



Advance Ferroelectric Test System

About the system

Advance Ferroelectric tests system is designed and developed by our company and has recognition in the industry. Total operations are performed by a smart inbuilt 10 inches touch panel and are fully automatic. The following tests can be performed with the system.

- Hysteresis, remanant hysteresis
- Large singal electric polarization and displacement (uni & bipolar)
- Small signal capacitance , loss tangent
- Leakage current measurement
- Fatigue, imprint, retention

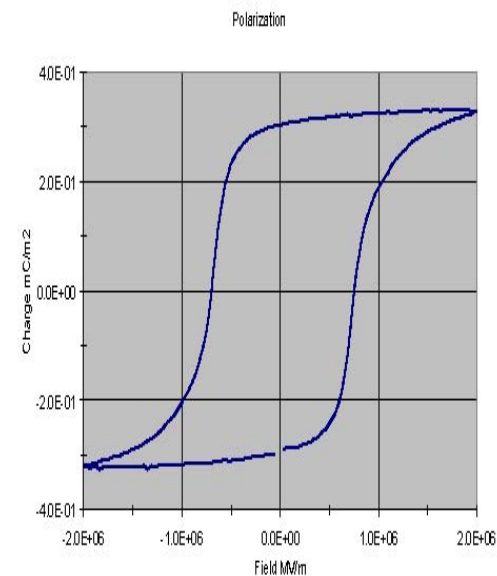


About Us

Marine India is a Professional company, working in design development and production of material research systems for the welfare of Indian Scientific Natured Groups. The main thrust of our company is to produce highly advanced adaptable and low cost systems to suit both Indian and Foreign research facilities.

Main Product Line

- PE loop tracer system
- BH loop tracer systems
- Multi Ferroic Test system
- Resistance measurement systems
- Electromagnets
- DC polling unit
- AC/DC power supplies
- Source Measure Unit
- LCR Meter/Impedance analyzers interfacings, software's

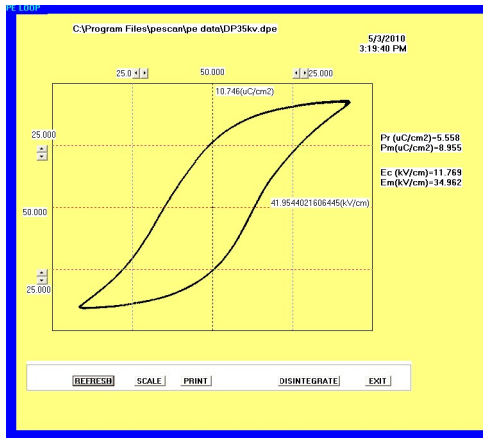


MARINE INDIA

A3/25B Green Apartment
Near Jawla Heri Mrkt,
Paschim Vihar
New Delhi - 110063,
INDIA

Email: sales@marineindia.com
www.marineindia.com
Ph +91 11 41428187

*Application Oriented Basic
Science Group*



General Specifications

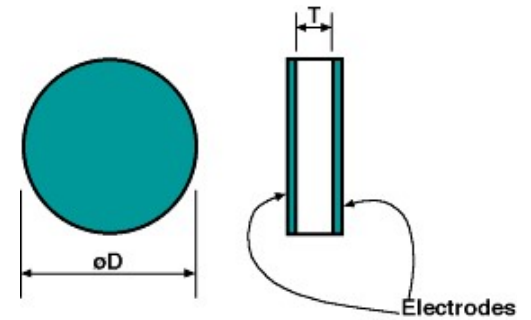
- 100 volt in built amp 10 KV with external amp
- Arbitrary wave form generator
- Pulse width 1micro second to 1 s
- Controlled ramp output for maximum accuracy
- Fatigue up to 20th order of cycles
- Temperature RT- 500 degree with PID control
- Furnace and sample holder for bulk , thic and thin films
- Complete data transfer to standard software like Origin xls.
- Full touch screen operation using smart 7 Inches touch panel mounted on the unit
- Date transfer using USB stick
- LAN port for multiple connectivity and remote maintenance
- USB3.0 wifi interface
- 19 inches 4U rack mountable unit
- Silicon oil 500ml

Polarization Specifications

Minimum Charge sensitivity 1.0 f C
 Minimum PZT area 1 u m
 Bulk and thick films HV 10 u C
 2 external sensor input 5 V bipolar

System test specifications

- Output Range 0- 100 Volt bipolar for thin and thick films 0 – 10KV for bulk samples
- 16 Bit Wave form generator
- Pulse width 10 uS – 1 S
- Capture rate 1 uS with 0.2 uS interlased
- Test fixtures for bulk, thin and thick films.
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References

- Solid State Lab (SSPL) Delhi
- IIT Mandi
- Indian Institute of Science Banglore
- CAT Indore
- IIT Delhi
- Rajkot Saurashtra University
- IIT Roorkee
- Shimla university
- Cat indore
- IIT Chennai
- Delhi University
- IASC Calcutta
- DMRL Hyderabad
- Osmania Univeristy

The full list is very exhaustive but above is only few major references.