



## DY2200 Series Mini Potentiostat/Galvanostat



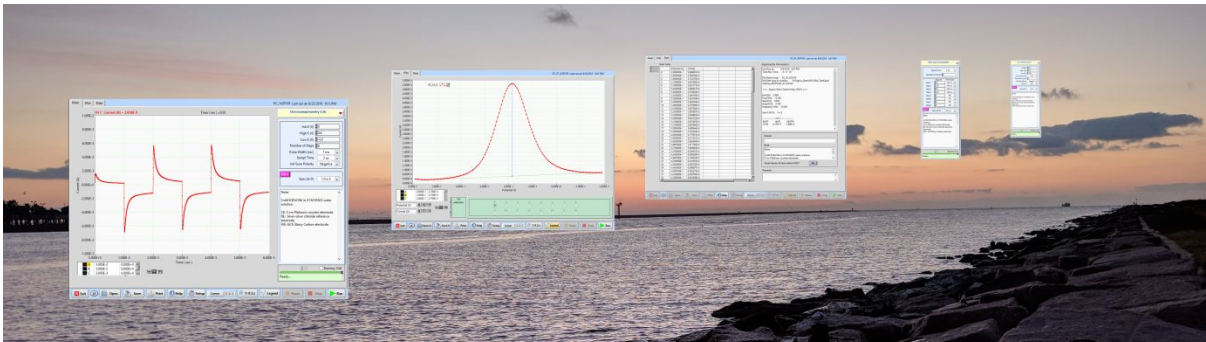
*A portable, single channel, high-performance, and very low-cost scientific instrument for picoampere to mA current measurements and high input impedance voltage recording*

### **Hardware**

- Electrode Configurations: 3 (CE, RE, WE) with cell On/Off control
- Current Range (Potentiostat):  $\pm 100.0$  nA to  $\pm 10.0$  mA (full scale) in 6 steps
- Current Range (Galvanostat):  $\pm 1.0$  nA to  $\pm 10.0$  mA
- Max. CV Scan Rate: 100V/sec
- Min. Sampling Time: 2  $\mu$ sec
- Current Resolution: 0.002% of full scale, with highest resolution at 3 pA
- Input Impedance of Electrometer:  $> 10^{12}$   $\Omega$
- Potential Range:  $\pm 4.0$  V (16-bit DAC)
- Potential Bandwidth:  $> 100$  kHz
- Compliance Voltage:  $\geq \pm 10$  V
- I/E Low Pass Filter: 6 ranges (Auto or Manual), depend on sensitivity setting
- Input Bias Current:  $< 30$  pA @ 25 °C
- ADC Sampling: 16-bit (60000 data max.)
- Dimensions & Weight: 7 x 14 x 3 cm, 260g
- Power Requirements: USB powered

### **Software**

- **Easy-to-use** user interface for experimental setup, graphic display, data analysis and file management
- Data Processing (Filter, Smoothing, Remove DC Offset, Math, FFT, Tafel Plot, etc.)
- Automatic peak potential, current reporting and charge calculation
- Run style: *Single, Auto Repeat or Auto Sequence*
- Plots overlay and text data export
- Easily add and measure with plot cursors
- Real time display with Pause and Stop Experiment functions
- USB connection, requires a user-provided PC running Windows.



### ***DY2200 Series Models:***

Function \ Model Number	DY2211	DY2213	DY2216
Amperometric i-t (iT)	✓	✓	✓
Cyclic Voltammetry (CV)	✓	✓	✓
Linear Sweep Voltammetry (LSV)	✓	✓	✓
Open Circuit Potential vs. Tim (OCP)	✓	✓	✓
Differential Pulse Voltammetry (DPV)		✓	✓
Normal Pulse Voltammetry (NPV)		✓	✓
Multi-Step Potential (MSP)		✓	✓
Square Wave Voltammetry (SWV)		✓	✓
Chronoamperometry (CA)		✓	✓
Potentiometric V-t (V-t)			✓
Chronopotentiometry (CP)			✓
Chronopotentiometry with Current Ramp (CPCR)			✓
Multi-Step Current (MSC)			✓
<b>US Price (USD): Please contact info@digivy.com</b>			

### ***Software Techniques (Potentiostat/Galvanostat)***

- 1) **Amperometric i-t curve (iT)**  
Sampling Time (sec) = [2e-6 to 100]
- 2) **Cyclic Voltammetry (CV)**  
Scan Rate (V/sec) = [1e-5 to 100]
- 3) **Linear Sweep Voltammetry (LSV)**  
Scan Rate (V/sec) = [1e-5 to 100]
- 4) **Open circuit potential vs. time (OCP)**  
Sampling Time (sec) = [2e-6 to 100]
- 5) **Differential Pulse Voltammetry (DPV)**  
Step E (V) = [0.001 to 0.1], Amplitude (V) = [0.001 to 0.5], Pulse Period (sec) = [0.001 to 100]
- 6) **Normal Pulse Voltammetry (NPV)**  
Step E (V) = [0.001 to 0.5], Pulse Period (sec) = [0.001 to 100]
- 7) **Multi-Step Potential (MSP)**  
Sampling Time (sec) = [2e-6 to 20], Step E (V) = [-4.0, +4.0], Step Width (sec) = [0.001 to 200]
- 8) **Square Wave Voltammetry (SWV)**  
Step E (V) = [0.001 to 0.1], Frequency (Hz) = [0.01 to 1000]
- 9) **Chronoamperometry (CA)**  
Sample Time (sec) = [2e-6, 20], Number of Steps = [2, 1000], Pulse Width (sec)=[0.001, 1000]
- 10) **Potentiometric V-t (V-t)**  
Current (A) = [1e-9, 0.01], Sampling Time (sec) = [2e-6 to 100]
- 11) **Chronopotentiometry (CP)**  
Step Current (A) = [1e-9, 0.01], Step Time (sec) = [1e-3, 10000], Sample Time (sec) = [2e-6,100]
- 12) **Chronopotentiometry with Current Ramp (CPCR)**  
Current (A) = [1e-9, 0.01], Scan Rate (A/sec) = [2e-9, 1.0]
- 13) **Multi-Step Current (MSC)**  
Sampling Time (sec) = [2e-6 to 20], Step i (A) = [-0.01, +0.01], Step Width (sec) = [0.001 to 200]

