

## **GR228X Operations and Programming / Level 2 - 5 Days**

### **Course Description:**

This course teaches the student how to generate and debug basic test programs using both GenRad supplied and student generated library models with emphasis placed on using Digital Testing concepts and the High Speed Test Source (DTS).

The student will gain experience in the use of Xpress Modeler and Basic Scan software tools as well as standard Digital Modeling techniques. Tests will be created using the Automatic Test Options (ATO) technique. Frequency models will be developed using the Analog Functional Test Module (AFTM). Basic test program maintenance will be taught using component value and tolerance analysis and modification.

### **Intended Audience:**

Programmers and Test Engineers who have completed the GenRad Level 1 training course and have some experience developing in-circuit tests for the GR228X test system with a solid background in analog in-circuit tests

### **Prerequisites:**

- \* Good understanding of basic electronics
- \* Be able to interpret circuit schematics
- \* Basic computer skills
- \* Possess some GR228X programming experience
- \* Generation and debug basic GR228X test programs that use GenRad supplied library models (both analog and digital).
- \* Generation of reports for vendor services to design and build test fixtures.
- \* Perform basic test program maintenance by modifying programs to reflect changes.

### **Topics covered:**

- \* Develop complete test programs for the GR228X series of testers
- \* Test Planning Strategy
- \* GR228X Monitor Page Test Development Process
- \* Programming the Driver/Sensor
- \* Isolating Digital Devices
- \* Creating a Digital Model and Using the Libraries
- \* High Speed Testing Concepts
- \* Using the Digital Test Statement language
- \* Debugging a Test Program
- \* Customizing Test Programs Using the .ATX and .ATO files
- \* Frequency Testing
- \* Testing CRC
- \* Bus Testing Concepts
- \* Using Xpress Model to Develop Digital Models
- \* Using Triggers and Multiple Timing Sets
- \* BasicSCAN Model Development
- \* NAND Tree Models

**Course objective:**

- \* Understand the GR228X Test System Architecture and In-Circuit Test Concepts
- \* Create User Digital Libraries and Models
- \* Develop Test Programs using User Libraries
- \* Debug Test Programs