

# APPLICATION BRIEF

## 2020

### CUSTOM CARD CHASSIS TEST SYSTEM

#### Brief Description:

Emerging Technologies, LLC. was called upon to build a duplicate a chassis test system based on an existing customer design currently in use at a different location.

The existing system design was reviewed mechanically, pneumatically, and electrically. The existing design was updated with additional cross reference information to allow for easier build and future troubleshooting. Materials were procured and sub-assemblies were machined and fabricated. This system was assembled, wired and operationally verified using the customer provided test application.

A new documentation package was evolved from the existing design package to ensure a complete and unique documentation for the new system.

Challenges included a short build schedule, precision machining, and procurement of custom (not off the shelf) components.

The schedule was minimized by using customer resources and components in addition to Emerging Technologies provide components and effort.

#### Customer Benefit:

The customer was able to draw on Emerging Technologies custom test systems expertise to the build the test system, and maintain the production schedule, while limiting interference with other projects with overlapping schedules.



#### ET Responsibilities:

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

#### Technologies:

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

#### Special Features:

- ✓ Expedited Schedule.
- ✓ Worked as an Extension of Customers Staff.
- ✓ Used Customer Provided Materials & Resources.
- ✓ Updated Customers Existing Design Package as Required.