

BMS battery management system test bench

What is a battery management system (BMS)?

A Battery Management System (BMS) is an embedded unit performing critical battery functions, including cell monitoring and balancing, pack charge and discharge control, safety, and communications. The BMS must be tested early in development to optimize control algorithms, as well as during manufacturing to ensure reliable functionality.

Why is battery management testing important?

This kind of testing is essential for release and acceptance tests, and highly relevant for the automotive-specific functional safety standard ISO 26262. For testing battery management systems on the high-voltage level, we provide a powerful test system that emulates all inputs of the BMS.

Why do you need a battery management system tester?

Your Battery Management System (BMS) is at the core of ensuring battery safety, efficiency, and lifespan in your electric vehicle's battery. However, unreliable BMS functional testing can lead to costly delays, safety risks, and lost trust. With the right BMS tester, you can avoid these issues and stay ahead of the curve.

What is a battery management system?

Battery systems operating with the utmost performance are what make electrical systems, e.g., in electrified vehicles, ships, and aerospace applications, efficient. dSPACE is launching a modular system concept for testing battery management systems. The new solution will let users test modern battery systems with overall voltages of up to 1,500 V.

Can a BMS be tested on a signal level?

With an overall system voltage of up to 1,500 V, our modular and finely-scalable test solution can be tailored to any kind of battery system. Testing a BMS on the signal level means testing its main functions and its interaction with the vehicle network or any other environment without using high voltages.

What is a scalable DSpace solution for BMS testing?

Scalable dSPACE solution for testing battery management systems across a wide range of industries The scalable dSPACE solution for BMS testing provides developers of battery management systems with best-in-class battery cell emulation and real-time-capable battery models that fit any use case.

The ART Logics BMS Function Test Bench is an all-in-one standard load box designed for Battery Management System (BMS) testing. It provides a simple, ready-to-use solution that eliminates ...

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