2024 DISTRIBUTION OUTLOOK

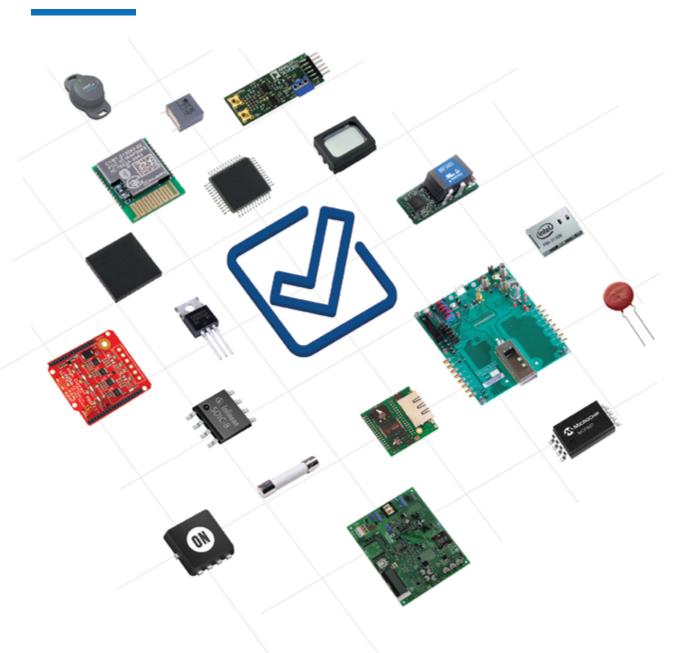
This Annual Report will provide forecasts, perspectives and analysis through interviews from a wide variety of distributors.

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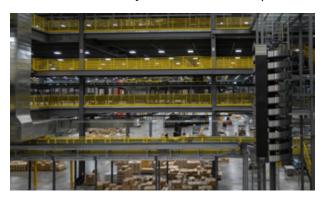
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DigiKey

Headquartered in Thief River Falls, Minnesota, DigiKey is recognized as the global leader and continuous innovator in the cutting-edge commerce distribution of electronic components and automation products worldwide. We get technical by providing more than 17.2 million components from over 2,800 quality name-brand manufacturers with an industry-leading breadth and depth of product in stock and available for immediate shipment. DigiKey also supports engineers, designers, builders and procurement professionals with a wealth of digital solutions, frictionless interactions and tools to make their jobs more efficient.

DigiKey is a \$5 billion company and employs more than 5,000 people in northwest Minnesota and beyond, shipping out an average 27,000 orders per day to customers in 180+countries around the world. With a strong heritage of serving as a critical partner for companies around the globe, DigiKey had humble beginnings in 1972 as a small mail-order company selling leftover parts to a digital electronic keyer kit (the Digi-Keyer). Today, DigiKey is a leading global e-commerce company. Last year, the company opened the doors to its brand-new, 2.2 million square foot Product Distribution Center expansion, which will allow the organization to meet and exceed customers' expectations more efficiently.



DIGIKEY IS PROUD TO BE WIDELY RECOGNIZED AS THE LEADER FOR:

- Availability of products
- On-time delivery
- Overall performance
- Engineer-friendly website
- · Customer service

DigiKey offers the world's largest selection of electronic components in stock and available for immediate shipment. To maintain a high level of customer and supplier satisfaction, DigiKey continues finding creative ways to enhance its offerings and services. For example, DigiKey has invested in more robust and predictive web search functionality, higher inventory levels and increased automation in its warehouse, which all benefit customers by providing an easy and efficient research, shopping and delivery experience.

DigiKey has also invested in innovations, including cut tape printing, delivering more products and services within the ecosystem to provide customers around the world with even more reasons to make DigiKey their first stop in the design process.

DigiKey is a single source for all aspects of technology innovation, including bare PCB boards, automation and control, test and measurement, IoT solutions and virtually all things related and adjacent to technology innovation, all through a singular shopping experience, with the DigiKey Marketplace.

DigiKey is always developing new ways to make it easier for customers to digitally engage, including localizing their experience in markets around the world with local language, currency and support, as well as fast shipping times, in order to remove barriers for global customers.

From prototype to production, DigiKey accelerates progress for every engineer, designer and builder. We are committed to providing our customers digital experiences and solutions that move goods and ideas forward. Learn more at www.digikey.com.

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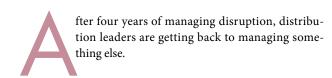
we get technical

SS ECIA MEMBER



Distributors Get Back to Business

After (mostly) untangling the supply chain, industry leaders look to artificial intelligence and strategy to lead the way forward.



DISTRIBUTION.

As economic challenges begin to level out—and despite a fractious global landscape—the business of global distribution has shown signs of rebounding smartly to pre-pandemic levels. Fueled by a surge in the use of technologies such as artificial intelligence and the Industrial Internet of Things, distributors are optimistic that the industry is ready for a resurgence.

"We are seeing the inventory in the supply chain start to burn off but expect that it will take into the third or fourth quarter before inventory levels are at normal levels," says Don Akery, CEO of Waldom Electronics. "Our growth will come from the addition of leading (interconnect, passive and electromechanical) suppliers to our line card. We have added 18 new suppliers in the last 18 months that will drive our growth in 2024."

"Discerning observers have reason for optimism," says Bill Bradford, president of Flip Electronics, in a recent interview with Supply Chain Connect. "Positive indicators include the emergence of new technologies, encouraging pricing trends, and lead-time projections. While challenges are anticipated, their impact is expected to be manageable."

The turmoil of the last four years created a surge in demand, but it largely was a reactive surge as new products flooded the market to meet pandemic challenges and other parts were stranded due to shipping and quarantine restrictions. That forced a rapid pivot to new product sources and a new service of distribution partnerships.

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4 2024 DISTRIBUTION OUTLOOK

Delivering Parts

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Supply Chain Connect



TTI - Electronics Components Specialistsfor 50 Years

TTI, Inc., a Berkshire Hathaway company, is the world-leading specialty distributor of electronics components. Paul Andrews, founder and the company's first CEO, started TTI at his kitchen table in 1971, and today it employs more than 7,300 people at more than 136 locations throughout North America, South America, Europe, Asia and Africa.

TTI's corporate journey began with the distribution of passive components such as resistors, capacitors, and inductors. The company's success with these critical parts of electronic circuitry led to expansion into the interconnect business. Today, TTI is an industry leader in connector distribution providing certified military and aerospace connection systems for high-performance aircraft, to the phone charging connection in a jetliner's passenger armrest, as well as on-board and off-board connectors for data, power, media and control.

Other components in TTI's specialized inventory include discrete semiconductors, potentiometers, trimmers, EMC and circuit protection components, wire and cable, wire management, identification products application tools, switches, sensors and electromechanical devices. These products are distributed from a specialized line of the industry's premier manufacturers that include TE Connectivity, Vishay, Molex, Amphenol, KEMET, AVX, Aptiv and TDK.

A key element of the many services and value-added offerings TTI provides is the company's supply chain management expertise. The company maintains more than 3 million square feet of warehouse space around the world housing over 850,000 component part numbers. TTI's combination of Specialists, proprietary Advanced Inventory Management (AIM) platform and the indus-



try's deepest and broadest product inventory ensure their customers get high-quality components, world-class service, lower costs, continuity of supply and peace of mind.

Pioneering one of the electronics industry's first Total Quality Management (TQM) programs, TTI Quality Improvement Teams monitor and continually improve the efficiency of an operation that last year shipped more than 90 billion components. TTI's proprietary Warehouse Control System (WCS) has been developed to seamlessly link the company's global network of warehouses through a single inventory management system. And TTI Application Programming Interfaces (API) allow distributor and customer machine-to-machine access to inventory, pricing and order placement in real-time.

TTI also strives to be the industry's preferred information source by offering the latest IP&E technology and market information through online Markets and Technologies Resource Centers, and tti.com/MarketEYE, which includes articles by subject matter experts, technical seminars, RoHS, industry research reports and more.

For the last half-century, TTI has been a preeminent player in the electronics industry. Its customers rely on proven expertise and ready-to-ship inventory from the premier names in electronics components. With recent warehouse expansion in North America, South America, Europe, Asia and Africa, TTI is well-positioned to serve the next generation of manufacturers creating electronic breakthroughs and the technologies they bring to the world.

TTI's goal is the same today as when it was envisioned five decades ago: to be the most preferred electronics distributor of their customers and supplier partners, delivering the right parts exactly on time - to be the best, not the biggest.

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It's The Human Component that sets TTI Apart





SAGER ELECTRONICS, 135 YEARS AND COUNTING

ager Electronics is a leading North American distributor of Interconnect, Power, and Electromechanical products and custom solutions provider. Grounded in over 135 years of innovation and service, Sager provides customers and suppliers a unique combination of operational excellence and innovative business solutions through its Distributin Confidence® business model.

Proud Tradition of Innovation and Service

Sager Electronics began in 1887 as a single storefront in downtown Boston that serviced the growing interest in radio technology. Under the vision and leadership of Joe Sager, the company rapidly established a statewide distribution system for home radios and related components. Despite the onset of the Great Depression, Sager continued to grow by bringing new electrical products to Massachusetts' consumers.

From Retailer to Distributor

At the onset of WWII,
Sager reacted to the critical
demand for electronic
components. The company
refocused its operations to
supply electromechanical
components to the U.S.
military. This transition
positioned Sager to emerge
as the leading regional
electronic component
distributor at the beginning
of the consumer electronics
market in the 1950s and 60s.

From Regional to National Prominence

Anticipating the explosive growth in electronics, in 1977, we relocated our headquarters to more spacious facilities in Hingham, MA and began building a national network and infrastructure. This included the prudent acquisition of smaller regional distributors and the creation of regional support facilities to service our expanding network of customers and suppliers.

In 2012, Sager Electronics was acquired by TTI Inc.,

a Berkshire Hathaway Inc. company. As a wholly owned subsidiary of TTI Inc., Sager operates independently and has made a number of acquisitions to support its business. In June 2014, Sager acquired PowerGate LLC, a premier North American power specialist distributor. This acquisition preceded Sager's 2015 purchase of Norvell Electronics, a North American power products distributor with extensive design and valueadd capabilities. Sager acquired Power Sources Unlimited Inc. in 2017. and in 2019 completed the acquisition of Technical Power Systems, a battery custom solutions provider.

Headquartered in Middleborough, MA, Sager operates a network of field sales representatives and power systems sales engineers, strategically located service centers across North America, two state-of-the-art distribution centers, and custom design and manufacturing facilities.



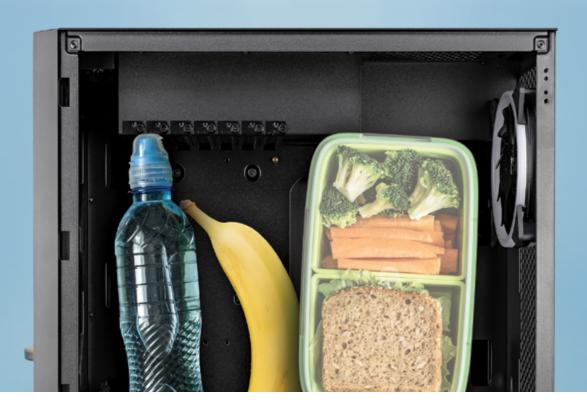
From National Prominence to Distributing Confidence®

For over 135 years, the key to our success has been our constant commitment to exceeding the expectations of our customers. Our DistributingConfidence® business model puts our customers' needs atthe center of all our activities. From our customized services like bonded inventory programs, VMI, BOM quoting, credit, inventory management and value-added capabilities to our branded line card of authorized manufacturers, Sager Electronics is a full partner with our customers.





WHEN AN OFF-THE-SHELF SOLUTION JUST WON'T DO, YOUR **LATEST INNOVATION** MAY AS WELL BE A LUNCHBOX.





LET US HELP

From simple modifications to high-complexity designs, ISO-certified Sager Electronics specializes in solving problems. As a trusted advisor, we go beyond fulfillment to add value in the areas of power, battery, thermal, connector and electromechanical for a wide range of markets and applications. With quick-turn prototyping, product safety testing, and assembly in the USA, our experienced team can guide you through the entire engineering process — all with faster time to market and higher reliability than a typical custom build.

MODULAR POWER | POWER SUBSTATIONS | POWER BOARDS BATTERY DESIGN & PACKS | THERMAL | DIN RAIL ASSEMBLIES & ENCLOSURES | SIMPLE MODIFICATIONS





Supply Chain Connect

(Continued from page 4)

What is left in the wake of these rocky seas is a more deliberate, resilient and flexible supply chain that today might be better poised to take on any future challenges. The infusion of technology, a fresh look at parts sourcing and a view of more value-added services has the distribution channel poised for more general growth.

"We believe that there was lesson learned on balancing inventory turns and meeting customer delivery expectations," Akery says. "The members of the supply chain have adjusted inventory levels and will continue to hold more inventory than pre-pandemic. Many end-customers have adjusted their supply chains to include increased support from the distribution channel."

"This recovery is anticipated due to the rectification of prolonged lead times and improved overall availability," Bradford says. "The industry is diligently addressing the backlog of inventory, leading to stabilized prices and more manageable lead times. While pockets of chaos may persist, predictability is close to becoming the norm rather than the exception."

That sentiment was echoed by Margaret Cunha, senior director of supply chain solutions at DigiKey, in a recent interview with Supply Chain Connect. "Many of the passive components are getting a lot better," Cunha says. "Some of the semiconductor components are improving. We still have a couple of issues—at a high level—throughout the commodity picture, but overall, we're down over last year. I think most manufacturers as well as suppliers are feeling that 2023 is ending not as well as everybody wanted it to, but coming out of the last couple years, I think that's not too bad."

One market that continues to make headlines around current and future technology is the automotive industry, and Colin Strother, executive VP for Rochester Electronics, has a good reason to be optimistic about that vertical. "Although models may change year to year, the underlying components and assemblies can remain in use for many years," he says. "Often a 10-year minimum lifecycle is a mandated requirement. However, with the life expectancy of many vehicles extending well beyond 10 years, product manufacturers need to address lifecycles over the production, aftermarket and repair requirements."

There remains some unease over the current armed conflicts in Ukraine and the Middle East. "The current geopolitical tensions and potential escalation of conflicts pose significant concerns for the global economy," says Aaron Dufoe, Chief Operating Officer for NewPower Worldwide. "Any regional conflicts or tensions could have a substantial impact on the global supply chain, with wafer foundries and semiconductor manufacturers reducing or ceasing production due to ongoing warfare. In preparation for potential worst-case scenarios, we must anticipate logistical disruptions and challenges posed by geographic restrictions in 2024."

That's a sentiment echoed by Luke LeSaffre, CRO at Fusion Worldwide. "There is a degree of uncertainty around the global economy," he states. "We're seeing a lot of demand weakness everywhere but the U.S., including Germany and China. The U.S. may have avoided a recession altogether, but there is some question as to how long growth will persist.

"Given the state of interest rates, worsening geopolitical trends and the open question of whether current growth is just the result of a COVID-era hangover, the bigger picture has gotten worse in 2023," LeSaffre continues. "Our most significant risk in the coming year is the same risk we constantly face in this business when navigating a tumultuous landscape—creating stability in a market that is always moving."

THE RISE OF AI

A combination of technology and strategy is what will take distribution from unpredictability to stability to growth. The technology part is driven by the rise of artificial intelligence (AI) which is moving inventory and supply decisions into the realm of science, mixed with a little bit of art.

"Suppliers will use AI to better analyze their suppliers and to identify the potential issues in advance of a manufacturing stoppage," Akery notes. "They will be able to identify these issues while there is still time to react and solve the issue before disaster happens." Akery sees AI as a primary tool for distributors within the next two years.

"Software and digital are the trends that are not going away," Cunha adds. "Machine learning and AI is where the focus is going for procurement. The challenge is trying to understand how to best utilize it, how to implement it, and then, more importantly, how to make sure that once you invest in the technology, your internal processes change so that you're not investing, as an example, in a high-end car but you continue to walk to work."

"For distributors, AI presents clear functionality in promptly addressing inquiries that meet predefined criteria, allowing human interventions to focus on more complex issues," Bradford says. "In the coming year, efforts will be concentrated on aiding suppliers and customers in maintaining a competitive edge by furnishing comprehensive information on trends, inventory metrics and supply chain dynamics—where AI will play a pivotal role."

"We see a tremendous opportunity in digital transformation," Strother states. "We must meet customers where they are by providing them with various online and offline services. To meet and exceed customer needs, Rochester invests heavily in digital products, platforms and services, including Trusted AI. We aim to deliver real-time personalized service at scale, in the global languages."

Fusion Worldwide is another company looking to add customer-facing technology. "For the new year, this means we are

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Supply Chain Connect

(Continued from page 10)

focused on the digital marketplace," LeSaffre says. "We are set to launch an e-commerce platform to serve a broader array of customers in new markets while providing existing customers with improved ways to engage with Fusion Worldwide. This project is three years in the making, and we are now activating its capabilities to engage with customers in a whole new way to leverage its capabilities."

That expectation is borne out by data from the recent Supply Chain Connect Salary & Career Trends survey. The use of AI has doubled among survey respondents, from 17% in 2022 to 33% in 2023. More than three-quarters of respondents say that the interconnectivity of the Industrial Internet of Things will streamline operations. Most survey respondents also do not seem to feel the continuing move toward digitization will have a long-term impact on human jobs.

And it is that combination of technology and humans that Cunha is especially interested in. She says that while you can use technology to fulfill your strategy, setting the strategy is still a human endeavor.

"If you're going to invest in technology, you also want to make sure that your processes are improving with that technology and that you're not continuing to alter Excel spreadsheets, for example," Cunha emphasizes. "If you're going to make the investment in a digital transformation, you also want to make sure that you have the time and labor savings from it and that there's an advancement in your overall processes.

"Supply chain is already complex enough," she continues. "But if you can align with a digital process and make daily tasks more system-oriented so that the digital system is doing the heavy lifting, then you can deal with the exceptions and supply chain professionals and procurement professionals will do much better in 2024 and beyond."

VALUE-ADDED SERVICES

Another trend is the value-added services many distributors have included to maintain regular contact with the customer, and by extension, remain connected to their specific distribution needs. Services such as custom design and engineering services further extend the connection and provide some smaller and mid-sized customers access to the skills they may not have in-house.

"Identifying and partnering with a value-added distributor is actually commensurate to an emphasis on cost/price," says Gerard Magnarelli, sales manager, Americas at Fusion Worldwide, in a recent interview with Supply Chain Connect. "A distributor like Fusion can bolster a company's flexibility to not only reduce component cost per transaction, but more efficiently manage inventory, thereby reducing carrying costs.

"When companies have access to extensive, real-time market information and distributors that empower them to be lean and achieve cost reductions, they can work smarter, better and faster in any business condition," Magnarelli adds.

"As prices and availability continue to fluctuate, it's essential that customers work with authorized suppliers who genuinely have their success in mind," Strother adds. "Authorized suppliers who practice strict price discipline and provide proactive data-driven solutions can enable customer success throughout every aspect of the cycle."

Mike Slater, Vice President of global business development at DigiKey, noted that value-added distribution provides benefits beyond just products. "Value-added distributors connect procurement professionals to millions of products, software and solutions every day," he says.

"We have high expectations for sustained growth, both globally and specifically in the North American market, throughout 2024," said Scott Giacalone, USA sales manager for NewPower Worldwide. "This is primarily due to our strong and deep relationships with our customer base, which enables us to drive value in all aspects of their supply chain and material needs. By offering comprehensive solutions such as excess mitigation, managed inventory programs, BOM analysis, costsavings programs and shortage mitigation, we position ourselves as a reliable partner capable of providing a multi-faceted approach to address supply chain challenges."

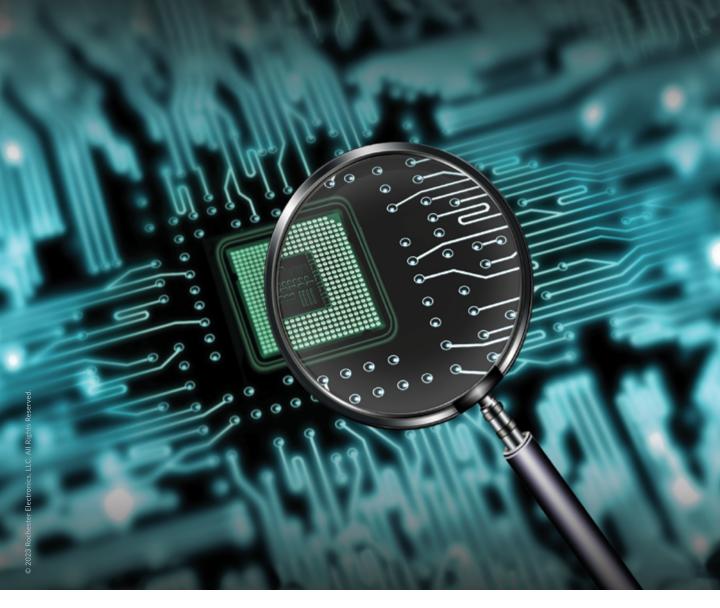
"The industrial market has changed dramatically as the industry has globalized. Regional standards have evolved into international standards, with designs supporting legacy and new equipment compatibilities," Strother says. "As a result, legacy equipment lifecycles are extended, as customers seek to optimize initial investments, aligning with our ability to provide an ongoing source of supply of EOL components."

"Look internally. Work with your engineering staff. Make sure that your bill of materials and the components that you're going to be procuring are as stable as you possibly can make it," Cunha concludes. "Because nothing is ever going to remain stable, but you want supply chain resiliency."

By Bob Vavra Contributing Editor

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YOUR DEFENSE AGAINST COMPONENT OBSOLESCENCE.

When facing critical component EOL and obsolescence for long-life applications, think Rochester Electronics; the experts in providing dependable and trusted long-term semiconductor lifecycle solutions.





SERVICES



PROCUREMENT

Our global network includes relationships with manufacturers, franchised, and independent distributors. We have everything you need.



DESIGN AND ENGINEERING

Chip 1 Exchange provides solutions in today's complex and challenging times. Our services are specific to identifying customer pain points and delivering the results whenever needed.



SHORTAGE MANAGEMENT

Chip 1 Exchange is the premier expert when it comes to shortage management. We provide sourcing of different components (end of life, obsolete, and difficult to locate) with minimal lead times for your convenience.



EXCESS MANAGEMENT

Chip 1 Exchange offers high-standard solutions for inventory management and cost reduction.

WHY CHOOSE US?

COMPANY BACKGROUND

Chip 1 Exchange is a franchised distributor specializing in the distribution of electronic components for medical, automotive, industrial, military, mobile computing and aerospace applications. From off the shelf standard electronic products to full custom solutions, we desire our customers to enjoy a one-stop-shopping experience.

WORLDWIDE NETWORK OF SUPPLIERS

Serving customers globally since 2001:

Brazil Mexico
Canada Philippines
California Shanghai
Germany Texas
Hong Kong

CERTIFICATIONS











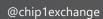
















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FULL SERVICE DISTRIBUTOR OF ELECTRONIC COMPONENTS

















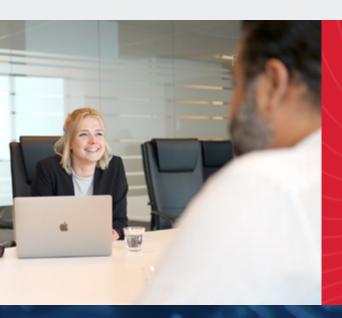


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- Excess inventory, shortage, and IT asset disposition services
- Serving multiple industries including automotive, mobile, and computing

With more than 20 global offices and 4 regional distribution hubs, Smith is at home all over the world, offering localized support to our customers as the leading electronic components distributor.



The Smith Advantage

Powering innovation and connecting supply chains



Smith has **decades of experience** navigating every segment of the global electronics market. With this foundation, we **keep your supply chain moving** by connecting you to the **electronic components**, **services**, **and insights you need**.

9.5B+ Parts Shipped

We have shipped more than 9.5 billion parts in the last five years, 350% more than the previous five years.

\$12.5B Revenue

We have earned more than \$12.5 billion in revenue in the last five years, a 200% increase over the previous five years.

100+ Countries

Smith serves customers in more than 100 countries worldwide.

\$4M Investment

In 2022, Smith invested more than \$4 million in new testing equipment, doubling global testing capacity.

Founded: 1984

Worldwide headquarters: Houston, TX

Global offices: 20 Operational hubs: 4









Executive Perspectives: Marc Barnhill - Smith & Associates

Marc Barnhill, CEO of Smith & Associates, shares his decades of industry knowledge as he provides insights into how his company has navigated the tumultuous cycles of recent memory and how to prepare oneself for the cycles to come.

This interview was edited and formatted for clarity.

Tyler Fussner, Managing Editor, Supply Chain Connect

You touched on how you have got to lean into preparation, understanding that cycles are going to happen again. This is nothing new. The last cycle that we did come out of certainly seemed to shake things up. Coming out of that cycle, what were the biggest takeaways for your company? For the industry at large? More specifically, what is different in the industry today that wasn't the case just two years ago or so because of this last cycle?

Marc Barnhill, CEO, Smith & Associates

I think a lot of our customers are in the mode of "never again." And by "never again," I mean "Never again will I be this unprepared for a situation like this." And so, what we're offering to our customers now is the partnership that we've already engaged with several of our larger customers, which is, "Let us be there for you for inventory assurance." And by inventory assurance, I mean don't get caught like this again. Take your biggest high-dollar components and let us manage the inventory for you. It's kind of like how you don't want to be owning a coastal property with a Category 5 storm out

there. And when a Category 5 storm is forecast, it's too late to get insurance. So, by the time you're in an upside-down supply chain, it's a little too late to run in and go, "No, no, no, we need to be prepared for this."

You've got to prepare now. It's a mindset change. There are some companies that are embracing that mindset change and they are using us and working with us and planning with us and strategizing to make sure they're never caught in the same situation that they encountered in 2021 and 2022. But some of these companies are old and established and it's hard to change the mindset there. It's like, "This is the way we've done it for 50 years."

But any amount that would be paid to us to manage your inventory would pale in comparison to the drastic overages that were paid in 2021 and 2022. These companies... I can't imagine what the total overages spent were, globally. It has to be in the billions.

Click here to listen to the full Innovation Destination – Executive Perspectives: Marc Barnhill episode.

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22 2024 DISTRIBUTION OUTLOOK

Supply Chain Connect



Executive Perspectives: Mike Slater - DigiKey

How has the electronic components industry ended up at the close of 2023 and what is in store for 2024? Mike Slater, VP of Global Business Development at DigiKey, discusses what procurement professionals can anticipate in the coming months and the technologies available to be leveraged for successful operations.

This interview was edited and formatted for clarity.

Tyler Fussner, Managing Editor, Supply Chain Connect

As it relates to the electronic components industry specifically, do you see any certain verticals that are more poised for growth in 2024? And conversely, any certain verticals that maybe could see a reduction in activity?

Mike Slater, Vice President of Global Business Development, DigiKey

2024—it's going to be a year of innovation and new customers. DigiKey is really pleased to help support the push for new product launches. I would say wireless connectivity, industrial automation, electrification, smart sensors, rapid prototyping—those are all key driving trends that we see that we touch every day.

I don't have a crystal ball. We talk about this a lot for what we're expecting as far as specifics in the market for 2024, but we do expect to get back to growth for the overall electronics industry. And as I mentioned, we believe we've really worked hard in 2023 to set ourselves up to, quite honestly, outperform the market in 2024.

You asked about certain verticals that might see a reduction in activity. There's been a surge of new product introductions targeted at every industry. 2020 to 2022, suppliers were really focused on driving and taking care of the demand that they had, so we didn't see as many new product introductions as

we had in previous years. But that accelerated in 2023 and we really think it's going to continue to accelerate in 2024. That fits us and our customers very well. These new product introductions will drive our customer count and general business across the board.

I don't know that there's anything that I would say that we're going to see a reduction in activity, because there's just so much innovation and so much new product introductions targeted at every industry. We see that really accelerating the progress and the business for engineers and designers in all areas.

Fussner

And if the industry is to expect more innovation and growth, I want to ask your perspective on how procurement professionals in the electronics space can really prepare for next year. What should be atop their priority list in order to be more strategic and proactive in the new year?

Slater

Electronic components and automation products—they're more plentiful than they had been in 2021 or 2022. I think it's a really good time to identify alternative parts through tools like DigiKey's myList and other online solutions that we have. I don't think it's a good idea to wait until it's crunch time or there's another supply chain issue to start to prepare for what we know is pretty much inevitable in the future. This business is cyclical in nature. And with the proliferation of electronics in everything, we know we will see demand at levels above supply in the future. So, now's the time to prepare for when that supply is short. Get yourself ready for that next cycle.

Click here to listen to the full Innovation Destination – Executive Perspectives: Mike Slater episode.

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NewPower Difference



2022 Revenue \$2.14B



Credit Facility \$325M



Fully Insured \$75M



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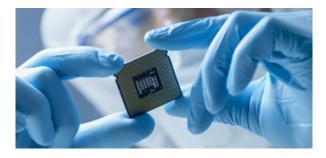


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Q&A with Jeff Ittel, Flip Electronics EVP





1. WHAT DO YOU EXPECT IN TERMS OF REVENUE GROWTH IN 2024?

We are seeing signs of the market stabilizing and returning to growth in 2024. The proliferation of semiconductor technology in all aspects of our lives is a strong foundation for continued growth.

2. HOW BULLISH/BEARISH ARE YOU FOR BUSINESS IN 2024, AND WHY?

While challenges are anticipated in the industry for 2024, there is an overall sense of optimism driven by positive indicators such as the emergence of new technologies and improved lead-time projections, which are expected to have a favorable impact on business outcomes.

3. WHAT ARE YOUR EXPECTATIONS FOR NORTH AMERICAN REVENUE GROWTH IN CY2024?

Expectations are optimistic for North American revenue growth in CY2024, fueled by factors like the integration of artificial intelligence in the supply chain, which is set to streamline processes and enhance efficiency, contributing to positive financial outcomes.

4. WHAT ARE YOUR EXPECTATIONS FOR ASIAN MAR-KET REVENUE GROWTH IN CY2024?

Positive expectations surround Asian market revenue growth in CY2024, driven by innovations like 5G, the Internet of Things (IoT), and artificial intelligence, which are poised to contribute to operational efficiency and boost the semiconductor market in the region.

5. WHAT ARE YOUR EXPECTATIONS FOR EUROPEAN MARKET REVENUE GROWTH IN CY2024?

We have seen the European market remain relatively stable when compared to the other regions in 2023. Optimistic expectations extend to European market revenue growth in CY2024, led by AI as well as the industrial, aerospace, and automotive segments.

6. WHAT IS YOUR CAPITAL INVESTMENT PRIORITY IN 2024? (E.G., INVENTORY EXPANSION, DIGITAL MAR-KETPLACE, NEW PRODUCT CATEGORIES, NEW END MARKETS, ETC.)

Flip will continue to invest in our business as we scale our business and enhance our customer experience. In 2023,

we successfully implemented and brought up a new ERP system. In 2024, we will focus on geographic expansion in the European and Asia regions, launch our new E-Commerce platform, and continue to expand our product and service offerings with several exciting announcements coming in the next few months.

7. WHAT IS THE MOST SIGNIFICANT BUSINESS OPPOR-TUNITY FOR YOU IN 2024?

The combination of new technologies, such as artificial intelligence and the evolving semiconductor landscape, is anticipated to propel the industry forward and open avenues for growth. In addition, Flip is very excited to be expanding our footprint in other regions beyond the Americas.

8. WHAT IS THE MOST SIGNIFICANT RISK YOU ARE FACING IN 2024?

Obviously, we cannot ignore the Geopolitical forces that can impact all industries. We also continue to see significant risks for the supply chain as product discontinuance notices (PDNs) or end-of-life (EOL) notifications show no sign of slowing down. This poses challenges to industries with products characterized by prolonged life cycles, necessitating a focus on design for manufacturability and strong relationships within the distribution chain. Flip will continue to focus on solutions aimed at offering solutions to reduce these pain points.

9. WHICH END MARKET SEGMENTS (AUTOMOTIVE, AVIATION, COMMUNICATIONS, COMPUTING, INDUSTRIAL, MILITARY, ETC.) DO YOU THINK WILL PROVIDE THE STRONGEST GROWTH OPPORTUNITIES IN 2024 AND BEYOND?

Strong growth opportunities in 2024 and beyond are expected in the automotive and industrial end market segments, with the automotive semiconductor market forecasted to reach \$114 billion by 2030, reflecting a compound annual growth rate (CAGR) of 11.8%.

10. IS FLIP ELECTRONICS PLANNING ANY MERGERS OR ACQUISITIONS IN 2024?

Flip is committed to continuously adding new partnerships to our portfolio. We are actively looking for new technologies and service offerings that lend to our ability to prolong lifecycles for our customer's products.

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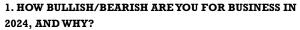




Supply Chain Connect



Q&A with Luke LeSaffre – CRO, Fusion Worldwide



As we reflect on the supply and demand landscape of 2023, we look ahead to the next year through a wider lens for our business and intend to be moderately bullish with our approach. When we expand the picture, we are looking at the supply and demand fluctuations of the current landscape—which overall shows how supply is abundant, and demand is weak—and the long-term drivers that will carry into early 2024. This current imbalance, combined with the outlook for inventory digestion in 2024, results in a moderately bullish year for business.

2. WHAT IS YOUR CAPITAL INVESTMENT PRIORITY IN 2024? (E.G., INVENTORY EXPANSION, DIGITAL MARKETPLACE, NEW PRODUCT CATEGORIES, NEW END MARKETS, ETC.)

We are always investing in new ways to improve our business and go above and beyond to add value to our customers' supply chains. For the new year, this means we are focused on the digital marketplace. We are set to launch an e-commerce platform to serve a broader array of customers in new markets while providing existing customers improved ways to engage with Fusion Worldwide. This project is three years in the making, and we are now activating its capabilities to engage with customers in a whole new way to leverage its capabilities.

3. WHAT IS THE MOST SIGNIFICANT BUSINESS OPPORTUNITY FOR YOU IN 2024?

In addition to launching our e-commerce platform, we see 2024 oriented toward system-level commodity products as compared to board-level semiconductors. Given what we expect to be a strong year for **computing** (a product category Fusion has historically done very well with), we should be in a position to weather what will probably be a somewhat challenging year for standard ICs and semiconductors.



4. WHAT IS THE MOST SIGNIFICANT RISK YOU ARE FACING IN 2024?

There is a degree of uncertainty around the global economy. We're seeing a lot of demand weakness everywhere but the U.S., including Germany and China. The U.S. may have avoided a recession altogether, but there is some question as to how long growth will persist. Given the state of interest rates, worsening geopolitical trends, and the open question of whether current growth is just the result of a COVID-era hangover, the bigger picture has gotten worse in 2023. Our most significant risk in the coming year is the same risk we constantly face in this business when navigating a tumultuous landscape—creating stability in a market that is always moving.

5. WHICH END MARKET SEGMENTS (AUTOMOTIVE, AVIATION, COMMUNICATIONS, COMPUTING, INDUSTRIAL, MILITARY, ETC.) DO YOU THINK WILL PROVIDE THE STRONGEST GROWTH OPPORTUNITIES IN 2024 AND BEYOND?

Military and **aviation** are significant areas for growth with the recent geopolitical events. Demand for hardware to support the ongoing conflicts is tremendous. Although well-documented, structural shortfalls within the industry make it difficult to penetrate, we're still making significant investments in these segments because we expect growth.

2024 will also be a big year for **computing**, which has been challenging for the last two years. AI is a major part of that, but 2024 is also shaping up to be a better year due to typical cycles of technology upgrades and refreshes. **automotive** will be challenging in the short term, but we intend to devote a good amount of time to it, because of long-term opportunities. 2024 is a muted outlook but one that we think we'll recover from quickly.

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NEW?OWER

What is the most significant business opportunity for you in 2024?

Carleton Dufoe, Chief Executive Officer, NewPower Worldwide

NewPower is committed to delivering outstanding service and support to customers across all industries. With increasing demand and extended lead times, we recognize the immense potential in our current markets. Furthermore, emerging



markets offer additional growth opportunities. In 2024, NewPower is well-equipped to guide and empower our customers to succeed in this market landscape. We maintain a strong and transparent financial foundation, a robust balance sheet and audited financials. This financial wherewithal ensures we can support our customers and honor our commitments.

What are your expectations for Asian market revenue growth in CY2024?

Mark Goh, VP Trade, APAC, NewPower Worldwide

In 2023, the market experienced a healthy correction after a global component shortage lasting over 2 years. As our customers work to balance their oversupply situations, we have observed significant demand cuts and price drops throughout the year.



Looking ahead to 2024, we are confident that the worst is behind us, based on discussions with our major customers and suppliers. The Asian market is expected to lead the revenue rebound, with a noticeable increase in customer activities and transactions in Q4 2023. We have made substantial investments this year, including opening new offices, expanding existing ones, enhancing our logistic infrastructure and hiring talented individuals across departments. Notably, we have increased our Sales and Purchasing headcount in APAC by 50% and tripled our warehouse space in Singapore and Hong Kong compared to 2022. These investments are already yielding positive results, allowing us to reach more customers and suppliers in APAC and instilling confidence in our ability to deliver on time, every time.

What are your expectations for European market revenue growth in CY2024?

Martijn Fonkert, General Manager, EMEA. NewPower Worldwide

Coming out of one of the industry's longest and most challenging shortages, the supply chain landscape remains dynamic. NewPower is well positioned to continue supporting our customers in this ever-



evolving market. In 2023, we successfully navigated the transition from a global shortage to an oversupply, and in 2024, we are prepared to address new challenges that arise. Our focus will be on assisting our customers in mitigating inventory risks, implementing strategic buffering strategies and resolving spot issues that are expected to persist. Despite the changing market conditions, we anticipate continued growth in 2024, driven by our strong partnerships with key customers and suppliers. This year presents an opportunity for us to further optimize our customers' supply chains by expanding our portfolio of services, offering a diversified range of solutions that address their unique needs.

What are your expectations for North American revenue growth in CY2024?

Patrick Deware, VP Strategic Accounts, NewPower Worldwide

NewPower is thriving amidst the recent historic component shortage, challenging traditional supply chains and creating disruption in the market. Our unique approach and focus on customer-oriented solutions set us apart. We have been



successfully gaining market share from conventional distribution entities and offering significant value to our customers through our inventory management solutions. In contrast to franchise distributors, who impose high upfront fees and lack flexibility, we have become a trusted supply partner managing over \$1B in inventory. Our proprietary technology platform, EMPOWER™, ensures direct fulfillment with real-time updates and round-the-clock global support. We will continue investing in programs that make us a top-tier supply chain partner, maintaining our competitive edge and fueling our growth as the leading independent supplier worldwide for the past eight years.

How bullish/bearish are you for business in 2024, and why?

Jon Henry, VP Strategic Accounts, NewPower Worldwide

We believe the market will be predominantly bullish, and NewPower is well positioned to thrive in this environment. We are already observing upward trends in core commodity areas and the growth of sectors like EV demand, data center



demand, and Al. These industries are interconnected and call for increased electronic component supply. What sets NewPower apart is our agility and ability to pivot quickly to meet changing supply and customer demands. With our advanced technology and global presence, we are well-equipped to adapt and provide services where they are most needed. This positions us for success not just in 2024, but in the future as well.

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30 2024 DISTRIBUTION OUTLOOK



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Company	Founded	Headquarters	Locations	Employees	2022 Global Revenue
Arrow Electronics, Inc.	1935	Centennial, CO	200+	22,300	\$37,124,422,000
2. WPG Holdings LTD	2005	San Jose, CA	100+	5,000+	\$25,000,000,000
3. Avnet Inc.	1921	Phoenix, AZ	300+	15,300	\$24,300,000,000
4. Future Electronics *	1968	Quebec, Canada	170	6,000	\$6,000,000,000
5. Digi-Key Electronics	1972	Thief River Falls, MN	10	5,000	\$5,100,000,000
6. Smith	1984	Houston, TX	18	800+	\$4,800,000,000
7. Mouser Electronics	1964	Mansfield, TX	27	3,803	\$4,085,300,000
8. TTI, Inc.	1971	Fort Worth, TX	136	4,000	\$3,650,000,000
RS Group formerly Allied Electronics & Automation	1928	Fort Worth, TX	40+	6,600+	\$3,077,000,000
10. Fusion Worldwide	2001	Boston, MA	19	Approx. 600	\$3,000,000,000
11. NewPower Worldwide	2014	Nashua, NH	13	128	\$2,140,000,000
12. Newark Farnell	1934	United Kingdom	60 offices, 8 dist. centers	3,300	\$1,800,000,000
13. Rutronik	1973	Germany	82	1,800+	\$1,300,000,000
14. DAC - Heilind	1974	Wilmington, MA	74	2,200	\$1,299,000,000
15. A2 Global Electronics + Solutions			13	500+	
	1978	St. Petersburg, FL	20	364	\$1,145,000,000
16. Sourceability	2015	Doral, FL			\$970,000,000
17. Master Electronics	1967	Phoenix, AZ	14	660	\$628,000,000
* Rochester Electronics	1981	Newburyport, MA	18	780	Privately Held
18. Win Source	1999	China	7	230+	\$613,000,000
19. Chip 1 Exchange	2001	Fort Worth, TX	6	400	\$500,000,000
20. Sager Electronics	1887	Middleborough, MA	10	395	\$459,000,000
21. Classic Components Corp.	1985	Torrance, CA	16	130	\$408,000,000
22. Sigma Technology Group	2007	Hong Kong	7	130	\$330,000,000
23. Bisco Industries	1973	Anaheim, CA	52	533	\$306,000,000
24. PEI-Genesis	1946	Philadelphia, PA	14	800	\$296,300,000
25. RFMW Ltd.	2003	San Jose, CA	31	208	\$296,000,000
26. Powell Electronics Inc.	1946	Swedesboro, NJ	8	266	\$267,470,000
27. Electro Enterprises Inc.	1970	Oklahoma City, OK	4	350	\$198,838,000
28. Richardson Electronics	1947	Geneva, IL	NA	380	\$163,800,000
29. Direct Components, Inc.	1998	Tampa, FL	1	92	\$156,148,000
30. Flip Electronics	2015	Alpharetta, GA	3	95	\$153,600,000
31. Symmetry Electronics	1998	El Segundo, CA	4	90	\$125,000,000
32. Steven Engineering	1975	South San Francisco, CA	3	131	\$121,475,000
33. Hughes-Peters	1921	Dayton, OH	10	160	\$117,000,000
34. IBS Electronics Inc.	1980	Santa Ana, CA	12	150	\$100,000,000
35. Flame Enterprises	1969	Chatsworth, CA	2	59	\$96,300,000
36. Galco Industrial Electronics, Inc.	1975	Madison Heights, MI	2	121	\$87,900,000
37. Marsh Electronics, Inc.	1935	Milwaukee, WI	8	137	\$76,316,000
38. Area51 Electronics	1999	Irvine, CA	4	72	\$65,334,000
39. Diverse Electronics	1993	Quebec, Canada	3	48	\$58,000,000
40. Brevan Electronics	1983	Nashua, NH	2	52	\$57,200,000
41. All Tech Electronics, Inc.	1993	Hawthorne, NY	2	36	\$56,000,000
42. Chip Stock LLC	2013	Charlotte, NC	2	18	\$48,400,000
43. Air Electro Inc.	1952	Chatsworth, CA	1	115	\$40,000,000
44. Nasco Aerospace & Electronics	2001	St. Petersburg, FL	3	29	\$38,016,000
45. March Electronics	1972	Bohemia, NY	2	40	
46. Suntsu Electronics, Inc.		Irvine, CA			\$32,700,000
<u> </u>	2002	· · · · · · · · · · · · · · · · · · ·	1	30	\$28,500,000
47. Jameco Electronics	1974	Belmont, CA	1	75	\$24,000,000
48. Marine Air Supply	1965	Frederick, MD	1	15	\$23,500,000
49. VRG Components, Inc.	2014	Charlotte, NC	1	20	\$22,432,000
50. Benchmark Connector Corporation	1996	Sunrise, FL	1	45	\$20,000,000



Q&A with Colin Strother, Rochester Electronics' Executive VP



1. WHICH MARKET SECTORS DO YOU SEE AS GROWTH, AND WHICH SECTORS WILL BE IN DECLINE IN 2024?

The semiconductor industry is notoriously cyclical. The average peak-to-peak of shipped units, excluding memory, over the last thirty years is around forty months. With the previous peak being February 2022, we can potentially expect to be at the bottom of the current cycle in October 2023.

Every cycle is different, and the recovery can be unpredictable, but we will see growth across all sectors in 2024.

Based on an expected increase of global smartphone sales, the consumer market should anticipate an improvement, however this may be sluggish.

We see more substantial growth potential in the hi-rel, industrial, and automotive sectors.

2. WHAT IS THE IMPACT ON COMPONENT AVAILABILI-TY AND PRICING DUE TO THE GROWTH AND DECLINE IN THE ELECTRONIC COMPONENT SUPPLY CHAIN?

As prices and availability continue to fluctuate, it's essential that customers work with authorized suppliers who genuinely have their success in mind.

Authorized suppliers who practice strict price discipline and provide proactive data-driven solutions, can enable customer success throughout every aspect of the cycle.

3. HOW WILL 2024 PERFORM REGARDING ALLOCA-TION, LEAD TIMES, INFLATION, OBSOLESCENCE, AND THE US ECONOMY?

Inventory levels will normalize in 2024, lead times will stabilize, as will inflation, although likely remaining above government targets. Semiconductor manufacturers will continue monitoring capacity and rationalizing product lines.

Working closely with a long-term end-of-life (EOL) solution provider, such as Rochester Electronics, is essential to weather instabilities. Our growing supply chain and onshore manufacturing capabilities allow us to solve supply chain disruptions and provide an ongoing supply source of critical components.

4. WHERE DO THE OPPORTUNITIES LIE RIGHT NOW, AND HOW IS YOUR COMPANY LEVERAGING THEM FOR THE YEAR AHEAD?

We see a tremendous opportunity in digital transformation. We must meet customers where they are by providing them with various online and offline services. To meet and exceed customer needs, Rochester invests heavily in digital products, platforms, and services, including Trusted AI. We aim to deliver real-time personalized service at scale, in the global languages.

5. WHAT ARE YOUR BUSINESS PRIORITIES IN 2024? (E.G., INVENTORY EXPANSION, DIGITAL MARKET-PLACE, NEW PRODUCT CATEGORIES, NEW END MARKETS, ETC.)

Customer success remains Rochester's business priority, as it has been since our founding in 1981.

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Supply Chain Connect

As prices and availability continue to fluctuate, it's essential that customers work with authorized suppliers who genuinely have their success in mind.

Authorized suppliers who practice strict price discipline and provide proactive data-driven solutions, can enable customer success throughout every aspect of the cycle.

Customers should expect to see major ongoing announcements from Rochester as we work closely with the semiconductor manufacturer partners that we proudly represent to deliver greater customer value.

6. WHAT IS YOUR MOST SIGNIFICANT MARKET OP-PORTUNITY IN 2024 AND YOUR BIGGEST CHALLENGE?

Our most significant market opportunities come from some of the longest served, aerospace, defense, and industrial.

For aerospace and defense, Rochester is a QML manufacturer, certified by DLA Land and Maritime to MIL-PRF-38535, offering Class Q and Class V microcircuits for military and aerospace applications. Offering onshore licensed manufacturing since the mid-1990s to ensure secure IP, we provide critical components to help safeguard security.

The industrial market has changed dramatically as the industry has globalized. Regional standards have evolved into international standards, with designs supporting legacy and new equipment compatibilities. As a result, legacy equipment lifecycles are extended, as customers seek to optimize initial investments, aligning with our ability to provide an ongoing source of supply of EOL components.

With many opportunities and exciting areas to focus on, our biggest challenge remains ensuring we select the most meaningful openings. By focusing on customer success as our business outcome, I'm confident we will deliver maximum efficiency.

7. WHICH END MARKET SEGMENTS (AUTOMOTIVE, AVIATION, COMMUNICATIONS, COMPUTING, INDUSTRIAL, MILITARY, ETC.) WILL PROVIDE THE MOST SUBSTANTIAL GROWTH OPPORTUNITIES IN 2024 AND BEYOND?

Having traveled extensively throughout China this summer, for the first time post-pandemic, I was amazed at the number of electronic vehicles (EVs) on the road. There is no doubt we will see an acceleration in global adoption in the coming years.

With this increase in volume, many semiconductor suppliers, such as Rochester, have begun to adhere to higher standards, such as IATF-16949 for quality management systems, AEC-Q100 for qualification testing, and ISO-14001 for environmental management.

Another critical requirement in the automotive industry is product longevity. Although models may change year to year, the underlying components and assemblies can remain in use for many years. Often a 10-year minimum lifecycle is a mandated requirement. However, with the life expectancy of many vehicles extending well beyond ten years, product manufacturers need to address lifecycles over the production, aftermarket, and repair requirements.

Rochester Electronics' focus on providing a continuous source of semiconductors strongly aligns with automotive manufacturers' long lifecycle and quality requirements.

The growing discussion around AI is believed to stimulate the industry. While I think it's too early to predict the overall effect on sales, this will hopefully become another growth accelerant.



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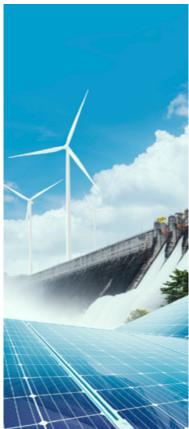














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Cost-effectiveness is a cornerstone of WIN SOURCE's service philosophy. By diligently optimizing its supply chain and leveraging strategic partnerships, the company ensures customers can access authentic, commonly used electronic parts without the high cost. WIN SOURCE's commitment to cost-saving procurement strategies empowers clients to maintain a competitive edge and enable them to respond flexibly to market changes.

WIN SOURCE is a treasure trove of electronic parts with over 1 million components from over 3,000 manufacturers. Its products serve multiple industries such as consumer electronics, automobiles, aerospace, industry, and medicine, ranging from integrated circuits and discrete SEMI components to circuit protection, sensors, transducers, capacitors, and connectors. Renowned manufacturers, including Maxim Integrated, Infineon, Altera, Analog Devices, Texas Instruments, Vishay, Xilinx, and On Semiconductors, trust WIN SOURCE as reliable distribution partners.

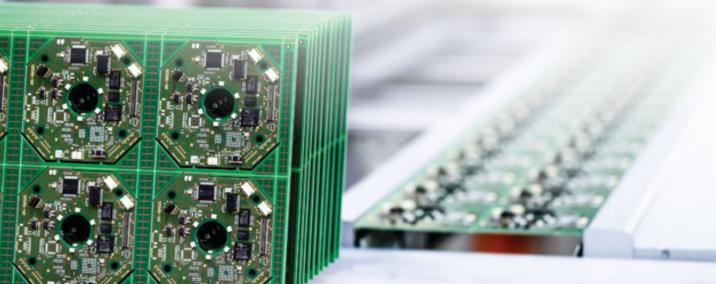
WIN SOURCE understands that time is of the essence. With a vast inventory of over a million products, they guarantee 24-hour shipment from their well-equipped warehouses. This

commitment translates into swift solutions for urgent needs. The 24-hour shipment promise reflects WIN SOURCE's dedication to operational efficiency and its recognition of the value customers place on timely delivery.

WIN SOURCE's commitment to excellence is exemplified by its extensive list of certifications, including ISO 13485, AS 9120 Rev A, ISO 9001-2015, ISO 14001, ISO 45001, and ISO 28000:2007 being some of many industry-leading certificates. These certifications testify to the company's dedication to quality, safety, and reliability across all operational aspects. As a member of ERAI, ASA, IPC, and SMTA associations, WIN SOURCE actively combats counterfeit products, ensuring that customers receive only genuine components.

As a customer-focused online superstore, WIN SOURCE continually enhances its services. The company offers a comprehensive suite of value-added services, including tape and reeling, component programming, and contract manufacturing. These services, performed by highly trained and experienced technicians in ESD-compliant warehouses, provide customers with a holistic solution for their electronic component needs.

WIN SOURCE is a reliable partner in the competitive world of electronic component procurement. With a rich history of providing efficient supply management, cost-saving strategies, and rapid sourcing and delivery, the company has firmly established itself as an industry leader. Its extensive certifications, commitment to quality, and focus on customer empowerment through value-added services further solidify its position as a trusted and forward-looking supply chain partner. As WIN SOURCE continues to evolve and expand its offerings, its unwavering dedication to excellence ensures that customers will always have a faithful ally in their pursuit of electronic component procurement success.











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