

CONTROL MODULE IN CIRCUIT PROGRAMMER AND DEVICE TESTER

Brief Description:

Emerging Technologies, LLC. was called upon to develop a portable tester for a circuit board based control module. Challenges for this tester included; designing a quick connect fixture for the control module, the need for international power input capability, measure of the DUT regulated voltage within specification, and mating to the customer supplied microcontroller programmer.

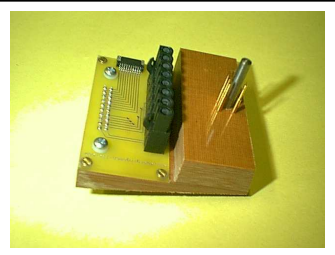
The purpose of the test is to verify correct operation of the control module sub-assembly prior to assembly into the end product.

Emerging Technologies, LLC. prepared a design package for customer review prior to fabrication of the tester. The design package included: Schematic Diagram, Fixture Diagram, PCB layout, and Enclosure Overlay Diagram. Once approved by the customer the tester was fabricated, tested, and delivered to the customer.

Emerging Technologies, LLC. utilized custom microcontroller design / programming capabilities, custom PCB design / build capabilities, custom fixture design/build capabilities, and custom enclosure fabrication capabilities to complete the programmer / tester.

Customer Benefit:

The customer was able to test their device, using the Emerging Technologies, LLC. custom designed programmer / tester, to verify correct operation of their control board sub-assembly prior to final assembly into the final product. This process eliminates costly rework relating to bad sub-assemblies detected after final assembly.



Components Used:

- Custom Fixture w/Custom PCB.
- Custom Interface PCB w/ Microchip PIC16C773.
- Custom Developed Test Firmware.
- Custom Machined Stock Slope Enclosure.
- Customer Supplied AVR Super ISP Programmer for Atmel Microcontrollers.
- Multi-pole mini test switch.
- LED feed back.
- International Power Supply.

Emerging Technologies, LLC.

Responsibilities:

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

Technologies:

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

Customer Category:

- OEM
- ✓ Industrial Manufacturer
- Custom Equipment
- Utility
- R&D

SPECIALISTS IN TEST, MEASUREMENT, AND DATA ACQUISITION

Emerging Technologies, LLC.

PH: (920) 684-0216

www.emergingtech-llc.com