

VACUUM INTERRUPTER RESISTANCE TEST SYSTEM

Emerging Technologies, LLC. was called upon to provide a replacement vacuum interrupter resistance test system. An existing test system was in place and failing due to age.

The new system was designed to clamp the DUT in place vertically. Kelvin measurement contacts automatically move to the DUT and take four-wire resistance measurements. Modular DUT bases were designed to accommodate multiple models of DUT. Each DUT test parameter is pulled automatically from an existing database based on DUT serial number.

This system was patterned after similar systems previously provide to the customer by Emerging Technologies, LLC. Much of the system design was re-used. Unique attributes of the system were developed from scratch.

The design package included; bill of material, mechanical diagrams, electrical diagrams, custom application specific labeling, and custom developed LabView test application software.

Customer Benefit:

The customer is able to perform automated testing of a diverse set of devices via one easy to use test system. Results are stored back to the database by serial number for tracking to the next application for the DUT. Cost savings were realized through the re-application of existing design components.

Application Brief



ET RESPONSIBILITIES:

- ✓ Functional Specification Generation
- ✓ Design/Engineering
- ✓ Fabrication
- ✓ Programming - Software
- ✓ Programming - Firmware
- ✓ Field Installation
- ✓ On-Site Commissioning
- ✓ Post Commissioning Support

TECHNOLOGIES:

- ✓ Embedded Computers
- ✓ Microcontrollers
- ✓ Visual Software
- ✓ Control Software
- ✓ Data Acquisition
- ✓ Computer Based Control
- ✓ Communications - GPIB
- ✓ System Integration

SPECIAL FEATURES:

- ✓ Modular Automated DUT Clamping.
- ✓ Automated Kelvin Contacts for Low Resistance Measurements.
- ✓ Two-Hand Control for Operator Safety.
- ✓ Existing Serial Number Database Interface.
- ✓ Mobile Test Enclosure for Easy Transport.