TOPIC SHEET

3 Easy Risk Mitigation Strategies to Navigate the Chip Shortage

Use the CELUS Engineering Platform to Increase Enterprise Resilience and Flexibility

Surging demand for consumer products has led to a global chip and component shortage. Manufacturers of products, ranging from computing devices, to household appliances, cars, and more, aren't able to fully source the electronic inputs they need to develop and finalize products. Analysts blame everything from unexpected and sustained consumer demand; to raw material shortages; an insufficient number of high-tech, billion-dollar foundries to produce chips; and logistics snarls for these issues. The shortage has led to situations, such as idled or cancelled production or nearly completed goods, such as new automobiles, sitting on lots waiting for chips.[1]

While more chips will become available by year-end, the shortage is predicted to last through 2023. The automotive industry will be by far the worst affected, experiencing impacts until 2024.[2]

»Combat chip and component shortages and win, using three easy risk-mitigation strategies that can be implemented today.«

Shortages Always Occur – It's Important to Plan for Them

Certainly, the scale of these supply chain issues is new. However, component shortages aren't. The electronics industry has always suffered from shortages because component manufacturers need to predict demand and plan production runs. While analytics help, they're not always perfect. And events such as a global pandemic are inherently unpredictable.

Use These Three Strategies to Protect Business Amidst Shortages

Despite these issues, electronics companies can use three strategies to minimize the impact of current shortages on product development and manufacturing. They are:

1. Search for new solutions:

Most people like to work in their comfort zone. For electronics engineers, this means sourcing chips and components they've used before. Reusing preferred inputs allows engineers to skip the time-consuming steps of searching for new chips and components to see if they'll work with their designs. In this new market reality, however, engineers should begin looking for alternatives the moment they suspect inputs won't be available. They should increase the scope of component manufacturers they research and

1 Alex Bernstein, "Latest New Car Chip Shortage Updates," CarsDirect, August 9, 2022, www.carsdirect.com/deals-articles/latest-new-car-chip-shortage-updates

2 "Supply Chain Issues and Autos: When Will the Chip Shortage End?," JP Morgan, August 11, 2022, www.jpmorgan.com/insights/research/supply-chain-chip-shortage and Esther Shein, "Global chip shortage: Everything you need to know," TechRepublic, November 21, 2021, www.techrepublic.com/article/global-chip-shortage-cheat-sheet/

follow a second sourcing management strategy to purchase chips and components, protecting their company's interests.

Digital platforms can provide automated functionality that connects engineers to millions of chip and component options from leading functionality. There's no need to conduct lengthy online searches or read data sheets. The platform takes technical requirements and automatically determines functionality-component fit.

2. Document and reuse work:

Engineers can use a digital platform to create and store intellectual property, preparing them for reuse. The platform can store intellectual property and generate a full set of design documentation that engineers can provide to contract manufacturers.

With the time savings they experience automating design and chip and component sourcing, engineers can also elect to create alternate designs in minutes, optimizing them for specific requirements. In the event that inputs aren't available, engineers have other options that are ready to go.

3. Use the CELUS Engineering Platform:

Electronic engineers can use CELUS to discover new chips and components, determine their usability for key applications, and create and regenerate boards. CELUS seamlessly connects engineers and internal partners, such as business approvers and procurement, with data and digital workflow.

Engineers can easily conduct an early feasibility analysis of designs, source inputs, seek reviews and approvals, and develop printed circuit boards. CELUS uses smart algorithms to design the ideal placement of components, ensuring boards will perform as expected.

»Main reasons for not starting a redesign are cost, time and functional safety – CELUS reduces these hurdles for engineers.«

Christian Rückert, CEO, Binder Elektronik GmbH

Increase Agility with Automated Processes

As the chip and component shortage drags on, teams at electronics companies are looking for new solutions to avoid being held hostage to issues they can't control.

Electronics engineering teams can implement three risk mitigation strategies today. They can search for new solutions, document and save their work, and develop alternate designs, all using the CELUS Engineering Platform.

Electronics engineers benefit by working more efficiently and increasing the pace of innovation. Businesses are able to capture market demand and increase operational resilience. As a result, these companies will be able to better able to develop new products, keep production on-target, and drive revenues and profitability in any market condition.

Request a demo of the CELUS Engineering Platform today.

» Request here «

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