

Chroma's New Battery Simulators Validate EV Devices in Real Time

Chroma battery simulator can validate device functions in real time safely and in a more repetitive and predictable routine by eliminating the need for actual batteries.

FOOTHILL RANCH, Calif. ([PRWEB](#)) September 26, 2022 -- In addition to its range of EV and battery test solutions, automated test equipment provider Chroma Systems Solutions recently launched a high-power battery simulator to test battery-connected devices. Integrated with any Chroma regenerative battery cyclers or bidirectional DC power supply, the software simulates the battery state removing the wait time for the charge/discharge of an actual battery. Testing devices with an actual battery can be both cost and time-prohibitive, especially if multiple channels are required. Battery simulation software can validate device functions during testing without the need of an actual battery.

“For testing battery-connected devices like electric vehicles, on-board chargers, DC-DC converters, and motor drivers, high-power battery emulation is a great solution to confirm if the device under test is performing as intended. For example, most DC fast charging devices on the market have a power range of up to 50kW-350kW. Because of that high output voltage and power, it’s easier, faster, and safer to replace the actual battery pack with a scalable solution like our battery simulation software and new regenerative 17040E battery cycler,” said Luis Veliz, Director of Automated Systems for Chroma. The company states this allows simulation of the device under test’s electrical boundaries in a safe, repetitive, and predictable routine.

The A170202 Battery Simulation Software is said to seamlessly integrate with any of the company’s regenerative battery cyclers or bidirectional DC power supplies. Real-time test results include voltage, current, power, SOC%, charge/discharge state, and capacity. In addition, when battery charge/discharge testing is needed, users can switch from battery simulation to battery cycling.

The operation of the cycler and A170202 simulator allows the values of internal resistance, energy capacity, and output voltage to be changed in real-time. Users can also take advantage of the regenerative functions that enable the recycling of the energy discharged, reducing the cost of treating wasted heat. Also included are safety features such as real-time monitoring and automatic protection.

Chroma says it will continue developing flexible EV, EVSE, and Battery test solutions, including the 8610 Battery Pack Power HIL testbed for verification, reliability, and durability testing of electric vehicle battery systems and components to ISO 26262.

For more information on Chroma’s EV and Battery test solutions, visit <http://www.chromausa.com> or call us at (949) 600-6400.

About Chroma Systems Solutions

Chroma Systems Solutions, Inc. is a leader in providing power electronics and electrical safety testing instrumentation and systems. Chroma’s programmable power supplies, electronic loads, meters, hipot testers and automated testing systems provide solutions for applications in Aerospace, Military, Commercial, Medical, Battery, Marine, and Regulatory Testing as well as green energy markets including Solar, Electric Vehicle and LED. With offices and manufacturing facilities located around the globe, Chroma is dedicated to providing the highest quality equipment for compliance and R&D test engineers as well as unparalleled service and support. Chroma Systems Solutions corporate office is located in Foothill Ranch, CA. For more information, please visit <http://www.chromausa.com> or call us at (949) 600-6400.

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