

EA-BIM 20005 20-Channel Battery Impedance Meter



Accurate Electrochemical Impedance Measurements Within Seconds

A new solution from Tektronix provides the fastest EIS measurements in the industry for assessment of the quality and health of lithium-ion battery cells. Quality control of lithium-ion battery (Li-ion) cells ensures that cells that are shipped or built into battery modules and battery packs are free of defects and have a high state-of-health (SoH). Electrochemical impedance spectroscopy (EIS) provides substantial insight into the quality of Li-ion battery cells. However, accurately testing high volumes of battery cells can be a time-consuming bottleneck.

Tektronix offers an innovative method that speeds up EIS measurements by a factor of over 100, so you can accurately test more batteries and test them faster.

Delivering Accuracy and Industry-Leading Throughput

- Tests 20 battery cells in one test setup
- Measures impedance and temperature on each cell
- Innovative multi-sine technology simultaneously delivers 32 frequencies in seconds compared with a conventional EIS instrument which performs a frequency sweep that can take hundreds of seconds
- EA Battery Impedance Measurement software provides test configuration, data analysis, impedance plots, parameter extraction, and data storage
- Consumes less than 60 W and does not require fans for cooling
- Interfaceable with other battery test equipment

Manufacturing Test

- Test impedance during battery cycling
- Perform quality assessment and quality grading
- Cell aging and prediction
- Cell aging monitoring

Incoming Inspection

- Test 20 cells at a time
- Quickly accept/reject cells
- High throughput

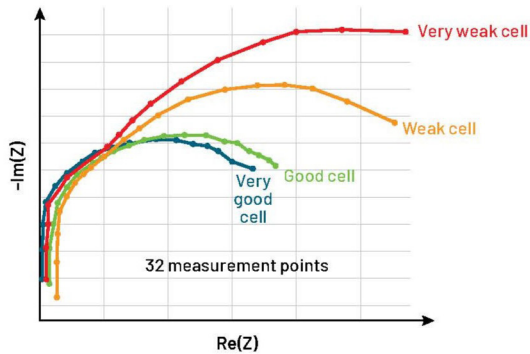
Research and Design

- Analyze a statistically significant number of new cell chemistries with one test setup
- Compute parameters for equivalent circuit modeling
- Wide frequency range analysis – Data analysis

EA-BIM 20005 Battery Impedance Meter Delivers more Information in Less Time

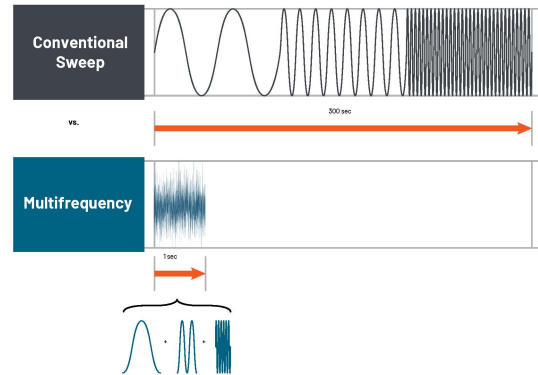
Accurate, repeatable measurements

- <1% impedance measurement accuracy
- 1 mHz to 10 kHz frequency range



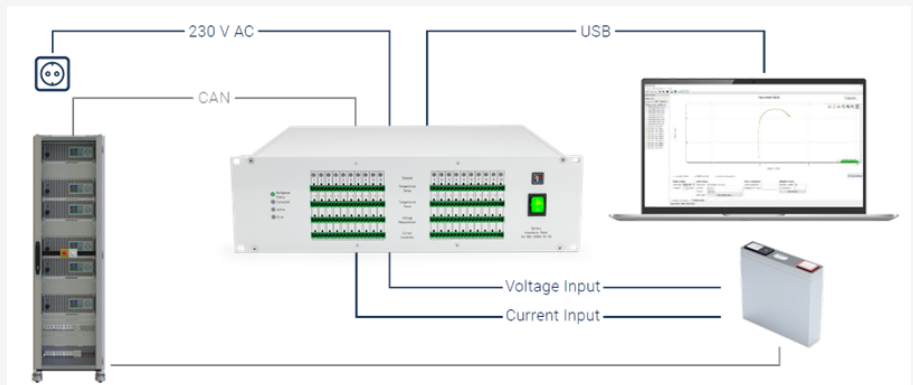
Industry's fastest EIS for high volume test

- Advanced multi frequency pulses produce measurements 100's of times faster than traditional swept measurement methods
- 20 multiplexed EIS measurement and temperature channels



Reduce manufacturing test time

- Interfaces with a battery test system
- Measure EIS during battery cycling
- No need to disconnect battery tester before performing EIS measurements



Fast setup, fast measurement, fast results

- Battery Impedance Measurement Software simplifies setup, measurement, and presentation of results
- Includes display and analysis tools

