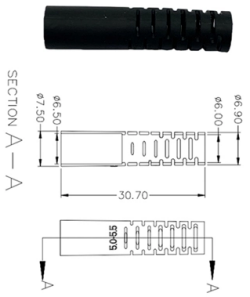
AI server NVIDIA



Overview

NVIDIA AI-Ready Servers From World's Leading System The world's leading computer makers are building NVIDIA AI-ready servers, including the Dell PowerEdge.

Key Takeaways

NVIDIA AI servers leverage high-performance GPUs and CPUs to accelerate AI workloads, from deep learning training to enterprise AI applications.

NVIDIA RTX PR

O ServersNVIDIA RTX PRO™ Servers are designed for enterprise AI workloads, featuring Blackwell architecture GPUs such as the RTX PRO 6000 and 4500 Server Editions. These servers support agentic AI, LLM inference, industrial AI, and digital twins, and are available in air- and liquid-cooled configurations. They integrate with NVIDIA networking technologies like BlueField-3 DPUs and ConnectX-8 SuperNICs, enabling high-throughput, low-latency AI processing.

RTX PR

O Servers are optimized for Omniverse workflows, 3D simulation, robotics, and scientific computing, providing scalable performance for AI factories and enterprise deployments.

NVIDIA DGX Platform

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The DG

X platform offers a complete AI solution combining NVIDIA hardware, software, and expertise.

DG

X systems, including DGX SuperPOD, provide full-stack AI infrastructure for on-premises, hybrid, or cloud deployments. They are optimized for NVIDIA AI Enterprise software, accelerating data science pipelines, model training, and deployment of production-grade AI applications. Enterprises like Sony, BMW, and Shell use DGX systems to scale AI workloads, generate synthetic datasets, and optimize industrial processes.

CPU and GP

U IntegrationNVIDIA AI servers often pair high-performance GPUs with NVIDIA-designed CPUs like Grace and Vera, which are optimized for AI workloads.

GP

Us handle parallelized AI computations, while CPUs manage sequential, general-purpose tasks, crucial for agentic AI systems that orchestrate multiple AI agents. This combination ensures high performance-per-watt efficiency and supports large-scale AI inference and training.

Cloud and Dedicated AI Servers

Providers like Cherry Servers offer bare-metal AI servers with NVIDIA GPUs (e.g., A100) and multi-core CPUs (AMD EPYC or Intel Gold). These servers allow custom configurations with up to 1TB RAM and 16TB NVMe storage, ideal for deep learning, NLP, and computer vision workloads. Dedicated servers provide maximum performance, security, and flexibility, with 24/7 technical support and scalable infrastructure for AI applications.

Compliance and Export ConsiderationsNVIDIA AI servers are subject to export controls, particularly for high-performance AI chips. Enterprises must ensure compliance when deploying servers internationally, as regulatory scrutiny can affect supply chains and hardware availability. SummaryNVIDIA AI servers provide enterprise-grade performance for AI model training, inference, and industrial applications.

Options range from RTX PRO servers for scalable AI factories, DGX platforms for integrated AI infrastructure, to customizable bare-metal servers for cloud or on-premises deployment. These servers combine powerful GPUs, optimized CPUs, high-speed networking, and AI software stacks to accelerate AI workloads efficiently and securely.

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Article Content

NVIDIA AI-Ready Servers From World''s Leading System

The world''s leading computer makers are building NVIDIA AI-ready servers, including the Dell PowerEdge R760xa, HPE ProLiant Gen11 servers for VMware Private AI Foundation with

AI server – configure your AI system with NVIDIA Enterprise GPUs

Configure your own high-performance AI server built on last-gen NVIDIA GPU. Accelerate your AI and HPC projects with AI Servers from us.

NVIDIA AI Server Power Roadmap: Kyber''s Next-Generation

NVIDIA AI Server Power Roadmap: Kyber''s Next-Generation Strategy from GPU/Rack-Level to Data-Center Scale I created this slide to lay out the power roadmap for NVIDIA AI servers.

NVIDIA AI Enterprise | Cloud-native Software Platform | NVIDIA

NVIDIA AI Enterprise brings together microservices, frameworks, and libraries for AI development with advanced GPU orchestration and infrastructure management in a fully supported, production-ready,

NVIDIA AI-Ready Servers From World''s Leading System

NVIDIA today announced the world''s leading system manufacturers will deliver AI-ready servers that support VMware Private AI Foundation with NVIDIA, announced separately today, to

Power AI at Scale with NVIDIA MGX™ AI Servers

MSI''s NVIDIA-certified MGXTM AI platforms combine modular design and early access to the latest NVIDIA GPUs for scalable AI and HPC performance.

AI Solutions for Enterprises | NVIDIA

Transform any enterprise into an AI organization with full-stack innovation across accelerated infrastructure, enterprise-grade software, and AI models. By accelerating the entire AI workflow,

DGX-2 : AI Servers for Solving Complex AI Challenges | NVIDIA

AI Server for the Most Complex AI Challenges Experience the AI performance of NVIDIA DGX-2 ™, the world''s first 2 petaFLOPS system integrating 16 NVIDIA V100 Tensor Core GPUs for large-scale AI

Data Centers Built for Advanced AI Reasoning | NVIDIA

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Revolutionize the data center for AI with NVIDIA''s comprehensive accelerated computing platform, built on cutting-edge GPU, CPU, and networking tech.

AI Agents: Built to Reason, Plan, Act | NVIDIA

Industry Pioneers Build Smarter AI Agents With NVIDIA Nemotron™ and Cosmos™ Reasoning Models Designed for enterprise and physical AI applications, open reasoning models think up to 9x faster,

Google Cloud AI infrastructure at NVIDIA GTC 2026

At NVIDIA GTC 2026, we showcased co-engineered AI infrastructure that technology leaders need to scale their agentic AI workloads.

Tools for AI Workstations | NVIDIA

NVIDIA AI Workbench is a free development environment manager for data scientists and developers to create, customize, and collaborate on AI applications on GPU systems. Focus on execution and let

NVIDIA-Certified Systems

NVIDIA-Certified Servers NVIDIA-Certified Servers are the essential platform for building high-performance, scalable, and secure data center infrastructure for AI and accelerated computing

Nvidia servers speed up AI models from China''s Moonshoot AI and

Nvidia on Wednesday published new data showing that its latest artificial intelligence server can improve the performance of new models - including two popular ones from China - by 10

Dell AI Factory with NVIDIA Adds Dell PowerEdge Servers with

AI Racks and Servers: Delivers a broad portfolio of products including Dell PowerRack and Dell PowerEdge servers built with NVIDIA accelerated computing platforms including Vera CPUs,

Server with GPU: for your AI and machine learning

Our GEX-line is powered by NVIDIA GPUs with CUDA technology and is perfect for AI workloads and machine learning.

Top 12 NVIDIA GPUs for AI Training & Inference in 2026

Compare the top 12 NVIDIA GPUs for AI in 2026, including H100, H200, B200, GB200, and RTX cards for training, inference, and LLM workloads

NVIDIA GPU Server Guide: Specs, Architecture & AI Performance

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Learn about NVIDIA GPUs and GPU servers, including architecture, specs, configurations, and use cases for AI and HPC workloads.

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North American project location: Research Triangle Park, North Carolina, United States

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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