

# Quality Solutions

A Solectron success story



Support Services

Manufacturing & Distribution

Product Development

Design

Technology

"Solectron's ability to manage radical swings in volume from month to month allows the OEM to quickly respond to surges in market demand and meet very tight delivery deadlines."

**Customer:** A global leader in high-end computing products.

**Situation:** An OEM enters the super-computer market mid-fiscal year. To meet financial goals, it needs to ship the product in volume by year-end.

**Solution:** Solectron creates a detailed project roadmap outlining technical requirements and business, financial, material and quality tracking processes. Solectron trains technicians, establishes a production line and begins shipment in less than four months.

**Bottom Line:** The OEM successfully meets a five-month delivery deadline for a very sophisticated and strategic product offering, and saves US\$1.25 million in fixed materials costs.

## The Story

A leader in high-end computing products announces a new series of super computers in May, promising volume delivery by year-end. At the end of June, they turn to Solectron for help. This particular OEM division has never outsourced.

Over the next six weeks, a Solectron team works with the OEM to design a full-scale manufacturing plan. A joint capital equipment line is created; supplier relationships are leveraged to reduce response time and increase supply chain flexibility. As a result, the entire materials management process is streamlined. These initiatives reduce the OEM's project costs by US\$1.25 million.

Once the plan is approved, Solectron sets up the production line, trains technicians and begins manufacturing. Solectron prepares for shipment in October, and by early December ramps up volume to meet the OEM's full production requirements. After successfully meeting the first delivery deadline, Solectron responds to increased market demand by quickly accelerating production volume by 50 percent within six weeks. Solectron's Support Services division helps the OEM extend its product's market life by managing repair, refurbishment, warehousing and logistics.

Following its first successful outsourcing partnership, the OEM division awards Solectron both New Product Introduction (NPI) and manufacturing responsibilities for its next high-end super computer.



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## Product Development, Manufacturing & Distribution

Solectron is the global leader in electronics outsourcing solutions. Its integrated services and expertise span the entire product life cycle – from pre-production planning and design to manufacturing, distribution and end-of-life product service and support. These services give OEMs the flexibility and prompt response time required to succeed in today's increasingly competitive electronics marketplace.

Materials management – including day-to-day purchasing activities and supplier management – is a key element of Solectron's product delivery solutions. Solectron employs dedicated global purchasing teams that oversee both tactical and strategic elements of procurement and are an important part of the design and manufacturing processes. In order to increase efficiencies throughout the supply chain, Solectron has developed a three-tier, demand-pull, vendor-managed inventory model driven by consumption, demand and materials replenishment forecast.

Customers are supported at each Solectron site by comprehensive materials planning and inventory, finance and shop-floor control systems, which are integrated into a wide-area network (WAN) e-mail and Solectron's intranet and distributed systems. This enables the company to aggregate demand, avoid shortages, dispose of excess material, manage worldwide pricing and propagate contract prices. In addition, Solectron uses specially designed scheduling software to process forecasts, order and identify inventory fluctuations within minutes. This allows the customer and Solectron to determine risks, commit to shared, feasible schedules and optimize inventory assets.

Solectron's innovative use of Internet technology enables customers and suppliers to collaborate on design, materials and manufacturing, and access real-time commercial and technical information. And with the help of an extranet, suppliers can directly manage their mission-critical data within Solectron's systems.

Customers can expect Solectron to operate as an extension of their own manufacturing operations. OEMs have access

to the shop floor and to project status reports via Solectron's extranet. Each OEM is assigned a dedicated Solectron Customer Focus Team of experts from each strategic area in the manufacturing process which include: supply-base management, inventory control, engineering services, master scheduling, document control, quality assurance, customer reporting and program management. This team provides OEMs with real-time, comprehensive project management and keeps them in the loop throughout the entire product life cycle.

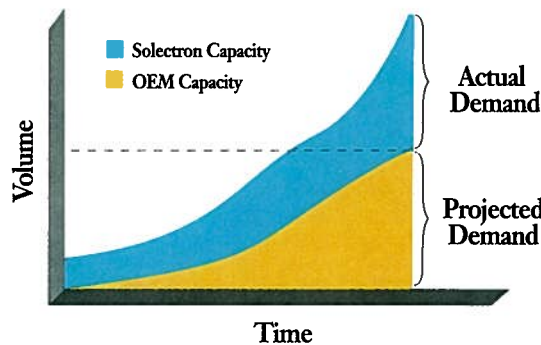
## The Benefits

Solectron's expertise in supply-chain management and its ability to leverage materials procurement for maximum savings enables OEMs to compete more effectively in the global marketplace. To optimize its supply chain, Solectron established a strategic supply-base management approach and infrastructure with supply sources around the world to reduce costs, improve delivery time and minimize inventory.

Using a sophisticated computer simulator, Solectron's Customer Focus Teams factor supply costs into an overall manufacturing strategy. The result is a complete production plan tailor-made to fit the customer's unique requirements.

Solectron's ability to manage radical swings in production volume allows an OEM to quickly adapt to changes in marketing forecasts, while at the same time benefit from Solectron's unwavering commitment to the highest quality standards. Its information technology infrastructure is used to significantly streamline the materials management process and reduce customers' time-to-volume and time-to-market. Finally, Solectron's vendor-managed inventory program is able to meet customers' global fulfillment needs for speed and high-asset turns with minimal liability.

Regardless of the product or size of the company, Solectron's partnership goal remains the same – to deliver the highest quality product, with the fastest time-to-market, at the lowest total cost.





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"All the OEM provided was a schematic diagram. Solectron designed and developed a printed wiring board assembly, cutting several weeks off an option card development cycle."

**Customer:** An industry-leading manufacturer of workstations.

**Situation:** Since the OEM cannot find a network interface card (NIC) capable of handling the speed of their workstations, they decide to design and build their own.

**Solution:** The OEM develops the ASIC but Solectron assumes responsibility for the design layout, manufacture and FCC qualification of the NIC.

**Bottom Line:** By partnering early with Solectron, the OEM's product moves rapidly through the entire development process – from design to delivery – efficiently and cost effectively.

## The Story

An OEM finds their competitive edge is being diminished by the shortcomings of the network interface cards (NICs) on the market. Their fast workstations are hampered by slow-moving network connections. The solution, the OEM decides, is to build a better NIC.

The OEM draws up a schematic for a 64-bit ATM NIC, developing the ASIC themselves but outsourcing the physical implementation to Solectron. Immediately the OEM notices a cost savings through materials leverage. The OEM finds Solectron's partnerships with suppliers augment their own, resulting in further reduction of costs.

Based on the OEM's schematic, Solectron provides the physical implementation of the card after an impressively low three "spins" of design to accommodate ASIC changes. However, because Solectron is able to provide a quick-turn bringup board for the ASIC, the OEM saves time and money in the de-bugging process for the ASIC by testing on the actual board rather than a physical emulator. Once the ASIC is completed, Solectron manufactures the NICs on a build-to-forecast basis.

Compared to similar internal development programs, the OEM realizes a comparative cost savings in the per unit cost as well as a reduction in the number of redesigns. By involving Solectron earlier in the product development cycle, the OEM sees both faster time-to-market and lower product costs.



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## Design, Product Development, Manufacturing & Distribution

Solectron is the global leader in electronics outsourcing solutions. Its integrated services and expertise span the entire product life cycle – from pre-production planning and design to manufacturing, distribution and end-of-life product service and support. These services give OEMs the flexibility and prompt response time required to succeed in today's increasingly competitive electronics marketplace.

While Solectron can assume responsibility of a project at any stage, OEMs find they benefit from partnering with Solectron at the earliest stages of design. Early involvement helps ensure a smooth, rapid and cost-effective transition from product concept to volume manufacturing.

Solectron combines advanced technical expertise in electronics manufacturing with a comprehensive understanding of today's industry and marketing trends to create innovative, effective product designs for its customers – or even to improve upon supplied designs. Solectron works with OEMs to develop complete manufacturing solutions that meet the specific and unique requirements of each of their new product offerings.

Solectron's design expertise spans a broad range of functional characteristics, physical layout, component engineering, materials leveraging, manufacturability, testability, prototyping and test development.

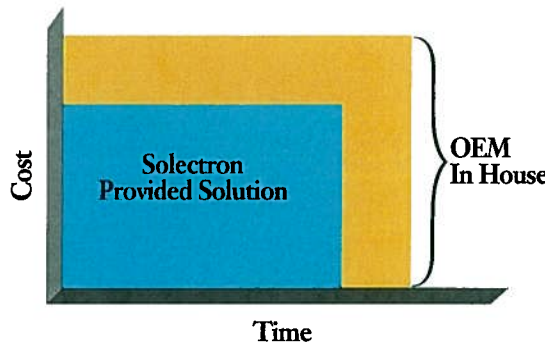
Once the design is complete, Solectron continues to add value in materials selection and procurement. Selecting and acquiring the best, most cost-effective materials at the outset of a manufacturing project is a crucial step in ensuring fast, efficient product development and delivery to consumers. Solectron uses its global procurement expertise to help its customers obtain the lowest cost materials without compromising quality.

Constantly pursuing new ways to cut costs as well as reduce time-to-market, Solectron takes advantage of concurrent engineering, simultaneously allowing multiple teams – which may include internal and customer teams – to work on a

project from different angles. Through frequent and regular contact between the teams, Solectron continues to find ways to improve products, reduce costs and speed up time-to-market.

Solectron's quick-turn prototyping allows OEMs to see how their product will look – and perform – before moving it to pilot production. The ability to make any necessary adjustments and "spin" another prototype can result in significant savings in terms of both time and money.

Solectron provides flexible manufacturing solutions to meet the needs of each OEM and each product. The company can easily scale production volume based on market demand. Additionally, Solectron's build-to-forecast, build-to-order and configure-to-order capabilities help OEMs give their customers what they want, when they want it – and through Solectron's global distribution services – even where they want it.



## The Benefits

When a project is divided between a customer and Solectron's combined teams, concurrent engineering speeds the process and even helps identify and resolve problems that might not otherwise be noticed until later in the development cycle. Solectron's years of experience and quick turnaround can save OEMs significant time and money even when Solectron handles only a portion of the project. However, OEMs gain the most benefit by engaging Solectron for a complete manufacturing services solution.

Additionally, because of the volume and variety of projects Solectron works on, the company is able to leverage its partnerships with suppliers to give individual customers significant purchasing power.

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“Solectron got involved at the right time – the initial design stage. This early involvement allowed for a rapid, seamless transfer from New Product Introduction all the way through volume ramp-up and manufacturing.”

**Customer:** A global leader in computing products and peripherals.

**Situation:** An OEM is about to introduce a next-generation product – an all-in-one printer/scanner/fax machine. Time-to-market is critical so the customer turns to Solectron for design, New Product Introduction (NPI) management, turnkey manufacturing and distribution.

**Solution:** Solectron dedicates a manufacturing engineer to work with the customer from the concept stage through design and volume production.

**Bottom Line:** By partnering early with Solectron, the OEM's product moves rapidly through the entire development process – from design to delivery – efficiently and cost effectively.

## The Story

A world leader in computing products approaches Solectron with a problem: can their newest product idea be implemented quickly and cost effectively? It's a next-generation, all-in-one printer/scanner/fax machine and they need to ramp to volume fast – before the competition.

Solectron gets the ball rolling by sending a manufacturing engineer to the customer site for six months, to collaborate with the OEM's design team. The team designs the product, not only for functionality but also for manufacturability, testability, assembly and quality – facilitating a cost-effective and fast ramp to volume. The engineer follows the product when it's ready for manufacturing. He brings it into Solectron's Complex Systems division in California, where the product is prototyped and “debugged” on the same types of equipment that will eventually be used to manufacture larger volumes of the product worldwide.

Once the New Product Introduction (NPI) stage is complete, the product is transferred to Solectron's High Velocity Systems division where manufacturing is ramped up from pilot to volume levels. Just as the product reaches volume manufacturing levels, Solectron associates from Guadalajara, Mexico are trained at Solectron's California location. Six months later, production is seamlessly transferred to Guadalajara – a high-volume, low-cost manufacturing location. Only 18 months after the initial meeting between Solectron and the OEM, steady volume manufacturing of the new product is underway.



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## Design, Product Development, Manufacturing & Distribution

Solecron is the global leader in electronics outsourcing solutions. Its integrated services and expertise span the entire product life cycle – from pre-production planning and design, to manufacturing, distribution and end-of-life product service and support. These services give OEMs the flexibility and prompt response time required to succeed in today's increasingly competitive electronics marketplace.

A two-time Malcolm Baldrige National Quality Award winner, Solecron is leading the electronics outsourcing industry in process development and management. Solecron not only designs products for functionality, manufacturability, testability, serviceability and quality, but also builds entire product roadmaps. These roadmaps detail what components should be used, where the product should be built, how best to manage materials and how to increase inventory velocity and optimize delivery – all before manufacturing has even begun.

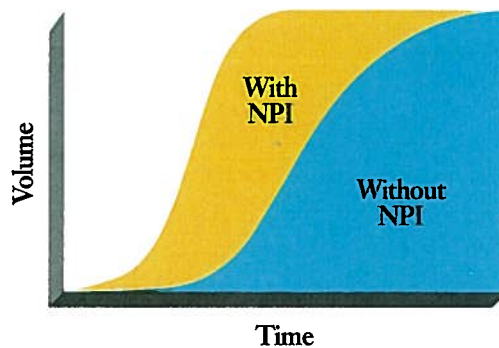
The company combines advanced technical expertise in electronics manufacturing with a comprehensive understanding of today's industry and marketing trends to create innovative, effective product designs for its customers. Solecron works with OEMs to create complete manufacturing solutions that meet the specific and unique requirements of each customer's new product offerings. Solecron's design expertise spans the entire range of manufacturing considerations, including functional characteristics, physical layout, component engineering, design verification, materials leveraging, manufacturability, testability, prototyping and test development.

Solecron partners with its customers at the earliest stages of product design to ensure a smooth, rapid and cost-effective transition from product concept to volume manufacturing. Solecron's NPI teams – strategically situated at several locations around the world – work with clients to design manufacturing solutions that facilitate economical procurement of materials, efficient, trouble-free production, reliable testing and global distribution.

With design and manufacturing facilities on four continents, Solecron employs the most advanced concurrent engineering

techniques. Engineers working simultaneously on the same project frequently exchange detailed technical information with counterparts halfway around the world. When the working day has ended for a team in one geographic location, a second team, located in another part of the world, will continue working on the project from exactly the point where the first left off. The result is a 24-hour approach to most facets of product design

and planning. This is possible due to Solecron's common processes initiative where each site has similar manufacturing equipment and processes in place to ensure a seamless transition for the customer.



## The Benefits

It is estimated that about 70 percent of a product's cost are fixed or determined during the design phase. Selecting the

appropriate components and supply source is critical to the success of a rapid product launch. Another key factor to successfully ramping up volume is Solecron's ability to prototype and debug products in an environment that is similar to the final production line. This allows engineers to get "real" feedback on the design-for-manufacturability readiness of a product – and allows them to give the manufacturing facility valuable – and cost-saving – information to ensure the volume production goes smoothly. Additionally, Solecron's NPI teams can design test processes based on a systems view of the product – ensuring fewer "touches" yet increased quality assurance.

In addition to keeping up with the latest trends in electronic manufacturing services, Solecron provides customers with a competitive advantage – flexible manufacturing solutions around the world. Solecron's extensive global presence means OEMs can manufacture products close to the end markets – thus speeding up distribution. Because Solecron insists on common processes company-wide, customers can be confident they are receiving the same high level of service and quality no matter where their product is manufactured.

Regardless of the product or size of the company, Solecron's partnership goal remains the same – to deliver the highest quality product, with the fastest time-to-market at the lowest total cost.



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“The OEM underestimated demand, and they needed more units ...now! Within three weeks Solectron set up a whole new factory. Volume was ramped up, and within 20 weeks 60,000 PCs a month were being delivered.”

**Customer:** A world leader in PCs.

**Situation:** An OEM underestimates demand for their new product. Revised projections call for a rapid, massive increase in production – from 3,000 to 60,000 finished units a month. The OEM does not have the internal manufacturing capacity to meet this demand. But it must be met if they are to maintain their reputation and marketshare.

**Solution:** Solectron assembles a team to determine the best course of action. The answer? Set up a new factory. Solectron finds space, designs and builds a customized assembly line, hires and trains associates and ramps to volume. Within 12 weeks, 30,000 units a month are rolling off the line; by 20 weeks that number hits the desired 60,000.

**Bottom Line:** By partnering with Solectron, the OEM is able to quickly increase production to meet unexpected market demand. The OEM meets their goal without incurring the drastic increase in fixed costs associated with owning and staffing a new manufacturing facility.

## The Story

A world leader in PC products – and a Solectron partner – faces a problem. Demand for their product is suddenly soaring and they do not have enough on hand to meet the increase. Nor do they have the internal capacity to increase production. At this time, Solectron is acting as an overflow manufacturer for the OEM, producing 3,000 units a month. The OEM asks Solectron to increase manufacturing capacity to 60,000 units a month – and to ramp to this volume quickly.

Assessing the requirements – where? how many shifts? what kinds of teams? how much will it cost? – Solectron determines the best solution is to set up an entirely new factory dedicated to the customer. Solectron leases a facility, orders equipment and hires aggressively. Within four weeks, 250 people are on staff and a half-mile of assembly conveyers is installed and operating. Twelve weeks after accepting the challenge, Solectron is producing 30,000 units/month. Within 20 weeks of starting the project, production volume reaches 60,000 completed PCs a month, well within the customer's timeline.



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## Manufacturing & Distribution

Solectron is the global leader in electronics outsourcing solutions. Solectron provides OEMs the flexibility and quick response time needed to succeed in today's increasingly competitive electronics marketplace. Solectron's integrated services and expertise span the entire product life cycle – from pre-production planning and design to manufacturing, distribution and end-of-life product service and support.

Solectron has always been an industry leader in surface mount technology (SMT) and printed circuit board assembly (PCBA). And while the company continues to lead in these areas, it has grown its capabilities across the entire product life cycle to include: New Product Introduction (NPI) and prototype work, design, systems assembly (build-to-order, configure-to-order), original design manufacturing and after-sales support.

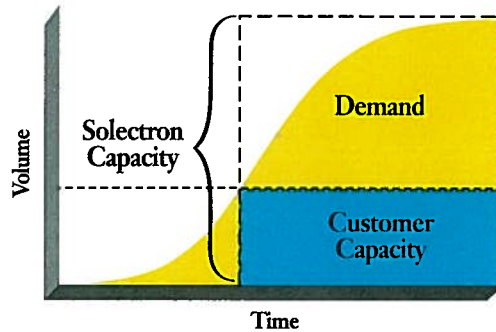
One of the biggest advantages of a partnership with Solectron is flexibility. Solectron is able to respond quickly to changing product demand and schedule fluctuations. Solectron can efficiently and cost-effectively ramp up or ramp down production. The company's flexibility also means it can meet the wide variety of production demands inherent in the electronics manufacturing industry. High-, medium-, low- and extremely low-volume production projects are handled on a daily basis, as are build-to-order and configure-to-order requirements.

Customers can expect Solectron to operate as if it were an extension of the manufacturing operations of their own company. OEMs have access to the shop floor and to project status reports via Solectron's intranet. And to ensure the highest levels of service, each Solectron customer is assigned a Customer Focus Team. This dedicated team includes Solectron experts from each strategic area of the manufacturing process – supply-base management, inventory control, engineering services, master scheduling, document control, quality assurance and customer reporting – to provide comprehensive project management and close communication throughout the entire product life cycle.

With the globalization of the world economy, Solectron's network of worldwide facilities puts the company where its customers need it – close to their expanding markets for faster product delivery. This global footprint also enables Solectron to offer customers a full range of value-added manufacturing services including cost containment, compliance with local content regulations and the elimination of expensive freight costs, tariffs and time-consuming customs clearances.

Solectron's network of fully integrated facilities also allows the company to design and implement a manufacturing mix that utilizes the strengths and specializations found at individual sites. This ability to "pick and choose" means

Solectron's customers receive the best possible manufacturing and delivery solution.



## The Benefits

By partnering with Solectron, OEMs are able to take full advantage of Solectron's flexibility and responsiveness. It allows the OEMs to increase production as needed – without having to invest in or operate a new facility of their own. This enables OEMs to reduce their costs. Not only is Solectron able to quickly ramp up production, but once needed product is manufactured, production can be just as quickly ramped down – associates transferred to other Solectron projects, the assembly line dismantled, and the facility converted for other customer projects.

Customers benefit from Solectron's ability to respond quickly to changing needs and its unwavering commitment to the highest quality standards. They also benefit from Solectron's experience and global presence. By partnering with Solectron, OEMs gain access to advanced technologies and Solectron's ability to leverage and manage global material supply.

No matter what services customers choose, Solectron's partnership goal remains the same – to deliver the highest quality product, with the fastest time-to-market, at the lowest total cost.



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# Quality Solutions

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“Solectron was the logical choice... bringing unrivaled manufacturing prowess, recognized quality standards, efficient purchasing power and broad international reach to the partnership.”

**Customer:** A start-up networking company.

**Situation:** A venture-backed, start-up company is designing two-way wireless networking equipment. It is a one-of-a-kind product, utilizing the most advanced technology available. Demand for their product is increasing, quality is a key concern and the OEM needs a strong manufacturing partner. An inferior product or the inability to meet demand would seriously damage the OEM in the marketplace.

**Solution:** Solectron immediately assembles a Customer Focus Team, which quickly designs and builds a customized assembly line – with emphasis on built-in product testability. Within two weeks, the units are being assembled, rigorously tested for quality and shipped directly to the OEM's customers. In less than two months, production is ramped up to required volume.

**Bottom Line:** Solectron provides the manufacturing solution that enables a small start-up OEM to effectively compete against much larger multinational corporations.

## The Story

The start-up company is in an enviable position. They have a great product, demand for the product is increasing and they have little competition. The challenge? The small company doesn't have a manufacturing infrastructure. They need a strong manufacturing partner – one capable of ramping up production quickly, ensuring high product quality levels and doing it as economically as possible. In addition, the OEM requires a global presence and overnight distribution capabilities to compete with large multinational companies.

Solectron provides the customer with a total manufacturing solution, including supply-chain management and product distribution. While design analysis, prototyping and initial build are under way, a customized assembly process is developed to include functional testing. Production ramps up and the number of finished units increases to required levels in under two months. Solectron also handles global distribution – shipping the finished units directly to the OEM's customers. This direct distribution means the OEM does not need to establish costly, large distribution capabilities to handle the increase in product and customers; and product inventory is managed at optimum levels.



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## Product Development, Manufacturing & Distribution

Solectron is the global leader in electronics outsourcing solutions. Solectron provides OEMs the flexibility and quick response time needed to succeed in today's increasingly competitive electronics marketplace. Solectron's integrated services and expertise span the entire product life cycle – from pre-production planning and design to manufacturing, distribution and end-of-life product service and support.

Customers benefit from Solectron's ability to respond quickly to changing needs and its unwavering commitment to the highest quality standards. Today, OEMs are turning to Solectron for help with design and New Product Introduction (NPI) management. They're utilizing the company's expertise in supply-chain management and ability to leverage material supply. They're maximizing the manufacturing and market benefits of Solectron's worldwide system of manufacturing facilities. They're calling on Solectron to deliver products directly to the end-user and to handle all repair and after-sales service.

Today, Solectron is leading the electronics outsourcing industry in redefining the manufacturing process. Solectron not only designs products for quality, manufacturability, testability, serviceability and functionality, but builds entire roadmaps. These roadmaps detail the best component choices, where the product should be built, how best to manage materials, increase inventory velocity and optimize delivery – all before manufacturing has even begun.

One of the biggest advantages of the Solectron solution is flexibility. Solectron is able to respond quickly to changing product demand and schedule fluctuations. By optimizing internal processes, Solectron is able to efficiently and cost-effectively ramp up or ramp down production. The company's flexibility also means it can meet the wide variety of production demands inherent in the electronics manufacturing industry. High-, medium-, low- and extremely low- volume production projects are handled on a daily basis, as are build-to-order and configure-to-order requirements.

With the globalization of the world economy, Solectron's network of worldwide facilities puts the company where its customers need it – close to their expanding markets for faster product delivery. This global presence also enables Solectron

to offer customers a full range of value-added manufacturing services including cost containment, compliance with local content regulations and the elimination of expensive freight costs, tariffs and time-consuming customs clearances.

Solectron's network of fully integrated facilities also allows the company to design and implement a manufacturing mix that utilizes the strengths and specializations found at individual sites. This ability to "pick and choose" means Solectron's customers receive the best possible manufacturing and delivery solution.

## The Benefits

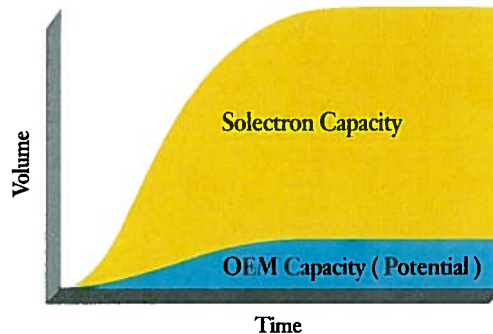
By partnering with Solectron early, start-up companies are well positioned for the future.

Solectron's flexibility allows these smaller OEMs to quickly ramp production up or down, depending on demand. Also, by partnering with Solectron, OEMs are able to take advantage of the company's ability to quickly respond to their evolving needs.

Having Solectron handle distribution and control inventory means OEMs do not need to incur the expense of establishing and maintaining a global distribution network. And, as larger, multinational companies begin to compete directly, start-ups will be able to take advantage of Solectron's global presence and material purchasing power to remain competitively priced and positioned.

To better utilize assets and lower costs, OEMs are becoming less involved in day-to-day manufacturing. As a result, for many companies – large and small – Solectron has become an integral part of their manufacturing process. And while this has allowed OEMs to concentrate their efforts and resources on core competencies such as R&D and marketing, it has also meant Solectron has needed to respond by offering a virtual design and manufacturing solution. And that is what the company has done.

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“Within six weeks, Solectron sets up a line, assembles and trains staff, disassembles, upgrades, reassembles, functionally tests, repackages and ships 20,000 units to market.”

**Customer:** One of the world's leading peripheral companies.

**Situation:** An OEM discovers its new product has a defective part that could result in a potential hazard for the user. Product demand has been generated, orders taken, and retail outlets are expecting delivery.

**Solution:** Within six weeks, Solectron sets up a line, assembles and trains staff, disassembles, upgrades, reassembles, functionally tests, repackages and ships 20,000 units to market.

**Bottom Line:** By partnering with Solectron, the OEM delivered a high-quality product in time to meet their product launch date.

## The Story

A global leader in peripherals had spent more than six months building a new product. Pre-delivery demand for the product had been created, orders taken, and retail outlets lined up to receive shipment. Then, a product defect was discovered, one with a high risk of field failure, and one that could potentially be hazardous to the user. The company did not have the resources to quickly rework the product to meet their delivery schedules.

Company executives decided they had two options: 1) release the product and face the consequences - market embarrassment, loss of reputation, and product liability and recall costs - or 2) engage Solectron to re-manufacture the product before delivery to the market.

Solectron was able to quickly assess the situation and develop a comprehensive solution. Within six weeks, Solectron's Support Services set up a line, assembled and trained staff - who then disassembled, upgraded, reassembled, functionally tested, repackaged and shipped 20,000 units. By partnering with Solectron, the OEM was able to avoid market embarrassment, reputation loss, high field failure, warranty support, repair and product liability or recall costs.



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## Solectron's Support Services

Solectron's services don't stop at the end of the assembly line. Customers can confidently look to Solectron for support in end-of-life manufacturing, repair and refurbishment, warehousing, logistics, and worldwide distribution of technology products. By partnering with Solectron, OEMs can take advantage of the Company's completely integrated service offering across the entire product life cycle.

A challenge for many OEMs is how to manage and support their existing customers and products when they are launching new products and technology in the marketplace. This is a difficult dilemma for many OEMs since they have limited resources. If an OEM does not provide the highest quality service and support to their existing customers, they can potentially lose their established customer base. And if they are not continuing to develop and launch new technologies and products, they will jeopardize their competitive position in the market.

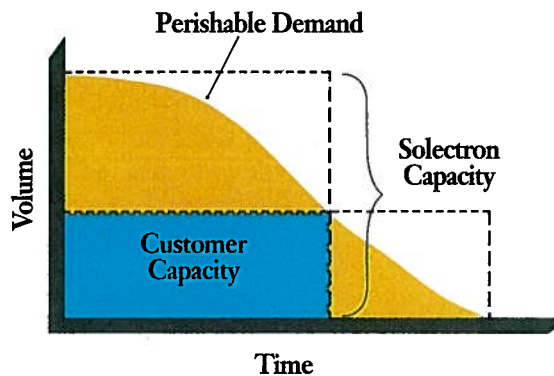
By partnering with Solectron, the OEM can achieve an optimal balance. Solectron can provide high-quality services to the OEM's existing customer base, allowing the OEM to focus their efforts on their new products. Solectron helps OEMs support their customers by providing after-sales service on an on-going basis. And, as the OEM continues to develop next generation products, Solectron's Support Services manages the necessary end-of-product-life activities for the company's existing product line. Plus, if needed, Solectron will manage an OEM's returned products, whether manufactured at Solectron or not. These services can also extend a product's market life, thereby increasing the OEM's revenue.

Another challenge many OEMs face is managing product upgrades. When a product is successful, an OEM may choose to add new features to enhance its capabilities or do product extensions. When this happens, Solectron is ready to assist. Its Support Services group is expert in all areas of product upgrades, including materials management, process development and distribution management. Solectron will reconfigure existing product inventory to reflect the new

revision level, and quickly get the upgraded product back into the marketplace.

Customers can expect Solectron's Support Services to operate as if it were an extension of their own service department. Customers have free access to the shop floor and to project status reports via Intranet. And to ensure the highest level of service, each Solectron customer is assigned a

Customer Focus Team. This dedicated team includes Solectron experts from each strategic area of the manufacturing process - supply management, inventory controls, engineering services, master scheduling, document control, quality assurance, and customer reporting - to provide comprehensive project management and close communication throughout the entire product life cycle.



In addition to support services, Solectron can provide its customers a full range of services across the entire product life cycle from the earliest stages of design to manufacturing to end-of-life.

## The Benefits

Product failure or recall can often have a tremendous negative impact on a company's reputation and bottom line. Solectron's Support Services can help prevent this from happening. Solectron is able to move quickly, shift gears, and effectively and efficiently correct the problem before it becomes a market nightmare.

Regardless of the product or size of company, OEMs can benefit from Solectron's uncompromising quality, global presence, and unparalleled supply chain management expertise. And, when customers use Solectron's Support Services in combination with its design, printed circuit board and systems assembly capabilities, they have access to a total product life cycle solution.

No matter what services a customer chooses, Solectron's partnership goal remains the same — to deliver the highest quality product, with the fastest time-to-market at the lowest total cost.



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