

ATCA WIRELESS NETWORKING

PARTNERING FOR A SUCCESSFUL FINISH

HOW THREE COMPANIES
ACHIEVED RAPID AND
SUCCESSFUL PRODUCT LAUNCHES
WITH SCHROFF AS THEIR OPEN
STANDARDS DESIGN PARTNER



Schroff, a global leader in AdvancedTCA (ATCA) standards-based systems

INTRODUCTION: OVERCOMING KEY CHALLENGES

Your success in bringing a new solution to market—and profiting from it—is dependent upon your electronic design team’s ability to overcome a variety of key challenges, some of which are:

- Incredibly short design cycles
- Access to deep design expertise
- Design obsolescence
- Global standards changes and compliance
- Thermal and cooling issues
- Easy, need-it-here-now sourcing of proven components

Working to clear these hurdles is a daunting task. Add an uncertain business climate to the mix and it gives new meaning to the phrase “doing more with less.” The real-world customer success stories highlighted below illustrate how Schroff, a Pentair brand, can help take most of these burdens off your team’s shoulders.

LARGE-SCALE ENTERPRISE SUCCESS

Several years ago, Schroff was approached by a California-based provider of wireless networking solutions to help build a product that would support the data traffic management and transport needs of large campus environments for schools, hospitals and corporations. It specifically wanted to employ the use of a 5-slot AdvancedTCA (ATCA) chassis so that it could offer its customers a cost-effective, pay-as-you-grow network infrastructure solution.

While there are many options for 1U “pizza box” design solutions, each time a company’s bandwidth requirements grow, complexity and cost increases. With an ATCA form factor, customers can easily and cost-effectively add additional blades to a chassis.

Schroff worked closely with this organization’s engineers to provide guidance about the design considerations related to the solution’s unique bus structure, then to recommend and specify the right open standards-based chassis that could be customized to produce a truly innovative product.

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"This customer chose Schroff for our market leadership in the ATCA standard, as well as our localized support," adds Marc Caiola, Marketing Leader, North America, for Schroff. "It was easy for them to get quick responses, design recommendations and the availability to do customization to meet their unique needs in a timely manner."

FAST TIME-TO-MARKET, HIGH PROFITABILITY, FLAGSHIP STATUS

The end result was a highly reliable solution that was brought to market quickly and provided converged wireless voice and data, full power redundancy, remote management and control capability, ATCA compliance, and next-generation product positioning.

The combination of Schroff's products and support helped the company launch the product quickly and realize a faster revenue stream. The product went on to become the organizations flagship offering and helped position them as a global leader in wireless infrastructure solutions.



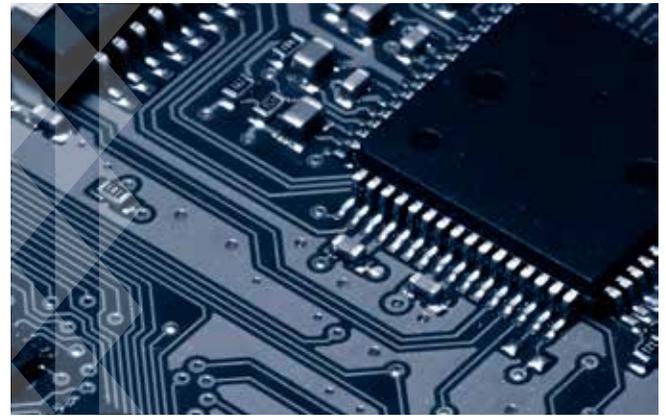
Schroff helps wireless networking solutions providers go to market faster

"From a total value, cost-savings perspective," adds Caiola, "our client didn't have to invest in a whole engineering group to design and produce a system. Schroff served as a bolt-on virtual engineering extension to its core competencies and resources. Today, they're in a position to take the leap into the next generation of that product, and we're helping them transition that product to the next iteration of its lifecycle. It's a life-long relationship we always look to forge with our clients."

TIGHT TURNAROUND ACHIEVED FOR BLEEDING-EDGE LAUNCH

With an extremely tight turnaround looming amid intricate structural challenges, a California-based pioneer in the development of cluster computing turned to Schroff for help. This company wanted to quickly bring to market a new product for customers requiring high-performance computing, to support in data-rich environments like libraries, universities and military organizations.

The primary design challenge was the conversion of an existing 21U chassis to FCC Class A EMI compliance, while maintaining good airflow throughout. Their initial prototype had failed structural tests due to warping, thus the



Helping high technology companies meet aggressive new product launch schedules

organization was under pressure to launch the product in a matter of weeks versus months.

To help expedite the process, Schroff's design team worked directly with the customer's engineering department to develop a viable mechanical solution. It performed pre-scanning certified testing to validate EMI, thermal, sealing, and shock and vibration thresholds to support their next-generation, densely packed board design that operated at higher frequencies and had more physical weight than previous versions.

SEEING IT THROUGH TO THE END

By redefining and staggering the chassis' side plate perforation pattern, adding an EMI gasket and providing additional fastening, Schroff was able to help this client get the product to market by their original deadline.

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“Projects like this, are rarely straightforward,” states Caiola. “There can be a lot of stumbling blocks when deploying a new solution and new technology. But you don’t have to go it alone. Using our decades-long design expertise and knowledge in open standards-based solutions, we worked alongside our customer to see this project through to the end to ensure that it was able to have a successful product launch.”

STANDARDS OVERCOME EXTREMES

Launching a custom design within a short time span can be quite costly. And when the product needs to withstand extreme environmental conditions, the launch is further complicated. It was for these reasons that Schroff was tapped by a major defense contractor to provide design guidance for a shipboard control system that could withstand harsh conditions.

This specific customer required a 3U 6-slot custom-milled cPCI chassis that could meet MIL-S 901D shock test of up to 180 g. Additionally, the design specs required a form-and-fit end product that could fit into the same footprint as a previous-generation solution.

Here, Schroff leveraged open standards to recommend a standardized product then modified it to meet the customer’s specific needs. In this case, we had a powerboard that met many of the customers requirements, which eliminated the development required for a modified or custom solution. Using our deep understanding of structural design, we were able to design a card cage that was milled from several blocks of aluminum to provide the board mounting. The final product comprised a turn-key chassis and modified cPCI backplane with connectors for both power and I/O.

STRONG SYSTEM GUIDES FLEETS OF SHIPS

As a testament to it’s success, today it is used on ships among the fleets of the U.S., Canadian and Australian Navies.



Schroff helps defense contractors meet the needs of navies across the globe

YOUR NEXT STEP

With short design cycles, continuously shrinking budgets and staff, global compliance changes, and the need to be first to market with innovative, competitive solutions, your design team has enough challenges on its hands. You don’t need to go it alone. To learn more about how your own organization can benefit by leveraging Schroff as a design and support partner, please visit www.PentairProtect.com.

YOUR GLOBAL PARTNER



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