EVIDEN

BullSequana SA series

Technical specifications

The BullSequana SA servers provide maximized storage density and unbeatable cost per TB to meet growing capacity challenges.

The BullSequana SA range consists of 3 models, storage-optimized and adapted to your business needs.

BullSequana SA10

Delivering outstanding storage density and cost per TB

The BullSequana SA rack servers powered by 2nd and 3rd Gen" AMD EPYC™ processors bring a cost-effective balance of performance and storage capacity. By offering up to 100TB in a 2U form factor, and best-in class SAS/SATA and ultra-fast NVMe drives, they provide optimal performance for hyperconverged solutions such as the BullSequana Agility and Codex Datalake Engine. In addition, this outstanding density makes it possible to minimize the footprint and improve the energy effciency. Storage on multiple hard disks allows data redundancy and performance improvement. RAID technology provides the right balance between reliability, availability, performance, capacity – and cost! It also brings higher performance in Datalake with data tiering using flexible HDD and SSD combination.
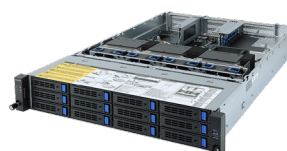
BullSequana SA20

Designed for virtualization and Hybrid Cloud

Certified with the industry-leading HCI software stack from VMware, BullSequana SA servers enable IT to move towards a cloud operating model to take advantage of the agility of the public Cloud within their datacenter. The VMware HCI Software stack involves VMware vSphere® for compute virtualization, VMware vSAN™ for storage virtualization and VMware vCenter® for virtual infrastructure management. They are also certified with Red Hat® OpenStack® for Codex Datalake Engine. BullSequana SA vSAN ReadyNodes™ provide customers with the ability to scale, without disruption, both capacity and performance simultaneously by adding a new node to the cluster (scale-out architecture). As a result, they are perfectly sized to deliver the level of performance required by data-intensive workloads or graphic-intensive VDI environments.

BullSequana SA20G

Featuring best-in-class technologies

Eviden close collaboration with key technology providers enables BullSequana SA servers to feature best-in-class latest technologies:

- Latest AMD processors with up to 64 cores/128 threads per CPU
- High memory speed, up to 3200MHz
- Wide storage technologies (Ultra-fast NVMe, SSD/HDD SATA/SAS)
- NVDIA GPUs for Datalake analytics applications, enterprise graphic-intensive applications and virtual desktop deployments
- Full support of PCIe 4.0 technology, with a bandwidth of up to 64GB/s
- Certification with OpenStack and VMware's leading-edge technology
- Compliance to the latest RoHS environmental regulations

BullSequana SA technical specifications

	BullSequana SA10 BullSequana SA10 NVMe BullSequana SA10 EL	BullSequana SA20 BullSequana SA20 NVMe	BullSequana SA20G BullSequana SA20G NVMe
Design			
From factor	2U	2U	2U
Processors			
Type	2nd and 3rd Gen AMD EPYC™ Processor, Socket SP3, 7 nm		
Numbers	1 max 64 cores/128 threads	2 max 128 cores/256 threads	2 max 128 cores/256 threads
Memory			
Memory slots	16	32	32
Min / Max DRAM	64 GB – up to 1 TB	128 GB – up to 2 TB	128 GB – up to 2 TB
DRAM type	8-channel memory architecture RDIMM DDR4 16, 32 or 64 GB		
Memory speed	Up 3200 MHz		
Embedded I/O ports			
Network interface controller	2 x 1GbE LAN ports (1 x Intel® I350-AM2)		
Management ports	1 x 10/100/1000 management LAN		
USB ports	5 USB 3.0 (2 front panel + 3 back panel)	4 USB 3.0 (2 front panel + 2 back panel)	4 USB 3.0 (2 front panel + 2 back panel)
I/O			
I/O slots	Up to 6 low profile PCIe Gen4 / Gen3 expansion slots: - 3 x PCIe Gen4 x16 slots, HHHL - 1 x PCIe Gen4 x8 slot, HHHL - 2 x PCIe Gen3 x8 or 1 x PCIe Gen3 x16 slots, HHHL 1 x OCP 2.0 PCIe Gen3 x16	Up to 8 PCIe Gen4 expansion slots: - 2 x PCIe Gen4 x8 slots, HHHL - 2 x PCIe Gen4 x16 slots, FHHL - 4 x PCIe Gen4 x8 slots, FHHL 1 x OCP 3.0 PCIe Gen4 x16 1 x OCP 2.0 PCIe Gen3 x8	Up to 5 PCIe Gen4 x16 slot, FHFL 1 x OCP 3.0 PCIe Gen4 x16 1 x OCP 2.0 PCIe Gen3 x8
Expansion cards	NICs (dual port): 10GbE, 25GbE, 100GbE Fiber Chanel HBAs (dual port): 16 and 32Gb/s SAS 12Gb/s / SATA 6Gb/s dual port HBAs		
Storage			
Storage drives	Up to 26 x 2.5" SATA/SAS hot-swappable HDD/SSD (24 front side & 2 rear side) Up to 16 x 2.5" U.2 NVMe (front side) + 2 x 2.5'' SATA/SAS hot-swappable HDD/SSD UP to 12 x 3.5'' SATA/SAS hot-swappable HDD/SSD (front side, 2.5" HDD/SSD supported) + 2 x 2.5" SATA/SAS hot-swappable HDD/SSD (rear side)	Up to 26 x 2.5" SATA/SAS hot-swappable HDD/SSD (24 front side & 2 rear side) Up to 24 x 2.5" U.2 NVMe (front side) + 2 x 2.5" SATA/SAS hot-swappable HDD/SSD	Up to 12 x 2.5" SATA/SAS hot-swappable HDD/SSD Up to 10 x 2.5" U.2 NVMe + 2 x 2.5'' SATA/SAS hot-swappable HDD/SSD
Storage bandwidth	SATAIII 6Gb/s or SAS 12Gb/s per port U.2 NVMe 32Gb/s per port		
Hardware RAID (optional)	RAID 0, 1, 5, 6, 10, 50, and 60		
Battery backup	CacheVault® Flash Cache Protection Module		
Video			
Graphics controller	Integrated in Aspeed® AST2500 PCIe VGA/2D Controller - 1920x1200@60Hz 32bpp		
GPU	N/A	N/A	Up to 3 GPU Cards

	BullSequana SA10 BullSequana SA10 NVMe BullSequana SA10 EL	BullSequana SA20 BullSequana SA20 NVMe	BullSequana SA20G BullSequana SA20G NVMe
Panels			
Front	2 x USB 3.0 1 Power button with LED 1 ID button with LED 1 Reset button 1 NMI button 1 System status LED 1 HDD activity LED 2 x LAN activity LEDs		
Rear	3 x USB 3.0 1 x VGA 1 x COM 2 x Ethernet RJ45 ports 1 x RJ45 Management LAN port 1 x ID button with LED	2 x USB 3.0 1 x VGA 2 x Ethernet RJ45 ports 1 x RJ45 Management LAN port 1 x ID button with LED	2 x USB 3.0 1 x VGA 2 x Ethernet RJ45 ports 1 x RJ45 Management LAN port 1 x ID button with LED
Security			
Security features	Optional TPM 2.0		
Power supply			
Hot-swap Power Supply Unit (PSU)	2 x 800W	2 x 1600W redundant PSUs	2 x 2000W redundant PSUs
PSU type	80+ Platinum		
AC input	100-240V~/ 10-4A, 50-60Hz	100-120V~/ 12A, 50-60Hz 200-240V~/ 10.0A, 50-60Hz	100-120V~/ 12A, 50-60Hz 180-240V~/ 10A, 50-60Hz
DC input	240Vdc/ 4.5A	240Vdc/ 10A	240Vdc/ 10A
Cooling			
Fan specifications	4 x 80x80x38mm (16,300rpm), hot-swappable		
Physical specifications			
Dimensions (WxHxD)	438 x 87.5 x 660 mm	438 x 87 x 730 mm	438 x 87 x 730 mm
Weight	Net Weight: 16.68 kg Gross Weight: 23.66 kg	Net Weight: 18.5 kg Gross Weight: 25.5 kg	Net Weight: 18.5 kg Gross Weight: 25.5 kg
Operating properties	Operating / Non-operating temperature: 10°C to 35°C /-40°C to 60°C* Operating / Non-operating humidity: 8%-80% (non-condensing) / 20%-95% (non-condensing) *For BullSequana SA20G, ambient temperature limited to 30°C if using 280W CPU		
OS & software			
Operating system	Red Hat Enterprise Linux 8.1 or later VMware ESXi 6.7 update3 or later Windows Server 2019 x64		
System management			
Management controller	Aspeed® AST2500		
Management console	AMI MegaRAC SP-X web interface		
Warranty			
Standard warranty	TBD	3 years CRU	TBD
Warranty extension	TBD	Global Care	TBD
Regulator & safety			
Conformity	Safety (CE, CSA-US certifications) Electromagnetic compatibility (FCC certification) Environment (RoHS II & WEEE directives, REACH regulation)		

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