Unified Memory Systems with 128GB+ RAM

Comparison of recently released systems — August 2026 | Price, Availability, Pros & Cons

1. Apple Mac Studio M5 Ultra

512GB Unified

Attribute	Detail
Price	**,499** (base)
Availability	September 22, 2026
Unified Memory	Up to 512GB
Memory Bandwidth	1.2 TB/s
CPU	36-core (12 super + 24 perf)
GPU	80-core (up to 80 Neural Accelerators)

Pros — Most capacity; 50% more bandwidth than M3 Ultra; runs 110B+ models; 8-display support; ,499 for M5 Max (128GB)

Cons — ,499+ premium; 1.2 TB/s below data-center GPUs; limited by Apple software stack

2. NVIDIA DGX Spark

128GB LPDDR5X

Attribute	Detail
Price	**,699** (raised Feb 2026)
Availability	Oct 15, 2025; early access H2 2026
Unified Memory	128GB LPDDR5X
Memory Bandwidth	8 TB/s
GPU	NVIDIA GB10 Blackwell, ARM Cortex-X925 + A725
Storage	4TB NVMe M2 SSD

Pros — 8 TB/s bandwidth; 20-core ARM CPU; 4TB SSD; NVIDIA AI stack; competitive for local LLM

Cons — Price jumped 18% (Feb 2026); ARM CPU may limit some workloads; not a full server

3. Huawei Ascend 910B

128GB HBM2e

Attribute	Detail
Price	~0,000 (est.)
Availability	China only
Unified Memory	64GB HBM2e
Performance	~320 TFLOPS FP16, 1.23 TB/s
Process	SMIC 7nm
Production	~300K units in 2025
Software	CANN, MindSpore

Pros — 128GB unified memory; enough for 70B models at Q4; dual-chiplet design; domestic AI

Cons — 64GB HBM2e is mid-tier by 2026; limited independent verification; 1.23 TB/s below H100; China-only

4. Huawei Ascend 910C

128GB HBM3

Attribute	Detail
Price	~0,000 (est.)
Availability	China only
Unified Memory	128GB HBM3 (est.)
Performance	~800 TFLOPS FP16, ~3.0 TB/s
Process	Dual-chiplet (~53B transistors)
Production	100K units targeted 2025
Software	CANN, MindSpore

Pros — 128GB HBM3; 800 TFLOPS FP16 competitive with H100; dual-chiplet design

Cons — China-only; 3.0 TB/s peak; no independent verification; limited specs

Summary Comparison Table

System	Unified Memory	Price	Availability	Key Advantage	Key Drawback
Mac Studio M5 Ultra	512GB	,499	Sept 22, 2026	Most capacity; 1.2 TB/s	Premium; Apple software stack
Mac Studio M5 Max	128GB	,499	Available now	Great value; 128GB	Only 128GB (no 512GB)
NVIDIA DGX Spark	128GB LPDDR5X	,699	Oct 2025 (raised)	NVIDIA ecosystem; 8 TB/s	Price hike; ARM CPU
Huawei 910B	128GB HBM2e	~0K	China only	70B-capable; domestic AI	64GB HBM2e; limited verify
Huawei 910C	128GB HBM3	~0K	China only	800 TFLOPS FP16; dual-chiplet	China-only; limited verify

Bottom Line: Best value for 128GB+ unified memory on a budget: **Mac Studio M5 Max (,499)**. Best for heavy AI workloads: **Mac Studio M5 Ultra (,499)**. Best supercomputer: **NVIDIA DGX Spark (,699)**. Best for China market: **Huawei Ascend 910C (~0K, 128GB HBM3)**.
Data as of August 2026. Verify current pricing before purchase.