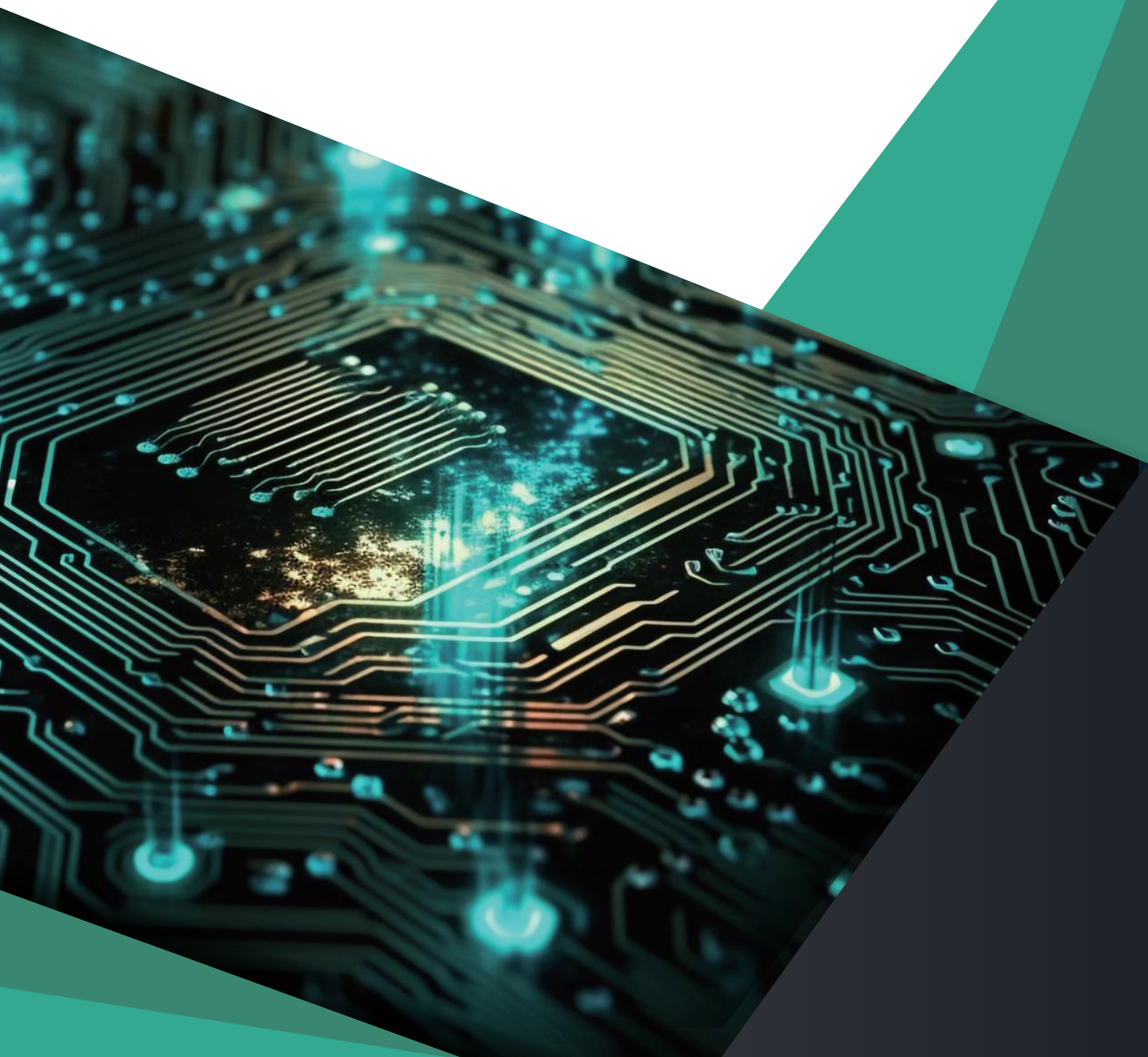
BRIOCEAN

Monthly MarketMatters Report

April 2024



Contents

Executive Summary

This report provides an overview of the semiconductor industry in April 2024 and attempts to identify essential market trends over the next month. Based on the relevant data available, the report analyses macro factors, supply chains, applications, and product market trends.

In April, the growth rate of global semiconductor demand has slowed down, but China's manufacturing industry has gone back to boom with a manufacturing PMI of 50.4.

Major memory chipmakers are increasing their production and prices of product, while AI chipmakers may face a more intensive competition with a surging number of players entering AI chip market.

Huawei Pura 70 is very popular, with almost 100% domestic made components, indicating that domestic substitution has accelerated. However, spot price of memory chip might suffer upward pressure due to weak demand from customers.

1. Macro Environment Overview

1.1 China's Manufacturing Industry Resumes Development, While the U.S. Manufacturing PMI Falls Sharply

In April 2024, according to data from JP Morgan, global manufacturing PMI was 50.3, still in the expansion range.

In Asia, China's manufacturing PMI was 50.4, which has been in the expansion range for two consecutive months. The manufacturing industry maintained a recovery trend, with the production index at 52.9, and the high-tech manufacturing PMI was 53.0, signaling that high-end manufacturing industry maintained rapid development. Japan's manufacturing PMI has picked up but is still in the contraction range; South Korea's manufacturing PMI continues to decline slightly. India's manufacturing PMI continued its expansion trend, and Vietnam's manufacturing PMI rebounded to 50.3, mainly due to the recovery of new orders.

In the Americas, the U.S. (ISM) manufacturing PMI fell back to 49.2, mainly due to declines in new orders and production indexes. Mexico's manufacturing PMI was 51.0, continuing its expansion trend.

In Europe, the Eurozone manufacturing PMI continued to decline to 45.7, mainly due to declining order demand.

Manufacturing PMIs

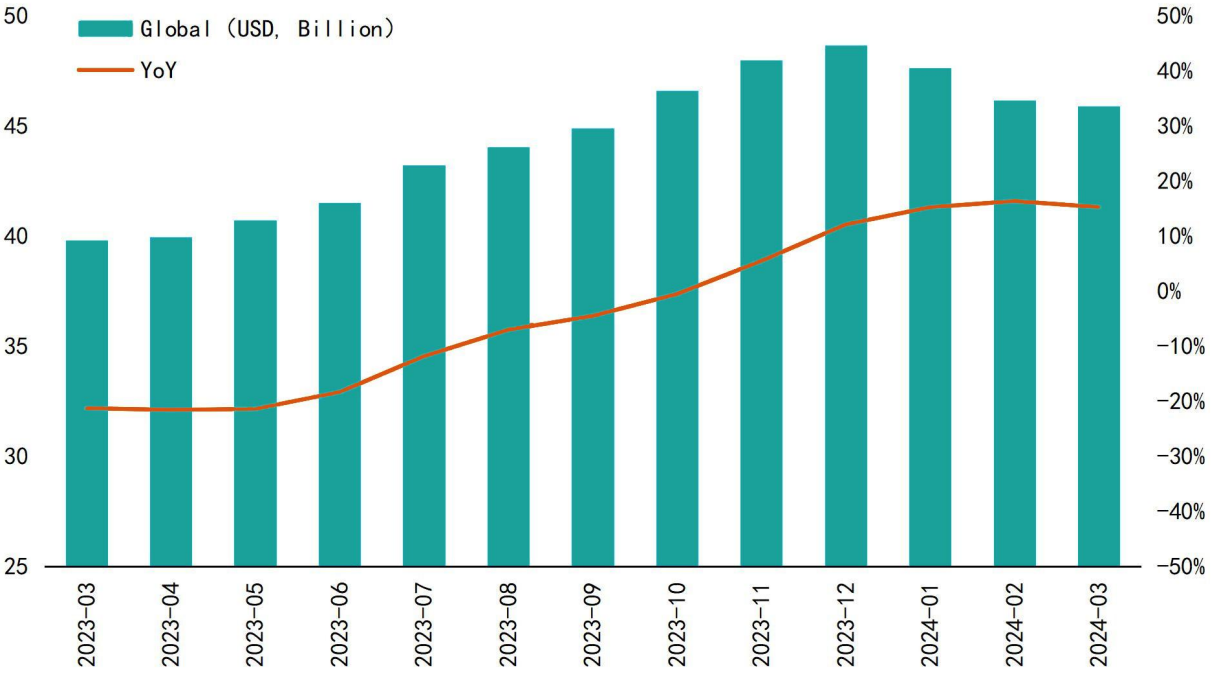
Timeline	Global	China	Japan	South Korea	India	Vietnam	The United States	Mexico	Euro Area
2023-04	49.60	49.20	49.50	48.10	57.20	46.70	47.10	51.00	45.80
2023-05	49.60	48.80	50.60	48.40	58.70	45.30	46.90	50.50	44.80
2023-06	48.80	49.00	49.80	47.80	57.80	46.20	46.00	50.90	43.40
2023-07	48.70	49.30	49.60	49.40	57.70	48.70	46.40	53.20	42.70
2023-08	49.00	49.70	49.60	48.90	58.60	50.50	47.60	51.20	43.50
2023-09	49.10	50.20	48.50	49.90	57.50	49.70	49.00	49.80	43.40
2023-10	48.80	49.50	48.70	49.80	55.50	49.60	46.70	52.10	43.10
2023-11	49.30	49.40	48.30	50.00	56.00	47.30	46.70	52.50	44.20
2023-12	49.00	49.00	47.90	49.90	54.90	48.90	47.40	52.00	44.40
2024-01	50.00	49.20	48.00	51.20	56.50	50.30	49.10	50.20	46.60
2024-02	50.30	49.10	47.20	50.70	56.90	50.40	47.80	52.30	46.50
2024-03	50.60	50.80	48.20	49.80	59.10	49.90	50.30	52.20	46.10
2024-04	50.30	50.40	49.60	49.40	58.80	50.30	49.20	51.00	45.70

Data Source: FastBull

1.2 The Growth of Global Semiconductor Demand Slows Down

In March 2024, global semiconductor sales continued to show a seasonal adjustment trend, declining by approximately 0.6% month-on-month. Judging from Q1 2024, global semiconductor sales have reached a cumulative USD 139.71 billion, a cumulative yearly increase of 15.6%, and the growth rate has slowed down.

Global Semiconductor Sales (USD, Billion)



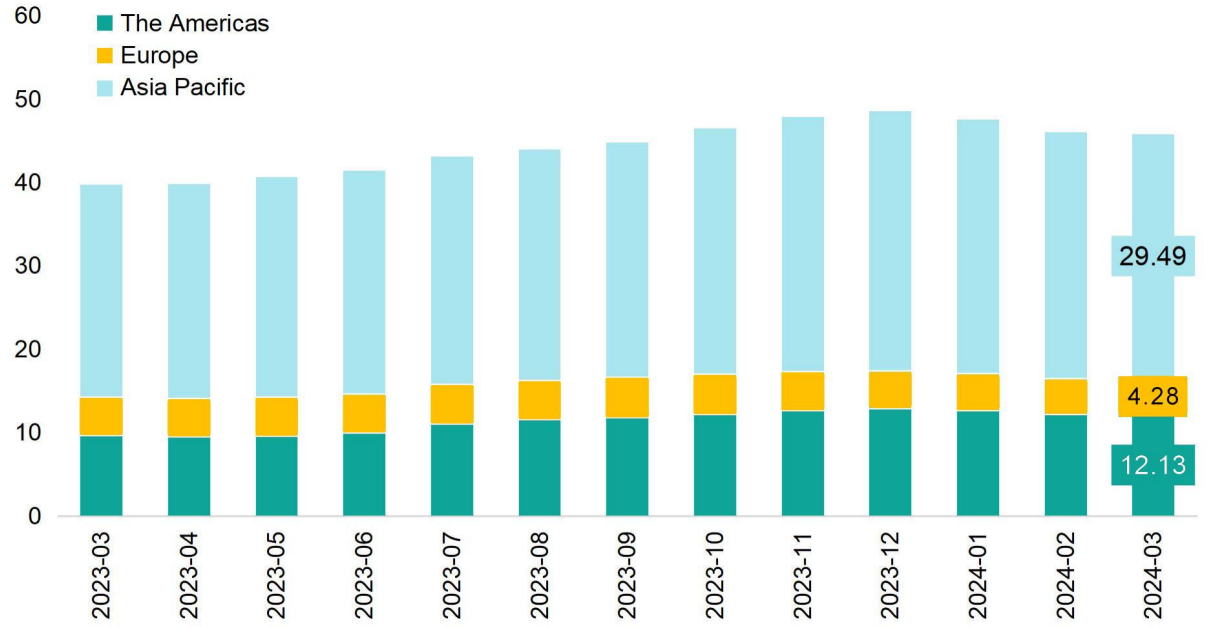
Data Source: SIA

In the Asia-Pacific region, the overall performance in March was flat, with sales of USD 29.49 billion (+15.1% year-on-year). Cumulative sales in Q1 were USD 89.77 billion (+16.2% year-on-year). Among them, sales in China reached USD 14.14 billion in March, almost the same as last month. Demand in Japan continues to be sluggish, with a yearly decrease of 9.3% in March.

In the Americas, market demand recovered quickly, with sales in March reaching USD 12.13 billion, a yearly increase of 26.2%.

In Europe, the market is relatively weak, the yearly decline in sales continues to expand (-7.0%), and the manufacturing industry performs poorly.

Semiconductor Sales by Regions (USD, Billion)

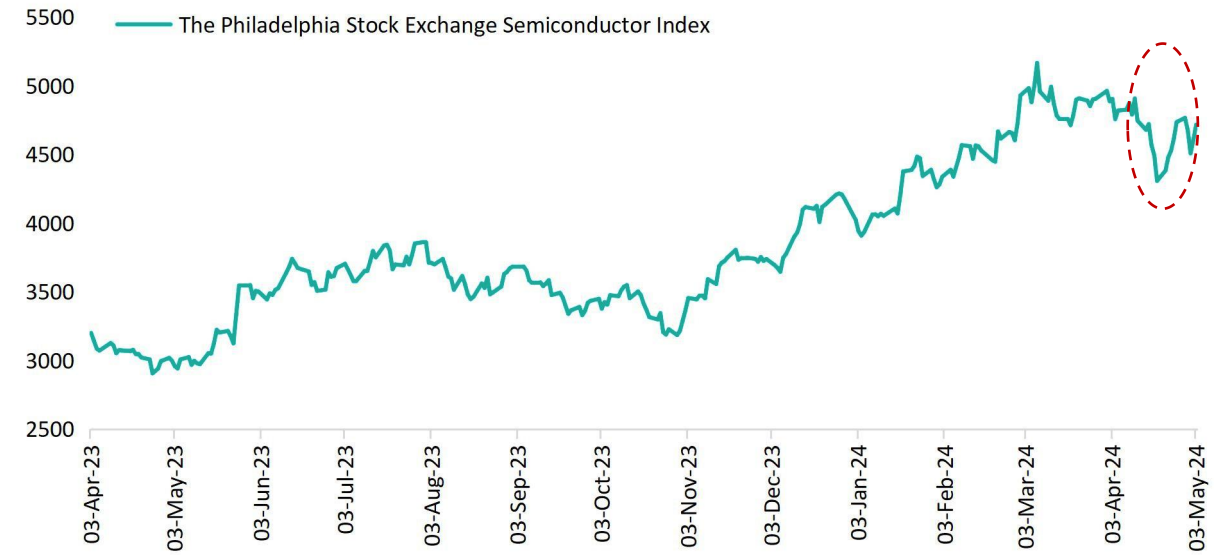


Data Source: SIA

1.3 Semiconductor Stock Market Slightly Declined Due to Retracement

Affected by the Federal Reserve's announcement to postpone interest rate cuts, the Philadelphia Semiconductor Index (SOX) fell sharply in mid-April. However, after the release of United States' employment data, market expectations for an interest rate cut by the Federal Reserve may revive due to rising unemployment, and the Philadelphia Semiconductor Index continued to rebound.

The Philadelphia Stock Exchange Semiconductor Index



Data Source: MacroMicro

1.4 Malaysia Plans Southeast Asia's Largest Integrated Circuit Design Park to Accelerate the Development of Semiconductor Industry

According to Reuters, the Malaysian government announced on April 22 that it plans to build the largest integrated circuit design park in Southeast Asia, aiming to shape Kuala Lumpur into a regional digital centre. The government will launch a series of incentives, including tax breaks, subsidies, and visa fee exemptions, to attract global technology companies and investors.

1.5 The United States will Cooperate with the UAE to Develop AI industry, which may Affect the AI Industry Landscape

The Biden administration has aggressively pushed U.S. technology groups to find deals and cooperation opportunities in AI in the UAE. On April 15, Microsoft announced a USD 1.5 billion investment in G42, an AI group in Abu Dhabi. The Washington Post reported that as part of the negotiations, the G42 has agreed to divest from China and remove Chinese equipment from its business, including Huawei.

1.6 Japan Will Tighten Export Controls on More Chips and Quantum Technologies, which may Affect Related Chipmakers

Japan plans to expand export restrictions on four technologies related to semiconductors and quantum computing, which will affect scanning electron microscopes used to analyse nanoparticle images and all-around gate transistor technology used by Samsung to improve semiconductor design. Japan will also require licenses for the export of lowtemperature CMOS circuits used in quantum computers and the export of quantum computers themselves.

2. Semiconductor Industry Updates

2.1 Short-term Implications

Overview

- Original manufacturers continue to increase memory chip prices, optimistic about future demand growth.

2.1.1 Western Digital Confirms HDD and SSD Supply Shortages and Continues to Adjust Prices of Flash Memory and Hard Drive Product

Western Digital first confirmed supply shortages for both HDD and SSD on April 8. The company issued a formal customer letter informing that NAND flash memory and hard disk products are undergoing price adjustments. Western Digital said demand for both flash memory and hard drive products exceeded expectations, leading to tight supply. Price

adjustments for flash memory and hard drive products will continue this quarter, with some adjustments taking effect immediately.

2.1.2 Samsung Will Mass-produce HBM3E in Q2 This Year, Indicating that Competition Among Memory Chipmakers will Continue to Evolve

Samsung will mass-produce 12-layer HBM3E in Q2 2024, equipped with AMD's new generation AI semiconductor. As its HBM customers expand to AMD, Samsung is expected to accelerate its pursuit of SK hynix.

2.1.3 Micron Plans to Increase DRAM and SSD Prices by 25% in Q2, Signaling that Memory Chip Prices will Continue to Recover

According to DIGITIMES, Micron plans to increase prices for DRAM memory and SSD products by 25% in Q2. A number of memory module manufacturers have been informed of Micron's intention to adjust prices, and price negotiations are still ongoing.

2.1.4 Memory Chipmakers Plan to Expand Production in Q2 and Pay Attention to the Price Fluctuations of Memory Chips

According to the Omdia report, Samsung has increased its average monthly DRAM wafer investment in Q2 this year to 600,000 pieces, a monthly increase of 13%. It is expected to increase DRAM wafer investment in the second half of the year to 660,000 pieces, and DRAM output return to pre-cut levels. SK hynix will increase its average monthly DRAM wafer input to 410,000 pieces in Q2; its DRAM wafer input is expected to increase to 450,000 pieces in the second half of the year.

2.2 Mid-term Implications

Overview

- Strong demand for AI servers will drive growth in demand for AI chips and HBM.

2.2.1 Marvell Wins AI Custom Chip Order, Predicting Fierce Competition in AI Chip Market

Marvell said it has secured new AI chip orders from three large U.S. cloud computing companies and that related business revenue will reach USD 2.5 billion by fiscal year 2026, but it pointed out that the profit margin of the customisation department is lower than other business lines.

2.2.2 Quanta's Servers Equipped with NVIDIA GB200 will be Mass-produced in September, Optimistic about the Demand Growth for AI Servers

Yang Qiling, Senior Deputy General Manager of Quanta and General Manager of Wenda, said that servers equipped with NVIDIA GB200 will be mass-produced in September. Customer demand from the four major CSPs (cloud service providers) is huge and Quanta is expected to maintain double-digit growth in server shipments this year Large CSP manufacturers arequite optimistic about the new NVIDIA Blackwell architecture with huge demand.

2.2.3 HANMI Semiconductor Wins KRW 22.6 Billion HBM Equipment Order from Micron, Optimistic about Demand Growth of HBM

HANMI Semiconductor has received an order worth KRW 22.6 billion from Micron to provide TC bonding machines for manufacturing HBM chips. In addition, HANMI Semiconductor's cumulative orders for HBM equipment from SK hynix have exceeded KRW 200 billion.

2.3 Long-term Implications

Overview

- The competition among AI chipmakers will become increasingly fierce.

2.3.1 Samsung Opens a Laboratory to Develop AI Chips, which is Expected to Change the AI Chip Industry Landscape

According to Korean media Sedaily, Samsung Electronics has opened an advanced processor laboratory for AI chip design in Silicon Valley, through its Samsung Research Institute. The laboratory will focus on the design of RISC-V architecture processor IP, with the ultimate goal of creating self-developed AI chips based on RISC-V architecture and breaking NVIDIA's hegemony in the field of AI chips.

2.3.2 SK hynix will Cooperate with TSMC to Mass-produce HBM4 Chips, Optimistic about the Demand Growth of HBM

On April 19, SK hynix announced that it will cooperate with TSMC to mass produce HBM4 chips starting in 2026. In the context of rising difficulty in chip manufacturing, large companies will work together to develop a new generation of products and stabilise supply.

2.3.3 SK hynix will Expand Memory Chip Production Capacity to Match Long-term Demand for AI

SK hynix plans to spend approximately USD 14.6 billion to build new memory chip production capacity in South Korea and conduct major capacity upgrades to meet the needs of AI. It

started construction of a new factory or fab around the end of April and plans to complete it in November 2025.

2.3.4 ROHM's SiCrystal Expands SiC Wafer Supply Contract with ST, Optimistic about SiC Demand Growth

ROHM and STMicroelectronics announced that SiCrystal GmbH (SiCrystal), a subsidiary of ROHM, will expand its current long-term supply contract for 150mm SiC wafers that has lasted for many years. The expanded contract stipulates that STMicroelectronics will supply SiC wafers produced in Nuremberg, Germany, in the next few years. The transaction value during the contract period is expected to exceed USD 230 million.

2.3.5 Microchip Acquires Neuronix, Optimistic about Growing Demand for AI

Microchip announced the acquisition of Neuronix AI Labs to further enhance its ability to deploy energy-efficient artificial intelligence edge solutions on FPGAs.

2.3.6 Infineon Partners with Amkor to Operate Chip Packaging and Testing Centre to Strengthen Back-end Manufacturing Business in Europe

Infineon and Amkor recently announced the deepening of their partnership to strengthen their outsourced backend manufacturing business in Europe. The two parties will operate a dedicated chip packaging and testing facility at Amkor's manufacturing base. The chip packaging and testing centre is expected to begin operations in the first half of 2025. Amkor will expand its facilities in Porto and run production lines, provide dedicated clean room space, and Infineon will send an on-site team to provide engineering and development support.

3. Application Updates

3.1 Artificial Intelligence

Overview

- AI chip demand is expected to continue to grow.

3.1.1 Microsoft Plans to Stockpile 1.8 million GPUs by the End of 2024, with Rapidly Growing Demand for AI Chips

According to reports, Microsoft plans internally to triple the number of GPUs in 2024, with the goal of accumulating 1.8 million AI chips by the end of 2024. By fiscal 2027, Microsoft expects to spend about USD 100 billion on GPUs and data centres.

3.1.2 OpenAI Plans to Purchase AI Chips in Japan, Benefiting the Development of Japan's AI Chip Industry

OpenAI will seek partners in the Japanese semiconductor industry to purchase high-performance chips required for artificial intelligence. Recently, OpenAI announced the establishment of its first office in Asia in Tokyo, Japan, expanding its business to Asia, and will release a GPT-4 customised model optimised for Japanese.

3.1.3 SoftBank Plans to Invest USD 960 Million to Develop AI data Centres, and Demand for AI Chips is Expected to Continue to Grow

According to reports, SoftBank plans to invest a total of JPY 150 billion (approximately USD 960 million) by 2025 to enhance the computing power of its AI data centre. The investment includes the purchase of GPUs from NVIDIA, some of which will be used for its own AI R&D, and some will be leased to other companies in need. Currently, SoftBank is working on developing high-performance Gen AI designed specifically for Japanese.

3.2 New Energy

Overview

- The demand for photovoltaic in the United States is expected to grow.

3.2.1 ElinEnergy will Build a Factory in the United States, Optimistic About the Growth of Demand in the U.S. Photovoltaic Market

Turkish solar manufacturer, Elin Energy, has established a solar module manufacturing plant with an annual capacity of 1GW in Texas, USA, and plans to expand to 2GW. The factory, which operates under the SiriusPVUSA brand, has agreements with major U.S. distributors and employs more than 100 people.

3.2.2 JA Solar Technology and BYD Reached Strategic Cooperation to Accelerate the Development of the Energy Storage Industry

JA Solar Technology and BYD recently signed a strategic cooperation agreement. This agreement aims to fully integrate the resources and technological advantages of both parties, establish a more comprehensive and in-depth strategic cooperation relationship in the fields of scientific research and innovation, supply chain cooperation, global market development and other fields, jointly develop advanced energy storage products, and provide the world's leading optical storage integration solution.

3.3 Automotive

Overview

- Increasing demand for intelligent driving will drive up demand for automotive chips.

3.3.1 Hesai Technology and Momenta have Reached a Strategic Cooperation to Promote the Development of Intelligent Automotive

According to Hesai Technology's latest disclosure, the company and Momenta signed a strategic cooperation agreement at Hesai Maxwell Intelligent Manufacturing Centre. This cooperation aims to deeply integrate the superior resources of both parties, further broaden the strategic product layout, and jointly develop more diversified and competitive intelligent driving solutions.

3.3.2 Orders for Mobileye Reached 46 Million Units, with Growing Demand for Intelligent Driving Chips

Mobileye said that the number of orders received for EyeQ6 Lite self-driving chips has reached 46 million, and it is optimistic about the order momentum in the next few years, which is expected to drive subsequent performance of Mobileye.

3.3.3 Volkswagen will Expand Production and Innovation Centre in Hefei to Accelerate the Intelligence EV

Volkswagen will invest EUR 2.5 billion to further expand its Hefei production and innovation centre and speed up the production of intelligent electric models with Xpeng Motors.

3.4 Others

Overview

- Pay attention to Huawei Pura 70 series' supply chain opportunities.

3.4.1 Sales of Huawei Pura 70 are Booming, which will Bring about Industry Chain Opportunities

Huawei Pura 70 has been officially launched and sales are booming. Its supply chain has basically been fully localised, which is good for domestic electronic components manufacturers. Among them, in terms of OEMs, there are Guanghong Technology and Furi Electronics; on the hardware side, there are CIS manufacturers Smartway and Weir

Technology, satellite communication baseband chip manufacturers, Huali Chuangtong, camera module manufacturers Sunny Optical, OFILM.

3.4.2 Tata Group Acquires Pegatron's iPhone Manufacturing Business in India

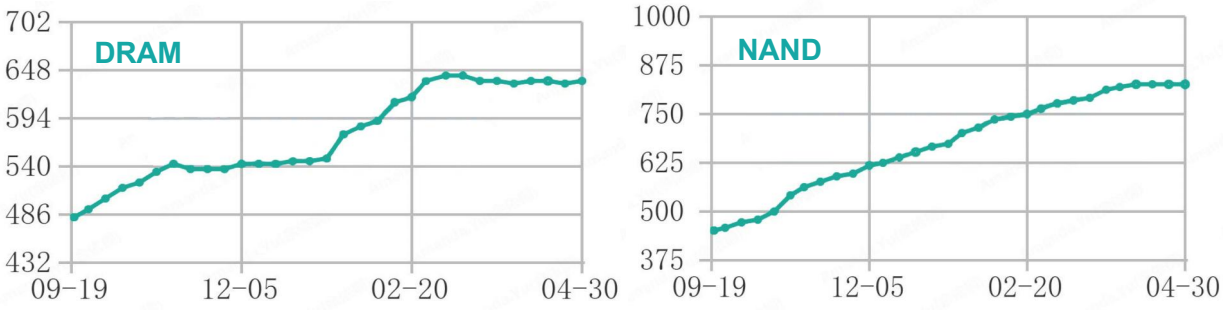
Tata Group may acquire Pegatron's iPhone manufacturing business in India as early as May, and negotiations are currently in the final stages.

4. Product Updates

4.1 Memory: Customers' Demand Growth for Slows Down with a Lack of Spot Price Growth Momentum

Recently, original factory prices are still rising month-on-month, but due to the slowdown in demand growth, spot market price growth has been relatively flat, resulting in greater transaction pressure.

Price Index of DRAM and NAND



Data Source: CFM

According to TrendForce's latest forecast, the quarterly growth rate of DRAM contract prices in the second quarter will be revised upward to 13%-18%; the quarterly growth rate of NAND Flash contract prices will be revised upward simultaneously to about 15%-20%. Only eMMC/UFS price growth will be smaller for all products about 10%.

Quarterly Price Growth Forecast of Memory Chip in 2024

Product	Q1 2024	Q2 2024 (Previous)	Q2 2024 (Latest)
Total DRAM	Up 20-25%	Up 5-10%	Flat
Total NAND Flash	Up 23%-28%	Up 13%-18%	Up 15%-20%

Data Source: TrendForce

On the other hand, the enterprise SSD market has improved. In order to reduce the energy consumption of AI inference servers, North American customers have begun to increase their demand for QLC Enterprise SSD. According to TrendForce, QLC Enterprise SSD bit shipments will increase fourfold year-on-year in 2024.

Quarterly Growth Forecast of Enterprise SSD Contract Price in 2024

Q1 2024	Q2 2024 (E)	Q3 2024 (F)	Q4 2024(F)
Up 23-28%	Up 20-25%	Up 5-10%	Flat

Data Source: TrendForce

4.2 MCU: Overall Inventory is Expected to Return to a Healthy Level in Q2

The demand for general-purpose MCUs is still weak, the market price of Microchip's low-end models is upside down, and the lead time of NXP's traditional MCUs is short.

Automotive MCU demand remains relatively stable. Infineon's safety MCUs almost monopolise intelligent driving industry. Data from TechInsights show that Infineon ranks first in the global automotive MCU market with a market share of nearly 14%.

Lead Time and Price Trend of MCU

Product	Price Trend	Lead Time Trend
8 Bit MCU	→	→
16 Bit MCU	→	→
32 Bit MCU	→	→
Automotive MCU	→	→

Data Source: Avnet

4.3 Analog: Overall Market Continues to be Weak, with Shorten Delivery Time of Some General-purpose Devices

Recently, consumer electronics market has been a driving force for demand growth of analog chips. According to Canalys data, global smartphone shipments in Q1 2024 increased by 11% year-on-year and global PC shipments increased by 3% year-on-year. Starting from the second quarter, demand in the industrial and automotive industries may recover. TI gave an optimistic forecast for Q2 performance, indicating that customers have resumed placing orders.

Lead Time and Price Trend of Analog Chip

Product	Price Trend	Lead Time Trend
Amplifiers & Comparators	→	→
Analog Interface	→	→
Power Management	→	→
Converters	→	→
Total	→	→

Data Source: Avnet

5. Key Market Trends

5.1 Sales of Huawei Pura 70 Mobile Phone are Booming, Pay Attention to Huawei Mobile Phone Supply Chain Opportunities

Huawei's Pura 70 series of new phones have been selling like hotcakes since their launch. TechInsights analysts said that sales of the entire Pura 70 series are expected to exceed 10 million units in 2024. According to report of Fomalhaut Techno Solutions, Huawei only uses Sony components for the main camera of Pura70 Ultra; the core processors, panels, cases, batteries, lenses, heat dissipation, and acoustic components of the remaining mobile phone models and other components are almost completely domestically produced.
It is reported that the main suppliers of the Pura 70 series include OFILM, Lens Technology, Goertek, Changying Precision, Sunny Optical, BOE Crystal Optoelectronics and other companies.

5.2 Spot Prices of Low-end Memory Chips may be Under Pressure with Weak Customers' Demand

Although memory chipmakers plan to increase product prices, customers' demand is still relatively weak. In addition to high-end DDR4/DDR5, the spot prices of other low-end memory products may be under pressure.

Conclusion

In April, global semiconductor demand growth slowed, but China's manufacturing sector returned to boom with a manufacturing PMI of 50.4.

Major memory chip manufacturers are ramping up production and pricing of their products, while AI chip makers may face fiercer competition given the number of players entering the chip market AI is on the rise.

Huawei Pura 70 is very popular, with almost 100% of components produced domestically, showing that the pace of domestic replacement has accelerated. However, spot prices of memory chips may face upward pressure due to weak customer demand.

In conclusion, attention should be paid to opportunities of Huawei Pura 70 supply chain and memory chip made from Chinese manufacturers.

References

[1] DRAM factories are gradually resuming production, and the impact on total DRAM bit output in the second quarter is estimated to be less than 1%, TrendForce, 2024
[2] Malaysia plans Southeast Asia's largest integrated circuit design park, Reuters, 2024
[3] Microsoft invests in Arabic AI firm as U.S. tries to limit China’s sway, Washington Post, 2024
[4] French Minister of Economy: Large-scale adoption of “Made in France” photovoltaic modules, Sobi Photovoltaic Network 2024
[5] Japan will tighten export controls on more chips and quantum technologies, C114 Communications Network, 2024
[6] Western Digital confirms supply shortage of HDD and SSD, CFM Flash Memory Market, 2024
[7] It is reported that Samsung will supply AMD HBM3E in Q2, Financial Associated Press, 2024
[8] Samsung and SK Hynix are increasing DRAM production and will return to pre-cut levels, Financial Associated Press, 2024
[9] Micron plans to increase DRAM memory and SSD products by 25% in the second quarter, DIGITIMES, 2024
[10] Obtain new AI chip orders, Marvell, 2024
[11] Servers equipped with NVIDIA GB200 will be mass-produced in September, Quanta, 2024
[12] Hanmi Semiconductor received an order worth 22.6 billion won from Micron Technology, Financial Associated Press, 2024
[13] Samsung Electronics opens advanced processor laboratory in the United States, Sedaily, 2024
[14] SK cooperates with TSMC to develop HBM4, mass production in 2026, Nikkei Chinese, 2024
[15] SK Hynix plans to increase AI chip investment by US$14.6 billion in South Korea, wsj.com, 2024
[16] SiCrystal, a subsidiary of ROHM Group, expands SiC wafer supply contract with STMicroelectronics, ROHM, 2024
[17] Microchip acquires Neuronix AI Labs, ifeng.com, 2024
[18] Infineon and Amkor announced to jointly build a chip packaging and testing center, Semiconductor Industry Network, 2024
[19] Microsoft is currently stocking up on GPUs, aiming to reach 1.8 million units by December 2024, Business Insider, 2024
[20] OpenAI will seek partners in the Japanese semiconductor industry to purchase

high-performance chips required for AI, Phoenix.com, 2024
[21] SoftBank will reportedly invest nearly $1 billion in AI push, CNBC, 2024
[22] Another photovoltaic module company goes to the United States to build a factory, Polaris Solar Photovoltaic Network, 2024
[23] JA Solar Technology and BYD Automotive Industry reached strategic cooperation, JA Solar Technology, 2024
[24] Hesai Technology and autonomous driving company Momenta reached a strategic cooperation, Jiemian News, 2024
[25] Mobileye set to ship at least 46 million new assisted driving chips, Reuters, 2024
[26] Volkswagen China: Invest 2.5 billion euros to further expand the production and innovation center in Hefei, Jiemian News, 2024
[27] Huawei Pura 70 suddenly goes on sale, Securities Times, 2024
[28] It is reported that iPhone assembly plant Pegatron’ s Indian business will change hands as soon as May, International Electronics Business Information, 2024
[29] AI demand is rising, QLC Enterprise SSD shipment bits will grow rapidly in 2024, TrendForce, 2024

Disclaimer

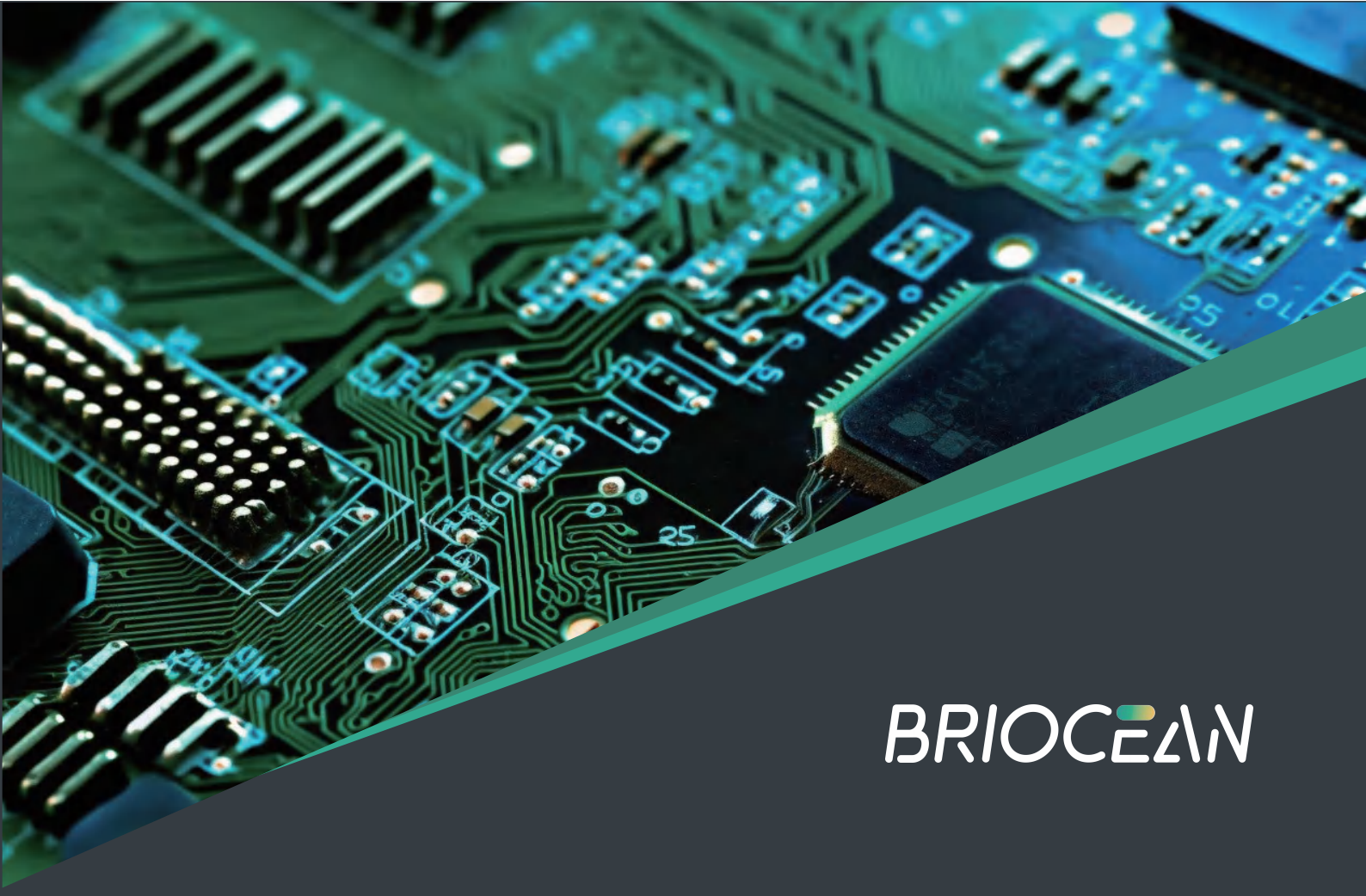
The monthly report issued by Briocean Technology Co., Ltd (hereinafter referred to as " Briocean") is compiled by Briocean'S Marketing and Branding department based on publicly avsailable data, information,and research reports.

The content of this report, such as information, opinions and speculations, solely represents the judgments and perspective of Briocean at the time of the report’s issuance. The content is intended for reference purposes only, and does not constitute bids, solicitations, offers or invitations to make offers for the mentioned products. It neither forms the basis of any contractual obligation nor recommendation for the buying or selling of any investment instruments or execution of any transactions. Furthermore, it does not provide investment or procurement advice or guidance. Briocean bears no legal responsibility for any direct or indirect consequences or losses arising from the use of the information and content. Readers are urged to exercise caution, independent judgment, and analysis when reviewing this report.

Briocean does not guarantee the authenticity, accuracy, completenessor timeliness of the data referenced in this report, research report or information obtained from third-party sources. Published information, opinions, and data may become inaccurate or obsolete due to changing circumstances or other factors after the publication date. However, Briocean is not obligated to update inaccurate or outdated information, opinions and data, nor will it notify readers of such changes or updates.

Briocean Technology

April 2024



BRIOCEAN

Founded in 2008, Briocean is a leading independent electronic components distributor in Asia where we work directly with electronic manufacturing clients across different industries to provide componenet sourcing and supply chain services.

Working with over 10,000 global electronic component suppliers, Briocean strives to meet the various clients' demands on component shortages and cost savings. With the aim of providing clients with reliable and trackable procurment supply chain services, Briocean established one of the industry's most stringent Supplier Managmenet Systems and two world-class quality control centres based in Shenzhen and Hong Kong. Briocean's commitment to quality and reliability, ensures that every component we source, meets the highest standards.

WWW.BRIOCEAN.COM