

Diamond_x FPD Driver Testing

Test Solution for Ultra-High Definition Display Driver ICs



PD1x / PD2x



MP1x



HSI2x

Course Description

The Flat Panel Display (FPD) Driver Testing training course introduces students to the standards, instruments, and programming techniques used to test display drivers. There will be an in-depth look into each of the instruments, their specifications, and how to best perform tests using the Unison APIs. This is achieved through a combination of lectures and lab exercises. After completing this class, students will be able to develop basic test programs for display devices using the Diamond_x test systems and Unison software.

Course Outline

- Flat-Panel Display Driver Testing Overview
- PD1x and PD2x Instruments
- Other Instruments
- Lab Exercises

Course Structure

- Three days, including classroom and practical exercises

Recommended Skills

- C or C++ programming experience
- Familiarity with Unix and Linux operating systems

Prerequisites

- Completed the Unison Digital Applications Training Course
- General knowledge of semiconductor testing concepts
- Ability to read and interpret device specification sheets
- Completed the eLearning modules for the PD1x, PD2x, MP1x, and HSI2x instruments



Automotive



Consumer



Flat Panel Display



IoT/IoV & Optoelectronics



Industrial & Medical



MCU



Mobility

- FPD Driver test capability on a low-cost configurable SoC Test Platform
- Composite instrumentation that maximizes flexibility of test system configurations

Test Solution for:

- Ultra High Definition Display Driver ICs
- LVDS Port and DDR Memory Port Test
- SerDes/LVDS/MIPI Interfaces

Diamond_x FPD Driver Testing

Daily Schedule

There are demonstrations and lab exercises to aid in reinforcement of understanding the training material.

Day 1

- PD1x/PD2x Overview and Programming
- Continuity and Leakage tests using the PD1x/PD2x

Day 2

- Slew Rate Testing
- Grayscale Testing

Day 3

- MP1x, PSM1, and HSI2x Overview
- XOR Implementation

Related Courses

- Unison Digital Applications

Course Modules

1 - Flat-Panel Display Driver Testing Overview

- Introduction to instruments such as
 - PD1x
 - PD2x
 - MP1x
 - HSI2x
- Testing methodologies

2 - PD1x and PD2x Instruments

- Programming PD1x and PD2x Hardware
- Continuity, Leakage, and Digitizing Tests

3 - Other Instruments

- Understanding MP1x, PSM1, HSI2x Hardware
- External XOR Application in FPD Driver Testing

4 - Appendices

- Appendix A - PHY Characteristics
- Appendix B – LVDS Signaling