

APPLICATION BRIEF

2020

ELECTRICAL CONTINUITY & RESISTANCE TEST SYSTEM

Brief Description:

Emerging Technologies, LLC. was called upon to provide a test system to verify continuity for specific paths and no continuity for remaining paths for an electrical subassembly. Additionally, the paths with continuity need to have the measured resistance values stored.

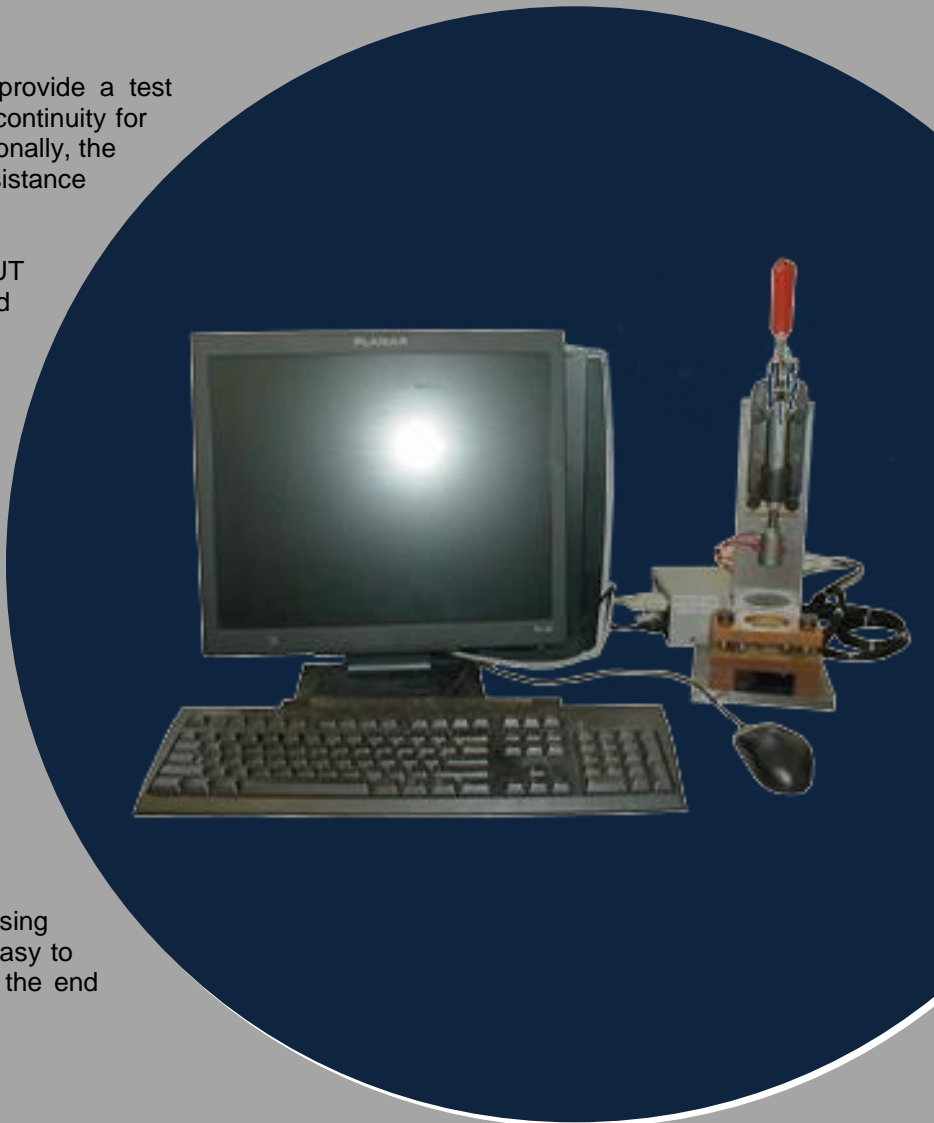
The new system integrates a custom designed DUT fixture connected to off the shelf test hardware and software. The software was configured for the specific DUT and test results are stored to the computer hard drive or network accessible drive.

Subsequent to the deployment of the original system, the customer requested a second fixture for testing another un-related product. The original hardware and software were utilized and a new fixture was developed and added to the system.

Both fixtures utilize four-wire resistance measurement technology for low resistance measurements. The measurement hardware was initially deployed with 256 points but has the ability to be upgraded to up to 32,000 points.

Customer Benefit:

The customer is able to perform automated testing using a scalable hardware and software platform via one easy to use operator interface. Test reports are provided to the end user and results are stored.



ET Responsibilities:

- Functional Specification Generation
- ✓ Design / Engineering
- ✓ Fabrication
- ✓ Programming – Software
- Programming – Firmware
- Circuit & PCB Design
- ✓ On-Site Commissioning
- ✓ Post Commissioning Support
- Other

Technologies:

- Embedded Computers
- Microcontrollers
- Visual Software
- ✓ Control Software
- ✓ Data Acquisition
- ✓ Computer Based Control
- ✓ Communications – RS232
- System Integration
- Other

Special Features:

- ✓ Multiple Removable Fixtures.
- ✓ Off The Shelf, Expandable Measurement Hardware.
- ✓ Configurable Off The Shelf Software.
- ✓ Results Storage.
- ✓ Small Footprint, Table-top System.