



Electronics Supply Chain Weekly Digest

Important Disclosures in the Appendix

A weekly collection of news summaries, survey results and channel insights, and report summaries from Edgewater Research

Nik Todorov

Sr. Research Analyst
Nik@EdgewaterRC.com
216.206.6103

Dennis Reed

Sr. Research Analyst
Dennis@EdgewaterRC.com
216.426.6279

Sean Muir

Sr. Research Analyst – Partner
Sean@EdgewaterRC.com
216.426.6277

DATAPOINT OF THE WEEK: S&P reported Eurozone Aug mfg PMI of 43.5 vs. 42.7 in July and Germany mfg PMI of 39.1 vs. 38.8 in July both reflecting continued suppressed conditions with plummeting new orders, rapidly depleting backlogs decline in employment levels and slashed purchasing activity as companies focus on running down stocks. In the US, S&P reported Aug mfg PMI of 47.9 vs. 49.0 in July signaling worsening conditions with a sharper fall in new orders, output, and backlog but still stable employment and improving inflationary pressure. Conversely, ISM reported Aug PMI of 47.6 vs 46.4 in July signaling a slight improvement but continued sluggishness with a continued drop in new orders but an uptick in output. In China mfg PMI numbers were more encouraging with government data for Aug showing an uptick to 49.7 from 49.5 in July and private Caixin PMI increasing to 51.0 from 49.2 in July, marking the return to expansion territory for the first time in 4 months.

Reports published this week:

[IP&E – August 2023](#)

Key Takeaways:

1. 3Q shipments seen tracking in-line, flat Q/Q with POP weakness in distribution offset by more stable demand direct.
2. The timeline for inventory digestions seen as stretching into 1H24, in turn pushing out expectations for bookings rebound.
3. 2H outlook relatively unchanged and at best projecting flattish sales. Early 2024 outlook also muted on inventory overhang.
4. Inventory in distribution seen as having peaked in 2Q; distributors noted as increasingly focused on rebalancing going forward. End customer inventory is viewed as still progressing slower than expected. Overall digestion is projected to last into 1Q24 as inventory headwinds are seen as compounded by soft end demand.
5. China/APAC still seen as relatively weakest; supply chain less optimistic China sees meaningful rebound in 2023.
6. EMEA demand is seen as seasonally soft QTD; supply chain concerned of weakness in semis spilling over to connectors in the region.
7. Americas seen as more stable at flat Q/Q with weakness in distribution POP but still stable demand direct and strength in Mil/Aero.

[Hard Disk Drive Insights – August 2023](#)

Key Takeaways:

1. C3Q23 HDD shipment TAM forecast unchanged at ~29-31M units, or down slightly Q/Q assuming modest decline in client (and consumer) HDD shipments following pockets of order pull-ins late last quarter, forecasting nearline shipments up Q/Q.
2. Maintaining C4Q23 HDD shipment TAM forecast of ~29-31M units, led by assumed, albeit modest, uptick/improvement in select U.S. hyperscalers nearline orders/demand; C4Q23 HDD production forecasts increased by >1M units M/M to ~29-29.5M units.
3. Adjusting CY23 HDD shipment TAM forecast to upper-end of prior ~122-125M units, yet still down high-20% Y/Y, while timeline/pace of nearline recovery muted/pushed into CY24; reducing CY24 HDD shipment TAM slightly to ~115-120M units.
4. Nearline HDD shipment forecasts revised lower thru YE23 despite pockets of pull-ins late last quarter; forecasting C3Q23 nearline HDD shipments to remain stable/improve slightly Q/Q to ~9.5M units and C4Q23 shipments to increase to ~10-10.5M units.
5. Slightly adjusting CY24 nearline HDD shipment TAM lower to ~52-54M units as timeline/pace of demand recovery likely to remain lumpy amongst U.S. hyperscalers; forecasting CY24 nearline EB shipments to recover to ~900-950EB vs. ~600EB in CY23

Auto/Transportation

BYD – BYD announced it has struck a deal with Jabil to buy its mobile electronics manufacturing business in China for \$2.2 billion. The deal will expand BYD Electronics' customer base, product portfolio, and its smartphone components business as it looks to capture Jabil's potential growth in the sector.

BYD – BYD remains confident of selling 3 million clean cars this year despite economic challenges and an intense price war in China, founder and Chairman Wang Chuanfu told analysts at a briefing Tuesday.

Bosch – Bosch has started volume production of new 800V powertrain systems for electric vehicles at its plant in Hildesheim, Germany. The systems, containing SiC power devices, provide up to 35% more power density, weight loss, and faster charging says Bosch.

China EVs – From August 1 to 27, China's retail sales of all passenger vehicles were 1.356 million units, up 6% Y/Y and up 3% from the same period last month. From August 1 to August 27, retail sales of passenger new energy vehicles (NEVs) in China stood at 538,000 units, up 28% Y/Y up 2% from the same period last month, according to data by the China Passenger Car Association (CPCA). The data suggests that NEV sales in China continue to decelerate as Aug would be the lowest Y/Y growth in more than 3 years.

EV Chargers – The Japanese government announced it has doubled its target for EV Charging installations by 2030 to 300,000.

Europe Auto sales – New light vehicle sales in Europe increased 16.8% Y/Y to 994K in July according to ACEA data. Sequentially sales in July declined 19% M/M, which compares to 3Y/5Y avg of -10%/-11%. BEV sales in July surged 63%, though declining 29% M/M. BEV sales accounted for 14.6% of total, vs. 16.5% in June and 15.2% in May. PHEV sales increased 20% Y/Y and accounted for 7.9% of total, while HEV increased 30% Y/Y and accounted for

26% of total. Diesel and ICE vehicles sales increased 2.6% Y/Y (-18% M/M) and accounted for the remaining 50%.

Ford – Ford Motor has made a contract offer to the United Auto Workers (UAW), the company said on Thursday. The contract offer would provide hourly employees with 15% guaranteed combined wage increases and lump-sums, and improved benefits over the life of the contract, the company said in a statement. Wages, including overtime, and lump-sum bonuses for Ford's UAW-represented hourly workers would increase from \$78,000 on average in 2022 to \$92,000 in the first year of the contract, the automaker said.

Hyundai – Hyundai Motor's unionized workers in Korea have won permission to go on strike, the union said on Monday, raising the probability of the company's first wage-related industrial action in five years. The union said it would gather on Wednesday to decide what the next move would be. Members had voted on Friday to walk out unless the company accepted demands for wage increases and an extension of the retirement age.

VW – Volkswagen plans to halt production of the T-Roc small crossover -- its top seller in Europe -- at its Autoeuropa plant in Setubal, Portugal for several weeks due to floods in Slovenia which has severely affected a company that supplies engine parts for the T-Roc. The interruption in production is scheduled to begin in the first half of September and will last several weeks.

Toyota – Toyota has been forced to halt operations at 12 of its manufacturing plants for two days in Japan due to a system failure, as reported by NHK news agency. The company announced it will restart operations later this week. The failure reportedly occurred at Toyota's processing order system during an update, which prevented the company from placing orders to suppliers.

Stellantis – Stellantis will launch the reorganization of its European dealer network next week, starting with four specific markets before extending it further across Europe in 2024, the automaker said in a statement. As part of its efforts to cut costs and support investments for

Nik Todorov

Sr. Research Analyst

Nik@EdgewaterRC.com

216.206.6103

Dennis Reed

Sr. Research Analyst

Dennis@EdgewaterRC.com

216.426.6279

Sean Muir

Sr. Research Analyst – Partner

Sean@EdgewaterRC.com

216.426.6277



electrification, the world's third-largest automaker had announced it was ending its previous sales and services contracts with European dealers for its 14 brands and moving toward a new distribution framework based on an agency model.

UAW – United Auto Workers has filed unfair labor practice charges against automakers General Motors and Stellantis to the National Labor Relations Board for not bargaining with the union in good faith or a timely manner, UAW President Shawn Fain said Thursday night. The Thursday filings followed the companies not responding to the union's demands in a timely matter, Fain said.

US Auto Sales – According to a WSJ report, seasonalized rates of severe delinquency for auto loans have reached the highest level since 2006. The increase is seen as unusual given the strength in the jobs market. Typically defaults spike when unemployment spikes. The report adds that the performance of loans issued in the first half of last year at the peak of the price surge has been especially poor. Defaults and missed payments on pools of auto loans made in the first half of last year to people with subpar credit are matching or outpacing those issued in 2008, according to an analysis published last week by S&P Global.

US EVs – The Biden administration is offering \$12 billion in grants and loans for automakers and suppliers to retrofit their plants to produce electric and other advanced vehicles, Energy Secretary Jennifer Granholm said on Thursday. Speeding grants and other subsidies to fund conversion of existing auto plants to build electric vehicles could help the White House blunt criticism from automakers and the United Auto Workers (UAW) union over proposed environmental rules aimed to help usher in the EV era. The UAW has warned that a rapid change could put thousands of jobs at risk in states such as Michigan, Ohio, Illinois and Indiana.

Tesla – Tesla on Friday unveiled a restyled, made-in-China Model 3 with a longer driving range, the first time the automaker has launched a new model in China ahead of the United States. The new model, which is being built at Tesla's

Shanghai plant, comes with a starting price 12% higher than the previous, base model in China. It will also be exported to other markets in Asia, Europe and the Middle East.

Xpeng – Chinese Xpeng announced acquiring the electric car development business of Didi, the Chinese ride-hailing company, for \$744M. With the acquisition, Xpeng said it plans to develop an electric car for launch next year under a new mass market brand that will target the 150,000 yuan (\$20,580) price range. Xpeng's cars typically sell for around 200,000 yuan or more.

Aerospace

Boeing – Boeing is preparing to restart deliveries of its 737 MAX jets to China after a four-year halt, according to a Bloomberg report. The initial handovers are expected to take place within weeks adds the report.

Datacenter

Dell – Dell reported stronger than expected July-Q results and provided guidance ahead of expectations. July-Q revenue of \$22.9B decreased 13% Y/Y but increased 10% Q/Q and came in \$2B above consensus expectations. EPS of \$1.74 also exceeded consensus of \$1.14. Dell's PC business reported \$12.9M in revenue, down 16% Y/Y but up 8% Q/Q. Infrastructure sales of servers and storage came in at \$8.5B down 11% Y/Y but 11% Q/Q and well above consensus of \$7.4B. The company said about 20% of server orders for the first half of the fiscal year were related to machine and artificial intelligence applications. Dell said that the demand environment improved as the company moved through the quarter. The company also benefited from improved profitability from lower component costs as parts shortages eased. Dell projected Oct-Q sales of \$23B vs consensus of \$21.7B. The company also raised its full year forecast for revenue and profit on the back of strength in AI stabilizing demand for servers.

Google – Google unveiled a swath of fresh artificial-intelligence technology and partnerships including 1) an

Nik Todorov

Sr. Research Analyst

Nik@EdgewaterRC.com

216.206.6103

Dennis Reed

Sr. Research Analyst

Dennis@EdgewaterRC.com

216.426.6279

Sean Muir

Sr. Research Analyst – Partner

Sean@EdgewaterRC.com

216.426.6277



updated custom-build AI chip (TPU v5e), 2) enterprise-scale tool to watermark and identify images generated by AI, 3) tools for security and 4) expanded partnership with Nvidia including AI infrastructure and software for deployment of generative AI workloads.

HPE – HPE reported July-Q results in-line with expectations. Total revenue increased 4% Y/Y in constant currency driven by robust 53% Y/Y increase in Intelligent Edge (Networking) revenue, which more than offset the 10% Y/Y and 2% Y/Y decline in server and storage revenue. Oct-Q outlook came in a bit light at \$7.35B/\$0.50 vs \$7.46B/\$0.50 consensus as HPE flagged continued softness in traditional infrastructure demand for servers and storage.

IP&E

Murata – Murata announced it has completed the construction of its new production facility in Vietnam. The new production building has a total investment of 4.32 billion yen, a total construction area of 5,486 square meters, and a total floor area of 22,637 square meters. It will be mainly used for the production of coil products.

Semiconductors

AMD – AMD announced it has acquired the Frech FPGA compiler expert Mipsology for an undisclosed sum. The Mipsology software team will join the AMD AI group, potentially accelerating AMD's AI software development and FPGA compilation technologies.

AI GPU – According to reports from China, the AI company iFLYTEK has recently claimed development of a AI GPU chip, in cooperation with Huawei, that is equal in performance to Nvidia A100 GPUs. iFLYTEK, is a partially state-owned Chinese information technology company established in 1999. It creates voice recognition software and 10+ voice-based internet/mobile products covering education, communication, music, intelligent toys industries.

ASML – According to reports from Asia ASML has confirmed it will continue to ship DUV equipment for mature processes

to Chinese customers by the end of the year, despite export restrictions from the Netherlands government going into effect on Sep 1st. ASML said it has been granted a license to continue shipments until year-end but it is unlikely that such a license will be obtained for 2024.

Broadcom – Broadcom reported July-Q revenue and EPS of \$8.88B/\$10.54, slightly exceeding consensus expectations for \$8.85B/\$10.43. The company provided an outlook that was in-line with Wall Street expectations, but the shares slipped on worries bleak enterprise spending and stiff competition in the networking chip space will outweigh benefits from a boom in artificial intelligence-led demand. Revenue will be about \$9.27 billion in the fiscal fourth quarter, the company said Thursday in a statement. That compares with an average Wall Street estimate of \$9.28 billion, with some analysts predicting as much as \$9.8 billion. The projected gain would be the slowest since 2020.

Diodes Inc – Workers at Diodes Zetex facility in the UK have voted to strike in a dispute over an unsatisfactory wage increase. The union points out that is workers were offered a 5.5% pay increase, while inflation is 9%. The union states that there is still time to negotiate and avoid an actual strike.

GlobalFoundries – GlobalFoundries announced improvement in two of its technologies for 5G connectivity and next gen EV and autonomous vehicles. The enhancements include the 9SW RFSOI technology that provides improved performance and integration for 5G communication applications and the 40ESF3 and BCD line technology for auto power management solutions. The new technologies are planned to be fully qualified and released into production by Sep 2023. GF has received commitments from automotive suppliers Robert Bosch and Inova Semiconductors.

Nvidia – In a regulatory filing Nvidia said that the US administration has placed additional restrictions on NVIDIA when selling some A100 and H100 chips to customers in the Middle East. The company said the restrictions would not have “an immediate material impact”. Reuters reports that AMD has received a similar informed letter from the US government.

Nik Todorov

Sr. Research Analyst

Nik@EdgewaterRC.com

216.206.6103

Dennis Reed

Sr. Research Analyst

Dennis@EdgewaterRC.com

216.426.6279

Sean Muir

Sr. Research Analyst – Partner

Sean@EdgewaterRC.com

216.426.6277



ST Micro – Several weeks after ON announced a SiC supply agreement with BorgWarner, STM announced a similar agreement. STM will supply BorgWarner with its third gen 750v SiC MOSFET for traction inverters.

Intel – Intel will invest \$1.2 billion in Costa Rica over the next two years, the company said in a press release on Wednesday. The announcement comes after the U.S. State Department said in July that it would partner with Costa Rica's government to support the Costa Rican semiconductor sector through the 2022 Chips and Science Act.

Intel – Intel revealed that it will speed up the construction of a wafer foundry in Arizona due to the acquisition of large customer orders. CEO Pat Gelsinger said that a major customer has paid a deposit for its 18A process capacity, so Intel decided to speed up the engineering progress of the new foundry in Arizona. He did not disclose how much the customer paid as a deposit for the 18A process capacity.

Consumer

HP – HP reported in-line July-Q results but the company provided a disappointing forward outlook as the recovery in PC demand is slower than the company anticipated, which is prompting HP to be more promotional near term. For the July-Q personal PC sales declined.

PC – IDC forecasts a return to growth in PC shipments in 2024, projecting 3.7% growth to 261M units. This will be higher than the 260M in 2018 but below the 2019 pre-pandemic level. For 2023, the latest IDC forecasts projects 13.7% decline in units due to tepid consumer demand, pushouts in businesses purchases and no rebound in education budgets.

Neo – Chinese EV maker NEO announced plans to launch its first self-developed mobile phone in late September. It becomes China's latest automaker to join a trend of rolling out car systems that allow drivers to use their smartphones to remotely open doors, turn on air-conditioning or start their cars, among other functions.

Nik Todorov

Sr. Research Analyst

Nik@EdgewaterRC.com

216.206.6103

Dennis Reed

Sr. Research Analyst

Dennis@EdgewaterRC.com

216.426.6277

Sean Muir

Sr. Research Analyst – Partner

Sean@EdgewaterRC.com

216.426.6277



APPENDIX

We Nik Todorov, Dennis Reed, and Sean Muir hereby certify that the views expressed in this research report accurately reflect our personal views about any or all of the subject securities referred to in this research report. We certify that no part of our compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this research report. The analyst(s) responsible for the preparation of this report have no ownership stake in this company. Edgewater Research Company provides no investment banking services on this or any company

Proprietary research and information contained within which forms the basis for findings or opinions expressed by Edgewater Research Company may be used by Edgewater Research Company for other purposes in the course of compensated consulting and other services rendered to third parties. The information transmitted by this email is intended solely for the person or entity to which it is addressed. If you are not the intended recipient of this message, be aware that any use, review, retransmission, distribution, reproduction or any action taken in reliance upon this message is strictly prohibited. If you received this in error, please contact the sender and remove the material

Nik Todorov
Sr. Research Analyst
Nik@EdgewaterRC.com
216.206.6103

Dennis Reed
Sr. Research Analyst
Dennis@EdgewaterRC.com
216.426.6279

Sean Muir
Sr. Research Analyst – Partner
Sean@EdgewaterRC.com
216.426.6277

