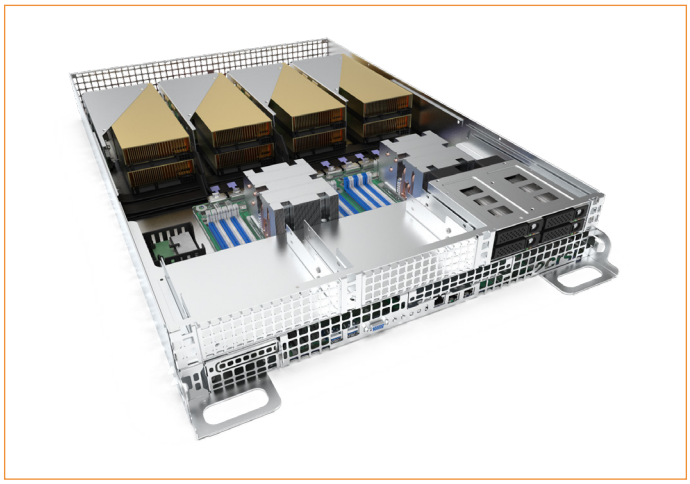
DATASHEET

OCtoPus 1.8 SP5-D 2OU

OCP ORV3 READY IMMERSION COOLING SERVER

2 OpenU / 8 GPUs



No contractual

Key Features per node

- 21-inch 2OpenU
- Dual AMD EPYC™ 9004-9005 Socket SP5
- 24x DDR5 @ 6400MHz
- 8x PCIe 5.0 x16 for GPUs
- Immersion cooling

SCAN THE CODE!
TO DISCOVER MORE
ABOUT THIS PRODUCT

AMD EPYC™ 9005 Series Processors family

The AMD EPYC™ 9005 Series Processors (codename Turin) deliver a new level of performance, efficiency, and scalability for modern data centers. Built on the advanced Zen 5 architecture, they support up to 128 cores per socket, with enhanced energy efficiency and memory bandwidth. The EPYC 9005 Series is compatible with the latest DDR5 6400 MT/s memory and PCI Express 5.0, ensuring exceptional throughput for AI, HPC, and cloud applications. Thanks to AMD's integrated security suite, including Secure Memory Encryption (SME) and Secure Encrypted Virtualization (SEV), these processors protect your data and workloads at every level of operation.

High-Performance Computing, Designed for Immersion Cooling

Engineered for advanced immersion cooling solutions, our 2U server offers unparalleled flexibility and power in a compact form factor.
Key features include support for up to 8 GPUs, each with a maximum power draw of 600W, and dual AMD EPYC™ processors from the 9004/9005 series families.
Say goodbye to overheating limits and hello to ultimate performance.

Engineered for ORV3 in Immersion Cooling

The Atlas 1.8 platform is designed for deployment in immersion-cooled OCP Open Rack v3 (ORv3) environments, aligning with ORv3 mechanical dimensions, rack-level integration principles, and front-access serviceability. Its architecture supports immersion-specific operational requirements, enabling stable thermal performance and consistent operation within ORv3-based, immersion-ready data center infrastructures

Unmatched Scalability and Flexibility

With its versatile architecture, this server accommodates a wide range of configurations to meet diverse operational needs. From high-density GPU setups to mixed workloads, it adapts seamlessly to support varying computational demands, making it an ideal choice for growing businesses and large-scale deployments alike.

Optimized for Next-Gen Workloads

Designed to excel in AI workloads, HPC clusters, and enterprise environments, this solution delivers unmatched efficiency, reliability, and scalability for even the most demanding computational tasks.

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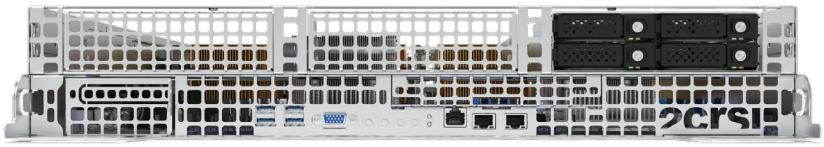


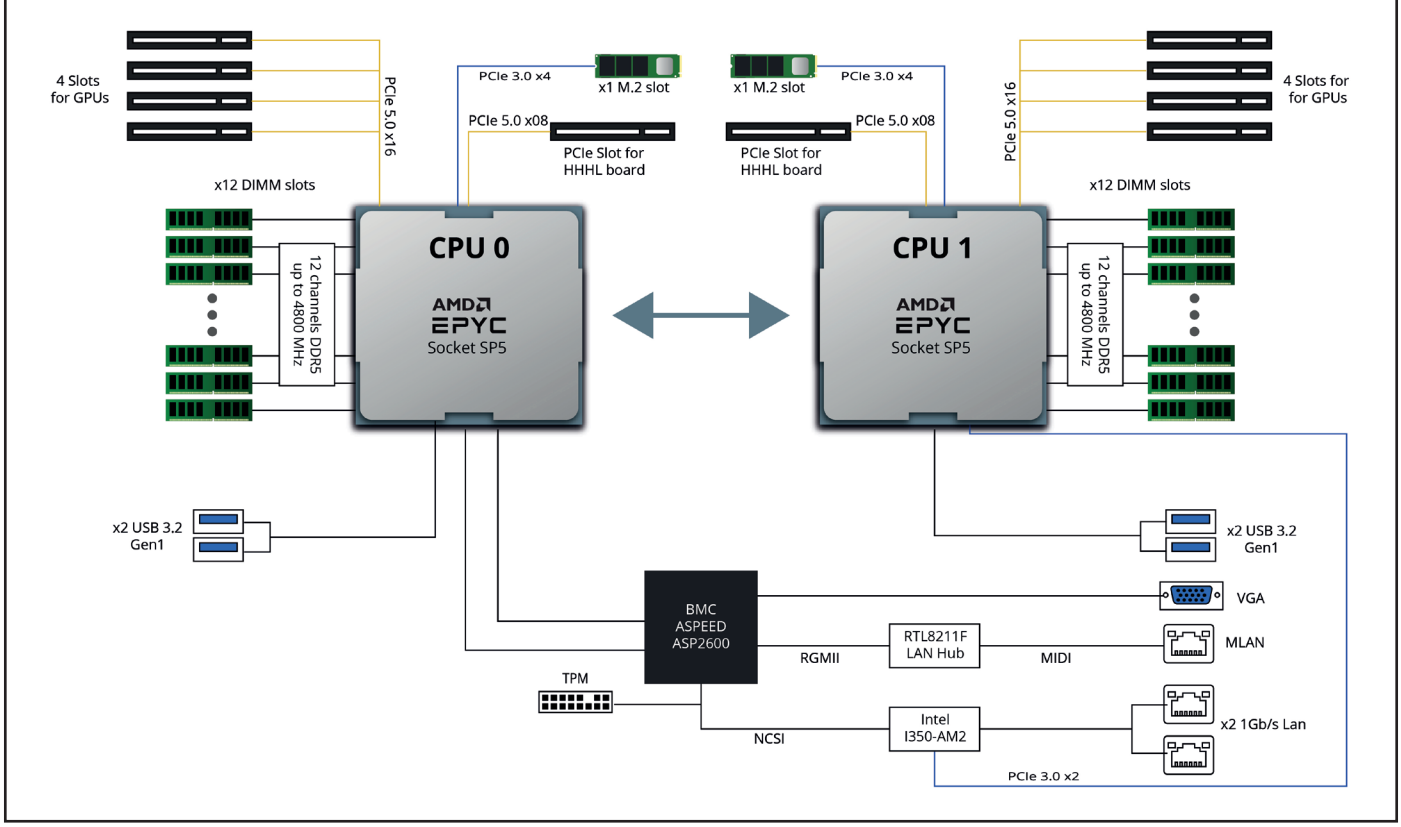
SKU based on options

This product is available with different options.
This table provides valuable information about the features and capabilities associated with each SKU (stock keeping unit), enabling potential customers and internal stakeholders to make informed decisions. Each SKU has been carefully classified according to the options available, providing a clear picture of the functionality associated with each variant.

SKU	Front storage	Front Expension slots
BRB-OC1-208-SP5D-U010	No	1x PCIe x16 (Gen5 x16 link), HH-HL [CPU0] 1x PCIe x16 (Gen5 x16 link), HH-HL [CPU1]
BRB-OC1-208-SP5D-U011	2x 7/15mm NVMe (PCIe G5) 32Gbps hot-swappable bays [CPU0] 2x 7/15mm NVMe (PCIe G5) 32Gbps hot-swappable bays [CPU1]	1x PCIe x16 (Gen5 x8 link), HH-HL [CPU0] 1x PCIe x16 (Gen5 x8 link), HH-HL [CPU1]
BRB-OC1-208- SP5D-U012	2x 7/15mm NVMe (PCIe G5) 32Gbps hot-swappable bays [CPU0]	1x PCIe x16 (Gen5 x8 link), HH-HL [CPU0] 1x PCIe x16 (Gen5 x16 link), HH-HL [CPU1]

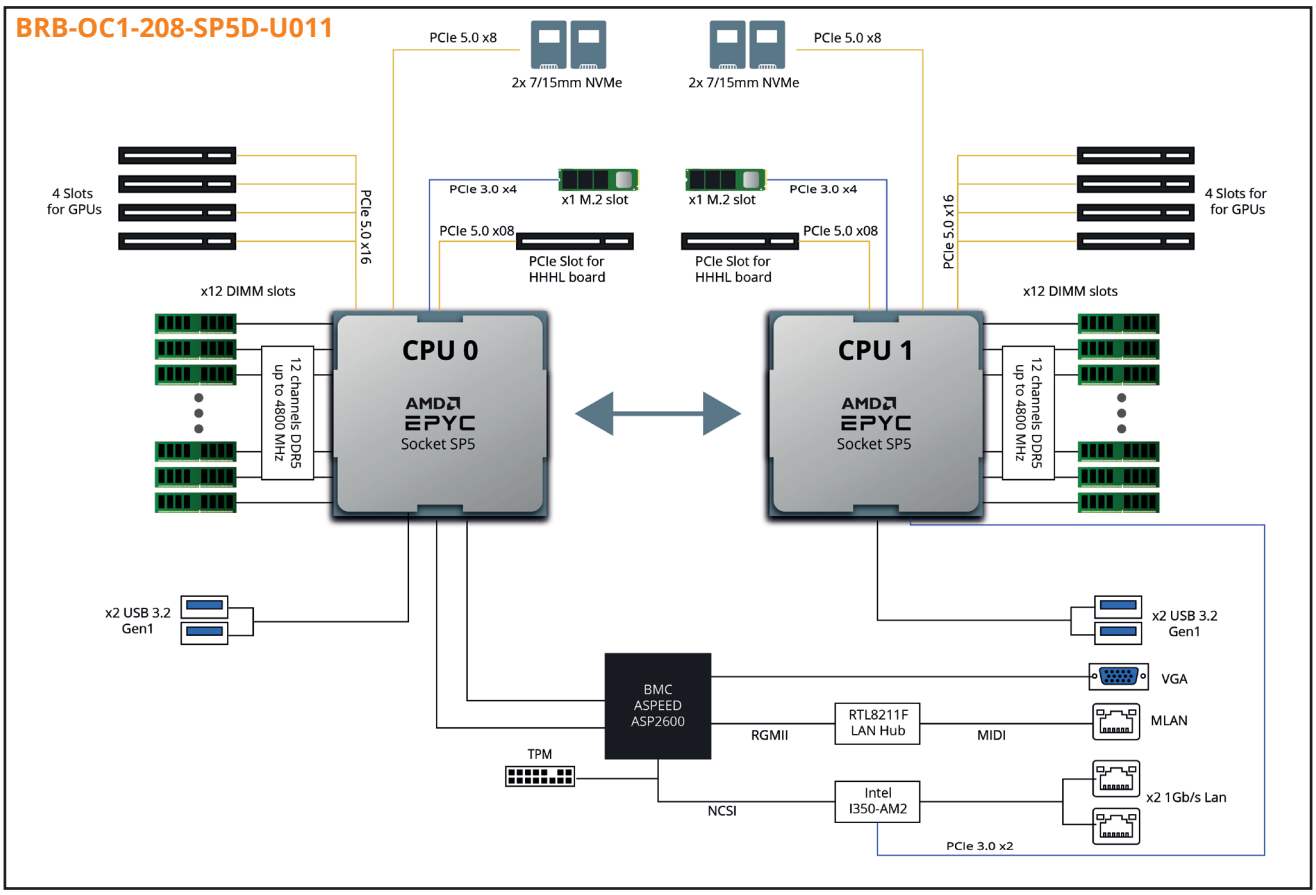
BLOCK DIAGRAMS

BRB-OC1-208-SP5D-U010

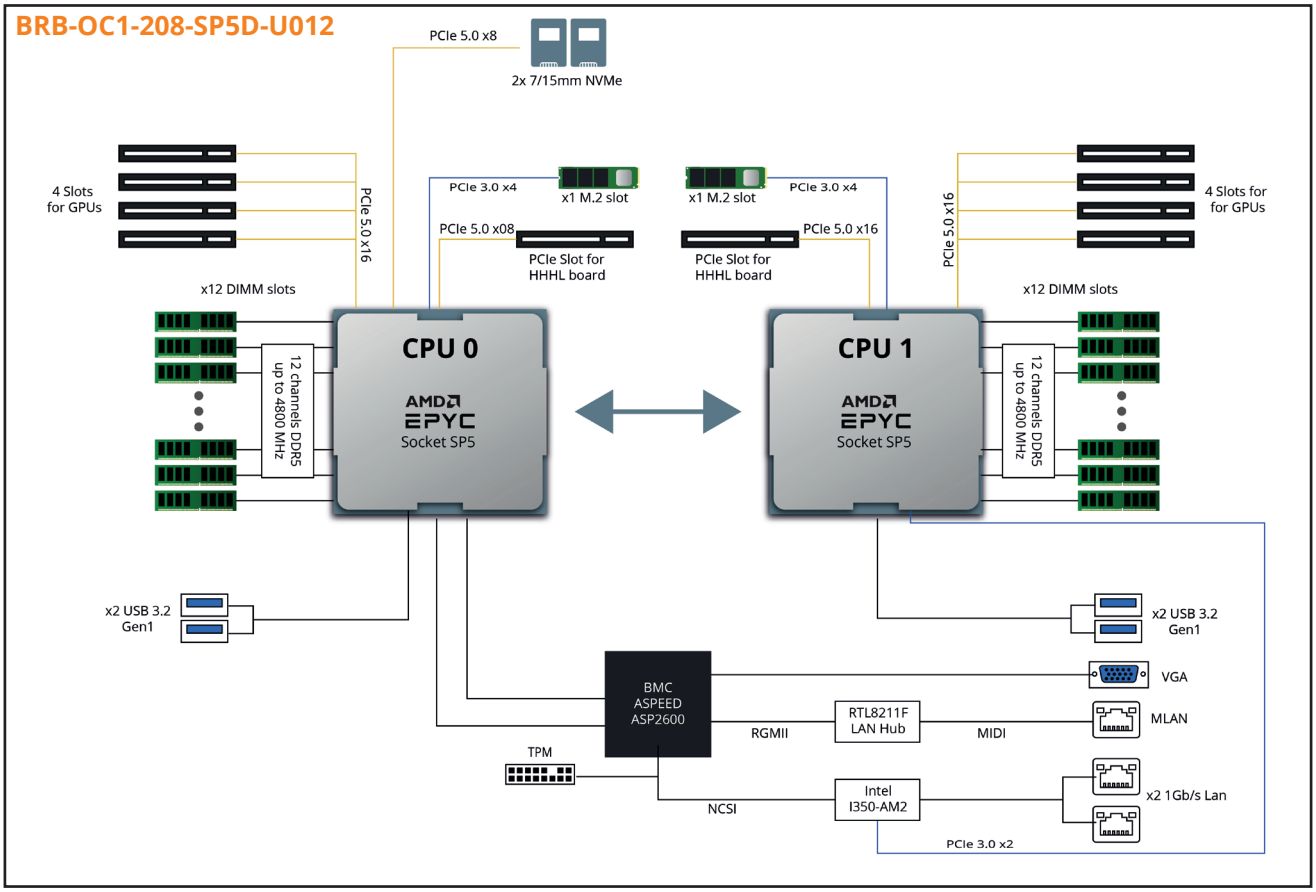


OCtoPus 1.8 SP5-D 2OU

BRB-OC1-208-SP5D-U011



BRB-OC1-208-SP5D-U012



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OCtoPus 1.8 SP5-D 2OU

SPECIFICIATIONS

system	**Model**	OCtoPus 1.8 SP5-D 2OU
	Form factor	21-inch 2OpenU
	Dimension	880 x 537 x 86mm (D x W x H)
	Cooling technology	Immersion Cooling Single phase
Storage	**Internal type**	1x M.2 (Gen3 x4 link, PCIe or SATA 6Gb/s); 22110/2280 [CPU0] 1x M.2 (Gen3 x4 link, PCIe or SATA 6Gb/s); 22110/2280 [CPU1]
	External type	See SKUs table
	RAID controler	MegaRAID 9660-16i (Gen4) Tri-Mode RAID Adapter (Optional)
Motherboard	**CPU per node**	Dual AMD EPYC™ 9xx5/9xx4 Turin, Genoa, Bergamo and Genoa-X with AMD 3D V-Cache™ Technology Series Processor families, up to 160-core, 320 threads per processor, cTDP up to 400W
	Chipset	System on chip
	Expansion slots for Accelerators	4x PCIe x16 (Gen5 x16 link), HH-HL DW [CPU0]* 4x PCIe x16 (Gen5 x16 link), HH-HL DW [CPU1] * *For GPU TDP up to 350W, NVL2 supported
	Front expansion slots	See SKUs table
	TPM	1x TPM header with SPI interface for TPM 2.0 module optional
	BMC	Aspeed 2600
Memory	**Total slots**	24 DIMM slots (12-Channel per CPU, 12 DIMM per CPU)
	Total Capacity	RDIMM modules up to 128GB supported 3DS RDIMM modules up to 512GB supported
	Memory type and speed	AMD EPYC™ 9005: RDIMM Up to 6400 MT/s AMD EPYC™ 9004: RDIMM Up to 4800 MT/s
Network	**Onboard**	1x Realtek RTL8211E for dedicated management GLAN 2x 1GbE LAN ports (1 x Intel® i350-AM2), support NCSI
I/O	**Front**	4x USB 3.2 Gen1 type A 1x DB15 (VGA) 2x RJ45 1x RJ45 Management port
	Switch / LED	1x Power button with LED 1x ID button with LED 1x HDD LED 1x Status LED 1x System reset button
Management solution	**Software**	Aspeed® AST2600 management controller
	Remote management	BMC Remote control based on Aspeed® AST2600 remote management controller. (Power Control Configuration, Chassis Identify, Boot Option, iKVM, BMC Account Configuration)
Power supply	**Type**	OCP technology ORV3 48V DC
Operating environement	**Operating temperature**	10°C ~ 40°C (50°F ~ 104°F)
	Non-operating temperature	Non operation temperature: -40°C ~ 60°C (40° ~ 140°F)
	Operative relative humidity	95%, non-condensing at 35° C
Warranty	**2CRSi** hardware warranty includes a one year, parts and labour with return to 2CRSi selling entity. Customers may purchase an extended warranty of up to 3 years on parts and labour with different support levels. Please contact 2CRSi at support@2crsi.com or reach your sales point of contact for complete warranty details including limitations and transferability. 2crsi.com/global-location	