



881 Frequency Response Analyzer

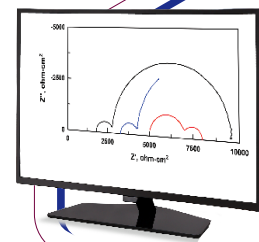
Our Frequency Response Analyzer (FRA) is specifically designed for integrated Impedance and HFR measurements

The 881 integrates with the electronic load used in Scribner's 840/850/855/890 series of fuel cell test products.

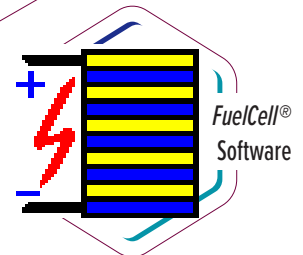
It is also available in the 857 Flow Cell Test System and the 600 Electrolyzer Test System.

The 881 features

- The Model 881 Frequency Response Analyzer (FRA) is available for integration with the 600/840/850/855/857/890/910 test systems.
- The 881 FRA meets or exceeds the performance and accuracy requirements needed for fuel cell testing applications.
- The 881 FRA and FuelCell® software provides continuous, single-frequency High Frequency Resistance (HFR) and Electrochemical Impedance Spectroscopy (EIS) analysis of an operating fuel cell.
- HFR can be performed concurrently with current interrupt (IR drop) measurement for orthogonal determination of the cell internal or ohmic resistance.
- The 881 FRA can also be integrated with the Model 910 Multi-Channel Microelectrode Analyzer (MMA) for impedance spectroscopy of electrode and sensor arrays



881 Impedance Analyzer for EIS & HFR



SPECIFICATIONS: 881 Frequency Response Analyzer

General Specifications:

Generator Frequency Range	1 mHz to 100 kHz (Instrument Dependent)
Frequency Error	< 0.01%
Amplitude Range	± 10 mV to ± 3.000 V
Amplitude Resolution	1 part in 32,768
Amplitude Error	< 1% \pm 1 digit
Distortion	< 0.02%
Analyzer Type	Quadrature method (digital correlation)
Input Ranges (RMS)	30 mV, 300 mV, 3 V RMS
Full Scale Peak Input	50 mV, 500 mV, 5 V
Cross Channel Isolation	> 100 dB
Measurement Time, minimum	Longer of 1 cycle or 10 ms
Measurement Cycles	Dependent on integration setting
Error Limits	0.5% Magnitude error (1 mHz to 10 kHz)
	0.5° Phase error (1 mHz to 10 kHz)

