

APPLICATION BRIEF

2020

MANUAL TEST CONSOLE

Brief Description:

Emerging Technologies, LLC. was called upon to build a manual version of an automated test system control console previously provided by Emerging Technologies. The new system was to be built at a reduced cost by reducing size and automation components. The majority of the functionality would remain through manual operations and the connection of a notebook computer provided by the customer. The power system and DUT fixture were provided by the customer.

Emerging Technologies reapplied as much of the existing design as possible, eliminating unnecessary items while maintaining the look and feel of the original system to benefit from operator familiarity with the existing system.

Additional effort was put into simplifying the interconnection of remote devices by utilizing larger terminal blocks and Panduit to facilitate the connection of numerous customer-provided field devices at the installation site.

The system features a powder coated cabinet, large buttons, easy to read graphical overlays, clean front panel connections, and a beacon for safety.

Utilizing the front panel DB9 connections and an internal RS232 to RS485 converter, the operator is able to connect a notebook computer to the device under test.

Customer Benefit:

By utilizing Emerging Technologies' expertise in test systems and panel builds, the customer was able to receive a turn-key test console that maximized features while minimizing cost. Additionally, the similar front panel design reduced operator training.



ET Responsibilities:

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

Technologies:

- Embedded Computers
- Microcontrollers
- Visual Software
- Control Software
- Data Acquisition
- Computer Based Control
- Communications – RS232, RS-485
- System Integration
- ✓ Other - System fab
- Other

Special Features:

- ✓ Built from customer-supplied drawings
- ✓ Based on existing automated test console
- ✓ Large terminal blocks for easy connection of field devices
- ✓ Easy to read graphical overlay