

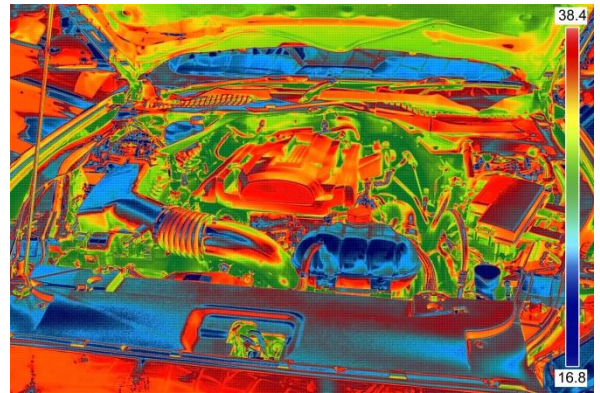
**Signal.X**  
TECHNOLOGIES LLC

We deploy software products and engineering services in the most demanding production and laboratory environments.

## Project Spotlight: Rugged Portable Data Acquisition Case

### Objectives:

Design and build a rugged enclosure for the National Instruments CompactDAQ platform. Maximize accuracy of the measurement system in a technician-friendly package for day-to-day, long-term use in high-channel-count thermal validation testing.



### Solution Benefits:

- Simple, lightweight design for easy maintenance
- Generous connector spacing for sensor connect / disconnect
- Dual power and Ethernet connectors for daisy chaining multiple systems and increasing channel count
- Seamless replacement of legacy DAQ system
- Ethernet CompactDAQ hardware with Time-Sensitive Networking (TSN)
- High channel count: 120 thermocouples per box

To learn more about this and other Signal.X projects, please visit [signalxtech.com/about/portfolio/](http://signalxtech.com/about/portfolio/)

## Technology Highlights:

### CompactDAQ Mounting Design

Our goal as an integrator is to allow the CompactDAQ chassis to operate at its maximum rated temperature and accuracy. Great care was taken in the design of the mounting system to both hold the chassis in the correct orientation and effectively dissipate heat.



### Seamless Replacement of Legacy DAQ System

Our customer needed to replace an aging DAQ system while maintaining their well-established process. With this in mind, Signal.X designed the exterior labeling and connector layout to be a drop-in replacement for the 20-year-old legacy system. Another key concern was to keep everyday usage easy for the systems technicians. Signal.X worked hard to define usability requirements early in the design process, ensuring a seamless upgrade.

### Become a Trusted Advisor

Throughout the project, Signal.X identified and addressed unforeseen issues, while still meeting all of the technical and schedule requirements to deliver the turn-key test system. As with all of our projects, our customer's success is our success.

This project showcases our ability to realize a vision to fit one customer's circumstance. Let us help you realize yours.

### About Signal.X:

Since 2004, Signal.X has specialized in Test & Measurement Products for noise & vibration (NVH), production and laboratory test automation, functional test design, large data management, and custom application development.