

Conquering the challenges of mass global production

The challenge

The cloud is exploding with growth, and the industry faces significant challenges just to keep pace with infrastructure build-out demands. A leading cloud service provider came to us looking for a partner to **design and manufacture high-quality motherboards** – and deliver on a massive scale.

The size of the project left no room for error. On a project this critical, even the smallest errors could result in delayed deployment and increased total cost of ownership (TCO). Our customer needed an attentive partner they could trust with their design-led manufacturing.

Our experience in a global supply chain made sure we could anticipate and address supply concerns before they became problems. From sourcing issues to the impact of tariffs, we helped the customer navigate unplanned obstacles and hit their cost and schedule targets.

Our Sketch-to-Scale® services transformed the beginnings of a server motherboard design into a complex product produced at scale.

The solution

Paving the way from design to production

Our customer needed more than a partner with a deep knowledge of server design – they also needed someone who knew how to successfully move that design into production.

Our Taiwan design center has extensive experience with the latest processor technology elements of the motherboard. Because the customer came to us with a very early sketch, we were able to make proactive recommendations that anticipated factors like cost, performance and the manufacturing process.

Our Flex Product Lifecycle (FPLC) process ensured we delivered a very high quality design. Applying our design for manufacturability expertise virtually

guaranteed a smooth transition to production.

That transition was made even smoother thanks to the close proximity and working relationship between our design center and our production facility.

As a result, the customer had a solution with a flexible supply chain, based on the latest technology, delivered on schedule and designed to scale.

Adapting for change and global challenges

With over 100 sites across 30 countries, we're no stranger to navigating the complexities of global operations. So when changes in the tax and trade landscape threw a curveball in our customer's production plans, we helped manage their regional strategy and execution. Our expansive global reach meant we had the capacity to handle a massive shift in production, manufacturing at another one of our sites in only three months.

Adaptability in the manufacturing process also meant addressing constantly evolving demand. The project's success relied heavily on building the supply chain, and maintaining high yields.

A global shortage of MLCC capacitors in the market

added to the challenge. Our supply chain expertise, combined with our extensive partner and supplier network, kept us ahead of the inventory curve. We made sure the necessary parts were always available – and never halted production.

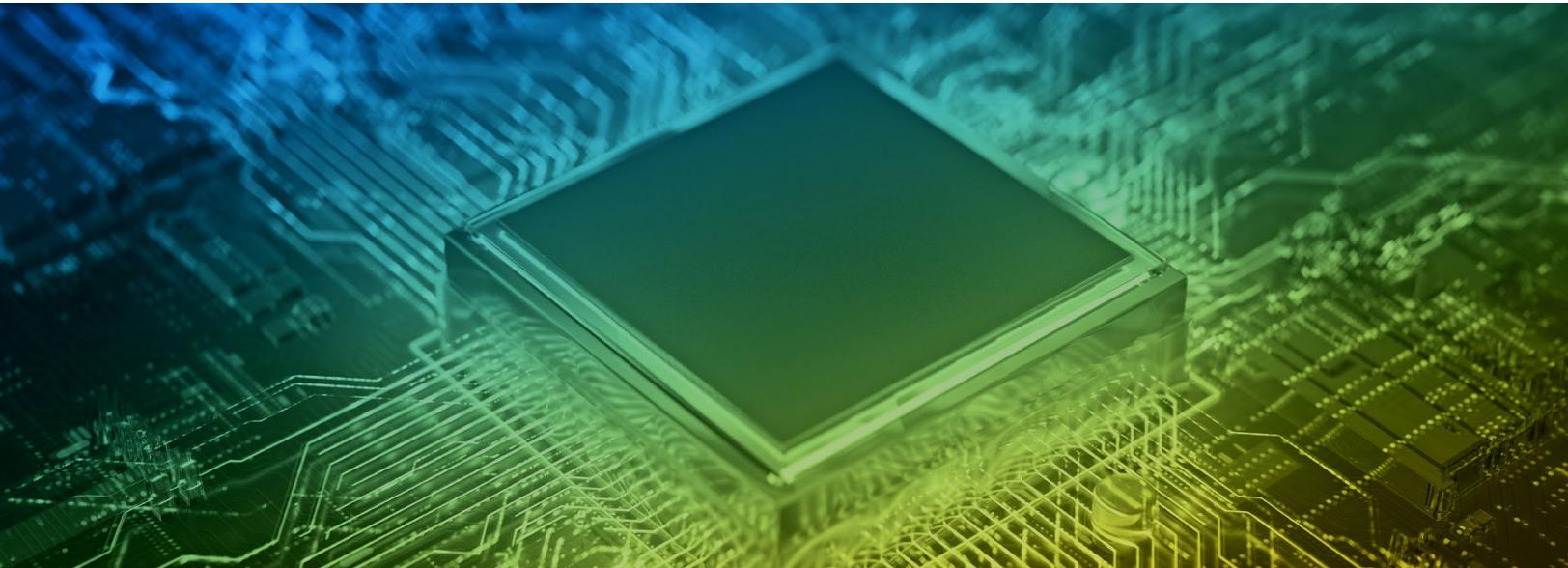
The result

Meeting massive demands in record time

Within nine months of the project's start, we started delivering hundreds of thousands of motherboards. Our customer knew they could trust us to scale rapidly to meet production demands while managing obstacles. But we didn't stop there. We continued to manage costs and deliver a high volume of motherboards to market quickly.

Our solution has allowed for supply chain flexibility, tariff insight and massive scale in production. Decades of experience in the industry allowed us to meet tight deadlines and manage quality control.

Ready to design, build and introduce the next disruptive product? We can partner with you at any point in the product development journey. [Learn more](#) about how you can apply Sketch-to-Scale® services to create tomorrow's game-changing product, today.



For more information, please visit flex.com or follow us on Twitter @flexintl

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ENG-CST-1-017-00 V1