



## Output Range $\pm 200V$

- » Output range  $\pm 200V$  and can be expanded to  $\pm 10KV$
- » 12-bit Arbitrary Waveform Generator output
- » 1 kHz  $\rightarrow$  1/8th Hz Hysteresis Frequency
- » 100 points in 5ms
- » 500 points in 8 seconds
- » Pulse Widths down to 500 $\mu s$  and up to 100ms
- » Two output ramp rates to improve accuracy

# RT66C Ferroelectric Tester

World's leader in **Ferroelectric Technology**

***Radiant's RT66C test system is perfect for the researcher looking for a flexible unit at an affordable price. The RT66C is easy to set-up and use, which makes testing of ferroelectric thin films and bulk ceramics a simple process. The standard configuration includes  $\pm 200V$  output range, and is expandable to  $\pm 10KV$ . The system also includes Vision Data Acquisition Management Software.***

## ■ Polarization Measurement

- » 14-bit analog to digital converters
- » 50 $\mu s$  capture rate
- » Polarization, output voltage, and sensor captured simultaneously
- » Minimum charge sensitivity  $\rightarrow$  122fC
- » Minimum PZT capacitor area  $\rightarrow$  12 $\mu m^2$
- » Maximum charge measurement  $\rightarrow$  4.8 $\mu C$  (480 $\mu C$  w/HVI)
- » Maximum PZT capacitor area  $\rightarrow$  4.8mm $^2$  (4.80cm $^2$  w/HVI)
- » Maximum hysteresis loop frequency  $\rightarrow$  1 kHz
- » Minimum hysteresis loop frequency  $\rightarrow$  1/8th Hz

## ■ 1 COMM channel for controlling high voltage amplifiers

- » 1 $^{\circ}C$  COMM channel

## ■ 1 external $\pm 10V$ sensor input

## ■ Requires a desktop or laptop computer with USB 2.0 port or newer

## ■ Vision Data Management Software running under Windows 7™ or newer Windows OS.



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## Hardware Specifications

HARDWARE SPECIFICATIONS	Voltage Test	High Voltage Limit	External Sensor Channels	Independent Voltage Sources					
	±200 V	±10KV	1	1					
MEASUREMENT SPECIFICATIONS	DRIVE DAC	Output Voltage Resolution	Min Pulse Width	Min Rise Time @ 5V	Maximum Internal Fatigue Frequency	External Fatigue	Peak Output Current	Max Hysteresis Frequency	Min Hysteresis Period
	12 bits	4.88 µV	500 µs	40 µs	5 KHz	Yes	50 mA	1 kHz	8 s
System Ranges									
SYSTEM HARDWARE	RETURN ADC	Integrator Voltage Range	Sense Capacitors	Maximum Amplification	Minimum Amplification				
	14 bits	±10 V	100 pF, 4.8 nF	1	0.01				
MINIMUM RESOLUTION	Integrator Voltage Divisions	Minimum Voltage Resolution	Minimum Sense Cap Charge	Correction for Amplification					
	8192	1.22mV	48nC	4.8µC					
MAXIMUM MEASURABLE CHARGE	Maximum Voltage Resolution	Maximum Sense Cap Charge	Correction for Amplification	Range with Precision 10KV HVI					
	±10 V	48 µC	4.8 µC	480 µC					

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### Optional Features:

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

### Dimensions:

- » Width-17" x depth-15.5" x Height-1.75"
- » Weight 11lbs