2026 Unified Memory Systems (128GB+) — Price, Availability & Comparison

Recent releases · GB10 / RTX Spark / AMD Ryzen AI Max+ PRO 495 ecosystem · October 27, 2026

Executive Summary

- **Three families dominate** the 2026 unified-memory 128GB+ category: NVIDIA's GB10/DGX Spark ecosystem (128GB LPDDR5X, 273 GB/s, 1 PFLOP FP4), NVIDIA's RTX Spark line (laptop/mini, 128GB, 45–80W), and AMD's Ryzen AI Max+ PRO 495 / Halo platform (up to 192GB, native x86).
- **Memory, compute and bandwidth are essentially identical** across the GB10 OEM partners — differences are storage, cooling, warranty, price and availability, not silicon [4].
- **Cheapest 128GB GB10**: Lenovo ThinkStation PGX 1TB ≈ $4,100 (post-adjustment); **Enterprise turnkey**: DGX Spark Founders at $6,950 (4TB, 1-year warranty, void for cluster use) [4][8]. **AMD's 192GB pool** + native x86 compatibility are the counter-arguments — ThinkCentre X Ultra starts at $3,699, ships Nov 2026 [7].
- **Availability is tight:** DGX Spark Founders limited stock, 64GB tier launches Oct 23, X Ultra ships November — confirm pricing before ordering [4].

System Comparison Table

System	Unified Memory	Launch / Availability	Price (as reported)
NVIDIA DGX Spark (Founders)	128GB LPDDR5X · 273 GB/s	Launched; limited stock	$3,999 → $6,950 (Oct 3, 2026)
Lenovo ThinkStation PGX (GB10)	128GB LPDDR5X-8533 · 273 GB/s	Shipped (Mar 2026 review)	1TB ≈ $4,100; 4TB via higher tier
Microsoft Surface RTX Spark Dev Box	128GB shared LPDDR5X	Oct 2026, on sale	$5,999
Lenovo ThinkStation PGX (OEM)	Same GB10 chip	Oct 2026 (1TB €5,038, lowest GB10)	≈ $4,100 USD
Lenovo ThinkCentre X Ultra (AMD)	Up to 128GB LPDDR5X (192GB ceiling)	Nov 2026 (US)	$3,699 starting
NVIDIA RTX Spark N1X (high tier)	Up to 128GB LPDDR5X	Oct 16, 2026, on sale	$2,599 platform floor
AMD Ryzen AI Max+ PRO 495 / Halo	Up to 192GB (≈160GB to GPU)	Oct 12 platform; commercial Nov 2026	No official price (~$3,999)

System Profiles

1 · NVIDIA GB10 / DGX Spark ecosystem

- **What it is:** Every OEM (Acer, ASUS, Dell, Gigabyte, HP, Lenovo, MSI) builds around the same NVIDIA GB10 Grace Blackwell Superchip — 20-core Arm CPU (10 Cortex-X925 + 10 Cortex-A725) + Blackwell GPU, 1 PFLOP sparse FP4, 273 GB/s bandwidth, 140W TDP in 240W budget. Reference design: NVIDIA Founders Edition DGX Spark.
- **Pros:** Same silicon/performance everywhere — tokens/sec depends on stack, not box. Lenovo 1TB at $4,100 saves ~$500 vs DGX Spark 4TB. Turnkey enterprise channel. Lab testing: 120B/30B/20B models run locally with Hermes Agent, fully offline, MoE and batched agent workloads work well.
- **Cons:** 128GB cap (~200B model class max). 273 GB/s caps real tokens/sec. DGX Spark warranty void for 'Enterprise Use' (cluster deployment). ASUS entry storage bottleneck (1TB Gen4 write only 0.72 GiB/s). Unit-to-unit thermal variance under sustained load.

2 · Lenovo ThinkStation PGX (GB10 corporate take)

- **What it is:** Lenovo's GB10 box — 128GB LPDDR5X-8533, 273 GB/s, 20 Arm cores, NVMe up to 4TB, 10 GbE + ConnectX-7 NIC, 240W. 1TB standard is the cheap option.
- **Pros:** 1TB ~$4,100 vs DGX Spark 4TB ~$4,699 — real price shave. 4TB standard, good cooling, corporate channel. Lab: 120B + Qwen3-Coder 30B/20B run locally, fully offline, well suited to MoE and batched agent workloads.
- **Cons:** Everything but the SSD is soldered; SSD is uncommon 2242 format — limited upgrade path. Corporate channel only. No GB10-specific warranty page — confirm with sales.

3 · Microsoft Surface RTX Spark Dev Box

- **What it is:** Built around NVIDIA RTX Spark (Arm Grace CPU + Blackwell GPU, 6,144 CUDA cores, single 128GB shared pool), launched Oct 2026. Windows 11 Pro dev tooling, WSL 2 with GPU passthrough/CUDA, 2TB storage.
- **Pros:** 128GB + 2TB for $5,999; above Project Zenith's 64GB minimum. Anodised aluminium enclosure doubles as cooling for sustained inference/training/agent workloads.
- **Cons:** $5,999 high vs $4,100 Lenovo 1TB or $2,599 RTX Spark entry. 128GB bandwidth bottleneck noted. Limited independent review coverage.

4 · Lenovo ThinkCentre X Ultra (AMD Ryzen AI Max+ PRO 495)

- **What it is:** 1.6L (183×183×51mm) enterprise desktop around AMD's Ryzen AI Max+ PRO 495 — 16-core Zen 5, up to 128GB LPDDR5X, Radeon 8065S, 8TB storage (two M.2 Gen5 up to 4TB each), 131 TOPS AI compute.
- **Pros:** AMD's big pool: 192GB ceiling (≈160GB to GPU). Native x86 — better for legacy IT. $3,699 starting (US), ships Nov 2026. Up to four units cluster to 512GB / 524 TOPS.
- **Cons:** Standard config is 128GB; full 192GB only in later Halo workstation. Cluster of four ≈ $14,800 — enterprise. No independent benchmarks yet; cluster scaling theoretical. No official price/shipping date confirmed.

5 · NVIDIA RTX Spark N1X (laptop/mini class)

- **What it is:** NVIDIA Windows 11-on-Arm platform, launched Oct 16, 2026 via ASUS/Dell/HP/Lenovo/Microsoft/MSI. High tier: 20-core Grace + 6,144-core Blackwell RTX, up to 128GB, 45–80W. Lower tier: 32GB only.
- **Pros:** $2,599 platform floor; 128GB handles 120B models with 1M-token context (NVIDIA claim). CUDA/RTX software, OptiX/DLSS, 8K 4:2:2 editing. NVIDIA driver/porting support shipped.
- **Cons:** 128GB cap vs AMD's 192GB. 45–80W only. Windows on Arm compatibility risk — x86-only drivers/anti-cheat/enterprise tools need native ports (gaming compatibility being verified). No independent tokens/sec benchmarks yet.

6 · AMD Ryzen AI Max+ PRO 495 / Ryzen AI Halo platform

- **What it is:** 16-core, 32-thread Zen 5 + integrated Radeon 8065S + 55-TOPS XDNA NPU, up to 192GB unified memory (≈160GB to GPU). Launched Oct 12, 2026 as Ryzen AI Halo Developer Platform; commercial pairing is HP ZBook Ultra G3a and Lenovo ThinkCentre X Ultra.
- **Pros:** Largest memory pool — 192GB (vs 128GB GB10/RTX Spark). Native x86 — easier for legacy enterprise IT. No official price published; third-party ~$3,999.
- **Cons:** No official AMD price/shipping date confirmed. 128GB is ThinkCentre X Ultra base config; full 192GB only in later Halo workstation. No broad retail presence yet.

Bottom Line

- **Pick GB10 for storage + enterprise turnkey** — Lenovo ThinkStation PGX 1TB (~$4,100) is the cheapest 128GB GB10; DGX Spark Founders (now $6,950) if you need 4TB and NVIDIA branding.
- **Pick AMD for memory pool + x86 compatibility** — ThinkCentre X Ultra (~$3,699, Nov 2026) offers 128GB base with 192GB ceiling and native x86; cluster four for 512GB headroom.
- **Pick NVIDIA RTX Spark for value + CUDA** — $2,599 entry, 128GB, Windows on Arm with NVIDIA driver support, but thinner headroom and compatibility risk.
- **Check availability before ordering:** DGX Spark Founders limited stock, 64GB tier launches Oct 23, X Ultra ships November. Confirm pricing with vendor — prices move quickly in this segment.