

Your measurement solutions



Sefram

BK PRECISION

BA8100

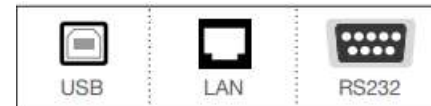
EIS Battery Analyzer

Swept frequency technique



Overview

- Fixed frequency measurements from the front panel
- Swept stimulus frequency with included software
- Maximum input voltage of 80 V
- EIS frequency range of 50 mHz to 10 kHz
- Programmable DC and AC current settings
- Measurements include impedance Z , phase angle θ , voltage and current
- Simple 4-wire test connection
- LAN, USB (COM), and RS-232 interfaces standard



Front panel

OLED display

OLED screen for easy viewing of configuration and measurements

Rotary control knob

Precisely increment and decrement input values



Input terminals

4-terminal Kelvin input terminals for higher accuracy and quick connection to device under test

Function keys

Numerical keypad

Input values directly

Rear panel



Operation highlights

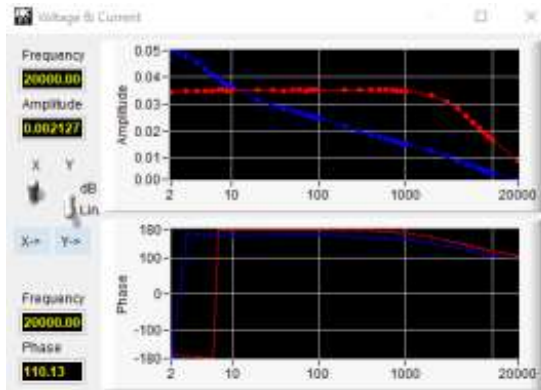
PC software

Enhance the capabilities of the BA8100 with the provided application software. Facilitate measurement setup with automatic sample rates and input gain control. Acquire and log data across linear, logarithmic or custom frequency sweeps at different current amplitude levels. Analyze data using the provided Nyquist and Bode plot tools or through user's choice of software. Additional features include a meter display, voltage plot and current plot for verifying the latest measurements.

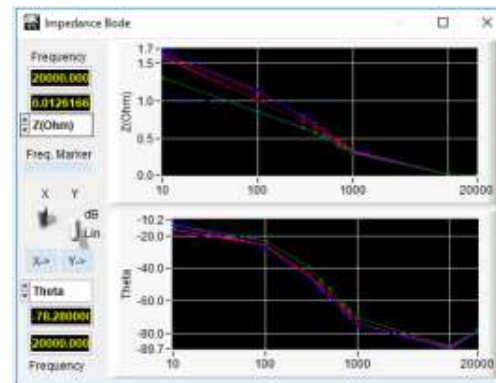
The voltage and current plot displays the magnitude and phase of the acquired AC voltage and current in the frequency spectra.

The Bode plot tool displays the phase shift and magnitude changes of impedance across the applied frequency range. Additional graphs are available to display the changes occurring in different parameters.

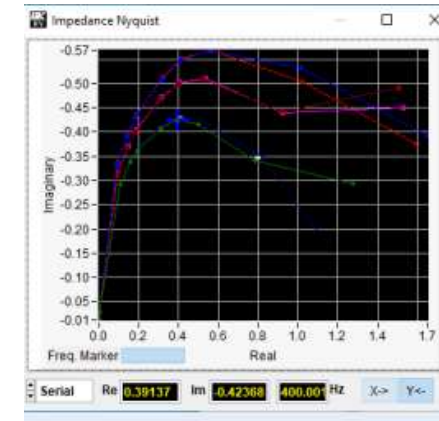
The Nyquist plot graphs the real versus the imaginary part of impedance as functions of frequency. Enable "Freq. Marker" to select and display the frequency at which a point was measured.



Voltage and current



Bode plot



Nyquist plot

Operation highlights

Performance verification

Knowing your instrument is working at its best is critical to battery testing. The BA8100 includes the TLC81 Self-Test Fixture that is used for verifying your instrument's performance and ensuring measurement accuracy. Consisting of a low inductive 5 mΩ precision resistor, the TLC81 and BA8100 require an external power supply during the verification and compensation process.



TLC81 plugged-in to the front panel



Connected to external DC source supplying 5 V and 3 A






Test lead compensation



Simple 4-wire connection

Comparative table

EIS BATTERY ANALYSER				
BA8100				
Company		B&K Precision	Hioki	Gamry
Model		BA8100	BT4560	Inerface 5000P
				
List Price		3 450 €	4 998 €	>4000 €*
Key specifications				
Frequency range		50 mHz à 10 kHz	100 mHz à 1050 Hz	10 µHz à 20 kHz
Voltage		80 V	5 V	8.5 V
DC input current		3 A	N/A	N/A
AC current		300 mArms	1.5 Arms	5 A
Measurement				
Impedance	Basic Accuracy	±(0.5% of reading + 5 µΩ)	±0.4% of reading	±0.5%
Phase	Basic Accuracy	±0.3°	±0.1°	±0.5%
General				
I/O interfaces		LAN, USB (COM), RS232	RS232, USB (COM)	USBTMC, USER I/O
Temperature Measurement		-	Z2005 temp sensor	-
Included Software		Frequency response analysis (FRA) software	BT4560 software	Framework and Echem Analyst
Equivalent Circuit Modeling		-	-	✓
Warranty		3 years	3 years	2 years
*Price is not published				

SEFRAM

32, rue E. Martel – BP55
F42009 – Saint-Etienne Cedex 2
France

Phone : **0033 4 77 59 01 01**

Website: www.sefram.com

E-mail : sales@sefram.com



[Our linked In page](#)



[Our Twitter page](#)



[Our YouTube page](#)