



DGX10

**MILITARY-RUGGEDIZED AI COMPUTING
FOR MISSION-CRITICAL OPERATIONS**



- Built on NVIDIA GB10 Grace Blackwell Superchip
- Blackwell GPU with 5th Gen Tensor Cores
- 20-core Arm CPU (10 × Cortex-X925 + 10 × Cortex-A725)
- 1 PFLOP FP4 AI Performance (1,000 AI TOPS)
- 128G of Coherent, Unified System Memory
- Up to 4TB of NVMe Storage
- Dual 200Gbps ConnectX-7 SmartNIC (2 x 200G QSFP, 1 required to connect to another DGX10)
- MIL-STD-810 Standards with D38999 Connectors
- Ruggedized Compact Small Form Factor

Introduction

Edge AI Inference Built on NVIDIA Grace Blackwell for LLMs

The DGX10 is a ruggedized AI computing platform designed to address the growing size and complexity of generative AI models. As these models scale, development on local systems becomes increasingly challenging. Prototyping, tuning, and inferencing large models locally require substantial memory capacity and high-performance compute resources. As enterprises, software providers, government agencies, startups, and research institutions expand their AI initiatives, the demand for scalable and reliable AI compute continues to accelerate.

The DGX10 is built around the NVIDIA Grace Blackwell Superchip, leveraging the NVIDIA Grace Blackwell architecture optimized for a desktop form factor. It features a powerful NVIDIA Blackwell GPU with fifth-generation Tensor Cores and FP4 support, delivering up to 1,000 TOPS of AI compute. The DGX10 also integrates a high-performance 20-core NVIDIA Grace Arm CPU to accelerate data preprocessing and orchestration, significantly improving model tuning and real-time inferencing. The Grace Blackwell Superchip uses NVLink™-C2C to provide a coherent CPU–GPU memory model with six times the bandwidth of PCIe Gen 5.

The DGX10 utilizes 7STARLAKE's ensuring stable system operation in harsh environments. Whether it's for outdoor use, manufacturing plants, or other challenging environments, the DGX10 can withstand tough conditions while delivering top-notch AI performance. Overall, the DGX10 is an ideal solution for customers looking for a ruggedized AI inference platform that can handle a variety of edge computing applications with ease.

MIL-STD-810, MIL-STD-461 Standards



The DGX10 is designed to meet strict size, weight, and power (SWaP) requirements and to withstand harsh environments, including temperature extremes, shock/vibe, sand/dust, and salt/fog.



Meeting the MIL-461 EMI/EMC standards, the rugged edge AI inference server passes numerous environmental tests including temperature, altitude, shock, vibration, voltage spikes, electrostatic discharge and more. The sealed compact chassis shields circuit cards from external environmental conditions such as sand, dust, and humidity.

Specifications

SYSTEM

Processor	20-core Arm (10 x Cortex-X925 + 10 x Cortex-A725 Arm)
Memory Type	128 GB LPDDR5X, unified system memory 256-bit 273 GB/s
Architecture	NVIDIA Grace Blackwell

GPU

CUDA Cores	NVIDIA Blackwell Architecture
Tensor Cores	5th Generation
RT Cores	4th Generation
Tensor Performance	1000 AI TOPS

NIC

Smart NIC	ConnectX-7 Smart NIC
Ethernet Speeds	10/25/40/50/100/200/400GbE
Network	Wi-Fi 7, Bluetooth 5.4

STORAGE

HDD/SSD	Up to 4TB NVME.M2 with Self-encryption
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FRONT I/O

X1 (DC-IN)	1 x Amphenol 24FC4PN (4PIN)
X2 (HDMI)	1x Amphenol HDMIFTV2AGF459
X3 (10GbE)	1x Amphenol RJFTV6A7SA1N
X4 (200GbE)	1 x Amphenol FSI MPOFTV70ZNN
X5 (200GbE)	1 x Amphenol FSI MPOFTV70ZNN
Power button	1 with Power LEDs

POWER REQUIREMENT

Power Input	DC-IN 18V~36V, (Optional with MIL-STD-461 Filter)
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APPLICATIONS, OPERATING SYSTEM

Operating System	NVIDIA DGX OS 7.3.1
NVIDIA GPU Driver	580.95.05
NVIDIA CUDA Toolkit	13.0.2

PHYSICAL

Dimensions	250 x 325 x 138 mm (H x W x D)
Estimated Weight	5 kg (11.02lbs) Final Weights Dependent on Specific Configuration
Chassis	Aluminum Alloy, Corrosion Resistant
Finish	Anodic Aluminum Oxide
Cooling	Conduction Cooling with Air Force Smart Fan Ingress Protection
Ingress Protection	IP65

MIL-STD-810 STANDARDS

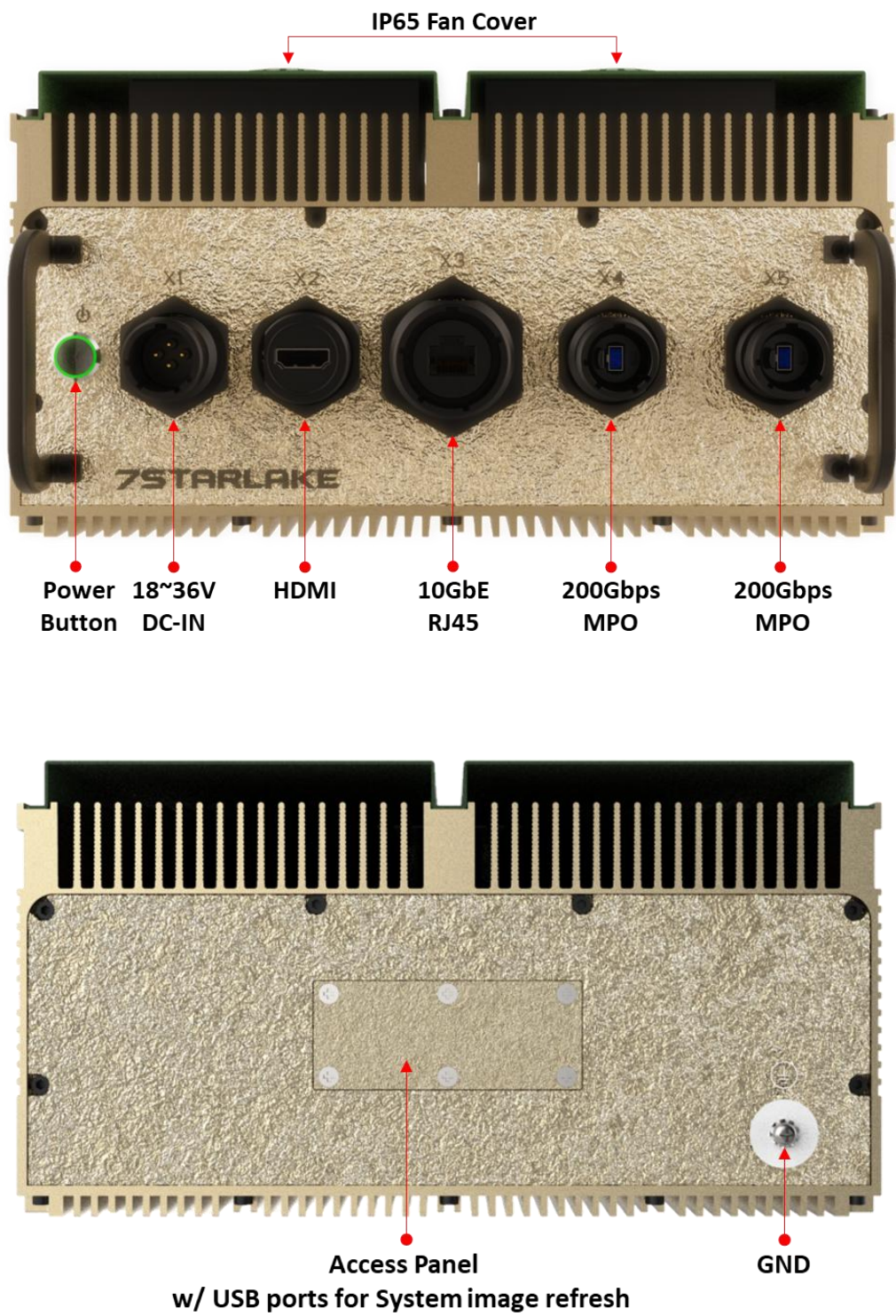
High Temperature	High Temperature Storage	+74°C per MIL-STD-810G/501.5/I for 7 Cycles
High Temperature	High Temperature Operation	55°C per MIL-STD-810G/501.5/II for 3 Cycles
Low Temperature	Low Temperature Storage	-46°C for 72 Hours Per MIL-STD-810G/502.5/I
Low Temperature	Low Temperature Operation	-33°C per MIL-STD-810G/502.5/II
Vibration	C-130(J/K) aircraft	Test Duration 400 Minutes Per Axis (x,y,z), Simulating 120 Flight Hours Including 20 Landings and TakeOffs
	Functional Vibration	Vibration Experienced on Ford F-550 in Neutral Gear
	Tactical Transportation test not Operational	Test Duration: 120 Minutes Per Axis to Simulate 500,000 km Driving Distance.
Shock	Road Transportation	10 Grms, 11ms, 3 (X, Y, Z) axes, Sawtooth Pulse
Immersion	Method 502.5	Test According to IEC 60529/ IP65

MIL-STD-461 STANDARDS

Conducted Emissions Power Leads	CE102	10KHz to 10MHz (Figure CE102-1)
Conducted Susceptibility Power Leads	CE101	30Hz to 150KHz (Figure CS101-1: Curve #2)

Conducted Susceptibility, Bulk Cable Injection	CS114	10KHz to 200MHz, curves 3&4 (10 kHz to 2 MHz: Curve #3 2MHz to 200MHz: Curve #4)
Conducted Susceptibility, Bulk Cable Injection	CS115	Impulse Excitation (5A)
Conducted Susceptibility Damped Sinusoidal Transients, Cables and Power Leads	CS116	10KHz to 100MHz (10A)
Radiated Emissions Electric Field	RE102	2MHz to 18GHz (Figure RE102-4)
Radiated Susceptibility Electric Field	RS103	2MHz to 18GHz, 50V/m (2MHz to 100MHz: 50V/m 100MHz to 18GHz: 50V/m)

Appearance & Dimensions



This datasheet is for marketing purposes only and does not constitute a warranty. All specifications, dimensions, and data are subject to change without notice. For the latest specifications and updates, please contact your 7STARLAKE representatives.