

CUSTOM BURN-IN CHASSIS

Brief Description:

Emerging Technologies, LLC. was called upon to design and build custom burn-in chassis for circuit board based products. The chassis were to be designed to fit in a 19" rack mounted inside an environmental chamber. Concept to deployment schedule was expected to be short.

Emerging Technologies, LLC. developed a chassis design to accommodate the maximum number of PCB's with the minimum restriction to airflow. Due to the broad temperature cycle requirements and humidity concerns, the chassis were designed using aluminum components where possible. A modular concept was employed to allow the same basic set of materials to be used for multiple models to be tested. Additionally, the modularity provides the potential for future re-configuration should the need arise. The mechanical design incorporated customer designed modular electrical interconnect components.

The design package included a bill of material and mechanical diagrams. The PCB and electrical design were provided by the customer. The mechanical components were procured, fabricated, and assembled at Emerging Technologies and shipped to the customer for wiring and final checks.

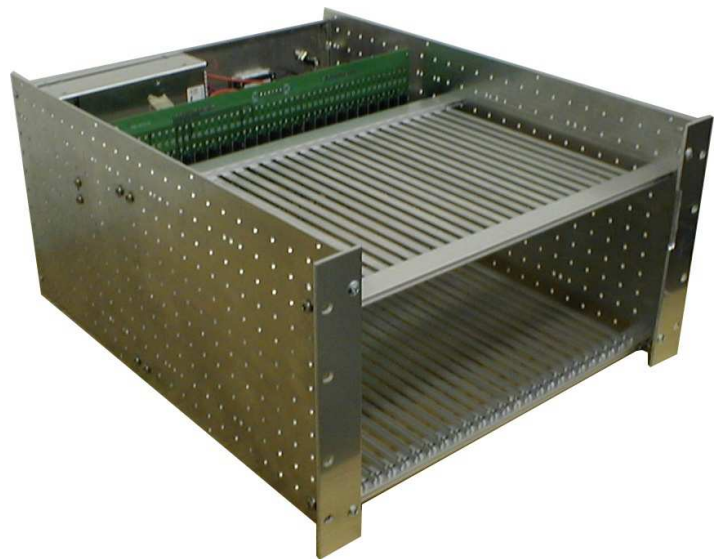
Two different configurations were assembled and shipped to the customer.

Customer Benefit:

The customer is able to test sub-assemblies, using the Emerging Technologies, LLC. designed chassis to verify correct operation during the burn-in process. The customer was able to stay focused on manufacturing of the product by contracting Emerging Technologies, LLC to design the burn-in chassis.

Specific Challenges:

- Designing, procuring, and fabricating on a very short schedule.
- Selecting available materials compatible with the broad specified temperature range.
- Mechanical incorporation of customer provided electrical components.



Components Used:

- Modular aluminum 19" chassis.
- Modular aluminum edge-card guides.
- Custom fabricated aluminum back panel assembly.
- Custom fabricated PCB insertion and release rail.
- Customer provided PCB and electrical assemblies.

Emerging Technologies, LLC.

Responsibilities:

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

Technologies:

- Embedded Computers
- Microcontrollers
- Visual Software
- Control Software
- Data Acquisition
- Computer Based Control
- Communications – serial
- System Integration
- ✓ Other – Mechanical Design & Custom Machining

Customer Category:

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

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