



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

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DATAPOINT OF THE WEEK: S&P reported August Eurozone Flash mfg PMI of 43.7 vs. 42.7 in July and Germany mfg PMI of 39.1 vs 38.8 in July both reflecting a continued decline in output, new orders, and backlog, and stalling employment amid a gloomier outlook, which slid to the lowest level this year. Notably, the weakness in the mfg sector is seen spilling over to services with Eurozone services dipping below 50 for the first time since 2020. In Japan, August preliminary PMI came in at 49.7 vs 49.6 in July reflecting shrinking new orders and output for the third straight month. In the US, S&P flash PMI data deteriorated with August mfg PMI reading of 47.0 vs. 49.0 in July reflecting declines in output and new orders and purchases of input materials. US services PMI declined to 51.0 from 52.3, the lowest in 6 months but remained in expansionary territory.

Reports published this week:

[High-Performance Analog – August 2023](#)

Key Takeaways:

1. Midway through 3Q, shipments are seen as having a slow start, tracking flat to down low-single digit, vs. targets of flat.
2. Bookings seen as remaining weak across geo/end markets. Expectations for a recovery pushed out again to 1Q24 from 4Q23 prior.
3. China seen as still disappointing QTD. Expectations for demand coming back in 2023 rapidly dwindling, except in EV.
4. Current downturn trend seen as persisting into 2H; supply chain more optimistic it can avoid a hard landing; we are less convinced.
5. Extended summer shutdowns are seen driving sharp, seasonal decline in Europe. Expectations for a strong and seasonal Sept. seen as diminishing in recent weeks, creating downside risk for the quarter in the region.
6. Auto feedback continues to turn more mixed; suppliers seen as enforcing NCNR/LTSAs trying to smooth demand. Tier 1s seen attempting to push short lead times orders while building buffer of recently constrained/golden screw parts.
7. Auto end demand seen moderating in the West and still muted in China on consumers sticking to a wait-and-see approach.
8. UAW strike seen as likely, but Ford/GM/Stellantis not seen hedging production due to sufficient inventory at US dealers.
9. UAW strike noted creating oppty for OEMs to back out of LTSA/NCNRs, leaving questions for post-strike LTSA negotiations.
10. Datacenter, Comms, Industrial demand unchanged M/M, projected soft in 2H. PC/CE demand seen as remaining muted in 3Q.

Auto/Transportation

China Sales – Retail sales of NEV in China are projected to rebound in August after falling M/M in July says the China Passenger Car Association. CPCA forecasts NEV shipments reaching 700K units in Augusts, up 31.5% Y/Y and up 9% M/M. According to CPCA, overall car sales are expected to reach 1.85M in Aug, up 4.7% M/M but down 1.3% Y/Y. CPCA says demand in August appears to be driven by the fresh round of price cuts by manufacturers during the month.

EVs – Governments of India and Indonesia are considering to reduce import duties on EV imports in effort to attract makers like Tesla and BYD. The reduced import tax are expected to come in return for commitments for local investments from OEMs. India is considering lowering its import tax to as low as 15% for Tesla from 70-100% currently. In return Tesla would be building a production factory in India.

Germany Auto Sales – The Germany auto market is not sustaining the growth of the first half and demand is declining currently says S&P Global. Despite that sales for the full year, projected at 2.8 million passenger car are still expected to surpass last year's 2.7 million. S&P think the market can cool down significantly by the end of the year as customers cut back on spending due to high inflation, slow growth and lack of affordable vehicles.

Korean Car Sales – Germany luxury brands BMW, Mercedes and Audi are seen as initiating aggressive discount promotions in South Korea in August to cope with moderating demand. The reports from Korea note BMW offering up 19% discounts on PHEV 530e model, Mercedes is seen offering 11-17% discounts for a broad range of models, while Audi is seen also seen offering up to 20% discount on models.

Tesla – Tesla has lowered the production target of its German plant to 4,350 a week in July and August after hitting 5,000 a week in March, and plans to reduce it further,

according to a Business Insider report citing internal documents and anonymous sources.

Toyota – Toyota is pausing production at its Kolin factory in the Czech Republic for nearly a week due to a parts shortage caused by a fire at a local plastic supplier. The plant, about 60 km east of Prague, produces the Aygo X mini crossover and the Yaris small hatchback.

Xiaomi – Xiaomi has won the approval of China's state planner to manufacture electric vehicles (EVs), according to a Reuters report, marking a major step towards the smartphone maker's goal of producing cars by early next year. The venture still needs clearance from the Ministry of Industry and Information (MIIT), which assesses new automakers and models for technical and safety requirements.

VW – VW has begun purchasing strategically important chips it believes will be in short supply globally directly from 10 manufacturers including NXP, Infineon, Renesas Electronics, the carmaker said on Wednesday. "Global market capacity is not sufficient. We must get active," said Dirk Grosse-Loheide, purchasing chief for Volkswagen's passenger car brand.

US New Car Sales – New-vehicle sales, when announced next week by automakers, are expected to once again show big gains over last year but a slight decline in the sales pace from last month. A key reason for the volume gain is new-vehicle inventory hitting its highest level in more than two years. Stronger fleet sales are also expected to support higher sales volumes, says Cox Automotive. The August seasonally adjusted annual rate, or SAAR, is expected to finish near 15.4 million. This is a mild decrease in sales pace from July's 15.7 million level. Although the pace is expected to dip slightly from last month, much of this decline can be attributed to statistical adjustments as this month has one more selling day than August 2022 and two more than last month.

UAW – UAW workers overwhelmingly voted in favor of a strike at GM, Ford and Stellantis if demands are not being

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met by automakers. The union on Friday said an average of 97% of combined members at the automakers approved the action, however, final votes are still being tallied. The “strike authorization vote” is part of the union’s constitution and is viewed as a procedural step in the negotiations.

Datacenter

AI Servers – AI server shipments are forecasted to reach 337k units in 2024 up from 167k in 2023 according to DigiTimes Research.

Server Supply Chain – Server ODMs including Quanta, Foxconn, Wistron (including Wywinn) and Inventec have set recently up production facilities in countries like Thailand, Vietnam, Malaysia and Mexico. TrendForce projects that by 2023 the production capacity from these regions will account for 23% of global capacity and by 2026 it will approach 50%.

Taiwan-based Server ODM's production bases and future layout			
Server ODM	Assembly house (L10)	SMT line (L6)	SMT line being planned
Quanta	USA (California, Tennessee) Germany	Shanghai, Taiwan, Mexico	Thailand
Inventec	Czech Republic, Mexico, Shanghai	Shanghai, Taiwan, Thailand	Thailand
Mitac	Foshan, Czech Republic, Mexico	Foshan, Taiwan	Southeast Asia
Foxconn	Czech Republic, Mexico, Wisconsin	Tianjin, Taiwan, Vietnam	Vietnam (Hanoi) USA (Wisconsin)
Wistron/Wiwynn	Czech Republic, Mexico, Malaysia	Zhongshan, Taiwan, Malaysia	Malaysia

Source: TrendForce

Industrial

Solar Inverters – Siemens will start manufacturing photovoltaic (PV) solar inverters in Kenosha, Wisconsin, where the company will produce utility-scale solar components specifically designed to serve the U.S. market. The facility is projected to start production in early 2024 and will scale up to a capacity of 5,200 BPTL3 string inverters (800MW) per year. The string inverters, which will range from 125 to 155 kW, will be manufactured with a California Energy Commission (CEC) efficiency of 99%.

Semiconductors

ADI – ADI reported soft July-Q results and provided an even softer Oct-Q outlook. ADI sees accelerating digestion of inventory across all end markets and in distribution. The company sees digestion lasting 2-3 quarters despite acknowledging that inventory had been building for 6-7 quarters. In response, the company is lowering factory utilization and reducing orders to external partners as ADI internal revenue increased to 182 days, the highest in more than 10 years.

Intel – Speculations are swirling in Asian media that MediaTek will be using Intel’s 18A technology starting in 2025.

Nvidia – Nvidia reported robust results with revenue increasing 88% Q/Q and with datacenter revenue increasing 141% including a near tripling of GPU sales. The company provided an even more robust outlook with sales increasing an additional 25% Q/Q led by demand for datacenter GPUs. Growth was powered primarily by CSPs at over 50% of Datacenter revs, and US was the strongest geography with China noted as within its normal band of 20-25% of datacenter revs. NVDA noted plans for capacity growth Q/Q well into or through CY24 including qualification of a new CoWoS supplier. NVDA reported an increase in total supply, capacity, and inventory purchase obligations from \$10.7B to ~\$15B.

OSAT – Chinese OSATs with support from government subsidies have reduced their prices further in an effort to secure more orders, whereas tier 1 providers such as ASE Technology and Amkor Technology have no plans to follow, according to DigiTimes.

Huawei – Huawei Technologies Co is building a collection of secret semiconductor-fabrication facilities across China to let the company skirt U.S. sanctions, a Washington-based semiconductor association has warned, Bloomberg News reported. The Chinese tech giant moved into chip production last year and is receiving an estimated \$30 billion in state funding from the government, the Semiconductor



Industry Association said, adding that Huawei has acquired at least two existing plants and is building three others.

Foundry – According to reports from Asia, foundries in Taiwan and Korea have begun to temporarily turn off some mature process lines due to weak order demand. Such shutdowns have been reported for Samsung foundry and SK Hynix’s System IC capacity as well as for Taiwanese, UMC, TSMC, PSMC. As a result, the reports state that utilization for mature processes ranges between 40-60% for tier 1 wafer foundries across Korea and Taiwan.

Semi Equipment – Chinese customs data shows the country’s chip production tool imports in June and July totaled nearly \$5bn, up 70% from \$2.9bn in the same period last year. Most of the imports came from the Netherlands and Japan, two countries that have imposed export restrictions on chipmaking equipment as they work with the US to slow China’s technological advancement. Japan started enforcing its restrictions on July 23, while the Dutch curbs will come into effect on September 1.



Vishay – Vishay announced it is releasing a new series of IHPT solenoid-based haptic actuators that are bundled with patent licenses for Immersion Corporation’s haptic technology. The bundled offering streamlines the design-in process for these devices and eliminates the need for a separate license to implement haptic effects, says Vishay.

This week, Vishay also announced a standard rectifier and TVS two-in-one solution for automotive applications.

Texas Instruments – TI announced a series of low drift isolated Hall-effect current sensors for high voltage systems and a portfolio of current shunt monitors that eliminate the need for an external shunt resistor for non-isolated voltage rails.

Wolfspeed – Wolfspeed has entered into an agreement to sell its RF business to MACOM Technologies for a total of \$125 million. The acquisition includes a 100mm GaN wafer fabrication facility in Research Triangle Park, North Carolina (the RTP Fab) with operations conveying to MACOM approximately two years following the closing and Wolfspeed’s relocation of certain production equipment.

Wafers – According to reports, the spot price of silicon wafers began to fall in the first half of 2023 and continued to decline in the second half of the year. Due to weak demand and the release of new fabs around the world, industry insiders believe that the oversupply may be extended to 2025.

Consumer

Apple – According to reports from Asia, the iPhone 15 Pro Max, which is expected to be equipped with the most advanced lens system may not be available until Oct due to Sony’s inability to supply enough image sensors in time.

China Appliances – Driven by the China real-estate debt crisis demand for appliances in the country is seen as deteriorating in recent months.

PCs – The market for notebooks is witnessing intense price reductions initiated by both retailers and brand vendors, a trend that is anticipated to persist until the end of this year, according to reports from Asia. The supply chain believes inventory digestion in the PC market is over, however, end demand is seen as very weak.

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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

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