



VTI INSTRUMENTS

THE INDUSTRY LEADER IN CORE ATE SOLUTIONS

Avionics Display Units ■ Weapons/Launch Systems ■ Guidance Control Units
Radar/Antenna Subassemblies ■ Auxiliary Power Units ■ Stores Systems
Torpedo Electrical Subassemblies ■ Wiring/Cable Harnesses ■ Oil Exploration Drill Heads
Automotive Electronic Control Modules ■ Telecommunications/Cellular





Ensuring Consumer Confidence in the Quality of Your Product

Functional test is used to ensure that a product is performing as intended by its manufacturer against its published specifications. It is a broad application space covering virtually every market segment, and the complexity of a test is often driven by the cost and complexity of the product to be tested. For example, a missile guidance control unit (GCU) will require a more rigorous and time-consuming test than a relay board used in the telecommunications industry.

Constructing an automated test system is attractive because it can decrease overall test time and thus enable faster time to market while also reducing the element of human error. Furthermore, today's manufacturers are trending toward automated test equipment (ATE) that is based on a 'common core' of instrumentation that can be reused corporate-wide on all product lines to reduce spares inventory and leverage development time and costs.

Challenges

A properly architected test strategy can have a significant impact on your organizations bottom line and reputation. Some of the most common considerations that occur during development of a test strategy include:

- Containing capital investments and development costs
- Sharing ATE development efforts across the entire corporation
- Minimizing test time and meeting production schedules
- Maintaining a high degree of confidence in accuracy of test results
- Reducing the footprint of a test system to reduce consumption of floor space
- Mitigating obsolescence by selecting long-term test platforms
- Facilitating multi-vendor interoperability through use of open-industry standards

Adopting a top-level strategy that identifies and prioritizes each of the key objectives should be a primary goal when product test is required. By integrating a scalable core instrumentation base into a common test platform, manufacturers can create a versatile system architecture that provides the lowest total cost of ownership.



VTI INSTRUMENTS – HELPING YOU COMPETE



Preserving Initial Development and Capital Investment

An instrument that is rendered obsolete adds product support costs and generates a high-degree of pain for the systems engineer responsible for keeping a test system in operation. When the allotment of spare equipment has run out, deploying replacement hardware will require new development and requalification of any existing test program set. That pain is amplified when an entire system architecture or platform, such as the ISA or PCI bus, is supplanted with a completely new and incompatible next-generation design.

We take pride in our track record of delivering instrumentation that is designed to outlive the products that they are required to test and we are committed to protecting our customers from component obsolescence issues. Extensive re-engineering efforts have resulted in standard products that have been in production for 15-20 years and beyond. We continue to pioneer development of industry standard platforms that have a rich history of longevity through technological evolution while maintaining backward compatibility with earlier revisions.

- Co-founder LXI Consortium
- Strategic Member VXIbus Consortium
- Member, VITA



Building the Highest Degree of Confidence in End-Product Quality

The more thoroughly a product is tested, the more confidence you and your customer have in the quality of the delivered goods. A properly architected test system can eliminate erroneous go/no-go decisions that can affect your reputation for quality or on-time delivery.

For decades, major military and aerospace prime contractors worldwide have depended on VTI's expertise in signal routing and measurements systems. VTI switching products have been selected as the core switch on virtually every major ATE system because they preserve the fidelity of the signals that are routed between the test instrumentation and device under test thus ensuring reliable test results, the first time, every time.





Electronic Test Customers

- BAE Systems
- Boeing
- Broadcom
- Continental Automotive
- EADS Astrium
- GE Aviation
- Hamilton Sundstrand
- Honeywell
- Indra
- Lockheed Martin
- MBDA
- Northrop Grumman
- Raytheon Missile Systems
- RIM
- Rockwell Collins
- Schlumberger
- Sikorsky
- Teradyne

Partial list only.

Sharing One Engineering Effort Across the Entire Corporation

In today's global economy, manufacturers are increasingly reliant on engineering teams and production facilities that are spread across the world. Standardizing on a finite core of test instrumentation promotes reusability of software and hardware development efforts that can be shared by the entire corporation, from R&D through manufacturing and support. Additionally, a common core philosophy simplifies maintenance and reduces spares overhead.

VTI's reputation in the automated test industry has been built on delivering innovative high-density designs with a common software and hardware base that can be leveraged throughout the life cycle of a product. Scalable and reconfigurable, our modular multi-purpose switching and I/O solutions can provide up to seven independent high-performance functions in only 1 rack U, thus providing exceptional core coverage while freeing up valuable space for product specific requirements.

Minimizing Development Time and Production Test Cycles

Long test development cycles and excessive production test times will negatively impact a company's bottom line and the ability to compete by either delaying a product's introduction, or by causing shipping milestones to be missed. Test systems engineers can minimize these risks by architecting test systems with instrumentation utilizing embedded intelligence to accelerate the development process and increase product throughput.

The widespread adoption of LXI instrumentation has empowered today's test engineers with increased system performance and a familiar LAN-based infrastructure. VTI has leveraged this technology to embed graphical web interfaces and programming tools on instrumentation to reduce development time and costs by 30-60%. Furthermore, our products incorporate advanced synchronization techniques to provide communication between instruments that is completely independent of the host PC to reduce overall test times and increase throughput.



VTI's Commitment

VTI delivers precision instrumentation for the world's most demanding electronic and mechanical test applications. Applications range from complete structural test of commercial and military aircraft, to aircraft and power turbine engine qualification, to highly accelerated life testing to qualify components on commercial HVAC systems, to functional electronic test of the missile systems that our troops depend upon.

Our Customer list is comprised of leading Fortune 1000 companies who depend on our instrumentation to support all phases of test, from R&D through production and depot level. Virtually every major ATE system design utilizes VTI signal switching and analog I/O as part of its core. Prime contractors and defense organizations worldwide depend on the product performance of VTI Instruments to help them maintain a competitive edge in today's global market and preserve the integrity of their brand.

A sustained focus on innovation and technology enables our Customers to optimize their capital investment through product longevity, while ensuring unmatched measurement integrity and data reliability. VTI serves the aerospace, defense, energy, power generation, automotive and commercial electronics industries.