

HIOKI

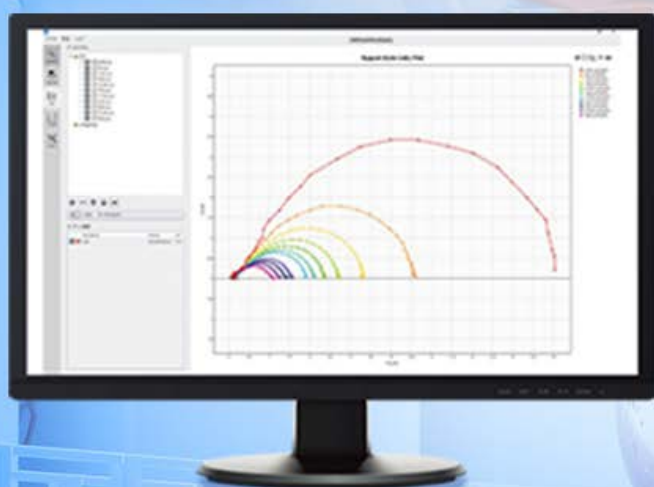
EIS MEASUREMENT SYSTEM ALDAS-α

NEW

EIS
measurement
system

ALDAS

Active Line Device Analysis System

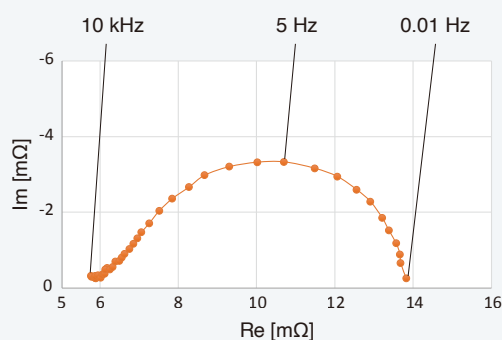


Accelerating R&D of Electrolysis Cells and Fuel Cells

High-speed and high-precision EIS measurement

CE

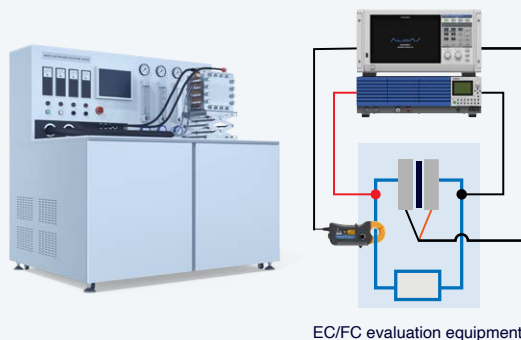
High-speed EIS measurement



Generally, impedance measurements in the low-frequency range are time-consuming. ALDAS contributes to shorter evaluation cycles with a measurement time as fast as 7.6 minutes^{*1}.

*1: Measurement conditions of 10 kHz to 0.01 Hz, 30 points, fast mode

Easy connection to EC/FC evaluation equipment



ALDAS can be easily connected to existing equipment, reducing the complexity of wiring and shortening preparation time.

Cell evaluation in the high current-density region



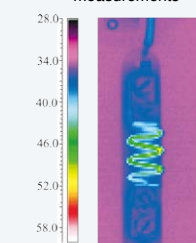
One unit
can apply
max. **20 A**

No additional booster power supply is required. The Source Module can apply up to 20 A DC, allowing high current-density evaluations to be completed with a single ALDAS-a unit.

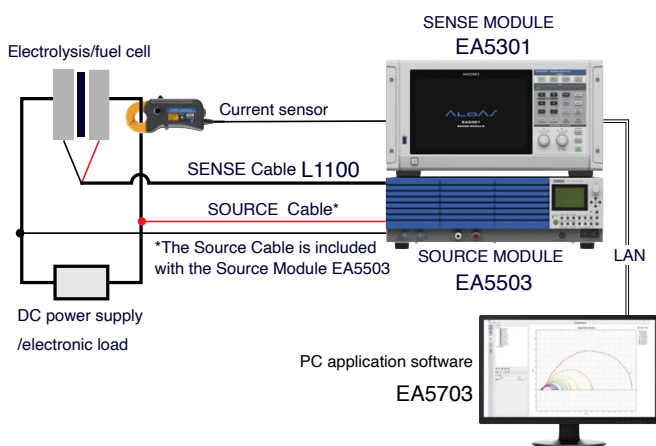
Stable, high-accuracy measurement down to the low-frequency range

Shunt resistors are prone to heat generation, which can negatively impact the accuracy of current measurements

With current sensors, the non-contact design eliminates the effects of heat, enabling high-accuracy measurements



Our current sensor method avoids the temperature drift issues common with shunt methods. High-precision current measurement ensures stable results with minimal variation, even at low frequencies below 1 Hz.



Example 1 (single cell)
EA5301-01 x 1, EA5503 x 1, EA5703 x 1, L1100 x 1, CT6841A x1
Example 2 (a stack with 5 cells)
EA5301-05 x 1, EA5503 x 1, EA5703 x 1, L1100 x 5, CT6841A x1

Measurement target	Electrolysis cell, fuel cell, cell stack
Measurement parameters	Impedance (R,X,θ,Z), voltage (V), current (I)
Measurement modes	EIS Mode, Logging Mode
Display mode	Nyquist plot, Bode plot, logging plot
Measurement voltage	60 mV to 20 V
Measurement current	400 uA to 50 A (amperage depends on the current sensor used)
Load operating mode	Constant-current (CC)
Output power	For EC: 400 W (100 W if using an external DC power supply) For FC: 100 W
Output current	± 10 mA to 20.00 A (output resolution: 0.01 A)
Measurement frequency range	10 mHz to 100 kHz
Number of input channels	1 to 8 Channels

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