Q3 2023 Lead Time Report

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Semiconductor Lead Times Drop and Passives Rise

Can you believe we've already made it through the first half of the fiscal year? Time flies when you're having fun. The summer sun is heating up, the temperature is rising, and so too is the chip war.

Sanctions between the United States and China have partially derailed the global electronic component supply chain's recuperation. China's latest export restriction on gallium and germanium, two elements that are critical in semiconductor manufacturing, could further amplify the raw material shortages affecting PEMCO market segments. Advanced digital components, such as CPUs, are expected to come out of a long-lasting gallium and germanium drought unscathed. Still, it would affect peripheral components such as LEDs and fiber optics.

Macroeconomic pressures continue to impact consumer demand. There was hope that orders would pick up during the shopping festival in China to mitigate some of the excess electronic component inventory. This did not happen.

Excess inventory continues to impact the semiconductor industry, with DRAM and NAND experiencing some of the worst drops. However, memory giants, Samsung Electronics and SK Hynix, believe that Q3 2023 will be the beginning of a revival in the memory market.

The first indications of recovery have started to appear after months of continuous declines. The DRAM market has consolidated at a price bottom. In comparison, the NAND market

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hasn't had the same luck, but according to experts, NAND traditionally recovers a quarter behind DRAM. So far, this theory has held true.

Overall, the semiconductor market continues to see steady drops in lead time by an average of 7 days for each market segment. Low consumer demand and excess electronic component inventory are leading to easement. For PEMCO market segments, the opposite is true. Lead times across PEMCO sectors have risen by several days. Raw material shortages and continued logistics challenges are the foremost reasons for the increase in lead time and price.

Higher energy prices have contributed to inflationary costs and recession concerns, likely caused by the ongoing war in Ukraine. Furthermore, export restrictions on raw materials, such as gallium and germanium, complicate the situation. The ceramic material shortage is still lingering, significantly impacting some MLCC suppliers. Other PEMCO market segments struggle with end-of-life (EOL) notices or component unavailability, further strangling the small supply.

Despite the problems, many component suppliers believe Q3 will mark the peak of electronic component excess. Artificial intelligence's popularity will be one of the driving forces that is expected to pull the semiconductor industry out of its current glut. Apple supplier Foxconn Technology sees a return to pre-pandemic growth levels through late Q3 and early Q4. Other suppliers are ramping up production to meet end-of-year demand for consumer electronics.

Recovery is coming, but it will take a few more months to achieve notable improvements.

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SEMICONDUCTOR MARKET TRENDS

Volatile Memory

Future Lead Times	Stable (through September)
Price	Stable

Lead time and price for the memory market will remain stable over the coming months due to the rising excess stock in memory from the consumer demand slump Stabilization will continue, and it has contributed to a lead time drop of one week.

The average lead time for volatile memory across manufacturers is 11 - 17 weeks.

Infineon Technology's Cypress SRAM is no longer on allocation.

Micron Technology continues its customer support plans on DDR I/DDR II, DDR3/LPDDR3, and DDR4/LPDDRA product lines. Lead times have dropped considerably compared to Q1.

Samsung's DDR3 1Gb and 2Gb have reached EOL.

Samsung and Micron's DDR4/LPDDR4 product lines could see a price and lead times increase in Q4 2023.

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SEMICONDUCTOR MARKET TRENDS

Volatile Memory

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
SRAM	Infineon	26 - 42 weeks	Stable –	Stable –	Former Cypress
	ISSI	18 - 20 weeks	Stable –	Stable –	
SDRAM	ISSI	18 - 16 weeks	Stable –	Stable –	
	Micron	10 - 14 weeks	Stable –	Stable –	
	Winbond	12 - 18 weeks	Stable –	Stable –	
DDRI/DDRII	ISSI	8 - 16 weeks	Stable –	Stable –	
	Micron	10 - 14 weeks	Stable –	Stable –	Customer Support Plan
	Winbond	12 - 18 weeks	Stable –	Stable –	
DDR3/LPDDR3	ISSI	8 - 16 weeks	Stable –	Stable –	
	Micron	8 - 14 weeks	Stable –	Stable –	Customer Support Plan
	Samsung	10 - 16 weeks	Stable –	Stable –	DDR3 1Gb + 2Gb EOL´d
	Winbond	12 - 18 weeks	Stable –	Stable –	
DDR4/LPDDR4	Micron	8 - 14 weeks	Stable –	Stable –	Customer Support Plan
	Samsung	10 - 16 weeks	Stable –	Stable –	

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SEMICONDUCTOR MARKET TRENDS

Non-Volatile Memory

Future Lead Times	Stable (through September)
Price	Mostly Stable

Lead time and price for the memory market will remain stable over the coming months due to rising excess stock from consumer demand declines. The average lead time for non-volatile memory across manufacturers is 15 - 22 weeks.

Micron will continue its customer support plan on Flash-NOR and Flash-NAND.

Kioxia's P-WSON package for Flash-NAND is on allocation.

EEPROM suppliers **Microchip** (formerly Atmel), **On Semiconductor, and STMicroelectronics** are seeing stable lead times and prices in the next three months. All three have their EEPROM products on allocation. Microchip is providing a PSP Program for its EEPROM products.

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SEMICONDUCTOR MARKET TRENDS

Non-Volatile Memory

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Flash-NOR	Micron	12 - 18 weeks	Stable –	Stable –	Customer Support Plan
	Infineon	18 - 22 weeks	Stable –	Stable –	Former Cypress
	ISSI	10 - 14 weeks	Stable –	Stable –	
	Macronix	8 - 12 weeks	Stable –	Stable –	
	Winbond	10 - 16 weeks	Stable –	Stable –	
Flash-NAND	Micron	8 - 16 weeks	Stable –	Down ▾	Customer Support Plan
	Sky High Memory	8 - 12 weeks	Stable –	Down ▾	
	Kioxia	10 - 16 weeks	Stable –	Stable –	P-WSON package on Allocation
	Macronix	10 - 14 weeks	Stable –	Stable –	
	Winbond	10 - 16 weeks	Stable –	Stable –	
FRAM/MRAM	Infineon	26 - 36 weeks	Stable –	Stable –	Former Cypress
	Everspin	12 - 20 weeks	Stable –	Stable –	
EEPROM	Microchip (former Atmel)	30 - 40 weeks	Stable –	Stable –	Allocation/PSP Program
	ON Semiconductor	30 - 40 weeks	Stable –	Stable –	Allocation
	STMicroelectronics	40 - 50 weeks	Stable –	Stable –	Allocation

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SEMICONDUCTOR MARKET TRENDS

Storage

Future Lead Times	Stable (through September)
Price	Mostly Stable

Lead time and price will remain stable, but some suppliers could experience increased lead time and price over Q4 2023. This is likely due to recovering demand in consumer sectors, successful mitigation of excess inventory, and artificial intelligence demand.

The average lead time for storage across suppliers is 10 - 15 weeks.

eMMC products by **WD/Sandisk, Kioxia, and Samsung** could see price and lead time increases in Q4 2023.

SSD products by **Micron, WD/Sandisk, and Kioxia** could increase price and l ead time in Q4 2023.

Micron's low-density eMMC products (4GB, 8GB, 16GB) are now EOL.

ISSI's 2D NAND Technology is no longer receiving support.

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
eMMC	Micron	12 - 16 weeks	Stable –	Down ▾	Low density eMMC (4GB, 8GB, 16GB) EOL.
	WD / Sandisk	8 - 12 weeks	Stable –	Stable –	
	SkyHigh Memory	10 - 12 weeks	Stable –	Stable –	
	Kioxia	12 - 15 weeks	Stable –	Stable –	
	ISSI	12 - 25 weeks	Stable –	Stable –	2D Nand Technology not any longer supported
	Samsung	8 - 18 weeks	Stable –	Stable –	
SSD	Micron	8 - 12 weeks	Stable –	Stable –	
	WD / Sandisk	8 - 15 weeks	Stable –	Stable –	
	Kioxia	12 - 15 weeks	Stable –	Stable –	
	Virtium	10 - 12 weeks	Stable –	Stable –	
Cards	WD / Sandisk	8 - 15 weeks	Stable –	Stable –	
	Micron	14 - 16 weeks	Stable –	Stable –	

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SEMICONDUCTOR MARKET TRENDS

Discrete

Future Lead Times	Mostly Stable (through September)
Price	Mostly Stable

Stabilization in lead time and price continues, with expectations of future downward trends. The average lead time for discrete across manufacturers is 25 - 43 weeks.

Vishay is experiencing lead time and price reductions on General Discrete, Power, and Optocoupler product lines.

Nexperia will see lead time and price reductions on its General Discrete and Power product lines.

ON Semiconductor will see lead time and price reductions on its General Discrete products.

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
General Discrete	ON Semiconductor	36 - 42 weeks	Stable –	Stable –	
	Vishay	22 - 30 weeks	Down ▼	Down ▼	LT & Price reductions
	STMicroelectronics	20 - 36 weeks	Stable –	Stable –	
	Nexperia	12 - 27 weeks	Down ▼	Down ▼	LT & Price reductions
Power	Nexperia	12 - 39 weeks	Down ▼	Stable –	LT reductions
	STMicroelectronics	26 - 52 weeks	Stable –	Stable –	
	Vishay	70 - 120 weeks	Stable –	Up ▲	
	Infineon	24 - 52 weeks	Stable –	Stable –	
	ON Semiconductor	50 - 60 weeks	Stable –	Stable –	
Optocouplers	ON Semiconductor	20 - 36 weeks	Stable –	Stable –	
	Toshiba	16 - 26 weeks	Stable –	Stable –	
	Vishay	18 - 26 weeks	Stable –	Down ▼	LT reductions

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SEMICONDUCTOR MARKET TRENDS

Standard Logic & Linear

Future Lead Times	Mostly Stable (through September)
Price	Mostly Going Up

Lead time and price are down across most suppliers, with the expectation these trends will continue. Allocation due to supply constraints and shortages has mostly been alleviated except for some product lines. The average lead time for logic and linear across manufacturers is 8 - 30 weeks.

Nexperia has announced that all packages for Logic are now available on short-time orders. No products are currently on allocation. Price reductions will follow in late Q3 2023.

On Semiconductor is still experiencing a severe shortage and outlook for CY2023 after its TPSCo fab was decommissioned. The discontinuation of a few Logic product lines from the Wafer Fab sale has caused remaining supply challenges.

Texas Instruments Logic and Linear components are continuing to see improvements and trending down.

STMicroelectronics has experienced lead stabilization for its Linear products, but most are still available.

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Logic	Nexperia (NXP / PSH)	6 - 20 weeks	Down ▾	Down ▾	No longer any parts on ALLOCATION, but for some packages like SOT 353, SOT6- series, SOT337-340 and SOT12xx-series - still higher leadtimes
	ON Semiconductor (incl. exFSC)	15 - 52 weeks	Stable –	Stable –	TPSCo fab decommit causing severe shortage and outlook for CY2023 remains challenging for supply, unless moving to alternate part numbers + fabs. Current market situation has led to price increases. A few Logic parts are discontinued due to Wafer Fab being sold.
	Texas Instruments	12 - 26 weeks	Stable –	Down ▾	Supply improved from Q1
Linear	STMicroelectronics	12 - 36 weeks	Stable –	Stable –	LT somewhat stabilizing and majority of offering still on allocation
	Texas Instruments	12 - 26 weeks	Stable –	Down ▾	Supply improved from Q1

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SEMICONDUCTOR MARKET TRENDS

Advanced Analog

Future Lead Times	Mostly Stable (through September)
Price	Mostly Stable

Supply constraints are still prominent in the advanced analog market sector, but some suppliers are seeing improvements in production capacity for specific product lines. The average lead time for advanced analog across manufacturers is 24 - 41 weeks.

Analog Devices announced capacity was improving for its Dataconverters, OPA, Interfaces, and Power Management products.

Texas Instruments reports that supplies are improving for its Dataconverters, OPA, Interfaces, and Power Management products. Supplies remain constrained for high-speed ADC series, high-precision amp series, isolation series, and high voltage and isolated power series lines.

STMicroelectronics reports that supply constraints are still affecting their Dataconverters, OPA, Multimedia, and Power Management products.

Infineon reports that supply constraints will affect its Power Management product lines.

NXP cites supply constraints leading to increased lead times on its Interface product lines.

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SEMICONDUCTOR MARKET TRENDS

Advanced Analog

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Dataconverters	Analog Devices	30 - 70 weeks	Down ▼	Stable –	50% leadtimes <13 weeks
	Texas Instruments	25 - 70 weeks	Stable –	Stable –	Supply remains tight
	STMicroelectronics	30 - 35 weeks	Stable –	Stable –	Supply Constraint
OPA	Analog Devices	13 - 35 weeks	Down ▼	Stable –	50% leadtimes <13 weeks
	Texas Instruments	25 - 70 weeks	Stable –	Stable –	Supply remains tight
	STMicroelectronics	30 - 35 weeks	Stable –	Stable –	Supply Constraint
Interfaces (LVDS,UART USB)	NXP Semiconductor	39 - 45 weeks	Stable –	Stable –	Supply Constraint
	Analog Devices	26 - 60 weeks	Down ▼	Stable –	50% leadtimes <13 weeks
	Texas Instruments	25 - 50 weeks	Stable –	Stable –	Supply remains tight
Multimedia Products	NXP Semiconductor	40 - 52 weeks	Stable –	Stable –	
	STMicroelectronics	30 - 40 weeks	Up ▲	Up ▲	Prices and lead times up
Power Management (Low Drop, PWM, Switching Reg.)	STMicroelectronics	30 - 40 weeks	Stable –	Stable –	Supply Constraint
	Texas Instruments	25 - 70 weeks	Stable –	Stable –	Supply remains tight
	Infineon	30 - 45 weeks	Stable –	Stable –	Supply Constraint
	Analog Devices	26 - 50 weeks	Down ▼	Stable –	50% leadtimes <13 weeks

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SEMICONDUCTOR MARKET TRENDS

Embedded Processing

8-Bit Lead Time/Price	Stable
16-Bit Lead Time/Price	Stable
32-Bit Lead Time/Price	Stable
DSP Lead Time/Price	Stable

The market continues to stabilize. Automotive MCUs are still grappling with supply constraints despite easement in most other areas and an overall decrease in average supplier lead time. The average lead time for embedded processing across manufacturers is 19 - 50 weeks.

Silicon Laboratories will see lead time and prices drop on its 8/32-bit products.

NXP Semiconductor's 8/16/32-bit and DSP products are seeing improved lead times in parts of the Americas and APAC, with more lines coming off allocation. Automotive MCU lead times are still long, and DSP lead times in EMEA remain high.

Microchip's 8/16/32-bit products are beginning to see improvements in lead time across all regions. Its PSP program is still ongoing to combat remaining challenges.

STMicroelectronics's 8/16/32-bit products continue to see stable lead time and prices. The STM32H7 line of 32-bit processors is still under severe supply constraints.

Texas Instruments' 16-bit and DSP products are seeing some supply improvement in Asia. The Americas and EMEA are seeing slight improvements in supplies.

Most of **Infineon's** 8/16/32-bit processors are seeing lead time improvements in the Americas. Some parts are still on allocation across all regions.

Analog Devices reports lead times continue to improve for DSP products.

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SEMICONDUCTOR MARKET TRENDS

Embedded Processing

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
8 Bit	NXP Semiconductor	26 -65 weeks	Stable –	Stable –	Lead-times improved on some parts in the Americas and APAC. Still constrained in EMEA. Cancel/Reschedule window revised to previous standard of 4, 8, or 12 wks. Price increases came through in Jan '23.
	Infineon	26 - 52 weeks	Stable –	Stable –	Most parts are on allocation.
	Microchip	32 - 75 weeks	Stable –	Stable –	Extremely long lead-times especially on non-PSP items in the Americas and APAC. EMEA has seen reduced lead- times. Orders cannot be expedited unless on the PSP program. Q1 '23 price increase.
	Silicon Laboratories	20 - 50 weeks	Stable –	Stable –	Items on soft/full allocation in the Americas and EMEA and soft allocation in Asia.
	STMicroelectronics	35 - 52 weeks	Stable –	Stable –	Imporved lead-times. EMEA seeing a slight reduction in demand.
16 Bit	Infineon	24 - 52 weeks	Stable –	Stable –	Some parts are on allocation. EMEA seeing slight reduction in demand as well.
	NXP Semiconductor	26 - 65 weeks	Stable –	Stable –	Lead-times improved on some parts in the Americas and APAC. Still constrained in EMEA. Cancel/Reschedule window revised to previous standard of 4, 8, or 12 wks. Price increases came through in Jan '23.
	Microchip	32 - 75 weeks	Stable –	Stable –	Extremely long lead-times especially on non-PSP items in the Americas and APAC. EMEA has seen reduced lead- times. Orders cannot be expedited unless on the PSP program. Q1 '23 price increase.
	STMicroelectronics	35 - 52 weeks	Stable –	Stable –	Improved lead-times. EMEA seeing a slight reduction in demand.
	Texas Instruments	35 - 70 weeks	Stable –	Stable –	Asia is seeing some supply improvement. EMEA and the Americas are still seeing constrained supply, heavy expedte requests, and little improvement.
32 Bit	AMD	14 - 26 weeks	Stable –	Stable –	
	Infineon	20 - 52 weeks	Stable –	Stable –	Most parts are on allocation.
	Intel	18 -25 weeks	Stable –	Stable –	
	Microchip	32 - 75 weeks	Stable –	Stable –	Extremely long lead-times especially on non-PSP items in the Americas and APAC. EMEA has seen reduced lead- times. Orders cannot be expedited unless on the PSP program. Q1 '23 price increase.
	NXP Semiconductor	26 -65 weeks	Stable –	Stable –	Lead-times improved on some parts in the Americas and APAC. Still constrained in EMEA. Cancel/Reschedule window revised to previous standard of 4, 8, or 12 wks. Price increases came through in Jan '23.
	Silicon Laboratories	40 - 50 weeks	Stable –	Stable –	Items on soft/full allocation in the Americas and EMEA and soft allocation in Asia.
	STMicroelectronics	12 - 35 weeks	Stable –	Stable –	Most items have improved lead-times. STM32H7 family still under severe supply constraints.
DSP	Analog Devices	13 - 52 weeks	Stable –	Stable –	Lead-times have improved in the Americas and EMEA.
	NXP Semiconductor	26 - 65 weeks	Stable –	Stable –	Lead-times improved on some parts in the Americas and APAC. Still constrained in EMEA. Cancel/Reschedule window revised to previous standard of 4, 8, or 12 wks. Price increases came through in Jan '23.
	Texas Instruments	35 - 70 weeks	Stable –	Stable –	Asia is seeing some supply improvement. EMEA and the Americas are still seeing constrained supply, heavy expedte requests, and little improvement.

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SEMICONDUCTOR MARKET TRENDS

Programmable Logic

Future Lead Times	Down (through September)
Price	Stable

Intel's lead times and prices decreased over the last quarter and will likely remain stable over Q4. The average lead time across Intel's programmable logic products is 19 - 23 weeks.

FPGA and CPLD products are now off allocation starting July 17th.

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
FPGA (new CycloneV, StratixV, ArriaV)	Intel	50 - 50 weeks	Down ▾	Stable –	Cyclone,Arria,Stratix still under allocation (Stratix 10 excluded) ARRIA V GZ out of allocation from Feb 8th next. Is expected improvement end of Q2.
FPGA (focus Cyclone, Stratix, Arria)	Intel	50 - 60 weeks	Down ▾	Stable –	ARRIA V GZ, CYCLONE II, STRATIX VE, GS, STRATIX GT, GX be off from allocation . STRATIX 10 excluded from allocation. All the other families remain under tight supply hard allocation up to Q2-23.
FPGA (legacy 6K, 8K,10K,Apex)	Intel	45 - 45 weeks	Down ▾	Stable –	Significant lead time increase communicated by supplier - No improvement up to now
CPLD	Intel	45 - 45 weeks	Down ▾	Stable –	Still long lead time communicated by Supplier up to end Q2-23 where improvement is planned .
Tools	Intel	4 - 8 weeks	Down ▾	Stable –	

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SEMICONDUCTOR MARKET TRENDS

Lighting

Future Lead Times	Stable (through September)
Price	Stable

Lead time and price are decreasing across the market, with further stabilization forecasted in the coming months. Automotive products continue to remain constrained with higher-than-average lead times. The average lead time for lighting across manufacturers is 6 - 8 weeks.

Cree sees stabilization across its LED product families, specifically LUXEON Color and Legacy.

Samsung reports price decreases for some LED products, including 2835, 3030EV0, 5050, COB, and particularly 3535 parts.

Osram's LEDs larger than 0.5W for automotive and illumination applications are seeing 16 - 20 week lead times in contrast to its general 6 - 8 weeks.

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
LED <0.5W	Cree	6 - 8 weeks	Stable –	Stable –	1. Product families: LUXEON Color and Legacy products.
	Lumileds	6 - 8 weeks	Stable –	Stable –	
	Osram	6 - 8 weeks	Stable –	Stable –	
	Samsung	6 - 8 weeks	Stable –	Stable –	2835, 3030EVO, 5050 price down
LED >0.5W	Cree	6 - 8 weeks	Stable –	Stable –	1. Product families: LUXEON Color and Legacy products.
	Lumileds	6 - 8 weeks	Stable –	Stable –	
	Osram	8 - 12 weeks	Stable –	Stable –	Some Automotive items and illumination 16-20 weeks lead time.
	Samsung	6 - 8 weeks	Stable –	Stable –	COB and some 3535 price down
Optic	Ledil	6 - 8 weeks	Stable –	Stable –	

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PEMCO MARKET TRENDS

Passives

Future Lead Times	Mix of Going Up, Stable, Down
Price	Mix of Going Up, Stable, Down

Lead times are seeing some stability but are set to increase alongside prices as raw material shortages impact manufacturers. To combat these challenges, some manufacturers are placing popular products on allocation. The average lead time for passives across manufacturers is 19 - 38 weeks.

Panasonic's SMD products within the EU continue to experience long lead times.

Vishay's SMD product line, CRCW, is on allocation within the EU.

Walsin's automotive-grade SMD resistors are seeing price decreases in the EU.

Bourns increased prices in May 2023 on its Network and Array Resistors, Over-Voltage Protection Varistors, Over-Voltage Protection Thyristors and TVS Diodes, Over-Current Protection Fuses, and Transformers.

Bourns cites the lack of ceramics in the EU for Trimpot, leading to price increases for Trimmers and Potentiometers. Lead times in the EU are stable for Bourns Inductor, Choke, and Coil product lines with an expected downward future trend.

Vishay's Network and Array Resistor products are obsolete in the EU.

Epcos and Vishay have increased prices from raw materials and logistics costs in the EU on their Non-Linear Resistors and Thermistors.

Vishay reports no SSP pricing for Sfemice Potis in the EU.

Littelfuse announced a price increase of 8% in April due to raw material and logistics cost for Over-Voltage Protection Varistors, Over-Voltage Protection Thyristors and TVS Diodes, and Over-Current Protection Fuses in the EU and APAC.

Epcos also raised prices on their product lines for Over-Voltage Protection Varistors due to raw materials and logistics challenges.

Abracon's Frequency Control Crystal and Oscillator products are trending upward in price and lead time. In APAC, the MEMS oscillator is still on allocation.

Kemet has placed an order stop on some specific MLCC product lines in the EU.

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PEMCO MARKET TRENDS

Passives

Vishay's Tantalum Capacitors are backlogged but are managed on a first-come, first-served basis within AP. Lead times over the previous months were stable for Asia.

Epcos normal Film Capacitors see 16 - 20 weeks lead times in AP. High Power Film Capacitors are still at 26 weeks in comparison. Vishay sees shortening lead time and price on their product lines.

Epcos Aluminum Capacitors face lead times of 12 - 16 weeks in AP. TDK announced an allocation for Snap-In Capacitors.

Nichicon canceled all customer quotes in the EU for Aluminum Capacitors. Its case sizes 6.3x7.7, 8x10, and 10x10 will increase the AP market's price and lead times. In contrast, Vishay sees dropping prices and lead times for its products.

Vishay announced shortened lead times and prices decreasing on its Inductors, Chokes, and Coils products.

Epcos increased prices by 10% in the EU, with the price rising in SSP for EMI Filters, Ferrites, Transformers, Inductors, Chokes, and Coils.

EMI Filters saw Schaffner increase prices on most Netto Quotes.

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PEMCO MARKET TRENDS

Passives

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Resistors Standard Chip (SMD)	Panasonic	50 - 60 weeks	Stable –	Stable –	EU: still long lead times
	Vishay	22 - 56 weeks	Stable –	Up ▲	EU: Allocation for CRCW
	Yageo	12 - 28 weeks	Stable –	Stable –	
	Walsin	16 - 25 weeks	Stable –	Stable –	EU: price decrease on Walsin /Kamaya Automtive grade SMD Resistors
Resistors Networks & Arrays	Bourns	15 - 26 weeks	Stable –	Up ▲	Cost increase effective May'23.
	Vishay	30 - 50 weeks	Stable –	Stable –	EU: Obsolete
	Yageo	16 - 28 weeks	Stable –	Stable –	
	Walsin	15 - 24 weeks	Stable –	Stable –	
Non-Linear Resistors Thermistors	Epcos	18 - 30 weeks	Stable –	Up ▲	EU: price increase due to increase in raw material and logistic cost
	Murata	20 - 24 weeks	Stable –	Stable –	
	Vishay	20 - 30 weeks	Stable –	Up ▲	EU: price increase due to increase in raw material and logistic cost
Trimmers & Potentiometers	Bourns	20 - 44 weeks	Up ▲	Up ▲	Cost increase effective May'23. EU: Lack of raw material (supply of Ceramics) for Trimpot
	TT Electronics	20 - 44 weeks	Stable –	Stable –	
	Vishay	22 - 60 weeks	Stable –	Up ▲	EU: No SSP pricing for Sfernice Potis
Over-Voltage Protection Varistors	AVX	17 - 30 weeks	Stable –	Stable –	
	Bourns	16 - 40 weeks	Stable –	Up ▲	Cost increase effective May'23.
	Littelfuse	20 - 40 weeks	Up ▲	Up ▲	EU: April price increase due to increase in raw material and logistic cost, overall average 8%
	Epcos	20 - 30 weeks	Stable –	Up ▲	EU: price increase due to increase in raw material and logistic cost
Over-Voltage Protection Thyristors & TVS Diodes	AVX	10 - 50 weeks	Stable –	Stable –	AP: Radial Varistor LT 22WKS
	Bourns	14 - 54 weeks	Stable –	Up ▲	Cost increase effective May'23.
	Littelfuse	15 - 40 weeks	Stable –	Stable –	APAC price increase due to increase in raw material and logistic cost; EU: April price increase due to increase in raw material and logistic cost, overall average 8%

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PEMCO MARKET TRENDS

Passives

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Over-Current Protection Fuses	Bourns	16 - 20 weeks	Stable –	Up ▲	Cost increase effective May'23.
	Littelfuse	15 - 30 weeks	Stable –	Stable –	EU: April price increase due to increase in raw material and logistic cost, overall average 8%
	Schurter	15 - 35 weeks	Stable –	Stable –	
Frequency Control Crystals & Oscillators	Abracon	30 - 99 weeks	Up ▲	Up ▲	APAC: MEMS oscillator is still on allocation
	Kyocera	14 - 35 weeks	Up ▲	Stable –	
	ESC	30 - 52 weeks	Up ▲	Up ▲	
	IQD	30 - 35 weeks	Up ▲	Stable –	
	TXC	18 - 52 weeks	Stable –	Stable –	
Frequency Control Resonators	Abracon	9 - 30 weeks	Stable –	Stable –	
	Geyer	9 - 16 weeks	Stable –	Stable –	
	Murata	9 - 24 weeks	Stable –	Stable –	
Frequency Control	Abracon	24 - 50 weeks	Stable –	Stable –	
	Murata	16 - 24 weeks	Stable –	Stable –	
Capacitors Ceramic Multilayer (MLCC)	AVX	14 - 30 weeks	Stable –	Up ▲	
	Kemet	20 - 38 weeks	Up ▲	Up ▲	MLCC automotive grade incread the LT; EU: order stop on specific parts
	Murata	15 - 22 weeks	Stable –	Stable –	
	Samsung EM	18 - 22 weeks	Up ▲	Stable –	
Capacitors Tantalum	AVX	12 - 36 weeks	Up ▲	Stable –	
	Kemet	16 - 36 weeks	Stable –	Stable –	
	Samsung EM	25 - 27 weeks	Stable –	Stable –	
	Vishay	18 - 42 weeks	Stable –	Stable –	AP: Backlog being managed on first come, first serve basis. Lead time prev month stable in Asia.
Capacitors Film	Epcos	26 - 70 weeks	Stable –	Stable –	AP: LT's 16-20wks for normal FILM. High Power Film still 26wks,
	Kemet	26 - 35 weeks	Stable –	Stable –	
	Vishay	18 - 24 weeks	Up ▲	Down ▼	Shorten L/T and will price down
	Wima	14 - 20 weeks	Stable –	Stable –	

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PEMCO MARKET TRENDS

Passives

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Capacitors Aluminium	Epcos	40 - 44 weeks	Stable –	Up ▲	Allocation for Snap In Capacitors
	Nichicon	56 - 60 weeks	Down ▼	Stable –	All customer quotes cancelled
	Panasonic	46 - 50 weeks	Stable –	Up ▲	Hybrid up to 58 weeks
	Vishay	22 - 26 weeks	Stable –	Stable –	
Inductors Chokes Coils	Abracon	12 - 24 weeks	Stable –	Stable –	
	Bourns	22 - 28 weeks	Stable –	Stable –	EU: LT stable, on some lines down, Price Future trend next 3 months - no input
	Eaton	15 - 20 weeks	Stable –	Stable –	
	Epcos/TDK	48 - 52 weeks	Up ▲	Up ▲	EU: Price increased, Prices increased in SSP
	Murata	18 - 25 weeks	Stable –	Stable –	
	Pulse	16 - 22 weeks	Stable –	Stable –	
	Vishay	18 - 22 weeks	Stable –	Down ▼	Shorten L/T and will price down
Transformers	Bourns	22 - 26 weeks	Stable –	Up ▲	Cost increase effective May'23.
	Epcos	12 - 30 weeks	Stable –	Up ▲	EU: Price increased, Price increased in SSP
	Pulse	16 - 22 weeks	Stable –	Stable –	
Ferrites	Epcos	30 - 50 weeks	Stable –	Up ▲	EU: Price increased around 10%, Price increased in SSP
	Ferroxcube	8 - 20 weeks	Stable –	Up ▲	
Filters (EMI)	Abracon	10 - 14 weeks	Stable –	Stable –	
	Epcos	15 - 30 weeks	Stable –	Up ▲	EU: Price increased around 10%, Price increased in SSP
	Schaffner	14 - 20 weeks	Stable –	Up ▲	EU: Price increased in most of Netto Quotes
	TE Connectivity	20 - 22 weeks	Up ▲	Up ▲	

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PEMCO MARKET TRENDS

Interconnect

Future Lead Times	Mostly Stable (through September)
Price	Mostly Stable

Lead time and price stabilization is rising after months of upward momentum. Most suppliers have increased or filed for new prices over the last year and more might be on the way. The average lead time for connectors across manufacturers is 14 - 20 weeks.

3M filed new prices for Headers/Stiks, IDC, DIN, PCB, Mod Jack, and Gang Jack products on 8/1.

FCI filed new prices on all interconnect technology product lines on 7/31.

Molex increased prices on all interconnect technology product lines on 1/1.

Samtec's Headers/Stiks, IDC, DIN, PCB, Mod Jack, Gang Jack, High Speed Board to Board, High Speed I/O, I/O, D-Sub, and Power products are witnessing stable lead times but are still higher than usual. EMEA will see a price increase in products in the future.

TE Connectivity filed new prices on all interconnect technology product lines on 7/3.

Amphenol TCS High Speed Board to Board, High Speed I/O products will see no significant change in their current 18 - 24 weeks lead time.

ITT Cannon reports higher than usual but stable lead times on I/O, D-Sub, and Power products, with costs increasing.

Amphenol RF increased prices on RF Connector products on 1/1.

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PEMCO MARKET TRENDS

Interconnect

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Headers/Stiks, IDC, DIN, PCB, Mod Jack, Gang Jack	3M	14 - 22 weeks	Stable –	Stable –	Lead times stable in US but still higher than normal. EMEA experiencing longer lead times and expecting increase to LT
	FCI	18 - 24 weeks	Stable –	Stable –	Raw material shortages still an issue. EMEA expecting price increases in future.
	Molex	16 - 26 weeks	Down ▼	Stable –	Cost increases 1/1/23
	Samtec	10 - 12 weeks	Stable –	Stable –	Lead times stable but still higher than normal. EMEA expecting price increase in future.
	TE Connectivity	14 - 18 weeks	Stable –	Up ▲	Cost increases 1/1/23
High Speed Board to Board, High Speed I/O	Amphenol TCS	18 - 24 weeks	Stable –	Stable –	No significant change in current L/T
	FCI	18 - 22 weeks	Down ▼	Stable –	Lead times stable but still higher than normal.
	Molex	18 - 23 weeks	Stable –	Stable –	Cost increases 1/1/23
	Samtec	10 - 12 weeks	Stable –	Stable –	Lead times stable but still higher than normal.
	TE Connectivity	18 - 20 weeks	Stable –	Stable –	Cost increases 1/1/23
I/O, D-Sub,Power	FCI	12 - 20 weeks	Stable –	Stable –	Lead times continue to be higher than normal. EMEA experiencing longer lead times and expecting future price increase.
	ITT Cannon	20 - 28 weeks	Stable –	Stable –	Stable but still higher than normal. Cost increasing
	Molex	15 - 23 weeks	Stable –	Stable –	Cost increases 1/1/23
	Samtec	10 - 12 weeks	Stable –	Stable –	Lead times stable but still higher than normal. EMEA expecting price increase.
PLCC, SIMM, DIMM	FCI	12 - 14 weeks	Stable –	Stable –	Lead times continue to be higher than normal.
	Molex	15 - 23 weeks	Stable –	Stable –	Cost increases 1/1/23
	TE Connectivity	13 - 15 weeks	Stable –	Up ▲	Cost increases 1/1/23
Terminal Blocks, Circular Industrial, Ethernet	Amphenol	18 - 22 weeks	Stable –	Stable –	Lead times stable but continue to be higher than normal. EMEA expecting future price increase.
	Molex	16 - 22 weeks	Stable –	Stable –	
	Phoenix	8 - 20 weeks	Stable –	Stable –	EMEA expecting price increase in future
	TE Connectivity	12 - 20 weeks	Stable –	Up ▲	Lead times continue to be higher than normal
RF Connectors	Amphenol RF	14 - 20 weeks	Stable –	Up ▲	Cost increases 1/1/23
	Molex	16 - 22 weeks	Down ▼	Stable –	Cost increases 1/1/23
	TE Connectivity	14 - 18 weeks	Stable –	Up ▲	Cost increases 1/1/23

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PEMCO MARKET TRENDS

Military & Industrial Connector

Future Lead Times	Mostly Stable (through September)
Price	Going Up

Lead time stabilization is coming for manufacturers on some product lines, but prices will increase. The average lead time for military and industrial connectors across manufacturers is 7 - 16 weeks.

Deutsch is de-emphasizing its Mil-DTL 38999 Srs 1 products through a significant price increase strategy. Experts say to utilize Amphenol and Corsair's products instead.

TE/Deutsch's mid to large shell size composite D38999 Series III qualified product family (/20, /24, and /26) remain on formal TE ship hold. All qualified Series III Hermetic receptacles (/21, /23, /25, and /27) stay on DLA-issued formal ship hold. Deutsch is de-emphasizing this series through a significant price increase strategy.

TE/Deutsch's Series 4 of Mil-DTL38999 are on a marketing block. Size 16 is facing contact issues.

AERO/Conesys Mil-DTL 26482 Srs 2 is available through AEP.

Deutsch is de-emphasizing its Mil-DTL 26482 Srs 2 products through a significant price increase strategy.

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Mil-DTL 38999 Srs 1	Amphenol Aerospace	1 - 18 weeks	Stable –	Up ▲	
	Corsair	1 - 18 weeks	Stable –	Up ▲	
	Deutsch	0 - 0 weeks	Up ▲	Up ▲	Deutsch has de-emphasized this series through a significant price increase strategy. Utilize Amphenol and Corsair.
Mil-DTL 38999 Srs 2	Amphenol Aerospace	1 - 18 weeks	Stable –	Up ▲	
Mil-DTL 38999 Srs 3	Amphenol Aerospace	1 - 18 weeks	Stable –	Up ▲	
	Corsair	1 - 18 weeks	Stable –	Up ▲	
	Deutsch	0 - 0 weeks	Up ▲	Up ▲	TE/Deutsch mid to large shell size composite D38999 Series III qualified product family (/20, /24, and /26) on formal TE ship hold. All TE/Deutsch qualified Series III Hermetic receptacles (/21, /23, /25, &/27) on DLA issued formal ship hold. Deutsch de-emphasized this series through a significant price increase strategy.
Mil-DTL 38999 Srs 4	Deutsch	0 - 0 weeks	Stable –	Up ▲	TE/Deutsch Series 4 on Marketing block. Size 16 contact issue.
	Glenair	2 - 5 weeks	Stable –	Up ▲	

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PEMCO MARKET TRENDS

Military & Industrial Connector

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
High Density 38999	Amphenol Aerospace	4 - 18 weeks	Stable –	Up ▲	
	Glenair	2 - 5 weeks	Stable –	Up ▲	
	ITT Cannon	18 - 20 weeks	Stable –	Up ▲	
Mil-DTL 26482 Srs 1	Amphenol Industrial	4 - 16 weeks	Stable –	Up ▲	
	ITT Cannon	16 - 18 weeks	Stable –	Up ▲	
	Souriau	4 - 20 weeks	Stable –	Up ▲	
Mil-DTL 26482 Srs 2	Amphenol Aerospace	4 - 18 weeks	Stable –	Up ▲	
	AERO/Conesys	4 - 20 weeks	Stable –	Up ▲	Thru AEP
	Corsair	4 - 18 weeks	Stable –	Up ▲	
	Deutsch	0 - 0 weeks	Up ▲	Up ▲	Deutsch has de-emphasized this series through a significant price increase strategy
Mil-DTL 5015 A&B	Amphenol Industrial	1 - 16 weeks	Stable –	Up ▲	
	ITT Cannon	14 - 16 weeks	Stable –	Up ▲	
Mil-DTL 5015 E, F, R	Amphenol Industrial	1 - 18 weeks	Stable –	Up ▲	
	ITT Cannon	14 - 16 weeks	Stable –	Up ▲	
Micros Mil-DTL 83513	Cinch	18 - 20 weeks	Stable –	Up ▲	
	Glenair	2 - 5 weeks	Stable –	Up ▲	
	ITT Cannon	20 - 24 weeks	Stable –	Up ▲	
	Amphenol CANADA	16 - 18 weeks	Stable –	Up ▲	
Mil-DTL-24308	Cinch	1 - 18 weeks	Up ▲	Up ▲	
	ITT Cannon	1 - 20 weeks	Down ▼	Up ▲	
	TE Connectivity	1 - 24 weeks	Down ▼	Up ▲	
Board Level - Ruggedized	Amphenol Aerospace	14 - 18 weeks	Stable –	Up ▲	
	Amphenol PCD	12 - 14 weeks	Up ▲	Up ▲	
	TE Connectivity	18 - 24 weeks	Stable –	Up ▲	

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PEMCO MARKET TRENDS

Electro-Mechanical

Future Lead Times	Mix of Going Up and Stable (through September)
Price	Mix of Going Up and Stable

Most suppliers will see stability for price and lead time in the coming quarter despite current upward trends. The average lead time for emech across manufacturers is 19 - 31 weeks.

Fujitsu's FTR-, VE-, FN-, and JS Power Relays series and Signal Relay series FTR-B4 are still on allocation. Omron has placed its G5 and G6 relays on allocation.

Omron's NA warehouse is adding six weeks to lead times for its Power Relays, Signal & Telecom Relays, Safety Relays, Automotive Relays, and Microswitch/ SNAP switch products.

Omron has announced their B3S series switches are on allocation.

PEW's HES Relay and TE Connectivity's RT & RZ Relays are on allocation in Europe.

Knitter-Switch's Pushbutton, Slide, and Tactile Switches are not franchised in North America.

Fischer's Heatsinks remain stable at 4 - 12 weeks but are not franchised in North America.

TE Connectivity's Alco Switches are in EOL.

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Power Relays	Fujitsu	26 -34 weeks	Stable –	Stable –	FTR-, VE-, FN- & JS series on allocation
	Omron	26 - 40 weeks	Up ▲	Up ▲	NA: Omron's new North American warehouse is adding 6 weeks to leadtimes. G5 & G6 relays on allocation
	PEW	25 - 60 weeks	Up ▲	Stable –	HES Relay on allocation in Europe
	TE Connectivity	22 - 28 weeks	Stable –	Stable –	Allocation on RT & RZ Relays in Europe
Signal- & Telecom Relays	Fujitsu	30 - 60 weeks	Stable –	Stable –	Signal Relay series FTR-B4 on allocation
	Omron	18 - 34 weeks	Stable –	Up ▲	NA: Omron's new North American warehouse is adding 6 weeks to leadtimes
	PEW	20 - 40 weeks	Up ▲	Up ▲	
	TE Connectivity	26 - 40 weeks	Stable –	Stable –	

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PEMCO MARKET TRENDS

Electro-Mechanical

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Solid State Relays (incl Reed- & IO Modules)	Crydom	10 - 24 weeks	Up ▲	Stable –	Not franchised in NA
	PEW	8 - 36 weeks	Up ▲	Stable –	
	TE Connectivity	12 - 22 weeks	Up ▲	Stable –	
Time Delay Relays (Industry Relays)	Littelfuse	16 - 22 weeks	Stable –	Stable –	
	TE Connectivity	22 - 24 weeks	Stable –	Stable –	
Safety Relays	Fujitsu	24 - 34 weeks	Up ▲	Stable –	
	Omron	20 - 28 weeks	Stable –	Stable –	NA: Omron's new North American warehouse is adding 6 weeks to leadtimes
	PEW	30 - 45 weeks	Up ▲	Stable –	
	TE Connectivity	20 - 30 weeks	Stable –	Stable –	
Automotive Relays	Omron	22 - 30 weeks	Up ▲	Up ▲	NA: Omron's new North American warehouse is adding 6 weeks to leadtimes
	PEW	20 - 36 weeks	Up ▲	Stable –	
	TE Connectivity	20 - 30 weeks	Up ▲	Stable –	
Pushbutton Switches	C&K	18 - 24 weeks	Stable –	Stable –	
	Honeywell	20 - 28 weeks	Stable –	Up ▲	
	Knitter-Switch	8 - 22 weeks	Up ▲	Stable –	Not franchised in NA
	NKK	14 - 22 weeks	Stable –	Stable –	
Slide Switches	C&K	18 - 24 weeks	Stable –	Stable –	
	Knitter-Switch	10 - 18 weeks	Up ▲	Stable –	Not franchised in NA
	NKK	14 - 22 weeks	Stable –	Stable –	
	TE Connectivity	10 - 18 weeks	Stable –	Stable –	EOL on Alco Switches
Tactile Switches	C&K	18 - 24 weeks	Stable –	Stable –	
	Knitter-Switch	12 - 20 weeks	Up ▲	Stable –	Not franchised in NA
	Omron	18 - 24 weeks	Stable –	Up ▲	B3S on allocation

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PEMCO MARKET TRENDS

Electro-Mechanical

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Microswitch / SNAP Switches	C&K	18 - 24 weeks	Up ▲	Stable –	
	Honeywell	14 - 28 weeks	Up ▲	Up ▲	
	Omron	22 - 60 weeks	Up ▲	Up ▲	NA: Omron's new North American warehouse is adding 6 weeks to leadtimes. B3S series switches on allocation
Heatsinks	Aavid	18 - 20 weeks	Up ▲	Up ▲	
	Fischer	4 - 12 weeks	Stable –	Stable –	Not franchised in NA
Fans	EBM Papst	14 - 36 weeks	Up ▲	Stable –	

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PEMCO MARKET TRENDS

Power Products

Future Lead Times	Mostly Stable (through September)
Price	Mostly Going Up

Suppliers continue to face constrained components and transportation delays. Stabilization and upward trends continue to impact the market segment unevenly, and the average supplier lead time is 45 - 61 weeks.

Low Power Switches by Artesyn, Bel Power (Power One) TDK/Lambda, EOS Power, and Meanwell will face constrained components and transportation delays that will continue to impact lead times and deliveries.

Mid/High Power Switches and Rectifiers by Artesyn, Bel Power (Power One), TDK/Lambda, and ABB (GE Energy) will face constrained components and transportation delays that will continue to impact lead times and deliveries.

Mid & High Power Integration products by Artesyn, Excelsys, and Bel Power (Power One) will face constrained components and transportation delays that will continue to impact lead times and deliveries.

DC/DC & POLs products by ABB (GE Energy), Murata Power, Bel Power (Power One), Delta, Recom, TDK/Lambda, Traco Power, and VICOR will face constrained components and transportation delays that will continue to impact lead times and deliveries.

External products by Artesyn and EOS power will face constrained components and transportation delays that will continue to impact lead times and deliveries.

Recom is going to increase prices by 6% on all Products Linecard.

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PEMCO MARKET TRENDS

Power Products

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
Low Power Switchers	Artesyn	36 - 60 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Bel Power (Power One)	60 - 70 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	TDK/Lambda	40 - 105 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	EOS Power	60 - 64 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Meanwell	28 - 34 weeks	Stable –	Stable –	Constrained components and transportation delays continue to impact leadtimes and deliveries
Mid/High Power Switchers & Rectifiers	Artesyn	36 - 60 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Bel Power (Power One)	60 - 70 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	TDK/Lambda	52 - 105 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	ABB (GE Energy)	60 - 70 weeks	Up ▲	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
Mid & High Power Integration	Artesyn	36 - 60 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Excelsys	53 - 60 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Bel Power (Power One)	60 - 70 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
DC/DC & POLs	ABB (GE Energy)	60 - 70 weeks	Up ▲	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Murata Power	52 - 56 weeks	Up ▲	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Bel Power (Power One)	46 - 70 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Delta	40 - 52 weeks	Up ▲	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Recom	38 - 44 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	TDK/Lambda	52 - 105 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	Traco Power	30 - 36 weeks	Up ▲	Stable –	Constrained components and transportation delays continue to impact leadtimes and deliveries
	VICOR	36 - 44 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
External	Artesyn	52 - 60 weeks	Down ▼	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
	EOS Power	42 - 46 weeks	Stable –	Up ▲	Constrained components and transportation delays continue to impact leadtimes and deliveries
PSU Module	Moons	12 - 24 weeks	Up ▲	Up ▲	
	Recom	26 - 28 weeks	Up ▲	Up ▲	6% price increase on all Products Linecard

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PEMCO MARKET TRENDS

Thermal Management

Future Lead Times	Mostly Stable (through September)
Price	Going Up

Transportation challenges and component shortages have continued to impact most thermal management suppliers. There was a week's drop in the average lead time length for products, and the forecast predicts lead times will remain stable while prices increase. The average lead time for thermal management across manufacturers is 33 - 50 weeks.

DC Fans and Blowers produced by ADDA, Delta, EBM, NMB, and Sanyo Denki are all facing component shortages and transportation challenges that will continue to impact lead times.

AC Fans and Blowers produced by EBM, NMB, and Sanyo Denki are facing component shortages and transportation challenges that will continue to impact lead times.

Heatsinks and Fansinks will remain stable at 8 - 12 weeks, but face increased prices in the coming weeks.

TECHNOLOGY	SUPPLIER	LEAD TIME		PRICE	COMMENTS
		CURRENT	FUTURE TREND (NEXT 3 MONTHS)	FUTURE TREND (NEXT 3 MONTHS)	
DC Fans and Blowers	ADDA	26 - 34 weeks	Stable –	Up ▲	Component shortages and transportation challenges continue to impact leadtimes
	Delta	40 - 60 weeks	Stable –	Up ▲	Component shortages and transportation challenges continue to impact leadtimes
	EBM	50 - ## weeks	Up ▲	Up ▲	Component shortages and transportation challenges continue to impact leadtimes
	NMB	37 - 52 weeks	Stable –	Up ▲	Component shortages and transportation challenges continue to impact leadtimes
	Sanyo Denki	55 - 66 weeks	Stable –	Up ▲	Component shortages and transportation challenges continue to impact leadtimes
AC Fans and Blowers	EBM	50 - ## weeks	Up ▲	Up ▲	Component shortages and transportation challenges continue to impact leadtimes
	NMB	37 - 52 weeks	Stable –	Up ▲	Component shortages and transportation challenges continue to impact leadtimes
	Sanyo Denki	55 - 66 weeks	Stable –	Up ▲	Component shortages and transportation challenges continue to impact leadtimes
Heatsinks and Fansinks	AAVID	8 - 12 weeks	Stable –	Up ▲	
	ATS	8 - 12 weeks	Stable –	Up ▲	

Information subject to change without notice. This report is gathered from multiple sources and is intended to provide a high-level overview of the market conditions as our global product team sees them. Please contact Sourceability if you have any questions.