

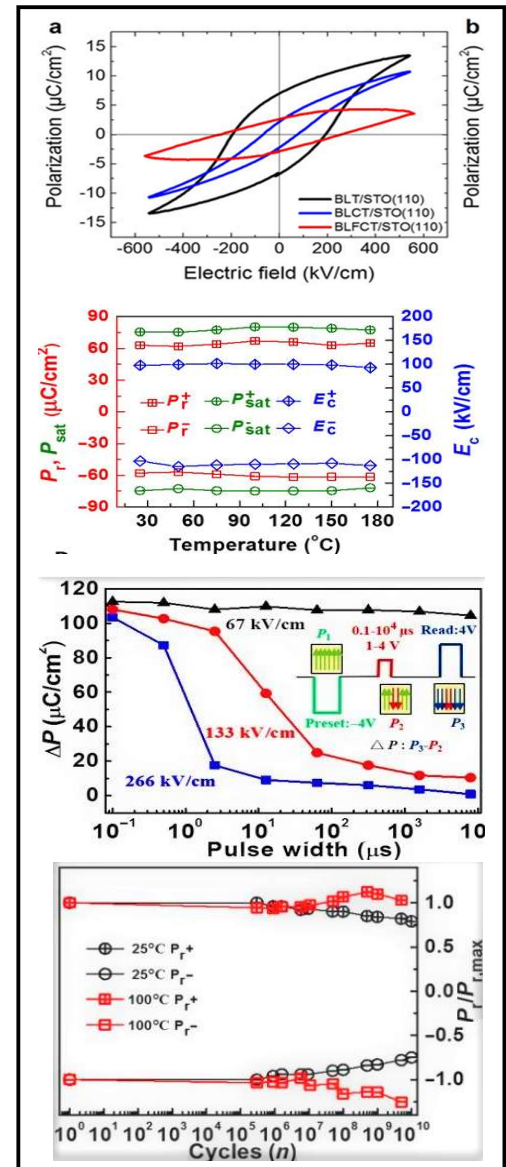
HIGH END PE LOOP FERROELECTRIC TEST SYSTEM



ABOUT THE SYSTEM

The High-End PE loop Ferroelectric Test system is a superior model having suitable test facilities for researchers. This model is ideal for researchers who have wide interest in performing basic task of ferroelectricity. The High-End PE is available in 5/10KV field option. The high voltage amplifier is fully integrated with main PE unit. This model is designed by our company and its versatile in its specifications and can undertake various tests needed by researchers. The resolution of this system is precise as low as 1 nano coulomb.

- Hysteresis Frequency Range: 20 Hz – 1KHz
- 18 Bit Resolution at 2.5KHz
- Hysteresis Accuracy: 0.5%
- Max Data Points: 1200
- Minimum Pulse Width: 25 μ s
- Maximum Pulse Width: 2.5ms
- Leakage Current Resolution: 0.1nA
- 2 external input \pm 10V range as low as 20 mV with 10nV resolution
- Fatigue Measurement: 1KHz



MODEL: 20PE 1KHZ 1N

Various tests performed by this model:

- Ferroelectric charge at different frequencies
- Ferroelectric charge at different temperature
- Fatigue measurement
- Leakage current/Current Density
- Ferroelectric charge at different magnetic field

Test options available in other models:

- Remnant hysteresis
- Curve energy
- Single point C/V
- PUND measurement
- General pulse and sample pulse
- DC Poling
- Pyroelectric current measurement
- Electrical Strain vs Field
- ME Coupling Measurement

HIGH END PE LOOP FERROELECTRIC TEST SYSTEM

TECHNICAL SPECIFICATION

MODEL	20PE 1KHZ 1N
Field	+ 5 KV
Test Frequency Range Small Signal	20Hz to 1KHz
Test Frequency Range Large Signal (HV amplifier)	20Hz to 1KHz
Wave Form Generator	16 Bit
ADC Resolution	18 Bit Resolution at 2.5 KHz
Minimum Charge Resolution	1N
Minimum Dot Size	1 square mm
Maximum Charge Resolution	6 mC (with HV Amp)
Maximum area resolution	50 cm square (with HV Amp)
Maximum Hysteresis Frequency	1KHz
Minimum Hysteresis Frequency	20Hz
Minimum Pulse Width	25µs
Maximum Pulse Width	2.5ms
Minimum Pulse Rise Time (10V)	1µs
Maximum Delay between Pulse	1s
Internal Clock	40ns
Minimum Leakage Current	0.1nA
Leakage Current Accuracy	50nA 2.5% 10nA 10%
Input Capacitance	1pf
Maximum Small Signal Cap Freq	1KHz
Minimum Small Signal Cap Freq	20Hz
Fatigue	up to 20 th order of cycles
Resolution	18 Bit (0.1N)
Input Power	220V 5 Amp
Electromagnet Options	0.8T /1.5T /1.8T
Magnetic Field	Field 0.8/1.5/1.8 Tesla
Field Resolution	10 Gauss in 2 Tesla Range
Helmholtz coil interface	200 Gauss
Temperature Options	Model
Cryogenic Temperature Stage	100RT (96K – 273K)
Temperature Stage	RT250 (RT – 500K)
Resolution/ Accuracy	0.1°K/1°K
Data/ Interface	ASCII/ USB 3.0
Sample Holder	Specifications
Sample Holder	Two Probe Spring Loaded
Construction	SS304 /Teflon

(For optional items separate brochure is available)

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