



# Market Insight Q1 2022



General Market Insight	2
Analog	12
Batteries	14
Connectivity	15
Discrete	17
Electromechanical	21
High-End	24
Interconnect	25
Opto/Lighting	27
Memory	29
Passives	31



## General Market Insight

- Severe flooding in Malaysia is affecting manufacturing:
  - NDK's plant which manufactures quartz crystal products for automotive, 5G, and IoT applications, was entirely inundated, and it will take time to resume operations, according to reports.
  - STMicroelectronics' consolidated packaging facility located in Muar.
  - BE Semiconductor, which supplies chipmaking equipment to companies like Foxconn, STMicroelectronics, ASE, Micron, and LG Innotek, ceased operations due to massive flooding at its factory in Shah Alam, Malaysia. It expects a loss of \$28 million as a result of the disruption.
- PC processor prices are expected to climb significantly this year as a result of growing foundry costs, putting more pressure on downstream clients to hike pricing.
- Despite chip shortages and supply chain challenges, semiconductor companies will achieve new revenue highs this year, according to reports. For the first time, the industry is expected to earn over \$600 billion globally, despite an anticipated slowing in growth.
- The current conflict between Russia and Ukraine has the potential to raise chip material prices by 600%. Palladium, Helium, Neon, and Scandium are among the chip-making elements sourced from the region. Sanctions against Russian shipments of commercial electronics, aircraft parts, and semiconductors have been announced by the US and other countries.
- According to Susquehanna Financial Group (SFG), the overall product average lead time is currently 25.8 weeks, which is 10 weeks longer than the 2018 MLCC shortage, when the number of MLCCs was at an all-time high. The 25.8-week high is the result of a slew of supply-chain issues that have affected manufacturers over the past almost 2 years, including factory closures due to COVID-19, extreme weather, geopolitical events, and more.
- Logistics costs have climbed 4-5 times over the industry average for the average supplier, adding to commodity price hikes. Because operations in typical lower-cost manufacturing zones have become unreliable, customers have been forced to manufacture in higher-cost areas, driving up overall production costs. In the year 2022, manufacturers are anticipated to continue to play catch-up in order to meet client demand.
- On April 4th, Spanish Prime Minister Pedro Sanchez said that the government will spend 11 billion euros in the microchip and semiconductor businesses. The investment will be marketed as part of one of the PERTES (Spanish Economic Recovery and Transformation Strategic Projects), which will draw European funding to attract private investment.



- The US has imposed new sanctions on Semiconductor Manufacturing International Corp. (SMIC), which was blacklisted by the US in 2020. This is likely to exacerbate tensions between China and the United States in the ongoing trade war, which has resulted in higher shipping and production costs as a result of tariffs. Mobile gadgets, video game consoles, and automobile parts will all be affected by these extra penalties. The sanctions will have an impact on Applied Materials Inc., KLA Corp., and Lam Research, who provide SMIC with parts for semiconductor constructions.
- Lead times for many automotive grade and industrial ICs have been extended up to 70 weeks due to continuous industry-wide supply constraints.
- Upbeat earnings forecast for Samsung, SK hynix in Q1. Samsung Electronics Co. and SK hynix Inc., the world's two largest memory chip makers, are forecast to report robust earnings in the first quarter, despite a hike in raw material prices and continued global supply woes, a financial data firm said Tuesday. Samsung is estimated to log 13.89 trillion won (\$11.3 billion) in operating profits in the three months ending March 31, up 38.64 percent from a year ago, while SK hynix is expected to top 3.1 trillion won, up 137.08%.
- Daimler Truck cuts production at some locations over chip shortage. The company, which was spun off from Mercedes-Benz last year, said it was suspending production in some areas at its Mannheim site in March and at its Gaggenau plant in April, without giving further details. According to previous reports, Martin Daum, head of Daimler Trucks, predicted that a global chip shortage in 2021 would reduce Daimler Trucks revenue by billions of euros, and believed the problem would continue until 2022. Industry insiders also believe that the shortage of automotive chips will continue until 2022, especially chips produced on 8-inch wafers may not ease until 2025.
- Taiwan diode, MCU makers eyeing automotive market. Taiwan-based diode and MCU makers have stepped up their deployments for the automotive market recently, eyeing future opportunities presented by the rapid development of electric vehicles (EVs). Despite uncertainties caused by automotive chip shortages and supply chain disruptions this year, the global automotive electrification trend remains clear. Major IDMs such as STMicroelectronics, Infineon, Onsemi, Renesas, Rohm and NXP have all installed production capacity for automotive products, while Taiwan-based power component suppliers have adjusted operation strategies in response to the future vehicle progress.



## AMD

- According to reports, AMD's EPYC data processors are going up in price. Prices are increasing by 10-30%.

## Analog Devices

- Due to an increase in material costs Analog devices have introduced price increases of 6-20% across products and shortages are to occur on the following parts: ADM, ADC, AD8602, AD860 series

## BOSCH

- Bosch sensor lead times have begun to stretch, with low-power application sensors targeted for smartphones and wearables bearing the brunt of the impact. Customers seeing little support from BOSCH. The affected series includes **BMA253, BMA400, BMA456, BMA422.**

## Diodes Inc.

- TVS Diodes, SMxxx series have a lead time of 32-50 weeks or above. Due to wafer shortages, production capacity is limited

## Infineon

- Large-scale shortages are occurring in Infineon's automotive and industrial series. The lead time has increased to 60 weeks.
- Infineon is investing more than EUR 2 billion to construct a third module at its Malaysian facility in Kulim.



## Intel

- Pricing for Intel SSDs is expected to increase by 20-30%. Following series are likely to be affected: S4620 480G, S4510240G, S4510 480G, S4510 960G
- Intel's Enpirion power solutions series is being phased out, causing a surge in demand. The power management devices are used for FPGAs, SoCs, CPUs, ASICs and more. The official notice announces a LTB of March 18, 2022 (orders become non-cancellable, non-reschedule, non-returnable on this date). The last time shipment date is March 31, 2023 (contingent on global supply).

## Klauke

- On February 15th, 2022, Klauke implemented a blanket 4% price increase across the board on all of their products.

## Lattice

- The average lead time is at 40-50 weeks. This is due to wafer shortages and disruptions at Lattice's Malaysian facility.

## Maxim

- Due to the delay in ADI's acquisition of Maxim Integrated, lead times for some Maxim products have reportedly increased to 90 weeks, while the lead time for Maxim's DS series has increased to 70 weeks.

## Micron

- Micron Posts Strong Forecast as Data Centres Fuel Chip Sales. Sales will be about \$8.7 billion in its fiscal third quarter, Micron said in a statement. That compares with an average analyst estimate of \$8.2 billion, according to data compiled by Bloomberg. Excluding certain items, profit will be about \$2.46 a share, topping the \$2.24 prediction.



## Monolithic Power Systems

- MPS lead times now average 72+ weeks with major supply restrictions projected to continue in the first quarter. In February prices were increased by up to 20%

## Nexperia

- Nexperia enters analog IC market. Nexperia recently opened its first design center in North America to support the new power management and analog chip business units. The new business unit will develop chips with voltage regulators and data converters to complement its discrete power devices.

## NXP

- The price of NXP's automotive parts has increased by 20%. By June 2022, another price hike of 30% is planned.
- A recent mandatory COVID-19 lockdown has impacted NXP Tianjin, its China production facility that focuses mostly on MCIMX series MCUs. As a result, lead times for automobile parts may extend beyond the existing 52-week time frame.

## Onsemi

- As demand surpasses output capacity, Onsemi's FDN series MOSFETs are severely limited. Customers are unlikely to receive allocation until 2023.
- Onsemi's small size SOT packages are currently crucial with 90-week lead times.

## Qualcomm

- ARxx Series, QCCxx Series, and CSRxx Series are expected to increase in price up to 21%



## Renesas

- On March 16, parts of Japan were rocked by an earthquake, prompting Renesas to shut down its three Japanese factories: Naka, Takasaki, and Yonezawa. The shutdown of many facilities, as a key manufacturing contributor to the automotive industry, caused supply chain delays. Production capacity was returned to pre-earthquake levels March 23.

## Samsung

- The government lockdown in the Chinese city of Xi'an due to COVID-19 has caused supply chain delays at Samsung factories. Samsung's Xi'an factory produces 40% of the its NAND capacity and 15% of all NAND produced worldwide. Since releasing an official statement on Dec. 29, 2021, Samsung has not commented on its present operation capacity in Xi'an during the city's lockdown.

## STMicroelectronics

- ST Micro raised prices by 16-30% across the board, with lead times ranging from 16-70 weeks. It is reported that pricing will continue to raise on all product lines, including existing backlog, in the second quarter of 2022. Customers are not expected to receive deliveries until Q4 2022 or Q1 2023 on all series. STM32 is particularly impacted, and spot buy price is increasing for STM32F4 & STM32H7 series.

## TDK

- Due to US-China trade clash, TDK film capacitors has a lead time of up to 52 weeks.

## Torex

- Price increase notice on their products in response to the soaring costs of various raw materials for wafers and packaging.



## Toshiba

- Toshiba is expected to face further strains as it examines damage to production facilities after experiencing two earthquakes this year. Lead times have been reported to be as long as 1-2 years. On March 22, the company resumed full-scale production.

## TSMC

- Component prices are expected to be affected by TSMC's 10-20% rise in mature and advanced nodes, as well as the continued silicon shortages, until later this year.

## Vishay

- Due to issues allocating materials for capacitor builds, as well as delays from the US-China trade war, Vishay's film capacitors have a lead time of up to 50 weeks now.
- Vishay implemented price increase on all MOSFET, automotive, LVM and HVM packages. Beginning April 7, 2022, this price increase will apply to all backlogged orders.
- Vishay also has production facilities in Ukraine, where geopolitical events have disrupted the supply of diodes and rectifiers.

## Western Digital

- There was an unidentified contaminant infiltrated WD's NAND Flash production process, prompting the company's abrupt shutdown. The contamination occurred at two of its factories in Japan at the end of January which are operated by WD's joint venture partner, Kioxia. The disruption is expected to have an influence on NAND Flash pricing in Q2, as well as on SSD market.





## Wima

- Wima have a 30 weeks lead time for its film capacitors caused by production delays and disruptions induced by the US-China trade clash.

## Xilinx

- Xilinx's XC6 and XC7 series are still incredibly short. According to reports, XC6 production has been decreased by 90%, and the XC7 series lead time is 47-50 weeks. Some delivery dates have been estimated to be as far out as 2024.
- The production capacity of Xilinx remains crucial, with no indications of improvements. As a result, the firm has prioritized global tier 1 customers in its service. Aerospace, military, and the US government are among the sectors that have gained support. Furthermore, no new orders are being accepted at this time, leaving backlog orders for 2022 questionable in an already fragile market.



ANALOG		PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
Standard	Amplifiers & Comparators	→	→	26+
	Analog Interface	→	→	26+
	Power Management	→	→	26+
	Converters	→	→	26+

MPU/MCU		PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
MPU		↑	↑	26+
MCU	8 Bit & Lower	↑	↑	26+
	16 Bit	↑	↑	26+
	32 Bit & Higher	↑	↑	26+
DSP		↑	↑	26+

PROGRAMMABLE LOGIC		PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
		↑	↑	52

STANDARD LOGIC		PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
Timing Products		↑	↑	26+
Interface		↑	↑	26+
Connectivity		↑	↑	26+
Standard Logic		→	→	26+

POWER		PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
FET		↑	→	52
IGBT		↑	→	26+
Rectifier		↑	→	26+
Other Power		↑	→	26+



MEMORY	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
Flash	→	→	26+
eMMC	↑	↑	52
EEPROM	→	→	26+
DRAM	↑	↑	26+
SRAM	→	→	9-16
Solid State Drives	↓	→	16+

SENSORS	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
	↑	↑	26+

OPTO	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
LEDs (Low Power)	→	→	9-16
LEDs (Mid Power)	→	→	9-16
LEDs (High Power)	→	↑	16+
Couplers	↑	→	52
Fibre-Optic	↑	→	26+
Infrared	↑	→	26+
Other Opto	↑	→	26+

DISCRETE	PRICING TREND	LEAD TIME TREND	LEAD TIME (WEEKS)
Small Signal	↑	→	52
RF	↑	→	52



↔	Stable
↗	Increasing
↘	Decreasing
SMA	Selective Market Adjustment
EOL	End-of-Life

click on a category below:

<a href="#">Analog</a>	<a href="#">High- End</a>
<a href="#">Battery</a>	<a href="#">Interconnect</a>
<a href="#">Connectivity</a>	<a href="#">Opto / Lighting</a>
<a href="#">Discrete</a>	<a href="#">Memory</a>
<a href="#">Electromechanical</a>	<a href="#">Passives</a>

# Analog

MANUFACTURER	PRODUCT	LEAD TIME (WEEKS)	TREND	PRICING	COMMENTS
AMS	Analog	10-40	↔	SMA	
BOSCH	Sensors	32-54	↗	↗	
DIODES	Multi- Source Analog/Power	32-42	↗	↗	
	Switching Regulators	28-48	↗	↗	
FTDI Chip	Interface	32-42	↗	↗	
Infineon	Sensors	20-54	↗	↗	
	Switching Regulators	42-54	↗	↗	
	Analog and Power for Automotive (CAN/LIN/Smart FET)	48-54	↗	↗	
Maxim Integrated	Signal Chain Amplifiers	22-32	↗	↔	Some lead times are out to 18+ weeks
	Interface	22-32	↗	↔	
	Switching Regulators	22-38	↗	↔	
Maxlinear	Interface	12-22	↗	↗	
Melexis	Sensors	42-54	↗	↗	
Microchip	Signal Chain (Amplifiers and Data Converters)	32-42	↗	↔	
	Timing	42-52	↗	↗	
	Switching Regulators	42-52	↗	↗	
MPS	Switching Regulators	52-60	↗	↗	



MANUFACTURER	PRODUCT	LEAD TIME (WEEKS)	TREND	PRICING	COMMENTS
NXP	Sensors	18-54	↗	↗	
	Interface	38-54	↗	↗	
	Analog and Power for Automotive (CAN/LIN/Smart FET)	48-54	↗	↗	
Omron	Sensors	40	↔	↔	
ON Semiconductor	Sensors	20-54	↗	↗	
	Signal Chain (Amplifiers and Data Converters)	38-44	↗	↗	
	Timing	38-44	↗	↗	
	Multi- Source Analog/Power	38-44	↗	↗	
	Switching Regulators	38-52	↗	↗	
Panasonic	Sensors	18-28	↗	↔	
3PEAK	Signal Chain (Amplifiers and Data Converters)	16-20	↔	↔	
Renesas	Signal Chain (Amplifiers and Data Converters)	52-62	↗	↗	
	Timing	52	↗	↗	
	Interface	42-52	↗	↗	
	Switching Regulators	42-52	↗	↗	
ROHM	Sensors	26-54	↗	↗	
	Switching Regulators	52	↗	↔	
ST Microelectronics	Sensors	28-36	↗	↗	
	Signal Chain (Amplifiers and Data Converters)	48-54	↗	↗	
	Multi- Source Analog/Power	42-52	↗	↗	
	Switching Regulators	42-52	↗	↗	
	Analog and Power for Automotive (CAN/LIN/Smart FET)	42-54	↗	↗	
TE Sensor Solutions	Sensors	18-34	↗	↗	
Vishay	Sensors	26-54	↗	↔	



Batteries

MANUFACTURER	PRODUCT	LEAD TIME (WEEKS)	TREND	PRICING	COMMENTS
Energizer	Alkaline	12-14	↔	↗	
	Lithium Metal	16-18	↔	↗	
	Silver Oxide	10-12	↔	↗	
GP Batteries	Alkaline	16-18	↔	↔	
	Lithium Metal	20-22	↔	↔	
	Lithium Ion	18-20	↔	↔	
	Nickle Metal Hydride	12-14	↔	↔	
	Lead Acid	10-12	↔	↔	
	Carbon Zinc	10-12	↔	↔	
Panasonic	Alkaline	12-14	↔	↗	
	Lithium Metal	26-28	↙	↗	
	Nickle Metal Hydride	10-12	↔	↗	
	Carbon Zinc	10-12	↔	↔	
Renata Batteries	Lithium Metal	18-20	↔	↗	
	Lithium Ion	20-22	↔	↗	
	Nickle Metal Hydride	12-14	↔	↔	
	Silver Oxide	10-12	↔	↗	
	Carbon Zinc	10-12	↔	↔	
VARTA	Alkaline	12-14	↔	↔	
	Lithium Metal	20-26	↔	↗	
	Lithium Ion	34-40	↗	↗	
	Nickle Metal Hydride	12-14	↔	↔	



# Connectivity

MANUFACTURER	PRODUCT	LEAD TIME (WEEKS)	TREND	PRICING	COMMENTS
AMS	RFID	30-32	↗	↔	
	802.15.4/Zigbee Modules	28-34	↗	↗	
CEL	Small Signal, Schottky Diodes, PIN Diodes,Bipolar Transistors,FETs/PHEMTs,Amplifiers,Mixers & Modulators, VCOs, SS Bipolar Transistors,Wideband Transistors	32	↗	↗	
Cypress	Bluetooth Modules	28-38	↗	↗	Cypress is now Infineon
Holtek	Wireless	24	↔	↔	
HopeRF	Wireless	12	↔	↔	
Kyocera	Antennas	10-12	↔	↔	
Laird Connectivity	Wi-Fi Modules	38-54	↗	↗	
	Antennas	18-22	↗	↗	
Linx Technologies	Cellular Modules	8-12	↔	↔	
	Antennas	12-14	↗	↗	
	Transceivers/Receivers	12-14	↗	↗	
Melexis	Transceivers/Receivers	18	↔	↔	
	RFID	16-18	↔	↔	
Microchip	Wi-Fi Modules	26-28	↗	↗	
	Bluetooth Modules	26-28	↗	↗	
	Transceivers/Receivers	20-22	↔	↗	
Murata	Wi-Fi Modules	54-74	↗	↗	
	Bluetooth Modules	54-66	↗	↗	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
NXP	Multi-Protocol/Chip Solutions	54	↗	↗	Parts on allocation
	Transceivers/Receivers	26	↔	↗	
	RFID	28-54	↗	↗	
	High Power IC's	54	↗	↗	
ON Semiconductor	Bluetooth Modules	18-32	↗	↗	
Panasonic	Bluetooth Modules	42-44	↗	↗	
	RFID	16-18	↔	↔	
Pulse Electronics	Antennas	10-12	↔	↔	
Semtech	Transceivers/Receivers	38	↗	↗	
Sierra Wireless	Multi-Protocol/Chip Solutions	42-48	↗	↔	Intel based radios are at 52 weeks
	Cellular Modules	42-48	↗	↗	
Silex Technology	Wi-Fi Modules	30-54	↗	↗	
ST Microelectronics	Bluetooth Modules	32-42	↗	↗	
	Transceivers/Receivers	54	↗	↗	
	RFID	32-42	↗	↗	
Taoglas	Antennas	22-24	↗	↗	
U-Blox	Bluetooth Modules	28-54	↗	↗	Parts are on allocation
	Cellular Modules	28-54	↗	↗	
	GPS	28-32	↗	↗	Increased in pricing on some GPS modules





Discrete

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Alpha Power Solutions	SiC Diode	22	↔	↔	
	SiC MOSFETS	22	↔	↔	
AVX	Varistors	16-24	↔	↔	
CEL	Optocoupler Components	22	↔	↔	
Diodes Inc.	Low Voltage MOSFETS	46-54	↗	↗	
	TVS Diodes	34-42	↗	↔	
	Bridge Rectifiers	20-42	↔	↗	
	Schottky Diodes	18-54	↗	↗	
	Rectifiers	20-78	↔	↗	
	Switching Diodes	18-54	↗	↗	
	Small Signal MOSFETS	18-54	↗	↗	
	Zener Diodes	18-54	↗	↗	
	Bipolar Transistors	22-54	↗	↗	
	Digital Transistors	22-54	↗	↗	
	General Purpose Transistors	22-54	↗	↗	
	Logic	32-52	↗	↔	
EATON	ESD	14-16	↗	↗	
	Fuses	16-22	↗	↗	
	Clips and Holders	14-18	↔	↗	
Everlight	Optocoupler Components	26	↗	↗	
Fairchild (ON Semiconductor)	IGBTs	42-54	↗	↗	
	Bridge Rectifiers	38-48	↔	↗	
	Schottky Diodes	18-54	↗	↗	
	Rectifiers	42-54	↔	↗	
	Switching Diodes	18-54	↗	↗	
	Small Signal MOSFETS	18-54	↗	↗	
	Zener Diodes	18-54	↗	↗	
	Bipolar Transistors	22-54	↗	↗	
Goford Semiconductor	Optocoupler Components	32-52	↔	↔	
	Low Voltage MOSFETS	16	↗	↔	
	Medium Voltage MOSFETS	16	↗	↔	
	High Voltage MOSFETS	20	↔	↔	
Hollyfuse	Fuses	14-16	↔	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Infineon	Low Voltage MOSFETS	54-68	↗	↗	
	High Voltage MOSFETS	54-68	↔	↗	
	IGBTs	42-52	↗	↗	
	Wide Bandgap Mosfets	44-54	↗	↗	
	Digital Transistors	14-54	↗	↗	
	General Purpose Transistors	14-54	↗	↗	
	Mil-Aero Transistors	28-52	↔	↔	
Isocom Components	Optocoupler Components	4-6	↔	SMA	
IXYS	High Voltage MOSFETS	50-54	↗	↗	
	IGBTs	50-54	↗	↗	
	Thyristors/Triacs	32-42	↗	↗	
Keystone	Clips and Holders	12-18	↗	SMA	
Lite-On	Optocoupler Components	26-32	↔	↔	
Littelfuse	ESD	32-50	↗	↗	
	Diode Arrays	32-50	↗	↗	
	Varistors	22-42	↔	↔	
	Wide Bandgap Mosfets	44-54	↗	↗	
	Fuses	22-26	↗	↔	
	PTC Fuses	32-36	↗	SMA	
	Clips and Holders	16-22	↔	↔	
	Thyristors/Triacs	26-42	↔	SMA	
	TVS Diodes	32-48	↗	↔	
	Sensors	18-32	↗	SMA	
Micro Commercial Components	Low Voltage MOSFETS	22-26	↗	↔	
	High Voltage MOSFETS	22-28	↗	↔	
	Schottky Diodes	22-38	↗	↔	
	Switching Diodes	22-38	↗	↔	
	Zener Diodes	14-38	↗	↔	
	General Purpose Transistors	18-42	↗	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Microsemi	High Voltage MOSFETS	44-54	↗	↗	
	IGBTs	42-54	↗	↗	
	Mil-Aero Diodes	34-58	↔	↔	
	Mil-Aero Transistors	34-62	↔	↔	
Nexperia	Low Voltage MOSFETS	50-54	↗	↗	
	ESD	18-52	↗	↗	
	Schottky Diodes	18-54	↗	↗	
	Switching Diodes	18-54	↗	↗	
	Small Signal MOSFETS	18-54	↗	↗	
	Zener Diodes	18-54	↗	↗	
	Bipolar Transistors	18-54	↗	↗	
	Digital Transistors	18-54	↗	↗	
	General Purpose Transistors	18-54	↗	↗	
	Logic	54	↗	↔	
ON Semiconductor	Low Voltage MOSFETS	44-54	↔	↗	
	High Voltage MOSFETS	38-54	↔	↗	
	ESD	22-52	↗	↗	
	Wide Bandgap Mosfets	44-54	↗	↗	
	Schottky Diodes	18-54	↗	↗	
	Rectifiers	42-54	↔	↗	
	Switching Diodes	18-54	↗	↗	
	Small Signal MOSFETS	18-54	↗	↗	
	Zener Diodes	18-54	↗	↗	
	Bipolar Transistors	18-54	↗	↗	
	Digital Transistors	22-54	↗	↗	
	General Purpose Transistors	22-54	↗	↗	
	Logic	32-52	↔	↔	
ProTek Devices	Diode Arrays	14-18	↗	↗	
Renesas	Optocoupler Components	54	↗	↔	
ROHM	High Voltage MOSFETS	44-54	↗	↔	
	Wide Bandgap Mosfets	44-54	↗	↔	
	Schottky Diodes	22-54	↗	↔	
	Switching Diodes	22-54	↗	↔	
	Digital Transistors	22-54	↗	↔	
	General Purpose Transistors	22-54	↗	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Schurter	Fuses	22-42	↗	↗	
	Clips and Holders	22-32	↗	↗	
Semtech	Diode Arrays	22-24	↗	↗	
	Mil-Aero Diodes	42-52	↔	↔	
ST Microelectronics	Low Voltage MOSFETS	50-54	↗	↗	
	High Voltage MOSFETS	50-54	↗	↗	
	IGBTs	50-54	↗	↗	
	ESD	22-42	↗	↗	
	Wide Bandgap Mosfets	44-54	↗	↗	
	Thyristors/Triacs	42-52	↔	↔	
	TVS Diodes	32-42	↗	↗	
	Rectifiers	50-52	↔	↗	
	Bipolar Transistors	22-42	↗	↗	
	Low Voltage MOSFETS	44-54	↔	↗	
Taiwan Semiconductor	High Voltage MOSFETS	38-54	↔	↗	
	ESD	22-52	↗	↗	
	Wide Bandgap Mosfets	44-54	↗	↗	
	Schottky Diodes	18-54	↗	↗	
	Rectifiers	42-54	↔	↗	
	Switching Diodes	18-54	↗	↗	
	Small Signal MOSFETS	18-54	↗	↗	
	Zener Diodes	18-54	↗	↗	
	Bipolar Transistors	18-54	↗	↗	
	Digital Transistors	22-54	↗	↗	
Vishay	General Purpose Transistors	22-54	↗	↗	
	Logic	32-52	↔	↔	
TDK EPCOS	Varistors	24-30	↔	↔	
TE Connectivity	PTC Fuses	22-32	↗	↗	
Vishay	Low Voltage MOSFETS	54-68	↗	↗	
	High Voltage MOSFETS	54-68	↗	↗	
	TVS Diodes	32-48	↗	↗	
	Bridge Rectifiers	28-82	↔	↗	
	Rectifiers	38-78	↔	↗	
	Zener Diodes	32-62	↗	↗	
	Optocoupler Components	26-42	↗	↗	



Electromechanical

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Aavid	Fans	14-16	↗	↗	
	Heatsinks	18-26	↔	↗	
Abracon	Timing	14-56+	↔	↗	
ADDA	Fans	16-18	↔	↗	
Alps Electric	Switches	26-34	↗	↔	
American Zettler	Relays	18-54+	↗	SMA	
Bivar	Hardware	12-18	↔	↔	
C&K	Switches	14-32	↔	↗	
Citizen Finedevice	Timing	14-54	↔	↗	
COSEL	Power Supplies (AC/DC)	50	↗	↔	
	Power Supplies (DC/DC)	50	↗	↔	
CTS	Switches	10-12	↔	↗	
	Timing	14-54	↔	↗	
CUI Inc	Power Supplies (AC/DC)	26-54+	↗	↔	
	Power Supplies (DC/DC)	18-54+	↗	↔	
	Heatsinks	12-14	↔	↔	
Delta	Fans	42-54	↗	↔	
Diodes Inc	Timing	12-52	↔	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
E-Switch	Switches	18-20	↔	↔	
EPSON Electronics America	Timing	42+	↔	↗	
Fox	Timing	12-42+	↔	↗	
Grayhill	Switches	22-26	↗	↔	
Heyco	Hardware	8-10	↔	↔	
Hongfa	Relays	18-54+	↗	SMA	
Infineon	Relays	20-24	↔	↔	
IXYS	Relays	12-32	↗	↗	
Keystone	Hardware	8-28	↗	↗	
Kyocera International	Timing	30	↔	↔	
Meanwell	Power Supplies (AC/DC)	28-42	↗	↔	
Mornsun	Power Supplies (AC/DC)	6-16	↔	↔	
	Power Supplies (DC/DC)	6-16	↔	↔	
Murata	Timing	10-12	↔	↔	
Murata Power Solutions	Power Supplies (AC/DC)	28-54	↗	↗	
	Power Supplies (DC/DC)	22-42	↗	↗	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Myrra	Power Supplies (AC/DC)	16-24	↔	↗	5% increase on pricing
NKK Switches	Switches	12-20	↔	↗	
NMB	Fans	16-18	↗	↔	
Ohmite	Fans	12-14	↗	↗	
Omron	Switches	35-50	↗	↗	Released new price list
Panasonic	Relays	16-32	↗	↗	
	Switches	12-14	↔	↔	
Qualtek	Fans	16-18	↔	↔	
Raltron	Timing	12-42	↔	↔	
RECOM	Power Supplies (AC/DC)	26-54+	↗	↔	
	Power Supplies (DC/DC)	16-38	↗	↔	
Schneider Electric	Relays	16-18	↔	↔	
Song Chuan	Relays	26-62	↗	↔	
SUNON	Fans	32-44	↗	↗	
TE Connectivity Sensors	Relays	14-16	↔	↔	
	Switches	12-14	↔	↔	
Vicor	Power Supplies (AC/DC)	28-34	↗	↗	
	Power Supplies (DC/DC)	28-34	↗	↗	



# High-End

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Compulab	SOM	44	↔	↔	
Cypress	8 bit MCU	48-54	↗	↔	
	32 bit MCU	48	↗	↔	
	USB	54+	↗	↗	
	Automotive	34-48	↗	↔	
DKE	E-paper Display	40-50	↔	↔	
Formerica	Fibre Optic Transceivers	20-22	↗	↔	
Holtek	8 bit MCU	24-36	↗	↔	
	32 bit MCU	24-36	↗	↔	
Infineon	Automotive	Allocation	↗	↔	
Lattice Semiconductor	FPGA	44-54+	↗	↗	
Microchip	8 bit MCU	54+	↗	↗	
	32 bit MCU	54+	↗	↗	
	PHY/ Ethernet	32-54	↗	↗	
	USB	54+	↗	↗	
	32 bit MPU	32-54	↗	↗	
Microsemi	FPGA	44-54+	↗	↗	
NXP	8 bit MCU	Allocation	↗	↗	
	32 bit MCU	Allocation	↗	↗	
	Automotive	Allocation	↗	↗	
	32 bit MPU	Allocation	↗	↗	
	Network Processors	Allocation	↗	↗	
Raystar					
Renesas	8 bit MCU	54	↗	↗	
	32 bit MCU	54	↗	↔	
	Automotive	48	↗	↔	
	32 bit MPU	48	↗	↗	
Renesas Synergy	32 bit MCU	42	↗	SMA	
Sharp	LCDs	42-46	↗	↗	
ST Microelectronics	8 bit MCU	Allocation	↗	↗	
	Automotive	Allocation	↗	↗	
	32 bit MPU	42	↗	↗	
	STM32F0- 32 bit MCU	Allocation	↔	↗	
	STM32F1- 32 bit MCU	Allocation	↔	↗	
	STM32L- 32 bit MCU	Allocation	↗	↗	
Zilog	8 bit MCU	26-42	↗	↗	





Interconnect

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Adam Tech	D-Sub Connectors	18-20	↗	↗	
	PCB Connectors	18-20	↗	↗	
Altech Corp.	Terminal Blocks & Crimps	8-10	↔	↗	
Amphenol ICC	D-Sub Connectors	10-12	↔	↗	
	Data & Telecom	10-12	↔	↗	
	PCB Connectors	10-12	↗	↗	
	FFC/FPC	10-12	↔	↗	
Amphenol Sine System	Circular Connectors	22	↗	↗	
AVX	Lighting Connectors	12-14	↔	↗	
Connfly	PCB Connectors	12-16	↔	↔	
Degson	Terminal Blocks & Crimps	18-20	↔	↔	
EDAC	PCB Connectors	16-24	↗	↔	
Greenconn Technology	PCB Connectors	4	↔	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
HALO Electronics	Data & Telecom	18-58	↗	↗	
HARTING	PCB Connectors	12-14	↗	↔	
Hirose Electric	PCB Connectors	28	↗	↔	
	RF Connectors	28	↗	↔	
	FFC/FPC	28	↗	↔	
JST	PCB Connectors	28-54	↗	↗	
Mil-Max	PCB Connectors	6-8	↔	↗	
	IC Sockets	6-8	↔	↔	
Omron	PCB Connectors	35-50	↗	↔	Released new price list
Sullins	PCB Connectors	8-10	↔	↔	
TE Connectivity	Automotive Connectors	32-42	↗	↔	
	Circular Connectors	30-32	↔	↔	
	Relays	38-40	↔	↗	
	D-Sub Connectors	10-12	↔	↔	
	Data & Telecom	10-12	↔	↔	
	PCB Connectors	18-20	↔	↔	
	RF Connectors	14-16	↔	↔	
	IC Sockets	8-10	↔	↔	
	Terminal Blocks & Crimps	16-18	↔	↔	
WAGO	Lighting Connectors	10-12	↔	↔	
	Terminal Blocks & Crimps	12	↗	↗	
	Lighting Connectors	12	↗	↗	
WECO	Terminal Blocks & Crimps	14-18	↗	↗	



# Opto/Lighting

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Bridgelux	Chip On Board (CoB)	12-14	↔	↔	
Dialight	Indication LEDs	14-18	↗	↔	
	6V (LED Optics)	12-18	↔	↔	
Everlight	Automotive LEDs (AEC-Q101 Certified)	10-12	↔	↔	
	Infrared Components/ LED	22-24	↗	↔	
	Indication LEDs	16-18	↗	↔	
	UV LEDs	10-12	↔	↔	
Excellence Optoelectronics Inc.	Automotive LEDs (AEC-Q101 Certified)	10-12	↔	↔	
General Luminaire	Standard Light Engines (Level 2 Boards)	16-18	↔	↔	
Inolux	Indication LEDs	8-10	↔	↔	
Kingbright	LED Displays	12-14	↔	↔	
	Indication LEDs	10-12	↔	SMA	
Lite-On	Infrared Components/ LED	16-18	↔	↔	
	LED Displays	12-16	↔	↔	
	Indication LEDs	18-22	↔	↔	
Lumex	LED Displays	18	↗	↔	
	Indication LEDs	10-16	↔	↔	
Lumileds	Illumination High Power LEDs (White)	20-28	↔	↔	
	Illumination High Power LEDs (Colors)	20-28	↔	↔	
	Illumination High Power LEDs (White & Colors)	14-16	↔	↔	
	Horitcultural Mid Power LEDs (White & Colors)	6-8	↘	↔	
	Automotive LEDs (AEC-Q101 Certified)	16-18	↔	↔	
	Chip On Board (CoB)	20-28	↔	↔	
	Standard Light Engines (Level 2 Boards)	20-28	↔	↔	
	Infrared Components/ LED	28	↔	↔	
	UV LEDs	TBC	↗	↔	
Meanwell	LED Drivers	12-32	↔	↔	
Murata	Lighting Controls	28-32	↔	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Nichia	Illumination High Power LEDs (White)	14-16	↔	↔	
	Illumination High Power LEDs (Colors)	14-16	↔	↔	
	Illumination High Power LEDs (White & Colors)	10-12	↔	↔	
	Horitcultural Mid Power LEDs (White & Colors)	10-12	↔	↔	
	Chip On Board (CoB)	14-16	↔	↔	
Raystar	OLEDs	16-20	↔	↔	
	TFT Displays	26-30	↔	↔	
ROHM	Infrared Components/ LED	8-10	↔	↔	
	Indication LEDs	22-48	↗	↔	
Samsung LED	Illumination High Power LEDs (White)	8-10	↔	↔	
	Illumination High Power LEDs (White & Colors)	10-12	↔	↔	
	Horitcultural Mid Power LEDs (White & Colors)	10-12	↔	↔	
	Chip On Board (CoB)	8-10	↔	↔	
	Standard Light Engines (Level 2 Boards)	12-14	↔	↔	
Seoul Semiconductor	Illumination High Power LEDs (White)	12-14	↔	↔	
	Illumination High Power LEDs (White & Colors)	8-10	↔	↔	
	Horitcultural Mid Power LEDs (White & Colors)	8-10	↔	SMA	
	Chip On Board (CoB)	10-12	↔	↔	
	Standard Light Engines (Level 2 Boards)	12-14	↔	↔	
Seoul Viosys	UV LEDs	10-12	↔	↔	
Stanley Electric	LED Displays	14	↔	↔	
	Indication LEDs	12-14	↔	↔	
SunLed	LED Displays	16	↔	↔	
Team Source	TFT Displays	30-40	↔	↔	
TE Connectivity	6A (Heat Sinks, LED Holders)	22-52	↔	↔	
TT Electronics- Optek Technology	Infrared Components/ LED	18-22	↗	↔	
VCC	Indication LEDs	14	↔	↗	
Vishay	Infrared Components/ LED	22-54	↗	↗	
	Indication LEDs	22-54	↗	↗	
	UV LEDs	16-18	↗	↔	



Memory

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
ADATA	Memory Modules	12-14	↔	↔	
	eMMC	14-18	↔	↔	
	Memory Cards	12-14	↔	↔	
	Solid State Drives (SSD)	10-14	↔	↔	
Alliance Memory	PC (Commodity) DRAM	4-32	↘	↔	
	Mobile RAM	28-32	↔	↔	
	SRAM	10-32	↔	↗	
	NOR Flash	14-22	↔	↔	
	NAND Flash	22-54	↔	↔	
	eMMC	16-18	↔	↔	
Cypress	SRAM	14-42	↔	↗	
	NOR Flash	34-54	↗	↔	
	FRAM & NVSRAM	18-54	↗	↔	
Everspin Technologies	MRAM	14-30	↔	↗	
Greenliant	NOR Flash	20-30	↔	↔	
	eMMC	24-26	↔	↔	
	Memory Cards	20-28	↗	↔	
	Solid State Drives (SSD)	20-28	↔	↔	
Kingston	PC (Commodity) DRAM	6-8	↘	SMA	
	Memory Modules	6-10	↔	↔	
	eMMC	6-12	↘	SMA	
	Memory Cards	6-22	↘	SMA	
	Solid State Drives (SSD)	10-14	↔	SMA	
Macronix	NOR Flash	22-26	↘	↔	
	SLC NAND Flash	30-34	↔	↔	
	eMMC	54-56	↗	↗	Parts on allocation, MXIC is not quoting and not taking new orders for the time being



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Microchip	SRAM	48-50	↗	↗	
	NOR Flash	22-54	↗	↗	
	EEPROM	28-54	↗	↔	
	EPROM	14-28	↔	↔	
Micron	PC (Commodity) DRAM	54-56	↔	↔	
	Memory Modules	54-56	↗	↗	
	eMMC	54-56	↗	↗	
	Solid State Drives (SSD)	54-56	↔	↔	
ON Semiconductor	SRAM	22-42	↗	↗	
	EEPROM	22-32	↗	↗	
Renesas	SRAM	22-24	↔	↔	
Samsung	PC (Commodity) DRAM	54-56	↔	↔	Parts on allocation, Samsung is not quoting and not taking new orders for the time being
	Memory Modules	54-56	↗	↗	
	eMMC	54-56	↗	↗	
	Solid State Drives (SSD)	54-56	↔	↔	
SkyHigh Memory	SLC NAND Flash	20-22	↔	↔	
	eMMC	20-22	↗	↗	
STMicroelectronics	EEPROM	54-56	↗	↗	



# Passives

MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Apl Delevan	Inductors	16-20	↔	↔	
	Capacitors- Supercapacitors	16-18	↔	↗	
AVX	Capacitors- Tantalum Molded	30-36	↔	↔	
	Capacitors- Tantalum Conformals	54	↔	↔	
	Capacitors- Polymer Tantalum	22	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	22-28	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	26-28	↔	↔	Excludes 1206+ sizes
	Leaded Capacitors- Ceramic	32	↔	↔	
	Specialty Capacitors	32-36	↔	↔	
	Surface Mount General Capacitors- Ceramic *Automotive grade				
	Filters- Common Mode Choke	6-8	↗	↗	
	High Frequency Transformer	8-10	↗	↗	
Coilmaster Electronics	Inductors	8-10	↗	↗	
	LAN Magnetics Transformer	7-11	↗	↔	
	Ferrite Beads	9-10	↗	↔	
	Resistor Networks	18-42	↗	↗	
	Capacitors- Supercapacitors	32-54+	↗	↗	
Eaton	Inductors	22-32	↗	↗	
ELNA	Capacitors- Supercapacitors	32-54+	↗	↗	
Faratronic	Capacitors- Film	20-26	↗	↔	
HALO Electronics	Inductors	48-58	↗	↔	
Murata	Filters	38-48	↗	↔	
	Inductor / Transformers	14-22	↗	↗	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	20-26	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	32-35	↔	↔	Excludes 1206+ sizes
	Leaded Capacitors- Ceramic	22-26	↔	↔	
	Specialty Capacitors	22-28	↔	↔	
	Electrolytic	32-52	↗	↗	
NIC Components	Filters	16-22	↗	↗	
	Inductors	16-22	↗	↔	
	Fixed Resistors	14-20	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	24-26	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	32-40	↔	↔	Excludes 1206+ sizes
	Leaded Capacitors- Ceramic	28-30	↔	↔	



MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
Nichicon	Electrolytic	48-54+	↗	↗	
Nippon Chemi-Con	Electrolytic	36-40	↔	↔	
Panasonic	Electrolytic	42-54+	↗	↗	
	Capacitors- Polymer Tantalum	32	↔	↗	
	Inductors / Transformers	24-30	↗	↔	
	Fixed Resistors	54+	↗	↗	
	Resistor Networks	54+	↗	↗	
Paktron Capacitors	Capactors- Film	14-18	↗	↗	
Royal Ohm	Resistor Networks	10-20	↔	↗	
Samwha Electric	Electrolytic	16-40	↔	↔	
Samsung Electro-Mechanics	Fixed Resistors	48	↔	↗	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	26-28	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	26-28	↔	↔	Excludes 1206+ sizes
	Surface Mount General Capacitors-Ceramic *Automotive Upgrade	26-28	↔	↔	
Stackploe Electronics	Fixed Resistors	20-32	↗	↗	
Sumida	Inductors	28-42	↗	↔	
Taiyo Yuden	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	20-26	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	32-36	↔	↔	
	Surface Mount General Capacitors-Ceramic *Automotive Upgrade	32-36	↗	↗	
	Filters	42-52	↗	↗	
TDK	Inductors	18-32	↗	↗	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	22-26	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	24-30	↔	↗	Excludes 1206+ sizes
	Surface Mount General Capacitors-Ceramic *Automotive Upgrade	32-44	↗	↗	
	Capacitors- Film	26-54+	↗	↗	
TDK EPCOS	Filters	28-38	↗	↔	





MANUFACTURER	PRODUCT	LEAD TIME (WKS)	TREND	PRICING	COMMENTS
TT Electronics- BI Technologies	Trimmers & Pots	6-54	↗	↗	
TT Electronics- IRC	Fixed Resistors	22-54	↗	↗	
United Chemi-Con	Electrolytic	32-52+	↗	↗	
Viking	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	26-28	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	26-30	↗	↔	Excluding 1206+ sizes
Vishay	Trimmers & Pots	12-28	↗	↗	
	Capacitors- Film	22-32	↗	↗	
	Capacitors- Supercapacitors	16-22	↗	↔	
	Capacitors- Tantalum Molded	42-52	↔	↗	
	Capacitors- Tantalum Conformals	16-18	↔	↔	
	Capacitors- Polymer Tantalum	22-32	↗	↔	
	Inductors / Transformers	14-22	↔	↔	
	Fixed Resistors	54+	↗	↗	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	22-26	↗	↔	
	Leaded Capacitors- Ceramic	14-18	↗	↔	
	Specialty Capacitors	14-16	↔	↔	
WIMA	Capacitors- Film	22-32	↗	↗	
Würth Elektronik	Inductors / Transformers	28-42	↗	↗	
Yageo	Fixed Resistors	26-30	↔	↔	
	Resistor Networks	26-30	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Less than 1 uf )	22-26	↔	↔	
	Surface Mount General Capacitors- Ceramic ( Greater than 1 uf )	28-32	↔	↔	Excluding 1206+ sizes
	Surface Mount General Capacitors- Ceramic *Automotive Upgrade	28-32	↔	↔	

Although every effort has been made to provide complete and accurate information, Rebound Technology Group Holdings makes no warranties, express or implied, or representations as to the accuracy of content within this document. Rebound Technology Group Holdings assumes no liability or responsibility for any error or omissions in the information contained in the Market Watch Journal.