



# NEW YEAR NEW MEMORY

# NO.01 JAN24 MEMPHIS MEMORY ESSENTIALS

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

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## New Year New Me - New Memory?

Are you the “new year, new me” type? And why shouldn't you? January is always an opportunity for a reinvigorated start to the new year. However, many of us tend to take on unrealistic goals (yes, the SMART goals you're HR department is harping on about also apply here) and by Blue Monday, the third Monday in the new year, most goals are reduced to good intentions.

But fear not! When it comes to memory we help you make the new year a good one for you – if you follow these three simple steps:

1. Follow our market updates to stay in the know about the latest market developments and memory technologies
2. Plan ahead so you can secure your demand early
3. Loop our experts in early so we can find just the right memory products for your needs

This newsletter covers step one with our market updates and predictions for 2024. You can also plan ahead by marking your calendar for the events and tradeshow that we will be at. For step 3, just reach out!

Price Projections for Different Categories of DRAM Products, 4Q23-1Q24

	4Q23	1Q24(E)
PC DRAM	DDR4: up 8-13% DDR5: up 10-15% Blended ASP: up 10-13%	up 10-15%
Server DRAM	DDR4: up 5-10% DDR5: up 8-9% Blended ASP: up 8-13%	up 10-15%
Mobile DRAM	up 18-23%	up 18-23%
Graphics DRAM	up 8-13%	up 10-15%
Consumer DRAM	up 10-15%	DDR3: up 8-12% DDR4: up 10-15%
Total DRAM	up 13-18%	up 13-18%

Source: TrendForce, Jan., 2024

### DRAM Contract Prices to Increase by 13-18% in Q1

TrendForce estimates that the DRAM contract prices will increase by approximately 13–18% in 1Q24. This surge is lead by mobile DRAM where the market analysts see a 18-23% upswing. Still, TrendForce points out, the market narrative is driven by contract prices lingering at historical lows.

This enabled buyers to build up safe and cost-effective inventories. So while the analysts see many unfulfilled DDR5 orders, manufacturers are strategically constricting DDR4 supply while ramping up DDR5 production to boost their profit margins. This sets the scene for a robust 10-15% spike in PC and server DRAM contract prices in 1Q24.

Read more [here](#).

Price Projections for Different Categories of NAND Flash Products, 4Q23-1Q24

	4Q23	1Q24(E)
eMMC UFS	up 10-15%	up 18-23%
Enterprise SSD	up 10-15%	up 18-23%
Client SSD	up 13-18%	up 15-20%
3D NAND Wafers (TLC & QLC)	up 35-40%	up 8-13%
Total NAND Flash	up 13-18%	up 15-20%

Source: TrendForce, Jan., 2024

### NAND Flash Contract Prices to Increase by 15-20% in Q1

Just as the DRAM contract prices, TrendForce expects NAND contract prices to increase by 15-20% in Q1 2024. Although Q1 is traditionally a low-demand season, TrendForce sees buyers continuing to increase their purchases of NAND Flash products to establish safe inventory levels. In response, suppliers are pushing for higher prices to limit losses. This will lead to an estimated 15-20% increase in NAND Flash contract prices in 1Q24.

The first quarter of 2024 will see varied production strategies among suppliers, with some ramping up output early. This could lead to added pressure to prices in 2H24 if the anticipated demand growth falls short.

Read more [here](#).



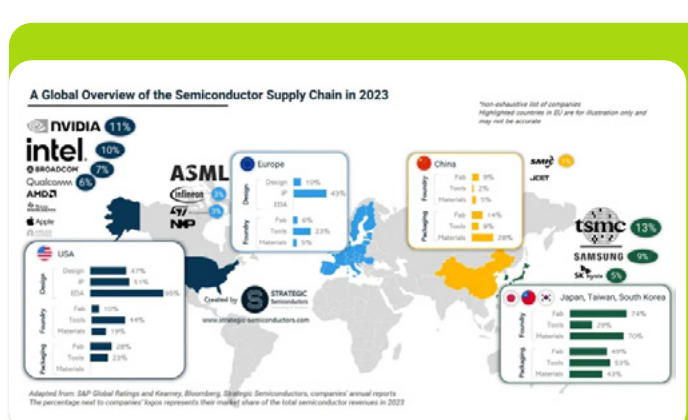
### What's Hot in Memory in 2024

In 2023 memory prices took an all-time slump. What does 2024 hold? For one, prices are going up. That's no surprise. But what else? How is AI shaping the landscape? And what memory technologies are hot?

Marco Mezger took a glance in the crystal ball for Evertiq and sees the following trends:

- **Memory Prices** are going up
- **DDR5** will become mainstream
- **AI** drives memory demand
- **Low Power** consumption becomes a key focus
- **Sustainability** in manufacturing is a top priority

In essence, it's a race to higher speed and low power. Read all about it [here](#).



### What is Driving the Semiconductor Market in 2024?

2023 was a tough year for the semiconductor market. Signs are strong that it will recover in 2024. For eetimes strategicsemiconductors outlined the key trends that are shaping the semiconductor market this year:

- **AI** is driving the server market and inventory reduction is ongoing
- The **telecom market** is showing down
- **Global consumer confidence** remains low but a weak recovery is expected
- The **industrial and automotive markets** are showing signs of weakness
- **Chip-on-Wafer-on-Substrate (CoWoS)** availability remains a bottleneck for advanced AI applications.
- The **memory market** will see significant growth driven by consumer and data center demand and price corrections

Read the full story [here](#)

Zooming In To Recent Years



### 2024 Memory Price Hike - a Bump or Super Cycle?

Analysts all agree that memory prices are going up in 2024, but will we see another super cycle similar to those in 2017 and 2020?

That's a question that Jim Handy, also known as The Memory Guy at Objective Analysis asked. He argues that there are indicators it will be more like a smaller “bump” where prices go up and then down again quite quickly like the one between the two super cycles.

At the same time, he points out that such bumps are a normal part of a healthy chip market.

Read more [here](#).



### New Year, New DRAM Knowledge

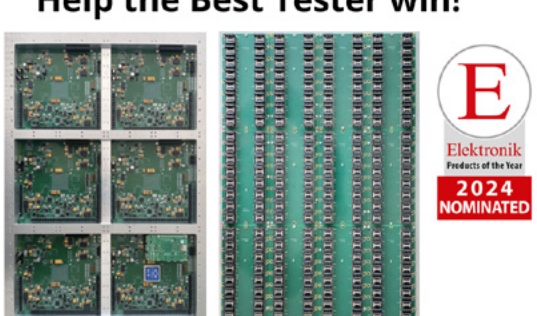
The start of a new year is always a good opportunity to think about how to further hone your skills. If you are a hardware designer you should consider the intensive seminar “**Open the Black Box of Memory**”. There's still time to register for the next session on February 26!

What are you waiting for? Learn how to design successful products more easily in what is known as the best memory interface seminar out there.

Best of all, you will get a 100 EUR discount when entering the promo code MEMPHIS with your registration.

Register [here](#).

### Help the Best Tester win!



### Vote for Neumonda Today!

Have you done a good deed today? Here's a suggestion for you: Help our Neumonda DRAM Tester to win the Reader's Choice award of the trade publication Elektronik.

After winning an ElektraAward, we are now nominated for the “Best Product of the Year 2024”. Help us win by voting for us today. Why should you vote for this product? It viting revolutionizes DRAM memory testing by enabling customers to test DRAMs specifically for a certain application. That's unique in the market and deserves recognition.

It's easy (even if you don't speak German thanks to automated Google page translation). What are you waiting for?

Go and vote [here](#).



### Mark your Calendar!

As you plan out your year, make sure you mark these events where you can meet MEMPHIS in 2024. We love these opportunities to catch up with you:

- **embedded world** in Nuremberg, Germany – April 9-11
- **Evertiq Expo** in Berlin, Germany - June 20
- **Engineering Design Show** in Coventry, UK – October 9-10
- **Evertiq Expo** in Warsaw, Poland – October 24
- **electronic** in Munich, Germany – November 12-15

Which one of these trade shows are you visiting or participating in? We usually can give you free entry tickets, so reach out if you plan to attend any of the above shows!

### How do you like our monthly newsletter?

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

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