

Ruggea









AdvancedTCA

Speed • Cooling • High Performance Enabling our customers to take advantage of everything that AdvancedTCA has to offer even in the harshest and most demanding environments





LCR Embedded Systems 9 S. Forrest Ave. Norristown, PA 19401

AdvancedTCA in Challenging Environments

The AdvancedTCA form factor was developed to allow telecom equipment providers to create standardsbased systems combining the benefits of extremely high performance, throughput, and availability for a greater cost-effectiveness than might be found in some other form factors, due to its extremely large number of commercial deployments. With the PICMG standard focused on interoperability between third-party vendors, the result has been a robust ecosystem of vendors providing cost-effective products.

While the aerospace and defense market began adopting AdvancedTCA in benign environments, systems deployed in the field often face much harsher environments that the typical central office. LCR Embedded Systems was the first company to combine the benefits of AdvancedTCA with rugged design, as well as to allow very quick deployment of these systems in the field.

General AdvancedTCA Features

- Larger board area compared to other form factors allows the use of higher-performance silicon
- Standardization and interoperability reduces cost and time-to-market
- Large selection of low-cost third-party blades
- Support for high-speed (Terabit and greater) backplanes
- Thousands of deployments in the communications space means proven technology

LCR Embedded Systems Features

- · Rugged card-cage designs that can scale from 2-14 slots across multiple deployment environments
- Commitment to support customer for 20+ year life cvcle
- Support for various shelf managers
- Chassis tested for airborne, shipboard, and ground mobile deployments as below*
- Over 450 chassis fielded in airborne, shipboard, and ground mobile deployments

The Future of AdvancedTCA: A Product Roadmap

While LCR Embedded Systems has enabled major aerospace and defense contractors to deploy AdvancedTCA platforms in demanding environments, our ability to enable our customers to take advantage of the high performance, high throughput, and cost effectiveness offered by the form factor extends beyond rugged design.

Thanks to our expertise in system integration, we're also able to design a complete platform around any of the many available third-party custom blades that our customers might wish to use as well as offering a choice of chassis size -- large or small -- to support and scale for any application.

As the products listed at right show, we are also able to design and support backplanes of any bandwidth from 10 Gigabits per second (Gbps) to 40 Gbps and beyond, with the ability to customize them to meet unique requirements.

We also understand that budget pressures, slow budget cycles, training and recertification requirements, and other issues require the aerospace and defense industries and their front-line customers to squeeze every bit of utility out of their deployed equipment, creating extremely long product life cycles. Our extensive experience in supporting our customers' legacy equipment shows that we are uniquely qualified to function as a long-term partner who can be relied upon to support deployments for decades to come.

* LCR Embedded Systems tests shipboard equipment for Shock, Vibration, and Acoustics (MIL-STD-202G, 167, and 1474). Airborne equipment is tested for Vibration and Acceleration (MIL-STD-810 514.6 DI and 810F 513.6 Procedures II and III). Ground Mobile equipment is tested for Vibration (MIL-STD-810 514.6 DI and III).

When you choose LCR Embedded Systems, you're choosing a sustained alliance with industry-leading experts who are committed to helping you achieve your mission.

LCR Embedded Systems 9 S. Forrest Ave. Norristown, PA 19401

and monev are achieved via the use of rugged, modular components that go into every one of our rugged AdvancedTCA

chassis. Thanks to this construction, we can create exactly the solution you need quickly and cost-efficiently --



Savings of both time



ATCA 6-Slot Atlas

ATCA Gemini

Cooling: 225 W/slot Backplane: 10 Gb/s





ATCA Atlas

Cooling: 300 W/slot





turning a custom solution into a standard one.