

## Automotive EV Cell Quality Testers

The rapid growth and advancement of electric vehicle development, particularly in high-performance EV battery technologies, have introduced new complexities in designing, validating, and manufacturing these critical components.

With a rich history of over 30 years serving the automotive industry, Konrad Technologies has been a trusted partner for numerous leading automotive suppliers and OEMs. We have played a pivotal role in addressing their electric and hybrid battery testing needs, with a dedicated focus on cell quality testing. Our comprehensive support spans the entire development cycle, encompassing requirements development, validation, and production testing.

*"We always approach Konrad Technologies for real-time system applications. Konrad Technologies provides outstanding testing solutions. We are glad to have them as our trusted partner."* - Lab manager at a Top Five automotive OEM.

### Case Study: Battery Cell Open Circuit Voltage (OCV) Monitoring System

Konrad Technologies collaborated closely with one of the largest US automotive OEMs to design and construct multiple battery cell open circuit voltage (OCV) monitoring systems. These cutting-edge systems enable long-term monitoring of over 1000 prismatic and pouch cells distributed across fourteen environmental chambers.

Our OCV monitoring system performs a ten-second measurement on each cell daily, capturing data at a sampling rate of 1 Hz. The recorded measurement values are automatically logged and compared against predefined limits. A customized graphical user interface (GUI) highlights any cells that fall outside the specified limits, alerting staff to take any necessary actions.

To minimize discharge, the system intelligently disconnects the cells from the PXI DMM in between measurements. Additionally, the temperature within each incubator is carefully monitored, triggering alarms if preset limits are exceeded. This ensures optimal testing conditions and provides immediate visibility into any deviations.



## Konrad Technologies: We Know How to Test Automotive Systems and Components!

In the automotive industry, the expertise of Konrad Technologies extends far beyond battery test. Over the past 30 years, we've provided automotive suppliers and OEMs with hardware and software solutions to test various sensors, ECUs, cameras, radars, wireless keyfobs, infotainment systems, displays, and many other components, sub-components, and complete systems.

Konrad Technologies is a leading provider of AD/ADAS test solutions. We offer test options for 77 GHz automotive radar test systems, sensor fusion test systems, and HiL-based test applications for ADAS functional tests. Our company develops scalable, flexible, and reliable test systems and simulators for camera, radar and LiDAR sensors that enable both OEMs and suppliers to meet their test needs and quality metrics for validation and production test applications. In 2021, Konrad Technologies received the Best Practices award from Frost & Sullivan for its scalable and configurable sensor fusion HiL test solutions.



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