 supports 2 PCIe4.0 x4 only
- 2 M.2 support PCIe4.0 x4 only

Note2: When installing AMD Ryzen™ 8000 Series (Phoenix 2) Processors:

- SLOT6 supports PCIe4.0 x4 only
- MCI01 will disable and MCI02 supports PCIe4.0 x4 x2 only
- M2_1 supports PCIe4.0 x2 only and M2_2 supports PCIe4.0 x4 only

Note3: SLOT6 shares lanes with MCI01.

- SLOT6 will support only PCIe5.0 x8 when MCI01 is populated.
- MCI01 will disable when SLOT6 supports PCIe x16

Note4: MCI02 shares lanes with 2 M.2.

- MCI02 will support PCIe5.0 x4 only when 1 M.2 is populated.
- MCI02 will disable when 2 M.2 are populated.
- 2 M.2 will disable when MCI02 supports 2 PCIe x4

About ASRock Rack

ASRock Rack Inc., established in 2013, specialized in the field of Cloud Computing server hardware. Inheriting ASRock's design concepts, Creativity, Consideration and Cost-effectiveness, the company is dedicated bringing the Server Industry out of the box thinking with the passion to innovate. Leveraged by ASRock's growing momentum and distribution channels, this young and vibrant company targets at the booming market of cloud computing and commits to serve the market with user friendly, eco-friendly, Do-It-Yourself Server hardware, featuring flexible and reliable products.

GPU Servers

Accelerating imaginations and breakthroughs with cutting-edge technology, the ASRock Rack GPU server lineup unlocks unmatched performance, excelling across a wide range of workloads including AI, HPC, cloud gaming, and video rendering for cloud, on-prem, and edge environments.



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Built to support a high density of NVMe drives, the ASRock Rack All-Flash storage server delivers unparalleled speed, ultra-low latency, and high throughput—making it ideal for AI, HPC, CDN, and performance-driven environments where fast, reliable data access is critical.

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Maximize performance and efficiency with ASRock Rack Multi-Node Servers—architected to deliver high-density computing, optimized resource utilization, and seamless scalability for modern data centers, cloud computing and web hosting.

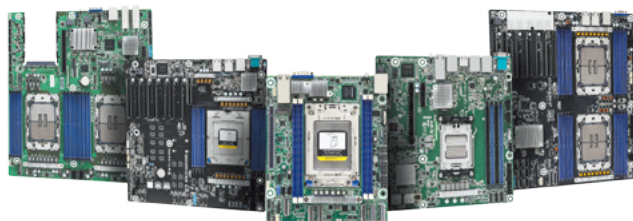


OCP

ASRock Rack OCP solutions are designed to enhance power efficiency, streamline rack integration, and promote sustainability in alignment with an open standard.

Rack Servers

ASRock Rack extensive portfolio of general purpose, compute, and storage servers in 1U, 2U, or 4U for diverse workloads from small business, virtualization, VDI, e-commerce to hyper-converged infrastructure, and more.



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