

EIS SCANNER FOR FAST AND ADVANCED BATTERY CHARACTERISATION

COMING 2025

EIS SCANNING FEATURES

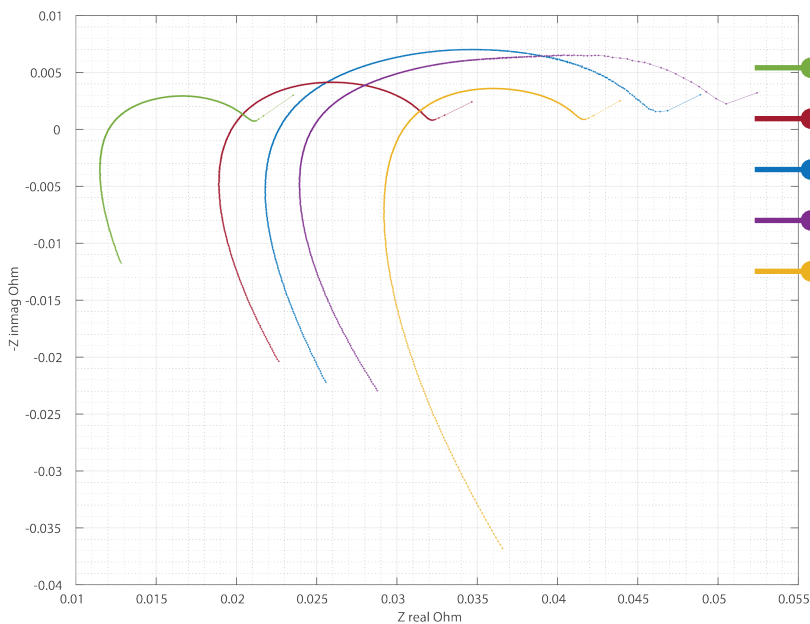
- Batixt Patented R³ EIS Sensing Technology
- Multi-sine scans with up to thousands of frequencies
- Charge or discharge cycling of batteries
- User-friendly script editor where you can design and run your own cycling and measurement protocols
- Choice of fixed measurement times (21, 42, 84 or 168s) or user specified
- Choose settings for applied current or use default settings

OUTPUT/ANALYTICS

- EIS (Nyquist), Step-Response and Relaxation data
- Choice of output format (incl. MATLAB)
- Nyquist single- or multi-scan plots

INTERFACES

- Battery connection
- Computer connection
- Power supply connection



BATTERIES TESTED

- Sony US18650VTC6 3000mAh, 3.48V
- Samsung INR18650-33G, 3150mAh, 3.56V
- QB 18650, 3000mAh, 3.60V
- Panasonic NCR18650GA, 3300mAh, 3.50V
- LG INR18650-MH1, 3200mAh, 3.55V

TEST PARAMETERS

DC: 1.5 A
 AC: 1.45 A
 Frequency Separation: 1%
 Time: 42 seconds
 Number of frequencies: 632
 fmin = 71 mHz
 fmax = 9720 Hz

Electrochemical Impedance Spectroscopy (EIS) is a non-destructive and advanced measurement technique used to characterise batteries and gain a deep understanding of battery properties

SPECIFICATIONS FOR EIS SCANNER CLARITY

CURRENT AND VOLTAGE

Battery Capacity:	1-10 Ah
Battery Voltage:	2.5 – 5 V
Current Applied/Drawn:	0-5 A (DC level up to 2.5A)
Calibration:	Yes

EIS MEASUREMENT

EIS Method:	Galvanostatic, on charge or discharge
Frequency Range	10 mHz – 10 kHz
Number of Frequencies:	From single sine to multi-sine signal, up to hundreds or thousands of frequencies in one EIS scan
Quality Indicators:	Scatter is calculated and displayed
Accuracy:	Both actual current and actual voltage are measured, why relative accuracy is assured
Output:	Nyquist and Step-Response, separated Relaxation

DATA ACQUISITION

DAQ Method:	Single EIS scan or multiple scans via user defined script. For example, full SoC Sweep with 100+ EIS scans on charge or discharge.
Sampling Rate:	200 kHz, 18 bits
Measurement Time:	Fixed times can be chosen for efficiency, or time may be user defined.
Measurement Resolution:	0.0005% of full range, including oversampling
Noise and Ripple:	Low
