Emerging Technologies

APPLICATION BRIEF
2020

POWER MODULE DEVICE TESTER

Brief Description:

Emerging Technologies, LLC. was called upon to develop a portable tester for a circuit board based power module. Challenges for this tester included; designing a quick connect fixture for the power module, dealing with heat generated by the power resistor load used for the test, and the need for international power input capability.

The purpose of the test is to verify correct operation of the power 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: Elementary Diagram, Fixture Diagram, PCB layout, and Panel Layout Diagram. Once approved by the customer the tester was fabricated, tested, and delivered to the customer.

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

Customer Benefit:

The customer was able to test their device, using the Emerging Technologies, LLC. custom designed tester, to verify correct operation of their power 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.

ET 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

(920) 793-2782