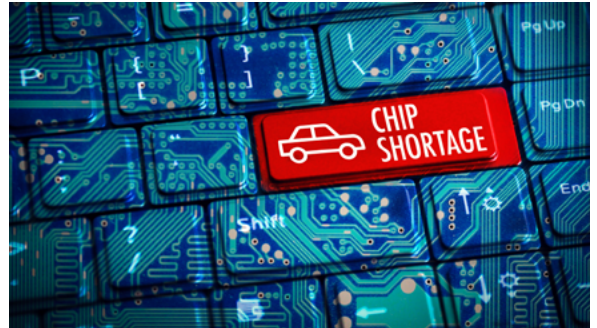


## When the Chips are Down, Strong Partnerships Prevail



With the semiconductor shortage showing no immediate sign of abating, electronics buyers are forming stronger bonds with their sources of supply.

The semiconductor shortage hasn't been kind to anyone, and it's been especially hard on the OEMs that make the chips, the distributors that sell them and the end-users that need them to make their own products. This entire supply chain has been negatively impacted by a trend that was boiling under the surface pre-pandemic, came to a head in 2021 and has yet to show any real signs of abating.

"Persistent global shortages have made it exceedingly difficult to secure chips, which has caused widespread disruption in virtually every production environment, from vehicle manufacturing to electronic assembly," Leanna Kelly writes in "[Global Semiconductor Chip Shortage Update](#)." "Originally caused by COVID-19-related supply chain disruptions, the problem persists under a lopsided supply and demand battle."

According to a recent government survey of 150 major domestic manufacturers, the problem is reaching critical mass, Kelly reports. "Lack of chip availability, coupled with increased production demands, is putting manufacturers in a tight spot, all the while driving inflation."

### A Confluence of Problems

The World Economic Forum (WEF) blames a "confluence of problems" for creating the semiconductor shortage. In addition to long-standing issues within the industry, such

as insufficient capacity at semiconductor fabs, it says the COVID-19 pandemic introduced unprecedented challenges. "For instance, automakers cut their chip orders in early 2020 as vehicle sales plummeted," WEF reports.

"When demand recovered faster than anticipated in the second half of 2020," it adds, "the semiconductor industry had already shifted production lines to meet demand for other applications." WEF says that even though semiconductor companies have increased throughput, the current chip shortage is unlikely to be resolved in the near future, partly because of the complexities of the semiconductor production process.

"Typical lead times can exceed four months for products that are already well established in a manufacturing line," WEF explains. "Increasing capacity by moving a product to another manufacturing site usually adds another six months (even in existing plants). Switching to a different manufacturer typically adds another year or more because the chip's design requires alterations to match the specific manufacturing processes of the new partner."

### Putting Partnerships in Place

One way companies can work through the semiconductor shortage (and the broader electronics components shortages, for that matter) is by partnering with reliable suppliers that can fulfill their needs in any business conditions.

That way, rather than having to place individual orders across multiple suppliers in hopes that some or all are fulfilled, buyers know that their goods will get to the right place at the right time—even if it means having to wait out lengthy lead times that are common in the electronics component space right now.

“Many manufacturers [began] this year with more strategic procurement solutions in place to address some of the challenges they faced last year,” says Todd Burke, Smith’s president, Americas. Burke has been in this role since 2020, and was previously the company’s VP of business development.

The world has changed a lot since 2020, and the electronic component segment has been hit particularly hard by these shifts. “Global supplies of electronic components are still short across most commodities,” says Burke, “and extended lead times are still expected in 2022.”

Burke says sourcing products on the open market and having strategic partnerships in place—including adapted procedures to secure fast-moving inventory—can both help companies keep their lines active and address these challenges. Looking ahead, he says that if both consumer and product demand remain steady, the semiconductor industry will be “lined up” for another strong year in 2022.

“It’s more important now than ever to work with a trusted partner that has vetted procedures in place for procuring authentic, high-quality products,” says Burke, “combined with in-house capabilities for testing and verifying those parts.”