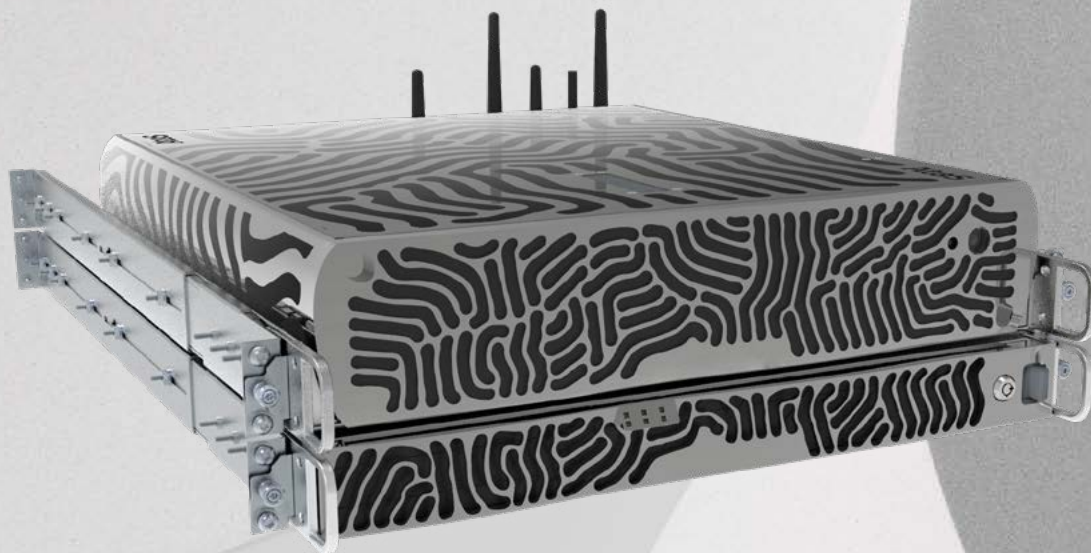# EVIDEN

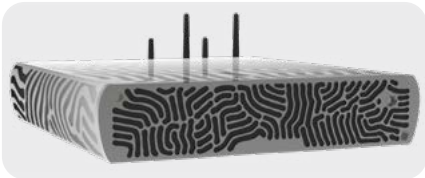## BullSequana AI 100

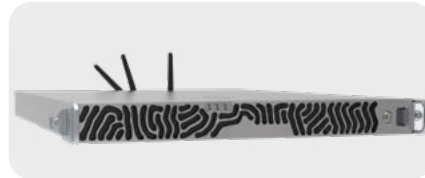# Powerful Edge AI inference for Vision and GenAI solutions

Eviden BullSequana AI 100 range of edge servers are specifically designed to support AI workloads, ensuring the necessary performance, efficiency, and responsiveness critical to power the next generation of AI applications. This edge computing series empowers business to build and deploy a variety of AI inference applications, including computer vision, generative AI and predictive analytics while protecting data assets.

It has been designed in two form factors: BullSequana AI 100D for far edge and BullSequana AI 100R for edge datacenter workloads. Both servers offer unprecedent flexibility with interchangeable CPUs and GPUs.
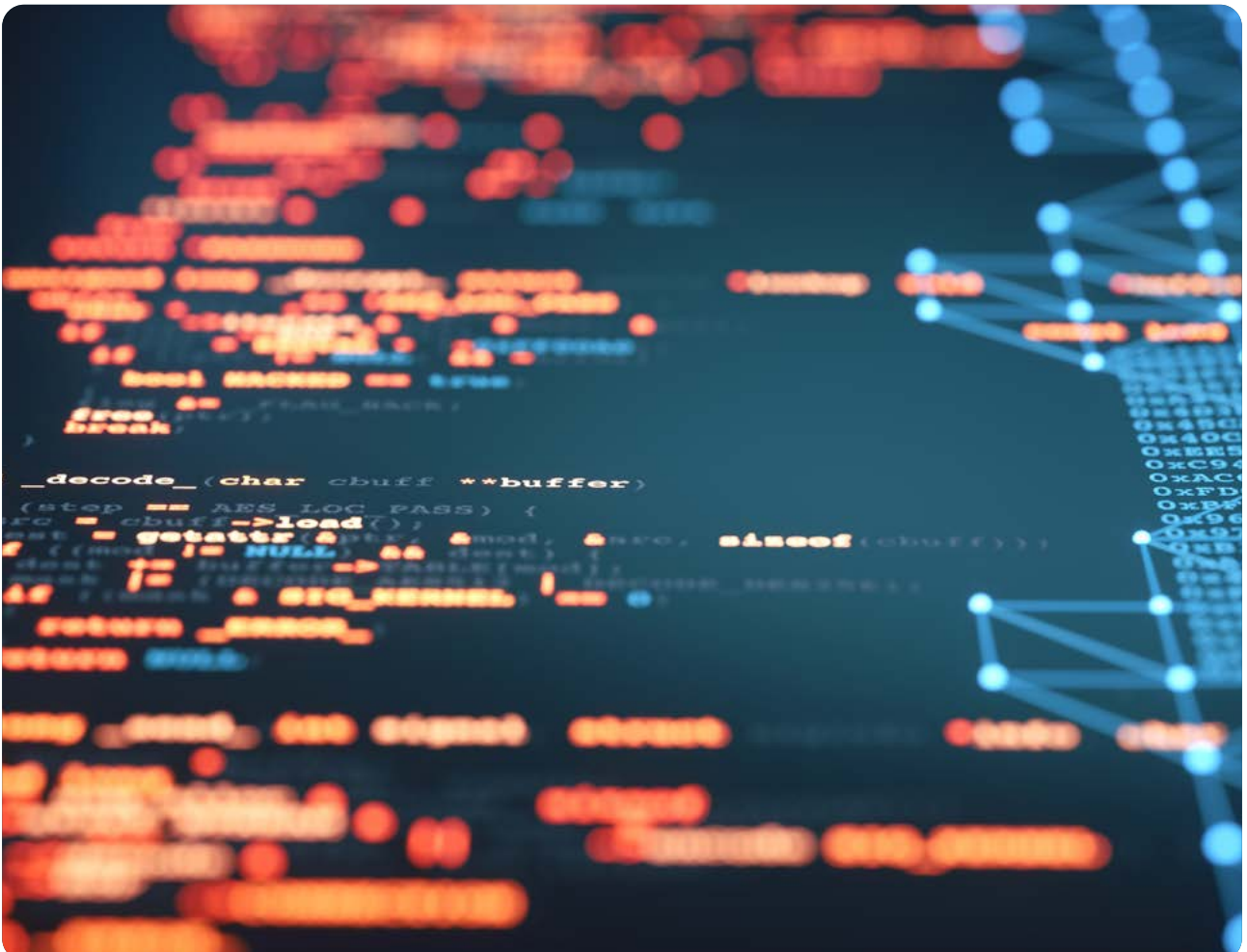

BullSequana AI 100D

BullSequana AI 100R

Benefit from low latency and better calibration of the AI models thanks to the flexible CPU/GPU acceleration. In addition, you can reduce the cost and complexity of edge installation and setup through customized factory pre-loads.

We offer ready-to-run appliances for Ipsotek VISuite and DataSentics Quality Inspector and Shelf Inspector. The BullSequana AI 100 servers can manage up to 120 VI Suite video streams.

FOR SMART CITIES

Understanding Crowd
Detecting Traffic Violations
Automatically
Behavior detection
Maintaining safety

FOR TRAIN STATIONS

Overcrowded detection
Real time people counting
Lost child tracking
Passengers safety

FOR AIRPORTS

Passengers counting
Multi Cameras tracking
Intrusion detection
Face recognation

FOR RETAILS

Shelf inspector
Portfolio and revenue
management
Queue management
Location intelligence

FOR MANUFACTURES

Quality control
Predictive maintenance
Products traceability
Density measurement

Adaptation to physical and operational constraints

The BullSequana AI 100 range has been designed to address the challenges associated with deploying edge computing infrastructure, including constraints related to temperature, power, space, and configurability :

- **Temperature:** The BullSequana AI 100 series can operate in challenging extended temperature environments from 0 to 45° C.

- **Power budget:** BullSequana AI 100 servers feature innovative power optimization modes supported by 4th Gen Xeon. They can dynamically reduce power consumption with only a minimal performance impact. Eviden has also optimized its computer vision solutions in combination with customized BullSequana AI 100 settings to reduce GPU power consumption.

- **Space constraints:** BullSequana AI 100R provides high density packaging for edge data centers through its space saving 1U form factor. The BullSequana AI 100D is optimized for far edge deployments outside of data centers and offers great flexibility with wall and desktop mount options.

- **Flexible compute, acceleration and storage capacity:** Both BullSequana AI 100 servers have flexible compute capacity for AI inference. Easily choose between Nvidia GPUs (A2, A16, L4, L40S, H100), CPUs from 8 to 32 cores and storage capacity while maintaining a low carbon footprint! However, if your needs change, you can still leverage your investment by keeping the server chassis and re-configuring it to run the use cases you need. Finally remote manageability & security are at the heart of these servers design allowing you to keep your business use cases secured and managed even in remote locations.

Hyperconverged infrastructure at the edge

Benefit from the performance, security, manageability and cost-efficiency for the compute and storage needs of applications in decentralized architecture (such as Mobile Edge Computing or remote offices and branches). Deploy workloads with high-performance, distributed storage needs such as real-time analytics, right at the edge.

Enhanced security, wherever you go

Computing at the edge requires enhanced security barriers. We designed BullSequana AI 100 servers to integrate **Eviden Root of Trust,** a unique Eviden solution to harden secured boot sequencing to prevent any alteration of the firmware. It also ensures that only Eviden-signed firmware can be installed on the server.

The BullSequana AI 100 also provides a **physical intrusion detection** mechanism, which can alert administrators to unauthorized access while disabling the device and ensuring that all data at rest is encrypted.

Keep your expectations high, but your carbon footprint low

BullSequana AI 100 range is equipped with up to two highly efficient Titanium-grade power supplies. The system offers innovative power capping and energy saving modes. Due to its configurability, it helps avoid oversizing through a flexible choice of system components. All components have been carefully selected in order to meet the latest environmental responsibility standards. The system is assembled at the Eviden factory in Angers, France. Its support for extended temperature ranges allows to minimize importantly cooling requirements even for BullSequana AI 100R rackable 1U server.

5G optimized and Wi-Fi

Support MEC, 5G core and VRAN workloads, thanks to optional embedded accelerators with Intel 4th Gen Xeon. BullSequana AI 100 is ideal to act as a powerful far edge inference server for AI applications due to its 5G and Wi-Fi 6 radio options.

BullSequana AI 100 hardware specifications

Form factor

	BullSequana AI 100R	BullSequana AI 100D
Rack	1U	2U
Standalone	-	Desktop, Wall mount
Depth	593mm	445mm

Processors Intel Xeon 4th Gen

	BullSequana AI 100R	BullSequana AI 100D
CPU cores	8 / 16 / 24 /32	8 / 16 / 24 /32
TDP max	185 Watt	185 Watt
Upgardable to Intel Xeon 5th Gen	Yes	Yes

Memory

	BullSequana AI 100R	BullSequana AI 100D
Min/max	Up to 8 memory slots	Up to 8 memory slots
Type	DDR5	DDR5

PCI slots

	BullSequana AI 100R	BullSequana AI 100D
PCI		
Type	PCIe 5	PCIe 5
2x FHFL	1x 350W or 2x 150W	1x 350W or 2x 150W

GPU options

	BullSequana AI 100R	BullSequana AI 100D
GPU		
2x	Nvidia A2, L4	Nvidia A2, L4
or 1x	Nvidia A16, H100, L40, L40S	Nvidia A16, H100, L40, L40S

Storage options

	BullSequana AI 100R	BullSequana AI 100D
Base	6x SATA or 8x NVMe disks**	8x NVMe disks**
optional extension	2x M.2 NVMe disks*	2xM.2 NVMe disks*
RAID options	Intel VROC, MegaRAID controler (SATA)	Intel VROC

*no M.2 disks if wireless adapter is configured
* if wireless adapters are configured - these slots are not available
** max. 6x NVMe disks if Mezzanine network adapter is configured

Embedded I/O ports

	BullSequana AI 100R	BullSequana AI 100D
Network interface controller (NIC)	4x 1Gb RJ45	4x 1Gb RJ45
System management services	1x 1Gb RJ45	1x 1Gb RJ45
USB ports	6x USB3 type A, 2x USB3 type C	6x USB3 type A, 2x USB3 type C
VGA	1	1
COM1 (RS-232)	1	1

Mezzanine I/O expansion

	BullSequana AI 100R	BullSequana AI 100D
Network controller	2x 10Gb SFP optional or 2x 25Gb optional*	2x 10Gb SFP optional or 2x 25Gb optional*

*planned for 3Q24

Power supply options

	BullSequana AI 100R	BullSequana AI 100D
Max power	1200W	1300W
Optional redundancy	Yes	Yes
Efficiency rating	Titanium	Titanium

Wireless connectivity

	BullSequana AI 100R	BullSequana AI 100D
Connectivity	Wi-Fi 6.0, Bluetooth 5.0, LTE/5G and LORA	Wi-Fi 6.0, Bluetooth 5.0, LTE/5G and LORA

Operational conditions

	BullSequana AI 100R	BullSequana AI 100D
Operating temperature	0 to +45° C*	0 to +45° C*
Operating humidity	5% to 95%	5% to 95%

*limited to 40°C with high end GPUs H100, L40, L40S

Ecosystem and certifications

	BullSequana AI 100R	BullSequana AI 100D
Software ecosystem certifications	RedHat 8/9 Windows 11 Windows Server 2022	RedHat 8/9 Windows 11 Windows Server 2022
Certification	IEC 62378	IEC 62378

Connect with us

in ✕ ◎ ▶

eviden.com

Eviden is a registered trademark © Copyright 2024, Eviden SAS – All rights reserved.