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TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

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Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
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- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

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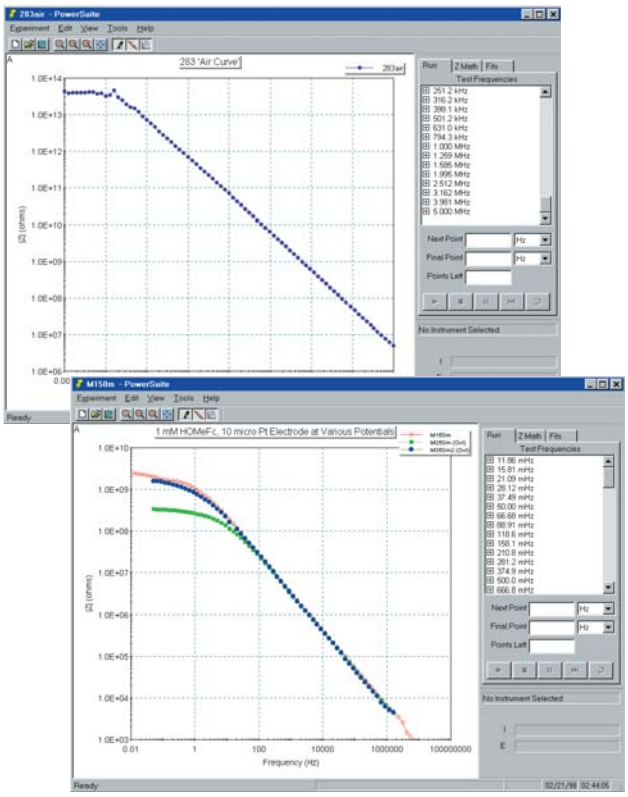
Find the *Princeton Applied Research / EG&G 283* at our website: *Click HERE*

Princeton Applied Research

283

Potentiostat/Galvanostat





Raising the Performance Standards

- **Computer Controlled Potentiostat/Galvanostat**
- **80 V Compliance, 100 mA Current Output**
- **High-Input Impedance (>10^{13} Ω)**
- **Low-Input Capacitance (<100^{-15} F)**
- **Large Bandwidth (>1 MHz)**
- **Extremely Sensitive (<10^{-15} A Resolution)**
- **16 V Scan Range**
- **Fast Scan Capabilities and Data Acquisition Rate (>10 kV/s and 30 µs)**
- **Two, Three, and Four Terminal Measurements**

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283
Potentiostat/Galvanostat

Specfications

Power Amplifier
Compliance Voltage: ±80 V
Maximum Current: ±100 mA
Rise Time: <300 ns (No Load, unity gain, 1 V)
Slew Rate: >10 V/µs (No Load)

System Performance
Minimum Timebase: 30 µs
Minimum Potential Step: 250 µV
Noise and Ripple: <50 µV rms typical
Minimum Current Range: 1 nA (hardware)
Minimum Current Range: 10 pA*
Minimum Current Resolution: 20 fA
Drift: <50 µV/°C

iR Compensation
Positive Feedback
Range: 2 GΩ to 20 Ω depending on current range
Resolution: 0.05% of current range
Current Interrupt
12 Bit DAC Potential Error Correction
Total Int. Time: <10 µs–2000 µs

Current Measurement
Ranges: 9 decades, 100 mA to 1 nA
Accuracy (dc) at Monitor
100 nA to 100 mA: 0.2% Full Scale
1 nA and 10 nA Ranges: 2% Full Scale, ±5 nA
Frequency Response (small signal)
1 mA Range: –3 dB at >2 MHz, 1kΩ source impedance
1 µA Range: –3 dB at > 200 kHz, 1 MΩ source impedance

Computer Interface
GPIB IEEE-488
RS-232

Differential Electrometer
Input Bias Current: <10 pA at 25°C
Max. Voltage Range: ±12 V
Max. Input Voltage Differential: ±10 V
Bandwidth: –3 dB at >9 MHz
Offset Voltage: <100 µV
Offset Temperature Stability: <50 µV/°C
Common Mode Rejection:
>80 dB at 100 Hz
> 60 dB at 1 MHz
Input Impedance: $>10^{13}$ Ω, typically 10^{14} Ω in parallel with <5 pF, typical <1 pF

Potential/Current Control
Digital/Analog Converters (DACs)
Bias DAC
Resolution: 14 bits
Range (Potentiostat): ±8 V
Modulation DAC
Resolution: 16 bits
Range (Potentiostat): ±8 V, ±0.8 V, ±0.08 V
Range (Galvanostat): ±200%, ±20.00%, ±2.00%

Accuracy
Applied Potential: 0.2% of reading ±2 mV

Dimensions
17.0” L x 10.3” H x 20” D
40 lbs. (18.2 kg)

Power Requirements
90–130 V ac or 200–260 V ac, 50–60 Hz,
125 Watts Maximum

*This sensitivity is achieved through our proprietary application software

Specifications subject to change
092503

Princeton Applied Research
info@pari-online.com • www.princetonappliedresearch.com
801 South Illinois Avenue, Oak Ridge, TN 37831-0895 U.S.A.
(800) 366-2741 or (865) 482-4411 • Fax (865) 483-0396
For International Office Locations, Visit Our Website
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Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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We're here to make your life easier. How can we help you today?

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