

SAILING THE SHIFTING SEMICONDUCTOR SEA



NO.10 OCT24 MEMPHIS MEMORY ESSENTIALS

Everything you need to know about the semiconductor memory industry, from legacy technologies to latest innovations.

Brought to you by MEMPHIS Electronic, your Memory Competence Center and DRAM module configurator. We are posting similar stories regularly on [LinkedIn](#), so follow us there to stay on top of the news.

Sailing the Shifting Semiconductor Sea

The semiconductor market is in upheaval. As Future Horizons has put it, it's the longest downturn cycle the industry has ever seen.

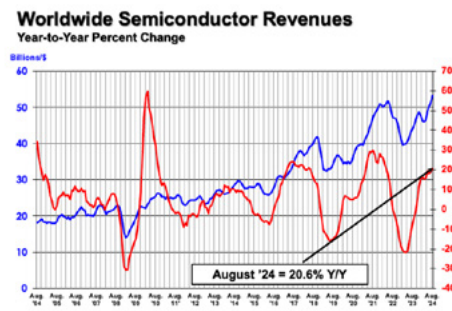
And yes, the overall market has been showing growth for a couple of months, as the SIA reports below prove, but that's only in selected segments. If you take out (high bandwidth) memory and (AI related) logic, the rest of the market is facing hardship. Not surprisingly, TrendForce sees NAND in decline as demand slows, albeit DRAM prices show signs of stabilization, only SSDs have a promising outlook. Consequently, analysts are revising their forecasts and are now seeing a recovery in prices for memory products in the second half of 2025.

Still, it's important to keep an eye on market developments. DDR3 products are discontinued by the end of 2024 and other technologies might follow suit soon as the big manufacturers are focusing on HBM memory and are moving capacity from established products to the new high-margin products.

electronica 2024 is the ideal time to discuss the latest trends and market developments. We have an exciting lineup at our booth. Schedule a meeting (sales@memphis.de) and get your free ticket for the show.

Looking forward to seeing you there.

Worldwide Semiconductor Revenues



+20.6% Year-to-Year Sales Increase in August

According to the latest figures of the Semiconductor Industry Association (SIA), global semiconductor sales hit \$53.1 billion during August 2024, an increase of 20.6% compared to August 2023 and 3.5% more than in July 2024.

This marks the fifth consecutive month that the global semiconductor market shows growth and the highest growth percentage since April 2022.

Read more [here](#).

	3Q24	4Q24E
eMMC UFS	mostly flat	down 8-13%
Enterprise SSD	up 15-20%	up 0-5%
Client SSD	up 3-8%	down 5-10%
3D NAND Wafers (TLC & QLC)	down 3-8%	down 10-15%
Total NAND Flash	up 5-10%	down 3-8%

Source: TrendForce, Oct. 2024

NAND Demand Slows in Q4

TrendForce's latest findings reveal that NAND Flash products have been impacted by weaker-than-expected seasonal demand in the second half of 2024, leading to a decline in wafer contract prices in Q3. This downward trend is projected to deepen, with prices expected to drop by more than 10% in Q4.

With enterprise SSDs the only segment likely to see modest price growth, TrendForce forecasts a 10-15% drop in Q4, with the possibility of even steeper reductions if market conditions deteriorate further.

Read more [here](#).



DRAM Prices Stabilising

According to TrendForce's latest memory spot price trend report, regarding DRAM, spot prices for DDR5 products have finally stabilized this week as contract prices have room for further hikes.

As for DDR4 products, spot prices show signs of stabilization but have experienced the same kind of increase as DDR5. Overall, demand remains weak for consumer products, suggesting further price drops in this area are possible.

Read more [here](#).



QLC NAND: 20% of NAND Shipments in 2024

In Q2 of 2024, @TrendForce saw a significant surge in demand for high-capacity SSDs for AI applications with prices up by more than 25% QoQ.

Looking ahead, demand from North American CSP customers continues to rise, and server brands show no signs of slowing down their orders. With supply shortages persisting in Q3, TrendForce forecasts a 15% increase in contract prices, with supplier revenues expected to grow by nearly 20%.

Read more [here](#).



New x4 DDR4 Components and Modules

Intelligent Memory expands its DRAM portfolio with new DDR4 x4 components and modules.

x4 DRAM components are rare as manufacturers often use them exclusively for their DRAM memory modules. With its new range, Intelligent Memory provides more choice and options for today's data-intensive specialty applications.

The new component: 16Gb DDR4 x4 with 1600MHz and up to 3200Mbps

The new modules: IM 32GB DDR4 VLP RDIMM in 1 rank, and IM 64GB DDR4 RDIMM in 2 ranks.

Read more [here](#).



MEMPHIS branded DRAM Modules become IM Select

From January 2025, MEMPHIS Electronic will hand over its private-label DRAM modules to Intelligent Memory. As a result, MEMPHIS can focus all its efforts on providing impartial advice on the memory technologies of its 18 franchised suppliers.

Intelligent Memory will include the module series in its portfolio under the brand IMSelect. MEMPHIS will present details of the module portfolio, which includes the first completely lead-free DRAM module family from DDR1 to DDR5, at electronica 2024 from November 12 to 15 in Munich, at stand B4.101.

Read more [here](#).



Samsung Automotive SSDs

Samsung has successfully developed the industry's first PCIe 4.0 automotive SSD based on eighth-generation vertical NAND (V-NAND). The new auto SSD, AM9C1 is tailored for on-device AI capabilities in automotive applications.

With about 50% improved power efficiency compared to its predecessor, the new 256GB auto SSD will deliver sequential read and write speeds of up to 4,400 megabytes-per-second (MB/s) and 400MB/s, respectively.

Samsung plans storage capacities ranging from 128GB to 2 terabytes (TB) to address the growing demand for high-capacity automotive SSDs.

Read more [here](#).



MEMPHIS Electronica

Are you going to electronica 2024? The world's largest fair for the electronic industry is opening its doors again from November 12 to 15 in Munich. MEMPHIS Electronic will showcase the latest additions to its portfolio and linecard at booth B4.101.

It's also the ideal opportunity to discuss market trends. As THE Memory Competence Center, we are happy to share our insights into market developments, availability of memory technologies and price trends.

Schedule a meeting with us and claim your free ticket today - reach out to sales@memphis.de

How do you like our monthly newsletter?

Let us know how we are doing and what topics you would like to read more about.

Stay in the know. Subscribe to our newsletter [here](#).

If you no longer wish to receive this mail you can unsubscribe [here](#) for free.