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*The Precision LC II is Radiant's answer to a growing need for affordable characterization equipment. The Precision LC II is an ideal general purpose tester for the University research laboratory*



## Hardware Features:

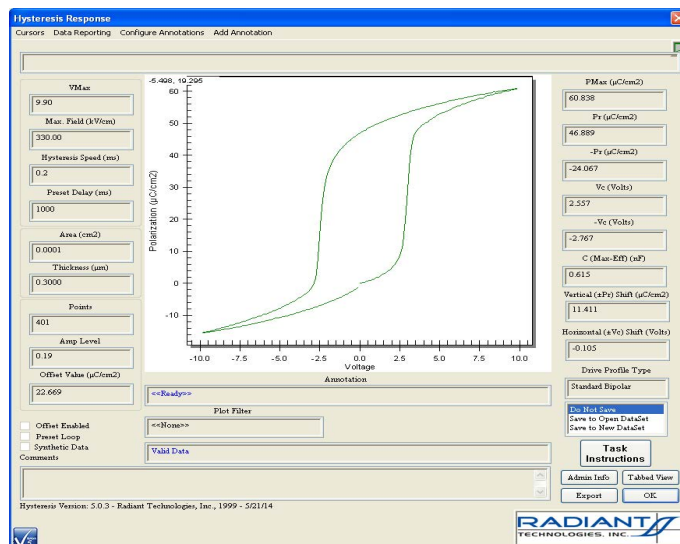
- » 18 ADC Bits
- » Virtual Ground Measurement Circuitry
- » External Sensor for AFM, Piezoelectric, Pyroelectric, Magnetolectric and Transistor measurements

## Features of this system include:

- »  $\pm 10V, 30V, 100V, 200V, 500V$  10kV options
- » Min Pulse Width 50 $\mu$ s
- » Min Rise Time @ 5V 40 $\mu$ s
- » 5 KHz Internal Fatigue Frequency
- » External Fatigue Connection
- » Min Hysteresis Frequency 0.03 Hz
- » 5 kHz Max Hysteresis Frequency
- » Min Change Resolution <10fC
- » Can Interface with Radiant's High Voltage Interface for Testing up to  $\pm 10kV$  (with accessories)
- » Can Measure From 4 $\mu^2$  up to 58cm $^2$  from 0.5V to 10,000V Leakage to <1pA

## Measurements

- » USB Control under Windows™
- » Vision Software Operating System Includes: Hysteresis, Leakage, Charge, Retain, Resist, Fatigue, C(V), PUND, Imprint, and Leakage Current
- » Custom Test Profiles
- » Networking features allow researchers to share data from anywhere in the world
- » Continuously variable pulse widths from 50 $\mu$ s to 1s





## Hardware Specifications

Tester Parameter	LC II
Voltage Range (no external amp)	±10V, ±30V, ±100V ±200V or ±500V built-in
Voltage Range external amplifier	10kV
Number of ADC Bits	18
Minimum Charge Resolution	<10fC
Minimum Area Resolution (assuming 1 ADC bit = 1µC/cm <sup>2</sup> )	<1µ <sup>2</sup>
Maximum Charge Resolution	276µC
Maximum Area Resolution (assuming saturation polarization = 100µC/cm <sup>2</sup> )	2.76cm <sup>2</sup>
Max Charge Resolution w/HVI	27.6mC
Maximum Area Resolution (assuming saturation polarization = 100µC/cm <sup>2</sup> )	>100cm <sup>2</sup>
Maximum Hysteresis Frequency	5KHz @9.9V 5KHz @30V 5KHz @100V 5KHz @200V
Minimum Hysteresis Frequency	0.03Hz
Min Pulse Width	50µs
Minimum Pulse Rise Time (5V)	40µs
Max Pulse Width	1s
Max Delay between Pulses	40ks
Internal Clock	25ns
Minimum Leakage Current (assuming max current integration period = 20 seconds)	<1pA
Maximum Small Signal Cap Frequency	20KHz
Minimum Small Signal Cap Frequency	1Hz
Output Rise Time Control	10 <sup>3</sup> scaling
Input Capacitance	~60fF
Electrometer Input	Yes

Windows™ is a trademark of Microsoft Corporation

### Optional Features:

- » Piezoelectric Measurements
- » Pyroelectric Measurements
- » High Voltage testing up to 10kV

### Dimensions:

- » Width-17" x Depth-13" x Height-4"
- » Weight 20lbs