



CA Engineering: Manufacturing Precision at Scale



Ray Ivins, EVP, Sales and Marketing
October 20, 2024

“When you partner with CA Engineering, you’re getting more than just technical expertise—you’re getting a team that understands how to bring your vision to life,” says Ray Ivins, EVP of Sales and Marketing. **“From the initial design phase through to full-scale production, we ensure your product is built for success, with precision and care at every step.”**

At CA Engineering, manufacturing isn’t just about producing devices—it’s about ensuring that every product meets the highest standards of quality and performance, right from the design phase. From industrial communication solutions to consumer electronics, CA Engineering specializes in manufacturing **complex wireless devices** that operate flawlessly across a wide range of applications.

Designing for Precision and Efficiency

Every project at CA Engineering starts with one key question: **How will this design perform in mass production?** With facilities across the U.S., nearshore, and in China, CA Engineering works closely with manufacturing partners to ensure that every product is built for efficiency and scalability. This mindset allows the company to rapidly prototype and scale production while maintaining a high level of quality control.

CA Engineering’s **in-house manufacturing test suite** ensures that devices are not only tested for basic functionality but also undergo precise **radio calibration** to ensure optimal performance. This extra step sets CA Engineering apart, particularly when dealing with high-frequency devices like Wi-Fi radios.

A History of Success with Big-Name Clients

Building a wireless towed array radio for submarines isn’t something just any company can do—but it’s a challenge CA Engineering tackled head-on. The project required developing a rugged wireless communication system capable of operating under extreme conditions. By incorporating their extensive expertise in wireless technology, CA Engineering delivered a reliable solution that meets the stringent demands of military-grade systems.

Another example of their capabilities is a **customized radio** developed for a major luxury appliance company. The radios are now integrated into more than **20 different SKUs**, including high-end fridges, ovens, and dishwashers. These radios enable seamless wireless functionality across a wide range of

products, demonstrating CA Engineering's ability to handle complex, large-scale manufacturing needs for consumer applications.

In collaboration with a **leading U.S. lock manufacturer** (Yale), CA Engineering designed over **10 types of radio modules** for smart locks. Each module allows the lock's functionality to be adapted based on the customer's needs—whether it's for Wi-Fi, Bluetooth, or other communication protocols. This level of customization has enabled the lock manufacturer to stay ahead in the competitive smart home market.

Trusted by Industry Leaders

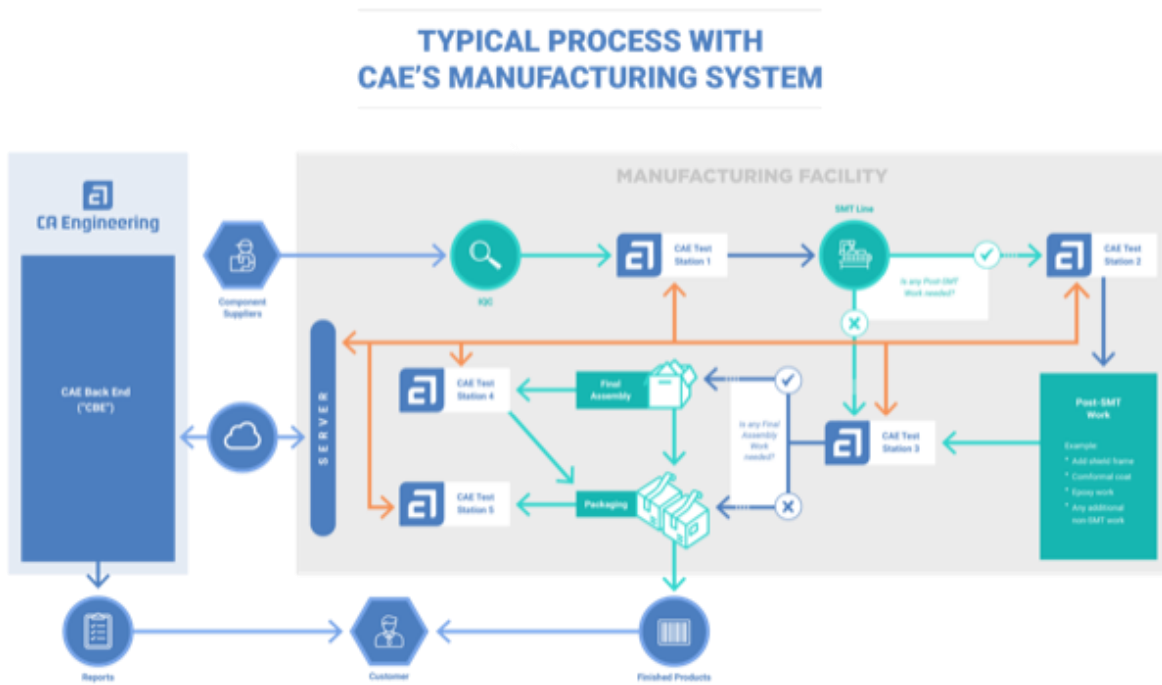
CA Engineering's ability to handle complex wireless devices has earned the trust of **Fortune 100 companies** and well-known brands. **Chances are, you've used a product that relied on CA Engineering's expertise.** Whether it's home appliances, security systems, or industrial communication devices, their work is woven into the fabric of modern technology.

With **over 2 million units shipped**, CA Engineering's manufacturing process is both scalable and precise, tailored to meet the unique needs of each project. Their expertise spans a wide range of industries, from **military and industrial applications** to **luxury consumer electronics**, ensuring that every product is built to last and performs as expected.

Streamlined Solutions for Complex Devices

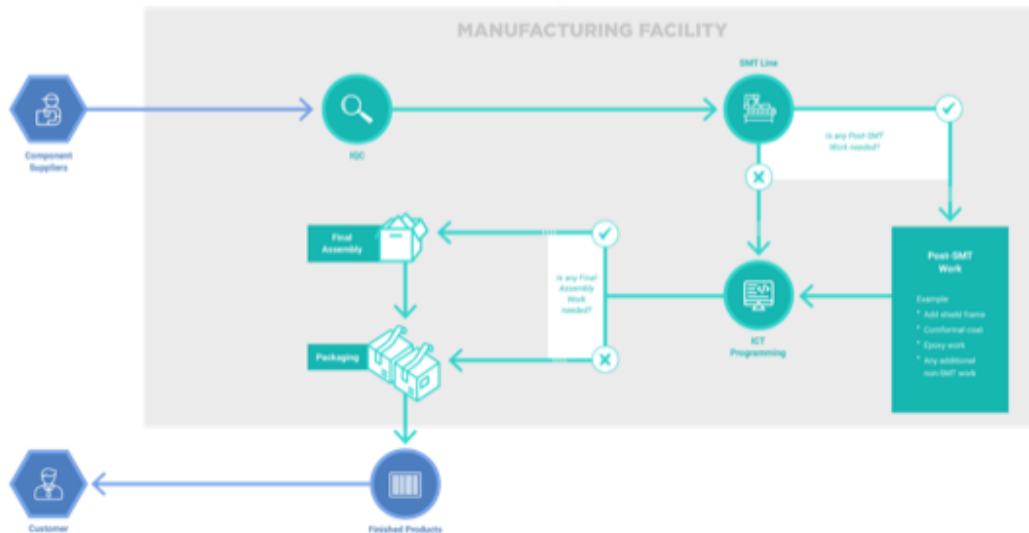
Manufacturing complex communication devices is no easy task, but CA Engineering has honed its process over years of experience. The company's **integrated manufacturing system** incorporates quality assurance and real-time monitoring, minimizing errors and reducing test times.

Every step is planned with scalability in mind, from initial testing to packaging. The diagrams provided below illustrate CA Engineering's **manufacturing process flow**, highlighting how every phase is optimized to ensure that even the most intricate designs are manufactured efficiently and at scale.



TYPICAL CONTRACT MANUFACTURING PROCESS

High-level View



Why CA Engineering?

At CA Engineering, manufacturing excellence is driven by **decades of experience** and a commitment to precision. By integrating design, testing, and production into a seamless process, they ensure that every product not only meets client specifications but exceeds them.

Whether you need a prototype or a production run of millions, CA Engineering's **global manufacturing partnerships** and **integrated quality control systems** ensure your product will be built to the highest standards, every time.

Ready to bring your vision to life?
Trust CA Engineering to build, test, and manufacture your next wireless innovation.