Core Competency

A.T.E. provides test engineering related consulting services, educational services, research and development and automatic test equipment (ATE) management recommendations.

A.T.E.'s technical focus includes:
- Test program set (TPS) management and development
- Cost-effective and automated test program generation
- Test requirement document (TRD) and strategy development
- ATE selection
- System integration
- Design for testability (DFT)
- Built-in self-test (BIST)
- FPGA applications for test
- High-speed I/O bus tests

As a Professional organization we:
- Participate in development of automated test standards
- Research mitigation of false alarms (FAs) and no- fault found (NFF) via improved diagnosability
- Develop means to reuse tests and test resources
- Publish extensively on test topics
- Hold ATE technology patents
- Are experts in ATE, BIST, DFT and design for excellence (DFX)

A.T.E. is executing a Small Business Innovative Research (SBIR) Phase II that makes high-speed I/O testing compatible and available with legacy military ATE

Advanced Test Engineering
A.T.E. Solutions, Inc.

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Company History

A.T.E. (Advanced Test Engineering) Solutions, Inc. has been consulting test engineers in industry and governments since 1984.

We have consulted, educated and assisted in all aspects of test engineering, automatic testing and design for testability.

We introduced the first university course on the subject and taught test to thousands of test professionals around the world.
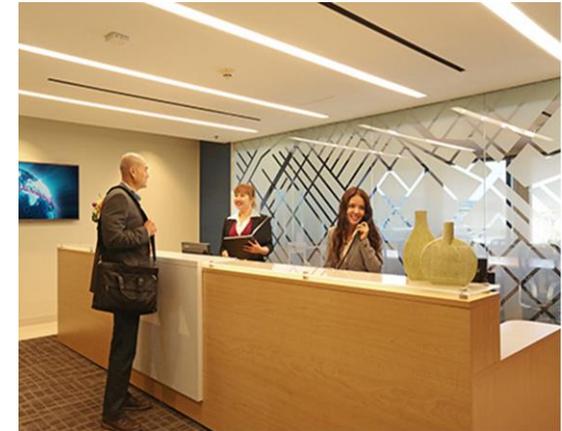
Our clientele includes Fortune 100 companies and governments worldwide.

Advanced Test Engineering
A.T.E. Solutions, Inc.


- *When Today's High-Speed Tests Can't Run on Legacy ATE*
- *When Systems Must be "Ready to test to be Ready to Go"*
- *When You Need a Connection to the Test Community*
- *When it's Hard to Distinguish between Signal and Noise*
- *When you can use Some Extra Test Expertise*
- *When you need Test, ATE and Testability Education*

We are here to serve your test needs

Our Mission

We are here to serve your test needs through innovation that improves electronics test comprehensiveness and diagnostic capabilities, at reduced cost and time-to-market.
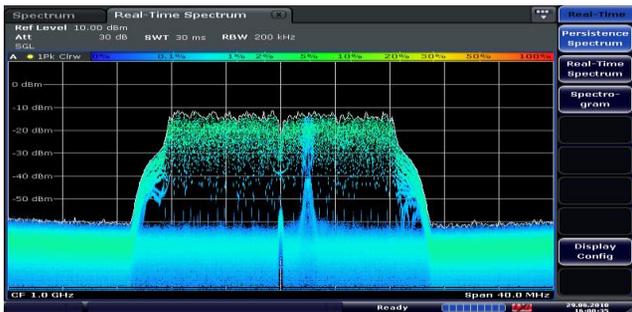
Our Vision

As consultants we at A.T.E have a unique insight into testing concerns and we aim to provide solutions that can widely benefit the profession.

We believe that the widening gap between circuit complexity and test capability can be arrested and test capabilities can be greatly improved through innovation.

Rather than have test simply "catch up" we utilize the sophistication of today's technology to improve tests.

Navy SBIR (N162-106) Advanced High-Speed Bus Technologies for Units Under Test (UUT), Test and Evaluation

Hi-SPINOUT (High-Speed Input/Output Test), a high-speed device interface implemented on a state-of-the-art field programmable gate array (FPGA) to support tests in the multi-Gbps range

- Employs dynamically reconfigurable synthetic instruments (SIs) under the control of the test program set (TPS) developer
- High-speed tests, such as serialization and deserialization (SerDes) tests, are applicable for many different high-speed buses
- Hi-SPINOUT can test in Gbps environments and can add high speed capabilities to legacy (military) ATE, which expands the useful life of the ATE
- Hi-SPINOUT is ATE-agnostic, so tests can be shared across service platforms
- Test reuse, facilitated by this technology will save millions in future TPSs
- Entire TPSs can be employed by other TPSs for wider test reuse

Hi-SPINOUT solves many test challenges:

- Reduces lead times via TPS reuse
- Reduces TPS development cost
- Provides legacy ATE with updates to test high-speed circuits

Our Markets and Customers

A.T.E. serves the test departments of major electronics companies and DoD organizations. The focus has been to assist test engineering and test management through services rather than through product/equipment sales. *While these services will continue, A.T.E. will use its latest research and development projects to create a library of synthetic instruments and high-speed tests to sell for various applications.*

Our Products

Test Flow Simulator – compares economic performance/test strategies

Testability Director- enables collaborative test design engineers

Test Related Books, Courses and Recordings – we make course material available in various formats

Built-In Test Exerciser and Sensor (BITESTM) board-level test chip- patented FPGA single-chip tester, provides on-board built-in self-test

Hi-SPINOUTTM – (*under development*) provides universal interface for legacy ATE in order to test high-speed I/O.