



2835 Pan American Dr NE Ste B
Albuquerque, New Mexico 87107
Tel: (505) 842-8007
Fax: (505) 842-0366
www.ferrodevices.com
radiant@ferrodevices.com

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:

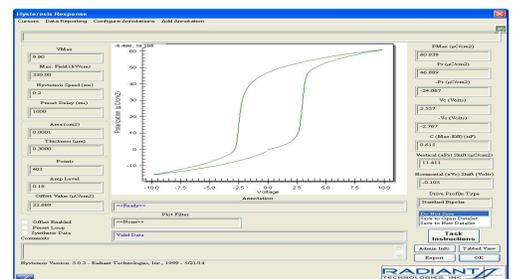
- » Using up to 32,000 points with 18-bit resolution from 2kHz out to 1/30th of a Hertz for capacitors ranging from square microns to square centimeters, the LC II enables high resolution characterization for bulk capacitors. The LC II can supply up to +/-500 volts generated internally or will control 10 kV amplifiers.

Features of this system include:

- » + 10V, 30V, 100V, 200V, 500V 10kV options
- » Min Pulse Width 50µs
- » Min Rise Time @ 5V 40µs
- » 5 KHz Internal Fatigue Frequency
- » External Fatigue Connection
- » Min Hysteresis Frequency 0.03 Hz
- » 5 kHz Max Hysteresis Frequency
- » Min Change Resolution <10fC
- » Expandable to ±10kV (with accessories)
- » Can Measure From 4µ² up to 58cm² from 0.5V to 10,000V Leakage to <1pA

Includes Vision Software

- » The LCII Ferroelectric Test System is driven by Vision Software. Vision offers 155 Tasks in Total. Vision is the only software package available for ferroelectric testers that provides exceptional freedom to design, conduct and review all procedures associated with any material experiment. Vision dramatically increases the productivity of the researcher, reducing the time required to acquire data in an experiment. Vision's enhanced productivity directly reduces cost of test. Vision dramatically increases the complexity of the research that may be accomplished by allowing researchers to combine different measurement tasks with environmental controls into an automated test procedure managed by programmable logic embedded with automated data collection, analysis and plotting tools.





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 ²)	<1µ ²
Maximum Charge Resolution	276µC
Maximum Area Resolution (assuming saturation polarization = 100µC/cm ²)	2.76cm ²
Max Charge Resolution w/HVI	27.6mC
Maximum Area Resolution (assuming saturation polarization = 100µC/cm ²)	>100cm ²
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 ³ scaling
Input Capacitance	~60fF
Electrometer Input	Yes

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Optional Features:

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

Dimensions:

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