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August
2024

Driving Growth in APAC:

The Electronics Distribution Sector



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About LCSC

LCSC was established in 2012 with the aim of assisting engineers and businesses by overcoming challenges related to acquiring genuine electronic component samples and facilitating small-scale production.

With a global sourcing network, LCSC is capable of offering electronic parts for both international and Asian brands. LCSC has over ten years of in-depth cooperation experience with numerous Asian brands. LCSC is the authorized distributor of many outstanding Asian brands. The strength of Asian brands is their ability to provide more competitive prices for many parts, including some obsolete ones. We will continue to bring more worthy brands to satisfy our customers.

Parts Sourcing



PCB/PCBA



Custom Cable



cable@lsc.com | lsc.com/customcables

Front Panel



frontpanel@lsc.com | lsc.com/front-panel

Advantages

Massive In-stock Inventory

Decade-long development in the electronics industry has made us a pioneer of solutions providers for supply chains. Millions of in-stock components are well-kept in three gigafactories, ready to ship.

Quality Assurance

With professional laboratories and equipped quality control teams, we formed a scientific and reliable quality management system.

Cost-down Solutions

Our deep cooperation with numerous brands enables us to provide all kinds of components at very competitive prices. We are here to save your money.

4,600,000 ⁺ Registered Users	16,000 ⁺ Daily Orders	180 ⁺ Countries Covered
2,600 ⁺ Manufacturers	560,000 ⁺ SKUs	130,000 m ² In-stock Warehouses



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Global Shipping



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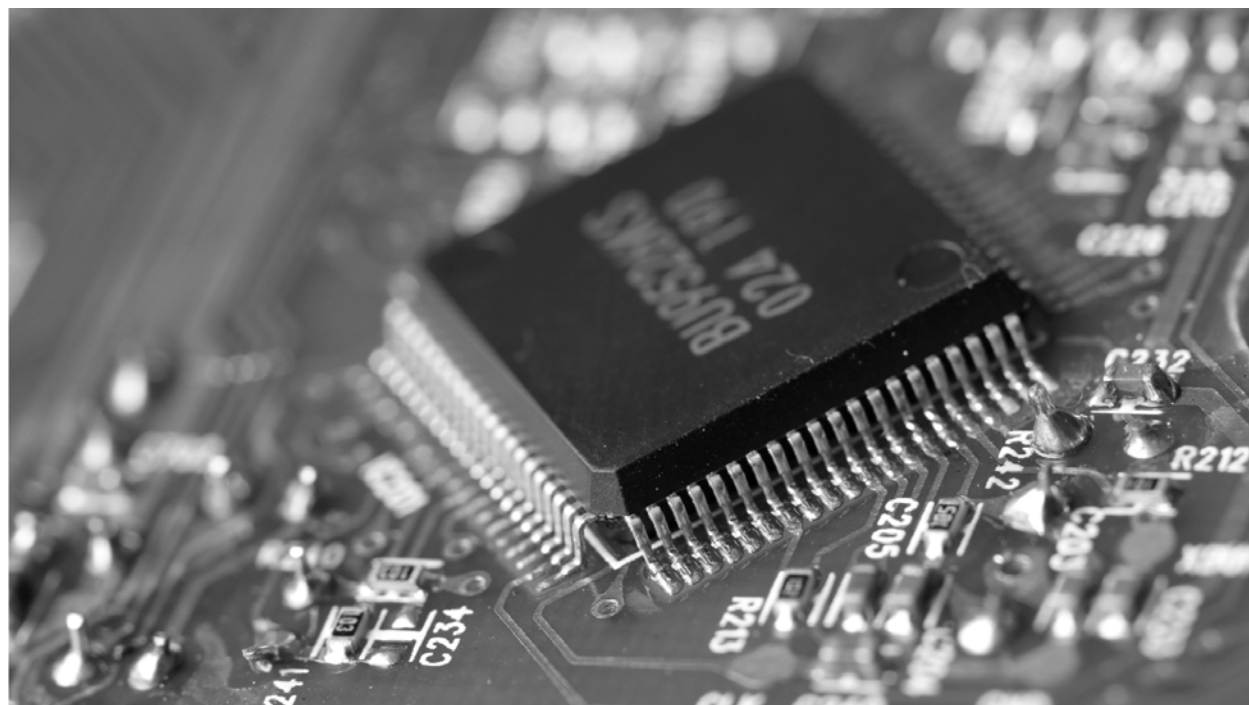
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Purdue Researchers Take Aim at Counterfeit Chips

A team of Purdue University researchers have come up with a new method of keeping semiconductor chips from being counterfeited.

The global chip industry is facing an ongoing shortage of new chips and a surge of counterfeit chips. Valued at \$75 billion, the latter introduces substantial risks of malfunction and unwanted surveillance. In response, a group of researchers from Purdue University are proposing an optical anti-counterfeiting detection method for semiconductor devices.

The detection method can stand up to adversarial tampering features (i.e., malicious package abrasions, compromised thermal treatment and adversarial tearing).

“Our new deep-learning approach uses a RAPTOR (residual, attention-based processing of tampered optical response) discriminator,” the researchers state in their *Advanced Photonics* report, “showing the capability of identifying adversarial tampering to an optical, physical unclonable function based on randomly patterned arrays of gold nanoparticles.”

How Does it Work?

Using semantic segmentation and labeled clustering, researchers efficiently extract the positions and radii of the gold nanoparticles in the random patterns from 1000 dark-field images in just 27 ms. They then verify the authenticity of each pattern using RAPTOR in 80 ms with 97.6% accuracy under difficult adversarial tampering conditions.

The new method was developed for an industry that’s grown into a \$500 billion global market over the last six decades. Along the way, the semiconductor fabrication pipeline has become fragmented, inadvertently giving rise to a \$75 billion counterfeit chip market that jeopardizes safety and security across multiple sectors dependent on semiconductor technologies.

Securing Industry is tracking this new development and says current methods deployed to protect chips from counterfeiting typically rely on physical security tags baked into the chip functionality or packaging. The Purdue team’s approach, on the other hand, relies on PUFs—a term for markers based on random processes that are deemed almost impossible to replicate.

“Several techniques aimed at affirming semiconductor authenticity have been introduced to detect counterfeit chips, largely leveraging physical security tags baked into the chip functionality or packaging,” the researchers point out. “Central to many of these methods are PUFs, which are unique physical systems that are difficult to replicate, either because of economic constraints or inherent physical properties.”

Three Key Differentiation Points

Overall, this novel anti-counterfeiting approach is being touted as:

- The first method to apply an attention mechanism for PUFs authentication, using the nanoparticle radii as soft weights and the post-tamper distance matrix as a value matrix.
- The first to develop data set generation methods for gold nanoparticle PUFs, for which there is no existing public data set.
- Achieving high verification accuracy under difficult, real-world tampering schema using machine learning to verify the gold nanoparticle PUFs.

“We begin by discussing the importance of optical PUFs for semiconductor authentication and then spotlight the challenges in current verification methods,” the researchers state. “We then introduce a statistical approach to overcoming these challenges by formalizing the problem of adversarial tampering detection. We conclude by providing accuracy and speed results for both the average distance analysis and RAPTOR.”

They go on to say that the ease of fabrication of gold nanoparticles, along with rapid and robust tampering detection with RAPTOR, opens up a large opportunity for the adoption of machine-learning-based tampering detection schemes in the semiconductor industry. However, more work is required in material development to ensure that these methods are robust to unforeseen types of tampering and natural degradation.

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Securing America's Federal Equipment in Supply Chains Act

Two senators introduce legislation that could ensure that government agencies don't unintentionally buy counterfeit electronics.

Counterfeit electronics are a problem that impacts both the public and private sectors of the U.S. economy. According to ERAI, there were total of 786 suspect counterfeit and nonconforming parts in 2023. This was a slight increase over the previous year and part of a steady, year-over-year growth in counterfeit electronics. "The number of parts being reported to ERAI has been increasing the last two years despite a downward dynamic in global semiconductor sales," the organization says.

Government agencies may be especially prone to the problem due to the high volume of parts and components they need to keep their operations running. "Experts have estimated that as many as 15 percent of all spare and replacement semi-

conductors purchased by the Pentagon are counterfeit," SIA's Brian Toohey pointed out at an SASC hearing. "Overall, we estimate that counterfeiting costs U.S.-based semiconductor companies more than \$7.5 billion per year, which translates into nearly 11,000 lost American jobs."

Now, two U.S. senators have joined forces to draft legislation meant to protect American cybersecurity by ensuring that agencies don't unintentionally procure counterfeit electronics, or those products made and sold by unauthorized sellers. The [Securing America's Federal Equipment \(SAFE\) in Supply Chains Act](#), was introduced in July by John Cornyn (R-TX) and Gary Peters (D-MI).

"From the pandemic to Russia's attack on Ukraine and other global conflicts, the last few years have taught us just how important a secure domestic supply chain is to America's national security," said Cornyn in a statement. "This commonsense legislation would require government agencies to only purchase reliable electronics from trustworthy sellers, helping safeguard our cybersecurity from bad actors around the world."

"The federal government has a responsibility to purchase technology that will help keep Americans' data secure and strengthen our defense against a potential cyberattack," Peters added. "This legislation takes an important step towards protecting our national security interests and securing our domestic supply chains."

What's in the Bill?

Under the Defense Federal Acquisition Regulations (DFARs), in order for businesses to contract with the U.S. military, it must only acquire electronic products from authorized OEMs or sellers. However, the senators say that there are still many cases of federal government employees purchasing technology from grey-market sellers rather than authorized sellers.

"Grey-market sellers may circumvent trusted supply chains and provide counterfeit technology that could harm security networks within the federal government," they say. "These counterfeit devices are often older and may contain unsafe and unreliable components, causing technology to malfunction or completely fail, leading to significant damage to networks and operations."

The Securing America's Federal Equipment (SAFE) in Supply Chains Act would:

- Prohibit the head of an agency from using a covered product from an entity other than an original equipment manufacturer or authorized seller.
- Allow the head of an agency to waive the prohibition of a covered product, upon written notice to the Director of the Office of Management and Budget (OMB), if they determine the waiver is necessary in the interest of national security.
- Require written notice on justification for waivers and any security mitigations that have been implemented and a plan of action to avoid future waivers for similar future purchases.

- Require OMB to submit a report to congress that lists the number and types of covered products for which a waiver was granted and why.

The Risk of Counterfeit Components

According to [Fed Scoop](#), this new bill comes as counterfeit devices have already been found in sensitive government and military systems. In May, for example, a man was sentenced to six years and six months for running an operation to traffic counterfeit Cisco equipment following prosecution by the Department of Justice. Those products often didn't work or malfunctioned, and numerous counterfeit devices originating from the operation were discovered in highly sensitive governmental applications, such as classified information systems.

"The risk of counterfeit components compromising our federal IT systems is a clear and present danger that must be addressed," Campbell told FedScoop. "At Cisco, we know that the security of technology is intrinsically linked to the trustworthiness of its source and support the bipartisan SAFE Act's efforts to ensure that the lifeblood of our government's digital infrastructure is drawn from secure and reputable sources."

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The World's Leading Electronic Components Distributor



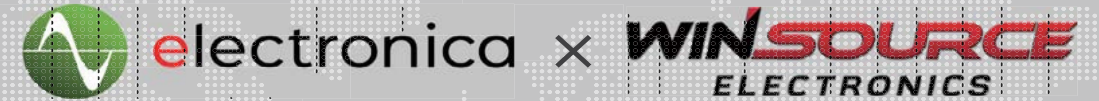
Founded in 1999, WIN SOURCE has over 24 years of supply chain management experience and is a global leader in the distribution of electronic components. Over the years, WIN SOURCE has received extensive recognition and certification through third-party institutions and industry organizations. As one of the top 50 distributors in the world, WIN SOURCE was recognized by SupplyChainConnect as a leading distributor in both the Asia Pacific and Europe.

WIN SOURCE is a treasure trove of electronic parts, with over 1 million components from more than 3,000 manufacturers. Its products serve multiple industries, including 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 Semiconductor, trust WIN SOURCE as a reliable distribution partner.

All operations at WIN SOURCE are certified under AS9120B, ISO9001, ISO14001, ISO45001, ISO13485, ISO28000, ISO37001, and ISO22301 standards, encompassing order entry, customer service, receiving, picking, shipping, purchasing, and inventory management. As a member of ERAI (an authorized anti-counterfeiting organization), the ASA association, the IPC association, SMTA, and the SEMI association, WIN SOURCE always adheres to the highest quality standards for electronic components, ensuring the elimination of counterfeit and substandard products.

Through meticulous processes, quality services, a diverse product portfolio, knowledge investment, and global expansion, WIN SOURCE has accumulated a rich inventory of electronic components, meeting the need to reduce the cost of standard parts and manage scrap, while focusing on customer satisfaction. WIN SOURCE provides customized supply chain solutions that ensure efficiency, flexibility, and cost-effectiveness.

In the future, WIN SOURCE will continue to grow globally, focusing on providing the widest selection of in-stock electronic parts and delighting customers with exceptional customer service.



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Nov 12-15, Messe Munchen, Germany

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Leading Electronic Components Distributor



Global Sourcing Solution

WIN SOURCE optimizes supply chains through expert commodity managers, global reach, and market insight, enhancing quality, efficiency, and unlocking opportunities.



Cost Control Management

Leverage WIN SOURCE's expertise, tools, component inventory, and flexible sourcing for cost-saving opportunities, bolstering supply chain resilience and cost control.



Obsolete Management

WIN SOURCE offers tailored analytics and risk mitigation for obsolescence management. Expect seamless product lifecycle management, global supply access, and quality assurance.



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Procurement Software Market Takes Off

Over the next four years, the procurement software market is expected to grow by \$5.72 billion.

Designed to streamline and automate the process of acquiring goods and services, procurement software handles everything from purchase requisition and supplier management to invoice processing and spend analysis. These applications free up procurement professionals to focus on more strategic tasks and deliver benefits like reduced costs, better efficiencies, lower risk and improved compliance.

These benefits aren't lost on modern procurement departments, many of which are implementing and using the software to manage their operations. In fact, Technavio expects this corner of the software market to post 10.77% annual growth over the next four years. When all is said and

done, the market will be worth \$5.72 billion more than it is right now.

Driving Digital Transformation

Companies like Basware, BirchStreet, Coupa, JAGGAER and Microsoft (among others) are leading the procurement software market right now. From the customer side, the digital transformation of businesses is driving the need for real-time solutions and advanced business intelligence in various industries.

"Procurement processes are no exception," Technavio points out. "Modern businesses require efficient and accurate

procurement processes to gain a competitive edge." Artificial intelligence (AI) is also impacting the market and is being integrated into procurement software to streamline processes and provide valuable insights. Some of the procurement-related AI capabilities include virtual agents and chatbots, pattern recognition, machine translation and automatic scheduling.

According to Technavio, some of the most compelling reasons that organizations invest in procurement software include:

- The ability to gain a centralized view of business information and activities
- Easy identification of cost discrepancies
- Automated comparisons of contract data to orders and invoices
- Detection of unusual order quantities or frequencies
- Identification of potential fraud or errors
- With AI, the detection of purchasing patterns and identification of top-performing trading partners and suppliers
- AI that simplifies the ordering process, making it easier to manage

According to TechRadar, procurement software also provides efficient and accurate tracking systems, offering better visibility over spending so users can see all savings achieved from multiple contracts and partnerships. For example, general reporting dashboards provide an overview of request spending and savings analytics, allowing users to monitor data and identify where and how savings are being maximized.

The software's proactive approach to procurement, with features like customizable workflows and automated reminders, ensures timely and accurate processing of requests for quotations and other procurement activities. "By adopting e-procurement tools," TechRadar adds, "procurement teams can transform their operations, achieving greater financial efficiency and positioning their organizations for long-term success."

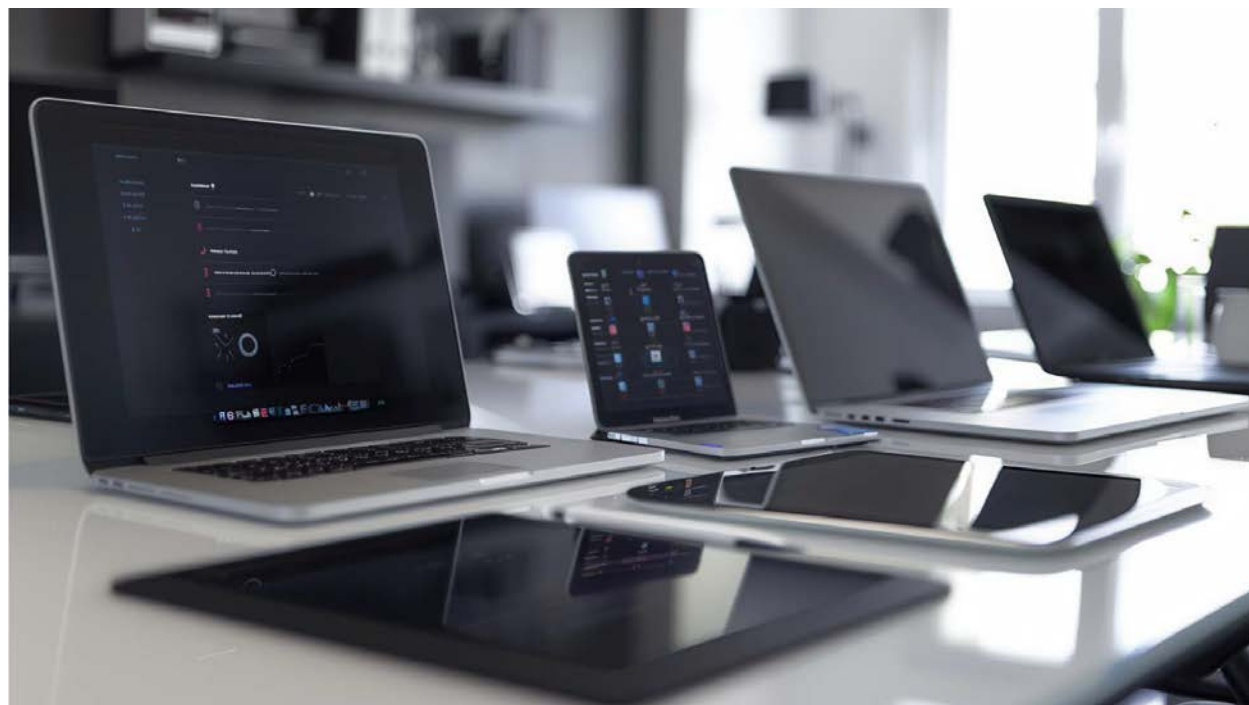
Potential Growth Inhibitors

As the procurement software market continues to post significant growth, it's also facing numerous headwinds. Technavio says the fact that every organization and its sup-

pliers are "unique" can interfere with good system compatibility and integrations of different solutions. And if the company is currently using outdated systems, the odds of potential compatibility increase exponentially.

"Supplier integration is also problematic, as some may lack the resources or knowledge to integrate with new software," Technavio says. "These challenges can lead to delays in pick up onboarding, causing significant problems for organizations. These factors are expected to hinder the growth of the global procurement software market during the forecast period."

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Measuring the Carbon Footprint of Electronic Parts

Offshore energy is taking center stage in Delaware, where the state is installing new equipment and training a workforce to orchestrate and manage it.

The global chip industry is facing an ongoing shortage of new chips and a surge of counterfeit chips. Valued at \$75 billion, the latter introduces substantial risks of malfunction and unwanted surveillance. In response, a group of researchers from Purdue University are proposing an optical anti-counterfeiting detection method for semiconductor devices.

For every 2.2 pounds of electronics produced, nearly 50 lb of carbon dioxide (CO₂) is released into the atmosphere. Cumulatively, the electronics industry is responsible for over half of the world's carbon footprint. In 2020, the

sector emitted 580 million metric tons (MMT) of CO₂ and, if left unchecked, that number may grow to 852 MMT annually by 2030.

“Electronics have a far greater carbon footprint than their size or weight would suggest,” electronics repair and refurbishment company Maxey Moverley points out. “This is a function of the nature and variety of the precious metals used in their manufacture together with the massive carbon footprint of the computer chip (semiconductor) manufacturing process.”

With all eyes on environmental, social and governance (ESG) and sustainability right now, companies in the electronics industry are looking for new ways to reduce their carbon footprints. Some of their efforts include sourcing renewable energy, designing products with longer lifespans and offering “take back” programs for obsolete/unusable electronics.

A New Way to Measure Scope 3 Emissions

In July, design-to-source intelligence platform Supplyframe introduced a tool that manufacturers can use to access carbon footprint data for over 300 million different electronic parts. Electronics Product Carbon Footprint (PCF) allows organizations to measure the carbon footprint of components that are on their bills of materials (BOMs). Using that data, companies can develop a roadmap for suppliers and customers to reduce their CO₂ emissions right down to the individual part level.

The resource is meant to help companies go beyond just Scope 1 and 2 emissions and address Scope 3 indirect greenhouse gas (GHG) emissions. These emissions are produced primarily by the company's suppliers in the raw materials, transportation, and distribution sectors. Activities like supplier manufacturing, material consumption and transportation all contribute to Scope 3 emissions.

“Calculating Scope 3 emissions, the largest source of CO₂ (40%+) for manufacturers, has historically been cumbersome, time-consuming, and rarely performs as planned,” Supplyframe points out. “This lack of awareness created a significant blind spot for global manufacturers seeking to measure the entire carbon footprint of the electronics content in their portfolios.”

A Groundbreaking Move

The PCF is being introduced just as new European Union (EU) regulations and evolving U.S. rules are forcing manufacturers to identify how to quantify and report their supply chain emissions. The platform provides access to emissions data for millions of parts, putting needed information at users' fingertips. Previously, companies trying to calculate a roll-up value would take weeks or months to get this data at the part or component level of a complex BOM.

“Until now, engineers designing new products and procurement teams tasked with obtaining components for those products have had no way to evaluate the CO₂ emissions of a new design or purchasing decision,” said Supplyframe CEO and founder Steve Flagg, in a [press release](#). “This capability gives them specific product carbon footprint details to meet regulatory reporting requirements and, ultimately, identify better alternatives that balance corporate goals of efficiency, cost optimization, and sustainability.”

Calling PCF a “groundbreaking move,” *Environment+Energy Leader* says that until now, companies have had “little to no information about CO₂ emissions associated with the electronics components they purchase.” This has created a significant blind spot for global manufacturers seeking to measure product carbon footprint for electronics content in their innovation portfolios.

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SIGMA TECHNOLOGY GROUP

About Us

We are a global leading intelligent distributor for electronic components, serving its worldwide customers with professional one-stop supply chain solutions based on global locations. We are preferred supplier of global top EMS and well recognized by global top end users in various applications.

Our Service

- PPV COSTDOWN**
 8-10% cost down supported by our smart system and global distribution network.
- SHORTAGE SUPPLY**
 Global supply network with more than 7000 authorized distributors. The best logistics service with 1-3 days' delivery.
- EASY BOM**
 Preliminary quotation within 4 hours; completed quotation within 12 hours; No MOQ or MOV restriction.
- INVENTORY OPTIMIZATION**
 Self-developed website www.easy-excess.com; Instant access to the global market; Quick quotation brings cash quickly.



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Sigma Technology Group - Asian electronics supply chain expert, specializing in helping EMS/OEM/ODM manufacturers achieve cost saving goals and confidently navigate through volatile economic environments.



Delaware Doubles Down on Wind Energy

Offshore energy is taking center stage in Delaware, where the state is installing new equipment and training a workforce to orchestrate and manage it.

The Delaware Energy Solutions Act of 2024 (SB265) was just passed by the House in late June, but the state of Delaware has already taken more steps to double down on its commitment to wind energy. The act will aid in the development of infrastructure needed to facilitate a transition to carbon-free energy sources.

The act authorizes processes necessary to help meet the net zero goals of the Climate Change Solutions Act of 2023 (HB99) and also:

- Facilitates a transition to carbon-free energy sources by preparing for offshore wind to be a significant element of Delaware’s energy future (as long as the cost is competitive with other potential sources).
- Increases options for interconnecting renewable energy resources to the transmission grid.
- Authorizes the State Energy Office (SEO), with the approval of the Public Service Commission (PSC), to issue solicitations to procure offshore wind.

“The passage of SB 265 will open the door to offshore wind energy procurement in our state,” said Rep. Debra Heffernan, chair of the House Natural Resources & Energy Committee, Delaware House Democrats reports. “This is a monumental step toward embracing a cleaner, more sustainable future, and helps to ensure that we stay on track to meet the targets outlined in the Climate Solutions Act.”

“It will take time before we see a turbine in Delaware, but this is still a huge feat,” Heffernan continued. “We have now begun the process to ensure that Delaware is ready to make the switch to clean energy when the best opportunity presents itself.”

Crafting Offshore Wind Solicitations

Once passed into law, SB 265 authorizes the DNREC State Energy Office (SEO), the Delaware Public Service Commission, and the Delaware Renewable Energy Task Force to craft a solicitation for offshore wind. Following public comment, the PUC will approve a final solicitation document and move forward in receiving and reviewing any proposals.

If the SEO or PUC can’t find a deal for wind power that meets a predetermined/benchmark price, the state will not move forward with the contract. The SEO has also been directed to procure up to 1,200 megawatts of electricity to Delaware’s public utilities. Delaware’s municipal electric companies, rural electric cooperatives, and third-party providers can purchase electricity generated from offshore wind if they choose.

According to the Delaware House Democrats, seven other East Coast states, including neighboring New Jersey and Maryland, are taking action to utilize offshore wind energy. “By passing the Delaware Energy Solutions Act of 2024, the General Assembly is adding Delaware to that list,” they said. SB 265 is now headed to the Governor’s office, where it is expected to be signed into law.

Growing a Wind Energy Workforce

Knowing that offshore energy projects will require skilled workers to install, run and maintain them, the state’s higher education institutions are taking steps now to ensure that the state is at the forefront of supplying that workforce. According to Delaware Business Times, the University of Delaware (UD)

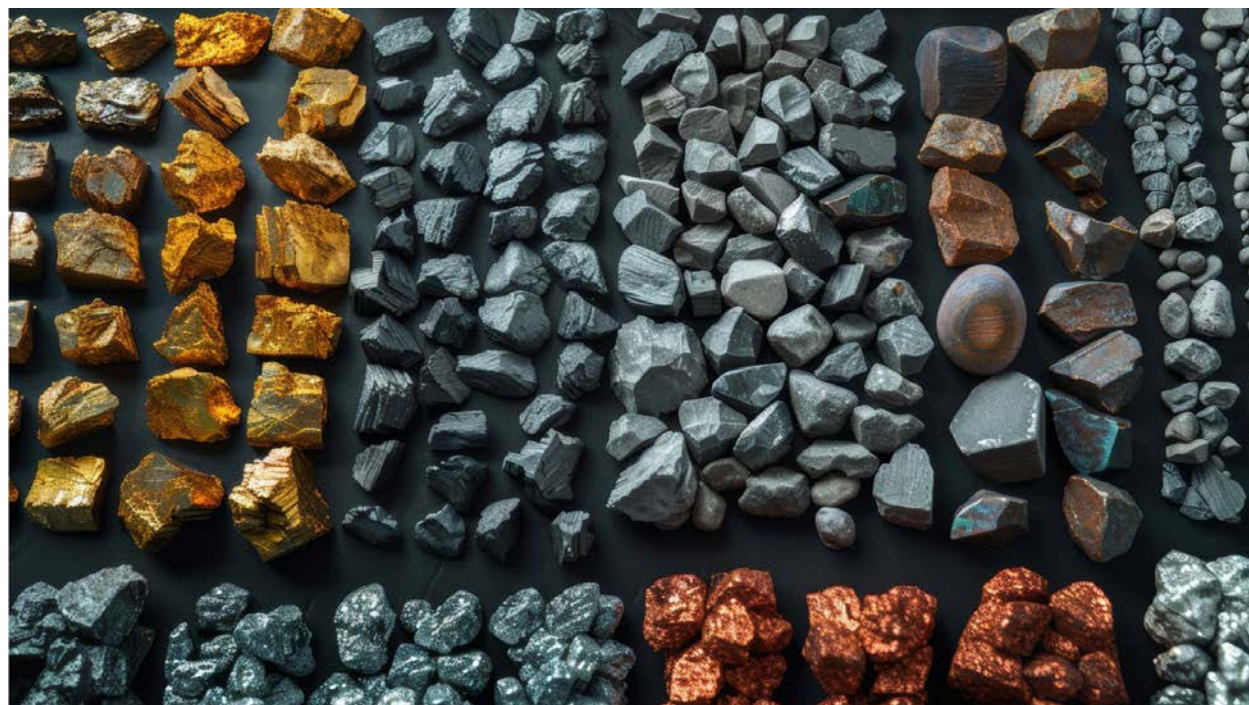
and Delaware Technical Community College just launched a training program geared to providing workers with basic safety and operational skills.

The one-week program, known as the Global Wind Organization Basic Safety Training, allows participants to earn a certification after attending modules on topics such as first aid and sea survival, the publication reports. The certification is the first step for personnel, including wind technicians, who will install and later maintain the fleet of offshore wind turbines, as well as port workers and sea survival and rescue personnel.

“But first, we had to train the trainers, which involved a nine-week training program in cooperation with Maersk, the Danish shipping and logistics company,” UD Professor Cristina Archer told Delaware Business Times. “We now have four certified trainers in Delaware to help ready a workforce for the growing offshore wind initiatives.”

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By SUPPLY CHAIN CONNECT STAFF



Driving Conflict Minerals Out of Big Tech

Here are six top trends that McKinsey & Co., says are impacting procurement teams in 2024.

Seek mobile phones, powerful computers and smart gadgets are embedded with circuitry that in many cases includes minerals and substances extracted from the Democratic Republic of Congo (DRC). A region impacted by armed conflict and a lengthy list of human rights abuses, DRC is a source of the tin, tantalum, gold and cobalt used to manufacture electronics.

“Toxic substances such as mercury are used to excavate the minerals. Workers come in contact with the substances without any protective equipment and soil and water are also polluted as a result,” TCO Certified says. “These mostly small-scale, artisanal mines are largely located in remote areas with little infrastructure and where access to healthcare is limited.”

U.S. importers of raw materials have been required to disclose their sources for potential conflict minerals under the Dodd-Frank Act since 2010, according to Statista. A similar regulation has been in effect in the European Union since Jan. 1, 2021, aimed at curbing the financing of violent militias, particularly in the DRC and surrounding countries, where said groups control the mining of tin and coltan.

Driving the Conflict Minerals Out

Aware of the implications of using conflict minerals in the products that they make and sell, big tech companies are working to infuse more transparency, accountability and ethical sourcing into their global supply chains. At the same

time, businesses and individual consumers are making more informed choices and supporting suppliers that are committed to ethical practices.

In certain cases, it seems, getting conflict minerals out of the big tech supply chain has been easier said than done. According to Statista, which analyzed and reported on Amazon’s 2023 conflict minerals report, the large e-tailer cannot rule out having sourced minerals from nine of 10 African countries where human rights-violating militias finance themselves through mining.

These countries are the Democratic Republic of the Congo, the Republic of the Congo, the Central African Republic, South Sudan, Uganda, Rwanda, Burundi, Tanzania, Zambia and Angola. “The other four members of GAMAM (Google, Amazon, Meta, Apple and Microsoft), a group synonymous with the moniker Big Tech, also potentially source some of the raw materials processed in contracted smelters from these regions,” Statista points out.

Striking a Balance

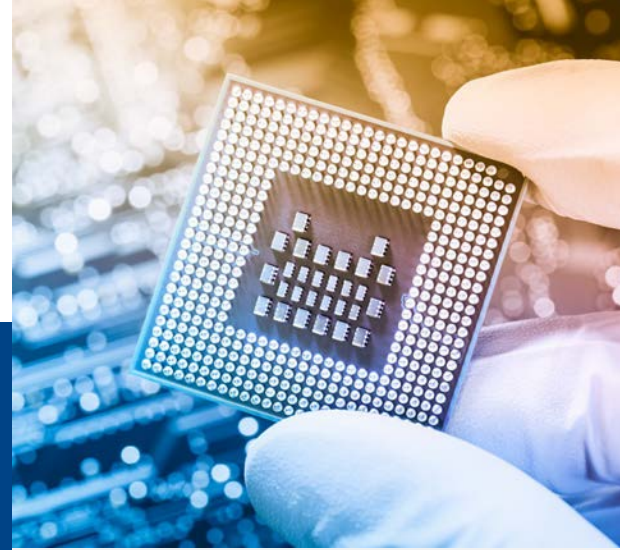
Amazon’s report also states that the majority of its suppliers certified that they did not use gold, tin, tungsten or tantalum in parts or components for the company’s in-scope products; did not source these minerals from the DRC or an adjoining country; or that they sourced these minerals from a smelter or refiner that complies with a responsible mineral sourcing validation program such as the Responsible Minerals Assurance Process.

“The remaining suppliers are still completing investigations of their supply chains,” Amazon stated in its report. “For 2023, we identified no suppliers that were sourcing minerals through a supply chain that benefitted armed groups in the DRC region.”

Statista also dissected Microsoft’s most recent conflict minerals report and says the company relies on “responsible sourcing” rather than restricting or avoiding the usage of the conflict minerals tantalum, tin, tungsten, and gold, known as 3TG, from these regions. “Stopping operations in Covered Countries and Conflict Affected and High-Risk Areas (CAHRAs),” the company points out, “would allegedly cause significant economic harm to the affected countries.”

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Extension to Your Electronic Supply Chain



- ✓ PPV Cost Savings
- ✓ Franchise Lines
- ✓ NPI BOM-kitting
- ✓ Excess Management
- ✓ Global Sourcing

Flyking is dedicated to delivering bespoke electronic supply chain solutions to OEMs, EMS, and manufacturing partners.



10+
Global Offices



30+
Franchise Lines



200+
Employees



2
Testing Laboratory



\$1B+
Revenue since 2019

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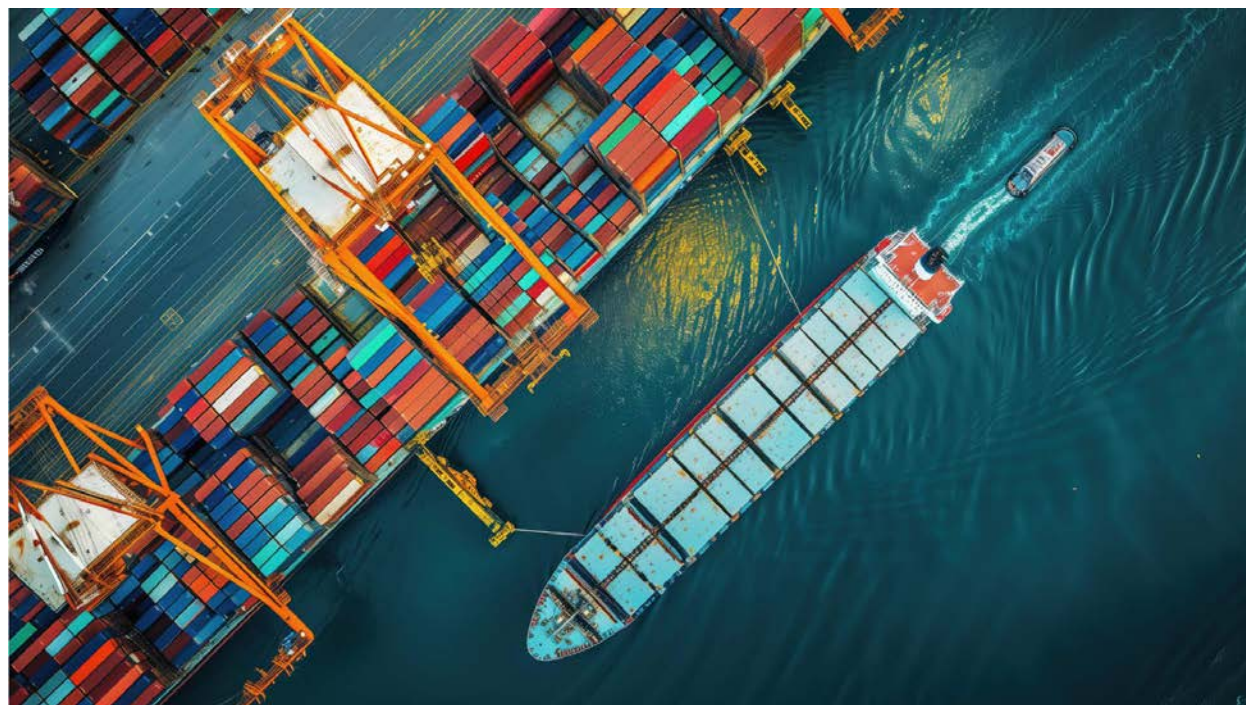
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Driving Growth in APAC: The Electronics Distribution Sector

The electronics manufacturing and distribution sectors continue to expand in the Asia-Pacific region.

The Asia-Pacific region (APAC), a vast expanse spanning East Asia, Southeast Asia and Oceania, is a powerhouse of economic growth. Countries like China, Hong Kong, Japan and Vietnam make up one of the world's fastest-developing economic centers. This dynamic region is also a hub for electronics manufacturing and a growing pool of distributors that represent myriad different companies that have set up operations there.

After experiencing rapid expansion in 2023, the APAC region was on track to be the fastest growing region of the world economy in 2024, underpinned by resilient domestic demand

in East Asia and India, according to [S&P Global Market Intelligence](#). "Some improvement in East Asian exports will also support economic expansion," Rajiv Biswas writes, "helped by a recovery in electronics exports and continued strong growth in exports of new electric vehicles (EVs) from key Asian auto manufacturing hubs."

Continued Resilient Expansion

Biswas expects to see continued resilient expansion in the APAC region, with robust domestic demand in Asian emerging economies like mainland China, India, Indonesia,

Philippines and Vietnam. Several factors support this positive outlook, including APAC industrial economies' global competitiveness in the electronics manufacturing supply chain.

"Electronics production is an important part of the manufacturing export sector for many Asian economies, including South Korea, mainland China, Japan, Malaysia, Singapore, Philippines, Taiwan, Thailand and Vietnam," Biswas adds. "India is also rapidly building up its electronics manufacturing sector. Furthermore, the electronics supply chain is highly integrated across different economies in East Asia."

Tracking Semiconductor Trends

In their recent [APAC Semiconductor Industry Trends](#) report, Deloitte and the Global Semiconductor Alliance (GSA), were also bullish on a market rebound for the global semiconductor market this year. More specifically, the global semiconductor market is on track to grow by 13.1% in 2024 thanks to demand recovery from downstream demand and continued growth in demand for generative artificial intelligence (AI) products and power discrete devices.

These positive trends translate into new opportunities for APAC's electronics distribution segment, which could also face a mix of new and continuing headwinds as the year winds down. The conflict in the Red Sea region is of real concern for companies using that route for shipping. According to global executive search firm [Stanton Chase](#), APAC's industrial sector has been hit "especially hard" by these disruptions.

"Port closures, naval blockades, and the threat of further military action have choked off key trade arteries. This has led to shipping delays, soaring freight rates, and shortages of raw materials and components," the company states, noting that roughly 11% of global trade passes through the waters of the Red Sea.

Tech Spend is on the Rise

Looking ahead, [Forrester](#) says technology spend is set to grow by 6.4% in the APAC region, reaching \$710 billion this year. This growth is fueled by sustained demand across various sectors including software, services, communications equipment, tech outsourcing, hardware maintenance and computer equipment, the research firm reports. This demand may translate into more opportunities for electronics manufacturers and the APAC distributors that support them.

"While challenges such as regulatory environments, global economic conditions, and talent shortages present hurdles, the overarching trajectory is one of opportunity and resilience," Forrester adds. "As the [APAC] region continues to chart its course in the tech world, the emphasis on sustainable and innovative practices appears key to navigating the future of technology spending in APAC."

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Measuring Procurement's Expanding Influence

A new report offers insights into the evolving landscape of procurement and supply chain, and the increasingly important influence that both have on their respective organizations.

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Procurement has undergone a profound transformation over the last decade or two, evolving from a primarily transactional role and into one that's focused on strategy, collaboration and growth. From risk management to digital transformation to sustainability, procurement drives organizational success on numerous fronts.

A recent report from the Chartered Institute of Procurement and Supply (CIPS), in partnership with GEP, highlights the growing influence of both procurement and supply chain functions. The recently-released [Global State of Procurement and Supply 2024](#) report surveyed chief procurement officers, directors and leaders from 122 organizations with combined revenues of \$73 billion.

ESG, Automation and Supplier Diversification

The findings offer insights into the evolving landscape for procurement and supply chain leaders. The company also posed

questions about sustainability, automation, business volatility and other hot topics that are on the minds of both procurement and supply chain professionals this year.

Here are some of the key findings from the report:

- Three-quarters of procurement and supply leaders (78%) believe that environmental, social and governance (ESG) issues are growing in importance in their organizations.
- Half (49%) of procurement and supply leaders want to improve upon their ability to enhance sustainability in the year ahead.
- While just 2% of procurement functions are fully automated, more than half of the survey respondents are pushing for partial or full automation.
- The key contributors to volatility right now are geopolitical factors, with other key supply chain risks being inflation and labor shortages.
- Companies are using supplier diversification, insourcing and holding more stock to mitigate supply chain disruption.

Headcount Stabilizes and Grows

Among the procurement and supply teams that CIPS surveyed, many were relatively small with 51% reporting that they number fewer than 20 people. Positively, headcount is more likely to have grown rather than shrunk in the last 12 months; a third feel that headcount will grow in the next 12 months. Half of the survey's respondents believe staff numbers will remain stable, with only 14% expecting a reduction in staff numbers.

The largest proportion of teams are split 50-50 in terms of men and women. Overall, there are more men than women in the procurement and supply teams surveyed. Just 4% of the procurement and supply teams were all-female.

"Overall, a majority (70%) of procurement leaders who responded to our survey say they feel their organization is taking active steps to implement progressive recruitment policies," CIPS says.

Seeing the Bigger Picture

As procurement's influence in organizations has grown, CIPS wanted to know whether the governance, reporting lines and communications channels for procurement and supply pro-

fessionals were also expanding. From its research, the organization learned that just one in five organizations (19%) has a board of directors that includes a senior procurement officer.

The survey results also uncovered challenges relating to how well procurement and supply chain departments are aligned with their organizations' board and senior management. Around a third (39%) of respondents feel their function is well aligned and supported, for example, and a similar proportion (35%) say it's not.

A Significant Impact on Spending

When it comes to influencing organizational spending, survey respondents believe they occupy a "unique position" in their organizations. This position allows them to collaborate across the entire enterprise and also see the bigger picture in terms of spend.

For example, two-thirds of respondents manage 60% or more of organizational spend on direct goods. Office supplies and furnishings (80%) is the top category where procurement and supply manages or has an influence on spend, closely followed by facilities (78%) and professional services (74%).

"The influence of procurement and supply over organizational spend is growing, according to our respondents," CIPS points out. "More than half (59%) feel that procurement and supply is seen as a positive influence on efficacy of spend within companies."

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2024 TOP ASIA PACIFIC DISTRIBUTORS



Company	Locations	2023 Global Revenue
1. LCSC Electronics Technology (HK) Limited	Hong Kong	\$9,240,000,000
2. ARS Electronics Company Limited	Beijing, China	\$1,850,000,000
3. DGT Technology (HK) Co., Limited	Shenzhen, China	\$1,500,000,000
4. Win Source Electronics	Shenzhen, China	\$527,000,000
5. Ample Solutions	Singapore	\$260,000,000
6. Shenzhen Unibetter Technology Co., Ltd.	Shenzhen, China	\$240,000,000
7. Sigma Technology Group	Hong Kong	\$230,000,000
8. Shenzhen Shengyu Electronics Technology Ltd.	Shenzhen, China	\$215,412,000
9. Chipdigger Technology Co., Limited	Shenzhen, China	\$198,743,000
10. Flying Technology Co., Ltd.	Hong Kong	\$196,000,000
11. Utmel Electronic	Shenzhen, China	\$139,200,000*
12. Cytech Systems Limited	Shenzhen, China	\$120,000,000
13. CoreStaff Co., Ltd.	Japan	Estimate
14. OZDISAN ELEKTRONIK A.S.,	Istanbul, Turkey	\$110,000,000
15. New Strength Electronic Co., Limited	Shenzhen, China	\$100,000,000
16. Splendent Technologies Pte. Ltd.	Singapore	\$100,000,000*
17. THJ (HK) Technology Limited	Shenzhen, China	\$82,500,000
18. LIXINC Electronics Co., Limited	Shenzhen, China	\$80,000,000
19. Briocan Technology Co., Ltd.	Hong Kong	\$70,000,000
20. Supreme Components International Pte Ltd.	Singapore	\$56,000,000
21. CLP Port	Hong Kong	\$48,280,000*
22. JAK Electronics	Hong Kong	\$40,000,000
23. Advanced ID Electronics	Singapore	\$39,200,000*
24. Quarktwin Technologies	Guangdong, China	\$35,000,000*
25. RX Electronics Limited	Hong Kong	\$35,000,000
26. Global Sourcing OEM Limited	Hong Kong	\$34,286,000
27. Shenzhen Huaqiang	Shenzhen, China	\$28,800,500*
28. RYX Electronic (HK) Limited	Hong Kong	\$24,431,600
29. Wei Shi Xin	Shanghai, China	\$16,300,000*
30. Shannon Core	China	\$15,800,000*
31. ICSOLE Technology Limited	Guangdong, China	\$12,800,000
32. Fairstock HK Limited	Hong Kong	\$12,500,000
33. IngDan Innovation	Shenzhen, China	\$12,400,000*
34. Vadas International	Hong Kong	\$12,100,000*
35. All True Tech Electronic Co., Limited	Guangdong, China	\$10,000,000
36. IC Components Limited	Hong Kong	\$9,000,000
37. Xinzhi Holdings	Taizhou, China	\$7,200,000*
38. Shanluo Electronics	Guangxi, China	\$7,100,000*
39. Yingtang Intelligent Control	Guangdong, China	\$6,900,000*
40. Heisener Electronics Limited	Hong Kong	\$5,700,000*
41. Perceptive Components Limited	Hong Kong	\$5,650,000*
42. Kehuite Technology Development (HK) Ltd.	Shenzhen, China	\$5,600,000*
43. Asourcing Electronics Ltd.	China	\$5,500,000*
44. CH Global Co., Ltd.	Korea	\$5,400,000
45. Bison Technologies Limited	Guangdong, China	\$5,000,000
46. Answer Electronics (Shenzhen) (Anchi)	Shenzhen, China	\$5,000,000*
47. PNEDA Technology	Hong Kong	\$5,000,000*
48. 3A Components Limited	Shenzhen, China	\$5,000,000*
49. Nova Technology (HK) Co., Ltd.	Shenzhen, China	\$5,000,000*
50. Anshan Anza Electronic Power Co., Ltd	Liaoning Province, China	\$5,000,000*

* Publishers Estimate