



September 11, 2026

Dear Valued Customer,

We value the trust you've placed in us, and right now we want to make sure you're aware of what is happening in the supply chain throughout 2027. According to the [Global Electronics Association's August 2026 Global Sentiment Survey](#), 64% of electronics manufacturers now report limited component availability or extended lead times, and not a single respondent described current conditions as having excess supply. We're hearing the same thing from nearly all of our industry contacts and partners, and expect a disruption more significant than what was experienced during COVID, including:

- Sustained demand from AI and Defense absorbing capacity industry-wide
- Extremely tight DDR memory, with most manufacturers sold out well into 2027
- AMD (formerly Xilinx) and Altera FPGAs severely constrained by fab capacity
- Lengthy PCB lead times due to manufacturing capacity and material shortages
- Manufacturers requiring 1-year hard POs to cover lead items, many for 18+ months
- Some manufacturers turning down expedite requests altogether, even paid ones

Call to Action

Given these conditions, we recommend you act now:

- **Place** orders now and lock in hard POs before terms push past 18 months
- **Release** PO's for material even if your PCB designs aren't finalized yet
- **Diversify** your sourcing by qualifying alternate component and PCB suppliers
- **Expedite** receipt of material as it becomes available, rather than letting it stage at the supplier

Our team is here to help you navigate this unprecedented market. Your Microboard Program Manager will reach out within a week to review your backlog and secure coverage for 2027. Thank you for your partnership as we work through this situation together.

Regards,

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Appendices

I. Components

a. Memory

DDR4 remains the most severely constrained memory technology, with lead times across nearly all manufacturers now exceeding 52 weeks or shifting into allocation. Demand from AI applications continues to be the primary driver. Micron reports price increases exceeding 10x on many parts and is only confirming pricing at the time of shipment. Despite investments in new and expanded U.S. facilities, they do not expect supply to meet demand for the foreseeable future.

Samsung and SK Hynix, both previously expected to draw down DDR production, have reversed course and are increasing support. Additional manufacturers such as Winbond, ATP Electronics, and Alliance may offer alternatives, though nearly all suppliers are quoting lead times up to 52 weeks.

Legacy DDR2/DDR3, as well as DDR5, are also experiencing similar constraints. Micron has discontinued its consumer Crucial and SSD memory product lines. Other memory types, including flash, are showing lead times ranging from a few weeks to almost a year.

Some pockets of supply have recently opened due to AI customers deferring demand because of memory availability issues.

Recommended actions:

- Place orders immediately. Pricing flexibility is limited, but shipments will reflect market pricing at time of delivery.
- Avoid over-ordering, as this worsens global shortages and increases NCNR exposure.
- Provide demand based on actual requirement; smaller, more frequent orders have a higher likelihood of fulfillment.
- Qualify alternative suppliers wherever possible.

b. FPGAs

Lead times for AMD and Altera products are approximately one year. Pull-ins are occasionally possible with support from distribution partners for AMD, while Altera remains more difficult. Price increases are anticipated. Early order placement is critical.

c. Discretes

Lead times for key discrete components, especially high-power MOSFETs, range from 30 to 50 weeks, varying significantly by manufacturer. Alternate sourcing is essential.

Manufacturer updates:

- Diodes Inc.: 12–40 weeks; some parts >1 year; broad price increases.
- On Semi: 26–44 weeks; no allocation commitments for Q4/Q1; July price increases up to 30%.
- Infineon: MOSFETs at 52+ weeks; others at 25–40 weeks; requesting 1-year backlog; widespread price increases.
- Vishay: MOSFETs and diodes at 40+ weeks.
- Littelfuse: 10–30 weeks with rising prices.
- Nexperia: 16–52 weeks with increasing prices.

d. Analog / Linear / Logic

- TI: 9 weeks to 52+ weeks; July price increases of 8–25%; longest lead times in power and automotive products.
- Microchip: 40+ weeks on some lines; prioritizing automotive.
- NXP: recent price increases; 10–24 weeks, with some >40 weeks.
- Infineon: double-digit price increases.
- ADI: second price increase effective Sept. 13; lead times up to 40 weeks.
- Broadcom: 52+ weeks or allocation.
- Lattice: 52–54 weeks; no expedites due to raw-material constraints.
- ST Micro: 16–52+ weeks; increasing decommits; June and July price increases of 15–30%.
- On Semi: 10–26 weeks; price increases ongoing.
- MPS: 24–52 weeks; pricing rising.

e. Passives

Passive components are experiencing double-digit growth through 2027, with rising prices and extending lead times across nearly all product categories. Many items remain available through distribution, although stock-outs are increasing.

Key manufacturer trends:

- Samsung: 30% price increase; full capacity; expanding in China and the Philippines; capacitors at 30+ weeks; resistors at 44–46 weeks.
- Taiyo Yuden: price increases expected; discontinuing some consumer products; constraints through mid-2027.
- Murata: shifting capacity to automotive/server; 10–40% price increases; 26–30 week capacitor lead times.
- Kyocera/AVX: ceramic capacitors at 24–52 weeks; tantalum at 36–45 weeks.
- Nichicon: electrolytics up 10–15%; 26–36 weeks.
- NIC: resistors at 12–20 weeks; ceramic capacitors 28–30 weeks; tantalum 50+ weeks.
- Panasonic: tantalum at 50–84 weeks; electrolytics 18–40 weeks; resistors 18–34 weeks.
- Vishay: film capacitors 12–20 weeks; tantalum 30–50 weeks; resistors 20–22 weeks.
- Yageo: resistors 24–26 weeks; ceramic capacitors 30–52 weeks.

f. Interconnect

Capacity is tightening and lead times are extending, with most expansion focused on AI and Data Centers. TE and Amphenol are prioritizing these markets.

- Samtec: 4–6 weeks but beginning to extend.
- Amphenol: 8–10 weeks for connectivity products; price increases across several divisions.
- Molex: typically 12–22 weeks.
- TE: 16–22 weeks; holding prices for now.

g. Electromechanical

Lead times across most electromechanical categories are stable at 12–30 weeks, though prices are rising broadly. Relay lead times are increasing.

Mini-Circuits and Coilcraft, traditionally offering very short lead times, are now quoting 14–32 weeks for many items.

Battery prices are rising, with lead times generally at 8–16 weeks.

h. Mechanical

Global oil prices have significantly increased plastic resin costs, while tariffs and higher global demand have raised metal costs. Manufacturing lead times in Microboard's supply base remain 4–12 weeks. We have added new sheet-metal and machining partners in the Northeast to expand capacity for customer needs.

II. Printed Circuit Boards

a. Materials

PCB raw-material lead times have reached unprecedented levels due to global AI demand and domestic Defense-driven constraints. Key materials, including glass, copper foil, laminates, prepreg, and flex materials, are severely limited, prompting direct involvement from the Department of War.

Prices have increased sharply across nearly all materials. Copper has risen 30%. Lead-time data from our PCB partners indicate substantial shifts and highlight the importance of considering alternate materials. All partners are available to support design reviews and help specify more readily available materials.

Material	Jan 2026	Aug 2026
Isola – Price increases of 50%		
370HR	2 wks	10–12 wks
FR406 / FR406N	2 wks	10–12 wks
Polyimide	2+ wks	10–12 wks
I-Speed	1–2 wks	9–11 wks
FR408HR	1–2 wks	9–11 wks
Astra MT77	1–2 wks	9–11 wks
Itera MT40	1–2 wks	9–11 wks
Tachyon 100G	1–2 wks	9–11 wks
EMC - Price increases of 30%		
EM-827(i)	3–6 wks	8–9 wks
EM-371(Z)	3–6 wks	8–9 wks
890K	3–6 wks	8–9 wks
Arlon		
85HP	2–3 wks	2–3 wks
Ventec		
VT-47	8–12 wks	8–12 wks
VT901	8–12 wks	8–12 wks

Panasonic		
Meg 6G/K	4–6 wks	12–24 wks
Meg 7GN	4–6 wks	8–16 wks
Felios	4–6 wks	10–12 wks

Megtron lead times driven by E-glass shortage: Largest Bottleneck -1027 style sold out through Oct–Nov; 2116 & 3313 constrained (use 1035 / 1078 where possible). Meg 7N discontinued, replaced by Meg 7GN.

Qnity (DuPont) – Price increases expected

Pyr Lux AP	4 wks	8–10 wks
Pyr Lux FR	4–6 wks	16 wks
Pyr Lux LF	4–6 wks	16 wks
HK04J	4–6 wks	10–12 wks

Nelco (AGC)

N4000-13SI	2–4 wks	3–5 wks
N4000-13EPSI	2–4 wks	2–4 wks
N7000-2HT	2–4 wks	2–3 wks
Meteorwave (All)	2–4 wks	3–6 wks

Rogers

3000 Series	1–2 wks	1–2 wks
4000 Series	1–2 wks	4–6 wks
5000 Series	4 wks	8–10 wks
6000 Series	2 wks	3–4 wks

b. PCB Manufacturing Capacity

Manufacturing capacity challenges are primarily domestic. While overseas suppliers, particularly in Asia, still have capacity available, U.S. PCB manufacturing is severely constrained due to rising demand (especially Defense), high capital requirements, cost pressures, and labor shortages. The U.S. now accounts for only ~4% of global PCB output, with fewer than 10% of the factories that existed 25 years ago.

Microboard, through the Printed Circuit Board Association of America (PCBAA), is actively engaged in supporting congressional efforts to strengthen the U.S. PCB industry. We can connect you with PCBAA if you are interested in membership or more information.

We have conducted extensive reviews with five major U.S. PCB manufacturers. Current production lead times (after material receipt) range from:

- 6–8 weeks for single-lamination boards
- 12–18 weeks for multi-lamination boards
- TTM at 25+ weeks across most facilities

As TTM lead times extend, overflow work will shift to other suppliers, likely increasing their lead times as well.

TTM recommends maintaining 5–6 quarters of orders. Other manufacturers recommend at least one year. Material and manufacturing lead times must be managed separately.

Manufacturers advise placing PCB orders immediately, even if designs are not finalized, to trigger material ordering. Production will be held until material arrives. We will confirm readiness with you at that time.

Note: Many PCB materials have a shelf life of ~90 days. Delays longer than this risk expiration and restarting the procurement cycle.

Options to improve lead times include building non-ITAR boards in friendly countries or leveraging existing TAA agreements for certain ITAR products. We are available to discuss these paths.