



Analog Semiconductor Supply Chain

Component Insights – September 2023

Important Disclosures in the Appendix

Automotive Weakens Further, UAW Adds Additional Downside Risks in 2023

Note: This is not the full Insights report, if you are interested in receiving the full report, please reach out to schedule a call to discuss the requirements

Key Takeaways

1. 3Q shipments through early Sep seen as tracking flat to down low-single digit Q/Q vs. targets of flat.
2. Bookings still seen on a downtrend with pockets of green shoots in China Auto for high-end SKUs and in Mobile.
3. Auto demand in the West seen as weakening M/M with sharp acceleration in pushouts for low and mid-range analog and discrete.
4. Pricing feedback also down ticking with first (modest) cuts to official list prices seen in catalog distribution from TI, STMicro, Analog Devices.

Top 4 Channel Comments:

- *We still see downward revisions to orders and pushouts. Our 4Q outlook is trending down. It is hard to have a good timeline for a recovery. Customers have somewhat limited control over their supply chains due to NCNRs but 100% they have too much inventory. Customers signed LTAs and now the music has stopped for shortages, and it is in the process of stopping on the demand side as well.*
- *We think the Auto OEMs are well positioned to absorb the strike because inventories are full. Recently drove by Ford and Stellantis assembly plants in MI and OH, and I haven't seen the lots so full since before COVID.*
- *Auto demand for low and mid-range analog and discrete in N.A. has sharply weakened over the last month. Our 3Q will be down a few points; 4Q looks abysmal, down double digits Q/Q. 1Q also looks weak. Previously 3Q/4Q were projected flattish. This is not UAW related, it is mostly inventory, customers are flush with it.*
- *Our inventory (a global distributor) in China is worse than in 2Q. We currently have more inventory than revenue in 3Q. STMicro, Infineon and most other European suppliers (ex. NXP) are pushing us to take products enforcing NCNRs while customers are refusing delivery.*

Other Datapoints of Interest

5. China demand still seen as weak and projected to remain so through 1H24 despite green shoots from direct Auto and China Mobile.
6. Inventory progress seen as uneven and slow. European semis seen driving inventory up Q/Q in distis via NCNRs.
7. 4Q Auto demand trending sharply lower on increased order pushouts. Softness projected through 1Q.
8. Auto softness driven by high inventory with UAW potentially creating additional downside risk. Detroit OEMs seen as well positioned for a short strike; urging suppliers to maintain production but tier 1s seen trimming subcons output to ease inventory risk.
9. Demand for high-end MCU/analog seen as incrementally softer but still relatively stable due to ongoing Auto concerns of shortages returning in 2H24. Such concerns are seen mostly fueled by semi mfgs. aiming to alleviate pricing pressure and drive LT orders.
10. Datacenter, Comms, Industrial demand unchanged M/M, projected soft in 2H. PC/CE demand seen as muted through YE.
11. Tier 1 foundries (TSM, Vanguard) seen recently approaching suppliers with price discounts for mature tech in exchange for volume commitments. Feedback unclear if this is a short-term strategy reflecting current weakness in demand or a sign of structurally higher supply outlook contradicting the narrative of shortages reemerging in 2024.

Conclusion

Analog semiconductor fundamentals remained challenged through August and into September as inventory levels remain stubbornly high and end demand remains muted. While inventory is elevated broadly, the feedback by end market is mixed, with growing concerns around automotive inventory/demand and signs of a potential bottom in more consumer facing markets like PC and smartphone. In the consumer facing markets, inventory levels appear more normalized, and the rebound is more hindered by weaker end demand. We remain cautious overall on near-term fundamentals and continue to expect this correction to last likely well into 2024.

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APPENDIX

We, Kevin Rottinghaus, Sean Muir, Dennis Reed, and Nik Todorov 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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