SEMICONDUCTOR TEST

TRAINING at TERADYNE
BE THE BEST IN TEST

TERADYNE TEK
PROGRAMS

DISCOVER THE MEANING OF SEMICONDUCTOR TEST

YOUR STEPS TO SUCCESS
TRAINING @ TERADYNE

YOUR SUCCESS IS OUR GOAL

Knowledge is key to your success in the semiconductor industry. Teradyne Training is committed to maximizing your potential in semiconductor device testing with our wide range of training offerings, all delivered by experts in their discipline.

This brochure will give you the curriculum appropriate for your role.

Our courses are organized in three categories:

- Core
- Advanced
- Specialized

Core courses provide fundamental information. Advanced courses offer ways for students to develop their skills beyond the core level; specialized courses focus on a specific facet of the semiconductor test cell.

Introductory courses are also available; these courses may be prerequisites for core courses or may be for students who want to develop their general knowledge. A list of introductory courses is on page 6.

And, you can always rely on the support and mentoring of your local Teradyne expert for the specialized training that you need at the time you need it.

Semiconductor Test Training
Teradyne, Inc.
ABOVE OUR COURSE OFFERINGS

Our course offerings include:

- **A variety of semiconductor test introductory courses**
  If you need a better understanding of semiconductor test basics, attend one of our classes for all skill levels to acquire an acute insight of the semiconductor test environment.

- **Instructor-Led Online training**
  If time away from work isn’t practical, ILO training delivers the interactive environment of an instructor-led class with no travel. ILO courses are scheduled and taught on a particular day and time and delivered via your computer. See page 4 for more information and for a list of ILO training courses.

- **A rich selection of hands-on semiconductor test classes**
  Learn about our platforms and instruments in a classroom setting that also includes a hands-on laboratory experience.

- **On-demand custom workshops**
  If you need to learn a specific skill or option, or you need training on one of our test platforms, contact us and we will create a workshop delivered at your site or at one of our locations.

- **A Training Camp program**
  If you need to bring a new engineer up to speed in a short time, join our Training Camp program.

HOW TO REGISTER

To register for training on Teradyne and Eagle Test System platforms:

**On the Web —**

Go to **Semiconductor Test Training Registration** at:
Teradyne.com/Support/Training > Semiconductor Test

**On the phone —**

Call **Customer Training** at 1-800-TERADYNE
(1-800-837-2396) (for USA, Canada, and most countries)

**Note:** If 1-800-TERADYNE does not work in your country, find the phone number for your country at:
Teradyne.com/Support/Customer-Care > Training > Customer Care Center Contact by Country.
YOUR STEPS TO SUCCESS
Take Teradyne's training steps to reach the highest levels of knowledge and success both for you professionally and for your company in semiconductor device test. We provide both instructor-led courses in a classroom and instructor-led online training for times when travel is not convenient.

It is easy - just:
1. Find your role.
2. Find your tester.
3. Select your curriculum.
4. Go to the Training Web site for full course descriptions.
5. Register.

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FIND YOUR CURRICULUM - GO TO PAGE(S) INDICATED IN THE TABLE.

The list of courses for all Teradyne platforms is available at: www.Teradyne.com/Support/Training > Semiconductor Test, or contact your local Teradyne representative.
ABOUT INSTRUCTOR-LED ONLINE TRAINING

We deliver ILO training courses on a wide spectrum of topics and more are in development.

Designed specifically for online delivery, each ILO training course focuses on one particular facet of semiconductor test with a maximum runtime of four hours.

All our instructors are both experienced trainers and subject-matter experts.

BENEFITS OF INSTRUCTOR-LED ONLINE TRAINING

- **High Quality**
  Same high quality content and instructors as our classroom courses but designed for ILO delivery.

- **No Travel**
  Training without traveling — shorter time, lower cost.

- **Flexible**
  Modest connectivity requirements mean you can participate from almost anywhere.

- **Interactive**
  Live interaction with instructors and peers; exercises reinforce concepts learned.

- **Cost Effective**
  Registration fee is based on a per-connection basis; any number of attendees can participate from one connection.

- **Access to Subject-Matter Experts**
  Connect to Teradyne SMEs for answers to your technical questions at your desktop.
TODAY’S ILO TRAINING CURRICULUM

- Benchmarking Computer Performance
- Customizing Characterization with the CharAPI on UltraFLEX
- Customizing a Simple IG-XL Operator Interface
- Difference in Eagle Vision and Eagle Vision-MST
- Differences in SW and HW on ETS-364 and ETS-88*
- Digital Undersampling on UltraFLEX
- DSP Throughput Tips
- Easy Button for Test Time Analysis on UltraFLEX
- Electrostatic Discharge*
- ETS-364/600 Digital Programming Refresher
- ETS Digital Debugging Skills
- ETS Refresher on Pattern-Based Test Techniques
- FLASH Memory Testing*
- FLEX MultiSite Variables
- Foundations of Test: Test Time Optimization
- Introduction to Convertor Testing Using Mixed-Signal-Timing
- Introduction to RF*
- Introduction to WLAN EVM, Mask Test Using VSA
- J750 Refresher*
- Jitter Measurements & Digital Undersampling on UltraFLEX (Taught in Mandarin)
- Magnum2 Codeless Programming
- Memory Test Basics
- MultiSite Load Board Design Techniques for Mixed Signal/RF, FLEX and UltraFLEX
- Pattern-Oriented Programming
- Prober/Handler Interface Overview
- Revision Control for Test Program
- Rise/Fall Time Measurements with QTMU…How Low Can You Go?*
- SB6G captures High Speed Serial ADC Data*
- S-Parameter on UltraFLEX
- Signal Integrity and Time Measurement Techniques
- Signal Integrity (TDR) and Measurement Accuracy
- Statistics for Test Engineers
- Test Time Optimization on UltraFLEX
- Time Measurement Techniques
- UltraFLEX Best Programming Practices
- UltraFLEX Hints and Tips
- UltraFLEX Introduction to Protocol Aware Programming*
- UltraPAC80 Programming*
- UltraPin1600 DDR PA Programming*
- UltraPin1600 nWire PA Programming*
- UltraPin1600 Programming Basics
- UltraSerial10G PCIe PA Programming*
- UltraVI80 Programming Basics
- Understanding UltraFLEX 2X Mode
- Using Cross-Correlation to improve Accuracy of Noise Measurements*

*Check for updates on Teradyne.com/Support/Training > Semiconductor Test

HOW DOES IT WORK — WHAT DO I NEED TO PARTICIPATE?

- **Computer** — ILO delivery lets you participate from your computer.
- **Broadband Internet Connection** — You connect to a virtual classroom where you will interact directly with the instructor and your peers.
- **Register** — All you need to do is choose an ILO course and register either online or by calling Customer Training at 1-800-TERADYNE.
INTRODUCTORY COURSES

To begin, you may want to register for one of the introductory courses below before participating in any core courses or to broaden your general knowledge about semiconductor test.

SEMICONDUCTOR TEST INTRODUCTORY COURSES

- Fundamentals of Testing Using ATE
- Introduction to Testing Using ATE
- RF Circuit and System Test Fundamentals
- RF Fundamentals
- VBA Fundamentals
ROLES AND CURRICULA — DESIGN FOR TEST/ADMINISTER/SUPPORT

Identify your role in the table on page 3 and take the steps to reach the highest levels of knowledge and success.

YOU CREATE DESIGN FOR TEST (DFT) SOLUTIONS – ALL TESTERS

3. SPECIALIZED
   Support - Mentoring
   Consult your local Teradyne expert

2. ADVANCED
   WaveWizard

1. CORE
   Introductory Course
   • Semiconductor Test Introductory courses (select relevant on page 6)

YOU ADMINISTER TEST SYSTEMS

2. ADVANCED
   Using Production Controls and Licensing in IG-XL

1. CORE
   ETS Eagle Vision (EV) System Administrator Course
   Semiconductor Test Introductory courses (select relevant on page 6)

YOU SUPPORT TEST PRODUCTION

3. SPECIALIZED
   SEDana and Statistical Methods

2. ADVANCED
   Effective Debugging and Characterization on UltraFLEX Test Programs in Production
   ETS-364/600 Troubleshooting for Non-Programmers
   Troubleshooting IG-XL Programs in Production
   Using Production Controls and Licensing in IG-XL

1. CORE
   Semiconductor Test Introductory courses (select relevant on page 6)
YOU DEVELOP TEST SOLUTIONS ON FLEX/MICROFLEX FOR AUTOMOTIVE AND DC

1. CORE
   - Fundamentals of Testing Using ATE
   - Semiconductor Test Introductory courses (select relevant on page 6)
   - VBA Fundamentals
   1. FLEX/microFLEX Programming Fundamentals
   2. FLEX/microFLEX Power/Automotive/DC Programming (includes HVD, not POOL2)
   or FLEX/microFLEX Power Management DC Programming (includes POOL2, not HVD)

3. SPECIALIZED
   - SEDana and Statistical Methods

YOU DEVELOP TEST SOLUTIONS ON FLEX/MICROFLEX FOR MIXED SIGNAL

1. CORE
   - Fundamentals of Testing Using ATE
   - Semiconductor Test Introductory courses (select relevant on page 6)
   - VBA Fundamentals
   1. FLEX/microFLEX Programming Fundamentals (requires knowledge of VBA)
   2. FLEX/microFLEX Mixed Signal Programming

3. SPECIALIZED
   - SEDana and Statistical Methods
YOU DEVELOP TEST SOLUTIONS ON FLEX/MICROFLEX FOR DIGITAL

3. SPECIALIZED
   - SEDana and Statistical Methods

2. ADVANCED
   - FLEX Memory Test Option Programming
   - FLEX/microFLEX SCAN Programming

1. CORE
   - Introductory Courses
     - Fundamentals of Testing Using ATE
     - Semiconductor Test Introductory courses (select relevant on page 6)
     - VBA Fundamentals
   - FLEX/microFLEX Programming Fundamentals (requires knowledge of VBA)

YOU DEVELOP TEST SOLUTIONS ON FLEX/MICROFLEX FOR RF/MICROWAVE

3. SPECIALIZED
   - SEDana and Statistical Methods

2. ADVANCED
   - FLEX/microFLEX Microwave Programming

1. CORE
   - Introductory Courses
     - RF Fundamentals
     - RF Circuit and System Test Fundamentals
     - Semiconductor Test Introductory courses (select relevant on page 6)
     - VBA Fundamentals
   - FLEX/microFLEX Programming Fundamentals (requires knowledge of VBA)
     - 1. FLEX/microFLEX Mixed Signal Programming

YOU MAINTAIN AND PERFORM DIAGNOSTICS ON FLEX/MICROFLEX

2. ADVANCED
   - FLEX RF Maintenance
   - Troubleshooting IG-XL Programs in Production

1. CORE
   - FLEX/microFLEX Maintenance
   - Semiconductor Test Introductory courses (select relevant on page 6)
 YOU DEVELOP TEST SOLUTIONS ON ULTRA FLEX FOR MIXED SIGNAL

1. CORE
- Fundamentals of Testing Using ATE
- Semiconductor Test Introductory courses (select relevant on page 6)
- VBA Fundamentals

For users with no FLEX experience:
1. UltraFLEX Programming Fundamentals (requires knowledge of VBA)
2. UltraFLEX Mixed Signal Programming

For users with FLEX experience:
UltraFLEX Programming for FLEX Programmers

2. ADVANCED
- Concurrent Test Programming
- UltraPAC80 Programming
- UltraVI80 Programming

3. SPECIALIZED
- SEDana and Statistical Methods

 YOU DEVELOP TEST SOLUTIONS ON ULTRA FLEX FOR DIGITAL

1. CORE
- Fundamentals of Testing Using ATE
- Semiconductor Test Introductory courses (select relevant on page 6)
- VBA Fundamentals

For users with no FLEX experience:
1. UltraFLEX Programming Fundamentals (requires knowledge of VBA)
2. UltraFLEX Digital Programming

For users with FLEX experience:
UltraFLEX Programming for FLEX Programmers

2. ADVANCED
- Concurrent Test Programming
- UltraFLEX Advanced Digital
- UltraFLEX Digital Characterization
- UltraFLEX Introduction to Protocol Aware Programming
- UltraFLEX Memory Test Option Programming
- UltraFLEX SB6G Programming
- UltraPin1600 DDR PA Programming
- UltraPin1600 nWire PA Programming
- UltraPin1600 Programming
- UltraPin4000 Programming
- UltraSerial10G PCIe PA Programming
- UltraSerial10G Programming

3. SPECIALIZED
- SEDana and Statistical Methods
ROLES AND CURRICULA — ULTRA FLEX

**YOU MAINTAIN AND PERFORM DIAGNOSTICS ON ULTRA FLEX**

1. **CORE**
   - UltraWave Maintenance
   - UltraFLEX Basic Maintenance
   - Semiconductor Test Introductory courses (select relevant on page 6)

2. **ADVANCED**
   - UltraWave Maintenance

**YOU DEVELOP TEST SOLUTIONS ON ULTRA FLEX FOR RF/MICROWAVE**

1. **CORE**
   - Concurrent Test Programming
   - UltraFLEX Microwave Programming
   - UltraFLEX Programming for FLEX Programmers
   - UltraVI80 Programming
   - UltraWave 12G Embedded Signal Analyzer Toolkit Programming
   - UltraWave 12G for Experienced Gen4 Programmers including Embedded Signal Analyzer Tookit (2 days)
   - UltraWave 12G for Experienced Gen4 Programmers (1 day)
   - UltraWave 12G Wireless Programming including Embedded Signal Analyzer Tookit (4 days)
   - UltraWave 12G Wireless Programming (3 days)

2. **ADVANCED**
   - Concurrent Test Programming
   - UltraFLEX Microwave Programming
   - UltraFLEX Programming for FLEX Programmers
   - UltraVI80 Programming
   - UltraWave 12G Embedded Signal Analyzer Toolkit Programming
   - UltraWave 12G for Experienced Gen4 Programmers including Embedded Signal Analyzer Tookit (2 days)
   - UltraWave 12G for Experienced Gen4 Programmers (1 day)
   - UltraWave 12G Wireless Programming including Embedded Signal Analyzer Tookit (4 days)
   - UltraWave 12G Wireless Programming (3 days)

3. **SPECIALIZED**
   - SEDana and Statistical Methods

Introductory Courses
- RF Fundamentals
- RF Circuit and System Test Fundamentals
- Semiconductor Test Introductory courses (select relevant on page 6)
- VBA Fundamentals

For users without FLEX microwave experience:
1. UltraFLEX Programming Fundamentals (requires knowledge of VBA)
2. UltraFLEX Mixed Signal Programming
ROLES AND CURRICULA — MANAGE/SUPervise

YOU SUPERVISE A DEVICE FROM DESIGN TO SHIPMENT

1. CORE
   See Develop Test Solutions role that corresponds to your tester.

2. ADVANCED
   See Develop Test Solutions role that corresponds to your tester.

3. SPECIALIZED
   See Develop Test Solutions role that corresponds to your tester.

YOU MANAGE PRODUCTS OR TEAMS

1. CORE
   Semiconductor Test Introductory courses (select relevant on page 6)

2. ADVANCED
   Select courses of interest in other semiconductor test roles.

3. SPECIALIZED
   Select courses of interest in other semiconductor test roles.
YOU DEVELOP TEST SOLUTIONS ON J750 FOR DIGITAL

3. SPECIALIZED
Select courses of interest in other semiconductor test roles.

2. ADVANCED
- J750 Test System MTO Programming
- J750 Test System RFID Options Programming
- J750Ex MTO Programming
- VBT Essentials for J750

1. CORE
- Introductory Courses
- Fundamentals of Testing Using ATE
- Semiconductor Test Introductory courses (select relevant on page 6)
- VBA Fundamentals
- J750 Test System Programming

YOU DEVELOP TEST SOLUTIONS ON J750 FOR MIXED SIGNAL

3. SPECIALIZED
Select courses of interest in other semiconductor test roles.

2. ADVANCED
- J750 HDVIS Programming
- J750 Mixed Signal Options Programming
- J750 Test System CTO Programming
- VBT Essentials for J750

1. CORE
- Introductory Courses
- Fundamentals of Testing Using ATE
- Semiconductor Test Introductory courses (select relevant on page 6)
- VBA Fundamentals
- J750 Test System Programming

YOU MAINTAIN AND PERFORM DIAGNOSTICS ON J750

CORE
- J750 Test System Maintenance
- Semiconductor Test Introductory courses (select relevant on page 6)
ROLES AND CURRICULA — D750Ex / IP750

YOU DEVELOP TEST SOLUTIONS ON D750Ex FOR LCD DRIVERS

1. CORE
   - D750Ex Basic Programming
   - Semiconductor Test Introductory courses (select relevant on page 6)

2. ADVANCED
   - Select courses of interest in other semiconductor test roles.

3. SPECIALIZED
   - Select courses of interest in other semiconductor test roles.

YOU DEVELOP TEST SOLUTIONS ON IP750 FOR IMAGE SENSORS

1. CORE
   - IP750 Test System Programming
   - Semiconductor Test Introductory courses (select relevant on page 6)

2. ADVANCED
   - Select courses of interest in other semiconductor test roles.

3. SPECIALIZED
   - Select courses of interest in other semiconductor test roles.
ROLES AND CURRICULA — EAGLE TEST SYSTEMS

YOU DEVELOP TEST SOLUTIONS ON ETS-88

3. SPECIALIZED
- ETS Eagle Vision (EV) System Administrator Course
- ETS Integrated Handler/Prober Advanced Programming

2. ADVANCED
- ETS Advanced Digital
- ETS Advanced Analog DUT Board Design

1. CORE
- ETS-88 Programming [Eagle Vision]
- ETS-88 Programming [Eagle Vision MST]
- Semiconductor Test Introductory courses (select relevant on page 6)

YOU DEVELOP TEST SOLUTIONS ON ETS-200/300

3. SPECIALIZED
- ETS Eagle Vision (EV) System Administrator Course

2. ADVANCED
- Select courses of interest in other semiconductor test roles.

1. CORE
- ETS-200/300 Programming
- Semiconductor Test Introductory courses (select relevant on page 6)

YOU DEVELOP TEST SOLUTIONS ON ETS-364/600

3. SPECIALIZED
- ETS DAC/ADC Testing With QPLU
- ETS Eagle Vision (EV) System Administrator Course
- ETS Integrated Handler/Prober Advanced Programming

2. ADVANCED
- ETS Advanced Digital
- ETS Advanced Analog DUT Board Design
- ETS Digital Audio Analyzer Unit Resource Training

1. CORE
- ETS-364/600 Programming
- Semiconductor Test Introductory courses (select relevant on page 6)
ROLES AND CURRICULA — EAGLE TEST SYSTEMS

YOU MAINTAIN AND PERFORM DIAGNOSTICS ON ETS-88

2. ADVANCED
Select courses of interest in other semiconductor test roles.

1. CORE
ETS-88 Maintenance
Semiconductor Test Introductory courses (select relevant on page 6)

YOU MAINTAIN AND PERFORM DIAGNOSTICS ON ETS-200/300

2. ADVANCED
Select courses of interest in other semiconductor test roles.

1. CORE
ETS-200/300 Maintenance
Semiconductor Test Introductory courses (select relevant on page 6)

YOU MAINTAIN AND PERFORM DIAGNOSTICS ON ETS-364/600

2. ADVANCED
ETS-364/600 Troubleshooting for Non-Programmers

1. CORE
ETS-364/600 Maintenance
Semiconductor Test Introductory courses (select relevant on page 6)

BE THE BEST IN TEST
WWW.TERADYNE.COM/SUPPORT/TRAINING > SEMICONDUCTOR TEST