



BullSequana mid-range server family

Efficient operation.
Optimal performance.

BullSequana mid-range server family introduction

BullSequana mid-range servers provide a **comprehensive and versatile** foundation for HPC and AI environments, supporting critical functions **from login, visualisation, and administration/management to compute, acceleration, and storage nodes**. These roles are essential to ensure system **accessibility, efficient operations, and optimal performance** across increasingly complex and data-intensive HPC-AI workflows.

Built with the latest technologies from **Intel, AMD, and NVIDIA**, they deliver the flexibility and power needed to support hybrid computing, advanced simulations, and AI innovation at scale.

Complementing the flagship BullSequana XH3500 for extreme-scale HPC and AI, mid-range servers provide the flexible and cost-efficient infrastructure layer needed to run and support day-to-day operations and diverse workloads.



High-performance with leading technologies

- In partnership with leading microprocessor providers, integrating the latest technologies without vendor lock-in.
- Advanced configuration features for ultra-low latency interconnects to ensure seamless, high speed data transfers across the cluster.



Local expertise, fast support

- European-based integration, testing and validation thanks to local manufacturing capabilities ensuring engineering excellence.
- Well-distributed, product-related service support to provide rapid deployment and responsive services.



Bull HPC/AI Software Suite

- Comprehensive software suite designed to maximise performance while improving efficiency, scalability, and adaptability, and reducing the carbon footprint.
- By combining AI with enhanced security, it delivers consistent high performance across the entire infrastructure, improves power efficiency through precise resource control, and provides end-to-end, multi-layered security from hardware to applications.



From use cases to application optimisation

- Ready-to-deploy use cases across all verticals enabling rapid deployment and fast real-world impact.
- Application optimisation expertise supported by in-house data scientists for code and workload fine-tuning, maximising performance and efficiency.

Technical specifications

Infrastructure specifications

Physical characteristics	<ul style="list-style-type: none">• Dimensions<ul style="list-style-type: none">• 42 RU or 47 RU• H x W x D mm (in): 2250 (88.6) x 800 (31.5) x 1200 (47.2)• Weight with basic configuration (only frame) in kg (lbs): 160 (352.7)• Weight with maximum configuration:<ul style="list-style-type: none">• Static load in kg (lbs): 1500 (3306.9)• Transport load in kg (lbs): 1020 kg (2248.7)
Power	<ul style="list-style-type: none">• Up to 4x PDUs, three phase (32 A, 63 A, 125 A)
Cooling	<ul style="list-style-type: none">• Optional rear door heat exchanger

Security and software specifications

Availability and RAS features	<ul style="list-style-type: none">• Smart Crisis Management and Protection, Dual ROM architecture• Hot swap devices (PSUs, PCIe blades, NVMe drives)
System management	<ul style="list-style-type: none">• BMC based on Aspeed AST2600• Operating systems: Red Hat Enterprise Linux• Bull Hardware Abstraction Layer (HAL) and monitoring exporters & dashboards• Bull Management Stacks• Bull Smart Performance Management Suite<ul style="list-style-type: none">• Bull Slurm workload scheduler,• Bull IBMS (Interconnect faBric Monitoring System),• Bull OpenMPI, GPU accelerator environments, and DOCA-OFED• Sylabs SingularityPRO and SingularityENT: container run-time and container image format• BullSequana ARGOS: monitor, control, and optimise cluster performance and efficiency
Security features	<ul style="list-style-type: none">• TPM 2.0, secure boot, secure firmware
Regulation and safety	<ul style="list-style-type: none">• Global compliance: RoHS, REACH• Certification: CE, ErP Lot 9, FCC

Server specifications BullSequana X440-A6

Use case	<ul style="list-style-type: none">• Compute CPU
CPU/GPU architecture	<ul style="list-style-type: none">• AMD EPYC™ 9005 Series Processors• AMD EPYC™ 9004 Series Processors• Dual processor per node• Max cTDP up to 400W
Memory	<ul style="list-style-type: none">• 12-Channel DDR5 RDIMM, 96x DIMMs• Up to 6400 MT/s
Storage	<ul style="list-style-type: none">• Front hot-swap: 8x 2.5"• Internal M.2: 4x M.2
Interconnect	<ul style="list-style-type: none">• 4x LP Gen5 x16
I/O ports	<ul style="list-style-type: none">• 8x USB 3.2• 4x Mini-DP• 8x 1Gb/s LAN• 4x 1Gb/s management LAN
Power	<ul style="list-style-type: none">• Dual C19 3000W 80 PLUS Titanium redundant power supply• AC Input:<ul style="list-style-type: none">• 100-127V~/16A, 50/60Hz• 200-207V~/16A, 50/60Hz• 208-240V~/16A, 50/60Hz
Physical dimensions	<ul style="list-style-type: none">• Dimensions H x W x D mm (in): 87.5 mm (3.4) x 400 mm (15.7) x 877 mm (34.5)• 2U 4N 2S• Total weight in kg (lbs): 55 (121.3)

Server specifications BullSequana X431-A6

Use case	<ul style="list-style-type: none">• Administration, service, storage
CPU/GPU architecture	<ul style="list-style-type: none">• AMD EPYC™ 9005 Series Processors• AMD EPYC™ 9004 Series Processors• Single processor• Max cTDP up to 500W
Memory	<ul style="list-style-type: none">• 12-Channel DDR5 RDIMM, 12x DIMMs• Up to 6400 MT/s
Storage	<ul style="list-style-type: none">• Front hot swap: 12x 3.5"/2.5"• Internal: M.2: 1x M.2
Interconnect	<ul style="list-style-type: none">• 4x FHHL gen 5 x16• 2x OCP 3.0 gen 5 x16
I/O ports	<ul style="list-style-type: none">• 2x USB 3.2• 1x Mini-DP• 1x 1Gb/s RJ45• 1x 1Gb/s MLAN
Power	<ul style="list-style-type: none">• Dual C13 1300W 80 PLUS Titanium redundant power supplies• AC Input:<ul style="list-style-type: none">• 100-127V~/12A, 50-60Hz• 200-240V~/8A, 50-60Hz
Physical dimensions	<ul style="list-style-type: none">• Dimensions H x W x D mm (in): 87.5 mm (3.4) × 483 mm (19.0) × 710 mm (28.0)• 2U 1N 1S• Total weight in kg (lbs): 18,2 (40.1)

Server specifications BullSequana X430-A6

Use case	<ul style="list-style-type: none">• Administration, service, storage
CPU/GPU architecture	<ul style="list-style-type: none">• AMD EPYC™ 9005 Series Processors• AMD EPYC™ 9004 Series Processors• Dual processor• Max cTDP up to 400W
Memory	<ul style="list-style-type: none">• 12-Channel DDR5 RDIMM, 24x DIMMs• Up to 6400 MT/s
Storage	<ul style="list-style-type: none">• 12x 3.5/2.5" Gen4• 2x 2.5" Gen4• 3x M.2 Gen3
Interconnect	<ul style="list-style-type: none">• 6x FHH L gen 5 x16• 2x OCP 3.0 gen 5 x16
I/O ports	<ul style="list-style-type: none">• 2x USB 3.2• 1x Mini-DP• 1x 1Gb/s RJ45• 1x 1Gb/s MLAN
Power	<ul style="list-style-type: none">• Dual 1600W 80 PLUS Titanium redundant power supplies• AC Input:<ul style="list-style-type: none">• 100-240V~/ 12-9.5A, 50/60Hz
Physical dimensions	<ul style="list-style-type: none">• Dimensions H x W x D mm (in): 87 mm (3.4) × 438 mm (17.2) × 815 mm (32.1)• 2U 1N 2S• Total weight in kg (lbs): 32 (70.5)

Server specifications BullSequana X448- 12

Use case	<ul style="list-style-type: none">• Compute CPU
CPU/GPU architecture	<ul style="list-style-type: none">• Intel® Xeon® 6900-Series processors• Dual processor per Node• Max TDP up to 500W
Memory	<ul style="list-style-type: none">• 12-Channel DDR5 RDIMM/MRDIMM, 96x DIMMs• Up to 6400/8800 MT/s
Storage	<ul style="list-style-type: none">• 8x 2.5" Gen5
Interconnect	<ul style="list-style-type: none">• 16 x LP PCIe Gen5 x16 slots
I/O ports	<ul style="list-style-type: none">• 8x USB 3.2• 4x Mini-DP• 8x 1Gb/s RJ45• 4x 1Gb/s MLAN
Power	<ul style="list-style-type: none">• Triple C19 3000W 80 PLUS Titanium redundant power supplies• AC Input:<ul style="list-style-type: none">• 100-127V~/ 16A, 50/60Hz• 200-207V~/ 16A, 50/60Hz• 208-240V~/ 16A, 50/60Hz
Physical dimensions	<ul style="list-style-type: none">• Dimensions H x W x D mm (in): 130.5 mm (5.1) x 447 mm (17.6) x 900 mm (35.4)• 3U 4N 2S• Total weight in kg (lbs): 39,7 (87.5)

Server specifications BullSequana X432- 12

Use case	<ul style="list-style-type: none">• Administration, service, login, visualisation, storage
CPU/GPU architecture	<ul style="list-style-type: none">• Intel® Xeon® 6900-Series processors• Dual processor• Max TDP up to 500W
Memory	<ul style="list-style-type: none">• 12-Channel DDR5 RDIMM/MRDIMM, 24x DIMMs• Up to 6400/8800 MT/s
Storage	<ul style="list-style-type: none">• 12x 3.5"/2.5" Gen5• 2x 2.5" Gen5• 2x M.2 Gen5
Interconnect	<ul style="list-style-type: none">• 2x FHHL gen 5 x16 for GPU• 2x FHHL gen 5 x16• 1x LP gen 5 x16• 2x OCP 3.0 gen 5 x16
I/O ports	<ul style="list-style-type: none">• 2x USB 3.2• 1x Mini-DP• 2x 1Gb/s RJ45• 1x 1Gb/s MLAN
Power	<ul style="list-style-type: none">• Dual C19 3200W 80 PLUS Titanium redundant power supplies• AC Input:<ul style="list-style-type: none">• 100-127V~/16A, 50-60Hz• 200-220V~/ 16A, 50-60Hz• 220-240V~/ 16A, 50-60Hz
Physical dimensions	<ul style="list-style-type: none">• Dimensions H x W x D mm (in): 87.5 mm (3.4) × 438 mm (17.2) × 815 mm (32.1)• 2U 1N 2S• Total weight in kg (lbs): 29,4 (64.8)

Server specifications BullSequana AI222- A01

Use case	<ul style="list-style-type: none">• Login, visualisation, storage
CPU/GPU architecture	<ul style="list-style-type: none">• AMD EPYC™ 9005 Series Processors• AMD EPYC™ 9004 Series Processors• Dual processor• Max cTDP up to 500W
Memory	<ul style="list-style-type: none">• 12-Channel DDR5 RDIMM, 24x DIMMs• Up to 6400 MT/s
Storage	<ul style="list-style-type: none">• 12x 3.5"/2.5" Gen5• 2x M.2 Gen3
Interconnect	<ul style="list-style-type: none">• 4x FHFL gen 5 x16 for GPU• 1x FHHL Gen5 x16• 1x OCP NIC 3.0 Gen5 x16
I/O ports	<ul style="list-style-type: none">• 2x USB 3.2• 1x Mini-DP• 1x 1Gb/s MLAN
Power	<ul style="list-style-type: none">• Dual C19 2700 W 80 PLUS Titanium redundant power supply• AC Input:<ul style="list-style-type: none">• 100-127V~/ 12A, 50-60Hz• 200-240V~/ 16A, 50-60Hz
Physical dimensions	<ul style="list-style-type: none">• Dimensions H x W x D mm (in): 87.5 mm (3.4) × 438 mm (17.2) × 815 mm (32.1)• 2U 1N 2S• Total weight in kg (lbs): 36 (79.4)

Server specifications BullSequana AI622- A03

Use case	<ul style="list-style-type: none">• Compute GPU
CPU/GPU architecture	<ul style="list-style-type: none">• AMD EPYC™ 9005 Series Processors• AMD EPYC™ 9004 Series Processors• Dual processor• Max cTDP up to 500W
Memory	<ul style="list-style-type: none">• 12-Channel DDR5 RDIMM, 48x DIMMs• Up to 6400 MT/s
Storage	<ul style="list-style-type: none">• 12x 2.5" Gen5• 2x M.2 Gen3
Interconnect	<ul style="list-style-type: none">• 8x FHFL Gen5 x16 for GPU• 3x FHHL Gen5 x16• 3x LP Gen5 x16
I/O ports	<ul style="list-style-type: none">• 2x USB 3.2• 1x 1Gb/s Mini-DP• 2x 1Gb/s RJ45• 1x 1Gb/s MLAN
Power	<ul style="list-style-type: none">• Quad C19 3000 W 80 PLUS Titanium redundant power supply• AC Input:<ul style="list-style-type: none">• 100-127V~/ 14.5A, 50/60Hz• 200-220V~/ 16A, 50/60Hz• 220-240V~/ 16A, 50/60Hz
Physical dimensions	<ul style="list-style-type: none">• Dimensions H x W x D mm (in): 176 mm (6.9) x 448 mm (17.6) x 1000.5 mm (39.4)• 4U 1N 2S• Total weight in kg (lbs): 68,8 (149.9)

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