

Engineering Services: Focus on Data Acquisition and Signal Processing



Science. Engineering. Business.

Triple Ring Technologies is a team of experienced engineers, physicists, and chemists who know how to collaborate. Our services span early-stage applied research, product development, pilot manufacturing, and entrepreneurial business development. These services **reduce risk, reduce costs, and shorten time to market.**

Understand. Simplify. Accelerate.

Triple Ring offers development services for real-time embedded systems hardware and software, high-speed data acquisition and analysis platforms, DSP design, FPGA programming, and massively parallel processor array (MPPA)-based solutions. Triple Ring has developed solutions for high-speed data and image acquisition up to 40Gigab/sec speeds and real-time processing, and analysis systems capable of TeraOps/s. Standard hardware and firmware components accelerate the deployment of systems from development platforms to final products.

For applications that require the highest degree of scalability and operational up-time, Triple Ring can base solutions on the Advanced Telecommunications Computing Architecture (ATCA) developed for the rigorous performance requirements of the telecom industry for managing high-speed data traffic. The ATCA benefits of high computation density, scalability, and ultra-high reliability can now be brought to other market sectors, such as medical systems, network security, military, and research.

Ideas. Prototypes. Production.

Triple Ring has offices serving Silicon Valley and Boston. The headquarters in Newark, CA are housed in a 41,000 sq. ft. facility that includes dedicated laboratories for electronics, optics, radiation source development, and mechanical prototyping; a machine shop; client office space; and a pilot manufacturing facility. Our quality management system is compliant with ISO 13485.

What We Deliver

Engineering Services

- System architecture for computationally intensive systems
- Embedded systems architecture
- Analog, digital, and mixed signal PCB's
- DSP design and algorithm development
- Mixed signal ASIC design
- High-speed board design, layout, and testing
- Fabrication and assembly of complete systems

Modular Customizable Components

- AMC module with Massively Parallel Processor Array (MPPA), FPGA, and PCIe Data-Fabric Interface
- ATCA Base-Fabric and PCIe Data-Fabric Hub
- AMC Carrier with PCIe Data-Fabric Interface
- Data acquisition and ADC board

Applications Engineering

- Custom FPGA designs
- Signal processing algorithm development

Performance. Support. Commitment.

Triple Ring is a certified applications provider for the Nethra Am2000™ line of MPPA products.