ARE WE SAILING IN CALM WATERS?

WE KNOW MEMORY

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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.
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Are we sailing in Calm Waters?

Following the earthquake in Taiwan in April, the industry expected an impact on chip and especially memory prices. After all, 65 percent of the world's advanced nodes are being produced there, and when it comes to AI servers the figure is even higher.

But, contrary to previous natural disasters, the disruption was minimal and had almost no effect on the availability or prices of memory components.

The news about rising DRAM and NAND prices are mainly related to High Bandwidth Memory (HBM) and high end SSD for AI servers, and not that much for the standard memory products that industrial customers need.

While this is good news, it's also a bit worrying – is this the calm before the storm?

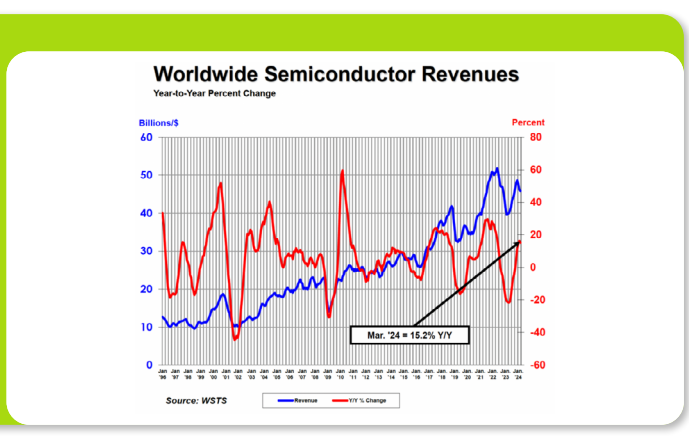
Truth is that the demand from a variety of industrial applications is lower than market research institutes initially expected.

Truth also is, that the big memory manufacturers not only converted significant percentages of their DRAM production lines to HBM, they also announced the discontinuation of DDR3. Accordingly, DRAM output and availability will decline.

The big question is if the demand fades in line with the reduced output.

You see, even if we seem to sail in calm waters, the semiconductor memory market keeps you on your toes.

Here's some noteworthy news this month!

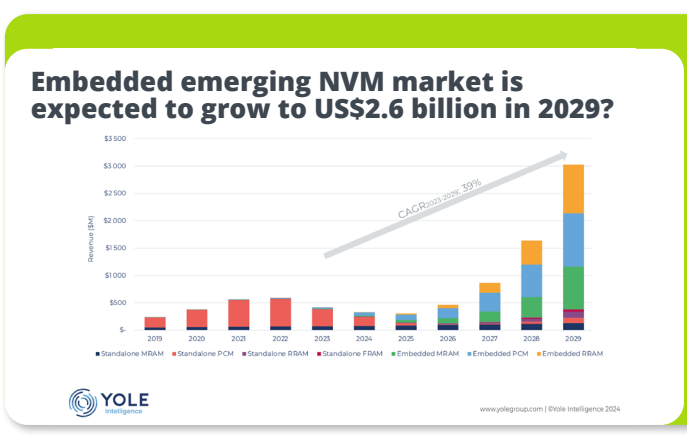


Semiconductor Sales Increase 15.2%

According to the Semiconductor Industry Association (SIA), worldwide sales of semiconductors totaled $137.7 billion during the first quarter of 2024, an increase of 15.2% compared to the first quarter of 2023 but 5.7% less than the fourth quarter of 2023. Sales for the month of March 2024 decreased 0.6% compared to February 2024.

This is a normal seasonal trend and SIA expects the market to continue to grow during the remainder of the year and expects a double-digit growth for 2024.

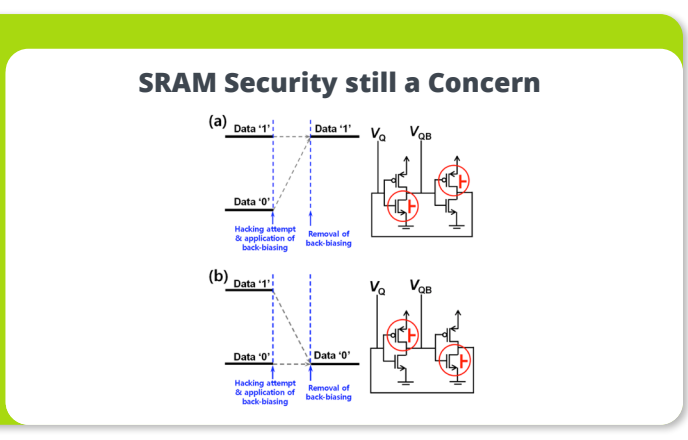
Read the full press release here.



Embedded NVM on the Rise

According to Yole Group, emerging non-volatile memory (NVM) technologies such as MRAM, PCM, and RRAM are increasingly gaining traction as storage for embedded code and data in microcontrollers and low-power System-on-Chips or ASICs used in IoT devices, wearables, and edge-AI devices. The absence of a cost-effective embedded Flash solution for geometries smaller than 28nm is the primary driving force behind the active investment from major foundries and Integrated Device Manufacturers in embedded NVM technologies for integration into nodes ≤ 28nm.

Read the full press release here.

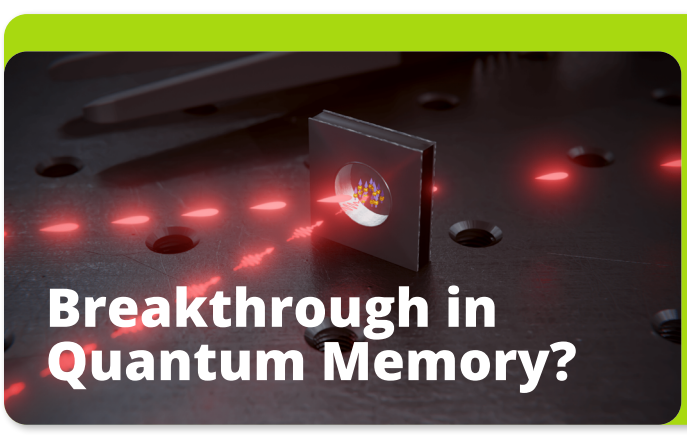


SRAM Security Concerns Grow

SRAM security concerns are intensifying as a combination of new and existing techniques allow hackers to tap into data for longer periods of time after a device is powered down.

This is particularly alarming as the leading edge of design shifts from planar SoCs to heterogeneous systems in package, such as those used in AI or edge processing, where chiplets frequently have their own memory hierarchy.

Semiengineering takes a closer look at cold boot attacks and new approaches to combatting them here.

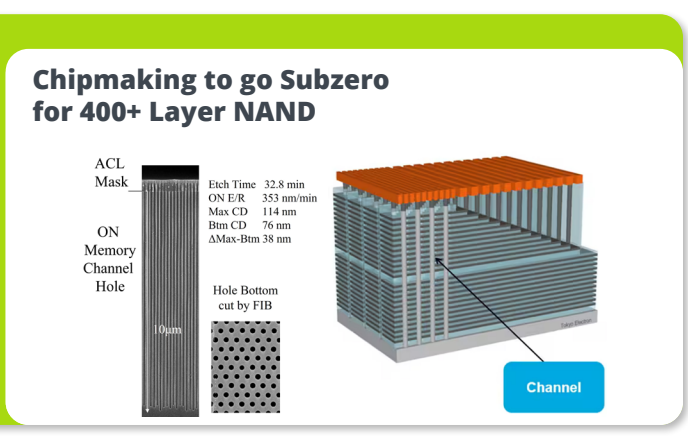


Breakthrough in Quantum Memory?

Physicists at the University of Basel in Switzerland have laid out a new route to scaling quantum networks by storing quantum data in gas atoms in a glass cell filled with rubidium vapor. The breakthrough is that the data is retrieved again with light pulses and that at room temperature. The researchers also have demonstrated that their quantum memory is effective when using a microfabricated MEMS cell only 5 mm in diameter and 2 mm thick, etched from a silicon wafer.

If they succeed, this new quantum memory might help build the networks of tomorrow.

Read more here.



Chipmaking to go Subzero

Intelligent Memory expands its DRAM module product range with new DDR5 modules with 16 and 32 Gigabyte capacities, 5600 MHz clock frequency and in SO-DIMM, UDIMM and RDIMM form factors. To free customers from the need to rely on exemption 7c-I to the RoHS directive, the new DDR5 module range is also available in fully lead-free options.

Read more here.

Hit by DDR3 Discontinuations?

Have you heard the news? Some manufacturers have announced the end of life of their DDR3 components. While this doesn't affect all DDR3 densities and variants, you should take a closer look if you are using DDR3 today.

Especially because this announcement comes at a time where manufacturing output is moved to high bandwidth memory (HBM) and DDR5 which means that last time buy opportunities might be limited. With 18 memory manufacturers in our linecard, we have alternatives for you. We have already put together an overview of suitable cross-reference components.

Reach out if you want to know more!

Mark your Calendar for these Events

We have kicked-off the trade show season with embedded world in April. But we have more lined up this year. You can meet us at these events this year:

- Germany: evertiq Expo Berlin, June 20
- France: Sido Lyon, September 18-19
- Sweden: evertiq Expo Gothenburg, September 19
- UK: Engineering Design Show, Coventry, October 9-10
- Poland: evertiq Expo Warsaw, October 24
- Germany: electronica, Munich, November 12-15

Mark your calendars and make sure to drop by our booth!

Help us become Distributor of the Year 2024

What's the name of the best specialty distributor in the world? If you ask us, it's MEMPHIS Electronic, quite obviously.

If you agree, then cast your vote for us in the reader's choice award of the publication Elektronik.

Vote here.

Not quite convinced? Then put us to the test! Here's a quick overview of why we are more than just a distributor.

What are you waiting for? Go and vote for us now!

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