NEXT COMPUTING

NUCLEUS GPU
AI ENABLED RECORDER

BUILT FOR DATA-INTENSIVE APPLICATIONS, OPTIMIZED TO LEVERAGE NVIDIA GPU CO-PROCESSING

2 to 4 Nvidia dual-wide GPUs to enable higher bandwidth and improved data-transfer rates, as well as advanced AI / machine learning applications

Professional-grade AMD EPYC or Intel Xeon processors and high-speed memory for data-heavy processing

Front-removable SSDs up to 30.72TB each

Nucleus GPU AI Enabled Recorder rack-mount systems are built for data-intensive applications, and available in a variety of configurations and form factors to meet your exact needs. Whether you need powerful NVIDIA GPU AI co-processing, expansive data storage, or a combination of both, Nucleus GPU AI Enabled Recorders are the right tool for high-speed data ingest, processing, and recording as well as AI / Machine Learning analytics and Large Language Models (LLM).

AI AND DATA SCIENCE

Transform any enterprise into an AI organization with NVIDIA AI, the world's most advanced platform with full stack innovation across accelerated infrastructure, enterprise-grade software, and AI models. By accelerating the entire AI workflow, projects reach production faster, with higher accuracy, efficiency, and infrastructure performance at a lower overall cost.

MACHINE LEARNING

Machine learning helps businesses understand their customers, build better products and services, and improve operations. With accelerated data science, businesses can iterate on and productionize solutions faster than ever before all while leveraging massive datasets to refine models to pinpoint accuracy.

Nucleus GPU AI Enabled Recorder

1U FORM FACTOR

STORAGE
Options for up to 10 all-flash NVMe drives on front panel and four drives on middle panel to enable extensive storage and high-throughput performance, *-or-* up to 4 front-removable NVMe SSDs totaling up to 120TB total

NVIDIA GPU CO-PROCESSING
2 to 4 front-accessible Nvidia dual-wide GPUs for co-processing to enable higher bandwidth and improved data-transfer rates as well as advanced AI / machine learning

2U FORM FACTOR

DEPLOYABLE
Operate the system from within the rugged, TSA-compliant travel case for quick setup anywhere.

STORAGE
Up to 8 NVMe SSDs supporting up to 240TB total

NVIDIA GPU CO-PROCESSING
Options for NVIDIA RTX A2000 / RTX 4000 SFF ADA and A2 Tensor Core GPU(s) for Artificial Intelligence (AI)/ machine learning at the Edge

3U FORM FACTOR

STORAGE
Up to 8 front-removable NVMe SSDs supporting up to 240TB total

NVIDIA GPU CO-PROCESSING
Up to two Nvidia dual-wide GPUs for co-processing to enable higher bandwidth and improved data-transfer rates as well as advanced AI / machine learning

Nucleus GPU AI Enabled Recorder

SPECS

Available CPUs	• AMD EPYC™ Processor 3rd and 4th generation up to 96 cores/128 threads • -or- latest 3rd and 4th generation Intel Xeon Scalable Processors
Memory	3200 MHz RAM to 2TB
GPU Expansion	• Up to (2) Nvidia dual-wide GPUs • Options for NVIDIA A2 Tensor Core GPU(s) for Artificial Intelligence (AI)/machine learning at the Edge
Storage	• 1U form factor: Removable drive bays for up to (4) NVME 2.5" drives capacities up to 30.72TB each per high endurance data recording SSD • 2U & 3U form factor: Removable drive bays for up to (8) NVME 2.5" drives capacities up to 30.72TB each per high endurance data recording SSD
Sustained Read / Write	NVME to 3.5GB/second per drive
Network	• Options for multiple 4x1G, 4x10G SFP+ , 2x25G SF28, 2x40G QSFP28, 1x100G, 2x100G QSFP28 NIC cards • Standard: (2) 1Gbps Ethernet Ports and IPMI (Remote Management)
AI	Options for NVIDIA A2 Tensor Core GPU(s) for Artificial Intelligence (AI)/machine learning at the Edge
Security	Secure Boot UEFI compliant BIOS, Boot Guard, TPM2.0
Remote Management	IPMI, HTML5 and API based out of band management with MAC addresses identification, one time boot on next reboot option, PXE boot option, Redfish compatible Out of Band (OBB) management connection
Operating Systems	• Red Hat and CentOS Enterprise Linux • VMWare vSphere • Windows 2019 server, Windows 10
Power Supply	1+1 Redundant 800W 80 PLUS Platinum Power Supply Rating: 100-127Vac/200-240Vac, 10A/5A, 50/60Hz
Environmental	• Operating temperature: 10°C – 35°C • Non operating temperature: -40°C – 70°C • Non operating humidity: 20% – 90% (Non condensing)
Warranty	1 year parts and labor; 2nd and 3rd year warranties available
Purpose-Built Solutions	Private label branding options. Purpose built application integration and configuration control management services.

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