

TERADYNE

TEST SYSTEMS, SUBSYSTEMS, AND INSTRUMENTATION

ENSURING MISSION-READINESS OF DEFENSE AND AEROSPACE ELECTRONICS



TERADYNE



DECADES OF DEFENSE & AEROSPACE TEST LEADERSHIP

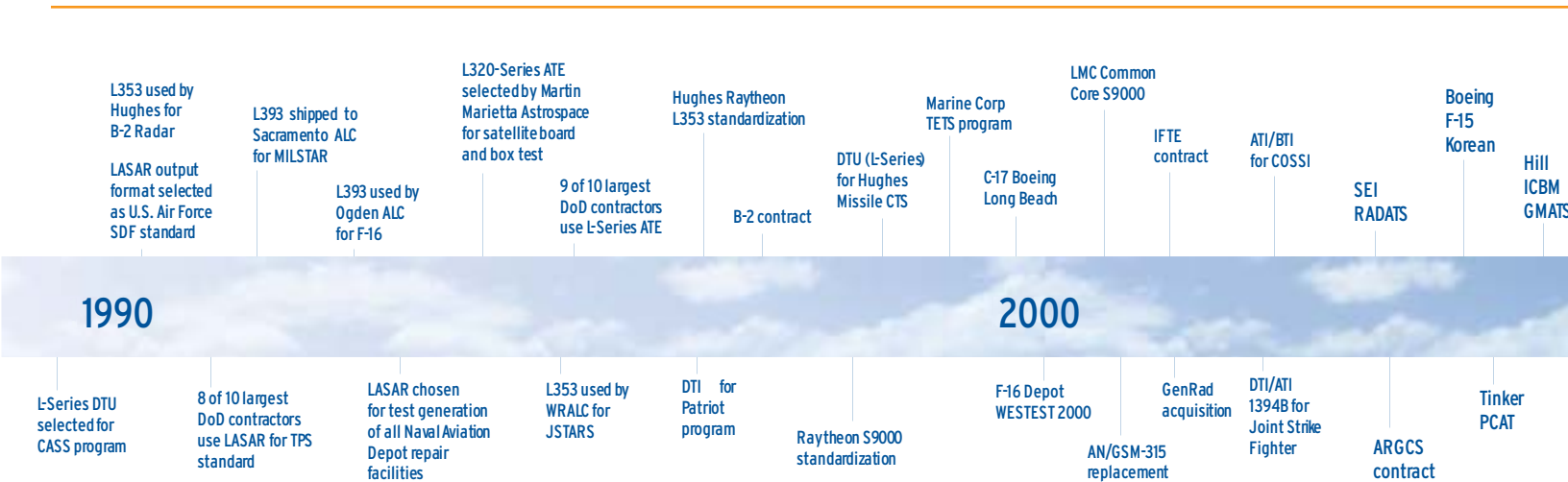
Teradyne is the leading supplier of commercial automatic test equipment (ATE) used by defense and aerospace electronics manufacturers, depots, and intermediate-level facilities worldwide. Our test equipment and instrumentation help ensure the mission readiness of military and avionics customers everywhere. Our products are mission-critical components of modern Department of Defense (DoD)-based automatic test systems (ATS), and help to standardize today's most advanced ATS programs.

A HERITAGE OF TECHNICAL INNOVATION

Precision engineering and technical innovation are at the heart of Teradyne's heritage. Our products have become de-facto test equipment standards, deployed in thousands of defense and aerospace programs worldwide. As we build on our tradition and dedication to excellence, we continue to align our world-class products and support services to the goals of the DoD.

A LEGACY THAT SHAPES THE FUTURE

Teradyne's commercial testers often replace legacy systems, preserving original test program set (TPS) investments, while providing test capabilities for new requirements. Our product architectures, hardware, software, and service philosophies embrace compatibility to ensure the long-term support of existing test systems and the TPS that run on them. Every purchase from Teradyne is an investment in the future.





COMMITTED TO THE DoD ATS EXECUTIVE DIRECTORATE GOALS

DoD ATS EXECUTIVE DIRECTORATE GOALS	TERADYNE COMMITMENT
Improve test quality	Design and manufacture products focused on key test quality specifications (speed, accuracy, and repeatability) that emulate real environments and support TPS transportability
Reduce cost of ownership	Employ cost-effective, standards-based open architectures that support low-cost board, box, and system-level testing and reduce obsolescence and spare parts requirements
Provide greater flexibility through Joint Services interoperable ATS	Develop instrumentation to meet Joint Services requirements, providing vertical testability and interoperable ATS within and between services
Reduce logistics footprint	Deploy technologies and lean logistics strategies that trim test assets, reduce form factors, and minimize the number of required system

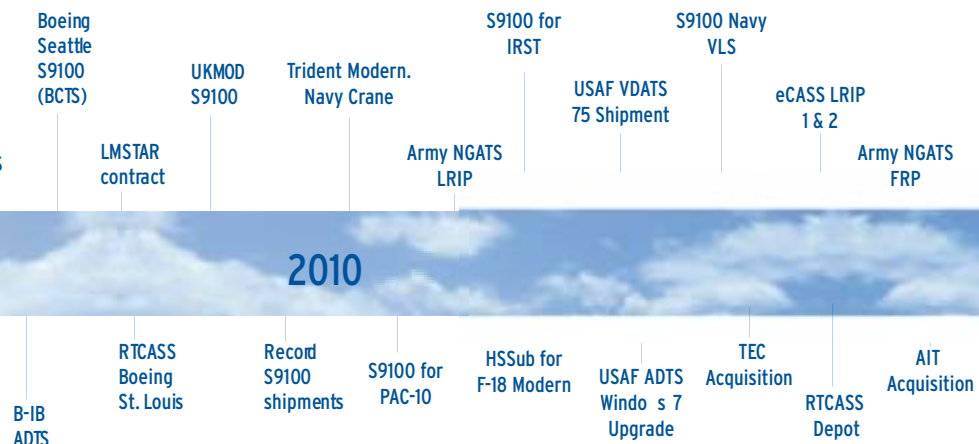
DoD & USAF PROGRAMS SUPPORTED

DoD Programs

- US Air Force ATE: VDATS
- US Army ATE: IFTE & NGATS
- US Marines ATE: TETS & VIPER/T
- US Navy ATE: ADEPT SPY-1
- US Navy ATE: CASS
- US Navy ATE: eCASS
- US Navy ATE: RTCASS
- F-35 JSF
- F-18 avionics
- Mark 48, 50, 54
- Standard Missile III
- Stinger, Patriot, Javelin & Maverick Missile
- Trident II D-5

USAF Programs

- A-10 avionics (PATS-70)
- AC-130U avionics
- Advanced Cruise Missile
- AMRAAM Missile
- AWACS radar
- B-1B ADTS
- B-1B avionics
- B-1B power controls
- B-2 avionics
- C-5 avionics
- C-17 avionics
- C-130 avionics & radar
- E-8 Joint Stars
- F-15 avionics
- F-16 avionics
- F-16 radar
- F-22 avionics
- ICBM Minuteman Missile
- LANTIRN POD
- Sniper Advanced Targeting Pod
- Tomahawk Missile





INSTRUMENTATION FOR TEST INTEROPERABILITY

CORE SYSTEM INSTRUMENTATION & AVIONICS INTERFACE TECHNOLOGIES

Teradyne's Core System Instrumentation (CSI) products are at the center of the most advanced military and avionics test systems. These high-performance, high-density analog, bus, and digital test products form the core of standard DoD ATS families such as eCASS, RTCASS, NGATS, VIPER/T, Teradyne's Spectrum Series, and most original equipment manufacturer (OEM) supplied systems. Teradyne's CSI products are widely considered best-in-class, serving as dependable test instruments for the world's leading defense and aerospace manufacturers. The CSI family is further complemented by Avionics Interface Technologies, a division of Teradyne that manufactures state-of-the-art avionics bus test instruments.

Analog Test Instruments

Ai-710 provides highly parallel analog stimulus and response capability with tester-per-pin architecture including DMM, digitizer, and arbitrary waveform generator



Ai-710

Ai-760 Series combines a precision DMM and 2 GHz oscilloscope with 8 parallel multi-function analog channels, each with arbitrary waveform generator, digitizer, and timer/counter capability, all packaged in a single highly reliable instrument



Ai-762

ZT-Series provides PXI, VXI, and LXI modular oscilloscopes and arbitrary waveform generators with models that meet a wide range of performance and budget requirements. ZT-Series Replacement Instruments offer form, fit, function replacements for a number of popular, but now obsolete, instruments.



ZT-Series

Bus Test Instruments

Avionics Interface Technologies (AIT) provides complete test and simulation systems for developing and deploying MIL-STD-1553, ARINC 429, Fibre Channel/HS1760, ARINC 664, AS6802 TTEthernet, and AS6003 TTP



AIT 1553

Bi-411 is a single synthetic instrument that can emulate a variety of buses, including variations from standards, such as, MIL-STD-1553, RS232, RS422, RS485, ARINC429, and more



Bi-Series

Digital Instruments

Di-Series represents the industry standard for DoD digital test, with LRU-centric timing and handshaking capability, plus per-pin control of DC parameters, stimulus and response edge timing, and driver slew rate



Di-Series





INNOVATIVE ATE FROM SUBSYSTEM TO SYSTEM LEVEL

HIGH SPEED SUBSYSTEM – RUNTIME DEFINED BUS TEST SOLUTION

The Teradyne High Speed Subsystem (HSSub) addresses ATE requirements that are common to most recent designs, including increasing speeds, protocol complexity, data quantities, processing demands, along with lower latency interaction with the UUT. As the level of integration within UUTs increases, there are more concurrent I/O ports of various types. Digital buses of differing speeds and complexity are coupled with equally demanding analog and RF ports.

Powerful and flexible hardware and software combine to provide reconfigurable, multi-purpose capabilities. Within seconds the HSSub Runtime Defined Instruments are configured to address the unique requirements of a specific UUT. The HSSub is designed for integration into existing and future factory or depot test systems with the ease of a single LXI instrument. Alternately, the HSSub may be used in a stand-alone role as either a bench-top tester or the nucleus for a newly designed test system.

EQUIPPED WITH THE LATEST TECHNOLOGY

HSSub uses the latest PXI Express, FPGA, and real-time computing technologies in instruments that are configured by apps. These apps are created by Teradyne engineers, end-users, and third parties to solve current and emerging test requirements.



FLEXIBILITY TO MEET DIVERSE TESTING REQUIREMENTS

Available in a wide range of physical packages:

- Small, inexpensive solutions



- ATE-ancillary capability that augments legacy systems

- New systems, such as, Spectrum HS





FLEXIBLE TEST SYSTEMS – OPEN ARCHITECTURE, COMMON CORE ATE

SPECTRUM SERIES FUNCTIONAL TEST SOLUTION

Teradyne's systems are built around our digital, analog, and bus test instrumentation and subsystems. This instrumentation is integrated using a standard set of system components that are specifically designed to ensure reliability, longevity, and the industry's highest performance. Teradyne systems satisfy industry and DoD standards through a family of open architecture and flexible platforms that are scalable from single product-specific requirements to today's most demanding, broad-based functional test requirements. Each Spectrum modular test platform provides a customizable solution that is configurable to meet customer needs and supports expansion to fulfill future TPS requirements.

Spectrum-9100

Analog and parallel digital bus test, optimized for testing products with vastly different or legacy technology



Spectrum HS

Analog and real-time bus test, completely customizable to meet any advanced testing need



Spectrum CTS

High-performance test system fully equipped to ensure flight readiness and designed to perform complete diagnostics on the avionics systems of Boeing 7-Series aircraft





TERADYNE SUPPORT SERVICES – COMMITTED TO YOUR SUCCESS

Teradyne takes Defense and Aerospace ATE support to the next level through our portfolio of high-availability services. The value is clear – flexible access to our expertise, rapid response, reliable application and hardware solutions, and improved uptime – all designed to minimize cost of ownership and ensure customer success. We work closely with customers to identify operational objectives and implement a deployment plan based on exact requirements. With a customized consulting component, we have a support package designed to satisfy the needs of your individual needs.

Teradyne's customers receive the benefits of a global supplier, providing technically advanced solutions with the expertise and logistical support of a seasoned defense and aerospace partner. Our commitment is exemplified by the long list of customers and programs that selected – and continued to rely on – Teradyne over the past 55 years.

TERADYNE ADVANTAGE – WORLD CLASS ENGINEERS

Teradyne holds a leadership position in military and avionics services by employing a technically diverse professional support organization with applications and field service engineers deployed globally. Our engineers bring you the expertise to achieve operational success by leveraging in-depth knowledge of implementing test solutions with our proven history in the defense and aerospace industries. Teradyne engineers assist customers through all stages of test – from project inception through long-term life cycle support.

OUR CUSTOMER SUPPORT MODEL



eKnowledge
Online help
and tech support
(24x7)



1-877-TERADYNE
(24x7)
Customer Care Center
"Live" Expert



Local Teradyne Engineer
Worldwide team

GLOBAL FIELD SALES AND SUPPORT



LOCATIONS

United States

1-877-TERADYNE
(837-2396)

Arizona

Chandler
480-777-7090

California

Irvine
949-453-0999
Agoura Hills
818-991-0277

Illinois

Buffalo Grove
847-367-8282

Massachusetts

North Reading
978-370-2700

Nebraska

Omaha
402-763-9644

Ohio

Beavercreek
937-427-1280

Texas

Austin
512-891-9600
Plano
972-231-5384

Europe

United Kingdom
Bracknell
+44 345-0941003

France

Saint-Denis
+33 (0)1.55-87-56-50

Germany

Munich
+49 89-41861.0

Italy

Milan
+39 02-921331

Asia

Australia, Indonesia, Malaysia,
Singapore, & Taiwan

Authorized Reps

China

Beijing
Rainfe Technology
+86-10-67082452

Beijing
MTCS Systems
Engineering
+86-10-58816565

ShenZhen
Hua Yu Ding Sheng
Tech.
+86-13923794261

India

Perungudi
MEL Systems &
Services
+91 44 24960212

Japan

Tokyo
Kyokuto Boeki
Kaisha
+81-3-3244-3694

Tokyo
Integrated Test
Solution Corp.
+81-3-6869-6028

Pakistan

Telec Electronics &
Machinery
+92-21-5217201

TERADYNE

Teradyne, Inc.
System Test Group
700 Riverpark Dr.
North Reading, MA 01864
+1.877.TERADYNE (837.2396)

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