

Diamond10 Basic Applications

Flexible, Cost Optimized Test Solutions



Automotive



Mobility



IoT/IoV & Optoelectronics



Computing & Network



Industrial & Medical



Consumer

Course Description

This course introduces students to the Diamond software development and system operating environment (Integrated Test Environment - ITE). This is achieved through a combination of lectures, lab exercises, and online learning materials. The class covers Visualize, STIL, Pattern, Waveform, and Shmoo tools. After completing this class, students will be able to develop and debug digital test programs for Integrated Circuits (ICs) using the Diamond10 system. Students must complete the online pre-course before attending the class. Login information for the online materials will be emailed after registration.

Course Outline

- Overview
- Test Program Development
- DC Tests
- Frequency Counter Tests
- Functional Tests
- Scan Tests
- Wrap up - Course Review

Course Structure

- Five days, including classroom and practical exercises

Prerequisites

- 6 months test programming experience

Recommended Skills

- C or C++ programming
- Familiarity with Unix and Linux operating systems
- English - written and spoken

Who Should Attend

- Test program development engineers
- Test program support engineers

- Scalable high-throughput architecture
- Flexible configurations and innovative solutions

- Small form factor
- Compact low power technology

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Online Pre-course Content

Must be completed prior to attending classroom session:

- System Hardware
- System Software
- Test Program Development
- Loadboard Calibration
- Final Test

Course Modules (Day by Day)

1 - Day 1

- Personal Safety and Equipment Protection
- Online Help Lab
- Signal and Signal Groups Lab
- Tester Resources Lab
- Signal Map Lab
- Common Programming Tasks
- Job File Lab
- Running a Job Lab
- Pin PMU
- Device Power Supply

2 - Day 2

- Voltage/Current Source
- Frequency and Interval Counter
- Functional Waveform Overview
- Programming DC Levels
- Programming Super Voltage and Static Loads

3 - Day 3

- Programming Timing
- Programming Patterns
- Functional Test
- Pattern Tool
- STIL Tool
- Visualize Tool
- Waveform Tool

4 - Day 4

- Programming Scan
- Device Characterization
- Shmoo and Margin Tool

5 - Day 5

- Debugging C++ Code
- Creating Binning
- Designing Fixtures
- Running Production

Related Courses

- Diamond Basic Maintenance Course