The Case for PCBs Made in America

Why domestic prototyping and manufacturing delivers competitive advantage
Printed Circuit Board (PCB) prototyping and manufacturing are coming home. We believe they should. In our recent eBook outlining industry trends, we identified new markets and opportunities that favor domestic production of PCBs. This onshoring trend is not new and the justifications for it are only growing in number.

International wages continue to increase, further reducing costs savings associated with offshoring. Trade secrets, the very essence of competitive advantage in manufacturing, are more at risk abroad than ever. Now, with PC and smartphone production leveling off, new technologies emerging, and more industries being disrupted, the time to reexamine domestic PCB production is now.

Think fast. Build domestic.

Offshoring has historically meant cheap, not fast. Today, time is increasingly of the essence. That means you need the right PCB, right now, at the right price.

- Increase innovation
- Accelerate production
- Improve quality

This eBook will examine the competitive advantage provided by each of these factors and make the case for domestic PCB prototype and manufacture.

“Before Sunstone, we were struggling to find domestic manufacturers who could rapidly and affordably produce a small volume of quality PCBs”

- Rod Seely, operations manager at Miratron Inc.
Innovation happens here.

If your product line is not a commoditized, high-volume operation, you rely on modern just-in-time (JIT) manufacturing to meet businesses challenges. JIT better positions you to respond to custom requests, support product innovation, and sustain profitability in the face of change.

Offshoring creates logistical challenges, risks your intellectual property, and increases the chance for errors that turn into cost overruns and missed deadlines.

Avoid costly mistakes.

A domestic PCB manufacturing partner empowers you to take chances on an innovative design, iterate quickly, and develop the groundbreaking products your customers demand.

With experts by your side, leverage online tools, rapid prototyping, and commitment to quality. Get to market first – trade secrets intact – with a better product.

Because, otherwise, when you’re breaking new ground, offshoring adds uncertainty by limiting visibility to the manufacturing process. It is the same as sending your PCB design to China and crossing your fingers, hoping for timely delivery and adequate quality.

“There’s no room for error when you’re manufacturing a new product with crowdfunding.”
- Stephen Hibbs, CTO at Alpine Labs

PCB123® makes it possible for skilled professionals and interested hobbyists alike to design PCBs with complex, geometric layouts. PCB123®—the only design software capable of providing real-time quotes as you design, PCB123® ensures smooth sailing from concept to production. All supported by our expert team, 24/7/365.

“We needed a design tool that was cost-effective and easy to use.”
- Ken Miller, head research scientist at Eagle Harbor Tech
We recognize that new products and solutions continue innovating and improving even after they’ve been introduced. Offshore PCB production doesn’t make sense unless order volumes are high and you carry inventory – a lot of it.

If your product evolves to meet customer need or to integrate new technology, you could be left with a big pile of unusable PCBs that are too light to use as paper weights.

We are on call 24/7/365, offering live onsite customer support, no exceptions. You get PCBs fast, supporting JIT initiatives and reducing inventory costs.

“Your quality is top notch. I’ve been using Sunstone for 10 years plus. I’ve had similar PCB’s made in China, the quality paled in comparison. I don’t shop there for a reason for these types of PCB’s, the savings isn’t worth it.”
- Martin Held

“Our goal was to build a healthcare technology platform completely different from and better than anything else available,”
- Jonathan Musselwhite, Product Manager at Amplion.

Collaboration, Iteration, Improvement
Building the best of anything means always being ready to improve your product or solution. A competitor can step in while your new model waits for on offshore PCB delivery. Don’t wait.

“Sunstone enabled us to quickly manufacture so many devices and test them, even system-wide,” said Jonathan Musselwhite. “Speed was critical to our success.”
Better Quality, More Satisfied Customers

Onshore prototyping and manufacture of PCBs is demonstrably faster and more collaborative than offshoring. You are better able to produce groundbreaking products, \textit{products built to last.}

That’s the real difference between PCBs made in America and those produced abroad. \textit{Holistic quality.}

\textbf{Where You Manufacture Matters}

Gentec Electro Optics became an industry leader by repeatedly being first to market with laser management and control solutions that are precise and reliable. They need highly functional, complex boards as fast as possible—PCBs that will withstand the rigors of the world for the long haul.

“We’ve never had a board come in with a defect.”
- Sid Levingston, Gentec-eo senior product development engineer

\textbf{Commitment to Quality}

Electronic Controls Design, Inc. (ECD) is a pioneer in the thermal monitoring industry. Their products define the need for quality PCBs, cost-effectively manufactured.

“Our systems need to perform for a long time and often in tough conditions. They literally get thrown into an oven,” said Mark Waterman

As our industry continues to evolve, the onshoring trend will very likely continue to accelerate.

To stay ahead of the competition, we believe you need a domestic PCB partner capable of supporting your development process from concept to production, even mass production.

\textbf{Download PCB123® today and let’s get started!}
About Sunstone Circuits®

With over 45 years as an industry leader, Sunstone Circuits® is one of the most experienced PCB manufacturers in the USA. We’re proud to manufacture high-quality products, and provide a safe and prosperous workplace for our employees.

Sunstone Circuits® is committed to meeting the needs of our customers by providing the best and most efficient PCB design experience from quote to delivery.

- Terry Heilman, Sunstone CEO

It’s our goal to be the easiest printed circuit board manufacturer to do business with. To achieve that goal, we can’t just talk the talk, we have to walk the walk. Our record of success sets us apart from our competitors:

- On-site customer support available 24/7/365
- 99% + on-time delivery
- Guaranteed quality from quote to delivery
- Award-winning free CAD design software, PCB123®
- Pioneer of online ordering
- Early adopter of Lead-free / RoHS compliant finishes

Our team’s hard work and innovation has earned us a reputation for quality — from quote to delivery.

Visit www.sunstone.com today and explore our full suite of services.